Diversity and equity to health care in the Asian Pacific region

(PART ONE)

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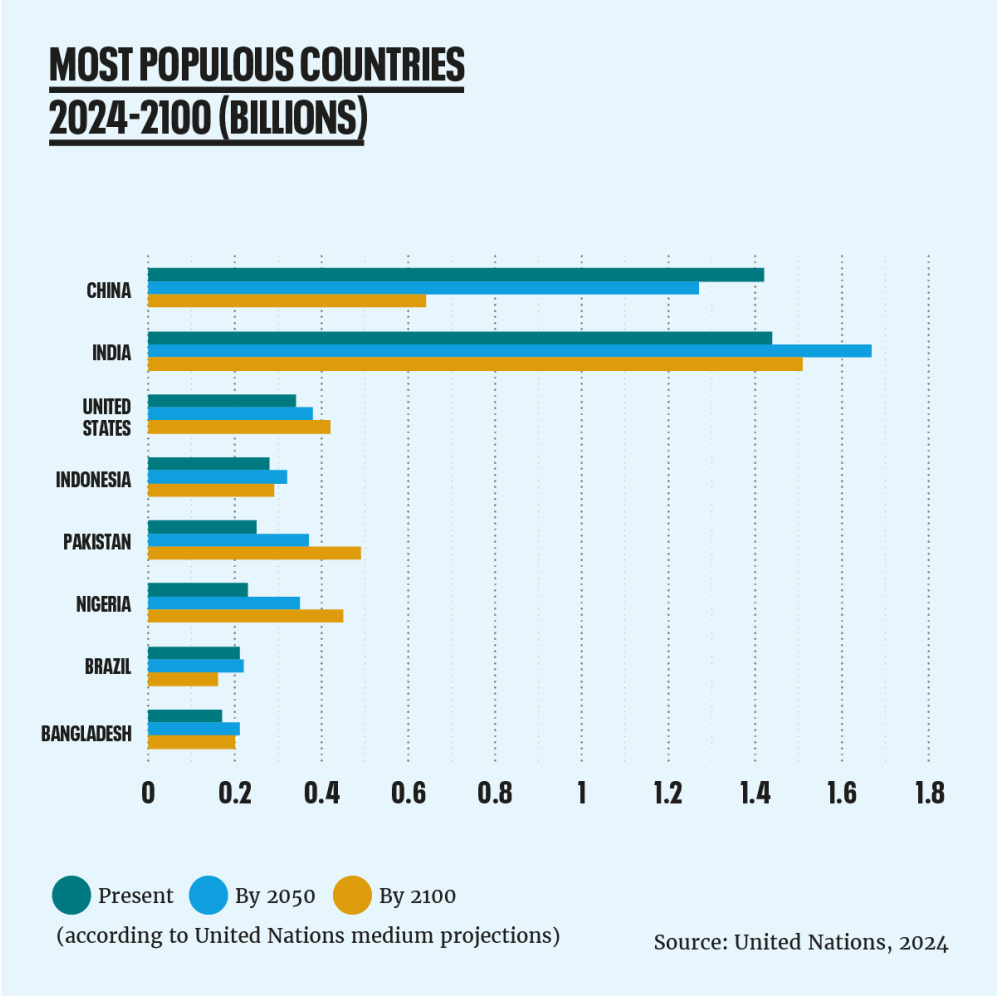
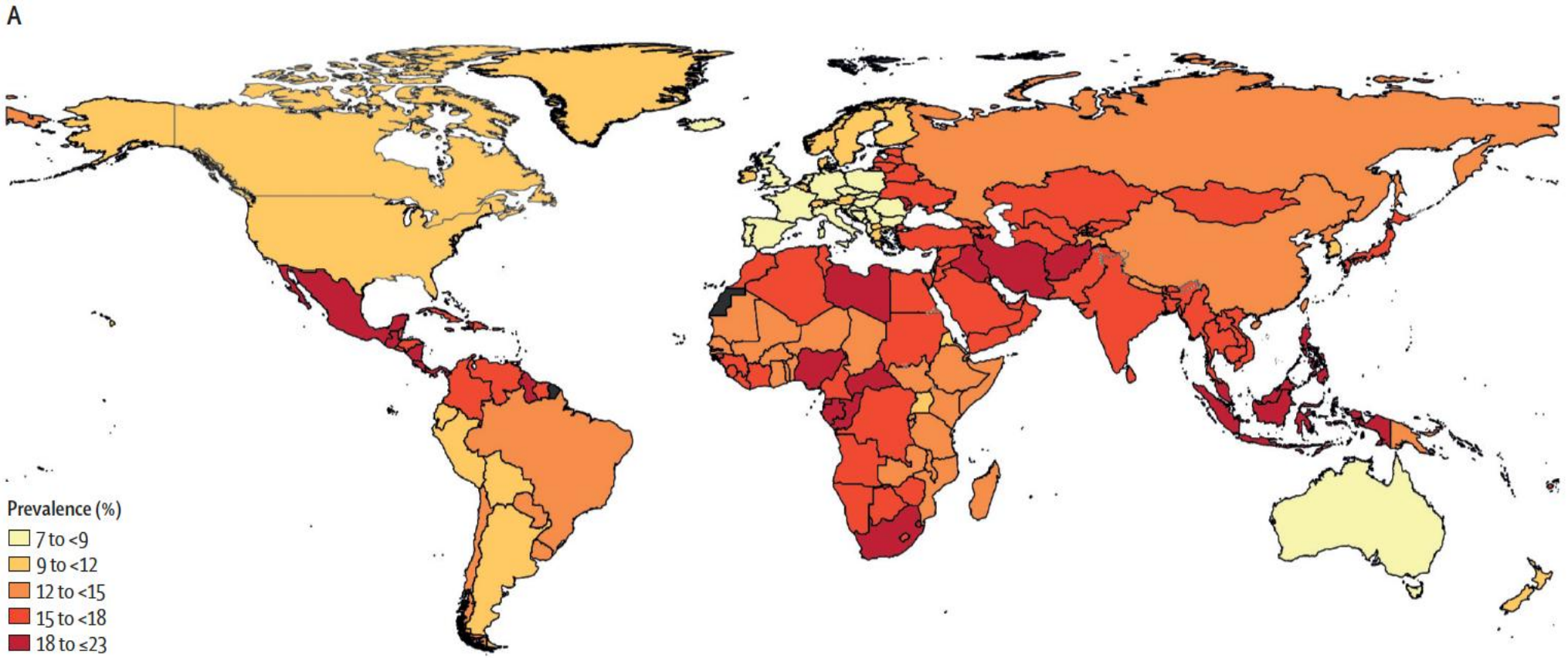
Introduction

