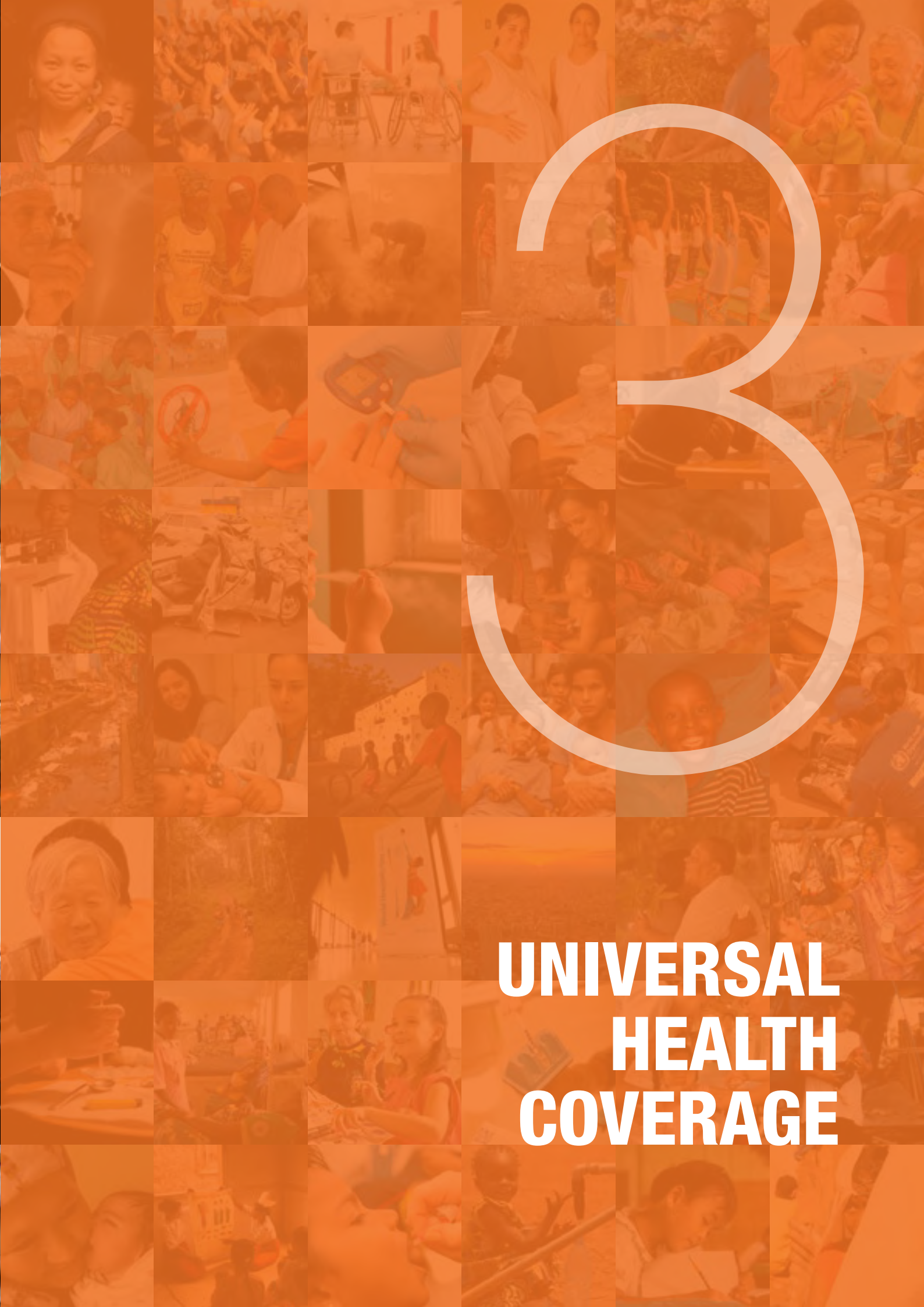


3

UNIVERSAL HEALTH COVERAGE

SUMMARY

Universal health coverage (UHC) is defined as ensuring that all people can use the promotive, preventive, curative, rehabilitative and palliative health services they need, of sufficient quality to be effective, while also ensuring that the use of these services does not expose the user to financial hardship. UHC is prominent in the SDG declaration and has a specific target under the health goal. It is the only target that underpins, and is key to the achievement of, all the others.

During the MDG era, much progress was made in the coverage of key interventions for maternal and child health and against infectious diseases. Coverage gaps between the rich and the poor for these interventions were reduced in many countries. Per capita government expenditure on health went up by about 40% in real terms between 2000 and 2013, and out-of-pocket spending decreased slightly from 35% to 31% of total health spending.

Country actions supported by global agencies and partnerships and the scaling-up of innovative interventions for diagnosis (e.g. rapid tests for malaria and HIV), prevention (e.g. vaccines) and treatment (e.g. ART and ACTs) have contributed to improved service provision and performance.

Major health system weaknesses remain. Many countries lack sound health financing, leading to high out-of-pocket payments and financial catastrophe or impoverishment for families, and have major inadequacies in health workforce and infrastructure (especially in the rural areas), medical products (poor access, inappropriate use and reports on substandard, spurious, falsified, falsely labelled and counterfeit (SSFFC) medicines entering the supply chain), service quality and information and accountability. Weak health systems also leave major gaps in the national, regional and global defences against outbreaks of infectious diseases, such as Ebola virus disease and influenza epidemics.

While the MDG focus on specific diseases and health issues encouraged a tendency to reinforce programme silos set up to deliver selected interventions, all countries now face a much broader spectrum of health challenges, including the rapid rise of NCDs, the challenges of injuries and health security. Strong health systems are required to sustain and expand the unfinished MDG agenda, make major progress toward UHC and ensure resilience against epidemic diseases and disasters.

The SDG targets include a comprehensive set of health targets that address the unfinished and expanded MDG agenda, as well as major challenges related to NCDs, injuries and environmental issues. The target on UHC underpins all other targets and provides an opportunity to refocus efforts on a more sustainable approach through system-wide reform, based on the principles of efficiency and health service integration and people-centred care. The SDGs also fundamentally call for intersectoral action, acknowledging that attainment of health goals is dependent not only on actions within the health sector, but also on economic, social, cultural and environmental factors. Making progress towards UHC depends to a considerable extent on the broader policy context within which health systems operate and on levels and differentials in socioeconomic development.

UHC is coverage that provides people with the health services they need while protecting them from exposure to financial hardship incurred in obtaining care.[1] In this definition, health services are broadly defined to include health promotion initiatives (such as anti-tobacco policies or emergency preparedness), disease prevention activities (such as vaccination) and the provision of treatment, rehabilitation and palliative care (such as end-of-life care) of sufficient quality to be effective. The MDGs made no reference to UHC, which has gained renewed momentum as an idea and an aspiration following the 2005 World Health Assembly call for countries to plan for the transition to UHC.[2] This was followed by the 2008 World Health Report on primary health care,[3] the pivotal 2010 World Health Report on health financing for UHC,[1] a 2011 World Health Assembly resolution[4] and a 2012 UN General Assembly resolution on UHC.[5] In contrast to the MDGs, the SDGs refer to UHC both directly and indirectly, thus reflecting an emerging consensus regarding the importance of UHC. The preamble (point 26) of the final text of the 2030 agenda for sustainable development states: "To promote physical and mental health and well-being, and to extend life expectancy for all, we must achieve universal health coverage and access to quality health care. No one must be left behind".[6]

SDG Target 3.8 calls upon countries to: "Achieve UHC, including financial risk protection, access to quality essential health-care services and access to safe, effective, quality and affordable essential medicines and vaccines for all." Two additional SDG targets directly relate to health systems strengthening in developing countries; building upon MDG Target 8, SDG Target 3.b is formulated as:

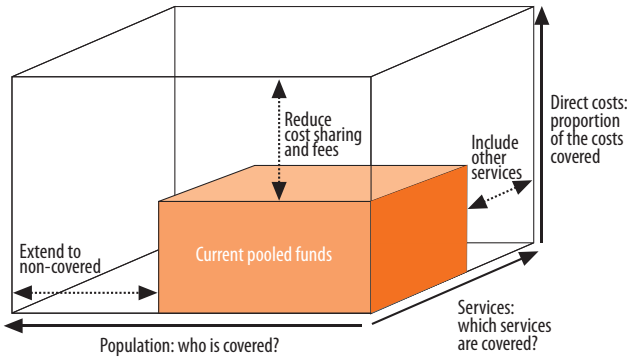
> *Support the research and development of vaccines and medicines for the communicable and noncommunicable diseases that primarily affect developing countries, provide access to affordable essential medicines and vaccines, in accordance with the Doha Declaration on the TRIPS Agreement and Public Health, which affirms the right of developing countries to use to the full the provisions in the Agreement on Trade-Related Aspects of Intellectual Property Rights regarding flexibilities to protect public health, and, in particular, provide access to medicines for all.*

SDG Target 3.c focuses on health financing and the workforce in developing countries:

> *Substantially increase health financing and the recruitment, development, training and retention of the health workforce in developing countries, especially in least-developed countries and small island developing States.*

There are also a number of SDG targets that address non-health sector issues that nevertheless have important implications for health and thus relevance for UHC. For example, coverage targets for safe water and sanitation have a significant bearing on universal coverage of disease prevention, and the same is true of targets relating to road traffic deaths and urban development. Similarly, the labour markets in health (and other social sectors) can stimulate economic growth, productive employment, youth employment and decent work (Goal 8). Specific linkages between health services and a number of other SDGs are also clear, including the health service-poverty linkage (Goal 1); gender equity in service delivery (Goal 5); water and sanitation in health facilities (Goal 6); service delivery in slums (Goal 11); and the use of institutional health partnerships for capacity building (Goal 17). Indeed, the SDGs provide a basis for forging strategic partnerships for action at the country level on health service delivery.

Figure 3.1
Three dimensions of UHC[1]



Because UHC is cross-cutting and linked to the achievement of all health SDG targets, it offers a platform for the integration of health and related targets and, taken together with a Health-in-All-Policies approach, may serve as a powerful focus for reflection and policy development.

UHC comprises two components – health service coverage on the one hand and financial protection coverage on the other – both of which need to be assessed at the level of the whole population. Thus, three dimensions – health services, finance and population – are typically represented in what has come to be known as the "coverage box" (Figure 3.1). Through their health system reforms, all countries struggle to fill the box (i.e. to extend coverage of quality services with financial protection), including high-income countries with long established institutional arrangements for health systems that may, for example, be fighting to maintain their levels of coverage in the face of rising costs. Demographic (e.g. population ageing) and epidemiological (e.g. rising chronic diseases) changes play an important role with technological advances and changes in people's patterns of service utilization. It is for this reason that the UHC endeavour is generally referred to as a journey rather than a destination, a progressive or dynamic process rather than a once-and-for-all solution that can be "achieved".

Lessons learned from the Ebola virus disease outbreak in West Africa are a reminder of the importance of strong health systems with robust primary care services and capable public health surveillance and management functions.[7,8,9] Within this framework, focused efforts in public health information systems, supply chain, workforce, safe services (including infection prevention and control), financing and governance will also be core to sustainable efforts to prevent, detect and respond to emerging health security threats. Resilience is a key attribute and indicator of strong well-performing health systems. It implies that countries and communities are capable of effectively minimizing the consequences of emergencies by reducing the likelihood of the disaster happening (where possible), reducing their vulnerability to the event itself and strengthening their capacity to respond and recover.

TRENDS

Although the MDGs included no explicit goal for UHC, they did address services that are generally identified as priorities in countries with a UHC-oriented reform agenda, including reproductive, maternal, newborn and child health (RMNCH), and the high-burden infectious diseases HIV/AIDS, malaria and tuberculosis (Figure 3.2). In contrast, NCDs – a priority concern in countries with commitments to UHC – were passed over in the MDGs, and have seen much more limited improvement in the past 15 years (NCDs are discussed in detail in Chapter 6).

