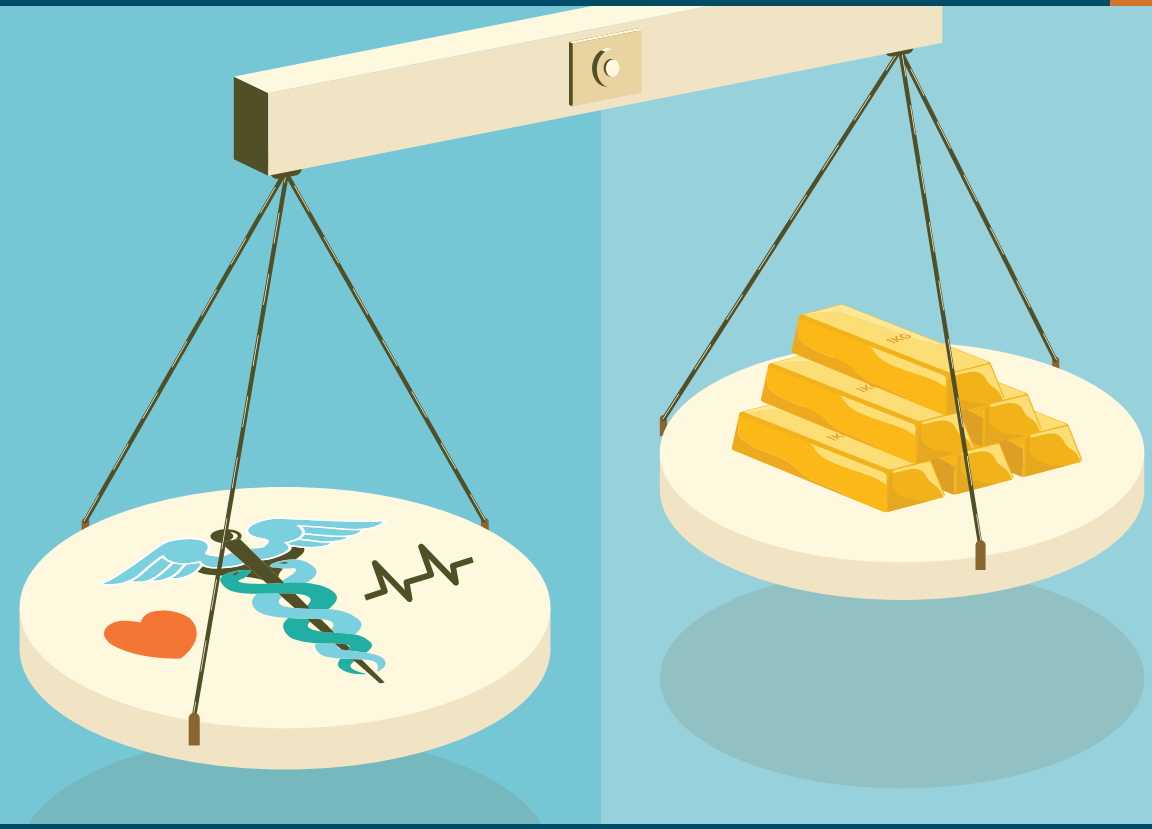
EXCERPT

# The Economics of Public Health Care Reform in Advanced and Emerging Economies



EDITORS
Benedict Clements, David Coady, and Sanjeev Gupta

INTERNATIONAL MONETARY FUND

## Note to Readers

This is an excerpt from *The Economics of Public Health Care Reform in Advanced and Emerging Economies*. Health care reform will be a key fiscal policy challenge in both advanced and emerging economies in coming years. In advanced economies, the health sector has been one of the main drivers of government expenditure, accounting for about half of the rise in total spending over the past forty years. These spending increases will come at a time when countries need to undertake fiscal consolidation to reduce public debt ratios in the wake of the global financial crisis. In emerging economies, health care reform is also a key issue, given substantial lags in health indicators and limited fiscal resources. For these economies, the challenge will be to expand public coverage without undermining fiscal sustainability. This book provides new insights into these challenges and potential policy responses, with cross-country analysis and case studies.

The Table of Contents, Foreword, and Chapter 1 are included in this excerpt.

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# Contents

# Foreword

The mandate of the International Monetary Fund is primarily focused on macroeconomic stability. While recognizing that the issue of health care reform has much broader implications, in this volume we look at health care reform through the lens of our mandate, focusing primarily on macroeconomic stability and—of special importance to us in the IMF's Fiscal Affairs Department—on fiscal stability.

Health care reform has key implications for fiscal stability. Public spending on health care has been a key driver of aggregate increases in public spending over the past 40 years. As discussed in this book, spending is projected to continue rising as a share of GDP unless reforms are undertaken to help break these trends. The projected increases in public health spending will take place at a time when most countries need to undertake large fiscal adjustments to help bring public debt ratios down to more prudent levels. In this light, public health care spending is indeed an important macro-fiscal issue. Moderating the growth of age-related spending, including on health, will have to be a major element of the fiscal consolidation strategy in the advanced economies over the coming years. For many emerging economies, the outlook for health spending is better, and immediate pressures are expected to be more benign. But it will by no means be easy for emerging economies to expand access to and improve the quality of health care services in light of the limited fiscal space to increase public health spending.

Despite the fiscal importance of health care reform, there has been relatively little systematic work on the macro-fiscal implications of reforms in advanced economies and emerging markets. Recent work by the Fiscal Affairs Department has tried to fill that void, both by projecting future health care spending if current policies were to be maintained and by estimating the potential fiscal impact of various reform options to contain health spending growth. This book draws on a recent study on the macro-fiscal implications of health care reforms presented to the IMF Executive Board in January 2011 and on papers prepared by outside experts for conferences at the IMF Regional Offices for Europe and Asia and the Pacific in June 2011 and October 2011, respectively.

An important objective of the IMF's analytical work in this area—and of our continued dialogue with health experts—is to improve our understanding of how feasible it would be to slow down the projected growth of health spending. This, in turn, has an important bearing on the composition of fiscal consolidation strategies going forward, since insufficient scope for containing health spending increases would shift the burden of expenditure cuts to other areas or require revenues to increase.

