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Abbreviations

AIDS	acquired immunodeficiency syndrome
AIRS	Advance Incident Reporting System
AHSSQA	Australian Health Service Safety and Quality Accreditation Scheme
ASF	Agenda Setting Forum
CPGs	clinical practice guidelines
CME	continuing medical education
CPD	continuing professional development
COAG	Council of Australian Governments
CVP	catheter-related care bundles
ESBL	*extended-spectrum beta-lactamase*
HA	Health Authority
HAI	health care-associated infection
HIRA	Health Insurance Review and Assessment Service of Korea
ICPS	International Classification for Patient Safety
IHSR	Institute for Health Systems Research
ISO	International Organization for Standardization
KACA	Centre for Children with Special Needs, Brunei Darussalam
MRSA	*methicillin-resistant Staphylococcus aureus*
NDRA	National Agency of Drug and Food Control
NHSP-IP	Nepal Health Sector Programme-Implementation Plan
NSQHS	National Safety and Quality Health Service Standards
OECD	Organisation for Economic Co-operation and Development
PhilHealth	Philippine Health Insurance Corporation
PRADET	Psychosocial Recovery & Development in East Timor
QA	quality assurance
QI	quality improvement
SHINe	Singapore Healthcare Improvement Network
SOPs	standardized operating protocols
TGA	Therapeutic Goods Administration
WHO	World Health Organization

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Introduction

Improving quality of care has become a crucial element of health system governance worldwide. Industrialized and transitioning countries are developing ways to measure quality of care and improve policies. Measuring quality is necessary to establish the value of health care and the performance of health systems. Hence, Health System Performance Assessment, as promoted by the World Health Organization (WHO), relies heavily on the assessment of health-care service quality.

Interest in sharing developments on quality of care policies in the Asia-Pacific region, and in setting up a network, were discussed during a preparatory meeting in 2011 in China, Hong Kong SAR hosted by the Organisation for Economic Co-operation and Development (OECD)/Korea Policy Centre. Experts from the Asia-Pacific region concluded that greater dialogue between countries is needed to improve quality of care policies in the region. The experts asked WHO regional Offices for the South-East Asia and the Western Pacific, and OECD to set up a structure to help countries in their reflections. In particular, they suggested:

- getting countries to recognize the key role of quality in strengthening health systems;
- seeking examples of good quality improvement practices from other countries, and identifying how that learning can be applied locally;
- facilitating sharing of evidence of the benefits of quality improvement programmes and policies;
- developing processes and tools to measure quality;
- developing an information infrastructure that supports quality governance; and
- ensuring consistency and the linkage of quality measurement efforts with (national) quality policies on health system input, design, monitoring and evaluation, and improvement.

The first WHO-OECD consultation on quality of care in the Asia-Pacific region (Manila, the Philippines, 2012) discussed various quality improvement strategies applied in health care in Asia-Pacific countries. Representatives of 16 countries agreed on the usefulness of exchanging experiences systematically, and the need to collect more detailed internationally comparative information on quality policies. Three types of information were considered relevant: national quality policies and strategies; national information infrastructure; and ongoing programmatic activities, especially topics where WHO has programmes (such as patient safety). After the meeting, a questionnaire was developed.

The questionnaire

The questionnaire sought general information on health-care quality strategies and policies in Asia-Pacific countries. This included policies to assure: quality health-care system inputs (certification/licensing of health professionals, accreditation of health-care organizations such as hospitals, assurance of safe pharmaceuticals, devices and blood products); standardization and monitoring of health-care delivery (guidelines, indicators); and accountability and performance (public reporting, financial incentives). The questionnaire specifically emphasized patient safety and patient-centredness. Countries were also asked to provide information on the extent to which each policy approach had been developed, including, where possible, through quantifiable indicators and timelines for implementation.

The questionnaire had three parts:
- Part 1: general questions on quality of care policies;
- Part 2: information infrastructure for measuring quality of care; and
- Part 3: quality improvement initiatives and activities.

The questionnaire was drafted by the OECD and drew heavily on the existing OECD survey on quality of care. The questionnaire was then finalized through teleconferences among WHO regional offices for South-East Asia and the Western Pacific, OECD, OECD/Korea Policy Centre, and discussions with national experts.

For all Member States except Pacific island countries, the questionnaire was distributed by WHO from July to August 2013, along with guidelines for completion. For Pacific island countries, a modified version of Part 3 was distributed because of concerns about the burden to fill in many surveys. Information was collected from October 2013 to April 2014, through WHO country offices or ministries of health where no WHO offices exist. In early 2014, Pakistan joined the survey.

Thirty-four countries and economies (hereinafter "countries") filled in at least one part of the questionnaire. Twenty-six countries responded to Part 1. Twenty-three countries responded to Part 2. Twenty-five countries responded to Part 3. Table 1 provides the list of countries that answered each part of the questionnaire.

Table 1. Countries that responded to the questionnaire

Part 1	Part 2	Part 3
Australia	Australia	Australia
Bangladesh	Bangladesh	Bhutan
Brunei Darussalam	Bhutan	Brunei Darussalam
Cambodia	Brunei Darussalam	Cambodia
China	Cambodia	China
China, Hong Kong SAR	China	China, Hong Kong SAR
China, Macao SAR	China, Hong Kong SAR	Cook Islands
Democratic People's Republic of Korea	Indonesia	Fiji
India	Japan	India
Indonesia	Lao People's Democratic Republic	Japan
Japan	Malaysia	Kiribati
Lao People's Democratic Republic	Maldives	Malaysia
Malaysia	Mongolia	Federated States of Micronesia
Maldives	Myanmar	Mongolia
Mongolia	Nepal	Nepal
Myanmar	Pakistan	Pakistan
Nepal	Philippines	Palau
New Zealand	Republic of Korea	Philippines
Pakistan	Singapore	Republic of Korea
Philippines	Sri Lanka	Samoa
Republic of Korea	Thailand	Singapore
Singapore	Timor-Leste	Sri Lanka
Sri Lanka	Viet Nam	Thailand
Thailand		Vanuatu
Timor-Leste		Viet Nam
Viet Nam		

Preliminary findings were discussed at the second WHO-OECD consultation on quality of care in the Asia-Pacific region (Bangkok, Thailand, 2013).

The survey responses reported follow the wording used by respondents for names of institutions and documents.

Part 1:
Quality of
care policies

1.1 Overview of quality of care policies

Quality of care policies promote evidence-based, accessible, safe and patient-centred health care. Almost all countries responding to the survey report having policies or documents for quality of care. The exceptions are China and Timor-Leste. Examples of quality policies include China, Hong Kong SAR's *Sentinel and Serious Untoward Event Policy* and Malaysia's *Strategic Plan for Quality in Health*. Further examples of quality policies are provided in Table 2. Twenty-one countries have specific quality or safety targets with set timelines. For example, Sri Lanka reports the use of *Standards for neonatal care*.

Table 2. Policies or documents for quality of care

Country	Existence of policies and documents for quality of care	Existence of specific quality or safety targets with set timelines	Policies and documents for quality of care
Australia	+	+	Safety and Quality Framework for Health Care Improving the transparency and quality of public and private health E-health initiatives and the development of the Personally Controlled Electronic Health Record Improvements in the availability and quality of primary health care services Improvements in the availability and quality of pharmacy health care services Focusing the health system more on healthy lifestyles, prevention and early intervention and a 'best practice' handling of chronic disease
Bangladesh	+	+	The Sixth Five-Year Plan (2011 – 2015) Health Population and Nutrition Sector Development Program strategic document
Brunei Darussalam	+	+	Ministry of Health (Quality Policy, 2003) Statement National Healthcare Plan (NHCP 2000-2010) Vision 2035
Cambodia	+	+	National Policy for Quality in Health Health Strategic Plan phase 2, 2008-2015 Quality Improvement Master Plan 2010-2015
China			
China, Hong Kong SAR	+		Sentinel and Serious Untoward Event Policy Surgical Safety Policy Patient Safety Programmes Medication Safety Programme Hospital Accreditation Program
China, Macao SAR,	+	+	Hospital Conde S. Januário

Democratic People's Republic of Korea	+	+	Law – The Public Health Law in DPRK
			    Law of Medical service in DPRK
			    Law of medicine management in DPRK
			    Law of prevention of communicable disease in DPRK
			Regulation – Guideline on standard operation for health workers
			    Guideline on treatment and prevention
			    Principle of hospital management
			    Principle of intervention in medical warehouse
			    Principle of management of Hygiene and Epidemic institution
			    Guideline on rational use of medicine
			    Guideline on evaluation of capacity and degree of health workers
			    Guideline on safety of injection

India	+		12th Five Year Plan Report (governance of public health system, disease control programmes)
Indonesia	+	+	Indonesian Act on Health No. 39/2009 Indonesian Act on Hospital No. 44/2009
Japan	+		Summary reports of Japan Council for Quality Health Care No-fault Compensation System for Obstetrics Care

Country	Existence of policies and documents for quality of care	Existence of specific quality or safety targets with set timelines	Policies and documents for quality of care
Republic of Korea	+	+	Accreditation of Medical Care Institutions Quality Assessment by Health Insurance Review and Assessment Service Emergency Care Quality Control Preventive Measures against Hospital Infection Assessment of Public Medical Institutions
Lao People's Democratic Republic	+	+	The Health Strategy to 2020
Malaysia	+	+	Malaysia five-year Health Plan The Strategic Plan for Quality in Health Guidelines on Clinical Governance National Policy on Blood Transfusion 2008 National Medicine Policy
Maldives	+	+	Health Master Plan 2006—2015 Strategic actions (under Policy 5) Policy 5: Establish and enforce appropriate quality assurance and regulatory framework for patient and provider safety
Mongolia	+	+	Ministerial Orders Health minister's order Deputy vice minister of Mongolia and Health minister's joint order
Myanmar	+	+	National Health Policy 1993 National Health Plan (2011-2012 to 2015-2016) Upgrading of isolation rooms, intensive care units and sanitation facilities for infection control 5 units per year during 2011-2012 to 2015-2016 Hospital Waster Management Training 3 times during 2011-2012 to 2015-2016
Nepal	+	+	National Quality Assurance Policy National Health Policy 1991 The Second Long-Term Health Plan (SLTHP) Health Sector Strategy: An agenda for Reform (2004) Nepal Health Sector Programme Implementation Plan (NHSP-IP) 2004-2009 Nepal Health Sector Programme II (2010-2015) Standard for Private and Non-Governmental Health Institution Hospital and Nursing Home Establishment and Operation Guideline 2004
New Zealand	+	+	Better, Sooner, More Convenient Open For Better Care
Pakistan	+	+	National Quality Policy and Plan National Health Policy 2009
Philippines	+	+	Policy on Quality Assurance on Health
Singapore	+	+	Private Hospitals & Medical Clinics Act National Standards for Health Care
Sri Lanka	+	+	National Health Policy MahindaChinthana Medium-Term Health Plan 2013-2017 Policy on Healthcare Quality & Safety (draft) Standards for quality assurance programme in healthcare 93 clinical guidelines National Guidelines for Quality and Safety in Healthcare Standards for neonatal care
Thailand	+	+	The Constitution of Thailand 2007 The government policies proposed to the Parliament in 2011 The Eleventh National Economic and Social Development Plan (2012-2016)
Timor-Leste			
Viet Nam	+	+	CIRCULAR Number: 19/2013/TT-BYT Guidelines for Implementation of Quality Management Services Examination and Treatment in Hospital

Organizations assuring quality of care exist in most countries. This oversight role is generally adopted by public agencies, and specifically by ministries of health in 20 countries. Pakistan takes a different approach, with local governments and the Ministry of Science and Technology responsible for quality of care. In Japan, an independent organization – the Japan Council of Quality Health Care – oversees the accreditation process. Organizations responsible for quality of care are listed in Table 3.