- The Asian Pacific region is the largest and most populated region in the world
- Home to 60% of the global population (~ 4.3 billion people)
- Includes the world's most populous countries, China and India
- Also contains some of the smallest populations on the planet, especially among the Small Island Developing States in the Pacific
- This diversity is accompanied by changing demographic trends, characterized by overall lower fertility and mortality rates, as well as rapid urbanization and sizeable migration flows within and outside the region



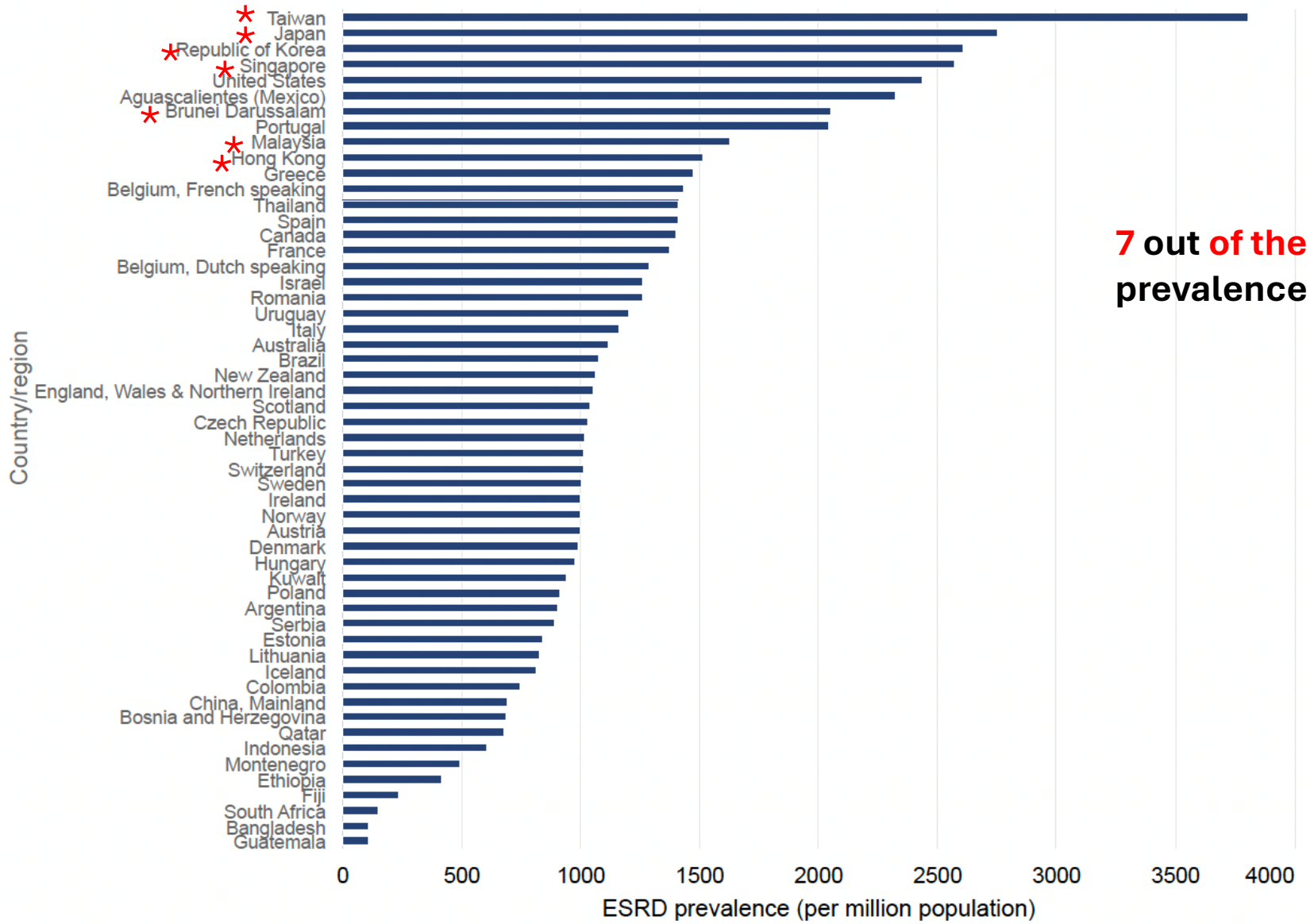
https://www.unfpa.org/data

Asia has a disproportionately higher CKD prevalence



GBD Study 2023 - CKD analysis
Lancet Nov 7, 2025
https://doi.org/10.1016/S0140-6736(25)01853-7