Health care reform is a difficult policy issue. It involves complex trade-offs between policy goals, such as ensuring access to high-quality health care and keeping public spending at fiscally affordable levels. Preferences regarding the role of the state in the provision and financing of health care services also vary

significantly across countries. Many of these issues go beyond the scope of our work in this area. However, with a combination of cross-country analyses and case studies—and not least based on the stimulating debate within and outside the IMF on these issues—this book identifies potential policy responses to contain public health spending pressures in an efficient and equitable manner. Of course, much remains for us to learn, and the IMF will continue to stay abreast of new developments and insights in this complex area of policy.

Carlo Cottarelli
Director
Fiscal Affairs Department
International Monetary Fund

# Acknowledgments

We first would like to thank the contributing authors. Without their hard work and dedication, this book would not have been possible. The book has also benefited from the comments of staff in the IMF's Fiscal Affairs Department, staff in other IMF departments, and seminar participants from the European Commission, the World Bank, and the Organization for Economic Cooperation and Development. Many of the chapters in this volume were presented as papers at IMF health conferences in Paris in June 2011 and Tokyo in October 2011. We would like to thank conference participants for their valuable comments.

We are grateful to Joanne Blake and Michael Harrup of the IMF's External Relations Department for managing the production of the book. We are thankful to Pierre Jean Albert, Jeffrey Pichocki, and Mileva Radisavljevic, staff in the Fiscal Affairs Department's Expenditure Policy Division, for their support throughout the entire process. We are also grateful to Baoping Shang—who worked with us from the beginning when the book project was conceived—for his written contributions and efforts to ensure that all steps in the production process were followed in a timely manner.

Benedict Clements
David Coady
Sanjeev Gupta

# Abbreviations

| | |
|---|---|
| AMNOG | *Arzneimittelmarktneuordnungsgesetz* (law regulating reimbursement for drugs) (Germany) |
| ASEAN | Association of Southeast Asian Nations |
| BNHI | Bureau of National Health Insurance (Taiwan Province of China) |
| CAGR | compound annual growth rate |
| CAPB | cyclically adjusted primary balance |
| CDHC | consumer-directed health care |
| CHIP | Children's Health Insurance Program (United States) |
| CSMBS | Civil Servant Medical Benefit Scheme (Thailand) |
| DALY | disability-adjusted life-year |
| DEA | data envelopment analysis |
| DMP | disease management program |
| DRG | diagnosis-related group |
| EAP | East Asia and the Pacific |
| ECG | excess cost growth |
| FDH | free disposable hull |
| G2 NHI | Second-Generation National Health Insurance (Taiwan Province of China) |
| G-BA | *Gemeinsamer Bundesausschuss* (Federal Joint Committee) (Germany) |
| GP | general practitioner |
| GSDP | gross state domestic product (India) |
| HIF | Health Insurance Fund (Hungary) |
| HISRO | Health Insurance System Research Office (Thailand) |
| HITAP | Health Intervention and Technology Assessment Program (Thailand) |
| HMO | health maintenance organization |
| HSA | health savings account |
| HSRI | Health Systems Research Institute (Thailand) |
| IHPP | International Health Policy Program (Thailand) |
| IQWiG | *Institut für Qualität und Wirtschaftlichkeit im Gesundheitswesen* (Institute for Quality and Efficiency in Health Care) (Germany) |
| LTC | long-term care |
| NCD | noncommunicable disease |
| NHA | National Health Account (Thailand) |
| NHI | national health insurance |
| NHI | National Health Insurance (Japan, Taiwan Province of China) |
| NHIC | National Health Insurance Corporation (Republic of Korea) |
| NHS | National Health Service (U.K.) |
| NRHM | National Rural Health Mission (India) |
| OECD | Organization for Economic Cooperation and Development |

| | |
|---|---|
| OLS | ordinary least squares |
| OOP | out of pocket |
| PHI | Popular Health Insurance (Mexico) |
| PPP | purchasing power parity |
| QALY | quality-adjusted life-year |
| RSBY | Rashtriya Swastya Bima Yojana (health insurance scheme for those below the poverty line) (India) |
| SHI | statutory health insurance |
| SHI | social health insurance (Thailand) |
| UHC | universal health coverage |
| WHO | World Health Organization |

PART I

# Trends and Outlook for Public Health Spending

CHAPTER 1

# The Challenge of Health Care Reform in Advanced and Emerging Economies

SANJEEV GUPTA, BENEDICT CLEMENTS, AND DAVID COADY

According to the World Health Organization (WHO), the three fundamental objectives of a health care system are

- improving the health of the population it serves;
- providing financial protection against the costs of ill-health; and
- responding to people's expectations.

Improving the health of the population is the primary objective of a health care system. But because health care can be catastrophically costly and the need for it unpredictable, mechanisms for sharing risk and providing financial protection are also important. A third goal—responsiveness to people's expectations—reflects the importance of respecting people's dignity and autonomy and the confidentiality of information (WHO, 2000). In addition, there is implicitly a fourth objective: equity. Improving health means not only maximizing the average health of the population, but also minimizing the differences among individuals and groups. Thus, the need for health systems to provide financial protection is also driven by equity concerns.

Significant improvements in health have been achieved around the world in the past several decades, as evidenced by sizable improvements in life expectancy and access to health care (WHO, 2010a, 2010b). The welfare gains from these improvements have been tremendous (Murphy and Topel, 2006). In addition, the microeconomic findings of the impact of health on worker productivity, education, and savings imply that improved health leads to improved economic growth (Bloom and Canning, 2008; Basta, Soekirman, and Scrimshaw, 1979; Kalemli-Ozcan, Ryder, and Weil, 2000; Bloom, Canning, and Graham, 2003; Hurd, McFadden, and Gan, 1998; and Alsan, Bloom, and Canning, 2006). However, the macroeconomic evidence is mixed, with evidence of a large and significant effect in some studies (Bloom and Canning, 2008; Bloom, Canning, and Sevilla, 2004; Sala-i-Martin, Doppelhofer, and Miller, 2004; and Baldacci and others, 2008) but a small and insignificant

This chapter has benefited from contributions from Eva Jenkner and Baoping Shang.

effect in others (Acemoglu, Johnson, and Robinson, 2003; Acemoglu and Johnson, 2007). Nevertheless, the incomplete access to health care in many countries, high and rising health care costs, and inefficiencies in spending have made health reform an urgent priority in both advanced and emerging market countries.

