

Supplemental Material

- 1. Supplementary Table 1**
- 2. Supplementary Figure 1-5**

Supplementary Table 1. Burden of MASLD in the Asia-Pacific region by country and territory in 2023.

Supplementary Figure 1. Temporal trends of age-standardized incidence of MASLD (cases per 100,000 persons) in the Asia-Pacific region from 1990 to 2023.

Supplementary Figure 2. Burden of age-standardized prevalence and incidence of MASLD (cases per 100,000 persons) in the Asia-Pacific region by sex and age distribution in 2023; (a) Central Asia, (b) Australasia, (c) High-income Asia Pacific, (d) South Asia, (e) East Asia, (f) Oceania, and (g) Southeast Asia.

Supplementary Figure 3. Burden of age-standardized DALYs and Death of MASLD (cases per 100,000 persons) in the Asia-Pacific region by sex and age distribution in 2023; (a) Central Asia, (b) Australasia, (c) High-income Asia Pacific, (d) South Asia, (e) East Asia, (f) Oceania, and (g) Southeast Asia.

Abbreviations: DALYs, disability-adjusted life year

Supplementary Figure 4. (A) Relationship between age-standardized incidence of MASLD (cases per 100,000 persons) and SDI in the Asia-Pacific region from 1990 to 2023; (B) Relationship between age-standardized prevalence of MASLD (cases per 100,000 persons) and SDI by country and territory in the Asia-Pacific region in 2023.

Abbreviations: SDI, socio-demographic index.

Supplementary Figure 5. Decomposition of age-standardized incidence of MASLD (cases per 100,000 persons) in the Asia-Pacific region: contributions of aging, population growth, and epidemiological changes in 2023.

Supplementary Table 1. Burden of MASLD in the Asia-Pacific region by country and territory in 2023.

	2023 age-standardized prevalence rate per 100,000 people (95% UI)	2023 age-standardized incidence rate per 100,000 people (95% UI)	2023 age-standardized DALYs rate per 100,000 people (95% UI)	2023 age-standardized Death rate per 100,000 people (95% UI)	Percentage change of age-standardized prevalence rate from 1990 to 2023 (95% CI)
Central Asia	15201.10 (13857.36 to 16840.77)	605.37 (557.11 to 657.46)	88.53 (64.49 to 117.02)	3.34 (2.44 to 4.34)	0.19 (0.17 to 0.20)
Armenia	16053.27 (14661.65 to 17826.47)	625.26 (576.87 to 681.68)	32.99 (24.73 to 42.85)	1.39 (1.06 to 1.79)	0.22 (0.19 to 0.25)
Azerbaijan	16605.34 (15086.23 to 18410.08)	658.26 (604.91 to 716.76)	84.56 (60.61 to 115.85)	3.56 (2.54 to 4.94)	0.23 (0.19 to 0.26)
Georgia	15166.43 (13740.85 to 16874.13)	600.05 (548.25 to 650.50)	51.70 (37.88 to 71.51)	1.78 (1.29 to 2.38)	0.11 (0.07 to 0.14)
Kazakhstan	14432.93 (13053.79 to 16116.51)	573.90 (525.04 to 627.60)	115.76 (82.31 to 154.70)	4.78 (3.37 to 6.52)	0.21 (0.18 to 0.25)
Kyrgyzstan	14790.29 (13471.96 to 16430.95)	603.59 (552.06 to 658.69)	61.73 (43.38 to 83.98)	2.22 (1.63 to 3.00)	0.11 (0.08 to 0.14)
Mongolia	12694.85 (11585.39 to 14085.02)	526.14 (483.53 to 574.18)	160.95 (118.41 to 214.57)	7.08 (5.02 to 9.87)	0.07 (0.03 to 0.11)
Tajikistan	13708.65 (12423.11 to 15208.41)	563.83 (514.29 to 614.19)	47.45 (33.66 to 63.45)	1.90 (1.25 to 2.65)	0.10 (0.07 to 0.13)
Turkmenistan	15650.93 (14335.19 to 17312.09)	629.74 (581.26 to 686.62)	184.85 (127.75 to 259.02)	5.70 (4.03 to 7.96)	0.23 (0.19 to 0.27)
Uzbekistan	15763.82 (14283.62 to 17494.29)	626.60 (573.60 to 681.04)	79.16 (56.75 to 106.21)	2.75 (1.98 to 3.63)	0.20 (0.17 to 0.24)
Australasia	9336.02 (8560.62 to	356.40 (328.46 to 383.81)	42.17 (33.73 to 51.20)	1.56 (1.28 to 1.90)	0.29 (0.25 to 0.33)

