



Development
Progress

Dimension Paper

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Pathways to progress: a multi-level approach to strengthening health systems

Findings on maternal and child health in Nepal, Mozambique and Rwanda, and neglected tropical diseases in Cambodia and Sierra Leone

Fiona Samuels, Ana B. Amaya, Romina Rodríguez Pose and Dina Balabanova



Overseas Development Institute

203 Blackfriars Road
London SE1 8NJ

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Tracking health of early newborns. Photo: © Gates Foundation

Acknowledgements

This report was authored by Fiona Samuels (Research Fellow at the Overseas Development Institute, ODI, and head of the health dimension for the Development Progress project), Ana B. Amaya (independent consultant), Romina Rodríguez Pose (independent consultant) and Dina Balabanova (Senior Lecturer in Health Systems and Policy at the London School of Hygiene and Tropical Medicine, LSHTM). Emma Samman (ODI) and Van Quang (formerly ODI) carried out most of the data analysis for chapter 3, with support from Chris Hoy (ODI) and their contributions are gratefully acknowledged. Oversight was provided by Susan Nicolai of ODI.

The authors are particularly grateful for the time and inputs from all stakeholders interviewed in the case study countries as well as the local consultants, who provided

invaluable guidance and inputs into the case study reports. The authors would like to acknowledge, with gratitude, the detailed comments on drafts of this report from the two external peer reviewers: Martin McKee (LSHTM) and Jakob Engel (Oxford University). Extensive comments were also provided by ODI colleagues: Andrew Norton, Andrew Rogerson and Susan Nicolai. Anna Brown provided editing support.

The report was funded by the Bill & Melinda Gates Foundation as part of ‘Development Progress’, a four-year research project that aims to better understand, measure and communicate what has worked in development and why. The findings and conclusions contained within are those of the authors and do not necessarily reflect the positions or policies of the Bill & Melinda Gates Foundation.

Abbreviations

ADB	Asian Development Bank	MoH	Ministry of Health (Cambodia)
ANM	Auxiliary Nurse Midwives (Nepal)	MoFEP	Ministry of Finance and Economic Planning (Rwanda)
APEs	Agentes Polivalentes Elementares (community health workers in Mozambique)	MoHS	Ministry of Health and Sanitation (Sierra Leone)
CBHI	Community-Based Health Insurance	MMR	Maternal Mortality Ratio
CBO	Community-Based Organisation	MSF	Médecins Sans Frontières
CDD	Community Drug Distributors	NGO	Non-Governmental Organisation
CNM	National Center for Parasitology Entomology and Malaria Control (Cambodia)	NOCP	National Onchocerciasis Control Programme (Sierra Leone)
DHMT	District Health Management Teams (Sierra Leone)	NTDs	Neglected Tropical Diseases
DRC	Democratic Republic of Congo	NTDCP	Neglected Tropical Disease Control Programme (Sierra Leone)
FHCI	Free Health Care Initiative (Sierra Leone)	PBF	Performance-Based Financing
GDP	Gross Domestic Product	PHU	Peripheral Health Unit (Sierra Leone)
HDI	Human Development Index	PMTCT	Prevention of Mother-To-Child Transmission
HSU	Helminths Sub-Unit (Cambodia)	PPP	Purchasing Power Parity
HKI	Helen Keller International	ODA	Official Development Assistance
IHME	Institute of Health Metric and Evaluation	SCH	Schistosomiasis
INGO	International Non-Governmental Organisation	SDG	Sustainable Development Goal
LF	Lymphatic Filariasis	STH	Soil-Transmitted Helminthiasis
LSHTM	London School of Hygiene and Tropical Medicine	SWAp	Sector-Wide Approach
MCH	Maternal and Child Health	UHC	Universal Health Coverage
MDA	Mass Drug Administration	UNFPA	United Nations Population Fund
MDGs	Millennium Development Goals	UNDP	United Nations Development Fund
MoEYS	Ministry of Education, Youth and Sport (Cambodia)	WDI	World Development Indicators
		WHO	World Health Organization

Abstract

The Overseas Development Institute (ODI) has been conducting a four-year programme of work funded by the Bill & Melinda Gates Foundation which explores drivers of progress across a range of development sectors, including health. The programme seeks to draw lessons from countries that have achieved progress in developing effective institutions and policies to promote health and social development. It aims to contribute to research on strengthening health systems as well as informing and catalysing debate on the post-2015 agenda by advancing workable solutions based on country experience. This report synthesises findings from five country case studies from the health dimension of this project, which focus on maternal and child health (MCH) (Mozambique, Nepal, Rwanda) and neglected tropical diseases (NTDs) (Cambodia, Sierra Leone). MCH was selected given its centrality in two of the Millennium Development Goals (MDGs) and its ability to act as a proxy for strengthened health systems. NTDs, while until recently relatively neglected in global policy debates, are now attracting more interest, not least because they are viewed as diseases of the poor whose treatment could positively impact on most of the other MDGs. Countries were selected that appeared to be making progress both in terms of the disease area under consideration and in terms of their regions; the selection also sought to ensure geographical diversity, that low (and to a lesser extent middle) income countries were chosen and that information was readily available.

The findings arise within a context of increasing global acceptance that strong, effective health systems are needed to sustain progress in health and to advance universal health coverage. Mindful of this, the report employs a multi-level framework (macro, meso and micro) to map drivers of progress in Cambodia, Nepal, Mozambique, Sierra Leone and Rwanda, both nationally and regionally. All five countries have experienced considerable political upheaval and pervasive poverty, but each has also made substantial increases in health expenditure per capita, demonstrating a clear commitment to investing in health. Child and maternal mortality rates have decreased significantly in Mozambique, Nepal and Rwanda, and

NTD control has greatly improved in Cambodia and Sierra Leone, with each country adapting global guidelines to meet local challenges.

Using the multi-level framework, at the macro level (the level of national policies and strategies) our case studies highlight that governance with effective and committed leaders is vital for achieving positive health outcomes. Effective leadership can in turn instil confidence in donors, leading to partnerships providing welcome technical and financial support. With a multiplicity of partners, appropriate coordination is necessary and our study countries showed that this is possible, often through sector-wide approaches. Also critical to progress has been the significant increases in health financing and, in particular, sustained commitment by donors. At the meso level, where policies are implemented as specific programmes, integrating MCH and NTDs into existing health programmes is critical, as are partnerships with other sectors. Decentralisation is also seen as a driver of progress at meso level in some settings, though the evidence of its success is mixed. Finally, in the case of MCH there is evidence of task-shifting as a response to critical health workforce shortages. At micro level (where health systems and users meet), the role of community-oriented delivery and the training and deployment of community health workers in increasing awareness of services, promoting good prevention practices, providing basic services to remote communities and building ownership is vital in all study countries.

Some of these drivers of progress cut across all levels. They are not static and can evolve, with certain drivers acting at different points in times. Without seeking to offer a blueprint, findings from these case studies can help policy-makers and implementers think through the ingredients necessary at different levels — adapted to the particular context — in order to expand access and, ultimately, to promote good health outcomes for all. As the Ebola epidemic in West Africa shows, progress in health, and indeed in other areas, can be fragile. But it also shows the urgent need to move beyond ‘silo’ approaches in order to tackle the broader social determinants of health.

1. Introduction

This report synthesises findings from the health dimension of the Development Progress project. This dimension has focused on identifying institutions and policies that have promoted health and social development despite often considerable political and economic constraints at country level. The lessons from the study contribute to research on strengthening health systems as well as informing and catalysing debate on the post-2015 agenda by advancing workable solutions based on country experience. These are particularly relevant to health policy-makers and implementers grappling with the challenges of strengthening health systems in low-resource settings.

The analysis draws on a set of case studies exploring progress in maternal and child health (MCH) and neglected tropical diseases (NTDs) and suggests a multi-level framework for navigating the complexity of health systems and health outcomes. MCH was selected because of its centrality in two of the Millennium Development Goals (MDGs) and its ability to act as a proxy for effective health systems. NTDs have been attracting more interest in recent years, not least because they are viewed as the diseases of the poor whose treatment could positively impact on most of the other MDGs (for further discussion see Samuels and Rodríguez Pose, 2014). Taking these disease areas and viewing them through the lens of a multi-level framework, the paper argues that drivers of progress can be mapped: at the macro level, broadly defined as the level of national policies and strategies, where decisions about priorities and policies are made; at the meso level where policies are operationalised and implemented as specific programmes; and at the micro or service delivery level, which represents the interface of health systems and users. This approach appears promising in supporting policies to strengthen health systems, despite the limitations discussed below.

1.1 Central role of health systems

It is important to briefly contextualise the analysis presented in this report by drawing on the broader debates around health systems. There is a growing understanding within the global health community that sustaining progress in health depends on strong and effective health systems that are able to deliver essential services. An effective health system is usually understood as one capable of delivering optimal models of care for populations facing changing burdens of disease, while at the same time achieving good long-term health and broader societal outcomes through, among other things, a healthier, more productive workforce (WHO, 2007). This is underpinned by a growing commitment by governments and donors to

a more equitable and efficient distribution of health care, exemplified by the World Bank's view that user fees are 'unjust and unnecessary' and its commitment to prioritise equity and universal coverage (World Bank, 2013).

Ideas about the key role of comprehensive and well-functioning health systems in expanding access to essential services and improving health have featured in public health discourse since the 1960s (Brown et al., 2006), and were reaffirmed with the 1978 Alma-Ata declaration. Discussions around health systems have gained considerable attention with the increased funding and political commitment to health goals in the last decade (WHO, 2007; Marchal et al., 2009; Reich and Takemi, 2009). There is now a clear recognition that weak health systems hinder the delivery of health services and waste valuable economic and human resources and that addressing health systems' deficiencies can provide significant benefits (Atun et al., 2010; Fernandes et al., 2014; WHO, 2007). In response to this, there have been efforts to develop conceptual frameworks that can enable analysis and assessment of health systems and how they operate (van Olmen et al., 2012). One of the frequently used frameworks, the WHO 'building blocks', identified the major goals of a health system as health attainment, financial protection, efficiency and responsiveness, and described the contribution of each block to the progress towards these outcomes (WHO, 2007). Moreover, recent influential work has put forward a holistic approach to health, stressing that health system components are in constant interaction which in turn cause a series of effects that modify the initial conditions and impact on the ability of the overall system to deliver interventions as intended (Adam and de Savigny, 2012).

Perhaps as a result of their complexity, there is little consensus on how to conceptualise and operationalise health systems or how to monitor their key characteristics (Marchal et al., 2009; van Olmen et al., 2012). This is detrimental to efforts to strengthen health systems and may have led to the dilution of organisational focus among major donors and global health organisations (Hill et al., 2011; Marchal et al., 2009). A lack of clarity on how to address health systems means that the important momentum that has been generated may be lost.

1.2 A focus on goals

Given the huge investment needed to strengthen health systems, political effort has been channelled into defining achievable and measurable goals, of which the three health MDGs are an important example. Progress towards these goals has dominated the global health agenda in

the past decade, often with a focus on a small number of specific health outcomes and narrowly defined policies and interventions designed to achieve them. Although the MDGs have no doubt stimulated policies that have given rise to a range of new and successful initiatives, there have also been disappointments. While there has been substantial progress in several countries (see e.g. Chowdhury et al., 2013), the goal of reducing mortality among children under five (MDG 4) and maternal mortality (MDG 5) in 75 ‘Countdown’ countries¹ will not be reached in 44 and 62 nations, respectively (Bhutta and Black, 2013). It has also been argued that this focus on specific health outcomes has not been accompanied by adequate attention to strengthening overall health systems; similarly, the narrow focus has tended to promote working in single sector silos without considering broader determinants of health (Waage et al., 2010).

Mixed success in making progress towards achieving the MDGs has exposed the limits of focusing on core services provided in traditional or formal sector health facilities. It demonstrates the necessity of improving access through a more comprehensive approach to health systems that includes a broad range of state as well as non-state, informal and lay actors such as community health workers, non-governmental organisations (NGOs) and others (Souza et al., 2013). Widening our understanding of how and where people access health services will not only promote better and more equitable access, but it will also contribute to strengthening health systems more broadly. Consequently, there is now an intensive debate about what alternative approaches to achieving and promoting good health for all in the future might look like. The research presented in this report seeks to contribute to this debate.

1.3 Case studies and approach

The study contains case studies of five countries that have achieved significant progress despite scarce resources and difficult political environments. They focus on MCH in Nepal, Mozambique and Rwanda and NTDs in Cambodia and Sierra Leone. Countries were selected that, based on a set of quantitative indicators, appeared to be making progress both in terms of the disease area under consideration and relative to their regions. The selection was also influenced by the importance of focusing: (1) on low (and to a lesser extent, middle) income countries; (2) on obtaining both an African and an Asian perspective; and (3) on countries where access to data and information was more straightforward.² The case studies took place between 2013 and early 2014;³ as such, the findings do not take into account later developments in these countries, particularly the Ebola epidemic in Sierra Leone which is likely to have a devastating effect on its broader health system, possibly undoing some of earlier successes in tackling NTDs.⁴

Following this introductory section, the framework developed for this study is presented and related to the wider literature. This is followed by an overview of the five case study countries that situates them within their national and regional contexts. Drawing on the study findings, the drivers of progress that manifest at different levels are then explored. To conclude, the discussion turns to ways to promote progress towards good health and to integrate health within the sustainability and development agenda, particularly as we reach the end of the MDG process.

1 ‘Countdown’ countries are those countries that account for 98% of all maternal deaths and deaths among children younger than five years of age.

2 Please refer to the individual case study reports for the selection process for these countries and the methodology for the case studies.

3 With the exception of the Rwanda case study which was carried out in 2010 under the first phase of the Development Progress project.

4 See e.g. <http://www.irinnews.org/report/100629/ebola-s-economic-impact-hits-sierra-leone-citizens>; <http://www.odi.org/how-bad-ebola-outbreak>; <http://www.theguardian.com/global-development/2014/sep/17/ebola-seven-things-tackle-outbreak>

2. Pathways to progress

2.1 Analytical approach and framework

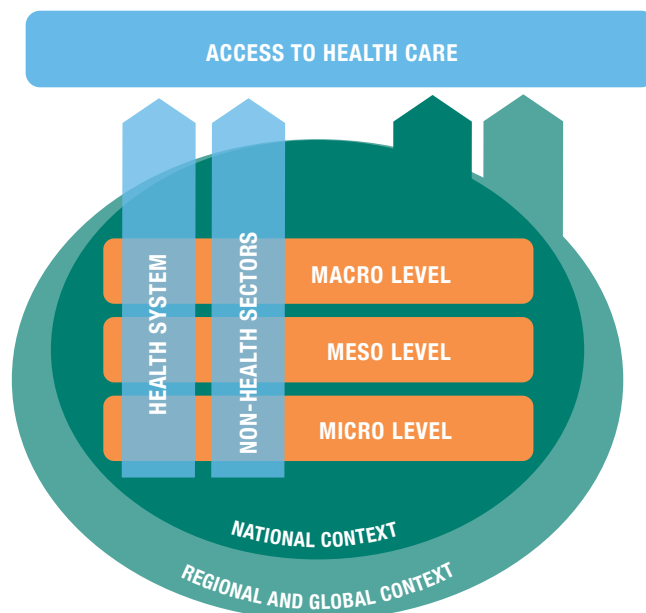
The conceptual framework for this study was developed and refined in parallel with the analysis of findings from the five country case studies and informed by a review of the literature. The drivers of progress for MCH and NTDs were expected to be very different given the vast differences in the nature of these diseases and in the kind of health system responses needed to tackle them. However, a number of commonalities emerged inductively during the comparative analysis, and are discussed in this report.

The framework focuses on three levels of the health system: the macro, meso and micro. The macro level is broadly defined as the level of national policies and strategies where decisions about priorities are taken (Caldwell and Mays, 2012), policies and interventions are designed and resources are allocated for their implementation (Jimenez-Soto et al., 2012). At the meso (sub-national) level, these policies are operationalised and implemented as specific programmes and are affected by the organisational context, the strength of competing interests at this level, and the ability to forge alliances among multiple institutions to achieve the same goal (Smith et al., 2009; Legare et al., 2011; Caldwell and Mays, 2012). Finally, the micro or service delivery level represents the interface of health systems and users or communities (Plochg and Klazinga, 2002). It should be noted that the functions of each level are not fixed and are likely to vary across contexts. In some contexts, for instance, institutions at the meso level may have significant power to design interventions and allocate funding. Moreover, the factors at play at each level are not distinct: the sort of politics, vested interests, corruption, public pressure or advocacy that can influence decisions at the macro level (Kipiriri et al., 2006) are also seen at the meso and micro levels (Gilson and Raphaely, 2008).

These three levels are illustrated in Figure 1, which sets out the framework that has guided data collection and interpretation of the country case studies. The framework was developed based on existing frameworks, including Good Health at Low Cost (Balabanova et al., 2011), and the Commission on Social Determinants of Health (2008), among others.

The framework considers interventions and policies first within the health system and, second, within non-health sectors such as education and agriculture, among others, that are supportive of and interlinked with the health system and have important effects on access to health care and health outcomes. A good example is the close relationship between education and maternal and child survival (and NTDs), with evidence showing increasing enrolment of girls in schools often occurs in parallel with

Figure 1: Drivers of progress in health: a conceptual framework



Source: Authors' own visualization.

reductions in maternal mortality (Grown et al., 2005). The analysis extends to both private (non-state) and public sectors, given the significant roles of both non-profit and for-profit organisations in some countries.

Health gains can be also promoted or constrained through factors in the national context beyond the health systems. This includes the broader aspects of governance, for instance the nature of its political institutions and processes; the economic situation, such as national income, investment in social programmes; political factors, for example political freedom, civil liberties, the empowerment of women, the status of the ministry of health in the government, and the interest of elites in service delivery; history, geography and demography; and social and cultural factors, such as religion, cultural norms and ethnic diversity.

Institutions and policies that promote health are also influenced by the position of a country in the regional and global contexts. This includes: foreign aid commitments to finance health programmes, and the global and regional funding environment (which in turn may reflect the recipient country's geopolitical and strategic importance to donors); regional policies, agreements, commitments (e.g. for the treatment of NTDs and other epidemics which do not recognise borders); any trade agreement obligations and their effect on the purchase of medicines; and the extent of internal, international and cross-border migration.

Categorising the drivers of progress into three levels helps us understand how they operate and interact with

each other and with the broader context. This framework also allows flexibility in moving away from a paradigm in which the majority of existing research on progress in health is situated: one in which health systems are the only factor in promoting health. Clearly health systems are critical, but the linkages between health outcomes and other social determinants of health, such as education, social exclusion, marginalisation and poverty are also crucial parts of the picture.

While this framework provides a tool for understanding the different drivers of progress, it is important to note that the drivers are not static and they can change and evolve over time. Certain drivers, for instance, can be prominent at certain levels at particular moments where a window of opportunity to promote good health outcomes exists. Changes in the relative importance of drivers can be triggered by changes in local political economy, donor funding and regional dynamics.

Finally, as touched upon above, while the framework separates the different levels in seeking to navigate these complexities analytically, it does not suggest that these levels are mutually exclusive; rather, many drivers cut across all levels. For the purposes of the study, though, each type of driver is explored at the level where it typically manifests itself to a higher extent according to the literature review.

Before presenting our findings, it is important briefly to situate this multi-level approach in the broader literature.

2.2 Drivers of progress towards good health – what have we learnt?

This section provides a brief overview of some of the broader literature on drivers of progress. The review started with the assumption that success factors can be identified by considering a range of different health systems and synthesising the emerging patterns. Thus the review included only comparative studies (i.e. those which compared two or more countries).⁵ Guided by the multi-level framework, the review of the literature arrived at five broad groups of factors that have promoted success:

- effective governance (macro level)
- effective implementation / operationalisation of policies (meso level)
- integration of programmes and task-shifting (meso level)
- partnerships across sectors (meso level)
- increasing access through community-centred health programmes (micro level).

