# Universal health coverage: the potential contribution of hybrid funding strategies

Review of Commonwealth Mixed Public-Private Funding Models



### Contents

Executive Summary	1
Introduction	1
The hybrid or mixed public-private financing model	2
Implications	3
Recommendations	3
Introduction	5
Current approaches to achieving UHC	7
What does achieving UHC involve?	7
Traditional approaches	8
Limitations of the Beveridge model in poor countries	9
Limitations of the Bismarck model in poor countries	
Implications	14
The hybrid or mixed public-private funding model	15
Evidence for a third route to UHC	15
Sri Lanka's route to expanding coverage	17
Malaysia's route to expanding coverage	21
Jamaica's route to expanding coverage	24
Examples of hybrid systems in high-income economies	25
Hong Kong, China	26
Australia	27
Ireland	28
Critical elements in the hybrid funding model	29
1. Common prioritization of goals	29
2. Achieving pro-poor access through an emphasis on universality	
and minimizing financial and physical access barriers	
3. Emphasising hospital care and risk protection in budget allocations	
4. Prioritizing expansion coverage to the poor before the non-poor	
5. Exploiting differences in the demand for consumer quality to shift richer patients out of public funding	
6. Better than average health performance	
Common problems	32
Implications	
For the global community	
For the Commonwealth	33
Petermone	25

### Executive Summary

#### Introduction

Commonwealth nations together with the other members of the global community have committed to a shared goal of universal health coverage (UHC) by 2030. This requires countries to move towards ensuring that all people have equitable access to needed quality healthcare services without experiencing financial risk. To achieve this, countries need to mobilize sufficient public financing in the form of tax-financing or social health insurance. A key reason for this is to minimize out-of-pocket spending so as to reduce the exposure to financial risk. Two pathways to do this and achieve UHC are usually cited and offered to developing countries.

The Beveridge model involves using general revenue taxation to pay for the bulk of all healthcare services, usually, but not necessarily, delivered by a public sector delivery system. Examples include the UK, Sweden and New Zealand.

The alternative Bismarck model involves using contributory social health insurance to finance a public scheme that pays for services at usually private providers. The prototype of this developed in Germany in the 19th Century. It provided benefits only to those who contributed, and coverage was limited to formal sector workers from whom mandatory deductions for insurance could be collected. In the second half of the 20th Century, many countries modified this prototype by using general revenue taxation to extend coverage beyond the formal sector to the whole population, often on a non-contributory basis. Examples include Germany, Japan and Korea.

Whether countries adopt the Beveridge or Bismarck models, in practice they need to mobilize at least 3% of GDP or more in either tax-financing or social health insurance or both. This is a minimum level of public financing, equivalent to what it cost the UK to establish the British NHS in 1948. Most developing countries that are held up as UHC success stories have in fact had to mobilize even more, including Thailand (4%) and Brazil (4%). The problem is that these levels of public financing are in practice not realistic in the poorest developing countries.

Taxation and social health insurance compete for the same ultimate sources of money. The capacity of developing countries to raise money through either mechanism is inherently less than rich ones, owing to their smaller formal sectors and weaker administrative capacities. Low-income developing countries mobilize in taxes only 13% of GDP, which means that the poorest countries would need to allocate a quarter or more of their government budgets to health in order to implement either the Beveridge or Bismarck approaches. This is not realistic, and not surprisingly no low or lower-middle income nation has been able to achieve UHC through either the Beveridge or Bismarck models.

#### The hybrid or mixed public-private financing model

Despite necessary realism or pessimism about whether the Beveridge or Bismarck models offer viable routes to UHC in developing countries with limited money, there is evidence that a few developing countries (and also advanced economies) have been able to progress substantially towards UHC, despite modest levels of government spending and using approaches that do not fit either the Beveridge or Bismarck models. These cases include Jamaica and many of its English-speaking Caribbean neighbours, Sri Lanka, Malaysia, Hong Kong, Ireland and Australia. All of these are either members of the Commonwealth, or have close links with Commonwealth nations. Their experiences have been given scant attention in the global discussion, and they are rarely cited as potential role models for UHC. Yet, the evidence shows that they tend to out-perform in overall health outcomes, achieve high levels of equitable access to healthcare and good financial protection, whilst spending less than their peers. Their experiences are examined in greater detail in the paper. Although these health systems come from all parts of the world and all stages of economic development, we show that they share many common features, indicating that they represent an unrecognized third approach to financing progress towards UHC.

In all the cases reviewed, governments have focused on maximizing universal or equal access to services for both rich and poor, and reducing exposure to financial risk, whilst minimizing government spending. Government financing has been exclusively tax-based, with no adoption of social health insurance mechanisms. In all the cases, government funding is used to pay for a universal package of services available at zero or minimal cost on an equal basis to both rich and poor. In Jamaica, Sri Lanka, Malaysia and Hong Kong, governments have funded a public delivery system, whilst Australia and Ireland also use public funding to pay for access to private doctors and hospitals.

The publicly funded package in each case includes substantial funding for hospitals and inpatient treatment, ensuring that the poor are not exposed to significant financial risk. Governments have also taken steps to ensure that the publicly funded set of services is genuinely available to the poor by building a widely dispersed delivery network where necessary.

Despite the strong emphasis on public funding, the need to minimize government spending has meant that all the governments have been unable to increase spending to emulate either the Beveridge or Bismarck models. Instead they have had to allow private financing and provision to fill the gap. However, unlike most developing countries, where under-funded public systems benefit the rich more than the poor, these health systems have managed to ensure that their limited public funding benefits the poor more than the rich. This has generally been achieved not by explicit targeting or means testing, but by using differences in consumer quality to encourage the non-poor to voluntarily seek out and pay for private care.

Richer patients desire greater doctor choice, shorter waiting times and better amenities in their hospitals and clinics. In these hybrid systems, the government has generally skimped on providing these aspects of service, whilst focusing on maintaining the availability of the core clinical components of care. Consequently, richer patients have gone to the private sector to obtain these, allowing the limited amount of public funding to pay for comprehensive services, albeit with lower consumer quality, for the poor. Whilst the rich end up using more private services than the poor, the pro-poor reach of the public scheme in each case has ensured reasonable equity in overall access to medical care.

#### **Implications**

The hybrid systems exist in quite diverse settings, yet use similar mechanisms to combine public and private funding to maximize coverage and financial protection. Their very diversity strengthens the case for these cases representing a common approach that has wider lessons for the world.

Their ability to successfully expand coverage despite low levels of public spending is particularly relevant to poor countries facing the challenge of expanding coverage whilst constrained by limited fiscal resources. Amongst low and middle-income economies, these hybrid systems have also been amongst the best health performers, and they have generally done better than the better-known UHC success stories. Their experience can provide important lessons and relevant experience to contemporary developing countries thinking about how to achieve UHC. They also represent an important, but until now unappreciated, third route to achieving UHC in the developing world.

This is not to claim these systems are without problems. In all the cases, the need for the non-poor to seek out and pay for better consumer quality in the private sector causes considerable dissatisfaction and regular demands for private or social health insurance. This creates problems for political leaders to manage. However, none of these systems have been able to change. The constraining factor has been the importance of maintaining universal access to their public schemes. In each case, introduce new insurance mechanisms would require the non-poor to pay additional taxes to extend insurance coverage to the poor. Whilst the non-poor demand better consumer quality, governments have not been able to overcome the resistance of the same groups to increased taxation.

Most of these cases are also either Commonwealth nations or have close links to the Commonwealth. This is not a coincidence. It reflects common institutional histories and sets of shared values. This makes their experience not only particularly relevant to the Commonwealth as a whole, but also places a special responsibility on the Commonwealth to share that experience with the wider global community.

#### Recommendations

The challenge of achieving UHC – equitable access to quality healthcare combined with financial risk protection – has been accepted by the global community as a shared goal over the next two decades. In order for this goal to be realized, developing countries need realistic options to expand coverage.

Realism requires finding strategies that are compatible with the limited fiscal capacity that is an inevitable corollary of being a developing nation. The evidence indicates that the standard Beveridge and Bismarck models are not fiscally feasible in most developing nations. They both require substantial spending of tax monies that poor countries cannot realistically afford. The global community and developing countries in particular need additional options that help extend coverage without breaking the bank.

There is sufficient evidence to indicate that the hybrid systems we have detailed have found one answer to this challenge of improving coverage with limited fiscal resources. We recommend that the Commonwealth and the wider global community:

- 1. Give more serious attention and prominence to the experience of these hybrid health systems as potential role models for achieving UHC in developing countries.
- 2. Support efforts to systematically document and assess these experiences in order to identify lessons that can be transferred to other countries.
- 3. Support the sharing of these experiences between Commonwealth nations as part of the Commonwealth's shared heritage.

#### Introduction

With the transition from the Millennium Development Goals (MDGs) to the Sustainable Development Goals (SDGs) in 2016, the global community and all nations, including all Commonwealth members, have committed to a goal of achieving universal health coverage (UHC) by 2030. This goes beyond the MDG era concern with specific health targets to encompass the view that access to health services and protection from the financial risks involved in accessing needed healthcare for all people are an essential and appropriate developmental goal for countries everywhere. UHC is not only seen as a means to end – such as longer life expectancy or fewer child deaths, but as an end in itself.

This global goal of universal access to services and financial protection in the health sphere is not new. It echoes and builds on successive international commitments, which have articulated the concept that universal rights in health are more than simply ensuring that everyone achieves a good state of health or lack of sickness.

The human right to health is recognized in many international instruments. Article 25.1 of the Universal Declaration of Human Rights affirms that: "everyone has the right to a standard of living adequate for the health of himself and of his family, including food, clothing, housing and medical care and necessary social services." Expanding on this, the International Covenant on Economic, Social and Cultural Rights (ICESCR) states in Article 12:

- a) The State Parties to the present Covenant recognize the right of everyone to the enjoyment of the highest attainable standard of physical and mental health.
- b) The steps to be taken by State parties to the present covenant to achieve the full realization of this right shall include those necessary for:
  - The provision for the reduction of the still-birth rate and of infant mortality and the healthy development of the child;
  - (ii) The improvement of all aspects of environmental and industrial hygiene;
  - (iii) The prevention, treatment and control of epidemic, endemic, occupational and other diseases;
  - (iv) The creation of conditions which would assure to all medical service and medical attention in times of sickness.

