A robust health system provides the right services, both personal and population-based, in the right places, at the right times to all of those who are in need of those services. Both public health and personal health perspectives are included. Preventive, promotive, curative, rehabilitative and palliative services are also included. Intersectoral action in health and action on the social determinants of health are fostered. For the sake of analysis, the six building blocks are used to describe the characteristics of a health system based on PHC values, always recognizing that health systems are holistic in nature.

A common set of values based on primary health care and the right to health underpin the Western Pacific Regional Strategy for Health Systems Based on the Values of Primary Health Care. Those values are shared by all Member States in the Region. The path to implementation of those values and realization of those rights will take different paths in different Member States. There is potential advantage in grouping countries in similar situations and with similar challenges to help determine priorities for interventions. A grouping of countries according to income status and whether they are from Asia or the Pacific islands is presented in Annex 4. Where it is helpful, guidance in the following sections includes a brief analysis of different interventions based on different groupings. However, detailed decision-making will still need to be done in each Member State to meet its own particular needs.

**Indicators**

Health systems performance assessments are an important part of designing and managing a robust health system based on primary health care values. To assess progress, indicators that can be measured over time are needed. Targets for those indicators are highly desirable. Targets are usually most meaningful when they are set according to the needs and situation of individual Member States. However, there are times when global or regional targets can be agreed and are useful. If there are agreed regional targets, they have been included in the Strategy. Two types of indicators are proposed for this Regional Strategy: (1) a set of global indicators; and (2) a set of national indicators that are tailor-made within each Member State to meet its specific needs.
Global indicators

Global indicators are a relatively small set of indicators that are standardized and collected in a similar way in all Member States. It is recommended that all Member States include them in their health information systems. Global indicators are meant to be useful for managing the health system within a Member State, but they also allow for cross-country and cross-region comparisons. The usefulness of cross-country and cross-region comparisons makes it necessary that the Regional Strategy, to the extent possible, recommends globally agreed indicators.

A multi-agency working group has been developing a toolkit for measuring health systems strengthening. The *Measuring Health Systems Strengthening and Trends* toolkit proposes generic, global indicators for each of the six building blocks, recognizing that this occurs as part of a whole-of-system approach. The toolkit was published in October 2010 and the working group encourages its use. The indicators from the toolkit are presented in Annex 2A. Where regionally agreed indicators and targets have been set in addition to those in the toolkit, e.g. in health care financing, these are presented along with the global toolkit indicators.

The monitoring of health systems performance requires a more comprehensive assessment than only looking at health systems issues. A framework for monitoring and evaluation of health systems is proposed which includes measurements for: (1) inputs and processes in the health system; (2) outputs; (3) outcomes; and (4) impact. The framework has a balance of disease- or programme-specific indicators with general health systems indicators. The framework includes suggested sources of data in each of the four areas. It also includes a proposed core set of indicators under the four areas of interest. The framework and core indicators are presented in Annex 2B. The framework is consistent with the health systems toolkit described in the previous paragraph.

National indicators

Individual Member States will almost certainly identify additional indicators that are relevant for their own setting. A larger, tailor-made set of national indicators that allows progress to be tracked over time is needed as a management tool within each Member State. It is important that the global indicators be included within the national set of indicators to the extent

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possible. Targets, for the most part, will need to be set by each Member State. In some instances, such as for health care financing and the MDGs, both regional and global targets and indicators have been developed and adopted. Adaptation to specific country settings often will be necessary.

### 5.1 Leadership and governance

Leadership and governance of health systems, sometimes called stewardship, is a complex and critical part of the health system and arguably the most important. Even when governments are not the main provider or financer of health services, the governance role remains. The rules of engagement for state, private and non-state actors in the health sector with the people of a country are the responsibility of the

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**Box 5. Healthy Islands**

First drafted by the Ministers of Health of Pacific Island Countries in 1995, the Healthy Islands concept unifies efforts for health promotion and health protection in island countries. It provides a framework within which health issues are analysed, prioritized and implemented in order to achieve a healthy state on the islands, as reflected in the lives of children, adults and the aged. A healthy island is one that is committed to and involved in a process of achieving better health and quality of life for its people, and healthier physical and social environments in the context of sustainable development.

