

1 **Summary Statement**

2 • **What is known about the topic?**

3 • Strengthening primary health care leads to improved population health outcomes at lower
4 cost, paving the way towards universal health coverage.

5 • **What does this paper add?**

6 • Through a critical comparative dialogue analysing the primary health care policy of 6 Asia-
7 Pacific countries, key areas for regional development are identified and core
8 recommendations for future policy outlined.

9 **Summary text for the Table of Contents**

10 Strengthening primary health care (PHC) leads to improved population health outcomes at lower
11 cost, paving the way towards universal health coverage. Through a critical comparative dialogue
12 analysing the PHC policy of six Asia-Pacific countries, we have identified key areas for regional
13 development, and outline core recommendations for future policy. Successful PHC policy in Asia-
14 Pacific region requires sustainable equitable public-private partnerships, structured approaches to
15 information-sharing, improved multi-disciplinary team focused on both public and professional health
16 literacy, systems that can evaluate and improve quality of care by PHC providers, and high-yield,
17 high-quality community-based training programs to generate the workforce required to sustain the
18 system.

1 Abstract

2 Primary health care is essential for equitable, cost-effective and sustainable health care. It is the
3 cornerstone to achieving universal health coverage against a background of rising health
4 expenditure and aging populations. Implementing strong primary health care requires grassroots
5 understanding of health system performance. Comparing successes and barriers between
6 countries may assist in identifying mutual challenges and possible solutions. This paper compares
7 and analyses primary health care policy in Australia, Malaysia, Mongolia, Myanmar, Thailand and
8 Vietnam. Data were collected at the World Organization of Family Doctors Asia-Pacific regional
9 conference in November 2017 using a predetermined framework. The six countries varied in
10 maturity of their primary health care systems, including the extent to which family doctors
11 contribute to care delivery. Challenges included an insufficient trained and competent workforce,
12 particularly in rural and remote communities, and deficits in coordination within primary health care,
13 as well as between primary and secondary care. Asia-Pacific regional policy needs to focus on
14 better collaboration between public and private sectors; take a structured approach to information-
15 sharing through bridging gaps in technology, health literacy and interprofessional working; build
16 systems that can evaluate and improve quality of care; and promote community-based high-quality
17 training programs.

18

19 **Additional keywords:** Family doctor; General practice; Primary Health Care; Universal Health
20 Coverage; International collaboration; Global health; Social determinants of health.

21

22 Introduction

23 The healthcare systems of the Asia-Pacific region (China, South-East Asia, Australia, New Zealand
24 and Pacific Islands) are straining against rising health costs and diminished returns on healthcare
25 investment, particularly in response to ageing populations. Evidence indicates that formally
26 structured primary health care (PHC) and a trained primary care workforce leads to improved
27 population health at lower overall cost (Starfield 1994; Hansen *et al.* 2015). Strengthening PHC is
28 therefore a World Health Organization (WHO) priority in achieving universal health coverage
29 (UHC) (Pettigrew *et al.* 2015; Hone *et al.* 2018; Weel and Kidd 2018; WHO 2019), part of the
30 United Nations' Sustainable Development Goals (United Nations 2015), and regional and global
31 sustainable healthcare (WHO 2008).

32

33 In order to implement a strong PHC policy, it is necessary to have an understanding of both the
34 existing health system from a grassroots level, and the application of general principles adapted to
35 the prevailing local conditions. While PHC systems in Europe, North America and Australasia
36 (Australia and New Zealand) have been well-documented and compared (I LIVE PC 2012; Kringos
37 *et al.* 2013; Hutchison and Glazier 2013; Pavlič *et al.* 2018), this is less the case in many low- and
38 middle-income countries (LMIC). Over the past few years the World Organization of Family
39 Doctors (WONCA) Working Party on Research has undertaken work to examine and document
40 how PHC values may be addressed and implemented within the constraints of diverse health care
41 systems globally (WONCA 2019). Earlier studies have documented findings from the Asia-Pacific
42 (Weel *et al.* 2016), South Asia (van Weel *et al.* 2016), Africa (Mash *et al.* 2018), East
43 Mediterranean (van Weel *et al.* 2017) and Central and South American (Ramirez Aranda *et al.*
44 2017; Acosta Ramirez *et al.* 2016) regions (Van Weel and Howe, 2018), identifying common
45 challenges and priorities to strengthen PHC and secure UHC – despite differences in culture,
46 demography and health systems.