The ICESCR embodies the notion that countries have an obligation to take appropriate actions to move towards full realization of these rights, in particular access to medical services and attention in times of sickness. The overwhelming majority of Commonwealth members have ratified the ICESCR, and so accept the obligation to progressively move towards full realization of these rights. However, the principle of progressive realization embodied in these international commitments explicitly conditions progress on the available resources.

The challenge facing developing countries, and by extension the majority of Commonwealth nations, is that achieving UHC requires not only substantial resources but also appropriate means. To a large extent, as this paper explains, the constraints are real and most conventional means are unlikely to permit achievement of the goal in any reasonable time frame in most developing nations. This is where the experience of several Commonwealth nations is of particular relevance. Many have been able to make substantial progress towards UHC despite spending far less than their peers, suggesting an alternative means or route to moving towards UHC. This paper explores that experience, which has received little global attention, and identifies lessons for the wider global and Commonwealth community about how resource-constrained nations can move substantially towards UHC.

### Current approaches to achieving UHC

#### What does achieving UHC involve?

There is general agreement amongst key actors at the international level that attaining UHC involves ensuring all of the following:

- (i) Everyone who needs health services has access and that use of services, which demonstrates that access, is equitable across the population.
- (ii) The population as a whole has adequate access, demonstrated in utilization levels, to appropriate services of adequate quality.
- (iii) Nobody experiences financial impoverishment and catastrophe when using needed healthcare services.

This is reflected in the WHO-World Bank consensus on how UHC should be monitored (WHO and World Bank 2013), and in calls by numerous experts and international groups (Rannan-Eliya, Knaul, and McIntyre 2012, Nicholson et al. 2015). These elements of UHC have strong implications for how countries should finance and deliver healthcare.

The objective of adequate access and use of quality services requires countries to mobilize sufficient resources – financial and otherwise – to ensure that there are enough healthcare services available to allow everyone to consume an adequate amount. This is often understood as requiring countries to mobilize a minimum share of national resources, or GDP, for spending on health.

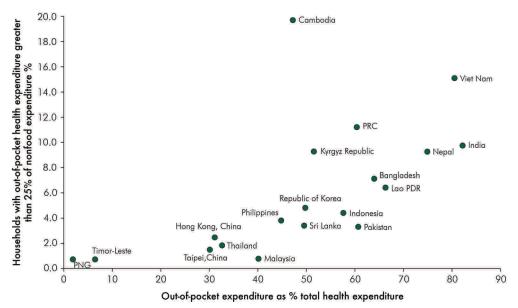


Figure 1. Relationship between catastrophic health spending and reliance on out-of-pocket financing in selected Asia-Pacific countries, recent years. Notes: Lao PDR = Lao People's Democratic Republic, PNG = Papua New Guinea, PRC = People's Republic of China. Source: Rannan-Eliya et al. 2012.

The objective of shielding people from financial risk when accessing healthcare addresses the problem of people being forced to spend large amounts of money out-of-pocket when obtaining healthcare. Empirically, there is a close relationship between financial risk measures and reliance on out-of-pocket financing for health (Figure 1). Out-of-pocket spending can cause considerable financial hardship, as well as contribute directly to poverty. The general consensus is that this requires countries to use financing mechanisms that pool money to pay for healthcare for large groups of people, and which ensure that people pre-pay for healthcare.

The objective of equitable access stems from the problem that if people have to self-finance their use of healthcare, then access and use will vary according to people's ability to pay. Since income inequality is universal, this means that poor people will have less access to services than rich people, something that the notion of UHC explicitly treats as undesirable. Addressing this problem requires that countries use collective or public financing mechanisms to pay for healthcare, which can break the link between the ability to pay and access, and which can redistribute money from the rich and healthy to the poor and sick.

#### Traditional approaches

There is general consensus that these central objectives of UHC and the likely financing requirements mean that countries should rely on public financing, either taxation or social health insurance, to pay for most healthcare, with public financing being used to reduce the proportion of out-of-pocket financing in total financing to low levels. The choice available to countries is often expressed as being between following the "Bismarck model" or the "Beveridge model".

The Bismarck model is named after the late 19th-Century German chancellor of the same name, who enacted social legislation to ensure that workers and their employers paid a proportion of their wages into state regulated sickness funds that would pay for medical care when the workers or their dependents needed it. Many European nations and Japan and Korea in Asia later adopted this system of social health insurance, and many others in all regions of the world. This approach of social health insurance was often sufficient to extend coverage access to services and protection from financial risk – to most of the population, but it usually failed to cover those in the population who were not in the formal sector, including most of the chronically sick, elderly and poor. Consequently, in the late-20th Century, many nations modified their social health insurance systems by contributing additional financing from general revenue taxation to extend insurance coverage to the segments of the population unable to pay for insurance coverage (Hsiao and Shaw 2007). With this important modification, most advanced nations relying on social health insurance were able to extend coverage to all or almost all their population, thus achieving UHC. The Bismarck approach to UHC is best understood as this later modification, which combines both contributory insurance financing and general revenue taxation in public financing to achieve coverage of the whole population. Examples of this modified or 20th Century version of the Bismarck model include Germany, Japan and Mexico. It is also worth noting that in recent decades that most nations that have adopted this modified version of the original Bismarck scheme have tended to increase the contribution of financing from general revenue taxation, including countries such as Germany and Japan.

The Beveridge model is named after William Beveridge, whose 1942 report laid the basis for the British National Health Service, which was established in 1948. It refers to an approach that relies not on contributory insurance as in the Bismarck model, but on general revenue taxation to mobilize the public financing required to pay for healthcare services for the whole population. Typically, in the Beveridge model, government institutions also provide the healthcare services, although this is not necessarily always the case or even a requirement. Because of the historical association of this approach with the British NHS, the Beveridge model is often called the NHS model, but it should be noted that the UK was not the first country to adopt such an approach, New Zealand for example doing so earlier. Other contemporary examples of the Beveridge model include Sweden and Italy.

Although there are vocal constituencies that advocate the superiority of one model over the other, and consequently frequent disputes in countries and between international development partners and experts on the advice that they give developing countries, there is a consensus at the highest levels that either approach can work, and that the choice ultimately depends on a particular country's circumstances and history (Rannan-Eliya 2009, World Health Organization 2010, 2011). These disputes have nevertheless obscured significant limitations in both models, and discouraged thinking about alternatives.

As guides to the routes that developing countries might follow to achieve UHC, both the Bismarck and Beveridge models suffer from significant deficiencies. The most important one is that the level of economic development and the capacity of governments to raise taxes severely constrain the feasibility of both models in the poorest countries.

#### Limitations of the Beveridge model in poor countries

The Beveridge model depends on substantial mobilization of general tax revenues and their allocation to health in the government budget. The British NHS cost the UK treasury around 3% of GDP when it was established in 1948. Advances in medical knowledge and technology, increased population expectations and demographic change mean that the British NHS today needs much more than that to barely function, perhaps 5 to 6% of GDP in public funding.¹ The key problem is that a Beveridge system, in which general revenue taxation finances most healthcare spending and most healthcare services (typically more than 85% in each case), would in most developing countries cost a minimum of 3 to 5% of GDP in tax financing. The UK cost experience n 1948 is consistent with the recent experience of developing countries that are often cited as UHC success stories in recent years. All of them report tax-financed expenditures of 3% of GDP or higher, for example Rwanda (3%), Thailand (5%) and Brazil (4%) (World Bank 2016). A 3% of GDP spending level is just the minimum, and actual requirements will be much greater in countries where healthcare delivery is inherently expensive, such as in many dispersed, island nations, such as the Maldives or Solomon Islands, or in countries where medical costs are particularly high, such as South Africa.

<sup>&</sup>lt;sup>1</sup> Actual public financing for health in the UK has averaged 7% of GDP in recent years.

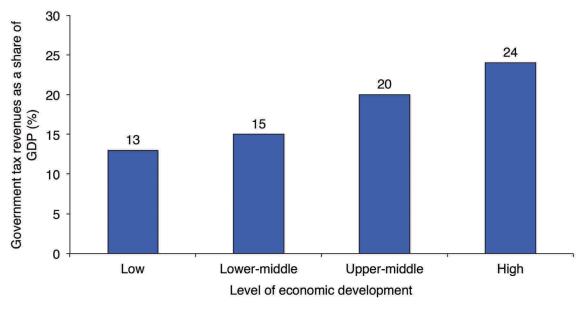


Figure 2. Government tax revenues by level of economic development, as a share of GDP (%). Source: IMF statistics for 2012.

Unfortunately, an allocation of 3% or more of GDP from the government budget to health is simply not realistic in low-income countries, and is challenging in most middle-income developing countries. The fundamental problem is that the ability to raise taxes is weaker in poorer countries, since the factors that promote the availability of taxes – greater formality in the economy and state administrative capacity – are both linked with the level of economic development. The poorest countries on average are only able to raise taxes equivalent to 13% of GDP, far less than the average of 24% of GDP actually raised in the richest countries (Figure 2).<sup>2</sup>

For the typical low-income country without substantial overseas development aid (ODA), adopting the Beveridge model would thus require allocating one quarter of the government budget to health. This is a higher proportion than in Europe and high-income nations (Figure 3), and is not at all realistic. Given the many other legitimate and justified (and also often unjustified) competing demands on a country's fiscal resources, it is not surprising that poor countries cannot and will not do that. The Beveridge model has thus proven unfeasible in low and lower-middle income nations.

<sup>&</sup>lt;sup>2</sup> The averages if anything understate the disparities in tax capacity. Rich countries can raise much more in taxation than they actually do, with actual levels reflecting not only feasibility but also broader economic policy goals, some of which favour lower taxes. Poor countries in contrast have less discretion over their tax levels, with the sheer difficulty of collecting taxes being much more important.

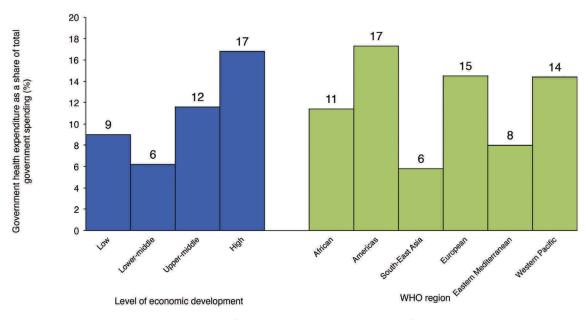


Figure 3. Government health expenditure as a share of total government spending (%) by level of economic development and by WHO region 2012. Source: World Health Statistics, World Health Organization 2015.