Success of Healthy Islands initiatives is strongly linked to community commitment and buy-in from health-related organizations and institutions at the highest level.

Healthy Island initiatives take various forms. Some countries have focused on the control of specific diseases or health problems, such as malaria control in the Solomon Islands. Others have focused on environmental health and health promotion initiatives (Fiji) or on water supply and sanitation through community development (Tonga). Others still have implemented community-based health promotion projects (Cook Islands, Kiribati, Niue, Samoa and Tuvalu).

The priority is to assist countries to build their human resource base and health system infrastructure. Without a foundation based on effective programme management, efficient logistics and procurement, and robust monitoring and evaluation, it will not be possible to roll back malaria, island by island and region by region, in the Pacific.

Partners will engage with a variety of community-based organizations, women’s groups, churches and other civil society groups to ensure that key components of the expanded malaria programme in each country are implemented in ways which are locally appropriate and acceptable to communities.

government, bearing in mind that access to necessary health care is a basic human right that people of a country hold and governments bear a duty to ensure.\textsuperscript{25}

Privatization, commercialization and marketization of the health sector within an inadequate regulatory framework are risks to the development and sustainability of equitable health systems.\textsuperscript{26} If a strong regulatory framework exists and is enforced, privatization, commercialization and marketization can contribute to increasing universal access to health services. However, market forces alone will not lead to equitable and universal access to health services. The realization of equitable access may occur in stages, but it should remain a constant goal for all health care systems.

Leadership and governance in health extends beyond the health sector. A key part of PHC is the recognition that the determinants of health extend beyond the health sector and there is a need for intersectoral action. “Healthy public policy”, “health in all policies”, “healthy settings”, and “Healthy Islands” are some of the ways this idea is expressed within the Region (see Box 5).

Core governance responsibilities have been identified.\textsuperscript{27} The exact responsibilities and priorities in emphasis will vary between Member States. The core responsibility areas include:

- development of health sector policies, strategies and frameworks that fit within broader national development policies;
- national health plans that are the implementation guide for health policy core responsibility “areas” in many settings;
- capacity for leadership and governance that extends to all levels of the health systems, as appropriate;
- management of health sector through law, regulation, accreditation and standard setting, including state and non-state actors, both profit and non-profit (standards can be national, regional and even international at times);
- accountability and transparency to the public – governance of the health sector is done in cooperation with, but not under the control of, key stakeholders such as professional associations and commercial interests;
- generation and interpretation of intelligence and information, particularly in the area of policy;

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\textsuperscript{26} As used in this Strategy, privatization refers to private, non-state ownership which can be either for-profit or not-for-profit; commercialization refers to enterprise within the health system that is for-profit, and marketization refers to the use of market mechanisms such as contracting and social marketing which can be either for-profit or not-for-profit. Distinctions can be blurred, for example when publicly owned institutions become involved in commercial activity.

\textsuperscript{27} Everybody’s business: strengthening health systems to improve health outcomes. WHO’s framework for action. Op. cit.
• coalitions outside the health sector with a wide variety of stakeholders; and

• implementation of an aid effectiveness agenda in line with the Paris Declaration on Aid Effectiveness, Harmonization and Alignment in those settings where overseas development assistance is an important contributor to the health sector.\(^{28}\) Primary responsibility for implementing aid effectiveness lies with national governments, but it requires wide-scale cooperation by all stakeholders.

In many settings, a national health strategy or national health plan will be the point where the core values of the health system of the country are expressed. Targets to be achieved for health outcomes and the health system within a specified time frame are often part of national health strategies and plans. For the most part, national health strategies and plans are embedded within the overall national development planning process of a country, if such a process exists.

National health policies, strategies and plans have taken on increased importance in recent years. The drivers of this trend are many, including an increasing recognition that robust policy, strategy and planning processes are needed so that activity within national health systems is country-led. It is also increasingly important that with the wide variety of health stakeholders, there be a unifying vision for the health system.