47

48 This is the second paper to document and critically appraise the PHC systems in the Asia-Pacific
49 region, with the objective of identifying common strategies for strengthening PHC and prioritising
50 recommendations for international collaboration across the region. The first paper discussed PHC
51 in China (Shanghai, Hong Kong), Japan, South Korea, Singapore, and Taiwan (Weel *et al.* 2016).

52

53 Country comparisons

54 The comparisons of six PHC systems (Australia, Malaysia, Mongolia, Myanmar, Thailand and
55 Vietnam) were presented at a panel discussion at the 2017 WONCA Asia-Pacific regional
56 conference held in Pattaya, Thailand. Expert academic family doctors presented their country
57 details, using the predetermined WONCA framework of 11 templated PowerPoint slides, which
58 focused on country demographics; PHC structure; role; types of community disciplines; role of
59 teams in service provision; relationship to other community services; benefits and barriers in
60 addressing the impact of community-based PHC teams on patient care and population health;
61 ways community-based PHC teams supported or impeded proactive responses to community

62 health needs; and lessons for other countries. All panel presenters, moderators and delegates
63 contributed to the discussion directed at strategies to strengthen PHC, and the focus was given to
64 possible contributions that could be made through regional and international collaboration.

65

66 Following the workshop, a framework analysis was conducted of the data provided from the six
67 PowerPoint presentations plus the resultant discussion, further informed through comparative
68 population-level health markers for each country.

69

70 **Australia**

71 The foundation of PHC delivery in Australia is a strong and well-established system of general
72 practice. Most PHC is delivered to Australians by individual general practitioners (GPs), with PHC
73 teams uncommon, except in Aboriginal health. There has been investment in the quality of general
74 practice and PHC through professional training, research and development for over 30 years,
75 however without a system of PHC teams the *“health care service delivery system is complex,*
76 *fragmented and often uncoordinated”* (Department of Health and Ageing 2009).

77

78 **Malaysia**

79 A combination of public and private funded health care has served the Malaysian population since
80 the 1950s. In response to the changing morbidity patterns from communicable to non-
81 communicable diseases (NCDs), integration of care in the public sector has been the priority of
82 primary care services. The Ministry of Health has expanded the primary care infrastructure,
83 investing in training family doctors and moving chronic disease management and health promotion
84 from secondary to primary care settings (Lim *et al.* 2017), including chronic disease management
85 and HIV clinics. Rising health care costs has shifted the burden of care from private to the heavily
86 subsidised public sector, where resources are already over-stretched (Ministry of Health, Malaysia
87 2016). Overall, an integrated public-private system with increased funding for primary care is
88 urgently needed.

89

90 **Mongolia**

91 Mongolia has Family Health Centres (FHCs) where health care workers are organised into
92 “partnerships”. FHCs provide services based on contractual arrangements between the
93 district/province governor and the health centres. FHCs are responsible for implementing
94 government-approved public health programs; conducting population screening for and monitoring
95 patients with NCDs; and referring patients to secondary or tertiary centres as appropriate (Center
96 for Health Development 2016). Because FHCs are solely funded by capitated payment from the
97 state budget, they have no independence to augment services through the private sector nor
98 develop true community-based PHC. In practice there are a few doctors and nurses trained in
99 family medicine, and an inadequate referral system with poor relationships between primary and
100 secondary care.