Table 3. Organizations responsible for quality of care

Country	Existence of organizations responsible for quality of care	Organizations responsible for quality of care
Australia	+	Australian Commission on Safety and Quality in Health Care Australian Health Practitioner Regulation Agency National Boards for regulated health professions Therapeutic Goods Administration
Bangladesh	+	Hospital Service Management of Directorate General of Health Services Primary health care of Directorate General of Health Services
Brunei Darussalam	+	Ministry of Health
Cambodia	+	Quality Assurance Office, Hospital Services Department, Ministry of Health
China		
China, Hong Kong SAR	+	The Food and Health Bureau Department of Health Hospital Authority
China, Macao SAR	+	Hospital Conde S.Januário Macao, China Health Centres
Democratic People's Republic of Korea	+	Health Care Departments in each county (district), city, provincial level under general supervision of prevention and treatment dept. of Ministry of Public Health State institute of medico-legal examination, State Hygiene and Communicable Disease Control Board, and State Pharmaceutical Inspection Board Control board of Health service for quality of care
India	+	State Governments
Indonesia	+	Ministry of Health, Komite Akreditasi Rumah Sakit Indonesian Commission on Accreditation of Hospital
Japan	+	Japan Council of Quality Health Care Japan Medical Safety Investigation Organisation
Republic of Korea	+	Ministry of Health and Welfare Korea Institute for Healthcare Accreditation Health Insurance Review and Assessment Service
Lao People's Democratic Republic	+	Department of Health Care, Ministry of Health
Malaysia	+	Ministry of Health National Committee for Quality Assurance National Patient Safety Council Health Technology Assessment and Clinical Practice Guidelines Council Malaysian Society for Quality in Health
Maldives	+	Quality Assurance Section in Health Services Division under Ministry of Health
Mongolia	+	State Inspection Agency Quality committees establishing under State secretary, Ministry of Health
Myanmar	+	Ministry of Health
Nepal	+	Curative Service Division, Ministry of Health and Population Public Health Administration, Monitoring and Evaluation Division, Ministry of Health & Population Department of Health Services District Health Offices

Country	Existence of organizations responsible for quality of care	Organizations responsible for quality of care
New Zealand	+	Ministry of Health Health Quality and Safety Commission Health and Disability Commissioner Accident Compensation Corporation
Pakistan	+	Ministry of Science and Technology, Government of Pakistan Pakistan Standards and Quality Control Authority Pakistan National Accreditation Council Pakistan Medical and Dental Council Pakistan Nursing Council Drug Regulatory Authority of Pakistan Pakistan Pharmacy Council
Philippines	+	Department of Health
Singapore	+	Ministry of Health
Sri Lanka	+	Directorate of Healthcare Quality and Safety
Thailand	+	Bureau of Sanatorium and Arts of Healing, Ministry of Public Health Social Security Office National Health Security Office Healthcare Accreditation Institute Professional organizations
Timor-Leste	+	Ministry of Health directorate of Quality Control General Inspectorate Body
Viet Nam	+	Ministry of Health

1.2 Legal framework for quality of care

Quality of health care laws generally regulate three areas: professionals, institutions and safety of drugs and devices. Twenty-three countries report having a legal framework for quality of care. Quality-related laws can be general or specific. In most countries, the legal framework refers to laws regulating medical services in general, as demonstrated in Table 4. New Zealand has more specific acts related to quality of care. Six countries report that they have general laws with detailed enforcement decrees. Japan notes that most of its laws related to quality of care are general, whereas long-term care insurance law includes detailed articles.

Table 4. Legal and regulatory framework for quality of care

Country	Existence of legal and regulatory framework for quality of care	Laws for quality of care	Level of detail
Australia	+	National Safety and Quality Health Service Standards The Australian Health Service Safety and Quality Accreditation scheme National Health Reform Act 2011	general
Bangladesh	+	Bangladesh Medical & Dental Council Act, 2010 Bangabandhu Sheikh Mujib Medical University Act, 1998	general
Brunei Darussalam	+	Medical Practitioners and Dentists Act (Cap 112). Nurses Registration Act (Cap 140)	general
Cambodia	+	Law on Management of Private medical, Paramedical, and Medical Aide Profession	general
China			

Country	Existence of legal and regulatory framework for quality of care	Laws for quality of care	Level of detail
China, Hong Kong SAR	+	Hospitals, Nursing Homes and Maternity Homes Registration Ordinance Medical Clinics Ordinance	general
China, Macao SAR	+	Decree-law no.58/90/M promulgated on 19 September 1990	
Democratic People's Republic of Korea	+	The Public Health Law in DPRK Law of medical service in DPRK Law of medicine management in DPRK Law of prevention of communicable disease in DPRK	general
India	+		general
Indonesia	+		general
Japan	+	Medical Care Act	general
Republic of Korea	+	Article 52 of the Framework Act on Health and Medical Services Article 62 and 63 of the National Health Insurance Act	general
Lao People's Democratic Republic	+	Law on Health Care	general
Malaysia	+	Administrative, Public Law Malaysian Cyber Laws Telemedicine Act 1997, reprint 2002 Nurses Act 1950, revised 1969 Registration of Pharmacists Act, 1951, Revised 1989 Poisons Act, 1952, Revised 1989 Medicines (Advertisement and Sales) Act, 1956, Revised 1984 Midwife Act, 1966, Revised 1990 Private Hospital Act, 1971 Medical Act, 1971 Medical Assistant Registration Act 1977 Food Act, 1983 Prevention and Control of Infectious Disease Act, 1988 Optical Act, 1991 Occupational and Safety Act, 1994 Traditional and Complementary Medicine Act 2013 Dental Act 1971 Private Health Care Facilities Act 1998	general
Maldives	+		
Mongolia	+	The health law validated on 1 May 2011	general
Myanmar	+	Public Health Law	general
Nepal	+	Drug Act 1978 Nepal Medical Council Act 1964	general
New Zealand	+	Health and Disability Services (Safety) Act 2001 Health Practitioners Competence Assurance Act 2003 Health and Disability Commissioner Act 1994	specific
Pakistan	+	Medical and Dental Council (Amendment) Ordinance, 2013 Medical and Dental Degrees Ordinance, 1982	general
Philippines	+	RA 4226: Hospital Licensure Act A0 2012-0012: Rules and Regulations Governing the New Classification of Hospitals and other Health Facilities in the Philippines	general
Singapore	+	Private Hospitals and Medical Clinics Act	general
Sri Lanka			
Thailand	+	Constitution of the Kingdom of Thailand B.E.2550 Sanatorium Act B.E.2541	general
Timor-Leste			
Viet Nam	+	Law Examination And Treatment number 40/2009/QH12 November 23, 2009 Circular 19/2013/TT-BYT July 12, 2013	general

1.3 Professional certification/licensing and re-certification

Well-trained doctors and nurses constitute the backbone of a health-care system. However, medical knowledge and skills need to be regularly updated. Policies related to licensing, mandatory continuing professional development (CPD) and professional certification and re-certification can assure professional performance. Almost all countries have professional certification/licensing and re-certification systems, as shown in Table 5. Sixteen countries have policies for mandatory continuing medical education (CME), professional development and re-certification/licensing. Japan and Nepal have CME, but without mandatory enforcement. Although several countries have mandatory CME/CPD, only a few have re-certification or re-licensing based on mandatory CME/CPD. Other countries report having CME/CPD policies, but it is uncertain whether the policies are mandatory. In most countries, health-related government agencies are in charge of managing professional certification/licensing and re-certification.

Table 5. Policies for mandatory CME/CPD and re-certification

Country	Existence of mandatory CME/CPD	Organizations/laws responsible for CME/CPD
Australia	+	The Australian Health Practitioner Regulation Agency National Boards Health Practitioner Regulation National Law
Bangladesh	+	Centre for Medical Education Bangladesh Medical & Dental council Bangladesh Nursing council State Medical Faculty of Bangladesh Bangladesh Pharmacy Council Homeopathic, Ayurvedic and Unani Board
Brunei Darussalam	+	Brunei Medical Board Nursing Board of Brunei Darussalam
Cambodia	+	Medical Council
China		
China, Hong Kong SAR	+	The relevant statutory Board/Council
China, Macao SAR		
Democratic People's Republic of Korea	+	Government Education committee Ministry of Public Health
India		State medical and nursing councils
Indonesia	+	Medical Council Ministry of Education Ministry of Health Professional Nursing association Professional Midwifery association Indonesian Health care Worker Assembly
Japan		Japan Medical Association and various medical professional societies Minister of Health, Labour & Welfare
Republic of Korea	+	Minister of Health and Welfare
Lao People's Democratic Republic	+	Department of Health Care, Ministry of Health
Malaysia	+	Malaysian Dental Council Ministry of Health National Specialist Register Annual practising certificate Malaysian Medical Council Nursing Board of Malaysia

Country	Existence of mandatory CME/CPD	Organizations/laws responsible for CME/CPD
Maldives	+	Maldives Medical Councils Maldives Nursing Council Regulatory Board and Council Section Ministry of Health
Mongolia	+	Ministry of Health
Myanmar		
Nepal		
New Zealand	+	Ministry of Health
Pakistan	+	Pakistan Medical and Dental Council Pakistan Nursing Council Pakistan Pharmacy Council
Philippines		Jurisdiction of the Professional Regulation Commission and the Specialty Societies
Singapore	+	Respective professional councils for doctors, dentists, and pharmacists
Sri Lanka		
Thailand	+	Thailand Nursing and Midwifery Council Medical Council of Thailand Dental Council Pharmacy Council Medical Technology Council
Timor-Leste		
Viet Nam		

1.4 Accreditation and other external quality assessment mechanisms

Accreditation assures quality by systematically evaluating hospitals against set standards. Nineteen countries report having a hospital accreditation system. In many Asia-Pacific countries, the system is public, or in partnership with the government. In most OECD member countries, accreditation is driven by expert groups. The responsible agencies are listed in Table 6.

Some countries model their accreditation schemes after large international programmes. For example, Bangladesh, Japan and the Republic of Korea report using standards of The Joint Commission in the United States of America and Joint Commission International. Under the requirements of The Joint Commission programme, health services must undergo an onsite survey every three years to earn and maintain accreditation.

Meanwhile, China, Hong Kong SAR and China, Macao SAR have adopted the approach of the Australian Council on Healthcare Standards, which uses a four-year continuous quality assessment and improvement accreditation scheme including two onsite surveys supported by a self-assessment system. Seventeen countries have national standards for hospital accreditation.

In 11 countries, the accreditation scheme is voluntary for hospitals. In some countries, including Cambodia, the Democratic People's Republic of Korea and Nepal, hospital accreditation is mandatory. In Sri Lanka, accreditation is partially mandatory. In New Zealand and the Republic of Korea, participation is voluntary for some providers, yet in effect mandated through a fee schedule contracting process and other practices.