Prevalence of treated ESKD, by country or region, 2022

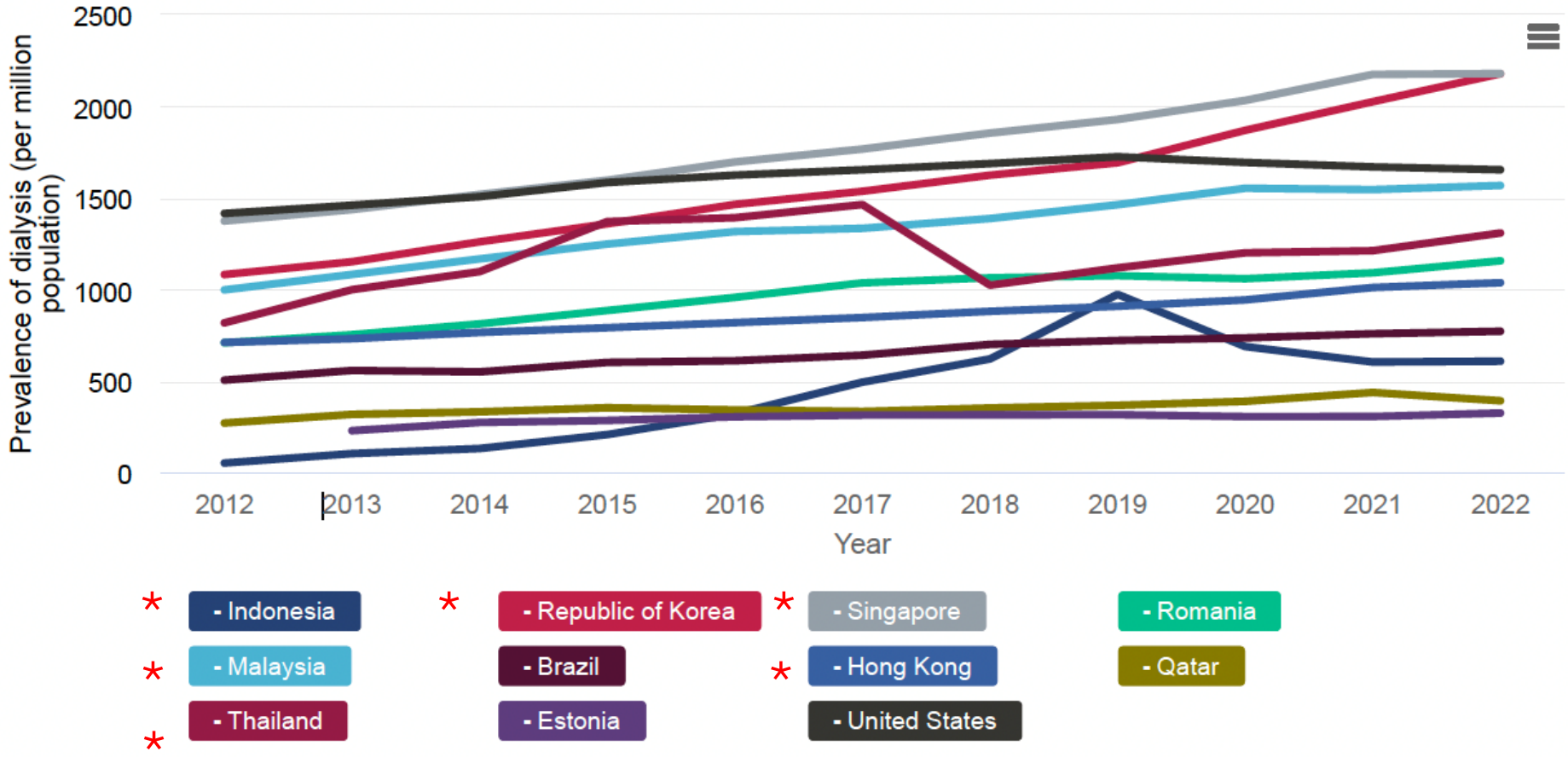


7 out of the top 10 countries for prevalence of treated ESKD are Asian

USRDS report 2024

Asia has the highest growth in CKD due to an exponential rise in the incidence of diabetes mellitus, hypertension and aging populations

Figure 11.17a Prevalence of dialysis in countries or regions with the largest percentage increase in dialysis between 2012 and 2022



