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Quality and accreditation in health care services

A global review

WORLD HEALTH ORGANIZATION
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A GLOBAL REVIEW

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Foreword

The World Health Organization commissioned this report in October 2000 from the International Society for Quality in Health Care in order to provide an overview of the rationale, structures, activities, tools and technologies that characterize quality assurance and quality improvement and accreditation in health care.

This aim is consistent with the increased worldwide interest in the quality of health systems that was reflected in – and to some extent generated by – *The world health report 2000 – Health systems: improving performance*. One measure of such interest is that the understanding and application of concepts and terms relevant to health systems have been continually evolving, even while this report was being prepared. This evolution is demonstrated by the term "efficiency", which is increasingly understood to be a measure of the output of a system relative to the maximum possible output that could be achieved for a given level of input. (Thus, even at low levels of input, a country's health system may be technically efficient, though its level of quality may still be low.)

This report constitutes a snapshot – from a six-month, wide-angle exposure, carefully framed – of health systems quality and accreditation in health care. Although, as such, it is necessarily descriptive and limited in time, themes and geographical coverage, we hope it will be a significant contribution to the documentation of structures and processes that may help to inform local improvement of health services, especially in the developing countries.

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Preface

In 1977, the World Health Assembly adopted the global goal of Health for all by the year 2000 (*1*). As part of this goal, the WHO European Region developed targets in 1984. These included Target 31, which urged every WHO Member State to build effective mechanisms for ensuring quality of patient care by 1990 and, by 2000, to provide structures and processes for ensuring continuous improvement in the quality of health care and appropriate development and use of new technologies. In 1998, the World Health Assembly adopted a revised strategy for the 21st century that continues to emphasize availability, accessibility and quality of care (*2*). The strategy promotes information systems for monitoring and calls for active surveillance by national governments, including the "implementation of international norms, standards and regulations" (paragraph 90). The World Health Organization (WHO) commissioned this report by the International Society for Quality in Health Care (ISQua) in 2000 to contribute to that objective by giving examples from around the world of quality structures and processes that might inform local improvement of health services, especially in the developing countries. This potentially infinite task was made feasible within the time and resources available by using widely accessible sources that provide current and recent information and by targeting literature searches beyond Western and English-speaking countries.

The review was thus to reflect phenomenology based on recently reported experience. It was to be descriptive rather than analytical; it would not seek to be comprehensive in terms of history, themes or geography; and it would not make recommendations. Prepared over a period of six assessment months, this report:

- provides a description of current structures and activities used at national and international levels around the world to promote quality in health care (Section 1);
- catalogues quality concepts and tools currently in local use in health care in various countries (Section 2);
- outlines current initiatives in health service accreditation and analyses the operation of functioning national programmes around the world (Section 3).

To serve these functions, specially the first two, it was necessary to make assumptions about how quality is defined and how information about it may be gathered from around the world. To be practical, it was decided not to try to define a "correct" terminology, but rather to use the general description "quality improvement" to include contributing structures and activities (detailed in Section 2).

It is recognized that this report is not rigorously scientific (a stratified random sample survey of WHO's Member States was not attempted), but it relies upon information from sources that were considered reliable. In addition, it was not possible to represent fully every activity in every country, even if the information had been available; therefore, understanding is sought from those whose activities are not mentioned.

SECTION 1

International and national structures and activities for improving health care

Summary

Background

This section describes the development of structures and methods for quality improvement in health care around the world.

Sources

Particular attention was given to current information on developing countries and information that is relevant and accessible to them through the Internet or via international organizations and publications. Omission of any structure or activity does not deny its existence or imply judgement of its national utility; this review is descriptive rather than analytical and does not seek to be thematically or geographically comprehensive or to make recommendations.

International sources

In the international arena, many examples are given of the contributions of WHO to improving quality in health care. These include technical discussions, guidance and reports, which are increasingly accessible on the Internet. Other intergovernmental collaborations include the Pan American Health Organization (PAHO), the Organisation for Economic Co-operation and Development (OECD), the Council of Europe, and the European Union.

Donor organizations and foreign aid agencies help to shape national programmes of health reform, particularly in developing countries. Leading examples include the World Bank and the United States Agency for International Development (USAID), but many other industrialized countries and regional development banks are also active contributors.

Less formal networks, such as international societies and collaborations of professional and technical interests (for example, ISQua, the International Society of Technology Assessment in Health Care (ISTAHC), the World Organization of Family Doctors (WONCA), and the Cochrane Collaboration), promote the generation and exchange of evidence and methods of quality improvement. Other organizations provide support and training for quality (for example, the Quality Assurance Project) and for specific services (for example, Joint Commission International accreditation).

National sources

National legislation and government documents provide comparable evidence of central policy on quality in health care, together with formally established structures and programmes. Many of these are linked to health reforms in general and to the development of case-based reimbursement of providers.

Policy and executive agencies are often identified within the ministry of health, or as more autonomous bodies representing professions, academics, providers and the public. Technical centres offer research, dissemination and training in, for example, technology assessment, clinical guidelines, performance measurement and quality improvement in general. Many countries are integrating clinical practice and health service management under one executive agency responsible for the development, assessment and improvement of standards.

Independent professional, academic and commercial organizations make major contributions: examples include national societies for quality, professional specialty associations, and programmes for benchmarking and accreditation. These bodies are sometimes undervalued by government programmes, as was noted by recent

independent reviews in Australia and the United States of America, which recommended that the public and private sectors should work more closely together to provide a coherent programme for quality improvement in health care at the national level.

Purpose and scope of Section 1

This section describes current structures and activities used at national and international levels around the world to promote sustainable quality systems in health care. Some of them reflect the culture, resources and priorities specific to one country that may be of practical relevance to others. The primary objective is to describe these features and to indicate where further information can be found.

For practical purposes, four questions were considered:

- What international support for quality improvement is available to national health care initiatives?
- To what extent do national governments around the world specify quality improvement in legislation and published policy?
- What are the distinguishing structures and activities of national approaches to quality improvement within countries?
- What resources (in the form of organizations, funding, training and information) are available nationally?

This section does not set out to identify perceived or real needs for national activity or international collaboration and support, nor does it make recommendations for future planning.

Methods

Specific elements

Strategy is difficult to measure, compare and define succinctly. This report therefore describes it in terms of specific qualitative indicators of international and national structures and processes, such as the existence and scope of national legislation, policy documents, and organizations promoting quality in health care.

Sources used

Potential sources were sought by a combination of manual and electronic searches of journals, information products of government and academic centres and international organizations, and grey literature. The electronic literature indexing services used included MEDLINE, Datastar, and International Community Abstracts. Further sources were identified from web sites (in particular those of government agencies, public health observatories, and overseas aid organizations), publications lists (especially WHO workshop and meeting reports), international conference proceedings (especially those of ISQua and the British Medical Journal/Institute for Healthcare Improvement European Forum) and local hard-copy collections.

Potential target documents were given priority for retrieval if the titles (and abstracts, if available) indicated that they were:

— published since 1990;
— reviews rather than primary research;
— authoritative and comprehensive;
— relevant to an identified country or group;
— from developing countries or countries in transition;
— likely to contain the specific details of structures and activities.

Many of the sources at the disposal of the compilers of this report would not be easily accessible to other interested parties. Wherever possible, therefore, sources are included that are freely available on the Internet or from WHO or international journals specific to quality in health care.

International structures and activities

Intergovernmental organizations

World Health Organization

Following the Declaration of the International Conference on Primary Health Care, held in Alma-Ata, USSR (now Almaty, Kazakhstan) in 1978 (*3*), WHO invited its Member States to act individually in formulating national policies, strategies and plans of action for attaining the goal of Health for all by the year 2000 and collectively in formulating regional and global strategies. Health for all in the 21st century continues to emphasize support for quality improvement at global, regional and national levels (*2*).

Global WHO initiatives

International health system benchmarking

The world health report 2000 – Health systems: improving performance used five indicators to rank the overall performance of national health systems (4):

- overall level of population health;
- health inequalities (or disparities) within the population;
- overall level of health system responsiveness (a combination of patient satisfaction and how well the system performs);
- distribution of responsiveness within the population (how well people of varying economic status find that they are served by the health system);
- distribution of the health system's financial burden within the population (who pays the costs).

On these indicators, the report concluded that France provided the best overall health care, followed by Italy, Spain, Oman, Austria and Japan. The United States health system spends a higher portion of its gross domestic product (GDP) than any other country but ranked 37th out of 191 countries according to these criteria; the United Kingdom, which spends just 6% of GDP on health services, ranked 18th. Details of the individual country results are available in the annexes of *The world health report 2000* and on the Internet.

Training

Training workshops for quality, especially for developing countries, have been run within and between regions. The workshops aim to encourage and further strengthen quality assurance and improvement in developing countries and to provide an exchange of views between health care managers concerned with quality of care from both developing and industrialized countries. They also aim to explore alternative development models between civil service and nongovernmental officers, between academic and executive agencies, and between government and private sector agencies (*5*).

Review workshops have been held during ISQua conferences in 1993, 1995, 1998 and 2000 (Table 1.1), in collaboration with funding and executive agencies that are introducing or setting up quality programmes in countries. The 2000 meeting, involving 56 participants representing 31 countries, reviewed current quality assurance achievements and the lessons learnt from national programmes and pilot initiatives. It focused on the challenges facing resource-poor countries in establishing and maintaining successful and effective quality improvement programmes. The recommendations from the meetings in 1995 and 2000 are contained in Appendix 1.6 and Appendix 1.8, respectively.

Table 1.1 Quality assurance review meetings for developing countries, 1993–2000

Year	Location	No. of countries	Participating agencies
1993	Maastricht, the Netherlands (*6*)	17	QAP/URC, CBO, USAID, Dutch ISQua Organizing Committee
1995	St John's, Canada (*7*)	20	QAP/URC, CBO, USAID, PAHO, Canadian ISQua Organizing Committee
1998	Budapest, Hungary	29	QAP/URC, LSTM, HSC(UKC), CBO, USAID, GTZ, Hungarian ISQua Organizing Committee
2000	Dublin, Ireland (*8*)	31	QAP/URC, LSTM, HSC(UKC), CBO, USAID, GTZ, Irish ISQua Organizing Committee

Expert working groups

A hospital advisory group met in Geneva in April 1994 to identify factors that determine the performance of hospitals (particularly teaching hospitals), to create a framework for their review and to propose follow-up action. The group produced recommendations for hospitals, countries and WHO relating to policy, performance, finance and technology (Appendix 1.4) (*9*).

A working group on quality assurance in developing countries met in Geneva in May 1994 to explore areas for collaboration between WHO and funding and executive agencies. The group developed a list of possible cooperative actions in undergraduate education, research, training, WHO programmes and interagency work (Appendix 1.5) (*10*).

Technology assessment and quality assurance

Within promotion of health technology, the technology assessment and quality assurance initiative (*11*) aims to:

- promote leadership and coordination in the field of technology assessment and quality assurance;
- promote the establishment of a network of international, national and other agencies, collaborating centres and institutions active in technology assessment and quality assurance, in order to provide technical and other support to countries in this programme area;
- advocate the importance of technology assessment and quality assurance in expanding and improving health services – especially at the primary health care level – in a cost-effective and acceptable manner.

Collaborating centres for technology assessment are in Campinas (Brazil), Ontario (Canada) and Tygerberg (South Africa).

Publications

WHO has commissioned monographs on specific technical issues relating to health care quality and has published reports from consultative meetings (Table 1.2), many of which are available on the Internet. The emphasis has been on the integration of standards, measurement of quality, and improvement as a global, cyclical and continuing activity.

Regional WHO initiatives

A significant proportion of WHO's contribution to quality improvement has been delivered through its six regional offices (Table 1.3). Most of the international consultative workshops and training events that have been organized give rise to written reports of activities, conclusions and recommendations. Many of them are not

Table 1.2 WHO publications on quality since 1990

Title	Year	Reference	Type
Assurance of quality in primary care	1990		Report: Shanghai, China
National perspectives on quality assurance in mental health care	1991	WHO/MNH/91.2 (*12*)	Document
Continuous quality improvement in health facilities	1992	1992.3	
Assessing the standards of care in substance abuse treatment	1993	WHO/PSA/93.5 (*13*)	Document
Guidelines for quality assurance programmes for blood transfusion services	1993	ISBN 92 4 154448 1	Monograph
Contemporary use of standards in health care	1993	DHS/1993.2	Monograph
Measuring performance of hospitals and health centres	1993	DHS/1994.2 (*14*)	Document
Promoting the use of technology assessment to improve health care in developing countries	1994	TEC/94.2 (*15*)	Report: Alexandria, Egypt
Quality assurance in mental health care	1994	WHO/MNH/MND/94.17 (*16*)	Document
Determinants of hospital performance	1994	DHS/1994.6	Report
Quality assurance in developing countries	1994	1994.5	Report
Midwifery practice: measuring, developing and mobilizing quality care	1994	WHO/FHE/MSM/94.12 (*17*)	Report: Vancouver, Canada
Quality assurance methodologies in developing countries	1996	WHO/SHS/DHS/96.2 (*7*)	Report: St Johns, Canada
Tools and methods for health system assessment: inventory and review	1998	WHO/ARA/98.4 (*18*)	Document
Developing a national policy and guidelines on the clinical use of blood	1998	WHO/BLS/98.2 (*19*)	Document
A WHO framework for health system performance assessment	1999	GPE Discussion Paper No. 6 (*20*)	Monograph: C.J.L. Murray

Table 1.3 WHO Regional Offices

WHO Region	Office	Web site
Africa (AFR)	Brazzaville, Congo	http://www.whoafr.org/
The Americas (AMR)	Washington, DC, USA	http://www.paho.org/
Eastern Mediterranean (EMR)	Cairo, Egypt	http://www.emro.who.int/
Europe (EUR)	Copenhagen, Denmark	http://www.who.dk/
South-East Asia (SEAR)	New Delhi, India	http://w3.whosea.org/
Western Pacific (WPR)	Manila, Philippines	http://www.wpro.who.int/

formally published, but recent ones can be accessed from the WHO headquarters library via the Internet. In general, they represent a substantial and accessible resource that is of broad relevance to all regions, and the reports are often available in several languages. Because some individual reports are not directly accessible via the Internet, readers are advised to contact the WHO headquarters library in the first instance (http://whqlibdoc.who.int/).

WHO African Region

Quality improvement is considered a permanent obligation and a priority for health service development. Regional Committee resolution AFR/RC45/R3, passed in 1995, required Member States to install a national quality programme, supported by WHO's dissemination of information on appropriate methods. Member States were urged to:

- establish a national quality of care programme designed as one of the main components of health sector reforms, given its impact on the outcome expected of other programmes;
- introduce in the training programmes of all health workers knowledge, skills and attitudes required to deliver quality care;
- offer incentives to health care institutions at all levels to develop internal and external evaluation schemes for the continuous improvement of the quality of care provided.

The same resolution requested the Regional Director to:

- draw up and implement a plan for the collection and dissemination of information on methods of providing quality of care and the results achieved in the Member States; such information to be directed to the general public, decision-makers, health professionals, finance officials and educators;
- provide support to Member States for the establishment and implementation of quality of care programmes;
- encourage Member States to allocate to quality care activities a percentage of their existing budget for technical cooperation with WHO.

The first francophone intercountry meeting was held in 1997, in Niamey (Niger), and involved 23 countries. The second was in Abidjan (Côte d'Ivoire) in 1999, involving Bénin, Burkina Faso, Burundi, Côte d'Ivoire, Guinea, Madagascar, Mauritania, Niger, Sao Tome and Principe, and Togo. Technical help and materials were provided by the University Research Corporation/Center for Health Studies (URC/CHS), USA. These and other meetings on quality improvement are shown in Table 1.4.

An anglophone and lusophone meeting was held in Kampala (Uganda) in 2000 in conjunction with the Quality Assurance Project (CHS/QAP), Bethesda, Maryland, USA, and the Regional Centre for Quality of Health Care of Makerere University, Kampala, Uganda. Sixteen countries were represented: Botswana, Eritrea, Ethiopia, the Gambia, Ghana, Kenya, Liberia, Mozambique, Namibia, Nigeria, Sierra Leone,

Table 1.4 WHO African Region meetings on quality improvement

Year	Location	No. of countries	Type of meeting
1996	Brazzaville, Congo		Regional
1997	Niamey, Niger	23	Intercountry (francophone)
1997	Maseru, Lesotho	16	Intercountry (anglophone, lusophone)
1999	Abidjan, Côte d'Ivoire	10	Intercountry (francophone)
2000	Kampala, Uganda	16	Intercountry (anglophone, lusophone)

Swaziland, Uganda, United Republic of Tanzania, Zambia and Zimbabwe. The meeting concluded that there was a growing demand for programmes in English-speaking Africa, which need technical assistance for setting up and development, and that regular intercountry meetings should be organized (see Appendix 1.9).

WHO Region of the Americas

The Pan American Health Organization (PAHO), which is also the WHO Regional Office for the Americas (AMRO), and the Latin American Federation of Hospitals collaborated from 1987 to develop a hospital accreditation manual for Latin America and the Caribbean countries (1990). This manual was an important landmark for the start of accreditation activities (*21*) and was followed by a series of conferences and meetings throughout the region.

WHO Eastern Mediterranean Region

The first regional meeting on primary health care quality assurance was held in Amman, Jordan, in December 1994, with participation from other WHO Regions (Zambia from AFR and Malaysia from WPR) together with experts from USAID, QAP and the National Organization for Quality Assurance in Hospitals (CBO, the Netherlands) and WHO/HQ (Table 1.5).

The Regional Director reported in 1998 that almost all countries had developed a comprehensive plan for quality assurance and quality improvement in primary health care. Several countries (Jordan, Pakistan, Saudi Arabia, Sudan and Syrian Arab Republic) conducted a primary health care quality assessment, either nationwide or in pilot areas. Almost all countries started the training and development of informed local professionals in quality assurance techniques. Several workshops, seminars, courses and conferences were conducted in the region at the national and district levels. Saudi Arabia established a national diploma course on quality management for local health care professionals. Egypt recognized a national professional organization for quality assurance and a society for quality in health care. Cyprus is focusing on medical auditing and has developed software for this purpose. Bahrain has developed an effective system of supervision as a tool for measuring performance.

The authorities in Pakistan prepared a national manual on quality assurance and quality improvement for primary health care services at the district level. In Jordan,

Table 1.5 WHO Eastern Mediterranean Region workshop reports and publications

Title	Year	Publication	Type
Basics of quality assurance for intermediate and peripheral laboratories	1992	EMRO	Monograph
Quality assurance in primary health care manual	1994	WHO-EM/PHC/81-A/G/93	Document
Intercountry conference on quality assurance in clinical chemistry, Amman, Jordan, 26–28 September 1993	1994	WHO-EM/LAB/255-E/L	Document
Quality assurance	1996		Tunisia
Quality assurance in laboratory medicine	1997	WHO-EM/LAB/294/E/L (*22*)	Report: Teheran, Islamic Republic of Iran
Quality assurance in health laboratories	1998	WHO-EM/LAB/315/E/L (*23*)	Report: Muscat, Oman
Introduction to accreditation	1999	EMRO	Report: Cyprus
Health care accreditation	2001		Saudi Arabia

steps were taken to establish the quality assurance directorate with the participation of the private sector, aimed at improving all aspects of the health care delivery system. A national plan for quality improvement in primary health care and strategies for its implementation were developed in the United Arab Emirates. Similar efforts were made in Kuwait to ensure the observance of minimum standards at different levels of care. Professionals from Egypt, Islamic Republic of Iran, Jordan, Kuwait, Saudi Arabia and United Arab Emirates participated in study tours or received fellowships on the assurance and improvement of quality.

The WHO Regional Office for the Eastern Mediterranean (EMRO) is developing a regional manual on quality assurance in primary health care. As demand for accountability by consumers and interest in comparing the performance of organizations increase, so EMRO has embarked on the development of systems of accreditation, auditing or certification for the primary health care system. A regional intercountry consultation on accreditation was held in 1999 to discuss matters that relate to the concept of accreditation and its feasibility, methodology and implementation.

WHO European Region

The WHO Regional Office for Europe (EURO) organized a series of seminars and workshops in the 1980s that brought together some of the early enthusiasts for quality in health care (Table 1.6). These seminars had more cohesive impact on the individual participants than on the countries they represented; nevertheless, a meeting at Udine, Italy, in 1985 led to the foundation of the International Society for Quality in Health Care (ISQua). WHO proceeded to develop models for national quality strategies, comparative condition-specific databases (including ones for stroke, diabetes and renal disease), networks of collaborating centres, and training programmes in quality of care development.

In September 1998, the WHO Regional Committee for Europe, consisting of delegates from the 50 active Member States, adopted "Health 21" with targets as benchmarks against which to measure progress in protecting and improving health. Target 16, Managing for quality of care, focuses on outcomes as the ultimate measure of quality.

> "By the year 2010, Member States should ensure that the clinical management of the health sector, from population-based health programmes to individual patient care at the clinical level, is oriented towards health outcomes. In particular:
>
> "16.1 The effectiveness of major public health strategies should be assessed in terms of health outcomes, and decisions regarding alternative strategies for dealing with individual health problems should increasingly be taken by comparing health outcomes and their cost-effectiveness.
>
> "16.2 All countries should have a nationwide mechanism for continuous monitoring and development of the quality of care for at least ten major health conditions, including measurement of health impact, cost-effectiveness and patient satisfaction.
>
> "16.3 Health outcomes in at least five of the above health conditions should show a significant improvement, and surveys should show an increase in patients' satisfaction with the quality of services received and heightened respect for their rights."

WHO fostered the development of the European Forum of Medical Associations (EFMA) (*32*), which agreed at a meeting in Utrecht, the Netherlands, in 1993 to adopt a statement on quality of care development that may be relevant to national medical associations worldwide (*33*):

> "The European Forum of Medical Associations and WHO strongly recommend that national medical associations (NMAs) should take a leading role in

Table 1.6 WHO European Region workshop reports and publications

Title	Year	Publication	Type
Quality assurance of health services: concepts and methodology	1982	Public health in Europe 16	Monograph: H. Vuori
The principles of quality assurance	1983	EURO Reports and Studies, No. 94	Report: Barcelona, Spain
Towards better care: guidelines for standards of nursing practice	1984		Report
Training in quality assurance	1985	EUR/ICP/HSR 003	Report: Udine, Italy
Quality assurance in health services	1988	EUR/RC38/Tech.Disc. recommendations (see Appendix 1.1) (*24*)	Report: Copenhagen, Denmark
Quality assurance in health care	1988	EUR/ICP/HSR 031 recommendations (see Appendix 1.2) (*25*)	Report: Kiel, Germany
Quality assurance and development in health care	1991	Quality of care and technology Technical Paper No. 1	Monograph
The role of WHO in quality assurance	1991		Monograph
Quality development in nursing care	1991	EUR/ICP/PHC 645 (*26*)	Report: Tromso, Sweden
Midwifery quality assurance	1991	EUR/ICP/HSR 342(2) (*27*)	Report: Brussels, Belgium
Policy of medical associations regarding quality of care development	1993	ICP/HSC 021(C)/BD/01	Report: Utrecht, the Netherlands
Quality assurance indicators in mental health care	1993	EUR/ICP/CLR 062 (*28*)	Report: Stockholm, Sweden
Multidisciplinary quality development in stroke care	1995	EUR/ICP/CIND 94 07/MT03 (*29*)	Report: Reykjavik, Iceland
Quality in health care: a proposed national policy, Belgium	1995	64 pages A5	Policy: Belgium
Quality in health care: a proposed national policy, Slovenia	1996	15 pages A4	Policy: Slovenia
Quality development in perinatal care: report on the third WHO workshop, Trieste, Italy, 18–20 October 1996	1997		Report: Trieste, Italy
Guidelines in health care practice	1997	EUR/ICP/POLC 02 02 04	Report: Schloss Velen, Borken, Germany
Experiences with quality management in an international context	1998	EUR/ICP/QCPH 04 01 02	Report: Germany
Guidelines on quality management in multidisciplinary occupational health services	1999	EUR/ICP/EHBI 02 02 03	
Appropriateness in health care services	2000	EUR/00/5022388 (*31*)	Report: Koblenz, Germany

designing quality of care development policies with the overall aim of benefiting patient care. NMAs and WHO recognize that securing quality of medical care is primarily the responsibility of the physicians themselves. Quality of care development (QCD) is, therefore, an ethical, educational and professional responsibility that is inherent to the independence of the profession.

"To achieve this, NMAs should:
— promote the professional responsibility for QCD and institute the establishment of internal self-evaluative mechanisms among their members;
— promote the development of strategic quality markers by the individual specialties, including consideration of the personal experience of patients;
— institute external quality evaluation, which should include mechanisms for support, supervision and the establishment of protected comparative databases, retrieved from appropriate recording of patient-care data, managed by the profession to ensure that confidentiality for both patient and physician is guaranteed;
— disseminate information on best demonstrated practice and promote its constructive application;
— promote the description of good practice, for example by consensus conferences and other methods that produce statements on medical care, that can be used as reference in evaluative mechanisms;
— acknowledge that, apart from the fact that research is the basis for QCD, there is need for research on QCD itself."

EFMA/WHO has encouraged national medical associations to engage in quality of care development at local, regional or national levels. In 1997, EFMA published a handbook for national medical associations entitled *Quality of care development (QCD) – Why and how?* as a guide to the basic principles and concepts.

WHO South-East Asia Region

An international consultation group met in Pyongyang, Democratic People's Republic of Korea, in October 1992 (Table 1.7) to identify concepts and methods of quality assurance and to suggest ways in which WHO could promote them. The group developed recommendations to participants, governments and WHO (Appendix 1.3).

National WHO initiatives

WHO has supported the introduction and implementation of quality assurance and accreditation in individual countries as opportunities arise. These interventions are usually undertaken in conjunction with aid agencies: for example, with the Danish Agency for Development Assistance (DANIDA) in Brazil and Zambia and with USAID in Jordan and Niger.

Table 1.7 WHO South-East Asia Region selected workshop reports and publications

Title	Year	Publication	Type
Quality assurance in district health systems based on primary health care (concepts and methods)	1992	SEA/HSD/180 (*34*)	Report: Pyongyang, Democratic People's Republic of Korea
Quality assurance in laboratory practices	1996	SEA/HLM/296 (*35*)	
Development of standards of midwifery practice	1996	SEA/SMI/1 (*36*)	Report: New Delhi, India
Quality assurance in health care	1996	SEA/HSD/200 (*37*)	Report: Surabaya
Quality assurance in health: training	1997	SEA/HSD/208 (*38*)	Report: Indonesia
Quality assurance in blood transfusion services in SEAR countries	1998	SEA/HLM/317 (*39*)	Report: Bangkok, Thailand
Quality assurance and accreditation	1999	SEA-HLM-323	Report: Yangon
Accreditation in health care	2000		Thailand

The current WHO programme includes technical support for countries to implement quality assurance and quality improvement programmes and national accreditation efforts. WHO will respond to requests from countries wishing to benefit from the Organization's technical expertise to implement such programmes or the accreditation of services. This support will generally be provided in collaboration with development partners and nongovernmental organizations. WHO will also continue to provide assistance to countries to monitor their own development. Outcomes will be analysed in national or regional events for their impact and improvement of health services delivery (*5*).

Association of Southeast Asian Nations

The Association of Southeast Asian Nations (ASEAN) secretariat held a workshop in Jakarta, Indonesia, in January 1995 on quality management of health services.

Organisation for Economic Co-operation and Development

The Organisation for Economic Co-operation and Development (OECD), based in Paris (*40*), has published a review of the performance frameworks; Australia, Canada, the United Kingdom and the United States have adopted some of these indicators. OECD aims to define common assessment processes and performance variables that might eventually be included in its Health Data database. The full report is available on the Internet (*41*).

European Union

The mission of the Directorate General for Health and Consumer Protection is "to ensure a high level of protection of consumers' health, safety and economic interests as well as of public health at the level of the European Union" (*42*). Although the delivery of health services is clearly the responsibility of individual states, the common agenda of transparency and consumer protection increasingly brings social, if not legal, pressure upon them for European standardization in order to ensure free and safe movement of goods, personnel and consumers (*43*). Health ministers agreed in 1998 to collaborate on quality in health care; the Austrian Federal Ministry published a summary of quality policies in European Union Member States in 1998 (*44*) and in accession states in 2001 (*45*).

Successive funded programmes have encouraged collaboration throughout Europe in biomedical and health services research (Table 1.8). There are also reciprocal research agreements with countries outside Europe, for example, Australia, Canada and the United States. Several projects have contributed specifically to the development of

Table 1.8 Quality-related research projects of the European Union

Title	Years	Products
Quality assurance in hospitals (COMAC)	1990–93	Network of 262 hospitals in 12 countries to catalogue and compare approaches (*46*)
Hospital utilization	1993–95	Comparison of methods and results of hospital utilization studies in 7 countries (*47*)
Healthcare outcomes (ECHHO)	1994–97	Clearing house and network of national outcomes centres and their databases
External peer review techniques (ExPeRT)	1996–99	External peer review systems (including accreditation, "visitation" and certification) for health care organizations (*48*)

quality improvement systems. The COMAC project on quality assurance in hospitals has been credited with stimulating formal quality assurance programmes in Israel (*49*) and Poland (*50*).

In May 2000, the European Commission adopted a new public health strategy (*51*) to take account of recent legal and political developments. A review of existing public health policy in the European Union, undertaken in April 1998 (*52*), had recommended three priorities:

- improved information for the development of public health;
- rapid reaction to threats to health;
- tackling of health determinants through health promotion and disease prevention.

Paragraph 48 of the 2000 strategy paper introduced the concept of actively spreading best practice in health care (and thus quality improvement) among Member States of the European Union and among those seeking to join.

> "A major emphasis . . . would be placed on best practice in health care, i.e. the current best evidence as regards the safety, efficacy, effectiveness and cost-effectiveness of different approaches to health promotion, prevention, diagnosis and treatment . . . The work would aim to promote and bring together activities in the Member States in the fields of evidence-based medicine, quality assurance and improvement, appropriateness of interventions, and health technology assessment. Coordination of work in these fields would be supported and set on a formal footing in order to pool the expertise of the centres in the Member States, to gather and exchange information, stimulate international studies, and improve the dissemination of findings."

Council of Europe

The Council of Europe was established in 1949 "to promote the unity of the continent and guarantee the dignity of the citizens of Europe by ensuring respect for fundamental values: democracy, human rights and the rule of law". The Council's constituent numbers increased from 25 in 1992 to 40 in 1997 with the inclusion of countries in central and eastern Europe.

The Health Committee of the Council of Europe established a committee of experts on quality in 1995. This committee drafted recommendations to ministers of health (adopted in 1997) that the governments of Member States should establish a quality improvement system and should: "create policies and structures, where appropriate, that support the development and implementation of quality improvement systems, i.e., systems for continuously assuring and improving the quality of health care at all levels" (*53*).

The resolution was based on the concept that receiving health care of good quality is a fundamental right of every individual and every community, implicit in Article 11 of the European Social Charter on the right to the protection of health, and Article 3 of the Convention on Human Rights and Biomedicine that requires Contracting Parties to provide "equitable access to health care of appropriate quality". The appendix to the resolution outlined 17 practical guidelines for a national quality improvement system (see Appendix 1.7).

International funding organizations

The policies of development banks and foreign aid agencies can greatly influence the way quality systems are structured and operated, especially in developing countries. In keeping with the principles of the Alma-Ata Declaration, the first aim of these agencies is to establish basic health services and environmental safety, rather than hospitals. As the countries to which they offer assistance have limited resources of expertise,

Table 1.9 Selected World Bank quality improvement projects

Subject	Years	Products
Internet: QCARE	1994 (ongoing)	Electronic discussion group on improving the quality of health care services in developing countries (via PHNLINK). To subscribe to QCARE, send a message "subscribe QCARE FirstName LastName" to: listserv@tome.worldbank.org
Bosnia and Herzegovina: basic health	1999–2002	Development of a regulatory framework for the Agency for Accreditation and Quality Improvement
Uzbekistan: reform and financing	1998–2003	Improved quality and cost-effectiveness of primary health care, especially in rural areas

technology and money, sustainable quality systems must be technically simple in their measurements and realistic in their standards, yet still be effective in implementing improvement.

Development banks

World Bank

Under its health, nutrition and population (HNP) strategy, the World Bank aims to enhance the performance of health care systems in order to break the cycle of poverty, high fertility, poor health and low economic growth (*54*). This strategy includes emphasis on better management, quality assurance and responsiveness to clients. It also relies on specific mechanisms such as decentralization, commitment of nongovernmental agencies, and direct public involvement (Table 1.9).

Funding of the HNP programme has risen steadily over 30 years to $28 billion (7% of the total spending) in 1999. This programme targeted population control during the 1970s and primary care in the 1980s. Disappointment with the pace of implementing primary care – combined with worldwide budget pressures, the growth of HIV/AIDS, and an ageing population – shifted emphasis in the 1990s towards health financing and the fundamental reform of health care. In 1999, the Bank's Operational Evaluation Department published an analysis of 73 HNP projects completed in 1991–98; only 13 of them were considered to have largely achieved their institutional objectives (*55*). The common features of these successes included:

- consistent commitment by stakeholders to the project objectives;
- project design allowing for underlying constraints;
- flexible project implementation (half of the projects were significantly modified en route);
- support for institutional and organizational development encouraged by the project.

Future emphasis will be placed not only on quality of the funding operation and project management, but also on technical outcomes and perceived improvements to health care, supported by explicit prior agreements among stakeholders and specific incentives for the borrowers.

African Development Bank

In the health sector, the African Development Bank emphasizes primary health care, population activities, family planning, maternal and child health, and disease control (*56*). Quality initiatives thus help ministries of health to improve access to services,

especially for rural communities (for example, there are currently 3–5-year projects in progress in Mauritania and Zambia).

The African Development Bank also sponsored publication of a comparative analysis of socioeconomic and health status indicators among 53 African countries (*57*). The study provided a framework for the use of national governments and international agencies in order to accelerate health development. The main determinants of health status include: per capita income, secondary school education, safe water supply, HIV/AIDS, official development assistance, population growth rates, exchange rate changes, calorie supply and access to health and sanitation facilities.

Asian Development Bank

The health sector development programme of the Asian Development Bank is helping the Government of Mongolia to reform its health sector by concentrating its efforts on primary health care, developing an effective referral system, and introducing mechanisms of licensing and accreditation (*58*). In particular, the Asian Development Bank is trying to create a partnership between the public and private sectors to improve access to services and their quality.

Inter-American Development Bank

Health care development is included in projects of the Inter-American Development Bank (IDB). In 1999, a project to improve the quality and efficiency of hospital care was initiated in the Bahamas (*59*).

Foreign aid programmes

Many governments provide technical assistance to other countries to develop basic health services and improve access to them. Their contribution to quality systems is commonly through better information and more explicit technical standards.

Australian Aid

The Australian Aid (AusAID) programme centres on people most in need, particularly women and children, and simple, cost-effective methods of prevention and treatment (*60*). There is a strong emphasis on primary health care and disease prevention. A programme in the Pacific Islands has been managed by the Royal Australian College of Surgeons. AusAID aims to provide support in areas that underpin good public health systems, such as national health policy development and planning, disease surveillance systems, and pharmaceutical supply and regulation. The 1998 AusAID policy statement stipulated "improving the quality of health service delivery in developing countries" to ensure that health assistance remains as relevant and effective as possible.

Canadian International Development Agency

The Canadian International Development Agency (CIDA) strategy for health aims to improve the health of individuals and families in partner countries as a key to reducing poverty and achieving sustainable development (*61*). In its work on health and nutrition, CIDA concentrates its efforts on four key areas where it feels Canada's contribution can have the greatest impact – better health for both women and children, improved nutrition, and control of infectious diseases. One of CIDA's six main areas of work is the support of efforts to introduce cost-effective and appropriate technologies.

United States Agency for International Development

The United States Agency for International Development (USAID) is an independent federal government agency that receives overall foreign policy guidance from the Secretary of State (*62*). One of the agency's six principal areas of work is population, health and nutrition as part of an overall goal of sustainable development and advancement of the United States' foreign policy objectives. This work is focused on four regions of the world: sub-Saharan Africa, Asia and the Near East, Latin America and the Caribbean, and Europe and Eurasia.

In addition to direct support, USAID also publishes analyses of the potential impact of health care financing on the sustainability of health care provision, such as those undertaken in Africa and in sub-Saharan Africa in particular (*63*, *64*).

International nongovernmental organizations

The international nongovernmental organizations concerned with quality in the delivery of health care that were surveyed for this report are listed in Table 1.10. More details of some of them are given below.

European Society for Quality Healthcare

The European Society for Quality Healthcare (ESQH) is a network of national societies dedicated to the improvement of quality in health care at national and international levels. It was founded by a group of presidents and former presidents of national societies for quality in health care in Europe, under the auspices of ISQua. ESQH aims to identify, develop and exchange expertise which is particularly relevant to the developing economic and social identity of Europe, and to work in association with other organizations concerned with health care and its quality.

European Quality Assurance Network for Nursing

The European Quality Assurance Network for Nursing (EuroQuan) was set up in 1992 to provide a forum for nurses across Europe who are working with issues of quality in health care. There are 15 member countries in EuroQuan, each represented by one national expert in quality. The network aims to promote quality in health care and nursing by strengthening collaboration between European nurses involved in quality improvement programmes through exchange of experience, collaboration and education.

Table 1.10 International nongovernmental organizations

Title	Web site	Examples of activity
ESQH	http://www.esqh.net/	Workshops, research
EuroQuan	http://www.fons.org/networks/eq/euroquan.htm	Nursing network, workshops
International Hospital Federation	http://www.hospitalmanagement.net	Congress, field study courses, senior management training
ISQua	http://www.isqua.org.au	Conference, ALPHA, membership; network of national societies (see Appendix 1.11)
ISTAHC	http://www.istahc.net/	Conference
WONCA	http://www.wonca.org/	Conference

International Society for Quality in Health Care

In 1985, the International Society for Quality in Health Care (ISQua) emerged from a meeting that had been convened by EURO in Udine, Italy, to discuss the implications of quality assurance for the training of health care professionals. The society now has members in over 60 countries; it set up a permanent secretariat in Melbourne, Australia, in 1995, which is largely supported by Australian State and Commonwealth governments.

ISQua's key activities include:

- organization of an annual conference on a global and a regional basis (see Table 1.11);
- publication of the *International Journal for Quality in Health Care*;
- coordination of a network of corporate and individual members with a common international interest in quality improvement;
- development of special interest groups, such as in health care indicators and accreditation (the ALPHA programme, see below).

Table 1.11 ISQua international conferences

1986	Paris, France
1987	Bologna, Italy
1988	Madrid, Spain
1989	Melbourne, Australia
1990	Stockholm, Sweden
1991	Washington, DC, USA
1992	Mexico City, Mexico
1993	Maastricht, the Netherlands
1994	Venice, Italy
1995	St John's, Newfoundland, Canada
1996	Jerusalem
1997	Chicago, IL, USA
1998	Budapest, Hungary
1999	Melbourne, Australia
2000	Dublin, Ireland

The Agenda for Leadership in Programs for Healthcare Accreditation (ALPHA) was launched in 1999 as the result of a series of annual meetings that started in 1994 in Treviso, Italy. Representatives of long-standing national accreditation organizations first came together at that time with people from countries where accreditation was only in its infancy. A group that had first met in Wellington, New Zealand, to evaluate the activities that became Quality Health New Zealand went on to develop interactions through a series of reciprocal visits between Australia, Canada and New Zealand. These visits provided peer group assessment and support, and the group began to standardize the recognition of health care provision between countries.

Three programmes of work are being developed under the ALPHA umbrella.

- *Standards*. An approved framework of principles provides the basis for review and assessment of the standards used by individual accrediting bodies for assessment of health care facilities. An accreditation organization can apply for assessment of its standards to determine whether they meet international requirements.
- *Accreditation survey*. Through a series of pilot assessments, ISQua developed an approved set of international standards for the organization and operation of national programmes. These are freely available for self-development and can lead to formal external recognition of the accreditors.
- *Support*. Most accreditation programmes need support and help with development, rather than formal approval from the international community. This can be provided through the network of ALPHA members.

International Society of Technology Assessment in Health Care

The International Society of Technology Assessment in Health Care (ISTAHC) seeks to foster the application of health technology assessment by interdisciplinary and international collaboration, effective dissemination of information, and support for education and research. Since 1985, ISTAHC has been a forum for researchers and clinicians working for scientifically based assessment of technologies in health care, including

drugs, devices and medical and surgical procedures, as well as organizational, administrative and support systems.

The Society holds an annual conference; in June 2001 it was hosted in Philadelphia by an Evidence-based Practice Center of the Agency for Healthcare Research and Quality (AHRQ).

World Organization of Family Doctors

Founded in 1972, the World Organization of Family Doctors (WONCA) is made up of national colleges, academies or organizations concerned with the academic aspects of general family practice. The acronym is derived from the first five initials of the World Organization of National Colleges, Academies and Academic Associations of General Practitioners/Family Physicians. There are now 58 member organizations in 53 countries.

WONCA has a working party for quality in family practice, which aims to set up international networks of common interest (*65*).

Other international resources

Many domestic programmes support quality improvement in the international arena either by consultancy in individual countries, association with foreign aid programmes, or generally supporting international collaboration.

Central American Institute for Health, Costa Rica

Since 1996, the Central American Institute for Health (ICAS) (*66*) has managed a project, funded by the European Commission and the UK Department for International Development (DFID), to establish quality assurance in the region, beginning with Costa Rica, Honduras and Panama in a five-stage process. This is linked to a collaborative study to define criteria by which the performance of reforming health care systems could be measured and monitored in Costa Rica, El Salvador, Guatemala and Nicaragua: the full report is available (*67*).

Cochrane Collaboration

The Cochrane Collaboration (*68*) was developed in response to a call by the late Archie Cochrane for systematic, up-to-date reviews of all randomized controlled trials relevant to health care (*69*). The first centre was set up in 1992 in Oxford, England, to prepare and maintain reviews of controlled trials in pregnancy and childbirth. Oxford produces a regular review, *Bandolier*, which is widely distributed in the United Kingdom and is available online (*70*).

The idea of an international collaboration was outlined six months after the first centre was set up, at a meeting organized by the New York Academy of Sciences, and 77 people from 11 countries founded the Cochrane Collaboration in 1993. It is now an international organization that aims to help people to make well-informed decisions about health care by preparing, maintaining and ensuring the accessibility of systematic reviews of the effects of health care interventions (Table 1.12).

Table 1.12 Principal Cochrane web sites

Australia	http://www.cochrane.org.au
Brazil	http://www.epm.br/cochrane
Canada	http://www.cochrane.org/
China	http://www.cd120.com/cochrane
Denmark	http://www.cochrane.dk/
Germany	http://www.cochrane.de
Italy	http://www.areas.it/index.htm
Netherlands	http://www.cochrane.nl
South Africa	http://www.mrc.ac.za/cochrane/
Spain	http://www.cochrane.es/Castellano/

Institute for Health Improvement

As a WHO collaborating centre for quality assurance, the Dutch Institute for Health Improvement (CBO), the Netherlands (*71*), has developed links with several other countries. CBO provides technical assistance and training, particularly in central and eastern Europe (with the European Commission) and in South-East Asia (with WHO and the World Bank).

Institute for Healthcare Improvement

The Institute for Healthcare Improvement (IHI) (*72*), set up in the United States in 1991, has established a series of international conferences or forums in collaboration with the British Medical Journal (BMJ) Group. The first were held in Europe, but in 2001 the first Asia Pacific Forum was held in Sydney, Australia (*73*) (see Table 1.13).

Table 1.13 IHI/BMJ Forum meetings

1996	London, England
1997	Paris, France
1998	Vienna, Austria
1999	Stockholm, Sweden
2000	Amsterdam, the Netherlands
2001	Bologna, Italy
2001	Sydney, Australia
2002	Edinburgh, Scotland

IHI has also helped a partnership of Arab and Israeli health care organizations to run quality management training programmes in the Eastern Mediterranean and north Africa. These included a conference in Jerusalem in 1993, a course in Dahab, Egypt, in 1995 and a seminar in Aqaba, Jordan, in 1997.

Joint Commission International

The Joint Commission International (JCI) was created in 1998 as a division of JCAHO's subsidiary, Joint Commission Resources (*74*). A set of accreditation standards was developed for international use and published in 2000 (*75*). These include a glossary and cross-referencing to four other standards which have been used for external assessment of health services (JCAHO, Malcolm Baldrige Awards, ISO 9000 and the European Foundation for Quality Management (EFQM)).