## HEALTH REFORM CHALLENGES: AN OVERVIEW

### Incomplete Coverage

Universal insurance coverage is essential to achieve the objectives of a health care system. Health insurance, by design, pools risk and provides financial protection from the cost of illness. It improves health by providing access to services that would otherwise be unaffordable for a significant share of the population (WHO, 2010b; Card, Dobkin, and Maestas, 2009). Most advanced economies have achieved universal insurance coverage, with the exception of the United States, which passed landmark legislation to achieve near-universal coverage in 2010.

The picture is uneven for emerging market economies. Most of emerging Europe and some emerging countries in Asia and Latin America have achieved universal coverage. In the other emerging economies, however, universal coverage is still in progress. A key issue facing these countries is how to provide this at an affordable cost. Universal coverage can be achieved through a tax-financed system, a social insurance system, private insurance, or a mixed system. Each system has its advantages and disadvantages (Gottret and Schieber, 2006). The most important barrier to universal coverage in many countries is the insufficient availability of resources (WHO, 2010b). Political stability, a strong institutional and policy environment, and a well-educated population can facilitate achievement of universal coverage. However, also important is a political commitment to allocate health spending to the provision of basic services for the entire population, rather than concentrating resources on curative services benefiting middle- or upper-income groups.

### Health Inequalities

Despite progress in improving health indicators in many countries, inequalities in health status—both between and within countries—remain large (CSDH, 2008; European Commission, 2010). Inequalities are largely driven by socioeconomic factors, such as income, education, and occupation, and thus are determined outside the health care sector (Joumard, Andre, and Nicq, 2010). There is no evidence of a trade-off between raising the average health status of the population and improving equity, suggesting it is possible to simultaneously achieve both equity and efficiency goals. Some features of health care systems, however, contribute to inequalities in health outcomes. For example, informal payments for health care services, which are prevalent in many emerging economies, disproportionately burden the poor (Jakab, 2007).

## Escalating Cost

Health care costs have been growing rapidly in the past several decades. Since 1970, total real per capita health spending has increased fourfold, while spending as a share of GDP has increased from 6 percent to 12 percent in advanced economies. In emerging economies, total health spending has increased from below 3 percent of GDP to 5 percent. These increases have put great fiscal pressure on governments and financial pressure on households and businesses.

The primary drivers of growth in health spending include rising income, population aging, and technological advancements. Additional factors include the Baumol effect,[1] health insurance coverage, and health policies (Newhouse, 1992; European Commission, 2010; CBO, 2010; Smith, Newhouse, and Freeland, 2009; Finkelstein, 2007). These factors often interact with each other (Weisbrod, 1991; Smith, Newhouse, and Freeland, 2009), and the separate effects of each are difficult to identify. Looking forward, these factors are expected to continue being important catalysts for health spending increases.

An additional factor that will drive spending is the change in disease profiles and associated risk factors. Most advanced economies and some emerging economies have finished the transition from primarily having to address communicable diseases (CDs) to primarily addressing noncommunicable diseases (NCDs). Other emerging economies are still making this transition. NCDs are the leading causes of death globally, killing more people each year than all other causes combined and nearly 80 percent of NCD deaths occur in low- and middle-income countries (WHO, 2010c). The economic impact of NCDs is also large, as national health care budgets are being increasingly allocated to treatment of NCDs (WHO, 2010c). NCDs are caused, to a large extent, by lifestyle risk factors—tobacco use, unhealthy diets, insufficient physical activity, and the harmful use of alcohol—and are often preventable. For example, tobacco and alcohol tax increases, tobacco control measures, and salt reduction have proven to be effective in improving health (WHO, 2010c).

## Inefficiencies

It has been well established in the literature that inefficiencies in health spending are large (Gupta and Verhoeven, 2001; Hauner, 2007; Mattina and Gunnarsson, 2007; Verhoeven, Gunnarsson, and Carcillo, 2007; Gupta and others, 2008; and Joumard, Andre, and Nicq, 2010). This includes both

[1]The Baumol effect refers to the rising unit labor costs in sectors where it is difficult to achieve productivity gains, usually in services. Because salaries rise in these sectors in line with economy-wide averages, while productivity does not, unit labor costs rise in relative terms. For evidence of the Baumol effect in health spending, see Pomp and Vujic (2008).

allocative inefficiencies and productive inefficiencies (Garber and Skinner, 2008). Because of inefficiencies, many countries could achieve the same level of health outcomes with a lower level of spending. A study by the Organization for Economic Cooperation and Development (OECD) suggests that reducing inefficiencies in health systems by half in the OECD would raise life expectancy at birth, on average, by more than one year (Joumard, Andre, and Nicq, 2010). By comparison, a 10 percent increase in health care spending per capita would increase life expectancy by only three to four months. The WHO estimates that 20 to 40 percent of resources spent on health are wasted. The most common causes of inefficiency include inappropriate and ineffective use of medicines, medical errors, suboptimal quality of care, waste, corruption, and fraud (WHO, 2010b).

## THE COMPLEXITY OF HEALTH REFORMS

Because of the potential trade-offs between health care reform objectives—such as preserving continued progress in improving health outcomes and controlling costs—health care reform is intrinsically complex.

An important question confronting all countries is the appropriate level of health care spending (Savedoff, 2007). This is further complicated by the fact that in addition to health spending, other factors, including lifestyle factors (see above), as well as education, pollution, and income, also play important roles (Joumard, Andre, and Nicq, 2010). Although health care spending is one of the most important determinants of health status, health spending may be too high in high-spending countries (Weisbrod, 1991; Docteur and Oxley, 2003). Given the large inefficiencies of health care systems, attacking these inefficiencies—as discussed above—may be the best route to improve health outcomes, rather than raising spending.

The imperfections in the health care market imply that governments must play an important role. However, there is no single model that delivers the best results across all countries. The pervasiveness of market failures and a desire to ensure that access to basic health care reflects need and not ability to pay have motivated extensive government involvement in this sector in advanced and emerging economies (Musgrove, 1996). The nature of government intervention (e.g., mandates, regulations, provision, and financing) has varied substantially across countries and over time, as has the level of public health spending. These differing approaches to providing and financing health care, and the resulting differences in the level of public health spending across countries, reflect differences in country preferences and constraints. Therefore, there is no unique "optimal" level of public health spending that can provide a benchmark for comparing countries. Countries may place different weights on equality of access, face differing fiscal constraints, or attach different weights to health spending as opposed to other uses of public funds. Yet there is a need to ensure that whatever "model" for health care is adopted, public health care services are provided in an efficient way.