101 Myanmar

102 PHC in Myanmar is provided by a combination of medical professionals funded by the Ministry of
103 Health and Sports, the Ministry of Labour and the Ministry of Defence; private GPs, national and
104 international non-governmental organisations, and third sector providers. Medical officers, dental
105 officers and private GPs are the main PHC providers in urban and semi-urban areas, whereas
106 health assistants, female health visitors, midwives and health supervisors are the key providers in
107 rural areas (Latt *et al.* 2016). Although a national health insurance policy was started in 2015, PHC
108 disciplines, including ambulatory care, are not covered, with resulting high out-of-pocket costs to
109 patients. The impact of PHC activities on patient care is unclear. Barriers to achieve
110 comprehensive PHC at individual and community levels include low funding allocation of the
111 government health care budget, low population health literacy, disparities in access to, and
112 utilisation of, health services by the poor, and limited health information systems.

114 Thailand

115 In recent decades UHC reform has been a major achievement for the Thai health care system. A
116 strong foundation of PHC has demonstrated a reduction in geographic barriers to access, however
117 effective PHC delivery remains a challenge despite establishing family doctor training and a
118 financial management overhaul (Prakongsai *et al.* 2017). Recent family doctor training is focused
119 on collaboration with a multi-disciplinary team, reshaping the PHC model. Policy supporting PHC
120 has focused on the public sector, with efforts to improve public primary care infrastructure, but
121 human resources remains limited. PHC has experienced a chronic staff shortage and increased
122 demand for services, affecting health promotion and disease prevention programs
123 (Kitreerawutiwong *et al.* 2017). Community ownership, administered through district health boards,
124 to promote multi-sectorial collaboration and social entrepreneurship is essential to improve PHC
125 delivery in Thailand.

127 Vietnam

128 In the last decade, the Vietnamese Ministry for Health has supported open health care access
129 through PHC (Tuan 2016). PHC system has played an important role in achieving the goal of UHC,
130 which can be improved further with the upgrading of information and communication technology
131 (ICT) systems, a family medicine training program, and an established policy for the PHC sector.
132 Key priorities for PHC services over the next decade will be reducing medical costs and
133 overcrowding in secondary and tertiary care. PHC teams at a grassroots level should be
134 competent to provide integrated, comprehensive and patient-centred care at “Commune Health
135 Centres” that prioritise the doctor-patient relationship. However, the lack of a national accreditation
136 system and licensing standards needs to be addressed urgently. Close collaborative and multi-
137 disciplinary team working in PHC is required.

139 Comparative statistics

140 The relative populations and a number of population-level health markers for the six countries are
141 shown in Table 1. The life expectancy clearly differentiates the three lower middle-income
142 countries, Mongolia, Myanmar and Vietnam, from the two upper middle-income countries Thailand
143 and Malaysia, and then Australia as a high-income country. A similar pattern can be seen in the
144 maternal, neonatal and infant mortality rates and the probability of dying from a non-communicable
145 disease between the age of 30 to 70 years. Thailand stands out as doing well despite being the
146 country with the lowest number of doctors per 10,000 inhabitants and a relatively older population,
147 and this may be attributed to its UHC achieved through strengthening PHC.

148

149 **Discussion**

150 These six countries vary in the maturity of their PHC systems, their journey towards UHC, and the
151 extent to which family doctors deliver PHC. However common issues to overcome, derived directly
152 from the panel discussions, are shortages in the PHC workforce, particularly in rural and remote
153 communities, and lack of coordination within PHC, and between primary and secondary care.

154

155 ***Collaboration between public and private sectors***

156 The roles of public and private sectors in PHC, and ways in which they collaborate with each other
157 differ between countries. Malaysia has a dual system where locations, PHC team members,
158 morbidity patterns and financing mechanisms differ between public and private sectors. In
159 Australia, general practices are largely private businesses, but consultations are subsidised by the
160 government. In Myanmar, many PHC providers in both public and private sectors work in a
161 complementary manner, while there are moves in Mongolia to develop a public-private partnership
162 through legislation.