These standards are the basis of JCI accreditation of individual health care facilities around the world. They can also be used to establish and develop accreditation programmes in other countries, or as an assessment tool for health ministries, public agencies and others.

Quality Assurance Project

The Quality Assurance Project (QAP) was initiated in the United States in 1990 to help developing countries to institutionalize quality assurance (*76*). It works with the University Research Corporation (URC) to provide technical support for quality improvement to service delivery institutions, ministries of health, USAID missions, and field-based cooperating agencies. Table 1.14 gives examples of such projects.

Selected QAP research activities are featured in the Quality Assurance Methodology Refinement Series. These practical guides are available on the Internet for free downloading. Some are also available in Arabic, French, Russian and Spanish.

- *Quality assurance of health care in developing countries* (*77*);
- *Achieving quality through problem-solving and process improvement;*
- *Training manager's guide;*
- *Improving interpersonal communication between health care providers and clients;*
- *Licensure, accreditation and certification: approaches to health services quality*.

The last guide includes a comparison of existing hospital accreditation programmes around the world that was reprinted in *Quality Assurance Brief 1999* (*78*). QAP has

Table 1.14 Examples of QAP projects

Location	Partners	Project
Chile	Ministry of Health	Evaluation of national quality assurance programme
Eritrea	Ministry of Health	Training, hospital standards, introduction of accreditation, licensure, and certification
Mali	USAID-sponsored Partnerships for Health Reform (PHR) Project	Improvement of access and quality of care
Russia	Central Public Health Research Institute, Ministry of Health	Training quality assurance trainers; devising glossary of health care terms and concepts
South Africa	Council for Health Services Accreditation of Southern Africa (COHSASA).	Critical evaluation of impact of accreditation programme on selected indicators
South America	Bolivia, Ecuador and Honduras	Latin American Maternal Mortality Initiative (LAMM) to improve basic obstetric care

also published the proceedings of an international conference held in Washington, DC, in 2000 on the same subject (including regulation) (*79*).

Quality Assurance Brief is a newsletter published twice a year by QAP; it shares the methodologies, activities and findings of quality improvement initiatives with the international health community (*80*). Some valuable practical pointers based on the experience of QAP are available for all who aim to set up quality assurance systems in other countries; these include (*81*):

- define a standard but flexible methodology for the development programme;
- make training an integral part of the strategy;
- let the quality assurance structure develop gradually;
- ensure close alliance with the ministry of health;
- pursue top-down and bottom-up strategies at the same time;
- obtain, and keep, political support from key people in the health sector;
- be prepared to deal with frequent changes in personnel at all levels;
- use local examples of quality successes to illustrate principles;
- beware of setting up systems which the country cannot afford to sustain;
- make sure that the new programme demonstrates its impact.

Liverpool School of Tropical Medicine

The Liverpool School of Tropical Medicine (LSTM), England (*82*), has designed a 75-page quality assurance manual to help plan and establish quality systems in local health facilities in Ghana. However, it is readily applicable to other countries and is available in full on the Internet (*83*). The manual includes teaching materials, basic indicators and patient questionnaires applicable in developing health systems.

Tohoku University School of Medicine

The International Health Division of Tohoku University School of Medicine, Japan, in cooperation with WPRO and the Japanese Society for Quality Control, held a "training of trainers" course on evidence-based quality improvement of health services for developing countries. Participants were from Cambodia, China, Indonesia, Japan, Malaysia, Mongolia and the Philippines. The course was held in 2000 and is to be conducted every two years.

Table 1.15 Selected international journals related to quality

Title	Affiliation	Since	Publisher	Web site
Journal on Quality Improvement (previously *Quality Review Bulletin*)	JCAHO	1974	JCAHO	http://www.jcrinc.com/journal.htm
Journal of Quality in Clinical Practice (previously *Australian Clinical Review*)	ACHS, AMA	1981	Blackwell	http://www.blackwell-synergy.com/
International Journal of Technology Assessment in Health Care	ISTAHC	1984	Cambridge University Press	http://www.journals.cup.org/
International Journal of Health Care Quality Assurance		1987	MCB University Press	http://www.mcb.co.uk/ijhcqa.htm
International Journal for Quality in Health Care (previously *Quality Assurance in Health Care*)	ISQua	1989	Oxford University Press	http://www3.oup.co.uk/intqhc/
Quality and Safety in Health Care (previously *Quality in Health Care*)	IHI	1992	BMJ Publishing Group	http://www.qualityhealthcare.com/

International journals

Some international journals related to quality in health care are listed in Table 1.15.

Under the auspices of WHO, many medical publishers (including the BMJ group and its journal *Quality and Safety in Health Care*) now provide free full-text access to electronic editions to users from developing countries (*84*), as defined by the United Nations Human Development Index (*85*).

Industrial organizations and awards

The Malcolm Baldrige National Quality Awards, developed in the United States for improvement of quality in production industries, have evolved into national and international assessment programmes. Health care facilities are also covered by such quality awards, for example, in Australia by the Australian Business Excellence Model and in Europe by the European Foundation for Quality Management (EFQM) (*86*).

Health care providers who seek voluntary development or a quality award are assessed against performance standards for service industries in specific areas such as clinical results, patient satisfaction, administration and staff management. The EFQM model is characterized by a graphic conceptual framework that was revised in 1999. Several countries, particularly in Scandinavia, have introduced their own national awards based on the European framework. Table 1.16 lists the web sites of some major industrial quality organizations and awards.

International Organization for Standardization

The International Organization for Standardization (ISO) has developed standards for quality systems that have been used to assess specific aspects of health services (ISO 9000 series). The standards relate to administrative procedures rather than to clinical results. Consequently, they have been used mostly in more mechanical departments such as laboratories (EN 45001), radiology and transport, though they have also been applied to whole hospitals and clinics.

In each country, a national body tests and recognizes (accredits) independent agencies as being competent to certify organizations that comply with the standards. The

Table 1.16 Selected major quality awards and industrial quality organizations

Award or organization	Web site
Malcolm Baldrige National Quality Awards	http://www.asq.org/info/baldrige/index.html
Australian Business Excellence Model	http://www.aqc.org.au/
European Foundation for Quality Management (EFQM)	http://www.efqm.org/
International Organization for Standardization (ISO)	http://www.iso.ch/
European Organization for Quality (EOQ)	http://www.eoq.org/start.html

audit process tests compliance with standards and is not intended in itself for organizational development. A revised version of the ISO series, issued in 2000, is moving closer to the development model of EFQM and accreditation.

European Organization for Quality

The European Organization for Quality (EOQ) was established in 1956. Its present membership comprises 34 national European quality organizations, as well as institutions, companies and individuals from all over the world. Its mission is to:

- improve European competitiveness through the promotion of European quality policy;
- support members in the promotion and deployment of quality management;
- facilitate the development and exchange of information, knowledge and experience in quality theories and techniques.

European Quality Week (87), usually held in November each year, is financially supported by the European Commission as a joint venture between the EOQ and the EFQM. One of the key objectives of the week is to promote understanding of current European Commission policy and projects concerning quality. Through the involvement of the EOQ, European Quality Week extends beyond the 15 European Union member states.

National structures and activities

Published national strategies

Legislation

Although most national strategies for quality health care are based on a mixture of statutory and voluntary activities, their ability to reach every part of every organization depends largely on the willingness of individuals to participate. One approach is to require by national law that specified quality structures or activities are maintained (Table 1.17).

Compliance with legislation covering certain aspects of quality is subject to statutory inspection in most countries. Such matters concern public health and safety and generally override national, professional and personal freedoms on, for example, questions of radiation, infection, hygiene, transfusion, medical devices, drug manufacture, complaints and licensing of facilities. They also include registration and, in some countries, re-registration of clinical personnel.

Because many countries organize and regulate health services and personnel at subnational level, federal legislation is often implemented at the level of state, province,

Table 1.17 Examples of legislation for quality in health care

Country	Year	Requirements
Argentina	1997	Decree 1424: quality assurance of medical care to be compulsory in all national health establishments; national commissions to be set up for professional (re)certification and accreditation of health establishments
Austria	1993	Hospital and Clinics Act (KAG) specifies hospital patients' rights, comparative external evaluation, internal quality systems, quality assurance committees
Belgium	1987	Hospital quality committees
China		Independent regulation requires providers to demonstrate quality assurance system
Democratic People's Republic of Korea	1997	Medical law under revision to require quality assurance
France	1984	Law requires hospital medical committees to issue annual report on quality evaluation
	1991	Law requires hospitals to define and demonstrate internal quality systems
	1996	Ordonnance of 24 April requires mandatory quality improvement, hospital accreditation, patient surveys in public and private hospitals
Germany	1989	Health Reform Act requires quality assurance for hospital and out-patient care; physicians to ensure that care meets standards (§70) and to be held responsible for imperfect and unauthorized treatment (§75); mandatory benchmarking of hospital process and outcome (§137); sick funds responsible for quality assurance (*88*)
	2000	Health reform requires patient choice, cost-effective clinical practice
Israel	1995	National health insurance law demands that service providers have quality assurance systems, use approved guidelines and review appropriateness of care
Italy	1986	Hospital quality committees
Lithuania	1992	Health reform law requires quality indicators, mandatory accreditation by Regions of public and private sector
	1998	Institutions required to have quality assurance systems and to monitor services; compliance reinforced by State Medical Audit Inspection including access, appropriateness and cost-effectiveness.
Netherlands	1981	Hospital quality committees
	1996	Care Institutions Quality Act prescribes patient involvement, clinical guidelines and protocols, staff training in quality, internal monitoring, external assessment, annual quality report
Philippines	1995	Republic Act 7875 mandated all health care providers participating in National Health Insurance programme to take part in quality assurance programmes
Poland	1995	Official bulletin 29 requires formal quality assurance
Spain	1986	Hospital staff participation in quality assurance
Sweden	1997	The Health and Medical Services Act requires that all personnel should systematically improve the quality of their performance; self-assessment, evidence-based practice, risk management, outcomes assessment, continuous quality improvement
USA	1986	Peer Review Organization legislation replaces Professional Standards Review Organizations set up in 1973; established federally funded agencies, mandated to assure quality and efficiency of care provided under Medicare and Medicaid

region or county. In almost all countries, the government has laid down the principles and left it to local purchasers, providers and insurers to implement them.

In the case of Austria, where 99% of the population is covered by compulsory health insurance, legislation was introduced in 1993 in response to public demand, increasing competition, limited funding, and the reform of hospital financing. Similar legislation in the Netherlands in 1996 extended to primary care and emphasized internal quality systems and self-regulation, with external accountability to the Inspectorate of Health and patient organizations. As in Austria, the Dutch law was prompted by a shift to market-oriented and service thinking and a concern that negotiations between providers, purchasers and consumers should include quality as well as volume and price. In Germany, health system reforms in 2000 were aimed at improving the supply of services and controlling the cost of health insurance.

Government policy

Few governments have a stand-alone policy for quality in health care. In many cases this is because the policy is implicit, or it is packaged with strategic reform or other operational initiatives. Even when government policy is transparent, its lifespan and interpretation are subject to the high turnover of ministers and quality-minded civil servants, which may be common in departments of health (*89*). Based on available policy documents, it is difficult to assess to what extent countries achieved the European Region's health-for-all Target 31 and built effective mechanisms for ensuring quality of patient care by 1990. Some examples of published policies are indicated in Table 1.18.

Table 1.18 Examples of national policies for quality in health care

Country	Year	Title	Reference
Belgium	1995	DCQ des soins: national policy proposal	Ministry of Public Health and Environment
Brazil	1995	Ministry of Health national quality assurance programme – "five tracks strategy" (*90*)	Outcome indicators, independent accreditation programme, quality improvement tools, clinical guidelines, community control
Denmark	1993	CQD: a proposed national policy	EUR/ICP/CLR 059
Finland	1994	Quality policy for health care	Client-orientation, integration; every provider to formulate written quality assurance policy
Italy	2000	National Health Plan	Seven priorities for public health improvement; national targets
Portugal	1998	National health strategy: quality policy	Develop and implement continuous quality improvement nationally using EFQM
Slovenia	1996	Quality in health care: a proposed national policy	Ministry of Health, Committee for Quality in Health Care
South Africa	2000 2001	Norms and standards: Part 1: primary health care package Part 2: district hospitals	Department of Health, Directorate of Environmental Health.
Sweden	1993	National strategy for quality improvement	Defined responsibilities for quality assurance; technology assessment
Zambia	1994	National quality assurance plan	Developed with LSTM and DANIDA

Comparisons between countries, such as between the United Kingdom and the United States, suggest that despite differences in structure, ethos and resources there is much to learn across borders. Specifically, "systemic national capacity to remedy and improve quality in health care requires coordination and integration of activity at four levels" (*91*). These levels are:

- national policy formulation;
- national and system level infrastructure for monitoring and oversight;
- system level governance and operational management;
- clinical provision of services.

National reviews

In the late 1990s, prompted by mounting evidence of quality failures, public demands and increasing costs, several countries set up task forces to examine the existing national approach to quality and to recommend improvements (Table 1.19). The general conclusions were that statutory and voluntary quality systems should be coordinated with national or local government in order to ensure valid standards, reliable assessments, consumer involvement, demonstrable improvement, transparency, and public access to quality criteria, procedures and results.

Australia

Following a report to health ministers by the task force on quality in Australian health care (*94*), an expert group was set up to build on that report and the findings of the Quality in Australian Health Care Study (QAHCS), which used the methods of the original Harvard study into adverse events in hospitals. The Australian study suggested that prevention of such events in Australia would have saved AUD 4.17 billion (approximately US$ 3.09 billion) in 1995/96. The interim report of the expert group (*95*) recommended action in the following five key areas:

- providing appropriate and accessible health information for consumers;
- providing better frameworks for health care organizations to manage the quality of care throughout their systems;
- improving procedures for self-assessment and peer review by all clinical service providers;
- encouraging colleges, professional associations, and medical and nursing administrators to ensure quality performance through ongoing certification programmes;

Table 1.19 Examples of recent reports and national reviews on quality

Country	Year	Source
Australia	1996	Taskforce on Quality
	1998	National Expert Advisory Group on Safety and Quality
Scotland	1998	Acute services review (Carter)
New Zealand	2001	National Health Committee (*92*)
UK	1998	*A first-class service* (*93*)
USA	1998	President's Advisory Commission
Zambia	1999	Review of quality assurance practices in health sector (Ministry of Health, LSTM)

- strengthening the quality focus of organizational accreditation processes, by requiring organizations to demonstrate mechanisms for quality enhancement.

The group also drew attention to the similarity of its findings to those of the United States President's Advisory Commission, in particular:

> "Improving quality requires commitment at all levels of the health care industry. Health care organizations, professionals, and other participants in the health care system must make quality improvements the driving force of the industry.
>
> "What is needed now is a national commitment to quality improvement that begins with the President and the Congress and extends to every level of the health care industry." (*96*).

England and Wales

Public confidence in the National Health Service (NHS), and particularly in the health care professions, had been undermined by several high-profile quality failures such as in cervical screening and cardiac surgery, which demonstrated the inability of the existing systems to ensure quality. At the same time, lengthening waiting lists, winter bed crises, and staff shortages brought the basic funding of the service into question. In addition, a new government wanted to extend the wider policy agenda of public accountability, performance measurement and inspection to health care. The resulting policy document *A first-class service: quality in the new NHS* heralded a range of changes, in particular a statutory inspectorate for the NHS (Commission for Health Improvement) (*93*).

Scotland

In Scotland, part of the 1998 Acute Services Review (*97*) focused on the organization of quality management in the Scottish Health Service and led to the establishment of the Clinical Standards Board to oversee the definition and application of standards in clinical services and their organization. It recommended a national quality assurance system that would be concerned with *clinical* quality (with a focus on patients and diseases) and complementary to existing processes that are mainly institution-centred.

External quality mechanisms should support internal ones by sharing ideas across organizations, raising individual and group morale through external recognition of achievement, and increasing objectivity and consistency of approach across organizations. The review concluded: "The challenge is to develop a system . . . that promotes both continuous quality improvement and public reassurance, thus avoiding wasteful duplication of data collection and assessment, whilst preserving the strong sense of commitment within the Health Service to improving standards."

United States of America

The President's Advisory Commission on Consumer Protection and Quality in the Health Care Industry (*95*) recommended the establishment of a Forum for Health Care Quality Measurement and Reporting as a "stable and predictable mechanism" to determine detailed specifications. The Forum would bring together the existing private, professional and public mechanisms in order to develop common core sets of quality measures, standardize assessment processes to allow reciprocal recognition, ensure consumer representation, and make standards and assessment criteria and decisions available to the public at little or no cost.

The Institute of Medicine's Committee on Quality of Health Care in America has published two substantial studies, which are accessible on the Internet:

- *To err is human* proposed a national agenda – with state and local implications – for reducing medical errors and improving patient safety through the design of a safer health system. It asserts that the problem is not one of bad people working in health care, but rather good people working within bad systems that need to be made safer (*98*).
- *Crossing the quality chasm* studied deficits in the United States health care system; it includes a detailed technical analysis of evidence of underuse, overuse and misuse of services since 1987 (*99*).

Zambia

The 1999 review by the Ministry of Health showed that quality assurance systems were established in the majority of regional hospitals but were less common in teaching hospitals, private hospitals and health centres. The review identified various needs: to strengthen systems of supervision, disseminate clinical guidelines and operational policies, structure quality assurance training, develop indicators of technical competence, and involve the community.

National structures for quality

National policy groups

Several governments have established quality units within their ministry of health, or have convened multiagency consultative groups (Table 1.20). Many such groups were set up specifically to carry out a predefined government objective of reform, but others have a remit to develop comprehensive and consistent national policy and to oversee

Table 1.20 Examples of national quality policy groups or councils

Country	Year established	Title
Argentina	1995	Inter-institutional Quality of Care Commission (CIDCAM): coordinated by La Plata medical school; includes public, private health care, government and financial institutions (*100*)
Australia	2000	Council for Safety and Quality
Belgium	1995	Care Quality Department, Ministry of Health
Brazil	1994	National Commission for Quality and productivity in Health Care (CNQPS): government agency including representatives of medical professions, consumers, providers (*101*)
Finland	1994	Quality Council for health care
Israel	1995	National committee for research in quality in health care: allocates government budget under health insurance law
Japan		National network on total quality management for health care (*102*)
Netherlands	1994	Harmonization of Health Certification (HKZ): council to harmonize certification, accreditation, ISO, EFQM (*103*)
Russia	1999	Federal Methodological Center for Quality Management within Central Public Health Research Institute to develop and disseminate quality methodology in Russia; supported by QAP/URC; web site in English and Russian (*104*)
Spain	1998	Health care accreditation working group: national programme of regional and central governments
USA	1998	National Quality Forum: nongovernmental public/private forum with consumer/purchaser bias (*105*)

its implementation. Consumer, purchaser and provider representatives are often included.

Professional representation, for example, from medical and nursing associations, is variable but some national professional bodies, as in Brazil, have played a leading role in promoting quality in health care. In the United States, the American College of Surgeons began a hospital standardization programme, which led to the Joint Commission on Accreditation of Healthcare Organizations (JCAHO). Similarly, in Australia, it was the medical association that drove the introduction of clinical review and, with hospital managers, laid the foundations of the Australian Council on Healthcare Standards (ACHS).

The Inter-institutional Quality of Care Commission, Argentina, is unique in that it is coordinated by a university department. The United States National Quality Forum is also exceptional, in that it emerged from a national review that pointed out the need for government to recognize the contribution of many nongovernmental interests and to collaborate with them to effect quality improvement.

National executive agencies

Some of the agencies listed in Table 1.21 are described in more detail below.

Agence Nationale d'Accréditation et d'Evaluation en Santé, France

The Agence Nationale d'Accréditation et d'Evaluation en Santé (ANAES, previously ANDEM) is the French government agency responsible for accreditation of health facilities, evaluation of clinical practice and guidelines, and definition of interventions that are reimbursable under health insurance. It publishes the complete standards, assessment procedures and full individual reports of its accreditation programme on its web site, along with a wide range of full-text research papers and clinical guidelines.

Table 1.21 Examples of national executive agencies

Country	Year established	Title	Function
Brazil	1997	Quality and Regulation Unit	Replaced Quality and Norms Unit as regulatory body; provides catalogue of quality standards and indicators; reviews regulatory role of Ministry of Health
Finland	1994	STAKES http://www.stakes.fi	National care registers, quality indicators, patient satisfaction databases, health technology assessment
France	1997	ANAES (formerly ANDEM) http://www.anaes.fr	Accreditation, clinical guidelines, health technology assessment
Netherlands	1979	IHI/CBO http://www.cbo.nl	National organization for quality assurance in health care; technical assistance to hospitals, training, research and development, information exchange
Poland	1994	National Centre for Quality Assessment in Health Care	Support for local quality assurance programmes, performance indicators, practice guidelines, health technology assessment, accreditation (*107*)
Portugal	1998	Instituto de Qualidade em Saude (IQS) http://www.iqs.pt	Clinical practice guidelines; MoniQuOr assessment and monitoring of organizational quality in health centres; development of hospital accreditation programme with UK King's Fund Health Quality Service
UK	1999	NHS Quality Improvement Scotland (formerly Clinical Standards Board for Scotland) http://www.nhshealthquality.org	Assessment and accreditation of clinical services

Some of this material, including the accreditation manual and standards, is also presented in English.

Dutch Institute for Health Improvement, the Netherlands

The Dutch Institute for Health Improvement (CBO) has four major customer groups: medical specialists, nurses, allied health professionals, and health care institutions. CBO's programmes include guideline development, visitation systems, indicator development, and a national registry of quality indicators, methods and training.

National Centre for Quality Assessment in Health Care, Poland

Although initially set up and partly funded by government, the National Centre for Quality Assessment in Health Care is now a semi-autonomous centre directed by a board, which includes representation from professions, providers and government. Its work includes standards, measurement systems and hospital accreditation.

National quality societies

Membership societies have been formed by enthusiasts in many countries, often with a large proportion of clinicians driven by a common interest (Table 1.22). Some are sponsored, at least initially, by government, but others struggle to pool the personal resources of their members and have little impact on or support from official initiatives. Few of these societies actively recruit consumer members, but they offer a valuable forum for informal exchange of experience and training through meetings, publications, newsletters, journals and web sites.

American College of Medical Quality

The American College of Medical Quality was founded in Pennsylvania in 1973 as the American College of Utilization Review Physicians. In 1991, its name was changed to reflect changes in the specialty. The society aims to provide leadership in creating, sustaining and applying a scientifically based infrastructure for the practice of clinical quality improvement. Its objectives are similar to those of many such organizations, with particular emphasis on doctors:

- to educate and provide a forum for health care professionals, government agencies and other regulatory bodies involved in medical quality management;

Table 1.22 Selected national societies for quality in health care

Country	Founded	Title	Reference
Germany	1993	German Society for Quality Management in Health Care	http://www.gqmg.de/
Ireland	1995	Irish Society for Quality in Health Care	http://www.isqh.net
Japan	1991	Japan Society for Quality in Health Care	http://www.jcqhc.or.jp/
Japan	1999	National Network on Total Quality Management for Health	http://www.tqm-health.gr.jp
Republic of Korea	1994	Korean Society for Quality Assurance in Health Care	(*107*)
USA	1973	American College of Medical Quality	http://www.acmq.org
USA	1976	National Association for Healthcare Quality	http://www.nahq.org/

- to provide a core body of knowledge to health care professionals in the field of medical quality management;
- to raise the standards of medical schools and postgraduate education in medical quality management;
- to conduct and sponsor ongoing research and evaluation in the various fields of medical quality.

National Association for Healthcare Quality

The United States National Association for Healthcare Quality (NAHQ), was founded in 1976 to promote the continuous improvement of quality in health care by providing educational and development opportunities for professionals at all management levels and within all health care settings.

Other national societies

Since the mid-1980s there has been a rapid growth of voluntary associations, reflecting the increased interest worldwide in quality improvement. Societies known to ISQua are listed in Appendix 1.11. The web site of the Irish society includes an annual catalogue of current local quality initiatives in Ireland (*108*).

National quality initiatives

Government quality initiatives

Some of the most obvious progress in quality has been driven by government (Table 1.23). This is partly because the significant contributions made by academic, commercial and charitable bodies tend to be less clearly signposted or less accessible through literature or the Internet.

Many government initiatives to improve quality, especially in developing countries, are part of packages of reform in public health and primary care. Some emerge from efforts to maintain and improve standards of care while controlling costs and encouraging competition, and some are aimed at establishing public accountability and restoring public confidence in the face of emerging evidence of health system failures. The dominant motive is shaped by the public–private division of the funding and delivery of services, by the balance of central or local control, and by public and professional attitudes to regulation as opposed to self-management.

Government publications

The implementation of national policy is, in many countries, the function of local providers, purchasers and regulators and not of central government. Some governments, however, have helped to translate policy into practice by producing practical guidance on quality improvement methods (Table 1.24).

Indicators and data systems

Many countries have sought to aggregate routine activity and outcome data as objective measures of quality and performance (Table 1.25). The aims and priorities of indicator development vary between internal self-assessment and governance, and external evaluation, accreditation and control. Indicators for external comparison and benchmarking between institutions or countries demand much greater consistency and case-mix adjustment than measures that are used only internally. They are, therefore, more feasible and common in countries with well-equipped and established national data

Table 1.23 Examples of government quality initiatives

Country	Year started	Activity
Chile	1991	Project for the evaluation and improvement of quality (EMC); focus on primary care, assisted by QAP, funded by USAID (*109*)
China		National patients' charter
Costa Rica	1992	Ministry of Health programme for Continuous Quality Improvement (PMCC), supported by QAP and USAID, to integrate quality initiatives that had been fragmented by externally inspired reforms (*110*); training, quality policies, web site
Ecuador	1996	Ministry of Health national programme for quality improvement (NPQI) assisted by QAP and PAHO, funded by USAID (*111*); initial focus on problem solving, then more systematic in three provinces; quality assurance support units within each provincial directorate
France	1995	National Programme for quality assurance: safety and continuous quality improvement projects in public hospitals
Indonesia	1995	Ministry of Health set up the National Committee for Hospital Accreditation; with Social Welfare begins five-year pilot quality assurance programme for primary care in 12 of 26 provinces, initially funded by World Bank; first phase involved audit of current practice; second improving compliance with government standards of treatment; third team working on service quality
Italy	1992	Health care reform law: regional accreditation programme
Malaysia	1984	Ministry of Health Quality Assurance programme: national indicators, internal quality assurance, training
Republic of Korea	1995	Hospital Services Evaluation programme: Institutionalization of quality improvement programmes in large general hospitals (*112*)
Saudi Arabia	1995	Ministry of Health project: Supervision and quality assurance in health centres
Spain		Ministry of Health and Consumer Affairs: Periodic "health barometer" public satisfaction surveys
	1986	Ministry of Health and Consumer Affairs: Postgraduate teaching accreditation
Thailand	1995	Ministry of Public Health launched the Quality Hospital Policy and mandated general hospital to implement total quality management
UK	1992	Patients' Charter: rights to access, privacy, information; national benchmarking
	1999	Rolling programme of large-scale surveys of public patient experience: general practice, cardiac disease, cancer treatment results published (*113*) (England)
	1999	Commission for Health Improvement (CHI): periodic inspection of NHS facilities, assessment of use of national service frameworks, investigation of service failures (*114*) (England and Wales)
Ukraine		Ministry of Health Neonatal resuscitation programme: tiered organization of services, guidelines, cascade training, conference programme to be disseminated to Russia, Georgia, Armenia, Azerbaijan; supported by USAID
Yemen	1998	Ministry of Public Health project to reduce mortality and improve quality in maternity services, supported by UNICEF

systems and are often a by-product of funding systems that reimburse health care providers according to case-mix.

Adverse events – patient safety and medical errors

A common approach to quality improvement is the identification and reduction of adverse events, either as a planned research project or in response to a national scandal.

Table 1.24 Selected government guides to quality

Country	Year	Title
Austria	1994	Federal Ministry of Health *Textbook of quality assurance in hospitals*, in German (*115*)
Chile	1998	*Criteria, quality standards and indicators for the country health priorities* (*116*)
Ecuador	1997	Quality assurance manual in two volumes, in Spanish (*117*)
Finland	1998	*Quality management of health services provided and purchased by municipalities* (*118*) Vocabulary, based on ISO 8402
Saudi Arabia	1992 1995	*Manual of quality assurance in primary health care* (*119*) Ministry of Health textbook: synopsis of indicators (*120*)
Spain and Portugal	1990	Evaluation of the quality of primary care, in Spanish (*121*)

Table 1.25 Examples of data systems for quality in health care

Country	Title
Australia	State of Victoria: framework for hospital performance indicators (*122*) ACHS clinical indicators listed with references (*123*)
Canada	Canadian Council on Health Services Accreditation (CCHSA): indicators (*124*)
Czech Republic	Hospital data collection for quality assurance, 1993: 40 Hospital Association members pooled measures of clinical activity as a basis for quality indicators (*125*)
Denmark	National Board of Health funds commission to develop databases for clinical quality, 1995
Finland	National care registers (*126*)
Germany	National registers: transplantation, dialysis, pace-makers, hip replacement
Republic of Korea	Eight quality indicators of hospital process and outcome designed and maintained by the national society since 1995
Sweden	National Quality Registers: 40 clinical databases for feedback and benchmarking
UK	NHS: Public health (*127*) and clinical outcome indicators (*128*)
USA	NCQA performance measures for managed health care plans: Health Plan Employer Data and Information Set (HEDIS) (*129*)
	CONQUEST database of individual indicators (*130*)
	JCAHO indicators (*131*)

The subjects of public inquiries into high-profile health system failures and aberrations in several countries have included blood transfusion, cancer screening, physiotherapy in premature babies, and postmortem retention of children's organs. Studies of adverse events in hospital (at their simplest, those that delay discharge or cause patient injury) show that hospitals in industrialized countries could give more attention to risk management. The original Harvard study, which used retrospective record review, was replicated in Australia and the United Kingdom (Table 1.26). Annual confidential mortality enquiries into individual deaths (perioperative, maternal, perinatal, and patient homicides and suicides) are another source of learning that could be shared between many countries. Further discussion of adverse events appears in Section 2 under Clinical practice.

Table 1.26 Selected seminal studies of adverse events

Country	Subject	Title
Australia	Hospital errors	Quality in Australian Health Care Study (QAHCS) (*132*) 16.6%
UK	Perioperative deaths	National Confidential Enquiry into Peri-operative Deaths (NCEPOD) (*133*)
	Hospital errors	Adverse events (Charles Vincent) (*134*): 6.7% incidence in a London hospital extending stay by average of six days
USA	Hospital errors	Harvard Medical Practice Study (*135*) 3.6%

Accreditation programmes

Many countries have adopted external accreditation of health services as a vehicle for disseminating national standards and for public accountability (Table 1.27).

Traditionally, in Australia, Canada and the United States these programmes were begun by voluntary collaboration of clinical associations (especially medical) and hospital administrators as a means of organizational development. More recently, they have also been driven by reimbursement schemes, central control, and an emphasis on primary care, health networks and community-based services.

More detail of accreditation methodology is given in Section 2 and details of specific programmes are provided in Section 3.

Quality awards

Some countries offer national quality awards that are specific to health care, or shared with other service sectors – these may be government-sponsored or independently funded, for example by national societies, publications or pharmaceutical companies. Awards are often based on Baldrige or EFQM criteria for management excellence (such as in Argentina, Brazil, Costa Rica and the Scandinavian countries) but the European Golden Helix awards focus more on evidence-based practice in health care. Sweden also makes Health Care Quality Awards an optional result of an internal self-assessment programme, which was based on the UK King's Fund organizational audit.

National resources

Central elements in a national structure for quality often include a defined executive agency and a technical resource centre that collects and distributes national and international experience, or a clearing-house linking other sources (see Table 1.28). These may be units within the health ministry, separate government agencies, research centres or self-financing independent bodies. Most of them were set up with public money and, despite income generation from products such as training and publications, need continued central support.

One advantage of public funding, especially to users in other countries, is governmental pressure for transparency. This encourages these centres to make information freely available that may be regarded as commercial property by other agencies. Two particularly generous examples are the web sites of the United States Agency for Healthcare Research and Quality (AHRQ) and ANAES, France.

Clinical guidelines and health technology assessment centres

The activities of some of the reference centres for clinical guidelines and health technology assessment shown in Table 1.28 are described in more detail below.

Table 1.27 Examples of recent national accreditation programmes

Country	Year	Description
Argentina		Technical Institute for Accreditation of Health Facilities (*136*): voluntary accreditation of public and private hospitals; ambulatory care, networks to follow
Brazil	1995	Hospital accreditation standards available on Internet (*137*); development assisted by JCI
China	1989	Hospital grade appraisal by Health Bureau, Shanghai
Ecuador	2000	New funding arrangements require accreditation of hospitals and districts; development supported by QAP, PAHO
Germany	1999	Collaboration of federal medical chamber, insurers and managers; independent voluntary accreditation of hospitals, consistent with EFQM
Ireland	1999	Government-funded major academic teaching hospitals (MATH) pilot project; technical assistance from Canadian Council on Health Services Accreditation
Italy	1992	Health care reform law: mandatory accreditation by Regional governments
Japan	1995	Government-authorized programme run by Japan Council for Quality Health Care, funded by Ministry of Health and Welfare and Japan Medical Association
Kyrgyzstan	1997	Combined state licensing and accreditation programme for health care facilities; functions separated between Ministry of Health and independent accreditation commission 2001
Lithuania	1998	State Health Care Accreditation Service functions include support for local quality assurance, training, licensing of institutions and specialists, medical devices
Netherlands	1998	Institute for Accreditation of Hospitals (*138, 139*) supported by government; based on Canadian model
Poland	1995	Hospital Accreditation programme: developed with support from Ministry of Health, USAID and JCI
Portugal	1998	Pilot programme by government-assisted MoniQuor; technical assistance from (UK) Health Quality Service
Republic of Korea	1980	Hospital Standardization Programme: independent accreditation run by Hospital Association, based on JCI model; focus on structure, staffing etc
	1995	Hospital Performance Evaluation Programme: run by government-supported nongovernmental organization; focus on internal quality assurance, consumers, outcomes
Singapore	1991	Programme run by Medical Accreditation and Audit Unit of Ministry of Health
South Africa	1993	Council on Health Service Accreditation for Southern Africa: independent programme, developed with support from UK Hospital Accreditation Programme (*140*)
Spain	1997	Law on consolidation of national health care system: regional service accreditation system
Thailand	1997	Institute of Hospital Accreditation (*141*)
Zambia	1998	Zambia Health Accreditation (*142*); development assisted by QAP, USAID, evaluated by JCI

Agency for Healthcare Research and Quality, USA

By the Healthcare Research and Quality Act of 1999, the Agency for Health Care Policy and Research (AHCPR) became the Agency for Healthcare Research and Quality (AHRQ) and the requirement for the Agency to support the development of clinical practice guidelines was eliminated. AHRQ now supports the development of evidence reports through its twelve Evidence-based Practice Centers and the dissemination of evidence-based guidelines through its National Guidelines Clearinghouse (see below).

Table 1.28 Examples of reference centres for clinical guidelines and health technology assessment

Country	Title	Web site
Austria	ITA (HTA Unit of the Institute of Technology Assessment-Austrian Academy of Science)	http://www.oeaw.ac.at/einheiten/ita
Canada	CCOHTA (Canadian Coordinating Office for Health Technology Assessment)	http://www.ccohta.ca
	Canadian Medical Association	http://www.cma.ca/cpgs/index.asp
Chile	ETESA (Unidad de Evaluación de Tecnologías de Salud)	http://www.minsal.cl
Denmark	DIHTA (Danish Institute for Health Technology Assessment)	http://www.dsi.dk/
Finland	FINOHTA (Finnish Office for Health Care Technology Assessment)	http://www.stakes.fi/finohta
France	ANAES (L'Agence Nationale d'Accréditation et d'Evaluation en Santé)	http://www.anaes.fr
Germany	German Scientific Working Group of Technology Assessment in Health Care	http://www.epi.mh-hannover.de/
Japan	International Health Division, Tohoku University School of Medicine	http://www.ih.med.tohoku.ac.jp/
Netherlands	TNO Prevention and Health	http://www.tno.nl
New Zealand	NZHTA (New Zealand Health Technology Assessment)	http://nzhta.chmeds.ac.nz
Norway	SMM (The Norwegian Centre for Health Technology Assessment)	http://www.sintef.no/smm
Portugal	National Institute for Quality in Health	http://www.iqs.pt
Russia	Public Health Research Institute	
Spain	National health technology assessment centre established 1994 by Ministry of Health; also regional centres for Catalonia, Basque Country, Andalusia	
Sweden	SBU (Swedish Council on Technology Assessment in Health Care)	http://www.sbu.se/admin/index.asp
Switzerland	Swiss Science Council/Technology Assessment	http://www.ta-swiss.ch
UK	National Coordinating Centre for Health Technology Assessment	http://www.hta.nhsweb.nhs.uk.
	NICE (National Institute for Clinical Excellence) 1998 (*145*)	http://www.nice.org.uk
	SIGN (Scottish Intercollegiate Guidelines Network)	http://www.sign.ac.uk
	NHS Centre for Reviews and Dissemination	http://www.york.ac.uk/inst/crd
USA	National Guideline Clearing House	http://www.guidelines.gov
	AHRQ (was AHCPR) includes CONQUEST indicators database	http://www.ahrq.gov
	Center for Health Quality, Outcomes and Economic Research (CHQOER) Veterans' Administration (VA)	(under construction)
	Institute of Medicine publications available to read and download e.g. quality of long-term care, behavioural health, strategy	http://www.nap.edu/books

AHRQ works with the public and private sectors to:

- meet the information needs of its customers – patients and clinicians, health system leaders and policy-makers – to make more informed health care decisions;
- build the evidence base for effective health care and develop information, tools, and strategies to provide high-quality health care;
- develop scientific knowledge in these areas, but not to mandate guidelines or standards for measuring quality.

AHRQ sponsors the CONQUEST database (Computerized Needs-oriented Quality Measurement Evaluation System) for collecting and evaluating clinical performance measures. This is a public database, provided free to users, that gives access to about 1200 measures and links condition-specific treatment and service recommendations from guidelines to related measures included in the database. CONQUEST and its user's guide can be downloaded online at http://www.ahrq.gov/qual/conquest.htm.

Together with the American Medical Association and the American Association of Health Plans, AHRQ also sponsors the National Guidelines Clearinghouse (NGC). This summarizes recommendations from Agency-supported clinical practice guidelines and guidelines produced by many other developers. A web site makes evidence-based clinical practice guidelines and related abstract, summary, and comparison materials widely available to health care professionals (*143*).

The United States is working with the Russian Federation on several projects to improve the quality of primary health care in Russia. As part of this initiative, AHRQ worked with American and Russian colleagues to develop a *Health care quality glossary* (*144*). The glossary provides a common language for health care researchers and policy-makers to facilitate collaborative research on clinical quality improvement.

Agency for Health Technology Assessment and Research, Spain

The Catalan Agency for Health Technology Assessment and Research (CAHTA) was created in 1994, as a successor of the Catalan Office for Health Technology Assessment (COHTA) which had been created in 1991. As a nonprofit public agency affiliated to the Catalan Health Service, it assumed responsibility in 1999 for designing and implementing a new health research strategy for Catalonia. It is also a WHO collaborating centre for health technology assessment.

Canadian Medical Association

The web site of the Canadian Medical Association (CMA) includes a searchable database of some 2000 guidelines that have been produced or endorsed in Canada by a national, provincial or territorial medical or health organization, professional society, government agency or expert panel.

Center for Health Quality, Outcomes and Economic Research, USA

The Center for Health Quality, Outcomes and Economic Research (CHQOER) is one of 11 centres of excellence within the Veterans' Administration Health Services Research and Development Program in the United States. The Center's research concentrates on health quality assessment, outcomes measurement, and health economics.

Scottish Intercollegiate Guidelines Network

The Scottish Intercollegiate Guidelines Network (SIGN) was formed in 1993 to improve clinical care by developing, publishing and disseminating guidelines for good clinical practice. SIGN selects topics for guidelines on the basis of the burden of disease, evidence of variation in practice, and the potential to improve outcome. Over 40 guidelines have been published or are being developed.

National training initiatives and conferences

Policies and programmes for quality often refer to needs for changes in staff culture and for development of technical skills in quality measurement and change management. Delivery and coordination of that training often falls to existing programmes at

Table 1.29 Examples of national quality training programmes and conferences

Country	Programme
Brazil	Quality conference organize annually by Ministry of Health quality unit since 1995
Costa Rica	Three-level national programme for training in quality management: 3000 staff trained to level 1 (40 hours); 40 to level 3 (coordinators in every hospital and regional directorates)
Ecuador	National on-site training for local quality assurance teams organized by Ministry of Health 1996–97
Germany	Five-week certificate courses in quality management for doctors organized by federal medical chamber
Poland	Annual quality conference since 1995 organized by National Centre
Sweden	Annual quality and technology assessment conference

Table 1.30 Examples of journals of national societies

Country	Year	Title	Society
Canada	1988	*Canadian Journal of Quality in Health Care* (formerly *Quality Assurance*)	Canadian Association for Quality in Health Care
Germany	1996	*Gesundheitsökonomie und Qualitätsmanagement* (formerly *Qualität in der Gesundheitsversorgung*)	Gesellschaft für QualitätsManagement in der Gesundheitsversorgung
Italy	1986	*Verifica e Revisione de Qualita (VRQ)*	Società Italiana per la Qualità dell'Assistenza Sanitaria
Portugal	2000	*Qualidade em Saude*	Instituto de Qualidade em Saude
Republic of Korea		*Journal of the Korean Society for Quality Assurance in Health Care*	Korean Society for Quality Assurance in Health Care
Spain	1986	*Revista de Calidad Asistential* (was *Revista de Control de Calidad Asistential* until 1994)	Sociedad Española de Calidad Asistential
USA	1979	*Journal for Health Care Quality* (formerly *Quality Assurance*)	National Association for Health Care Quality
	1986	*American Journal of Medical Quality* (formerly *Quality Assurance and Utilization Review*)	American College of Medical Quality

subnational level and to national professional bodies. Examples of such programmes are given in Table 1.29.

National society journals

Some national centres distribute bulletins and newsletters about their work, as do national societies about their membership and current issues. Societies also sometimes publish formal scientific journals that provide a vehicle for exchange between professions, across the country and potentially beyond (see Table 1.30).

Discussion

For practical reasons of time and money, this review did not systematically analyse and compare stratified random samples of countries in WHO Regions. It was

based primarily on phenomenology – i.e., using issues that presented themselves readily from existing sources. This led to some of the biases inherent in this section, as follows.

- The culture of publishing and disseminating research and practice in health care and the content of free literature databases favour industrialized countries.
- Doctors tend to write more for peer-reviewed publication than other health professions, which, as a consequence, are relatively underrepresented.
- Clinical and management specialty journals were not systematically searched; national contributions of professional associations may be underrepresented.
- Most of the relevant content available via the Internet is in western European languages.
- In developing countries, few agencies outside government have resources to publicize their activities.
- The terminology of quality began to appear as keywords in publications and databases during the 1980s; phenomenology thus underrepresents earlier activities.

In an attempt to counter these biases, particular efforts were made to gather information from the developing world and from countries that are relatively silent about quality of health care. References have been given precedence if they are more likely to be accessible worldwide, thus favouring the Internet and international sources. The sources that yielded the most information were:

- intergovernmental organizations, especially WHO;
- international donor and executive agencies, especially QAP and the World Bank;
- international journals, especially the *International Journal for Quality in Health Care* (ISQua) and the *Journal on Quality Improvement* (JCAHO), formerly *Quality Review Bulletin*.

This review cannot be regarded as a complete representation of what has, or has not, happened in respect of quality in health care either in the industrialized countries or elsewhere. Nevertheless, some tentative observations may be appropriate.

Policy

Priorities for quality

Much of the research and development of quality in health care came from the industrialized countries, in particular the United States, and focused on hospitals, high technology and voluntary self-regulation. However, the first priorities in many developing countries are to develop basic health care, community services and public health. For example, in South America the main health problems were summarized as generally poor population health, lack of organized delivery systems, and regional epidemics of malnutrition and infectious diseases (*146*). Here, quality programmes tend to be driven by government and statutory control.