Of course, as was implied, a low-income nation with substantial ODA inflows for health might be able to use ODA to overcome the fiscal barrier to allocating more public finances to health. Indeed, many aid-dependent nations, particularly in Africa, do this. However, none of these countries that have raised public spending levels to 4% of GDP or more have been able to achieve the service coverage levels required for UHC. The reasons include the likely upward distortion of costs in the health sector by large ODA flows, sectoral inefficiencies often arising from multiple large ODA flows, as well as exceptional demands on financing, such as mass provision of treatment for HIV/AIDS, which raise the minimum needed to implement the Beveridge model.

Another factor that often mentioned as preventing the adoption of the Beveridge model is weak government capacity to effectively organize and operate a delivery system using the public sector, even if funding is available. Although this is sometimes used as an argument in favour of using public funds to finance private sector delivery, the latter typically requires more state capacity than required to directly deliver services using the public sector (Mills, Rasheed, and Tollman 2006).

Although fiscal realities mean that no low-income country can implement the Beveridge model, the astute reader will note that many developing countries claim or are described as having NHS-type health systems. This includes a large number of Commonwealth nations. However, the systems in these countries do not equate in practice to the Beveridge model, and UHC is certainly not achieved. Close inspection will inevitable reveal that the public systems in these countries neither provide the bulk of healthcare services as occurs in a genuine NHS healthcare system, nor are able to deliver the volumes of service access that UHC would require (Box 1). In most cases, the shortfall in public financing results in significant gaps in the public scheme, which can range form lack of critical inputs such as medicines to lack of basic infrastructure in rural areas. This in turn results in lack of effective access to public services for large segments of the population and by extension inequitable access to care, and a large private sector funded by private financing.

Access to needed healthcare is not easy to define or measure. It is challenging to quantify how much healthcare an individual needs in practice. It would require data on a person's health status that would only be available through extensive medical examinations, and even then doctors and experts might still disagree on what is appropriate. Relying on whether individuals have legal or contractual rights to care is also not useful. Quite often, people can have a legal right to care, but not have effective access because the relevant services are not physically accessible to them when they need. In addition, lack of awareness or personal choice can result in sick people under-using services. To the extent that lack of awareness is a factor that an effective health system should address, under-use in these circumstances represents a form of lack of access.

A more practical way of thinking about and assessing whether people have access to adequate care is to simply look at how much healthcare they actually use and use as benchmarks the amounts of healthcare that people in countries with UHC use or the levels of service that there is strong global consensus about, e.g., every mother should have skilled medical care when giving birth.

Comparisons with advanced nations generally yield estimates that the average person should be visiting a physician or skilled healthcare provider at least 4 times a year, and making use of inpatient care once in ten years, and that more than 95% of children should receive basic immunizations. These come from countries with good health indicators, where the average person presumably has less need for medical care, but these utilization rates are much higher than in poor countries. In general, people in poor countries are sicker than in rich countries, but make far less use of medical care. This would suggest that adequate access in a poor country might entail people making more frequent use of services. However, how much more is hard for experts to quantify in general and for specific countries. Nevertheless, benchmarks such as use of a physician 4 times a year provide useful measures to assess whether a country meets even minimum conditions to be considered as achieving UHC (McIntyre et al. 2015).

#### Limitations of the Bismarck model in poor countries

The Bismarck model does not depend only on general revenue taxation, but it also utilizes payroll levies on formal sector workers. For this reason, it is often sold as being able to mobilize additional resources that government taxation systems cannot tap into. However, the difference is often not a real one in developing countries. If a government can enforce deductions from formal sector wages as contributions for insurance, they can just as easily deduct income taxes from wages. In this sense taxation and insurance contributions are merely substitutes for each other.

A second reason that is often claimed as an advantage of the Bismarck model is that social health insurance creates a direct link between the contributions and the benefits, making it politically easier to collect money for health in this way. At the same time, this can also be a disadvantage from a UHC perspective. It can and often does make it politically difficult to extend social health insurance to the whole population, since those in the formal sector can object to providing coverage to others who do not contribute.

Nevertheless, the Bismarck model still suffers from the same realities that constrain the Beveridge model. Social health insurance schemes depend primarily on collecting payroll taxes from formal sector workers and their employers. The capacity of countries to do this effectively is as dependent on the level of economic development as the capacity to raise general revenue taxes. Poor countries have smaller formal employment sectors and weaker state capacity to enforce collection of contributions. So as with general revenue taxation, poor countries are able to generate less money through social health insurance than richer countries (Figure 4). In practice this has meant essentially no low-income developing nation has been able to increase public financing for health to a level of 3% of GDP by supplementing taxation with social health insurance.

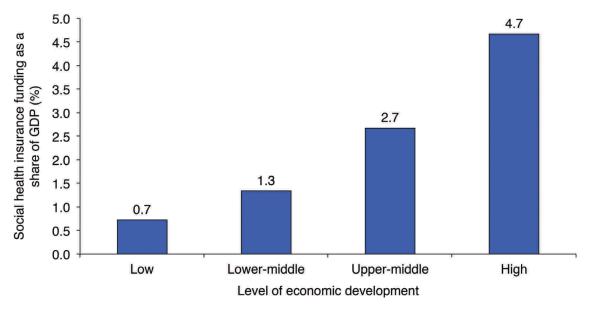


Figure 4. Social health insurance funding by level of economic development, as a share of GDP (%). Source: WHO Global Health Expenditure Database (accessed 2 May 2016).

The other major factor limiting adoption of the Bismarck model is that many countries lack experience in operating social security schemes based on payroll contributions or in using insurance to pay healthcare providers. They thus face large start-up costs to introduce social health insurance, which can make the option unworkable.

For historical reasons, most Commonwealth nations have not adopted social insurance schemes to deliver welfare benefits, relying instead on tax-funded options or individual self-reliance. Britain rarely established or introduced such mechanisms in its colonies to pay for social benefits, relying either on taxation or other mechanisms. For example, in the case of insurance for employee injuries, the UK and most Commonwealth nations have relied on the employer legal liability to provide protection, and not social insurance mechanisms. Consequently, Commonwealth nations are far less likely to use social health insurance than other countries (Figure 5).

One other observation is needed on the role of the Bismarck model. Many policy-makers, particularly in Commonwealth nations, are attracted to the idea of adopting social health insurance as they think it can provide more effective financial protection than the Beveridge model. However, this is not the case. WHO analysis shows that relying on social health insurance does not lead to better financial risk protection in developing countries than not having social insurance (Xu et al. 2007).

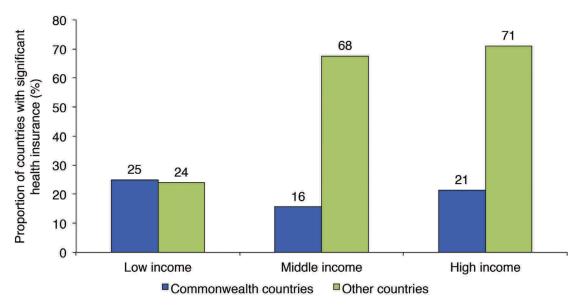


Figure 5. Proportion (%) of countries at different income levels with significant social health insurance, Commonwealth and other countries (2013). Source: Authors' Analysis of WHO Global Health Expenditure Database (accessed 12 April 2016).

#### **Implications**

The implication of this short review of the usual approaches recommended to developing countries to achieve UHC is that all the standard options suffer from significant shortcomings. This has not prevented extensive discussion, indeed is probably behind the increasing global buzz around how to achieve UHC and whether this or that innovation has solved the problem. Yet, how much money governments in practice can mobilize for health remains far less than needed to achieve full population coverage through the Beveridge or Bismarck models. Such spending probably needs to reach 3% of GDP or more in most cases. Doing so remains an overwhelming constraint. Consequently, developing countries remain unable to increase use of healthcare services to the minimum levels required for UHC, unable to ensure equal access to basic services, and unable to provide the levels of financial protection needed (Figure 6).

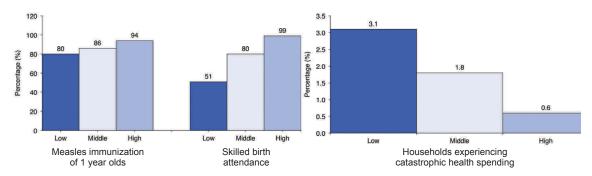


Figure 6. Coverage and financial protection disparities by country income categories. Source: Measles immunization and skilled birth attendance statistics for 2013 from WHO (2015). Household catastrophic spending statistics are for 1990s as computed by WHO (Xu et al. 2007).

# The hybrid or mixed public-private funding model

#### Evidence for a third route to UHC

Despite the needed realism or pessimism about whether the Beveridge or Bismarck models offer viable routes to UHC in developing countries with limited money, there is evidence that a few developing countries (and also advanced economies) have been able to progress substantially towards UHC, despite modest levels of government spending and using approaches that do not fit either the Beveridge or Bismarck models. These cases include Jamaica and many of its English-speaking Caribbean neighbours, Sri Lanka, Malaysia, Hong Kong, Ireland and Australia. These health systems are rarely mentioned in the global discussion or subject to investigation, and do not belong to commonly cited lists of countries that can act as role models for UHC, such as Brazil, Rwanda, Thailand, Mexico and Turkey, which were examined in the recent World Bank study looking at country UHC experiences (Giedion, Andrés Alfonso, and Díaz 2013). Most of these neglected but alternative experiences are, and not by coincidence, in the Commonwealth or have strong links with it.

For example, although Sri Lanka was known since at least the 1970s as a low-income country that had achieved good health outcomes despite its low income (Halstead, Walsh, and Warren 1985, Caldwell 1986), it is rarely mentioned in current global discussions of relevant UHC experiences. Yet, Sri Lanka maintained its performance to today and continues to have the best health indicators for its income level and in its region, despite the much greater attention given to UHC reforms in its richer neighbour Thailand. What is even less appreciated is that its better performance is achieved despite its government spending much less on health as a share of the national income than the better known UHC role models. Similarly, amongst middle-income countries, Malaysia continues to achieve excellent health indicators despite its government spending far less than comparable nations, including Thailand its neighbour (Rannan-Eliya et al. 2016). And at high-income levels, Hong Kong (not a Commonwealth member, but sharing many links), Ireland and Australia offer examples of high-income economies that out-perform their peers in health outcomes and coverage, and yet maintain government spending at below average levels.