2.3 Effective governance – macro level driver

Good governance has been found to be a key predictor of success in designing and implementing effective health policies because of its importance in guiding the appropriate use of resources (Levine et al., 2004; Mackenbach and McKee, 2013) and improving health worker productivity (Mackenbach and McKee, 2013).

A critical aspect of good governance emerging in the literature is the presence of effective leaders and the role of champions who promote these health initiatives and seize windows of opportunity (Balabanova et al., 2011; Druce and Dickinson, 2006; WHO Regional Office for Europe, 2006; Green et al., 2011; Levine et al., 2004; Rhode et al., 2008). The literature shows that effective leadership comprises: political commitment to the main outcome, either through the allocation of resources or the development of specific policies (Balabanova et al., 2011; Atkinson et al., 2005; WHO Regional Office for Europe, 2006; Levine et al., 2004; Ritsatakis and Makara, 2009; Rhode et al., 2008); the ability to achieve political leverage; and the ability to marshal this commitment for the purposes of generating ownership at the policy and implementation levels (Green et al., 2011), an example of the cross-cutting importance of effective governance.

Political commitment not only to health reform but also to social welfare and equity (for example in the form of social programmes such as literacy for girls) has been linked to improved health outcomes (Balabanova et al., 2011; Kuruvilla et al., 2014; Levine et al., 2004; Rhode et al., 2008). In some cases, these measures have been explicitly based on a human rights-based approach to health, as in Nepal, where issues such as safe motherhood and neonatal health are considered human rights, placing an obligation on the government to protect these rights by providing appropriate services (Kuruvilla et al., 2014).

A third aspect of governance that characterises well-functioning health systems is the extent to which the decision-making process is evidence-based and reflects best practice, and how this, in turn, can lead to defining appropriate policies (Atkinson et al., 2005; Dawad and Veenstra, 2007; WHO Regional Office for Europe, 2006; Kuruvilla et al., 2014; Levine et al., 2004). Leaders responsible for formulating health policies, usually located at the ministry of health, should ideally make strategic decisions based on health needs (Levine et al., 2004; WHO Regional Office for Europe, 2006; Ritsatakis and Makara, 2009). However, they are frequently compelled to respond to short-term or narrow political interests, while their personal agendas may also influence their appraisal of the evidence (Green et al., 2011).

5 Other criteria for selection included: research published between 2000 and 2014; studies that clearly identify 'success' factors or say why some countries did better in specific health areas and in improving access to services relative to other countries belonging to the same income levels instead of just presenting country experiences without explicit comparisons; and studies published in English. A total of 26 sources were included in the study. This includes three books, 11 reports and 12 peer-reviewed papers. Ten of these sources compare low-income or developing countries; two middle-income countries; seven high-income countries; and seven compare a mix of countries from these income levels.

Another frequently discussed aspect of governance is the level of coordination and alignment between different actors in the health system, and the degree to which their interests and ability to contribute are accommodated within the policy process. Druce and Dickinson (2006) demonstrate how a lack of policy coordination between national and district levels may be caused by inadequate financial resources and by a lack of shared operational policies based on regulations, guidelines and protocols. Thus in Swaziland low uptake of prevention of mother-to-child transmission (PMTCT) in antenatal care was attributed to the lack of targeted PMTCT education and communication strategies, despite the fact that relevant policies had been developed several years earlier (Policy Project, 2004).

Who holds whom to account for fulfilling particular commitments varies. The experience of rural Brazil demonstrated that local health systems lacking effective regulatory mechanisms are more likely to deliver extremely weak services for populations than those with clear accountability processes (Atkinson et al., 2005). This can include appropriate routine monitoring and evaluation processes, including safeguards against corruption (Kuruvilla et al., 2014) or monitoring by NGOs. In some settings such as Vietnam and China it has been found that although external pressure from the media or donors contributes to agenda-setting, civil society has little influence on the policy processes. However, this may reflect the recent emergence and weak position of NGOs in these countries (Green et al., 2011).

2.4 Effective implementation of policies and overcoming bottlenecks – meso level driver

In order to be implemented effectively, health policies need to be operationalised and responsibilities delegated to those at lower levels of the health system. Green and colleagues' (2011) study emphasises the importance of local ownership for the effective implementation of interventions. There is also evidence showing that the gradual scaling-up of coverage of care and comprehensive health systems can refine an intervention before it is fully rolled out, increasing the likelihood of sustainable health outcomes (Rhode et al., 2008). Yet bottlenecks occur when capacity at each level is limited. A study examining four local health systems in Brazil and Chile found difficulties were experienced in implementing health promotion and prevention activities in rural sites, mostly due to a lack of local government capacity and, in the case of one location in Brazil, lack of awareness among local workers of the need for this type of intervention (Atkinson et al., 2005). This is also the case in South Africa where district managers struggled with the task of defining district needs and were not provided with the autonomy to prioritise pressing health needs, such as

addressing HIV and AIDS, compared with other health concerns (Dawad and Veenstra, 2007).

Some implementation bottlenecks are at the level of the implementing organisation. Overcoming them requires an understanding of how professionals are organised and how they interact and carry out their work at this level (see Martinez and Martineau, 2002; Wrede et al., 2006). In what they describe as a 'decentred comparative approach', Wrede et al. (2006), for example, compared maternal health care across eight high-income countries with a focus on the meso level (conceived as the level where health care organisations, professional groups and similar organisations are located). Their findings suggest that the size of the hospital and the way services are organised within it have a direct influence on the deployment of obstetric technologies, professional practices and choices offered to women.

2.5 Integration within the health systems and task-shifting – meso level driver

A key theme emerging from the literature relates to the benefits of integrating vertical health programmes (programmes that are disease-specific, often implemented in a self-standing manner) within broader health system (Atun et al., 2010). There is evidence that integrated community case management programmes dramatically increase the number of children treated for diarrhoea, fever and pneumonia (Lainez et al., 2012). As well as being a more efficient use of resources, integration may also promote consistent national policies (Levine et al., 2004; Rhode et al., 2008).

The integration of vertical programmes requires new ways of using existing resources, particularly related to the health workforce. The importance of flexibility in the use of health care workers was a strong theme in the Good Health at Low Cost study (Balabanova et al., 2011). Bloor and Maynard (2003) also support this view, comparing human resource policy planning in Australia, France, Germany, Sweden and the United Kingdom. They concluded that the development of integrated and systematic policies necessarily changes how health providers conduct their work, in most cases affecting the skill mix in the health care workforce, for example with tasks shifted from doctors to nurses and non-physician clinicians. In addition, generating synergies between areas of health care by allocating funds to support shared staff, as well as supporting programme resources, was also found to be effective in improving access to care (Druce and Dickinson, 2006). Chen and colleagues (2004) argue that successful workforce strategies must be country-based and country-led, focusing on the front line in communities and backed by international support.

2.6 Partnerships across sectors – meso level driver

Initiatives that foster partnerships with other sectors that have an impact on health but are outside the traditional health system not only have the potential to make the most of scarce resources, but can be key drivers of good health outcomes. Situated conceptually within the meso level here, it is important to note that partnerships across sectors can cut across the different levels, in particular influencing the local or community (micro) level. Thus, Atkinson and colleagues (2005) found that the most successful local health clinics promoted activities with other partners, particularly from education. The Australian government actively seeks to facilitate intersectoral collaboration through an intergovernmental agenda for public health. Similarly, policy documents in Canada advocate intersectoral collaboration as an important element in a population-based approach to public health, but this has had little practical application (Allin et al., 2004). Work from Hungary, Kyrgyzstan and Lithuania describes the beneficial effect of multiple partnerships with local government, NGOs and other actors coordinated by the government-based technical agencies (Ritsatakis and Makara, 2009). Although these positive relationships usually begin with informal contacts, they are more lasting if institutionalised in policies and agreements.

The value of intersectoral approaches is supported by a study by Kuruvilla et al. (2014). It found that after investing in the health sector, high-impact interventions and systems strengthening such as immunisations, skilled birth attendance and family planning, the next best value for money was from investing in other sectors that have an effect on health such as education, greater political and socioeconomic participation by women, improved sanitation and reduced levels of fertility and poverty. Finally female empowerment is closely linked to good health outcomes. Thus, greater political and socioeconomic participation by women (Kuruvilla et al., 2014) was associated with lower under-five mortality and also increased the potential gains in other maternal and child health indicators (Kalpeni, 2000). According to the study by Kuruvilla et al. (2014), countries that are doing well in maternal and child health, or 'fast-track' countries, also have a higher-than-average female labour-force participation rate, which may reflect mothers with better education making safer maternal health choices.

2.7 Community-oriented delivery – micro level driver

The vital role of the community as a key health resource is increasingly recognised in the literature. The community is where individuals live, where they become sick and where they are cared for. The idea of community-oriented delivery includes community members as service users but also community representatives identifying local health priorities and guiding how services should or could be delivered and managed, including through involvement

of community-based health providers. Engaging with community-based institutions may improve accountability and local governance, with implications for successful uptake of essential services. Indeed this review found that good health outcomes are promoted by participatory decision-making processes through patient empowerment and community involvement (Plochg and Klazinga, 2002; Ritsatakis and Makara, 2009; Smith et al., 2009) and greater accessibility to health services through community health programmes (Lainez et al., 2012).

Given the predominant role of community health workers in providing many essential services, particularly in low-income settings, the role of supervision is key (Larson et al., 2006; Rhode et al., 2008; Sudhinaret et al., 2013). Regular supervision is associated with better outcomes (WHO, 1990; Lainez et al., 2012), more accurate diagnosis and treatment of childhood illness by community health workers, and better quality of care (Lainez et al., 2012). This point is important since the participation of different actors, such as community health workers or civil society, in implementing health interventions requires explicit clarification of the new roles in order to avoid duplication of efforts and to deliver successful services (Wamai, 2008). There are indications that overloading community health workers (measured through assessing the size of the catchment areas they cover) may have a detrimental effect on access and adherence to treatment (Lainez et al., 2012). However, negative effects can be reduced and commitment improved through flexible management involving teamwork, explicit team responsibilities and self-evaluation (Atkinson et al., 2005). Similarly, an evaluation of community-directed interventions in Cameroon, Nigeria and Uganda found that intrinsic incentives, such as recognition, status or knowledge gain, were perceived as more important incentives among community health workers than material incentives (WHO, 2008).

The factors identified through the literature review and mapped across the macro, meso and micro level have informed the conceptual framework and study methodology. Health systems are examined as a set of multiple factors that play out at different levels, many of which interact with each other and are also highly dependent on the context in which they are found, including governance (both within and beyond the health sector), policy processes and implementation. This framework also allows us to take into account the social determinants of health and their role for improving access and health, and, given the often blurred boundaries between the private and public sector, capture issues relevant to private and public and formal and informal provision. Finally, while there is strong evidence supporting many of the drivers in broad terms, there is less knowledge about how each of these manifests in concrete country circumstances and how to leverage their contribution and at what level in order to achieve good health outcomes.

Before turning to explore the drivers using this multi-level approach, we situate these countries within their contexts.



A female community health volunteer in Nepal. Photo: © Save the Children.

3. Where do the study countries stand? A snapshot

An important part of understanding what leads to progress in health is the background of the countries and their position within their region. This section begins with a brief historical/political description of the five country studies, followed by an overview of socioeconomic and health trends in each. We then explore key health indicators around MCH and NTDs in each case, comparing with other countries in their respective regions. A more detailed presentation of the data is in Annex 2.⁶

3.1 Historical and political context

The five countries have undergone challenging political transitions. While we cannot do justice to the vast amount of literature on these transitions, it is important to briefly mention them as they have shaped both the broader economy and the health sector. Similarly, with this context in mind, the starting points of each of the countries were relatively low and the gains made should also be understood with that in mind.

Civil war, genocide and occupation dominate Cambodia's modern history. Four years of genocide under the rule of Pol Pot and the Khmer Rouge caused the deaths of up to 2 million people through violence, starvation and disease. Vietnamese troops overthrew the Khmer Rouge in 1979 and installed a hard-line socialist regime that lasted for 10 years. Despite general elections in 1993, a fragile political stability only occurred with Pol Pot's death in 1998.

The 15-year civil war in Mozambique (1977 to 1992) (Pavignani and Colombo, 2001) killed more than 1 million people and resulted in much of the population losing their homes, or becoming displaced (Hanlon, 2010; Hanlon and Keynes, 2010). Large parts of the country's infrastructure were destroyed and the rural economy was devastated.

Nepal underwent political transition in 1990 and 1991 with a return to multi-party politics from absolute

monarchist rule. This was followed by a civil war involving a Maoist insurgency between 1996 and 2006.

Decades of tribal tensions in Rwanda originating in colonial times culminated in the early 1990s in a civil war and the genocide of about 1 million people (Rodríguez Pose and Samuels, 2011).

Sierra Leone emerged from a decade-long civil war in 2002 that killed an estimated 50,000 people, displaced around half the country's population and destroyed most of its infrastructure (UNDP, 2006).

3.2 Socio-economic trends

It is important to consider how national economies have been influenced by these challenging political transitions. GDP per capita in the five case study countries has grown steadily but remains lower than in their respective regions (see Figure 1, Annex 2). Cambodia in particular has shown significant growth, although at a slower rate than its regional average, increasing from around \$740 in 1994 to close to \$2,000 (in 2005 purchasing-power-parity – PPP)⁷ by 2010.⁸ This was associated with the transition to an open market economy, which spurred the rapid rise of the garment industry, tourism and construction, and further integration with regional and world markets. In 2001 Cambodia attained lower middle-income status (Hak et al., 2011; Felipe, 2012). In the decade that followed (2001–2010), its annual average GDP growth of 7.7% was among the world's top 10, although it was hit by the global financial crisis in 2009 (Keane et al., 2010).

Poverty is pervasive in the five case study countries (see Figure 2, Annex 2). In Sierra Leone, more than half the population still live on less than \$1.25 a day, a major obstacle to progress on NTDs as poverty is tied closely to the conditions in which NTDs spread (Rodríguez Pose, 2014). Mozambique went from being the world's poorest country, overcoming 15 years of war, to achieving 20 years

6 All data derive from world development indicators (WDI) (2014) unless otherwise indicated. All regions are country-weighted averages, and these are only computed when at least half of countries in the region have data.

7 In World Development Indicators, health spending is measured in constant 2005 international dollar PPP, hence GDP is also measured in these units for the sake of consistency.

8 We use constant 2005 international dollar PPP rather the 2011 updates because the data on health spending have yet to be updated.

of relative stability, improved security (Rodríguez Pose et al., 2014) and rapid growth. However it still has high poverty rates, is vulnerable to natural disasters and has one of the highest HIV prevalence rates in the world. The poverty rate in Cambodia fell from 44% in 1994 to 10% in 2011. Poverty remains predominantly rural in all five countries with the ratio of rural to urban poverty varying from 2.77 (Cambodia) to 1.14 (Mozambique).

The human development index (HDI), a composite statistic that includes life expectancy, education and income. The HDI has increased markedly in all five countries in the past two decades (see Figure 3, Annex 2). Of the five countries, Rwanda progressed the fastest, almost doubling its HDI from 0.23 to 0.42. HDI increases have been slowest in Sierra Leone (increasing from 0.241 in 1990 to 0.334 by 2010). The rate of improvement in the HDI has been higher in the five countries than in their respective regions, especially in sub-Saharan Africa (See Figure 4, Annex 2). These results demonstrate that, despite starting from a very low base, these countries have achieved rapid socioeconomic progress.

3.3 Health and the health sector

Economic growth alone is not sufficient to bring about positive health outcomes if not channelled into appropriate expenditure and sound policies, especially in social sectors (Ahmad et al., 1991; Balabanova et al., 2011; Kuruvilla et al., 2014).

In 2012, the five countries collectively received more than \$3.3 billion in official development assistance (ODA). Almost one-tenth of this was directed to the health sector although with considerable variation between the countries (Figure 2, overleaf). Mozambique and Cambodia received the highest share of ODA directed to the health sector, averaging around 10%, while Sierra Leone and Nepal received the lowest, averaging 4% and 6% respectively. The share of ODA directed to health in Rwanda has varied significantly, ranging from less than 6% to 12%. Nepal is the only country over the last decade where the share of ODA to the health sector has consistently been increasing. In both Rwanda and Sierra Leone, the level of ODA to the health sector peaked four to six years ago and has been declining. The health sector has maintained a stable share of total ODA over the last decade in Cambodia and Mozambique.

3.3.1 Health expenditure

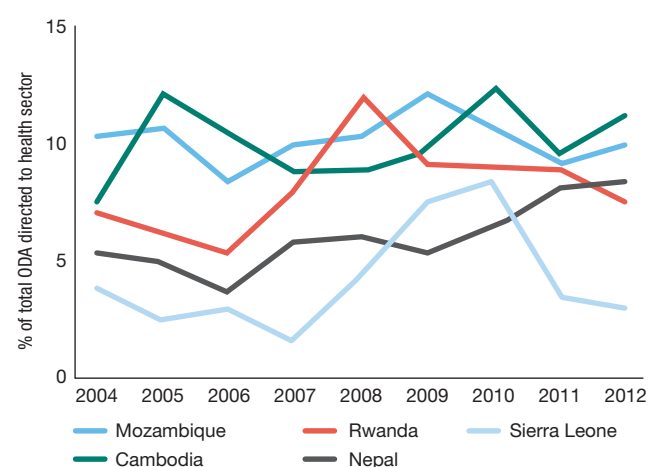
The level of total health expenditure and the share of health spending in the overall government budget indicate the extent to which health is a priority. The five countries seem to demonstrate a commitment to invest in health, as shown by the share of total health expenditure⁹ when compared to the regional averages (see Figure 5, Annex 2). Rwanda and

Sierra Leone performed better than the sub-Saharan African region, with shares that were significantly higher than the regional average (total health expenditures were slightly higher than 9% and 13% respectively, compared to above 6% for sub-Saharan Africa in 2009). Nepal has also shown a significant improvement in this share since 2000 – its share of 8.6% surpasses the South Asian average of 5.3%. Cambodia and Mozambique have had lower shares than their respective regions since the early 2000s. Cambodia reached close to 6% while the East Asia and Pacific region's average was 6.7% in 2009. The share of total health expenditure remained below 6% in Mozambique – again, slightly lower than its regional average.

Measured by total health expenditure per capita between 1990 and 2010 (See Figure 6, Annex 2), Rwanda has made the greatest leap (in relative terms) of all five countries, from \$20 per person in 1995 to more than \$100 per person in 2010. It was followed by Cambodia where per capita spending tripled from around \$40 in 1995 to over \$120 in 2010. Sierra Leone saw a positive trend reaching \$170 by 2010, the highest level among the five.

To probe further the evidence on how far health was prioritised, we analysed the share of public expenditure on health as a percentage of government expenditure over time (see Figure 7, Annex 2). The data show increases in Cambodia, Nepal and, particularly, Rwanda, and fluctuations in this ratio in all five countries. As of 2010, the share of spending in Cambodia was below the regional average while it was above the average in Nepal, Rwanda and Mozambique. Sierra Leone assigned a relatively lower priority to health with public spending never reaching 10% of government expenditure. Notably, Rwanda met

Figure 2: Levels of ODA to health sector in case study countries, 2004–2012



Source: OECD, 2014.

⁹ Total health expenditure in world development indicators includes both government expenditure and out-of-pocket expenditure.

the Abuja Declaration target of investing at least 15% of the government budget for health by 2010 (Cambodia and Mozambique had previously reached this goal).

Conversely, out-of-pocket expenditure per capita (a key indicator of the economic burden borne by the population) has remained relatively low or stable in Nepal and Mozambique and lower than their regional averages in all five countries. However, it increased significantly in Rwanda (\$5 in 1995 to \$22 in 2010) as well as in Sierra Leone and Cambodia (Figure 8, Annex 2). The brief decrease in out-of-pocket expenditure seen in Sierra Leone in 2003 may coincide with the post-conflict influx of donor assistance.