	10289.41)				
Australia	9301.77 (8513.48 to 10245.78)	352.43 (324.69 to 381.58)	44.84 (35.41 to 54.66)	1.65 (1.35 to 2.03)	0.30 (0.25 to 0.34)
New Zealand	9525.34 (8708.12 to 10559.96)	377.61 (345.27 to 408.21)	27.74 (23.58 to 32.77)	1.04 (0.88 to 1.22)	0.27 (0.24 to 0.30)
High-income Asia Pacific	8654.71 (7924.92 to 9593.89)	346.64 (318.60 to 377.40)	20.62 (16.32 to 25.83)	0.94 (0.73 to 1.18)	0.15 (0.13 to 0.16)
Brunei Darussalam	12268.03 (11144.30 to 13708.87)	480.76 (441.75 to 522.92)	25.09 (17.71 to 33.34)	1.04 (0.72 to 1.37)	0.14 (0.11 to 0.18)
Japan	7839.84 (7193.63 to 8698.90)	319.95 (294.08 to 347.71)	19.04 (15.05 to 24.31)	0.86 (0.68 to 1.09)	0.10 (0.09 to 0.11)
Republic of Korea	9902.62 (9014.98 to 10990.29)	386.37 (352.80 to 422.31)	27.16 (19.42 to 35.06)	1.31 (0.90 to 1.74)	0.16 (0.12 to 0.20)
Singapore	12731.23 (11655.69 to 14142.89)	480.26 (438.00 to 524.98)	9.37 (7.06 to 12.24)	0.46 (0.33 to 0.63)	0.16 (0.12 to 0.21)
South Asia	12793.28 (11650.81 to 14227.30)	553.13 (505.85 to 601.76)	15.98 (10.69 to 24.11)	0.57 (0.37 to 0.88)	0.23 (0.22 to 0.24)
Bangladesh	13180.76 (11987.34 to 14712.27)	555.19 (506.65 to 602.62)	40.58 (24.58 to 61.11)	1.41 (0.77 to 2.08)	0.22 (0.18 to 0.25)
Bhutan	14075.71 (12839.72 to 15572.04)	586.90 (536.21 to 639.39)	21.12 (15.64 to 28.01)	0.79 (0.58 to 1.07)	0.30 (0.27 to 0.34)
India	12554.84 (11418.82 to 13987.06)	544.48 (496.46 to 593.15)	22.41 (13.23 to 32.10)	0.77 (0.47 to 1.13)	0.23 (0.22 to 0.24)
Nepal	11560.06 (10558.37 to 12853.16)	494.46 (452.60 to 539.91)	23.51 (15.7 to 31.69)	0.77 (0.51 to 1.07)	0.30 (0.26 to 0.34)
Pakistan	14549.58 (13269.95 to 16226.64)	619.90 (570.73 to 673.14)	21.02 (15.74 to 27.44)	0.77 (0.57 to 1.03)	0.22 (0.20 to 0.24)
East Asia	15042.06 (13771.89 to	604.55 (547.79 to 654.87)	16.26 (13.48 to 19.83)	0.64 (0.52 to 0.79)	0.27 (0.26 to 0.29)

	16656.31)				
China	15052.83 (13778.22 to 16668.48)	605.58 (548.71 to 656.00)	15.88 (13.11 to 19.25)	0.63 (0.51 to 0.77)	0.27 (0.26 to 0.29)
Democratic People's Republic of Korea	13279.66 (12062.68 to 14748.69)	542.99 (496.21 to 594.41)	22.07 (13.24 to 32.67)	0.84 (0.49 to 1.27)	0.16 (0.13 to 0.19)
Taiwan (Province of China)	16301.41 (14826.89 to 18060.98)	629.03 (574.58 to 683.20)	31.34 (23.52 to 41.28)	1.27 (0.92 to 1.67)	0.22 (0.19 to 0.26)
Oceania	15360.55 (14067.59 to 17081.05)	583.10 (535.19 to 631.17)	36.66 (24.37 to 53.49)	1.34 (0.87 to 1.92)	0.11 (0.09 to 0.13)
Viet Nam	12485.27 (11408.15 to 13821.32)	503.70 (458.50 to 545.91)	26.88 (18.09 to 38.66)	1.02 (0.71 to 1.48)	0.12 (0.09 to 0.15)
Fiji	21786.08 (19834.93 to 24214.51)	800.20 (739.98 to 865.12)	39.16 (26.71 to 55.82)	1.39 (0.92 to 2.02)	0.23 (0.20 to 0.27)
Kiribati	19321.00 (17680.46 to 21534.82)	745.49 (685.91 to 807.77)	49.53 (34.60 to 69.05)	1.60 (1.07 to 2.20)	0.15 (0.12 to 0.18)
Marshall Islands	16578.37 (15020.67 to 18384.02)	625.83 (570.33 to 679.50)	88.56 (53.65 to 134.35)	3.19 (1.84 to 4.81)	0.18 (0.15 to 0.23)
Micronesia (Federated States of)	17807.32 (16187.83 to 19690.46)	658.55 (603.23 to 713.18)	79.02 (53.88 to 112.36)	2.64 (1.79 to 3.88)	0.21 (0.17 to 0.25)
Papua New Guinea	14142.98 (12913.52 to 15733.53)	550.86 (500.58 to 600.60)	28.34 (15.28 to 45.49)	1.05 (0.56 to 1.72)	0.13 (0.10 to 0.16)
Samoa	17598.24 (15965.59 to 19421.90)	643.86 (587.52 to 701.53)	45.26 (31.14 to 64.11)	1.52 (1.02 to 2.07)	0.12 (0.09 to 0.14)
Solomon Islands	15698.70 (14358.06 to 17472.96)	602.09 (554.43 to 658.36)	76.30 (50.05 to 108.34)	2.69 (1.72 to 3.89)	0.18 (0.15 to 0.21)
Tonga	19120.40 (17411.41 to	699.83 (641.44 to 762.62)	125.94 (85.07 to 177.3)	4.69 (3.03 to 6.94)	0.16 (0.13 to 0.20)