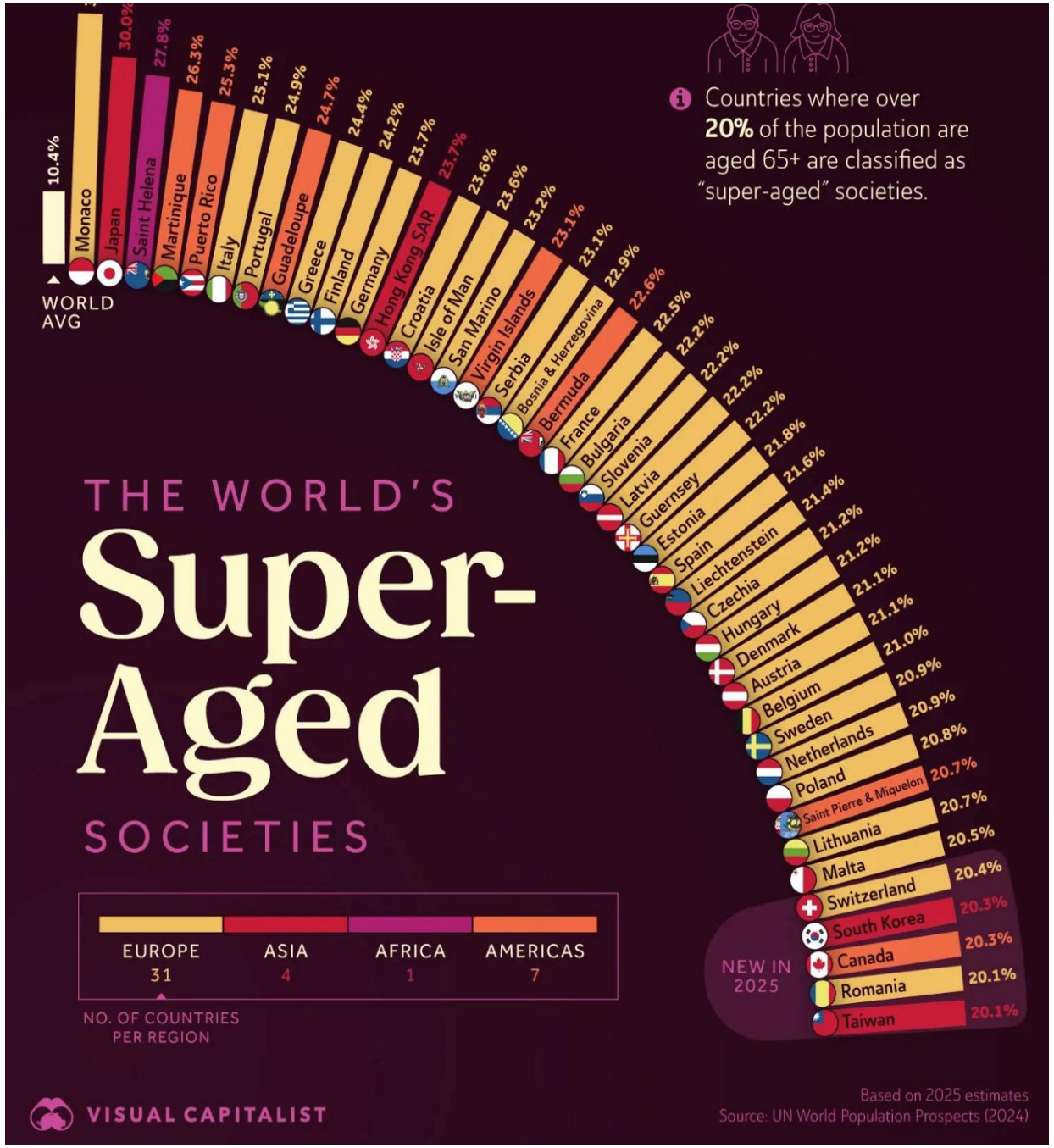
Data source: USRDS ESRD database and internationally supplied data. Ten countries or regions having the highest percentage rise in dialysis prevalence: 2021/22 versus that in 2012/13, plus the U.S. The prevalence is unadjusted and reflects prevalence of dialysis at the end of each year. NOTE: Data collection methods vary across countries and regions, requiring caution in making direct comparisons.