The post-war reconstruction processes in each country began with significant support from the international community and emphasised governance reforms and the restoration of peace and order in the country. This shift towards increased engagement went beyond responding to the loss of infrastructure during the wars but also laid the foundation for economic and social development following peace accords, particularly in Mozambique (Gentili, 2013; Macaringue, 2002). Although the level of national investment in health has grown in the five countries in recent years, external assistance still accounted for 53.2% of the health budget in Rwanda in 2010 for example. At the same time, increased spending on MCH and NTDs in all countries may also reflect the particular interests of donors who saw these areas as priorities (De Renzio and Hanlon, 2007; Rodríguez Pose et al., 2014).

The share of external resources in total health expenditure is low in all regions (see Figure 9, Annex 2). However, all the study countries except Cambodia have a higher share of external investment for health than their regional average. Mozambique has seen the most pronounced increase. It has been a testing ground for a health financing mechanism that has doubled investment since 2000. In Rwanda the share substantially increased in 2000, then remained stable until 2010. The increase in Sierra Leone has also been dramatic, from just over 0% in 1990 to almost 20% in 2010, primarily due to increased donor investment in post-war reconstruction.

3.3.2 Maternal and child health and neglected tropical diseases

Maternal and child health

The measurement of maternal mortality is beset with complications. These arise principally because maternal mortality is a rare event and therefore difficult to capture in household surveys; the administrative systems designed to record deaths in many developing countries are weak. As a result, figures on maternal mortality presented here are estimates derived from regression-based modelling.

The study countries saw large declines in maternal mortality (Figure 3, overleaf). Rwanda demonstrates fluctuations, decreasing during the first half of the 1990s, when the civil war and genocide were ongoing,

then increasing to very high levels in 2000 and sharply decreasing again in the 2000s. The maternal mortality ratio (MMR) also fluctuated in Mozambique, although at lower levels than Rwanda, with the main decrease occurring since 2007. Nepal began with a lower maternal mortality ratio than the other study countries and the decrease has been gradual since 2000.

When set in a regional context, Rwanda has experienced a substantial decrease, going from above to below the average. Nepal and Mozambique show mixed results. The MMR remained stable in Mozambique at a time when its neighbours experienced gains, so that it went from below the regional average in the 2000s to above it in 2010. The impact of the HIV/AIDS pandemic may in part explain this. Nepal has experienced an absolute decline in maternal mortality although by 2010 it had risen slightly above the average for South Asia.

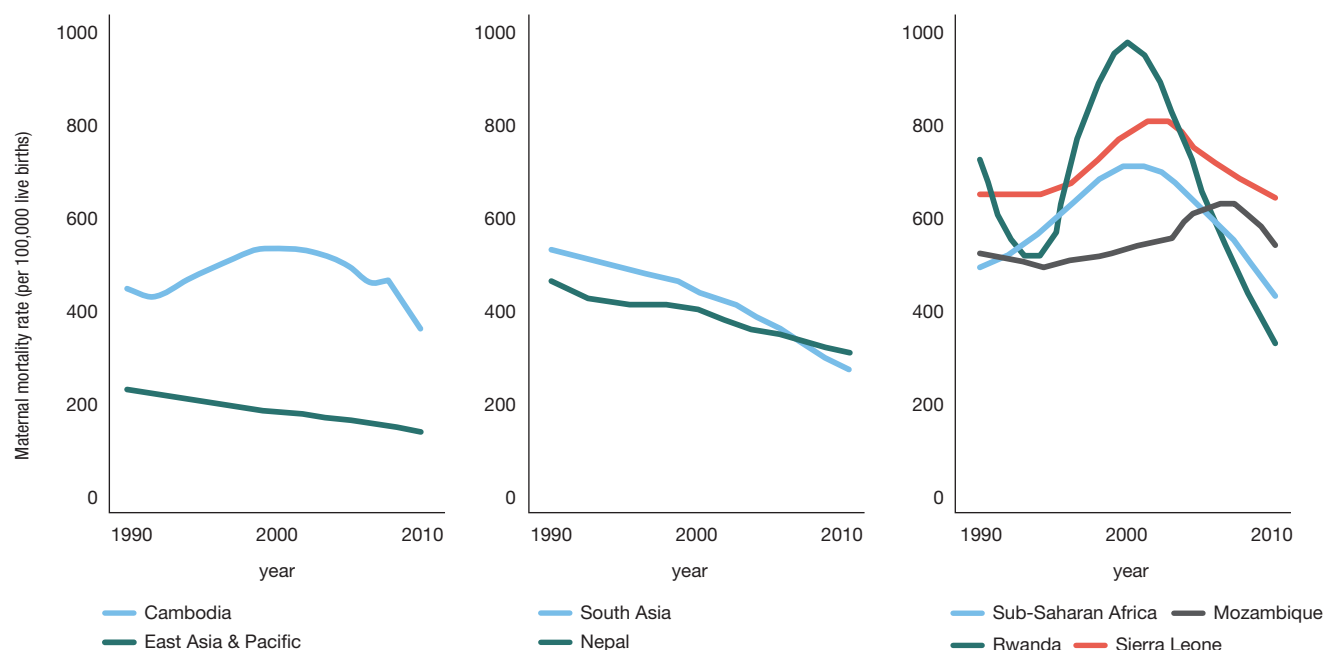
The percentage of births performed by a skilled health worker is another important predictor of good maternal and child outcomes (Figure 4, overleaf). The existing data show that three case study countries have significantly improved over time. Both Mozambique and Rwanda surpass the 50% average for sub-Saharan Africa in 2010 with respectively 55% in 2008 and 69% in 2010. Nepal, however, remains below the regional average for South Asia. In 2011, it matched the 2000 regional level with around 36% of births involving skilled attendance.

These increases in skilled birth attendances are encouraging, yet it is important to assess whether the improvements have been equally distributed within the society (Figure 5, page 20). Since 1996, skilled birth attendance has improved for mothers in all wealth quintiles in the study countries. Rwanda has done particularly well in reducing the gap between the poorest and the wealthiest sections, with rates that have frequently been above the median for all countries since 2006. Mozambique has also made significant progress in improving coverage with these services, although there is still a visible gap between the lower and higher income groups. Coverage of the three lowest quintiles is still particularly poor in Nepal.

The percentage of pregnant women who receive at least four antenatal care visits with a provider, as recommended by the WHO, is an important predictor of maternal mortality. Mozambique and Nepal are outperforming their regional averages on this indicator. Rwanda's rate of 25% was below the sub-Saharan Africa average of just under 50% in 2010 (see Figure 10, Annex 2).

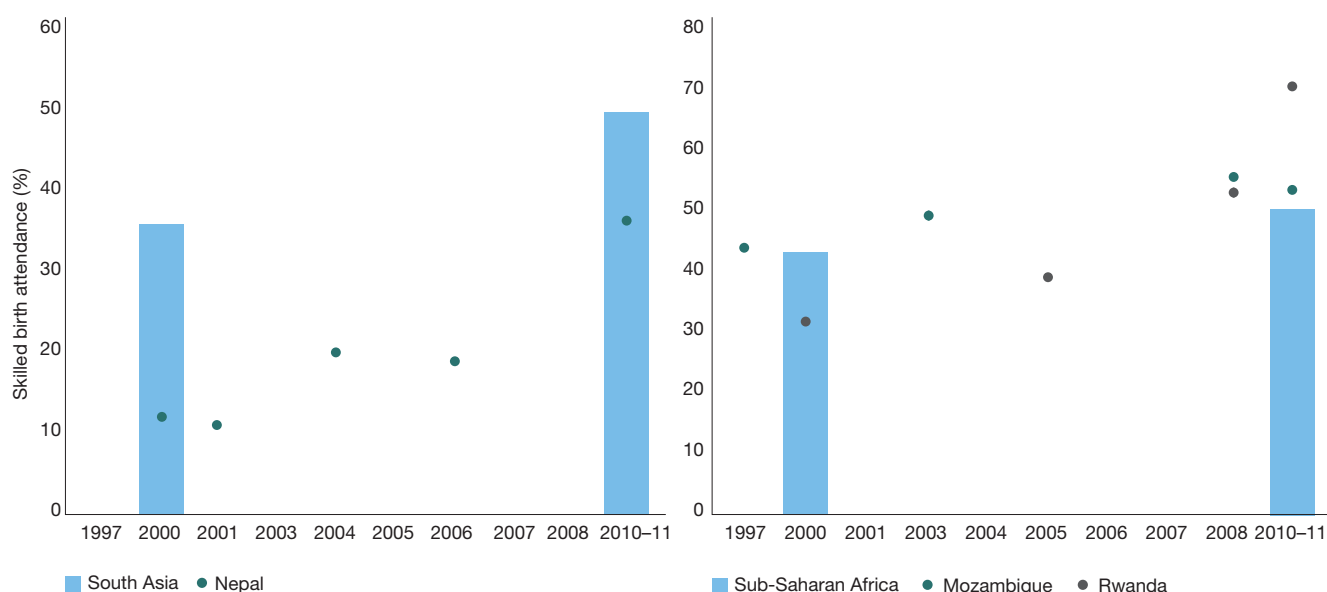
All study countries (Figure 6, page 21) have seen a reduction in under-five mortality and, in Mozambique, Nepal and Rwanda, this reduction has been pronounced since 1990. Rwanda experienced a sharp increase in 1994 largely due to the genocide and civil war but after 1997 the rate decreased dramatically. Child mortality rates in these three countries have stayed consistently below regional averages, especially in Rwanda.

Figure 3: Maternal mortality rate (per hundred thousand) in our case study countries and regions, 1990–2010



Source: Kassebaum, 2014.

Figure 4: Levels of skilled birth attendance in Mozambique, Nepal, Rwanda and regions, 1990–2010



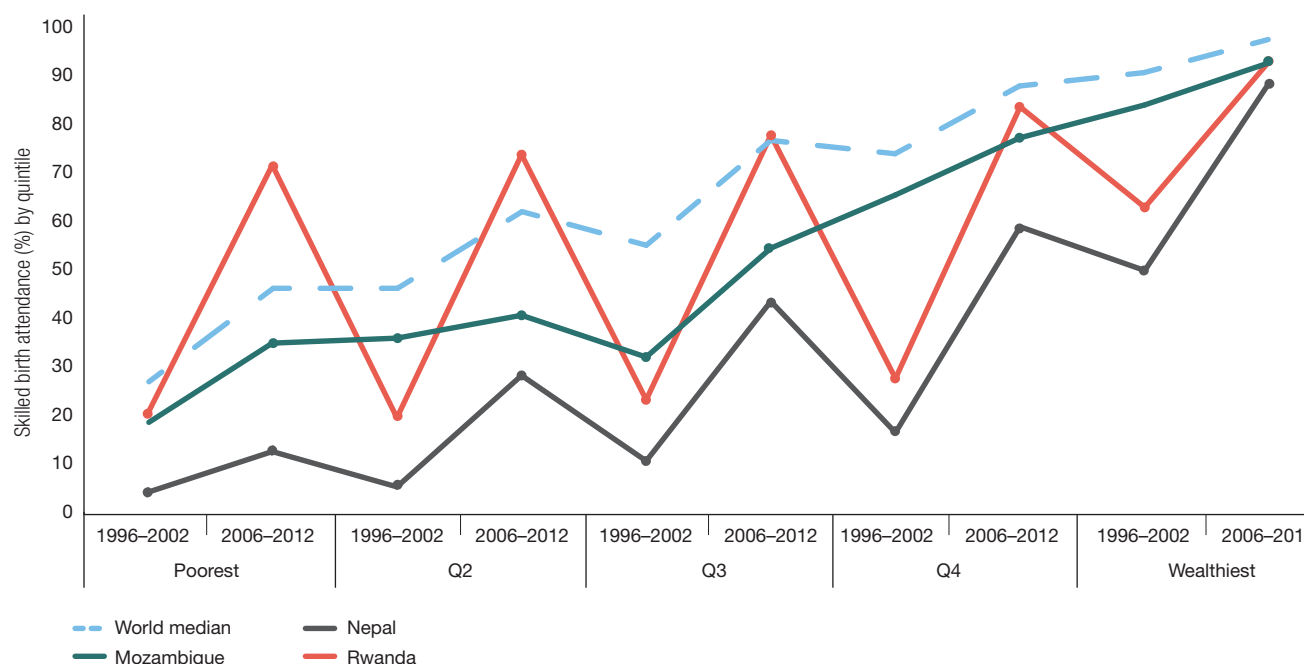
Source: WDI, 2014.

Child mortality according to wealth quintile was also examined for each of the five countries though data limitations preclude assessing performance relative to all developing countries (Figure 7, page 21). We found that of the three MCH case study countries, child mortality in Nepal and Rwanda decreased since the mid-1990s in all quintiles. In Mozambique the rate decreased especially in the lowest quintile between the mid-1990s and early 2000s.

Neglected tropical diseases

Cambodia and Sierra Leone, the case studies selected to explore progress on NTDs, focus on diseases that until relatively recently have received little international attention. Despite their challenging contexts, there are encouraging results. Cambodia has advanced faster than the rest of the region: hookworms (one of the three types of worms included in soil-transmitted helminthiasis (STH)) went from

Figure 5: Births attended by skilled health personnel by wealth quintile, 1996–2012



Source: Authors' calculations from Global health observatory data repository (2014).

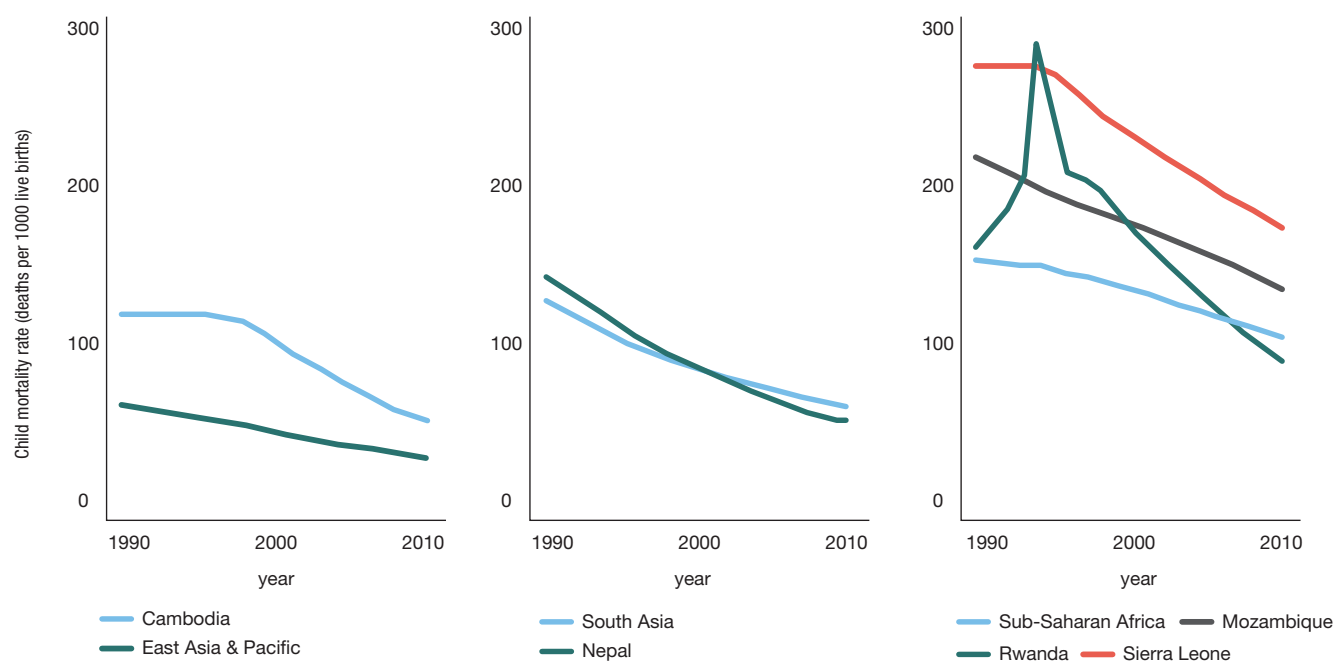
the seventh position in the rankings for 'years lived with disability' among children between 5 and 14 years old down to 53rd (a drop of 93%) (IHME, 2010). In 2004 Cambodia became the first country in the world to reach the WHO target for 2010 of providing 75% of school-aged children with regular anti-worm treatment for STHs (six years ahead of schedule) (WHO and ADB, 2014). Schistosomiasis (SCH) has been virtually eliminated. Prevalence levels of around 70% among school-aged children and 50% within the general population in the mid-1990s when there would be more than 12,000 severe cases and 25 deaths estimated to occur annually, fell to 0.5% in 2003 with no severe cases detected in the country since then. Additionally, lymphatic filariasis (LF) has been successfully treated for five years and the country is now in the process of obtaining WHO certification on LF elimination. Figure 8 (page 22) shows how Cambodia ranks in terms of its control coverage (mass drug administration, MDA) when compared with its region.

Despite remaining one of the least developed countries in the world, Sierra Leone has made remarkable progress in NTDs. Prevalence of onchocerciasis (oncho) was down by more than 60% between 2007 and 2009 (Ministry of Health and Sanitation (MoHS), 2010); the prevalence of LF was down by almost 90% between 2007 and 2011, with the number of endemic districts falling from all 14 in 2007 to just one in 2011 (Koroma et al., 2013); the prevalence of SCH was down by more than 66%, and its intensity down by more than 85% between 2009 and 2012 (Sesay et al., 2014); and remarkable progress was made

in the control of STH among both pre- and school-aged children. Figure 9 (page 23) compares the coverage of MDA in Sierra Leone and the region.

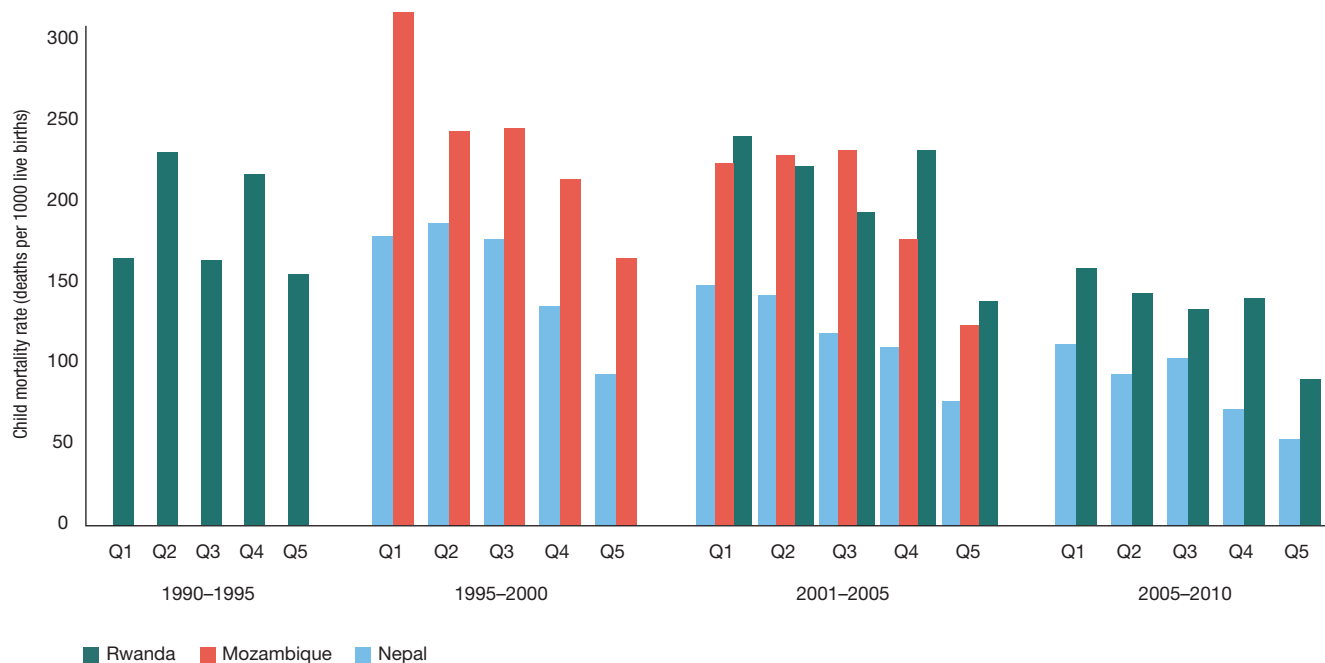
This overview illustrates the changes that the case study countries have undergone in the past 20 years. In summary, all five countries have made significant improvements in their health and developmental indicators in the context of their regions, often against the odds. Although all study countries have had histories of conflict and are predominantly rural – creating among other things problems in access – they have benefited from consistent economic growth and high levels of external assistance supporting government budgets. Poverty levels have been reducing, although large proportions of the populations continue to live on less than \$1.25 a day. The governments in these countries have substantially increased health expenditure per capita, signalling increased political commitment to health. In terms of MCH, Mozambique, Nepal and Rwanda have significantly decreased their child and maternal mortality rates and improvements in equity in coverage of key interventions (such as skilled birth attendance) is also encouraging, although these may not have benefited the poorest sections. Cambodia and Sierra Leone have shown important improvements in NTD control, with each country developing and adapting the global guidelines and recommendations to successfully meet their local challenges.