## HEALTH REFORM AS A KEY FISCAL CHALLENGE

Health care reform will be a key fiscal challenge in coming years. In the advanced economies, public health spending has risen by about 4 percentage points of GDP since 1970, about half the overall increase in noninterest public spending. These spending pressures are expected to intensify over the next two decades, particularly if technological advances and other nondemographic factors continue to drive up costs. Over the longer term, the challenge is even more severe. Based on the projections presented in this book, the net present value of these spending increases over 2011–50 is close to 100 percent of today's GDP. In the emerging economies, health care reform is also important, given their substantially lower health indicators, relative to the advanced economies, and their limited fiscal resources.

The increases in health costs will occur at a time when countries need to undertake large fiscal adjustments to reduce public debt ratios in the wake of the global financial crisis. One common gauge of how much fiscal adjustment would be needed is the change in the primary balance (that is, fiscal balance net of interest payments) needed to bring the public-debt-to-GDP ratio back to the precrisis median of about 60 percent of GDP. Based on the estimates published in the IMF's *Fiscal Monitor* (IMF, 2011), this needed change in the primary balance would average about 8 percentage points of GDP.

Fiscal consolidation will require both revenue increases and expenditure reductions in the advanced economies. On the expenditure side, stabilizing age-related-spending-to-GDP ratios, including by containing the growth of health spending, could constitute an important pillar of fiscal adjustment strategies in the advanced economies. In some emerging economies, there is fiscal space to increase health spending. For emerging economies with room to expand, such as many of those in Asia and Latin America, the challenge is to expand basic coverage to a larger share of the population in a fiscally sustainable manner while avoiding the inefficiencies and resulting high costs of the health systems of advanced economies. In others, where coverage is already extensive—as is the case in much of emerging Europe—the challenge is to enhance the efficiency of public spending and limit its increase as a share of GDP.

Country experiences in containing public health spending vary widely, as does the quality and efficiency of public health services across countries. Several important questions remain for policymakers seeking guidance on health care reform, including the following:

- What are the trends in spending in different time periods and country groups? What has influenced these trends? How much does population aging account for the increase in spending?
- What is the outlook for public health spending over the next 20 years? Given differing degrees of success in controlling the growth of public health spending, which countries face the largest public health spending pressures?
- What reforms could advanced economies consider to control the growth of public health spending in an efficient and equitable manner? What are the potential savings that could be realized with different reforms? What needs

to be done to ensure that health reforms do not conflict with goals for ensuring equitable access to health care?

- How can emerging markets expand health coverage and improve health outcomes without incurring high fiscal costs?

This book addresses these questions and makes several contributions to the literature. It provides an analysis of the developments in public health spending over the past 40 years, as well as projections of public health spending for 50 advanced economies and emerging markets over the years 2011 to 2050. The projections for advanced economies improve upon existing studies by using country-specific estimates. The book presents an analysis that quantifies the effects of specific health reforms on the growth of public health spending by drawing on a range of analytical approaches, including country case studies. This analysis highlights the reforms advanced economies could consider to control the growth of public health spending in an efficient and equitable manner. The book likewise explains how selected emerging economies have successfully expanded health coverage and improved health outcomes without incurring high fiscal costs, and analyzes in detail the reform experiences and outstanding challenges for some of the largest emerging economies in Asia and Latin America. It includes specific case studies prepared by experts on Japan, the Republic of Korea, Germany, India, Taiwan Province of China, Thailand, and the Asian region as a whole. Finally, the book discusses the issue of public and private insurance, the appropriate role of the private sector in health care, and the effects on health indicators of health care reforms.

## ORGANIZATION OF THIS BOOK

This book is organized into five parts. The chapters in Part I provide an analysis of trends in public health spending and projections for these expenditures for advanced and emerging economies. Part II focuses specifically on the role of the private sector in the financing and provision of health care. Part III comprises cross-country studies of health care reforms and discusses the potential lessons for future reforms. Parts IV and V consist of country case studies of health reforms in advanced and emerging economies, respectively.

### Part I: Trends and Outlook for Public Health Spending

Understanding past trends in public health spending and the projected increases under unchanged policies is critical for assessing the magnitude of the health reform challenge across countries. Two important methodological issues for research in this area have been the following:

- to what extent past trends will continue into the future, and whether spending growth—which has been rapid in the past—will at some point slow down and converge to a rate closer to the growth of GDP; and
- whether or not country-specific trends should be used in projections for individual countries.

Obtaining reliable econometric estimates for the country-specific drivers of health care spending has been particularly vexing for the health care literature. The effect of population aging per se on spending is well understood, given the availability of reliable data on how spending differs across different cohorts of the population and projections for the aging of the population. What is less well understood is how nondemographic drivers of health spending, such as technological improvements in medical care, will evolve in the future. The growth of spending attributed to these nondemographics has been coined "excess cost growth (ECG)." Assumptions regarding ECG are the most important factor behind health care projections, given that the effect of aging on spending increases is believed to be moderate (European Commission, 2009; Smith, Newhouse, and Freeland, 2009).

The conservative estimates for ECG in some cross-country studies imply that health care spending will grow at a slower pace in the future than in the past. The reference scenario for health care spending projections in the European Commission's *2009 Ageing Report* (EC and EPC, 2009), for example, assumes that the growth in health care spending, beyond that caused by an aging population, would be no more than 0.2 percent per year. This is a much lower rate than observed in the past and risks understating the fiscal challenge posed by health spending.

Some research has tried to blend assumptions regarding the high spending growth of the past with assumptions regarding a future slowdown in health spending (OECD, 2006; CBO, 2010). This has been motivated by the view that health spending cannot continue increasing at the rate observed in the past, lest it rise to a ratio of output that is fiscally unsustainable or, over the long run, to a ratio exceeding 100 percent of GDP. However, the assumptions made about convergence can be arbitrary and implicitly suppose a change in policies that would help achieve such a slowdown in spending. Thus, it appears preferable to avoid imposing such assumptions, especially when projecting spending pressures over the next 20 to 40 years.