There is evidence that socioeconomic disparities in coverage of UHC health services have declined slightly in many countries as a result of faster improvements among disadvantaged subgroups. For instance, based on data from 28 low- and middle-income countries during 1995–2013, the median composite coverage index of eight RMNCH indicators in four intervention areas – family planning, maternal and newborn care, immunization, and treatment of sick children – had an increase of 11 and 4 percentage points in the poorest and the richest wealth quintiles, respectively, resulting in the reduction of wealth-related inequality. The same index increased 10 and 5 percentage points in rural and urban areas, respectively, narrowing down place-of-residence inequality (Figure 3.3). Broadly speaking, however, inequity in access to quality health care both within and between countries continues to be a major concern.

Figure 3.2
Global levels and trends of health MDG-related UHC tracer indicators, 2000–2015[10]

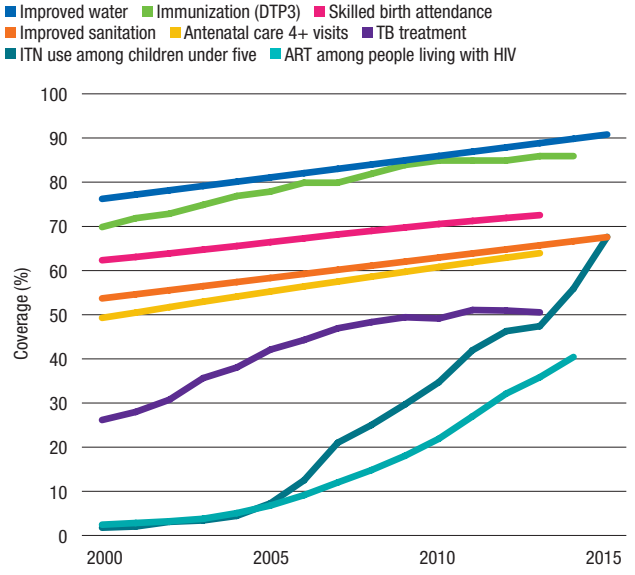
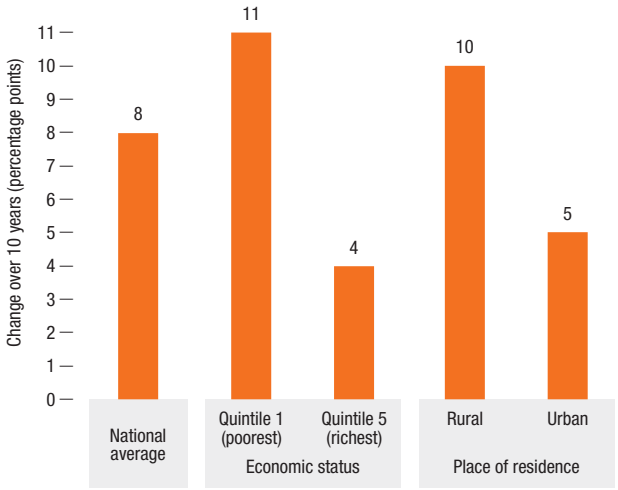


Figure 3.3
RMNCH composite coverage index, change over time in national average and in population subgroups in low- and middle-income countries,[a] 1995–2013[11]

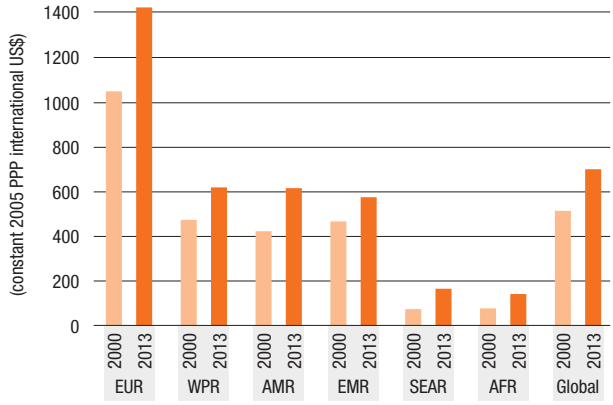


[a] Median value of 28 selected countries.

UHC-related efforts must address not only health service coverage, but also health service quality and financial protection. Key to delivering quality, people-centred integrated health services is the establishment of efficient, decentralized, integrated health systems staffed by well-trained, motivated professionals, offering and ensuring appropriate use of the full range of quality-guaranteed essential medical products (including medicines, blood and medical devices), financed in ways that guarantee predictable adequate funding for the system while at the same time offering financial protection to the users.[1]

In some of these areas a few encouraging trends have emerged in the past 15 years such as the development of hospital accreditation[12,13] and the move away from inpatient-centric health services towards outpatient, decentralized, integrated health systems that deliver health care across the full spectrum of available services that is seamless and easy to navigate.[14] Key to delivering such services is an emphasis on primary health care centres that take greater responsibility for health-care coordination.[15,16] In terms of specific medical interventions, there is evidence of progress in reducing the number of unsafe injections in low- and middle-income countries, achieved largely through

Figure 3.4
Per capita government health expenditure,[a] by WHO region and globally, 2000 and 2013[18]



[a] Values are unweighted averages; PPP: purchasing power parity.

a reduction in the reuse of injection devices. The average number of injections per person per year has declined from 3.4 to 3.0 during 2000–2010, while the proportion of reuse of injection devices dropped from 40% to 6%.[17] In other areas, however, there is little large-scale evidence of improvements of the quality of care and reductions in medical care-associated complications, even from high-income countries.

Health service financing has also improved, not just in terms of the amount of money going into health, but also the way it is raised and spent. Per capita government health expenditure globally increased by about 40% in real terms between 2000 and 2013 (Figure 3.4) with major increases in all regions. This reflects economic growth and, in several countries, the increased priority for health that governments are making in their budget allocations (Figure 3.6). On average across countries, global out-of-pocket health spending is down slightly (from 35% of total health spending in 2000–2004 to 31% in 2010–2013) (Figure 3.5), which suggests an improvement in financial protection, but average levels, particularly in low-income countries (42%) remain high.

On the workforce front there has also been some improvement, but it has been piecemeal. For example, some countries affected by major health worker shortages have reported improvements in the availability of skilled health professionals.[19] This includes improved rural retention of health workers through changes in national policies. The world market for medicines and technologies continues to grow (estimated at almost US$ 11 trillion) but reliable data on the availability and quality of medicines and technologies are generally limited. A survey in 26 low-income and lower-middle-income countries, using the standardized WHO/Health Action International (HAI) methodology,[20] showed that generic medicines were available in 58% and 67% of public and private sector health facilities, respectively, with large variation between countries.[21] The availability of donated blood has improved somewhat with donations increasing 25% since 2004,[22]. On the other hand, promising eHealth initiatives, such as eLearning for health workers or electronic health records, have not yet achieved their full demonstrable and documented impact.[23,24]

There has been a marked improvement in our ability to monitor progress on key health indicators, especially through household health surveys allowing for the collection of data on mortality, fertility and MDG-related intervention indicators. International household survey programmes such as the USAID Demographic and Health Survey (DHS) and the UNICEF Multiple Indicator Cluster Sample Survey (MICS) have been instrumental, reaching well over 100 countries with multiple surveys. In recent years, more countries are conducting surveys that also collect data on NCD-related risk factors.[25] Many surveys now also collect biological and clinical data such as anthropometry, blood pressure or HIV testing. In addition, there were improvements in other types of data such as tracking of health spending through national health accounts.[26]

POSITIVE DEVELOPMENTS

UHC is a multifaceted and complex endeavour and many factors contribute to its successful development. Key lessons learnt include: (i) the centrality of country leadership and political commitment to the concept of UHC; (ii) the important role played by partnerships, including cross-sectoral action and community and civil society mobilization; and (iii) the need for support from development partners in low- and lower-middle income countries. The substantial increases in both domestic and external funding, even if mainly targeted at disease-specific interventions, have stimulated progress. However, sustaining and enhancing progress will be difficult without taking a more holistic approach to health system strengthening.

Country actions: These include high-level political commitment, coordinated national strategies and plans, implementation of innovative approaches and scaling-up of proven interventions.

- Many countries have developed unified national health policies, strategies and plans. For example, national health workforce strategies and plans increasingly address overall quality and performance orientation and are designed to tackle issues related to health workforce recruitment, training, retention and migration. In many cases, strategies to reinforce health worker motivation to promote the delivery of priority health services have been supported by specific incentives introduced through health financing reforms.[27] Several countries have established comprehensive health sector results frameworks that focus on UHC and ensure regular monitoring and inclusive review of progress.[28]

- Over 70 countries have established hospital accreditation schemes to improve quality of care. Some 140 countries have defined national essential medicines lists to guide purchasing decisions. The incorporation of good manufacturing practices into national medicines laws in more than 100 countries is another example of country efforts to strengthen health services.

- The greatest progress towards UHC has been made in countries that have made special efforts to make health services accessible and affordable to the poor.[11]

Global partnerships and actions: Multiple global declarations and partnerships have put health systems strengthening and UHC on the agenda of countries, development partners, civil society and others with variable success. Through the World Health Assembly, countries have adopted several resolutions related to health systems strengthening and UHC.[29,30] Furthermore, the UN General Assembly adopted a resolution on UHC in 2012.[5] Some of these declarations and partnerships have been short-lived and have lacked resources, others have given rise to overlapping agendas, yet some have made a significant impact. Examples include:

- Efforts related to improve aid effectiveness such as the Paris Declaration on Aid Effectiveness, the Accra Agenda for Action[31] and, in 2011, the Busan Partnership for Effective Development Co-operation.[32] The IHP+ was established in 2007 and currently brings together in a collaborative endeavour 65 developing countries, bilateral donors, international agencies and foundations.[33] It achieves results by encouraging national governments, development agencies, civil society and others to align their efforts with a single, country-led national health strategy and plan.

- Some partnership strategies have been directed to strengthening specific aspects of health systems. Examples include the Global Health Workforce Alliance, created in 2006 as a common platform to address the health workforce crisis,[34] the Commission on Information and Accountability for Women's and Children's Health,[35] the Countdown for Maternal, Newborn and Child Survival that tracks progress in key indicators of RMNCH,[36] the Health Metrics Network that focused on building country health information systems;[37] and the patient safety initiative focused on ensuring quality of care.[38]

- Other strategies and partnerships have taken a broad-based, systemic approach to health systems. These include: Providing for Health (P4H),[39] a global network of development partners active in supporting country reforms related to UHC and social health protection; the regional initiative on Harmonization for Health in Africa,[40,41] focusing on health system strengthening; and Health Systems Global, a society led by researchers, policy-makers and implementers to develop the field of health systems research.[42] These partnerships have generated momentum for UHC and progress towards consensus around specific issues such as the need to reduce dependence on out-of-pocket spending.

- In addition, there are examples of multicountry efforts that have contributed to an accumulating body of policy and technical guidance to support country efforts to make progress towards UHC.[43,44] For instance, the World Health Report 2010 on health financing for UHC was instrumental in raising the profile of UHC and related technical and policy support to countries have enabled the lessons of experience to be disseminated widely. Another example is the WHO prequalification programme which helps to make quality priority medicines available to all countries.

Innovative approaches: The impact of new technologies including information and communication technologies (ICT) on improved service provision and system performance has been dramatic in many settings. New therapies, including ART, and ACTs and hepatitis C treatment, have greatly enhanced access to treatment across all socioeconomic groups. New diagnostic techniques and testing methods now permit early detection and the application of simplified therapeutic decision-making, not only in relation to infectious diseases, such as HIV and malaria, but also with regard to cancers (notably cancer of the cervix), and chronic conditions such as anaemia, diabetes and hepatitis. The use of ICT in health, often referred to as eHealth and mHealth, has tremendous potential to enhance communications between health-care workers and individuals and communities and there are numerous examples of success in improving adherence to treatment regimens as well as facilitating access to emergency care. Moreover, eHealth/mHealth is helping to increase the emphasis on performance measurement and accountability by facilitating data collection, management, sharing and dissemination.

CHALLENGES

Health system weaknesses: Despite increases in domestic (government and private) and external expenditures on health, in many countries health systems remain underfunded and struggle to provide even basic health service coverage to their populations. Access to services is still low for rural and the poorest populations and many facilities deliver substandard care due to inefficient management and inadequate technical and managerial capacities. Many countries lack critical resources in multiple areas.