USRDS report 2024

Aging trends in AP region

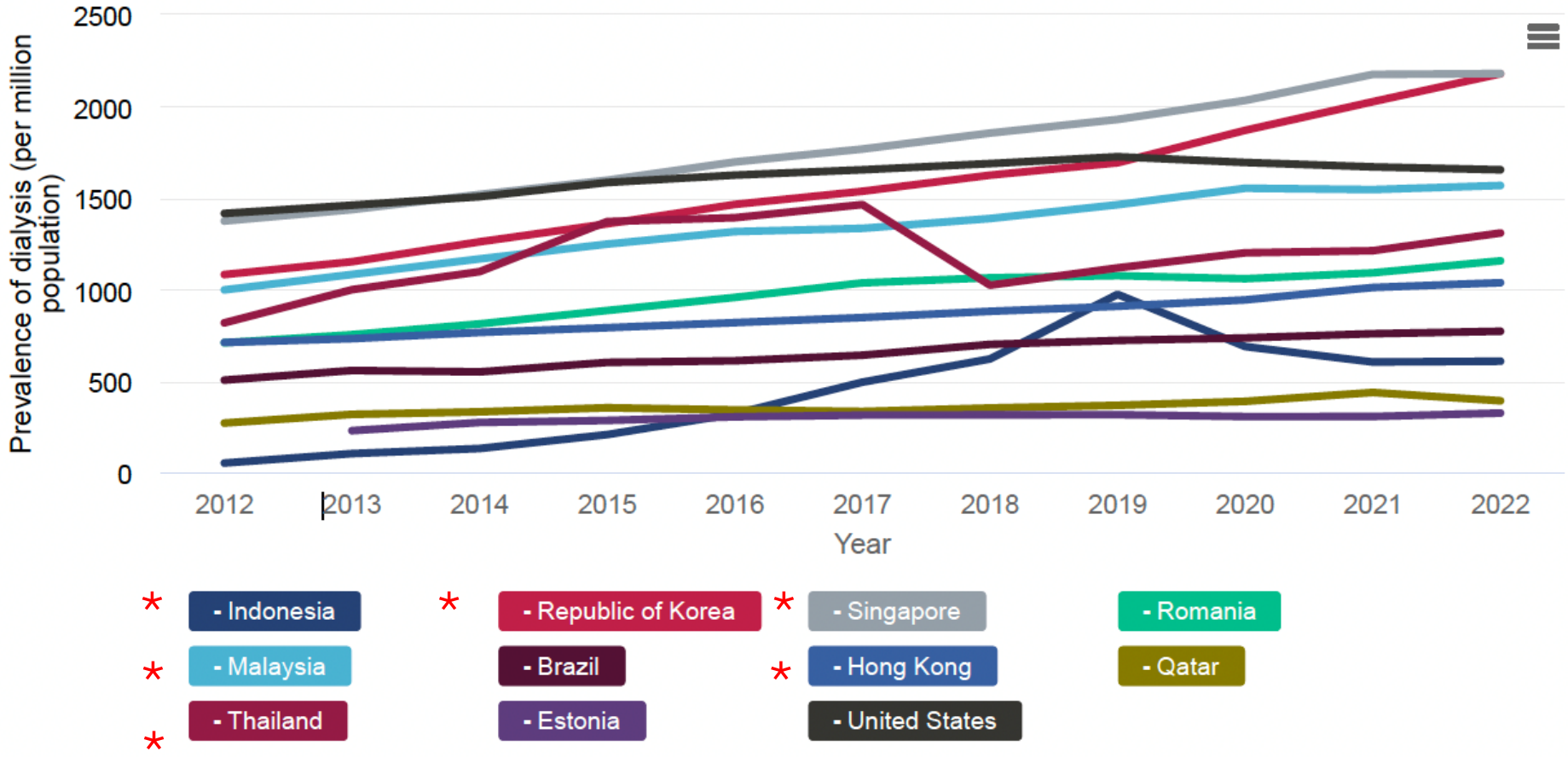
- Between now and 2050 the number of people aged ≥60 years in the region will more than double, reaching 1.3 billion
- By the middle of this century,1 in 4 will be 60 or older (1 in 10 today)
- East and North-East Asia will be even higher – 1 in 3 people will be> 60yrs ; most in this group will be women without pensions or any type of social protection net.

https://www.unfpa.org/data



While Asia has the highest growth in dialysis numbers….

Figure 11.17a Prevalence of dialysis in countries or regions with the largest percentage increase in dialysis between 2012 and 2022



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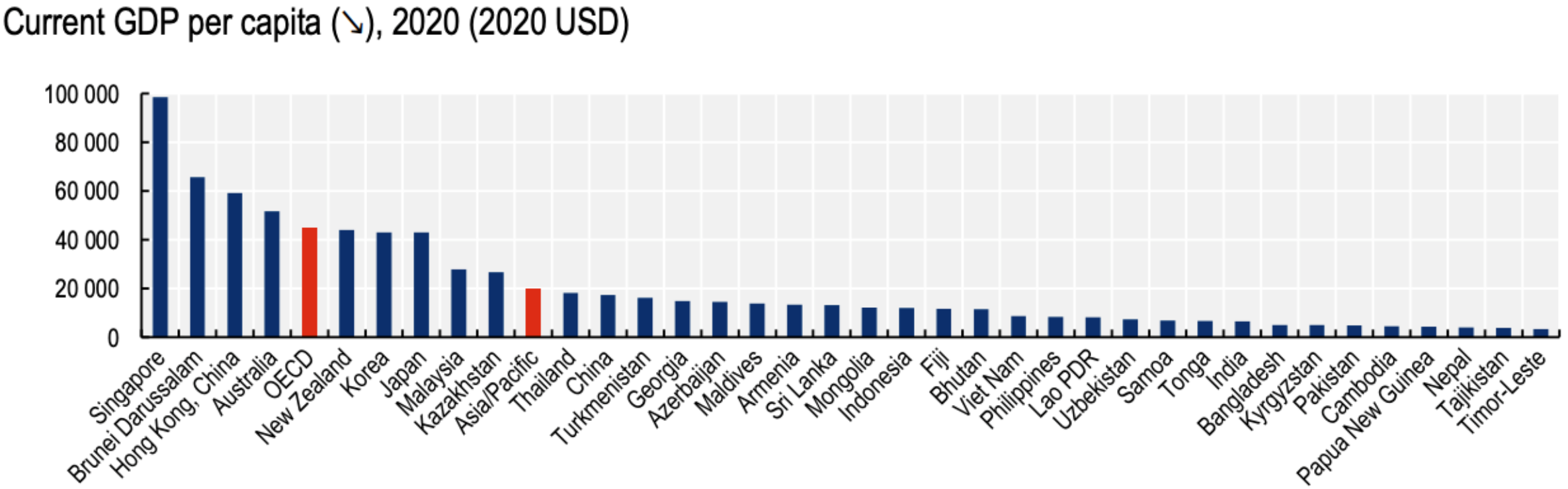
- **Asia is very heterogenous in terms of socio-economic development**
- **Has the largest treatment gap in kidney failure, with 1.9 million people needing, but not receiving KRT *(Liyanage et al, 2015)***

Figure 2.1. GDP per capita varies considerably across the Asia/Pacific region



Source: OECD National Accounts Database (2021); World Bank (2021), World Development Indicators.