None of these high performers represent examples of the Beveridge and Bismarck models. None of them have substantial social health insurance funding, so they clearly are not cases of the Bismarck approach. At the same time, none of them have implemented the full Beveridge model. Private sector financing and provision remain substantial in all of them, and the public sector does not provide all, or almost all, healthcare delivery. Because they combine public financing and delivery with a substantial reliance on private spending, specifically out-of-pocket expenditure, we will term them "hybrid" systems to denote their mixed public-private funding approach.

We argue that these hybrid systems are not unique. They represent a subset of health systems sharing common features, mostly in or with links to the Commonwealth, which have independently arrived at similar solutions to the common challenge of expanding coverage with limited fiscal resources. We will identify distinctive features of these systems, and we will explain why their examples represent a possible third route to UHC for countries with limited fiscal resources.

We will start by examining the historical routes that three developing countries with hybrid systems – Sri Lanka, Malaysia and Jamaica – took. We then make reference to Australia, Hong Kong and Ireland to show that the key features in these hybrid systems are not confined to developing countries. Hong Kong and Ireland are not members of the Commonwealth, but both share a common history with many other members of the Commonwealth. All these systems, which span the globe and levels of economic development, are characterised by exceptional performance on health outcomes, low levels of government spending, and a high out-of-pocket spending share in total financing (Table 1).

Table 1. Key indicators for selected hybrid systems (2013)

	Sri Lanka	Jamaica	Malaysia	Hong Kong
Income category	Lower-middle	Upper-middle	Upper-middle	High
GDP per capita (USD constant 2005)	1,977	4,094	7,052	33,639
Infant mortality rate (deaths/1,000 live births)	8.7	14.4	6.4	1.8
Life expectancy at birth (years)	74.7	75.5	74.6	83.8
Skilled birth attendance (%)	99	99	99	99
Government health spending (%GDP)	1.6	3.4	2.2	2.6
Out-of-pocket health spending (% of total health expenditure)	44	25	36	36
Links to Commonwealth	Member since 1948. Prior to that British Crown Colony.	Member since 1962. Prior to that British Crown Colony.	Member since 1957. Prior to that British Crown Colony.	British Crown Colony until 1997.

Source: World Health Statistics 2015, World Health Organization 2015, and Food and Health Bureau, Government of the Hong Kong Special Administrative Region (http://www.fhb.gov.hk) for additional statistics for Hong Kong (accessed 10 May 2016).

#### Sri Lanka's route to expanding coverage

Sri Lanka is the poorest country in Asia to have achieved universal coverage<sup>3</sup>, and was able to do so whilst its per capita GDP was still below US\$500. The use of healthcare services by its people is comparable to advanced economies, but its government has spent on average just 1.5% of GDP on health during the past four decades (Table 2). It has done so by relying on tax-financed and government operated health services in the public sector and private providers financed by out-of-pocket payments in the private sector. As for social health insurance, Sri Lanka has never adopted this option (Rannan-Eliya and Sikurajapathy 2008).

In the 1920s, Sri Lanka was a British Crown Colony, and the colonial administration was only concerned with provision of medical services in urban areas to European residents and a small urban middle-class. However, following constitutional reforms in the 1930s, successive elected governments rapidly expanded provision of free government health services into rural areas. These consisted initially of dispensaries and small hospitals, but as the system expanded most facilities were gradually enlarged into larger hospitals and institutions.

The Sri Lankan government financed the expansion of healthcare delivery through increased funding from general revenue taxation, and by introducing new taxes and increasing overall taxation from 1932. By 1950, Sri Lanka had built an infrastructure that was more extensive in rural areas than is the case in other South Asian countries today, which in turn encouraged high levels of use by the poor. The use of government health services expanded from around 1 outpatient visit per capita in the 1920s to the equivalent of 2 outpatient visits per capita per year, and 10 inpatient admissions per 100 capita per year by the 1950s. These levels can be contrasted with levels today that are only one half to one quarter of these in countries such as Indonesia, Bangladesh and India.

Owing to the large number of facilities constructed, government health services became physically accessible to most of the rural population, and offered a comprehensive range of services from outpatient care to secondary hospital services. After 1951, the most important remaining barrier to access – user charges – was abolished, and government health services became genuinely accessible by the poor. Subsequently, as the poor have become used to the availability of these services, overall utilization of government services by the poor has increased to a level where they are now greater than the richest households, indicating that equality of use has been achieved. In addition, the wide availability of hospital care including inpatient services has meant that rural Sri Lankans rarely face catastrophic expenses in accessing medical care, and that the system achieves a high degree of risk protection (Figure 1).

The reaching the poor element of UHC in Sri Lanka has depended on providing the rural poor effective access to health services including inpatient care, by eliminating price barriers, reducing the distance that they have to travel to reach facilities, reducing supply constraints, and minimizing social and non-financial barriers that may discourage the poor from using services. The government has also emphasized hospital and inpatient treatment in its budget allocations, so that poor people obtain a comprehensive range of services in the public sector. Spending has been also relatively equitable distributed across districts.

<sup>&</sup>lt;sup>3</sup> For practical reasons, we define reaching UHC as reaching a situation where healthcare use is at high levels, comparable to those in OECD countries, at least equal between poor and rich, and not associated with substantial exposure to financial risk.

Markers of the extent to which universal coverage has been achieved include not only the high rates of medical services utilization in the poorest quintiles, but such statistics as the 99% of all child births which now take place in hospitals, and close to 100% immunization rates for key childhood diseases.

There were three motivating factors for the very substantial expansion in government health services that took place from the 1930s. First, from 1931 free elections were introduced in Sri Lanka, and this created significant intense pressures on politicians to provide tangible state services to the rural poor who comprised the bulk of the electorate. Second, from the 1930s onwards, Sri Lankan governments faced significant political competition from Marxist political parties, and were pushed to expand social welfare services in response. Third, in a series of events which have their parallel to developments in Japan at the same time, Sri Lankan government officials in the mid-1930s realized from reviews of the situation in rural areas that lack of health care services was a major cause of impoverishment of the rural population. As in Japan (Hasegawa 2005), the impoverishment was significantly increased at the time owing to the deleterious impact of the global recession on the rural economy, as well as a serious malaria epidemic. They concluded that provision of free government hospital services was required to mitigate this situation, and this reinforced existing political pressures.

Sri Lanka did once consider shifting to a social insurance strategy and pursuing the Bismarck model. In 1947, a government commission investigated the need for social insurance, including social health insurance. However, it concluded that the provision of free hospital services funded by taxation represented a form of insurance, and that an alternative insurance mechanism would be impossible to implement since the bulk of the population live in rural areas and worked outside the formal economy (Commission on Social Services 1947).

Table 2. Health spending, service coverage, and outcomes in Sri Lanka, Malaysia and selected countries, 2011-13

		)							
	Sri Lanka	Malaysia	Thailand	Turkey	Mexico	UK	Brazil	Japan	USA
Total health spending (% of GDP)	3.3	4.0	4.5	5.4	6.1	9.3	9.5	10.3	17.0
Government health spending (% of GDP)	1.6	2.2	3.6	4.1	3.2	7.8	4.5	8.4	8.0
Out-of-pocket spending (% of total health spending)	44	34	12	15	44	6	30	14	12
Births attended by skilled health personnel (%)	66	66	100	16	100	66	66	100	66
Measles vaccination rate of infants (%)	66	95	66	86	89	95	66	95	91
Annual outpatient consultations with doctors per capita	5	4	2	∞	E	5	m	13	4
Annual inpatient discharges per 1,000 population	274	111	137	161	48	129	56	111	125
Infant mortality rate (deaths per 1,000 live births)	8.7	7.2	11.3	16.5	12.5	3.9	12.3	2.1	5.9
Life expectancy at birth (years)	75	74	75	75	75	81	75	84	79

Sources: Authors' analysis and data from World health statistics 2015, World Health Organization 2015; OECD Health at a glance: Asia/Pacific 2012, OECD/World Health Organization 2012; OECD Health at a glance 2015, OECD 2015; World development indicators 2016. Notes: Countries are ranked in order of increasing health spending as a percentage of GDP.

Nevertheless, despite the emphasis on a strong public sector delivery system, Sri Lanka is neither a replica of the UK NHS nor an example of the Beveridge model. Although its initial public delivery system expansion was established by substantially increasing government health spending from around 1% in the 1920s to around 2.5% of GDP in the early 1950s, the government was neither able nor willing to maintain such high levels of public spending, let alone increase it. Reasons included resistance from richer Sri Lankans to paying high levels of taxation and increasing stringent fiscal constraints as the economy stagnated from the late 1950s. So unlike the UK which expanded public financing in 1948 to bring private doctors into a public scheme as it established its NHS, Sri Lanka retrenched and reduced public spending to 1.5–2.0% of GDP from the 1960s. This necessitated and allowed expansion of a substantial private sector to fill the gap in public provision.

Today, the private healthcare sector is large, and operates alongside the public sector unimpeded. The private sector delivers half of all ambulatory care services and around 5% of all inpatient care, as well as financing and distributing half of all medicines consumed in the country. In practice, this large private sector has been critical to allowing the government to achieve high levels of coverage despite low levels of spending. By ensuring free public services are in reality accessible to the poorer patients, Sri Lanka has been able to effectively target the tax subsidy for health care services to the poor, since the richer patients voluntarily choose to use private services and pay for these out-of-pocket. This has resulted in pro-poor gradients in the use of public sector services, and pro-rich gradients in the use of private sector services (Figure 7). This can be contrasted with the general situation in developing countries, which is that both public and private medical services are used more by the rich than the poor (Figure 8).

What this means in practice is that approximately half of health service expenditures in Sri Lanka has come from household spending since the 1960s, but the bulk of this spending has been by richer households who opt to not use government services and instead pay for equivalent private provision. The other important aspect of this is that most private spending is for outpatient services. Richer households tend to choose private provision typically for ambulatory care, but when they face expensive inpatient care choose public services, owing to the lack of insurance. The government emphasis on inpatient services in its budget matches this demand, since government outpatient services only reach the poorer half of the population, whilst its inpatient services are used by 95% of the population.

