

ISN-GKHA: Structures, organization and services for the management of kidney failure in Eastern and Central Europe

Supplementary Tables, Figures, and Appendix

Table S1: Burden of chronic kidney disease and its risk factors in Eastern and Central European countries participating in the ISN-GKHA survey.

Figure S1: Shortages in kidney failure providers identified by responding countries in Eastern and Central Europe.

Appendix: Reference list for annual cost of kidney replacement therapy (for Table 1).

Table S1: Burden of chronic kidney disease and its risk factors in Eastern and Central European countries participating in the ISN-GKHA survey.^{S1,S2}

Country	CKD Prevalence % (95% CI)	Deaths attributed to CKD % (95% CI)	DALYs attributed to CKD % (95% CI)	Obesity % (95% CI)	High BP % (95% CI)	Smoking % (95% CI)
Albania	10.18 (9.43 - 11.05)	1.67 (1.52 - 1.96)	1.31 (1.17 - 1.46)	22.3 (17.4 - 27.4)	29.0 (22.4 - 36.2)	15.6 (14.0 - 17.3)
Bosnia and Herzegovina	12.94 (11.97 - 14.06)	1.63 (1.51 - 1.76)	1.28 (1.17 - 1.39)	19.4 (15.1 - 24.1)	30.8 (24.5 - 37.6)	30.5 (27.3 - 33.7)
Bulgaria	14.32 (13.28 - 15.5)	1.34 (1.27 - 1.42)	1.25 (1.17 - 1.35)	27.4 (21.8 - 33.3)	28.4 (21.7 - 35.5)	30.3 (27.2 - 33.3)
Croatia	13.64 (12.61 - 14.79)	1.62 (1.54 - 1.71)	1.11 (1.02 - 1.2)	27.1 (22.4 - 32.1)	32.4 (26.4 - 39.3)	27.0 (24.1 - 30.1)
Cyprus	8.95 (8.33 - 9.67)	3.3 (2.5 - 3.61)	1.55 (1.24 - 1.77)	22.6 (17.4 - 28.3)	19.8 (14.1 - 26.7)	26.3 (23.9 - 28.9)
Czech Republic	13.52 (12.52 - 14.69)	1.14 (1.08 - 1.2)	0.9 (0.83 - 0.97)	28.5 (23.5 - 33.9)	27.9 (21.5 - 34.7)	24.5 (21.9 - 27.2)
Estonia	20.64 (19.16 - 22.22)	1.76 (1.63 - 1.88)	1.16 (1.06 - 1.26)	23.8 (19.8 - 28.1)	27.4 (22.3 - 32.9)	22.2 (20.1 - 24.4)
Hungary	14.09 (13.02 - 15.28)	1.27 (1.22 - 1.33)	0.94 (0.88 - 1)	28.6 (23.5 - 34.0)	30.0 (23.3 - 36.9)	25.1 (22.2 - 28.0)
Kosovo	-	-	-	-	-	-
Latvia	20.67 (19.2 - 22.42)	0.92 (0.87 - 0.98)	0.84 (0.79 - 0.91)	25.7 (19.9 - 31.7)	29.4 (22.6 - 36.9)	26.9 (24.7 - 29.2)
Lithuania	19.47 (18.03 - 21.11)	0.62 (0.59 - 0.65)	0.63 (0.59 - 0.68)	28.4 (23.2 - 33.8)	29.3 (22.4 - 36.6)	22.6 (20.4 - 24.9)
Macedonia	12.03 (11.16 - 13.06)	1.61 (1.48 - 1.76)	1.31 (1.19 - 1.44)	23.9 (18.4 - 29.6)	28.5 (21.9 - 36.1)	31.4 (28.3 - 34.7)
Moldova	16.28 (15.03 - 17.62)	0.5 (0.47 - 0.52)	0.61 (0.57 - 0.65)	20.1 (15.1 - 25.5)	29.8 (23.1 - 37.0)	19.4 (18.0 - 21.2)
Montenegro	11.90 (11.02 - 12.90)	1.95 (1.78 - 2.12)	1.43 (1.29 - 1.58)	24.9 (19.2 - 30.7)	29.1 (22.4 - 36.1)	31.0 (28.0 - 34.0)
Poland	11.73 (10.77 - 12.9)	0.87 (0.83 - 0.92)	0.74 (0.68 - 0.8)	25.6 (21.9 - 29.5)	28.7 (23.0 - 35.0)	24.1 (21.7 - 26.8)
Romania	12.26 (11.26 - 13.33)	1.17 (1.11 - 1.22)	1 (0.94 - 1.07)	24.5 (20.0 - 29.3)	30.0 (23.4 - 37.3)	21.9 (19.6 - 24.4)
Serbia	13.32 (12.38 - 14.42)	1.93 (1.61 - 2.07)	1.45 (1.27 - 1.59)	23.5 (19.1 - 28.1)	29.5 (23.4 - 35.6)	23.8 (20.9 - 27.0)
Slovakia	11.93 (11.04 - 12.94)	1.35 (1.26 - 1.45)	1.03 (0.94 - 1.12)	22.4 (17.9 - 27.3)	28.5 (22.5 - 34.9)	20.9 (18.3 - 23.6)
Slovenia	13.4 (12.41 - 14.57)	1.07 (1 - 1.15)	0.75 (0.69 - 0.81)	22.5 (17.2 - 28.2)	30.5 (23.9 - 37.9)	20.2 (17.8 - 22.7)
Turkey	11.83 (10.92 - 12.94)	3.77 (3.41 - 4.02)	2.18 (1.96 - 2.38)	32.2 (28.4 - 36.1)	20.3 (15.9 - 24.9)	22.9 (20.1 - 26.0)

Abbreviations: ISN: International Society of Nephrology; GKHA: Global Kidney Health Atlas; CKD: chronic kidney disease; DALYs: disability-adjusted life years; BP: blood pressure; CI: confidence interval

“-“: Data not reported/unavailable

Results are expressed as percentage (%) of the population

Figure S1: Shortages in kidney failure providers identified by responding countries in Eastern and Central Europe.

	Nephrologists	Transplant surgeons	Surgeons (HD access)	Surgeons (PD access)	Interventional radiologists (HD access)	Interventional radiologists (PD access)	Dietitians	Laboratory technicians	Radiologists (ultrasound)	Vascular access coordinators	Counsellors/psychologists	Transplant coordinators	Dialysis nurses	Dialysis technicians	TOTAL SHORTAGE
Total shortage →	13	10	13	6	6	5	0	14	1	10	9	7	10	4	
Albania															5
Bosnia and Herzegovina															7
Bulgaria															6
Croatia															6
Cyprus															0
Czech Republic															2
Estonia															10
Hungary															9
Kosovo															4
Latvia															6
Lithuania															4
Macedonia															8
Moldova															6
Poland															4
Romania															11
Serbia															5
Slovak Republic															4
Slovenia															7
Turkey															4

Abbreviations: HD: hemodialysis, PD: peritoneal dialysis

No shortage
Shortage

Supplementary References:

- S1. Institute for Health Metrics and Evaluation. Global Burden of Disease Study 2017 (GBD 2017) Data Resources. Available at: <http://ghdx.healthdata.org/gbd-2017>. Accessed August 6, 2020.
- S2. World Health Organization. The Global Health Observatory. Available at: <https://www.who.int/gho/en/>. Published 2019. Accessed: August 6, 2020.

Appendix: Reference list for annual cost of kidney replacement therapy (for Table 1) (APA format).

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