In Singapore, although hospital accreditation is voluntary, there is a mandatory licensing system for hospitals and other health-care institutions.

Most countries conducting accreditation use some form of scoring system. Twelve countries run additional mandatory programmes, such as an inspectorate of health. In most countries in the Asia-Pacific region, accreditation for quality improvement and inspection for safety control are integrated into one model.

Certification by the International Organization for Standardization (ISO) is a method of assuring quality. ISO develops voluntary standards internationally. Twenty countries have ISO certification initiatives. In most cases, it is being used as a supplementary measure to complement basic quality assessment programmes.

Table 6. Policies for accreditation and other external quality assessment mechanisms

Country	Existence of accreditation	Organizations / laws responsible for accreditation	Existence of national standards for hospitals	Type of accreditation	Scoring systems	Additional organizations responsible for enforcement	ISO certification programme
Australia	+	Australian Council on Healthcare Standards, and other approved accreditation agencies	+	mandatory		Australian Commission on Safety and Quality in Health Care	+
Bangladesh	+	Bangladesh Accreditation Board	+	voluntary	total score 50(star)	Health section of Directorate General of Health Services	+
Brunei Darussalam					-		+
Cambodia	+	lead by Quality Assurance Office, Hospital Services Department, Ministry of Health(in progress)	+	mandatory		Health Service Department, Quality Assurance Office	+
China							
China, Hong Kong SAR	+	Hospital Authority / Steering Committee on Hospital Accreditation	+	voluntary	5 grade	Hospital Authority Ordinance	+
China, Macao SAR	+	The Macao, China Health Centres	+	voluntary	EQuIP		+
Democratic People's Republic of Korea	+	Ministry of Public Health	+	mandatory	100 scoring	National Institute of Public Health Administration	
India	+	National Accreditation Board for Hospitals and Healthcare Providers	+	voluntary	0 to 10	Government run programs	+

Country	Existence of accreditation	Organizations / laws responsible for accreditation	Existence of national standards for hospitals	Type of accreditation	Scoring systems	Additional organizations responsible for enforcement	ISO certification programme
Indonesia	+	Komisi Akreditasi Rumah Sakit/ Indonesia Commission on Accreditation of Hospital	+	mandatory	4 grade - Basic level (dasar) / Intermediate levels (madya) / Prime level (utama) / Excellent level (paripurna)	Ministry of Health, Provincial Health Authority	+
Japan	+	Japan Council of Quality Health Care		voluntary	4 grade	Public Health Centers	+
Republic of Korea	+	Korea Institute for Healthcare Accreditation / Health Insurance Review and Assessment Service	+	voluntary / mandatory	3 grade 5 grade	National Medical Center	+
Lao People's Democratic Republic							
Malaysia	+	The Malaysian Society for Quality in Health	+	voluntary	3 grade	The National Pharmaceutical Control Bureau	+
Maldives					-		+
Mongolia	+	Ministry of Health	+	voluntary			+
Myanmar			+				
Nepal	+	Department of Health Services	+	mandatory		Public Health Administration Monitoring and Evaluation Division	
New Zealand	+	Ministry of Health	+	voluntary / mandatory	Continuous score	Ministry of Health	+
Pakistan		Planning, Pakistan National Accreditation Council Pakistan Medical and Dental Council		under planning		Drug Inspector –Drug Regulatory Authority Pakistan	+
Philippines	+	Department of Health-BHFS	+	voluntary		Non -government organizations	+
Singapore	+	Nil for accreditation. Ministry of Health is responsible for licensing		Voluntary but there is mandatory licensing			+

Country	Existence of accredi-tation	Organizations / laws responsible for accreditation	Existence of national standards for hospitals	Type of accreditation	Scoring systems	Additional organizations responsible for enforcement	ISO certifica-tion pro-gramme
Sri Lanka	+	Sri Lanka Accreditation Board		mandatory			+
Thailand	+	The Healthcare Accreditation Institute (public organisation)	+	voluntary	5 grade	The Office of the Public Sector Development Commission, Ministry of Public Health, The National Health Security Office	+
Timor-Leste						Gabinete Inspecsaun Fiscalisasaune Auditoria	
Viet Nam	+	Ministry of Health	+	voluntary	5 grade		+

1.5 Medical devices, blood products and pharmaceuticals

Assuring the safety of health-care technologies is an important part of national quality policies. Once products are allowed on the market, mechanisms should be in place to assure their safe and appropriate use. This is particularly the case for medical devices, blood products and pharmaceuticals.

Fourteen countries report that they carry out technology assessment studies to assess the added value of new technologies. The results of these studies inform decisions to reimburse the use of new devices. The organizations responsible for technology assessments of medical devices are listed in Table 7.

Table 7. Technology assessment for medical devices

Country	Existence of technology assessment studies for medical devices	Organizations/laws responsible for technology assessment for medical devices
Australia	+	Australian / New Zealand Standard AS/NZS 3551:2004 Therapeutic Goods Administration Medical Services Advisory Committee
Bangladesh	+	Directorate General of Drug administration
Brunei Darussalam		
Cambodia		
China		
China, Hong Kong SAR	+	Central Technology Office
China, Macao SAR	+	Hospital Conde S. Januário
Democratic People's Republic of Korea	+	Department of management of medical devices, Ministry of Public Health
India		

Country	Existence of technology assessment studies for medical devices	Organizations/laws responsible for technology assessment for medical devices
Indonesia		
Japan	+	Pharmaceutical and Medical Device Agency
Republic of Korea	+	National Evidence-based Health Care Agency Health Insurance Review and Assessment Service
Lao People's Democratic Republic		
Malaysia		
Maldives		
Mongolia		
Myanmar		
Nepal	+	Department of Drug Administration
New Zealand	+	District Health Boards
Pakistan		
Philippines	+	Jurisdiction of Bureau of Health Devices and Technology PhilHealth (Philippine Health Insurance Corporation)
Singapore	+	Ministry of Health Health Products Act
Sri Lanka	+	Bio Medical Engineering Services
Thailand	+	Medical Advice Committee Ministry of Public Health Thai Health Promotion Foundation Health Systems Research Institute Health Insurance System Research Office Bureau of Policy and Strategy Ministry of Public Health
Timor-Leste		
Viet Nam	+	Ministry of Health

Most countries have standards for safe blood use, and preparation and handling of blood products. Blood safety-related organizations, institutions or acts in each country are listed in Table 8.

Table 8. Standards on safe blood use

Country	Existence of standards on safe blood use	Organizations/laws responsible for safe blood use
Australia	+	Australian Red Cross Blood Service National Blood Authority Therapeutic Goods Administration
Bangladesh	+	Blood Transfusion Committee National Safe Blood Transfusion Council National Blood Transfusion Expert committee Blood Transfusion Management Committee
Brunei Darussalam	+	ISO 15189
Cambodia	+	National Blood Bank System
China		

Country	Existence of standards on safe blood use	Organizations/laws responsible for safe blood use
China, Hong Kong SAR	+	Central Transfusion Committee of Hospital Authority
China, Macao SAR	+	A blood transfusion committee of Hospital Conde S. Januário
Democratic People's Republic of Korea	+	National blood centre Ministry of Public Health provincial blood centre
India	+	Blood Bank and Blood Storage Centre
Indonesia	+	Ministry of Health under Directorate of Basic Health Care National Blood Committee under Ministry of Health
Japan	+	Japan Red Cross Blood Products Research Organization
Republic of Korea	+	Korea Centers for Disease Control and Prevention
Lao People's Democratic Republic		
Malaysia	+	Quality Assurance Section, Ministry of Health
Maldives	+	Quality Assurance Section, Ministry of Health
Mongolia	+	National Improve Supply of Donation and Blood Products, Their Safety Policy Guideline Safety for Blood Products (Health Minister's Order #, dated 2010)
Myanmar	+	Blood and Blood Products Law (2003)
Nepal	+	General Nepal Red Cross Ministry of Health and Population National Public Health Laboratory
New Zealand	+	New Zealand Blood Service Medsafe (regulator within the Ministry of Health)
Pakistan	+	National Blood Transfusion Service
Philippines	+	National Voluntary Blood Services Program Philippine National Red Cross Philippine Blood Coordinating Council
Singapore	+	Private Hospitals and Medical Clinics Act Ministry of Health
Sri Lanka	+	National Blood Transfusion Services
Thailand	+	Thai Red Cross National Blood Centers
Timor-Leste		
Viet Nam	+	The Minister Of Health 937 - BYT / QD 4 Months 9 Days of the Year 1992 of Blood Command

Fifteen countries report that they carry out technology assessment studies to assess the added value of new drugs, and the results of these studies inform the reimbursement decision process. The policies or organizations in charge of technology assessment studies on drugs are listed in Table 9.

Table 9. Technology assessment studies on drugs

Country	Existence of technology assessment studies on drugs	Organizations responsible/laws for technology assessment studies on drugs
Australia	+	Pharmaceutical Benefits Advisory Committee Therapeutic Goods Administration
Bangladesh	+	Directorate General of Drug Administration National Control Laboratory
Brunei Darussalam		

Country	Existence of technology assessment studies on drugs	Organizations responsible/laws for technology assessment studies on drugs
Cambodia		
China		
China, Hong Kong SAR	+	Hospital Authority
China, Macao SAR		
Democratic People's Republic of Korea	+	National pharmaceutical inspection centre Guideline on production and standard management of pharmaceuticals Guideline on standardization of pharmaceuticals Guideline on preparation of injection Guideline on operation of pharmacy under treatment and prevention unit
India	+	Ministry of Health and Family Welfare
Indonesia		
Japan	+	Pharmaceuticals and Medical Devices Agency
Republic of Korea	+	Health Insurance Review and Assessment Service
Lao People's Democratic Republic		
Malaysia	+	Ministry of Health, Drug Control Authority Ministry of Health, Drug Formulary Ministry of Health Malaysia
Maldives	+	Maldives Food and Drug Authority
Mongolia		
Myanmar	+	Myanmar Food and Drug Board of Authority
Nepal		Department of Drug Administration
New Zealand	+	District Health Boards, Pharmac (the Government's healthcare product funding agency) various healthcare providers
Pakistan		
Philippines	+	Food and Drug Administration
Singapore	+	Ministry of Health
Sri Lanka	+	Medical Technology & Supplies and National Drug Quality Assurance Laboratory
Thailand	+	National Health Security Office National Drug System Development Committee
Timor-Leste		National Drug Policies
Viet Nam		

Many countries report that they have pharmacovigilance systems to identify safety and other problems with pharmaceuticals. The policies and organizations responsible for pharmacovigilance are listed in Table 10.