Health financing: Every year, some 100 million people fall below the poverty line as a result of out-of-pocket expenditures on health, and a further 1.2 billion, already

living in poverty, are pushed further into penury for the same reason.[1] Other challenges include system-wide inefficiencies arising from vertical, disease-specific structures set up in low- and middle-income countries that are a legacy of the response to the health MDGs and supported by global financing mechanisms. Finally, the understandable focus on raising more money to enable greater progress towards UHC risks making it solely a funding issue. At least equal attention should be given to addressing system inefficiencies and improving quality coverage of services for all population groups.[45]

Inadequate human resources: Despite the modest improvements cited, many countries still face major shortages, especially in rural areas.[19] Implementation of the WHO Global Code of Practice on the International Recruitment of Health Personnel has been inconsistent across countries and the number of skilled health professionals who choose to migrate continues to increase year-on-year.[46] Major inequalities in the distribution of health workers within countries persist, health workforce education may be poor and outdated, and often not competency-based, and despite health worker salaries representing a significant share of total health expenditure there is an unacceptably low level of transparency and quality on health workforce data[47] in many countries.

Inadequate medical products: There has been uneven progress in providing access to affordable essential medicines,[48] while in many countries SSFFC drugs are found in the supply chain, risking people's health and undermining the credibility of health services.[49] The complexity of new medicines and medical products and the internationalization of production and distribution of medical products pose increasing challenges to regulatory systems. In the case of antimicrobials, inappropriate prescription and use of medicines also leads to growing problems with resistance. On the blood products front, the global imbalance between donations and need is an ongoing concern, with approximately half of the donations collected in the high-income countries, which are home to less than one fifth of the world's population.[22]

Service quality: Regarding health service quality, while a number of countries are embracing accreditation as a way to raise standards in hospitals,[50] and working on system integration as a way to deliver people-centred care,[51] many are still delivering substandard care characterized by high levels of medical error[52,53] through health systems skewed towards hospitals that have little connection with the health-care system around them or the communities they are supposed to serve.[54] Accreditation of primary health-care clinics is virtually non-existent.[12,55] Systems to monitor and improve performance are weak in most countries.

Weak governance: In general, governance of the health sector in many countries remains weak, while the rapidly increasing share of private health service provision is often poorly regulated, leading to potential distortions in the type, quantity, distribution, quality and price of health services.[56] Other aspects of health governance such as enhanced participation, transparency and accountability, although improving, are often still limited. Furthermore, systems to monitor and improve performance are inadequate in many countries.

Inadequate information and accountability: There are major data gaps in almost every area affecting planning, targeted implementation, performance improvement and accountability to civil society, parliament, development partners, etc. For instance, most low- and lower-middle-income countries lack civil registration and vital statistics (CRVS) systems, well-functioning health facilities and community information systems, disease surveillance systems, health workforces and health financing accounts.

Fragmentation: One of the unintended consequences of the MDGs focus on specific diseases and health issues was a tendency to reinforce programme silos set up to deliver selected interventions. This often resulted in duplicate, parallel structures that added to overall system costs and posed obstacles to the coherent governance of the health system. All countries now face a much broader spectrum of health challenges, including the rapid rise of NCDs, and there is broad acknowledgement that the SDG health targets – including the target for UHC – are an opportunity to refocus efforts on a more efficient approach via system-wide reform, based on the principles of health service integration and people-centred care,[57,58,59] and unification of underlying support systems (e.g. information, procurement, supply chain). The global drive for results linked to disease-specific funding, however, continues to present a major challenge that requires creative solutions at the national level.

Lack of health systems resilience: Weak health systems are associated with diverse health security risks, including spreading epidemics, and are incapable of responding when health emergencies occur. This was glaringly apparent in West Africa where Guinea, Liberia and Sierra Leone all struggled in the face of the Ebola crisis because of the poor health system infrastructure and resources in addition to lack of preparedness.[7] In other settings, preparation and management of emergencies resulting from disasters (natural and man-made) as well as conflicts have often proved inadequate. Health systems resilience comprises the capacity to prepare for and effectively respond to crises, and to maintain or adapt core health system functions when a crisis hits.[9] Resilience is built on sound legal, regulatory and policy foundations (at both the country and global levels). The International Health Regulations (IHR) provide a global framework for enhancement of collective health action, and IHR core capacities mirror health system components such as quality surveillance and laboratory capacity, response

capacity with good linkages to the community and a well-trained health workforce.[60] The IHR implementation, however, has been far from satisfactory (see Chapter 5).

Inadequate investments in research and development (R&D): Structural imbalances persist in terms of investments in and access to innovative diagnostics, vaccines, treatments and medical products. There is much more to be done to expand technology transfer for expanded access to medical products in low- and middle-income countries. With regard to medical devices, increased use of systematic health technology assessment[61] is helping some (mostly high-income) countries buy the right products for their needs, while frugal innovation offers the prospect of devices that are not only cheaper, but also better adapted to local conditions.[62] Indeed, the opportunity for reverse innovation – south to north transfer – is being increasingly explored.[63] Similarly, there are major gaps in health systems, policy and implementation research that need to be addressed to make health systems more efficient and effective.

R&D for new medicines, vaccines and other medical products for neglected diseases remains insufficient. Only 4% of new products registered during 2000–2011 were for neglected diseases[64] and only about 1% of R&D investments in 2010 were made for neglected diseases.[65] The private sector invests little due to lack of profit prospects, and public funding and special initiatives – although increasing and starting to give results – are not yet covering the full spectrum. Numerous new initiatives and approaches to tackle this gap have been debated and also led to the adoption of a WHA resolution.[66]

STRATEGIC PRIORITIES

Even though health system strengthening for UHC was not an explicit focus during the MDG era, multiple investments were made by countries and global partners in specific components of health systems that led to improvements in key areas. Several countries also developed robust pro-poor policies that supported progress towards UHC targets. Such efforts provide an important foundation for UHC going forward. Similarly, the strategic agenda in support of the SDG target for UHC can build upon the multiple resolutions focused on health systems and UHC that have been adopted by countries in the World Health Assembly and UN General Assembly since 2005, including health workforce (seven resolutions), medicines and technologies (18 resolutions), health financing and UHC (three resolutions), health information (one resolution), policy dialogue (one resolution) and many others in regional fora. These resolutions are not just a reflection of country debates and policies, but can also be used to influence country policies, strategies and plans. In some cases, resolutions also serve to enhance monitoring of progress

through focused data collection, reporting and progress reviews. At the same time, the large number of specific resolutions on aspects of health systems appears to have stimulated a greater interest at the global and regional levels in integrated people-centred health services.

Goal 3 has nine substantive targets and four additional points which are also targets but are listed as means of implementation. The section on the new agenda in the SDG declaration states:

> *To promote physical and mental health and well-being and to extend life expectancy for all, we must achieve universal health coverage and access to quality health care. No one must be left behind. We commit to...*

This places UHC as the target that underpins and is key to the achievement of all the others. Without UHC as the underpinning approach, there is a risk that pursuing the individual targets separately will lead to more fragmentation and confusion in countries. UHC, rather than being one target among many therefore needs to be seen as having an integrating role, underpinning a more sustainable approach to the achievement of the other health targets and creating a balance among them.

Because of the cross-cutting nature of the health system development actions needed for progress towards UHC, it can be viewed as the most efficient platform for the

integration of all SDG health targets, while also having strong links to the health-related targets in other SDGs (including education, employment, gender, nutrition, poverty and others). Moreover, the UHC agenda has relevance for all countries, since all countries have room for improvement on the goals embedded in the definition of UHC. Specific SDG targets relate to medicines and vaccines, and health financing and health workforce in the least-developed countries, but system-wide strengthening is a *sine qua non* for sustaining progress towards UHC, supported by increased reliance on compulsory pooled financial resources (i.e. from taxes and other contribution mechanisms mandated by law) as described in the World Health Report 2010,[1] and monitored using the kind of framework proposed by the WHO/World Bank in their recent, jointly constructed monitoring framework for UHC.[67]

UHC-oriented reforms should address a wide range of issues. The prioritization of these issues depends on the country situation.

People-centred and integrated health services: While each country is different, it is essential that UHC agendas prioritize quality of health service delivery. To support that agenda, and to address core health system challenges, WHO is preparing to launch a global strategy on integrated people-centred health services,[68,69] which is based on five strategic directions, including reorienting the model of care away from care delivery silos and towards integrated health services that are coordinated across the care continuum. This applies to all stages of the life course, including older ages, where health systems need to deal with people with multiple pathologies and to define success in terms of continued functioning and autonomy rather than the absence of particular diseases.[70] The strategy also focuses on empowering and engaging people and strengthening governance and accountability.

An adequate health workforce: The WHO Global Strategy on Human Resources for Health: Workforce 2030 will be submitted to the World Health Assembly in May 2016. It considers the health workforce a key lever for change and progress towards the SDGs, as the health sector is a major employer (public, private and other) and a driver of economic growth. The four objectives of the new strategy are to: (i) optimize the impact of the current health workforce towards UHC, SDGs and global health security; (ii) align human resources for health (HRH) investment frameworks to the future needs of health systems and demands of the health labour market, maximizing opportunities for employment creation and economic growth; (iii) build the capacity of national and international institutions for an effective leadership and governance of HRH; and (iv) ensure that reliable, harmonized and up-to-date HRH data, evidence and knowledge underpin monitoring and accountability of HRH efforts at national and global levels.[47,71] It is also important to refocus attention on the WHO Global Code of Practice on the International Recruitment of Health Personnel to address the issue of worker migration, while acknowledging the importance of employment on economic growth.[72] For the latter, WHO will coordinate, under the auspices of the UN Secretary-General, a Commission on Future Health Employment and Economic Growth, to report in 2016.

Medical products: Multiple resolutions and international agreements allow the identification of a few key areas of strategic interest, including the strengthening of national policy and regulatory authorities,[73] R&D for diseases that disproportionally affect developing countries (see also SDG 3.b) and expanding access to essential medicines, vaccines and diagnostics in the context of UHC.[74] The latter means: (i) continuing to support improving access to interventions for priority diseases, using effective prequalification; (ii) appropriate selection of essential medicines and other medical products including the use of health technology assessments and policies to achieve affordable pricing (iii) improving medical product coverage for NCDs; (iv) ensuring appropriate use of medicines; (v) addressing antimicrobial resistance and responsible use of medicines; and (vi) addressing underserved clinical areas, for example, by promoting technology transfer.

Health information and accountability: A roadmap and call to action for measurement and accountability for health results outline the main priorities during 2015–2030.[75] The focus of this roadmap is on low- and middle-income countries. The main drivers are the new challenges related to monitoring the health SDGs, which are much broader than the MDGs, and the new opportunities presented by the data revolution. The goal is that all countries have well-functioning health information and accountability systems that meet country demands and allow SDG progress monitoring through greater and more efficient investments, focus on institutional capacity strengthening, addressing population health data gaps (especially strengthening of CRVSs), effective transparent health facility and community information systems, and inclusive accountability mechanisms.

Health research: The World Health Report 2013 has set out priorities for research for UHC that require national and international backing. Systems are needed to develop national research agendas to raise funds, strengthen research capacity and make appropriate and effective use of research findings.[76] Going forward, the context-specific nature of UHC challenges and opportunities – especially those related to services delivery and financing – will require research approaches that fully reflect conditions on the ground, such as implementation research.[77] It is for this reason that global networks and partnerships have made implementation research a priority field.[78] R&D of new products that meet people's health needs in all countries is required. Investments in health research and development should be aligned with public health demands.[65]

Health financing: The World Health Report 2010 and subsequent reports and resolutions regarding health finance provide a sound conceptual basis for the main financing reforms needed. Reducing out-of-pocket health spending is a strategic priority everywhere and moving towards predominant reliance on compulsory/public funding sources for the health system is required. Thus, efforts to increase public spending on health are needed in those countries in which government health spending is still quite low. More specifically, this means greater attention must be given to increasing the level of government budget revenues for health by strengthening domestic tax systems and/or increasing the share of public spending devoted to health. However, simply raising more money for the health system will not be enough. Reforms to enhance the redistributive capacity of these funds (by reducing fragmentation in pooling) and to promote greater efficiency in the use of health system resources (by increasing use of strategic purchasing mechanisms) are also required.