StatLink https://stat.link/hvwydg

Cultural, Ethnic and Geographic variations

- also impact on KRT access and choices

Early in 2025, the Diversity and Equity Committee (DEC) of the APSN conducted a regional review →

DEC Manuscript in *Nephrology*

NEPHROLOGY

Disease burden and disparities of care for kidney health in the Asian Pacific Region: Summary Report from Diversity and Equity Committee of APSN

Journal:	*Nephrology*
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Date Submitted by the Author:	03-Aug-2025
Complete List of Authors:	Wu, I-Wen; Taipei Medical University Hospital; Taipei Medical University College of Medicine Park, Hayne Cho; Kangnam General Hospital Kwek, Jia Liang; Singapore General Hospital Kwan, Lorraine; Queen Mary Hospital Department of Medicine Adiya, Saruultuvshin; Mongolian National University Jesudason, Shilpanjali; Royal Adelaide Hospital Leong, Bryan Chong Men; Penang Institute Pyar, Khin Phyu; Defence Services Medical Academy Pichaiwong, Warangkana; Rajavithi Hospital Ding, Xiaoqiang; Zhongshan Hospital Fudan University Department of Nephrology; Shanghai Medical Infomation Center Manandhar, Dhiraj Naryan; Nepal Mediciti Yanagita, Motoko; Kyoto University Department of Plastic and Reconstructive Surgery; Kyoto University School of Public Health Department of Health Informatics
Subject Category:	Chronic Kidney Disease
Keywords:	chronic kidney disease (CKD), end-stage kidney disease, health services

Disease burden and disparities of care for kidney health in the Asian Pacific Region: Summary Report from Diversity and Equity Committee of APSN

I-Wen Wu[1,2], Hayne Cho Park[3], Kwek Jia Liang[4], Lorraine Kwan[5], Saruultuvshin Adiya[6], Shilpanjali Jesudason[7], Bryan Chong Men Leong[8], Khin Phyu Pyar[9], Warangkana Pichaiwong[10], Xiaoqiang Ding[11], Dhiraj Naryan Manandhar[12], Motoko Yanagita[13,14]

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DEC Review

- AIM : to characterize disparities in kidney disease burden, healthcare access, and nephrology service delivery across the Asia-Pacific (AP) region.

- METHODS:
  - Descriptive summary using national reports, registries, ISN Global Kidney Health Atlas and expert inputs from 22 DEC representatives
  - Data included kidney disease prevalence, dialysis and transplant modalities, healthcare system characteristics, and disparity-related indicators

- Comparative insights were drawn across countries using structured tables and narrative synthesis

FINDINGS

TABLE 1. OVERALL AND GENDER-SPECIFIC BURDEN OF CKD

Table 1: Overall and Gender-specific Burden of Kidney Disease

Country	CKD				Prevalent patients on Hemodialysis				Prevalent patients on Peritoneal dialysis				Prevalent patients on Transplantation			
	Prevalence rate (%)	Man, (%)	Women, (%)	*Reference*	Overall, n	Man, n (%)	Women, n (%)	*Reference*	Overall, n	Man, n (%)	Women, n (%)	*Reference*	Overall, n	Man, n (%)	Women, n (%)	*Reference*
Japan	20%	No data	No data	Clinical practice guidebook for diagnosis and treatment of chronic kidney disease 2024	334,653	222,930 (66.6%)	111,723 (34.4%)	2022 Annual Dialysis Data Report, JSDT Renal Data Registry	10,531	6,590 (65.7%)	3,444 (34.3%)	2022 Annual Dialysis Data Report, JSDT Renal Data Registry	1,782	1,072 (60,2%)	614 (39.8%)	Annual Progress Report from the Japanese Renal Transplant Registry: Number of Kidney transplantations in 2022 and Follow-up Survey, https://www.jstage.jst.go.jp/article/jst/58/3/58_189/_pdf/-char/en
Taiwan	11.90%	12.90%	11.00%	Wen CP et al, Lancet, 2008	83,020	44,542 (53.7%)	38,478 (46.3%)	2023 Annual Report of TWRDS	6,713	3,352 (49.9%)	3,361 (50.1%)	2023 Annual Report of TWRDS	3,217	1,796 (55.8%)	1421 (44.2%)	2023 Annual Report of TWRDS
Australia	11%	Equal Male and females (higher in men in age 54-74 years group)	Equal Male and females (higher in men in age 54-74 years group)	Australian Institute of Health and Welfare (2024) Chronic kidney disease: Australian facts, AIHW, Australian Government, accessed 26 January 2025. Based on 2011-12 Australian Health Survey data.	12,949	7815 (60.4%)	5134 (39.6%)	ANZDATA Registry 2023 Report	2,674	1,655 (61.9%)	1,019 (38.1%)	ANZDATA Registry 2023 Report	13,648	8,368 (61.3%)	5,280 (38.7%)	ANZDATA Registry 2023 Report