In Chapter 2, Coady and Kashiwase analyze health care spending trends for 27 advanced and 23 emerging economies over the past four decades. Total health expenditures have risen sharply during this period, and two-thirds of this increase is due to greater spending by the public sector (see above). On average, approximately one-fourth of the increase in public-spending-to-GDP ratios is explained by aging, and the rest by ECG. In the emerging economies, the increase in total health spending has been more moderate over the same period (see above), and public spending on health has increased from around 1½ to 2½ percent of GDP, about the same as the increase in private spending. This reflects the low priority given to health spending relative to other spending needs. In advanced economies there has been some convergence in public health spending ratios over the past several decades, while in emerging markets the spending shares do not indicate such a pattern. Looking across countries, higher health spending has not always been associated with better health outcomes. While raising public outlays can help improve health outcomes—which vary widely in both advanced and

emerging economies—improving the efficiency of public health spending could be even more powerful for achieving this important objective.

In Chapter 3, Soto, Shang, and Coady provide updated projections of public health spending in advanced and emerging economies, using a methodology that improves upon earlier studies. Their specific improvement is the use of realistic and country-specific estimates of ECG to project future spending. The results indicate that large increases in public health spending are projected in the advanced economies, rising on average by 3 percentage points of GDP over the next 20 years and by 6½ percentage points of GDP over the next 40 years. Around one-third of that increase would be due to the effects of population aging, and the remaining two-thirds would be due to ECG. The projections suggest that the outlook is grim not only in the United States but also in Europe. Recent health care reforms in most countries are unlikely to alter long-term public health spending trends. In the emerging economies, public health spending is projected to rise by 1 percentage point of GDP over the next 20 years, one-third of the increase in the advanced economies. This reflects, in part, the low initial spending levels in emerging economies. Aging would account for about half of the increase in expenditure. On average, spending pressures in emerging Europe and Latin America are expected to be higher than in emerging Asia. The modest projected increases suggest that rising health spending is unlikely to pose a heavy fiscal burden in emerging economies over the next 20 years, which is consistent with the view that the primary challenge for these countries is to improve the efficiency of this spending.

## Part II: The Role of the Private Sector in Health Care Financing and Delivery

Despite the market failures associated with health care, the private sector can still play an important role in achieving the objectives of a health care system. However, there is no optimal level of private involvement, and the role of the private sector in each country should depend on its preferences and constraints.

Kanzler and Ng, in Chapter 4, analyze the potential roles of private insurance in addressing the challenges facing Asian countries. In Asia, governments often take the primary responsibility for health care provision and private insurance only plays a minor role. However, since many Asian countries are facing the challenges of containing the growth of health care costs or expanding health insurance coverage in a fiscally sustainable manner, it may be necessary for them to rethink the role of private insurance. Should private insurance replace public insurance or work in coordination with public insurance? How would a larger role for private insurance affect health care costs and quality of care? What regulations are needed to ensure the functioning of the private insurance market? Could private insurance be involved in other aspects of health care, in addition to the traditional role of provider reimbursement? The chapter concludes that the role of private insurance in Asia is not expected to change dramatically, largely because of social beliefs. If private insurance only served as a supplement to public coverage, the growth of private insurance could potentially improve

quality of care, although for this to materialize would require a strong regulatory system. Furthermore, there may be scope for private insurance to play a larger role in care coordination, for example, as disease management facilitators or provider network managers, which could potentially improve the functioning of the health care system.

The empirical evidence regarding the appropriate role of the private sector in the financing and provision of health care has been largely inconclusive, and the debate has proceeded mainly on the basis of ideology. Cheng and Reinhardt, in Chapter 5, instead focus on the potential role of the private sector in achieving the economic functions and goals of a health system. These roles include those related to financing and delivering health care, protecting individuals and families from catastrophic risks, and maintaining and enhancing the health of the population. However, the appropriate role of the private sector depends heavily on the "distributive social ethic" of the system. The role of the private sector is also constrained by market imperfections, such as asymmetric information, lack of transparency in pricing, and monopoly power. If a country is willing to let health care be rationed among its citizens by price and ability to pay, then it can delegate most of the functions to be performed by the health system to market forces, and use regulation to make private markets function honestly and efficiently. If a country aspires to a roughly egalitarian health system, in which the quality of health care is to be roughly the same for everyone regardless of socioeconomic status, then government inevitably needs to step in, as well as strictly monitor and regulate the private sector. It is feasible to combine a distributive social ethic of social solidarity, implemented through government-run health insurance, with a mixed public-private health care system. If social solidarity is important, private health insurers cannot properly perform the function of collecting premium contributions and risk pooling. Nevertheless, they can be incorporated into the system to perform purchasing, claims processing, and quality control, as well as cost control under competitive contracting.

## Part III: Cross-Country Studies

A good understanding of which reforms worked and which did not work is essential to design effective health care reform. Cross-country studies are an important way to assess the impacts of the common elements of reforms that were adopted by many countries. Country case studies, on the other hand, identify the unique elements and circumstances of reforms from the experience of individual countries (Parts IV and V). The impact of health reforms needs to be evaluated in a comprehensive manner, including the effects on costs, health outcomes, equity, and financial protection.

In Chapter 6, Tyson, Kashiwase, Soto, and Clements find that the most promising strategies to contain spending in advanced economies appear to involve a mix of macro-level instruments to contain costs and micro-level reforms to improve spending efficiency. Their results are based on econometric analysis, event studies, and the results of case studies. Among the macro-level instruments,

budget caps and central oversight are powerful tools for reducing spending growth. Among micro-level reforms, strengthening market mechanisms—increasing patient choice of insurers, allowing greater competition between insurers, relying on a greater degree of private provision, and allowing more competition between providers—are particularly effective in containing costs. Management and contracting reforms, such as extending the use of managed care or shifting toward case-based payments, are central to improving the efficiency of spending. Although used less extensively, demand-side reforms—such as expanding private insurance and increasing the level of cost sharing—have also been successful in containing the growth of spending. Price controls appear to be among the less successful approaches for containing health care costs.