Some Member States have opted for decentralization as an organizing principle. Decentralization is primarily a political decision to which the health sector must adapt. Decentralization presents both opportunities and challenges for health systems governance. Linking national strategy and policy with local planning and implementation is sometimes difficult. Local authorities are sometimes not sensitive to the need for rapid reporting and control of infectious disease. Defining the respective roles and authorities of the various actors, including government at different levels, is required. Building the capacity for individuals and systems to carry out those roles is often necessary. Assuring that both capacity and resources to fulfil mandates exist is a key responsibility of leaders. Decentralization offers the opportunity to increase responsiveness and efficiency as management decisions are made closer to actual implementation sites, but it requires that managers in decentralized units are empowered to fulfil their responsibilities, and that they are accountable to the people they are meant to serve.

### 5.2 Health care financing

Health care financing systems must deal with the collection of sufficient funds to ensure adequate financing, pooling of funds to share risk, and purchasing of services to encourage efficiency and effectiveness. Good health financing systems raise adequate funds in ways that ensure people can use needed services and are protected from financial catastrophe or impoverishment associated with having to pay for those services.\(^{29}\) The sources of funds may be from general taxation, social insurance,
earmarked taxes and even external aid, as long as the principles of prepayment and risk-pooling are honored.

User fees in both the public and private sectors in Asia have led to a high rate of impoverishment due to health care expenditures. Fees at the point of service act as a deterrent to seeking necessary health care and have encouraged irrational health care provision through supplier-induced demand. In addition to the problematic methods of financing, in many Member States, there is inadequate total health expenditure and inadequate government expenditure on health.

The *Health Financing Strategy for the Asia Pacific Region (2010–2015)* analyses the health care financing situation. Eight strategic areas have been identified. These are:

- increasing investment and public spending on health;
- improving aid effectiveness in health for those Member States where international assistance is a significant part of health care financing;
- improving the efficiency of the health care system through rationalizing health expenditures to achieve better value for money and particularly addressing inequity, inefficiency and low quality;
- increasing the use of prepayment and risk-pooling;
- improving provider payment methods so there are incentives to contain costs, modify consumer demand, and provide incentives for rational use, e.g. capitation payment, performance-based pay, incentives for use of certain services;
- strengthening safety-net mechanisms for the poor and vulnerable—public financing aimed at the poor and vulnerable is frequently captured by the less poor unless special care is taken to target the most vulnerable;
- improving evidence and information for policy-making with an emphasis on measuring equitable financing and access;
- improving monitoring and evaluation of policy changes.

While the eight strategic areas are applicable in most Member States in the Region, several are of more relevance to specific groupings of countries. Increasing investment and public spending in health is crucial for low- and middle-income Asian countries. Greater use of prepayment and risk-pooling is also important for these countries as out-of-pocket expenditure tends to dominate. In the Pacific island countries and high-income countries, governments tend to allocate a reasonable amount of funds to health, and the focus might be more on better use of existing resources. The focus on aid effectiveness is really relevant only for those Pacific island countries and low-income Asian countries receiving substantial aid.

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5.3 Health workforce

Health workers are all people engaged in actions whose primary intent is to protect and improve health. The health workforce is often the largest expenditure within a health system and one of the most important variables in health systems performance. Preparing the workforce, enhancing the performance of the workforce, and managing migration, both internal and external, as well as attrition within the workforce are tasks that all health systems must accomplish. These tasks usually involve multiple other sectors, such as education, both the public and private sectors, the civil service authorities, and immigration authorities to name just a few.

Each Member State would benefit from having a comprehensive strategy and plan for preparing and managing the health workforce in its totality, recognizing that not all factors are in the control of the health sector. The strategy should focus on having a workforce suited to the service delivery model and service delivery packages of that country. The workforce model must be feasible and affordable. Feasible in the sense that the numbers and types of workers planned can actually be produced and affordable in that they can be paid within the fiscal space available to the health system. Both the public and private health workforce must be considered. A long-term view of the values and direction of the health system is necessary. Changes in health workforce numbers and skill mix take years, even decades, to implement. Major changes in types of cadres or their proportions are resource intensive and often disruptive in the short term. Minimizing the number of major workforce changes is desirable, although the system should not be overly rigid so that innovation is stifled.

A Regional Strategy on Human Resources for Health (2006–2015) provides guidance within the Region. A regional framework for action in human resources for health is being developed to update and guide implementation from 2011 to 2015.