Intersectoral collaboration: The attainment of health goals is dependent not only on actions within the health sector, but also on economic, social, cultural and environmental factors. Achieving UHC depends to a considerable extent on the broader policy context within which health systems operate and on levels and differentials in socioeconomic development. Intersectoral action contributes to enhanced health outcomes and minimizes the adverse effects of crises and emergencies. Public policy is an essential instrument for the removal of socioeconomic disparities that adversely affect health. Public policies must be shaped in such a way to have the potential to influence exposure to risks, increase access to care and mitigate the consequences of ill-health. Cross-sectoral action is thus essential for the implementation of strategies to promote and protect health, including anti-tobacco policies, environmental protection, food security and safety, safe water and sanitation. Access to education, safe employment and poverty reduction measures enable people to achieve and maintain good health and benefit from UHC. The SDGs provide an opportunity to tackle health and development in a holistic manner, providing a critical starting point for tracing the links between the goals.

Improved governance: Managing the complexity of each of the above elements of health systems strengthening is challenging, and demands strong governance capacity to lead a unified national health system, guided by strong information and financial management systems that can ensure transparency, accountability and adaptability to new challenges. Good governance also depends on adequate regulatory and legal frameworks to ensure sustainability, effective intersectoral collaboration, dealing with the donor community, and the monitoring of performance.

Resilient health systems: The Ebola virus disease outbreak in West Africa and other recent outbreaks such as the MERS outbreak in the Republic of Korea have underscored the importance of strong health systems with capable public health surveillance and management functions in order to prevent, detect and respond to emerging health threats. This requires reinforcing systems of infection prevention and control, developing real-time surveillance integrated with broader health management information systems, ensuring access to high quality essential services, addressing immediate public health workforce issues and enhancing community mobilization.[79] It also needs strengthening of governance, management and accountability systems as well as cross-border and subregional/regional actions in support of the countries' and their neighbours efforts.

GOVERNANCE

Governance in the health sector concerns actions and means adopted by a society to organize itself in the promotion and protection of the health of its population of which the performance can be assessed in a systematic manner.[80,81,82] Governance involves ensuring that a strategic policy framework (that covers both public and private sectors) exists and is combined with effective oversight, coalition building, regulation, attention to system design and accountability. Robust and realistic national health policies, strategies and plans are key for the strengthening of health systems and advancing towards UHC. The effectiveness of health policies and plans is greatly enhanced if developed in collaboration with other sectors, taking into account the broader socioeconomic, environmental and cultural contexts within which the health sector functions. This brief overview focuses primarily on developing countries (low- and lower-middle-income countries).

TRENDS

Many countries have invested in rationalizing and bringing coherence to fragmented health systems characterized by diversity of key stakeholders (e.g. public providers, private-not-for-profit, and private-for-profit firms and corporations) and complexity of demand by individuals and communities. As a consequence, there has been a renewed interest in developing regulatory capacity[83] and strengthening policy instruments to develop, negotiate and implement more robust and responsive national health policies, strategies and plans.[30] In 2014, 134 countries could be identified with a national health policy, strategy or plan to guide their work in achieving better health outcomes for the population.[84]

A recent review of national health planning in 24 low- and lower-middle-income countries reported that: (i) the predictability of national public funding had improved with nearly 70% of countries executing at least 85% of the budgeted amount for health; (ii) 19 out of 24 ministries of health reporting having a medium-term expenditure framework or rolling three-year budget in place; and (iii) an increasing number of countries have a jointly assessed national health sector strategy that includes targets and budgets.[85]

Beyond the health system, governance means collaborating with other sectors as well as the private sector and civil society, to promote and maintain population health in a participatory and inclusive manner. Civil society organizations have a particularly important role to play, and it is encouraging that 16 of the 17 low- and lower-middle-income countries with data involved such organizations in coordination meetings and technical working groups, while all involved civil society in joint annual health sector reviews.[85]

Increasingly, countries also have a comprehensive health sector results framework in place, and development partners are aligning their support with those frameworks, although alignment varies from 21% to 98% of total funding. Mutual accountability processes (through which concerned stakeholders such as the government, the private sector, the civil society and development partners hold each other to account on progress made against commitments to support the national health strategy), are also being introduced with 71% of countries reporting a mutual assessment review.[85]

POSITIVE DEVELOPMENTS

National policy dialogue: The importance of strategic plans and mutual accountability has received more attention, as exemplified in resolution WHA64.8 on strengthening national policy dialogue to build more robust health policies, strategies and plans, endorsed in 2011.[30] In several countries, national policy dialogues involved more stakeholders and included more cross-sectoral contributions to health policies. There were also increased commitments from the international community in funding the development, monitoring implementation of national strategies.[86,87]

Regulation: Many high-income countries that have made significant progress towards UHC have also succeeded in strengthening regulation mechanisms. Resolution WHA63.27 identified the significance of private providers in the delivery of health care and the need to strengthen regulatory mechanisms, which is gradually receiving more attention in countries.[88]

Global partnership: International development agencies and countries have committed to improving the efficiency and impact of development cooperation through a series of agreements – the Paris Declaration on Aid Effectiveness and the Accra Agenda for Action[31] and, in 2011, the Busan Partnership for Effective Development Co-operation.[32] IHP+ was established in 2007 and currently involves 65 developing countries, bilateral donors, international agencies and foundations.[33] IHP+ achieves results by mobilizing national governments, development agencies, civil society and others to support a single, country-led national health strategy.

Accountability: Defined as a cyclical process of monitoring, review and remedial action for the implementation of national plans received greater emphasis. The framework of the Commission on Information and Accountability for Women's and Children's Health was implemented in 63 countries.[89] Mutual accountability between government and donors was promoted through the IHP+; partners which sign up to IHP+ commit to holding each other to account.

Link with investments: The launch of multiple global health initiatives and the growing influence of private foundations had important implications for governance at local and national levels. For example, investments by GAVI and the Global Fund in immunization, HIV, tuberculosis and malaria programmes have been accompanied by requirements linked to strengthening and establishing specific governance structures at the country level.

Increased participation: The global health governance conversation is no longer confined to a select group of governments and actors, but rather includes a wide range of stakeholders, including public-private partnerships, philanthropic organizations, private industry, nongovernmental entities, professional associations, academic institutions and other civil society organizations. While this expanding field has served to enhance inclusive, participatory processes, it has also brought increased complexity to the global governance stage.

CHALLENGES

Increased complexity: Countries are faced with increasingly complex health sector governance "space", in which central government, local government, non-governmental agencies and private sector are all playing a role. This poses significantly more challenges for a national government trying to exercise overall stewardship over the health sector and requires governments to adapt its policies and strategies.

Financial management concerns: In low- and lower-middle-income countries, there is stagnation or decline in use by development partners of national financial management systems and in the predictability of funding.[85] Additionally, there is no clear improvement in the amount and quality of public financial management in the health sector, as assessed by the World Bank country policy and institutional assessment process.[90]

Regulation: despite more attention for regulation as a key tool for governments to support the implementation of national health strategies, many countries face challenges with their capacity and capability to develop and implement effective regulation. These challenges include a lack of human resources with relevant legal expertise, a dearth of evidence base on effective regulations and regulatory challenges posed by entrepreneurial behaviour in the health system (from both private and public providers).

Box 3.1
IHP+ seven behaviours[91]

- Agreement on priorities that are reflected in a single national health strategy and underpinning subsector strategies, through a process of inclusive development and joint assessment, and a reduction in separate exercises.
- Resource inputs recorded on budget and in line with national priorities.
- Financial management systems harmonized and aligned; requisite capacity-building done or under way, and country systems strengthened and used.
- Procurement/supply systems harmonized and aligned, parallel systems phased out, country systems strengthened and used with a focus on best value for money. National ownership can include benefiting from global procurement.
- Joint monitoring of process and results is based on one information and accountability platform, including joint annual reviews that define actions that are implemented and reinforce mutual accountability.
- Opportunities for systematic learning between countries developed and supported by agencies (south–south/triangular cooperation).
- Provision of strategically planned and well-coordinated technical support.

STRATEGIC PRIORITIES

The SDG declaration pays considerable attention to the importance of governance for sustainable development and effective implementation. For instance, under the means of implementation targets under policy and institutional coherence Target 17.15 refers to "Respect each country's policy space and leadership to establish and implement policies for poverty eradication and sustainable development"[6]. Priorities for improving governance in health include:

- Strengthen budget process and financial management to enable predictable funding for health services, a core requirement for effective service delivery.
- Build up capacity for data collection and analysis through developing strong monitoring, information and accountability plans and capacity, with coordinated support from international partners.
- Continue promoting and enabling participation by multiple stakeholders in sector processes, for accountability and to ensure effective planning and implementation – civil society, private sector health care providers, parliamentarians as well as international partners.
- Strengthen governance institutions and mechanisms aiming at improving quality integrated health services including inspection and supervision.
- Provide evidence-based guidance documents and tools on governance to enable countries make progress towards UHC.

In many countries, health system reforms to progress towards UHC will need to be implemented through national laws dealing with matters including access, equity, cost and quality. In order to achieve this, several actions will be taken, including to:

- Provide direct legal and policy support for countries states wishing to develop laws and legal frameworks to enable UHC.
- Develop an up-to-date evidence base of legislation, case studies, and other research to inform future work on legal frameworks for UHC.
- Build strategic partnerships and alliances with individuals and organisations to advocate for and support the implementation of effective legal frameworks for UHC.

Faster progress to achieve results requires governments, civil society organizations, private sector and especially international development partners to take action. IHP+ has developed the most critical areas for action for development partners (Box 3.1). Recent meetings of global health leaders have strongly supported renewed action on these seven behaviours, which, if implemented, would bring visible results.

HEALTH FINANCING

A country's health financing arrangement is an important determinant of the overall performance of the health system, including a country's progress towards UHC.[1] Over the past 20 years, many countries have taken steps to improve their health financing systems in line with their available resources, but important challenges remain. Several important lessons have been learnt about both promising directions for reform as well as pitfalls to avoid.

TRENDS

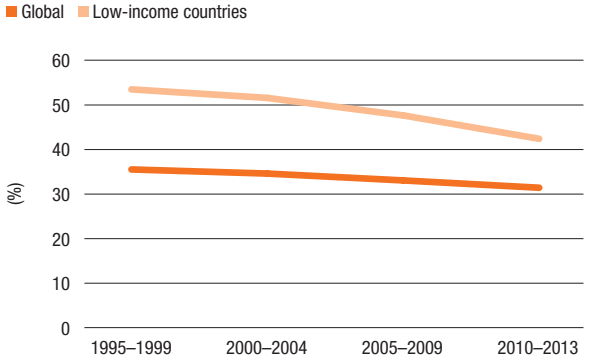
Between 1995 and 2013, there has been a steady decline in the share of total health expenditure in the form of out-of-pocket spending at the time of use, particularly in low-income countries (Figure 3.5). This is important because out-of-pocket spending is both a barrier to needed service use for those unable to pay and pose a threat to financial risk protection.[92]

In general, the greater the level of health spending from public/compulsory sources, the lower the dependence of systems on out-of-pocket spending. And indeed it appears that, as part of improved health financing policies more generally, an important reason why out-of-pocket spending has declined has been a growth in public spending on health (Figure 3.6).

Globally, and especially in low-income countries, the data reveal that behind this growth in public spending has been an increased commitment to the health sector by governments (Figure 3.7), although in many cases this has been strongly supported by external funds that flow through government systems.

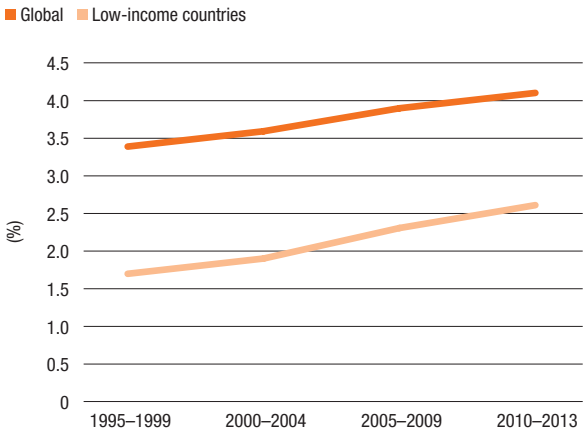
Despite this progress, out-of-pocket spending remains high, and millions of people globally are at risk of financial harm (including impoverishment) as a consequence of paying for health services.