Table 10. Pharmacovigilance systems

Country	Existence of pharmacovigilance systems	Policies/organizations responsible for pharmacovigilance
Australia	+	Therapeutic Goods Administration
Bangladesh	+	Directorate General of Drug Administration
Brunei Darussalam	+	Brunei Darussalam Medicines Control Authority
Cambodia	+	Cambodian Pharmaco-vigilance Center
China		
China, Hong Kong SAR	+	Drug Office of Department of Health

Country	Existence of pharmacovigilance systems	Policies/organizations responsible for pharmacovigilance
China, Macao SAR	+	Macao, China Health Bureau
Democratic People's Republic of Korea		
India		
Indonesia	+	National Agency of Drug and Food Control as NDRA
Japan	+	Pharmaceuticals and Medical Devices Agency
Republic of Korea	+	Ministry of Food and Drug Safety Health Insurance Review and Assessment Service
Lao People's Democratic Republic	+	Pharmaco-vigilance Unit
Malaysia		
Maldives	+	Maldives Food and Drug Authority
Mongolia	+	National drug policy Law on medicines and medical devices National strategy on counterfeit medicines Registration Rule of Medicines and Biologically Active Products
Myanmar	+	Myanmar Food and Drug Board of Authority National Drug Law
Nepal	+	National Drug Policy (1995)
New Zealand	+	Ministry of Health
Pakistan	+	Drug Regulatory Authority Pakistan Ministry of health of Health
Philippines	+	Food and Drug Administration
Singapore	+	Health Sciences Authority
Sri Lanka		
Thailand	+	National Drug System Development Committee
Timor-Leste	+	National Drug Policies
Viet Nam		

1.6 National audit studies and performance reports

Audit studies can assess the quality of care in areas where problems are likely. This includes perinatal death, mortality related to anaesthesiology and major surgical complications, for example in cardiothoracic surgery. Fourteen countries report that they conduct national audit studies. One example is Malaysia's Perioperative Mortality Review. Other examples are provided in Table 11.

Table 11. National audit studies

Country	Existence of national audit studies	Examples of national audit studies
Australia	+	Biennial National Report on Health Services Accreditation Performance Annual Australasian Clinical Indicator Report National Health Performance Authority's reports Clinical safety audit for the Personally Controlled Electronic Health Record Regular reports on Indigenous Health
Bangladesh	+	Maternal and Perinatal death review
Brunei Darussalam		
Cambodia		

Country	Existence of national audit studies	Examples of national audit studies
China		
China, Hong Kong SAR	+	Surgical Outcomes Monitoring & Improvement Program
China, Macao SAR		
Democratic People's Republic of Korea	+	Research on optimal timing for operation of neonatal congenital cardiac valve disturbance and assessment of its effectiveness Research on setting up operation time of cataract and assessment of its effectiveness Research on combination of modern medical treatment and traditional medicine treatment and assessment of its effectiveness Research on assessment of effectiveness of tele-medicine system
India	+	Reproductive and Child Health -II project National Disease Control Programmes Integrated Disease Surveillance Project
Indonesia		
Japan		
Republic of Korea		
Lao People's Democratic Republic	+	Maternal Death Case Review
Malaysia	+	Perioperative Mortality Review Malaysian Registry of Intensive Care Awareness under General Anaesthesia (audit on adverse events of anaesthesiology) Computerised Operating Theatre Documentation System Operation Theatre Management System
Maldives		
Mongolia		
Myanmar	+	Maternal deaths in hospital and community
Nepal	+	Maternal and Perinatal Death Review
New Zealand	+	Child and Youth Mortality Review Committee Perinatal and Maternal Mortality Review Committee Family Violence Death Review Committee Perioperative Mortality Review Committee
Pakistan		
Philippines	+	quarterly perinatal audits
Singapore	+	Regulatory compliance audits
Sri Lanka	+	Adverse events related to anaesthesia
Thailand	+	Multicenter study of model of anaesthesia related adverse events
Timor-Leste		
Viet Nam		

1.7 Practice guidelines

In many countries, evidence-based practice guidelines play a key role in quality policies. Such guidelines draw on clinical research to assist health professionals and patients make decisions about appropriate health care. Twenty-three countries report they have developed clinical practice guidelines (CPGs).

The government developed CPGs in 18 countries, and in some countries the private sector participated in the process. In the Republic of Korea, the private sector led the process under the supervision of the government. In New Zealand, the guidelines were mostly developed by expert groups. Fifteen countries report that CPGs were developed on evidence-based medicine.

Most countries have guidelines for hospital and primary care. Fewer countries have guidelines for mental health and long-term care. Most guidelines are developed by expert groups with government support and coordination. Table 12 reports the main features of CPGs by country.

Table 12. Clinical practice guidelines

Country	Existence of CPGs	Owners and execution bodies of CPGs	Development area
Australia	+	National Health and Medical Research Council Government professionals	hospital care / primary care / mental health care / long-term care
Bangladesh	+	Ministry of Health and Family Welfare	hospital care / primary care / mental health care
Brunei Darussalam	+	Departmental level	hospital care / primary care
Cambodia		Hospital Services Department, Ministry of Health	hospital care
China			
China, Hong Kong SAR	+	Secretary for Food and Health Department of Health Hospital Authority	hospital care
China, Macao SAR	+	Hospital Conde S. Januário Government healthcare professionals	primary care
Democratic People's Republic of Korea	+	government	hospital care / primary care / mental care/ long-term care
India	+	Ministry of Health professional organisations	
Indonesia	+	Ministry of Health professional organisations	
Japan	+	Japan Council for Quality Health Care	
Republic of Korea	+	Korean Academy of Medical sciences Korea Centers for Disease Control and Prevention	
Lao People's Democratic Republic	+	Government NGO	hospital care / primary care
Malaysia	+	CPG Unit Health Technology Assessment Section Ministry of Health	hospital care / primary care / dental care
Maldives	+	Ministry of Health	hospital care / public health services
Mongolia	+	government	hospital care /primary care / mental health care / long term care
Myanmar	+	government	hospital care /primary care / mental health care / long term care
Nepal	+	Ministry of Health and Population Department of Health Services	primary care/ mental health care / long-term care
New Zealand	+	District Health Boards government Health Quality and Safety Commission	hospital care /primary care / mental health care / long term care
Pakistan	+	Government International Partners National Institute of Health Pakistan	hospital care / primary care
Philippines	+	Philippine Society of Microbiology and Infectious Diseases specialty societies Department of Health	primary care / mental health care

Country	Existence of CPGs	Owners and execution bodies of CPGs	Development area
Singapore	+	Ministry of Health	hospital care / primary care / long-term care
Sri Lanka	+	Government	
Thailand	+	Ministry of Public Health National Health Security Office professional organisations	hospital care / primary care / mental health care
Timor-Leste	+	government	hospital care / primary care
Viet Nam	+	Ministry of Health	hospital care /primary care / mental health care / long-term care

Bangladesh and Brunei Darussalam report that guidelines dissemination is the government's responsibility. In 12 countries, the guidelines are online, in eight countries the guidelines are distributed at workshops and conferences. Ten countries report using incentives to encourage compliance with guidelines, while 18 countries report conducting studies to assess compliance with guidelines, as shown in Table 13.

Table 13. Disseminating mechanisms, incentives, studies regarding CPGs

Country	Disseminating mechanisms of CPGs	Financial incentives to encourage compliance of CPGs	Studies to assess compliance with guidelines
Australia	+		+
Bangladesh	+	+	+
Brunei Darussalam	+		+
Cambodia	+		+
China			
China, Hong Kong SAR	+	+	+
China, Macao SAR	+		
Democratic People's Republic of Korea	+	+	+
India			+
Indonesia	+		
Japan	+		+
Republic of Korea	+		
Lao People's Democratic Republic	+	+	+
Malaysia	+		
Maldives	+		
Mongolia	+		+
Myanmar	+		
Nepal	+	+	
New Zealand	+	+	+
Pakistan			
Philippines	+	+	
Singapore	+	+	+
Sri Lanka	+		+
Thailand	+	+	+
Timor-Leste			+
Viet Nam	+	+	+

1.8 Quality indicators

Collection of information on health-care quality indicators can help to improve the performance of health services in areas such as acute and primary care, cancer, mental health and the patient experience. Eighteen countries report the existence of national quality indicators, but only a few – including Malaysia, the Republic of Korea and Singapore – have provided the list of indicators. Table 14 shows the availability of national quality indicators, and the existence of mechanisms to assure consistency at different levels of systems. Almost all countries report having systematic feedback mechanisms for health providers, but the level of detail varies between countries.

Table 14. Quality indicators and consistency assuring mechanisms

Country	Existence of quality indicators at national level	Existence of consistency assuring mechanisms amongst the level of systems	Quality of care feedback mechanisms for providers
Australia	+		+
Bangladesh	+	+	+
Brunei Darussalam	+	+	+
Cambodia			+
China	+	+	
China, Hong Kong SAR	+	+	+
China, Macao SAR	+		+
Democratic People's Republic of Korea	+		
India	+		+
Indonesia			
Japan	+	+	+
Republic of Korea	+	+	+
Lao People's Democratic Republic			
Malaysia	+	+	
Maldives	+	+	+
Mongolia			
Myanmar	+	+	+
Nepal	+		+
New Zealand	+	+	+
Pakistan			+
Philippines	+	+	+
Singapore	+	+	+
Sri Lanka		+	+
Thailand	+	+	+
Timor-Leste			+

1.9 The ability of patients to influence quality and policies on measuring patient experiences

High-quality health care places the patient at the centre, and provides an opportunity for patients to give feedback on their experiences in the health system. All countries report that they have mechanisms for patients to provide feedback on quality of care. In 16 countries, the systematic measurement of patient experiences has been implemented nationwide. In Japan, the Ministry of Health, Labour and Welfare conducts a patient

experience survey every three years. In some other countries, only public hospitals conduct a patient experience survey. Table 15 shows the systematic measurement of patient experiences by country.

Table 15. Systematic measurement of patient experiences

Country	Existence of systematic measurement of patient experiences	Policies
Australia	+	The Australian Council on Healthcare Standards' EQuIP National and EQuIP5 accreditation programs Australian Commission on Safety and Quality in Health Care's paper: "Review of patient experience and satisfaction surveys conducted within public and private hospitals in Australia" Australian Bureau of Statistics' national survey Hospital-based surveys National Health Performance Authority's report
Bangladesh	+	Standardized tools were developed and used for systematic measurement
Brunei Darussalam		
Cambodia	+	Guideline on Patient satisfaction Survey
China		
China, Hong Kong SAR	+	Hospital Authority has engaged an independent patient satisfaction survey agency
China, Macao SAR	+	The Hospital Conde S. Januário has a "consumer participation policy"
Democratic People's Republic of Korea	+	Assessment committee of devotion established in Ministry of Public Health
India		
Indonesia		
Japan	+	Ministry of Health, Labour and Welfare conducts the Patient Experience Survey
Republic of Korea	+	Ministry of Health and Welfare and National Medical Center conduct surveys of patient experience
Lao People's Democratic Republic		
Malaysia	+	The Institute of Health Management in collaboration with Programme heads in the Ministry of Health are responsible for the conduct of the various patient satisfaction surveys
Maldives		
Mongolia		
Myanmar		
Nepal	+	Quality Section under the Department of Health Services is responsible for the measurement of patient experiences
New Zealand	+	Health Quality & Safety Commission is developing a national patient experience indicators system in consultation with the Ministry of Health
Pakistan		
Philippines		
Singapore	+	Patient Satisfaction Survey ,supervised by the Ministry, is carried out annually for patients in public healthcare institutions
Sri Lanka	+	National guidelines on Quality and Safety in Healthcare provide a standard format to measure patient satisfaction
Thailand	+	The Healthcare Accreditation Institute is starting to collect patient experience information
Timor-Leste	+	Patient Suggestions centre at HNGV
Viet Nam	+	Patient survey annually with national standard questionnaires for every hospital obligation

Patient organizations exist in most countries, including the Bangladesh Thalassemia Foundation and SMARTER Brunei in Brunei Darussalam. While Indonesia has similar organizations, they are not yet involved in the quality improvement process. Representative patient organizations are listed in Table 16.

