

Appendix table 5. Mortality rate ratio and 95% confidence interval for the leading causes of death^a.

Cause (ICD-10 code ^b), age group and educational level	Pre-pandemic period (2017-2019)	1 st wave 2020		2 nd wave 2020		3 rd & 4 th waves 2021		5 th & 6 th waves 2021	
		MRR	95% CI	MRR	95% CI	MRR	95% CI	MRR	95% CI
PNEUMONIA AND INFLUENZA (J10-J99)									
25-64 yrs									
Low	1.00	1.11 (0.61 , 2.01)	0.84 (0.44 , 1.62)	0.92 (0.48 , 1.78)	1.06 (0.58 , 1.96)				
Medium	1.00	0.99 (0.69 , 1.44)	1.15 (0.78 , 1.69)	0.93 (0.63 , 1.35)	0.97 (0.65 , 1.46)				
High	1.00	1.71 (0.82 , 3.55)	1.40 (0.79 , 2.49)	1.05 (0.46 , 2.42)	0.73 (0.36 , 1.48)				
65-74 yrs									
Low	1.00	0.94 (0.78 , 1.13)	0.92 (0.76 , 1.12)	0.90 (0.74 , 1.10)	0.98 (0.81 , 1.19)				
Medium	1.00	1.16 (0.97 , 1.37)	1.10 (0.93 , 1.30)	0.95 (0.80 , 1.14)	0.96 (0.81 , 1.15)				
High	1.00	1.08 (0.78 , 1.48)	1.13 (0.82 , 1.57)	0.88 (0.63 , 1.23)	1.11 (0.81 , 1.53)				
≥75 yrs									
Low	1.00	1.01 (0.98 , 1.04)	0.97 (0.94 , 1.00)	0.77 (0.75 , 0.80)	0.92 (0.89 , 0.95)				
Medium	1.00	1.08 (1.02 , 1.15)	1.04 (0.98 , 1.11)	0.76 (0.71 , 0.81)	0.94 (0.89 , 1.00)				
High	1.00	1.14 (1.03 , 1.27)	1.02 (0.91 , 1.14)	0.76 (0.68 , 0.85)	0.97 (0.87 , 1.08)				
HYPERTENSIVE DISEASE (I10, I12,I15)									
25-64 yrs									
Low	1.00	2.38 (1.46 , 3.87)	0.87 (0.48 , 1.59)	2.13 (1.27 , 3.56)	1.13 (0.65 , 1.98)				
Medium	1.00	1.88 (1.38 , 2.55)	1.24 (0.88 , 1.77)	1.62 (1.17 , 2.22)	1.18 (0.82 , 1.68)				
High	1.00	1.12 (0.61 , 2.05)	1.79 (0.98 , 3.27)	0.76 (0.39 , 1.50)	0.93 (0.45 , 1.93)				
65-74 yrs									
Low	1.00	1.35 (1.03 , 1.76)	1.37 (1.02 , 1.83)	1.35 (1.03 , 1.79)	1.28 (0.94 , 1.74)				
Medium	1.00	1.22 (0.93 , 1.60)	0.80 (0.47 , 1.35)	1.32 (1.02 , 1.72)	0.78 (0.47 , 1.31)				
High	1.00	1.60 (0.98 , 2.61)	0.80 (0.47 , 1.35)	1.41 (0.86 , 2.32)	0.78 (0.47 , 1.31)				
≥75 yrs									
Low	1.00	1.20 (1.14 , 1.26)	1.30 (1.24 , 1.37)	1.16 (1.10 , 1.22)	1.29 (1.23 , 1.36)				
Medium	1.00	1.16 (1.05 , 1.29)	1.18 (1.06 , 1.31)	1.04 (0.94 , 1.15)	1.23 (1.11 , 1.37)				
High	1.00	1.03 (0.86 , 1.25)	0.94 (0.77 , 1.15)	0.99 (0.82 , 1.18)	1.06 (0.87 , 1.27)				
KIDNEY DISEASE (N00-N07, N17-N19, N25-N27)									
25-64 yrs									
Low	1.00	1.05 (0.70 , 1.57)	1.33 (0.88 , 2.00)	0.96 (0.62 , 1.47)	1.14 (0.73 , 1.77)				
Medium	1.00	0.99 (0.73 , 1.34)	1.26 (0.94 , 1.68)	1.06 (0.79 , 1.43)	1.17 (0.87 , 1.57)				
High	1.00	0.43 (0.19 , 0.97)	0.76 (0.40 , 1.45)	0.69 (0.36 , 1.31)	0.95 (0.54 , 1.70)				
65-74 yrs									
Low	1.00	0.86 (0.69 , 1.08)	1.05 (0.84 , 1.32)	0.88 (0.70 , 1.11)	1.10 (0.87 , 1.39)				
Medium	1.00	1.10 (0.90 , 1.34)	1.19 (0.96 , 1.48)	0.90 (0.73 , 1.11)	1.04 (0.83 , 1.31)				
High	1.00	1.32 (0.91 , 1.91)	0.96 (0.63 , 1.47)	0.87 (0.57 , 1.32)	1.10 (0.75 , 1.63)				
≥75 yrs									
Low	1.00	1.02 (0.98 , 1.07)	1.07 (1.02 , 1.12)	1.01 (0.96 , 1.06)	1.14 (1.09 , 1.20)				
Medium	1.00	0.96 (0.88 , 1.05)	0.96 (0.87 , 1.06)	0.92 (0.84 , 1.00)	1.16 (1.07 , 1.27)				
High	1.00	0.92 (0.78 , 1.07)	0.88 (0.75 , 1.04)	0.97 (0.83 , 1.12)	1.01 (0.87 , 1.18)				

a. The reference for the first wave and for the third and fourth waves has been the average mortality rate during the first half of the years 2017-2019. The reference for the second and for the fifth and sixth waves has been the average mortality rate during the second half of the years 2017-2019.

b. ICD-10. International Classification of Disease, 10th revision