Figure 3.5
Out-of-pocket spending as a percentage of total health spending,[a] 1995–2013[18]



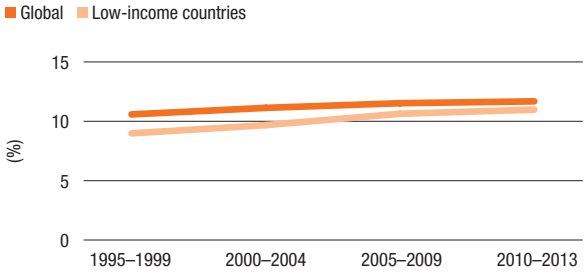
[a] Values are unweighted averages.

Figure 3.6
Public expenditure on health as a percentage of GDP,[a] 1995–2013[18]



[a] Values are unweighted averages.

Figure 3.7
General government expenditure on health as a percentage of total general government expenditure, 1995–2013[18]



[a] Values are unweighted averages.

POSITIVE DEVELOPMENTS

Convergence on core principles: While there is no single "best model" of health financing, common core principles are reflected in the reforms of countries that have made progress, and there has been a similar convergence in the approaches supported by international agencies such as WHO[1,93] and the World Bank.[94,95] These can be viewed as *desirable attributes* for any country's health financing arrangements in order to promote progress towards UHC, and specifically include efforts to move towards predominant reliance on compulsory (i.e. public) funding sources[96] for the health system, reduce fragmentation in pooling arrangements,[97,98,99,100] and increasingly link the payment of providers[101,102,103] to information on their performance and the health needs of the populations they serve. These are reflected in the following points.

Country actions focusing on the poor: Many countries have made comprehensive changes in the way they finance health, including changing the mix of revenue sources, restructuring pooling to enhance the redistributive capacity of these funds and aligning policies on benefits with purchasing mechanisms to transform the promise of declared entitlements into a reality. In several countries, this approach has involved making explicit use of general budget revenues to expand coverage for the poor, people in the informal sector or for the entire population.[104,105,106,107,108,109,110]

Performance focus: Another important development is the shift of focus from simply raising the level of funding to reforming provider payment methods to create an incentive environment that drives efficiency gains and encourages providers to increase the quantity and quality of services delivered. The so-called "performance-based financing movement" in Africa[27] is of particular interest in this regard, as is the growing evidence of countries adapting strategic purchasing techniques to their own context.[102,111] The transition from paper to electronic systems has been a critical enabling factor in the diffusion of provider payment reforms.

CHALLENGES

Increasing government budget revenues: Fiscal pressures on public revenues combined with ongoing technological advances that drive up both demand and cost will likely increase political and technical challenges for health systems.

Verticalization: Another important challenge is a legacy of the response of the international community to the health MDGs, addressing the system-wide inefficiencies that to some extent arise from vertical, disease-specific structures set up in low- and middle-income countries.

Narrow approach to sustainability: Increased attention being given by funding agencies to a "transition to domestic financing" risks framing sustainability as solely a revenue issue; at least equal attention should be given to addressing system inefficiencies.[45] Sustaining current and improved levels of coverage will require a focus on addressing these inefficiencies and not merely a focus on generating new revenues. In the World Health Report 2010,[1] it was estimated that between 20% and 40% of all health spending is currently wasted through inefficiency. The potential health gains from redirecting the resources to improve population health would be enormous in all countries as health is one of the world's biggest economic drivers, with US$ 7.1 trillion spent annually (2012 figure) and an annual expenditure growth rate of 6.7% over the past decade.

STRATEGIC PRIORITIES

The SDG include two targets related to health financing. Target 3.8 on UHC refers to financial protection and Target 3.C includes "Substantially increasing health financing … in developing countries, especially in least developed countries and small island developing States". Multiple resolutions in the UN General Assembly and World Health Assembly have addressed UHC, but much still needs to be done to ensure that UHC becomes the integrative platform underpinning all health targets.

Looking to the immediate future, several priorities emerge from what has been learnt about health financing for UHC, particularly in the context of low- and middle-income countries.

Given the context of high informality, its fiscal implications and the recognized weaknesses of voluntary prepayment,[112,113,114,115] it is evident that greater attention must be given to increasing the level of government budget revenues for health, by both strengthening domestic tax systems and increasing the share of public spending devoted to health. Without this, systems will be more dependent on private funding sources, with both out-of-pocket spending and voluntary health insurance associated with inequity and poor financial protection. Furthermore, governments will not have the purchasing power to manage cost growth in the private provision sector. Thus, failure to increase the share of total health spending coming from public sources will have harmful efficiency consequences as well.

While increasing public spending on health is necessary for progress in most countries, simply throwing more money at the system will not be adequate. Funds must be utilized efficiently if progress towards UHC is to be sustained. Reform experience suggests that a key direction for change is to enable strategic purchasing techniques to be applied to general budget revenues.[116]

Greater attention must be given to enhancing productive dialogue between a country's health and finance ministries (or their equivalent) on both the level of funding for health as well as aligning financing reform strategies with public finance management rules to enable systems to take real steps towards results-oriented accountability rather than merely a focus on input control and budget implementation.

Finally, there remains an important gap to fill: better understanding the demand-side barriers to use of needed services beyond the need to pay for health services including transport to health facilities or the potential of lost income associated with care seeking. Policy responses to these challenges do not necessarily involve financing, but instead may be more in the realm of innovative service delivery. Thus, going forward, it is essential to ensure a balanced, nuanced approach involving both service delivery and financing in the diagnosis of problems and development of reform solutions.

HEALTH WORKFORCE

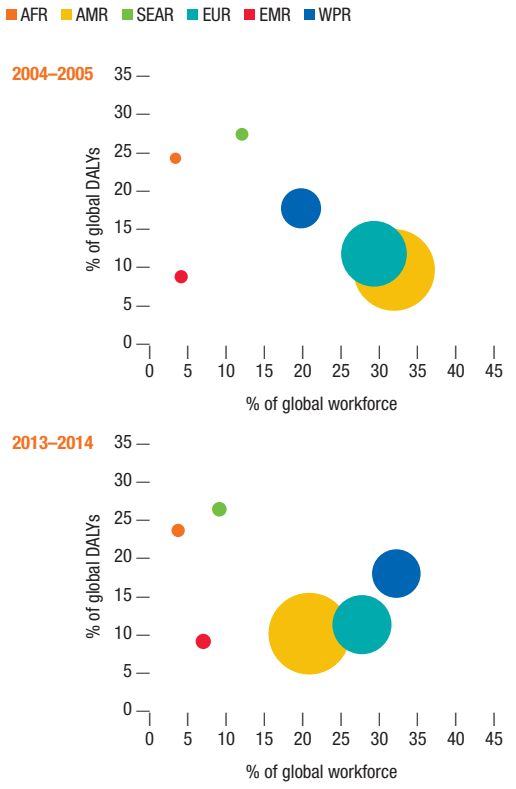
Health systems and services depend critically on the size, distribution, competencies and performance of the health workforce. Typically, the health workforce is discussed in terms of four dimensions: availability, accessibility, acceptability and quality.[19] Availability is a measure of the supply of health professionals coming through the training pipeline, plus the pool of trained health professionals already providing health care. Accessibility is a measure of how easily people in need of care can get to see a health professional. Both dimensions have a bearing on the extent to which a health-care system covers the needs of the general population. Acceptability and quality, meanwhile, relate to the nature of the health care provided.

TRENDS

The 2006 World Health Report identified an estimated global deficit of 2.3 million skilled health professionals (e.g. midwives, nurses and physicians) and over 4 million health workers overall.[117] Countries with the greatest burden of disease have the smallest skilled health professional workforce, often concentrated in urban populations. The situation has changed very little since then (Figure 3.8).

The assessment of the trend in densities of health workers in urban and rural areas within countries is hampered, for instance, by a lack of reliable and comparable data over time. In general, however, there appears to be evidence for a modest improvement in national densities of skilled health professionals in just over half of the countries affected by severe shortage.[19]

Figure 3.8
Distribution of skilled health professional by level of health expenditure and burden of disease,[a] by WHO region (2004–2005 versus 2013–2014)[118]



[a] The size of bubble indicates level of health expenditure as % of global health expenditure.

POSITIVE DEVELOPMENTS

Global advocacy and mobilization: The World Health Report 2006 drew attention to the global health workforce crisis that threatened the attainment of the health-related MDGs and prompted national, regional and global responses.[119,120,121] The Global Health Workforce Alliance was created in 2006 as a common platform to address the workforce crisis.[34] Three global forums on human resources for health were convened in 2008, 2011 and 2013 to mobilize all relevant actors, share experiences and galvanize action. Seven resolutions, specific to the workforce agenda were adopted by the World Health Assembly.[119,120 ,122,123,124,125,126]

WHO Global Code of Practice on the International Recruitment of Health Personnel:[127] In 2010, the Code was adopted by the World Health Assembly and encourages information exchange on issues related to health personnel and health systems in the context of migration and stipulates regular reporting every three years on measures taken to implement the Code. Implementation of the Code was assessed in 2015 after its first five years of implementation. The review stipulated the continuing relevance of the Code, but called for extra measures among stakeholders to bolster its effectiveness. A second round of national reporting is due in 2016.[128]

Country actions: A number of countries have produced new or revised national HRH strategies aligned with their MDGs and national health objectives. As a result, many have focused on ensuring equitable access to care, and in some countries effective coverage has improved; in particular, there has been an increased focus on the availability, accessibility, acceptability and quality of all types of health workers, including community-based, mid-level and advanced practitioners, as well as the services they provide.[19]

New approaches: Strategies that put health professionals closer to the communities they serve and backed by new normative guidance from WHO (e.g. on education,[129] retention[130] and nursing and midwifery[131]) are making services and health workers more accessible and acceptable. Other policy tools that have been effective in improving health worker distribution include: financial incentives; continuing professional and career development opportunities; prolonging the residency period; introducing periods of training in rural areas; and other non-financial incentives such as free housing, security and free access to health care.[19] New analyses on the potential impact and cost-effectiveness of community-based practitioners warrants further exploration and the development of an improved evidence base to guide national decision-making.[132,133]

Improving the quality of health professional education has been a specific focus for some countries, including Brazil, Cambodia, Mexico and Norway.[19]

CHALLENGES

Underinvestment: In many low- and middle-income countries, underinvestment in the education, deployment and retention of health professionals has been the most significant barrier to meeting the health-related MDGs. [47,134,135]

Continuing and projected shortages: The shortages are large in many countries and involve existing and emerging categories of the health workforce. The increasing workforce feminization globally, particularly among physicians, may have an impact on, for instance, the availability of primary health care services, although this is likely to be small.[136,137] The drivers of observed differences between male and female primary care physicians are complex and nuanced. Additional research examining gender differences in practice patterns, scope of work and the impact for national health workforces and health systems is warranted. Further challenges are anticipated from an ageing health workforce and too few new recruits to replace retirees – for example, the retirement bulge in the coming years may drastically shrink the health workforce in high-income countries.[138]

Inequalities: Pronounced inequalities of distribution and access within countries attributed to differentials of environments, motivation levels, productivity and performance. Skill-mix imbalances, such as too many physicians and too few nurses in some countries, persist alongside underutilization of skilled personnel.

Poor education: Health workforce education limited by outdated academic, content-oriented curricula as opposed to, for example, competency-based education.[139]

Poor data: Despite good progress in HRH information and improvements of data availability, the challenge of fragmented, underresourced and underutilized data remains. The majority of countries are lagging behind in their capacity to estimate future needs and formulate the relevant policies to meet them.