Table 16. Patient organizations

Country	Existence of patient organizations	Representative patient organizations
Australia	+	Numerous patient support groups for various conditions
Bangladesh	+	Thalassemia foundation National Heart Foundation, Bangladesh Liver and pancreatic disease foundation
Brunei Darussalam	+	SMARTER(Autism) AIDS Council KACA (Centre for Children with Special Needs)
Cambodia		
China		
China, Hong Kong SAR	+	Hong Kong, China Alliance of Patients' Organizations Limited
China, Macao SAR	+	patient organisations in Macao, China
Democratic People's Republic of Korea		
India	+	
Indonesia	+	
Japan	+	Association of Dialysis Patients Patient Groups of Intractable Diseases
Republic of Korea	+	Korea Kidney Cancer Association
Lao People's Democratic Republic		
Malaysia	+	Malaysian Diabetes Association National Stroke Association
Maldives	+	Thalassemia Society
Mongolia		
Myanmar	+	Myanmar Diabetes Association
Nepal	+	National Association of People Living with HIV/AIDS in Nepal National Kidney Victims´ Association Nepal Nepal Diabetic Society
New Zealand	+	Multiple Sclerosis Society Arthritis New Zealand Cancer Society Stroke Foundation
Pakistan	+	Pakistan Society for the Rehabilitation of Disabled Thalassemia society of Pakistan Marie Adelaide Leprosy Centre
Philippines	+	
Singapore		
Sri Lanka	+	Care and cure patients
Thailand	+	Thai Medical Error Network
Timor-Leste	+	Patient support groups exist for HIV / AIDS, cancer, domestic violence / sexual assault (PRADET)
Viet Nam	+	Patient committee feedback at hospital weekly mechanism

1.10 Public reporting on quality of care

Public reporting on quality of care empowers consumers to access information about the performance of health services, and enables hospital benchmarking. Sixteen countries indicate the existence of public reporting on quality of care. In most cases, quality of care assessment results are published online by the government. Seventeen countries publish regular national reports on quality of care, and eight countries say these reports have been influential in changing health policy and practice. The survey results on public reporting on quality of care are shown in Table 17.

Table 17. Public reporting on quality of care

Country	Existence of public report on quality of care	Owners of the information	Existence of regular national reports on quality of care	Examples of national reports	Influence of regular reports on quality of care
Australia	+	The Australian Council on Healthcare Standards Australian Commission on Safety and Quality in Health Care Australian Health Practitioner Regulation Agency Australian Institute of Health and Welfare COAG Reform Council National Health Performance Authority	+	National Accreditation Report Australian Council on Healthcare Standards Annual Report Australian hospital statistics Australian hospital statistics: Emergency department care National Partnership Agreement on Improving Public Hospital Services: NEST and NEAT Performance report for 2012 Report on Government Services (annual)	
Bangladesh	+	Ministry of Health and Family Welfare of Directorate General of Health Services	+	annual health bulletin newsletters local online health bulletins online access to database statistics	+
Brunei Darussalam					
Cambodia					
China			+	statistical bulletin	
China, Hong Kong SAR	+	Department of Health Hospital Authority Head Office	+	" Risk Alert" bulletin	
China, Macao SAR	+		+		
Democratic People's Republic of Korea	+	Ministry of Public Health	+		+
India			+		
Indonesia					
Japan	+	participant hospitals indicator projects	+	white papers and reports	
Kiribati					
Republic of Korea	+	Korean Institute of Healthcare Accreditation Health Insurance Review and Assessment Service	+	annual comprehensive quality report	+
Lao People's Democratic Republic					

Country	Existence of public report on quality of care	Owners of the information	Existence of regular national reports on quality of care	Examples of national reports	Influence of regular reports on quality of care
Malaysia	+	Malaysian Society for Quality in Health Department of Health	+	Vaccine Storage in Private Practice Patient Safety in Ministry of Health Primary Care – A Community Trial	+
Maldives	+	each agency Ministry of Health	+		
Mongolia	+				
Myanmar	+	Ministry of Health Department of Health Planning	+	Health in Myanmar	
Nepal	+	Ministry of Health and Population Department of Health Services STS			+
New Zealand	+	District Health Boards Ministry of Health	+	Health Quality and Safety Indicator set	+
Pakistan					
Philippines					
Singapore	+	Government	+		+
Sri Lanka			+		
Thailand	+	National Health Security Office	+	Thailand Health Profile	+
Timor-Leste					
Viet Nam	+	Ministry of Health	+	Patient satisfaction survey annually reported to the public	

1.11. Financial incentives

Pay for performance schemes are used in some countries to encourage delivery of high-quality health services. Under these schemes, financial incentives are offered to health services or practitioners to improve quality. Seven countries report having some form of pay for performance system. Among them, the Republic of Korea, New Zealand and Thailand present quality indicators to institutions and provide incentives based on results. In Cambodia, health service accreditation status is linked to payment.

Table 18. Pay for performance

Country	Existence of pay for performance	Pay for performance (financial incentive) program
Australia	+	Practice Incentives Program National Elective Surgery Target National Emergency Access Target
Bangladesh	+	Maternal health voucher scheme
Brunei Darussalam		
Cambodia	+	Special Operating Agency, Health Equity Funds and other contractors pay an additional bonus
China		
China, Hong Kong SAR		
China, Macao SAR		

Country	Existence of pay for performance	Pay for performance (financial incentive) program
Democratic People's Republic of Korea		
India		
Indonesia		
Japan	+	Per-diem payment system classified by DPC(diagnosis-procedure-combination, equivalent to DRG in the US)
Republic of Korea	+	Value Incentive Program Value Incentive Program for Chronic Diseases Care in Doctors' Clinics
Lao People's Democratic Republic		
Malaysia		
Maldives		
Mongolia		
Myanmar		
Nepal		
New Zealand	+	District Health Boards and Primary Health Organisations negotiate payments based on performance against Elective Services Patient Flow Indicators
Pakistan		
Palau		
Philippines		
Singapore		
Sri Lanka		
Thailand	+	National Health Security Office allocates different budgets according to scores of accreditation
Timor-Leste		
Viet Nam		

1.12 Patient safety and medical malpractice

Promoting safety is critical to provide high-quality patient-centred care. Some countries have detailed patient safety strategies, and collect data on sentinel events and adverse events. The aim of monitoring these incidents is to learn from them, to try to prevent future adverse events.

Sixteen countries report having a national patient safety programme. Table 19 provides more information on these programmes. In several countries, patient safety is included in the hospital accreditation process. For example, a comprehensive nationwide patient safety programme was developed in Malaysia.

Table 19. Patient safety

Country	Existence of national patient safety programme	National patient safety programmes	Organizations responsible for patient safety
Australia	+	Australian Safety and Quality Framework for Health Care	Australian Commission on Safety and Quality in Health Care
Bangladesh	+	Blood safety programme Injection safety programme Infection prevention and control programme	Quality Assurance Cell of the DFHS
Brunei Darussalam			

Country	Existence of national patient safety programme	National patient safety programmes	Organizations responsible for patient safety
Cambodia	+	Infection Control and Prevention	Cambodian Medical Council Midwife Council Nurse Council Dentist Council Pharmacist Council Hospital Services Department, Ministry of Health
China			
China, Hong Kong SAR			
China, Macao SAR	+	Save Lives: Clean Your Hands	Hospital Conde S. Januário
Democratic People's Republic of Korea	+	Patient safety programme is integrated into health service for quality of care and implemented	Committee for supervision of health service for quality of care under Ministry of Public Health
India	+	Quality Accreditation	All organisations
Indonesia			KARS
Japan			
Lao People's Democratic Republic			
Malaysia	+	Medication Safety.	Ministry of Health Malaysian Society for Quality in Health Patient Safety council
Maldives			
Mongolia	+	WHO surgical safety checklist	The State Specialist Inspection Agency Professional sub-committees
Myanmar	+	training workshop on patient safety solutions	Department of Health Myanmar Academy of Medical Science
Nepal			
New Zealand	+	national patient safety campaign Open for better care	Accident Compensation Corporation Medsafe Ministry of Health Health & Disability Commissioner Health Quality & Safety Commission
Pakistan	+	Patient Safety Friendly Hospital Initiative	National institutions and ministries of health
Philippines	+	National Center for Health Facility Development	Philippine Hospital Infection Control Society Philippine Association of Central Services and Sterilization Management
Republic of Korea	+	slip down (fall down) prevention hand hygiene to stave off infection 30 days case fatality of major surgeries Use of prophylactic antibiotics for surgery	Korea Institute for Healthcare Accreditation Health Insurance Review and Assessment Service
Singapore	+	National Quality Assurance Framework National Standards of Healthcare	Ministry of Health
Sri Lanka			

Country	Existence of national patient safety programme	National patient safety programmes	Organizations responsible for patient safety
Thailand	+	Safe surgery Infection control	Medical Council of Thailand Thailand Nursing and Midwifery Council National Health Security Office Social Security Office Bureau of Sanatorium and Arts of Healing Ministry of Public Health Healthcare Accreditation Institute
Timor-Leste			
Viet Nam	+	Hand clean, procedure operation	Ministry of Health

An adverse event reporting system is in place in 11 countries (see Table 20). The table also shows that 18 countries have systems to address medical malpractice.

Table 20. Adverse event reporting or medical malpractice addressing system

Country	Existence of adverse event reporting system	Adverse event reporting system	Existence of medical malpractice addressing system	Organization/law for medical malpractice addressing system
Australia	+	Serious Transfusion Incidents Reporting System Therapeutic Goods Administration (TGA) receives drug adverse event reports Productivity Commission Report on Government Services	+	Australian Health Practitioner Regulation Agency and National Boards State-based health complaints commissions
Bangladesh		Therapeutic Goods Administration (TGA) receives drug adverse event reports	+	Bangladesh Medical & Dental Council Bangladesh Nursing council
Brunei Darussalam		Productivity Commission Report on Government Services	+	BMB
Cambodia			+	Cambodian Medical Council
China				
China, Hong Kong SAR			+	Department of Health Hospital Authority
China, Macao SAR	+	National procedure and system for reporting the adverse events of drugs		
Democratic People's Republic of Korea	+	review committee meeting of malpractice and make due judgement	+	National medicolegal examination centre National pharmaceutical inspection centre Ministry of Public Health
India			+	Medical Council of India
Indonesia				
Japan			+	National Database of Medical Adverse Events
Republic of Korea	+	Korea Adverse Event Reporting System Korean Hemovigilance System	+	Medical Dispute Mediation Act

Country	Existence of adverse event reporting system	Adverse event reporting system	Existence of medical malpractice addressing system	Organization/law for medical malpractice addressing system
Lao People's Democratic Republic			+	
Malaysia	+	A Medication Error Reporting System	+	Malaysia Medical Council
Maldives			+	Respective professional board and councils
Federated States of Micronesia				
Mongolia			+	State Special Inspection Agency professional sub-committees
Myanmar	+	Unusual events which may include adverse events and errors	+	Myanmar Medical Council Dental or oral medical council Nursing and Midwifery council
Nepal	+	Adverse Events Following Immunization		Nepal Medical Council Act
New Zealand	+	National reportable events policy	+	Health Practitioners Disciplinary Tribunal
Pakistan				
Philippines	+	The sentinel events occurred	+	Professional Regulation Commission Medical Act of 1959
Singapore	+	Serious Reportable Events reporting	+	Singapore Medical Council and other professional regulatory boards and councils
Sri Lanka				
Thailand			+	The Medical Council of Thailand
Timor-Leste				
Viet Nam	+	The reporting system at hospital and national level		

1.13 Infection control policies

Infection control policies that include hand hygiene initiatives, sterilization of equipment, guidelines and appropriate use of antibiotics help to reduce the risk of infections and promote patient safety. Some countries use quality indicators relating to health care-associated infection (HAI) to measure the performance of health services, and enable hospitals to be benchmarked against their peers.