None the less, public, political and professional dissatisfaction with health services shows a consensus of global challenges. These relate particularly to access to and continuity of care, clinical effectiveness, patient safety, value for money, consumer responsiveness and public accountability. The industrialized world has thus begun to shift attention towards preventive medicine, primary care, consumer involvement and more explicit regulation by government and funding agencies through managed care and health networks.

Role of governments

One result of the converging agenda has been a growing debate on the best balance between top-down and bottom-up quality improvement: who decides the priorities and

on what basis. There is ample evidence that quality cannot be "inspected into" health care systems and that success requires a quality culture to be shared by managers and staff – particularly in the clinical professions, which are most resistant to regulation. But there is also evidence that internal mechanisms of organizational and personal development have repeatedly failed to ensure safety, efficiency, best practice and public accountability. Whether mechanisms for external regulation can effect quality improvement and whether they can be combined into a new format are questions for every country to consider. Currently, there is little evidence that regulatory systems have adopted continuous quality improvement principles (*147*), but Australia, Scotland and the United States seem to agree that both approaches need to coexist and to be actively integrated. Governments must work with independent bodies of consumers, providers, insurers and professions to improve health care.

National quality policies

Many governments support quality values such as access, equity, and effectiveness in general statements of policy, but few have published comprehensive strategies for quality improvement across the board. Proposals and plans tend to be specific responses to current problems rather than proactive, long-term, comprehensive blueprints which may appeal more to academics than to politicians. For those who may be considering adopting a similar route, it is unfortunate that the ultimate impact of national plans is not often recorded objectively or broadcast as widely as the original plans. Analyses of successes and failures of national quality planning could provide a valuable empirical base of evidence to guide future policy in many countries.

Over the course of more than a decade, various expert groups have developed recommendations on national programmes for quality improvement. These recommendations have great similarities over time and between different regions of the world. They are outlined in Box 1.1 and are further summarized in Appendix 1.10.

External development agencies

In many developing countries, the policy, organization and methods of quality programmes are shaped largely by external agencies, through funding or technical advice, often as part of a general package of health reforms.

The reflections on experience of quality assurance programmes in central America (*148*) are consistent with experience around the world, particularly as regards the difficulty of adapting pilot projects for incorporation into the mainstream of national policy and operations. In its strategy for health, nutrition and population, the World Bank notes, with respect to enhancing the performance of health care systems, that the life cycle of individual projects is 5–8 years, the length of individual staff assignments is 3–5 years, and the term of office of a minister of health is 1–4 years. Maintaining consistency of quality policy, however, is a problem that is not limited to developing countries.

BOX 1.1

National quality policy: summary of recommendations

Quality assurance should be incorporated into national health policies, programmes and strategies.[1.1,1.3,1.9] Government needs a vision and policy of quality with clear definitions of quality and quality assurance approaches.[1.8]

National health policy should include explicit statements regarding:

- necessary framework for policies, laws, and regulations concerning quality;[1.7]
- equity, affordability, sustainability and efficiency;[1.8]
- factors (medical, technical[1.4] or organizational) that influence the quality of care;[1.1]
- active involvement of consumers in developing indicators and standards for quality assurance in health care;[1.3]
- appropriate incentives for participation in quality improvement;[1.7]
- requirement of quality improvement systems as a condition for funding contracts with practitioners, hospitals, and health care organizations.[1.7]

Superscript numbers refer to the Appendices in which the recommendation appears.

BOX 1.2

Intercountry facilitation: summary of recommendations

Exchange of information and experience in quality improvement should be actively developed within and between countries.

Information and experience can be shared through:

- establishment of core groups at the regional and global levels to provide leadership in quality assurance in health care[1.3] and in research and evaluation;[1.6]
- involvement of associations or bodies interested in quality assurance in efforts to promote quality assurance in district health systems,[1.3] governments, health care organizations, medical schools, nongovernmental organizations and others;[1.5]
- consultative meetings to provide interest in quality assurance in health care, to exchange experiences, and to assess the progress of quality assurance in health care programmes in other countries;[1.3,1.5,1.6,1.9]
- integration of information to support organizations such as ISQua and WHO and their meetings;[1.6]
- communication between workers in the field by the circulation of newsletters and the use of electronic mail and bulletin boards;[1.6]
- development of guidelines to help countries implement a performance culture;[1.4]
- development of practical assessment tools at various levels of sophistication to facilitate intercountry assessment, comparison of performance and benchmarking;[1.4,1.5]
- training programmes for doctors, nurses and other health personnel in quality assurance in health care;[1.3] study tours, fellowships and attachment programmes between suitable developing countries.[1.5,1.9]

Superscript numbers refer to the Appendices in which the recommendation appears.

Intercountry facilitation

Recommendations from many of the workshops and expert groups, which are reproduced in Appendices 1.1–1.9, included facilitation from international bodies (see Box 1.2).

Structure and management

Countries with well-established quality programmes tend to support policy, executive and information functions at national level. These activities may be carried out by separate centres or committees, within or outside government, but include the following components.

- *Policy-making*: a formal mechanism by which consumers, purchasers, providers, professions and government contribute to developing and sustaining a comprehensive, integrated and long-term policy on quality.
- *Executive function*: technical unit for development of national standards, measurements, audits, and training.
- *Information sharing*: collection and dissemination of national and international experience, techniques, data and references.

Governmental strategies need to identify and support the contributions of consumer, professional, academic and other independent organizations to the national programme. Some recommendations from workshops and expert groups, contained in Appendices 1.1–1.9, are summarized in Box 1.3.

Quality tools and methods

The tools and methods commonly used in quality assurance around the world are described in Section 2. However, the priorities and resources of individual countries determine which tools and methods are appropriate locally. Even if they could be improved by technology, data linkage and funding, many quality tools such as patient surveys, indicators and guidelines (available via the Internet) can be applied at minimal cost if there is the will to use them.

Resources

Training

Successful quality programmes depend more on behavioural science than on technical solutions. It is essential to accommodate cultural differences and attitudes when planning the training and management of human resources. National plans often mention this requirement without identifying or funding who is to be responsible for it. The need for training in quality improvement is the one issue that every work group agreed to be a priority (see Box 1.4).

BOX 1.3

Structure and management: summary of recommendations

Quality improvement systems should be set up at all levels of care provision: individual care providers, practices, hospitals and other institutions, and at the interfaces between them. The same requirements for health care quality assurance should be established in all public and private health institutions.[1.7]

Formal structures should include:

- support structures, such as agencies, boards, committees, and networks;[1.7] national regulatory body for technology (equipment, drugs);[1.4]
- national resource centre for the collation and dissemination of comprehensive comparative information on performance (quality, quantity, cost and value for money);[1.4] a focal point for the collection of information from within the country as well as from other countries;[1.6] representation from other sectors, nongovernmental organizations, teaching and research institutions and professional groups.[1.3]

Management processes should include:

- designated leadership, accountability, supervision, monitoring and communication of quality at subdistrict, district, regional and national levels;[1.2–1.4,1.8]
- public accountability through reporting of quality improvement systems through objective external assessment by independent bodies;[1.1,1.7]
- dissemination of quality information to civic groups with an interest in health, such as women's groups, health educators, legislators and mass media;[1.5]
- coordination of multidisciplinary quality assurance projects using common protocols on such topics as perioperative, maternal and perinatal deaths and iatrogenic drug reactions;[1.1]
- regular, systematic feedback of data on important process and outcome measures to individuals, organizational units and organizations.[1.2]

Superscript numbers refer to the Appendices in which the recommendation appears.

BOX 1.4

Resources: summary of recommendations

Countries contemplating a national quality assurance programme must commit the fiscal resources necessary for personnel and data systems to conduct effective quality assurance activities.[1.2]

These resources include:

- use of the Internet between individuals and countries, as well as through bulletin boards specifically designed for such exchange;[1.6]
- uniform medical data, including financial information, so as to identify a uniform minimum data set of quality indicators and variations in the results of medical care;[1.1,1.2] adequate medical records systems;[1.2]
- active, systematic integration of staff training for quality improvement into undergraduate and continuing education;[1.1–1.8]
- support from medical colleges and other health and research institutions for district hospitals and health centres in upgrading the skills and knowledge of their staff in quality assurance in health care;[1.3]
- identification and funding priority research related to quality assurance.[1.1]

Superscript numbers refer to the Appendices in which the recommendation appears.

Information

For quality improvement to be effective, people need information about their own practice, clinic or hospital and about best practices and how to adopt them. At local level, routine data are often rejected as inaccurate, incomplete or too late for quality improvement; the more frequently they are rejected, the more unreliable they become.

It used to be said that sharing best practices was not feasible because they were either not defined scientifically or were not accessible. While it remains true that much clinical practice has yet to be rigorously evaluated, plenty of robust guidelines are now available throughout the world. Such guidelines have become part of the body of scientific knowledge, free of copyright, and their dissemination has become institutionalized through health technology assessment centres and the Cochrane Collaboration.

Comparable evidence, tools and standards for quality improvement are less accessible. They may be commercial property rather than scientific knowledge; if so, the world should be especially grateful to those who freely share their information.

Conclusion

Collectively there are many activities, experiences and resources for quality improvement, but they are not shared effectively. The evidence base for clinical practice and technology has been well identified, aggregated and disseminated through institutional channels, but this review shows that it is relatively difficult to identify good, mediocre or even bad practice in quality improvement around the world. Free access to practical tools such as basic examples of local quality policies, organization, measurement methods and terminology would be a major contribution to global quality.

Perhaps the most cost-effective step for national and international organizations to take in order to promote quality in health care is to make basic tools available on web sites. Local organizations should then ensure that staff are able to access them through the Internet.

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SECTION 2

Quality concepts and tools

Summary

There is no international classification of quality tools, but improvement is often presented as a cyclical process of defining standards, measuring against them and implementing change.

- Many management concepts adopt the complete cycle as a continuous process.
- Most practical tools focus on either standards or measurement; many were developed for specific aspects of health care (such as clinical practice or service delivery) and are presented under those headings.
- Failure to manage change in the behaviour of people and organizations is the most common cause of ineffectual quality initiatives. Unlike standards and measurements, the problems of managing change and the solutions to them are very similar within and between health care organizations.

Management concepts

The words used to describe quality in health care, and the thinking behind them, vary between countries and over time. This variation reflects a shift in health care policy – such as that from hospitals to networks and primary care – and in perceptions of what constitutes quality in health care. The focus is moving from institutional regulation to integrated health system development: that is, from static control to dynamic improvement.

Standards and measurements

Examples of measurement processes, explicit standards and their underlying values – often unspoken – are given under nine broad headings according to how they are used and by whom.

- Population and community: public health maintenance.
- Consumers, users and clients: patients' expectations and experience.
- Staff welfare: personal and social health and morale.
- Staff competence: achieving and maintaining individual knowledge and skills.
- Clinical practice: defining and testing effectiveness against scientific evidence.
- Service delivery: managing a good organization.
- Risk, health and safety: promoting a safe environment for health care.
- Resource management: avoiding waste of skills, time, materials and money.
- Communications: internal and external information and records.

Implementing change

The challenges in setting standards and measuring against them are mostly technical; the challenges in making appropriate change are social and managerial. Sustainable quality needs a supportive environment of leadership, clarity of purpose, and organization. Practical routes towards change to improve the quality of health care services include:

- information: feedback on performance; benchmarking with peer groups;
- staff support: avoiding blame; providing training;
- incentives: motivating for improvement;
- systems: re-configuring; re-engineering towards population and patient needs;
- public involvement: obtaining support for change through consultation and transparency.

Resources for quality improvement

When asked what would most improve quality in health care, many clinicians and managers quickly reply, "more staff, more equipment, more money". This review has found little empirical evidence to support this reaction, but some basic needs are evident.

- Time: regular opportunity for systematic reflection with colleagues.
- Data: access to relevant, accurate, complete and timely data.
- Information: academic and practical guidance on standards and measurement.
- Skills: quality coordination, technical skills and training in methodology.
- Money: for basic tools, information and training.

Purpose and scope of Section 2

There are many comprehensive textbooks and journals on health care quality in general and on specific techniques and experiences. Many of these are aimed at readers in countries where data systems, information networks, communications and other technical support are widely available. This section catalogues and gives further references to the use and limitations of simple but effective tools, especially those that are commonly used in countries without access to sophisticated resources.

Readers may be fairly new to the concepts and practice of quality improvement systems rather than specialists in the subject. The section aims to be relevant and helpful to clinicians and managers working in local health services as a practical introduction to quality in health care.

Methods

Specific elements

This section uses the key points of the cyclical process of quality improvement (defining standards, measuring against them and implementing change) to classify tools according to their function (see Appendix 2.1).

- **Quality management systems**. Most management concepts imply the inclusion of the complete cycle as a continuous process for both internal and external quality improvement.
- **Specific tools**. Many tools that tend to focus on either standards or measurement were developed for specific aspects of health services (such as efficiency, patient satisfaction or staff competence) and are used by specific groups (such as public health planners, nursing staff or personnel departments). A "good" health service means different things to people with different values. These values are what drive people to want to improve different aspects of health care; the tools they need are grouped in this section according to: population and community; consumers, users and clients; staff welfare; staff competence; clinical practice; service delivery; risk, health and safety; resource management; and communications. These headings are not mutually exclusive; some tools, such as indicators, are used in several settings, and some staff groups use several methods. Ideally, the full range of values, standards, measures and management would be integrated within any organization.
- **Managing change**. Failure to change the behaviour of people and organizations is the most common cause of ineffectual quality initiatives. Unlike standards and measurements, the problems and solutions for managing change are very similar within and between health care organizations.

Sources used

Potential sources were sought by a combination of manual and electronic searches of journals, information products of government and academic centres and international organizations, and grey literature. The electronic literature indexing services used included MEDLINE, Datastar, and International Community Abstracts. Further sources were identified from web sites (in particular those of government agencies, public health observatories and overseas aid organizations), publications lists (especially WHO workshop and meeting reports), international conference proceedings (especially those of ISQua and the British Medical Journal/Institute for Healthcare Improvement European Forum) and local hard-copy collections.

Potential target documents were given priority for retrieval if the titles (and abstracts, if available) indicated that they were:

- published since 1990;
- reviews rather than primary research;
- authoritative and comprehensive;
- relevant to an identified country or group;
- from developing countries or countries in transition;
- likely to contain specific quality tools.

Quality concepts

The words used to describe quality in health care, and the thinking behind them, vary between countries, between stakeholders and over time. This variation reflects a shift in health care policy – such as that from hospitals to networks and primary care – and in perceptions of what constitutes quality in health care. These perceptions can be summarized as beginning with "hospital quality assurance", moving to "health care quality improvement" and heading for "population health improvement".

The specific tools used for quality improvement in health care depend on local and national priorities, but some global concepts are generally applicable. In general, improvement may target processes (such as infection control), systems (such as clinical indicators) or strategies (such as health reform). These concepts are not in themselves tools for developing, measuring or improving standards, but they provide overall frameworks for quality improvement. Many of them derive from manufacturing and service industries whose values and methods have been adapted to health care.

There is no definitive international classification of these concepts, and, even where there are clear differences, the words are often used interchangeably. This section does not aim to resolve the debate about quality models, but to outline the concepts and to highlight more detailed descriptions.

Quality management systems

Quality control

Early, simple initiatives relate quality to compliance with predefined, measurable standards. The concept of quality is readily applied to mechanical systems, such as in laboratories or radiology, in order to control processes within acceptable limits. The Quality Assurance Project (QAP) links this with monitoring to enable health care workers and their supervisors to know if they are complying with essential standards, and thus whether the care is likely to be effective. Such monitoring systems have been developed in Bolivia, Ecuador, Honduras and Nepal. QAP's approaches are explained in its *Health manager's guide – Monitoring the quality of primary health care* (*1*).

Quality assessment

Quality assessment compares performance with expectations, standards or goals and thus identifies opportunities to improve. However, it does not suggest imposing solutions and does not require any declared intention or ability to take corrective action, and it relies upon available measurements (*2*).

Quality assurance

In Western countries, quality assurance (QA) became the common term during the 1980s and served well with the Donabedian concepts of examining health care quality as an element of structure, process and outcome. It fitted an era in the Western world when quality was widely assumed to be standard in health care and merely needed to be confirmed, but many later discarded the term because it was too static and suggested a guarantee that quality assurance systems might not fulfil. Many established journals, including that published by ISQua, changed their titles, but others kept the term as a generic description for common approaches going by a diversity of names or for use in specific connections such as transfusions, equipment and supplies. QAP defines quality assurance as all activities that contribute to defining, designing, assessing, monitoring, and improving the quality of health care.

In Japan, where quality assurance has been learnt from the industries that established the current concepts of quality improvement (KAIZEN) and total quality management,

quality assurance means "to assure quality in a product so that a customer can buy it with confidence and use it – with confidence and satisfaction" (Kaoru Ishikawa). Quality assurance has been always the primary concern of quality initiatives, but the vehicle has evolved from "quality by conformance" towards "quality by design" and "quality by management".

Total quality management

Total quality management (TQM) came to Western countries as the antidote to quality assurance projects that were viewed as fragmented and insufficiently integrated into the process of management. Total quality management is based on participation of all members of an organization and aimed at long-term success through customer satisfaction and benefits to all members of the organization and to society itself (*3*). It implies a comprehensive system linking all processes in departments at all levels and also a concerted effort of leadership and staff. Total quality management allows management to intervene in quality of care, which has been considered a sanctuary of the medical professions; where it has been adopted as a tool for control or regulation, it scarcely appeals to clinicians, who stoutly defend their professional independence.

Elements of total quality management include standardization, routine management, policy management, continuous quality improvement, quality design and quality assurance systems. The core values of total quality management have recently been incorporated in government policy on quality in health care, particularly in Europe and South-East Asia, as well as in the criteria of the Malcolm Baldrige Award and ISO 9002 (2000 version).

In Western health care, some of those who tried total quality management found difficulties in sustaining their programmes. It has been suggested that in health care the approach may be more applicable to internal group projects than to organization-wide programmes, in contrast to other industries (*4*).

Quality improvement

With mounting evidence that quality could no longer be taken for granted, the emphasis moved from assurance of the status quo towards active efforts to identify weaknesses as opportunities for improvement. Even that, some argued, might be only a one-step benefit: it ought to be more dynamic and continuous, reaching for ever-higher levels. In this way, the closed quality cycle would become the open quality spiral.

Non-randomized studies suggest that, in 16 hospitals reviewed, the main advantages of continuous quality improvement (CQI) were in cost reductions rather than outcomes, but this has not been confirmed by randomized trials (*5*). A survey of leaders and experts in the United States suggested that continuous quality improvement has succeeded in moving attribution of blame for failures away from individuals and towards systems and has put new emphasis on the customer, but that it remains to show benefit to the United States health system overall (*6*). A cluster of papers in the ISQua journal (from France, Israel and the United States) debated the sustainability of continuous quality improvement in health care, generally concluding that it can be effective and sustained if it is used correctly in a receptive environment (*7–10*).

Quality of care development

In the early 1990s, the WHO Regional Office for Europe moved from quality assurance to an emphasis on quality of care development (QCD) as a dynamic process that identifies and uses the best health care outcomes to achieve superlative practice, encompassing the general concepts of quality control, assessment, improvement and assurance. In the late 1990s, the emphasis switched from improving clinical practice and the

use of individual centres of excellence to the development of more generic models, quality health systems and countrywide frameworks. Thus arose the current focus on quality health systems (QHS).

Clinical governance

Other variants would drop the word "quality", as it is already implicit in the idea of improvement, and prefer to reaffirm the focus on health care. Current government policy in the United Kingdom seeks, through clinical governance, to integrate the management approach to quality assurance, promoted in the mid-1980s, with the professional approach to clinical audit that was promoted in the early 1990s. The term implies the comprehensiveness of total quality management but not the dynamic emphasis of quality improvement; although governance originally meant steering, it now implies administration and direction, an echo of quality control.

Some pragmatists believe that academic and commercial rivalries and rapidly changing fashions in jargon merely distract attention from the common purpose: they alienate and confuse. As Saturno pointed out, in a preface to a series of country reports on quality assurance, continuous quality improvement and total quality management, "the important thing is to know what they do, not what they call it" (*11*).

External assessment

A project funded by the European Union (*12*) identified systematic approaches that link national (or international) standards to local practice and have been applied to private or public health care. These approaches have been systematically compared in a number of studies of standards and methods used by programmes based on industry (such as ISO certification and the Baldrige model) and health care (for example, peer review and accreditation) (*13–16*). The 1997 Joint Commission standards have been mapped line by line to the 1995 Malcolm Baldrige criteria (*17*). Licensure, certification and accreditation – of individuals and of organizations – are analysed in the context of developing countries in a QAP monograph that may be downloaded from the Internet (*18*). Except for statutory inspection, each programme is, to varying degrees, voluntary and independent and uses explicit standards to combine internal self-assessment with external review by visits, surveys, assessments or audits (*19*).

Peer review

Reciprocal visiting is driven by professional and often unidisciplinary organizations and has a long tradition as a form of peer review – especially for the recognition of training posts. It has also been applied to service development, such as in the hospital specialties programme in the Netherlands (*20*). The basis of assessment is primarily clinical, confidential and less explicit than the standards and processes of other models.

Accreditation

The term "accreditation" (applied to organizations rather than specialty clinical training) reflects the origins of systematic assessment of hospitals against explicit standards; it began in the United States in 1917 as a mechanism for recognition of training posts in surgery. This independent, voluntary programme developed from a focus on training into multidisciplinary assessments of health care functions, organizations and networks (*21*).

The Joint Commission model spread first to other English-speaking countries and Europe, Latin America (*22*), Africa (*23, 24*) and the Western Pacific (*25*) during the 1990s. PAHO and the Latin American Federation of Hospitals collaborated from 1987 to develop

standards and a system that would be applicable throughout the Americas (*26*). Mandatory programmes have recently been adopted in France (*27*), Italy (*28*) and Scotland (*29*).

At least 28 countries now have an operational accreditation programme; most of these are described in Section 3 of this report. Several of the established programmes provide development support to other countries, but only Joint Commission International (JCI) also offers external accreditation. An international task force developed the JCI standards for application worldwide (*30*).

Accreditation is usually performed by a multidisciplinary team of health professionals and is assessed against published standards for the environment in which clinical care is delivered. Internet versions are available for the Brazilian and ANAES programmes. The standards adopted nationally usually derive from an amalgamation of national statutes, governmental guidance, independent reports, overseas accreditation standards, and biomedical and health service research. Their content and structure can be applied in many settings, as described in a WHO report in 1993 (*31*).

In general, standards are tailored to individual countries, but there is a growing trend towards consistency with other countries and with other standards such as EFQM and ISO. One step in this convergence was a meeting in Treviso, Italy, in 1994, when 17 existing and developing national programmes began to share their experiences (*32*). Similar meetings became an annual feature of ISQua conferences and led to the development of the ISQua Agenda for Leadership in Programs for Healthcare Accreditation (ALPHA). This programme has published common principles for assessment standards and for accrediting the accreditors, which are available on the Internet (*33*).

Although this review concentrates on generic, national programmes, accreditation is also used by professional and independent organizations for voluntary development of specialist functions or services such as patient records, palliative care, oncology, emergency services, cardiology, gastroenterology, psychiatry, obstetric ultrasonography, nuclear medicine and diabetes care. Specialty programmes of accreditation and ISO certification, often combined, are common in clinical laboratories. One example, Clinical Pathology Accreditation (UK), provides current standards on the Internet (*34*).

The WHO meeting in St Johns, Newfoundland, Canada, in 1995 focused on the applicability of different quality assurance methodologies in developing countries (see Appendix 1.6). Participants deemed accreditation to be the single most important approach for improving the quality of health care structures, but they noted that its impact on basic health services in resource-poor countries had not yet been widely tested or evaluated (*35*).

The Malcolm Baldrige model for quality management

The Baldrige criteria for management systems (*36*) have evolved from the United States into national and international assessment programmes such as those in Australia (*37*) and Europe (*38, 39*). Health care providers may voluntarily assess themselves or be assessed against explicit performance standards. The standards were designed for service industries in general, but the revised 1999 EFQM model identifies specific domains of results equivalent to clinical outcome and patient and staff satisfaction. It also provides a transparent framework on which organizational standards may be mapped. Several countries, particularly in Scandinavia, have introduced their own national quality awards based on the European framework.

International Organization for Standardization

The International Organization for Standardization (ISO) (*40*) developed a series of standards for service industries (ISO 9000) that has been used to assess quality systems in specific aspects of health services. Since these standards largely relate to administrative procedures rather than to clinical results, ISO standards have been used more

frequently in mechanical departments such as laboratories (EN 45001), radiology and transport, but have also been applied to whole hospitals and clinics. ISO has also published a glossary of quality management in ISO 8402.

In each country, a national body tests and recognizes – i.e., accredits – independent agencies as competent to certify organizations that comply with the standards. The audit process tests compliance with standards and is not intended in itself to be a tool for organizational development. A revised version of the ISO 9000 standards, issued in 2000, is moving closer to the development model of EFQM and accreditation, and an interpretation of the standards has been developed in Switzerland (*41*).

ISO is building on an initiative from General Motors to develop guidelines for implementing ISO 9000 quality management systems in the health care sector. The proposed guidelines will become ISO/ITA.1 – the organization's first Industry Technical Agreement. The agreement will be based upon a quality management system standard (ISO 9004:2000). While it is envisaged that ISO/ITA.1 could be used in the design or improvement of quality management systems in the health care sector, themselves certifiable to ISO 9001:2000, ISO/ITA.1 is not intended for use in third-party certification.

Statutory inspection

Most countries have statutory inspectorates to monitor compliance, especially with respect to environmental safety, and these are linked to the licensing of practitioners, clinics and health care institutions. The assessments are based on published regulations, which has the advantage that they are in the public domain and the disadvantage that, as statutory instruments, they are less demanding and specific than voluntary standards and not easily updated. Typically, such regulations relate to fire, hygiene, radiation, medical devices and medicines, but some countries include infection control and blood transfusions.

International views on external quality systems

Several countries have recently commissioned studies of their own mechanisms for the external development and assessment of service standards. Each review concluded that a balance of public and independent systems was desirable, and recommended coordination by national or local government in order to ensure valid standards, reliable assessments, consumer involvement, demonstrated quality improvement, transparency, and public access to criteria, procedures and results.

United States of America

In 1998, the President's Advisory Commission on Consumer Protection and Quality in the Health Care Industry (*42*) recommended that detailed specifications for quality measurement and reporting should be determined through a "stable and predictable mechanism" in the form of a Forum for Health Care Quality Measurement and Reporting. This would aim to bring together the existing private, professional and public mechanisms, including state licensing bodies, private sector accrediting bodies, Medicare/Medicaid compliance determination bodies, the Department of Labor, and organizations providing certification and credentials. Together they would develop common core sets of quality measures, standardize assessment processes to allow reciprocal recognition, ensure consumer representation, and make standards, assessment criteria and decisions available to the public at little or no cost.

Australia

Also in 1998, a report by a national expert advisory group for the Australian Commonwealth Government (*43*) similarly recommended that, by agreement with the state governments, independent accreditation, certification and award programmes should

be encouraged (or even made mandatory), as long as they reflected consumer issues in standards and assessment processes.

The report noted: "Measurement and assessment against a set of organizational standards is well established in Australia through the work of the Australian Council on Healthcare Standards (ACHS) in the hospital sector and the Community Health Accreditation and Standards Programme (CHASP, now Quality Improvement Council (QIC)) within the community health sector. There is a growing interest in quality systems that are more commonly used by other industries such as the manufacturing and service industries, which offer more generic, but internationally recognized, certification against standards. In the main, these are the Australian Quality Awards criteria (AQA) and the International Organization for Standardization (ISO). While it is acknowledged that AQA and ISO do not have strong standards for clinical quality, the trade-off is judged by these organizations to be necessary, in order to establish the organizational and cultural infrastructure to support clinical activities."

The summary recommendations included:

- Accreditation or certification of health care organizations should be strongly encouraged with incentives, or indeed made mandatory, but choice of accreditation/certification/award approaches should be allowed. Whatever the mechanisms adopted, accreditation of health care organizations should require processes for continuous improvement, and achievement of quality enhancement outcomes.
- The Australian Council on Healthcare Standards and other accreditation bodies should ensure that expertise in consumer issues be included in all levels of accreditation processes.

Scotland

Chapter 8 of the *Acute services review*, published in 1998 (*44*), focused on the organization of quality management in the Scottish Health Service and led to the establishment of the Clinical Standards Board. It recommended a national quality assurance and accreditation system that would be concerned with *clinical* quality (patient-focused and disease-focused) and complementary to existing processes (mainly institution-focused).

External quality mechanisms should support internal ones by sharing ideas across organizations, increasing individual and group morale through external recognition of achievement and through greater objectivity and consistency of approach across organizations. Much NHS time and effort was already invested in a range of mechanisms including accreditation (of hospitals and diagnostic/screening services) and the application of EFQM, but these did not generally touch on clinical practice even though evidence-based guidelines and audit tools were available.

The review concluded, "The challenge is to develop a system of accreditation that promotes both continuous quality improvement and public reassurance, thus avoiding wasteful duplication of data collection and assessment, whilst preserving the strong sense of commitment within the Health Service to improving standards". Specifically, it recommended that a Scottish system should be built on existing developments and be more coordinated, sensitive to patients' needs, and relevant to clinical practice. Moreover, there should be a common framework on which accreditation of all aspects of care should be based.

Common ground

There are common concerns about how organizational standards are defined and measured, and how effectively the existing systems support internal quality improvement while also providing public accountability and information. There are also common arguments for consistency within countries and within trading regions. Countries will have to adopt common core standards and assessment processes, however, if there is to be consistency and compatibility at national and/or international levels.

Quality tools

A vast array of tools has been used to improve health care quality. Most of the tools cannot stand alone: they need to be part of a cycle of standards, assessment and change management if they are to be effective. Some require complex organization, technology and record linkage; others require little more than pencil and paper. For best results they all require a positive attitude and a commitment to improvement.

Examples mentioned here are mainly those that presented themselves from recent literature and that appear to be practical options for most countries, based on their application around the world. On the basis of the theoretical map in Appendix 2.1 they are arranged under nine functional themes that broadly represent common views on what constitutes a "good" health service and are often, in real life, the responsibility of different organizations and departments. The art of quality improvement lies in bringing together the science of these approaches, many of which could be more widely shared even within a single organization.

Although these themes have fairly specific and characteristic values, standards and assessment processes, they generally share the same tools when it comes to implementing change. For this reason, standards and assessment are reviewed separately under each of the nine themes, but approaches to improvement and closing the quality loop are reviewed together.

Population and community

Values

Several assumptions about health and health care underlie quality improvement at population level. These include:

- health brings social, economic and military advantages;
- population health is determined largely by factors of lifestyle and environment; curative and palliative care have relatively little effect on it;
- resource allocation should give priority to the maximum benefit of the community rather than of individuals;
- prevention is better (and cheaper) than cure;
- health care is a human right.

The Declaration of Alma-Ata, in which primary health care was defined as the foundation of health services, has been widely adopted. This strategy reflects that prevention and early detection of ill-health are more effective at population level than treatment; that primary care is more economical and more accessible than hospital care; and that the large majority of health care contacts are in the community rather than in hospitals.

Health care is widely regarded as a human right. For example, Article 3 of the Convention on Human Rights and Biomedicine requires contracting parties to provide "equitable access to health care of appropriate quality", and Article 11 of the European Social Charter implies that health care of good quality is a fundamental right of every individual and every community.

Thus, quality improvement at population level implies striving for accessibility to services, equality between and within communities, and overall system effectiveness and efficiency of utilization.

Standards

The definition of "good" public health is generally inherent in published national policies that are appropriate to the local population, based on epidemiological needs assessment (*45, 46*), and general principles such as WHO's Health for all strategy, which

includes over 200 indicators for health-related outcomes and health services (*47*). Some countries, such as Lithuania (*48*), express these as explicit and quantifiable targets to be achieved within a stated time and include tools for assessing the results.

Measurement

Basic population health data include registration of births and deaths, and reports of notifiable diseases, which can be related to population profiles obtained by census, commonly every ten years. Environmental and social data may be gathered by household surveys and usually include factors known to influence health status, such as sanitation, housing, education and employment.

Types of national statistics available from the WHO web site (*49*) include mortality (infant and maternal), social and economic information (life expectancy, per capita income, education and malnutrition) and health services data (immunization and expenditure). This site also includes a series of discussion documents on the development and application of WHO's framework for health systems performance assessment. Data on developing countries are also available from USAID's Center for International Health Information (*50*). More complex measures are exchanged by the European Public Health Information Network (EUPHIN).

Data on health service structure (such as personnel, medications, equipment and buildings), processes (such as attendances, immunizations, admissions and operations) and outcomes (such as complications, readmissions and live discharges) are commonly collected at local, regional and national levels. The information can be aggregated to provide comparisons over time and between communities, but poor data quality and the influence of confounding variables often limit the interpretation of such comparisons.

If the aggregated data are complete, timely, accurate and adjusted for case-mix, they can become the basis for health service performance indicators (such as in Chile (*51*) and the United Kingdom (*52*)) and national disease registers (such as in Denmark, Finland, Germany and Sweden (*53*)). However, this is a major undertaking. Age-standardized time trends for avoidable mortality in the Czech Republic and Hungary have been compared with selected industrialized countries (*54*). Some national uses of population-based indicators are shown in Table 2.1.

Table 2.1 Uses of population-based indicators

Country	Topic	Description
Canada	Record linkage (*55*)	Linkage of routine administrative data between health facilities identifies patients seeking follow-up in another centre and shows the need for population-wide analysis, especially across distinct urban and rural communities
India	Reproductive health (*56*)	The USAID-funded National Family Health Survey of all 26 states demonstrated improvements between 1997 and 1999 in reproductive and child health: women registered for antenatal care rose from 70% to 97.4%, deliveries by trained personnel rose from 51% to 80%, and immunization cover rose from 43% to 73%
Indonesia	Primary care (*57*)	Baseline data on leading causes of death (from 1992 Household Health Survey) led to the adoption of explicit standards in primary care. Compliance was assessed by peer review and reinforced by frequent visits of a "circuit rider" to maintain enthusiasm
Netherlands	Cervical screening (*58*)	A new strategy for organizing cervical cancer screening was assessed according to adherence by general practices to 10 recommendations (in 4 guidelines). Benefits of national coordination, computerization, delegation to practice assistants, and intensive follow-up support were demonstrated
Nigeria	Hypertension (*59*)	Epidemiological data were used to estimate the prevalence of hypertension in adults to be >11%. After national discussions, consensus was obtained on the adoption of national management guidelines

A quality of care indicator can be defined as "a variable or parameter that can measure changes in a phenomenon directly or indirectly in a valid, objective, sensitive and specific way" (*60*). Such measures have been used as a quality-improvement tool (*61*) or to assess the impact of policy initiatives. For example, in Ghana (*62*) the introduction of user fees in the late 1970s resulted in a considerable reduction in the use of health care.

Population-based indicators have also been used in the accreditation of health care networks. In the United States, NCQA undertakes assessment and reports on the quality of managed health care plans (*63*), providing information that enables consumers and purchasers to distinguish between plans and make informed choices. Report cards are based upon set standard performance measures developed by NCQA and known as HEDIS (Health Plan Employer Data and Information Set).

In the industrialized world, advances in public health and medical care and successes in reducing mortality rates have inadvertently increased the burden of chronic diseases. It is therefore necessary to develop tools to assess the impact of long-term care. A study in the Netherlands demonstrated that 80% of unhealthy years are accounted for by people with chronic somatic or psychiatric illnesses (*64*). The study also concluded that the interrelationship between quality of life and quality of care must be explored in order for health services and provision to be appropriately targeted. Quality assurance in chronic care should include not only traditional measures of mortality and clinical indices but also a wide range of health assessment that incorporates both needs assessment and outcome assessment.

Consumers, users and clients

Values

An increasingly dominant aspect of quality improvement is the involvement of patients and their families in what was once seen as the domain of clinical professionals. This is the result of several beliefs, including:

- lifestyle significantly affects the health of individuals;
- compliance with screening and treatment requires the commitment and understanding of patients and often also their families;
- the general public has become better informed and less trusting of the professions;
- a satisfied paying patient is a commercial asset;
- users increasingly assert moral and legal rights to consent and to make informed choices;
- patients have responsibilities as well as rights.

Thus, quality improvement is becoming more focused on health education, patient empowerment, comfort, complaints mechanisms and continuity of care. The concept of system "responsiveness" to population and individual needs is emphasized in *The world health report 2000* (*65*). With these patients' rights come also more explicit responsibilities for their own health and care.

Standards

Consent by a patient to treatment is a common (but not universal) legal right, and law courts have progressively tightened the understanding of "informed consent". Protection of patients is also often defined by laws on freedom of information and on the general protection of consumers and their data. Checklists can define privacy and confidentiality of identifiable data (*66*).

Some governments and health care providers seek to make patients more aware of their rights – and to increase their sometimes very low expectations – by publishing

patients' charters. Acceptable and effective standards must be set and reviewed by consumers and professionals in partnership (*67*).

Measurement

The experience and expectations of consumers with regard to these standards have been variously assessed by the following mechanisms.

- User groups: systematic qualitative analysis as a basis for planning and evaluating services (*68*). In New Guinea, focus groups, selected from two rural communities, identified 44 criteria for the evaluation of primary health care covering staff technical competence, interpersonal relations, resources, accessibility and effectiveness of care (*69*).
- Local registering of complaints and compliments: systematic encouragement of patient feedback, analysis and reporting of results.
- Appeals to national complaints authority: investigation, arbitration, analysis and national publication by health services ombudsman.
- Monitoring of patients' charter indicators: collection and publication of measures such as waiting times for appointments and admissions.
- Inclusion in clinical audit: mental health service clients have been involved in selecting topics, defining criteria and appraising care (*70*).
- Inclusion in external inspection teams: the Commission for Health Improvement (UK) trains and deploys lay members of review teams.
- "Mystery clients": Haitian housewives were trained to visit and assess family planning clinics without prior notice (*71*).
- Surveys of experience and satisfaction: these range from local pencil and paper surveys outside a clinic to national stratified sample surveys (e.g. on coronary heart disease, United Kingdom (*72*)). Some examples are given in Table 2.2. There is growing consensus that asking patients what they experienced is more informative than asking whether they were satisfied, but a review of 195 published studies suggested that few of the investigations used methods that were both valid and reliable (*87*).
- Health status measures: self-reporting of validated questions on physical, mental and social functioning (see Table 2.3).
- Use of public health data on health system responsiveness, e.g. OECD (*102*).

Staff welfare

Values

Attention to staff welfare (as opposed to competence) is rarely included in quality improvement programmes, but there is a case that it should be, for the following reasons.

- Staff pay is the largest single revenue cost in health care – commonly accounting for 70% of expenditure in Western hospitals but much less in developing countries (except when drugs and consumables are provided by the patients themselves and their families, thus reducing these costs to hospitals).
- Low morale is visible to patients and expensive in turnover and absence rates.
- Sick staff can be a threat to patients and to the organization.
- High morale can compensate for low staffing levels.

The EFQM framework, derived from the business excellence model, ranks staff views as a key result of a successful organization, alongside customers and society.

Table 2.2 Satisfaction surveys

Country	Topic/Focus	Measurement tools
Estonia	Primary care (*73*)	Face-to-face structured interview of random selection of residents. Showed that half were unaware of nature and intent of primary care reforms, and that personal choice and a good patient–doctor relationship increase patient satisfaction
France	Hospital (*74*)	A 26-item scale covering medical information, relationship with staff and daily routine. Found to be a reliable and valid indicator of patients' opinions on quality of care in France
Greece	Parent satisfaction (*75*)	Creation of a 22-item instrument to assess parent satisfaction with quality of care at a children's hospital. Questionnaire administered face-to-face in a standardized fashion
Japan	Hospital care (*76*)	Assessment of: satisfaction with hospital care, satisfaction with outcome of care, intention to use hospital again, recommendation of hospital to others. Showed satisfaction with technical care was age-related
Oman	Primary care (*77*)	Client perceptions assessed either in community (away from health care facility) or by exit interviews of patients, using locally developed questionnaires. Measures included: waiting time, waiting area, privacy, toilet facilities, technical facilities, and doctor's communication skills. Patients were more critical of health care services when interviewed outside the health facility
Papua New Guinea	Primary care (*78*)	A 20-item questionnaire on care delivery, personnel and facilities was tested for reliability and validity. This confirmed the need to take into account the diversity of how quality is perceived by people in developing countries
Poland	Outpatient clinic (*79*)	Survey of 2000 patients in Crakow showed feasibility of systematic patient-reported information
Saudi Arabia	Primary care (*80*)	The heads of 800 households were interviewed. Satisfaction correlated with the purpose-built clinic accommodation, literacy of the respondent, and frequency of service usage
Slovenia	Primary care	Researchers used a European standardized instrument (*81*) to evaluate care in 36 practices. Showed that satisfaction was high except for waiting times and communication skills (*82*)
Sweden	Psychiatric hospital (*83*)	Patient–staff empathy was perceived as the most important characteristic
Thailand	Hospitals (*84*)	Patient satisfaction in this study was highest with non-profit-making hospitals. Social security patients had the lowest satisfaction with outpatient care
UK	Nursing care (*85*)	Describes the Newcastle satisfaction with nursing scales (NSNS) used to measure patient experiences and satisfaction with nursing care in acute or home settings
USA	Planning (*86*)	Describes quality function deployment (QFD) used to capture the voice of the customer for planning and (re)design from the user viewpoint

Standards

Health and safety legislation commonly defines acceptable practices, particularly with respect to radiation workers, food handlers, hazardous chemicals and infection control. Protection and welfare of staff are central to good human resource management: health service personnel policies commonly define staff rights. Standards for staff satisfaction are rarely explicit.

Table 2.3 Health status measures

Country	Topic/Focus	Measurement tools
Israel	Multiple sclerosis (*88*)	Describes a self-administered rating scale (RAYS) to measure quality of life, developed and compared with Short Form 36 (SF-36). The RAYS scale was derived in consultation with health rehabilitation professionals to assess physical, psychological and social–familial dimensions. RAYS showed good correlation with SF-36 in physical and social functioning aspects and was able to discriminate quality of life in multiple sclerosis
Netherlands	Chronic illness	Review of tools used to measure quality of life with chronic disease: WHO International Classification of Impairments, Disabilities and Handicaps (ICIDH) (*89, 90*); Sickness Impact Profile (*91*) and modified Sickness Impact Profile for stroke (*92*), SF-36 (*93*); Barthel Index (physically disabled) (*94*). Concluded that outcomes should not be used to the exclusion of process evaluation (*95*)
UK	End-stage renal failure (*96*)	Use of SF-36 as outcome measure. Found to be a practical and consistent questionnaire in this context
	Health status (*97*)	Tool to measure distress in acute and chronic illness: 38 questions about physical mobility, pain, sleep, emotional reactions, social isolation, energy. Found to be a sensitive measure for use in primary care
	Palliative care (*98*)	Development and validation of a palliative care outcome scale (POS) compared with European Organisation for Research on Cancer
		Treatment (EORTC QLQ-C30) (*99*) and Support Team Assessment Schedule (STAS) (*100*)
USA	Quality of life (*101*)	Development and application of a generic measure of health related quality of life, compared with SF-36

Measurement

Compliance with the above expectations has been assessed by:

- questionnaires and medical examinations before and during employment;
- staff satisfaction surveys;
- exit interviews when staff resign;
- routine indicators of sickness, absence and turnover;
- safety audits, such as handling of glutaraldehyde and cytotoxic chemicals;
- quality circles;
- statutory inspectorates;
- external certification of personnel management function.

In the Philippines, a project has examined the morale of primary care staff in relation to the quality of care, using document analysis, checklists, work analysis and focus groups (*103*).

In countries in Asia (for example, Indonesia, Japan, Malaysia and the Philippines), quality circles have been in use in hospitals for over a decade. Small groups of staff learn quality concepts and tools through mini-projects implemented according to the plan–do–check–act (PDCA) cycle, focusing on problems they can solve by their own efforts. This activity helps the knowledge and culture of quality to penetrate the organization, increases the morale of frontline personnel, and heightens their concern for patient-centred quality. Because quality circles were introduced by industries before the concepts of continuous quality improvement, they focused on service quality and efficiency of work rather than on clinical quality. The approach has not been widely used for solving clinical or systemwide problems.

The impact of quality circles on job satisfaction, absenteeism and turnover among hospital nurses has been examined in Thailand. Data on staffing allocation, turnover

rates and work satisfaction (using a validated tool (*104*)) were used to compare hospital units with and without quality circles in relation to staff welfare issues. It was concluded that job satisfaction was greater and absenteeism and staff turnover were lower in units with quality circles and that quality circle programmes significantly improved staff retention.