163

164 An important issue in public-private collaboration is the unequal health care burden between the
165 two sectors. Given the difference in financing between these two sectors and the increasingly
166 expensive cost of long-term chronic disease management, patient preference is likely to sway
167 towards and hence over-burden the public sector. This problem is more pronounced if both sectors
168 provide similar primary care services. Therefore, focus should be on developing a more
169 sustainable health financing system, which may include unified health financing for both public and
170 private sectors, or creating complementary roles and responsibilities between the two. The private
171 sector in health care service provision may have significant role in achieving UHC. Private sectors
172 have the potential to accelerate innovation in the health care system; however, regulation by the
173 government and other stakeholders is needed with regards to quality, access and costs, in keeping
174 with the public sector.

175

176 ***Gatekeeper role***

177 In Australia, general practice functions as a gatekeeper to secondary care, with specialist access
178 through GP referral only. In Mongolia, nearly every FHC looks after a defined and enrolled
179 population, whereas in Malaysia, only primary care in the public sector has a gatekeeper function.

180 These three versions of a gatekeeping role illustrate how each country's health care system is
181 dependent on quality of care in general practice, continuity of care, budget allocation between
182 primary and secondary care, and patients' out-of-pocket expenditure on health. Generalisable
183 recommendations are not appropriate, as each country needs to make its own road-map directed
184 by its individual economic development and political environment. It may be difficult to implement a
185 gatekeeping function and enrolment system in countries facing rapid development or with large
186 mobile populations such as refugees and migrants. Despite debate about the value of gatekeeping
187 (Greenfield and Foley 2016), it is a powerful instrument to reduce inequalities and promote
188 integrated care.

189

190 Information and communication technology

191 Availability of ICT in PHC varies between our case countries. However, even in those with
192 advanced ICT systems, information-sharing between primary and secondary care is still
193 inadequate to ensure effective referrals and continuity of care. This is not just a matter of
194 technology, but also of common understanding between health care professionals and addressing
195 health literacy gaps. These gaps exist between the providers of PHC and secondary care, and
196 between patients and healthcare providers, with resultant communication breakdown and
197 unsatisfactory patient health outcomes (MacLeod *et al.* 2017). Platforms for communication need
198 to be developed collaboratively. This creates a line of standardised communication and opportunity
199 for interprofessional learning. As insights into health literacy (Rudd 2013) and shared decision-
200 making (Elwyn *et al.* 2017) evolve, we need a structured approach to information-sharing, upskilling
201 the PHC workforce in interprofessional communication and multidisciplinary learning, whilst looking
202 to educate patient groups to improve health literacy.

203

204 Social determinants of health

205 The Asia-Pacific region is richly diverse, not only through its geography, climate, history, culture,
206 language and politics, but also in the distribution of social determinants of health (SDH) in its
207 populations. The social and economic burden due to an aging population and prevalent NCDs is a
208 challenge all countries will face sooner or later. Implementation of PHC in all Asia-Pacific countries
209 must take SDH into consideration. Access to health care is more challenging for those with a large
210 rural population, such as Myanmar and Vietnam (Table 1). The circumstances in which people
211 grow, live, work, and age, create (avoidable) inequities in health, shaped by political, social and
212 economic forces. Wars, conflicts and disasters also negatively contribute to SDH. It is ten years
213 since the WHO's Commission on Social Determinants of Health final report (Commission of Social
214 Determinants of Health 2008), and work is needed to verify how much these recommendations
215 have been put into practice. PHC works beyond providing acute and chronic care in isolation, and
216 achieving community engagement, continuity and empowerment to promote a healthier social
217 environment requires a collaborative effort.

