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Fifty years of Asian experience in the spread of education and healthcare

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Abstract: This paper analyses the dramatic spread of education and healthcare in Asia and also the large variations in that spread across and within countries over 50 years. Apart from differences in initial conditions and income levels, the nature of the state has also been an important determinant of these variations. This is because social development has typically been led by the state. But in most countries, public resource constraints and the growing dependence on private provision and private spending have generated a pattern of nested disparities in the access to education and healthcare between rich and poor regions, between rural and urban areas within regions, and between rich and poor households within these areas. However, as the better-off regions, areas, and households approach the upper limits of achievable education and health standards, a process of convergence is also underway as those left behind begin to catch up.

Keywords: Asia, comparative studies, disparity, education, health, state
JEL classification: B25, H51, H52, I13, I18, I28

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1 Introduction

The transformation of Asia's education and health profile over the last 50 years has been breath-taking. Myrdal had not expected this would happen when he published *Asian Drama* (Myrdal 1968), because the pace of this transformation was then unprecedented in human history. But there was another reason. Comparing the countries of Asia[1] with developed countries, Myrdal identified several disadvantages in the initial conditions prevailing in Asia. That led him to believe that development of the social system in Asia, including health and education, would be very challenging.

With the benefit of hindsight, we can now see that his assessment was overly pessimistic. Asia did transform at an unprecedented pace despite the disadvantages of its initial conditions. However, the narrative of this transformation has fully validated his 'institutional approach' of seeing development as the upward movement of a social system through circular causation of all its constitutive elements. Several of the key constraints he identified and the consequences he anticipated are very much in evidence today. Ironically, social development has been the most striking in East Asia, a sub-region he unfortunately excluded from the canvas of his *magnum opus* (ADB 1997; Sen 1998a; World Bank 1993).

The central idea of the institutional approach, as Myrdal (1968: x) put it, 'is that history and politics, theories and ideologies, economic structures and levels, social stratification, agriculture and industry, population developments, health and education, and so on, must be studied not in isolation but in their mutual relationship'. Myrdal referred to this process as development of the social system as distinct from the narrower concept of economic development that primarily focuses on the rise in per capita income and related macroeconomic relationships.

Three aspects of this approach are particularly important for the purposes of this paper. First, the approach specifies that initial conditions, that is elements of the social system, lay down the boundaries of what is possible. Myrdal discussed this in chapter 14 of his first volume and elsewhere in *Asian Drama*. Second, education and health—investment in man as he called it—were central to Myrdal's conception of development. Accordingly, the entire third volume of *Asian Drama* was exclusively devoted to this subject. Third, the spread of education and healthcare are to be seen not in isolation but in their relationship with all the other elements of the social system. This is the concept of 'cumulative causation' Myrdal spelled out in detail in appendix 2 of *Asian Drama*.

This paper traces the spread of education and healthcare in Asia during the past 50 years through a similar methodological lens. Following the end of the Second World War, new post-colonial states came to power throughout the Asian region. Most of them were 'developmental' states aspiring to lead the transformation of their countries into developed societies at the earliest possible time.[2] Sustained development of education and health services were important

[1] Myrdal's study excluded the countries of East Asia because, he modestly claimed, he did not know enough about them. He limited his study to the countries described today as South Asia and Southeast Asia, designating the whole region as South Asia. Present-day South Asia was described by Myrdal as either the Indian subcontinent or 'India & Pakistan'. The geographical coverage of this paper is limited to mainland Asia, excluding West Asia, the Central Asian republics, and island economies of the Indo-Pacific region.

[2] For the original formulation of the concept of a 'developmental state' in the context of Japan, see Chalmers Johnson (1982). For its subsequent elaboration in the context of South Korea (henceforth Korea) and Taiwan, see Amsden (1989) and Wade (1990), among others. Johnson had contrasted these 'plan rational' states which *led* state-guided

components of this agenda. This was partly because of their intrinsic value in improving the quality of life, as was recognized by Myrdal (1968) and much emphasized subsequently by Sen (1998; 1999). But possibly more importantly, it was because political leaders of the time recognized the instrumental value of education and health for promoting growth, the human capital relationship that was originally highlighted in modern economic literature by Schultz (1961) and later incorporated in the endogenous growth theories of the 1990s (Grossman and Helpman 1994; Pack 1994; Romer 1994).[3]

There were differences among the countries of the region in the initial conditions under which development programmes were launched, including levels of income and in the nature of the post-colonial states that led these programmes. These differences were reflected in the specific policies that were followed, their implementation, and their outcomes. By the late 1960s, when Myrdal published *Asian Drama*, there were already large differences in the education and health status of the different countries, which he noted. There were also large differences in the pace of their subsequent development. Social development in South Asia lagged behind social development in Southeast Asia, which lagged behind social development in East Asia, with some important exceptions to this general pattern.

Trends common to most countries are discussed in the paper, along with the variations across countries. Section 2 presents a comparative analysis of the spread of different levels of education in countries across the different sub-regions, along with some country experiences. Section 3 presents a similar comparative analysis of trends in health conditions of countries across the different sub-regions and some country experiences. More detailed accounts of selected country experiences are also added in Appendix 1 for education and Appendix 2 for health to capture the variety of country experiences across the whole region. Section 4 pulls together the threads of the analysis in the preceding sections to draw some conclusions, admittedly tentative, on why the social development outcomes of different countries/sub-regions in Asia have differed widely. Based on these conclusions, some speculations are offered about the main challenges that lie ahead and possible trends during the next 25 years.

2 The spread of education

2.1 The observed trends across countries

A quantitative picture of the spread of education is presented in Tables 1 and 2.[4] The spread of primary education is best captured by the net enrolment rate, which corrects for enrolment of children older than the normal primary education age cohort.

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capitalist development to the Western liberal concept of 'market rational' states that *enabled* market-led capitalist development. Since then a large literature has emerged applying the concept to other countries, the central idea being that of key state actors committed to the goal of rapid development. Accelerated industrialization and industrial policy aimed at achieving global competitiveness in selected industries was a core component of strategies pursued by these developmental states. But typically their goal was a wider agenda of comprehensive national development (Wade 2018b).

[3] On the relationship between education, human capital formation, and growth in a specifically Asian context, see Tilak (2002).

[4] The benchmark years 1971, 1985, 2000, and 2014 reported in the tables are approximate milestones. Statistics for some countries relate to the nearest year corresponding to these benchmark years for which data are available. Details are given in the notes to Tables 1 and 2.

Table 1: Primary education

	Population (millions)	Per capita GNI (at current prices in US dollars)	Primary enrolment rate (net)				Primary enrolment rate (net), gender parity index (GPI)		Primary completion rate				Primary completion rate, gender parity index (GPI)	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
Country	2016	2014	1971	1985	2000	2014	1971	2014	1970	1985	2000	2014	1971	2014
East Asia	**1,559.9**	**10,827**	**98.3**	**94.7**	**90.2**	**90.1**	**0.9**	**1.0**	**102.4**	**102.1**	**86.5**	**96.8**	**1.0**	**1.0**
Japan	127.0	39,195	99.3	99.4	97.8	98.3	1.0[e]	1.0[f]	105.1[g]	99.4	102.4	102.1[j]	1.0	1.0[l]
Republic of Korea	51.2	28,099	95.9	98.6	99.0	94.6	1.0	1.0[f]	96.0[g]	105.2	103.6	96.5	1.0	1.0
Mongolia	3.0	3,842	–	94.4[b]	90.0	95.1	1.0[e]	1.0	95.7[g]	98.0[h]	87.0	98.3[j]	–	1.0
China	1,378.7	7,588	–	94.1[b]	89.1[c]	89.1	0.9[e]	1.0[f]	–	102.2[h]	84.4[i]	96.3	–	1.0
Southeast Asia	**638.2**	**4,034**	**79.7**	**95.4**	**93.3**	**93.0**	**0.9**	**1.0**	**56.5**	**87.6**	**92.2**	**100.3**	**0.8**	**1.0**
Singapore	5.6	55,107	–	96.1[b]	95.7	99.9[d]	0.9[e]	1.0	95.1	–	–	98.7	1.0[k]	–
Malaysia	31.2	10,814	86.7	97.2[b]	98.4	99.6	0.9[e]	1.0[f]	80.6[g]	93.9	100.6	101.9	0.9[k]	1.0
Philippines	103.3	3,445	96.8[a]	94.4	89.5[c]	95.7[d]	–	1.0[f]	–	89.2	100.4[i]	101.0	–	1.1[l]
Thailand	68.9	5,633	75.5[a]	–	98.9[c]	90.9	0.9	1.0	37.5[g]	71.4[h]	84.9	93.3	–	0.9[l]
Vietnam	92.7	1,916	97.3[a]	91.1	97.2	98.0[d]	1.0[e]	–	81.5[g]	–	99.0	106.2	–	1.0
Indonesia	261.1	3,484	70.1	97.8	92.0[c]	88.9	0.9	1.0	51.9[g]	94.2	93.8[i]	102.9	–	0.9
Cambodia	15.8	1,032	–	–	92.4	95.1	0.8	1.0	–	46.0[h]	51.1[i]	96.3	–	1.0
Myanmar	52.9	1,272	63.7	–	92.2	96.2	0.9	1.0[f]	35.7[g]	–	76.5	85.1	0.7	1.0[l]
Lao PDR	6.8	1,929	–	64.9[b]	75.6	97.2	0.6	1.0	–	42.1	67.5	100.3	–	1.0
South Asia	**1,765.2**	**1,500**	**59.7**	**74.7**	**78.7**	**89.9**	**0.6**	**1.0**	**35.0**	**58.6**	**69.8**	**93.2**	**0.5**	**1.3**
Sri Lanka	21.2	3,760	78.5[a]	98.3[b]	99.7[c]	97.2	0.9[e]	1.0	63.5	83.7	107.3	98.0	–	1.0
India	1,324.2	1,557	61.4	77.5[b]	79.8	92.3[d]	0.7	1.0[f]	39.7[g]	63.2[h]	71.8	97.5	0.5	1.1
Bangladesh	163.0	1,158	50.8[a]	61.1	91.7[c]	90.5[d]	0.5[e]	1.0[f]	43.3[g]	28.5[h]	64.4[i]	98.5[j]	0.5[k]	1.2[l]
Pakistan	193.2	1,418	–	–	58.9[c]	72.7	0.4	0.9	–	–	64.5[i]	73.7	–	0.8
Nepal	29.0	709	–	60.6[b]	72.7	94.1	0.2[e]	1.0	–	46.9[h]	67.2	104.1	–	1.1
Afghanistan	34.7	657	27.1[a]	28.2[b]	–	85.7	0.2[e]	–	16.8[g]	19.2	29.6[i]	–	0.2[k]	–

Notes: data are sorted with respect to mean years of schooling in 2014.

Some figures are not for the exact same year mentioned in the table. Details are given below.

[a] Afghanistan 1974; Bangladesh 1970; Philippines 1976; Sri Lanka 1977; Thailand 1973; Vietnam 1977.

[b] Afghanistan 1993; China 1987; India 1990; Lao PDR 1988; Malaysia 1994; Mongolia 1987; Nepal 1984; Singapore 1990 (from data.gov.sg); Sri Lanka 1986. Earliest available data for Cambodia are for 1997 and the value of NER at primary level was 83.12.

[c] Bangladesh 2005; China 1997; Indonesia 2001; Pakistan 2002; Philippines 2001; Sri Lanka 2001; Thailand 2006; Singapore (from data.gov.sg).

[d] Bangladesh 2010; India 2013; Philippines 2015; Singapore 2016; Vietnam 2013.

[e] Afghanistan 1974; Bangladesh 1970; China 1976; Japan 1972; Malaysia 1970; Mongolia 1975; Nepal 1970; Singapore 1970; Sri Lanka 1970; Thailand 1973; Vietnam 1976. Data collected from Econstat for Cambodia, China, Lao PDR, Malaysia, Mongolia, Pakistan, Singapore, Sri Lanka and Vietnam.

[f] Bangladesh 2010; China 2007; India 2013; Japan 2013; Korea Republic 2013; Malaysia 2006; Myanmar 2010; Philippines 2013. Data collected from Econstat for Cambodia, China and Malaysia). Data for Singapore collected from data.gov.sg.

[g] Afghanistan 1974; Bangladesh 1976; India 1971; Indonesia 1972; Japan 1971; Korea, Rep. 1971; Malaysia 1974; Mongolia 1978; Myanmar 1971; Thailand 1975; Vietnam 1979.

[h] Bangladesh 1981; Cambodia 1994; China 1989; India 1987; Mongolia 1983; Nepal 1988; Thailand 1981.

[i] Afghanistan 1993; Bangladesh 2005; Cambodia 2001; China 2004; Indonesia 2001; Pakistan 2005; Philippines 2001; Sri Lanka 2001.

[j] Bangladesh 2015; Japan 2012; Mongolia 2015; Philippines 2013; Thailand 2015.

[k] Afghanistan 1974; Bangladesh 1976; Malaysia 1974; Singapore 1975 (collected from Econstat).

[l] Bangladesh 2015; Japan 2012; Myanmar 2010; Philippines 2013; Thailand 2015.

Region

East Asia: Japan, Republic of Korea, Mongolia, and China.

Southeast Asia: Singapore, Malaysia, Philippines, Thailand, Vietnam, Indonesia, Cambodia, Myanmar, and Lao PDR.

South Asia: Sri Lanka, India, Bangladesh, Pakistan, Nepal, and Afghanistan.

Regional averages are calculated by applying the population share.

Source: Author, based on data from the World Development Indicators Database.