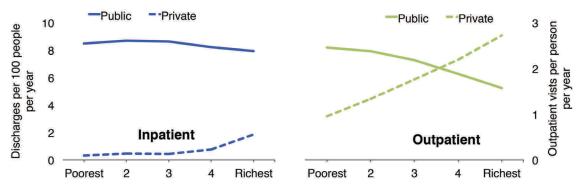


Figure 7. Use of public and private medical services in Sri Lanka, by socioeconomic quintile, 2012. Source: Authors' analysis of Household Income and Expenditure Survey 2012.

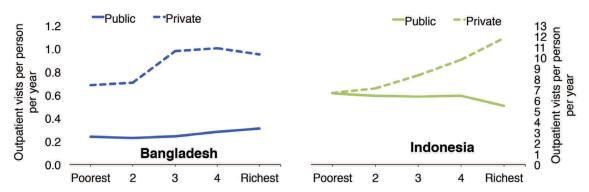


Figure 8. Use of public and private medical services in two developing countries, by socioeconomic quintile'. Source: Authors' analyses. Notes: For illustrative purposes, the charts display patterns of use of outpatient services, but similar patterns hold for inpatient treatment.

Unlike in other countries, this has not led to significant differences in care between the richer and poorer patients. Recent research indicates that the quality of clinical care given to the poorer public sector patients matches or is even better than the quality of care provided in the private sector to richer patients (Rannan-Eliya et al. 2014, Rannan-Eliya et al. 2015). Where quality differs is in the domain of consumer quality – those elements that relate to patient experience and convenience, such as doctor choice, the quality of clinic or hospital amenities, the amount of time a doctor spends with a patient, and general courtesy. In addition, despite a high share of out-of-pocket financing in total health spending, financial risk protection in Sri Lanka's system is reasonable, although there is room for improvement (Figure 1).

The following factors have been critical in Sri Lanka: (i) physical access to free government health services is more of a reality in Sri Lanka than in many other low and low-middle-income countries, because the government has emphasized the construction of a high density, but low cost network of rural facilities to ensure almost all Sri Lankans are within one to two kilometres of a facility; (ii) Sri Lanka has focused on minimizing price barriers, and not only user fees not levied in government facilities, but active measures have been taken to minimize illegal fees being charged by staff; (iii) Sri Lanka has emphasized the importance of risk protection in budget allocations over cost-effectiveness, so the poor have been provided with a full range of services instead of a restricted range, so encouraging their support and confidence in the system; (iv) Sri Lanka has emphasized access over quality, and reduced costs by tolerating reductions in consumer aspects of quality which are less important to the poor; (v) this in turn has encouraged the richer patients to voluntarily choose private care, thus reducing the financial burden on the government.

#### Malaysia's route to expanding coverage

Malaysia's experience and approach have many parallels to that of Sri Lanka, although the development of its system took place two to three decades after that in Sri Lanka and in quite a different ethnic and cultural milieu. Malaysia has also enjoyed much more robust economic growth than Sri Lanka since the 1960s, which has propelled it to upper-middle income status and to the verge of becoming a high-income economy. At the same time, its healthcare system has changed very little in structure from the time it was a low-income economy, demonstrating that the key elements in its success were not dependent on a high level of economic development.

Prior to independence from the British in 1957, Malaysia's constituent states were independently responsible for health, and each provided a range of limited tax-subsidized health services, mainly for the benefit of the expatriate community and civil servants in urban areas. In this respect, the situation largely resembled that in Sri Lanka in the 1920s. After independence, health care was made a federal subject, and health services came under the new central government, with government healthcare services delivered and controlled using civil service arrangements.

Malaysia from the 1960s substantially expanded its network of free government health facilities into rural areas in order to make access to the poor a reality. As in Sri Lanka, political pressures for redistribution and social equity were important. The electoral process ensured that the rural electorate remains important in Malaysia. The Malay community, which was at the time of independence economically disadvantaged, but is politically important by being the majority, has also been concentrated in rural areas, increasing the attention of policy-makers to the problems of rural and poor populations. In addition, as in Sri Lanka, internal security and stability considerations have played some role, with rural health services being seen as one measure that could forestall leftist political groups. Similarly, there has been an emphasis on providing more than basic primary care services to the poor, and budget allocations to hospitals have remained substantial. The end result has been a highly dispersed network of public healthcare facilities, genuinely accessible to all Malaysians, including the poor, and the availability of a comprehensive set of services in the public sector. As in Sri Lanka, once basic services were provided, these have been incrementally upgraded over time. Public sector provision now ranges from basic maternal and preventive services to the provision of Herceptin® for treatment of breast cancer, and cardiac angioplasty for heart patients, although the public sector supply of these more expensive treatments can be limited.

British colonial policy did not generally consider the social insurance schemes of continental Europe as a potential policy instrument, so social insurance had not been established in Malaysia at the time of the initial expansion of government services into rural areas. Instead, Malaysia has relied to date on government, tax-financed provision to achieve universal coverage. However, the ability or willingness of Malaysia's government to increase tax financing for its public delivery system has remained limited. Government spending on health has remained at 2% of GDP since the 1970s – higher than in Sri Lanka, and reflecting a more robust fiscal base. Yet, this has not been sufficient, as with the lower level of spending in Sri Lanka, to pay for high levels of access to services for all Malaysians. Instead policy has implicitly relied on ensuring that free public services are genuinely accessible by the poor, whilst depending on richer patients opting out to seek and pay for care in the private sector. By doing this, Malaysia has shifted half the burden of financing and delivery to the private sector, whilst ensuring that poor retain access to healthcare services.

How this has worked has recently been extensively assessed by Malaysian and international researchers (Rannan-Eliya et al. 2016). WHO statistics and other studies show that population health outcomes are better than expected in Malaysia, given the country's income level, and that key indicators such as infant mortality and life expectancy approach those of OECD nations. Child and maternal health indicators have improved dramatically, with child mortality falling more than 75% between the 1970s and 2010s.

Malaysia provides universal access to preventive and essential care and maternal and child health interventions (antenatal care and skilled birth services, well-child visits, and child immunizations). The public sector provides these services at no charge, and rates of using the services are similar to those in high-income countries (Table 2). Individual use of ambulatory and inpatient medical treatment is also high in Malaysia, with the average

Malaysian visiting a physician four times a year, and being admitted to a hospital once every ten years. These rates, as those in Sri Lanka, are comparable to those in advanced economies, such as the USA and Sweden.

This high utilization of health services is equally distributed across income groups, but with contrasting gradients in the public and private sectors. As in Sri Lanka, Malaysia separates demand for healthcare services between public and private sectors based on income differences of patients, but without explicit means testing. Use of private services is pro-rich in that the use of these services increases with household income, while use of public services is pro-poor in that the use of those services increases the poorer the household (Figure 9).

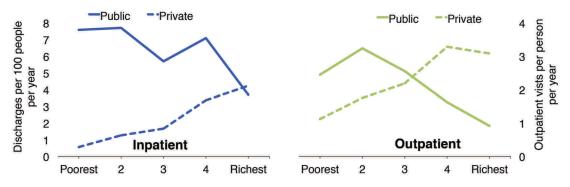


Figure 9. Use of public and private medical services in Malaysia, by socioeconomic quintile, 2011. Source: Rannan-Eliya et al. 2016.

The poorest 50% of the population accounts for two-thirds of outpatient visits to public facilities, while the richest 50% accounts for two-thirds of private visits. As noted in the case of Sri Lanka, the greater use of private services by the rich is un-remarkable, but the greater use of public services by the poor is exceptional, and public services in Malaysia are more pro-poor than is the case in most Asian countries. The available data also indicate considerable stability in these utilization patterns since at least the 1970s (Rannan-Eliya et al. 2016).

Like Sri Lanka, the parallel provision of services by public and private sectors in Malaysia is associated with a high ratio of out-of-pocket financing in total health spending (35–40%). However, this is not reflected in high levels of financial risk exposure (Figure 1). Standard indicators for this risk indicate that financial protection in Malaysia is not only better than in Sri Lanka, but also better than many countries that the global community regards as role models for UHC, such as Brazil, Mexico, Thailand and Turkey, and indeed more comparable to nations in Western Europe, such as Denmark and Sweden. This of course raises the question as to how Malaysia (like Sri Lanka) combines high reliance on out-of-pocket financing with effective financial risk protection.

The explanation appears to be that the ratio of out-of-pocket spending to the total expenditure on health is not always a reliable proxy indicator for financial protection of households. Better proxies would be the ratios of out-of-pocket spending to national or household resources, since financial risk is ultimately related to the resources that a household or population has to absorb any given medical expense. The level of out-of-pocket spending in GDP in Malaysia (1.7% in 2009) is low by global standards, average for the members of the OECD, and comparable to countries such as Austria (1.8%) and Sweden (1.6%). Given that this ratio in Malaysia is similar to those in most European nations, it should not be surprising that Malaysia's level of financial risk is comparable to the levels in those nations.

An additional explanation for financial protection in Malaysia is that although out-of-pocket spending is substantial, it is concentrated in the richest households. Out-of-pocket spending is progressive, in that its

percentage of household budgets increases with income. The poorest 60% of the Malaysian population accounts for only 20% of out-of-pocket spending, while the richest 20% of the population accounts for 59% of such spending. Items more likely to result in catastrophic expenses, such as private inpatient care, are even more concentrated in the richest households. This pattern stems directly from the hybrid structure of Malaysia's system, in which poorer Malaysians can always obtain potentially catastrophic care from the government's health facilities, which provide a full range of health care services, while better-off Malaysians—who are less likely to suffer hardship—can choose to use private care.

#### Jamaica's route to expanding coverage

The development of healthcare in Jamaica bears many similarities to both Sri Lanka and Malaysia. Like Sri Lanka and most of the constituent states of Malaysia, Jamaica entered the 20th Century as a British Crown Colony. Colonial administrators largely concerned themselves with basic quarantine measures to safeguard the population as a whole, and ensuring provision of medical treatment for the military, public servants and formal sector workers (primarily working in the sugar plantations) (McCaw-Binns and Mondy 2001). The demands and welfare of the majority and poor Jamaicans were largely ignored.