Staff competence

Values

Current views on quality improvement favour focusing on systems and how they work, rather than on individuals and their competence. It is important, however, that this laudable move away from blaming individuals when things go wrong should not result in neglect in the selection and development of staff, particularly clinicians, because:

- technical competence of staff is essential to effective health care;
- interpersonal skills can increase patient compliance and satisfaction, and communication failures are the most common cause of major complaints;
- unethical behaviour has killed patients and seriously damaged organizations;
- competent staff are a major asset that rewards maintenance and development;
- senior management is morally, if not legally, responsible for ensuring that staff are competent, even if they are not employees.

Standards

Procedures for the licensing of doctors, dentists and nurses are prescribed by law in most countries and are delegated to an accountable body (often at the level of state or province) that defines standards and maintains a professional register. Standards for periodic relicensing and for other professions are more variable.

Responsibility for defining standards of undergraduate and postgraduate training are shared between national coordinating bodies and professional and academic institutions. Independent professional bodies contribute to self-regulation by defining acceptable standards of ethical and clinical performance.

Health care provider organizations define criteria for the recruitment, retention and development of staff. In Australia, New Zealand and North America particularly, the criteria for awarding credentials and reviewing doctors and dentists are a part of the staff by-laws and are explicitly agreed before a job application is considered. Each applicant is given clinical "privileges" within a defined specialty.

Measurement

The late Professor Avedis Donabedian gave a lecture in 1977 on evaluating physician competence. Like many of his observations, this discourse continues to be relevant many years later and was published in 2000 (*105*).

Methods that have been used at local level to assess clinical competence include:

- application and selection procedures: validation of past history, current registration status and references;
- individual performance review or appraisal;
- systematic periodic review of clinical appointment: local re-awarding of credentials may or may not be linked to recertification, relicensing or revalidation at state or national level;
- supervision of trainees and assistants: one approach uses statistical techniques to compare cumulative achievement of predefined levels of competence for carrying out new procedures (*106*). In Saudi Arabia, a programme of supportive supervision (POSS) includes supervisory field visits to primary care staff to evaluate per-

formance, provide feedback, promote quality improvement and strengthen links with the centre (*107*). In Malaysia, a survey in 1999 of 2000 private doctors found that less than half claimed to understand clinical guidelines and only 29% knew where to find them (*108*);

- standardized patients: well-trained simulated patients can perform consistently and indistinguishably from real patients in the evaluation and education of physicians. Only five of the 62 family doctors in southern Ontario who had agreed to participate recognized all of the conditions presented by standardized patients (*109*);
- external monitoring and accreditation of training programmes and clinical departments;
- external inspection by government clinical officers;
- consumer surveys: some surveys of patients set out to collect their views of the performance of individual practitioners.

In Costa Rica, lot quality assurance sampling (LQAS, a concept that originated in industry) was used during routine household visits to assess the technical quality of community-based health workers. By the sixth round of visits, the method was estimated to have identified at least 90% of the inadequate performers and was easy even for low-level local health workers to implement (*110*). The technique of lot sampling was used in Spain by women to assess screening services as being of acceptable or unacceptable quality; it was considered to be a useful method for detecting gross departures from stated compliance thresholds (*111*).

Consumer views were also used in Nigeria as part of the performance evaluation of personnel managing child illnesses. This involved the observation of case management of sick children, exit interviews with mothers, interviews of staff at the responsible health centre, and selected indicators of quality, efficiency and continuity (*112*).

An international study of attitudes and values among nursing staff in 11 countries used 104 Likert-scale items to assess caring attributes (theoretical, practical and pedagogical), professional self-concept and technological influences (CAPSTI). Analysis showed some similarities between nurses from Australia, Canada, China (Beijing), China (Special Administrative Region of Hong Kong), New Zealand, Philippines, Republic of Korea, Scotland, Singapore, South Africa and Sweden, but there were differences in professional self-concept and caring attributes (*113*).

A Canadian study asked five self-regulating health professions (dentistry, optometry, pharmacy, medicine and nursing) what mechanisms were used to identify poor performers. The two types of programmes identified were complaints and routine audit. Both programmes use a "bad apples" approach and focus on outcomes produced by the individual rather than by teams. Complaints alone do not protect the public from incompetence and, even if used with audit, will rely heavily on selection of audit criteria and standards. It was suggested that continuous improvement (*114*) be used in conjunction with existing mechanisms (*115*).

Clinical practice

Values

Concepts of clinical effectiveness and evidence-based medicine have become crucial to quality in clinical practice. The background issues and pressures include:

- much evidence has accumulated of unacceptable variations in clinical practices and results among doctors who are treating similar patients in similar circumstances;
- adding together the results of existing biomedical research (meta-analysis) has greatly increased the power of defining effective clinical practice;
- few day-to-day clinical practices are clearly endorsed by good evidence of their efficacy;

- even when clinical evidence is consistent, clear and accessible, it is often ignored in daily practice;
- scientific knowledge is growing much faster than individuals can interpret it and assimilate it into practice;
- there is increasing acceptance of doctors to trade clinical freedom for clinical guidelines;
- escalating costs force funding agencies to restrict access to expensive innovations that are not cost-effective;
- there is increasing public awareness of and demand for new high technology and best practice.

Defining, measuring and improving standards of clinical practice are no longer left solely to academics and clinicians.

Standards

Standards, expressed as clinical guidelines or benchmarks, are:

- increasingly based on biomedical research and health technology assessment (HTA) rather than consensus;
- widely accessible and exchanged between countries;
- often adapted to local culture and economy before being adopted for national use;
- sometimes translated into more detailed protocols for use within individual units.

Guidelines may focus on a specific technology, such as a drug, instrument or procedure, or on a clinical condition. Patient-focused guidelines may be on a specific event or episode, or may extend over time into multidisciplinary "anticipated recovery" or "critical care" pathways for individuals. Where these pathways are aggregated to define an evidence-based function that is integrated from preventive through tertiary care, they have been described as a service framework or model (see next section). The development and use of guidelines have been reviewed for primary care (*116*), medical practice (*117*) and chronic diseases (*118*), and in general (*119*).

The quality of published guidelines is variable in that many do not meet the criteria of being explicit and evidence-based and including planned dissemination, implementation and evaluation strategies. Many guidelines have suffered from methodological failings as well as problems in their implementation (*120*). A systematic review of guidelines on nursing, midwifery and therapies published since 1975 concluded that few of them met the Cochrane group's Effective Practice and Organisation of Care (EPOC) criteria (*121*). A review of 578 guidelines showed variable quality of structure and evidence, and even some national guidelines provided no references (*122*). A structured review of guidelines identified by Medline search (1985–June 1997) confirmed that published guidelines in peer-reviewed medical literature do not necessarily adhere to established methodological standards (*123*). This underlines the contribution of national centres (such as AHRQ) that assess – usually with reference to published criteria – and approve guidelines, but do not themselves develop them. Other national centres (such as ANAES and SIGN) do both. Much of this work is collaborative within and between countries, for example, by the Cochrane Collaboration (see Table 1.12) and EUR-ASSESS (*124*), in order to share a common basis of evidence for clinical practice and for the ethical, social and economic implications of the development, diffusion and use of health care technology. Health technology assessments also include cost-effectiveness analyses, organizational and managerial issues and policy analyses of resource requirements, to allow them to be interpreted differently according to cultural and local circumstances.

Some practical challenges to guideline development include difficulty in identifying valid research, such as in nursing practice (*125*). A preliminary study for the Cochrane Collaboration on identification of randomized controlled trials (RCTs) showed that

they were hard to find owing to a lack of systematic presentation by authors and to inadequate literature-retrieval strategies (*126*). Practical issues of developing and implementing guidelines and pathways are reported from several countries such as Singapore (acute myocardial infarction (*127*)) and Sweden (neonatal nursing care (*128*)), and an international adaptation of WHO guidelines for developing countries (HIV/AIDS (*129*)). Essential elements in developing valid guidelines may be summed up as systematic reviewing, summarizing clinical relevance of identified evidence, skilled leadership of multidisciplinary groups, and turning the group's deliberations into evidence-based guidelines (*130*). More detailed guidance is given in the report of a meeting organized by the WHO Regional Office for Europe in Borken, Germany, in 1997 (*131*).

Once guidelines are developed and disseminated, their impact should be evaluated. Reported examples include the follow-up of Canadian guidelines for the use of red blood cell and plasma transfusions for adults and children by a post-focus group: participants assessed the content, format and dissemination of the guidelines and recommended that this method could contribute to inception evaluation models in future (*132*). In the United States, a similar group reviewed the impact of a standardized protocol for low-risk patients with chest pain assessed in five hospitals: it found that consistent results were not achieved despite standardized implementation (*133*). In Nigeria, a national survey of hypertension in adults estimated the prevalence to be 11%; national guidelines were formulated in 1996 and promoted widely but their uptake by 1999 appeared to be negligible (*134*).

The more quantitative and empirical approach of benchmarking is based on identifying excellence, analysing the contributory factors, and using the results to monitor and feed back to a peer group. One review of methods from the United States suggests that successful benchmarks should be attainable but should always exceed mean performance, and that all providers with high performance should contribute to the benchmark level; high performance with low numbers should not have undue influence on the benchmark (*135*). In Europe, the Diabcare network of partners in health care, industry and research exists to improve diabetes care by aggregation, evaluation and feedback of anonymous patient data using telematics and regional, national and central nodes for processing diabetes quality indicators (*136*).

Some general sources of guidelines on the Internet are presented in Table 2.4. Some of these sites are primary developers of clinical practice guidelines, some are technology assessment centres and some act as clearing-houses for both of these.

Measurement

Assessment of local clinical practice against expectations, whether stated or unstated, increasingly involves multidisciplinary teams rather than individuals or single specialties. It is becoming more systematic, using aggregated data rather than individual anecdotes, and should not be confused with research. Measurement tools include:

- clinical audit;
- clinical indicators;
- adverse patient events;
- delay analysis;
- confidential enquiry.

Clinical audit

Systematic clinical audit or peer review has been established in many countries since the 1970s (see examples in Table 2.5). "While extensively practised in the West, it is still widely believed an impossible attainment in developing countries owing to the cost and technology required to implement it", was a comment from Pakistan in 1992 (*146*). A report from India in the same year (*147*) pointed out: "Community leaders have started

Table 2.4 Guidelines and technology assessment: selected Internet sources

Country	Title	Web site
Austria	ITA (HTA Unit of the Institute of Technology Assessment-Austrian Academy of Science)	http://www.oeaw.ac.at/einheiten/ita
Canada	Canadian Medical Association	http://www.cma.ca/cpgs/index.asp
	CCOHTA (Canadian Coordinating Office for Health Technology Assessment)	http://www.ccohta.ca
Chile	ETESA (Unidad de Evaluación de Tecnologías de Salud)	http://www.minsal.cl
Denmark	DIHTA (Danish Institute for Health Technology Assessment)	http://www.dsi.dk/
Finland	FINOHTA (Finnish Office for Health Care Technology Assessment)	http://stakes.fi/finohta
France	ANAES (L'Agence Nationale d'Accréditation et d'Evaluation en Santé)	http://www.anaes.fr
Germany	Agency for Quality in Medicine (AZQ)	http://www.aezq.de/english/english/view
	German Scientific Working Group of Technology Assessment in Health Care	http://www.epi.mh-hannover.de/
Netherlands	TNO Prevention and Health	http://www.health.tno.nl
New Zealand	Guidelines Group NZHTA	http://www.nzgg.org.nz/library.htm
	(New Zealand Health Technology Assessment)	http://nzhta.chmeds.ac.nz
Norway	SMM (The Norwegian Centre for Health Technology Assessment)	http://www.sintef.no/smm
Poland	National Centre for Quality Assessment in Health Care	http://www.cmj.org.pl
Sweden	SBU (Swedish Council on Technology Assessment in Health Care)	http://www.sbu.se/admin/index.asp
Switzerland	Swiss Science Council/Technology Assessment	http://www.ta-swiss.ch
UK	National Coordinating Centre for Health Technology Assessment	http://www.hta.nhsweb.nhs.uk
	NHS Centre for Reviews and Dissemination	http://www.york.ac.uk/inst.crd
	NICE (National Institute for Clinical Excellence) 1998 (*137*)	http://www.nice.org.uk
	SIGN (Scottish Intercollegiate Guidelines Network)	http://www.sign.ac.uk
USA	AHRQ (was AHCPR) includes CONQUEST indicators database	http://www.ahrq.gov
	National Guideline Clearing House	http://www.guidelines.gov
	Center for Health Quality, Outcomes and Economic Research (CHQOER) Veterans' Administration (VA)	Under construction
	Institute of Medicine Publications available to read and download, e.g. quality of long-term care, behavioural health, strategy	http://www.nap.edu/books

demanding quality of medical care and accountability at various levels; there is a need to educate medical, nursing and paramedical staff regarding medical audit".

One common topic for audit around the world is the management of acute myocardial infarction, particularly the "door to needle" time, which is measurable, well validated, clinically significant and amenable to change. Reports from Malaysia in

Table 2.5 Examples of clinical audit

Country	Topic	Description
Belgium	Blood usage (*138*)	Retrospective record review in a university hospital showed that 15% of packed red cell transfusions were not necessary and 67% of fresh frozen plasma transfusions were not indicated
Colombia	Caesarean section (*139*)	Retrospective audit of sections on 416 patients in four hospitals showed an incidence of 70% in the private hospitals and 42% in the public ones: overall, 81% of primary sections were considered unjustified
Ghana; Jamaica	Obstetric complications (*140*)	Criterion-based audit of five major complications (haemorrhage, eclampsia, uterine rupture, obstructed labour, and genital tract sepsis): concluded that criterion-based audit is a practical tool in developing countries
Malawi	Tuberculosis (*141*)	Use of clinical audit in developing countries with severe resource constraints
Malaysia	Acute myocardial infarction (*142*)	Prospective study of 165 patients who met the WHO criteria for acute myocardial infarction: of the 52% who received thrombolytic therapy, mortality was 6% compared with 23% mortality in patients who did not receive this treatment
Netherlands	Cholesterol guidelines (*143*)	Audit of use of cholesterol guidelines in 20 general practices showed no measurable impact on performance regardless of dissemination strategy
Nigeria	Primary nursing (*144*)	Assessment using the Quality Patient Care Scale (QALPACS) before and after introduction of primary nursing showed a marked improvement in quality of nursing care on an acute general hospital ward
Venezuela	Blood usage (*145*)	Prospective study of transfusion requests for 700 patients over six months in a university hospital: overall appropriateness of use was judged to be 51%, ranging from 71% in medicine to 47% in obstetrics

2000 (*142*), Norway in 1995 (*148*) and the United Kingdom in 1996 (*149*) found time lags to be appropriate indicators of quality of care in management of myocardial infarction and that their reduction could lead to significant improvement in the organization of existing resources. A traditionally popular audit topic is obstetric and perinatal care; for example, a WHO working group defined major obstetric complications and elements by which they could be measured using "criterion-based audit" (*150*).

Clinical indicators

Data collected either routinely or for specific purposes can be used to monitor and compare processes and results over time and between clinical teams. This comparison can be reasonably cheap and simple within a single organization but becomes more complex if data are to be accurately assessed between organizations.

Indicators, like guidelines, present challenges in development, application and interpretation (Table 2.6). Several large-scale programmes cover clinical indicators (see Table 2.7), especially in hospitals. The CONQUEST database, maintained by AHRQ in the United States, is a valuable collection of numerators and denominators (*164*).

Much of the development of indicators has emerged from accreditation programmes and from independent bodies (*165*) such as the Maryland Quality Indicator Project (QIP) which was established in 1985, initially as a research initiative (see Table 2.7 and also Table 1.25).

Adverse patient events

Incident reports have been a ritual in many hospitals without leading to effective changes. Recently, more active attention has been given to the real incidence of adverse events (see Table 2.8), particularly after the Harvard study in 1991, as a consequence of which the National Patients Safety Foundation was formed by the American Medical

Table 2.6 Development of clinical indicators

Topic	Description
Inter-hospital comparisons (*151*)	Technical issues in development and use
Outcomes utility index (OUI) (*152*)	Evaluation of the OUI to assess an outcome measure with a weighted scoring system comprising: whether the outcome is a health outcome, extent to which expectations of performance can be defined, role of medical care in achieving the outcome, complexity of events that produced the outcome, degree to which attribution can be made, suitability of risk adjustment for limiting external sources of variation, and likelihood that the measure provides perverse behavioural incentives
Cardiovascular disease (*153*)	Identification of performance indicators using Delphi technique
Management of schizophrenic patients (*154*)	Performance measure derived by assessing adherence to antipsychotic drug dosage recommendations at hospital discharge using Brief Psychiatric Rating Scale (BPRS)
Caesarean section rates (*155*)	Specifications for caesarean section of four widely used performance measurement systems were compared across hospitals. Showed that calculated rates changed depending on how numerator/denominator were identified, and relative performance was affected by how risk adjustment is performed. Concluded that research is needed towards uniform indicator definition and standard risk adjustment methodology
Ambulatory care (*156*)	An evaluation of DEMPAQ – a research project to Develop and Evaluate Methods for Promoting Ambulatory Care
Hospital readmissions (*157*)	An evaluation of hospital readmissions within 28 days as an outcome measure
Surgical site infection (*158*)	Development of surgical-site infection (SSI) surveillance as an outcome measure in Hungary compared against US Centers for Disease Control and Prevention's National Nosocomial Infection Surveillance System (NNIS). Concludes that SSI surveillance can be used as a model in other countries with limited experience with outcome measurement
Home care (*159*)	Development of measures for accreditation in Australia, including unexpected patient telephone cells, unplanned staff call-outs, and returns to hospital
Mental health (*160*)	Indicators for care developed by a WHO group
Validity of indicators (*161*)	Review of technical problems in development and usage
Hospitals (*162*)	Indicators for monitoring in industrialized countries
Primary care (*163*)	Feasibility of evidence-based indicators

Table 2.7 Clinical indicator programmes

Country	Programme	Web site
Australia	ACHS clinical indicators	http://www.achs.org.au/content/screens/file download/DPI_1999-2000.pdf
Australia (Victoria)	Framework for hospital performance indicators	http://www.health.vic.gov.au/clinicalindicators/strategy/
Canada	CCHSA indicators for accreditation	http://www.cchsa.ca/
UK	Clinical indicators, 1999	http://www.doh.gov.uk/indicat.htm

Table 2.8 Research studies of adverse patient events in hospital

Country	Year	Title
Australia	1996	Quality in Australian Health Care Study (QAHCS): incidence of adverse events 16.6% (*166*)
UK	1998	Adverse events in a London hospital: incidence 6.7%, extending stay by average of six days (*167*)
USA	1991	Harvard Medical Practice Study: incidence 3.6% (*168*)

Table 2.9 Routine monitoring of adverse events

Country	Topic	Description
Australia	Adverse patient outcomes (*170*)	Statistical approach to setting threshold for action on incidence of pulmonary embolus, unplanned return to operating rooms, unplanned readmissions, clean and and contaminated wound infections, and hospital-acquired bacteraemia
Belgium	Deaths in hospital (*171*)	Epidemiology of hospital deaths, opportunities for improvement and development of a tool for routine investigation
Israel	Intensive care (*172*)	Nature and causes of human error
Italy	Surveillance-oriented medical records (*173*)	Modification of medical records led to recognition of high-risk areas, increased reporting of adverse drug events, and potentially useful indicators for future monitoring
UK	Critical incidents attributable to anaesthesia (*174*)	Prospective analysis of all deviations from normal or anticipated course of events in immediate perioperative period. Incidents categorized into five system sets: airway, circulation, patients, equipment and pharmacological
	Issues of measurement of adverse events (*175*)	Practical problems involved in using adverse events in quality measurement analysed and discussed, including review of definitions of adverse events
	Suicides in primary care (*176*)	Use of critical incident analysis for prevention. Substantive preventive measure not identified but the technique can encourage reflection on practice in a difficult emotional area
USA	Medication errors (*177*)	Voluntary project encouraged hospital teams to make changes: — improving information access — standardizing and simplifying medication procedures — restricting physical access to potentially lethal drugs — educating clinical staff about medications — increasing pharmacy involvement in patient education and interaction with patient care teams

Association. The study was replicated in Australia, prompting calls for a national risk management approach (*169*). This led to the establishment of the Australian Council for Safety and Quality in Health Care, which published the first national action plan in 2001.

Systematic monitoring of patient safety and medical errors is a common feature of quality systems (Table 2.9).

Avoidable deaths

Traditional local reviews of hospital deaths have been extended to national surveys such as perioperative (*178*) and perinatal (*179*) deaths, and suicide and homicide by people with mental illness (*180*). The data thus collected contribute to advice on specific interventions and circumstances (such as breech presentations and interventional vascular radiology) that could not be developed solely on the basis of local anecdotal evidence.

Delay analysis

One simple method is to record the time between key events in the management of patients where delay may be critical. Examples include: the time between a patient with a breast lump first attending primary care to when she is assessed, and then treated, by a specialist; and the time between a call to emergency services and arrival of the patient in hospital. Door-to-needle time is a specific example. The audit from a coronary care unit (CCU) in Malaysia found average delays to be as follows: door–doctor, 2.5 minutes; doctor–CCU, 29 minutes; CCU–doctor, 5.2 minutes; doctor–needle, 23.4 minutes (*142*).

Standardizing outcomes and adjusting for case-mix

In order to compare like with like, various mechanisms have been used to standardize clinical status and to adjust for patients who have similar problems but different degrees of risk. Some recently published examples are presented in Table 2.10.

Service delivery

Values

Much of the early development of quality in health care focused on improving the performance of individual personnel, teams and functions. Attention has now shifted towards their integration within and between organizations, largely because:

- the tradition of doctor-led patient care is moving towards multidisciplinary teamwork;
- competent teams cannot excel without the support of an effective organization;
- many opportunities for improvement are between rather than within teams, functions and departments;
- patient-centred services and health maintenance need active coordination to ensure continuity within and between preventive care, primary care and hospitals.

Table 2.10 Standardizing mechanisms

Country	Topic	Description
Australia	Wrist outcome: review of quality (*181*)	Analytical study examining 32 wrist outcome measurements, assessed in four categories: traditional measures (movement, strength), ability to perform daily activities, compensatory mechanisms used and others. Concluded that most of the instruments neglected to assess impact on individual and may preclude sensitive evaluation of intervention efficacy
Canada	Elective total hip replacement (*182*)	Use of WOMAC osteoarthritis index and RAND 36-item health survey at 6 and 12 months postoperatively. Showed 93% patients had at least one comorbidity and statistically significant change in pre- and postoperative pain; increasing body mass index (BMI) was associated with increased postoperative pain and lower postoperative functional status
Japan; UK	Total hip replacement: use of Index of Co-Existent Diseases (ICED) (*183*)	Study in two countries concluded that ICED is of less validity in United Kingdom and Japan than in country of origin (USA), that comorbidity is a major determinant of serious complications following total hip replacement but not of changes in functional or health status; comparisons of clinical performance must take comorbidity into account
UK	Outcomes of mental illness (*184*)	The Health of the Nation Outcome Scale (HONOS) was tested on 934 patients and found to be sufficiently robust to measure outcomes accurately in routine clinical practice

Standards

Traditional standards for service delivery tended to focus on discrete management units and functions (vertically, like a tower). These include licensing regulations, planning guidelines, requirements for recognition of clinical training, earlier accreditation standards and internal operational policies, procedures and targets. Perhaps because of their influence on public health, particular attention has been given to quality in clinical laboratories (Table 2.11, Table 2.12).

With increasing pressure from governments, purchasers and epidemiologists towards public health and health maintenance, explicit service standards are becoming more horizontally oriented towards communities and patient populations.

- From 1972 to 1992, the Canadian federal government published a series of Health Program Guidelines (HPGs) to help the planning, organization and operation of services. However, the guidelines were not sensitive to changes in the health care system that transferred the focus from hospital management and operational planning towards more strategic policy issues such as prevention and health promotion (*196*). HPGs gave way to Health System Guidelines.
- During the 1990s, new accreditation programmes emerged with a focus on communities and networks, and existing programmes restructured their standards and assessments towards patients' experience.
- In Scandinavia, model care programmes are long established. In the United Kingdom they are appearing as National Service Frameworks for clinical services (such as cancer care and cardiac disease).

Table 2.11 WHO discussions on standards for laboratory medicine

Country	Year	Topic	Description
Iran	1997	Laboratory medicine (*185*)	Report of EMR workshop, Teheran
Jordan	1993	Clinical chemistry (*186*)	Report of EMR workshop, Amman
Myanmar	1999	Quality assurance and accreditation (*187*)	Report of SEAR intercountry consultation, Yangon
Oman	1998	Quality assurance (*188*)	Report of EMR workshop, Muscat
Thailand	1996	Quality assurance (*189*)	Report of technical discussions of SEA Regional Committee, Chiang Mai
	1999	Blood transfusion (*190*)	Report of a SEAR training workshop, Bangkok

Table 2.12 International guidelines for clinical laboratories

Origin	Year	Topic	Description
WHO, EMRO	1992	Intermediate and peripheral laboratories (*191*)	Basics of quality assurance
WHO	1993	Blood transfusion services (*192*)	Guidelines for quality assurance programmes
	1998	Clinical use of blood (*193*)	Developing a national policy and guidelines
	1998	Haematology (*194*)	Quality assurance
Council of Europe	1999	Blood components (*195*)	Guide to preparation, use and quality assurance

Table 2.13 Occasional assessment projects

Country	Topic	Description
Jamaica	Primary care (*202*)	Data from 1990 survey of 366 public and 189 private clinics identified unexpected differences in quality between rural/urban and public/private facilities
Papua New Guinea	Provincial hospitals (*203*)	Data from a 1989 survey of 13 of the country's 19 provincial hospitals identified universal weakness in management. Proposed routine indicators for external monitoring and regular internal quality programmes
Philippines	Outpatient clinics in Metro Cebu (*204*)	Structured assessment of immunization, logistics and clinical records in 48 public and private clinics; helped to identify priorities for problem solving and to develop curricula for staff training
Yemen	Maternal health services (*205*)	Ministry project to assess public and private hospitals with respect to quality of care, user demography and costs

Table 2.14 External calibration of sphygmomanometers, Brazil

City	Non-approved (error >4 mm Hg)	Greatest deviance (mm Hg)
Juiz de For a	58%	10
Rio de Janeiro	40%	18
São Paulo	76%	33

- Health care purchasing and internal markets favour integrated care packages rather than constituent parts (*197*).
- Industry-based models for organizational assessment, such as the Malcolm Baldrige Awards, business excellence and EFQM, are increasingly influencing health services.

Measurement

Assessments against these standards take a variety of forms.

- Self-assessment, such as with performance indicators, for example:
  - — service targets of turnaround times in surgical pathology, Spain (*198*);
  - — reproductive health services, United Republic of Tanzania (*199*);
  - — management checklists, e.g. for hospitals, Thailand (*200*);
  - — the "excellence" framework and internal departmental quality programmes, e.g. emergency service, Rwanda (*201*);
- Occasional fact-finding and research projects (Table 2.13);
- External calibration, certification and accreditation (of training, health institutions, services, equipment). A study by the Brazilian National Institute of Metrology examined the accuracy of 283 mechanical sphygmomanometers in 12 hospitals in three cities (*206*); the results, summarized in Table 2.14, were published on the Internet (*207*);
- External quality assurance, for example, of departments of radiology (Table 2.15) and clinical pathology (Table 2.16);
- External publication and comparison of performance indicators (*214*);
- External peer review (Table 2.17);
- Statutory inspection.

Risk, health and safety

Values

Florence Nightingale is reported to have said, in Latin, *Primum non nocere* – First, do no harm. She was quoting Galen, a second-century Greek physician active in Rome. Health services are intended to improve health, but they also present many hazards that can damage health. Risk management plays a major role in quality improvement.

Table 2.15 Quality in radiology departments

Country	Topic	Description
Czech Republic; Hungary; Poland	Radiotherapy (*208*)	Data from 1994 survey of equipment in 182 treatment units showed wide variations in the age and workload of high-energy units, and shortage of treatment simulators
Hungary	Radiotherapy (*209*)	Collaboration of five university departments in a national quality assurance, audit and control system
USA, PAHO	Imaging and radiation therapy (*210*)	318-page guide (WHO monograph)

Table 2.16 External quality assurance of clinical laboratories

Country	Topic	Description
India	General laboratories (*211*)	National quality control programme in Indian clinical laboratories
Japan	Clinical microbiology (*212*)	Review of quality control programme developed by the Tokyo Metropolitan Government
Zimbabwe	Clinical chemistry (*213*)	Consensus values and spread of interlaboratory agreement compared with UK scheme (NEQUAS). Concludes spread of results 2–3 times greater than in UK but ZEQUAS provides valid targets for individual laboratories and scope for improvement

Table 2.17 External peer review

Country	Topic	Description
Australia	Practice accreditation (*215*)	Validation and testing of programme standards
Canada	Practice assessment (*216*)	Patient perception
Netherlands	Quality of family practice consultations for non-acute abdominal complaints (*217*)	Descriptive study of family doctor performance with predefined review criteria. Calculation of quality scores per consultations using weighted criteria. Performance measured by percentage of each criterion met, quality scores per consultation
	Peer feedback (*218*)	Compared two approaches to assessment of primary care management by practice visit: reciprocal visits with peer feedback; visits and feedback by non-physician observers. Concluded the latter is more appreciated
	Practice assessment (*219*)	Validation of assessment tool for management in general practice
Sweden	Practice assessment (*220*)	Evaluation by practice visiting
UK; Netherlands	Peer review of hospital clinical departments (*221*)	Comparison of four peer review programmes (physician, thoracic, cardiac, diabetic) in the UK and the Netherlands showed similarities in formalized 5-year cycle, explicit predetermined procedures, questionnaires and standards for reports, but Dutch reviewers were more rigorously trained. Only one programme (diabetic) included user involvement/satisfaction

- Failures of operational procedures can damage patients and staff and lead to successful litigation.
- Failures of systems have caused major scandals, public enquiries, severely adverse publicity and loss of public confidence.
- Errors and accidents increase costs to patients, providers and insurers.
- The only benefits of mistakes come from systematic learning, corrective action and dissemination of lessons to others.

Standards

Legislation in many countries empowers a statutory authority to inspect health services for compliance with detailed regulations concerning potential hazards to patients, the general public and staff. Such regulations cover general health and safety, clinical hazards (such as toxic chemicals, medicines, radiation and medical devices) and environmental hazards (such as buildings, fire, food hygiene and waste management). Inspectors often seek evidence that health facilities have documented internal procedures to minimize risk and to respond effectively to adverse events. In addition, many governments, insurers and independent bodies (such as accreditation programmes and ISO) publish standards based on the evidence of previous failures, complaints, litigation and enquiries.

Public enquiries frequently identify problems and solutions that are clearly relevant in many other specialties, jurisdictions and countries. For example, a report on the inappropriate use of chest physiotherapy in neonates (*222*) emphasized the importance of:

- participation in professional peer review;
- informing parents of risks to children;
- maintaining good clinical records;
- simple, standard consent procedures;
- consent to student teaching;
- ethics of research and clinical audit;
- access to patient advocacy services.

Measurement

Health facilities must be safe and must implement effective procedures; they must be able to measure their own performance and to demonstrate that they have done so. Common proactive mechanisms include:

- self-assessment;
- routine monitoring of indicators, complaints procedures (see Consumers, users and clients) and accident and incident reports (see Clinical practice: Adverse patient events);
- external review such as that required for accreditation, ISO certification, or insurance;
- statutory inspection.

Less common, reactive mechanisms include lawsuits, media investigations and public enquiries (Table 2.18).

Table 2.18 Selected public enquiries

Country	Year	Description
Australia	1997	"Deep sleep" therapy, Chelmsford Hospital
Canada	1993–95	Transmission of AIDS and hepatitis by blood transfusion (Krever Commission) (*223*)
Ireland	2000	Unauthorized retention of autopsy parts, Crumlin (Dunn Inquiry) (*224*)
New Zealand	1999	Underreporting of cervical smears, 1990–96, Gisborne (*225*)
UK	1998–2001	Mortality after paediatric cardiac surgery, Bristol (*226, 227*)

Resource management

Values

There is little evidence that greater health care spending within a country buys better population health, but good services do not waste money.

- Policy and methods of resource allocation determine the service structure (staffing, buildings and supplies) on which activity and results are based.
- The equity and efficiency of resource allocation largely shape the health care provision for local communities.
- Even the richest cannot afford infinite insurance or public spending on health care: everyone is rationed at some point.
- Resources wasted on one patient are denied to another.
- Good clinical practice is efficient clinical practice.

Cost cutting is not the principal aim of quality improvement, but systematic assessment of current practices often highlights opportunities for more efficient working and for more patient-centred resource allocation, as in Bosnia (*228*).

Standards

Resource allocation

Public funding for health care is allocated to local populations and institutions according to a variety of formulae. Usually these relate to population size and are adjusted for demographic factors (such as age and degree of deprivation) and for cross-boundary flow, both of which are known to affect service demands. For many institutions, the budget is historical ("last year plus or minus a bit") and bears little relation to subsequent changes in function.

In general, resource allocation targets may be based on benchmarking comparisons with similar services within and between regions and countries, on limited research evidence from specific situations, and on local and national planning guidelines. Many governments have avoided detailed (and unaffordable) norms of provision in favour of targets for volume of activity and, sometimes, outcome and quality. One step in health care improvement is to ensure that service level agreements and contracts include quality in the traditional, and more measurable, equation of cost and volume.

Early descriptions, particularly by professional associations, of "standards" for services tend to concentrate on resources, rather than on how they are used (*229, 230*). Mature accreditation programmes base their assessments on processes and, increasingly, on what these achieve; their standards rarely prescribe resource inputs, which are deemed to be an unreliable measure of quality and are the business of local management.

In short, standards for resource allocation are relative rather than absolute. Most provider organizations are bound by a defined annual budget, within which managers have limited powers to transfer money between departments and functions. Faced with many competing bids for internal resources, managers tend to be more responsive to services that have been objectively identified and quantified through quality improvement processes.

Utilization

The benefit derived from the available resources depends not only on the efficiency of their management but also on the appropriateness of clinical activity (such as admissions, prescriptions and procedures) and on waste (such as complications, errors, delays and repeated work). Standards are mostly the business of guidelines for clinical practice, risk management and systematic internal review of the use of resources.

Table 2.19 Costing health services

Country	Topic	Description
Australia	Functional status in the elderly (*231*)	Predictive cost model developed to profile physician cost by level of patient functioning. Showed differences between general practitioner and specialist attendances
Jordan	Hospital unit costs (*232*)	Analysis per patient of inpatient and outpatient attendance as a value-for-money tool. Concluded more studies are needed to allow comparison with other public hospitals
Sri Lanka	Paediatric hospital care (*233*)	Analysis of costs among direct patient care units, hospital use, morbidity and mortality, and patient movement statistics.Recommend more peer control and accountability

Measurement

Resource usage has been be assessed with a variety of tools:

- Internal assessment: efficiency indicators, tissue and utilization review.
- Clinical costing: see Table 2.19.
- National studies: a study of use of family health services in Yemen used hospital-based data on staffing, equipment and supplies, combined with direct observation of women being delivered and exit interviews with the women to elicit their views on care given (*234*).

A collaborative European project tested an American tool (Appropriateness Evaluation Protocol, AEP) (*235*) for assessing hospital bed use and comparing findings between Europe and the United States (*236*). Country experiences are reported from France (*237*), Italy (*238*), Portugal (*239*), Spain (*240*), Switzerland (*241*) and the United Kingdom (*242*). The original criteria of appropriateness were modified by some countries taking part, which led to difficulties in interpreting intercountry data. Overall, however, the tool was found to be valid and appropriate to use in different settings, such as emergency services and acute medical situations.

Using the AEP, Israel estimated that 18% of inpatient days were inappropriate, being largely attributed to patients who were awaiting procedures or consultation (*243*). Testing of the tool in the Netherlands concluded that the validity and reliability of different versions of the AEP needed further improvements before the instrument would be of general use (*244*). In Turkey, the tool was applied to a random sample of patient days in internal medicine and tested for validity by comparing nurse assessments with the judgements of five expert physicians: it was concluded that the AEP is a reliable and valid instrument to assess appropriateness of patient days in Turkey (*245*). A study of the reliability of a European version of the AEP concluded that the EU-AEP is a reliable instrument in the European setting (*246*).

A review from Switzerland argued in favour of a common European model (*279*), and a later paper reported testing the application of another instrument, from RAND (*248*) in the United States, using expert panels from the two countries to assess appropriateness of upper gastrointestinal endoscopy (*249*).

Communications

Values

Information and its dissemination are essential to quality improvement.

- Information that is accurate, timely and complete:
  — can enable management control and coordination of resources and services;
  — is central to the continuity and evaluation of clinical care;
  — is needed by patients to understand, share and evaluate their own care (*250*).

- Poor availability, use and quality of health service data are common major obstacles to effective management and quality improvement.
- Incomplete or delayed data cause undervaluation and underfunding of service providers.

Review of current information technology for quality improvement (*251*) can be summarized as follows.

- Health care quality can be significantly improved through health informatics (*252*).
- The United Kingdom is leading the way towards policy and legislation on health informatics (*253, 254*).
- The United States is in the forefront of systems for hospitals and health systems (*255*).
- The United Kingdom (*256*) and the Netherlands (*257*) are leaders in primary care health informatics deployment.
- Australia (*258*) and Canada (*259*) have led on combining national strategies with deployment.

Standards

Some health ministries and health care insurers lay down standards of documentation and data quality for the purposes of resource allocation, reimbursement and monitoring.

Generic guidance on the content and administration of records and on information for patients is a key feature of accreditation programme standards. It is also provided by malpractice insurers, who can quantify the damage caused by failures to identify patients (and their parts) and to communicate, document and evaluate information.

For clinical specialties, standards may be provided by professional associations (as criteria for recognition of training or for service accreditation) and by national user groups. Standards for nursing records have been issued by WHO (*260*), the International Council of Nursing (*261*) and the United Kingdom Central Council (*262*). WHO has developed model templates for data capture for physiotherapy for low back pain, nephrology, patient falls, dental care, blood transfusion and stroke management (*263*).

Measurement

- Self-assessment: audit of patient records (Table 2.20), data quality (Table 2.21), patient information, and internal communications.
- External assessment: accreditation of data, health records.

Several reports from different countries confirm that routinely captured clinical data are commonly incomplete, particularly with respect to secondary diagnosis, complications and comorbidity. Failure to record these aspects prevents accurate routine measures of outcome and case-mix, undervalues clinical workload and may thus reduce future funding or reimbursement. These problems for individual organizations are compounded when their data are used for external exchange, aggregation and comparisons (*272*), particularly internationally (*273*). Several helpful Internet sources are available (Table 2.22).

Implementing change

The above description of ways of defining and measuring various elements of quality in health care was divided into nine functional areas that are often separated within organizations and have tended to use different methods. However, strategies for

Table 2.20 Quality of clinical records

Country	Topic	Description
France	Discharge abstracts (*264*)	Study of a random sample of 593 patients discharged from an acute hospital: checking for personal data and completion of discharge abstract (diagnosis, procedures, data entry). Showed errors in 4% of personal data, 12% of diagnostic recording, 11% of coding and 2% in entry to the hospital database; 7.5% of discharge abstracts contained errors that gave incorrect diagnosis-related groups
Germany	Patients with diabetes (*265*)	Retrospective analysis of documentation showed that indicators of quality in reports for general practitioners were incomplete. Identified need for standardized methods of documentation
Sweden	Nursing records (*266*)	Development and validation of an instrument to measure documentation of the nursing process based on international standards. The instrument proved a valid and reliable test of structured documentation of patient well-being, integrity, prevention and security

Table 2.21 Quality of data

Country	Topic	Description
Brazil	Data capture (*267*)	Failure to record secondary diagnoses led to incorrect classification of diagnosis-related groups
Italy	Training to improve data capture (*268*)	Training and continuous monitoring and feedback improved the quality of medical information abstracted at patient level from the medical record
Netherlands	Data capture (*269*)	Comparison of discharge letter linked diagnosis registration and form-based diagnosis registration. Completeness and accuracy assessed in two groups at three digit ICD-9-CM. Concluded that there was no difference between the two groups: linking diagnosis with discharge letter does not improve quality of coding
Nigeria	Training to improve data capture (*270*)	Training programme for health centre staff to appreciate reliable routine data as tools for management and service quality
UK	Diagnostic coding in cerebrovascular disease (*271*)	Comparison of diagnostic codes on computerized database with codes allocated by assessors after examining case notes. Large-scale discrepancies showed need for improved training/communication of clinical and coding staff

Table 2.22 Health care informatics: selected Internet sources

Organization	Web site
Canadian Institute for Health Information (CIHI): aims to identify health information needs and priorities; to collect,process and maintain data for a comprehensive and growing number of health databases and registries; to set national standards for financial, statistical clinical data	http://www.cihi.ca/weare/weare.htm/
European Health Telematics Observatory (EHTO): aims to collect, analyse and make available a wide range of information on developments in the field of health telematics	http://www.ehto.org
Health Telematics Research and Development Programme: aims to encourage the emergence of interoperable health care telematic solutions on national and European scales	http://www.ehtel.org
Primary Care Informatics, sponsored by the European Federation for Medical Informatics (EFMI): aims to develop the theory and practice of information science and technology in a European context	http://www.efmi.org

managing change are more widely shared. Some of the strategies and mechanics that have been applied around the world for acting on assessments, as revealed by a limited review, are presented together as:

- policy and organization: environment of quality improvement;
- project methods: identifying the need for change;
- change management: making a difference;
- involving the public;
- resources for quality improvement.

Policy

Health care organizations need a clear and consistent policy that defines the culture, accountability and organization for quality improvement (*274*). Visible senior management leadership, commitment to quality, and staff involvement are essential. Quality should be central to business plans and the management agenda: it is everybody's business. This attitude is often referred to as a quality culture.

"Each country should have a national quality report, based on standardized comprehensive and scientifically valid measures, which describes the country's progress in improving the quality of care" (*275*).

Few, if any, countries have an established annual report on quality nationwide, but it is the ambition of many health care providers to produce an annual account of the performance of their own facility.

Organization

Quality programmes must be coordinated and integrated within the organization to share participation and learning and to avoid isolation of individuals and departments. They must also be consistent with patient pathways between hospital, primary and community care, and meet the requirements of health departments and purchasers.

Linking of quality-related activities is crucial within and between organizations. The policy and culture of quality must integrate with clinical decision-making, budgeting and financial systems, and the development of human and other resources.

In using external technical assistance to set up quality systems, attention should be given to ensuring that transferred know-how becomes fully institutionalized. This can be done, for example, by focusing on those most willing to adopt new technologies and on young people who may, in time, become more effective change agents than established professional groups (*276*).

Project methods

This review found little reference to the use of explicit standards (except for clinical guidelines) as a basis for systematic assessment. Many reports emphasized the importance of identifying priorities for problem solving, and using standards that are explicit, valid and based on available evidence. Assessments should be robust enough to be reliably repeated for follow-up or for application in other settings.

Quality assessments have little or no practical benefit unless their conclusions are translated into an agreed, defined plan of action that is subsequently implemented and then shown to have achieved the intended results by repeating the assessment. These methods should become standardized, transferable and shared with colleagues, for example through professional and organizational networks at local and national level.

Change management

Much of the evidence for successful change management surrounds the adoption of evidence-based medicine by clinicians, particularly doctors (*277–280*). Reports from Australia, Europe and North America suggest that problems and solutions in change management centre on the behaviour of people and organizations more than on technical issues. These conclusions are consistent with experience of other professions and other continents (*281*).

Reported change mechanisms fall into four general approaches: information, support, incentives and systems.

Information

Feedback reinforces and sustains improvement against predefined standards or peer group benchmarks. Benchmarking can encourage debate between clinicians and managers, collaboration between participating hospitals and practices, and improvement in data quality. Both can effect and maintain change in clinical practice, for example by statistical process control in the management of asthma (*282*) or by practice visiting.

One specific use of information that has received recent attention as a change agent is "whistle-blowing". Several recent public enquiries into system failures have been triggered by reports in the lay press of information that was not known to senior health service managers or was not acted upon by them. This situation showed the need for staff to be able to report major concerns in the public interest directly to appropriate authorities without fear of sanctions. In the United Kingdom, the Department of Health issued specific guidance on the Public Interest Disclosure Act (*283*).