The simulation analysis in Chapter 6 indicates that reforms could significantly reduce the fiscal burden of health care over the next 20 years. The results suggest that the introduction of market mechanisms can be powerful, yielding savings of about ½ percentage point of GDP. Improving public management and coordination can also reduce spending by only a slightly lower amount. The analysis also underscores the importance of tighter budget controls and greater central oversight, which can reduce spending by ¼ percentage point of GDP. Finally, the simulated impacts of demand-side reforms, such as the use of cost sharing, are small but not negligible. The relative importance and desirability of each of these reforms, however, will vary across countries, depending on their current health care system. While the impact of the simulated reforms is substantial, it may still fall short of what would be needed in some countries to stabilize age-related-spending-to-GDP ratios at current levels. Therefore, achieving fiscal adjustment may require even greater revenue and expenditure measures than previously envisaged.

In Chapter 7, Jenkner, Shang, and Clements conclude that the challenges facing emerging economies are different from those in advanced economies and also vary substantially across this heterogeneous group. In emerging Europe, spending is relatively high by emerging economy standards, since coverage of the population is nearly universal and disease patterns mirror those of advanced economies. However, overall health outcomes remain relatively poor, so the challenge is to enhance the efficiency of spending to improve lagging health outcomes and the quality of service delivery. In most emerging economies of Asia and Latin America, on the other hand, the main challenge remains to expand basic coverage to a larger share of the population without generating undue fiscal pressures over the medium term as incomes rise and these systems expand. In emerging Asia, increased public spending on health could also catalyze growth as precautionary savings are reduced. The fiscal space across emerging economies to increase public health spending varies greatly. For some countries, little fiscal adjustment is needed, thus making it easier to accommodate a projected rise in health spending (Brazil, Estonia). However, adjustment needs are high in a number of emerging European economies (Bulgaria, Latvia, Lithuania, Romania, and Poland), which are projected to have above-average increases in health spending.

While all emerging economies should be targeting improvements in efficiency, this is especially important for these countries with limited fiscal space. Countries with high projected economic growth will be in a better position to expand health spending, owing to its favorable effects on fiscal sustainability, while countries with more moderate growth prospects will need to take a more gradual approach. Most of emerging Europe will need to rely on additional micro-level reforms to improve health outcomes, rather than increasing spending, while emerging economies in Latin America and Asia will have more scope to expand spending. In order for emerging economies to maintain fiscal sustainability, it is critical to restrict the benefit package to the most essential health services, until the capacity to finance higher public health spending increases.

Lagenbrunner and Tandon, in Chapter 8, assess the successes and challenges of health financing reforms in East Asia and the Pacific (EAP). Countries in the EAP region have achieved relatively good health indicators with relatively modest health expenditures. Despite this significant progress, many EAP countries are still characterized by large and persistent inequalities in health outcomes and access to care, reflecting deficiencies in the breadth and depth in health insurance coverage. Another cause of these inequalities is that public health spending in low- and middle-income countries is typically not pro-poor, with the exception of some higher-income economies and regions such as China–Hong Kong Special Administrative Region, Malaysia, and Thailand. The financing of health care from general government revenues and social insurance contributions varies across countries, as does the level of out-of-pocket (OOP) payments. There is growing concern that the current level of resources available for health is inadequate for meeting emerging health needs and achieving universal coverage. Other concerns include the high reliance on donor funding in low-income countries, high OOP financing in low- and middle-income countries, and a perceived lack of sustainability of current sources of public financing. Many countries also suffer from an excessive number of small insurance funds and inadequate pooling. This fragmentation limits the potential for cross-subsidies, increases administrative costs, and leads to inequities. In terms of health benefits, instead of financing a small package of essential services for universal coverage and targeting the poor, health resources are often allocated to tertiary care and urban health facilities. There are also variations in packages across insurance schemes within a country, leading to unequal access to health care.

Public health systems in EAP countries often involve significant external contracting with private sector providers. However, there is a need to ensure that contractors are chosen on the basis of quality, cost control, and performance. Some countries have also adopted elements of gatekeeping in contracts with primary care providers. Looking forward, many countries are looking to move beyond fee for service (FFS) to other types of payment systems such as geographic caps, hospital global budgets, and case mix adjustments. A perennial issue for the region is how much it should rely on insurance-based systems—which are assumed to expand as labor market informality declines—or on general government revenue financing to help achieve universal coverage. Several countries have

begun to use general government revenues to bring in the newly covered. In several cases, spending has been well targeted to prioritize coverage for low-income groups and the poorest. Over the longer term, changes in the demographic and epidemiological profile of EAP countries are likely to be key determinants of health care costs and needs.

In addition to health spending, health outcomes should also be taken into account in designing health reforms; outcomes are discussed in Chapter 9 by Skinner and Suarez. All countries are struggling with rising health care spending. It is therefore not surprising that many countries have turned to health care reforms designed to create sustainable patterns of future growth in health care costs. This chapter first establishes what is the most challenging aspect of medical care—the remarkable range in efficiency of different specific treatments—ranging from the use of aspirin for patients after a heart attack and insecticide-treated bed nets (very high) to stents for stable angina (poor) and noninvasive surgery for arthritis of the knee (no known benefit). For this reason, there is often only a small (and sometimes even a negative) association between spending and quality of care, whether across hospitals or across countries. In practical terms, this means that health care reforms need to be evaluated on the basis of not only their effects on expenditure, but also their effects on the efficiency of care. Public savings achieved by cutting back on ineffective treatments are more desirable, for example, than those involving the scaling back of highly effective insecticide-coated bed nets. Countries need to make better use of existing data to monitor treatment and outcome data to ensure that health care reforms that seek to reduce public outlays do not undermine high-value care.