5.3.1 Preparing the workforce

A health system oriented towards primary health care requires the correct number, mix and quality of health care workers deployed to the appropriate locations. Those workers must be able and willing to provide comprehensive and continuous services where the need is greatest. There are several guiding principles for preparing a workforce.

- Health care workers from underserved populations, such as ethnic minorities and rural and remote areas, are frequently underrepresented within the health professions. Women, particularly in some cadres, are also often underrepresented.
Training programmes often need to be designed to attract students from underserved populations and to correct imbalances.

- A varied set of skills is needed and an appropriate skill mix needs to be defined for each country to fulfil its service delivery obligations in both the curative and public health arenas. This distribution of health workers within a country to areas of higher need or relative shortage is often as important as the absolute numbers of health workers.

- Teamwork is crucial in a PHC-oriented health system. Thus, training programmes need to foster the ability to work as a member of a team.

- Training is more appropriate when it is carried out, at least in part, in a setting that is similar to where the student will eventually work. Meaningful primary-level experience for all trainees, even those who become sub-specialists, can be beneficial in developing a holistic team approach to health services.

- Quality standards for training institutions through methods such as accreditation can make a major contribution to having a skilled health workforce.

- The number of health workers trained in each cadre and the number of health workers that can be employed need to be in balance. It is clearly harmful to have shortages of health workers. It is also potentially harmful to train more health workers than the system can absorb as it is likely to lower the quality of training, frustrate families and graduates, and may lead to health care cost inflation through supplier-induced demand.

- The ratio of generalist physicians to specialist physicians is an important variable in the ability of systems to deliver PHC-oriented services. An excess of specialization increases the risk of fragmentation and discontinuity of services, tends to favour urban over rural services, and contributes to cost inflation. For reasons of status, economic incentives and unclear career paths, many countries have trained an insufficient number of generalist physicians, such as family medicine specialists.

- The ratio of physicians to nursing personnel is an important variable in the ability to deliver PHC-oriented services. Large parts of the Region have an inadequate number of nurses as compared to doctors. This limits the ability to deliver continuous and comprehensive services as a team, tends to favour urban areas over rural areas, and also contributes to cost inflation. The status of nursing in relation to medicine needs to be improved in many settings and the shifting of tasks to well-prepared nurses, nurse practitioners, and other mid-level practitioners is a strategy that can be more fully developed to provide more universal coverage at an affordable cost.
Volunteer health workers can be a useful part of a health system. This may be even more important in the future with ageing populations and an increased need for community services. However, volunteer health workers must have a clear role in the service delivery model and their training, supervision and remuneration, either direct or indirect, must be well planned and managed.

Informal caregivers, who are often family members and women, play an important part in providing services within all health systems. Their role should be acknowledged. The formal sectors should be willing to work with them and even facilitate their activities as appropriate for the national setting.

### 5.3.2 Enhancing the performance of the workforce

Maintaining a high-performing workforce is a complex and continuous process. Single interventions, be it training or incentives, will not be successful by themselves. Job-specific interventions, basic support systems and an enabling work environment have been identified as important determinants of health worker performance.34

Several key elements for the enhancement of workforce performance have been identified.

- Job-specific interventions include clear job descriptions, norms and codes of conduct, matching skills to tasks and supportive supervision.

- Support systems include appropriate remuneration that rewards performance in primary health care. In parts of the Region, health worker pay is too low. Support systems also include ensuring that information and communication to workers, particularly those in underserved areas, is adequate. Information technology is making this more feasible in more places. Infrastructure and supplies that allow the service delivery model to function are essential. Primary care services must receive a fair share of the budget.

- New interventions should not be introduced without considering the capacity of the workforce to absorb those interventions. This is particularly important in countries where overseas development assistance is prominent.

- An enabling work environment can motivate health workers as much as pay. Such an environment includes lifelong learning or continuous education, effective team work, and providing those who are held to be accountable in systems with enough authority and resources so they can actually do their jobs.

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5.3.3 Managing migration and attrition within the workforce

The number of health care workers will continuously ebb and flow with workers leaving the service, either temporarily or permanently. The attrition can be natural, from retirement and ageing, or premature, from people changing professions or migrating. The migration can be external but also internal, often from underserved areas, such as rural regions or urban slums, to better served more affluent urban areas. Migration strategies for both source and receiving countries and regions are needed.