Resistance to new models of care: Professional associations and institutions may resist new models of service delivery such as task shifting, home care and the use of ICT.[140]

STRATEGIC PRIORITIES

The WHO Global Strategy on Human Resources for Health: Workforce 2030,[71] which is to be submitted to the World Health Assembly in May 2016, puts forward a vision of how countries can respond to today's needs, while anticipating tomorrow's expectations and future opportunities. At the core of the new strategy is the emerging consensus that the creation of employment opportunities (public, private and other) in the health and social sectors is a driver of economic growth and a major contributor to female participation in the labour force. Taken together with the likely beneficial effects on health outcomes, and the improved capacity to detect and respond to disease outbreaks, these benefits make the health workforce a key lever for change and progress towards the SDGs (e.g. addressing poverty, education, employment, gender and health).[141]

Elements that inform the new strategy include:[47]

- planning guided by a thorough understanding of health labour markets;
- investment in data and evidence for sound planning and decision-making;
- leadership and governance for effective stewardship of HRH development;
- education and training in line with integrated people-centred service delivery;
- mobilizing financial resources and securing their strategic use;
- transforming education, deploying health workers where they are needed, and maximizing quality, performance of existing health workers;
- promoting self-reliance in communities;
- harnessing the private sector capacity for public sector goals.

An emerging consensus informing the new strategy is that the creation of employment opportunities (public, private and other) in the health and social sectors is a driver of economic growth and a major contributor to female participation in the labour force. The establishment of a Commission on Future Health Employment and Economic Growth, under the auspices of the UN Secretary-General, will be tasked to consolidate evidence and policy recommendations, from a multi-sectoral and multi-constituency perspective, on how investment in human resources for health will contribute to the attainment of health and broader economic development objectives within the SDGs. Taken together with the likely beneficial effects on health outcomes and the improved capacity to detect and respond to disease outbreaks, these benefits make the health workforce a key lever for change and progress towards the SDGs (e.g. addressing poverty, education, employment, gender and health).[141]

The global strategy includes a specific focus on reducing data gaps through the adoption of national health workforce accounts[142] as a harmonized, integrated approach for annual and timely collection of health workforce information. Its purpose is to standardize the health workforce information architecture and interoperability, tracking of HRH policy performance towards UHC and monitoring the implementation of global health policy instruments such the WHO Global Code of Practice on the International Recruitment of Health Personnel and the IHR (2005).

MEDICAL PRODUCTS

Access to quality essential medical products – including medicines, vaccines, blood and blood products, and medical devices – is critical to achieving UHC. In all four areas, it is possible to point to some positive trends in the past 15 years, in terms of access and use in health service delivery. However, major challenges remain.

TRENDS

Improving access to essential medicines is part of MDG 8 and progress was monitored by the MDG gap task force. Medicines expenditures account for 10% of health spending in high-income countries, and for up to 50% of health spending in low- and middle-income countries; between 50% and 80% of medicines spending in LMIC is out-of-pocket payments. Based on data from 26 surveys in low-income and lower-middle-income countries, using the standardized WHO/HAI methodology,[20] generic medicines were available in 58% and 67% of public and private sector health facilities,[48] respectively, with large variation between countries.[21] Access to vaccines and rapid diagnostics such as malaria and HIV tests also greatly improved.

In 2012, 108 million blood donations were collected globally, an increase of almost 25% from 80 million donations collected in 2004.[22] Seventy-three countries reportedly collect over 90% of their blood supply from voluntary unpaid blood donors. An increase of 8.6 million blood donations from voluntary unpaid donors was reported from 2004 to 2012.[22]

POSITIVE DEVELOPMENTS

Better policies and regulation: National medical product quality begins with a national policy designed to ensure the continuous provision of appropriate, quality products in adequate quantities and at affordable prices.[143] Currently, more than 140 countries have defined national essential medicines lists to guide their purchasing decisions. Increasingly countries are developing and implementing comprehensive national medicines policies and strengthening their governance frameworks in the pharmaceutical sector.[143] Also, 70% countries had a national blood policy in 2012, compared with 60% of countries in 2004.[22]

Innovation: Pharmaceutical innovation continues to drive improvements in health outcomes. Meanwhile the frugal innovation movement is discovering ways to adapt technologies developed for high-income countries for use in low- and middle-income countries.[144]

Increased access to medical products: The rise of the global market in generic drugs has brought down costs and increased access to essential medicines.[145] Procurement agencies use the WHO prequalification programme, which was first established in 1989 for vaccines, and since then has been expanded to cover around 250 medicines for priority diseases.

Access: Accessibility of vaccines, diagnostics and treatments has greatly benefited from global efforts such as GAVI, Global Fund and HIV, TB and malaria partnerships and initiatives.

Quality improvement: Since its inception, more than 100 countries have incorporated the good manufacturing practice provisions into their national medicines laws, and many more have adopted its provisions and approach in defining their own national good manufacturing practice requirements.[146]

Rational and effective use: National programmes have been implemented to improve the use of medicines (including antibiotics), to enhance good surgical and anaesthetic techniques, and, in case of blood, to reduce blood loss and use alternatives to whole blood for volume replacement.[22]

CHALLENGES

Weak policies: National policy development and implementation needs to be supported by sound health technology assessment to guide research, innovation and procurement and use.[147]

Regulatory deficiencies: The complexity of new medicines and medical products and the internationalization of the production and distribution of medical products pose increasing challenges to country and regional regulatory systems.

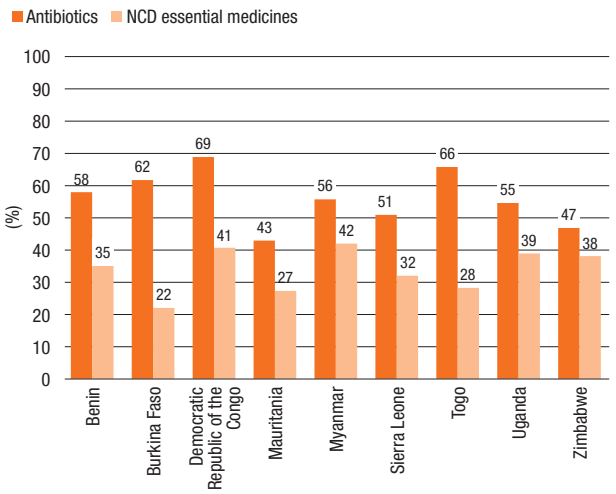
Medicines and technologies access: Many people still lack regular access to essential medicines and technologies.[20] For instance, access to NCD drugs is still very poor in many low- and lower-middle-income countries (Figure 3.9).[148,149] Similarly, in a survey, 25 countries reported being unable to screen all donated blood for one or more of HIV, hepatitis B, hepatitis C and syphilis, with the lack of test kits as the most commonly cited reason.[22] Inappropriate use of medicines remains widespread, compromising treatment success, promoting antimicrobial resistance and leading to waste of resources.

Quality problems with medical products: The number of reports on SSFFC medicines is growing, especially from low- and middle-income countries, and have led to serious problems including deaths. Their occurrence is a threat to patient safety and undermines the credibility of health systems.

Neglected diseases: The profit motive for innovation has provided inadequate incentives for research and development (R&D) into the medical products needed to prevent and treat the diseases that especially afflict the poor.[64] Tensions remain between the system of intellectual property protection for pharmaceutical products on the one hand and international human rights obligations and public health requirements on the other.

Drug prices: In a survey in 26 countries, patient prices for lowest-priced generics were, on average, 2.9 times higher than international reference prices in public sector facilities and 4.6 times higher in private sector facilities.[150] Patients buying medicines in the public sector of the low-income countries paid on average 2.4 times international reference prices, whereas patients paid 3.4 times international reference prices in lower-middle-income countries. A similar picture was seen in the private sector.[48] The price of new vaccines is a source of concern in many countries. Many new medicines, such as cancer and hepatitis C medicines, are largely unaffordable while under patent, even for many high-income countries.

Figure 3.9
Availability of antibiotics and NCD essential medicines in selected countries,[a] 2013–2015[149]



[a] Unweighted mean availability of 12 antibiotics and 17 NCD essential medicines on the day of the survey, among health facilities that offered NCD services. Data are from most recent survey in each country.

STRATEGIC PRIORITIES

The SDG Target 3.b states:

> *Support the research and development of vaccines and medicines for the communicable and noncommunicable diseases that primarily affect developing countries, provide access to affordable essential medicines and vaccines, in accordance with the Doha Declaration on the TRIPS Agreement and Public Health, which affirms the right of developing countries to use to the full the provisions in the Agreement on Trade-Related Aspects of Intellectual Property Rights regarding flexibilities to protect public health, and, in particular, provide access to medicines for all.*

The World Health Assembly has adopted multiple resolutions that have laid out the key areas of strategic interest and are closely related to SDG Target 3.b:

- strengthening national policy and regulatory authorities;[73]
- expanding access to essential medicines, vaccines and diagnostics in the context of UHC:[74]
  - continuing to support improving access to interventions for priority diseases, maintain an effective prequalification;
  - selection of essential medicines and other medical products, including using health technology assessments and pricing policies aimed at affordability;
  - improving medical product coverage for NCDs;
  - ensuring appropriate use of medicines and other medical products;
  - addressing antimicrobial resistance (discussed in Chapter 5) and responsible use of medicines;
  - national policies on production of medical products that put access first, addressing underserved clinical areas, e.g. by promoting technology transfer;
- developing new models for innovation for underserved clinical areas and technology transfer for expanded access in low- and middle-income countries, following up on the report of the Consultative Expert Working Group on Research and Development.[151]

HEALTH INFORMATION

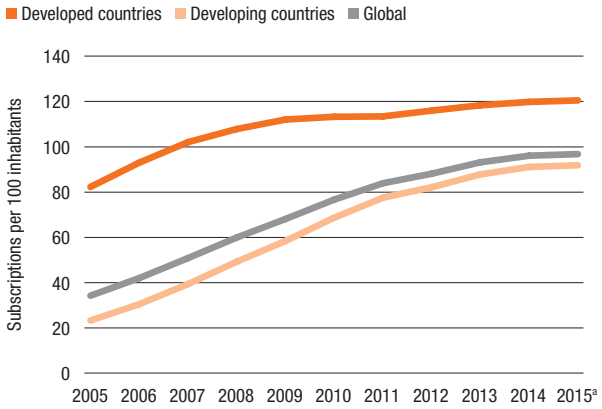
Health information systems are the foundation of health systems, providing critical information for planning, targeting and monitoring. Many countries are gradually improving their information systems, but major gaps in data availability, quality and use remain. Focus on performance measurement and value for money, as well as greater accountability, defined as a cyclical process of monitoring, review and remedial action, of all stakeholders are considered increasingly important in all countries.

TRENDS

The availability of health data has improved considerably, mainly due to international health survey programmes. More than 500 national surveys in low- and middle-income countries have been supported through the DHS programme,[152] primarily funded by the United States Government, and the UNICEF MICS programme.[153] The survey programmes have provided critical data for monitoring the MDG health indicators[154] and on the coverage of interventions for maternal, newborn and child health.[155] Disease surveillance for HIV, TB, malaria and other diseases also improved during the past two decades. Many countries have taken steps to improve the availability and reliability of data derived from health facilities that are often the main source of information to guide decision-making and resource allocation at local and district levels. More countries are conducting regular national health accounts exercises, and increasingly with subaccounts on specific programmes. In addition, 91% of countries took part in the 2010 round of censuses, up from 84% in the 2000 round.[156]

Other areas of progress and greater investment include work on global health estimates through UN agencies and academic institutions,[157] the availability of disaggregated data to assess inequalities within populations[158] and more emphasis on accountability for health, including data sharing, transparency and use of data to track resources and document results.[159]

Figure 3.10
Number of mobile-cellular telephone subscriptions per 100 inhabitants, 2005–2015[172]



[a] 2015 values are estimates.

POSITIVE DEVELOPMENTS

More investment: The continuous investments of global agencies in international survey programmes, both financially and technically, have greatly improved the standardization of data collection and quality of health surveys. DHS is already in its fourth decade. MICS has completed its second decade of support.