Table 2: Secondary and tertiary education

	Secondary school enrolment (gross)				Secondary school enrolment (gross), gender parity index (GPI)		Lower secondary completion rate				Tertiary school enrolment (gross)				Tertiary School enrolment (gross), gender parity Index (GPI)		Mean years of schooling (primary or higher)			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)
Country	1971	1985	2000	2014	1971	2014	1971	1985	2000	2014	1971	1985	2000	2014	1971	2014	1971	1985	2000	2014
East Asia	**42.0**	**38.7**	**65.6**	**95.1**	**0.7**	**1.0**	**82.4**	**57.6**	**79.7**	**98.3**	**1.8**	**5.6**	**13.4**	**43.2**	**0.5**	**1.1**	–	**4.6**	**6.7**	**7.6**
Japan	86.5	94.9	101.8	101.7	1.0	1.0	98.5	99.4	103.2[i]	–	17.6	29.0	48.7	63.4	0.4	0.9	–	9.6	10.7	12.5
Republic of Korea	39.7	90.6	98.4	98.5	0.6	1.0	44.4	96.5	98.2	100.1	7.2	31.6	78.4	94.2	0.3	0.8	5.4	9.4	10.7	11.6[s]
Mongolia	64.0	87.5[b]	65.1	91.5[d]	1.0[e]	1.0[f]	52.7[g]	84.6[h]	62.7	106.6[j]	21.0	23.8	30.2	64.3	–	1.4	–	7.7[q]	9.0	10.0[s]
China	38.0	31.4	61.0	94.3	0.7[e]	1.0	–	52.3[h]	76.9[i]	98.2	0.1[k]	2.5	7.7	39.4	0.5[o]	1.2	–	4.0[q]	6.2	7.0[s]
Southeast Asia	**26.3**	**39.5**	**57.7**	**83.9**	**0.7**	**1.0**	**13.9**	**40.3**	**66.3**	**83.9**	**5.0**	**10.4**	**18.8**	**32.3**	**0.6**	**1.2**	**3.4**	**4.2**	**6.8**	**7.9**
Singapore	–	95.1[b]	98.7	108.1	–	1.0	–	–	–	–	6.5[k]	23.5	45.3[m]	86.6	0.4[o]	1.1	–	3.9[q]	10.5[r]	11.3
Malaysia	35.2	53.7	66.2	77.7	0.7	1.1	–	90.8[h]	87.7	84.7	3.9[k]	5.6	25.7	27.6	0.6[o]	1.5	4.0	4.0[q]	8.6	10.1[s]
Philippines	47.5	67.2	74.7[c]	88.4[d]	–	1.1[f]	–	66.0[h]	67.7[i]	82.2[j]	17.6	27.8	30.3[m]	35.8	1.3	1.3	5.0	6.3	7.7	9.1[s]
Thailand	18.1	30.6	62.8[c]	127.7	0.7	1.0	23.0[g]	–	81.3[i]	84.0[j]	2.9	20.7	34.9	52.5	0.7[o]	1.3	2.8	3.7[q]	7.2[r]	8.3
Vietnam	35.9	34.8[b]	57.8[c]	78.4[d]	1.0[e]	–	11.4[g]	–	68.3	93.8	1.7[k]	1.9[l]	9.4	30.5	0.7[o]	1.0	6.3	6.3[q]	4.0[r]	7.8[s]
Indonesia	18.6	34.3	55.1	82.5	0.6	1.0	12.9	38.8	69.1[i]	91.2[j]	2.9	6.1	14.9	31.1	0.4[o]	1.1	2.3	3.1[q]	7.8	7.8
Cambodia	8.4	27.8[b]	17.2	45.1[d]	0.4	0.9[f]	–	–	17.4[i]	45.1	1.4	0.3	2.5	13.1[n]	0.3[o]	0.8[p]	–	5.2	5.7	5.8[s]
Myanmar	20.1	23.1	36.3	51.3	0.6	1.0	12.9	–	32.6	48.7	1.7	4.8	10.6	13.5[n]	0.6[o]	1.2[p]	1.4	2.7[q]	3.1	4.7
Lao PDR	3.7	21.3	34.2	57.2	0.4	0.9	1.4	22.0[h]	35.3	53.9	0.2	1.5	2.7	17.3	0.2	0.9	–	2.5	3.9	4.6
South Asia	**22.7**	**33.5**	**42.5**	**69.5**	**0.4**	**1.0**	**20.3**	**42.0**	**50.8**	**79.0**	**4.2**	**5.3**	**8.1**	**22.2**	**0.3**	**1.0**	**1.3**	**2.1**	**4.2**	**5.3**
Sri Lanka	48.3	61.1	76.5[c]	99.7[d]	1.1[e]	1.0[f]	37.6	73.7	89.4[i]	96.2	1.1	3.7	4.8	19.3	0.7	1.3	4.7	5.7[q]	10.5[r]	10.9
India	24.0	37.4[b]	45.1	74.3	0.4	1.0	–	42.4[h]	53.5[i]	85.6	5.0	5.8	9.5	25.5	0.3	1.0	1.3	2.2[q]	4.4	5.4[s]
Bangladesh	20.5[a]	20.1	48.1	63.5[d]	0.3[e]	1.1[f]	–	–	53.2	67.6[j]	2.1[k]	5.0	5.4	13.4	0.1[o]	0.7	1.1	2.1[q]	4.2[r]	5.2
Pakistan	16.7	19.6	22.9[c]	41.6	0.3	0.8	–	–	33.4[i]	50.5	2.3	3.0[l]	2.7[m]	10.4	0.3	1.1	1.6	1.7	2.7[r]	5.2
Nepal	11.1[a]	26.8	36.0	66.9	0.2[e]	1.1	–	31.6[h]	42.7	82.8	1.6[k]	3.4	4.2	15.8	0.3[o]	1.0[p]	0.2	0.6[q]	2.4	3.3[s]
Afghanistan	9.4	13.5	13.0[c]	55.7	0.1	0.6	9.7[g]	13.6	17.0[i]	–	0.9	2.2[l]	1.3[m]	8.7	0.2[o]	0.3	0.7	0.8[q]	2.1	3.1[s]

Notes: data are sorted with respect to mean years of schooling in 2014.

Some figures are not for the exact same year mentioned in the table. Details are given below.

[a] Bangladesh 1973; Nepal 1972; Vietnam 1976.

[b] Cambodia 1991; India 1986; Mongolia 1986; Singapore 1990 (from data.gov.sg); Vietnam 1990.

[c] Afghanistan 2001; Pakistan 2003; Philippines 2001; Sri Lanka 1995; Thailand 2001; Vietnam 1998; Singapore (from data.gov.sg).

[d] Bangladesh 2015; Cambodia 2008; Mongolia 2015; Philippines 2013; Sri Lanka 2013; Singapore (from data.gov.sg); Vietnam (data for 2008 from London 2011).

[e] Bangladesh 1973; China 1976; Mongolia 1974; Nepal 1972; Sri Lanka 1976; Vietnam 1976.

[f] Bangladesh 2015; Cambodia 2008; Mongolia 2015; Philippines 2013; Sri Lanka 2013; Singapore (from data.gov.sg).

[g] Afghanistan 1973; Mongolia 1974; Thailand 1975; Vietnam 1979.

[h] China 1990; India 1987; Lao PDR 1988; Malaysia 1998; Mongolia 1980; Nepal 1988; Philippines 1990.

[i] Afghanistan 2005; Cambodia 1997; China 1997; India 2002; Indonesia 2002; Japan 1994; Pakistan 2004; Philippines 2001; Sri Lanka 2001; Thailand 2007.

[j] Bangladesh 2013; Indonesia 2015; Mongolia 2010; Philippines 2014; Thailand 2015.

[k] Bangladesh 1970; China 1970; Malaysia 1979; Nepal 1974; Singapore 1970; Vietnam 1976.

[l] Afghanistan 1986; Pakistan 1986; Vietnam 1986; Singapore (from data.gov.sg).

[m] Afghanistan 2003; Myanmar 2001; Pakistan 2003; Philippines 2001; Sri Lanka 1994; Singapore (from data.gov.sg).

[n] Cambodia 2015; Myanmar 2012; Singapore (from data.gov.sg).

[o] Afghanistan 1972; Bangladesh 1972; Cambodia 1972; China 1974; Indonesia 1972; Malaysia 1979; Myanmar 1972; Nepal 1976; Singapore 1970; Thailand 1976; Vietnam 1976.

[p] Cambodia 2015; Myanmar 2012; Nepal 2015; Singapore (from data.gov.sg).

[q] Afghanistan 1979; Bangladesh 1981; China 1982; India 1981; Indonesia 1980; Malaysia 1980; Mongolia 1990; Myanmar 1983; Nepal 1981; Singapore 1980; Sri Lanka 1981; Thailand 1980; Vietnam 1979. Data collected from the Human Development Report (UNHDR) for Cambodia, Japan, Lao PDR, and Mongolia.

[r] Bangladesh 2001; Pakistan 2005; Singapore 2005; Sri Lanka 2001; Thailand 2004; Vietnam 1989. Data collected from the Human Development Report (UNHDR) for Afghanistan, Cambodia, Japan, Lao PDR, Myanmar, and Nepal.

[s] Afghanistan 2012; Cambodia 2012; China 2010; India 2011; Republic of Korea 2010; Malaysia 2010; Mongolia 2010; Nepal 2011; Philippines 2013; Vietnam: 2009. Data collected from the Human Development Report (UNHDR) for Afghanistan, Bangladesh, Cambodia, Japan, and Lao PDR.

Region

East Asia: Japan, Republic of Korea, Mongolia and China.

Southeast Asia: Singapore, Malaysia, Philippines, Thailand, Vietnam, Indonesia, Cambodia, Myanmar, and Lao PDR.

South Asia: Sri Lanka, India, Bangladesh, Pakistan, Nepal, and Afghanistan.

Regional averages are calculated by applying the population share.

Source: Author, based on data from the World Development Indicators Database and the UNESCO Institute for Statistics (Education Dataset).

By the end of the 1960s (1971) most countries in East Asia, the richest sub-region, had already achieved near-universal primary education enrolment (>95 per cent). China is the only country in the sub-region where net primary enrolment rose to 94 per cent by 1987 then regressed to 89 per cent (2014), also pulling down the sub-regional average.

In South Asia, the poorest Asian sub-region and demographically the largest, primary enrolment rates in 1971 were among the lowest in Asia, amounting to only 60 per cent, 50 per cent, or even less.[5] But these rates have improved significantly in all countries of the sub-region over the past 50 years. Bangladesh, India, and Nepal are approaching near-universal primary enrolment now (2014). Sri Lanka is a remarkable positive outlier in the sub-region, having achieved a net primary enrolment rate of over 78 per cent by 1977 and near-universal primary enrolment by 1985. Afghanistan and Pakistan are still a long way away from this milestone, though enrolment rates have improved significantly in these countries also.

Primary enrolment trends in the countries of Southeast Asia lie between the trends in East and South Asia, but there are important variations around this general pattern. Near-universal primary enrolment had already been achieved by 1971 in Singapore, a relatively rich country, and soon thereafter in countries like the Philippines (1976) and Vietnam (1977), which had much lower levels of per capita income. But 1971 enrolment rates were quite low in Lao PDR and Myanmar.[6] In Malaysia, Thailand, and Indonesia the rates were respectively 87 per cent, 76 per cent, and 70 per cent. Almost all the countries in the sub-region have achieved near-universal net primary enrolment now (2014). The exception is Indonesia, where the net primary enrolment rate has regressed to 89 per cent after peaking at 98 per cent in 1985.

To assess the robustness of these enrolment trends it is useful to check the trends in primary completion rates,[7] since dropouts can be quite significant, especially at lower levels of per capita income. In some countries the initial completion rate was very low but increased rapidly over the next 50 years. In other countries the completion rate was already high in 1971. In China the completion rate in 2014 was lower than in 1987, similar to the regression in primary enrolment rates noted earlier. But it has recovered somewhat after bottoming out at 84 per cent in 2004. A possible explanation for this is discussed in the China country note in Appendix 1. In Indonesia, another country where the current primary enrolment rate had regressed, the primary completion rate has now gone up to over 100 per cent after having regressed slightly in 2001.

There was a large deficit in the secondary gross enrolment rate compared to the primary enrolment rate in 1971 in all the sub-regions of Asia (Table 2).[8] By 2014 East Asia had achieved near-universal secondary school enrolment at 94 per cent. Secondary enrolment also increased very significantly by 2014 in Southeast Asia and South Asia at 85 per cent and 70 per cent respectively. But there are large variations around these sub-regional averages. In Southeast Asia it ranges from only 45

[5] Afghanistan, for instance, had a net enrolment rate of only 27 per cent reported in 1974.

[6] No estimate is available for Cambodia until 2000.

[7] The primary completion rate is the ratio of the number of students at the end of the final primary year, net of students repeating the year, to the size of the corresponding age cohort. It does not net out students older than the relevant age cohort. The ratio can therefore exceed 100 per cent

[8] This is despite the fact that we are forced to compare gross enrolment rates at the secondary level with net enrolment rates at the primary level, that are by definition lower than gross rates. Unfortunately net enrolment data comparable across countries are not available at the secondary or tertiary levels. Since the numerator in gross enrolment rates does not correct for enrolment of students older than the age cohort used for the denominator, gross enrolment rates can sometimes exceed 100 per cent.

per cent in Cambodia to 128 per cent in Thailand. In South Asia it ranges from 42 per cent in Pakistan to 100 per cent in Sri Lanka.

Completion of basic education—six years of primary education plus two years of lower secondary education—is an important milestone since many countries have mandated compulsory basic education of eight years. Streaming of students between 'academic' education at higher secondary and tertiary levels and technical and vocational education (TVE) also begins at this stage, setting the boundaries of their life chances for the future. East Asia had achieved a near-universal lower secondary completion rate at 98 per cent by 2014. The countries of Southeast Asia and South Asia are not too far behind at 84 per cent and 79 per cent, respectively. But again there are large variations around these averages. It ranges from 45 per cent in Cambodia to 100 per cent in Singapore in Southeast Asia. In South Asia it ranges from only 17 per cent in Afghanistan to 96 per cent in Sri Lanka.

Barring a couple of countries that have tended to fall behind, the general trend of access to primary and secondary education in Asia is one of convergence. Starting with large deficits compared to East Asia, the countries of Southeast Asia and South Asia have been catching up. The pattern in tertiary-level education is different. Starting from negligible levels in 1971, tertiary enrolment in East Asia went up to 41 per cent by 2014. Southeast Asia and South Asia had somewhat higher access to tertiary education initially, with enrolment rates of around 4–5 per cent, but were then left behind by East Asia. The average tertiary enrolment rates in Southeast Asia and South Asia are 32 per cent and 22 per cent, respectively.

As usual, there are large variations around these sub-regional averages. In East Asia, Korea has achieved near-universal tertiary enrolment. In Southeast Asia, Singapore has a very high tertiary enrolment rate of 87 per cent. Philippines already had a remarkably high tertiary enrolment rate of 18 per cent in 1971, by far the highest in all of Asia at the time, and this has risen further to 36 per cent. Cambodia and Myanmar, on the other hand, have tertiary enrolment rates of only 13 per cent. In South Asia India had a tertiary enrolment rate of 5 per cent in 1971 that has now risen to 26 per cent (on this see the India country note in Appendix 1). At the other end of the scale, Pakistan and Afghanistan have achieved tertiary enrolment rates of only 10 per cent and 9 per cent respectively, which is the lowest in all of Asia.

Regarding gender disparity, there was significant disparity in primary enrolment rates and completion rates in the initial period in many countries, especially in South Asia. However, these had been largely eliminated by 2014 (Table 1). The picture is very similar for gender disparity in secondary and tertiary enrolment rates (Table 2). The exception is Afghanistan. It had a high level of gender disparity in 1974 in primary enrolment and completion rates. More recent data are not available to assess how this has changed, but estimates available at the secondary and tertiary levels indicate that significant gender disparity persists (see also the Afghanistan country note in Appendix 1). Since Afghanistan is a post-conflict country where there is still a high level of violence, the patchy availability of data is not surprising.

All the indicators discussed so far refer to access. Nothing has been said so far regarding the quality of education, which is much harder to assess. Two sets of standardized global tests are conducted by the OECD: the Programme for International Students Assessment (PISA) and the Trends in International Mathematics and Science Study (TIMMS). These enable some limited comparisons of education quality (OECD 2018). Unfortunately, only six Asian countries participated in the latest 2015 PISA test for mathematics, science and reading (China, Korea, Indonesia, Singapore, Thailand, and Vietnam). Malaysia did participate but was not rated because it did not meet the required testing standards. India participated in the 2009 test, performed very poorly, being ranked near the bottom, then pulled out of the tests. The very limited country coverage of TIMMS or

PISA makes it very difficult to compare the quality of education across Asia as there are no alternative sources for making such cross-country quality comparisons.