Nineteen countries have quality indicators and performance measures on infection control policies. Among these countries, nine report having nationally standardized quality indicators on HAIs. Most countries have health-care policies or programmes to prevent the spread of infection, as described in Table 21.

Table 21. Infection control policies

Country	Existence of quality indicators and performance measures relating to infection control	Policies to prevent spread of infections	Existence of policies to prevent spread of infection	Policies to prevent spread of infections
Australia	+	Healthcare associated Staphylococcus aureus (including MRSA) bacteraemia Healthcare associated Clostridium difficile infections	+	National Antimicrobial Stewardship Initiative Building Clinical Capacity initiative National Surveillance Initiative NSQHS Standard 3 National Infection Control Guidelines National Hand Hygiene Initiative
Bangladesh	+	Infection control guideline	+	Hand washing / Sterilisation of equipment, gauge and linen
Brunei Darussalam	+	Departmental Level	+	national guidelines (antibiotic)
Cambodia			+	The Infection Prevention and Control Guidelines for Health Care Facilities
China	+	Infection rate of aseptic operations		
China, Hong Kong SAR	+	MRSA, Surgical Site Infections	+	A Hospital/Cluster Infection Control Committee endorses infection control policies, procedures, and guidance
China, Macao SAR	+	Hand hygiene compliance rate	+	infection control guidelines
Democratic People's Republic of Korea	+	quality indicators related to hospital infections or other infections have been established	+	All treatment and prevention units have non-permanent infection control committees and infection control nurses, and infection control
India	+	Hospital Infection control program	+	Hospital Infection Control program
Indonesia				
Japan	+	Nosocomial Infection Surveillance	+	Japan Nosocomial Infection Surveillance was established to collect infection related data from voluntarily participating hospitals
Republic of Korea	+	ICU and surgical site infection investigation	+	guidelines on hospital infection management
Lao People's Democratic Republic				
Malaysia	+	MRSA, ESBL(E.coli and Klebsiella pneumonia)	+	Antibiotic Stewardship programme
Maldives			+	National Infection Control guideline Waste management and sterilization guidelines
Mongolia	+	Guideline to strengthen infection controlling system	+	Infection and control system
Myanmar	+	Average duration of stay (in days), fatality rate per 1,000 discharges and deaths	+	operating theatre committee, infection control committee, waste management committee, blood bank committee, laboratory management committee are mandatory
Nepal			+	Nosocomial infection rate
New Zealand	+	Staph aureus Bacteremia and Central Line Associated Bacteremia and peri-operative septicaemia	+	Open for Better Care Campaign
Pakistan			+	National Infection Control Guideline

Country	Existence of quality indicators and performance measures relating to infection control	Policies to prevent spread of infections	Existence of policies to prevent spread of infection	Policies to prevent spread of infections
Philippines	+	Guideline for sterilization in the hospital setting	+	Infection Control Committee standards
Singapore	+	Hand Hygiene Compliance Rates Device-associated Infections Surgical Site Infection MRSA Bacteraemia Clostridium Difficile Associated Disease (CDAD) incidence	+	National Guidelines for Control and Prevention of Multi-Drug Resistant Organisms in Healthcare Facilities National Environmental Cleaning Guidelines for Healthcare Settings
Sri Lanka	+	infection control policies	+	Every secondary and tertiary care hospital should have an infection control unit and a Nurse
Thailand	+	VAP per 1000 ventilator days UTI per 1000 catheterization days	+	National Infection Control Committee
Viet Nam	+	infection rate at hospital and national level	+	Hospitals have infection control department and report annually

Part 2: Information infrastructure questions for measuring quality of care

2.1 Data set at national level

A critical first step to improve quality is the ability to measure it. This requires robust data infrastructure. Nationally consistent data can help monitor health system performance, identify system failings, inform policy-making and assist in decision-making on health resource allocation. Ideally, data infrastructure should enable a patient to be monitored over time, to follow their journey through the health system and examine their outcomes. Twenty-three countries filled in Part 2 of the questionnaire. Twenty-two countries report the availability of national hospital inpatient data, while 18 countries have national primary care data. Almost all countries (21) have national mortality data, population health survey data and population census registry data, and 16 countries have mental health data. As Table 22 shows, fewer countries have national data around cancer registries, prescription medicines, long-term care and patient experience.

2.2 Custodian at national level

Almost all the countries have a custodian responsible for management of hospital inpatient data, mortality data, population health survey data and population census or registry data. Fewer countries have a data custodian for primary care, cancer registry, prescription medicines, long-term care, psychiatric inpatient care and patient experience. In most countries, the Ministry of Health is responsible for managing the data.

2.3 Estimated proportion of service/ population coverage

Table 22 shows the number of countries providing information on the target population or health services covered by the data. Thirteen countries have provided information on this for hospital inpatient data, while the numbers are smaller for other areas. In cases where the proportion covered is less than 100%, 16 countries provide a reason or examples of criteria for exclusion for mortality data, and 15 for hospital inpatient data. The numbers are smaller for the other areas.

Table 22. National data

Indicator	Hospital inpatient data	Primary care data	Cancer registry data	Pre-scription medi-cines data	Mortality data	Formal long-term care data	Mental hospital in-patient data	Patient experi-ence data	Population health survey data	Popula-tion census or registry data
National data availability	22	18	14	10	21	7	16	9	21	21
Existence of data custodian	21	18	14	9	21	7	15	10	20	20
Estimated proportion of population or health service	13	9	6	5	10	4	6	8	12	7
Excluded population groups or health services	15	13	8	6	16	5	10	3	13	13

2.4 Sources of data used to create the dataset

Table 23 shows that paper medical records are the most common source of data used by countries. Eighteen countries produce hospital inpatient datasets based on paper records, while 17 countries do this for mortality data and 14 for primary care patient data. The second most common source of data is automatic extraction from medical records, with seven countries doing this for hospital inpatient data. Some countries use paper insurance claims records to produce datasets, with six countries doing this for hospital inpatient data. Six countries use electronic insurance claim records for hospital inpatient data.

Table 23. Type of data available

Indicator	Hospital in-patient data	Primary care data	Cancer registry data	Prescription medicines data	Mortality data	Formal long-term care data
Data entry from paper medical records	18	14	13	9	17	5
Automatic extraction from electronic medical records	7	4	6	4	7	2
Data entry from paper insurance claim records	6	3	1	3	1	3
Data from electronic insurance claim records	6	3	2	4	1	3
Survey questionnaire	5	7	2	1	6	2

2.5 Standards or guidelines for collecting the data

Data standards or guidelines can help ensure that data is collected consistently across health services, so that the data are comparable. Twenty-one countries report that they have standards or guidelines for hospital inpatient data collection, as shown in Table 24. Twenty countries have them for the collection of mortality data, and 17 countries have them for primary care data.

Table 24. Standards or guidelines for data collection

Country	Hospital in-patient data	Primary care data	Cancer registry data	Prescription medicines data	Mortality data	Formal long-term care data
Total	21	17	12	9	20	6
Australia	+	+	+	+	+	+
Bangladesh	+	+	+		+	
Bhutan	+	+	+	+	+	+
Brunei Darussalam	+	+	+		+	
Cambodia	+	+	+	+	+	+
China	+				+	
China, Hong Kong SAR					+	
Indonesia	+					
Japan	+	+		+	+	+
Lao People's Democratic Republic	+	+	+		+	
Malaysia	+	+	+	+	+	
Maldives	+	+			+	
Mongolia						
Myanmar	+	+			+	

Country	Hospital in-patient data	Primary care data	Cancer registry data	Prescription medicines data	Mortality data	Formal long-term care data
Nepal	+	+				
Pakistan	+	+			+	
Philippines	+				+	
Republic of Korea	+	+	+	+	+	+
Singapore	+	+	+		+	+
Sri Lanka	+		+		+	
Thailand	+	+	+	+	+	
Timor-Leste	+	+		+	+	
Viet Nam	+	+	+	+	+	

2.6 Adherence to a global health data standard

Seventeen countries report following a global health standard while collecting hospital inpatient data, as shown in Table 25. Sixteen countries adhere to a global health standard in collecting mortality data, and 11 in collecting primary care data.

Table 25. Global health data standard

Country	Hospital in-patient data	Primary care data	Cancer registry data	Prescription medicines data	Mortality data	Formal long-term care data
Total	17	11	10	5	16	4
Australia	+		+	+	+	+
Bangladesh	+	+	+		+	
Bhutan	+	+	+	+	+	+
Brunei Darussalam	+	+	+		+	
Cambodia						
China	+				+	
China, Hong Kong SAR					+	
Indonesia						
Japan	+	+			+	
Lao People's Democratic Republic						
Malaysia	+	+	+		+	
Maldives	+				+	
Mongolia						
Myanmar	+				+	
Nepal	+	+				
Pakistan						
Philippines	+	+				
Republic of Korea	+	+	+	+	+	+
Singapore	+	+	+		+	+
Sri Lanka	+		+		+	
Thailand	+	+	+	+	+	
Timor-Leste	+	+			+	
Viet Nam	+		+	+	+	

2.7 Records for patients

Table 26 shows the countries that report data collection at the individual patient level, by tool for data collection and type of care. Individual level data are available in mortality datasets in 17 countries, hospital inpatient datasets in 15 countries, and in primary care datasets in 12 countries. Patient experiences survey data are available at the individual level in only five countries.

Table 26. Data containing records for patients

Indicator	Hospital inpatient data	Primary care data	Cancer registry data	Pre-scription medi-cines data	Mortality data	Formal long-term care data	Mental hospital in-patient data	Patient experi-ence data	Population health survey data	Popula-tion census or registry data
Total	15	12	10	7	17	6	12	5	14	12
Australia	+	+	+	+	+	+		+	+	+
Bangladesh	+	+	+		+					
Bhutan	+	+	+	+	+	+	+	+	+	
Brunei Darussalam	+	+	+		+					
Cambodia										
China	+				+		+	+	+	+
China, Hong Kong SAR					+				+	+
Indonesia	+	+		+	+	+	+		+	+
Japan	+	+		+	+	+	+	+	+	
Lao People's Democratic Republic										
Malaysia	+		+		+		+		+	+
Maldives					+				+	+
Mongolia	+	+	+		+		+			
Myanmar	+				+		+		+	
Nepal									+	+
Pakistan										
Philippines										
Republic of Korea	+	+	+	+	+	+	+	+	+	+
Singapore	+	+	+		+	+	+		+	+
Sri Lanka							+			
Thailand	+	+	+		+		+		+	+
Timor-Leste	+	+		+	+				+	+
Viet Nam	+	+	+	+	+		+			+

2.8 Unique patient identification number

A unique patient identification number can be used to electronically link and retrieve an individual's health records across multiple databases. It can be an important contributor to quality of health care, and improve a patient's care coordination across health services. As Table 27 shows, 15 countries have a unique patient identification number in hospital inpatient datasets and in mortality datasets. Twelve countries have such a number in primary care, and 11 countries have such a number in psychiatric hospital inpatient care. Only four have such a number for patient experience datasets.