Better measurement: Methods of data collection have improved in several areas, including the standardization of measurement of economic status. There are ongoing efforts to harmonize data collection instruments such as DHS and MICS and to identify the most effective and efficient ways of soliciting valid information from survey respondents, in particular, with regard to service use.[160] The addition of biological and clinical data collection to household surveys is greatly enhancing public health information.[161] Examples include anthropometry, measuring blood pressure and testing blood for HIV or malaria parasites.

Political mobilization: The 2010 round of censuses was a success because all countries through the UN Statistical Commission and regional bodies threw their weight behind it.[162]

Global collaborations: The report of the Commission on Information and Accountability for Women's and Children's Health,[163] the work by IHP+,[164] the Countdown for Maternal, Newborn and Child Survival,[155] global and local civil society action in, for instance, the field of HIV/AIDS and other initiatives were all supportive of greater emphasis on information and accountability within countries and globally. Examples of concrete products of collaborations include alignment of health surveys between DHS and MICS and the global reference list of 100 core health indicators.[165] Multiple interagency, reference groups and academic institutions have advanced the field of measurement and estimation for key mortality and health indicators.[166]

Digital revolution: While many innovative approaches are still in the early stages, several have gone to scale, such as the use of web-based reporting systems for health facility data (e.g. DHIS 2[167]), open source data systems for electronic health records (e.g. Open MRS[168]) and active disease surveillance through portable devices. The number of mobile-cellular telephone subscriptions (Figure 3.10) and households with Internet access at home have increased dramatically in the last decade.[169]

Spread of national policy: A WHO assessment indicated that over 100 countries have developed eHealth policies and strategies.[170] According to a recent OECD survey, 22 of 25 reporting high-income countries have a national plan or policy to implement electronic health records, while 20 reported starting implementation.[171]

CHALLENGES

Data gaps: Most low- and lower-middle-income countries (Figure 3.11) do not have reliable data on mortality by sex, age and cause of death. Only 50% of countries reported cause-of-death data to WHO in 2014 (45% in 1990). Major gaps exist because the key data sources are not functioning well, including CRVS systems, health facility and community information systems, disease surveillance systems, health workforce and health financing accounts.

Limited data use: Analytical capacity is limited in many developing countries, there are no well-established public health institutions and data are not translated into action. Improving accountability is still in its early stages, needs considerable work in the coming decade and will require greater involvement of civil society, politicians and the media.

Insufficient investment: Global investments in health information will continue to be critical in low- and lower-middle-income countries. Fragmentation along programme-specific lines results in reduced efficiency of such investments when it comes to country health information system strengthening. The same applies to ICT innovations which often results in uncoordinated, piecemeal efforts.[173,174]

Lack of data standards: Even where countries collect data, problems arise. Fewer than half of countries participating in a recent OECD survey reported having succeeded in implementing a system where all electronic health records have key data elements that are structured and follow a clinical terminology standard.[171]

Data privacy: Increased data collection and connection has implications for privacy. Resolving this issue will require the development of patient health data privacy and security standards, and the development and adoption of national regulations governing the collection, storage and use of patient health data.[171,176]

Box 3.2
From digital to data revolution

- Active diseases surveillance and response systems through portable devices;
- Digital information systems from health facility to the national level;
- Digital tracking systems for expenditure and resource flows;
- Digital health workforce registries with individual level data;
- Digital registers and databases with individual level patient data;
- Digital health records for individuals with patient data-based aggregate systems;
- Comprehensive health examination surveys using mobile devices and biological and clinical data collection;
- Longitudinal individual-based tracking systems;
- Interoperable databases for medical care, including logistics, lab and patient care;
- Big data analytics;
- Geospatial analysis for many health indicators;
- Electronic dashboards for managers.

STRATEGIC PRIORITIES

The importance of disaggregated data, monitoring and accountability is highlighted in the SDG under the means of implementation targets. For instance, Target 17.18 states:

> *By 2020, enhance capacity-building support to developing countries, including for least developed countries and small island developing states, to increase significantly the availability of high-quality, timely and reliable data disaggregated by income, gender, age, race, ethnicity, migratory status, disability, geographic location and other characteristics relevant in national contexts.*

The global strategy for low- and middle-income countries is captured in a recent roadmap and call to action for measurement and accountability for health results during 2015–2030.[75] The focus of this roadmap is on the five points of the call to action:

1. Increase the level and efficiency of investments by governments and development partners to strengthen the country health information system in line with international standards and commitments.

2. Strengthen country institutional capacity to collect, compile, share, disaggregate, analyse, disseminate and use data at all levels of the health system.

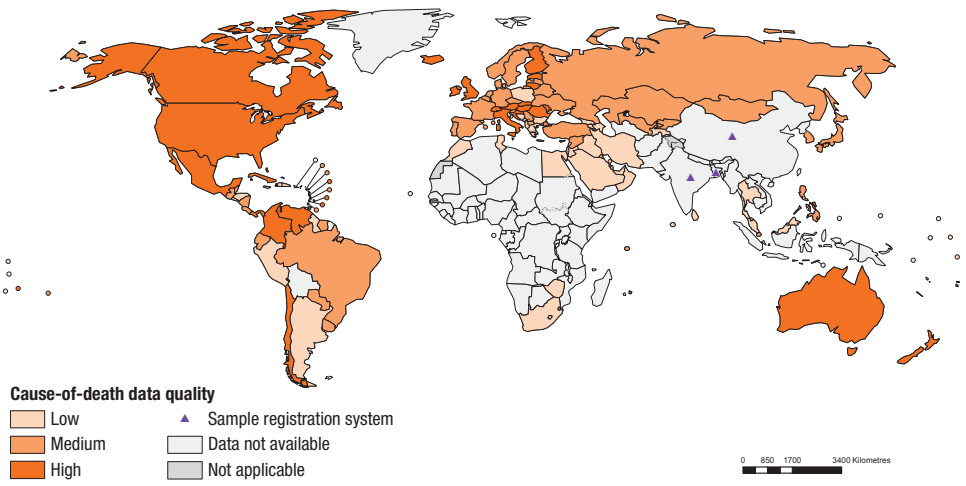
3. Ensure that countries have well-functioning sources for generating population health data, including CRVS, census and health survey programmes tailored to country needs, in line with international standards.

4. Maximize effective use of the data revolution, based on open standards, to improve health facility and community information systems, including disease and risk surveillance, financial and health workforce accounts, and empowering decision-makers at all levels with real-time access to information.

5. Promote country and global governance with citizen participation for accountability through monitoring and regular inclusive transparent reviews of progress and performance at facility, subnational, national, regional and global levels, linked to the health-related SDGs.

The digital revolution provides many opportunities for health information systems (Box 3.2), and should greatly contribute to a data revolution. A data revolution for sustainable development entails integration of these new data with traditional data to produce high-quality information, the increase in the usefulness of data through much greater openness and transparency and, ultimately, more empowered people, better policies and decisions and greater participation and accountability.[177]

Figure 3.11
Cause-of-death information by country, 2014[175]



SERVICE DELIVERY

In order to achieve UHC, health services should be based on a primary health care approach that is people-centred, integrated and responsive. To achieve this goal, the availability, quality and safety of health services must be improved. In many countries, health services are poorly organized and managed, understaffed and crowded with long waiting times, and unresponsive to people's cultural, ethnic or gender preferences. Even when services are accessible, they can be of poor quality, endangering the safety of patients and compromising health outcomes.

TRENDS

There have been significant gains in terms of access to services for infectious diseases, HIV/AIDS, malaria and tuberculosis, as well as marked improvement in MDG-target areas such as RMNCH, including immunization.[178] These gains have occurred in all population groups and are often largest in the poorest populations.[11]

Despite the growth of quality improvement initiatives, it is difficult to ascertain on a global or even national scale whether and how much the quality and safety of services have improved as comparable data are limited, even for high-income countries. Progress has been made in the implementation of a number of interventions to improve the quality of services such as accreditation of facilities, improvements in the numbers, distribution and performance of the health workforce,[19] specific interventions such as surgical safety[179] and combating health-care associated infections,[180] and the greater decentralization of services to primary care providers.

POSITIVE DEVELOPMENTS

Increased accreditation: Hospital accreditation has greatly increased since 1995 and is now an integral part of health systems in over 70 countries, with documented impact in some countries.[12] Most recently, accreditation has been adopted in a number of low- and middle-income countries, often as a strategy to improve basic health service quality.[50]

Global campaigns to promote quality and safety: There have been a number of global and regional initiatives, including the WHO "Clean care is safer care" and the "Safe surgery saves lives" campaigns.[179] To support widespread recognition of the importance of patient safety, WHO established the World Alliance for Patient Safety in 2004, renaming it the Patient Safety Programme in 2009. The linkage of a global movement and local action on patient safety was pivotal to improvement efforts. In particular, the role of institutional health partnerships in service delivery improvement has been highlighted.[181]

Primary health care emphasis: Many countries have continued or strengthened their efforts to develop better integrated health systems, with primary health care clinics taking a greater role in health-care coordination,[15] acting as gatekeepers to the specialized health-care space.[16] In many high-income countries, hospitals are being reassigned a narrower, specialist role, and being called on to support the systems around them.[182] Several countries also aim to increase community involvement in planning and goal setting, as well as the provision of community-based services.[183,184,185]

Digital revolution: Over the past 15 years, the rapid expansion of ICT has begun to change the way health services are delivered with potentially positive effects on outcomes of care or population health.[23] A number of countries are working on ICT-based applications to monitor health services quality.[186,187]

CHALLENGES

Fragmented health services: In all countries, there is room for improvement in how health-care services are organized in order to improve access to primary care and manage patients in the community so as to minimize hospital-based treatments. While a number of countries are embracing health services integration as a way to deliver people-centred care,[51] many are still relying on hospitals and specialist medicine that have little connection with the health-care system around them or the communities they are supposed to serve.[12]

Lack of access and infrastructure: In several cases, national intervention coverage already surpasses 80%. However, there is still a long way to go on the road to UHC. It is estimated, for example, that at least 400 million people do not have access to at least one of six essential services such as family planning or child immunization and major inequalities still persist across subgroups within countries (Figure 3.12).[11,178] Also, access to emergency and essential health services is extremely limited in low- and middle-income countries, where surgical care is concentrated in urban centres.[188]

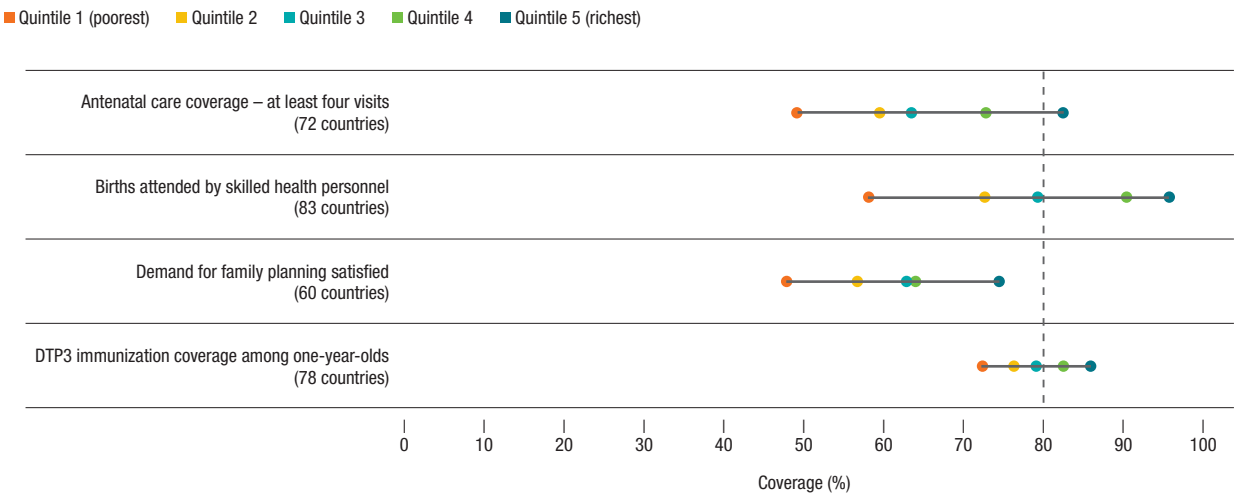
NCD epidemic with an ageing population: An overwhelming challenge facing health services in all countries is the explosion of chronic diseases as the primary driver of health-care utilization and costs. There is a need for continuity of integrated care over time and for both preventive and long-term treatment interventions. Serving a patient population that is increasingly older with multi-morbidities creates challenges in terms of care, home- or facility-based; requiring new models of care provision.