Figure 6: Child mortality rate (per 1000) in the case study countries and their respective regions, 1990–2010



Source: Authors' calculations from WDI (2014) data.

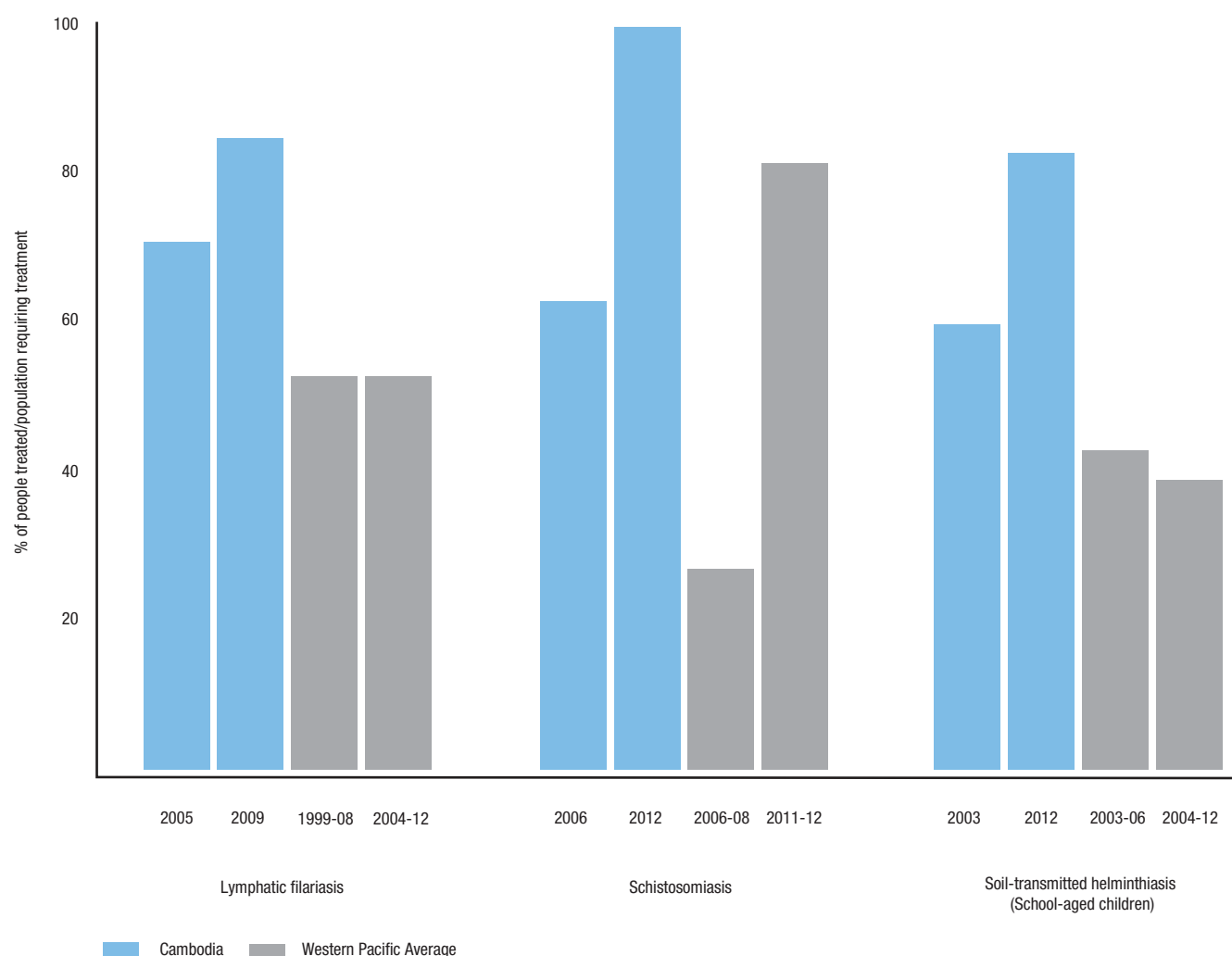
Figure 7: Child mortality rate (per 1000) by country and wealth quintile 1990–2010



Source: Authors' calculations from WDI (2014) data.

Note: Data is missing for each country in at least one sub-period.

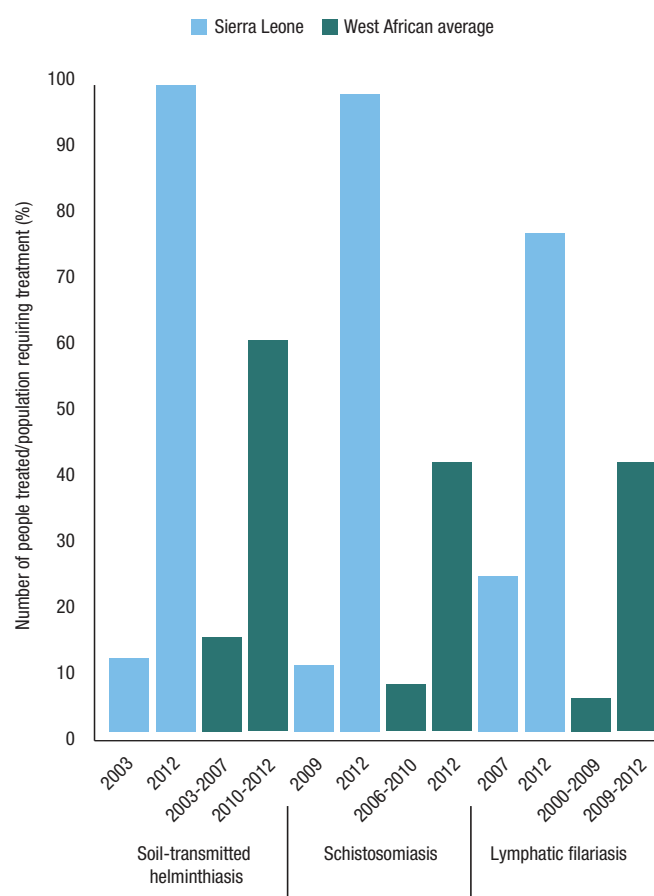
Figure 8: Mass drug administration coverage in Cambodia and Western Pacific region



Source: WHO Global Health Observatory Data Repository (<http://apps.who.int/gho/data/node.main.A1629?lang=en>).

Note: Average includes: For LF American Samoa (2000 & 2006); Cambodia (2005 & 2009); Cook Islands (2000 & 2007); Fiji (2002 & 2012); French Polynesia (2000 & 2012); Kiribati (2001 & 2012); Lao People's Democratic Republic (2008 & 2012); Malaysia (2003 & 2012); Marshall Islands (2003 & 2006); Micronesia (Federated States of) (2003 & 2007); Niue (2000 & 2004); Papua New Guinea (2005 & 2011); Philippines (2000 & 2012); Samoa (1999 & 2008); Tonga (2001 & 2006); Tuvalu (2001 & 2011); Vanuatu (2000 & 2004); Viet Nam (2002 & 2007) and Wallis & Futuna (2002 & 2007). For SCH Cambodia (2006 & 2012); China (2006 & 2012); Lao People's Democratic Republic (2006 & 2011) and Philippines (2008 & 2012). For STH Kiribati (2003 & 2012); Tuvalu (2003 & 2012); Niue (2003 & 2004); Cambodia (2003 & 2012); Samoa (2003 & 2006); Cook Islands (2003 & 2006); Vanuatu (2003 & 2012); Viet Nam (2003 & 2012); American Samoa (2003 & 2006); Wallis & Futuna (2003 & 2007); Lao People's Democratic Republic (2003 & 2012); Fiji (2003 & 2012); Philippines (2003 & 2012); French Polynesia (2005 & 2007); Malaysia (2006 & 2008); China (2006 & 2007); Marshall Islands (2003 & 2006); Papua New Guinea (2005 & 2011); Tonga (2003 & 2006) and Micronesia (Federated States of) (2003 & 2007).

Figure 9: Mass drug administration coverage for NTDs in Sierra Leone and West Africa



Source: WDI (2014).

Note: For STH, the average was made up of Burkina Faso, Cape Verde, Côte D'Ivoire, Gambia, Ghana, Guinea, Guinea-Bissau, Mali, Niger, Nigeria, Senegal, Sierra Leone, Togo; For SCH – Benin, Burkina Faso, Côte D'Ivoire, Ghana, Guinea, Liberia, Mali, Mauritania, Niger, Nigeria, Senegal, Sierra Leone, Togo; and for LF – Benin, Burkina Faso, Cote D'Ivoire, Ghana, Guinea-Bissau, Liberia, Mali, Niger, Nigeria, Senegal, Sierra Leone, Togo.

4. Progress at macro level: financing and governing health systems well

In this section we synthesise the pathways to progress in improving access and health in our five country studies focusing on MCH and NTDs (Engel et al. 2013; Rodríguez Pose, 2014; Rodríguez Pose and Rabinowitz, 2014; Rodríguez Pose et al. 2014; Rodríguez Pose and Samuels, 2011). Findings are interpreted through the lens of the multi-level framework, with key drivers identified at each level. The analysis is based on the case studies which draw on an analysis of secondary sources and a diverse set of interviews (see Annex 1 for details of levels of respondents).

As defined in section 2, the macro level is where policies are developed, priorities set and interactions occur between donors and policy-makers at national, regional and global levels. Main actors and decision-makers at the macro level include national policy-makers, regional bodies and organisations (often made up of national policy-makers and donors, including NGOs and the private sector), and members of the international community with a specific influence on national health policies and programmes areas under discussion.

Two broad themes emerged from the study: (1) effective governance, which includes strong leadership and government commitment, partnerships and collaboration, strategic policy-making and accountability; and (2) improved health financing. Many of these findings were echoed in the literature review. Thus effective governance is seen as a predictor of successful policy implementation (Levine et al., 2004; Mackenbach and McKee, 2013); champions and effective leaders are critical in generating political commitment among decision-makers, also through their ability to seize opportunities ('policy windows') for instance, during recovery periods in post-conflict states (Grindle and Thomas, 1989; Kingdon, 1995; Balabanova, et al., 2011; Druce and Dickinson, 2006; WHO Regional Office for Europe, 2006; Green et al., 2011; Levine et al., 2004; Rhode et al., 2008); and the use of evidence in decision-making and effective coordination of donors by government ministries are important in facilitating the implementation of successful health initiatives (Atkinson et al., 2005; Dawad and Veenstra, 2007; WHO Regional Office for, 2006; Levine et al., 2004; Green et al., 2011; Druce and Dickinson, 2006).

4.1 Effective governance

4.1.1 Strong leadership and government commitment

The political transitions and turmoil experienced by these countries after civil war generated opportunities for health sector reform due largely to widespread commitment to rebuilding infrastructure, investing in social programmes, and building on peace dividends to generate momentum for public sector investment. These policy reforms included efforts to strengthen local governance, leadership and accountability mechanisms. Thus, the Mozambican General Peace Accord signed in 1992, one of the most successful peace-building processes of the post-Cold War period (Gentili, 2013), created a largely stable and democratic country with primary health care, in particular MCH, as a key government priority (Rodríguez Pose et al., 2014). This was shaped by the Health Sector Policy 1995–1999 and the Health Sector Recovery Programme, and was led by the Ministry of Health. This series of reforms resulted in greater investment in health (Rodríguez Pose et al., 2014).

Similarly, in Rwanda, strong government leadership drove the commitment to rebuilding the country following the genocide, according to our respondents, with the ability to concentrate resources and capacity specifically on improving health services. President Paul Kagame emerges as an important champion who played a crucial role in improving health services. While there continues to be controversy surrounding him over political freedom, his role in the civil war, interventions in the Democratic Republic of Congo (DRC) and his degree of authoritarianism, according to many of our respondents, he gained the respect of many people in Rwanda for his achievements in restoring security and stability and for taking a firm stance on social development, including health. This leadership instilled confidence in donors, putting Rwanda in a good position to obtain funds. One high-level donor agency representative said: 'It's a proactive government that knows how to get support and it has a strong position that makes it able to negotiate with development partners

on an equal basis, even receiving a significant amount of aid' (Rodríguez Pose and Samuels, 2011).

The political transition in 1990 and 1991 in Nepal resulted in the Ministry of Health gaining a more prominent role within the government and led to a high-level commitment to develop maternal health-focused policies and increased investment. This was manifested in a series of policy documents, including the Safe Motherhood Policy (1998), the integration of maternal health into the Essential Health Care Package of priority programmes and in the National Safe Motherhood and Newborn Health Long-Term Plan (2006–2017). It was widely reported that impetus and leadership for this process came from a group of mid-level health ministry officials who had gained first-hand experience working as public health experts. Drawing on existing research and best practice beyond Nepal, they were able to influence the highest level of leadership which in turn, like Rwanda, was able to win donors' confidence, leading to large-scale financial and technical support (Engel et al., 2013).

In Cambodia, the creation of a separate NTD unit gave a more prominent role to the NTD programme, reportedly demonstrating high-level commitment to dealing with NTDs. Thus in 1997, the Ministry of Health, supported by the WHO country office, launched the Helminths Sub-Unit (HSU) under the National Center for Parasitology Entomology and Malaria Control, a dedicated institution within the ministry involving the Cambodian government, Médecins Sans Frontières (MSF) and WHO since the end of 1994.¹⁰ This unit, acting as a champion on NTDs, with a dedicated programme manager, provided an institutional and policy framework, enhancing the sustainability of previously scattered, ad hoc interventions. This was followed by series of national strategies and mass drug administration campaigns (2003–2004) and pilots.

4.1.2 Partnerships and coordination

This study confirmed the proposition that effective leadership and champions can promote strategic partnerships at different levels by inspiring confidence among donors and other stakeholders. At the macro level, partnerships emerged as key in all countries for providing technical and funding support, leading to positive outcomes in MCH and NTDs. Partnerships took various forms and occurred among different kinds of organisations; findings from the NTD case studies highlight in particular both the diversity of partnerships and the

importance of partnerships at different levels, particularly at regional level, reflecting the nature of responses required.

At national level, in Cambodia, findings suggested that key partners in the mid-1990s included MSF and the Red Cross, with WHO playing an ongoing supportive role through technical assistance, negotiating with the pharmaceutical industry to obtain drug donations and advocating for funds for the programme. Cambodia, as part of the WHO Western Pacific region (WPRO),¹¹ is also part of a regional collaboration that has been critical to coordinating activities in border areas and to sharing experiences and learning. An important output of this collaboration is the Regional Action Plan for Neglected Tropical Diseases in the Western Pacific Region (2012–2016), which was developed in a consultative manner involving programme managers from each country (WHO–WPRO, 2011). The plan has been instrumental in mobilising financial and human resources; integrating disease-specific plans; measuring progress; and improving coordination.

In Sierra Leone, the history of partnerships dates back to the early 20th century: in 1920, for instance, a field laboratory was set up in Sierra Leone by the Liverpool School of Tropical Medicine (Bockarie et al., 1999). Later on, from the 1980s, a number of partnerships with NGOs (e.g. SightSavers) as well as pharmaceutical companies (Merck and Co. Inc.) were critical to supporting the efforts of the nascent National Onchocerciasis Control Programme (NOCP), with some activities even continuing during the civil war. Perhaps the most critical partnership, as perceived by the majority of respondents, was that established with Helen Keller International (HKI) in 2004 after the conflict and which continues to this day with HKI working in close collaboration with the Government and a range of other partners including World Vision Sierra Leone, the National Eye Care Programme, the World Bank, WHO and UNICEF (MoHS, 2006)(See Box 1, overleaf).

Sierra Leone is also part of a regional initiative that was widely seen as a critical component of the relative success story of NTDs in the country. This initiative, WHO's Onchocerciasis Control Programme (OCP), was aimed at disrupting the transmission of onchocerciasis and was launched in West Africa in 1974/1975. The programme was extended in 1985 to include Sierra Leone. Although the programme was officially closed in December 2002, it was reported that in Sierra Leone government representatives continue to hold regular

10 The first activities related to NTDs took place after the first case of SCH was diagnosed in 1968, but those incipient activities, mainly related to data collection, were disrupted by the arrival of the Khmer Rouge regime. The Cambodia-MSF-WHO collaboration carried out several surveys and identified high infection rates for SCH, STH and a number of cases of LF in some villages of Kratie and Stung Treng provinces. Parallel to this incipient 'mapping', during 1994/95, the collaborative programme rolled out the first pilot MDA campaigns for SCH in some villages in the north-east provinces of Cambodia (key informant interview).

11 Other countries in the region include: American Samoa; Australia; Brunei Darussalam; China; Cook Islands; Fiji; French Polynesia (France); Guam (USA); Hong Kong (China); Japan; Kiribati; Lao People's Democratic Republic; Macao (China); Malaysia; Marshall Islands; Federated States of Micronesia; Mongolia; Nauru; New Caledonia (France); New Zealand; Niue; Commonwealth of the Northern Mariana Islands; Palau; Papua New Guinea; Philippines; Pitcairn Islands (UK); Republic of Korea; Samoa; Singapore; Solomon Islands; Tokelau (New Zealand); Tonga; Tuvalu; Vanuatu; Vietnam; and Wallis and Futuna. While countries have varying contexts and epidemiological profiles, they also face similar challenges related to technical and programmatic issues, political and economic constraints, and a changing donor and partner landscape (Regional Strategy paper).

Box 1: Partnerships in action in Sierra Leone

Much of the success of the Neglected Tropical Disease Control Programme (NTDCP) relates to the way in which it and HKI work together. While HKI contributes its experience in tackling NTDs by developing, piloting and testing new community models, the Ministry of Health and Sanitation (MoHS), through the NTDCP, contributes its detailed local knowledge and its experience in fighting the diseases. The partners work together to develop every aspect of the strategy applied by the programme. The practice of 'working together' as partners spreads across all administrative levels, with HKI liaising with the national NTD Task Force members, the NTDCP manager and his team, 14 district health management teams, 14 district-level NTD focal points and other NTD partners at all stages of programme activities. It is important to note that the roles and responsibilities are clear, with MoHS firmly in the lead and HKI remaining accountable to the ministry, thereby promoting the government's ownership and leadership of the programme.

Source: Rodríguez Pose and Rabinowitz, 2014.

meetings with Liberia, Guinea and Côte d'Ivoire, as all countries are part of the Mano River Union.¹² Although at different stages in the fight against NTDs, these countries have agreed to synchronise the distribution of drugs to take place simultaneously in order to minimise the risk of missing cases. As a result, there is a broadly held view that over time the effort to coordinate and collaborate has strengthened planning, harmonised control strategies and led to synchronised MDA activities in border areas.