As in Sri Lanka and Malaysia, the shift to elected governments and self-rule, concerns about internal security and pressure from growing popular and leftist political parties led to a shift in government policy. From the 1940s, the Jamaican government began to build and expand an extensive delivery network of public healthcare facilities, rather uniformly distributed and ensuring widespread access to care. These were financed by general revenue taxation, and public care was available essentially, although subject to modest user charges. Further expansion and high levels of public sending were sustained through to the 1970s by intense political competition between Jamaica's major political parties.

However, a long period of economic stagnation, growing fiscal problems and a large foreign debt burden from the 1970s led to retrenchment of government spending, and increases in user fees in the public sector.<sup>4</sup> Since the 1980s, the Jamaican government was only able to devote 2% of GDP in its own budgetary resources for health. Far less than the minimum we have suggested is needed to implement the Beveridge model. Jamaica was never able to expand public financing to build a full NHS system, and instead private medical services and private financing have filled the gap. In recent decades, private financing has accounted for more than half of all national health expenditure, and private medical services have accounted for more than half of all healthcare use (Chao 2013). Nevertheless, the Jamaican government has continued to make efforts despite its fiscal constraints to improve access to service for lower-income Jamaicans and improve overall financial protection. This has included introducing a special scheme to pay for private purchases of medicines, known as the National Health Fund (Barrett and Lalta 2004).

However, unlike most developing countries, Jamaica has been able to ensure that its public sector medical services remain accessible to the poor, even as funding has been constrained. As in Sri Lanka and Malaysia, public services have remained pro-poor, whilst private services remain pro-rich, ensuring rough equality in overall utilization (Bourne et al. 2010).

<sup>&</sup>lt;sup>4</sup> Later abolished in 2008

Studies of quality of care in Jamaica indicate two important elements in its arrangements. First, quality appears to be fairly uniformly distributed across the public sector. Second, whilst consumer quality appears to be better in the private sector, overall clinical quality of care appears similar or even better in some public clinics than private clinics (Peabody et al. 1993). This would suggest that as in Malaysia and Sri Lanka, consumer quality differences act to segment patient demand between the two sectors, without affecting substantially overall access to quality clinical services. In addition, the evidence indicates that the differentiation of services on the basis of consumer quality in this way contributes to better targeting of public spending in Jamaica, by persuading richer Jamaicans to pay for private healthcare, or to purchase private medical insurance to do that (Gertler and Sturm 1997).

#### Examples of hybrid systems in high-income economies

The cases examined so far are all developing countries. They illustrate that developing countries with limited fiscal resources can ensure high and equal levels of access to healthcare, decent financial protection and good health outcomes by using a judicious mix of public and private financing and delivery.

In the case of advanced or high–income economies, the problem of fiscal constraints is generally not so severe, and such economies, with a few exceptions, are generally regarded as being quite capable of generating sufficient public financing to achieve UHC. That is not to say that these countries face fiscal constraints – they do, but shortfalls in funding generally only affect the quality of care or the provision of services at the margin.

However, there are several examples of high-income economies that have never adopted either the complete Beveridge or Bismarck models, but yet report the attributes of UHC, including high levels of healthcare coverage and good health outcomes. All these cases also report substantially less public spending on health than their peers and much higher private shares in financing. An overview of three of these systems – Australia, Hong Kong and Ireland, is given in Table 3, with some comparative indicators for three comparable economies following either the Beveridge or Bismarck approach.

As will be noted, each of these cases identified spend substantially less in public funding than peers, have higher reliance on private funding, and yet report similar or better levels of coverage and health outcomes. Further investigation of how this is achieved reveals similar policy strategies and system features to Jamaica, Malaysia and Sri Lanka.

Table 3. Key indicators for selected hybrid systems and comparable peers (2013)

	Hong Kong	Ireland	Australia	UK	New Zealand	Germany
Health system type	Hybrid	Hybrid	Hybrid	Beveridge	Beveridge	Bismarck
Infant mortality rate (deaths/1,000 live births)	1.8	3.2	3.4	3.9	5.2	3.2
Life expectancy at birth (years)	84	81	83	81	82	81
Skilled birth attendance (%)	99	100	99	99	97	99
Hospital discharges per 100 people	18	13	17	13	15	25
Doctor consultations per person	11	4	7	5	4	10
Government health spending (%GDP)	2.6	5.5	5.9	7.0	7.6	8.4
Private health spending (% of total health expenditure)	36	32	33	16	17	23

Source: World Health Statistics 2015, World Health Organization 2015, and Food and Health Bureau, Government of the Hong Kong Special Administrative Region (http://www.fhb.gov.hk) for additional statistics for Hong Kong (accessed 10 May 2016).

#### Hong Kong, China

Hong Kong, until its transfer to Chinese sovereignty in 1997, was a British Crown Colony. During the early part of the 20th Century, the colonial administration, as in Jamaica and Malaysia, largely neglected the bulk of the population, providing only minimal support to largely charitable ventures delivering healthcare to the population. However, from the 1950s in a context of pressure from leftist political groups and concerns about internal security, the Hong Kong government increased public financing for health, and expanded the public delivery system, but allowing a large private sector to remain. Although Hong Kong experienced rapid economic growth from the 1960s that propelled it to high-income economy status, it did not use the fruits of development to adopt social health insurance, but has instead maintained a mixed model of public–private finance and provision of health care. In terms of the delivery of care, 95% of total bed-days in Hong Kong are provided in the public sector. Provision of outpatient services is shared between private and public sectors in the ratio of 70:30, respectively (Lu et al. 2007).

Although Hong Kong, as an advanced, high-income economy, is capable of raising taxation and public spending on health, political pressures have constrained the government from doing this, and it has had to constrain public spending at around 2–3% of GDP. This has not been sufficient to raise the level of quality of public sector services to a level sufficient to satisfy the preferences of better-off residents. These have then opted to utilize private treatment, paying directly out-of-pocket or via private insurance. In this situation, the poor continue to have good access to public services – which are cheap and widely distributed, and so they dominate use of the

public sector. Surveys reveal that like in the hybrid systems mentioned previously, the use of public services is propoor, and use of private services is pro-rich, resulting in overall pro-poor utilization of medical care (Figure 10).

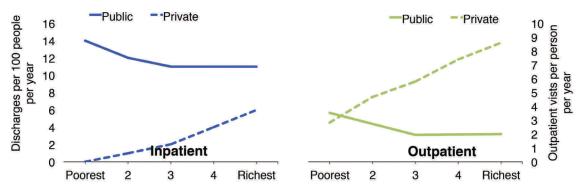


Figure 10. Use of public and private medical services in Hong Kong, by socioeconomic quintile, 2002. Source: Leung et al. 2005.

Hong Kong experts have extensively discussed the dilemmas that the government faces (Leung, Tin, and O'Donnell 2009). Although there is dissatisfaction in middle and upper-income residents with the lower consumer quality of public services, the government is constrained from increasing public spending, because the same groups would oppose the necessary tax increases. So the government has achieved universal access by using the lower consumer quality of public services to implicitly target these to poor patients, whilst allowing richer patients to pay for private services. At the same time, because even richer patients may find hospital care too expensive, inpatient care is predominantly provided by the public sector.

#### Australia

The Australian government has only played a significant role in the health system since the 1940s. In 1946, a fiercely contested Constitutional amendment allowed the Commonwealth – the national government of Australia – to make laws affecting health including providing sickness, pharmaceutical and medical and dental benefits and services. The 1953 National Health Act established public financing for the Pharmaceuticals Benefits Scheme, the Hospital Benefits scheme (which funds public hospitals) and the Medical Benefits Scheme (which pays private doctors). This system remains largely in place today, with one subsequent reform. In 1975, the government established a universal tax-financed health insurance system called Medibank (which later became Medicare).

Australia's multiple public schemes do not represent an implementation of the full Beveridge model. Like the UK in 1948, Australia has adopted tax financing to pay for Australians to use private doctors. However, the level of public funding is less. Government spending on health in Australia has generally been 1.0–1.5% of GDP less than in the UK. Unlike in the UK, where private GPs essentially became fully-funded by the government in 1948 and had to accept government contractual conditions, public funding in Australia has not been sufficient to bring all GPs under public financing. Instead, GPs are free to charge patients higher than the price reimbursed by Medicare. In practice, if patients want choice of doctors or better doctors, they need to pay privately the difference in cost. Generally, richer Australians are more likely to do this. Similarly, whilst the public insurance system provides everyone with access to comprehensive hospital treatment, if patients want to choose their hospital doctor or obtain a higher level of amenities, such as a private room, they must pay the additional costs themselves. Australian regulations also restrict private medical insurance to paying only for those services and elements not covered by the public insurance scheme.

The end result of this approach is that Australia depends on significant private financing, made voluntarily by citizens, to ensure a high level of access to services. Poorer Australians generally have access to comprehensive care funded through taxation, but richer Australians who prefer greater choice end up paying privately for a substantial part of their costs. Overall coverage has been found to be generally equitable, although richer patients make greater use of specialist care and elective services (Van Doorslaer et al. 2008)0. In addition, despite or because of this mixed funding strategy, Australia has been an outperformer in recent decades in the OECD region, improving its population health outcomes faster than most of its peers, and achieving above average health indicators.

#### Ireland

The Irish health system provides a useful historical contrast to the UK NHS. Until the 1940s, the Irish health system, reflecting their common origins, was largely a replica of the British system. During the Second World War, Irish leaders considered the option of establishing a national health service, similar to that being discussed in the UK at the time. However, the Beveridge model was not adopted, as such a system was resisted by elements within the medical profession, and due to strong opposition to the notion of "socialized medicine" from civil society. Instead, from the 1950s through the 1970s, the Irish government used tax financing to extend free public provision to the poorer bulk of the population, whilst encouraging the richer part of the population to obtain private medical insurance. Under current regulations, older and lower-income residents are entitled to free care from public sector hospitals and private GPs. Richer residents have free access to free secondary hospital services, but must bear the full cost of GP services and make some contribution to the costs other primary and community services.