Among those Asian countries that did participate in PISA, Singapore was ranked first among 77 participating countries in mathematics, science, and reading. Korea was another high performer, ranked seventh, eleventh and seventh in mathematics, science, and reading respectively. China was ranked sixth in mathematics, tenth in science, and twenty-seventh in reading, but it has been pointed out that it was represented by the provinces of Jiangsu, Guangdong, Beijing, and Shanghai. Theses provinces are more advanced than most other Chinese provinces and therefore not representative of China as a whole. Vietnam also performed above average, being ranked at twenty-second, eighth, and thirty-second, respectively, for the three tests. Thailand performed below average, with ranks of fifty-fifth, fifty-sixth, and fifty-ninth. Indonesia's performance was near the bottom, ranking at sixty-fifth, sixty-fourth, and sixty-sixth in mathematics, science, and reading, respectively.

Not too much can be gleaned from the results of just six participating countries about the quality of education in Asia. However, the non-participation in international quality tests by most Asian countries may itself indicate that while they have made tremendous progress in expanding the access to education, especially at the primary and secondary levels, the quality of education remains quite poor except in a few high-performing countries. This is also confirmed by a large number of individual country studies in the available literature.

2.2 Key experiences of selected countries

The education experiences of individual countries are summarized in Appendix 1. Here, some key experiences of the best and worst performers and the largest countries have been pulled out to give some context to the quantitative picture presented above.

Four countries stand out for their strong performance in education: Korea, Singapore, Vietnam, and Sri Lanka.

- Korea's education policy is marked by its gradual shift of priorities from primary to secondary to tertiary education in tune with the country's changing development strategy. Another notable feature is its focus on cost efficiency, based on high pupil:teacher ratios, control of teacher salaries, etc. Despite Korea's high public education expenditure relative to GDP, public resource constraints and rising costs have led to increasing dependence on private provision and private spending. That has led to rising inequality in access to higher secondary and higher education.
- The special feature of education policy in Singapore is the public financing and provision of education as a merit good all the way up to tertiary education, and the emphasis on quality through teacher excellence. It is possibly the only country where teacher salaries are comparable to those of doctors, lawyers, and engineers.
- Vietnam's experience is remarkable. Education development could not proceed till the end of the war in 1975, but since then it has made very rapid progress, led by the state. Vietnam is already recording better than average results in PISA quality tests. However, despite the rapid growth of public spending, it has not kept pace with the spread of education. The consequent increasing dependence on private spending has led to increasing disparity in access to education between rich and poor regions, rural and urban areas, and rich and poor households.

- Sri Lanka stands out because despite its low per capita income, its education indicators are comparable to the best in Asia. Its outstanding policy feature is the public financing of education as a merit good all the way up to university, as in Singapore.

The weakest performers include Afghanistan, Cambodia, Lao PDR, Pakistan, and Myanmar.

- The education system in Afghanistan collapsed during the 1980s in the wake of the civil war. The worst period was that of Taleban rule during 1996–2001, when misogyny peaked. This is still evident in the gender disparity reported in Tables 1 and 2. Supported by external donors, the present government is attempting to rebuild the education system, with public provision of free, compulsory education for eight years.
- Cambodia and Lao PDR are both post-conflict countries, like Vietnam, where education development only started in the 1980s. Shortage of public resources is a major constraint, making both countries heavily dependent on external donors and private spending. This has in turn led to rising inequality in access to education. The high dropout rate, a corollary of child labour requirements during the peak agricultural season, is another major challenge.
- Myanmar's education performance is comparable to that of Cambodia and Lao PDR. Though it is not a post-conflict society, for over half a century it was ruled by a military dictatorship for whom education was evidently a low priority.
- Pakistan has also been ruled for many years by a military dictatorship, which effectively retains power as the deep state even during periods of civilian rule, as now. Education has evidently been a low priority, Pakistan's education performance is the worst in Asia after Afghanistan. It remains to be seen whether the just-elected government can deliver on its promise to change this situation.

China, India, and Indonesia are the three largest countries, and dominate the Asian profile.

- China's education policy since 1977 has been based on the three pillars of decentralization, market orientation, and mass higher education. But decentralization, combined with the 'private responsibility' system in agriculture, led to the collapse of the primary education system and eventually a decline in primary enrolment (Table 1). This is because the village government responsible for delivering primary education no longer had the resources to do so after the reforms. Primary education is now recovering after it has been reassigned as the responsibility of the county government. The combination of decentralization and market orientation—that is, private provision and private spending—has also led to growing disparity between rich and poor provinces, rural and urban areas, and between rich and poor households. Finally, to combine mass expansion of education up to higher education with the high quality standards required to be globally competitive, China has ring-fenced an education system for especially meritorious students[9] from 'key' schools to 100 higher education institutions (Project 211) and a few world-class universities (Project 985). This has created another dimension of disparity between the elite students and the rest.
- A striking feature of India's education policy for decades has been its elitist bias, the high priority given to higher education instead of universal primary and secondary education. This situation has improved following the Right to Education Act of 2009, which mandates universal free education for eight years. However, the focus on expanding quantity has led to severe neglect of quality. Annual surveys show that learning outcomes

[9] Though reports suggest that children of rich parents also manage to slip inside the fence.

are abysmally low and have declined over time. Different experiments have been tried, such as incentivizing teachers through performance-linked pay, remedial teaching, and more to improve learning outcomes. But there is little evidence that the promising lessons from such experiments are being reflected in reform of pedagogic techniques or school governance.

- Education in Indonesia witnessed a massive expansion from 1975 to 1987, aimed at providing universal primary education, followed by a wave of decentralization reforms since 2000 that empowered the local bureaucracy to deliver primary education. In another remarkable move, the constitution was amended in 2002 to earmark 20 per cent of government spending for education. This has greatly improved access to education, especially among poor children. However, quality has been a casualty, stemming largely from poor teacher quality and the incapacity of the local bureaucracy. They are the key players responsible for delivering basic education following decentralization. Inequality in access to secondary and tertiary education, accentuated by differences of gender, ethnicity, or location is the other major challenge. The jury is still out on the effectiveness of a higher education law enacted in 2012 to address this issue.

2.3 The spread of education: stylized facts and major challenges

In summary, the spread of education in Asia during the past 50 years has been dramatic. It has been led by post-colonial developmental states as part of their strategies of development.[10] Initial conditions varied, as did the motives and capacities of the governments, and so did the pace and systems of education development. However, the similarities in patterns of change are more striking than the differences. The principal goal was to maximize the access to education, especially primary education. Barring Afghanistan and Pakistan, all others have now achieved this goal. Access to secondary education has also seen vast increases throughout the region. Many countries, especially in East Asia, have achieved near-universal access to secondary education, while a few others have lagged behind. Many countries of the region have also achieved very significant expansion of tertiary education.[11]

An important aspect of the Asian experience is the tension between the resource requirements of massive expansion of education and actual resource availability. Several countries significantly raised the share of education in government expenditure, but usually this was not enough. Hence, most countries have seen rapid growth in private education. The two notable exceptions are Singapore and Sri Lanka, which have publicly provided education from primary to tertiary levels. Private provision, combined with biases in government spending in some cases, have generated a pattern of nested disparities in the access to education: disparity between more and less prosperous regions, disparity between rural and urban areas within each region, and disparity between rich and poor households within rural and urban areas.[12] Disparity also arises in the streaming between academic education and TVE from the upper secondary level onwards. Adopted in all countries to align students' capacities to workforce requirements, streaming has reified the socioeconomic divide between lower-income working-class households and middle-class or business-owning

[10] That includes Thailand, which was never formally colonized but was very much a part of the colonial system.

[11] There are obviously upper limits to these quantitative indicators. Net enrolment rates cannot exceed 100 per cent. Hence, once the leading countries approach these limits the lagging countries gradually catch up. There is a tendency towards convergence.

[12] Several studies confirm this not just for the countries discussed in Appendix 1, but also for other major Asian countries. See, among others, Govt. of Malaysia (2013); Sagarik (2014); Saw (2015); UNESCO (2013).

households. These multiple dimensions of disparity in access to education are arguably the most important challenge facing education in Asia today.

Another major challenge is the quality of education. Asian governments have mostly focused on quantitative expansion at the expense of quality. Several countries are now beginning to address the problem of poor quality. It has been recognized that private provision is not a magic solution to the problem of public resource constraints, since quality is usually compromised in private provision, except in the most expensive institutions.

Finally, many Asian governments recognize that the content of education needs to be completely overhauled to meet the requirements of the twenty-first century, where global competition will be driven by knowledge-based societies. A few countries like Singapore, Korea, China, and Vietnam have begun to seriously address this challenge. In most others the transition to a knowledge-based society remains an aspiration.

3 The spread of health services

3.1 The observed trends across countries

The central fact about the evolution of Asia's health profile during the past 50 years is its remarkable improvement. There were differences among individual countries in their initial conditions and the pace of change has varied. But large improvements in health conditions have been registered in *all* countries of the region.

To track these changes we have used a set of demographic indicators (Table 3) and a set of nutrition and anthropometric indicators (Table 4).[13] Life expectancy is taken as the principal indicator because it is a summary reflection of not just health conditions such as morbidity and access to health services, but also underlying factors that determine these indicators: income levels and nutrition, education and literacy, access to sanitation and potable water, the quality of shelter and housing, inequality and identity biases, public policy, and so on. Sen (1998b; see also Ahlburg and Flint 2001) has in fact suggested that life expectancy is the true measure of a country's economic success (Sen 1998b). Life expectancy data are supplemented by data on infant mortality rates (IMR) and the maternal mortality rates (MMR). The anthropometric indicators include measures of the incidence of undernutrition, stunting, and wasting.

As in education so also in health, East Asia has achieved the greatest progress, followed by Southeast Asia, followed by South Asia. Average life expectancy has risen to 76 years in East Asia, 71 years in Southeast Asia, and 69 years in South Asia since the early 1970s (Table 3). The IMR went down by 90 per cent in East Asia, 76 per cent in Southeast Asia, and 74 per cent in South Asia. The MMR went down by 72 per cent in East Asia, 67 per cent in Southeast Asia, and 70 per cent in South Asia. Such large improvements in health indicators over such a vast geography in five decades is probably unprecedented in human history. There are of course large variations around these sub-regional averages and some outliers. Life expectancy, for instance, ranges from 63 years in Afghanistan to 84 years in Japan, a gap of 33 per cent. However, there are technical

[13] Comparisons across sub-regions or individual countries need to be interpreted with caution because data are not always available for all countries for the indicated benchmark years. In such cases the relevant data for the nearest available year have been used. Details are given in the notes to Tables 3 and 4

limits to the achievable standards of health.[14] Hence lagging countries are gradually catching up with the leading countries as the latter asymptotically approach these limits.

[14] For instance, the IMR or MMR cannot decline below zero. Longevity is also bounded by the present state of medical knowledge even under optimal living conditions.

Table 3: Health Indicators

	Population (millions)	Per capita GNI (at current prices in US dollars)	Life expectancy at birth, total (years)				Gender parity index (GPI) of life expectancy at birth (years)				Infant mortality rate (per 1,000 live births)				Maternal mortality rate (modelled estimate, per 100,000 live births)		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
	2016	2014	1970	1985	2000	2015	1970	1985	2000	2015	1970	1985	2000	2015	1990	2000	2014
East Asia	**1,559.9**	**10,827**	**60.21**	**69.18**	**72.84**	**76.93**	**1.07**	**1.05**	**1.05**	**1.05**	**74.13**	**38.78**	**27.18**	**8.42**	**87.92**	**52.91**	**25.72**
Japan	127.0	39,195	72.0	77.7	81.1	83.8	1.08	1.08	1.09	1.08	13.4	5.5	3.3	2.0	14	10	6
Korea, Rep.	51.2	28,099	62.0	68.5	75.8	82.2	1.12	1.13	1.10	1.08	48.0	20.7	6.4	3.0	21	16	12
China	1,378.7	7,588	59.1	68.5	72.0	76.1	1.06	1.05	1.05	1.04	80.6	42.4	30.1	9.2	97	58	28
Mongolia	3.0	3,842	55.3	58.4	62.9	69.1	1.09	1.08	1.10	1.13	119[a]	94.6	48.6	16.1	186	161	46
Southeast Asia	**638.2**	**4,034**	**56.73**	**63.38**	**67.68**	**70.84**	**1.08**	**1.07**	**1.08**	**1.08**	**88.72**	**60.34**	**35.94**	**21.67**	**307.87**	**189.21**	**107.19**
Singapore	5.6	55,107	68.3	73.9	78.0	82.6	1.10	1.07	1.05	1.06	22	8.8	3.0	2.1	12	18	10
Vietnam	92.7	1,916	59.7	68.9	73.1	75.9	1.19	1.14	1.14	1.13	54.3	42.3	23.6	17.6	139	81	54
Malaysia	31.2	10,814	64.5	69.5	72.8	75.2	1.04	1.05	1.06	1.06	42.2	18.7	8.7	7.0	79	58	41
Thailand	68.9	5,633	59.4	67.9	70.6	75.1	1.09	1.09	1.11	1.11	71.6	38.7	19.6	10.8	40	25	21
Indonesia	261.1	3,484	54.5	61.5	66.2	69.0	1.04	1.04	1.05	1.06	112.7	73.6	41.1	22.9	446	265	133
Philippines	103.3	3,445	60.8	63.8	67.2	69.0	1.06	1.08	1.10	1.10	55.5	49.8	30.0	22.1	152	124	117
Cambodia	15.8	1,032	41.6	50.4	58.4	68.5	1.12	1.09	1.08	1.06	177.4[a]	86.6	79.6	27.5	1,020	484	167
Myanmar	52.9	1,272	51.0	56.9	62.1	66.4	1.10	1.08	1.07	1.07	119.3	89.4	65.6	41.4	453	308	184
Lao PDR	6.8	1,929	46.2	51.0	58.9	66.3	1.06	1.05	1.05	1.05	141.0[a]	123.0	82.5	50.4	905	546	213
South Asia	**1,765.2**	**1,500**	**48.13**	**55.99**	**62.82**	**68.48**	**0.98**	**1.01**	**1.03**	**1.04**	**144.11**	**103.93**	**68.45**	**38.75**	**558.80**	**382.17**	**186.51**
Sri Lanka	21.2	3,760	64.3	69.2	71.1	75.0	1.06	1.09	1.11	1.09	54.4	25.2	14.1	8.3	75	57	31
Bangladesh	163.0	1,158	47.5	55.6	65.3	72.2	1.00	1.01	1.01	1.05	149.2	117.9	64.0	29.7	569	399	188
Nepal	29.0	709	40.5	50.1	62.3	69.9	1.01	1.02	1.04	1.05	176.8	119.5	60.3	29.6	901	548	275
India	1,324.2	1,557	47.7	55.8	62.6	68.3	0.98	1.01	1.03	1.05	142.6	100.5	66.6	36.2	556	374	181
Pakistan	193.2	1,418	52.9	58.6	62.8	66.3	1.00	1.02	1.03	1.03	144.2	115.3	88.1	65.7	431	306	184
Afghanistan	34.7	657	36.7	45.6	55.5	63.3	1.04	1.04	1.04	1.04	204.8	141.3	90.8	54.9	1,340	1,100	425

Notes: data are sorted with respect to life expectancy at birth in 2015.

[a] Mortality rate, infant: figures for some countries are other than 1970. Cambodia: 1975, Lao PDR: 1978, Mongolia: 1978.

Source: Author, based on the World Development Indicators.