Wu et al, in press 2025

Country	CKD				Prevalent patients on Hemodialysis				Prevalent patients on Peritoneal dialysis				Prevalent patients on Transplantation			
	Prevalence rate (%)	Man, (%)	Women, (%)	*Reference*	Overall, n	Man, n (%)	Women, n (%)	*Reference*	Overall, n	Man, n (%)	Women, n (%)	*Reference*	Overall, n	Man, n (%)	Women, n (%)	*Reference*
Korea	6.50%	7.40%	5.60%	*Sci Rep* **13** 5831 (2023)	110,443	67,370 (61%)	43,073 (39 %)	2023KORDS (https:/ksn.or.kr)	5,253	3,047 (58%)	2,206 (42%)	2023KORDS (https:/ksn.or.kr)	22,009	13,205 (60%)	8,804 (40%)	2023KORDS (https:/ksn.or.kr)
Thailand	17.50%	16.30%	18.50%	Thai SEEK study. Nephrol Dial Transplant. 2010	129,113	52.3%*	46.1%*	Thailand renal replacement therapy registry 2023	14,779	50.8%*	48.2%*	Thailand renal replacement therapy registry 2023	7,555	60.7%*	39.3%*	Thailand transplantation registry 2023
Mongolia	8.68%	No data	No data	Kidney International Supplements Volume 11, Issue 2, May 2021, Pages e77-e85	1295	757(58.4%)	538(41.6%)	2022 Mongolian dialysis registry	114	54(47.4%)	60(52.6%)	2022 Mongolian dialysis registry, Mongolian Nephrology Association www.nephrology.mn	40 (2022 incident total number)	31(77.5%)	9(22.5%)	Department for regulating cell, tissue and organ transplantation, Center for Health Development, Mongolia, https://hdc.gov.mn/page/139/

*The Thailand Renal Replacement Therapy Registry only presents data stratified by gender in percentages. Missing data were attributed to the incomplete data collection during the reimbursement procedure.

1. Variation in CKD prevalence across the AP region

Japan 20%
Thailand 17.5%
Malaysia 15.5%
Taiwan 11.9%
Australia 11%
Mongolia 8.68%
South Korea 6.5%

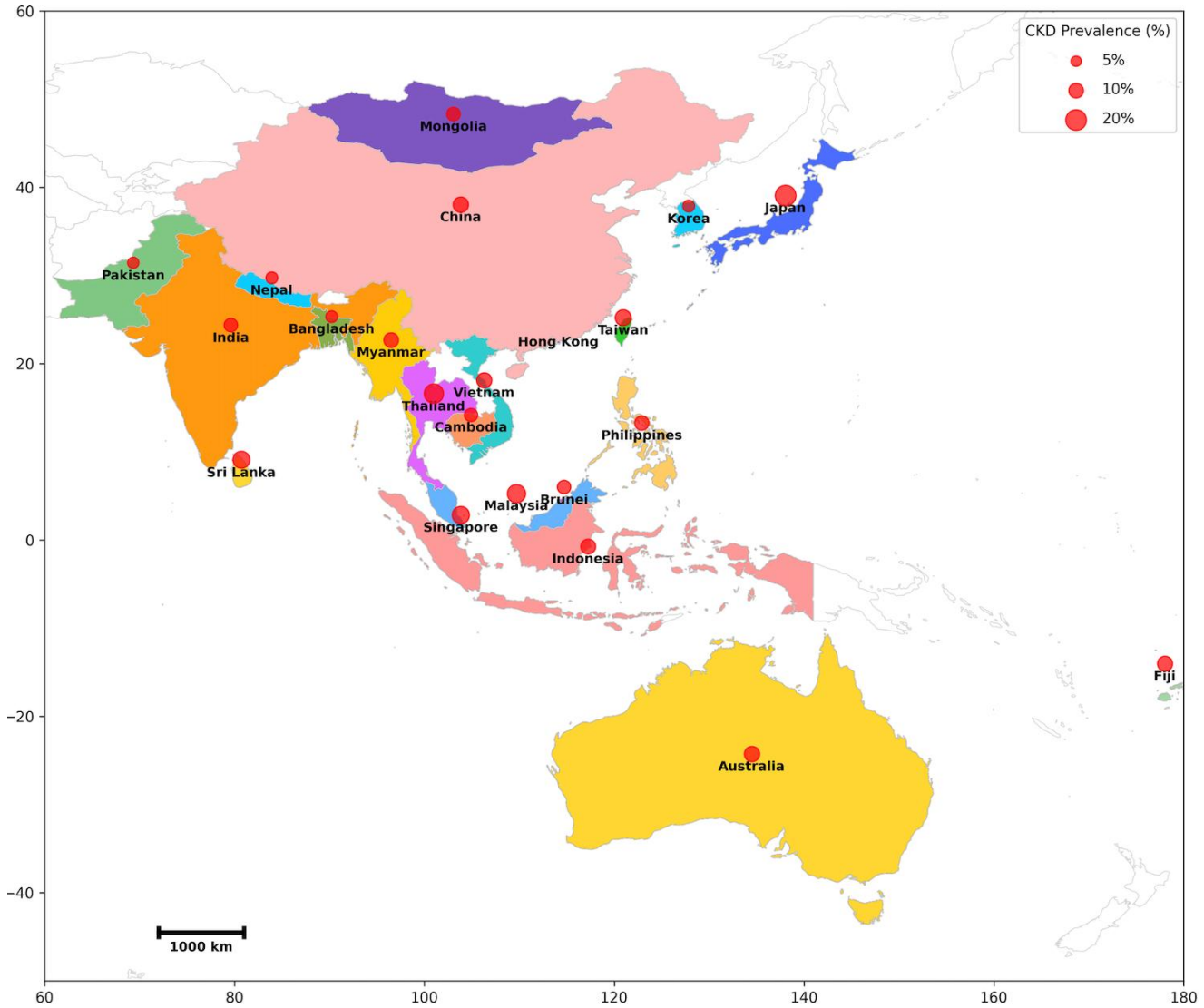

Fig 1. Prevalence of CKD in the 22 AP Countries participating in the APSN DEC study