Several key elements for managing migration and attrition have been identified.

- Countries and regions experiencing net outflows of health workers must adjust their training to the need and demands of migration and attrition. Improving local conditions may help stem excessive outflow. Countries experiencing net inflows must treat migrant health workers fairly, adopt responsible recruitment policies, and potentially provide support to human resource development in source countries. An International Code of Practice on International Recruitment of Health Personnel has been adopted as a guide for Member States.35

- Health workers must be protected from occupational violence and occupational-related disease.

- Flexibility in working hours and adapting to the needs of part-time workers can allow more workers to stay in the health care system. Certain benefits which accommodate family needs, such as day care, can allow more workers to stay in the system.

- Retirement rates and health workforce ageing must be monitored so that adaptation in training and retention can be done.

- Anticipated migration must be part of the planning process for numbers of trainees.

- Health worker remuneration reform usually must be done in the context of overall civil service reforms.

Low-income countries typically need to focus on issues of health worker shortages (a goal of 2.3 nurses/midwives/doctors per 1000 population is a bare minimum target), limited investment in the health workforce and the lack of regulatory oversight. Middle-income countries are seeing a rapid increase in the number of health training institutions, imbalances in distribution and skill mix, uncontrolled growth of the for-profit private sector, and the pushing of skilled workers from rural to urban settings and jobs overseas. High-income countries have a bias towards specialization, an

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35 World Health Assembly resolution WHA63.3, agenda item 11.5. Available at http://apps.who.int/gb/e/wha63.html
increase in for-profit private sector growth and the pulling of skilled health workers from lower-income countries. The Pacific island countries have issues of skill mix, distribution, remuneration, reliance on overseas training, budgets with little fiscal space to accommodate health worker demands for higher pay and a small workforce that is quite vulnerable to disruption by the loss of even a small number of health workers.

5.4 Medical products and technologies

A robust health system oriented towards primary health care strives to ensure equitable access to essential medical products and technologies that are quality assured, safe, efficacious and cost-effective. It promotes the use of these essential medical products and technologies in a scientifically sound and cost-effective manner.36

Strategies and policies to inform and guide decision-making about medical products and technologies at the national level are desirable. Ad hoc introduction of medical products and technology runs the risk of being neither safe nor cost-effective. Decision-making on the introduction of medical products and technology should be guided by assessments of efficacy and cost-effectiveness.

5.4.1 Medical Products

The Regional Strategy for Improving Access to Essential Medicines in the Western Pacific Region (2005–2010) includes strategies and actions in eight areas. These are intimately involved with service delivery models, human resources, health care financing, and leadership and governance. The eight areas are:

- rational selection of medicines to meet the needs of the population often based on the WHO Model List of Essential Medicines;
- rational use of medicines;
- affordable pricing of medicines;
- ensuring access to medicines in light of globalization and TRIPS (trade-related intellectual property rights) for certain countries in a manner that promotes access while promoting innovation;
- sustainable financing of medicines in ways that promote rational use and affordability;
- coherent supply and management systems for drugs;

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• quality assurance of medicines, including counterfeits and substandard drugs; and
• monitoring and evaluation of access to essential medicines.  

A regional framework for action on access to essential medicines for 2010–2015 is in the process of development. It will update the actions from the Strategy.

### 5.4.2 Essential Health Technology

Health technologies are developed to solve a health problem and improve the quality of life. Health technology includes diagnostics and laboratories, diagnostic imaging, medical devices, blood transfusion and transplantation, and, increasingly, eHealth. Health technology, properly implemented and used, is a major contributor to improved health outcomes. Improper use of health technology can be a contributor to poor health outcomes and a driver of unnecessary cost inflation. Health technology is intimately involved with the service delivery package, the service delivery model, human resources, and health care financing.

The Asia Pacific Strategy for Strengthening Health Laboratory Services (2010–2015) calls on each Member State to develop a national plan for laboratory services. There are seven strategic elements in this Strategy, namely:

• establish a coherent national framework for laboratory services;
• finance health laboratory services in a sustainable manner;
• build capacity for laboratory services;
• ensure the quality of health laboratory services;
• promote the rational use of laboratory services;
• improve laboratory safety; and
• support research and ethics in laboratory settings.  