Table 4: Nutrition indicators

	Population (millions)	Per capita GNI (at current prices in US dollars)	Prevalence of undernourishment (percentage of population)				Prevalence of stunting, height for age (percentage of children under five)				Prevalence of stunting, height for age, female percentage of children under five)	Prevalence of wasting, weight for height (percentage of children under five)			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
	2016	2014	1991	2000	2014	2015	1971	1985	2000	2014	2014	1971	1985	1995	2014
East Asia	**1,559.9**	**10,827**	**23.24**	**14.76**	**9.07**	**9.17**		**35.77**	**17.28**	**8.99**	**8.51**		**4.50**	**4.99**	**2.25**
Japan	127.0	39,195	–	2.5	2.5[a]	–		8.3[c]	–	7.1[e]	6.5[f]		1.2[h]	–	2.3[j]
Korea, Rep.	51.2	28,099	5	5	5	5			2.5[d]	2.5[e]	2.7[f]		–	–	0.9[j]
China	1,378.7	7,588	23.9	16.2	9.8	9.3		38.3[c]	17.8	9.4[e]	8.9[f]		4.8[h]	5.0	2.3[j]
Mongolia	3.0	3,842	29.9	38.2	21.5	20.5			29.8	10.8[e]	14.7[f]		–	2.3[i]	1.0[j]
Southeast Asia	**638.2**	**4,034**	**29.62**	**22.61**	**10.06**	**9.74**	**57.7**	**47.9**	**38.0**	**30.2**	**30.1**	**9.8**	**8.5**	**8.4**	**9.7**
Singapore	5.6	55,107					10.7[b]		4.4			7.7[g]	–	3.6	–
Vietnam	92.7	1,916	45.6	28.1	11.8	11		64.1[c]	43.4	23.3[e]	23.2[f]		11.1[h]	13.5[i]	4.4
Malaysia	31.2	10,814	5.1	5	5	5			20.7[d]	17.2[e]			–	15.3[i]	–
Thailand	68.9	5,633	34.6	19	7.9	7.4		25.3[c]	18.1[d]	16.3[e]	16.3[f]		6.0[h]	6.7	6.7[j]
Indonesia	261.1	3,484	19.7	17.2	7.6	7.6			42.4	36.4[e]	35.5[f]		–	5.5	13.5[j]
Philippines	103.3	3,445	26.3	21.3	13.9	13.5	60.2[b]	44.7[c]	38.3[d]	30.3[e]	29.1[f]	9.9[g]	5.7[h]	9.1[i]	7.9[j]
Cambodia	15.8	1,032	32.1	32	15	14.2			49.2	33.5	32.6		–	13.4[i]	9.2
Myanmar	52.9	1,272	62.6	52.4	14.9	14.2		55.1[c]	40.8	35.1[e]	33.4[f]		12.9[h]	9.4[i]	7.9[j]
Lao PDR	6.8	1,929	42.8	39.2	18.9	18.5			48.2	43.8[e]	42.1[f]		–	12.3[i]	6.4[j]
South Asia	**1,765.2**	**1,500**	**24.88**	**18.95**	**16.36**	**16.24**	**74.2**	**65.8**	**49.7**	**39.3**	**37.9**	**19.5**	**21.1**	**18.5**	**14.5**
Sri Lanka	21.2	3,760	30.6	29.9	22.9	22	50.4[b]	31.2[c]	18.4	14.7[e]	14.6[f]	15.9[g]	13.3[h]	15.3	21.4[j]
Bangladesh	163.0	1,158	32.8	23.1	16.9	16.4		70.9[c]	50.8	36.4	35.9		17.3[h]	15.7	14.3
Nepal	29.0	709	22.8	22.2	7.7	7.8	75.0[b]	–	57.1[d]	37.4	39.5[f]	15.2[g]	–	7.5	11.3
India	1,324.2	1,557	23.7	17	15.3	15.2	75.1[b]	66.2[c]	51.0[d]	38.7	37.9	20.3[g]	21.3[h]	19.3[i]	15.1
Pakistan	193.2	1,418	25.1	22.4	22	22	70.5[b]	62.5[c]	41.5[d]	45.0[e]	41.7[f]	15.2[g]	24.0[h]	17.2[i]	10.5[j]
Afghanistan	34.7	657	29.5	45.2	26	26.8		–	53.2[d]	59.3[e]	–		–	18.2[i]	–

Notes: data are sorted with respect to life expectancy at birth in 2015.

a: Prevalence of undernourishment, 2014: figure for Japan is from https://knoema.com/atlas/Japan/topics/Health/Nutrition/Prevalence-of-undernourishment.

Prevalence of stunting, height for age

[b] Figures for some countries are other than 1971: India 1977; Nepal 1975; Pakistan 1977; Philippines 1973; Singapore 1974; Sri Lanka 1978.

[c] Figures for some countries are other than 1985: Bangladesh 1986, China 1987, India 1989, Japan 1980, Myanmar 1984, Pakistan 1986, Philippines 1987, Sri Lanka 1987, Thailand 1987, Vietnam 1984.

[d] Figures for some countries are other than 2000: Afghanistan 1997; India 1999; Korea, Rep. 2003; Malaysia 1999; Nepal 2001; Pakistan 2001;

Philippines 1998; Thailand 1995.

[e] Figures for some countries are other than 2014: Afghanistan 2004; China 2010; Indonesia 2013; Japan 2010; Korea, Rep. 2010; Lao PDR 2011; Malaysia 2006; Mongolia 2013; Myanmar 2009; Pakistan 2012; Philippines 2013; Sri Lanka 2012; Thailand 2012; Vietnam 2010.

Prevalence of stunting, height for age, female

[f] Figures for some countries are other than 2014: China 2010; Indonesia 2013; Japan 2010; Korea, Rep. 2010; Lao PDR 2011; Mongolia 2010; Myanmar 2009; Nepal 2011; Pakistan 2012; Philippines 2013; Sri Lanka 2012; Thailand 2012; Vietnam 2010.

Prevalence of wasting, weight for height

[g] Figures for some countries are other than 1971: India 1977; Nepal 1975; Pakistan 1977; Philippines 1973; Singapore 1974; Sri Lanka 1978.

[h] Figures for some countries are other than 1985: Bangladesh 1986; China 1987; India 1989; Japan 1980; Myanmar 1984; Pakistan 1986; Philippines 1987; Sri Lanka 1987; Thailand 1987; Vietnam 1988.

[i] Figures for some countries are other than 2000: Afghanistan 1997; Cambodia 1996; India 1997; Lao PDR 1994; Malaysia 1999; Mongolia 1992; Myanmar 1994; Pakistan 1994; Philippines 1993; Vietnam 1994.

[j] Figures for some countries are other than 2014: China 2010; Indonesia 2013; Japan 2010; Korea; Rep. 2010; Lao PDR 2011; Mongolia 2013; Myanmar 2009; Pakistan 2012; Philippines 2013; Sri Lanka 2012; Thailand 2012.

Source: Author, based on the World Development Indicators.

There is no evidence of gender bias in life expectancy, except in India in the early 1970s. In fact, life expectancy is now higher for women compared to men in *all* countries of the region. However, it is well known that son preference is usually exercised by aborting the births of girls in some countries, and this is reflected in their distorted sex ratios.[15]

Trends in nutrition are more nuanced. There is a clear pattern of large improvements over the period, led by East Asia, followed by Southeast Asia, followed by South Asia, with country-specific variations around these sub-regional averages But disturbingly high levels of undernutrition, stunting, and wasting persist in several countries. That more than 25 per cent of the population of Afghanistan is still undernourished is depressing but not necessarily surprising since the country was a conflict zone for over 25 years, and full normalcy is yet to return. However, several countries of Southeast and South Asia also have incidence of undernourishment of around 15 per cent of the population or more. These include Indonesia, the Philippines, Cambodia, Myanmar, and Lao PDR, in Southeast Asia, and Bangladesh, India, and Pakistan, as well as Afghanistan, in South Asia. The incidence of stunting is even more surprising. In Southeast Asia it is still (2014) around 30 per cent on average and 39 per cent in South Asia.[16]

3.2 Key experiences of selected countries

Experiences of the spread of healthcare in individual countries are summarized in Appendix 2. Here, a few key features of this experience in the best- and worst-performing countries and the largest countries have been pulled out to contextualize the quantitative picture presented above.

Three countries stand out as the best performing in delivery of healthcare services: Singapore, Korea, and Thailand.

- Singapore's health system is outstanding. It has not only delivered health outcomes that are among the best globally, but it has done so cost-effectively. It has been estimated that Singapore's health expenditure amounts to less than 4 per cent of GDP, compared to the OECD average of 9 per cent. The public sector dominates the provision of healthcare, accounting for over 70 per cent of hospital admissions in the country. Though public hospitals are managed like private corporations, 75 per cent of beds are subsidized. The most interesting aspect of Singapore's health system is its financing arrangement through Medisave, carved out of the compulsory provident fund system, Medishield for catastrophic care, Eldershield for the elderly, and Medifund to cover poor families. Costs are kept low through copayments, which minimizes moral hazard, and competition among private insurance providers.
- Apart from the excellent outcome indicators, Korea's health system is best known for its social insurance (SI) system, which covers virtually the whole population. However, there is a disproportionate concentration of health services in urban areas, with service deficits in rural areas, especially in less developed provinces. Also, private providers, who account for 90 per cent of hospital beds, push services, drugs, and diagnostic tests that are not covered by SI, thereby pushing up the burden of out-of-pocket (OOP) spending. Such OOP spending and copayments have deterred low-income patients from seeking inpatient treatment, which is the most expensive, thereby skewing the incidence of SI benefits in favour of the rich. The rising incidence of chronic ailments requiring expensive treatment,

[15] See Sen (1990).

[16] The persisting high proportions of stunting cannot be explained by undernourishment alone, since the incidence of undernourishment is much lower. As Siddique Osmani pointed out in his comment on an earlier draft of this paper, nourishment is only one of several factors that affect stunting including standards of hygiene, morbidity, etc.

a consequence of ageing and increasing incomes, is another challenge testing the viability of the SI system.

- The Thai healthcare system is being increasingly seen as the best-practice model for other developing countries. This is because of the very high standards of health it has achieved at a relatively low level of per capita income, and with remarkably low and declining OOP spending. The unique feature of the Thai healthcare system is its SI system. Thailand has achieved universal health coverage that is entirely SI-financed. Thai SI is a three-tier system in which the government and corporate sector SI premium is financed through payroll taxes, whereas the SI premium for the poor, the informal sector, and others is tax-financed. Patients choose their primary care units and SI provides a comprehensive benefit package for a capped capitation fee plus case-based payment for inpatient and outpatient care. There is almost no copayment and balance billing is also not allowed. OOP spending is now down to 18 per cent of total health spending.

The weakest performers are Afghanistan and Pakistan, as reflected by the indicators in Tables 3 and 4.

- Afghanistan is a post-conflict but still violent country where the conduct of normal life and delivery of essential public services is challenging. The donor-supported civilian government has attempted to deliver an essential package of hospital services (EPHS) in urban areas and a basic package of health services (BPHS) delivered through non-government organizations and contract service providers in rural areas. But EPHS is mainly limited to Kabul, and BPHS covers only about 60 per cent of the population, though even that is questioned by some. Service provision in EPHS and especially BPHS is very patchy because of the shortage of health workers and medicines. OOP spending accounts for over 73 per cent of total health expenditure and patients need to travel to Pakistan or India for treatment of any serious ailment.
- Pakistan has an elaborate structure for public sector health service delivery, with basic health units, rural health centres, and tehsil-level hospitals at the base, intermediate-level district hospitals, and tertiary care hospitals in the main cities. However, the quality of public health services is weak, especially in rural areas. Underfunded, not easily accessible, and staffed by uncooperative personnel, healthcare centres also often do not have the required stocks of medicines. Consequently, private health service providers dominate the field, with OOP spending accounting for about 75 per cent of total health expenditure.

The largest countries include China, India, and Indonesia.

- China's health indicators lag behind those of the best performers but are better than the rest. It has separate three-tier systems of healthcare provision for urban and rural areas. The urban system has been mostly state-funded through the Government Health Insurance System and Labour Health Insurance Scheme for different population segments. Rural communities had to provide for themselves through the Cooperative Medical System (CMS). Any shortfalls were met by the relevant level of government. The system worked well until the 1979 reforms, which, combining the private responsibility system of agriculture with decentralization, bankrupted the village governments. The CMS, which was the backbone of the rural healthcare system, collapsed. Hospitals in urban areas also faced financial crises with soaring drug prices following removal of price control while user fees were still capped. Hospitals started charging for expensive services and drugs, and doctors started accepting fees informally.

  With increasing dependence on OOP spending, disparities between rich and poor provinces, rural and urban areas within provinces, and rich and poor households soared.

In April 2009 the market-oriented reforms were reversed through fresh reforms and the CMS has been revived. Though on the right track, the new reform is still a work in progress. SI now covers over 92 per cent of the population, but SI coverage excludes many services and drugs, there is corruption and adulteration in provision of drugs, and the referral system is not working. OOP spending accounts for 50 per cent of inpatient care and 60–70 per cent of outpatient care.

- India's health and nutrition standards have improved markedly over the past 50 years, but lag well behind those of the best-performing countries. It has an elaborate three-tier public sector healthcare system starting from a base of village-level primary health centres up to district-level hospitals, then state and federal hospitals that provide secondary and tertiary care. But the system is overloaded and the referral system is broken. Patients wait in long queues in overcrowded hospitals and receive treatment from overburdened and uncooperative medical staff. Treatment is supposedly free, drugs are often out of stock, and inpatient beds may not be available for weeks. So even poor patients when they can afford it have increasingly tended to seek private care, which is a flourishing business. Though total health expenditure at 4.7 per cent of GDP meets the WHO norm, over 80 per cent of this is OOP spending. This has led to rising disparity in access to healthcare and high incidence of expensive catastrophic care leading to impoverishment of households. A National Health Mission set up to address the rising inequity proved inadequate. Some states have started SI schemes and the federal government is now initiating a nationwide scheme, but unfortunately these are designed for inpatient care when the bulk of OOP spending is for outpatient care.
- In Indonesia, local health centres—called *Pasekamas*—constitute the vital base of its three-tier public healthcare system. They provide primary care as well as preventive services like immunization and are also the referral service for higher-level care, though this does not function very effectively. An interesting aspect of Indonesia's health system is the manner in which SI has evolved in the country, starting with the decentralization reforms of 2001 that gave the district authorities much more autonomy and transferred many administrative and financial responsibilities to them. Following this, the government introduced the *Jamkesmas* SI programme for the poorest 30 per cent of the population. This together with pre-existing schemes for the formal sector extended insurance cover to about 55 per cent of the population, but the middle 45 per cent of informal sector workers and the rest of the population were left out. The district officials, significantly empowered by the 2001 decentralization reforms, introduced the *Jamkheda* SI scheme for them. Finally, in 2014 the government integrated all three SI schemes into the *Jaminan Kesehatan Nasional* (JKN) scheme, which seeks to achieve universal SI coverage by 2019. The focus on JKN has come partly at the cost of the *Pasekamas*, which are the base for preventive and primary care, the most cost-effective and egalitarian in their benefit incidence. JKN mainly addresses curative care, and its coverage excludes many services. Hence OOP spending still accounts for 60 per cent of total health expenditure. The heavy dependence on private provision and private financing has inevitably led to growing disparity between the central island of Java and the other islands, especially the remote outer islands, between the main cities or urban settlements and the rural areas, and of course between rich and poor families.