With a multiplicity of partnerships and actors comes the need for appropriate coordination, particularly of donors. A key means of coordinating different actors is through sector-wide approaches (SWaPs) which, according to our study findings, have had relatively high levels of success in all the study countries. In Mozambique, for instance, the Ministry of Health is judged to have been relatively successful in coordinating different partners, with its focus on sector budget support, where the government and its development partners jointly decide where funds are allocated. This shift to budget support has also supported reform of the public sector and has improved government capacity (Manning and Malbrough, 2012).

4.1.3 Strategic policy-making

Strategic policy-making, or the ability of policy-makers to design and enact appropriate interventions while assessing their medium- to long-term consequences and the capacity

of the health system to implement these, was perceived to have played an important role in all study countries in generating improvements in health outcomes more broadly.

According to study respondents, policy-making has been strengthened by better targeted investment and reporting mechanisms, greater use of evidence and attention to local needs. This effective policy-making has manifested itself in different ways in our study countries: in Mozambique, it has been attributed mainly to increased investment in the health system; in Nepal it has been attributed to training government officials in public health interventions design, monitoring and evaluation; in Rwanda there is a strong focus on developing policies from the bottom up; in Sierra Leone explicit health policy frameworks and initiatives to enable access to free health care have been used; and in Cambodia the Health Coverage Plan (see section on meso-level drivers), which focused on extending services beyond the capital, was critical in ensuring more equitable distribution of resources.

Although not as strong as South Africa, where the right to health is enshrined in the constitution and upheld in the courts (McIntyre and Gilson, 2002), Mozambique has made steps to embed the same right in its legislative framework since 1990. Thus its policies emphasised: primary health care, with a focus on maternal and child health, immunisation and infectious disease control; rehabilitation of infrastructure and improvement of quality of care; and better incentives for human resources and improved management. Given the important role of donors in financing the MCH programmes, the move towards budget support has not only helped harmonise uses of aid but has also benefited policy-making by creating the need for more rigorous reporting, budgeting and monitoring in an annual planning cycle led by the Ministry of Health.

In Nepal the use of evidence and best practice examples was critical to the development of effective and strategic policies. According to study respondents, this approach has overcome populist measures promoted by some politicians. This is partly attributed to an emphasis on the quality of training of government officials, as indicated in this testimony from a Nepalese government official: *'Our directors and health administrators had a public health background, rather than just being clinicians. It made a big difference as they would want to focus on essential care rather than only sophisticated care.'*

This use of evidence to develop policies is also complemented by work with other actors, such as advocacy groups, donors and other government departments.

In Rwanda, our respondents noted that a series of reforms generated the policy space to formulate interventions to address MCH including: decentralisation; piloting of the community health insurance scheme; and

12 The four countries, which have been affected by a large movement of people because of recent conflict, constitute a sub-regional organisation called the Mano River Union (MRU). The goal of the MRU is to foster economic cooperation among its members. It was established in 1973 between Liberia and Sierra Leone, with Guinea joining in 1980. Côte d'Ivoire agreed to join in 2008.

rolling out performance-based financing (PBF) to health centres and district hospitals. While these reforms and processes may have varying degrees of success both within Rwanda and beyond (Basinga et al., 2011; Carrin et al., 2005; Ireland et al., 2011; Soeters et al., 2006), what appears to be important according to study respondents was that many of these reforms were informed by and required the participation of actors at the local level. They were thus based on local needs and priorities: *‘Any policy made starts from the bottom. People come from the central level, sit with the district, analyse and even go to grassroots level to gather information. Then they go back and design a policy that comes back to the district, which can modify it and make innovations in its implementation’* (District government officer in charge of health, Nyamagabe).

In Sierra Leone, a number of policies developed since the war appear to have had a positive effect on health more broadly, although not all are necessarily focused solely on the health sector. The analysis suggests that a range of ambitious health system reforms may also have had a spill-over effect on NTD control. The 2004 Local Government Act, for example, devolved the delivery of health (and other) services to district level, bringing health services closer to the rural population. In November 2009, the National Health Sector Strategic Plan 2010–2015 was launched, followed by the Basic Package of Essential Health Services in March 2010. However, perhaps the most significant reform has been the Free Health Care Initiative (FHCI), launched in April 2010, which entitled all children under five and pregnant and lactating women to free health care (Scharff, 2012). These developments have been accompanied by recruitment of an additional 5,800 health workers in 2010, procurement of additional drug supplies and the building, rehabilitation and/or upgrading of health facility infrastructure (MoHS, 2011).

4.1.4 Accountability

A key aspect of governance is accountability and transparency. To ensure that governments meet their commitments, establishing functional mechanisms for accountability are important. Different degrees of success in achieving accountability and transparency were identified in the study countries. Despite questionable broader politics, findings from Rwanda suggest that the Ministry of Health set up mechanisms to promote accountability at all levels, based on social contracts and obligations. These may have been rooted in pre-colonial Rwandan culture as some study respondents explained, with a focus on promoting a cohesive society and commitment to the community (Rodríguez Pose and

Samuels, 2011). In Nepal, however, accountability remains a challenge, with a bias towards vertical programmes at the expense of institution-building, and where the lack of an appropriate monitoring mechanism may contribute to the high levels of corruption.

In Sierra Leone, the FHCI, working closely with the Anti-Corruption Commission, and promoted by donors, has also sought to reduce the levels of corruption and weaknesses in accountability in the health sector, including leakage of drugs (Ensor et al., 2008), informal payments demanded by health staff, staff absenteeism (HFAC, 2012) and ‘ghost workers’ (health staff who appear on the payroll but who are not actually working) (Stevenson, et al. 2012). Although challenges remain, some study respondents noted that there is evidence that accountability in the health sector has improved: *‘The intervention of civil society has reduced corruption ... We check staff attendance, the referral system, follow the drugs and check their prices ... we tell people how much they cost so they can’t be charged more’* (Civil society monitor).

Clearly policies and initiatives are just one stage in the process towards implementation. Often at that stage bottlenecks and challenges emerge, as will be described in section 5. However, the presence of political will at the highest levels and good governance practice is perceived as a fundamental first step towards implementation and achieving tangible results.

4.2 Improved health financing

Increased investments in MCH and NTDs, as a share of the national budget, emerged as an important driving factor in supporting improvements in these areas in the five study countries. Section 3 showed that per capita health care expenditure as a percentage of GDP has increased in all countries. Health expenditure per capita in Nepal, for instance, more than doubled between 1995 and 2010 from around \$35 to \$80, although this is still lower than the regional average. Tax revenue collection has also improved, increasing from 8% of GDP in the 1990s to over 13% in 2010.

However, external support has been paramount. The study countries have been highly dependent on external aid, which has brought significant amounts of resources into the health systems and this remains the case. The coordination of donors and pooling funds through the use of general budget support, as opposed to vertical programmes, was seen as a factor contributing to the positive changes. Findings suggest that since the end of the civil war in Sierra Leone in 2002, donors have helped

‘Any policy made starts from the bottom. People come from the central level, sit with the district, analyse and even go to grassroots level to gather information’ – District government officer in charge of health, Nyamagabe

to rebuild and resource the public health sector, especially in the immediate post-war years. In the past decade, taking advantage of the growing momentum on NTDs, study respondents note how the Ministry of Health and Sanitation (MoHS) has been proactive in securing funds to set up the NTDCP and to date, donors still provide the majority of the finance for NTD control in the country, as they have done since the establishment of the National Onchocerciasis Control Programme (NOCP) in the late 1980s. However, according to both government and non-government sector key informants, this external support would not have been possible without the leadership and convening power of the MoHS.

In Sierra Leone, government spending on health has also increased year-on-year (except for a fall in 2007) from Le29.3 billion in 2004 (around \$11 million) to Le174.2 billion in 2012 (around \$41 million). This increase has been driven in part by increases in total government revenue due to economic recovery, but also by an increasing share of government spending on health, a trend that has been stimulated by the introduction of the FHCI. The increased government health spending has focused mostly on rebuilding health infrastructure, addressing the sector's weak human resources, and its poor provision of services to rural areas. Given competing government priorities (e.g. reducing the number of deaths among mothers and children under five) and limited resources, government funding for the NTDCP is minimal. Nevertheless, as outlined below, the programme itself relies on existing government structures, staff already on the payroll and volunteers linked to and deployed through the system.

In Mozambique findings suggest that most progress in health financing over the past two decades appears to have been achieved through better harmonisation of aid by means of the sector-wide approach (SWAp); financial management reforms that have allocated a part of aid for general budget support; and increased revenues from taxation and other domestic sources. Improvements in the financial management system also appear to have been vital, as this has enabled a reduction in disbursement delays and reduced the number of cash transactions, minimising the scope for corruption (De Renzio, 2011; Visser-Valfrey and Umarji, 2010). Furthermore, the implementation of an integrated financial-management information system has improved data reporting and spending of allocated funds, from 59% in 2005 to 93% in 2011 (MISAU, 2005 and 2011). This has enabled greater investment in infrastructure and expansion of coverage in rural areas, increasing staffing levels and salaries. According to this analysis, the use of general budget support promoted better harmonisation of aid, an improved policy-making process, optimising annual

planning, budgeting and monitoring cycles, and thus enabled better coordination by the Ministry of Health.

This was supplemented by efforts to improve tax collection in the case of Nepal, for instance, and, in the case of Rwanda, to implement community health insurance schemes. In Rwanda, our study respondents viewed insurance as a factor that has enabled better health outcomes – though it is also important to note that other studies have found that it was not always effective in reaching the poor (e.g. Kalk, 2008; Jutting, 2003). The creation of the community health insurance scheme (Mutuelles de Santé), which aims to spread the financial risk of seeking care, and which has been gradually rolled out to the whole population, was reported to have improved utilisation of health services and reduced costs. One public official noted: 'Before the introduction of the Mutuelle people were dying at home because they did not have the money to pay for health. Now, because of the nominal amount paid, nobody fears to approach the health facilities' (Ministry of Health district official in charge of the Mutuelle, in Nyamagabe). However, it was necessary to mount an intensive campaign to encourage people to join, involving community health workers, local leaders, elders and use of radio broadcasts.

The introduction of performance-based financing (PBF) in Rwanda was also reported to have shown positive results by key informants, improving quality and quantity of services (see also Chambers and Booth, 2012). Yet it has been found to be very costly and evaluating actual performance remains difficult: '*PBF is more an expression of political will since it's difficult to evaluate performance. However, it injects money into the system. The principle is not bad but it is not very cost-effective. I think Rwanda is the only country where it is working and it has to do with the very strong will from the leadership and "zero" tolerance of corruption*' (High-level donor agency staff, Kigali).

Similarly, in Cambodia, there have been significant increases in health expenditure since the mid-1990s with government, private and external donor investment in the health sector. This was seen to have helped rebuild the human, physical and technical capacity of the health system.¹³ For example, significant increases in staffing and infrastructure have been possible – about 121 existing district hospitals were upgraded and almost 800 community clinics were converted into health centres (Eldon and Gunby, 2009 quoted in Asante et al., 2011). Additionally, the implementation of health equity funds, which provide financial support for the poorest users, seems to have mitigated, although not eliminated, some of the worst consequences of user fees deterring those needing treatment (Flores et al., 2013) (Akashi et al.,

13 The larger increases came from the government, whose expenditure on health went from \$30 million (constant 2005) in 1995 to \$134 million in 2012, representing a 4.5-fold increase (WHO global health expenditure database). Its expenditure per capita increased from \$4 in 2000 to \$9.36 in 2009 (MoH and WHO, 2012). Development partners and the private sector have also notably increased their spending on health by about 3-fold in the same period (3.2-fold and 2.8-fold, respectively).

2004; Meessen et al., 2006; Bigdeli and Annear, 2009). The equity funds are an element of a broader health care financing system instituted by the Ministry of Health and development partners, including a strategic framework for health financing (2008–2015) (MoF, 2008).

In-kind donations by pharmaceutical companies, usually through the WHO or NGOs, have been a critical component of support for NTD programmes in Cambodia. Funds to support the operational costs have also come mainly from external financing complemented by domestic sources. Both donations and funding of programme activities have been piecemeal and have varied by disease and over time, reflecting the changing donor landscape. Despite this fragmentation, according to study respondents, the Cambodian government has managed to secure much of the funding needed from external sources, filling any gaps with allocations from the government budget.

Despite the advances, health financing in all these countries is fragmented: the government budget and direct out-of-pocket spending are supplemented by a proliferation of health financing mechanisms: donor funding, donor-funded pools (Health Sector Support Project and Sector-Wide Management – SWiM),¹⁴ user fees at public facilities, fee exemptions for the poor, contracting out public service delivery,¹⁵ health equity funds, community-based health insurance (CBHI) and various health insurance schemes.¹⁶

4.3 Challenges and transversality

Although we identify here a range of drivers that have proven successful in improving health outcomes in these countries, these advances or narratives of progress are fragile and potentially face a set of challenges to sustaining this progress (Benatar et al., 2009). Thus, at a macro level and beyond, progress may be threatened by changing patterns of disease, an ageing population, increasing migration and urbanisation, climate change and volatile governments, all of which can disproportionately affect countries with limited access to resources. Despite the increased investment in health in our study countries, this

has mostly been through external donor support. This raises the question of long-term financial sustainability for these interventions and may make these countries vulnerable to future external shocks, such as economic crises, particularly in the current environment of declining funds. Moreover, as our case studies show, there is a continued tendency for some donors to invest in disease-specific programmes instead of addressing fundamental problems within the health systems. While there are now efforts to address this, some with greater degrees of success than others (e.g. SWiMs), the dependence on aid in our study countries is likely to affect the extent to which national level policy-makers have a say on how money is invested. To address this, increasing mechanisms for local income generation, such as better collection of taxes and sustainable livelihoods strategies, should be explored.

Before proceeding to explore the meso level findings, it is useful to briefly discuss how some of the drivers discussed here at macro level cut across the other levels of implementation and service delivery. While national-level leadership and commitment is critical to ensure a focus on MCH and NTDs, in this case, if a system is decentralised, including local-level policy-making, then clearly the meso level will also have a significant role in policy development, a situation discussed in the next section. Similarly, while partnerships and actors are critical at national level, they can also be extended to meso and micro levels. For instance, NGOs in Sierra Leone partner closely with the government to control NTDs at the subnational and local levels. In both Rwanda and Sierra Leone it is also apparent that in order for accountability mechanisms to be effective, capacities need to be built at all levels in order to ensure that they are enforced and sustained. Finally, while financing policy is often shaped at the national level, financing of programmes can be allocated directly to specific districts, the meso level. Demand-side responses, reflecting the responses of service users and providers to user fees and out-of-pocket contributions at micro level, can also be critical to the way the health system operates.

14 The SWiM is a sector-wide programme for the government, donors and NGOs to work together in partnership to build a common vision for the health sector in Cambodia. The SWiM process was initiated in 1998 as part of the health sector reform programme. The Ministry of Health, in collaboration with its partners, has so far formulated a sector strategy and conducted joint sector reviews through the SWiM (http://www.cdc-crdb.gov.kh/cdc/practices_chapter7.htm).

15 As part of the health reform plan, in 1998 the Cambodian government piloted, with a loan from the Asian Development Bank, a contractual approach in eight districts in which district health management was sub-contracted to private sector operators. It also introduced a performance-based staff incentive structure to replace the traditional fixed salary and per diem system and abandoned the fee exemption system and replaced it when appropriate with an equity fund.

16 The Health Equity Fund (HEF) is the biggest scheme in Cambodia covering about 75% of total Operational Health Districts applying this scheme. 'To fund exemptions and address the problem of access for the poor, decentralised HEFs emerged in 2000 as third-party payers for impoverished patients in which a fund is managed at district level by a local agent. Identified poor patients receive reimbursement for transport and food costs and free care at government health facilities. Facilities are reimbursed monthly by the HEF scheme for foregone user fees [...] In practice, HEF schemes use subsidies pooled at district level to purchase public health services for the poor. Today, these subsidies come from both donor and government funds' (Bigdeli and Annear, 2009: 560). The CBHI and voucher scheme have been introduced as other mechanisms of health care financing to improve equitable access to health services in Cambodia (WHO and MoH, 2012: 3).

5. Progress at meso level: making it happen

The meso level is identified as the level where national or regional policies are implemented. Similarly, it is the level where addressing potential implementation bottlenecks is critical for success. The main actors and decision-makers at this level therefore include: provincial or district-level government planners and decision-makers; public and private (mostly formal) health providers from both government and NGOs, including INGOs; and other influential actors including political elites.

The key meso-level drivers emerging from the case studies include: increasing access and programme effectiveness through integration within the health system; partnerships across different sectors; the advantages of decentralisation as a means of achieving more effective planning and decision-making in the health sector; and task-shifting in response to staff shortages in these countries. These drivers were largely also echoed in the literature review. Firstly, and more broadly, the literature shows that in order to implement effective interventions, it is necessary to address the tensions between the policy-making and implementing bodies; this requires generating capacity and ownership at the implementation level, among implementers, frontline providers and users, (Dawad and Veenstra, 2007; Green et al., 2011) and fostering coherent and transparent decision-making among these actors (Allin et al., 2004; Legare et al., 2011; Ploch and Klazinga, 2002). More specifically the literature finds that integration within health systems is seen to result in a more efficient use of resources, particularly the health workforce (Bloor and Maynard, 2003), and to promote health systems' resilience by generating mechanisms to support the entire system (Levine et al., 2004; Rhode et al., 2008). Intersectoral collaboration, particularly formalised and institutionalised partnerships, were found to result in more successful interventions in a number of studies (e.g. Atkinson et al., 2005; Ritsatakis and Makara, 2009) and have been the cornerstone of any initiatives to address social determinants of health.¹⁷ Although decentralisation is potentially problematic, there are occasions when it has been found to be effective (Bossert et al., 2003; Jimenez and Smith, 2005; Regmi et al., 2010). Task-shifting and the importance of having flexibility in the use of health care

workers has been found to be a positive factor in many studies (e.g. Balabanova et al., 2011; Bloor and Maynard, 2003; Druce and Dickinson, 2006).

5.1 Integration within health systems

Integration within the health sector and intra-sectoral collaboration have been identified as important in each country and the findings show that they have been widely perceived as having effectively increased access to health services, thus facilitating health gains. In Sierra Leone the NTDCP appears to have benefited from the supportive health system, which was strengthened in a parallel reform process. The NTDCP has also, according to key informants, had positive spill-over effects on the broader health system. Integration of NTD activities within existing health programmes or campaigns can be illustrated by the Maternal and Child Health Week, a biannual campaign that combines a package of interventions including: vaccines for polio, measles and yellow fever; vitamin A supplementation; the distribution of insecticide-treated nets; referral of pregnant women for HIV counselling and testing to prevent mother-to-child transmission; and now also the distribution of de-worming tablets.

Similarly, in Cambodia, from 2002 onwards, NTD treatment and vitamin A supplements have mostly been provided through routine outreach activities.¹⁸ Similarities between these interventions, both in terms of programme logistics and target groups, have made it effective to deliver them at the same time. As such, according to key informants, the National Center for Parasitology Entomology and Malaria Control (CNM) and the Helminths Sub-Unit (HSU) liaises with the managers of other health programmes including: the National Immunisation programme, the National Nutrition programme, the Mother and Child programme, and the National Malaria programme (insecticide-treated bed net distribution).

Thus in both countries, NTD-related activities have been implemented through existing health structures, making use of personnel already on the payroll, so the programme activities have benefited from synergies. Working through existing government structures can also help to ensure

¹⁷ See WHO Commission on social determinants of health (http://www.who.int/social_determinants/publications/en/)

¹⁸ Cambodia has instituted monthly outreach activities (once every two months for very remote areas) from its health centres. These outreach services deliver a minimum package of activities, mostly preventive and some curative health services, including immunisation, antenatal care, distribution of oral rehydration salts, family planning, health education, postpartum vitamin A supplementation, and tuberculosis and leprosy follow-up.

long-term sustainability, not only in terms of implementation but also because planning and budgeting take place within the national system of funding and accountability.