## Part IV: Country Case Studies: Advanced Economies

In Chapter 10, Tyson and Karpowicz assess the reform experiences of seven advanced economies to highlight specific episodes of success in containing public health spending over the past 30 years and the reforms that were behind these success stories. In each of these episodes, the countries achieved a reduction in the ratio of public health spending to GDP that was sustained for a period of time, as well as a moderation in real spending growth rates. The *Canadian* experience in the late 1970s and during the 1990s suggests that budget caps and supply constraints can be effective tools to limit increases in health care spending. Cost containment in *Finland* in the 1990s was achieved through a comprehensive set of reforms that acted at the macro- and micro-levels and included supply constraints, budget caps, price controls, and public management and coordination reforms. The *Italian* experience of the 1990s demonstrates that control of prices and cost sharing can be effective tools for cost containment in the short run. Whether or not these measures yield durable savings, however, is questionable. What appears to have been crucial to the success of Italy's cost containment was the shared recognition that, in contrast with past experience, the central government would not bail out regional health systems burdened with large deficits. In the *Netherlands,*

the budgetary reform in the hospital sector in the 1980s seemed to have slowed the growth of public health expenditures. Greater use of budget caps and pharmaceutical reform in the mid-1990s reduced public health expenditures substantially. However, the history of reform in the Netherlands indicates that implementing radical reform of the system is difficult and takes time. The reforms of the 1980s and the early 1990s in *Sweden* show that budget caps and public management and coordination reforms, in particular those related to strengthening accountability under decentralization, were successful in reining in spending. However, market mechanisms were needed to counter some negative consequences for supply and to improve efficiency. The *United Kingdom* experienced slower or negative spending growth in the late 1970s and in the 1980s. Consolidating the health system by eliminating area health authorities and introducing new management practices appears to have contributed to the containment of expenditure growth. The major slowdown in health spending in the *United States* in the 1990s was attributable to the widespread adoption of managed care, which introduced gatekeeping and utilization reviews into the system. Negotiated prices for health services between the managed care plans and providers also contributed to slower growth in health care costs.

Chapter 11, by Ii, focuses on the Japanese health care system. Japan is often considered to be an efficient system in light of having the world's highest life expectancies and relatively low health care expenditures (Murray, 2011; Hashimoto and others, 2011). However, health care expenditures in Japan are underestimated, because expenditures not covered by public insurance are excluded from total health expenditures. This underestimation could be as large as one-third of the total expenditures. One of the challenges Japan is facing is to contain escalating expenditures for the elderly. These outlays receive substantial subsidies from both central and local governments and transfers from other insurers, but a sustainable financing mechanism for the elderly is still lacking. Another concern is the high number of hospital beds per capita and long hospital stays. One of the reasons for this situation is the lack of an efficient primary care system, as there is no clear distinction between primary care physicians and specialists. Low cost sharing and the fee-for-service system may have contributed to the problem as well. Japan's health insurance system also needs reforms. The responsibility of municipalities as insurers, for example, remains ambiguous. Furthermore, insurers should act as more than just payers, but also be involved in improving the efficiency of health care delivery. This could be done by excluding inefficient providers from their list of service providers to promote competition, developing clinical standards, and guiding investment decisions for expensive medical equipment.

In Chapter 12, Kwon assesses several important health care reforms in the Republic of Korea over the past decade designed to expand coverage, contain costs, and improve efficiency. These reforms include the merger of health insurance societies to a single-payer system, which reduced the inequity and inefficiency associated with fragmented insurance systems, increased risk pooling, and lowered administrative costs. Other reforms in Korea include the separation of drug

prescribing from drug dispensing, which reduced the financial incentives for overprescribing. Some elements of this reform, however, were diluted in light of physician opposition. Physician opposition also stopped the nationwide implementation of diagnosis-related groups (DRG)–based payments. This pushed the government to increase physician fees to compensate for loss of their incomes resulting from pharmaceutical reform. Another important reform has been the establishment of long-term care (LTC) insurance for the elderly, which was a response to population aging. LTC insurance is financed by a combination of premium contribution, government subsidies, and copayments. Eligibility for LTC is based on the age and functional status[2] of the patient. LTC insurance provides mostly in-kind benefits; cash benefits are provided only in exceptional cases where necessary to provide choice and promote competition among formal and informal caregivers. The challenges facing LTC include financial sustainability and coordination of care between health care insurance and LTC insurance. The chapter also indicates that the share of private health expenditures in total expenditures has decreased as a result of the expansion of health insurance. However, the impact of these reforms was tempered by the rapid increase in the prices of health services not covered by insurance, which are not regulated by the government. To contain rapidly growing pharmaceutical spending, the National Health Insurance Corporation negotiates prices with manufacturers instead of using formula-based pricing. However, generic prices in Korea are still among the highest in the OECD. In addition to prices, it is also important to control the volume and mix of brand name and generic drugs through regulations. In particular, these regulations should target the prescribing behavior of physicians or provide financial incentives for them to prescribe in a cost-effective way.

Chapter 13, by Stolpe, provides an overview of health care reforms in Germany since the 1980s. It argues that the increase in health care spending, as a share of GDP, is attributable to the country's unification in 1990. A wide variety of policy approaches and complementary reform elements have been discussed and introduced in Germany, including budget caps, market mechanisms, and pecuniary incentives. Many useful lessons can be drawn from the reform experiences of Germany. Budget caps can reduce spending for a short period of time, but are less effective in keeping spending low in the long run if the underlying causes of spending growth are not addressed. Market mechanisms, on the other hand, require the correct alignment of incentives and behaviors.

Germany's experience with different reforms has been mixed. The risk adjustment scheme, which was mainly based on age and sex, did not work well because of cream skimming by sickness funds. The morbidity-based risk adjustment scheme, known as Morbi-RSA, has fared better; it has substantially reduced sickness funds' incentives for risk selection, and even made some chronic diseases financially attractive for the risk pool. It remains to be seen whether Morbi-RSA

[2]Functional status refers to an individual's ability to perform normal daily activities required to meet basic needs, fulfill usual roles, and maintain health and well-being.

will provide sufficient flexibility to adjust its payment schedule in response to new medical technologies that could change the relative costs and benefits of treating specific diseases. Sickness funds' collective monopsony power vis-à-vis Germany's regional physicians' associations has long been effective in containing the cost of physician services in statutory health insurance (SHI). More recently, DRGs have helped to contain the cost of hospital care and triggered important changes in hospitals' competitive behaviors and management strategies. In the pharmaceutical sector, reference prices for generics alone have had ambiguous effects. Average prices of pharmaceuticals used in SHI began to decline substantially only after sickness funds were given the freedom to negotiate volume rebates. In sum, despite some setbacks, reforms in Germany have been successful in containing spending growth while maintaining high quality health care.