218

219 Universal health coverage

220 Better access to PHC is the most efficient and affordable way to achieve UHC, as illustrated by
221 Thailand. Expansion of PHC services has been shown to lead to increased UHC and improved
222 health outcomes (Hsieh *et al.* 2015). On the other hand, financial constraints has made it difficult
223 for Myanmar to achieve UHC. On a global scale, at least half the world's population still lacks
224 access to essential health services – over 800 million people spend more than 10% of their
225 household budget on health care, and almost 100 million people are pushed into extreme poverty
226 each year, due to out-of-pocket health expenditures (World Bank 2017). Even countries that have
227 achieved UHC still experience the impact of aging, with the increased prevalence of NCDs and
228 multi-morbidity, as illustrated in Table 1. As we have passed the 40th anniversary of the Alma Ata
229 Declaration (WHO 1978), an important milestone in the development of PHC, it is important to
230 rethink the roles of family doctors in PHC and UHC now. Promoting high-quality research that
231 explores the cost-effectiveness of PHC, as well as building systems that appropriately evaluate
232 and improve the quality of care given by PHC providers including family doctors ,should be added
233 to the roles of PHC providers, and not neglected on the road towards UHC (Weel and Kidd2018).
234

235 **Lack of PHC workforce**

236 The disparity in the PHC workforce adequacy between urban and rural communities is large, and
237 constitutes a major issue in all the six countries. Many Australian rural GP positions are filled by
238 overseas-trained graduates and locums. Most doctors employed by FHC in Mongolia are new
239 graduates with little or no clinical experience. Dispatching inexperienced or in-training doctors to
240 rural and/or remote communities with little supervision can create safety issues for both doctors
241 and patients, undermining confidence and trust on both sides. Education, supervision and
242 mentorship can play a major positive role, however lack of training capacity challenges to ability to
243 fulfil the required number of healthcare professionals needed to sustain the workforce. Our earlier
244 analysis has revealed that over-reliance of health policy on hospital settings as the main provider
245 of care, as well as lack of professional training, are the major system barriers to strengthening PHC
246 (van Weel and Kassai 2017). We need to promote community-based high yield, high-quality
247 training programs in PHC, ensuring positive coverage at medical schools with students exposed to
248 family medicine as a career choice. Family doctor training needs to be put in place ahead of
249 systems changes, to ensure there is an adequate workforce to sustain the system.

250

251 **Conclusion**

252 Using the WONCA framework for a constructive comparative dialogue between health systems
253 has revealed key recommendations for future directions in PHC policy implementation. Successful
254 PHC policy in Asia-Pacific region requires:

- 255 • sustainable equitable public-private partnerships;
- 256 • structured approaches to information-sharing;
- 257 • improved multi-disciplinary team focused on both public and professional health literacy;
- 258 • systems that can evaluate and improve quality of care by PHC providers;
- 259 • high-yield, high-quality community-based training programs to generate the workforce

260 required to sustain the system.

261 These goals were articulated in the 1978 Alma Ata Declaration (WHO 1978) and further
262 emphasised in the 2018 Astana Declaration (WHO 2018) which called for populations to be
263 empowered to address their own health needs with high quality primary care and integrated
264 public/private, and intersectoral services. In 2016, the WHO Western Pacific Office called for
265 countries in the region to embed the health system attributes and corresponding action domains for
266 the attainment of UHC and the Sustainable Development Goals into national health policy reform,
267 followed up in 2018, with calls for a renewed focus on PHC values as part of a multisectoral
268 commitment to UHC (WHO Regional Office for the Western Pacific, 2016 and 2018).

269

270 The future research agenda includes evaluating the value of gatekeeping and enrolment systems
271 for individual health systems; seeking new methods to evaluation cost-effectiveness and quality of
272 PHC internationally; and verifying the achievement of the WHO's SDH recommendations
273 (Commission of Social Determinants of Health 2008). Achieving this will mark a key milestone in
274 the quest for UHC sustained through strong, equitable and cost-effective PHC.