3.3 The development of healthcare: challenges and responses

To summarize the Asian experience, improvement in health conditions during the past 50 years has been remarkable. In most countries life expectancy is close to or more than 70 years and has increased to more than 80 years in a few cases. Even in the few countries where life expectancy has lagged behind, especially in South Asia, it has nevertheless gone up by over 20 years during

this period. Similar improvements have been registered in IMR and MMR. The incidence of undernutrition, stunting, and wasting remains high, but here too there have been impressive improvements during the past few decades.

The development of healthcare has been led by the post-colonial states that came to power around the middle of the twentieth century.[17] Rapid improvement in health standards was an important part of their developmental agendas in most cases. Though health outcomes depend on a whole host of factors, ranging from income and education to the quality of infrastructure and governance, the quality of health services are an important determinant of health outcomes. The new governments recognized that a collective good like health services could not be left to the market. But the public provision of health services was constrained by the availability of public resources. The challenge was compounded by a changing epidemiological pattern. With rising income and lifestyle changes, the incidence of non-communicable diseases (NCDs), requiring more expensive treatment, started rising even before the incidence of communicable diseases (CDs) declined. Public resource constraints compelled most governments to turn to private provision of health services. But that in turn was constrained by household budgets and their capacity to meet OOP expenses.

This tension between the goal of expanding healthcare provision, the limited resources of governments and the budget constraints of households is the main determinant of the paths of healthcare development since the end of the 1960s, the reference period of this paper. But there is a fourth element that has to be factored in: the contingent nature of demand for healthcare, contingent on the occurrence of illness or accident, the asymmetry of information between patient and physician about the required volume and composition of treatment, and the possibly catastrophic financial impact of such treatment if paid OOP (Arrow 1963). Hence the need for *ex ante* pooling of risk in the purchase of health services or health insurance. The problem of profit-driven adverse selection of clients by private insurers raises the need for universal health insurance provided by the state.

The combination of these factors led to the emergence of a variety of health systems in Asia:

- publicly funded and publicly provided healthcare;
- publicly funded but privately provided healthcare;
- privately funded and privately provided healthcare;
- publicly insured but privately provided healthcare;
- privately insured and privately provided healthcare.

Health systems in most Asian countries evolved from one health system to another, usually involving some combination of two or more of the systems listed above. The variety of health systems followed by different Asian countries in different periods range from maximum dependence on public funding and public provision as in Singapore, and in China and Vietnam in their pre-market reform period, to maximum dependence on OOP private spending and private provision, as in most of the South Asian countries. This is also the path adopted by China and Vietnam in their post-market reform periods. Some of the observed patterns and issues that have emerged from this experience are summarized below.

The rising burden of NCDs while the burden of CDs is yet to be eliminated is a major challenge in many countries. Unfortunately, public health measures, such as immunization, that are the most

[17] In some post-conflict countries the development of healthcare services started much later.

equitable, effective, and cost-efficient in dealing with CDs have been neglected in the region, their share of public health expenditure typically being less than 10 per cent. Consequently the benefit incidence of public healthcare spending has been regressive in most countries (O'Donnell et al. 2007).

In all except the most advanced Asian countries the focus on curative care and neglect of preventive public health measures that could cost-effectively contain the increasing burden of disease has put intolerable pressure on public resources. It has also strained the delivery capacity of public health systems based on a foundation of poorly trained village health workers managed by local governments at the district level. The poor quality of service at the local level has undermined public confidence in the public health system and encouraged bypassing of referral systems. This has in turn led to overcrowding and poor service even at secondary and tertiary hospitals. Though free in principle, public health services actually entail costs of excluded services and tests, unavailable drugs, and informal payments, on top of long waits that entail wage losses at work. In most Asian countries, patients have therefore opted for paid private services when they can afford it.

The shift to private health provision, mostly financed by household OOP, has led to several challenges. Typically private providers push over-treatment, expensive diagnostic tests, and medication, on top of high doctors' fees, leading to huge escalation in treatment costs. The worst consequence of such cost escalation is the catastrophic impact of high OOP spending on household incomes, driving them to impoverishment. Three Asian countries—Sri Lanka, Malaysia, and Thailand—have tried to contain the dependence on OOP spending, in contrast to Afghanistan, Bangladesh, China, India, Indonesia, Korea, Nepal, Pakistan, Vietnam, and others, where the share of OOP spending is very high and rising. Comparisons show that the incidence of catastrophic health episodes has been lower in the first group of countries (Doorslaer et al. 2006; Tangcharoensathien et al. 2011).

In low- and middle-income countries, better-off households spend a larger share of household expenditure on medical care compared to poorer households who cannot afford to cut back spending on necessities. The latter have been forced to progressively withdraw from seeking medical care as treatment costs have risen. This has resulted in increasing inequality in access to medical care across different socioeconomic classes. There is also great disparity in the access to healthcare between more and less prosperous provinces within a country and between urban and rural areas within a province.

In response to the rising inequality of access to curative healthcare, most countries in the region have adopted the goal of SI, with governments often paying the premium. Government employees, retirees, and so on, have typically been the first group to be covered by comprehensive public health insurance, followed by formal private sector employees, and later the non-poor in the informal sector. Poor households have been separately covered through special safety net programmes. Laos PDR and Cambodia, two of the poorest countries in the region, have mostly depended on donor funding for their SI systems. Thailand, the Philippines, Indonesia, and Vietnam have depended on payroll taxes to finance the system for the formal sector. For the informal sector, household contributions or tax financing has been used, with mixed results, in universalizing coverage.

SI by itself has not been able to address the problem of private providers driving up costs. This has led to thinning out of services covered by SI, copayments, and coverage caps, resulting in continuing heavy reliance on OOP spending. In India, for instance, SI schemes are limited to inpatient care, whereas most of the OOP spending is on outpatient care, especially among the lower-income quintiles. Such SI schemes fail to address the challenge of rising inequality in access

to healthcare. A WHO assessment pointed out that for SI to be viable a country should have a separate dedicated safety net programme for vulnerable households and allocate at least 4–5 per cent of GDP to health expenditure, of which OOP spending should not exceed 30–40 per cent (WHO 2009). In comparison, OOP in most Asian countries range from 60 per cent to as much as 80 per cent. Barring the few countries that have tried to curb the dependence on OOP spending, inequality in access to healthcare remains a major challenge.

4 Social development, disparity, and the state

The foregoing account of social development in Asia, the spread of education and healthcare, points to some central features that stand out quite clearly. The main feature is the remarkable transformation of the education and health profile of the entire region. Some countries, and regions within countries, have lagged behind. Others have surged ahead. But there were impressive gains in social development in *all* countries compared to their initial conditions. Second, there are large variations across countries in their levels of social development. However, as the leading countries approach the feasible limits of such development, the lagging countries are gradually catching up—a process of convergence is underway.[18] There are of course variations in the pace at which the different lagging countries are catching up with the leading countries. Finally, within most countries a pattern of nested disparities has emerged in the access to education and healthcare: disparity between more and less prosperous regions, disparity between rural and urban areas within a region, and disparity between rich and poor households within the urban and rural areas. These disparities have increased with the increasing shift from public to private provision of education and healthcare in most countries, though there are important exceptions. However, these disparities are likely to decrease over the long term with continuing social development like the variations across countries and for the same reasons.

But what accounts for these large variations across countries?

One part of the answer lies in differences in initial conditions. At the political level this would include differences in colonial legacies[19] or a legacy of conflict in some countries that influenced the course of future development. Equally important are the initial differences in standards of education and health. The future course of development in education and health would naturally depend on the initial starting point. The close association between initial and current levels of education and health across countries will be evident from even a casual glance at Tables 1–4. Another important factor explaining the variations in social development across countries is the difference in levels of income, and hence differences in the rates of growth of income. The close association between levels of income and the spread of education and health services will also be evident from the cited tables. But we know from the human capital literature cited earlier that here the causality runs in both directions.

However, differences in initial conditions and income levels by themselves do not tell the whole story. Another critical element in the process of cumulative causation that has determined the pace of social development in Asia is the nature of the state. As pointed out at the outset, the

[18] See footnotes 11 and 14.

[19] The very different legacies of European colonialism in South and Southeast Asia and Japanese colonialism in East Asia and their differentiated impact on agrarian transformation in these sub-regions had been initially pointed out by Breman and Mundle (1991). This idea has been revived and much extended recently by Duara (2018) and Wade (2018a).

development of education and healthcare in Asia has been led by post-colonial developmental states as integral components of their development agendas.[20] Hence, the spread of education and healthcare was also very much a function of the priorities and capacities that reflected the nature of the state.

To understand the relationship between the nature of the state and how it impacted the spread of education and health services, a taxonomy of the different types of states is helpful. The nature of a state is a complex, multifaceted phenomenon not easily amenable to classification in a single taxonomic category. Some characteristics of the state may fit one category and other aspects may better fit another category. Also, the nature of the state is not static, it can change over time. Nevertheless, framing the discussion within a taxonomy of the different types of states that came to power in different Asian countries is a useful analytical device.

To develop such a taxonomy, I start from the institutional framework of Acemoglu and Robinson (2012). They have used the binary concepts of extractive versus inclusive institutions and political vis-a-vis economic institutions, among other important conceptual innovations, to explain why most nations fail to develop. Simple modifications of the Acemoglu–Robinson (AR) framework give us an alternative taxonomy that can help explain the differing impacts of different types of developmental states on the development of education and health.[21] AR maintained that except in transitional conditions, extractive or inclusive economic institutions match the corresponding political institutions.[22] They argued that most nations have failed to develop because predatory states have drained them of resources and enterprise through extractive political and economic institutions. The few developed nations are the exceptions where states have maintained inclusive political and economic institutions that *enabled* development. In this conception of inclusive political institutions, the role of the ideal state is somewhat passive, limited to ensuring the protection of property rights, maintenance of law and order, and so on, to enable the unrestricted play of market forces. These conceptions of good governance are similar to those of North and Weingast (2000) and Besley and Persson (2011), among others.[23]

Johnson's conception of the developmental state, which did not just enable but actually led the process of development, is the very antithesis of this rather passive 'night watchman' conception of the ideal state in AR. Let me now extend ARs concept of economic institutions to include economic and social institutions and admit the possibility of stable social systems where exclusive[24] political institutions are combined with inclusive economic and social institutions or, conversely, inclusive political institutions can be combined with exclusive economic and social institutions. These simple modifications of the AR framework yield a reasonably rich taxonomy of different types of states, especially developmental states, to capture the observed variations in the nature of

[20] See the Introduction, especially footnote 2.

[21] For an earlier attempt along these lines to explain the long-term growth prospects of 25 emerging economies in Asia, Africa, and Latin America, see Mundle (2018b).

[22] This is similar to, but much more simplistic than, the necessary correspondence between relations of production in the economic base and the superstructure of a society in Marx's theory of historical materialism (Marx 1859). However, for Marx a failure of this condition was one of the drivers of change in his theory of history, while for AR it is part of a binary classification between nations that develop successfully and those that fail.

[23] For a compelling critique of AR and also Besley and Persson, see Bardhan (2013). Among other things, Bardhan points out the possible internal contradiction between the need for some degree of centralization of power to enforce property rights and political and economic inclusion, an outstanding example being the 'enclosure movements' in England.

[24] I am here replacing ARs term 'extractive' with the term 'exclusive', which I find more appropriate as the opposite of 'inclusive'. I should add that my interpretation of the concepts of 'inclusive' and 'exclusive' are different from those of the corresponding concepts in AR.

states in Asia. They also lead us like Johnson and the 'developmental' state literature following him to conclusions that are quite different from, if not the opposite of, those reached by AR.

Before getting to the taxonomy, it is important to explain how some key concepts have been interpreted in this paper. The concept of *inclusive political institutions* is primarily intended to mean institutions that allow political competition, the existence of institutions like a judiciary, a legislature, and a free press that are independent, not controlled by the executive, and protection of human rights. A system of political institutions that fails to pass this test would be considered exclusive. Authoritarian regimes, ruled by a dictator or a single party that monopolizes political power, would obviously be exclusive. But an apparent multi-party democracy with an elected government, but where real power is controlled by a deep state that faces no political competition, would also be considered exclusive. Similarly, when the same party led by the same individual or family continues to win election after election and rules for decades, this too would point to the prevalence of exclusive political institutions.

However, it also needs to be pointed out that with inclusive political institutions, and without the centralized exercise of power, political competition in highly polarized or fractionalized polities can become a hindrance to collective action. The need to accommodate many competing interest groups can also fritter away the state's resources and its capacity to deliver collective goods.[25]

The concept of inclusive versus exclusive socioeconomic institutions is more difficult to describe, given the high levels of income or asset inequality that are observed in all countries. One clear indictor is whether or not the pre-existing elites, especially landed and/or business elites, were protected or contained through land reforms and other redistributive measures by the new post-colonial states when they came to power. A second indicator is the prevalence or social acceptance, with or without legal sanction, of differentiation based on identity such as caste, religion, ethnicity, or language. A third indicator would be effective actions taken by the state, not just inclusive pronouncements, to provide or finance collective goods such as universal basic education and universal healthcare to mitigate the impact of inequalities in wealth and income in a country. These indicators are only illustrations of inclusive socioeconomic institutions, and are by no means a comprehensive list.

Finally, the concepts of hard and soft states need to be re-introduced with some precision. Myrdal's work preceded Jonhson's introduction of the concept of a developmental state (Johnson 1982). But Myrdal (1968) introduced the concept of the 'soft' state, a state that has the intention but lacks the capacity or the will to enforce its agenda of state-led development in the face of many constraints and competing claims for the resources of the state.[26] By inference, a hard state is one that has the capacity and will to enforce its agenda. Several scholars have since attempted to give some precision to this basic idea in different ways. Evans has introduced the concept of 'embedded autonomy' (Evans 1995; Evans and Heller 2018); Wade (2018a) has introduced the distinction between 'special interest' states and 'common interest' states in the context of East Asian transformation; Khan (2018) has written about 'enforcement capacity' as a function of 'the political settlement' (Khan 2018), and Bardhan (2016) has sought to define a measure of state strength in

[25] On this see, among others, La Porta et al. (1999), Besley and Persson (2011), and Mundle et al. (2012).

[26] To quote Wade (2018a): 'Myrdal defined the "soft state" to mean the societal indiscipline prevalent in South Asia and by extension much of the developing world, as compared to the states which had emerged in Western Europe. "Indiscipline" referred to, in his words, "deficiencies in legislation … law observance and enforcement, widespread disobedience by public officials and, often, their collusion with powerful persons and groups … whose conduct they should regulate" (Myrdal 1970: 208).'

terms of 'commitment ability', centralization, and state capacity, which is further parsed into technical, organizational, and political capacities.

Building on these constructs, especially Bardhan, and the concepts of the developmental state and inclusive versus exclusive political and socioeconomic institutions discussed above, I bring back the concept of hard and soft states to introduce the following taxonomy:

1. The hard developmental state, which combines exclusive political institutions with socioeconomic institutions that are inclusive. Countries with such states experience a rapid pace of social development.[27]
2. The soft developmental state, which combines inclusive political institutions with economic institutions that are exclusive. Countries with such states are likely to see a relatively slow pace of social development.
3. The inclusive developmental state where political and economic institutions are both inclusive. Countries with such states are likely to experience rapid social development.
4. The predatory state, which is not developmental at all and where political and economic institutions are both exclusive. Countries with such states are likely to lag behind and see a very slow pace of social development.