Persistent disease-oriented approach: The drive to produce results for programme-oriented MDGs led many stakeholders to focus on a single priority. There is broad acknowledgement,[57] however, that this approach has limitations and that even these disease-oriented objectives cannot be sustainably achieved without concrete health system strengthening and a more integrated approach.[58,59]

Lack of data: In many countries, data on service delivery are neither captured nor used effectively, either to inform patient care or to underpin service management and resource allocation. There is need for investment in service delivery metrics to complement disease-oriented indicators with clearly defined service delivery targets so that countries can shift their resources towards sustainable improvements in health systems. Measurement of service delivery processes provides a method to monitor progress so that policy-makers, managers and providers may make informed decisions to improve service delivery.

Lack of scaling-up for improvement initiatives: Initiatives for quality improvement have been developed in many countries, but few have achieved their objectives at scale, remaining limited to small-scale and context-specific projects that are usually not embedded in broader health system transformation strategies.

Figure 3.12
Median coverage of selected interventions by wealth quintile, in low- and middle-income countries, 2005–2013[178]



CHALLENGES cont.

Poor quality of care: This remains a key challenge in all countries. Moving forward with UHC reforms without placing quality as a precondition will jeopardize outcomes as well as the reputation and utilization of health services. High levels of medical error are reported across the full range of health services.[53,189] Investments in information and performance improvement systems to assess and improve the quality and effectiveness of care have been limited in developed countries and non-existent in developing countries.

STRATEGIC PRIORITIES

The SDG target most relevant to service delivery is Target 3.8 on UHC. Effective delivery of promotive, preventive, curative, rehabilitative and palliative services is also critical for the health goal overall and most of the specific health targets. It is essential to ensure that national health system reforms for UHC position quality of care as integral to expanding population coverage. Aligning global and national efforts to support robust, evidence-based approaches to providing safe, quality health-care services to populations within the context of UHC will thus be critical, including improved measurement of quality and safety of care.

WHO has launched the global strategy on people-centred integrated health services.[68] The strategy is designed to help countries progress towards "a future in which all people have access to health services that are provided in a way that responds to their life course needs and preferences, are coordinated across the continuum of care and are safe, effective, timely, efficient and of acceptable quality" and focuses on five strategic directions that each offer evidence-based interventions that countries can consider when seeking to redesign the service delivery model:

- empowering and engaging people;
- strengthening governance and accountability;
- reorienting the model of care;
- coordinating services across the continuum of care;
- creating an enabling environment that supports health services transformation.

To improve the major gap in access and quality of surgical services a resolution was adopted by the World Health Assembly to promote the integration of safe, quality and cost-effective surgical care into the health system as a whole.[190] The resolution highlights the importance of both expanding access and improving the quality and safety of services; strengthening the surgical workforce; improving data collection, monitoring and evaluation; ensuring access to safe anaesthetics such as ketamine; and fostering global collaboration and partnerships.

RESEARCH FOR UHC

Research evidence is vital in developing the technology, systems and services needed to achieve UHC. Of paramount importance in both understanding and overcoming barriers to the delivery of health services in the face of often stringent resource constraints, research informs strategies aimed at improving quality health care and promoting equity. Finally, research and the evidence it generates is also needed to ascertain how to optimize the coverage of existing interventions and how to select and introduce new ones to further the UHC endeavour.[76]

TRENDS

New products: The past 15 years has seen a range of new products for prevention and treatment of public health priorities, such as the new vaccines, rapid diagnostics and treatments. This also includes simplifications of treatment regimens and the use of combination therapies.

Improved research activity/production: Globally, there has been a marked increase in research activity and capacity in the wake of the 1990 report of the Commission on Health Research for Development.[191] Notable developments include: augmented research capacity to address key questions about health, and greater guidance for, and adherence to, good practices in the design, conduct, ethics and reporting of results; and improved setting of research priorities, evaluation of disease burden, conducting of primary studies and systematic reviews of evidence (Figure 3.13).

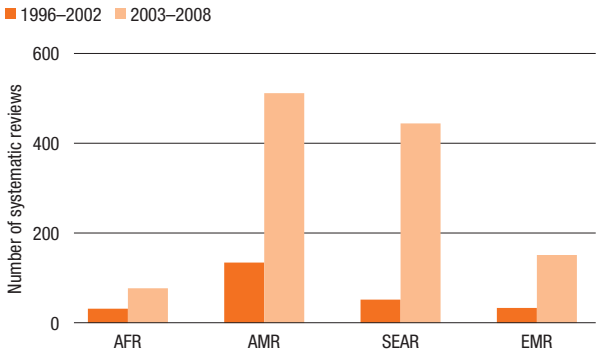
Improved dissemination and use of results: Important progress has also been made in research dissemination (including increased open access publishing), knowledge management and support for evidence-informed policy- and decision-making processes.

More systematic research assessment and use: More systematic approaches are now used to facilitate the assessment and use of research, a notable example being the GRADE (Grading of Recommendations Assessment, Development and Evaluation) system to assess the quality of evidence and strength of recommendations on the basis of existing knowledge.[192]

Greater accountability/transparency: Improvements have also been made in the accountability and transparency of research, key initiatives, including WHO establishing the International Clinical Trials Registry Platform (ICTRP) that now contains records of nearly 300 000 trials.[193] Several countries have also established national registries (e.g. Brazil, China, India, Pan African registry), in addition to strengthening the ethical conduct of research, with guidance from institutional review boards.

Greater access to knowledge: The global volume and access of research publications has grown dramatically. For instance, the WHO evidence-based guidelines present a major global use of research outputs for policy and programme guidance. Enhanced dissemination of research and related publications through the HINARI programme, has resulted in much greater access to scientific journals, databases and eBooks to more than 100 low and middle-income countries until 2020, and possibly beyond.[194]

Figure 3.13
Conducting systematic reviews by selected WHO region, 1996–2002 and 2003–2008[76]



POSITIVE DEVELOPMENTS

Increased awareness of need: The 1990 report of the independent Commission on Health Research for Development exposed the mismatch between investment in health research in low- and middle-income countries and the disease burden they carry, a mismatch later characterized as the 10/90 gap (i.e. less than 10% of global spending on research is devoted to diseases and conditions that account for 90% of the burden of ill-health).[195]

Increased funding: More funding has been allocated to health research. Total investment in health research reached US$ 240 billion by 2009.[65]

Increased health policy and systems research: Support for health policy and systems research has grown significantly,[196] and many countries now have a national health research policy and give higher priority to research for health system development, strengthening links between scientific evidence and the development of health policy.[197]

Increased global collaboration: Multiple global collaborations and partnerships exist, including Health Systems Global,[42] the Alliance for Health Policy and Systems Research,[198] and the Council on Health Research for Development (COHRED),[199] among others, which advocate for greater research investments and facilitate capacity strengthening in low- and middle-income countries.

CHALLENGES

Persistent 10/90 gap: Progress in generating research evidence to support UHC has been uneven, and low-income countries have yet to see a significant increase in research production (Figure 3.14). Even today, a mere 10% of health policy and systems research globally is conducted on low- and middle-income countries.[200]

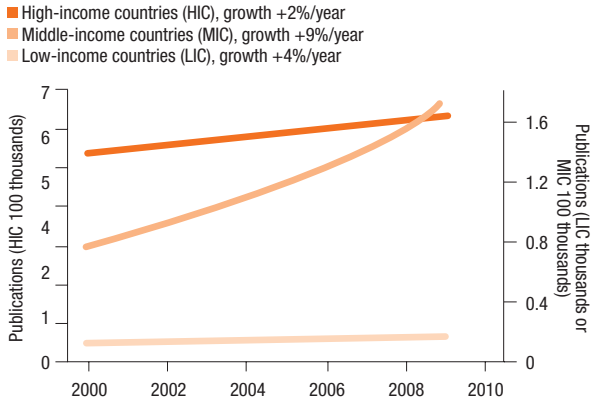
Fragmented research: Despite increased global collaboration, poor coordination and fragmentation of health research are still major issues, in addition to lack of prioritization, low quality in conducting and reporting research, and duplication and waste of research effort.[201]

Lack of funding: In spite of a positive trend, health policy and systems research still accounts for only a small fraction of health research funding in both low- and middle-income countries and high-income countries. Furthermore, health research is still largely focused on biomedical and clinical interventions, while health policy and systems research remains underfunded.[202]

Inadequate use of evidence: Even though the importance of linking knowledge generation and decision-making is widely recognized, these remain largely separate processes. Because of the importance of context in the development of UHC systems, there is a need to go beyond models that call for the linear use of evidence in decision-making, recognizing that knowledge is broader, contextualized and informed by a number of factors other than empirical evidence.

Inadequate ethics: Application of the highest ethical standards in research remains a critical issue everywhere.

Figure 3.14
Research publication by income group, 2000–2010[76]



STRATEGIC PRIORITIES

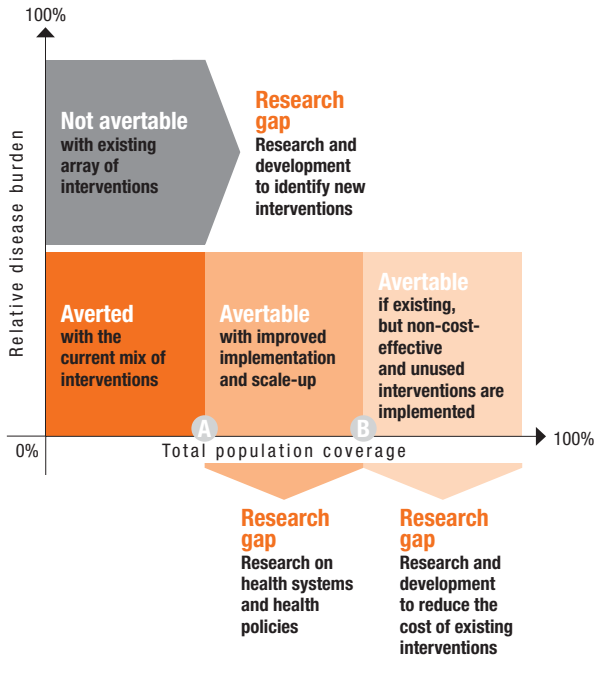
The World Health Report 2013 has set priorities for research for UHC that require national and international backing. Systems are needed to develop national research agendas, raise funds, strengthen research capacity and make appropriate and effective use of research findings.[76] Going forward, the context-specific nature of UHC challenges and opportunities – especially those related to services delivery and financing – will require research approaches that fully reflect conditions on the ground. Health policy and system research offers great potential in this regard, allowing for multiple methods to address challenges of implementation and, crucially, scale-up (Figure 3.15).[77] It is for this reason that global networks and partnerships have made implementation research a priority field.[203]

In addition, there is a need for greater integration of research into decision-making processes and for the production of demand-driven research as an integral part of programme planning and implementation.[204] Integrated or embedded research should be prioritized as a means to foster evidence-informed policy- and decision-making processes.

Greater efforts also need to go into ensuring that the research undertaken is aligned with need. The R&D inequalities and challenges are described in the overview section and the section on medical products in this chapter. The development of the Global Health R&D Observatory, mandated by resolution WHA66.22,[206] is notable in this regard as its main focus is the monitoring and analysis of relevant information on health R&D, building on national and regional observatories (or equivalent functions) and existing global data collection mechanisms to identify gaps and opportunities for health R&D. It will be launched in 2016.

Finally, the development of research capacity in support of UHC will depend on teaching health policy and systems research in both schools of public health and schools of public policy. Collaborative networks of research centres and learning-by-doing opportunities are also important in this regard.

Figure 3.15
Identifying research needs to achieve UHC[205]



A Population coverage with current mix of interventions.
B Maximum achievable coverage with a mix of available cost-effective interventions

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