275 References

- 276 Acosta Ramirez N *et al.* (2016) Mapping primary health care renewal in South America. *Fam Pract*
 279 **33**(3), 261-267.
- 280 Center for Health Development (2016) 'Health Indicators, Mongolia.' Available at
 281 <http://www.chd.mohs.mn/2017/smta/2016%20Health%20indicator.pdf> [Verified 8 March 2020]
 282 Commission of Social Determinants of Health (2008) 'Closing the gap in a generation: health
 283 equity through action on the social determinants of health.' (WHO: Geneva) Available at
 284 [http://apps.who.int/iris/bitstream/handle/10665/43943/9789241563703_eng.pdf;jsessionid=6EA4D](http://apps.who.int/iris/bitstream/handle/10665/43943/9789241563703_eng.pdf;jsessionid=6EA4DFA6DD663EF58F30B27FF42E6715?sequence=1)
 285 [FA6DD663EF58F30B27FF42E6715?sequence=1](http://apps.who.int/iris/bitstream/handle/10665/43943/9789241563703_eng.pdf;jsessionid=6EA4DFA6DD663EF58F30B27FF42E6715?sequence=1) [Verified 8 March 2020]
 286 Department of Health and Ageing (2009) 'Primary health care reform in Australia: report to support
 287 Australia's first national primary health care strategy.' (DoH, Canberra) Available at
 288 <https://trove.nla.gov.au/version/44706543> [Verified 8 March 2020]
 289 Elwyn G *et al.* (2017) A three-talk model for shared decision making: multistage consultation
 290 process. *BMJ* **359**, j4891.
- 291 Greenfield G and Foley K (2016) Rethinking primary care's gatekeeper role. *BMJ* **351**, i4803.
- 292 Hansen J *et al.* (2015) Living in a country with a strong primary care system is beneficial to people
 293 with chronic conditions. *Health Affairs* **34**, 1531-1537.
- 294 Hone T *et al.* (2018) Revisiting Alma-Ata: what is the role of primary health care in achieving the
 295 Sustainable Development Goals? *Lancet* **392**, 1461-1472
- 296 Hsieh VC *et al.* (2015) Universal coverage for primary health care is a wise investment: evidence
 297 from 102 low- and middle-income countries. *Asia-Pacific J Pub Health* **27**(2), NP877-86.
- 298 Hutchison B and Glazier R (2013) Ontario's primary care reforms have transformed the local care
 299 landscape, but a plan is needed for ongoing improvement. *Health Aff (Millwood)* **32**, 695-703.
- 300 International Learning on Increasing the Value and Effectiveness of Primary Care (I LIVE PC)
 301 (2012) *Journal American Board of Family Medicine* **25** Suppl 1, S1-S44.
- 302 Kitreerawutiwong N *et al.* (2017) Facility type and primary care performance in sub-district health
 303 promotion hospitals in Northern Thailand. *PLoS ONE* **12**(3), e0174055.
- 304 Kringos D *et al.* (2013) The strength of primary care in Europe: an international comparative study.
 305 *Br J Gen Pract* **63**, e742-e750.
- 306 Lim HM *et al.* (2017) Chasm in primary care provision in a universal health system: Findings from a
 307 nationally representative survey of health facilities in Malaysia. *PLoS ONE* **12**(2), e0172229.
- 308 MacLeod S *et al.* (2017) The impact of inadequate health literacy on patient satisfaction,
 309 healthcare utilization, and expenditures of older adults. *Geriatric Nursing* **38**, 334-341.
- 310 Mash R *et al.* (2018) Reflections on family medicine and primary healthcare in sub-Saharan Africa.
 311 *BMJ Glob Health* **3**(Suppl 3), e000662. [Verified 8 March 2020]
 312 Ministry of Health (2016) 'Malaysian Health System Research Volume 1: Contextual Analysis of
 313 the Malaysian Health System.' (MoH, Kuala Lumpur) Available at
 314 [https://www.researchgate.net/publication/320799211_Malaysia_Health_System_Research_MHSR](https://www.researchgate.net/publication/320799211_Malaysia_Health_System_Research_MHSR_Volume_1/download)
 315 [_Volume_1/download](https://www.researchgate.net/publication/320799211_Malaysia_Health_System_Research_MHSR_Volume_1/download) [Verified 8 March 2020]