These categories are ideal types. An actual state may have characteristics that combine the features of more than one category, and it can also evolve over time. Nevertheless, at any given time it will have certain dominant features that place it in one or another category. Classifying the states in Asia according to this taxonomy provides a classification that helps to explain the variations in the pace of social development in different Asian countries:[28]

- *Hard developmental states*: China, Malaysia (until the recent election that has ended the UMNO party's monopoly of power), Singapore, Thailand, Vietnam (also Korea and Taiwan in their pre-democratic periods).
- *Inclusive developmental states*: Japan, Korea, Taiwan, and Sri Lanka.
- *Soft developmental states*: Bangladesh, India, Indonesia, Lao PDR, Mongolia, Nepal, and the Philippines.
- *Predatory states*: Cambodia, Pakistan, and Myanmar (also presumably North Korea, but we have not analysed that country in this paper).

For understanding how these different types of states came to power in different countries in Asia, it is necessary to look at both the external geopolitical context, particularly the existential threat perceived in some of these countries, as well as the internal conditions under which these states came into existence. Mundle (2017), Duara (2018), and Wade (2018b) have all underlined the central role of the US-led Cold War against communism in Asia in shaping the nature of these states.[29] In the context of Japan, Korea, and Taiwan, Wade has shown how the United States supported these frontline states in the war against communism in securing themselves internally through comprehensive land reforms that swept away the landed elite and in curbing and disciplining the business elite. Externally, the United States protected these states through its

[27] By social development I mean specifically the spread of education and healthcare.

[28] This is of course in addition to the effect of differences in initial conditions and per capita incomes already discussed earlier.

[29] Which became a very hot war with huge casualties in Korea and later Vietnam.

security cover, large-scale development assistance, and privileged access to the vast US market to enable their rapid industrialization and growth.

Wade has pointed out the subtle difference in the scale of US support to these states and the Philippines, which was also an ally against communism but not a frontline state. There, the strong landed elites were protected as US allies in containing the spread of communism. The scale of military, financial, and other assistance, or preferential access to US markets, was also not comparable to US assistance to the frontline states. Duara has argued that this same model of US support on a more moderate scale was also extended to the other Cold War allies in Southeast Asia: Thailand, Indonesia, Malaysia, and Singapore. Mundle has pointed out that while the states allied to the United States were driven by the fear of communism, by the same token the communist states in China and Vietnam were also driven by the existential threat of US domination and overthrow of communism. On both sides of the Cold War it was the existential threat of that war which legitimized these authoritarian states[30] and also drove them to aggressively pursue strategies of rapid, inclusive growth. Most of these states have been classified as hard developmental states in our taxonomy.

In some cases the emergence of political competition and inclusive political institutions in a post-dictatorship era has ironically led to the emergence of soft states with little ability to transform exclusive economic relations. In the Philippines, the predatory state of the Marcos era was replaced by a soft state with the return of democracy after Marcos. In Indonesia, Suharto combined his ruthless authoritarian rule and massive rent collection by a very narrow elite consisting of his own family and cronies with otherwise inclusive economic policies (Timmer 2018). The fall of Suharto and the return of political competition have led to the emergence of a soft state that lacks the capacity to transform the prevailing exclusive economic institutions.

But the classic example of internal conditions leading to the emergence of a soft state is India, the country that led Myrdal to formulate the very concept of the 'soft state'. The Indian state came to power following a remarkable, non-violent independence movement in which Gandhi was able to mobilize all sections of society, including the landed and business elite. The corollary was the continuing dominance of these elites over public policy. But in addition to elite interests, the Indian state also had to continuously navigate its way through a highly fractionalized polity of conflicting interests of different castes, religions, regions, and classes.[31]

Securing political consensus among all these interests led to what Joshi has described as collective action gridlock (Joshi 2016). Accommodating the many competing interests also exhausted the state's resources in large transfers and subsidies, resulting in persistent fiscal stress and lack of resources for collective goods like basic education, healthcare, or infrastructure. Finally, India has an elaborate, multilayered bureaucracy stretching down to the millions of villages, but it still runs administration with a colonial mentality of masters ruling over subjects, and its incentive system is designed to ensure loyalty to superiors, not delivery of public services.

Land reform was the first casualty. Protection of an increasingly wealthy business elite and their inefficient industries for decades behind protective trade barriers and domestic licensing, without exposure to global or internal competition, was a second casualty. The slow spread of basic education and healthcare for the masses was a third casualty. India's inclusive political institutions came to rest on socioeconomic institutions that were highly exclusive: the unequal distribution of

[30] Duara discusses how nationalism was a powerful legitimizing ideology in this context.

[31] On this see, among many others, Bardhan (2010), Kohli (2012), Mundle (2017), and Varshney (2013).

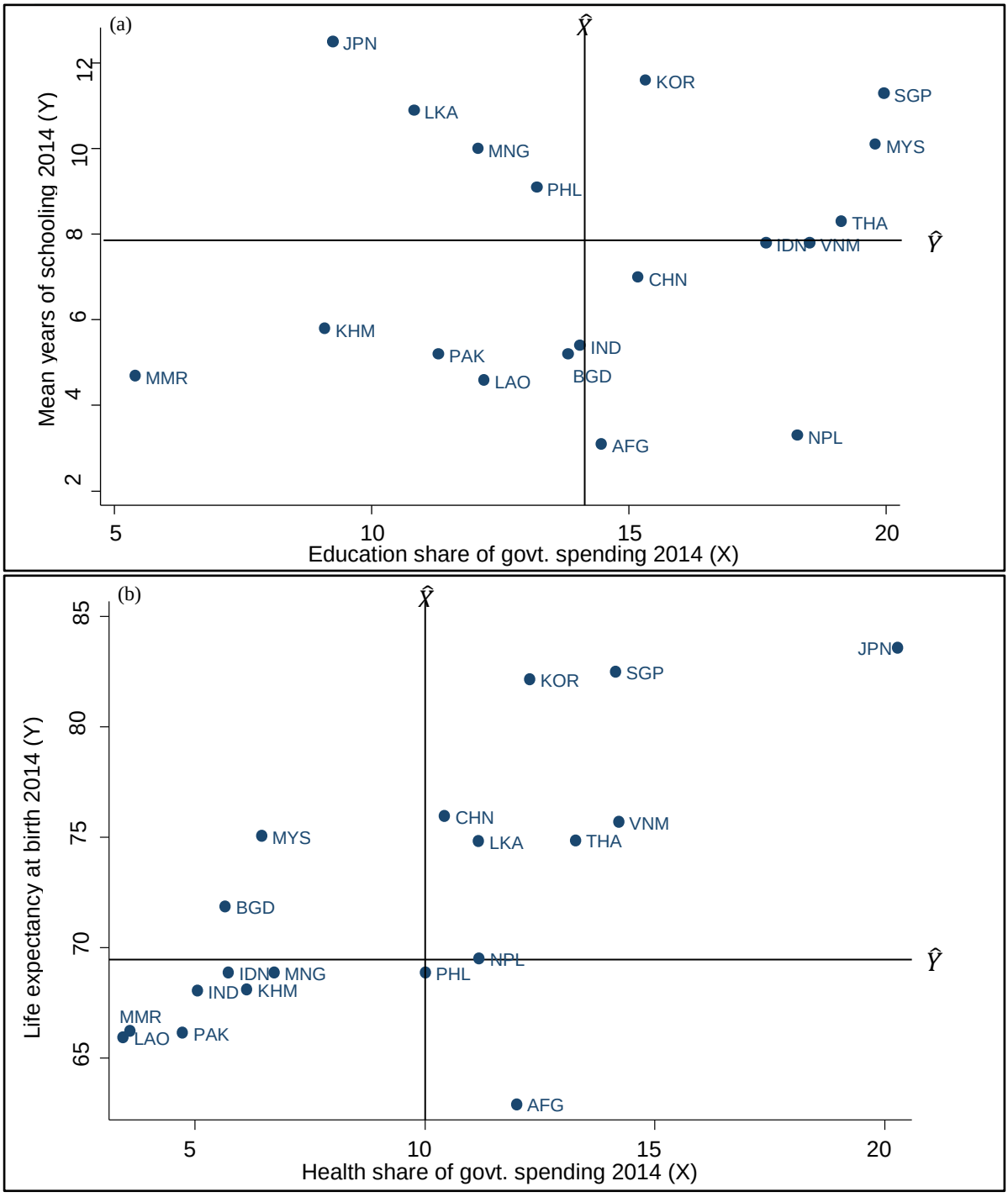
land and other assets, the entrenched social inequality of the caste system, and unequal opportunities for upward mobility through education.

The above classification is based on my reading of the literature cited earlier, the data and country notes presented in the paper, and my earlier research on these questions (Mundle 2017; 2018a). But ultimately these are judgements about the nature of the state in each country. Can these judgements stand up to scrutiny against some objective criteria? The nature of the state is a complex notion not easily measurable by any simple metric. However, expanding the public provision of education and healthcare inevitably collided with the resource constraints of governments, which had many demands on their limited fiscal space. Barring Singapore, and to a lesser extent Sri Lanka and Thailand (for healthcare), all the states in the region conceded this collective goods space to private providers to greater or lesser degrees. Hence, the allocation of public resources for social expenditure is a possible indicator, admittedly crude, of the inclusiveness of the state.

Panel A in Figure 1 presents a scatter diagram of the education share of government spending against mean years of schooling, taken as a representative measure of education development. Panel B presents a scatter diagram of the share of healthcare in government spending against life expectancy, taken as a representative measure of health standards in a country. It will be noted that most of the countries classified as soft developmental states or predatory states spend less than or close to the median share of public expenditure ($\hat{X}$) on education and health services. For the least inclusive countries clustered in the lower-left quadrant of both panels this has happened even when the achieved standards of education and health are below the regional median ($\hat{Y}$). The exceptions are Afghanistan and Nepal, and Indonesia in the case of education. Conversely, most of the countries classified as inclusive or hard developmental states allocate more than the median share of public expenditure on education and health services. The exception is Japan in the case of education.

Afghanistan and Nepal are the poorest countries in the region and are heavily aid-dependent. The high allocation to education and health services in these two countries is a reflection of donor priorities rather than the character of the state. The high allocation for education in Indonesia started with policy reforms in 1975, during the Suharto regime, when Indonesia was a hard developmental state, not the soft state it is today. Japan has already reached the ceiling at over 12 years of schooling per child, and it is also the second richest country in the region at nearly $40,000 per capita income, way above other Asian countries barring Singapore. At this high level of income, and government revenue, the relatively low share of public expenditure allocated to education is evidently adequate to maintain the high education standard it has already achieved. With the exceptions thus explained, the empirical indicators reported here confirm our expectations based on the classification of state character suggested above. It would be interesting to verify the robustness of the classification against other quantitative indicators of state character if possible.

Figure 1: Achieved standards and public expenditure shares of (a) education and (b) health in Asian countries



Country code: AFG, Afghanistan; BGD, Bangladesh; KHM, Cambodia; CHN, China; IND, India; IDN, Indonesia; JPN, Japan; KOR, Korea, Rep.; LAO, Lao PDR; MYS, Malaysia; MNG, Mongolia; MMR, Myanmar; NPL, Nepal; PAK, Pakistan; PHL, Philippines; SGP, Singapore; LKA, Sri Lanka; THA, Thailand; VNM, Vietnam.

Source: Author's illustration, based on the World Development Indicators Database and UNESCO Institute for Statistics (Education Database).

The increasing dependence on private provision of education and health services has led to increasing disparity in multiple dimensions of the access to education and health services in most countries, as has been described above. However, the dominant long-term trend is the rapid spread of these services and rising standards of education and health in *all* the countries of the region. Also there is convergence. The leading countries—Japan, Singapore, and Korea—have already reached or are approaching the best feasible standards of education and health. The lagging countries are gradually catching up. There are, however, large variations among them both in existing standards and in the pace at which they are catching up. An important determinant of these variations, apart from initial conditions and income levels, is the nature of the state in each country. If the classification suggested here is correct, it is likely that countries led by the inclusive and hard developmental states—China, Malaysia, Thailand, Sri Lanka, and Vietnam—will catch up over the next decade or so. They will be followed by the countries led by soft developmental states. Within this large group, countries with less political fractionalization, stronger commitment ability, and greater state capacity will catch up faster than the others.[32] The predatory states are unfortunately likely to catch up last.

[32] See Bardhan (2016), Evans and Heller (2018), Khan (2018), and Mundle (2017; 2018b) on these questions.

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Appendix 1: the spread of education—selected country notes

A1.1 The best performers

Korea and Singapore: Based on the record of enrolment and completion rates at different levels, the average years of schooling, and education quality indicators where available, Korea and Singapore are undoubtedly the top performers.[33] In both countries the spread of education has been led by their governments, which recognized that, apart from its intrinsic value, education was crucial for developing a workforce to meet the requirements of rapid industrialization. Education policy was therefore closely aligned with their development strategies in both countries.

In Korea an interesting feature is how priority was gradually shifted from an initial focus on primary education to secondary and then tertiary education as the requirements of the development strategy changed over time. Another feature is its cost efficiency. The cost per student is lower compared to other OECD countries thanks to higher pupil:teacher ratios, lower teacher pay, etc.[34] The Korean system has also been egalitarian, with free primary education, but that is changing. Korea's expenditure on education relative to GDP is the highest among OECD countries. Despite this, resource constraints have forced the government to gradually turn to private provision, especially at the tertiary level, on a fee-for-service basis, though the government maintains strong regulatory and quality control. With rising costs, increasing recourse to private provision, and costly private tuition in a very competitive environment, access to higher secondary and higher education is now becoming more unequal. The special needs of underachieving students and a growing body of students from multicultural backgrounds is another emerging challenge.

The special feature of the Singapore education system is its bilingual approach that requires competence in both English and a vernacular language. More important, it is one of only two Asian countries where the government finances and provides education as a 'merit good' all the way up to tertiary education. Hence, access to education is highly egalitarian. However, on clearing the primary school leaving exam students are streamed into the academic track or the TVE track, depending on their capabilities. To nuance the meritocratic inequality embedded in such streaming, policy has focused on raising the status of TVE through generous grants to upgrade facilities and teacher quality. Singapore is possibly the only country where teacher salaries are comparable to those of lawyers, doctors, engineers, and managers. On the academic track the emphasis is on maths, science, and engineering.

Vietnam: Though the development of education could not proceed till the end of the Indochina War in 1975, Vietnam stands out for the very rapid spread of education since then, led by the state. It is already recording above-average performance in PISA tests despite its low per capita income.[35] Students are streamed into TVE or academic streams on completion of basic education. The

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[33] We leave aside Japan, which was clearly a top performer because it was already an advanced country at the outset of our reference period. The account here is based on Mingat (1998), Gwang-Jo Kim (2001), Goh and Gopinathan (2006), Lee and Jang (2010), Hye-Won Lee (2014), and OECD (2016).

[34] For a comparison of Korean school quality and efficiency with global trends, see Mingat (1998) and Lee and Barro (2001).

[35] This account is based on Hungi (2008); London (2011); Mai and Yang (2013); Nguyen and Nguyen (2008), and Nuffic (2015a).

emphasis in the academic stream is on maths and science rather than the liberal arts. Though the goal of universal secondary education is yet to be achieved, there is compulsory free education up to basic level, making the system egalitarian. However, despite its high growth, public education expenditure has not managed to keep pace with the spread of education. It is being increasingly supplemented by private spending through formal and informal methods, and this has led to growing disparity in both access to education and its quality between regions, between urban and rural areas, and between rich and poor households.