Staff support

Change can be sustained by peer group pressure, such as in discussion meetings, by statistical feedback on comparative performance, by post (*284*), or by follow-up visits by a facilitator. The last method was notably effective in implementing guidelines for preventive care in general practice in the Netherlands (*285*) and in primary care in Indonesia, using frequent visits of an individual (termed a "circuit rider") to maintain enthusiasm. In Russia, it was noted that on-site assistance by international medical consultants was needed for several years to hasten the process of change. Moreover, the introduction of evidence-based medicine was difficult for practitioners owing to lack of access to knowledge bases in an appropriate language (*286*).

Closer supervision of trainees and assistants in general (*287*) and educational programmes to resolve identified weaknesses are common responses to problems with quality. Despite this, many single instances of failure of individuals to take appropriate action are shown to be caused by immediate circumstances (such as pressure, tiredness, or staff shortage) rather than a lack of knowledge.

Responsive training may thus be aimed at improving clinical skills and knowledge, but it is more often used to develop the capacity of managers and clinicians for individual or organizational improvement. A recent WHO document is addressed to health care personnel and managers seeking to improve the quality of the health care system by fostering change in the process of care and in the performance of practitioners (*288*).

General cascade training (teaching the teachers) is the foundation of many programmes in developing countries and provides a means by which to instil the culture and skills of quality improvement. However, more specific training may focus on topics such as the translation of scientific evidence into literature for consumers (*289*) and interpersonal skills for clinicians (*290*). The latter project, from Honduras, was shown to be followed by greater patient satisfaction and more disclosure of medical information to staff who received the training compared with those who did not.

Incentives

The US Institute of Medicine's report *Crossing the quality chasm* emphasizes the need to align payment policies with quality improvement (*291*). Financial obstacles in payment methods can create significant barriers and may need fundamental reform.

Beyond the satisfaction, common to most health care staff, that comes from doing the job better, more tangible incentives have been used such as high-profile quality awards, certificates of approval and money.

A French review analysed 89 articles published in English or French between 1993 and 1999 on the association between physician payment and the costs, process or outcomes of care (*292*). It concluded:

- the literature is not amenable to structured systematic review (there are few randomized controlled trials or meta-analyses of results);
- the causal relationship between financial and non-financial measures (such as continuing education and mandatory practice guidelines) is difficult to interpret;
- the socioeconomic context of a health care system determines the impact of financial incentives and may not be comparable between countries;
- fund-holding or capitation decreased the volume of prescribing by 0–24%, and hospital days by up to 80% compared with fee-for-service;
- financial incentives may reduce access and continuity of care and create conflicts of interest between doctor and patient;
- an annual cap on doctors' income resulted in referrals to colleagues when the target income was reached;
- financial incentives can reduce the use of resources, improve compliance with practice guidelines or achieve a general health care target;
- in the hands of "good" managers and doctors, financial incentives may result in better quality of care if the evidence exists to show which care and how much of it is enough.

Hospitals also respond to financial incentives, for example by reducing waiting lists or improving access to emergency care (*293*), but there have been allegations of "gaming" (adjusting reported data in order to achieve required targets) in many settings and countries.

A postal survey of senior doctors in the United Kingdom assessed the perceived causes and effects of adverse events and sought views on methods of reducing litigation and adverse events (*294*). This reported that "the threat of litigation has led to attempts to improve communication with patients and staff and to keep better records". Over-investigation was not generally thought to be a consequence of litigation, and only a few respondents (more commonly in surgical specialties) avoided certain procedures or staff members.

Systems

Business process re-engineering is an industrial concept. It is the managerial equivalent of zero-based budgeting; instead of making incremental changes to traditional practices, it involves redesigning from a new beginning.

Applied to health services, this concept has had a dramatic impact on refocusing outpatient care: multiple separate visits to clinics and diagnostic and treatment services were replaced by a "one-stop shop". A more common and simpler application is the response of hospitals to delay analysis of door-to-needle time in acute myocardial infarction, which usually shows that traditional practices may deprive patients of the benefits of timely thrombolytic therapy: ambulance delays, admission procedure, waiting for the receiving doctor, referral to cardiology, waiting for porters, proceeding via radiology, before reaching the coronary care unit where the refrigerator stores the urgent ampoules. One solution, adopted in an acute hospital in Malaysia (*142*), included

the use of an agreed hospital protocol for acute myocardial infarction, authorization of emergency department staff to institute thrombolytic therapy and to admit direct to the coronary care unit, updated display of the unit's emergency bed status, and completion of patient registration after admission.

Reconfiguration of referral patterns and clinical specialties is another option for improvement, based on evidence that some technical procedures produce better results in the hands of frequent users (the volume–outcome link); however, some people argue that moving specialty services to a distant centre merely makes them less accessible and that the underlying evidence of poorer performance may be attributable, in part, to the lack of statistical validity in small numbers (*295*). A review published in 1997 concluded: "The literature on links between volume of clinical activity and clinical outcomes suggests that for some procedures or specialties there may be some quality gains as hospital or physician volume increases. In other areas, the research suggests an absence of significant volume gains. Generalization is clearly not possible on the basis of these results" (*296*). One area in which benefits appear to be associated with volume is coronary artery bypass surgery; Table 2.23 summarizes the results in hospitals reimbursed by the Ministry of Health, Brazil, in 1995 (*202*).

Involving the public

Many governments, newspapers and independent bodies have published comparative measures of health service results to demonstrate transparency, to assist consumers in making choices and to encourage the lower rated services to improve. "Little is known about the kind of performance information the public wants to see, thinks is useful, or actually uses. There are concerns that publicly available performance measures will encourage health care providers to focus on producing information that looks good rather than patient care that is good" (*297*).

The Consumer Assessments of Health Plans (CAHPS) project was set up in 1995 to collect, analyse and publish consumers' views on health plans available in Washington State, United States. Most respondents to an evaluation survey who had subsequently enrolled in a plan reported that they had used the information and found it valuable but were uncertain whether the reports should be simpler or more detailed (*298*). Similar technical issues of data selection, analysis and presentation have been reported from the experience of the United States (*299*) and the United Kingdom (*300*). Another review of experience of disclosure in the United States concluded that there is limited empirical evidence of its influence on the clinical and managerial practices of professionals and organizations, as well as the impact on quality of care for health service users (*301*).

A series of editorials in 2000 reviewed experience of public disclosure as a change management tool in Australia (*302*), Sweden (*303*) and the United Kingdom (*304*), concluding that the cost–benefits of public disclosure of performance information were not yet proven but that disclosure may improve health care through changes in consumer,

Table 2.23 Coronary artery bypass surgery, Brazil, 1995

Operations per hospital	Number of hospitals	Total operations	Total deaths	Mortality rate
1–9	22	93	12	12.9
10–49	31	681	86	12.63
50–149	43	2 947	264	8.96
150–299	23	8 077	509	6.3
300+	5	4 269	228	5.34

professional, managerial, and organizational behaviour. Whether or not this turns out to be true, public expectations demand that meaningful performance data be made available.

A survey in the United States by the Kaiser Family Foundation and AHRQ in 2000 showed that medical errors are now among the public's leading measures of health care quality and that consumers increasingly turn to the Internet, rather than to family, friends or personal physicians, to get information about providers (*305*). The Internet presents a powerful mechanism for helping users improve their health care decision-making, but there is potential for misinformation. The Health Summit Working Group, with a grant from AHCPR (now AHRQ), has developed a set of standards and criteria by which health information web sites may be critically evaluated. These criteria are available on the Internet (*306*) and are summarized in Box 2.1.

At a more general level, the Australian Commonwealth Government has funded a national resource centre (*307*) to support provider groups and consumer organizations in consumer participation and feedback. On its web site, the centre provides the full text of five relevant documents (see Table 2.24).

Box 2.1

Criteria for evaluating Internet health information

- **Credibility** – includes the source, currency, relevance/utility and editorial review process for the information.
- **Content** – must be accurate and complete, and an appropriate disclaimer provided.
- **Disclosure** – includes informing the user of the purpose of the web site, as well as any profiling or collection of information associated with using the site.
- **Links** – evaluated according to selection, architecture, content and back linkages.
- **Design** – encompasses accessibility, logical organization (navigability) and internal search capability.
- **Interactivity** – includes feedback mechanisms and means for exchange of information among users.
- **Caveats** – clarification of whether the site's function is to market products and services or whether it is a primary information provider.

Table 2.24 Consumer participation in health: selected Internet sources

National Resource Centre for Consumer Participation in Health, Australia (http://nrccph.latrobe.edu.au/)	
Fact sheet	**Topic**
1	An introduction to consumer participation
2	Methods of consumer participation
3	Committees that involve consumers: issues for providers
4	Questions to ask before involving consumers
5	Key resources in consumer participation in health.

Resources for quality improvement

When asked what would most improve quality in health care, many clinicians and managers quickly reply, "more staff, more equipment, more money". This review has found little empirical evidence to support this reaction, but some basic needs are evident.

Time

Time spent by clinicians in classrooms, records departments, and discussing standards, measurements and action plans is time not spent in clinics, operating theatres and wards. One study, adopted for the implementation of medical audit in the United Kingdom, estimated that taking part in regular systematic quality improvement consumed 5% of a full-time clinician's programme. This activity replaced some of the time spent on more traditional and anecdotal clinical meetings, but it also generated more work for clerical staff in retrieving and re-filing large numbers of case records for analysis.

Data

Much use has been made of individual and aggregated patient and service data for quality improvement, and computer-based clinical support systems have been shown to improve diagnosis and treatment (*252*) and to reduce errors, particularly in prescribing.

Table 2.25 Costs of quality improvement

Country	Comment
Chile	On the results of a survey of 300 clients attending a women's clinic: "The issues identified by the clients involve only minor costs for the clinic" (*308*)
Indonesia	"High technology resources are not necessary to implement a programme. Post-its, checklists and other paper-based methods were used to aid compliance with explicit guidelines" (*58*)
Papua New Guinea	"Many of the deficiencies observed are amenable to improvement through simple and inexpensive means; with sustained commitment, improvements are achievable" (*309*)
Rwanda	On improvement of the emergency ward at the 700-bed national hospital: "Even though improvements are still possible, the approach showed that I can improve quality in difficult circumstances at low cost by internal clients with the support of patients and the leaders" (*201*)

Many facilities, particularly hospitals, have numerous fragmented manual and computer records, often using incompatible systems of coding and operation, that could be catalogued and developed for quality improvement. Even the poorest facilities usually keep registers of outpatients, emergencies, admissions, prescriptions, diagnostic tests, operations and nursing and medical care that can yield valuable data.

Information

Clinical and management staff need access to standards, practical guidance on tested quality improvement methods, and examples of results. Some of this information can be provided by local libraries, such as that published in journals, but the wealth of information on web sites (if it is in an appropriate language) commends investment in Internet access. Many countries have established a development centre to collect and exchange the national body of experience and to relate it to knowledge from abroad.

Staff skills

Many countries have a cadre of trained quality facilitators who are, or become, the local repositories of expertise to support and train the general staff within a hospital or district.

Money

The principal resource is the opportunity cost of staff time. Direct costs include quality support staff, training, data collection and access to information. The most common message of quality improvement projects is to make better use of existing resources rather than to spend more. Quality improvement does not have to be expensive: the final words in this section go to practitioners from four countries who endorse that sentiment (see Table 2.25).

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SECTION 3

Health service accreditation programmes

Summary

This section focuses on the use of accreditation at the national level as a tool for organizational development and external assessment of health services. More details on accreditation methodology and comparison with other external quality mechanisms are given in Section 2, under Quality tools.

Sources

A survey was undertaken in late 2000 of known national accreditation programmes (excluding those that were specialty-based or subnational, or that relate to certification under ISO). A one-page questionnaire, previously pilot-tested in Europe, was designed to obtain objective descriptions of each programme with existing data. The survey was distributed by electronic mail or fax to 36 known programmes in 33 countries and to academic or governmental contacts in 32 other countries. Twenty-eight programmes completed and returned the survey. Six of the remaining eight known programmes are based in the United States. Additional data were gathered opportunistically from multiple sources, including the literature and Internet searches that were undertaken for Sections 1 and 2 of this report. These sources provided basic but unsystematic descriptions of the state of accreditation in 47 countries.

Findings

This review shows that demands for accreditation are increasing and changing rapidly around the world. Traditional accreditation must adapt to an increasingly public agenda if it is to survive and to thrive as a vehicle that links internal self-development with external regulation.

Programme growth. Two-thirds of all respondents were from Europe. The number of programmes around the world has doubled every five years since 1990.

Public agenda. One programme in three is enabled by national legislation, particularly since the late 1990s. Voluntary accreditation is becoming statutory, and most new programmes are government-sponsored.

Gestation. Most new programmes take two years to prepare for their first survey and certainly longer before they are self-sufficient.

Shifting focus. Programmes now focus their standards and assessments increasingly on integrated pathways: they follow patients and disease processes (horizontally) rather than management units (vertically).

Transparency. The move towards statutory and governmental endorsement is associated with freer access by the public to the standards, processes and findings of accreditation.

Distribution of workload. Some 80% of the world's reported surveys are undertaken by 20% of the programmes. Many programmes have yet to reach a critical mass of work and income.

Costs and benefits. More evidence should be valuable about the costs and benefits of accreditation to governments, communities and providers. Such data may be increasingly crucial to governments and funding agencies when making investment decisions.

Purpose and scope of Section 3

Accreditation is the most commonly used external mechanism for standards-based quality improvement in health care. It is developing rapidly in South America and Europe. Progress is widely reported in well-established programmes – new developments in Europe were actively tracked by the External Peer Review Techniques

(ExPeRT) project of the European Union (1996–99) (*1*), and ISQua's new Agenda for Leadership in Programs for Healthcare Accreditation (ALPHA) programme (*2*) receives some self-reported data. However, there is no source that holds current, consistent descriptors of operational and developing national programmes around the world. Such information would be valuable in helping organizations to identify others that are presently or have recently been at a similar stage; it would also help ALPHA to offer active support to programmes that are developing and to create networks among those that are well established.

National accreditation systems are defined as programmes that, at a national level, aim to provide accreditation services to primary care, community services, hospitals or networks. These include statutory and voluntary bodies that offer organizational development through external assessment of health services by means of published service standards. In countries where accreditation is mandated nationally but is provided at regional level, as in Italy, regional programmes would be included. For this purpose, single-specialty or local programmes, accreditation of training, and accreditation of ISO certification are not included.

Methods

Sources used

Information on accreditation programmes was obtained from four principal sources:

- the European Union ExPeRT project;
- the ISQua ALPHA programme;
- web sites and literature references identified while researching material for reports on national structures and activities (Section 1) and quality concepts and tools (Section 2);
- a simple survey directed at national accreditation programmes that were known to be in development or operational.

A one-page questionnaire was developed to find out which countries have, or will soon have, one or more nationwide accreditation programmes for health care and to collect details about their current and proposed work (Appendix 3.1). The questions were designed to elicit objective answers that:

- describe the volume and scope of activity in accreditation;
- define how the programme relates to government;
- relate to the ALPHA criteria for standards and operations (for example, revision of standards, surveyor training);
- relate to public accountability (for example, access to standards and results);
- use data that were likely to be readily accessible.

The first version was pilot-tested in a study of 27 countries in Europe in June 2000. After discussion with the participants, it was expanded for this global survey, endorsed by the group, and distributed outside Europe by email in November 2000 with an explanatory letter. This correspondence was addressed to known contacts of 36 established programmes and to interested parties (academic or governmental) in 32 other countries. The participating programmes are listed in Appendix 3.2.

Data collection and management

The survey forms were distributed in Microsoft Word format to known contacts or addresses provided by web sites. Non-respondents from major operational programmes were followed up by telephone, fax and email. Responses were transferred to Microsoft Excel to establish a database from which results were tabulated for analysis. The findings are presented below as country summaries and survey analysis.

Health service accreditation: summaries by country

These summaries are intended to indicate the current state of accreditation, based on recently published reports and on some survey responses, in a selection of countries. Some of the published reports are fragmentary or missing altogether; some are hopes rather than realities. Ideally, comparable data would describe the health care environment of countries that do not have a developing or operational programme, as well as those that do. Such data would help to define the natural history of accreditation.

Argentina

The Technical Institute for Accreditation of Healthcare Organizations (ITAES) was constituted in 1993 as a nongovernmental, not-for-profit organization. It provides voluntary accreditation for public and private hospitals, closely following the PAHO model that it helped to develop (*3, 4*). It is planned to extend accreditation to ambulatory care and mental health services (Appendix 3.3).

Armenia

The Ministry of Health defines licensing for individuals and institutions and accredits training courses by the National Institute of Health that are requirements for individual certification. There is currently no programme for accreditation of health services, but the law on licensing was being redrafted in 2001.

Australia

The Australian Council on Healthcare Standards (ACHS) was the pioneer in accreditation in Australia. It began as a collaboration between doctors and administrators in adjacent states, based on the Canadian model, and was supported by the W.K. Kellogg Foundation (Appendix 3.4).

Australian General Practice Accreditation Ltd (AGPAL) is a not-for-profit company made up of members from all the major organizations representing general practice. It is voluntary, but the Federal Government and the profession agreed that all practices that wish to continue to receive a Practice Incentive Payment (PIP) would need to be accredited by 1 January 2002. In Australia there are approximately 6000 practices; in the first two years of operation, 2000 were visited and a further 2700 were registered (Appendix 3.5).

The forerunner of the Quality Improvement Council (QIC) programme was the Community Health Accreditation and Standards Program (CHASP). QIC was registered in 1997 as an independent body and began operations the following year; it focuses on primary care (Appendix 3.6).

Austria

There is no national programme at the moment, but there has been a law requiring quality management in hospitals since 1993. This does not require accreditation other than governmental licensing in the federal counties, though the Federal Ministry of Social Security was developing proposals in 2000 to link the restructuring of financing of the health care sector to an accreditation process.

Belgium

There is currently no accreditation programme and there are no plans to develop one. Hospitals are inspected by regional administrative medical staff and assessed against

criteria that are defined in hospital legislation and relate to infrastructure, equipment, and minimal medical and paramedical competence.

Bermuda

Both hospitals are accredited by CCHSA.

Bhutan

The Ministry of Health and Education is preparing legislation (the Medical and Health Council Act) that will include quality assurance and accreditation of medical education and institutions.

Bosnia and Herzegovina

Bosnia and Herzegovina is currently arranging to introduce accreditation. Projects are linked to post-war health reform and the development of primary care, assisted by the World Bank (Appendix 3.7).

Brazil

Hospital accreditation began in 1995, using standards based on the PAHO manual and sponsored by the Ministry of Health (*5*). Several programmes exist within regions, including the Organização Nacional de Acreditação and JCI (Appendix 3.8).

Canada

The Canadian Council on Health Services Accreditation (CCHSA) was set up following the separation of the United States and Canadian accrediting bodies in 1958. It is the second longest established programme in the world and was the principal influence in the formulation of the ACHS in Australia (Appendix 3.9).

Colombia

A government-backed project is under way, aided by CCHSA, to develop a national accreditation programme. This will be separate from the existing mandatory minimum standards programme for licensing health care institutions (Appendix 3.10).

Czech Republic

Accreditation for hospitals and other health facilities began in 1995 through a joint initiative of the Ministry of Health, the hospital associations, insurance funds and the Czech Medical Association and Medical Chamber (Appendix 3.11).

Denmark

Six Copenhagen County hospitals were working towards accreditation surveys in 2001, with JCI.

Dominican Republic

In 1996, the Secretariat for Public Health and Social Welfare, working with the Private Clinics Association, began to develop an accreditation system for hospitals and private clinics, but this initiative has run into serious difficulties. It has been possible to reach agreement on only a few of the definitions, and nothing definite has emerged from the

process. There is also an effort under way to regulate and accredit public and private laboratories (*6*).

Ecuador

New funding arrangements in 2000 require accreditation of hospitals and districts. This development is supported by QAP and PAHO.

Estonia

There is no accreditation programme yet, only local licensing against minimal structure standards. There is some interest among hospitals and talk by senior officials of the need for more standardization, but there are no prospects of funding for a standards programme.

Finland

A pilot programme based on the United Kingdom King's Fund Organisational Audit has been incorporated within an independent company (Efektia), closely linked to ISO certification (Appendix 3.12).

France

Independent, specialty-based programmes (such as those for cancer and emergency services) pre-dated the establishment of the Agence Nationale d'Accréditation et d'Evaluation en Santé (ANAES) under national law. This government agency has a mandate to accredit all health services in France, public and private, including more than 3250 hospitals (Appendix 3.13).

Germany

Collaboration between the federal medical chamber, insurers and managers led to the establishment in 1999 of an independent voluntary accreditation programme for hospitals (Appendix 3.14).

Hungary

An accreditation programme has been planned since 1993–95. In recent years, various regulatory and legislative steps have been taken to create an infrastructure and environment for an accreditation system, initially for hospitals, under the National Accreditation Council in Budapest (Nemzeti Akkreditacios Testulet), but no programme yet exists.

India

A statutory national accreditation programme is considered impractical, as health care is the responsibility of individual states. However, state and central governments may consider a voluntary system of accreditation based on peer review (*7*).

Indonesia

Accreditation began in 1995 by the Commission on Accreditation of Hospitals and Other Health Facilities, established by the Ministry of Health. By 1998, 151 of 1100 hospitals had been accredited (Appendix 3.15).

Ireland

A project to develop an accreditation scheme, initially for the acute health services, commenced in 1999 and was completed in January 2001. It involved the Major Academic Teaching Hospitals (MATHs), with the support of the Department of Health and the help of CCHSA. The Irish Health System Accreditation Scheme is currently being implemented throughout the acute health care sector with planned extension to all other heath care entities. A number of private hospitals are currently working with JCI, but there is agreement with the Independent Hospitals Association of Ireland that there will be a single accrediting body in the country (Appendix 3.16).

Italy

A national law has required accreditation to be established by all regional governments, which will define their own model and standards based on national guidelines. The Italian accreditation system aims at selecting both structures and individual medical professionals responsible for providing health care services on behalf of the Italian National Health System. To date, the main duties of the Regional Agency for Health Care have been as follows:

- to review regional legislation, through a comparative analysis of requirements and procedures;
- to publish documents illustrating the general features of the accreditation mechanism and presenting the current legislation;
- to supply materials and documents for the elaboration of national guidelines;
- to monitor the stages of development of the regional models;
- to support the regions in defining and implementing the accreditation process;
- to provide communication and information tools.

Of 19 regions and two autonomous provinces, Friuli, Venezia, Giulia, Lombardia, Piemonte, Emilia Romagna, Toscana, Marche, Molise, Sardegna, Calabria and Basilicata have set up an accreditation system or are in the process of doing so. These regional initiatives are monitored by the National Agency for Regional Health Services in Rome. Appendix 3.17 refers to Marche Region.

Japan

In 1995 the Japan Council for Quality Health Care (a nongovernmental organization) set up an accreditation programme funded by the Ministry of Health and Welfare and the Japan Medical Association (*8*) (Appendix 3.18).

Kyrgyzstan

Licensing and accreditation of public and private practitioners and health care facilities were combined under the Ministry of Health from 1997. From 2001, an independent not-for-profit Accreditation Commission accredits hospitals, polyclinics and general practice.

Lithuania

The Lithuanian Health Programme of 1997–2010 gives priority to health care quality, particularly to licensing (institutions and personnel), accreditation, certification of quality systems and audit. The State Health Care Accreditation Service is currently being reorganized in preparation for a national accreditation programme under the Ministry of Health. This service will include responsibility for quality development, methodology and training, as well as for licensing health care institutions and specialists.

Luxembourg

A national mammography standards project and an initiative on nosocomial infections are well established, and ISO standards are applied to laboratories and pharmaceuticals. There is no accreditation programme.

Malaysia

The origins of hospital accreditation in Malaysia can be traced to the quality assurance programme formalized in 1985. Authority for accreditation was given by the Ministry of Health to an independent body, the Malaysian Society for Quality in Health (Appendix 3.19).

Mongolia

The Mongolian Health Licensing and Accreditation Organization was established in 1999 for health professionals and health facilities. It is an independent, not-for-profit governmental organization, funded by its own accreditation activity. Current activity aims to develop legislative documentation and hospital standards for accreditation (Appendix 3.20).

Morocco

Morocco had plans to establish hospital accreditation under a National Forum by 1999.

Netherlands

After several years of development, the Netherlands Institute for Accreditation of Hospitals (NIAZ) emerged in 1998, following the law on quality in health care institutions which came into effect in 1996. NIAZ is supported by government and based on the Canadian model (*9, 10*) (Appendix 3.21).

New Zealand

The independent New Zealand programme began with the technical support of ACHS in 1990 and sought early external evaluation by an external peer group (the Wellington Group) that was the forerunner of the ALPHA programme (Appendix 3.22).

Philippines

A national programme for accreditation was established in 1999.

Poland

Institutionalization of quality improvement has started in Poland, where the National Centre for Quality Assessment in Health Care (NCQA) was created in Crakow in 1995 with technical support from USAID and JCI. NCQA is developing evidence-based practice guidelines, accreditation and technology assessment and receives state support to provide essential services to the Polish health care system. In 1999 it was the third most active accreditation programme in Europe (Appendix 3.23).

Portugal

A pilot national accreditation programme for hospitals began in 1998 with technical support from the United Kingdom HQS and funding from the Ministry of Health. The first surveys are now under way (Appendix 3.24).

Republic of Korea

The Hospital Performance Evaluation Programme, run by a government-supported nongovernmental organization, began in 1995 with a focus on internal quality assurance, consumers and outcomes.

Singapore

The accreditation programme was started in 1991 as a function of the Medical Accreditation and Audit Unit of the Ministry of Health.

Slovak Republic

The Centre for Quality and Accreditation in Health Care was set up in 1999 by the Ministry of Health to prepare for launching health care accreditation and to develop accreditation standards. The Slovak National Accreditation System is responsible for the accreditation of all sites and accredits health service laboratories according to ISO standards (Appendix 3.25).

South Africa

The Council on Health Service Accreditation for South Africa (COHSASA) was set up as an independent programme in 1993 for the public and private sectors. It includes hospital-based and district-based services and was developed with technical support from the United Kingdom HAP (*11, 12*) (Appendix 3.26).

Spain

The 1986 law on consolidation of the National Health System formed the basis for accreditation to be developed within the autonomous regions. In 1981, an earlier programme in Catalonia was the first in Europe. From 1986, a Spanish accreditation programme facilitated postgraduate training of specialists in hospitals. Since 1996, the Avedis Donabedian Foundation has offered an accreditation programme with JCI (Appendix 3.27).

Switzerland

Two independent promoters of accreditation, the Agence pour la Promotion et l'Evaluation de la Qualité (APEQ) (*13*) and the Vereinigung für Qualitätsförderung im Gesundheitswesen (VQG), have decided to promulgate joint standards in the future, but both organizations will continue their evaluations separately for the moment. These initiatives are actively supported by the Swiss Society for Quality in Health Care. There has also been active interest within the Swiss Medical Association (Appendix 3.28).

Thailand

The Thai Medical Council first introduced assessments of hospitals against standards. In 1995, the Ministry of Health proposed a neutral agency to reconcile the conflict of quality and cost between health care providers and consumers. Thus the Hospital Quality Improvement and Accreditation Institution was set up as a civic institution, working closely with government, to implement accreditation as an educational tool rather than an inspection scheme (Appendix 3.29).

Turkey

There is no law on accreditation of hospitals in Turkey, but licensing is required prior to construction of new hospitals, which are then inspected by municipal health authorities against minimal standards before any patients can be accepted. This operating licence is given to a specialist doctor on behalf of the hospital. The licence has to be renewed if this person resigns, dies, or is dismissed.

United Kingdom

Two pilot accreditation programmes were set up without government funding, support or recognition in 1990. A programme of Organisational Audit was launched by the King's Fund, a London-based charity, and developed into the Health Quality Service (HQS), providing accreditation across the spectrum of public and private services (Appendix 3.30).

The Hospital Accreditation Programme (HAP) initially focused on small National Health Service (NHS) hospitals in one region, but now extends to public and NHS acute and community services throughout the country. Both programmes remain independent of government and of each other (Appendix 3.31).

The Clinical Standards Board (CSB) was set up in 1998 as a special authority for Scotland following the NHS Act. Its purpose is to define and assess standards of clinical services across primary, secondary and tertiary care in the public sector. The CSB has produced generic clinical standards for public services (*14*) and a national overview of coronary heart disease (*15*) (Appendix 3.32).

United States of America

The American College of Surgeons set up a standards programme to define suitable hospitals for surgical training in 1917. This developed into a multidisciplinary programme of standardization and led to the formation in 1951 of the independent Joint Commission on Hospital Accreditation, now the Joint Commission on Accreditation of Healthcare Organizations (JCAHO), from which all subsequent national programmes have been directly or indirectly derived.

The National Committee for Quality Assurance (NCQA) is an independent, not-for-profit organization that began accrediting managed care organizations in 1991 (Appendix 3.33).

Zambia

Zambia Health Accreditation was set up in 1998 as a government programme, with the support of USAID and technical assistance from the USA-based QAP. JCI evaluated the three-year pilot programme (*16*) (Appendix 3.34).

Survey findings and analysis

Among the 47 countries for which some information is given in the previous section, there are 36 accreditation programmes known to be operational at a national level.

Data were received from 28 (78%) of these programmes among 33 countries. Six of the remaining eight programmes are based in the United States. Status reports were available from a European survey conducted six months earlier on 14 more countries, and additionally from Colombia and Turkey. Limited data for Zambia were taken from published reports (*17*), and information concerning Japan, Switzerland and the United Kingdom (CBS) was compiled from earlier contacts (the completed survey forms are reproduced in Appendices 3.3–3.34). There were no difficulties reported in receiving, completing or sending the questionnaire by email, but some were returned only by fax.

Where there were problems with emails being rejected and returned electronically, alternative forms of communication were attempted in most cases when it was known that a programme existed and had other contact details.

Contact details for the regional accreditation programmes in Italy were received too late to be included in this survey. Only one data set (Marche region) is included here.

The analysis of findings includes only programmes that completed the survey (Appendix 3.2), or for which most of the data were available from other sources. It does not include non-responders or the Joint Commission (USA), which did not wish to be included.

Distribution of responses

For the purpose of this study, countries were classified according to WHO Regions (Table 1.3). Responses are shown in Table 3.1. Non-response may have been the result of failure to contact the appropriate people, rather than unwillingness to provide data. Lack of response may genuinely reflect an absence of accreditation activity, but the exclusion of any programme from this review does not indicate that accreditation activity, either operational or developmental, does not exist.

Australia (Western Pacific Region) and the United Kingdom (European Region) each reported three active programmes (Table 3.2); there are therefore more programmes listed than there are countries with programmes.

Nevertheless, responses to this survey indicate that:

- there are at least 33 national accreditation programmes in 29 countries;
- a quarter of these are still in development, rather than operational;
- almost a third (30%) are in Europe, and there are none in the Eastern Mediterranean Region.

Table 3.1 Countries responding, by WHO Region and result

WHO Region	No. of countries		No response but data available	Programmes operational	Programmes developmental
	Survey sent	Response			
Africa	6	1	1	2	—
The Americas	16	5	—	5	1
Eastern Mediterranean	5	—	—	—	—
Europe	28	21	1	10	5
South-East Asia	4	2	1	2	—
Western Pacific	8	5	1	5	2
Total	67	34	4	24	8

Table 3.2 Countries reporting more than one national programme

Country	Programme	Areas accredited
Australia	Australian Council on Healthcare Standards (ACHS) Australian General Practice Accreditation Ltd (AGPAL) Quality Improvement Council (QIC)	Primary, secondary, tertiary Primary Primary, community
UK	Health Quality Service (HQS) Hospital Accreditation Programme (HAP) Clinical Standards Board for Scotland (CSB)	Primary, secondary, tertiary Community, secondary Clinical services in Scotland

Legal framework

Table 3.3 refers to item 11 of the survey questionnaire: "Is there any law or directive requiring accreditation in your country?" Without analysing the content of the legislation, it is difficult to know whether it differentiates between accreditation and licensing, and to what extent it prescribes accreditation rather than facilitates it. However, these results suggest that:

- one-third of programmes are enabled by legislation;
- accreditation of all health services is compulsory by law only in France and Italy;
- most legislation appeared in the late 1990s (Table 3.4);
- most programmes are not based on national legislation.

Relationship to government

Item 12 asked programmes to describe their relationship to government in terms of their management, funding or recognition. The categories in Table 3.5 are not mutually exclusive and government recognition was not defined, but responses suggest that:

- half of the programmes are funded, partially funded or managed directly by government;
- long established programmes are independent of government;
- most programmes established in the past five years are sponsored by government;
- accreditation is increasingly used by governments as a means of regulation and public accountability, rather than for voluntary self-development.

Table 3.3 Distribution of legislation for national accreditation

Legislation	Countries	Total
General law incorporating accreditation	Argentina, Colombia, France, Indonesia, Italy, Lithuania, Mongolia, Netherlands, Poland, Spain, UK	11
Nil relevant reported	All others	22
Total responses		33

Table 3.4 National legislation related to accreditation

Country	Year	Law
Argentina	1997	Decree no. 1424 stated all hospitals should be accredited, but regulations not yet implemented.
Colombia	1996	2174 Decree from Health Ministry
France	1996	Parliamentary Law of 24 April 1996
Indonesia	1992	Health Decree No. 23
Italy	1997	National Government DL14.1, 1997 and DL 229, 1999; Regional Authorization and Accreditation Act, Marche Regional Council No. 20. 2000.
Lithuania	1997	Health care institutions law on mandatory accreditation; revision made it voluntary in 1998
Mongolia	1998	Health Law and Government Resolution
Netherlands	1996	Kwaliteitswet zorginstellingen
Poland	1995	Health Organization Act
UK	1998	National Health Service Act, Scotland

Table 3.5 Relationship to government

Status of programmes	Countries (programmes)	Total
Managed by government	Bosnia and Herzegovina; Italy; Mongolia; Zambia	5
(Partially) funded by government	Colombia; France; Germany; Indonesia; Ireland; Japan; Poland; Portugal; Thailand; UK (CSB)	10
Recognized by government	Australia (ACHS, QIC); Brazil; Malaysia; Republic of Korea	5
Totally independent	Argentina; Australia (AGPAL); Canada; Czech Republic; New Zealand; South Africa; Spain; Switzerland; UK (HQS, HAP); USA (NCQA)	11
Total responses		31

Table 3.6 Commencement of operations

Year of first survey	Countries (programmes)	No. of new programmes
1958	Canada	1
1974	Australia (ACHS)	1
1987	Australia (QIC)	1
1989	New Zealand	1
1990	UK (HAP)	1
1991	UK (HQS); USA (NCQA)	2
1994	South Africa	1
1995	Finland; Indonesia; Republic of Korea	3
1996	Argentina; Spain	2
1997	Czech Republic; Japan	2
1998	Australia (AGPAL); Brazil; Poland; Switzerland	4
1999	France; Malaysia; Netherlands; Thailand; Zambia	5
2000	Portugal; UK (CBS)	2
2001	Germany; Ireland; Italy	3
Not yet operational	Bosnia and Herzegovina; Colombia; Mongolia; Slovak Republic	4
Total responses		33

Year of origin

Respondents were asked in what year development of the programme began, and when the first survey was carried out. The beginnings of some developments can be easily identified – for example, in terms of initial project funding – but others were a gradual fusion of research, vision and opportunity that are more difficult to date precisely. Similarly, first surveys may be considered as pilot testing rather than becoming operational. With these reservations, the responses detailed in Table 3.6 suggest that:

- in 32 years before 1990, five responding programmes became operational;
- the number of programmes doubled in 1990–95, and more than doubled again in the following five years (Figure 3.1);
- more than half of the programmes launched since 1990 are in Europe.

Figure 3.1 Growth of operational programmes, 1958–2001

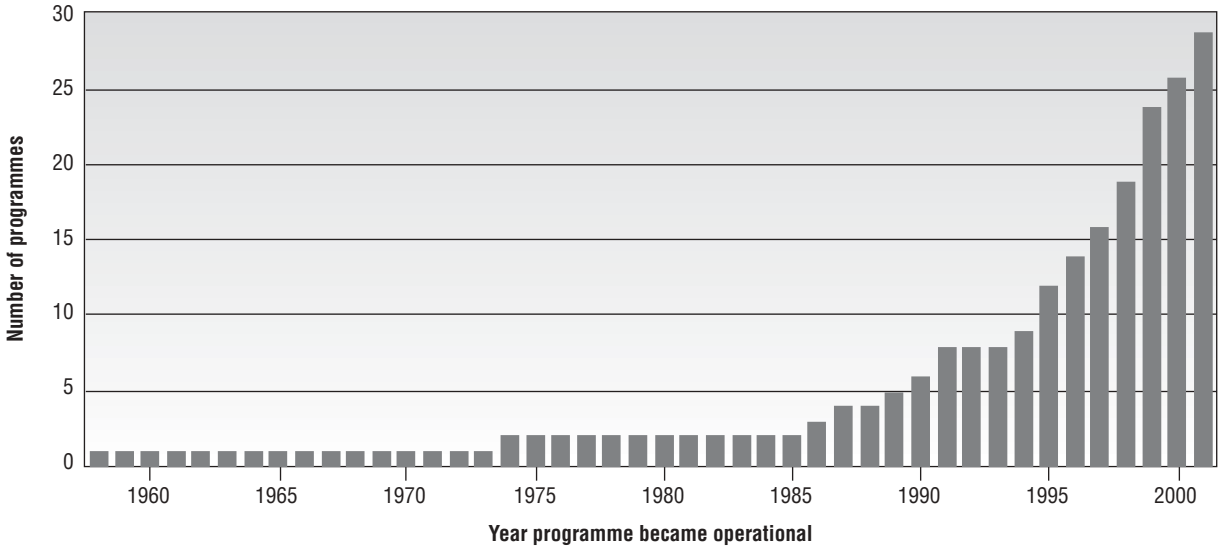


Table 3.7 Duration of development phase

Years	Countries (programmes)	No. of programmes
0	Australia (QIC); Canada	2
1	Australia (AGPAL); Finland; Portugal; South Africa; UK (HQS); UK (CSBS); USA (NCQA),	7
2	Czech Republic; France; Ireland; Japan; New Zealand; Poland; Spain; Switzerland; Thailand; Zambia	10
3	Argentina	1
4	Germany; Italy; Malaysia; UK (HAP)	4
6	Indonesia	1
10	Netherlands	1
15	Australia (ACHS)	1

The length of time for programmes to develop is variable, ranging among respondents from 0 to 15 years with an average of 3.5 years: typically, the development phase lasts two years (Table 3.7). The variation is not clearly associated with factors such as funding, external support or political will. Some programmes, for example CCHSA and QIC, had the benefit of growing out of an existing organization.

For new programmes, the date of the first survey is of less practical significance than the date from which they generate enough income to cover their operating costs, which may be several years later – if ever. This survey did not seek to collect data that might correlate speed of development with the amount or duration of start-up funding, but it does show that a new programme is unlikely to become self-sufficient in less than three years – the period for which many such schemes are initially funded.

Programme coverage

Question 15 asked whether programmes focused on primary (community, general practice), secondary (hospital), or tertiary care (referral, academic centres). The responses are shown in Table 3.8.

Table 3.8 Programme coverage

Programme coverage	Countries (programmes)	No. of programmes
Primary care	Australia (AGPAL); Australia (QIC)	2
Primary and secondary care	Slovak Republic; UK (HAP)	2
Tertiary care	Czech Republic; Germany	2
Secondary and tertiary care	France; Indonesia; Ireland; Netherlands; Poland; Portugal; Republic of Korea; Spain; Switzerland; Thailand; Zambia	11
All three areas	Argentina; Australia; Brazil; Canada; Colombia; Finland; Italy; Japan; Malaysia; Mongolia; New Zealand; South Africa; UK (HQS); UK (CSB); USA (NCQA)	16
Total		33

Table 3.9 Public access to standards

Condition	Countries (programmes) and charges	No. of programmes
Free to public	Czech Republic; France; Italy; Mongolia; Netherlands; Switzerland; UK (CSB)	7
No public access	UK (HQS)	1
Access but with charge	Range US$ 51185; mean US$ 218.5	18
Not yet developed or undecided or information not available	Bosnia and Herzegovina; Colombia; Ireland; Japan; Republic of Korea; Slovak Republic; Zambia	7
Total		33

As with quality improvement generally, accreditation traditionally developed in hospitals and then moved outwards towards community services and networks of preventive and curative services. The shifting of emphasis towards primary care may reflect a move to population-based medicine that is reinforced, particularly in developing countries, by the policies of donors of overseas aid. Finland also includes social services in its accreditation programme. In contrast, several programmes focused initially on academic and tertiary centres.

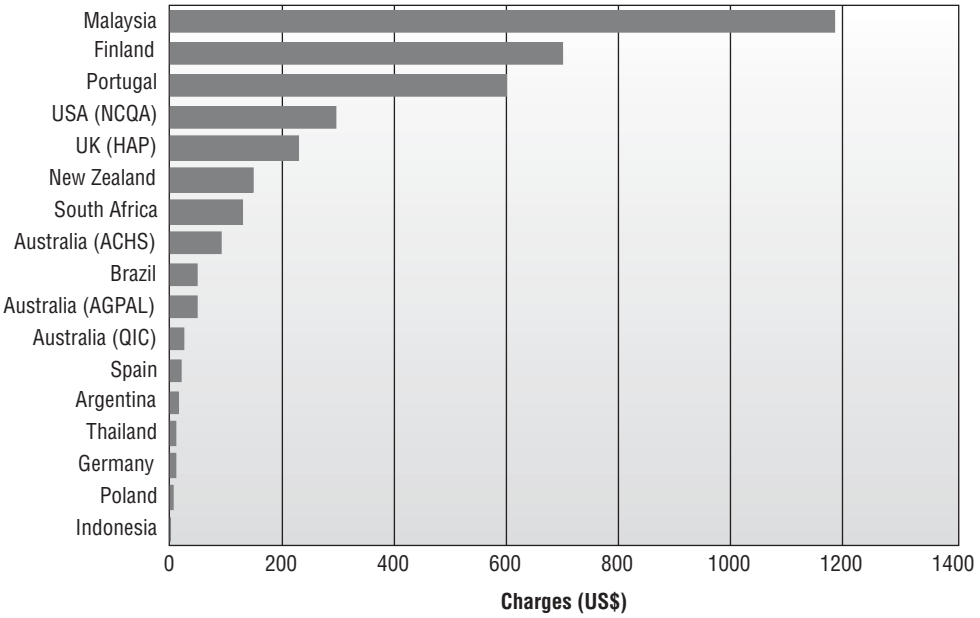
The long established programmes generally began with standards and surveys that reflected management units. They used that experience to develop their repertoire and to make the challenging transition to client-focused accreditation. As there is relatively little experience of taking that route from the beginning, the progress of the Scottish Clinical Standards Board, which is setting out to accredit condition-specific services across provider boundaries, will be followed with particular interest.

Of the 29 programmes that gave information, 25 extend accreditation services to the private sector; four do not: Australia (QIC), Czech Republic, the Netherlands and the United Kingdom (CSB).

Public access to standards

The questionnaire asked: "Are the accreditation standards available to the public free of charge?" and "If not, at what price can they be purchased?" The responses are summarized in Table 3.9. Some programmes make the general content and intent of the

Figure 3.2 Public charges for standards, US$



standards available, but without detailed criteria for assessment and scoring. Some programmes sell their standards only as part of a development package; Malaysia includes a one-day on-site training programme; Canada incorporates the standards and programme materials in the initial application package fee (Figure 3.2).

- Just under one-quarter of programmes provide standards free to the public; these programmes are government-sponsored, except for those in the Netherlands and Switzerland.
- About half of the programmes sell their standards: about half of these are sold at "little or no cost".
- Nearly a quarter of programmes provided no information or are undecided regarding the availability of their standards.

Table 3.10 Year of approval of current standards

Year	No. of programmes	%
2001	2	5.9
2000	9	29.3
1999	4	11.8
1998	4	11.8
1997	—	—
1996	2	5.9
Not stated (standards not yet developed or information unavailable)	12	35.3
Total	33	100

Revision of standards

The questionnaire asked how many full revisions of the standards had been published, and in what year the current standards were approved. Responses, shown in Table 3.10, were skewed in that some (European) data were submitted in August 2000 but others were received in 2001. ALPHA criteria include that standards should be revised "on a regular basis".