- 316 Pavlič DR *et al.* (2018) Strength of primary care service delivery: a comparative study of European
317 countries, Australia, New Zealand, and Canada. *Prim Health Care Res Dev* **19**, 277–287.
- 318 Pettigrew LM *et al.* (2015) Primary health care and the Sustainable Development Goals. *Lancet*
319 **386**, 2119-2121.
- 320 Prakongsai P *et al.* (2009) 'Enhancing the primary care system in Thailand to improve equitable
321 access to quality health care.' Available at <http://dx.doi.org/10.2139/ssrn.1527989> [Verified 8 March
322 2020]
- 323 Ramirez Aranda J *et al.* (2017) Strategies for Increasing the Role of Family Medicine in Mexican
324 Health Care Reform. *J Am Board Fam Med* **30**(6), 843-847.
- 325 Rudd RE (2013) Needed action in health literacy. *J Health Psychol* **18**, 1004-10.
- 326 Sein TT *et al.* (2014) The Republic of the Union of Myanmar Health System Review. *Health*
327 *Systems in Transition* **4**(3), 1-238.
- 328 Starfield B (1994) Is primary care essential? *Lancet* **344**, 1129-1133.
- 329 Tuan PL (2016) Vietnam health system and health infrastructure: achievements, challenges and
330 orientation (MoH, Vietnam) Available at https://www.designandhealth.org/?jet_download=2200
331 [Verified 8 March 2020]
- 332 United Nations (2015) 'Sustainable Development Goals.' Available at
333 <https://sustainabledevelopment.un.org/?menu=1300> [Verified 8 March 2020]
- 334 van Weel C *et al.* (2016) Primary healthcare policy implementation in South Asia. *BMJ Glob Health*
335 **1**, e000057
- 336 van Weel C *et al.* (2017) Primary healthcare policy implementation in the East Mediterranean
337 region: Experiences of six countries. *Eur J Gen Pract* **24**(1), 39-44.
- 338 van Weel C and Kassai R (2017) Expanding primary care in South and East Asia. *BMJ* **356**, j634.
- 339 Van Weel C and Howe A (2018) Primary care around the world: recommendations for international
340 policy & development. CRC Press, Oxford, UK
- 341 Weel C van *et al.* (2016) Evolving health policy for primary care in the Asia-Pacific region. *Br J Gen*
342 *Pract* **66**(647), e451-e453.
- 343 Weel C van and Kidd MR (2018) Why strengthening primary health care is essential to achieving
344 universal health coverage. *CMAJ* April 16; **190**(15), E463-6.
- 345 WHO (1978) 'Declaration of Alma-Ata. International Conference on Primary Health Care, Alma-
346 Ata, USSR, 6-12 September 1978.' Available at
347 https://www.who.int/publications/almaata_declaration_en.pdf [Verified 8 March 2020]
- 348 WHO (2008) 'The World Health Report 2008 – Primary Health Care, now more than ever.' (WHO:
349 Geneva) Available at <http://www.who.int/whr/2008/en/> [Verified 8 March 2020]
- 350 WHO (2018) 'Declaration of Astana. Global Conference on Primary Health Care: from Alma-Ata
351 towards universal health coverage and the Sustainable Development Goals, Astana, Kazakhstan,
352 25 and 26 October 2018.' Available at [https://www.who.int/docs/default-source/primary-](https://www.who.int/docs/default-source/primary-health/declaration/gcphc-declaration.pdf)
353 [health/declaration/gcphc-declaration.pdf](https://www.who.int/docs/default-source/primary-health/declaration/gcphc-declaration.pdf) [Verified 8 March 2020]
- 354 WHO (2019) 'Universal Health Coverage.' Available at
355 http://www.who.int/universal_health_coverage/en/ [Verified 8 March 2020]