Sri Lanka: Despite its relatively low per capita income, some of Sri Lanka's education indicators are comparable to the best in Asia. These achievements are quite remarkable and stand out in sharp contrast to the other countries of South Asia. Underlying these achievements is a long tradition of state-led education development, with education being financed as a merit good from the primary level all the way to university education, as in Singapore (Ganegodage and Rambaldi 2011; World Bank 2005). The rationality of these policies has been questioned because of the estimated low returns to education. However, Sri Lanka has suffered 25 years of ethnic civil war that ended only in 2009, taking a huge toll in human lives and entailing massive social and economic costs.[36] The value of education in Sri Lanka has to be reckoned not just in economic terms but in terms of its contribution to restoring social cohesion when the functioning of the social system had broken down (Colenso 2006).

A1.2 The weak performers

Afghanistan and Pakistan from South Asia are among the weakest performers, along with Cambodia, Lao PDR, and Myanmar in Southeast Asia. These are the poorest countries in the Asian region.[37] Several of them are also post-conflict countries where the spread of education was arrested or even reversed for many years.

Afghanistan: Afghanistan is the weakest performer. There was significant expansion of education during the 1950s, 1960s, and 1970s. Then the whole system fell apart due to internal strife that continues to this day, exacerbated by geopolitical rivalries among external powers (Samady 2001). The worst period was during 1996–2001, when girls and women were barred from education under fundamentalist Taleban rule. Since then, enrolment has been rising (Tables 1 and 2) and the government has been struggling to re-establish a regular education system with eight years of free, compulsory primary education (Nuffic 2015b). Though private schools exist, the system is largely based on government schools. The formal school system is supplemented by madrasas and other informal schools. The misogyny enforced by the Taleban is still evident in the gender disparity that persists (Tables 1 and 2). Another special feature of Afghanistan is the large numbers of disabled persons who need to be included in the education system (Bakshi and Trani 2006).

Cambodia and Lao PDR: The spread of education in these two countries was prevented by the long Indochina War followed, in the case of Cambodia, by the brutal Khmer Rouge regime that specifically targeted teachers for torture and mass murder. Hence the building of a modern education system has been underway in these two countries only since the 1980s and has made good progress.[38] Both countries have now achieved near-universal enrolment for primary education, which is free. One major challenge is the high dropout rate, partly reflecting the high

[36] One study estimates just the cumulative economic cost at twice the Sri Lanka GDP of 1996 (Arunatilake et al. 2001).

[37] But there are other countries at comparable levels of per capita income such as Nepal and Bangladesh where education outcomes are better.

[38] For useful studies on the development of education in Cambodia see Chansopheak (2009), Chhinh and Dy (2009), Tan (2006), and Marshall et al. (2009). For Lao PDR see, among others, Phetsiriseng (2009).

opportunity cost of attending school in predominantly agrarian societies, where children are required to work during the peak agricultural season. The poor quality of teachers, who reportedly sometimes extract informal fees, is another challenge. But the overarching problem is the scarcity of resources. Though education is mainly provided by the governments in both countries, the scarcity of public resources has led to a compromise on quality in the quest for rapid expansion. It has also made both governments heavily dependent on donors, who often drive the policy agenda, some of them insisting on limiting public provision to basic education. As a consequence there is increasing paid private provision at higher secondary and tertiary levels, with consequent adverse effects on the equity of access to education at these higher levels.

Myanmar: The country has been ruled for over half a century by an authoritarian military dictatorship that now shares power with the elected NLD party led by Aung San Su Kiy. It is not a post-conflict society like Cambodia and Lao PDR. Despite this, its education performance is similar to these two countries, with similar problems (Tin 2007). A peculiar distortion of the Myanmar education system is the premature establishment of a large number of tertiary training institutions set up by different ministries for which there is little demand. Basically, the military regime had the option and the means to rapidly develop education but it lacked the commitment that spurred the authoritarian regimes in East Asia to do that.

Pakistan:[39] The country has been ruled for many years by military dictators and the military remains very powerful, but Pakistan has also had long periods of rule by elected civilian governments as at present. It is also not a post-conflict country. Despite that, its education performance is worse than any other country in Asia barring Afghanistan. An unusual feature is the very rapid spread of private education, not elite education but low-cost private education even at the primary level. There are a large number of studies that have attempted to analyse and interpret the Pakistan experience. The country suffers from large deficits in both the quantity and quality of basic education. These deficits cannot be eliminated without radical reform of Pakistan's education system. But so far there is no indication that any such bold initiative is on the way.

A1.3 The largest countries: China, India, and Indonesia

China, India, and Indonesia are important for the Asian education narrative not because they are either the best performers or the weakest performers but simply because of their large economic and demographic weight in the Asian region.

China:[40] From 1949 to 1977 education policy in China was buffeted by two political lines of equity and efficiency in inner party struggles until Deng's consolidation of power in 1977. Since then, education policy has followed a consistent path of reforms, with a focus on developing an effective modern education system to meet the requirements of rapid industrialization and growth. But this has been combined with a basic egalitarian goal of universalizing access to education. The three strategic pillars of education policy since 1977 are decentralization, market orientation, and mass higher education. But these are mounted on a two-track foundation established since 1949. Urban primary education has always been prioritized for producing the workforce for rapid industrialization and is financed by the central government. Rural primary education is the responsibility of the village government, paid for by the people themselves. This rural–urban

[39] This account draws on: Alderman et al. (2003), Arif and Saqib (2003), Aslam (2003), Barrera-Osorio and Raju (2015), Behrman et al. (1997), Hathaway (2005), Khan and Kiefer (2007), Lloyd et al. (2008), and Naseer et al. (2010). These are only a small sample of the large body of literature on education in Pakistan.

[40] There is a vast literature on education in China. The account presented here is based on: British Council (2014), Fu (2005), Guirong et al. (2015), Mo et al. (2013), Ngok (2007), Li et al. (2014), Tsang (2000), and Wu and Zang (2010).

divide, reified by the *hukou* registration system, has led to different consequences of decentralization in rural and urban areas. Decentralization combined with the 'private responsibility' system in agriculture meant village governments could no longer count on commune incomes to finance primary education. As a consequence, the primary education system in rural areas virtually collapsed. Hence, the retrogression in primary enrolment and completion rates noted earlier (Table 1). The government has tried to correct for this distortion by shifting the responsibility for primary education back to county governments since 2001. Decentralization has also meant increasing inequality between more and less prosperous provinces since the latter have fewer resources.

Another dimension of inequality in access to education has arisen due to privatization—the emergence of private educational institutions at all levels. This second pillar was a consequence of public resource constraints. Though government spending on education kept increasing, it could not keep pace with the expansion of education. By 2005 there were more than 86,000 private institutions or '*minibans*' at different levels, though they continue to be regulated by the government. Another dimension of rising inequality is between different socioeconomic groups in urban areas. At one end there are the 'key schools' with special facilities and high-quality teachers established to nurture gifted merit students. However, children of rich parents can get admitted to these schools or 'choice schools'—expensive private schools—on payment of heavy fees. At the other end of the socioeconomic spectrum, urban China has 'migrant' schools, of indifferent quality, mainly for children with rural *hukou*.

The third pillar of China's education policy is the mass expansion and modernization of the higher education system. To enable China to remain competitive in an emerging knowledge-based global economy, a massive higher education expansion programme began in 1999. However, global competitiveness requires not just scale but also quality. To meet this goal the government has picked a subset of 100 higher education institutions (Project 211) and subsequently a few universities to be promoted as world-class universities, starting with Beijing and Tsinghua Universities (Project 985). This has created a fourth dimension of education inequality between these institutions of excellence and the rest.

India: An important aspect of education policy in India is its elitist bias. The demand for free, compulsory primary education has a long history in India, going back to the Gokhale Bill of 1911 (Sikdar 2016). Similar goals have continued to be pronounced in various policy documents since independence. But these largely remained as unfunded mandates until recently. Actual resource allocation gave high priority to tertiary education at the cost of primary education (Mundle 2017). The situation has improved significantly following the Right to Education Act of 2009, which guarantees free basic education for all children in the 6–14-years age group. Another major challenge is the poor quality of education. After its very poor performance in the one PISA test in which India participated, the country has stayed away from PISA tests. However, domestic reputed surveys like ASER have pointed out that learning outcomes are abysmally poor and have deteriorated over time (ASER 2017). The poor quality of vocational training and skilling for TVE-track students is a third major deficit. ASER 2017 found that less than 6 per cent of the 14–18-years age cohort enrol for vocational training, presumably because such training does not suitably skill them for employment (ASER 2018). The India Skills Report for 2017 points out that only 40 per cent of those seeking work have employable skills (CII 2018).

Thus, India has achieved the goal of near-universal basic education, making access to education more equitable than before. But the quality of education remains poor and is not making job-seekers employable. A great deal of policy research is now directed at addressing this problem,

including the private schools option.[41] The evidence is compelling that reform of pedagogic approaches and school governance are key to improving learning outcomes. But it is not clear that policy makers have absorbed these lessons.

Indonesia: In Indonesia the emergence of the post-colonial state was followed by internal strife and it was only in 1970s that the government began to focus on the development of education as a priority in its agenda of national development. There was a massive expansion in the delivery of education services, especially at the primary level, from 1975 to 1987, to provide universal access to primary education. This was followed by a second wave of decentralization reforms since 2000. Two major constraints faced by these education reforms were the inadequate supply of high-quality teachers and the weak capacity of the local bureaucracy mandated to administer basic education. Massive expansion despite resource constraints resulted in erosion of teacher pay relative to other professions and a general deterioration in the quality of teachers. The new cadre of poor-quality teachers was not able to cope with new curricula, which progressively became more complex and required teaching of more content in less time (Chang et al. 2014). The inevitable consequence was poor learning outcomes.

Following the Dakar World Education Forum in 2000, attention started shifting in many countries, including Indonesia, to education quality and learning outcomes. Also, Indonesia's poor performance in international learning tests like TIMMS and PISA, cited earlier, served as a wake-up call. In a very significant policy move the government amended the constitution in 2002 to earmark 20 per cent of government spending for education. Benefit incidence analyses show that the unprecedented increase in public spending on education, along with other reforms, has been very effective in improving access to education, especially for the poorest children (Lanjouw et al. 2001; World Bank 2013). The government also enacted a new Teacher Law in 2005 aimed at improving teacher compensation and quality, a major determinant of learning outcomes (Chang et al. 2014). The other major constraint that has impacted the effectiveness of education reforms is bureaucratic capacity. With decentralization, local governments, especially district administrations, have become central players in the delivery of basic education services. Differences in bureaucratic capacity is one of the factors that accounts for the large variations in education performance across districts (World Bank 2013).

There has been a massive increase in access to basic education, particularly since the allocation of a high share of government spending for education from 2002. But inequality in access to higher secondary and tertiary education remains a challenge (World Bank 2014). Such unequal access is accentuated by differences of gender, ethnicity, and location. To address this challenge, the government enacted the Higher Education Law in 2012. The impact of this law remains to be assessed. Also, there is no firm evidence yet that the reforms aimed at improving teacher quality and bureaucratic capacity are resulting in improved learning outcomes.

[41] See, among others, Banerjee et al. (2007), Chin (2005), Desai et al. (2008), Inamdar (2004), Linden (2008), and Muralidharan and Sudararaman (2011).

Appendix 2: the delivery of health services—selected country notes

A2.1 The best performers: Singapore, Korea, and Thailand[42]

Singapore: The health system in Singapore is considered one of the best in the world because it has not only delivered health outcomes comparable to the best in the world, but has done so at much lower cost. In 2002 it amounted to under 4 per cent of GDP compared to the 9 per cent OECD average (Gauld et al. 2006). Moreover, the share of government in total health spending was also low at 33 per cent, compared to 45 per cent in the United States and around 72 per cent in Europe (Gauld et al. 2012). Set up by a government that came to power only in 1965, the health system is closely regulated and managed by the government. The public sector is dominant, with public hospital beds accounting for 72 per cent of all hospital admissions. These hospitals are run like private companies, though 75 per cent of these public hospital beds are heavily subsidized. All these public hospitals also have their own pharmacies that supply drugs at reasonable prices.

The most interesting aspect of Singapore's health system is its unique financing system, which embeds market incentives within a publicly controlled system so typical of Singapore (Asher and Nandy 2006; Bai et al. 2012; Gauld et al. 2006; Gertler 1998; Haseltine 2013; Lim 2017). The heart of this system consists of the Medical Savings Accounts (MSAs) that are carved out of Singapore's compulsory provident fund system. The main account is the Medisave account, which account holders can use to make copayments and other medical expenses they are required to make for themselves and their families. The cosharing of expenses minimizes moral hazard since patients have an incentive to keep costs low. But there is no risk-pooling beyond the family, so Medisave cannot cover the treatment for catastrophic medical episodes. For this there is a separate medical insurance system called Medshield, where costs are kept in control by competition among private providers. The premiums for Medishield can be paid out of Medisave. There is also an insurance scheme for the elderly called Eldershield. Finally, for the small proportion of poor families who are unable to make copayments or pay insurance premiums, there is a separate safety net called Medifund. MSA accounts for just about 10 per cent of total medical expenditure in the country, but its incentive structure ensures that overall costs are kept low. The government covers another 25 per cent of total medical expenditure, a very low share compared to most advanced countries or other countries in Asia. The rest is covered by employee benefits, private insurance, and OOP payments at the point of service.

Korea: Korea has gone through an epidemiological transition, with chronic NCDs like cardiovascular diseases, cancer, and hypertension replacing CDs as the main source of disease, with a corresponding change in the pattern of demand for healthcare (Gertler 1998; WHO 2015a). Unfortunately, the allocation of resources for preventive public health measures is very low and the bulk of healthcare spending is on curative healthcare. Health expenditure in Korea is about 6.9 per cent of GDP, compared to the OECD average of 9 per cent (Hyoung-Sun and Jeong-Woo 2012). Of this, about 58 per cent is financed by the public sector (OECD average of 72 per cent), while private financing accounts for the balance 42 per cent. Public financing is mainly National Health Insurance (NHI) reimbursements to private providers while private financing mainly consists of OOP expenses. A small component is from private insurance and voluntary agencies.

[42] As indicated in Table 3, Korea and Singapore are the two recently developed Asian countries that have achieved health standards (life expectancy) that are among the highest in the world, not just Asia. Japan had already reached that status by the end of the 1960s, but is not discussed further here because it was already a developed country by the beginning of our reference period. Though life expectancy lags behind these advanced countries in Thailand, it stands out as a top performer in health service delivery, as explained below.

The most significant feature of the health sector in Korea is the achievement of universal health coverage through compulsory SI. SI started in Korea in 1977, with less than 9 per cent population coverage. By 1989 the whole population was covered except for the poorest 4 per cent of the population, who were separately covered by the Medical Aid Programme. SI coverage started with government employees, was then extended to cover the private organized sector, then small businesses, and finally the self-employed. Initially insurance cover was provided by some 370 separate insurance companies operating in different regions or sectors. In 2000 all of these were integrated into a single NHI system with uniform coverage for all participants (WHO 2009; 2015a). The NHI is funded by contributions amounting to 5.08 per cent of salary or income, the salary component being shared by employers and employees.