- Two-thirds of programmes that gave a date use standards that have been approved within the past two years.
- Some 40% of programmes use standards that are five years old or did not respond to this question.
- On average across all respondents, standards are revised every 4.5 years; in programmes less than 15 years old, the average is about 2 years (Figure 3.3).

Figure 3.3 Standard revisions since first survey

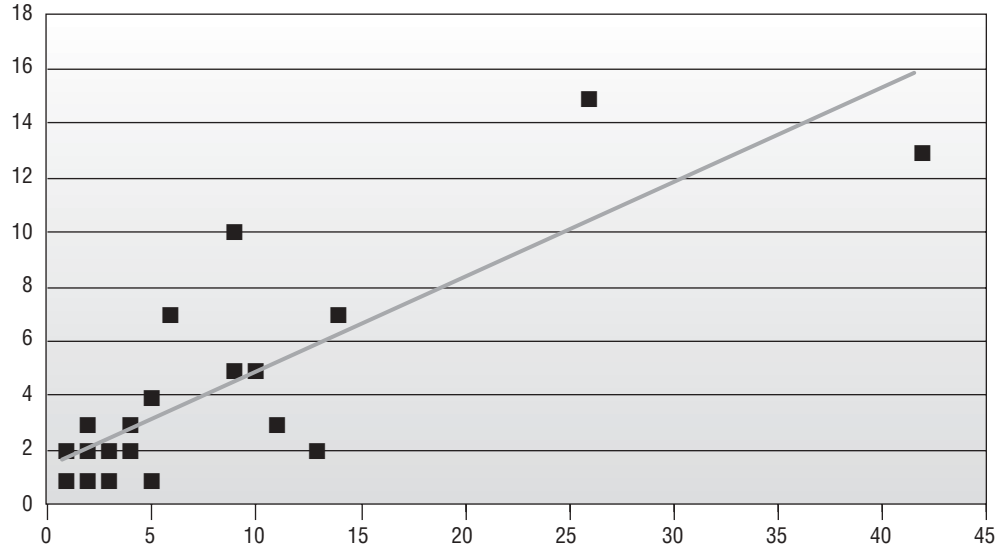


Table 3.11 External influences on the development of standards

Country of influence	No. of times mentioned	%
USA	9	25.6
Canada	9	23.1
Australia	7	17.9
UK	3	7.7
Latin America/Caribbean	1	2.6
Not stated	9	23.1
Total	38	100

Table 3.12 Survey days per site visit

Days (median of range given)	No. of programmes
1	2
2	5
3	10
4	7
5	2
Information not given	7

Country of inspiration

The United States was the cradle of accreditation, though second-generation models have also had a major impact on the development of newer programmes (Table 3.11).

- Nearly three-quarters of programmes acknowledge that standards were influenced by a specific external model.
- Most (87%) specified that influence was shared between the United States and Canada (one-third each) and Australia (one-quarter).
- Japan's standards had no reference to an external model.

Site visits

The questionnaire asked: "How many days does a site visit usually last?" and "How many surveyors are usually in a team?" in order to describe common practice and variation. "Usual" was not defined, but most responses gave a range of days per visit depending on the size of the hospital or site being accredited. Table 3.12 displays the median value given in each case. The range across all responses was 0.5–8 days. Canada has the greatest range, reflecting the variety of surveys: 1.5 days for small long-term care organizations as well as some small home-care programmes; 8 days for large, multi-level, multi-site organizations, i.e., health systems comprising hospitals, nursing homes, mental health facilities, rehabilitation centres, etc. Any half days were rounded up to the nearest whole.

- The most common survey duration is three days on site.
- The range of days reflects the complexity of the surveys (from single small units to entire district services and health care networks).

As with the days per survey, most responders indicated that the number of surveyors needed per survey depended on the size of the hospital or site being accredited. Table 3.13 displays the median value given in each case. The range across all 28 responses was 2–13 surveyors, with New Zealand having the greatest range (2–12 surveyors per visit).

- The most common team size is three surveyors.
- The range reflects the complexity of the survey.
- Longer visits are associated with larger teams.

For valid comparison between programmes, data on surveyor days need to be stratified according to the type of survey (for example, focus, mid-term, or main) and the type of facility (for example, rural practice or health care network). Little can be deduced about team size or survey duration without additional information to allow analysis to be stratified according to the types of surveys undertaken.

Public access to reports

Programmes were asked whether full reports of surveys were available to the public free of charge and, if not, at what price they could be purchased (Table 3.14).

- Two-thirds of programmes do not provide full reports to the public.
- Programmes providing free reports also give public access to their standards at little or no cost (Table 3.9) and, with the exception of Australia (QIC), are government-sponsored (Table 3.5).

Survey activity

The number of surveys reported as completed in 1999 ranges from 3 (Malaysia) to 1512 (Australia, AGPAL), see Figure 3.4. The data do not differentiate between large-scale surveys of networks or visits to a single-handed practice. For example, ACHS conducted 552 survey visits: 272 were organization-wide and 250 were periodic reviews. The usual survey cycle is four years, with mid-term focus visits. New Zealand conducted 50 surveys, 55 progress visits and previews, and 8 audits; its usual survey cycle is three years.

- The median value for number of surveys in 1999 was 23 (Poland) out of 22 responses.
- Twelve of the 22 programmes completed fewer than 25 surveys.
- These smaller programmes had an average age of 2.1 years, compared with 11.1 years for the larger programmes.
- Consistent with the Pareto principle, 78% of the surveys were carried out by 19% of the programmes.

Table 3.13 Survey team members per site visit

Surveyors (median of range given)	No. of programmes
2	1
3	9
4	7
5	3
6	6
7	1
9	1

Table 3.14 Public access to full reports of individual surveys

Access	Country (programme)	No. of programmes	Charge
Free of charge	Australia (QIC); France; Italy; Mongolia; UK (CSB)	5	
Available with a charge	Indonesia; USA (NCQA)	2	Indonesia US$ 5; NCQA US$10 000
Not available	All others	19	

Figure 3.4 Full surveys completed in 1999 (except AGPAL)

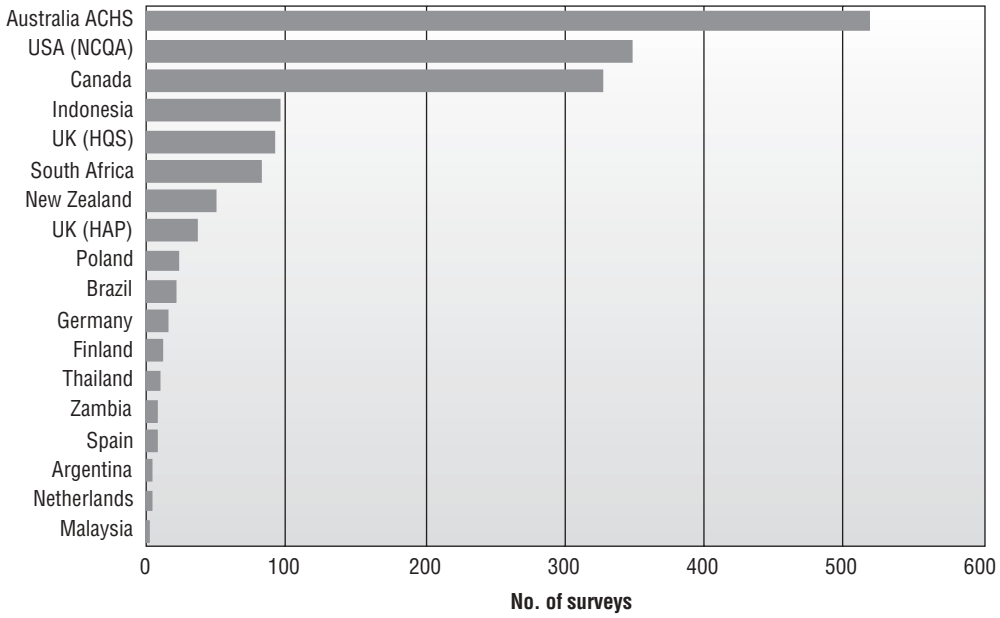
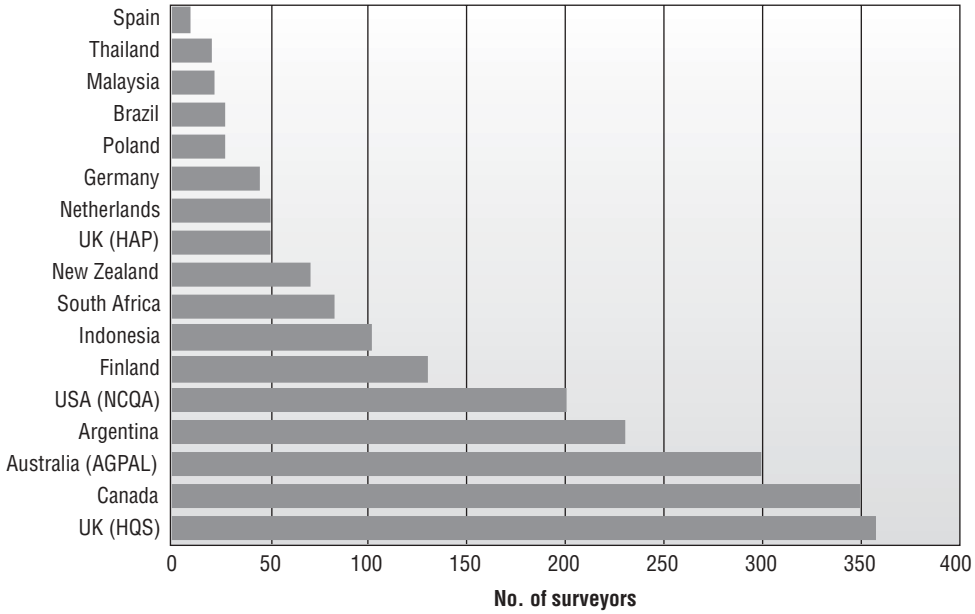


Figure 3.5 Trained surveyors, by programme, 1999



Surveyor activity

At the end of 1999, 25 programmes had a total of nearly 4000 trained surveyors available, ranging from 9 to 550 (Figure 3.5). This classification does not differentiate between full-time, part-time or casual surveyors.

When related to the number (but not size) of surveys completed during that year, some programmes evidently share their work among more surveyors than others, as shown in Figure 3.6. The number of surveys is on a logarithmic scale in order to show all the results in one graph.

One measure of a programme's expansion may be the renewal rate of the surveyor pool, but this might also reflect a high loss rate. Both new and well-established programmes added up to one-third of their surveyors during 1999 (Figure 3.7), but data

Figure 3.6 Surveys and surveyors, 1999

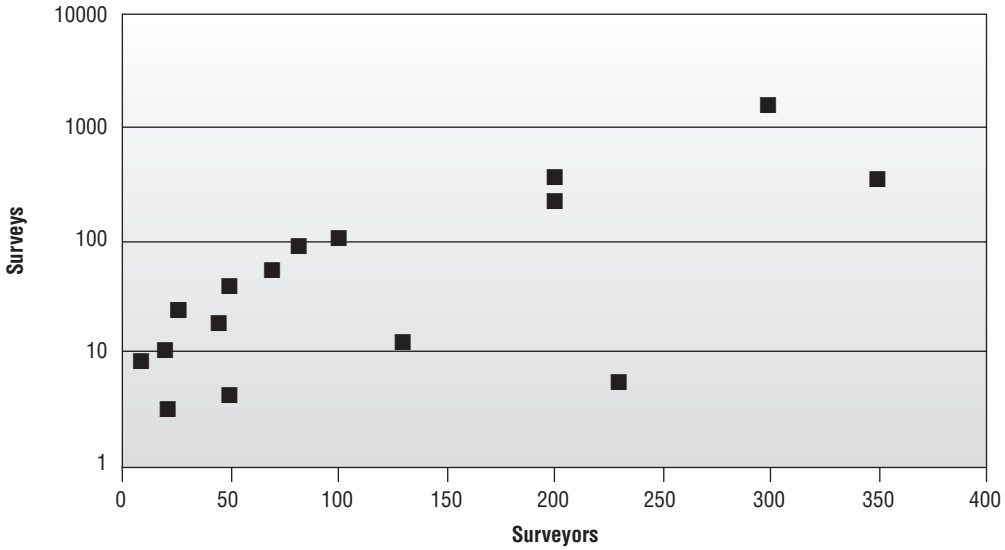
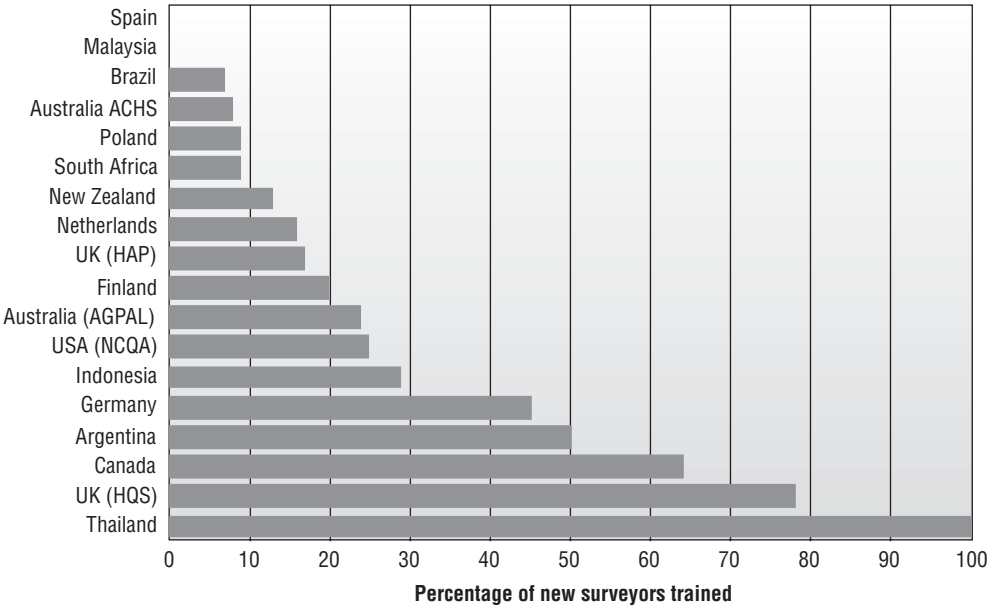


Figure 3.7 New surveyors as percentage of total, 1999



on loss rates were not collected in this survey. Germany is formally launching its programme in 2001 and began recruiting surveyors in 1999.

Expenditure and costs

Total expenditure

Respondents were asked to report "total expenditure of the programme in 1999". European figures were in euros and other figures were in US$, with these two currencies being of roughly equivalent value during the six months of data collection. Note that the expenditure scale in Figure 3.8 is logarithmic in order to show all programme figures.

Higher expenditure was generally consistent with larger-scale activity in terms of volume and complexity of surveys, but, without more details to describe the case-mix

Figure 3.8 Programme expenditure, 1999, US$

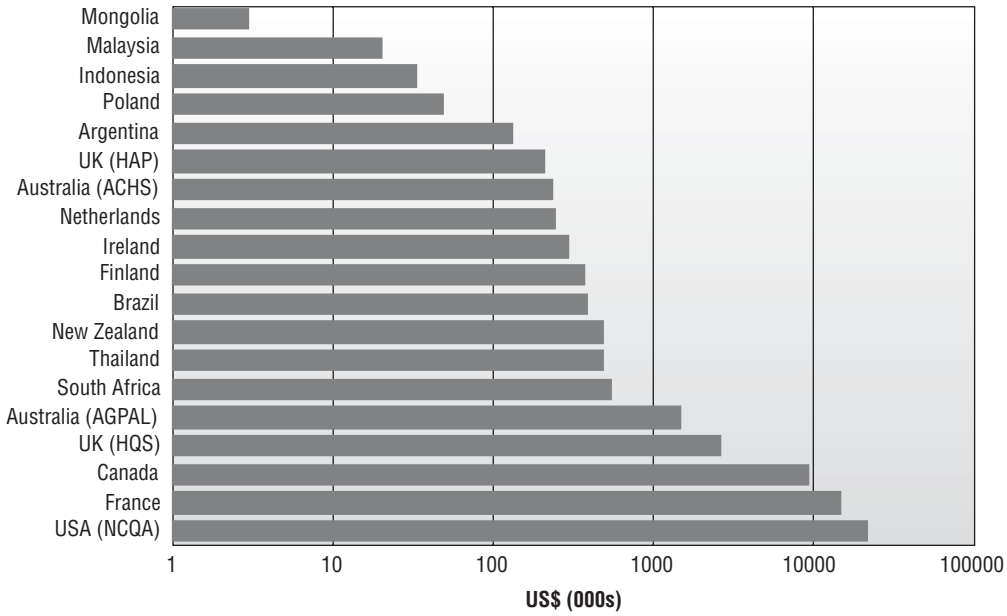
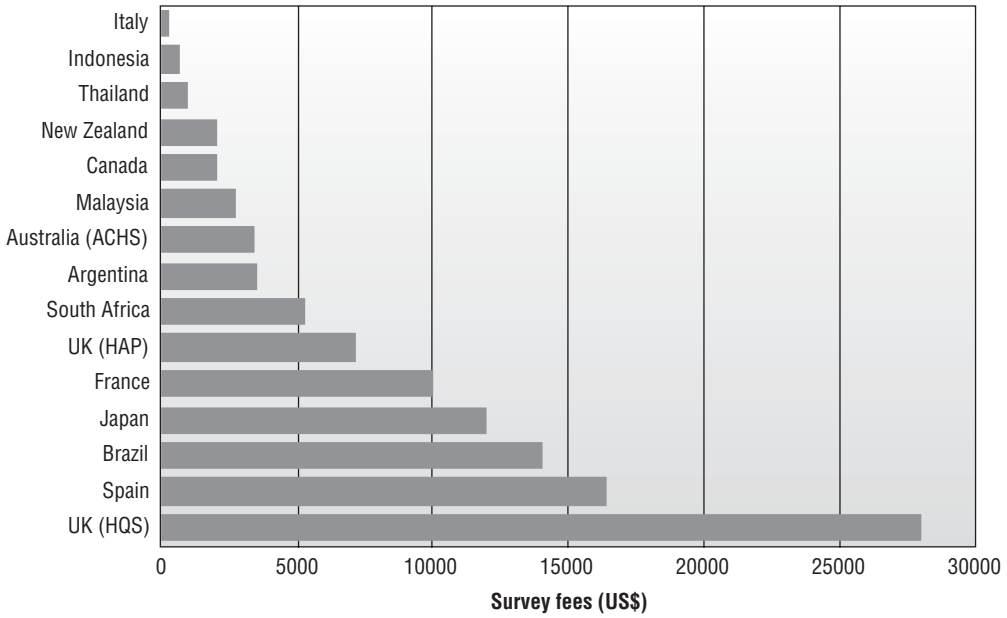


Figure 3.9 Survey fees for a 100-bed hospital, US$



of programmes, little more can be interpreted. During 1999, ANAES was preparing for operations that will become the largest in Europe, but had completed few surveys.

Survey fee for a 100-bed hospital

In order to describe relative costs to users, respondents were asked "What fee is to be charged to survey a 100-bed hospital in 2000?" This could not be answered by QIC, AGPAL or NCQA, because these programmes do not survey individual hospitals.

The variation in responses shown in Figure 3.9 may be due in part to errors in translation or currency conversion, but largely reflects the difference in charging (such as continuous subscription with rebated survey fees) and in packaging (such as including costs of pre-survey and post-survey support, documentation and on-site surveyor

Table 3.15 Main sources of income

Source	Countries (programmes)	No. of programmes	Percentage of responses
Government or foreign aid	Ireland; Italy; Slovak Republic; Thailand; UK (CSB); Zambia (USAID)	6	23
Service fees	Others	18	60
Combination of above	France; Indonesia; Mongolia (Asia Development Bank); Netherlands (nongovernmental organizations); Poland	5	17
Total		29	100

expenses). Surveyor expenses are excluded from the COHSASA figure. None of the fees quoted is adjusted for local purchasing power.

Some independent programmes report higher fees for an individual survey, but others report lower survey charges because these are in addition to an annual fee. ACHS would charge US$ 3400 for annual programme membership. In Canada, a small organization with a budget of less than US$ 3 million would pay an annual fee of US$ 685 plus a survey fee, based on US$ 1500 per surveyor-day. In New Zealand there is no separate charge for surveys, but an annual subscription of US$ 3200 is charged that includes education, guidance, standards, tools, survey and mid-term progress visits. Italy (Marche) plans to charge surveys at US$ 300 per surveyor-day. AGPAL bases its fees for accrediting general practices on the number of doctors (full-time equivalent): about US$ 7000 per doctor for a three-year cycle.

Income

Twenty-nine programmes gave information on their main source of income (Table 3.15). The majority (60%) are supported by fees from either the accreditation process or associated activities such as training and workshops; 23% relied mainly on government grants. Some new programmes, such as that in the Slovak Republic, began with development funding from government for 2–5 years, with a view to becoming organizationally and financially independent.

Reflections

Completeness of the review

The information in the country summaries depended largely on its being accessible in published sources and conference proceedings. Inclusion of results in the survey of known programmes relied upon receiving data; the USA was overrepresented in the non-responses and is, therefore, underrepresented in this report. That country's experience would have provided a valuable addition to the information supplied by other countries, and would have been especially useful to the new and developing programmes that this report aims to help.

Accuracy

Several errors of data, language and currency conversion were identified, but others may still remain. Also, much of the information requested was inadequately specified in the original questionnaire – for example, concerning "survey fees" and "first surveys". This limited the power of comparisons among programmes.

The simplicity of the survey brought a generally high response rate, but it did not explore the complexity of the scope and operations of individual programmes. It was therefore not possible to stratify observations according to case-mix. Comparisons between programmes may therefore be misleading.

Observations

Programme growth

Responses were received for programmes in every WHO Region except the Eastern Mediterranean, and two-thirds of all respondents were from the European Region. The number of programmes around the world has doubled every five years since 1990. Accreditation is a growth industry in most parts of the world.

Public agenda

One programme in three is enabled by national legislation, particularly since the late 1990s, and voluntary accreditation is becoming statutory. Most new programmes are government-sponsored; accreditation is moving from a collegial tool of self-development to a more regulatory tool of public accountability.

Practical development

Most new programmes take two years to prepare for their first survey, and certainly longer before they are self-sufficient. Political and financial support must be sustained beyond the term of office of most health ministers and many governments.

Shifting focus

Old and new programmes now focus their standards and assessments increasingly on integrated pathways; they follow patients and disease processes (horizontally) rather than management units (vertically). Several newer programmes focus specifically on community and primary care and on the integration of services across networks.

Transparency

The move towards statutory and governmental endorsement is associated with freer access by the public to the standards, processes and findings of accreditation; half of the responding programmes make their standards available at little or no cost; one-third also make full reports available. Governments argue that standards should be available in the public domain for the sake of transparency and public accountability, but many accreditation programmes are unwilling to give away a source of income and intellectual property that has taken years to develop. Transparency has a price, especially for those who have no public funding to provide it.

Inspiration for accreditation

Most of the credit for inspiring new programmes was shared among the United States, Canada and Australia, but ultimately all national programmes developed from accreditation activities in the United States. National health systems are increasingly adopting accreditation not in its classic form of professional self-regulation, but as a means of stewardship, transparency and public accountability. These newer programmes are often based as much upon the early learning of other beginners as upon the long experience of established programmes.

Survey processes

The survey responses showed wide variation in the resources of time, people and money consumed by accreditation programmes, but they gave little insight into the factors involved or whether these are changing over time. The variation would be consistent with a transition of surveys from single, vertical units towards networks and horizontal standards, but without historical data and adjustment for survey case-mix this connection is not proven.

Distribution of workload

Some 80% of the world's reported surveys are undertaken by 20% of the programmes. Many programmes have yet to reach a critical mass of work and income (and that threshold has not yet been identified), but this distribution of workload is likely to change rapidly as programmes of "new accreditation" multiply and flourish with the political – if not financial – support of governments.

As one example, the French national agency ANAES completed 19 surveys in 1999 but has a mandate to cover every facility in the country (some 3250). This coverage implies a survey rate within the next few years that is double that of the highest currently reported. In another example, the independent AGPAL accelerated from zero to 1500 surveys per year to provide Australian general practitioners with the accreditation they require in order to claim government incentive payments by January 2002.

Costs and benefits

Many users and most providers of services proclaim the benefits of accreditation, even though there is a dearth of robust research evidence to support them. This study showed general variations in processes but could not identify critical success factors or results. The two factors that contribute most to the credibility of programmes also dominate their costs: the development and renewal of standards and of the people who assess them.

Rapid uptake of voluntary programmes is associated with direct financial incentives (such as linkage to core funding or reimbursement) and government encouragement. Other driving forces include public information, professional affiliation, organizational development, and market competition for patients and staff.

Despite lack of detail to define comparable prices for a single common product, the results suggest that more information about the costs of accreditation would be valuable to governments, communities and providers. Data on both costs and benefits may be increasingly critical to governments and paying agencies when deciding, for example, whether to invest in quality improvement and, if so, whether to adopt accreditation (rather than ISO certification or industry awards, for example) and whether to buy services from the local or international market.

In conclusion, this review shows that demands for accreditation are increasing and changing rapidly around the world. Traditional accreditation must adapt to these demands in order to survive and to thrive as a vehicle that links internal self-development with external regulation. All experiences in this direction will contribute to the promotion of accreditation, if they are shared.

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Appendices

APPENDIX 1.1

Recommendations to Member States on quality assurance, WHO Regional Committee for Europe, 1988[a]

1. Member States should include quality assurance in their national health policies as a means of improving the quality of care.

It was noted that many current quality assurance activities were purely voluntary and often suffered from a lack of support from national, regional and local health administrations, as well as from a lack of funds. Target 31 explicitly requests Member States to develop their quality assurance mechanisms. Such development should therefore figure prominently in national or sub-national health policies. While many activities would undoubtedly continue on a voluntary basis, they would benefit greatly from such a framework.

The participants also felt that, even with the best of intentions, the implementation of quality assurance was hampered by a lack of resources. Consequently, national, regional and local health authorities should make quality assurance – whether a voluntary or an official initiative – possible by providing the necessary resources in terms of money, staff time and adequate support.

2. Member States should publish and distribute regular reports describing practical experiences, including successes and failures.

According to the participants, there was a clear need to improve the quality of care in European countries. The high technological level of care did not diminish the ethical obligation to respect patients more than ever before.

To strengthen quality assurance, it was felt that countries in the European Region should mainly motivate the key actors and promote professionalism rather than advance mandatory regulations. Voluntary development was preferable to administrative commands.

The dissemination of information was, therefore, recommended as a first priority. Regular reports describing practical experiences should be published to stimulate interest and help generate new programmes in the European Region. Not only successes, but also failures, should be published, so as to enable people to gain from the experience of others.

That information should be disseminated through WHO reports as well as through specialized journals such as the European Quality Assurance Newsletter, Quality Assurance in Health Care, and leading medical journals in Europe.

A clearing-house could collect and disseminate bibliographical references as well as up-to-date information on criteria, protocols and methods of quality assurance and research in progress.

3. Member States should identify and fund priority research related to quality assurance.

Quality assurance is currently an under-researched area. While this is partly the result of a lack of a research tradition and methods, it is also partly due to the fact that no priorities have been set and no resources are being made available. Evaluative research demonstrating that the implementation of quality assurance does, indeed, improve the outcomes of care would be of particular importance.

[a] *Quality assurance in health services. Report on the Technical Discussions at the Thirty-eighth session of the Regional Committee for Europe*. Copenhagen, WHO Regional Office for Europe, 1988 (document EUR/ICP/HSR 023).

4. Member States should coordinate multidisciplinary quality assurance projects using common protocols on such topics as perioperative, maternal and perinatal deaths and iatrogenic drug reactions.

The participants suggested that multidisciplinary working groups should be established to define objectives for, and agree on common protocols and methods of, multinational comparative projects.

The development of comparable quality assurance programmes in different countries may serve as a learning process: each country could learn from others' experiences. Currently, most programmes concern hospital care; in future, primary care should be more extensively analysed.

It was suggested that multinational projects should initially be aimed at specific topics that are currently studied in several countries, thereby leading to quicker acceptance of common protocols. Topics such as perioperative, maternal and perinatal deaths and iatrogenic drug reactions were regarded as particularly suitable, because they have easily identifiable end-points. Studies on those subjects should include hospital and primary health care, as well as curative and preventive medicine.

5. Member States should, as far as possible, use a uniform medical database, including financial information, so as to identify variations in the results of medical care.

Member States should consider quality assurance in connection with cost-containment programmes. It is therefore important to have appropriate databases with reliable medical and administrative information.

International guidelines, such as that on a minimum basic data set for hospital inpatients, have proved useful in helping Member States to define a national framework within which to build up adequate health information systems. It was felt that diagnoses could be made available and comparable within, and between, countries by using the latest version of the International Classification of Diseases (ICD-9). For the coding of procedures, however, national schemes are still being used, although there is a need for international comparisons. Financial data on patient care are even more difficult to compare, given the lack of a uniform analytical accounting information system in Europe. The protocols should contain not only medical and administrative data such as those on diagnosis, procedure, length of stay and cost, but also data obtained from patients by means of questionnaires on issues such as quality of life and satisfaction.

The recent interest in many European countries in diagnosis-related groups, which link information on diagnoses, procedures and cost data by patient hospital stay, has stimulated attempts to relate national coding schemes to diagnosis-related groups and ICD-9 codes.

Comparisons between hospitals give only a partial view of the functioning of health care systems. Ambulatory care would also benefit from uniform minimum basic data sets related to medical and financial information.

Uniform grouping of patients, taking into account the cost of care, might provide a powerful tool for intercountry comparison of the outcomes of care such as death rates, handicaps, complications and readmissions, between countries.

Caution should be exercised, however, when disseminating crude or adjusted rates, as differences in outcomes do not necessarily reflect problems in quality of care. Given the multiple aspects of quality of care, information on variations in medical process and outcome should be accompanied by adequate guidance to its interpretation.

6. Member States should stimulate professional associations and those responsible for financing health services to translate principles into practice by developing training programmes in quality assurance.

Providers of care are the main actors in quality assurance, and quality assessment should be part of all health care. In community as well as hospital care, physicians, nurses and administrators should be able to establish criteria of quality in priority areas and implement quality assurance. Therefore, the teaching of quality assurance should be part of the normal medical and paramedical curriculum. The participants proposed that WHO should inform deans of medical faculties and heads of paramedical schools about that requirement. However, it was agreed that education and continuing education of health personnel could not develop satisfactorily unless experience of quality assurance was routinely available, which implies action from medical and nursing professional organizations, as well as from bodies financing health services.

Goodwill from isolated individuals is not enough. Legal steps to set up a basic framework might help the development of quality assurance programmes and education in those European countries that have not yet included such aspects in their legislation. The participants were favourably impressed by the cautious legislative approach in three countries, whereby quality assurance has been made a requirement by identifying responsibilities for that task but where the means of achieving it have been left open.

7. Member States should take into account all the factors (medical, technical or organizational) that influence the quality of care, so as to develop a comprehensive quality assurance mechanism.

All health services should be subjected to quality assurance. For example, problems in cleaning of rooms or sterilization of instruments may have unexpected side-effects, although those activities are not directly related to medical or nursing care. The recommendation was therefore made that quality assurance should be the responsibility of multidisciplinary teams including not only physicians, nurses and administrators but also economists and public health experts.

APPENDIX 1.2

Recommendations of the WHO Working Group on Quality Assurance in Health Care, Kiel, 1988[a]

1. Member States contemplating a national quality assurance programme must give careful attention to:
   - adequate medical records systems;
   - the development of a uniform minimum data set of important quality indicators that can be used by health professionals and health care organizations to make a comparative evaluation of performance, using a variety of process and outcome measures of quality, including both human and monetary costs;
   - the commitment of the fiscal resources necessary for personnel and data systems to conduct effective quality assurance activities.
2. Health professionals and health care organizations must integrate systematic quality monitoring and development into the management and professional governance of each hospital and primary care organization.
3. Quality assurance systems should achieve continuous improvement through the regular, systematic feedback of data on important process and outcome measures to individuals, organizational units and organizations. These systems should also incorporate positive incentives for solving problems, so as to produce demonstrated improvements in the outcome of patient care.
4. The principal focus of quality assurance activities must be within individual hospitals or primary care organizations and within their organizational units. External agencies should serve primarily as resources for training, data collection and feedback, and for monitoring the effectiveness of the internal quality assurance system.
5. Any Member State contemplating a national quality assurance programme should recognize the need for a national coordinating organization to:
   - educate health professionals in quality assurance methods;
   - assist in defining quality indicators;
   - develop a uniform data set of important quality indicators;
   - collect and feed back data on such indicators to each institution involved;
   - monitor the effectiveness of each institution's attempts to improve its internal quality.

Such coordinating organizations are most likely to be effective if they have the active participation and support of professional and hospital associations.

[a] *Quality assurance in health care. Report on a WHO Working Group, Kiel, 21–25 November 1988.* Copenhagen, WHO Regional Office for Europe, 1989 (document EUR/ICP/HSR 031; available on the Internet at http://whqlibdoc.who.int/euro1993/EUR_ICP_HSR_031.pdf).

APPENDIX 1.3

Recommendations of the International Consultation on Quality Assurance in District Health Systems, Pyongyang, 1992[a]

Recommendations to participants

(a) Participants should give a feedback of the Consultation to their respective national authorities and colleagues.
(b) They should act as prime movers, and advocate, initiate and support programmes of quality assurance in health care, with particular reference to district health systems based on primary health care.
(c) They should help in developing an action plan for quality assurance in health care.
(d) They should maintain communication with other participants to exchange country information materials on quality assurance in health care, either directly or through their respective WHO Regional Offices.

Recommendations to governments

(a) Quality assurance should be incorporated in national health policies, programmes and strategies.
(b) Governments should create or strengthen existing bodies in ministries of health to act as an advocacy or advisory body on quality assurance in health care. This body should include representatives from other sectors, nongovernmental organizations, teaching and research institutions, and professional groups.
(c) Core groups should be formed at the national, regional and local levels to provide leadership and to ensure that quality assurance becomes an integral part of all health care programmes, particularly those in district health systems based on primary health care, as well as to ensure that each programme manager is responsible for identifying action points and developing specific indicators and standards for their individual programmes.
(d) Governments should ensure the active involvement of consumers in developing indicators and standards for quality assurance in health care.
(e) A mechanism should be evolved to determine or assess client satisfaction of health care services on a regular basis.
(f) A continuing education programme in quality assurance should be organized for all health care workers.
(g) Steps should be taken to ensure that medical colleges and other health and research institutions support the district hospitals and health centres in upgrading the skills and knowledge of their staff in quality assurance in health care, particularly in developing indicators and standards to suit local situations.
(h) Medical and paramedical training institutions should incorporate the theory and practice of quality assurance in health care programmes in their curricula.

[a] *Quality assurance in district health systems based on primary health care. Report of an international consultation, Pyongyang, Democratic People's Republic of Korea, 14–16 October 1992.* New Delhi, WHO Regional Office for South-East Asia, 1993 (document SEA/HSD/180; available on the Internet at http://whqlibdoc.who.int/searo/1985–93/HSD_180.pdf).

Recommendations to WHO

(a) The Organization should advocate, facilitate and support countries in initiating quality assurance in health care, with special reference to district health systems based on primary health care.
(b) Consultative meetings, such as the present one, should be organized periodically in order to provide interest in quality assurance in health care, exchange experiences, and to assess the progress of quality assurance in health care programmes in the countries.
(c) Consideration should be given for the establishment of core groups at the regional and global levels to provide leadership in quality assurance in health care.
(d) The Organization should involve associations or bodies interested in quality assurance in its efforts to promote quality assurance in health care at district health systems based on primary health care.
(e) Support should be provided to training programmes for doctors, nurses and other health personnel in quality assurance in health care.

APPENDIX 1.4

Recommendations of the Hospital Advisory Group, 1994[a]

I. General

The Hospital Advisory Group recommends:

1.1. Countries should seek to develop a strategic policy framework for hospitals with clearly defined roles, functions and targets, within their national health policy and structure.

1.2. Countries should seek to put in place an effective administrative framework capable of governing hospitals as part of local health systems implementing agreed health policies.

1.3. Hospitals should be an integrated part of the district health care system, not independent from it, although this should allow scope for hospitals to be self-managed in order to improve performance for the communities which they serve.

1.4. Hospitals and other units within the health system should implement a management process involving all the health care professions, led by an accountable chief executive and supported by a senior management team which has as its mission improved health care for its patients.

1.5. In the present climate of rapid health care reform, it is important that, whilst not discouraging innovation, careful and systematic evaluation of policy, financial and technological innovations should be undertaken before moving to a wider implementation stage by Member States. It is further recommended that reforms be piloted in stages before wholesale implementation. WHO has a crucial role in disseminating information on good practice.

1.6. Teaching hospitals have an important role in the health care system and need to embrace rapid change in order to play their correct role in the changing scene of health care. WHO can play a useful role in guiding change by disseminating international intelligence and brokering advice in this field.

1.7. WHO should provide strong leadership in promoting closer support, interest and involvement by donors and nongovernmental organizations, banks and other agencies in furthering these recommendations.

2. Performance

Recommendations to countries

Countries should:

2.1. Develop a performance culture within their hospital services in which there are clear health targets, nationally and locally, and a performance review process.

2.2. Aim to achieve a comprehensively integrated health system as soon as possible.

2.3. Establish a management process within their health systems nationally and locally with chief executives and top teams operating effectively. Management development training should be implemented for all health professionals within professional curricula.

[a] *A review of determinants of hospital performance. Report of the Hospital Advisory Group meeting*. Geneva, World Health Organization, 1994 (document WHO/DHS/94.6).

2.4. Develop quality improvement initiatives using available expertise and designate a specific manager who is responsible for quality within the organization.

2.5. Establish a national resource centre for the collation and dissemination of comprehensive comparative information on performance (quality, quantity, cost and value for money).

Recommendations to WHO

WHO should:

2.6. Develop guidelines designed to help Member States implement a performance culture within their hospitals. There should also be available simple, convenient and practical assessment tools at various levels of sophistication to facilitate intercountry assessment and comparison of performance.

2.7. Offer guidelines on the implementation of a management process within health systems, nationally and locally, and disseminate examples of good practice. Advice and guidance should also be available on management development initiatives.

2.8. Develop specific technical guidance and sharing of best practices on the subject of specialized QA techniques between Member States.

3. Policy

Recommendations to countries

3.1. Governments should perform a strong strategic policy-making role with respect to hospitals in those specific areas identified; there should be clear health targets, and governments should develop an effective administrative framework to ensure sound implementation locally across the whole health spectrum; there should be mechanisms for reviewing progress towards health targets to measure health gain and the effective use of scarce resources and to encourage accountability.

3.2. In developing and revising hospital policy, governments should be prepared to launch well-informed public debate within and outside the health system on important policy and priority issues, and seek to ensure that expectations about meeting health needs are informed by a realistic appreciation of the resources available.

3.3. Governments should consider establishing mechanisms to provide important objective advice on hospital policy, e.g. one or more national bodies or advisory groups. Such policy advisory groups should be selected as much for knowledge and skills to be contributed as for weight and influence in communicating the resulting policies.

3.4. Countries should aim for a comprehensive and interlocking range of health policies that are compatible, consistent and mutually reinforcing in promoting the better health care of the people of the country. Examples of important policy streams are:

- Health and health care targets financing systems;
- Resource allocation system;
- Health organization system nationally and locally, performance review and accountability;
- Remuneration and reward system (including positive incentives); manpower training, recruitment and retention;
- Technology assessment and selection.

3.5. Within a strong, clear and agreed health care strategy, governments should be prepared to delegate decision-making on operational matters to local level (both within districts and within hospitals). There should be strong and effective local decision-making, including the full involvement of the health care professions in the process.

Recommendations to WHO

WHO should:

3.6. Encourage countries to develop capabilities in effective health policy formulation and communication in the key areas described by disseminating examples of good practice and providing advice and support.

3.7. Assist countries to improve national and local health care organization in a manner which encourages more effective implementation of policies, better delegation of decision-making, better resource awareness and better accountability.

4. Finance

Recommendations to countries

Countries should:

4.1. Review existing financing strategies for inpatient, ambulatory and public health care, and introduce change where experience shows that new mechanisms are feasible and are likely to contribute to health objectives.

4.2. Review resource allocation policies for inpatient, ambulatory and public health care (revenue and capital) with a view to improving equity and effectiveness of funding in relation to population size and health need.

4.3. Invest in improved capacity for better resource management and accountability, including suitable training for financial, managerial and professional staff groups and improved financial information systems at all levels.

4.4. Develop more flexible and decentralized remuneration and reward systems and use them to promote beneficial behavioural and organizational changes which have the potential to improve performance and health outcomes, with careful evaluation of the impact of such change.

Recommendations to WHO

WHO should:

4.5. Support countries in the design, implementation and evaluation of innovations in financing strategies, and disseminate information on experiences with change in these areas.

4.6. Convene a Working Group to explore financial issues for inpatient care in greater depth.

4.7. Evaluate different methodologies and experiences of resource allocation and develop case studies and options for Member States.

4.8. Support training initiatives in building financial skills in Member States.

4.9. Produce a technical document offering guidance to Member States on options for remuneration and reward systems that encourage better behaviour and performance in health care.

4.10. Disseminate information on different organizational approaches, capital investment appraisal and financial control, accountability and audit approaches.

5. Technology

Recommendations to countries

5.1. National health and hospital policy should include explicit statements regarding:

- appropriateness of health technology;
- preference for high coverage/low cost technologies;
- adequate maintenance, training and information.

5.2. Countries should establish a national regulatory body for technology (equipment, drugs, etc.).

5.3. Countries should pursue the development of hospital technology-related information systems, including technology evaluation programmes.

5.4. Countries should use the current WHO guidance and documentation (technical reports, etc.) as well as other available information in developing TA [technology assessment], policies and programmes.

Recommendations to WHO

WHO should:

5.5. Support countries to undertake hospital technology studies and should encourage the development of a national body in each country for hospital TA, financing, training, purchase and maintenance. WHO should also assist countries to monitor use, efficiency, profitability and cost of technology.

5.6. Promote the generation and distribution of an updated recommended pharmaceutical list for hospitals and should encourage the continuous development and dissemination of sufficient and appropriate information on hospital and health care technologies.

5.7. Support the development of an international hospital technology network using telecommunication options where feasible.

5.8. Bring to bear WHO's special expertise in technological assessment on other relevant programmes.

6. Teaching hospitals

Recommendations to countries

6.1. At national level a mechanism needs to be developed utilizing the resources available to study further the issues, e.g. establishing special institutes, boards, committees on care, research, and manpower planning and developing plans of action to move towards the desired situation. The change process will involve skilful negotiation between many powerful players. One such area is the relationship between the teaching faculty and teaching hospitals.

6.2. A major challenge in achieving the change will be getting the players, e.g. providers, politicians, consumers and the media, to change their behaviour and assume fiscal responsibility for demands and promises. Strategies will need to include:

- public education;
- promotion amongst health professionals utilizing incentives and disincentives (financial and non-financial);
- organization changes such as policy shifts to an entrepreneurial culture.

Recommendations to WHO

WHO should:

6.3. Provide advice and support to countries engaged in reshaping the roles and relationships within and around their teaching hospitals to achieve better health care performance.

6.4. Collect data to review and compare country experiences and continue the process of facilitating exchanges between countries.

6.5. Offer specific assistance in the development of the relevant information systems to facilitate assessment of the situation and to monitor progress. This should include allocating costs between the main functions of teaching hospitals as well as developing productivity and quality indicators.

APPENDIX 1.5

Recommendations of the WHO Working Group on Quality Assurance, Geneva, 1994[a]

The Working Group suggested future cooperative activities as outlined below.

A. Promote professional acceptance of QA [quality assurance] by:

1. introducing QA to all medical, nursing, allied health and public health training institutes, as part of the basic and postgraduate curricula, and establishing a professional status for QA as an element for health care;
2. introducing QA to civic groups with an interest in health, such as women's groups, health educators, legislators and mass media.

B. Support cooperative multicentre research to determine how QA can be:

1. sustainable and cost-effective for PHC with limited local resources;
2. applied to the practices of traditional medicine;
3. introduced as a value system in a variety of different cultural environments;
4. related to modern management developments, e.g. re-engineering, restructuring, provider and consumer satisfaction;
5. improved, with acceptance of the consumer as a principal factor in standard setting and performance appraisal (e.g. assess the effect of a "patient reaction feedback form" in every patient medical record).