In addition to the Regional Laboratory Strategy, regional and global normative guidelines are currently available for organ transplantation and blood safety. Other aspects of health technology are discussed under service delivery in Section 5.6.

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Some of the problems that low-income countries are particularly vulnerable to include difficulties from health care financing through the sale of medicines and diagnostics that harms both universal coverage and their rational use. Other issues include inefficient procurement and delivery systems, inadequate regulation, the presence of counterfeit and fake medicines, and unlicensed drug selling. Middle- and high-income countries tend to have the most difficult problems with balancing the need to control costs with introducing new technology. The Pacific island countries have difficulties with competitive pricing, maintaining a skilled cadre of managers, particularly in smaller States, and handling the difficult logistics of supplies.

### 5.5 Information and research

Generating and using information and research in a strategic fashion are critical elements of robust health systems. Good governance at all levels is dependent on information and research. Gathering information should reflect core values such as universality, equity and the broader social determinants of health, as well as the more traditional epidemiologic indicators revolving around morbidity, mortality, resources and health outcomes. Timeliness and quality of information and research also rely on adequate infrastructure, sufficient training and capacity, functioning data flows and reliable processes for data sharing between systems. Information and research must aim to inform policy and management.

#### 5.5.1 Information

The key elements in information systems include:

- Appropriate health information system policy should be created and implemented to govern the ownership, access, sharing, security and use of information and research.

- A national health information strategy and plan should guide how information is generated and used. The Strategy should include the entire health system, both state and non-state. It will outline the methods used to generate information and include both facility and population-based sources of data.

- A coordinating mechanism is needed to support the full range of information databases, systems and research across health. Promotion of open standards in both hardware and software to align and harmonize national health information systems with international norms is important.

- Sufficient resources for training, incentives, supervision and infrastructure of health information systems data quality, analysis and use, plus technical skills to operate and maintain electronic-based systems, should be included in the overall Strategy.
Information will be used and interpreted at the level where it is collected. It will also be passed upwards and aggregated for overall supervision, monitoring and planning, and best practices will be disseminated and promoted.

Parallel and duplicative reporting systems are to be avoided to the degree possible. This requires considerable time and negotiation, particularly in countries where external donors are prominent or there is a tradition of highly fragmented services.

Information will be disaggregated sufficiently to identify and monitor equity in access and health outcomes for potentially underserved populations, e.g. by socioeconomic status, age, sex, sexual preference, ethnicity, geographic location or occupation.

Health system performance should be monitored using an agreed set of objectives with indicators so that comparisons can be made over time between regions and facilities within countries and between countries, where appropriate.

Information technology offers much promise for improving the quality and accessibility of health information, although information technology by itself will not make a dysfunctional information system work. Information technology should be appropriate, applicable and sustainable and should be subjected to cost-effectiveness analyses and health technology assessments.

### 5.5.2 Research

The key elements in research include:

- Research in health and health systems will relate to the burden of disease in the specific setting.

- Research will support the core values of primary health care, such as decreasing inequity, and will connect to managerial and policy-making processes. Even in resource-constrained settings, internal resources should be allocated to research, including health systems research.\(^4\)

- Research will conform to national and international standards on research ethics where appropriate.

- Mechanisms for translating research into practice are needed.

The status, gaps, priorities and ongoing strengthening activities of national health information systems across the Region vary considerably. In most low- and lower-middle-income countries, carefully developed and implemented national health information system strategic plans with clearly defined data collection and use

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arrangements from subnational to more centralized levels will improve the overall structure and reliability of the health information system. A focus on basic health information and statistics capacity development and trained staff retention for data analysis at central and local level needs to be maintained.

Middle- and high-income countries may be positioned for increasing adherence with data standards and advancing interoperability within the national health information system that will improve integration of data collection and allow more comprehensive use of information. Sustainable training programmes, including continuous quality improvement, should be incorporated into more comprehensive health information systems operational plans. Attention might need to be given to the ability to track individual patients over time and across various locations and services within the health system.

For most Pacific island countries with relatively small populations, information and research support should be simplified to support basic needs to make informed decisions. Recommending new approaches or enhancing the existing health information systems should be able to accommodate all minimum essential requirements based on readily available tools and solutions, while still following good planning, design and implementation processes.