Table 27. Data containing unique patient identification number

Indicator	Hospital inpatient data	Primary care data	Cancer registry data	Pre-scription medi-cines data	Mortality data	Formal long-term care data	Mental hospital in-patient data	Patient experi-ence data	Population health survey data	Popula-tion census or registry data
Total	15	12	10	6	16	4	11	4	10	9
Australia	+	+		+	+		+			
Bangladesh	+	+	+		+					
Bhutan	+	+	+	+	+	+	+	+	+	
Brunei Darussalam	+	+	+		+					
Cambodia										
China	+				+		+	+	+	+
China, Hong Kong SAR					+				+	+
Indonesia										
Japan	+	+		+	+	+	+	+	+	
Lao People's Democratic Republic										
Malaysia	+		+		+		+		+	+
Maldives					+				+	+
Mongolia	+	+	+		+		+			
Myanmar	+						+			
Nepal										
Pakistan										
Philippines	+									
Republic of Korea	+	+	+	+	+	+	+	+	+	+
Singapore	+	+	+		+	+	+		+	+
Sri Lanka										
Thailand	+	+	+		+		+		+	+
Timor-Leste	+	+		+	+					
Viet Nam	+	+	+	+	+					+

2.9 Unique patient identifier generated or used exclusively by the facility

In nine countries, a patient unique identifier is generated or used exclusively by the facility for hospital inpatient data, and in ten countries for mortality data. Table 28 provides more information on the use of unique patient identifiers by facilities.

Table 28. Unique identifier used by the facility

Indicator	Hospital inpatient data	Primary care data	Cancer registry data	Prescription medicines data	Mortality data	Formal long-term care data	Mental hospital in-patient data	Patient experience data	Population health survey data	Population census or registry data
Total	9	7	6	3	10	4	7	3	5	4
Australia										
Bangladesh	+	+	+		+					
Bhutan	+	+	+	+	+	+	+	+	+	
Brunei Darussalam	+	+	+		+					
Cambodia										
China	+				+		+	+		
China, Hong Kong SAR					+				+	+
Indonesia										
Japan	+	+		+	+	+	+			
Lao People's Democratic Republic										
Malaysia										
Maldives										
Mongolia										
Myanmar										
Nepal										
Pakistan										
Philippines	+				+		+			
Republic of Korea	+	+	+	+	+	+	+	+	+	+
Singapore	+	+	+		+	+	+		+	+
Sri Lanka										
Thailand	+	+	+		+		+		+	+
Timor-Leste										
Viet Nam										

2.10 ID system to link the data

Seven countries report having a national ID or health service ID system that can link hospital inpatient data across providers. This can be done for mortality data in nine countries, while six countries can do this for primary care data. Table 29 lists the countries that have the possibility of data linkage, by tool for data collection and type of care.

Table 29. Link to another data set

Indicator	Hospital inpatient data	Primary care data	Cancer registry data	Pre-scription medi-cines data	Mortality data	Formal long-term care data	Mental hospital in-patient data	Patient experi-ence data	Population health survey data	Popula-tion census or registry data
Total	7	6	4	3	9	1	6	2	5	5
Australia	+	+		+	+		+			
Bangladesh	+	+	+		+					
Bhutan								+	+	+
Brunei Darussalam										
Cambodia										
China	+				+		+			
China, Hong Kong SAR					+				+	+
Indonesia										
Japan										
Lao People's Democratic Republic										
Malaysia										
Maldives					+				+	+
Mongolia	+	+	+		+		+			
Myanmar							+			
Nepal										
Pakistan										
Philippines										
Republic of Korea	+	+	+	+	+	+	+	+	+	+
Singapore										
Sri Lanka										
Thailand	+	+	+		+		+		+	+
Timor-Leste	+	+		+	+					
Viet Nam										

2.11 Data used to regularly report on health-care quality

Table 30 shows that 13 countries regularly use data for health-care quality reporting in the hospital inpatient setting, while 11 countries use primary care data. Only five countries do this for patient experience surveys.

Table 30. Regularly report on health-care quality

Indicator	Hospital inpatient data	Primary care data	Cancer registry data	Pre-scription medi-cines data	Mortality data	Formal long-term care data	Mental hospital in-patient data	Patient experi-ence data	Population health survey data	Popula-tion census or registry data
Total	13	11	9	7	12	4	7	5	11	7
Australia	+	+	+	+	+	+	+	+		
Bangladesh	+	+	+		+					
Bhutan	+	+	+	+	+	+	+	+	+	+
Brunei Darussalam	+	+	+		+					
Cambodia										
China	+									
China, Hong Kong SAR					+				+	+
Indonesia	+	+		+	+	+	+		+	+
Japan										
Lao People's Democratic Republic										
Malaysia	+	+	+	+	+		+		+	+
Maldives										
Mongolia	+	+	+		+			+	+	
Myanmar	+						+			
Nepal								+	+	
Pakistan										
Philippines										
Republic of Korea	+	+	+	+	+	+	+		+	
Singapore	+	+	+		+				+	
Sri Lanka										
Thailand	+	+	+	+	+		+	+	+	+
Timor-Leste	+	+		+	+				+	+
Viet Nam									+	+

2.12 Indicators used to regularly monitor health-care quality

Eleven countries report use of quality indicators to monitor hospital inpatient care and mortality. Ten countries use quality indicators to monitor population health, and nine to monitor primary care. Table 31 provides more information on the use of indicators to monitor health-care quality.

Table 31. Examples of indicators on health-care quality

Indicator	Hospital inpatient data	Primary care data	Cancer registry data	Prescription medicines data	Mortality data	Formal long-term care data	Mental hospital in-patient data	Patient experience data	Population health survey data	Population census or registry data
Total	11	9	8	6	11	3	6	5	10	5
Australia	+	+	+	+	+	+	+	+	+	
Bangladesh	+	+	+		+					
Bhutan	+	+	+	+	+	+	+	+	+	+
Brunei Darussalam	+	+		+	+					
Cambodia										
China	+									
China, Hong Kong SAR					+				+	+
Indonesia										
Japan										
Lao People's Democratic Republic										
Malaysia	+	+	+	+	+		+		+	+
Maldives										
Mongolia	+	+	+		+			+	+	
Myanmar	+				+		+			
Nepal								+	+	
Pakistan										
Philippines										
Republic of Korea	+	+	+	+	+	+	+		+	
Singapore	+	+	+		+				+	
Sri Lanka										
Thailand	+	+	+	+	+		+	+	+	+
Timor-Leste										
Viet Nam									+	+

2.13 Difficulties in regular monitoring of health-care quality

Many countries encounter difficulties in regularly monitoring health-care quality. As Table 32 shows, 18 countries cite a lack of resources or technical capacity for data collection, analysis and use. Fifteen countries have concerns about data quality, which can limit their usefulness. Meanwhile, nine countries report legal or policy barriers to the collection or analysis of data.

Table 32. Difficulties in regular monitoring of health-care quality

Country	Legal or policy barriers to the collection or analysis of data	Concerns with the quality of the data that limits the usefulness	Lack of resources or technical capacity for data collection, analysis and use	Other challenges
Total	9	15	18	10
Australia				
Bangladesh		+	+	+
Bhutan			+	+
Brunei Darussalam	+		+	
Cambodia		+	+	+
China		+	+	
China, Hong Kong SAR				
Indonesia		+	+	
Japan	+	+	+	
Lao People's Democratic Republic	+	+	+	+
Malaysia	+	+		+
Maldives		+	+	
Mongolia		+	+	+
Myanmar	+	+	+	+
Nepal	+		+	
Pakistan	+	+	+	+
Philippines			+	
Republic of Korea				
Singapore	+		+	
Sri Lanka	+	+	+	+
Thailand		+		
Timor-Leste		+	+	
Viet Nam		+	+	+

2.14 Comparison with the past five years

Five countries – Bhutan, Cambodia, the Lao People's Democratic Republic, Malaysia and Singapore – report that it has become easier to use personal health data to monitor health and health-care quality in the past five years. As shown in Table 33, three countries report it has become harder, while for two – Indonesia and Pakistan – it has become much harder. Viet Nam reports it has become harder / much harder. Notably, no country reports that it has become much easier.

Table 33. Comparison with the past five years

	1 (much easier)	2 (easier)	3 (neither easier nor harder)	4 (harder)	5 (much harder)
Total		5	9	3	2
20 countries		Bhutan	Australia	Bangladesh	Indonesia
		Cambodia	Japan	Sri Lanka	Pakistan
		Lao People's Democratic Republic	Republic of Korea	Timor-Leste	
		Malaysia	Maldives	Viet Nam	
		Singapore	Mongolia		
			Myanmar		
			Nepal		
			Philippines		
			Thailand		

Note: Viet Nam chose 4 (harder) and 5 (much harder)

2.15 Expectation over the next five years

Malaysia, Nepal and Timor-Leste expect it to be very likely that they will be able to use personal health data to regularly monitor health-care quality over the next five years. Notably, no country believes it is unlikely or very unlikely that it will use personal health data to regularly monitor health-care quality in the future. More information on countries' expectations for the next five years is provided in Table 34.

Table 34. Expectation over the next five years

	1 (very likely)	2 (likely)	3 (unsure)	4 (unlikely)	5 (very unlikely)
Total	3	12	5		
21 countries	Malaysia	Bangladesh	Australia		
	Nepal	Bhutan	Republic of Korea		
	Timor-Leste	Cambodia	Lao People's Democratic Republic		
		China	Maldives		
		Indonesia	Philippines		
		Japan			
		Mongolia			
		Myanmar			
		Pakistan			
		Singapore			
		Sri Lanka			
		Thailand			
		Viet Nam			

Note: Viet Nam chose 2 (likely) and 3 (unsure)

Part 3:
Quality improvement initiatives and activities

This section describes initiatives for quality and patient safety improvements. Numerous policy initiatives to systematically evaluate and improve the quality of care of health services have been undertaken. The most common initiatives are hospital accreditation and the development of national quality improvement plans. There are also examples of programmes to develop guidelines, standards and indicators, and national initiatives to measure patient experiences and improve patient safety. Also, WHO patient safety and quality improvement programmes have been adapted, including SAVE LIVES: Clean Your Hands, WHO surgical safety checklist and implementation manual, and WHO Patient Safety Curriculum Guide. Such programmes can facilitate the exchange of good practice between countries.