- 356 WHO Regional Office for the Western Pacific (2014) 'Country profiles.' Available at
357 <http://hiip.wpro.who.int/portal/Countryprofiles.aspx> [Verified 8 March 2020]
- 358 WHO Regional Office for the Western Pacific (2016) 'Universal Health Coverage: Moving Towards
359 Better Health – Action Framework for the Western Pacific Region.' Available at
360 <https://iris.wpro.who.int/handle/10665.1/13371> [Verified 8 March 2020]
- 361 WHO Regional Office for the Western Pacific (2018) 'Primary health care in the Western Pacific
362 Region : looking back and future directions.' Available at
363 <https://iris.wpro.who.int/handle/10665.1/14311> [Verified 8 March 2020]
- 364 WONCA (2019) 'Plenary panel project resource documents' Available at
365 <http://www.globalfamilydoctor.com/groups/WorkingParties/Research/plenarypanelprojectresourced>
366 [ocuments.aspx](http://www.globalfamilydoctor.com/groups/WorkingParties/Research/plenarypanelprojectresourced) [Verified 8 March 2020]
- 367 World Bank (2017) Tracking universal health coverage: 2017 global monitoring report. (World Bank
368 Group: Washington DC.) Available at
369 <http://documents.worldbank.org/curated/en/640121513095868125/Tracking-universal-health->
370 [coverage-2017-global-monitoring-report](http://documents.worldbank.org/curated/en/640121513095868125/Tracking-universal-health-) [Verified 8 March 2020]
- 371 World Bank (2019) 'World Bank Open Data: Physicians.' Available at
372 <https://data.worldbank.org/indicator/SH.MED.PHYS.ZS> [Verified 8 March 2020]

1 **Table 1 Country population health marker comparisons**

2

Country	Population in millions*	% population urban 2018 ^a	Doctors per 10,000 inhabitants ^b	Median age population (in yrs) 2020 ^c	Estimate population >65 yr in 2020 ^b	Average annual population change 2015-2020 ^b	Maternal mortality ratio (/100,000 live births) 2016 ^d	Neonatal mortality rate (/1000 live births) 2015 ^e	Under-5 mortality (/1000 live births) 2015 ^e	Life expectancy at birth (in yrs) 2015 ^e	Probability of dying from CVD, cancer, diabetes, or CRD age 30-70 yrs (%) 2012 ^e
Australia	24.5	86	35	37.9	16%	1.27%	6	3.8	3.8	82.8	9.4
Malaysia	31.7	76	15.8	30.3	7%	1.79%	30	7.0	19.6	75.0	19.6
Mongolia	3.1	68	32.4	28.2	4%	0.31%	47	22.4	22.4	68.8	32.0
Myanmar	51.4	31	5.7	29.0	6%	0.65%	246	24.3	50.0	66.6	24.3
Thailand	68.8	50	4.7	40.1	13%	0.31%	38	16.2	12.3	74.9	16.2
Vietnam	91.7	36	8.8	32.5	8%	0.98%	45	21.7	14.9	76.0	17.4

3 ^a United Nations Population Division. World Urbanization Prospects 2018

4 ^b WHO Western Pacific Region 2014

5 ^c United Nations World Population Prospects 2019

6 ^d WHO Global Health Observatory country views

7 ^e WHO 2016: Monitoring health for the SDGs Annex B: tables of health statistics by country, WHO region and globally

8

9 Yr = year; CVD = cardiovascular disease; CRD = chronic respiratory disease