5.6 Service delivery

People and their needs are at the centre of robust health care systems. A people-centred service delivery model responds to the medical and epidemiological needs of people, but also to their legitimate expectations for services. What people want and expect from their health care system is important. Service delivery includes both public and curative health and both personal and non-personal services. It incorporates all levels from individuals and households through to tertiary services.

5.6.1 Service delivery model

Each Member State has a responsibility to define, either implicitly or explicitly, its desired service delivery model, i.e. who delivers what services where, for both personal and population-based health services. Service delivery models will vary depending on the setting and prior national experience. However, those societies that have developed a strong primary health care model have tended to generate superior health outcomes at lower or equivalent cost. Primary care is the foundation for a health system based on PHC, but it is not all of PHC. Secondary and tertiary services must also be included, with connections to primary care, in ways that reinforce PHC values.
Primary health care-oriented service delivery provides an initial contact with the system that is easy to understand and easy to access. It also provides an ongoing relationship, comprehensive care, continuity of care and care across the entire life cycle. Successful primary care models tend to depend on multidisciplinary teams and often have multi-skilled practitioners who can offer services across a broad spectrum, including the more social and public health aspects of care. For physicians, family medicine may be an entry point. Alternative models using a combination of other primary specialists, such as paediatricians, obstetricians and physicians/internists, may be considered, but somehow they must relate as a team and provide a unified service. Nurses, nurse practitioners, medical assistants, laboratory and imaging technicians, social workers and others, depending on the setting, will be both members and leaders of primary care teams. In some settings, community health workers, either paid or voluntary, may be a part of this system.

The service delivery model will be based on a nation's needs, history and preferences. An equitable balance between primary care services and secondary/tertiary services must be defined and financially supported. The role that community-based services play varies considerably. If the role is major, they must be planned and supported and connect with the formal health system. The relative balance between state and non-state providers, both private and not-for-profit, is a crucial decision. Public health services and personal services for prevention, promotion, palliation and rehabilitation are part of the service delivery model. The tendency has often been to pay lip service to primary care, but to invest in secondary and tertiary services.

Barriers to access should be analysed, particularly for vulnerable groups. Barriers to access due to gender, ethnicity, socioeconomic status and a range of other issues are most effectively addressed when explicit strategies to overcome them exist.

The primary care team or provider will typically be the first and the continuing contact for most people. The primary care team or provider should connect seamlessly to secondary and tertiary referral care, with two-way communication between levels. Such communication is particularly problematic when the management of primary care and referral services is separated. Mobile and remote populations present a particular challenge to ensuring continuity of care across multiple settings.

A blurring of the separation between primary, secondary and tertiary care occurs when primary services are weak and therefore bypassed and referral institutions become a point of entry into the system. This escalates costs and is inefficient. The gatekeeper concept to promote rational referral is sometimes controversial, but incentives for both providers and patients to follow referral systems, if they are functioning, may be beneficial for the overall efficiency/equity of the system. The balance between patient choice and efficiency/equity will be set in each society.
Traditional and complementary and alternative medicine (TM/CAM) is a major part of care provision in many Member States. There is wide diversity in the nature of TM/CAM practice in the Region. In some areas, it has been built up over centuries of practice. In others, the introduction is more recent. In some settings, the providers or practitioners have formalized training, some in accredited institutions. In other settings, the knowledge is transferred informally through family links or from teacher to student through apprenticeship. In some settings, TM/CAM practitioners are often the first providers to whom patients turn for many problems. TM/CAM is integrated with allopathic or Western medicine to varying degrees. There are potential benefits to free and open communication between practitioners or providers of TM/CAM and allopathy, such as mutual referral. In some settings, it may be appropriate to include TM/CAM practitioners as part of the primary health care team. Issues, such as regulation, accreditation, reimbursement and establishing an evidence base for TM/CAM, are complicated and require careful consideration before integration can be fully achieved.\(^2\) The decisions about the role of TM/CAM in health systems need to be individualized for each national setting consistent with its own values.