3.1 SAVE LIVES: Clean Your Hands

The annual SAVE LIVES: Clean Your Hands initiative is part of a global campaign to improve hand hygiene among health workers. This initiative is part of the WHO First Global Patient Safety Challenge: Clean Care is Safer Care, which was launched in October 2005, and is aimed at reducing HAI worldwide. As of April 2012, 127 health ministers have pledged commitment to reducing HAI and to supporting the work of the WHO. Over 40 countries and areas have also started hand hygiene campaigns during this time.

The survey results show that almost all countries have been working on this initiative and / or hand hygiene to some extent. Australia's National Hand Hygiene Initiative is based on the SAVE LIVES: Clean Your Hands campaign. Some countries report significant improvements in hand hygiene compliance. For example, China, Hong Kong SAR, shows a significant increase in the compliance rate at general hospitals from 38.3% in 2007 to 75.5% in 2012. Malaysia reports a gradual increment in hand hygiene compliance from 56.6% in 2008 to 82.2 % in 2012. This was accompanied with a reduction in HAI from 3.57 per 100 patients surveyed in 2007 to 1.51 per 100 patients surveyed in 2012.

Other successful adaptation examples include the regional Clean Care is Safer Care workshop (Thailand, 2007), and the 'Clean Ward' campaign to establish standards and ensure compliance, in the maternity unit at Vila Central Hospital in Vanuatu.

3.2 WHO Surgical Safety Checklist and Manual

Surgical procedures are intended to save lives, however unsafe surgical care can cause substantial harm. The WHO Second Global Patient Safety Challenge: Safe Surgery Saves Lives, initiated in 2007, addresses the safety of surgical care.

The goal of the Safe Surgery Saves Lives Challenge is to improve the safety of surgical care around the world by ensuring adherence to standards of care. Evaluation of WHO's 2007-2008 pilot study of the Surgical Safety Checklist showed improved compliance with standards and decreased complications from surgery in all eight pilot hospitals. These findings have been confirmed by recent studies indicating the use of checklists significantly reduces surgical morbidity and mortality. New versions of the checklist, implementation manual and guidelines were released in September 2009.

Around two-thirds of countries' responding to the survey mentioned implementation of the WHO Surgical Safety Checklist. However, only a limited number of countries have completed national implementation and this is not necessarily mandatory.

Compliance with the checklist is a challenging issue. Thailand mentions that low compliance reflects different work patterns and cultural norms and that checklist training and enforcement is needed to improve compliance. Vanuatu points to frequent changes in leadership and staffing as a cause of poor implementation and adaptation, because new staff are not well-oriented. This can result in overlooking standards, inconsistency to rules, and a tendency to fall short of the requirements.

In China, Hong Kong SAR, use of the surgical checklist has been extended beyond operating theatres. For example, 'Bedside Procedure Surgical Safety' emphasizes the implementation of safety checks for at least two bedside procedures, namely, chest tapping and insertion of drains, and insertion of intravascular catheter with the use of guide wire, aiming to avoid wrong side tapping and retention of guide wire respectively. In Fiji, various checklists have been implemented, including intravenous care bundles-IV checklist, catheter-related care bundles-central venous catheter (CVP) lines/femoral lines checklists, surgical infection control bundles – use of surgical site infection surveillance forms, pre-operative checklists, anaesthetist checklists, and ventilator-related care bundles. The use of these checklists is subject to regular compliance audits.

3.3 WHO Patient Safety Curriculum Guide

The Patient Safety Curriculum Guide: Multi-professional Edition (WHO, 2011) promotes the need for patient safety education. The comprehensive guide assists universities and schools of dentistry, medicine, midwifery, nursing and pharmacy to teach patient safety. The guide also supports training of all health-care workers on priority patient safety concepts and practices.

A few countries, such as Sri Lanka and Vanuatu, have used the guide.

In Sri Lanka, the guide has been included in the Master of Science and Doctor of Medicine curriculums of medical administration (partially). It will be included in undergraduate medical and nursing curriculums. In Vanuatu, the guide was adapted and incorporated into the Vanuatu College of Nursing Education curriculum. The guide has been translated into local languages in Cambodia, China, Japan, the Lao People's Democratic Republic, the Republic of Korea, Mongolia and Viet Nam.

In Thailand, the Healthcare Accreditation Institute (a public organization), in collaboration with universities and health-professional schools, is planning to develop a multi-professional patient safety curriculum for health-care undergraduates in 2014. This newly developed curriculum should align with the WHO guide, and the local health-care delivery context. The aim is that all health professional learning includes patient safety competencies.

3.4 The adaptation and promotion of QA/QI trainings

Quality assurance (QA)/quality improvement (QI) trainings are essential to continuous improvement of quality of care. Around two-thirds of countries have implemented some QA/QI trainings. In Malaysia, QA/QI activities have been an integral part of the National Quality Assurance Programme. The Institute for Health Systems Research (IHSR) has developed QA training modules, which have been used to train international participants from Western Pacific Region countries including Brunei Darussalam, Cambodia, China, the Lao People's Democratic Republic, Mongolia, Papua New Guinea, the Philippines and Viet Nam.

In Cook Islands, hospital and community health service managers participate in QA/QI trainings. In Fiji, facility-based QI committees regularly review implementations and recommendations, and discuss strategies for quality improvement. In Kiribati, the QA/QI programme was implemented in 2009. The programme officers are now working with all health programmes including safe motherhood, reproductive health, integrated management for childhood illness, clinical practices (ICLN) and clinical waste management. The first QA/QI initiative resulted in reduced waiting times to see outpatient doctors.

In Singapore, the five-day Patient Safety Executive Development Programme was jointly conducted by Institute for Healthcare Improvement and a local faculty in 2011. The programme enabled quality improvement leaders to drive effective patient safety and quality improvement programmes in their respective institutions.

Vanuatu reports that, although two senior nurses attended the QA/QI training, implementation of QA/QI activities has not occurred due to the lack of a supportive environment, other competing priorities and a lack of motivation.

3.5 Conceptual framework for the International Classification for Patient Safety

A standardized classification for patient safety concepts will support the sharing of learning across health-care systems. WHO developed a conceptual framework for the International Classification for Patient Safety in 2009. Only a few countries have used the conceptual framework.

In Australia, the International Classification of Patient Safety (ICPS) has been used as the basis for national definitions. In China, Hong Kong SAR, an electronic system, the Advance Incident Reporting System (AIRS), was introduced in 2004 to enable frontline staff to report incidents directly, thereby facilitating prompt management responses to support patients and staff. The AIRS has been enhanced by following the conceptual framework. In the Republic of Korea, the conceptual framework is translated into Korean and is used in some hospitals.

3.6 Other Initiatives and Activities

In Australia, the key national drivers for safety and quality improvement are the National Safety and Quality Health Service (NSQHS) Standards and the Australian Health Service Safety and Quality Accreditation (AHSSQA) Scheme. The NSQHS Standards ensure safety and quality requirements are consistently applied in health care across Australia. Further, the NSHQS standards enable performance comparison across sectors, regions and types of services. The NSQHS Standards form part of the AHSSQA Scheme. The AHSSQA Scheme builds on previous accreditation arrangements and provides for the national coordination of accreditation processes.

Other unique initiatives include:
- An electronic discharge summary system to provide patient safety and quality of care during transfers between acute health-care settings and general practitioners;
- Clinical quality registers for high-risk devices to enhance the long-term monitoring of high-risk implantable breast and cardiac devices and improve patient safety;
- A WHO Patients for Patient Safety Workshop (Australia, 2009) has contributed to the identification of patients for patient safety champions.

Cambodia developed tools and conducted hospital and health centre assessments in 2007, and updated them in 2012. In Fiji, clinical audits on adherence to guidelines and policies are conducted quarterly in each divisional and sub-divisional hospital by risk managers and infection officers. This includes emergency trolley audits, patient satisfaction surveys and waste-care audits. In addition, the Clinical Services Network meets regularly to review and develop protocols, standard operating procedures and guidelines. The implementation of strategies is discussed further at the National Clinical Services Planning meeting quarterly.

In 2007 in China, Hong Kong SAR, the Health Authority (HA) implemented the Sentinel Event Policy of mandatory reporting of nine categories of incidents. The HA Head Office compiles annual reports on sentinel events and serious untoward events for submission to the HA Board and public release. A 'Risk Alert' bulletin is issued quarterly and a there is a half-yearly Patient Safety Forum to share lessons learnt from sentinel events and serious untoward events. The HA has joined the 'Global Patient Safety Alerts' platform to facilitate learning and sharing.

Malaysia has conducted corporate culture training, where soft skills are promoted as part of the quality culture. Palau has developed ward routines, which integrates the work of all clinicians and health-care providers including doctors, nurses, ancillary, kitchen, maintenance, janitorial and relevant ministry agencies, to ensure patient safety and optimum standards are maintained.

Singapore joined the global WHO High 5s Project (established in 2006), together with Australia, Canada, France, Germany, the Netherlands, Trinidad and Tobago, and the United States of America. Ministries of health coordinate the project, which aims to implement innovative, standardized operating procedures (SOPs) for three patient safety solutions over a five-year period. Singapore started with the correct site surgery SOP in 2009. Since then, hospitals in Singapore have made significant changes in their surgical safety culture and workflow in operating theatres. In 2012, Singapore's first Public Hospital Quality Agenda Setting Forum (ASF) led to the establishment of Singapore Healthcare Improvement Network (SHINe) to build QI capability, capacity and culture. Based on the priorities identified during the ASF, in 2014 SHINe launched its inaugural Large Scale Initiative to Reduce Harm in Patients.

Sri Lanka has a patient safety poster competition for undergraduates in medicine and nursing schools, to improve awareness. Other initiatives include:
• A working group on health-care quality and safety, established through the Sri Lanka Medical Association, to bring medical administrators, medical consultants, retired consultants, university academics and the private sector under one umbrella. The committee meets once a month.
• A holistic approach to improve quality and safety in hospitals using Japanese management practices such as '5S', with the principles 'Quality Health Care through Productivity' and
'Quality Fails when Systems Fail'.

In Thailand, the Healthcare Accreditation Institute promotes the six patient safety goals, 'SIMPLE': safe surgery, infection control, safe medication, patient-care process, line/tubing/catheter, and emergency response, achievable by following 31 action items.

Concluding remarks

The survey was well received by countries, and we appreciate their participation in this project. Thirty-four countries filled in at least one part of the questionnaire, including all WHO Regional Office for South-East Asia countries. The questionnaire format was adequate, and the process of data collection sound.

The outcome of this study confirms the importance of the WHO-OECD expert network to facilitate communication/dissemination of evidence on quality improvement programmes and policies among countries. The results provide a useful overview of quality strategies and policies, and show increasing commitment to quality of care in the region.

Policy initiatives have been implemented in many countries in the Asia-Pacific region, in recognition of the key role quality plays in strengthening health-care systems towards universal health coverage. Accreditation programmes for hospitals and the development of national quality improvement plans seem to be the most common types of initiatives. There are also examples of programmes to develop guidelines, standards and indicators, as well as national initiatives to measure patient experiences and improve patient safety.

The outcome of the survey paves the way to strengthen the expert network activities, calls for monitoring developments of quality improvement programmes and policies, and fosters the key role of quality improvement in universal health coverage.

Acknowledgement

We would like to thank the Health Insurance Review and Assessment Service of Korea (HIRA) for their work, and all the experts who completed the survey.

World Health
Organization

Western Pacific Region