5.2 Partnerships with other sectors

Findings from the five case studies demonstrated that partnerships with other sectors are critical in order to support and leverage gains from the health sector. Unsurprisingly, in all the case studies, education seems to have a pivotal effect, as does investment in infrastructure to improve access to health centres.

In Mozambique education was identified as playing an important role in increasing demand for health services. The abolition of school fees for basic education has contributed to a steady increase in girls' enrolment rates, with primary enrolment increasing from 37.3% in 1991 to 87.6% in 2011. Higher levels of education among mothers were found to be associated with declining under-five mortality rates (Rodríguez Pose et al., 2014). Similarly in Nepal, over the past two decades, enrolment rates have increased significantly: between 2006 and 2011 attendance rates increased from 43% to 58%. Secondary education, in particular, has a strong empowering effect on women (Hulton et al., 2011). The percentages of women and men with at least some secondary education or higher have increased by 48% and 26% in Nepal, respectively, between 2006 and 2011.

Evidence from each of the countries shows the importance of developing formal partnerships between sectors. In Nepal, according to study respondents, there is a strong focus on developing a multi-sectoral approach to addressing maternal health. This involves, among other things, lobbying other ministries about the importance of maternal health. Additionally, given the topography of Nepal, upgrading the general infrastructure has been critical and there has been an emphasis on improving road and bridge construction, as well as using government vehicles as ambulances in emergencies.

In Rwanda, substantial efforts have been invested in promoting a multi-sectoral response to MCH. An example is the protocol to manage malnutrition, which involves the Office of the Prime Minister, Ministry of Health, Ministry of Family, Ministry of Education and Ministry of Agriculture. This programme provides education on nutrition and encourages small enterprises, such as those rearing small animals like rabbits and pigs, as well as providing nutritional supplementation and medical treatment. The 'One Cow per Family' programme also fosters interaction between the Ministries of Health and Agriculture by providing 3,000 families with a cow, with the goal of improving their nutritional status. This interaction is also considered to have benefited from decentralisation, given that the departments are working in close proximity at district level.

In Cambodia, collaboration between the Ministry of Health and Ministry of Education, Youth and Sport

(MoEYS) was, according to study respondents, paramount in increasing access to NTD-related services. To facilitate this, national-level support was necessary, demonstrated by the inclusion of STH as a health education subject within the school curriculum. This also reflects the findings from the literature review that improved health outcomes are linked to political commitment in social welfare and equality translated into provisioning in multiple public sectors (Levine et al., 2004; Rhode et al., 2008). However, while there is collaboration between those two ministries at all levels, the real changes have been at the meso level, as the implementation plan was developed jointly between the Ministry of Health and the School Health Department (SHD) of the MoEYS (Chu, 2011). Thus, according to study respondents, working in collaboration with the CNM/HSU, the School Health Department has prepared schools to roll out a nationwide campaign that effectively enables teachers to play an important role in carrying out supportive tasks related to health care delivery, i.e. they provide health information and distribute de-worming pills twice yearly.

Intersectoral collaboration also occurs in Sierra Leone but is less formalised than in Cambodia. It essentially takes the form of twice yearly de-worming in schools based on collaboration between the National School and Adolescent Health Programme at the Ministry of Health and the Ministry of Education, Science and Technology (MEST). Thus technical support is provided by the NTD focal points, housed within the district health management teams (DHMTs) and Helen Keller International, with the teachers providing information to children in the classroom and, in some cases, administering the drugs (Rodríguez Pose, 2014).

5.3 Decentralisation as a mechanism to enhance implementation

Case study findings show a range of positive outcomes that respondents associated with decentralisation of decision-making processes and service delivery. Certain areas in Rwanda, Cambodia and Sierra Leone in particular seem to have demonstrated relatively high levels of success in using decentralisation as a springboard for extending coverage.

Decentralisation was initiated in Rwanda in 2006, with the transfer of policy-making and administrative responsibility for health centre management and hospital supervision to the district level (Basinga et al., 2008). Hence, according to key informants as well as secondary sources, districts in Rwanda were given high degrees of authority over use of resources, with some districts being more able to take advantage of this authority than others. Among other things, in the district visited for the case study, a decentralised process of decision-making was taking place involving both district-level committees but also community members. This has reportedly resulted in a clearer definition of roles between district and national levels: *'The process of decentralisation of health translated*

into a well-synchronised health structure in which every level of the health care delivery system has its job description with well-defined responsibilities and activities. There is a clear structure of vertical responsibilities in place, in which everyone knows what they should be doing, which allows for minimum overlap', according to district hospital medical staff in Nyamagabe.

As noted earlier, the Mutuelle de Santé (community health insurance scheme) is also district-based, with the majority of the management, administration of services and expansion of coverage taking place at this level, with the central government only coordinating policy and administration. Moreover, following the genocide in Rwanda, the government, with support from the international community, began to invest in infrastructure, with a particular focus on rural areas, also supporting decentralisation. This has resulted in a shift in access to health services from a situation in 1994 when almost all health-related infrastructure needed to be rebuilt to one where more than 60% of people now live within 5 km of a health centre (MoFEP, 2007). Clearly, there is still a long way to go, but it is a frequently expressed view that this process has facilitated progress.

In Cambodia, in 1995 the Ministry of Health launched the Health Coverage Plan organising service delivery into three levels: the central level, responsible for development of policy, strategic direction, legislation and resource allocation; the provincial level, involved in translation of policies from central to district level; and the district level, organised into operational health districts (ODs), health centres (HCs) and health posts (located in the most remote areas). Key informants noted that this process has been particularly beneficial for improving access to services in remote areas, where provision prior to 1995 was rudimentary.

Similarly, as mentioned above, the 2004 Local Government Act in Sierra Leone devolved the delivery of health (and other) services to district level and since the end of 2008, health care delivery has been structured into three tiers: national level, 19 local councils and 14 health districts run by district health management teams (DHMTs). The DHMTs plan, manage, implement, monitor and supervise primary (and some elements of secondary) health care, including the oversight of peripheral health units (PHUs), the first port of call for most people seeking health care at local level. As of 2009, there were 1,169 government PHUs and 30 government hospitals operating in the country (MoHS, 2009), far more than there were immediately after or indeed before the war – 500 PHUs and 23 hospitals in 1990 (Gibril et al., 2004; Hodges et al., 2011). Despite the remaining gaps in provision, particularly availability of trained health workers, study findings suggest that the emphasis on decentralisation in Sierra Leone has helped, against the odds, to achieve a certain level of success in NTD control. Respondents also reported that this process of decentralisation in Sierra Leone has encouraged a bottom-up approach to the development of policies that

aim to set priorities according to the population's needs: *'During the budgeting period all PHUs are engaged in a needs assessment. We give the common man the opportunity to participate, to decide what they want for their health. We get stones, draw pills, pumps, toilets, etc.; the flick charts are for illiterate people to be able to participate, so everyone has stones to vote. We do this at ward level'* (Local government key informant interviews).

This bottom-up approach to policy development, is also supported by some of the conclusions of our literature review on decentralisation, where the transfer of decision-making to the local level (Atkinson et al., 2005) can generate greater ownership and overcome bottlenecks at the point of implementation (Green et al., 2011).

However, decentralisation can create new challenges, with evidence showing that even where decentralised structures may be in place, the resources to make these structures function effectively (e.g. qualified trained staff, infrastructure, incentives, sufficient budgets) may be missing (Wang et al., 2002; Tang and Bloom, 2000). Indeed the experience of some of the study countries has been not entirely positive. In Mozambique decentralisation was portrayed as bringing services closer to those in need and was seen to be associated with increased utilisation of primary care, improved health infrastructure and integration of MCH programmes with other health services. Observers note that this has been an incremental process, with management and planning tasks moving progressively from the provincial to the district level, requiring substantial coordination. There are still difficulties at the district level in terms of leadership, planning, resource allocation and financial management (Sherr et al., 2012).

As in Mozambique, decentralisation in Nepal has also achieved only partial success, though perhaps improvements at the local level have circumvented weaknesses at district level. The main reason identified by study respondents for this limited success is the lack of elected village and district councils. Moreover, there are concerns about whether there is capacity at the district level to develop effective plans and budgets as well as to resolve problems with the delivery chain.

The overall findings of the study present a mixed picture on the role of decentralisation. While in some cases it can promote success in implementing effective policy, and in scaling up, this is dependent on other conditions being present, such as sufficient numbers of qualified staff as well as effective and transparent processes such as planning and financial management.

5.4 Task-shifting

The WHO defines task-shifting as a practice in which 'specific tasks are moved, where appropriate, to health workers with shorter training and fewer qualifications. By reorganizing the workforce in this way, task shifting

can make more efficient use of existing human resources and ease bottlenecks in service delivery' (WHO, 2008a). Task-shifting emerged in our case studies as a strategy that is increasingly seen as an appropriate response to critical health workforce shortages in low-income countries.

Regardless of the push to increase the number of health workers at all levels in Mozambique, supply still lags behind demand. This has resulted in efforts to train additional non-physician health staff – the *tecnicos*. They are trained as medical and surgical technicians and have been found to reduce costs and increase service provision in remote areas.

Despite concerns from the medical profession in Nepal, the government has implemented task-shifting whereby nurses and auxiliary nurse midwives (ANM) are trained to provide antenatal care, assist with deliveries, provide family planning and immunisations when a community health worker is not available and perform basic obstetric interventions. The absence of staff at peripheral health facilities and the limited number of lower-level staff in rural areas has, therefore, been partly addressed as 3,000 additional maternal health workers were trained and certified by 2012, though this was still far off the target of 7,000 to be reached by 2015 (UNFPA, 2012).

In Rwanda, according to our study respondents, efforts to increase the number of health staff have included attracting them from abroad, particularly from the Democratic Republic of Congo; reopening nursing schools and universities; and sending doctors abroad to gain specialist training. To complement these initiatives, the Ministry of Health is piloting task-shifting from doctors to nurses, particularly for HIV testing and basic treatment decisions.

In Sierra Leone, efforts appear to have concentrated on further training of existing workers in skills needed to integrate the NTD programme with other services. At the same time, NTD training modules have strengthened skills in data management, record-keeping, advocacy, administration of drugs (including their proper storage), monitoring and supervision, all of which were noted to have had a positive effect on the broader health system, according to one donor key informant: 'the same health personnel are being continuously trained, which has had a very good impact on strengthening the system as a whole.'

5.5 Challenges and transversality

While these meso-level drivers have shown to be supporting progress in health, challenges do remain. For instance, while partnerships with other sectors were found to be beneficial to health outcomes, where these are not institutionalised through formal agreements or supported by incentives, there is little assurance that they will continue once these government officials leave their positions. This is clearly seen in the case of NTD control in Cambodia where there is a need to explore ways to incentivise teachers so they continue their non-traditional NTD-related activities, for example via training

or certificates. Moreover, capacity at the district level is still in question, particularly regarding the ability to coordinate actors, plan interventions and appropriately monitor, evaluate and supervise the local levels. Similarly, while in some countries decentralisation processes appear to be effective, this is not the case everywhere, with some countries reporting the existence of decentralised structures but no staffing and other resources to manage these structures. This issue of capacity and ambivalence about the role of decentralisation also emerged as key within our literature review specifically when it comes to appropriate decision-making. Although there has been some progress, equity remains a challenge, with the poorest still facing difficulties in accessing care. Finally, accountability also emerged as a key issue at the meso level and some of these countries continue to have high corruption rates so addressing this through, for instance, better monitoring of resources will also be essential.

Again, it should be emphasised that the drivers presented here can be transversal, and can closely interact with developments at macro and micro levels. Firstly, while we situate integration within health systems at the meso level, the policy to ensure that this occurs is usually developed and instituted at national or macro level, and the effects of this integration affects service delivery, and is then influenced by user and provider responses at the micro level. Similarly, the study identified clearly the importance of partnerships with other sectors, most visible at this meso level, yet this often would not have been possible without high-level national commitment, as was the case in Cambodia, where high-level ministerial partnerships were an important mark of effective engagement. Many decentralisation processes hinge not only on having users identify problems and solutions (e.g. bottom-up planning, as in Rwanda, for instance), but findings suggest that in order for decentralisation to be truly effective, structures below the meso level need to be developed and sustained. Finally, task-shifting includes the possibility of formally-employed health staff taking up activities usually assigned to more senior and specialised staff, but this can also arguably include community-based health workers at the micro level, or those encountering the service users.

6. Progress at micro level: user-provider interface

Two factors emerge as critical in all our case studies for understanding progress at micro or service delivery level: reaching underserved areas using trained community health workers and fostering community ownership and engagement through increasing participation by individuals and communities. Main actors and decision-makers at the micro level include community-level health providers, both formal and informal, public and private; community members; local leaders; and individuals and families. The findings reflect closely the themes from the literature review which found that gradual scaling-up of health coverage (Rhode et al., 2008), greater accessibility to services through community health programmes (Lainez et al., 2012), and participatory decision-making processes through patient empowerment and community involvement (Plochg and Klazinga, 2002; Ritsatakis and Makara, 2009; Smith et al., 2009) are all critical factors in achieving good health outcomes. In the recent Ebola outbreak in West Africa, community engagement and building trust have also been shown to be an urgent response. According to Lamble (2014), referring also to Sierra Leone: ‘Outreach with traditional and community leaders helps alert people to the risks of Ebola and how to prevent its spread’. Our review also notes that supportive supervision of community-based workers is also important, particularly in low-income areas where there is limited ability to care for patients in more traditional settings (Larson et al., 2006; Rhode et al., 2008; Sudhinaraset et al., 2013).

6.1 The role of community health workers in increasing access to care

The widespread use of community health workers has been a recurring theme in explaining the success of MCH and NTD interventions in our case study countries. These health workers have been instrumental in promoting prevention activities, providing basic health services and referring patients when necessary.

Community health workers in Mozambique, known as *agentes polivalentes elementares* (APEs), have been a crucial part of the health system since 1978. Their numbers have been increasing, with 400 trained since 2009, within the framework of the Mozambican National Plan for Health Human Resource Development for 2008–2015 (Bhutta et al., 2010). These APEs are trained for 18 weeks and receive a monthly stipend, with annual contracts that are based on performance assessments. In addition to the APEs,

traditional midwives have also been trained by NGOs. Along with APEs, they promote key child and maternal health initiatives, and receive incentives (e.g. bicycles, radios) to perform this voluntary work.

Despite problems with service delivery at the district level, Nepal has managed to achieve substantial improvements at the local level. This has been attributed to a number of factors. Firstly, according to key informants, efforts to improve the referral system as well as include drugs used for childbirth in the essential drugs list, has proved vital, as suggested in the following quote from a physician at a rural health post in the Terai (southern Nepal): *‘I am not aware of any maternal deaths in the community in the past two to three years. I think this is because medicines are available, services are free and we have a 24-hour delivery service.’*

Nepal has also benefited from an expanding network of local and international NGOs and community-based organisations (CBOs) providing care at the community level in areas that are not covered by the government. Key to this is a cadre of 48,000 female community health volunteers, who provide health services in rural areas and who have proved critical in reaching out to often excluded and marginalised women in remote areas (Thapa, 2011).

Community health workers are also the first point of contact in the health system in Rwanda. These workers live and work in their own communities and are trained by the community health unit in basic health care (World Bank, 2009). They are elected by their community and must report on a monthly basis to district authorities. In addition, every health centre has a full-time non-medical coordinator for community health workers in the sector. This coordinator is in turn supervised by the district administration (Chambers, 2010).

In Cambodia, a number of strategies have been put in place to complement school-based interventions as well as to reach other target groups and STH risk groups, e.g. children under five and women of child-bearing age. According to study respondents, community-based volunteers have played an important role in these complementary interventions. Thus, during the outreach activities where NTD treatment has been combined with other health programmes, health centre staff collaborate closely with village health volunteers who are in charge of mobilising communities during the outreach days.

Finally, in Sierra Leone study informants noted that the 29,000 community drug distributors (CDDs) have been

the backbone of the success in the NTD programme: they have been critical in helping to increase access to essential drugs for NTDs, even in remote areas often beyond the reach of most formal health providers. These CDDs, who are volunteers based in their communities, carry out awareness-raising activities and distribute the NTD drugs during the mass drug administration (MDA) campaigns. In rural areas the CDDs carry out a house-to-house strategy, visiting houses at least twice during each MDA round: on their first visit, CDDs administer a household census, which determines the amount of drugs needed and is used to monitor MDA coverage. These visits also serve to sensitise communities before drug distribution. Once the campaign starts, CDDs have three months to distribute the drugs in their catchment areas, working in pairs (Hodges et al., 2012). They cover more than 14,400 villages each with populations between of 100 and 500 (HKI and MoHS, 2011). In urban areas, MDA is designed as a five-day campaign where CDDs are paid to work alongside staff from PHUs. Staff from the DHMTs and PHUs make frequent visits to CDDs to offer encouragement and support.

6.2 Community engagement and participation

Alongside providing a technical service, community health workers have helped to raise awareness of the existence of health services and of the need for women and children to use them. This role of community workers as agents for change has been seen in each of the study countries. This multi-faceted role is possible, according to our respondents, because of strong leadership by these community workers.

In Rwanda, study findings show that community workers have engaged with traditional leaders who have been pivotal in organising the community and motivating citizens to rebuild the country. This has facilitated progress and has been supported by applying traditional concepts to health system practices. For instance, the concept of *ubudehe* (local collective action) encourages people to solve their problems collectively with the support of other actors such as local government, NGOs and donors. Respondents said that this sense of collective action has the potential to generate ownership of programmes proposed by the government as well as to have a positive effect on their swift implementation and sustainability in the long term. Moreover, individuals' participation in their own health care choices has played a key role in the health sector reform in Rwanda, as this high-level donor agency staff member in Kigali remarked: *'Doctors and community members sit together as partners and they are able to discuss and plan what is best to meet people's needs.'*

In Mozambique community involvement helped the implementation of the Iniciativa Maternidade Modelo. This aimed to provide more humane care and effective interventions for maternal and neonatal health, as well as promote key preventive reproductive health and family planning services (Reis, 2012; Chongo et al., 2013). In

Nepal, efforts to foster community ownership involved the development of cost-sharing practices. The establishment of birthing centres is an example.

'When we establish any birthing centre we organise a meeting and tell the community that we will provide all necessary equipment and ensure they have a skilled birth attendant, but that they need to raise funds for construction and ensure that all women come to the centre for antenatal care and birthing. That way we encourage ownership' – District official

According to our study respondents, village health volunteers in Cambodia play an important role in raising awareness at community level, seeking to encourage community members to attend outreach events. Dedicated village health meetings are run by these health volunteers, who are also in charge of gathering the community together. Local leaders are involved in this awareness-raising: the village chief informs community members to stay in the village during the day of MDA and religious representatives (monks/priests) and school teachers are also involved in mobilising the community during MDA campaigns.