### 5.6.2 Service delivery packages

Each nation needs to define the package of services or mix of services that is desirable and feasible to be delivered at each level, including at households and in communities. In a centralized system of government-financed and government-provided services, the defined service delivery package actually becomes the implementation plan. In highly decentralized and/or privatized systems, the service delivery package serves more as a guideline. However, the goal should be to eventually tie the delivery of a quality service package as a standard for licensing, accreditation and reimbursement.

The overall resource envelope must be considered, meaning that difficult decisions will have to be made. Both personal and non-personal services are part of the package. Public health must not be neglected in relation to curative, individual services. The package must be designed to meet the most pressing health needs that are feasible to be tackled. Mechanisms to adjust the package in a timely fashion as scientific and economic realities change are needed. The contents of the package will vary from country to country. Economic analysis is an important tool for defining an equitable service delivery package, although not the only one.

### 5.6.3 Quality and patient safety

Quality and safety are important intermediate outcomes. Low-quality services at best waste resources and at worst cause poorer health outcomes. Unsafe medical care is a

\(^2\) Regional strategy for traditional medicine in the Western Pacific Region. Manila, World Health Organization, 2002. Available at [http://www.wpro.who.int/publications/pub_320June02.htm](http://www.wpro.who.int/publications/pub_320June02.htm)
major source of morbidity and mortality throughout the world.\(^4\) Often the emphasis has been on the quantity or coverage of services and quality is something added to a system after coverage has been achieved. Quality is often perceived as expensive. Both of these ideas are misconceptions. One working definition of quality in a health service is “the degree to which health services for individuals and populations increases the likelihood of desired health outcomes and are consistent with current professional knowledge”.\(^4\) This concept is relevant to all levels of service and all levels of socioeconomic development.

Health systems have an obligation to incorporate quality improvement and patient safety into their institutional arrangements and daily routine. Documentation of quality improvement should be incorporated into the information system. Quality improvement has both a voluntary and a mandatory component. Both approaches should be fostered. Robust quality improvement may eventually be part of the criteria for licensing, accreditation and reimbursement.

### Box 6. No care without quality

While countries often focus on increasing the quantity of health care—e.g. the number of immunizations or consultations or the rates of coverage—health care can be useless, wasteful or even harmful if it is not appropriate for the particular condition and consistent with the best medical knowledge. Thus paying attention to the quality of health care is not a luxury that only high-income countries can afford, but another pillar of the health service system that has a profound impact on the cost-effectiveness and equity of interventions. Indeed, quality of care is a key element of the intangible technical progress that explains so many of the health improvements of the past 50 years. While more resources will support improvements in quality, such improvements are possible even with few resources.

Poor quality care is endemic in many health systems, whether in low-, middle-, or high-income countries. The problem of poor health care quality is not the fault of isolated health professionals or solely attributable to limited resources. Rather, quality problems are systemic and are consequences of gaps in knowledge and inadequate communication, training, supervision and incentives. These problems persist when organizations providing health care are unable to monitor the quality of care and take corrective action.


### 5.6.4 Infrastructure including equipment

Infrastructure development and maintenance are a driving force behind service delivery, quality and cost. Each country will benefit from clear guidelines on what constitutes appropriate, affordable and feasible infrastructure in their health care system. Those guidelines should be applicable to both the public and the private sector. Minimum standards appropriate to economic reality need to be defined.

Maintenance and recurrent costs must be accommodated as part of the infrastructure budget. Resilience to climate change and resilience to emergencies are relatively new criteria for choosing infrastructure. Standards which guide the introduction of new and expensive infrastructure are desirable. The guidelines must be able to adapt to changing scientific reality and not stifle innovation. Environmental friendliness and energy efficiency are of increasing importance globally and also as a method of cost control.

Low-income countries will need to focus on defining a service delivery model and package that is feasible and affordable within the limits of both financial and human resources. The core package may be relatively limited and is likely to emphasize maternal and child health interventions. The core package, even if simple, should be delivered universally and with sufficient quality. Middle- and high-income countries may concentrate on providing service delivery models and packages that meet the increasing demands of the public, maintain a public health focus and control costs. Pacific island countries have a good record on universality and affordable coverage but are struggling to deal with the demographic transition and provide noncommunicable diseases control, something which requires more continuity of care and prevention than their current model delivers.