Wu et al, in press 2025

2. Prevalence of patients with CKD, dialysis & transplant, with gender distributions

COUNTRY	OVERALL CKD PREVALENCE/ M:F ratio	OVERALL HD (no. (% of KRT) / M:F ratio	OVERALL PD (no.(% of KRT) / M:F ratio	OVERALL TX (no.(% of KRT) / M:F ratio	TOTAL ON KRT
Japan	20% / no data	334,653(96.45%) / **66.3% : 33.4%**	10,531 (3.04%) / **65.7% : 35.3%**	1782 (0.5%) / **60.2% : 39.8%**	
Taiwan	11.9% / 12.9% : 11%	83020(89.3%) / 53.7% : 46.3%	6713 (7.2%)/ 49.9%: 59.1%	3217 (3.46%) / 55.8% : 44.2%	
Australia	11% / equal exc.M>F for ages 54-74 yrs	12,949 (44.2%) / **60.4% : 39.6%**	2,674 (9.1%) / **61.9% : 38.1%**	13,648 (**46.6 %**) / **61.3% : 38.7%**	
Hong Kong	No data	2462 (21.9%) / 57.3%: 42.7%	5280 (**47%**) / 59.8%: 40.2%	3478 **(31%)** / 56.9%: 43.1%	
Singapore	No data	7745 (73.8%) /	1133 (10.8%) /	1611(15.4%) /	
Malaysia	15.5%/	46,659 (84.4%) /	6551(11.8%) /	2101 (3.79%) /	
Mongolia	8.68% gender –no data	1295 (89.4%) / 58.4% : 41.6%	114 (7.8%) / 47.4% : 52.6%	40 (2.8%) / **77.5% : 22.5%**	

1.Most countrieshave heavy utilization of HD
Exceptions :
Hong Kong (PD + high Tx rate)

3. In MICs – no gender differences for dialysis
Tx shows gender disparity, M > F KTRs , esp in Mongolia

2. HIC - Gender distributions (*Aus, *Japan, *Kor,) for dialysis M>F , rest equal
(*CKD overall M>F **vs** usual F> M (seen here with MIC) / + more M have CKD progressi
Tx - Japan, Aust, Kor. show M>F KTRs ; Spore, Taiwan = equal

Top 5 Primary Diseases of ESKD

Table 2: Top-5 primary diseases of End-Stage Kidney Disease

Country	Overall	Man	Women	*Reference*
Japan	1, 2, 3, 6, 5	1, 2, 3, 6, 5	1, 2, 3, 6, 5	Annual Dialysis Data Report, JSDT Renal Data Registry, 2022
Taiwan	1, 3, 2, 6, 4	No data	No data	Annual Report of Taiwan Renal Database System, 2023
Australia	1, 2, 3, 8, 4	No data	No data	Australia and New Zeeland Dialysis and Transplant Registry, 2023
Hong Kong	2, 1, 6, 3, 5	1, 2, 6, 3, 5	2,1,6,3,5	Hong Kong Renal Registry, 2023
Malaysia	1,3,6,2,7	No data	No data	Malaysian Dialysis and Transplant Registry, 2023
Singapore	1, 3, 2, 5, 9	1, 3, 2, 9, 5	1, 3, 2, 5, 9	Singapore Renal Registry, 2022
Korea	1, 3, 2, 5, 6	1, 3, 2, 5, 6	1, 3, 2, 5, 6	Korean Renal Data System, 2023
Thailand	1, 3, 6, 2, 10	No data	No data	Thailand renal replacement therapy registry, 2023
Mongolia	2, 1, 3, 5, 6	No data	No data	Mongolian dialysis registry, 2022

Note: The numbers denote disease category sorted in descending order. 1, Diabetes; 2, Glomerulonephritis; 3, Hypertension; 4, Tubulo-interstitial disease; 5, Cystic disease; 6, Unknown; 7, Autoimmune disease; 8, Hereditary disease; 9, Obstructive uropathy; 10, Others.

Wu et al, in press 2025

- Similarities > Differences - in majority, # 1= DM exc HK , Mongolia (GN)
- 3 most important identifiable causes were Diabetes, GN & HT -although sequences may differ
- No apparent differences between genders

Summary (Part 1):

- This DEC review highlights the burden of kidney disease across the Asia-Pacific region

- Some similarities in terms of causes of kidney disease

(& common barriers to kidney care … coming up next)

- Disparities in
  - disease prevalence
  - access to transplant & dialysis according to gender

Thank you

Poverty is rising and inequality widening in Asia and the Pacific, new UN report reveals

PRESS RELEASE

Bangkok - 08 Oct 2024

News Number: G/33/2024