Raising awareness of the need to carry out MDA campaigns in Sierra Leone is central to the NTD programme, and was identified by key informants as an important factor in its success. A wide range of stakeholders are involved in this sensitisation, both increasing knowledge of NTDs and dispelling the myths surrounding them. Celebrities, comedians, radio presenters, school teachers and health staff among others have taken part in discussions and debates. CDDs are a critical part of this awareness-raising, going house-to-house to explain the purpose of the campaign and answer questions. Since CDDs are members of the community, are selected by the community and are supported by village leaders, they are trusted and respected. This has resulted in the reduction of barriers to treatment uptake – since CDDs belong to the community in which they distribute the drugs, people feel confident about receiving the medicines from them. Many of the CDDs have also experienced an NTD so are able to bring their own perspectives when engaging with their communities: *'I was sick with worms in the past and then I took the drugs and they relieved me, so I want to pass the message and contribute.'*

Findings from Sierra Leone also show how CDDs, being tasked with distribution and awareness-raising activities,

develop a sense of ownership and pride, leading also to feelings of self-confidence and empowerment. This was supported during interviews with CDDs, who claimed to keep doing their job, despite a lack of incentives, because of its importance for their communities. These findings are in line with extensive literature around the fundamental role of broader community engagement and ownership for the success of policies and interventions: ‘... (community involvement) recognises the inherent relationship between the infusion of individuals with a sense of their own self-worth and their empowerment to tackle problems within their communities’ (TDR, 2008: 5).

6.3 Challenges and transversality

Despite evidence of the success of these actions at micro level, challenges remain. Thus, community health workers in the majority of cases are volunteers who receive some basic incentives such as t-shirts, transportation support or food, but they are not paid for their work. As these countries progress economically, a higher proportion of these volunteers may require remuneration for these services (though in some cases this may have detrimental effects on community engagement and ownership). Finding appropriate mechanisms for this transition will be

important to ensure that these access gains through local workers are not lost. Moreover, although these community health workers may increase awareness locally, resulting in higher demand, this increase in demand should also be coupled with good-quality services, which in some cases will require more health workers. This will also require increased support and supervision, as also shown in our literature review. As some recent health programmes have shown, the use of other mechanisms to generate demand such as cash transfers and other incentives could be further explored.

As noted throughout this analysis, the micro level is affected by policies and actions at both the macro and meso levels; in turn, the functioning of the micro level shapes how effective these policies are, or the extent to which ultimately people access services. Reiterating a few points, in order for community engagement and participation to be effective in health systems governance and delivery, opportunities and systems need to be in place at the other levels (meso and macro) in order for local needs and priorities to be recognised and acted upon. Similarly, in order to achieve ownership of a programme, this sense of ownership needs to start from the community and user level, going up to the implementers and beyond.



A wooden 'dose pole' used by Community Drug Distributors in Sierra Leone to assess the right dosage for the people they treat. Photo: © Richard Hatzfeld/Sabin Vaccine Institute.

7. Discussion and policy implications

As the international community enters the post-MDG era, there are growing demands to sustain and expand access to essential health care. This is accompanied by pressure on health systems to respond to changes in the disease burden, in lifestyles and in people's expectations. Access to health care is increasingly seen as a fundamental right to be progressively realised and reflected in the normative idea that universal health care is desirable from an individual and societal perspective. The movement for universal health coverage (UHC) (WHO, 2005; WHO, 2010)¹⁹ has united global health actors and generated political momentum. However, there are concerns that these ideas are undermined by economic crises, cost inflation and stagnant external funding for health care for low-income countries (Fryatt et al., 2010; Hecht et al., 2010; Horton, 2009). The idea that there are choices to be made in what services to cover and how fast coverage can be expanded underpinned the recommendations of the Commission on Macroeconomics and Health (2001), which identified the most cost-effective interventions that could make the largest differences in improving health within low-resource settings. The Countdown to 2015 report (2013) and the study by Bhutta and colleagues (2013), among others, identified the most effective and feasible interventions to improve maternal and child health.

International debate and country strategies are recognising the need for well-governed health systems that support steps towards UHC and provide a foundation for vertical interventions. Consequently, there has been a clear move away from narrowly defined goals and targets for each sector towards broader cross-sectoral approaches, exemplified in the formulation of the Sustainable Development Goals led by the Open Working Group (2014).²⁰ However, there is insufficient discussion about what has worked at the broader health systems level, and what health systems strengthening would entail in practice. Empirical evidence is also scarce.

The *Pathways to Progress* analysis has sought to advance these discussions by exploring country experiences of health policy design and implementation, while considering the role of contextual determinants on achieving progress in health,

with specific reference to MCH and NTD outcomes. It has also sought to disentangle some of the inherent complexities in health systems analysis by taking an approach that identifies three distinct levels (macro, meso and micro) and examining key factors at each level. As noted throughout the report, this distinction is mainly for analytical purposes as policies and actions at one level often depend on and influence action and responses taken at other levels (Gilson and Raphaely, 2008). Differentiating the analysis by level allowed us to distinguish and explore the kinds of policies, interventions and contextual factors that have allowed progress to be achieved.

This approach also demonstrated how, in certain countries, particular levels may have had a greater impact or potential to drive positive change than others. Thus for instance, in Nepal, challenges at the meso level appear to have been overcome through a well-organised micro-level response; in Cambodia, while national-level commitment was essential, study respondents reported that the meso-level partnership between the Ministry of Health and the Ministry of Education, Youth and Sport was critical for scaling up the NTD response.

This study has also drawn attention to the potential synergies or complementarities to be achieved by addressing two or more levels simultaneously. Action may be needed at macro, meso and micro level in order to accelerate and sustain progress. Recognising the challenges identified in sections 4 to 6, study findings point to a set of policy options.

At the macro level, it is critical to support national-level evidence-based and transparent planning and policy-making processes. Similarly, partnerships with global and regional-level actors are key to supporting local health policies beyond just the provision of funding. Regional-level planning and coordination is often central to achieving progress, and this may benefit from support from external actors. Moreover, it is also vital to go beyond donor-recipient relationships to create effective partnerships and build political commitment to agreed priorities among policy-makers and implementers at all levels. All these actions need to be underpinned by strong capacity-building processes and effective health information systems. The

19 WHO defines universal health coverage as: 'access to key promotive, preventive, curative and rehabilitative health interventions for all at an affordable cost, thereby achieving equity in access. The principle of financial-risk protection ensures that the cost of care does not put people at risk of financial catastrophe. A related objective of health-financing policy is equity in financing: households contribute to the health system on the basis of ability to pay. Universal coverage is consistent with WHO's concepts of Health for All and Primary Health Care.'

20 <http://sustainabledevelopment.un.org/owg.html>

Box 2: Questions to be asked at different levels (examples)

- What are the needs and priorities at the different levels of the health system?
- What are the different priorities of the different sectors? How can they be brought together, streamlined and made supportive of each other?
- What kinds of resources – financial, human, material – are available and/or would be needed to improve outcomes?
- What kinds of structures are in place at each level, both formal and informal?
- How can these structures be built on, linked and/or strengthened to ensure successful outcomes?
- How can joined-up planning and monitoring systems that connect all levels be developed and operationalised? What kinds of indicators would be necessary?
- How are decisions made? Who are the power-holders, influencers, critical interest groups?
- What other contextual factors, including norms and culture, influence uptake of services?

importance of external aid is a recurring theme in our case study countries and will probably remain so for some time. Generating innovative partnerships for funding and technical assistance that progressively support the role of national level actors will therefore remain important.

At the meso level, the role of intersectoral collaboration in strengthening health systems needs to be further developed and institutionalised to ensure that partnerships become sustainable in the long term. Integration within the health system is a promising way to achieve synergies across existing institutions and structures and to improve access to care in a more holistic manner. It is crucial to increase implementation capacity, through training and other incentives, at the sub-national level when planning, coordinating and monitoring the health response – particularly given the influence this has on how policies are translated and how programmes are experienced on the ground.

For health systems to be effective, it is clear that technical expertise is required at all these levels. This includes at the meso and micro levels, where the most qualified and skilled people are often reluctant to operate. It is therefore important to devise interventions to address this issue through training and by involving the macro level in responding to needs at the meso and micro levels.

Incentivising qualified and skilled personnel to go beyond the capital city is also important, since currently there is a heavy reliance on community health workers to tackle problems related to access, particularly in remote rural areas.

At the micro level, the study shows that community delivery models led by community health workers have become an integral part of the health system, and that this has often led to gains in health and access. As the countries grow economically, it will be increasingly important to avoid attrition by incentivising these volunteers. Moreover, these volunteers should be linked to the formal health system, for example through task-shifting, which has been shown to be a useful way to address human resources shortages. A shift in focus may also be needed: away from individual community health workers to finding broader innovative ways to engage community organisations in ensuring responsive and accessible health services.

There is wide recognition that strengthening health systems is a key strategy for achieving equitable health gains and is essential for work on the social determinants of health. It is also important to keep asking questions that can inform more specific health systems strengthening policies and interventions (see Box 2).

8. Conclusion

The *Pathways to Progress* analysis, drawing on a synthesis of findings from five country case studies and a literature review, employed a multi-level framework to help map and understand drivers of progress across these countries, and in relation to two areas of health: maternal and child health and neglected tropical diseases. This framework helps us to understand what has driven progress in these countries and the level of the health system where these drivers are most prominent, with the recognition that they are fluid and can change and evolve over time. It does not suggest a blueprint for action at the different levels but rather seeks to identify clear actions within the respective country contexts, with the possibility of drawing lessons on key drivers of progress across countries.

The broad approach proposed here is not without its limitations. The sample of countries is small and the focus is on two areas of health. While we chose countries which appeared to be making progress relative to their regions, our selection also sought to ensure geographical diversity (an African and Asian perspective), that low (and to a lesser extent middle) income countries were selected and that information was readily available. Thus, while our findings relate to these five countries with respect to these specific health focus areas, and while they can also help us to understand the respective regional contexts, they cannot explain progress or lack of progress in other countries and regions. However, these findings and the framework can stimulate debate in order to address the challenges in health systems strengthening more broadly.

Shocks and fragilities remain a concern. Whatever progress is achieved in our five countries or elsewhere, it is likely to be precarious, particularly in an ever-changing environment. The case of Sierra Leone and the effects

of the Ebola epidemic on an already relatively weak health system aptly demonstrate this. There is increasing international attention to the need to develop strategies to counter these shocks and fragilities. Some of the proposed responses have related to improving health system resilience, building more accountable global health governance and stimulating more intersectoral work. Among other things, this study has re-emphasised the importance of such intersectoral approaches (Christian et al., 1977; Mahler, 1978), a theme that is also very much on the post-2015 agenda. However, evidence related to how to implement these remains scarce.

To conclude, the approach proposed here helps us to think through the complexities of processes of change, allowing us also to take a more holistic and comprehensive perspective on progress. A multi-level approach, although not new, can help us to navigate this complexity and explore potential pathways to sustain and accelerate progress. Our analysis shows that there is a need to go beyond implementing safe, technocratic solutions. Effective national-level governance needs to be translated into operational capacity to implement policies and allocate resources effectively. Front-line providers, health service users and communities can actively contribute and shape the services available to them, and mechanisms for allowing their voices to be heard need to be built into both policy development and programme implementation. Taking a step back, we need to ask questions about how decisions are made, who has the power, what the interests of different groups are, and how inclusiveness and equity can be promoted within health systems and beyond, all of which may help to identify important upstream factors determining progress towards improving access and better health.

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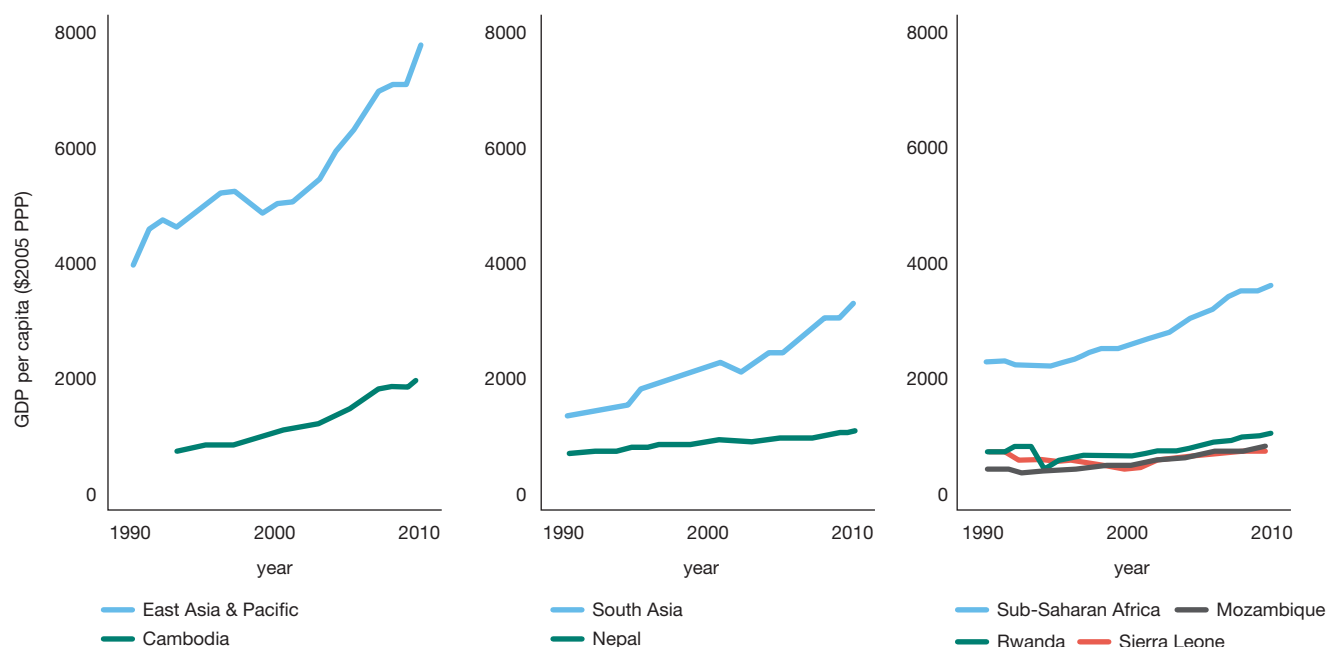
Annex 1: Number of key informants classified by country and level

	Micro level	Meso level	Macro level	Total
Rwanda	5 / 18*	9	11	25 (38)
Nepal	25	14	35	74
Sierra Leone	26 / 31	30	38	94 (99)
Mozambique	2	5	13	20
Cambodia	3	8	19	30
Total	61 (79)	66	116	243 (261)

**Second number includes adding all those present in group discussions*

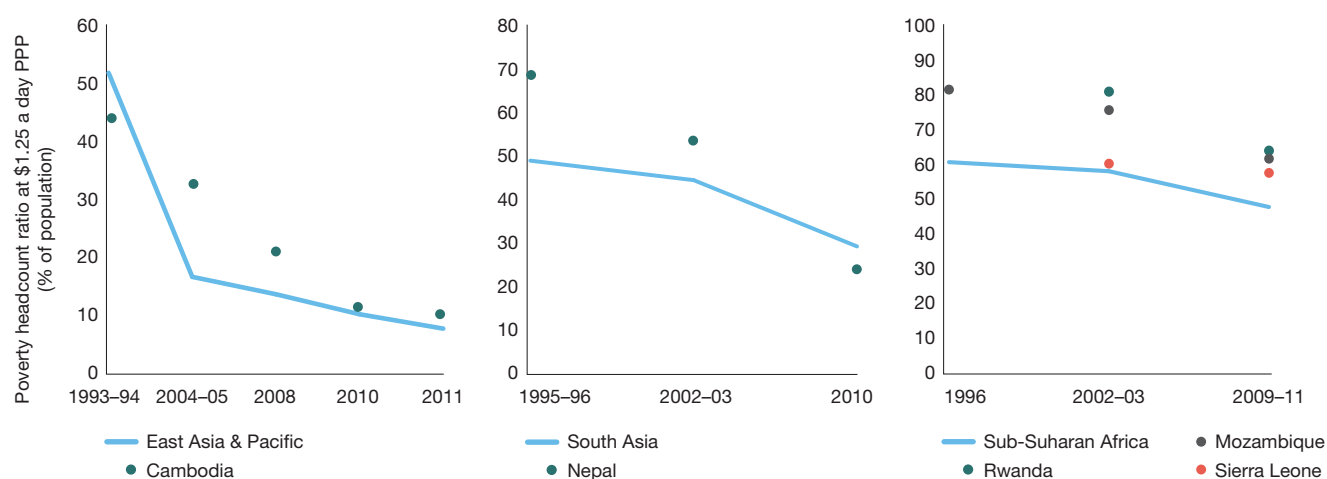
Annex 2: Additional graphs supporting chapter 3

Figure 1: GDP per capita (constant 2005 international dollars PPP) in case study countries and regions, 1990–2010



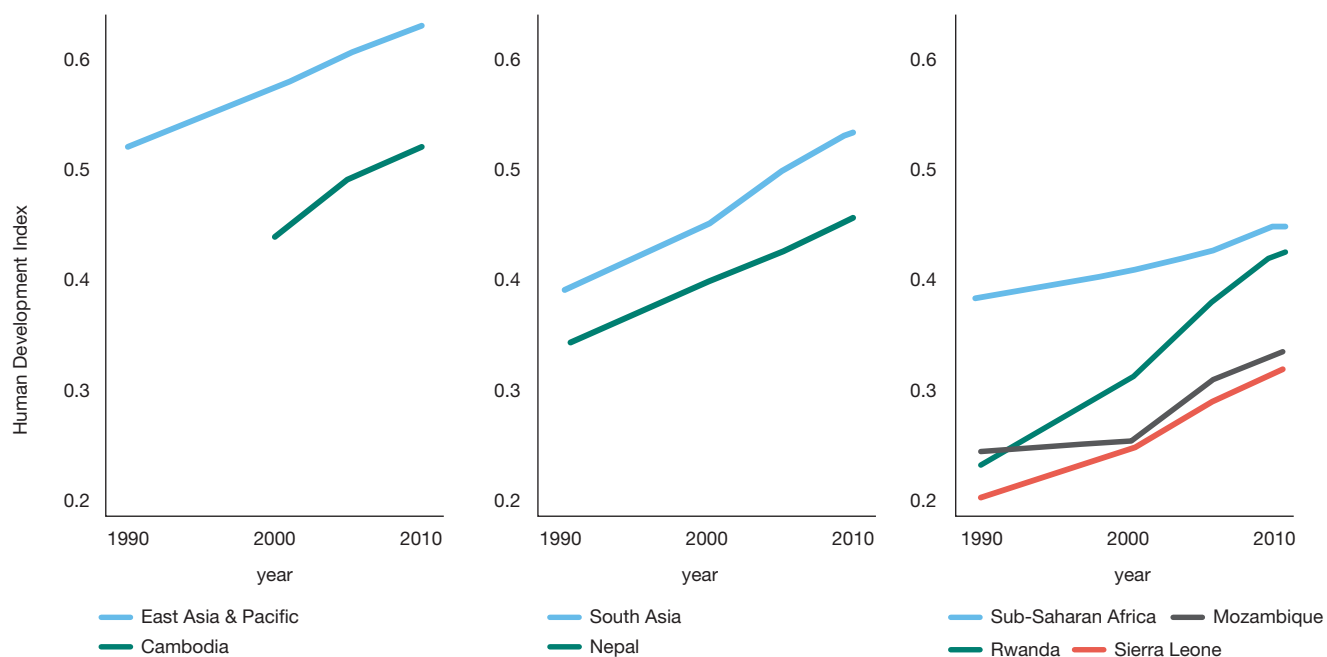
Sources: Authors' calculations from WDI (2014) data.