As in the Australian system, the Irish system focuses public financing to ensure that there is universal access to basic hospital services for all, and access to primary care for those of lower income. At the same time, richer individuals, identified by means testing, have to pay out-of-pocket or via insurance for some of their costs, but principally non-hospital costs which are less likely to create financial risk. Studies indicate that this system largely achieves equity in access to services and low levels of financial risk. In addition, Ireland now outperforms the UK in overall health indicators (Table 3).

# Critical elements in the hybrid funding model

We have identified a number of diverse economies, at all income levels and across the globe, which use a mixed public-private financing and delivery approach to maximize equitable access to healthcare services whilst minimizing financial risk that their people are exposed to. They share a number of common elements, which we now summarize.

#### 1. Common prioritization of goals

In all the cases studied, governments have prioritized three goals:

- 1. Maximizing equal access to adequate volumes of medical services by poor and rich.
- 2. Minimizing exposure to financial risk.
- 3. Minimizing government expenditures.

In contrast to many other countries, they have placed less emphasis on other potential goals, such as: (i) prioritizing public financing to primary care before hospital services; (ii) focusing spending on priority diseases or interventions; (iii) expanding coverage first to the the formal sector; (iv) giving everyone access to free choice of doctors; and (v) equalizing access to a high level of amenities and consumer luxuries in the delivery system.

In all the cases, this particular choice of priorities appears to reflect sensitivity to what the population as a whole wanted. In Sri Lanka, Jamaica and Malaysia, the change in priorities is clearly linked to political changes that made governments accountable to the whole population and shifted power from colonial administrators to elected governments. When the franchise was made universal, voters placed more emphasis on access over immediate quality, and on reducing financial risk. In Australia and Ireland, the link exists but is less evident, but democratic pressures from voters and civil society have clearly influenced overall decisions. Hong Kong on the surface might appear to be an exception given the limited extent of representative government, but in practice from the 1950s the British colonial administrations and their successors were acutely sensitive to public pressure and adjusted policy priorities accordingly, and today goal setting remains highly sensitive to public pressure (Leung, Tin and O'Donnell 2009).

The emphasis on minimizing government spending in all the cases stems from political economy factors, which include sensitivity paradoxically to higher income taxpayers and business interests (Sri Lanka, Malaysia, Hong Kong, Australia), and in some cases private medical providers (Australia, Ireland).

This particular prioritization of goals does pose its own challenges in implementation and how to make the tradeoffs. Across the cases studied, there are some common solutions.

# 2. Achieving pro-poor access through an emphasis on universality and minimizing financial and physical access barriers

Most governments who build public delivery systems intend these to be preferentially accessible by the poor. Countries have attempted a number of strategies to achieve this. They include means testing access and charging tiered user fees based on income level. Many countries have also devoted much effort into designing programs that specifically target the poor. However, most developing countries fail to achieve pro-poor public systems. Common reasons include the practical difficulty in assessing the income levels of patients, and practical barriers that prevent ostensibly free services being accessed by the poor.

In these hybrid systems, governments have generally eschewed explicit targeting and instead emphasized universal access. So in Sri Lanka, Jamaica, Malaysia, Hong Kong, Australia and Ireland (only in case of secondary hospital care), government funded services are available to both rich and poor on the same basis. At the same time, in most of these cases, governments have emphasized minimizing user charges and maximizing physical access by building extensive delivery systems that reach into rural areas (Sri Lanka, Jamaica, Malaysia). Hong Kong is an exception to the latter point as it is essentially a city, but even in Hong Kong, public facilities are widely distributed. These complementary actions ensure that access for the poor is real and not merely on paper, since for poor people distance and cost tend to be the most important barriers to access.

## 3. Emphasising hospital care and risk protection in budget allocations

In all the cases studied, governments have given an implicit or explicit emphasis to financial risk protection when deciding where to put their money. In many developing countries, experts and policy makers have emphasised spending money first on primary or basic ambulatory services, or improving health outcomes before financial protection. In contrast, Sri Lanka, Malaysia and Hong Kong have allocated above average shares of their government health budget to hospital delivery, and ensured that inpatient treatment is more dominated by the public sector than ambulatory care. In Ireland the only publicly funded benefit that is universal in access is secondary hospital care, and not primary care services. Similarly, whilst Australia does use public financing to support access to the full range of services, the degree of public subsidy is greatest for hospital services.

## 4. Prioritizing expansion coverage to the poor before the non-poor

In many countries, governments have pursued UHC by first focusing on extending coverage to the non-poor. This is particularly the case in the Bismarck model. With this approach, public spending first benefits the non-poor most, and pro-poor coverage is only achieved at the end. In all the hybrid cases, policy has instead emphasized equal or universal access to all, and if not that have extended access to the poor first, e.g., Ireland restricts access to free publicly funded primary care to lower income and elderly residents. This has meant these systems have reversed the sequencing of coverage expansion, focusing on ensuring public money covers the poor before the non-poor. This is reflected in the pro-poor utilization of publicly funded services in all the cases.

## 5. Exploiting differences in the demand for consumer quality to shift richer patients out of public funding

The main challenge that these hybrid systems have faced is how to maximize access whilst keeping public spending low. They have all done this by focusing public spending on the poor, and shifting the non-poor to the private sector where they self-pay. In general, these systems have done this not by explicit assessment of patient incomes, but by relying on differences in the demand for consumer quality and voluntary opting-out of the public sector. An important benefit of this voluntary shifting of patients is that it is politically less problematic than explicit exclusion of the non-poor from public services, or mandatory collection of additional money from the non-poor through increased taxes or social insurance premiums.

In Sri Lanka, Jamaica, Malaysia and Hong Kong this approach is quite clear since public and private provision are separate. In all of them, the major difference between public and private providers is not the range of services provided, but the level of consumer quality and convenience of access. In Australia, where the government finances patients to use private doctors, the separation arises from the capping of Medicare GP reimbursements. If patients want to use doctors giving better consumer quality or other conveniences, these doctors usually charge more, and richer patients are more likely to make such a choice and end-up-paying the difference in cost. Similarly in the hospital sector, where everyone receives a basic subsidy from the Australian government, if richer patients want to choose their own doctor or use a private hospital, they must pay the difference in costs themselves.

These hybrid systems provide a real-world validation of a theory expounded by Timothy Besley and Stephen Coate (1991). They argued that under certain conditions, a system of public service provision that is equally available to all citizens can effectively redistribute health services from rich to poor and equalize access as long as the non-poor have a higher demand for consumer quality than the poor do and voluntarily choose, on the basis of inadequate consumer quality, not to use the free public service. Besley and Coate also showed that such an approach might be the most efficient way of ensuring equitable provision of public services, if the government's budget was insufficient to provide the service to everyone, and if it was difficult to assess an individual's income so as to means-test access. Such Besley-Coate arrangements appear to operate in all our hybrid systems. What these hybrid cases add is evidence that these arrangements might also be effective in combining high levels of access to health care with good financial risk protection, despite limited government spending.

#### 6. Better than average health performance

A below-average level of public funding is the critical driver of the choices that each of the hybrid systems have made. Paradoxically, this less than adequate funding has not been at the expense of overall population health outcomes. In general, these hybrid systems do as well as their peers across the range of observable health indicators or even better. Indeed in each income category, some of the best health performers in the world are hybrid systems. This is illustrated in Figure 11 which compares the performance of selected hybrid systems on one health indicator – infant mortality – with other well known UHC success stories and all other countries.

Why these systems turn in such good performances is not entirely clear, and requires more analysis. However, their common emphasis on equalizing access to healthcare services between rich and poor may likely be a key part of the explanation.

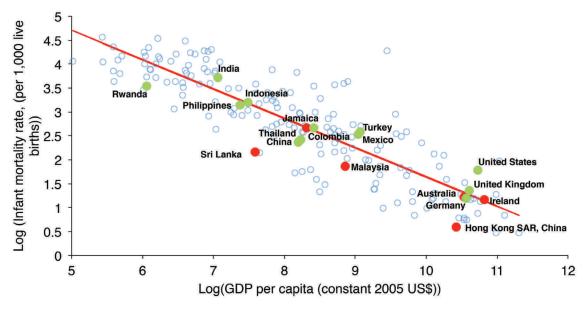


Figure 11. Infant mortality and income in selected hybrid health systems, often-cited UHC successes, and other countries 2013. Source: World Development Indicators 2016.

#### Common problems

A discussion of the common success factors in these hybrid models would remiss without noting that they do share a common problem. In all these cases, public financing is kept below the level that would be needed to keep most people satisfied with the publicly funded option. Whilst the better-off may opt out and seek and pay for private care, this engenders considerable dissatisfaction with the arrangements in those opting out. Consequently, in all these cases, there is a perennial demand by the middle-income or upper-middle income segment of society for government financing to assist them to access private services, which most of the time presents as a demand for government-assisted insurance schemes. In Australia, this was clearly met by policy reforms that have expanded access to private insurance through subsidies and extensive regulation.

At the same time, the government facilitation of insurance usually runs counter to the strong pressures in these systems for universal access to the public scheme. So introduction of social insurance for only a segment of the population is usually not politically feasible. At the same time, introduction of social insurance for the whole population would require increases in tax financing to pay the premiums of the poor and those outside the formal sector. The burden of this increased tax-funding will usually fall on the better-off. Since the original constraint in these systems is the inability to increase tax-financing of health due to resistance of the better-off, this universal social insurance option, essentially the Bismarck UHC model, usually dies (Leung, Tin and O'Donnell 2009).

### **Implications**

#### For the global community

This short review has identified a number of health systems at all levels of economic development that have adopted a common approach to financing and delivering healthcare that differs significantly from the standard Beveridge and Bismarck models. In all these systems, governments spend much less on healthcare than their peers. Yet, we have noted that they generally out-perform their peers in terms of access to healthcare and ultimate population health outcomes.

The challenge of achieving UHC – equitable access to quality healthcare combined with financial risk protection – has been accepted by the global community as a shared goal over the next two decades. In order for this goal to be realized, developing countries need realistic options to expand coverage. Realism requires finding strategies that are compatible with the limited fiscal capacity that is an inevitable corollary of being a developing nation. The evidence indicates that the standard Beveridge and Bismarck models are not fiscally feasible in most developing nations. They both require substantial spending of tax monies that poor countries cannot realistically afford. The global community and developing countries in particular need additional options that help extend coverage without breaking the bank.