C. Improve QA training activities by:

1. jointly sponsored training workshops;
2. making existing QA training materials freely available;
3. cooperative development of new training materials and computer-based packages;
4. development and sharing of: QA simulations, case studies, and exercises for active-mode learning;
5. support for centres of excellence in QA basis and advanced training;
6. producing an inventory of materials available.

D. Use the WHO central, regional and country structures to:

1. promote QA in developing countries through existing WHO regional communication channels to governments, health care organizations, medical schools, nongovernmental organizations and others;
2. develop WHO guidelines for QA in district hospitals and health centres in developing countries;
3. support QA fellowship and attachment programmes between suitable developing countries;
4. promote regional QA meetings;
5. strengthen coordination of QA activities within each country through the WHO Representative;
6. promote a more widespread use of "bench-marking" and other relevant QA techniques.

[a] *Report of the WHO Working Group on Quality Assurance*. Geneva, World Health Organization, 1994 (document WHO/DHS/94.5; available on the Internet at http://whqlibdoc.who.int/hq/1994/WHO_SHS_DHS_94.5.pdf).

E. Improve linkages between countries and agencies by:

1. supporting annual meetings of the Working Group to assess QA experiences (successes and failures) and to plan areas for new cooperative action;
2. holding informal meetings to share new QA information and experiences;
3. promoting worldwide support of the World Bank "Internet Qcare Facility" for QA communications, information bulletins, training courses, experience sharing, questions, answers, etc.

APPENDIX 1.6

Recommendations of the pre-ISQua Meeting on Quality Assurance Methodologies in Developing Countries, St Johns, 1995[a]

The discussion groups proposed a number of recommendations that went beyond the specific mandate of the meeting:

1. Further study is needed to clarify the appropriate relationship between accreditation strategies and those focused on QA [quality assurance] programmes.
2. An important element of learning to adapt QA techniques to varying conditions in developing countries is the study of the process of QA itself. Documentation is required on the way in which quality improvement teams apply specific tools and assess the appropriateness of their choice and the effectiveness of their efforts. This will generally require separate research. Most evaluation efforts to date have focused on the impact of QA interventions on the quality of care. This needs to be complemented by research on the effectiveness of different models of QA implementation.
3. A number of issues in QA are not amenable to established evaluation techniques. Questions such as the importance of the commitment of the programme leadership, the role of wide involvement of professionals, current accreditation approaches, and much of the TQM [total quality management] approach, will require the development of new research and evaluation approaches to place QA activities on a sound empirical basis.
4. Deciding the nature of incentives for providers to achieve high levels of quality, and to participate in QA activities, requires an aggressive research programme.
5. Many countries perceive a need to integrate the different QA approaches into a single, holistic model to improve quality of health care. Both research and sharing of well-documented programme experiences are needed to reach this objective.
6. The large burden of training implied by the expansion of QA programmes demands much more attention to training design and to examination of potentially more cost-effective approaches to capacity-building. Various distance learning strategies, including computer-based training, merit careful evaluation, as do broad training strategies. Incentives for learning, rather than for attendance, should be evaluated. QA training also needs to be coordinated with the large volume of other technical training, to ensure more integrated programmes.
7. It would be useful to create a working group to coordinate the large volume of research and evaluation activities that will be applied to QA in the coming years.
8. Use of the Internet should be stimulated to facilitate the exchange of information. This can be directly between individuals and countries involved, as well as through the constitution of bulletin boards specifically designed for such exchange. Each country should identify a focal point for the collection of information from within the country as well as with others.
9. The journal of ISQua can include updates on country-specific activities. Such brief updates could be coordinated through regional editorial boards.

[a] *Applicability of different quality assurance methodologies in developing countries. Proceedings of a pre-ISQua meeting, St Johns, Newfoundland, Canada, 29–30 May 1995*. Geneva, World Health Organization, 1996 (available on the Internet at http://whqlibdoc.who.int/hq/1996/WHO_SHS_DHS_96.2.pdf).

10. Regional conferences can provide an opportunity to strengthen ties and discuss quality improvement issues of relevance to specific regions.
11. Integration of information should also be achieved to support organizations such as ISQua and WHO and their meetings. Communication between workers in the field could be enhanced by the circulation of newsletters and the use of electronic mail and bulletin boards. This may not be appropriate for all countries, and different types of communication need to be considered.

These recommendations, as well as a summary of the deliberations of the working groups, were presented to the general congress of ISQua which immediately followed this meeting.

APPENDIX 1.7

Recommendations of the Committee of Ministers of the Council of Europe, 1997[a]

I. Dimensions of quality improvement systems

A. Procedures and processes for quality improvement

1. The following essential features of quality improvement systems should be implemented:
   - identification of quality problems and successes;
   - systematic collection of data on care provision;
   - standards and evidence-based guidelines for high-quality cost-effective care;
   - implementation of changes when needed, through effective mechanisms and strategies;
   - measurement of the impact of changes;
   - exploitation of best practices.

B. Organization of quality improvement

2. Such systems should be set up at all levels of care provision: individual care providers, practices, hospitals, other institutions, and at the interfaces between them. The same requirements for health care quality assurance should be established in all public and private health institutions.

C. Responsibilities: the actors in quality improvement

3. All the different parties involved in health care (providers, patients, funders, managers, and authorities) need to participate in setting up and maintaining these quality improvement systems in a close and continuous cooperation.
4. Health care providers should themselves develop, set up, and maintain quality improvement systems adapted to their health care settings and make these systems transparent to others.
5. Funders should contribute to quality improvement by requiring the establishment of quality improvement systems in their contracts with practitioners, hospitals, and health care organizations.
6. Health policy-makers should create the necessary framework for policies, laws, and regulations concerning quality, accompanied by appropriate evaluation and updating procedures.
7. Managers in health care should assume leadership in setting up such systems in their organizations.

[a] Council of Europe (available on the Internet at http://www.cm.coe.int/ta/rec/1997/97r17.html).

II. Key issues in quality improvement systems: general principles

A. Practice guidelines

8. Guidelines should be developed systematically, disseminated effectively to the professionals as well as the public, and their effects monitored.

B. Technology assessment and quality improvement

9. Health care should be improved by applying methods of evidence-based medicine and utilizing the results of technology assessment in decision-making, directing appropriate attention to laboratory quality assurance.

C. Quality indicators and information systems

10. Health care information systems should be set up for using relevant quality of care and process indicators and allow for timely production, feedback, and reliable comparisons of health care data. In all cases, individual patient data must be kept confidential.

D. Patient's perspective

11. Information on the needs, priorities, and experiences of patients at all levels of care provision should be gathered through appropriate methods ensuring active participation of patients.

E. Managing change

12. Quality improvement systems should include effective mechanisms and strategies:

    - for achieving necessary changes in a planned and managed approach;
    - for involving all the actors in care processes and decision-making, in particular, patients.

III. Conditions for implementation of quality improvement systems

13. The necessary conditions should be created in accordance with each Member State's legal and political system, for setting up and implementing quality improvement systems, namely:

    - support structures, such as agencies, boards, committees, and networks;
    - making full use of available resources, and where necessary providing resources and specific financing mechanisms for quality assessment, assurance, improvement and development;
    - pre- and post-graduate education for health care providers to gain knowledge of and skills in quality assessment and improvement systems;
    - appropriate incentives for participation in quality improvement.

IV. Evaluation of quality improvement systems

A. Public accountability

14. Public accountability of quality improvement systems should be examined through objective external assessment by independent bodies and appropriate communication of the results.

B. Feedback

15. The results of external assessment should be used to support continuous internal evaluation and improvement.

V. Research and development

A. National efforts

16. All necessary measures should be taken to promote research and development of quality improvement.

B. European cooperation

17. Stimulating exchange and collaboration in quality improvement at the national, as well as at the European, level should be encouraged. Quality issues should be included into European cooperative initiatives (e.g. data handling and exchange).

APPENDIX 1.8

Recommendations of the WHO/ISQua Workshop on Quality Improvement for Middle and Low Income Countries, Dublin, 2000[a]

The 56 participants from 31 countries of the 4th WHO/ISQua review meeting agreed that all efforts to improve quality should be developed in a strategic way to ensure efficiency and effectiveness of quality improvement programmes. Based on our country experiences we propose the following main recommendations:

1. Government needs a quality vision and policy with clear definitions of quality and quality assurance approaches.
2. Quality assurance policy should address concerns for health such as equity, affordability, sustainability and efficiency.
3. Organizations planning to start quality assurance should make plans for sustainability of the programme according to their local situation.
4. Quality concepts should be integrated into existing training curricula for all health care personnel.
5. Training should emphasize a team approach using practical and participatory methodologies according to agreed standards.
6. Standards should be context-specific, adapted or locally developed (e.g. accreditation schemes should not be adopted wholesale but tailored to the local context).
7. The health system should have a strategy for assuring the quality of care at subdistrict, district, regional and national levels.
8. An institutionalized, comprehensive and continuous training programme in quality is necessary and should be integrated into the routine health system.
9. Supervision and monitoring should include all levels of the organization and include information from clients and the community.

[a] *Report of the WHO/ISQua Workshop on Quality Improvement for Middle and Low Income Countries, Dublin, 2000*. Liverpool, Liverpool School of Tropical Medicine, 2000 (http://www.liv.ac.uk/lstm).

APPENDIX 1.9

Recommendations of the WHO Anglophone Intercountry Meeting, Kampala, 2000

Recommendations to countries

1. Participants to advocate for quality assurance in respective countries so that quality assurance is high on the country's health agenda and incorporated into health policies and programmes.
2. Participants to facilitate the incorporation of quality assurance principles and practices in national programmes.

Recommendations to WHO

1. WHO to establish a mechanism for closer follow-up of various quality assurance initiatives in the region.
2. WHO to organize regular intercountry meetings, preferably every two years, to facilitate exchange of ideas and experiences and maintain the interest and momentum in quality assurance activities in the region.
3. WHO to facilitate the mobilization of resources (e.g. funds, technical support and literature) to assist countries in implementing activities.
4. WHO to facilitate study tours of various quality assurance leaders so as to encourage sharing of experiences that would improve programme performance within countries and the region.

APPENDIX 1.10

Questions for a national quality strategy in developing countries

Policy

- Who are the stakeholders in quality in health care?
- Is there a need for a national integrated programme?
- Who should be consulted in developing a programme?
- What relevant legislation already exists?
- What is the government's role in developing a programme?
- Should mechanisms exist to integrate external support for quality – e.g. from WHO, World Bank, the European Union and external consultants?

Organization

- Which organizations are currently active in promoting quality improvement?
- How do they relate to the Ministry of Health?
- Is a task force or committee needed to establish a national programme?
- What should be its terms of reference?
- Who should represent what stakeholders?
- Who should coordinate quality improvement at hospital/clinic level – e.g. within and between departments?

Methods

- What are the key characteristics of effective quality methods – e.g. valid standards, reliable measurements and practical implementation?
- How can providers become committed to internal quality improvement – e.g. incentives and culture?
- What internal quality systems already exist – e.g. control of infection, accidents, transfusions and medicines?
- What programmes exist external to hospitals/clinics – e.g. registration of staff, hospitals and statutory inspectorates?
- What standards have been adopted – e.g. for meeting patients' expectations and for clinical practice?
- How is compliance with these standards measured – e.g. patient surveys, clinical audit and indicators?
- Should these be integrated into a national system of accreditation?
- What standards and models for accreditation are available?

Resources

- What training would be needed, for whom?
- How would this link to existing undergraduate/graduate systems?
- Who would provide this training?
- How much time should clinicians devote to quality improvement?
- How could this be incorporated into routine clinical activity?
- What information is available about quality improvement methods – e.g. at national and local level, libraries and resource centres?
- How could this information be made more accessible and exchanged?
- What data are collected locally which could measure quality?

- Are clinical data aggregated and made routinely available to clinicians?
- Are new information technology systems designed to support quality improvement?
- What funding is needed to set up quality systems – e.g. coordination, information, data management and training?

APPENDIX 1.11

National societies for quality (organizations known to ISQua)

Country	Organization
Australia	Australasian Association for Quality in Health Care
Austria	Society for Quality in Health Care
Denmark	Danish Society for Quality in Health Care
Egypt	Egyptian Society for Quality in Health Care
Germany	Gesellschaft für QualitätsManagement in der Gesundheitsversorgung
Greece	Hellenic Society for Quality in Health Care
Hungary	Hungarian Society for Quality Assurance in Health Care
Ireland	Irish Society for Quality in Health Care
Italy	Società Italiana per la Qualità dell'Assistenza Sanitaria
Japan	Japan Society for Quality in Health Care
Jordan	Jordan Society Quality in Healthcare
Malaysia	Malaysian Society for Quality in Health
Mexico	Sociedad Mexicana de Calidad de la Atención a la Salud
Netherlands	Dutch Society for Quality and Care
New Zealand	New Zealand Organisation for Quality
Norway	Norwegian Forum for Quality in Health Care
Peru	Peruvian Society for Quality in Health Care
Philippines	Philippine Society for Quality in Health Care
Spain	Sociedad Española Calidad Asistencial
Sweden	Swedish Society for Health Care Quality
Switzerland	Swiss Association for Quality Assurance and Continuous Quality Improvement in Healthcare
	National Alliance for Quality
United Kingdom	Clinical Audit Association UK
	Association for Quality in Healthcare
United States	National Association for Healthcare Quality

APPENDIX 2.1

Classification of quality concepts and tools

Conceptual approaches

Quality management
quality control, quality assessment, quality assurance, quality improvement, total quality management (TQM), Health(care) improvement, Q health systems, Q care development, clinical governance

External assessment
ISO certification, EFQM/Baldrige/Business excellence, statutory inspection, accreditation, peer review

Public and consumers

Focus	Concepts, values	A Defining standards	B Measurement tools and methods	C Change management
1 Population and community	Health gain Equity Access Human rights	Health policy, targets Legislation, regulations Needs assessment	Epidemiological monitoring Population health data Health service data	Information systems Health policy, targets League tables
2 Consumers, users, clients	Responsiveness Rights Responsibilities Commercial forces	Legislation Consumer data protection Freedom of information Patients' charters	Complaints analysis Satisfaction/experience surveys Patient-assessed outcome tools Indicators: process, access	Public information User groups User representation Ombudsman

Personnel and staff

3 Staff welfare	Protecting investment Staff morale	Employment legislation Personnel policy, procedures	Health checks Indicators: absence, turnover Staff surveys, exit interviews External human resources assessment	Staff health service Staff counselling Human resource management
4 Staff competence	Knowledge, attitudes, skills Ethical behaviour Public accountability	Training curricula (Re)licensing criteria Recruitment criteria Job specifications Staff by-laws	Recruitment screening Individual performance review Credentials, revalidation process Supervision Accreditation of training Inspection Consumer survey	Training Continuing professional development/continuing medical education Skill mix adjustment Trainee supervision

Clinical practice

5 Clinical effectiveness	Variations in practice Biomedical research Clinical effectiveness Technology assessment Clinical freedom Public demand	Guidelines Protocols Critical care pathways Recovery pathways	Clinical audit Clinical indicators, benchmarking Adverse patient events Delay analysis Confidential enquiries	Peer pressure Feedback, information, training Audit action plans Specialization

Management

6 Service delivery	Teamworking Service integration Patient-centred care Public accountability	Training programmes Planning guidelines Internal policies Accreditation standards Service frameworks Health care contracts Industrial quality assurance standards Licensing regulations	Self-assessment (indicators, EFQM) Occasional surveys External certification, accreditation External quality assurance (laboratories, X-ray) External performance indicators Peer review visiting Statutory inspection	Pathology, radiology accreditation Quality strategy, leadership Organizational development Team working Award schemes
7 Risk, health and safety	Risk management Cost containment Public relations	Internal risk procedures Accreditation, ISO standards Guidance from insurers, enquiries, government Statutory regulations	Self-assessment, risk assessment Adverse event analysis (see 5B) External review: ISO, insurance, accreditation Statutory inspection, licensing, registration Public enquiry	Training, e.g. lifting, fire Financial incentives Preventive maintenance Whistle-blowing Litigation
8 Resource management	Efficiency Equity Rationing Opportunity costs Cost-benefit	Resource allocation formula Planning guidelines Staffing, equipment targets Clinical guidelines, health technology assessment	Clinical costing Utilization review Efficiency indicators Capital asset, supplies audit National surveys	Waste reduction Resource re-allocation Insurance, payment incentives Clinical budgeting
9 Communications	Patient involvement Management control Clinical evaluation Cost recovery	Record content standards Data quality standards Patient information standards	Communications audit Audit of records, data accreditation Accreditation survey Communications audit	Information technology strategy Records committee Case-mix-based funding Training in clinical coding

APPENDIX 3.1

Specimen survey form

1	Name of your accreditation programme	
2	Programme name in English	
3	Address of the programme: Street, PO Box	
4	City, postcode	
5	Country	
6	Telephone	
7	Fax	
8	Web site	
9	Name of person to contact for this survey	
10	email address of person	
11	Is there any law or directive requiring accreditation in your country? Yes/no; reference, year	
12	How is the programme related to government? – managed by, (partially) funded by, formally recognized by, totally independent of?	
13	What year did development begin?	
14	What year was the first operational survey visit?	
15	Does the programme focus on primary or	
	secondary or tertiary care? All of these?	
16	Does it include public and private facilities?	
17	Are the accreditation standards available to the public free of charge? Yes/no	
18	If not, at what price can they be purchased? US$	
19	Which country most influenced the standards?	
20	How many full revisions have been published?	
21	What year were current standards approved?	
22	How many days does a site visit usually last?	
23	How many surveyors are usually in a team?	
24	Are full reports of surveys available to the public free of charge? Yes/no	
25	If not, at what price can they be purchased? US$	
26	How many survey visits were done in 1999?	
27	How many trained surveyors were available to the programme at the end of 1999?	
28	How many new surveyors were trained in 1999?	
29	What was the total expenditure of the programme in 1999? US$	

30	What fee is charged to survey a 100-bed	
	hospital? US$	
31	What is the programme's main source of income?	
32	Please name any other national accreditation programmes in your country, with contact details	
33	Please add any other comments you would like to make about your programme or this survey	

APPENDIX 3.2
Responding programmes

Country	Programme Title	Address	Telephone	Fax
Argentina	Technical Institute for Accreditation of Healthcare Organizations (ITAES)	Av. Córdoba 1827 –8° C/D (C1120AAA) Buenos Aires	(54-11) 4814-0615	(54-11) 4814-0838
Australia	Australian Council on Healthcare Standards (ACHS)	5 Macarthur St Ultimo Sydney, NSW 2001 65 Park Road	0292819955	0292119633
	Australian General Practice Accreditation Ltd (AGPAL)	(PO Box 2058) Milton, 4074 Queensland		
	Quality Improvement Council (QIC)	Australian Institute for Primary Care, 5th Floor Health Sciences Building 2 Victoria 3086	+61394795630	+61394795977
Bosnia and Herzegovina	Quality Assurance in Republika Srpska	K.Petra I 133 Banjaluka	38751319161	38751319168
Brazil	Consortium for Brazilian Accreditation (CBA)	Rua Cosme Velho 155 22241-090 Rio de Janeiro, RJ	(55) (21) 558-3033	(55) (21) 558-3385
Canada	Canadian Council on Health Services Accreditation (CCHSA)	100-1730 St. Laurent Blvd. Ottawa, Ontario	613 738 3800	613 738 7755
Colombia	Health Care Institutions Accreditation Programme	Ministerio de Salud Carrera 13 No. 32-76 piso 16 Bogota DC		
Czech Republic	Joint Accreditation Commission for Czech Republic	Palackeho nam.4 128 01 Praha 2	+420224972361	+420224915984
Finland	Development programme, auditing and accreditation in social and health services	Toinen linja 14 00530 Helsinki	+358 9 771 2129	+358 9 771 2296
France	Agence Nationale d'Accréditation et d'Evaluation en Santé (ANAES)	159 rue Nationale 75640 Paris Cedex 13	+33 1 42 16 72 72	+33 1 42 16 73 73
Germany	Cooperation for Transparence and Quality In Hospitals	Frankfurter Strasse 84 53721 Siegburg	+492241 1080	
Indonesia	Hospital and Other Health Facilities Services Accreditation Programme	HR. Rasuna Said Kav. X5 No. 4-9 Jakarta, 12950	620215265717 or 620215203880	620215265717 or 620215273351
Ireland	Major Academic Teaching Hospitals (MATHs) Accreditation Project	St James's Hospital James's Street Dublin 8	353 1 410 3373	353 1 410 3490

Country	Programme Title	Address	Telephone	Fax
Italy	Institutional accreditation programme, Marche Region	Regional Agency for Health Care Marche Regionale Government Via Gentile da Fabriano 360125 Ancona	00390718064057	00390718064056
Malaysia	Malaysian Healthcare Accreditation Programme	Suite 1′-07 Damansara Specialist Hospital 119 Jalan SS20/10 Damansara Utama 47400 Petaling Jaya Selangor	60377222692 x1314	60377283190
Mongolia	Accreditation programme for health organization	Olympic Str.-2 Goevenrment Building VIII Ministry of Health PO Box 48/146 Ulan-Bator	97611314050 or 325540	97611321755 or 325540
Netherlands	Dutch Institute for the Accreditation of Hospitals	Wassenaarseweg 56 Postbus 2215 2301 CE Leiden	+31 715 18 12 46	+31 715 18 19 18
New Zealand	The NZ Council on Healthcare Standards trading as Quality Health New Zealand – Te Taumata Hauora	PO Box 5088 Wellington 6040	64 4 4990367	64 4 4990368
Poland	Hospital Accreditation Programme	Syrokomli 10 Kracow 30-102	+48 12 427 82 51	+48 12 427 82 51
Portugal	Health Quality Institute	Rua Faria Guimarães, 718 –2° e 6°; 4200-289 Porto	+225 089 277	+225 507 109
Slovak Republic	Centre for Quality and Accreditation in Healthcare	Ministry of Health of Slovak Republic Section of Health Care Limbova 2 Bratislava, 833 41	00421 754777939	00421 -754777552
South Africa	COHSASA Accreditation and Management Improvement Programme	676 Howard Place Pinelands Cape Town 7450	27215314225	27215314243
Spain	FAD-JCI Accreditation	Provenza 293, pral 08037 Barcelona	34-93-2076608	34-93-4593864
Thailand	Hospital Accreditation	DMS 6 Building Ministry of Public Health Tiwanon Road Nonthaburi, 11000	662 5890023	662 95510238
UK	Health Quality Service (HQS)	15 Whitehall London SW1A 2DD	+442073891000	+442073891001
UK	Hospital Accreditation Programme (HAP)	13 Cavendish Square London W1M 0AN	+4420773072879	+4420773072422
USA	National Committee for Quality Assurance (NCQA)	2000 L Street NW Washington, DC 20036	202 955 5697	202 955 3599

APPENDIX 3.3
Argentina

1	Name of your accreditation programme	Instituto Técnico para la Acreditación de Establecimientos de Salud (ITAES)
2	Programme name in English	Technical Institute for Accreditation of Healthcare Organizations
3	Address of the programme: Street, PO Box	Av. Córdoba 1827 –8° C/D
4	City, postcode	(C1120AAA) Buenos Aires
5	Country	Argentina
6	Phone/Fax	(54-11) 4814-0615 / 4814-0838
7	Email	Itaes@pccp.com.ar
8	Web site	www.itaes.org.ar
11	Is there any law or directive requiring accreditation in your country?	The Decree N° 1424 in December 1997 stated that all public and Social Security hospitals should be mandatory accredited. That regulation was not implemented. The current Health Authorities are still not decided about this; accreditation remains voluntary.
12	How is the programme related to government?	ITAES is totally independent as a nongovernmental and non-for-profit civic association, but it is now negotiating a Memorandum of Understanding with the Chairman of the National Programme of Quality Assurance in Health Care.
13	What year did development begin?	The group of experts that is now working in ITAES started by studying American and Canadian experiences since the early 1980s. The same group developed the draft paper of the Accreditation Manual of Hospitals for Latin America and the Caribbean, sponsored by PAHO and Latin American Federation of Hospitals (LAFH). Throughout many trials, experiences and several accrediting bodies, that group shared the foundation of ITAES at the end of 1993. In 1994 began the formal development of ITAES and also the Accreditation Programme in Argentina.
14	What year first operational survey visit?	Within ITAES institutional support the first operational survey was in 1996.
15	Does the programmeme focus on primary or secondary or tertiary care?	The first programme's focus was on acute care hospitals. Two other programmes are starting now on: (a) outpatient facilities for diagnosis and treatment; (b) mental care. In all cases, either primary or secondary and tertiary care levels were considered. There is another programme for assessment of health care providers entrusted by purchasers.
16	Does it include public and private facilities?	Yes.
17	Are the accreditation standards available to the public free of charge?	No.
18	If not, at what price can they be purchased? US$	US$ 20
19	Which country most influenced the standards?	Accreditation Manual of Hospitals for Latin America and the Caribbean (PAHO – LAFH), because the draft paper was developed in Argentina.
20	How many full revisions have been published?	As ITAES, the first full revision of the Manual for acute care hospitals is now being published.

21	What year was the current version approved?	First version: 1996. Second version: 2000.
22	How many days does a site visit usually last?	One to three days.
23	How many surveyors are usually in a team?	Two to four surveyors.
24	Are full reports of surveys available to the public free of charge?	No, detailed survey reports are confidential. Hospital authorities could decide later to release them to the public. They can also allow ITAES to publish the final outcome in the ITAES Magazine.
25	If not, at what price can they be purchased? US$	Not available for purchase.
26	How many survey visits were done in 1999?	Five.
27	How many trained surveyors were available at the end of 1999?	230 surveyors.
28	How many new surveyors were trained in 1999?	50 surveyors.
29	What was the total expenditure of the programme in 1999?US$	US$131.624,34 (last balance sheet 1 April 1999–31 March 2000)
30	What fee is charged to survey a 100-bed hospital in 2000? US$	There are 4 levels: 1. <US$ 2,4 million annual turnover, <50 beds, <100 employees: US$ 2500. 2. US$ 2,4–5 million annual turnover, 51–100 beds, 101–200 employees: US$ 3500. 3. US$ 5–10 million annual turnover, 101–200 beds, 201–400 employees: US$ 4800. 4. >US$ 10 million annual turnover, >201 beds, >401 employees: US$ 6000.
31	What is the programme's main source of income?	Membership fees, fee for services of accreditation, educational activities, advertisements in ITAES Magazine and sponsorship.

APPENDIX 3.4

Australia, ACHS

1	Name of your accreditation programme	Australian Council on Healthcare Standards – 'EquIP'
2	Programme name in English	Evaluation and Quality Improvement Program [EquIP]
3	Address of the programme: Street, PO Box	5 Macarthur St, Ultimo
4	City, postcode	Sydney, NSW, 2001
5	Country	Australia
6	Telephone	02 9281 9955
7	Fax	02 9211 9633
8	Web site	www.achs.org.au
11	Is there any law or directive requiring accreditation in your country?	No
12	How is the programme related to government?	Formal links through representation on Council and governing Board. Not directly in receipt of government funding . . . it is a not-for-profit company limited by guarantee
13	What year did development begin?	1959
14	What year was the first operational survey visit?	1974
15	Does the programme focus on primary or secondary or tertiary care?	All of these
16	Does it include public and private facilities?	Yes
17	Are the accreditation standards available to the public free of charge?	No – extracts only free on web site.
18	If not, at what price can they be purchased? US$	US$ 95
19	Which country most influenced the standards?	USA originally
20	How many full revisions have been published?	14
21	What year was the current version approved?	2000 – sections are revised continuously
22	How many days does a site visit usually last?	2–5 days depending on size
23	How many surveyors are usually in a team?	2–10 depending on size
24	Are full reports of surveys available to the public free of charge?	Not unless released by the organization being surveyed
25	If not, at what price can they be purchased? US$	n.a.
26	How many survey visits were done in 1999?	552 survey visits: 272 organization-wide, plus about 250 periodic reviews; four-year cycle, with mid-term focus visit
27	How many trained surveyors were available to the programme at the end of 1999?	1999/2000 – 374
28	How many new surveyors were trained in 1999?	55 (45 plus 10 consumer surveyors)
29	What was the total expenditure of the programme in 1999? US$	US$ 2 750 000
30	What fee is charged to survey a 100-bed hospital in 2000? US$	US$ 2800 p.a. approx
31	What is the programme's main source of income?	Programme membership fees

APPENDIX 3.5

Australia, AGPAL

1	Name of your accreditation programme	Australian General Practice Accreditation Ltd (AGPAL)
2	Programme name in English	As above
3	Address of the programme: Street, PO Box	65 Park Road PO Box 2058
4	City, postcode	Milton, 4074, Queensland
5	Country	Australia
6	Telephone	
7	Fax	
8	Web site	www.agpal.com.au
11	Is there any law or directive requiring accreditation in your country?	No
12	How is the programme related to government?	The programme is recognized by the Federal Government as an access point for additional funds for a practice call the Practice Incentive Program. The set-up of AGPAL was by a seeding grant from the Federal Government, but the company is totally independent and managed by the medical profession.
13	What year did development begin?	Early development of the Standards in 1992, ratified by the profession via a series of trials in 1994–95. The company was formed in late 1997 and offered a service from May 1998.
14	What year was the first	August 1998 operational survey visit?
15	Does the programme focus on primary or secondary or tertiary care?	Primary, General Practice
16	Does it include public and private facilities?	Yes. We have developed a definition of a general practice and all participants must sign off that they meet the definition, before proceeding. This includes the private and the public sector, i.e. Aboriginal Medical Services, Royal Flying Doctor Services, University Health Services
17	Are the accreditation standards available to the public free of charge?	No, they are available from the Royal Australian College of General Practice. (RACGP) www.racgp.org.au
18	If not, at what price can they be purchased? US$	Approximately US$ 50 per copy
19	Which country most influenced the standards?	Built from a zero base in Australia although the work of Donabedian was very influential.
20	How many full revisions have been published?	2nd edition published 2000
21	What year was the current version approved?	2000
22	How many days does a site visit usually last?	One day
23	How many surveyors are usually in a team?	Minimum of 2 depending on the size of the practice
24	Are full reports of surveys available to the public free of charge?	No
25	If not, at what price can they be purchased? US$	Not applicable
26	How many survey visits were done in 1999?	1512
27	How many trained surveyors were available to the programme at the end of 1999?	300

28	How many new surveyors were trained in 1999?	24
29	What was the total expenditure of the programme in 1999? US$	1.5 milliion
30	What fee is charged to survey a 100-bed hospital in 2000? US$	Not applicable
31	What is the programme's main source of income?	Payments by practices that undertake the programme. The fee is based on the number of Full Time Equivalent Doctors who work in the practice. The fee is approximately US$ 700 per doctor for a three-year cycle.

APPENDIX 3.6

Australia, QIC

1	Name of your accreditation programme	Quality Improvement Council Review/Accreditation Program
2	Programme name in English	as above
3	Address of the programme:	Australian Institute for Primary Care 5th Floor Health Sciences Building 2 La Trobe University
4	City, postcode	Victoria 3086
5	Country	Australia
6	Telephone	+61 3 9 479 5630
7	Fax	+61 3 9479 5977
8	Web site	qic.latrobe.edu.au
11	Is there any law or directive requiring accreditation in your country? Yes/no; reference, year	No
12	How is the programme related to government? – managed by, (partially) funded by, formally recognized by, totally independent of?	Formally recognized by, but totally independent of
13	What year did development begin?	1987
14	What year was the first operational survey visit?	1987
15	Does the programme focus on primary or secondary or tertiary care? All of these?	Primary care
16	Does it include public and private facilities	Public facilities in the main
17	Are the accreditation standards available to the public free of charge? Yes/no	No
18	If not, at what price can they be purchased? US$	A$30 + 10% goods & services tax
19	Which country most influenced the standards?	
20	How many full revisions have been published?	1
21	What year was the current version approved?	1998
22	How many days does a site visit usually last?	3–5 days
23	How many surveyors are usually in a team?	2–5
24	Are full reports of surveys available to the public	Yes
	free of charge? Yes/no	
25	If not, at what price can they be purchased? US$	
26	How many survey visits were done in 1999?	
27	How many trained surveyors were available to the programme at the end of 1999?	Over 550
28	How many new surveyors were trained in 1999?	Over 100
29	What was the total expenditure of the programme in 1999? US$	
30	What fee is charged to survey a 100-bed hospital in 2000? US$	
31	What is the programme's main source of income?	Developmental and accreditation reviews

APPENDIX 3.7

Bosnia and Herzegovina

1	Name of your accreditation programme	Quality Assurance in Republika Srpska
2	Programme name in English	Quality Assurance in Republika Srpska
3	Address of the programme: Street, PO Box	K. Petra I 133
4	City, postcode	Banjaluka
5	Country	Republika Srpska, Bosnia and Herzegovina
6	Telephone	–38751319161
7	Fax	–38751319168
8	Web site	None
11	Is there any law or directive requiring accreditation in your country? Yes/no; reference, year	No, the program is in the developing stage
12	How is the programme related to government? – managed by, (partially) funded by, formally recognized by, totally independent of?	Managed by Project Coordination Unit of Ministry of Health, financed through the World Bank credit
13	What year did development begin?	1999
14	What year was the first operational survey visit?	—
15	Does the programme focus on primary or secondary or tertiary care? All of these?	It will focus on all of these
16	Does it include public and private facilities?	It will include both
17	Are the accreditation standards available to the public free of charge? Yes/no	Not developed yet
18	If not, at what price can they be purchased? US$	Not developed yet
19	Which country most influenced the standards?	Not developed yet
20	How many full revisions have been published?	Not developed yet
21	What year were current standards approved?	Not developed yet
22	How many days does a site visit usually last?	—
23	How many surveyors are usually in a team?	—
24	Are full reports of surveys available to the public free of charge? Yes/no	—
25	If not, at what price can they be purchased? US$	—
26	How many survey visits were done in 1999?	None
27	How many trained surveyors were available to the programme at the end of 1999?	None
28	How many new surveyors were trained in 1999?	None
29	What was the total expenditure of the programme in 1999? US$	None
30	What fee is charged to survey a 100-bed hospital? US$	—
31	What is the programme's main source of income?	—

APPENDIX 3.8

Brazil

1	Name of your accreditation programme	Consórcio Brasileiro de Acreditação (CBA)
2	Programme name in English	Consortium for Brazilian Accreditation (CBA)
3	Address of the programme: Street, PO Box	Rua Cosme Velho, 155
4	City, postcode	22241-090 Rio de Janeiro, RJ
5	Country	Brazil
6	Telephone	(55) (21) 2558-3033
7	Fax	(55) (21) 2558-3385
8	Web site	www.cbacred.org.br
11	Is there any law or directive requiring accreditation in your country?	No
12	How is the programme related to government? – managed by, (partially) funded by, formally recognized by, totally independent of?	CBA is recognized by the Organização Nacional de Acreditação (ONA) [National Accreditation Organization]
13	What year did development begin?	1994
14	What year was the first operational survey visit?	1998
15	Does the programme focus on primary or secondary or tertiary care? All of these?	Initiated on hospital care. Now expanding to all levels of care.
16	Does it include public and private facilities?	Both public and private are included.
17	Are the accreditation standards available to the public free of charge? Yes/no	No.
18	If not, at what price can they be purchased? US$	US$ 50.00
19	Which country most influenced the standards?	USA
20	How many full revisions have been published?	One
21	What year was the current version approved?	2000
22	How many days does a site visit usually last?	3
23	How many surveyors are usually in a team?	3 to 4
24	Are full reports of surveys available to the public free of charge? Yes/no	No
25	If not, at what price can they be purchased? US$	They cannot be purchased.
26	How many survey visits were done in 1999?	None for accreditation so far. Twenty two surveys for assessments completed to date.
27	How many trained surveyors were available to the programme at the end of 1999?	27
28	How many new surveyors were trained in 1999?	7
29	What was the total expenditure of the programme in 1999? US$	US$ 400 000
30	What fee is charged to survey a 100-bed hospital in 2000? US$	US$ 14 000
31	What is the programme's main source of income?	Contracts

APPENDIX 3.9
Canada

1	Name of your accreditation programme	Canadian Council on Health Services Accreditation (CCHSA)
2	Programme name in English	same
3	Address of the programme: Street, PO Box	100–1730 St. Laurent Blvd.
4	City, postcode	Ottawa, Ontario
5	Country	Canada
6	Telephone	613/ 738-3800
7	Fax	613/ 738-7755
8	Web site	www.cchsa.ca
11	Is there any law or directive requiring accreditation in your country? Yes/no; reference, year	No laws, but the Royal College of Physicians and Surgeons of Canada requires any hospital teaching medical students to be accredited.
12	How is the programme related to government? – managed by, (partially) funded by, formally recognized by, totally independent of?	Totally independent of. In some provinces the government gives a financial incentive for accreditation
13	What year did development begin?	1958 – prior to this we were part of the American accreditation program
14	What year was the first operational survey visit?	1958
15	Does the programme focus on primary or secondary or tertiary care? All of these?	All – full continuum of care
16	Does it include public and private facilities?	Yes
17	Are the accreditation standards available to the public free of charge? Yes/no	No – charge involved
18	If not, at what price can they be purchased? US$	Application fee CDN 400 includes initial materials and standards
19	Which country most influenced the standards?	USA
20	How many full revisions have been published?	Since 1988 there have been three revisions, prior to this we have no archival info but there were multiple revisions.
21	What year was the current version approved?	2000
22	How many days does a site visit usually last?	1.5 days to 8 days
23	How many surveyors are usually in a team?	An average team consists of three surveyors but we use as many as 9 or 10 surveyors for large health systems.
24	Are full reports of surveys available to the public free of charge? Yes/no	No, but we encourage the accredited organization to make its report available.
25	If not, at what price can they be purchased? US$	n/a
26	How many survey visits were done in 1999?	328
27	How many trained surveyors were available to the programme at the end of 1999?	350
28	How many new surveyors were trained in 1999?	64
29	What was the total expenditure of the programme in 1999? US$	$ 9 500 000

30	What fee is charged to survey a 100-bed hospital in 2000? US$	We have a two-part fee. The survey fee is $ 1500 per surveyor day (for survey year). There is also an annual fee according to the budget of the organization. If it were a small LTC org. with a budget of less than $ 3 million, the fee would be: $ 685 annual fee plus the survey fee.
31	What is the programme's main source of income?	fees from accredited organizations

APPENDIX 3.10
Colombia

1	Name of your accreditation programme	Acreditación de Instituciones Prestadoras de Servicios de Salud
2	Programme name in English	Health Care Institutions Accreditation Programme
3	Address of the programme: Street, PO Box	Ministerio de Salud / Carrera 13 No. 32-76 piso 16
4	City, postcode	Bogotá D.C.
5	Country	Colombia
6	Telephone	
7	Fax	
8	Web site	
11	Is there any law or directive requiring accreditation in your country? Yes/no; reference, year	Yes, Decree 2174 from the Health Ministry, in 1996.
12	How is the programme related to government? – managed by, (partially) funded by, formally recognized by, totally independent of?	The accreditation programme is being developed by the Health Ministry, supported by private advisers. (Centro de Gestión Hospitalaria). The accreditation programme will be partially managed by the government. The accreditation will be done by a private institution.
13	What year did development begin?	It is likely that implementation of the accreditation health care institutions programme will take place in 2002.
14	What year was the first operational survey visit?	—
15	Does the programme focus on primary or secondary or tertiary care? All of these?	All of these
16	Does it include public and private facilities?	Yes.
17	Are the accreditation standards available to the public free of charge? Yes/no	We haven't worked on these issues. Not so far.
18	If not, at what price can they be purchased? US$	—
19	Which country most influenced the standards?	For the voluntary accreditation programme, in construction: Canada.
20	How many full revisions have been published?	—
21	What year was the current version approved?	—
22	How many days does a site visit usually last?	—
23	How many surveyors are usually in a team?	We haven't worked on these issues. Not so far.
24	Are full reports of surveys available to the public free of charge? Yes/no	The 2174 / 96 Decree states that the list of the hospitals that have got the accreditation, should be officially published.
25	If not, at what price can they be purchased? US$	We haven't worked on these issues. Not so far.
26	How many survey visits were done in 1999?	—
27	How many trained surveyors were available to the programme at the end of 1999?	—
28	How many new surveyors were trained in 1999?	—

29	What was the total expenditure of the programme in 1999? US$	—
30	What fee is charged to survey a 100-bed hospital in 2000? US$	—
31	What is the programme's main source of income?	—

APPENDIX 3.11
Czech Republic

1	Name of your accreditation programme	Spojena akreditacni komise CR
2	Programme name in English	Joint Accreditation Commission for Czech Republic
3	Address of the programme: Street, PO Box	Palackeho nam 4
4	City, postcode	128 01 Praha 2
5	Country	Czech Republic
6	Telephone	+420 2 2497 2361
7	Fax	+420 2 2491 5984
8	Web site	www.mediqual.cz
11	Is there any law or directive requiring accreditation in your country? Yes/no; reference, year	No. The new law is being drafted and includes paragraphs on accreditation and quality assurance in health care
12	How is the programme related to government? – managed by, (partially) funded by, formally recognized by, totally independent of?	Independent and formally recognized
13	What year did development begin?	1995
14	What year was the first operational survey visit?	1997
15	Does the programme focus on primary or secondary or tertiary care? All of these?	For the moment it is focused mainly on tertiary care
16	Does it include public and private facilities?	For the moment, public hospitals
17	Are the accreditation standards available to the public free of charge? Yes/no	Published in 1998 in the bulletin of the Ministry of Health
18	If not, at what price can they be purchased? US$	
19	Which country most influenced the standards?	US (JCAHO)
20	How many full revisions have been published?	Only the first edition is currently available
21	What year were current standards approved?	1998
22	How many days does a site visit usually last?	At the moment only two hospitals have been surveyed completely – two days
23	How many surveyors are usually in a team?	3
24	Are full reports of surveys available to the public free of charge? Yes/no	No. The current legislation does not allow for publishing
25	If not, at what price can they be purchased? US$	
26	How many survey visits were done in 1999?	One
27	How many trained surveyors were available to the programme at the end of 1999?	10
28	How many new surveyors were trained in 1999?	4
29	What was the total expenditure of the programme in 1999? US$	Financing was provided by the hospitals themselves
30	What fee is charged to survey a 100-bed hospital? US$	Data not disclosed
31	What is the programme's main source of income?	See above

APPENDIX 3.12
Finland

1	Name of your accreditation programme	Sosiaali- ja terveydenhuollon palvelujärjestelmän kehittämisohjelma, auditointi ja laaduntunustus
2	Programme name in English	Development Programme, Auditing and Accreditation in Social and Health Services
3	Address of the programme: Street, PO Box	Toinen linja 14
4	City, postcode	00530 Helsinki
5	Country	Finland
6	Telephone	+358-9-771 2129
7	Fax	+358-9-771 2296
8	Web site	www.efektia.fi
11	Is there any law or directive requiring accreditation in your country? Yes/no; reference, year	No
12		
13	What year did development begin?	1994
14	What year was the first operational survey visit?	1995
15	Does the programme focus on primary or secondary or tertiary care?	Covers all social and health services
16	Does it focus on any medical specialty? which?	No
17	Does it include public and private facilities?	Both
18	Are the accreditation standards available to the public free of charge? Yes/no	No
19	If not, at what price can they be purchased? Euro	Varies depending on the standards, average might be €700
20	Which country most influenced the standards?	UK (King's Fund OA)
21		
22		
23	How many days does a site visit usually last?	1–5 days depending on the size of the organization
24	How many surveyors are usually in a team?	2–6 depending on the size of the organization
25	Are full reports of surveys available to the public free of charge? Yes/no	No
26	If not, at what price can they be purchased? Euro	Cannot be purchased. Reports are confidential and property of the organization
27	How many survey visits were done in 1999?	12
28	How many trained surveyors were available to the programme at the end of 1999?	130
29	How many new surveyors were trained in 1999?	20
30	What was the total expenditure of the programme in 1999? Euro	€380 000
31	What was the main source of income?	Survey fees