Figure 2: Poverty headcount (at \$1.25 a day) in case study countries and regions, 1990–2010



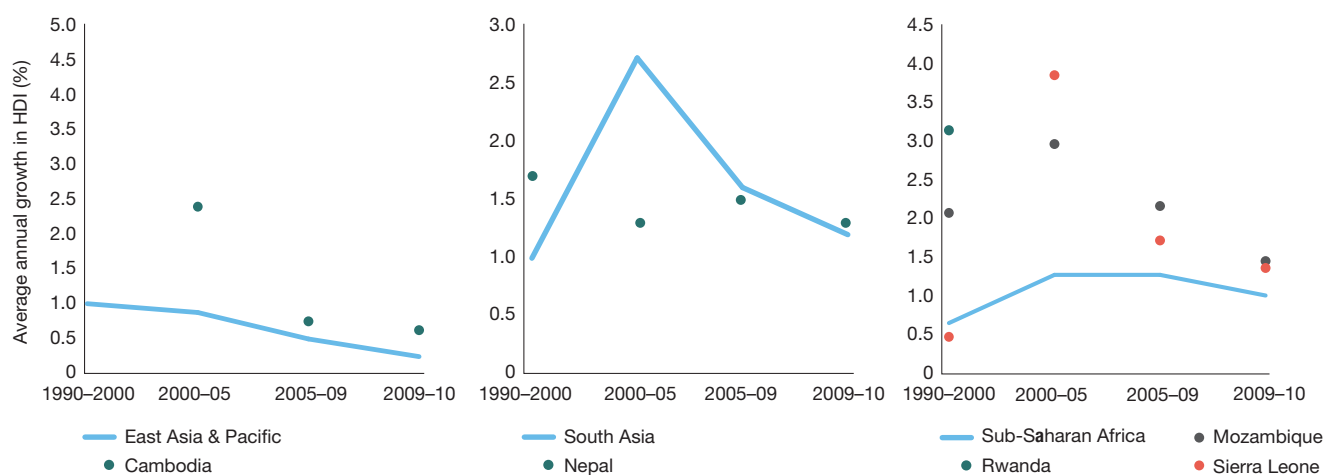
Sources: Authors' calculations from WDI (2014) data.

Figure 3: Human development index (HDI) in case study countries and regions, 1990–2010



Source: UNDP (2013).

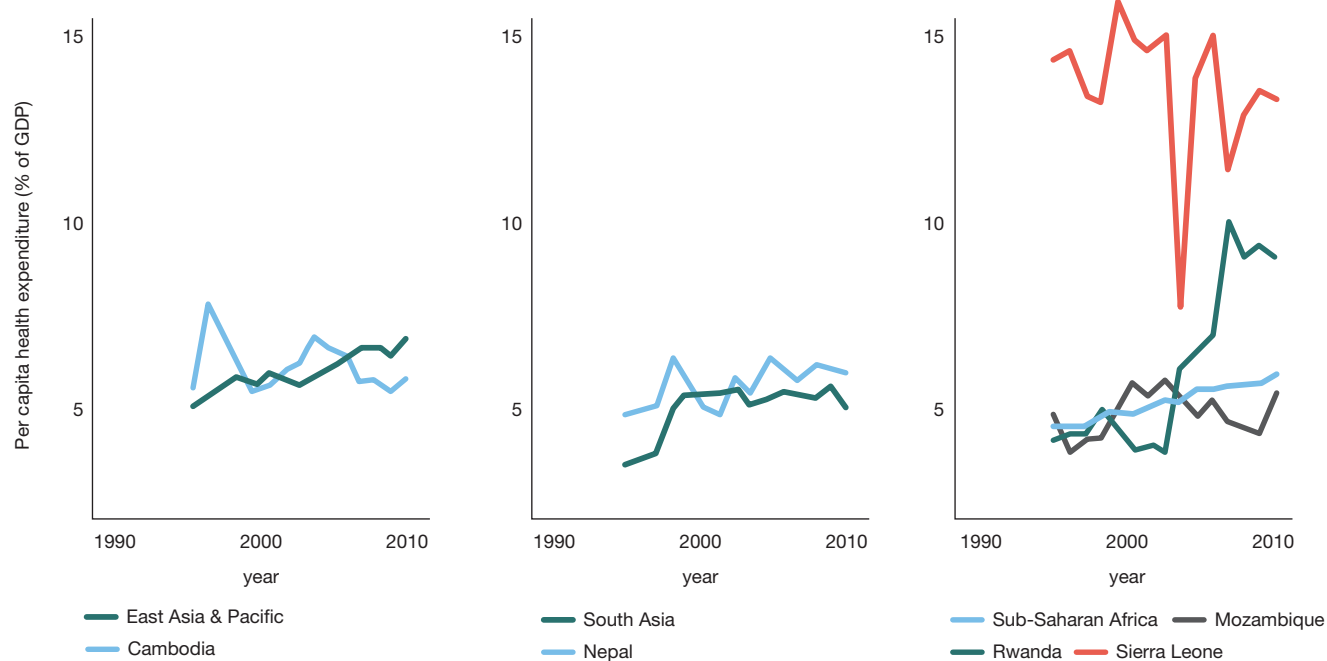
Figure 4: Average annual growth of HDI for case study countries and regions, 1990–2010



Source: UNDP (2013).

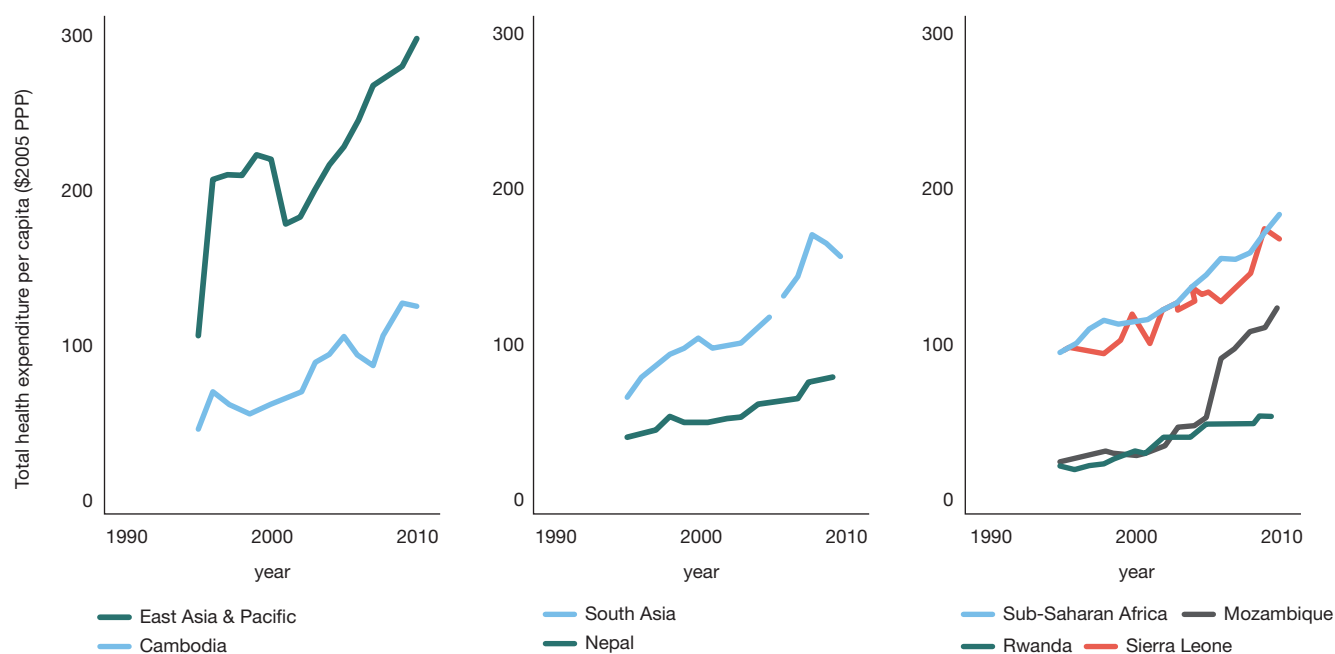
Note: data are not available for Cambodia prior to 2000. Regions exclude high-income countries.

Figure 5: Per capita health expenditure as a share of per capita GDP in case study countries and regions, 1990–2010



Source: Authors' calculations from WDI (2014) data.

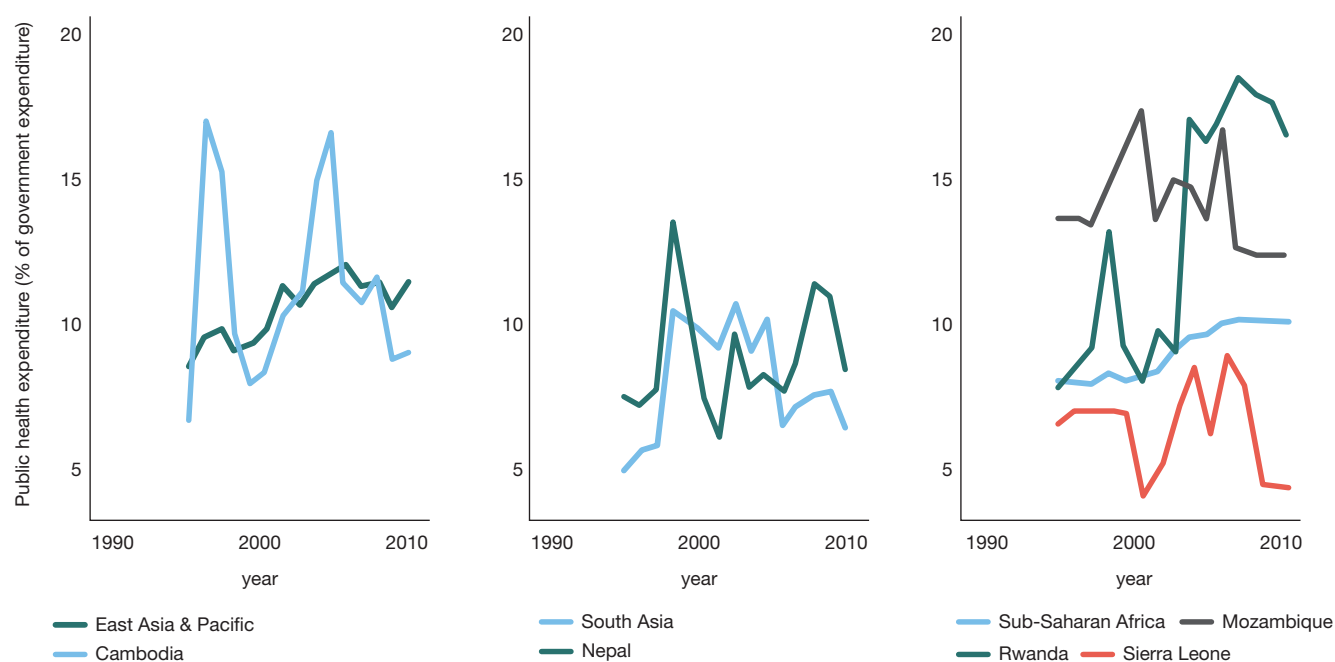
Figure 6: Total health expenditure per capita (\$2005 PPP) in case study countries and regions, 1990–2010



Source: Authors' calculations from WDI (2014) data.

Note: Regional averages exclude high-income countries.

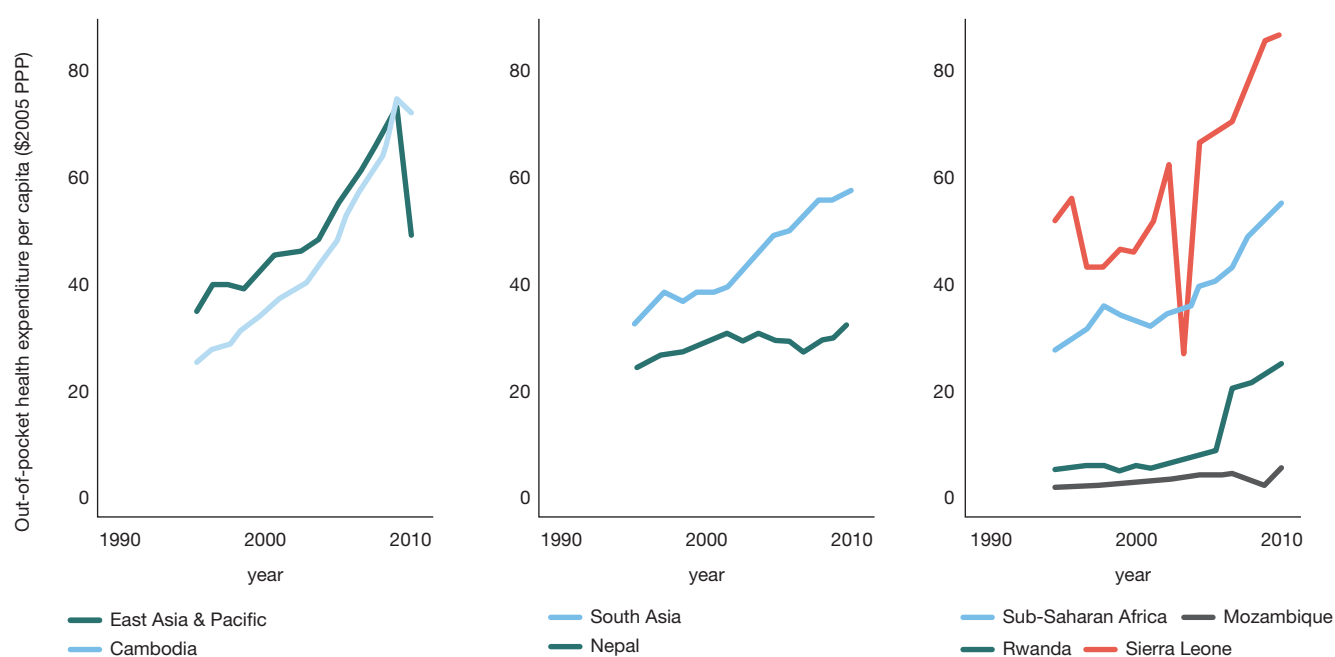
Figure 7: Public health expenditure as a share of government expenditure in the case study countries and regions, 1990–2010



Source: Authors' calculations from WDI (2014) data.

Note: Regions exclude high-income countries.

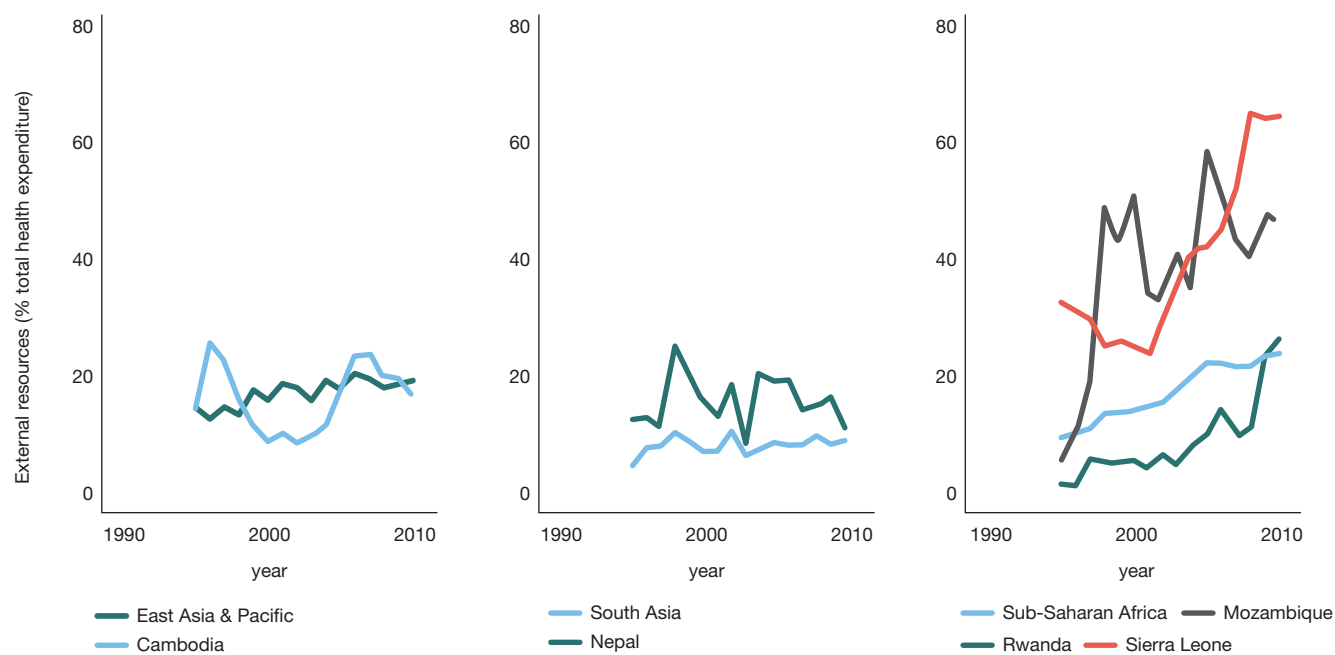
Figure 8: Out-of-pocket health expenditure per capita (\$2005 PPP) in the case study countries and regions, 1990–2010



Source: Authors' calculations from WDI (2014) data.

Note: Regions exclude high-income countries.

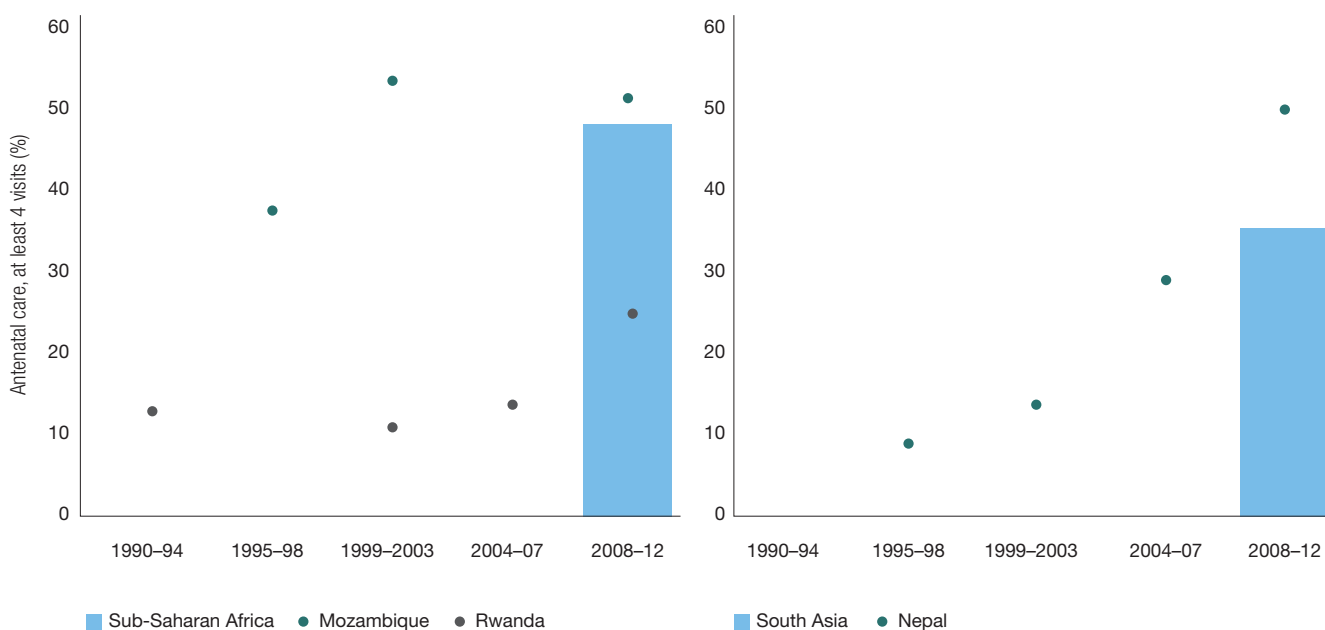
Figure 9: External resources as a share of total health expenditure in case study countries and regions, 1990–2010



Source: Authors' calculations from WDI (2014) data.

Note: Regions exclude high-income countries.

Figure 10: Antenatal care coverage (at least four visits) in countries compared to regions, 1990–2012



Source: WDI (2014).

This is one of a series of Development Progress research reports. There is a summary of this research report available at developmentprogress.org.

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This publication is based on research funded by the Bill & Melinda Gates Foundation. The findings and conclusions contained within are those of the authors and do not necessarily reflect positions or policies of the Bill & Melinda Gates Foundation.

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Development Progress

Overseas Development Institute
203 Blackfriars Road
London SE1 8NJ

Tel: +44 (0)20 7922 0300
Email: developmentprogress@odi.org.uk

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