Private providers account for 90 per cent of hospital beds, which had reached half a million by 2007 (WHO 2009), with 6.8 acute care beds per 1,000 population (OECD average 3.9). The number of health workers relative to population has also been growing rapidly. There is a disproportionate concentration of services in metropolitan and urban areas, with a service deficit in rural areas. Inpatient care is the most expensive, with copayments and exclusions requiring OOP; low-income patients are deterred from seeking inpatient treatment, biasing the benefit incidence of the NHI in favour of the rich. Also, providers push for uncovered services, drugs, and diagnostic tests, greatly pushing up costs and OOPs. This has resulted in rising inequality in access to health services, and hence inequality in mortality, morbidity, and acute illness across occupational, educational, and income classes (Khang and Lee 2012; Khang et al. 2004). There has been some effort in recent years to address this challenge (WHO 2012). Another serious challenge facing the Korean health system is its financial sustainability with an ageing population, their higher cost of care per individual, the rising share of chronic diseases that require more expensive treatments, and the shrinking proportion of contributors to the NHI (Gertler 1998; Mundle 1998).

Thailand: The country stands out for the very high health standards it has achieved at a relatively low level of per capita GDP. Life expectancy in Thailand at over 75 years is a little lower than in Singapore or Korea, but comparable to that of Malaysia even though its per capita income is about half that of the latter. Rates of infant and maternal mortality and nutrition indicators are also comparable or even better than in Malaysia. Moreover, these standards have been accomplished with a remarkably low and declining share of OOP private spending in total health expenditure. Vietnam and Sri Lanka are two other Asian countries that have high health standards at relatively low per capita incomes (Tables 3 and 4). But in both of these countries, financing coverage of the population is significantly less than in Thailand, there is greater dependence on private provision of healthcare services, and OOP remains high (de Silva et al. 2016; Tien et al. 2011; Wagstaff and Doorslaer 2003; WHO 2013). Thailand is therefore being increasingly seen as the best-practice model of healthcare provision and financing for other developing countries to follow in Asia and elsewhere.[43]

The unique feature of the Thai model of healthcare provision is its SI system. Malaysia and Thailand have both achieved universal health coverage, but whereas public healthcare is entirely tax-financed in Malaysia,[44] healthcare in Thailand is entirely SI-financed. As in most countries in the region, SI in Thailand is a three-tier system. SI started with formal sector employees, first in the government and then the organized corporate sector, financed through payroll taxes. At the

[43] On this see, among others, Damrongplasit and Melnick (2015), Doorslaer et al. (2006), Harris (2015), and Tangcharoensathien et al. (2010; 2011).

[44] Malaysia is possibly the only country in Southeast Asia where the provision of health services at primary, secondary, and tertiary levels are all tax-financed, thanks to resistance against SI by powerful interests, with consequent problems of poor and delayed service provision, high OOP, and rising costs.

other end, a tax-financed scheme was introduced for poor households. Initially targeting was left to health workers and later means testing was introduced. But nepotism and errors of inclusion or exclusion were prevalent till a universal SI scheme was introduced in 2002. Hard-to-cover groups in the informal sector and the rest of the population were the last to be covered under SI, initially on a contributory basis. But collecting premiums from the informal sector and administering SI for the sector was challenging. After the 2001 elections, SI for the informal sector was also made free, financed through taxes.

All three tiers of the now integrated SI system provide a comprehensive benefit package with almost no copayment. SI for the formal sector employees is financed from payroll deductions, while SI for all the others is tax-financed. People can choose their local primary care unit and costs are covered by a capped capitation fee plus case-based payments to cover all inpatient and outpatient care. Balance billing is not allowed. Studies indicate that service providers, paid according to contract, are becoming more responsive. OOP spending is now down to below 18 per cent of total health spending and there is declining incidence of catastrophic payments. With universal coverage and such low OOP, the provision of health services in Thailand is the most egalitarian in the region. However, the main challenge facing the Thai system is its long-term financial viability as populations age, epidemiology changes, and the demand for expensive care for chronic diseases rises.

A2.2 The weak performers: Afghanistan and Pakistan[45]

Afghanistan: Though considered a post-conflict society following the end of Taleban rule in 2001, the country is still a very violent place. The conduct of normal life and delivery of public services in this fraught environment is a great challenge. Despite this, the civilian government has established with donor support a rudimentary system for delivery of basic health services as evidenced in successive policy documents (Ministry of Public Health 2012; 2015; 2016). The BPHS is being delivered across the country through NGOs and other contract service providers. Also, the EPHS is being provided through hospitals, mostly established with donor support and mainly located in Kabul. The BPHS is supposedly covering 59 per cent of the population, which implies that 41 per cent of the population has no health cover. However, there is no robust evidence that the BPHS is actually delivering health services even to the 59 per cent (Strong et al. 2005). The quality of coverage is also very patchy, with severe shortages of health workers and medicines, according to some assessments, and people have very little confidence in the health services being provided through the BPHS and EPHS.

Provision of medical services is free as per the law. But in fact patients have to spend large sums on medication and various tests because the BPHS or EPHS facilities do not have the medicine or the required testing equipment. For treatment of serious ailments they have to sell their assets or borrow funds to travel to India or Pakistan. OOP household spending accounts for over 73 per cent of total health expenditure and donors account for another 21 per cent. The government and non-profits account for the balance 6 per cent (Qarani and Kanji 2015; Zeng et al. 2017). Because of the heavy burden of private OOP spending, risk-sharing options through universal health insurance have been actively explored. But stakeholders agree that it would be premature (Zeng et al. 2017). Social health insurance can lead to huge cost escalation if prematurely introduced (Gertler

[45] Afghanistan and Pakistan come out the lowest in terms of health and undernutrition indicators (Tables 3 and 4), but Cambodia, Myanmar, and Lao PDR are not much better off. Of course these are the poorest countries of the region. However, Vietnam, Bangladesh, and Nepal, which are as poor or even poorer, have fared better in health and nutrition outcomes.

1998) and Afghanistan does not yet have the capacity to manage such a scheme. It would be better to focus on capacity building of health workers for strengthening the BPHS and EPHS.

Pakistan: Pakistan has an elaborate three-tier structure for delivery of public health services with basic health units, rural health centres, and tehsil headquarters hospitals at the base, district headquarters hospitals, and finally tertiary care hospitals in the main cities. However, public health service is weak, especially in rural areas. It is underfunded, not easily accessible, staffed by uncooperative personnel who provide poor service, and service centres frequently do not have the required stocks of medicines. Moreover, following the decentralization policy of 2001 and other frequent policy announcements, there is some confusion about overlapping jurisdictions (Qarani and Kanji 2015; WHO 2007). Hence, private healthcare providers have become dominant, accounting for about 75 per cent of service provision (Nishtar et al. 2013).

In terms of financing, the government accounts for only 25 per cent of total health spending in the country. The rest is all OOP private spending, of which 80 per cent is estimated to be spent on drugs (WHO 2007). Drugs are very expensive, though 80 per cent of drugs are domestically produced by local manufacturers or multinational companies. The binding constraint for improving delivery of healthcare, apart from the high OOP burden, is the shortage of medical technicians and nurses. There is no sound training programme to build a cadre of such medical workers. Instead, policy seems to be focused on producing more doctors and hospitals.

A2.3 The largest countries: China, India, and Indonesia

China: Health standards in China are not as high as in the leading Asian countries, but it is the best among the rest. Delivery of health services has been buffeted by swings in health policy that reflected changes in the political economy of the country. Following its rise to power in 1949, the post-colonial communist government established separate three-tier healthcare systems for urban and rural China. In urban areas this included street clinics for primary healthcare, district hospitals for secondary care, and city hospitals for tertiary care. This urban system was backed by a socialized financing system consisting of the Government Health Insurance Scheme and the Labour Health Insurance Scheme for current or retired government and state-owned enterprise (SOE) workers, veterans, teachers, and students. The government covered all costs, including insurance premiums, cost of services, and drugs. Dependents of workers were also partly subsidized.

In rural areas, village clinics provided primary care, township hospitals provided secondary care, and county hospitals were responsible for tertiary care. Rural communities had to provide for themselves through the Cooperative Medical System (CMS). The urban bias notwithstanding, the rural system was well functioning with appropriately trained staff at village, township, and county levels. People were receiving care at primary, secondary, and tertiary levels of care, with an effective referral system. Pharmacies were also generally part of the three-tier system. Modest user fees were charged for treatment and drugs. Gaps in recovery were covered by the concerned authority, which was also responsible for preventive public healthcare in its jurisdiction, including free immunization. This well-functioning system accounted for the large improvements in health conditions till 1979 (Liu and Yi 2004).

This system was completely disrupted in the wake of market reforms post-1979. The private responsibility system in agriculture and government decentralization left the village governments with no resources to support the CMS, the backbone of the rural healthcare system, which gradually collapsed. Decentralization and privatization also eroded the resources of less prosperous provincial governments and inefficient SOEs. With price deregulation, the cost of drugs soared while user fees were still controlled below costs, resulting in a financial crisis in urban hospitals. Hospitals began charging for some services and expensive drugs, while doctors started charging

fees informally to supplement their incomes. Preventive public healthcare and free immunization also collapsed, resulting in the re-emergence of schistosomiasis and malaria. Catastrophic OOP spending soared, reversing gains in poverty reduction among patient households. There was rising inequality between the rich and poor provinces, between rural and urban areas within provinces, and between rich and poor households in both rural and urban areas. China's entire healthcare system was in dire crisis (Liu and Yi 2004; Yip et al. 2012; Zhang and Kanbur 2005).

In April 2009 the government announced a new health reform programme that marked a major reversal from the market-oriented reforms pursued since 1980. But implementation weaknesses remain and the referral system is not working because of low public confidence in primary and tertiary care centres, causing unnecessary congestion in tertiary care hospitals. SI is now near-universal, covering 92 per cent of the population and with subsidized enrolment for poor provinces and families. However, the services and drugs covered are quite limited. With deductibles, copayments, reimbursement ceilings, and so on, OOP spending still amounts to 50 per cent of inpatient care and 60–70 per cent of outpatient care. Adulteration and corruption have also compromised the drugs purchase bidding process and reform and rationalization of a very complex public hospitals governance system is still a work in progress. But the ongoing reforms are on the right track now and China's health standards have been improving again after the disruption of the early market reform period.

India: The improvement in health standards in India over the past 50 years is impressive (Table 3). Nutrition standards have also improved, but less so compared to the improvements in health standards (Table 4). Underlying this mixed picture is a peculiar distortion in the financing of health expenditure. Total expenditure at 4.7 per cent of GDP is close to the recommended WHO norm, but 80 per cent of this is OOP spending by households. India has an elaborate three-tier structure of health administration. But the system is severely underfunded and provides very poor quality of public and primary health services, especially in rural areas. Also, medication is free in public hospitals but often not available and has to be purchased. Further, the referral system is dysfunctional, with overcrowding and long queues in secondary and tertiary care hospitals, with loss of daily earnings for many. Thus patients get worse treatment but not lower costs in public sector hospitals (Banerjee et al. 2004). They prefer paid private service if they can afford it because private providers tend to overtreat with unnecessary tests, expensive drugs, and so on, but provide better treatment (Das et al. 2016).

Consequently, there has been a burgeoning growth of private health services, with OOP spending accounting for 80 per cent of total health expenditure. Drugs are the main component of OOP spending, but there is a rapidly rising share of diagnostic tests. High OOP spending for treating catastrophic ailments is impoverishing families and there is increasing inequality in access to medical care between rich and poor patients (Berman et al. 2010; Gupta and Choudhury 2015; Selvaraj and Karan 2009). This is made worse by the subsidization of inpatient care in public hospitals, which is accessed more by rich rather than poor patients. The latter cannot afford the formal copayments, informal payments to medical staff, and high cost of tests and drugs (Mahal et al. 2001).

Responding to the rising inequity in healthcare, the government launched a National Rural Health Mission in 2005 which was later extended to urban areas as a comprehensive National Health Mission. Unfortunately, this has not succeeded in containing the increasing dependence on private health providers, the rising burden of OOP spending, and the consequent increasing inequality in access to healthcare. Some states have introduced public-funded health insurance schemes, and a very ambitious National Health Protection Scheme was announced in the 2017–18 budget for which details are still being worked out. Unfortunately, such schemes are designed to cover inpatient care when most of the OOP spending is on outpatient care (Selvaraj and Karan 2012).

Asia's experience is that such SI schemes lead to unsustainable cost escalation and rising inequality, without much gain in actual service delivery when introduced at relatively low levels of per capita income (Mundle 1998; 2018b).

Indonesia: The country has registered very significant improvements in its health and nutrition indicators over the past few decades. Against these gains there is the challenge of a rising disease burden. Lifestyle changes and greater longevity have resulted in the increasing incidence of chronic NCDs, while the burden of CDs like tuberculosis is still high. Indonesia's geography is another challenge. It is the world's largest archipelago of 17,504 islands scattered over a vast region, with a population of 261 million persons representing multiple linguistic, religious, and ethnic groups. Administering such a country is very difficult, particularly so in terms of managing an integrated system of healthcare delivery.

The country has a long history of combining public and private healthcare services. In the public sector, the *pusekamas* or local health centres are the vital base of a three-tier public healthcare system consisting of federal, provincial, and district services. The *pusekamas* provide primary care, preventive public health services such as immunizations, and a referral system for recommending patients for higher-level care. Alongside the public system there are 'for-profit' private healthcare providers and 'not-for-profit' charitable institutions providing health services. Health workers from the public sector also run private health facilities outside their public duty hours (WHO 2017).

A major change in the system was introduced by the decentralization reforms of 2001, which gave the district authorities much more autonomy and transferred many administrative and financial responsibilities to them (Sparrow et al. 2017). Then, in 2005, the federal government introduced the *Jamkesmas* SI programme for the poorest 30 per cent of the population. With *Jamkesmas* and the pre-existing insurance schemes for the formal sector, about 55 per cent of the population was now provided some health insurance cover, but about 45 per cent of the population in the middle-income quintiles had no insurance cover. So the district political leaders, more empowered with decentralization, have initiated local '*Jamkheda*' health protection schemes. While the *Jamkheda* schemes seem to have increased access to outpatient care, their impact on inpatient care or financial protection was limited according to Sparrow et al. Finally, in 2014 the federal government launched *Jaminan Kesehatan Nasional* (JKN) an integrated NHI scheme, subsuming the pre-existing schemes, which aims to accomplish universal SI by 2019.

While the reforms are mostly moving in the right direction, several challenges remain. First, the JKN is mainly directed at curative care, while preventive and primary care provided by the *pusekamas* are the most effective to improve health outcomes (Berman and Sakai 1993). Their benefit incidence is also the most egalitarian (Lanjouw et al. 2001). Further, service coverage under the JKN scheme is quite limited and OOP spending still accounts for 60 per cent of total health expenditure (WHO 2017). The large dependence on OOP spending inevitably leads to increasing inequality between more and less prosperous provinces, between rural and urban areas, and between different socioeconomic classes in access to healthcare. This is exacerbated by the remoteness of outlying islands. The referral system with the *pusekamas* as gatekeepers is not working effectively, resulting in overcrowding in secondary and tertiary care hospitals. Indonesia also has to cope with the migration of health workers, especially nurses, to other countries where they earn more. Finally, the JKN system does not have enough checks and balances against regulatory capture by private service providers, and the consequent escalation in costs.