APPENDIX 3.13

France

1	Name of your accreditation programme	Agence Nationale d'Accréditation et d'Evaluation en Santé (ANAES)
2	Programme name in English	National Agency for Accreditation and Evaluation in Health Care
3	Address of the programme: Street, PO Box	159 rue Nationale
4	City, postcode	75640 Paris CEDEX 13
5	Country	France
6	Telephone	+33 1 42 16 72 72
7	Fax	+33 1 42 16 73 73
8	Web site	www.anaes.fr
11	Is there any law or directive requiring accreditation in your country? Yes/no; reference, year	Parliamentary Law of 24 April 1996
12	What is the status of the programme?	Managed by a parliamentary agency partially funded by government
13	What year did development begin?	1997
14	What year was the first operational survey visit?	1999
15	Does the programme focus on primary or secondary or tertiary care?	Secondary and tertiary care
16	Does it focus on any medical specialty? which?	
17	Does it include public and private facilities?	Yes
18	Are the accreditation standards available to the public free of charge? Yes/no	Yes, on web site
19	If not, at what price can they be purchased? Euro	—
20	Which country most influenced the standards?	USA, Canada
21	How many full revisions have been published?	First edition July 1999
22	How many days does a site visit usually last?	3–12 days (average 4)
23	How many surveyors are usually in a team?	3–6 surveyors (average 4)
24	Are full reports of surveys available to the public free of charge? Yes/no	Yes, on Internet
25	If not, at what price can they be purchased? Euro	—
26	How many survey visits were done in 1999?	9
27	How many trained surveyors were available to the programme at the end of 1999?	179
28	How many new surveyors were trained in 1999?	106
29	What was the total expenditure of the programme in 1999? Euro	€10–15 000 000
30	What would you charge to survey a 100-bed hospital?	€10 000
31	What was the main source of income?	Government and HCOs

APPENDIX 3.14
Germany

1	Name of your accreditation programme	Kooperation für Transparenz und Qualität im Krankenhaus (KTQ)
2	Programme name in English	Cooperation for Transparence and Quality in Hospitals
3	Address of the programme: Street, PO Box	Frankfurter Str. 84
4	City, postcode	53721 Siegburg
5	Country	Germany
6	Telephone	+492241 1080
7	Fax	
8	Web site	www.ktq.de
11	Is there any law or directive requiring accreditation in your country? Yes/no; reference, year	No
12	How is the programme related to government? – managed by, (partially) funded by, formally recognized by, totally independent of?	Partially funded by the Ministry of Health
13	What year did development begin?	1997
14	What year was the first operational survey visit?	End 2001 (25 pilot visits in the pilot phase between Oct. 2000 and Feb. 2001)
15	Does the programme focus on primary or secondary or tertiary care? All of these?	Tertiary
16	Does it focus on any medical specialty? which?	No
17	Does it include public and private facilities?	
18	Are the accreditation standards available to the public free of charge? Yes/no	No
19	If not, at what price can they be purchased? US$	US$ 14 (DM 28,–)
20	Which country most influenced the standards?	No direct influence. If one should be mentioned: some ideas from Australia
21	How many full revisions have been published?	Version 3, final Version 4 expected in July 2001
22	What year were current standards approved?	Still under construction
23	How many days does a site visit usually last?	3 days
24	How many surveyors are usually in a team?	3 (physician, administrator, nurse)
25	Are full reports of surveys available to the public free of charge? Yes/no	Some parts of the reports (still under construction)
26	If not, at what price can they be purchased? US$	
27	How many survey visits were done in 1999?	app. 17 (pilot visits)
28	How many trained surveyors were available to the programme at the end of 1999?	45
29	How many new surveyors were trained in 1999?	45

30	What was the total expenditure of the programme in 1999? US$	
31	What fee is charged to survey a 100-bed hospital? US$	Not yet known
32	What is the programme's main source of income?	Fees

APPENDIX 3.15

Indonesia

1	Name of your accreditation programme	Akreditasi RS & Sarana Kesehatan Lainnya (KARS)
2	Programme name in English	Hospital and Other Health Facilities Services Accreditation Programme
3	Address of the programme: Street, PO Box	HR. Rasuna Said kav.X5 No.4-9
4	City, postcode	Jakarta, 12950
5	Country	Indonesia
6	Telephone	62-021-526 5717; 62-021 520 3880
7	Fax	62-021-526 5717; 62-021-527 3351
8	Web site	
11	Is there any law or directive requiring accreditation in your country? Yes/no; reference, year	Yes. Ref: Health Decree No.23, 1992
12	What is the status of the programme?	The programme is managed by committee with member government and professional partially funded by government, formally recognized by Director General for Medical Care
13	What year did development begin?	1989
14	What year was the first operational survey visit?	1995
15	Does the programme focus on primary or secondary or tertiary care?	For the first step the programme focused on secondary and tertiary care
16	Does it include public and private facilities?	Yes
17	Are the accreditation standards available to the public free of charge? Yes/no	No
18	If not, at what price can they be purchased? US$	US$ 5
19	Which country most influenced the standards?	Australia
20	How many full revisions have been published?	3
21	What year was the current version approved?	1999
22	How many days does a site visit usually last?	3–4
23	How many surveyors are usually in a team?	3
24	Are full reports of surveys available to the public free of charge? Yes/no	No
25	If not, at what price can they be purchased? US$	US$ 5
26	How many survey visits were done in 1999?	97
27	How many trained surveyors were available to the programme at the end of 1999?	101
28	How many new surveyors were trained in 1999?	29
29	What was the total expenditure of the programme in 1999? US$	US$ 33.961
30	What would you charge to survey a 100-bed hospital?	US$ 633
31	What was the main source of income?	Government and Hospital

APPENDIX 3.16

Ireland

1	Name of your accreditation programme	Major Academic Teaching Hospitals (MATHs) Accreditation Project
2	Programme name in English	Major Academic Teaching Hospitals (MATHs) Accreditation Project
3	Address of the programme: Street, PO Box	Accreditation Project Office. c/o St James's Hospital, James's Street.
4	City, postcode	Dublin 8
5	Country	Ireland
6	Telephone	+353 1 410 3373
7	Fax	+353 1 410 3490
8	Web site	www.accredithealth-ireland.ie
11	Is there any law or directive requiring accreditation in your country? Yes/no; reference, year	No
12	How is the programme related to government?	Initially will be funded by government.
13	What year did development begin?	1999
14	What year was the first operational survey visit?	Currently under development. Pilots in 2000, first surveys anticipated late 2001
15	Does the programme focus on primary or secondary or tertiary care? All of these?	Acute care organizations (secondary and tertiary). Pilots based on Major Academic Teaching Hospitals
16	Does it include public and private facilities?	Pilot programme is in Major Academic Teaching Hospitals, each of which is public facility. Anticipate inclusion of other public/private health entities beginning 2002
17	Are the accreditation standards available to the public free of charge?	Standards currently being developed.
18	If not, at what price can they be purchased? US$	To be determined
19	Which country most influenced the standards?	Canada
20	How many full revisions have been published?	Not applicable
21	What year was the current version approved?	Anticipate final approval of standards January 2001
22	How many days does a site visit usually last?	Anticipate 5 days in acute care organizations
23	How many surveyors are usually in a team?	Anticipate 6 surveyors in a major academic teaching hospital
24	Are full reports of surveys available to the public free of charge? Yes/no	To be determined
25	If not, at what price can they be purchased? US$	To be determined
26	How many survey visits were done in 1999?	Not applicable
27	How many trained surveyors were available to the programme at the end of 1999?	Not applicable
28	How many new surveyors were trained in 1999?	Not applicable
29	What was the total expenditure of the programme in 1999? US$	IR£250 000 (approx US$ 295 250)
30	What fee is charged to survey a 100-bed hospital in 2000? US$	To be determined
31	What is the programme's main source of income?	Department of Health and Children, Irish Government

APPENDIX 3.17

Italy

1	Name of your accreditation programme	Programma di accreditamento istituzionale. Regione Marche.
2	Programme name in English	Institutional Accreditation Programme. Marche Region
3	Address of the programme: Street, PO Box	Regional Agency for Health Care. Marche Regionale Government. Via Gentile da Fabriano 3
4	City, postcode	60125 Ancona
5	Country	Italy
6	Telephone	0039 071 806 4057
7	Fax	0039 071 806 4056
8	Web site	www.ars.marche.it
11	Is there any law or directive requiring accreditation in your country? Yes/no; reference, year	D.L. 14.1.1997 (National Government) D.L. 229, 1999 (National Government) Regional Health Plan, 1998–2000, Marche Regional Council, 1998 Regional Authorization and Accreditation Act, Marche Regional Council, n° 20. 2000 Authorization Standards. Passed by the Regional Government on october 2000 (see at the Agency web site under "NEWS") *Accreditation standards last draft:* to be seen on the web site of the regional Agency for last general regional consensus that is open up to 15 december under "News".
12	How is the programme related to government?	It is a programme totally managed by the Government
13	What year did development begin?	1997
14	What year was the first operational survey visit?	It is foreseen by the second part of the year 2001
15	Does the programme focus on primary or secondary or tertiary care? All of these?	It focuses on: preventive services, out-patient care, rehabilitation; community hospitals, general hospitals, high speciality hospitals; long-term inpatient care
16	Does it include public and private facilities?	Yes
17	Are the accreditation standards available to the public free of charge? Yes/no	Yes
19	Which country most influenced the standards?	Canada, Australia
20	How many full revisions have been published?	No
21	What year were current standards approved?	They are going to be approved after 15 December
22	How many days does a site visit usually last?	We are planning 1–3 days
23	How many surveyors are usually in a team?	We are planning 2–4 surveyors
24	Are full reports of surveys available to the public free of charge? Yes/no	We are planning free
25	If not, at what price can they be purchased? US$	
26	How many survey visits were done in 1999?	No
27	How many trained surveyors were available to the programme at the end of 1999?	No

28	How many new surveyors were trained in 1999?	No
29	What was the total expenditure of the programme in 1999? US$	No
30	What fee is charged to survey a 100-bed hospital? US$	The fee is planned to cost US$ 300/surveyor/day
31	What is the programme's main source of income?	Regional budget

APPENDIX 3.18

Japan

1	Name of your accreditation programme	Hospital Accreditation Programme
2	Programme name in English	Hospital Accreditation Programme
3	Address of the programme: Street, PO Box	EMC bldg., 3-16-7, Nihonbashi-hamacho, Chuo-ku
4	City, postcode	Tokyo, 103-000
5	Country	Japan
6	Telephone	
7	Fax	
8	Web site	http://www.jcqhc.or.jp/
11	Is there any law or directive requiring accreditation in your country? Yes/no; reference, year	No
12	How is the programme related to government? – managed by, (partially) funded by, formally recognized by, totally independent of?	Japan Council for Quality Health Care was established in July 1995 and was founded by Government, hospital organizations, associations of health care professionals, insurers' organizations, etc. JCQHC is an independent organization.
13	What year did development begin?	1995
14	What year was the first operational survey visit?	1997
15	Does the programme focus on primary or secondary or tertiary care? All of these?	All of these
16	Does it include public and private facilities?	Both
17	Are the accreditation standards available to the public free of charge? Yes/no	No
18	If not, at what price can they be purchased? US$	Assessment fees between US$ 12 000 and 18 000.
19	Which country most influenced the standards?	None, original standard
20	How many full revisions have been published?	None yet
21	What year were current standards approved?	1999
22	How many days does a site visit usually last?	1-day site visit
23	How many surveyors are usually in a team?	3
24	Are full reports of surveys available to the public free of charge? Yes/no	No
25	If not, at what price can they be purchased? US$	Includes assessment fees between US$ 12 000-18 000.
26	How many survey visits were done in 1999?	about 189 hospitals (2000)
27	How many trained surveyors were available to the programme at the end of 1999?	464
28	How many new surveyors were trained in 1999?	41
29	What was the total expenditure of the programme in 1999? US$	US$ 2600
30	What fee was usually charged to survey a 100-bed hospital in 2000? US$	None
31	What is the programme's main source of income?	Assessment fees

APPENDIX 3.19
Malaysia

1	Name of your accreditation programme	Malaysian Healthcare Accreditation Programme
2	Programme name in English	idem
3	Address of the programme: Street, PO Box	Suite 1′-07, Damansara Specialist Hospital, 119 Jalan SS20/10, Damansara Utama
4	City, postcode	47400 Petaling Jaya, Selangor
5	Country	Malaysia.
6	Telephone	603-77222692–Ext; 1314
7	Fax	603-77283190
8	Web site	www.msqhealth.com
11	Is there any law or directive requiring accreditation in your country? Yes/no; reference, year	No. It is voluntary
12	How is the programme related to government?	It is conducted by a nongovernmental and a non-profit organization, the Malaysian Society for Quality in Health (MSQH). Strongly supported by the Ministry of Health. It is a smart partnership between the public and private healthcare providers of the country.
13	What year did development begin?	November 1995 with the Ministry of Health
14	What year was the first operational survey visit?	August 1999
15	Does the programme focus on primary or secondary or tertiary care? All of these?	All levels of Hospital
16	Does it include public and private facilities?	Yes
17	Are the accreditation standards available to the public free of charge? Yes/no	No. It is available along with a one-day training package
18	If not, at what price can they be purchased? US$	US$ 1185 (includes one-day training by MSQH)
19	Which country most influenced the standards?	Australian Council of Healthcare Standards
20	How many full revisions have been published?	One
21	What year was the current version approved?	1998
22	How many days does a site visit usually last?	Maximum 3 days
23	How many surveyors are usually in a team?	Depending on type of facility (3–9 surveyors)
24	Are full reports of surveys available to the public free of charge? Yes/no	No. It is a confidential document. Only available to that organization.
25	If not, at what price can they be purchased? US$	It is not for sale.
26	How many survey visits were done in 1999?	1999: 3 surveys 2000: 7 full surveys, 2 compliance surveys, 1 focus survey
27	How many trained surveyors were available to the programme at the end of 1999?	22
28	How many new surveyors were trained in 1999?	None. In 2000, 24 new surveyors were trained

29	What was the total expenditure of the programme in 1999? US$	US$ 20 000
30	What fee is charged to survey a 100-bed hospital in 2000? US$	If no secondary services it is about US$ 2700.
31	What is the programme's main source of income?	Training and surveys

APPENDIX 3.20
Mongolia

1	Name of your accreditation programme	Accreditation Programme of Health Organization
2	Programme name in English	Accreditation Programme of Health Organization
3	Address of the programme: Street, PO Box	Olympic Str.-2, Government Building VIII, Ministry of Heatlh, PO Box 48/146
4	City, postcode	Ulan-Bator
5	Country	Mongolia
6	Telephone	976-11-314050 for HSDP
7	Fax	976-11-321755 for HSDP
8	Web site	no
11	Is there any law or directive requiring accreditation in your country? Yes/no; reference, year	Health Law, 1998; Government Resolution, 1998
12	How is the programme related to government?	Managed by National Health Department
13	What year did development begin?	1999
14	What year was the first operational survey visit?	None yet
15	Does the programme focus on primary or secondary or tertiary care? All of these?	All of these
16	Does it include public and private facilities?	yes
17	Are the accreditation standards available to the public free of charge? Yes/no	yes
18	If not, at what price can they be purchased? US$	
19	Which country most influenced the standards?	USA, Australia
20	How many full revisions have been published?	Not published
21	What year were current standards approved?	Not approved
22	How many days does a site visit usually last?	No visit
23	How many surveyors are usually in a team?	No team
24	Are full reports of surveys available to the public free of charge? Yes/no	Yes
25	If not, at what price can they be purchased? US$	
26	How many survey visits were done in 1999?	None
27	How many trained surveyors were available to the programme at the end of 1999?	None yet
28	How many new surveyors were trained in 1999?	None
29	What was the total expenditure of the programme in 1999? US$	US$ 3000
30	What fee is charged to survey a 100-bed hospital? US$	No surveys yet
31	What is the programme's main source of income?	Application fee and assistance of Health Sector Development Programme supported by Asian Development Bank loans

APPENDIX 3.21
Netherlands

1	Name of your accreditation programme	Nederlands Instituut voor Accreditatie van Ziekenhuizen
2	Programme name in English	Dutch Institute for the Accreditation of Hospitals
3	Address of the programme: Street, PO Box	Wassenaarseweg 56, Postbus 2215
4	City, postcode	2301 CE Leiden
5	Country	The Netherlands
6	Telephone	+31 715 18 12 46
7	Fax	+31 715 18 19 18
8	Web site	www.Niaz.nl
11	Is there any law or directive requiring accreditation in your country?	Yes, kwaliteitswet zorginstellingen 1996
12		—
13	What year did development begin?	1989
14	What year was the first operational survey visit?	1999
15	Does the programme focus on primary or secondary or tertiary care?	Hospital care
16	Does it focus on any medical specialty? which?	No
17	Does it include public and private facilities?	Public facilities
18	Are the accreditation standards available to the public free of charge? Yes/no	Yes
19	If not, at what price can they be purchased? Euro	
20		
21		
22		
23	How many days does a site visit usually last?	Based on ISO guidelines EAC – usually 4–5 days
24	How many surveyors are usually in a team?	Based on ISO guidelines EAC – usually 4–8 persons
25	Are full reports of surveys available to the public free of charge? Yes/no	No
26	If not, at what price can they be purchased? Euro	Not available
27	How many survey visits were done in 1999?	4
28	How many trained surveyors were available to the programme at the end of 1999?	50
29	How many new surveyors were trained in 1999?	16
30	What was the total expenditure of the programme in 1999? Euro	€250 543
31	What was the main source of income?	Accreditation fees, funds from Dutch organization of hospitals and organization of academic hospitals and the Netherlands organization of medical specialism

APPENDIX 3.22

New Zealand

1	Name of your accreditation programme	The New Zealand Council on Healthcare Standards trading as Quality Health New Zealand – Te Taumata Hauora
3	Address of the programme: Street, PO Box	PO Box 5088
4	City, postcode	Wellington 6040
5	Country	New Zealand
6	Telephone	64 4 4990367
7	Fax	64 4 4990368
8	Web site	www.qualityhealth.org.nz
11	Is there any law or directive requiring accreditation in your country?	No
12	How is the programme related to government?	Totally independent
13	What year did development begin?	1987
14	What year was the first operational survey visit?	First three surveys of pilot sites 1989
15	Does the programme focus on primary or secondary or tertiary care?	Mainly focus on aged care facilities and private and public acute hospitals and services (secondary, tertiary, community). But also have programmes for primary care (mainly Maori health providers), hospices, disability support and not-for-profit voluntary organizations.
16	Does it include public and private facilities?	Yes
17	Are the accreditation standards available to the public free of charge?	No
18	If not, at what price can they be purchased? US$	US$ 55–150, ranging from primary care to acute standards
19	Which country most influenced the standards?	2000 standards Canada, previous ones Australia and Canada
20	How many full revisions have been published?	Two, and third revision now in consultation and at trial stage. New modules – hospice, primary care, not-for-profit, mental health, disability support – are still on first issue
21	What year was the current version approved?	1996 for the main standards, introduced 1997. 2000 standards being introduced in 2001.
22	How many days does a site visit usually last?	Primary, day procedure, small community – 1 day Small aged care or private hospital – 2 days Larger hospital plus community – 3 days Large tertiary hospital or network of hospitals – 4–5 days
23	How many surveyors are usually in a team?	2–3 for smaller services 6–12 for larger
24	Are full reports of surveys available to the public free of charge?	No
25	If not, at what price can they be purchased? US$	Not public
26	How many survey visits were done in 1999?	50 surveys, 55 progress visits and previews, 8 audits
27	How many trained surveyors were available to the programme at the end of 1999?	70
28	How many new surveyors were trained in 1999?	13

29	What was total expenditure of the programme in 1999? US$	US$ 500 000
30	What fee is charged to survey a 100-bed hospital in 2000? US$	US$ 9600, i.e. $3200 a year. We do not charge for surveys but for membership of the programme, which includes education, guidance, standards, tools, survey, mid-term progress visit
31	What is the programme's main source of income?	Members' fees

APPENDIX 3.23
Poland

1	Name of your accreditation programme	Program Akredytacji Szpitali
2	Programme name in English	Hospital Accreditation Programme
3	Address of the programme: Street, PO Box	Ul. Syrokomli 10
4	City, postcode	30–102 Krakow
5	Country	Poland
6	Telephone	+48 12 4 27 82 51
7	Fax	+48 12 4 27 82 51
8	Web site	www.cmj.org.pl
11	Is there any law or directive requiring accreditation in your country? Yes/no; reference, year	Yes, Health Organization Act 1997
12	Name of any parent company of the programme	No
13	What year did development begin?	1996 – first mock survey
14	What year was the first operational survey visit?	1998
15	Does the programme focus on primary or secondary or tertiary care?	Focus on hospitals, especially acute
16	Does it focus on any medical specialty? which?	No
17	Does it include public and private facilities?	Yes
18	Are the accreditation standards available to the public free of charge? Yes/no	No
19	If not, at what price can they be purchased? Euro	€10
20		
21		
22		
23	How many days does a site visit usually last?	2 days for hospitals <200 beds 3 days for hospitals >200 beds
24	How many surveyors are usually in a team?	4: 2 physicians, 2 nurses
25	Are full reports of surveys available to the public free of charge? Yes/no	No
26	If not, at what price can they be purchased? Euro	Report is available only for surveyed hospital
27	How many survey visits were done in 1999?	23
28	How many trained surveyors were available to the programme at the end of 1999?	27
29	How many new surveyors were trained in 1999?	9
30	What was the total expenditure of the programme in 1999? Euro	€50 000
31	What was the main source of income?	Government budget and fee for accreditation survey and training

APPENDIX 3.24
Portugal

1	Name of your accreditation programme	Instituto de Qualidade em Saúde – IQS
2	Programme name in English	IQS – Health Quality Service
3	Address of the programme: Street, PO Box	IQS – Delegação Norte Rua Faria Guimarães, 718, 2° e 6°
4	City, postcode	4200-289 Porto
5	Country	Portugal
6	Telephone	+225 089 277
7	Fax	+225 507 109
8	Web site	www.iqs.pt
11	Is there any law or directive requiring accreditation in your country? Yes/no; reference, year	Yes. SNS 21, year of 1998
12	Name of any parent company of the programme	HQS
13	What year did development begin?	1999
14	What year was the first operational survey visit?	2000
15	Does the programme focus on primary or secondary or tertiary care?	Hospitals
16	Does it focus on any medical specialty? which?	No
17	Does it include public and private facilities?	Yes
18	Are the accreditation standards available to the public free of charge? Yes/no	No
19	If not, at what price can they be purchased? Euro	Not available yet
23	How many days does a site visit usually last?	Variable
24	How many surveyors are usually in a team?	5
25	Are full reports of surveys available to the public free of charge? Yes/no	No
26	If not, at what price can they be purchased? Euro	Not available
27	How many survey visits were done in 1999?	0
28	How many trained surveyors were available to the programme at the end of 1999?	0
29	How many new surveyors were trained in 1999?	0; but 36 at the end of year 2001
30	What was the total expenditure of the programme in 1999? Euro	Confidential
31	What was the main source of income?	General State budget

APPENDIX 3.25
Slovak Republic

1	Name of your accreditation programme	Centrum pre kvalitu a akreditáciu v zdravotníctve
2	Programme name in English	Centre for Quality and Accreditation in Healthcare
3	Address of the programme: Street, PO Box	Ministry of Health of Slovak Republic Section of Health Care Limbova 2
4	City, postcode	Bratislava, 833 41
5	Country	Slovak Republic
6	Telephone	00421-759373118
7	Fax	00421-754777552
8	Web site	www.health.gov.sk/starostlivost/centrum/index.htm
11	Is there any law or directive requiring accreditation in your country?	Not yet
12	How is the programme related to government?	Centre is managed by Ministry of Health. Our long-term objective is to become organizationally and financially independent.
13	What year did development begin?	In the end of 1999.
14	What year was the first operational survey visit?	There has not been one yet
15	Does the programme focus on primary or secondary or tertiary care?	The programme will focus on primary and secondary care.
17	Does it include public and private facilities?	It will include both
18	Are the accreditation standards available to the public free of charge? Yes/no	We have no accreditation standards yet; we are working on he elaboration of accreditation standards.
19	If not, at what price can they be purchased? Euro	n.a.
20	Which country most influenced the standards?	Poland, USA
23	How many days does a site visit usually last?	n.a.
24	How many surveyors are usually in a team?	n.a.
25	Are full reports of surveys available to the public free of charge? Yes/no	n.a.
26	If not, at what price can they be purchased? Euro	n.a
27	How many survey visits were done in 1999?	None
28	How many trained surveyors were available to the programme at the end of 1999?	n.a.
29	How many new surveyors were trained in 1999?	n.a.
30	What was the total expenditure of the programme in 1999? Euro	n.a.
31	What was the main source of income?	Centre is financed by the Ministry of Health

APPENDIX 3.26
South Africa

1	Name of your accreditation programme	Council for Health Services Accreditation of South Africa (COHSASA) Accreditation and Management Improvement Programme
2	Programme name in English	Same
3	Address of the programme: Street, PO Box	676 Howard Place
4	City, postcode	Pinelands, 7450
5	Country	Republic of South Africa
6	Telephone	27 21 531 4225
7	Fax	27 21 531 4243
8	Web site	www.cohsasa.co.za
11	Is there any law or directive requiring accreditation in your country? Yes/no; reference, year	No
12	How is the programme related to government? – managed by, (partially) funded by, formally recognized by, totally independent of?	Totally Independent
13	What year did development begin?	1993 as a pilot; registered as a company (not-for-profit) in 1995
14	What year was the first operational survey visit?	1994 as a Pilot Programme
15	Does the programme focus on primary or secondary or tertiary care? All of these?	All of these
16	Does it include public and private facilities?	Yes
17	Are the accreditation standards available to the public free of charge? Yes/no	No
18	If not, at what price can they be purchased? US$	US$ 132
19	Which country most influenced the standards?	United Kingdom
20	How many full revisions have been published?	Six
21	What year were current standards approved?	2000
22	How many days does a site visit usually last?	Three days
23	How many surveyors are usually in a team?	Three
24	Are full reports of surveys available to the public free of charge? Yes/no	No
25	If not, at what price can they be purchased? US$	Reports are regarded as confidential and are not for sale
26	How many survey visits were done in 1999?	83 surveys: 15 external surveys and 68 baseline surveys
27	How many trained surveyors were available to the programme at the end of 1999?	82
28	How many new surveyors were trained in 1999?	9
29	What was the total expenditure of the programme in 1999? US$	US$ 558 791
30	What fee is charged to survey a 100-bed hospital? US$	US$ 5263, excluding travel and accommodation
31	What is the programme's main source of income?	Surveys and Facilitation of health care facilities

APPENDIX 3.27
Spain

1	Name of your accreditation programme	Acreditación Internacional Joint Commission-Fundación Avedis Donabedian (JCI-FAD)
2	Programme name in English	Accreditation International Joint Commission-Foundation Avedis Donabedian (JCI-FAD)
3	Address of the programme: Street, PO Box	Provenza 293, pral
4	City, postcode	08037 Barcelona
5	Country	Spain
6	Telephone	34-93-2076608
7	Fax	34-93-4593864
8	Web site	
11	Is there any law or directive requiring accreditation in your country? Yes/no; reference, year	Yes. Catalan Autonomy from 1980 Spanish teaching hospitals 1986
12	How is the programme related to government?	Independent. Informally recognized by the government. There is one representative of the Ministry of Health on the Accreditation Committee
13	What year did development begin?	1994
14	What year was the first operational survey visit?	1996
15	Does the programme focus on primary or secondary ortertiary care?	Hospitals Ambulatory Care
16	Does it focus on any medical specialty? which?	No
17	Does it include public and private facilities?	Yes
18	Are the accreditation standards available to the public free of charge? Yes/no	Yes and for a low fee
19	If not, at what price can they be purchased? Euro	€24.10
20	Which country most influenced the standards?	USA. The international standards of the JCI
21	How many full revisions have been published?	2. Number 3 is in press
22	What year were current standards approved?	1998
20	How many days does a site visit usually last?	3–5
21	How many surveyors are usually in a team?	3–4
22	Are full reports of surveys available to the public free of charge? Yes/no	No
23	If not, at what price can they be purchased? Euro	
24	How many survey visits were done in 1999?	8
25	How many trained surveyors were available to the programme at the end of 1999?	9
26	How many new surveyors were trained in 1999?	

27	What was the total expenditure of the programme in 1999? Euro	
28	What was the main source of income?	Client contract
31	What fee is charged to survey a 100-bed hospital? US$	US$ 16 400

APPENDIX 3.28
Switzerland

1	Name of your accreditation programme	Vereinigung für Qualitätsförderung im Gesundheitswesen (VQG): Akkreditierung
2	Programme name in English	Swiss Association for Quality in Healthcare (SwissQuaH)
3	Address of the programme: Street, PO Box	Gotthelfstrasse 14
4	City, postcode	CH-3013 Bern
5	Country	Switzerland
6	Telephone	+41 31 333 72 61
7	Fax	+41 31 333 72 60
8	Web site	www.vqg.ch
11	Is there any law or directive requiring accreditation in your country? Yes/no; reference, year	Yes, in the general sense of quality assurance
12	How is the programme related to government? – managed by, (partially) funded by, formally recognized by, totally independent of?	Financial start-up support from five cantons, formally acknowledged by some cantons, but not by the Confederation; at this time financially, administratively and conceptually independent from any government source.
12	Name of any parent company of the programme	
13	What year did development begin?	1994
14	What year was the first operational survey visit?	1998
15	Does the programme focus on primary or secondary or tertiary care?	Secondary and tertiary
16	Does it focus on any medical specialty? which?	No
17	Does it include public and private facilities?	Yes
18	Are the accreditation standards available to the public free of charge? Yes/no	Yes
19	If not, at what price can they be purchased? Euro	
20	Which country most influenced the standards?	Canada, United Kingdom, USA
21	How many full revisions have been published?	None so far
22	What year were current standards approved?	1998 and 2000
20	How many days does a site visit usually last?	One day
21	How many surveyors are usually in a team?	Three
22	Are full reports of surveys available to the public free of charge? Yes/no	No
23	If not, at what price can they be purchased? Euro	Not available for the public
24	How many survey visits were done in 1999?	12
25	How many trained surveyors were available to the programme at the end of 1999?	36
26	How many new surveyors were trained in 1999?	9

27	What was the total expenditure of the programme in 1999? Euro	€155 000
28	What was the main source ofincome?	Fees and honorary work
31	What fee is charged to survey a 100-bed hospital? US$	US$ 7007 (CHF 12 000) in the first round; later rounds are somewhat more expensive. Prices are bound to be doubled in the year to come.

APPENDIX 3.29
Thailand

1	Name of your accreditation programme	Institute of Hospital Quality Improvement and Accreditation
2	Programme name in English	Hospital Accreditation (HA)
3	Address of the programme: Street, PO Box	DMS 6 Building, MOPH, Tiwanon Road
4	City, postcode	Nonthaburi, 11000
5	Country	Thailand
6	Telephone	662 5890023
7	Fax	662 9510238
8	Web site	Http://www.hsri.or.th/ha/index.htm (Thai)
11	Is there any law or directive requiring accreditation in your country? Yes/no; reference, year	No
12	How is the programme related to government? – managed by, (partially) funded by, formally recognized by, totally independent of?	Partially funded. HA is part of the Health Systems Research Institute, which is an independent organization of the government.
13	What year did development begin?	Start a pilot project in 1997.
14	What year was the first operational survey visit?	1999
15	Does the programme focus on primary or secondary or tertiary care? All of these?	Focus on secondary and tertiary care
16	Does it include public and private facilities?	Both
17	Are the accreditation standards available to the public free of charge? Yes/no	No
18	If not, at what price can they be purchased? US$	US$ 14
19	Which country most influenced the standards?	Canada
20	How many full revisions have been published?	1
21	What year was the current version approved?	1996
22	How many days does a site visit usually last?	3
23	How many surveyors are usually in a team?	6
24	Are full reports of surveys available to the public free of charge? Yes/no	No, it will be given to the hospital.
25	If not, at what price can they be purchased? US$	Not available.
26	How many survey visits were done in 1999?	10
27	How many trained surveyors were available to the programme at the end of 1999?	20
28	How many new surveyors were trained in 1999?	100
29	What was the total expenditure of the programme in 1999? US$	US$ 500 000
30	What fee is charged to survey a 100-bed hospital in 2000? US$	US$ 1000
31	What is the programme's main source of income?	Government, training service.

APPENDIX 3.30
United Kingdom, HQS

1	Name of your accreditation programme	Health Quality Service (HQS)
2	Programme name in English	Health Quality Service
3	Address of the programme: Street, PO Box	15 Whitehall
4	City, postcode	London SW1A 2DD
5	Country	England
6	Telephone	+44 20 7389 1000
7	Fax	+44 20 7389 1001
8	Web site	www.hqs.org.uk
11	Is there any law or directive requiring accreditation in your country? Yes/no; reference, year	No
12	How is the programme related to government? – managed by, (partially) funded by, formally recognized by, totally independent of?	Totally independent
12	Name of any parent company of the programme	Now independent of King's Fund
13	What year did development begin?	1990
14	What year was the first operational survey visit?	1991
15	Does the programme focus on primary or secondary or tertiary care?	All
16	Does it focus on any medical specialty? which?	No
17	Does it include public and private facilities?	Yes
18	Are the accreditation standards available to the public free of charge? Yes/no	No, excerpts only
19	If not, at what price can they be purchased? Euro	Not for sale
20	Which country most influenced the standards?	Initially, the Australian hospital standards
21	How many full revisions have been published?	Four: 1992, 1994, 1997, 1999
22	What year were current standards approved?	1999
20	How many days does a site visit usually last?	2–5 days
21	How many surveyors are usually in a team?	3–5
22	Are full reports of surveys available to the public free of charge? Yes/no	No
23	If not, at what price can they be purchased? Euro	Not available
24	How many survey visits were done in 1999?	92
25	How many trained surveyors were available to the programme at the end of 1999?	358
26	How many new surveyors were trained in 1999?	78
27	What was the total expenditure of the programme in 1999? Euro	€2.72 million

28	What was the main source of income?	Survey fees
29	Please name any other national accreditation programmes in your country, with contact details	
31	What fee is charged to survey a 100-bed hospital? US$	US$ 28 000 approximately

APPENDIX 3.31

United Kingdom, HAP

1	Name of your accreditation programme	Hospital Accreditation Programme (HAP)
2	Programme name in English	Hospital Accreditation Programme
3	Address of the programme: Street, PO Box	13 Cavendish Square
4	City, postcode	London
5	Country	England
6	Telephone	+44 20 77307 2879
7	Fax	+44 20 77307 2422
8	Web site	www.caspe.co.uk
11	Is there any law or directive requiring accreditation in your country?	No
12	How is the programme related to government?	Totally independent
12	Name of any parent company of the programme	CASPE Research
13	What year did development begin?	1986
14	What year was the first operational survey visit?	1990
15	Does the programme focus on primary or secondary or tertiary care?	Primary and secondary
16	Does it include public and private facilities?	Yes
17	Are the accreditation standards available to the public free of charge? Yes/no	No
18	If not, at what price can they be purchased? Euro	€238
19	How many days does a site visit usually last?	1.5
20	Which country most influenced the standards?	Canada
21	How many full revisions have been published?	Four
22	What year were current standards approved?	1999
23	How many surveyors are usually in a team?	3
24	Are full reports of surveys available to the public free of charge? Yes/no	No
25	If not, at what price can they be purchased? Euro	Not available
26	How many survey visits were done in 1999?	36
27	How many trained surveyors were available to the programme at the end of 1999?	50
28	How many new surveyors were trained in 1999?	17
29	What was the total expenditure of the programme in 1999? Euro	€213 056
30	What was the main source of income?	Survey fees
31	What fee is charged to survey a 100-bed hospital? US$	US$ 7425

APPENDIX 3.32

United Kingdom, CSB

1	Name of your accreditation programme	Clinical Standards Board (CSB)
2	Programme name in English	
3	Address of the programme: Street, PO Box	Elliott House, 8–10 Hillside Crescent
4	City, postcode	Edinburgh
5	Country	Scotland
6	Telephone	+44 131 623 4290
7	Fax	+44 131 623 4299
8	Web site	
11	Is there any law or directive requiring accreditation in your country? Yes/no; reference, year	NHS Act, Scotland 1998
12	How is the programme related to government? – managed by, (partially) funded by , formally recognized by, totally independent of?	Sponsored, but independent
13	What year did development begin?	1999
14	What year was the first operational survey visit?	2000
15	Does the programme focus on primary or secondary or tertiary care?	All
16	Does it focus on any medical specialty? which?	Initially coronary heart disease, mental health, cancer
17	Does it include public and private facilities?	Public only (NHS)
18	Are the accreditation standards available to the public free of charge? Yes/no	Yes
19	If not, at what price can they be purchased? Euro	—
20	Which country most influenced the standards?	A combination of different models
21	How many full revisions have been published?	First review under way at present. First report due March 2001
22	What year were current standards approved?	Eight service review standards approved 2000
23	How many days does a site visit usually last?	1–2
24	How many surveyors are usually in a team?	6
25	Are full reports of surveys available to the public free of charge? Yes/no	Yes, on web site
26	If not, at what price can they be purchased? Euro	
27	How many survey visits were done in 1999?	0
28	How many trained surveyors were available to the programme at the end of 1999?	0
29	How many new surveyors were trained in 1999?	0
30	What was the total expenditure of the programme in 1999? Euro	n.a.
31	What was the main source of income?	Scottish Executive
32	What fee is charged to survey a 100-bed hospital?	Nil

APPENDIX 3.33

United States of America

1	Name of your accreditation programme	National Committee for Quality Assurance (NCQA)
2	Programme name in English	
3	Address of the programme: Street, PO Box	2000 L Street, NW
4	City, postcode	Washington, DC 20036
5	Country	USA
6	Telephone	202-955-5697
7	Fax	202-955-3599
8	Web site	www.ncqa.org
11	Is there any law or directive requiring accreditation in your country? Yes/no; reference, year	No
12	How is the programme related to government? – managed by, (partially) funded by, formally recognized by, totally independent of?	Independent of
13	What year did development begin?	1990
14	What year was the first operational survey visit?	1991
15	Does the programme focus on primary or secondary or tertiary care? All of these?	All
16	Does it include public and private facilities?	Yes
17	Are the accreditation standards available to the public free of charge? Yes/no	No
18	If not, at what price can they be purchased? US$	About US$ 300
19	Which country most influenced the standards?	USA
20	How many full revisions have been published?	9
21	What year was the current version approved?	1999
22	How many days does a site visit usually last?	2–5
23	How many surveyors are usually in a team?	3–7
24	Are full reports of surveys available to the public free of charge? Yes/no	Full reports are not publicly available. Summaries are posted on our web site.
25	If not, at what price can they be purchased? US$	Ranges from US$ 10 000 to 100 000, depending on the size and type of organization
26	How many survey visits were done in 1999?	About 350
27	How many trained surveyors were available to the programme at the end of 1999?	200
28	How many new surveyors were trained in 1999?	25
29	What was the total expenditure of the programme in 1999? US$	US$ 22 million
30	What fee is charged to survey a 100-bed hospital in 2000? US$	n.a.
31	What is the programme's main source of income?	Accreditation fees charged to health plans

APPENDIX 3.34

Zambia

1	Name of your accreditation programme	Zambia Health Accreditation Council (ZHAC)
2	Programme name in English	Zambia Health Accreditation Council
3	Address of the programme: Street, PO Box	
4	City, postcode	
5	Country	
6	Telephone	
7	Fax	
8	Web site	
11	Is there any law or directive requiring accreditation in your country? Yes/no; reference, year	
12	How is the programme related to government?	Government requested USAID; supports programme through Central Board of Health with medical and nursing councils and associations on ZHAC
13	What year did development begin?	1997
14	What year was the first operational survey visit?	1999
15	Does the programme focus on primary or secondary or tertiary care? All of these?	Hospital
16	Does it include public and private facilities?	
17	Are the accreditation standards available to the public free of charge? Yes/no	
18	If not, at what price can they be purchased? US$	
19	Which country most influenced the standards?	USA (QAP with USAID)
20	How many full revisions have been published?	
21	What year were current standards approved?	
22	How many days does a site visit usually last?	3
23	How many surveyors are usually in a team?	3
24	Are full reports of surveys available to the public free of charge? Yes/no	
25	If not, at what price can they be purchased? US$	
26	How many survey visits were done in 1999?	8 (of 79 total in Zambia)
27	How many trained surveyors were available to the programme at the end of 1999?	
28	How many new surveyors were trained in 1999?	
29	What was the total expenditure of the programme in 1999? US$	
30	What fee is charged to survey a 100-bed hospital? US$	
31	What is the programme's main source of income?	USAID (3 years)

APPENDIX 3.35

Abbreviations and acronyms

ACHS	Australian Council on Healthcare Standards
AFRO	WHO Regional Office for Africa
AGPAL	Australian General Practice Accreditation Ltd
AHCPR	Agency for Health Care Policy and Research (now AHRQ), USA
AHRQ	Agency for Healthcare Research and Quality (formerly AHCPR), USA
ALPHA	Agenda for Leadership in Programs for Healthcare Accreditation
AMRO	WHO Regional Office for the Americas
ANAES	Agence Nationale d'Accréditation et d'Evaluation en Santé [National Agency for Accreditation and Evaluation in Health Care], France
AusAID	Australian Aid
CAHTA	Agency for Health Technology Assessment and Research
CASPE	Clinical Accountability, Service Planning and Evaluation, United Kingdom
CBO	Centraal Begleidings Orgaan (voor de Intercollegiale Toetsing) [Institute for Health Improvement], The Netherlands
CCHSA	Canadian Council on Health Services Accreditation
CHASP	Community Health Accreditation and Standards Program (now QIC), Australia
CHS	Center for Health Studies, USA
CIDA	Canadian International Development Agency
COHSASA	Council for Health Services Accreditation of South Africa
COMAC	Comité Médicale d'Action Concertée (EU project)
CONQUEST	Computerized Needs-oriented Quality Measurement Evaluation System
CSB	Clinical Standards Board for Scotland
DANIDA	Danish International Development Agency
ECHHO	European Clearing House on Healthcare Outcomes (EU project)
EFMA	European Forum of Medical Associations
EFQM	European Foundation for Quality Management
EHTO	European Health Telematics Observatory
EMRO	WHO Regional Office for the Eastern Mediterranean
EOQ	European Organization for Quality
EPOC	Effective Practice and Organisation of Care (Cochrane Group)
ESQH	European Society for Quality in Healthcare
EURO	WHO Regional Office for Europe
EuroQuan	European Quality Assurance Network for Nursing
ExPeRT	External Peer Review Techniques (EU project)
GTZ	Deutsche Gesellschaft für Technische Zusammenarbeit [German Technical Cooperation]
HAP	Hospital Accreditation Programme, United Kingdom
HEDIS	Health Plan Employer Data and Information Set
HKZ	Stichting Harmonisatie Kwaliteitsbeoordeling in de Zorgsector [Foundation for Harmonization of Accreditation in Health Care], Netherlands
HQS	Health Quality Service, United Kingdom
ICAS	Central American Institute for Health
IHI	Institute for Healthcare Improvement, USA
ISO	International Organization for Standardization
ISQua	International Society for Quality in Health Care
ISTAHC	International Society of Technology Assessment in Health Care
ITAES	Instituto Técnico para la Acreditación de Establecimentos de Salud [Technical Institute for Accreditation of Health Facilities], Argentina
JCAHO	Joint Commission on Accreditation of Healthcare Organizations, USA
JCI	Joint Commission International (a subsidiary of JCAHO)
LSTM	Liverpool School of Tropical Medicine, England
MATHs	Major Academic Teaching Hospitals, Ireland
MoniQuOr	Monitoring Quality of Organisation, Portugal
NAHQ	National Association for Healthcare Quality, USA
NCQA	National Committee for Quality Assurance, USA
NGC	National Guidelines Clearinghouse, USA
OECD	Organisation for Economic Co-operation and Development
PAHO	Pan American Health Organization
QAHCS	Quality in Australian Health Care Study
QAP	Quality Assurance Project, USA

QIC	Quality Improvement Council, Australia
SEARO	WHO Regional Office for South-East Asia
SIGN	Scottish Intercollegiate Guidelines Network
STAKES	Finnish National Research and Development Centre for Welfare and Health
UNICEF	United Nations Children's Fund
URC	University Research Corporation, USA
USAID	United States Agency for International Development
WHO	World Health Organization
WONCA	World Organization of Family Doctors
WPRO	WHO Regional Office for the Western Pacific

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Quality and accreditation in health care services: a global review resulted from a study conducted by the International Society for Quality in Health Care (ISQua) under contract to the World Health Organization. The first of this report's three parts describes structures and activities at national and international levels around the world to promote quality in health care. The second part catalogues quality concepts and tools in local use in various countries. The third part outlines initiatives in health service accreditation and analyses the operation of functioning national programmes around the world. The appendices include recommendations of major international bodies and meetings on quality assurance.

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