There is sufficient evidence to indicate that the hybrid systems we have detailed have found one answer to this challenge of improving coverage with limited fiscal resources. However, they have generally not been the object of the intensive global search for solutions. The leading international organizations – the World Bank, WHO and other bilateral development agencies, as well as countless independent initiatives and academic investigations, have paid little attention to these examples. There is little awareness of what they have achieved, or how they have done this.

Given the enormity of the challenges facing poor countries as they strive towards UHC the time has come for a proper look at these experiences to identify what has been critical and what can be learnt and transferred.

#### For the Commonwealth

Almost all the cases identified have their roots in the Commonwealth, and are either members of the Commonwealth or have strong links with Commonwealth nations. This is not a coincidence. It stems from a fortuitous combination of common institutional legacies and shared policy discourses. We have noted that the global community has tended to ignore these experiences, despite their great relevance to contemporary development challenges. This has been a loss not only to the global community as a whole, but also Commonwealth nations.

The large majority of Commonwealth nations still face the challenge of how to move towards UHC whilst still economically developing and managing with limited fiscal resources. Yet, it is unfortunately true that most of these Commonwealth nations know more about the success stories outside the Commonwealth than the hidden success stories within the Commonwealth. This represents a loss not only for the Commonwealth as a whole, but also a failure to realize the benefits that flow from a shared history and common sets of values.

Given the past failure of the global community to look more closely at these success stories in the Commonwealth, we urge Commonwealth nations to (i) look more closely themselves at this experience within the Commonwealth, and (ii) to work with and encourage others to take more seriously these experiences. Practical actions include fostering a systematic program of investigation to understand and document these hybrid systems better, and creating mechanisms to share understanding of the critical elements of these systems with other Commonwealth nations.

#### References

Barrett, Raphael D., and Stanley Lalta. 2004. *Health Financing Innovations in the Caribbean: EHPO® and the National Health Fund of Jamaica, Sustainable Development Department Technical Papers Series*. Washington, DC: Inter-American Development Bank.

Besley, Timothy, and Stephen Coate. 1991. "Public Provision of Private Goods and the Redistribution of Income." *American Economic Review* 81(4): 979–84.

Bourne, P.A., D. Eldemire-Shearer, T.J. Paul, J. Lagrenade, and C.A. Charles. 2010. "Public and private health care utilization differences between socioeconomic strata in Jamaica." *Patient Relat Outcome Meas* 1: 81–91. doi: 10.2147/PROM.S11868.

Caldwell, J.C. 1986. "Routes to Low Mortality in Poor Countries." *Population and Development Review* 12(2): 171–220.

Chao, Shiyan. 2013. Jamaica's effort in improving universal access within fiscal constraints, Universal Health Coverage (UNICO) studies series; No. 6. Washington, DC: World Bank.

Commission on Social Services. 1947. Report of the Commission on Social Services. Vol. 1947: VII, Sessional Papers. Colombo: Ceylon Government Press.

Gertler, Paul, and Roland Sturm. 1997. "Private health insurance and public expenditures in Jamaica." *Journal of Econometrics* 77(1): 237–257. doi: 10.1016/S0304-4076(96)01814-3.

Giedion, Ursula, Eduardo Andrés Alfonso, and Yadira Díaz. 2013. *The Impact of Universal Coverage Schemes in the Developing World: A Review of the Existing Evidence, UNICO Studies Series No. 25*. Washington DC: World Bank.

Halstead, Scott B., Julia A Walsh, and Kenneth S. Warren, eds. 1985. *Good Health at Low Cost*. New York, USA: Rockefeller Foundation.

Hasegawa, Toshihilko. 2005. "Japan." In Social Health Insurance: Selected Case Studies from Asia and the Pacific. New Delhi, India: WHO Regional Office for South-East Asia and WHO Regional Office for Western Pacific Region.

Hsiao, William C., and R. Paul Shaw, eds. 2007. *Social Health Insurance for Developing Nations, WBI Development Studies*. Washington, D.C., USA: World Bank.

Leung, Gabriel M., Keith Y.K. Tin, and Owen O'Donnell. 2005. *Redistribution or horizontal equity in Hong Kong's mixed public-private health system: a policy conundrum*. Vol. 18, EQUITAP Working Paper No. 22. Colombo: EQUITAP Research Network.

Leung, Gabriel M., Keith Y.K. Tin, and Owen O'Donnell. 2009. "Redistribution or horizontal equity in Hong Kong's mixed public-private health system: a policy conundrum." *Health Economics* 18: 37–54.

Lu, J.F., G.M. Leung, S. Kwon, K.Y. Tin, E. Van Doorslaer, and O. O'Donnell. 2007. "Horizontal equity in health care utilization evidence from three high-income Asian economies." *Social Science and Medicine* 64(1): 199–212.

McCaw-Binns, Affette, and C.O. Mondy. 2001. "The development of primary health care in Jamaica." West Indian Medical Journal 50 Suppl 4: 6–10.

McIntyre, Diane, Ravindra Rannan-Eliya, Jorine Muiser, Chiu Wan Ng, Tiara Marthias, Chamara Anuranga, Gabriel Leung, Daniel Maceira, and Shiva Adhikari. 2015. "Assessing Progress to UHC – The GNHE Perspective: Health Service Use." In Global Network for Health Equity (GNHE). <a href="http://gnhe.org/blog/wp-content/uploads/2015/05/FRP">http://gnhe.org/blog/wp-content/uploads/2015/05/FRP</a> brief 2015.pdf (accessed 10 April 2016).

Mills, Anne, Fawzia Rasheed, and Stephen Tollman. 2006. "Chapter 3: Strengthening Health Systems." In *Disease Control Priorities in Developing Countries*, edited by Dean T. Jamison, Joel G. Breman, Anthony R. Measham, George Alleyne, Mariam Claeson, David B. Evans, Prabhat Jha, Anne Mills and Philip Musgrove, 103–118. New York, NY, USA: World Bank and Oxford University Press.

Nicholson, David, Robert Yates, Will Warburton, and Gianluca Fontana. 2015. Delivering universal health coverage – A guide for policymakers. Doha, Qatar

OECD. 2015. Health at Glance 2015: OECD Indicators. Paris, France: OECD Publishing.

OECD/World Health Organization. 2012. Health at a Glance: Asia/Pacific 2012. Paris, France: OECD Publishing.

Peabody, John W., Omar Rahman, Kristin Fox, and Paul Gertler. 1993. *Public and private delivery of primary health care services in Jamaica: A comparison of quality in different types of facilities*: RAND.

Rannan-Eliya, R.P., C. Anuranga, A. Manual, S. Sararaks, A.S. Jailani, A.J. Hamid, I.M. Razif, E.H. Tan, and A. Darzi. 2016. "Improving Health Care Coverage, Equity, And Financial Protection Through A Hybrid System: Malaysia's Experience." *Health Affairs (Millwood)* 35(5): 838–46. doi: 10.1377/hlthaff.2015.0863.

Rannan-Eliya, R.P., C. Anuranga, J. Chandrasiri, R. Hafez, R. Wickramasinghe, and J. Jayanthan. 2012. *Impact of maternal and child health private expenditure on poverty and inequity: Evidence from National Household Surveys of Healthcare Use and Expenditures – Summary Technical Report*. Manila: ADB.

Rannan-Eliya, Ravi P., and Lankani Sikurajapathy. 2008. "Sri Lanka: "Good Practice" in Expanding Health Care Coverage." In *Good Practices in Health Financing Lessons from Reforms in Low- and Middle-Income Countries*, 311–354. Washington, D.C., USA: World Bank.

Rannan-Eliya, Ravindra P., Nilmini Wijemanne, Isurujith K. Liyanage, Shanti Dalpatadu, Sanil de Alwis, Sarasi Amarasinghe, and Shivanthan Shanthikumar. 2015. "Quality of inpatient care in public and private hospitals in Sri Lanka." *Health Policy and Planning* 30(3): i46–i58. doi: 10.1093/heapol/czu062.

Rannan-Eliya, Ravindra P. 2009. "Strengthening Health Financing in Partner Developing Countries." In *G8 Hokkaido Toyako Summit Follow-Up: Global Action for Health System Strengthening: Policy Recommendations to the G8, Report of the Task Force on Global Action for Health System Strengthening.* Tokyo, Japan: Japan Center for International Exchange.

Rannan-Eliya, Ravindra P., Felicia Knaul, and Di McIntyre. 2012. *Global Network for Health Equity Consensus Statement on UHC as a Shared Global Developmental Goal*. Cuernavaca: Funsalud on behalf of Global Network for Health Equity (GNHE).

Rannan-Eliya, Ravindra P., Nilmini Wijemanne, Isuru K. Liyanage, Janaki Jayanthan, Shanti Dalpatadu, Sarasi Amarasinghe, and Chamara Anuranga. 2014. "The quality of outpatient primary care in public and private sectors in Sri Lanka--how well do patient perceptions match reality and what are the implications?" *Health Policy and Planning*. doi: 10.1093/heapol/czu115.

Van Doorslaer, E., P. Clarke, E. Savage, and J. Hall. 2008. "Horizontal inequities in Australia's mixed public/private health care system." *Health Policy* 86(1): 97–108. doi: 10.1016/j.healthpol.2007.09.018.

WHO, and World Bank. 2013. *Monitoring Progress towards Universal Health Coverage at Country and Global Levels: A Framework – Joint WHO / World Bank Group Discussion Paper.* Geneva: WHO.

World Bank. 2016. World Development Indicators. World Bank.

World Health Organization. 2010. World Health Report 2010: Health Systems Financing – The path to universal coverage. Geneva, Switzerland: World Health Organization.

World Health Organization. 2011. Sixty-fourth World Health Assembly, Geneva, 16–24 May 2011, Resolutions and Decisions, Annexes (WHA64/2011/REC/1). Geneva: World Health Organization.

World Health Organization. 2015. World Health Statistics 2015. Geneva, Switzerland: World Health Organization.

Xu, Ke, David B. Evans, Guido Carrin, Ana Mylena Aguilar-Rivera, Philip Musgrove, and Timothy Evans. 2007. "Protecting Households From Catastrophic Health Spending." *Health Affairs* 26(4): 972–983. doi: DOI 10.1377/hlthaff.26.4.972.

Universal health coverage: the potential contribution of hybrid funding strategies

Review of Commonwealth Mixed Public-Private Funding Models