In Chapter 14, Cheng describes the health reform experience of Taiwan Province of China and discusses the lessons learned. Taiwan Province of China introduced a single-payer, government-run health insurance system in 1995 and achieved near universal coverage in less than a year. The delivery system, however, is largely private. The system is financed through a combination of government revenues, payroll taxes, household premium contributions, and cost sharing. The premium contributions vary by population groups, with government subsidies for the disadvantaged. Cost sharing varies by type of service and facility and constitutes around 37 percent of total health care spending. The extensive use of health information technology helps keep administrative costs low, at 1.3 percent of the National Health Insurance (NHI) budget. Private insurance plays a minor role, often in the form of a cash indemnity policy which provides cash benefits when insured contingency events occur. The system has so far received a high satisfaction rate from the population, with evidence pointing to improvements in health outcomes. One challenge for the health system in Taiwan Province of China thus far has been the financial stability of the NHI fund, as it has often been difficult to raise contribution rates to finance spending increases.

Several important lessons can be learned from the reform experience of Taiwan Province of China. First, total health care spending can effectively be controlled through global budgets and the government's ability to set and control prices in a single-payer system. Second, a single-payer system provides an excellent platform for achieving equity and adopting a uniform health information system. Third, a single-payer system can also perform well in terms of promoting choice when it is combined with private provision. In such a system, high productivity can be achieved through competing for patients on quality, not on prices. Fourth, the reform experience of Taiwan Province of China suggests that solid economic growth before, during, and after implementation of a universal health insurance scheme is important for the establishment and subsequent funding of the scheme.

Despite the successes of this system, there is scope for further improvement. The reform agenda should focus on building the capacity for comparative effectiveness analysis and health technology assessments, moving from fee-for-service payment to capitation payments, and addressing the challenges arising from noncommunicable diseases and long-term care.

## Part V: Country Case Studies: Emerging Economies

In Chapter 15, Rao and Choudhury analyze the Indian health care system, which has been facing numerous challenges. These include low levels of public spending on health and poor-quality services, the low health status of the population, an inadequate focus on preventive care, high out-of-pocket spending, and large disparities across states. Several recent reform initiatives were introduced to address these challenges. The National Rural Health Mission, a comprehensive program to improve access to effective health care for the poor in rural areas, would increase health care spending by 1 to 2 percent of GDP between 2005 and 2012. However, there are a number of problems with its design and implementation: (1) the method for allocating spending did not adequately take into account the needs of states; (2) the requirement for states to match funds to help finance higher spending was not clear; and (3) there was a failure to execute the planned increase in spending, which was hampered by states' inability to make matching contributions. As a result, the impact of the program on health spending and outcomes has been negligible. An insurance scheme, Rashtriya Swasthya Bima Yojana, was introduced by the Union Labor Ministry to provide financial protection against high out-of-pocket expenditures. Rashtriya Swasthya Bima Yojana, jointly funded by the central government and the states, covers selected hospitalization and daycare expenses for the population below poverty line. However, program participation has been low at less than 50 percent. The limited success of these programs has largely reflected the fiscal constraints that both the central government and the states have been facing. In fact, econometric analysis suggests that states significantly reduced their own health expenditures when they received transfers from the central government, with an elasticity close to one.

In Chapter 16, Jongudomsuk and colleagues review how institutional capacity in health policy and health system research was gradually strengthened in Thailand. They also explain how evidence was translated into policy decisions and practice and guided health financing reforms, using two policy reforms as illustrations: the provider payment reform of the Civil Servant Medical Benefit Scheme and the inclusion of new health interventions in the benefit package for universal coverage. Factors that were central to Thailand's success in capacity building included strong national ownership, local initiative, and reliance on local resources for conducting policy-driven research. One indication of this success is the growth in the number of qualified researchers, as a result of collaboration and resource sharing within Thailand, international collaboration, and consistent support for capacity building by strategic partners such as the London School of Hygiene and Tropical Medicine. Also important were a number of infrastructure developments, including the creation of national health accounts, studies on the burden of diseases, and the strengthening of hospital administrative data and national household survey data sets for monitoring progress. These developments provided platforms for regular monitoring and informed decision making. Translating evidence into policy decisions required a systematic, transparent, and participatory process. An official subcommittee was established to examine the

benefit package and has been an effective forum where evidence has informed policy decisions in a transparent and deliberate manner.

Shang and Jenkner, in Chapter 17, provide case studies for Estonia, Hungary, China, Chile, and Mexico. Health care systems and reform experiences vary substantially across these economies, and the case studies illuminate both successes and remaining weaknesses in these systems. Each case study provides an overview of the health care system and comparative data on key health indicators relative to the appropriate comparator group, a description of the experience with health reforms, remaining challenges, and lessons. After independence, *Estonia* introduced a compulsory social health insurance system, reformed primary care, and reduced the size of the hospital sector. Provision is now both public and private, while funding is predominantly public through mandatory contributions. Challenges remain, including shortages of health professionals, cost pressures, and high lifestyle-related risks. However, the Estonian experience illustrates the advantages of global budgets and a single health insurance fund as effective tools in containing public health spending and exploiting risk pooling. *Hungary* underwent similar reforms after its transition to a market economy, and its health system today relies largely on public financing and provision. It also faces cost pressures, high lifestyle-related risks, and an inefficient use of health care resources, reflected in an excessive use of tertiary and specialty care. This demonstrates the key importance of setting the right incentives for provider payment systems to ensure efficiency.

*China* has achieved good health outcomes with relatively low health care spending during the last 60 years, and it has recently taken major steps to expand coverage. However, many challenges remain, including high out-of-pocket spending, wide inequalities, and inefficient use of resources. China's reform experience indicates that an incremental approach can be an effective way to expand coverage and access to care. It also demonstrates the importance of preventive care and public health services and the need for payment reforms to improve system efficiency. *Chile* has achieved almost universal health care coverage through a mandatory social security system and explicit health care guarantees, but financing and provision are both mixed, and the health system is de facto segmented. One major challenge of the Chilean health care model is the inequity in the quality of care between the public and private system. Chile's success in extending coverage and sharply improving health outcomes is the product of strong fiscal and economic performance, efficient institutions, and a political consensus to provide care to all. By contrast, in *Mexico*, universal health care coverage has yet to be achieved. The health care system was segmented between many public and private insurers and providers. As a result, high fragmentation, inequality of access, and high administrative costs are crucial challenges for Mexico. Also of concern is the high level of OOP spending, which accounts for half of total health outlays. Going forward, the system of social protection in health has aimed at reducing the fragmentation of the system and achieving universal coverage based on affordable family insurance, or Seguro Popular.

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