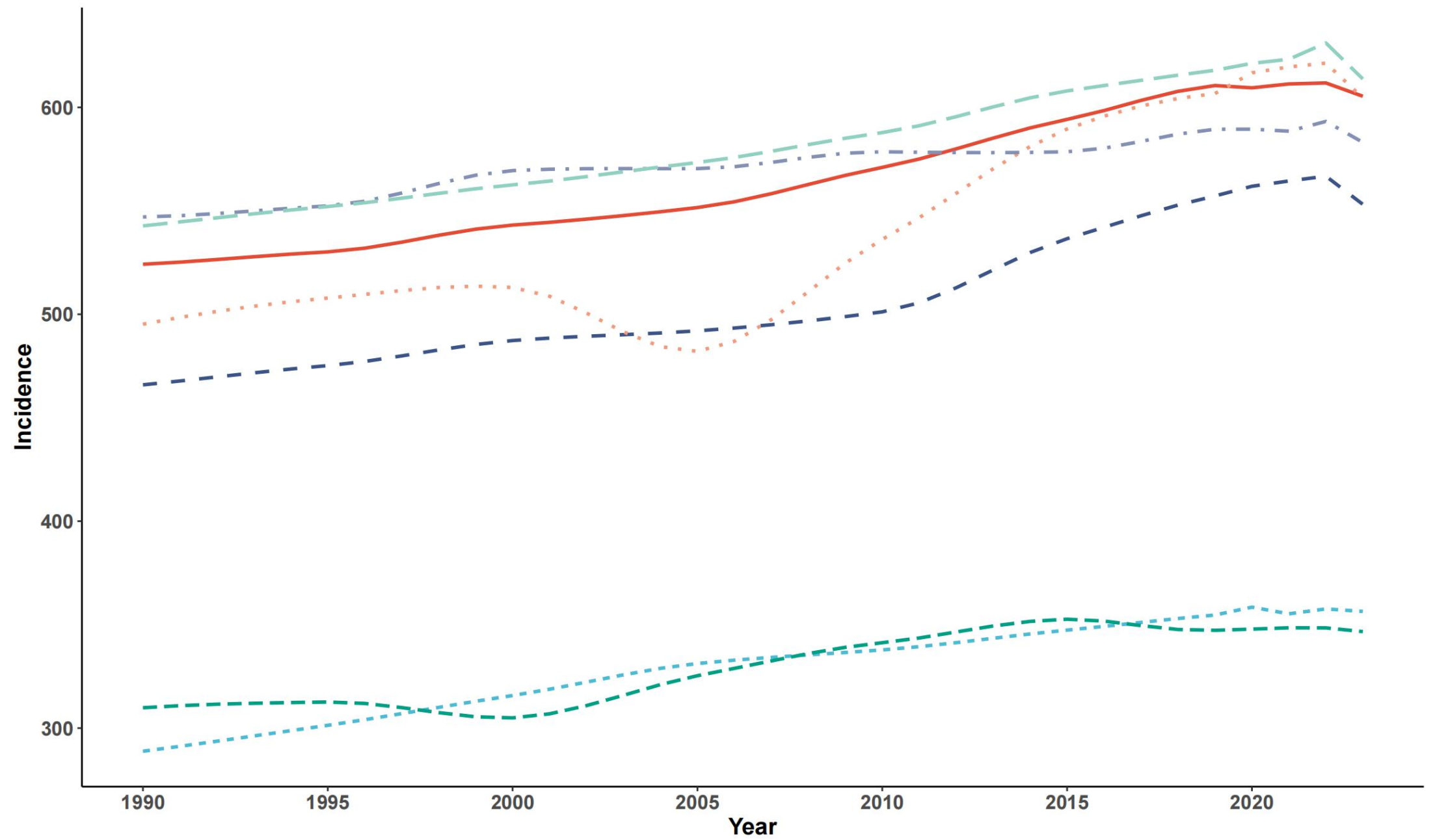
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Vanuatu	19096.79 (17358.47 to 21114.40)	723.56 (660.37 to 789.31)	50.16 (33.13 to 72.67)	1.59 (1.05 to 2.22)	0.17 (0.14 to 0.20)
American Samoa	22917.89 (20904.44 to 25040.20)	797.76 (738.13 to 854.56)	69.06 (49.19 to 93.33)	2.36 (1.64 to 3.22)	0.14 (0.10 to 0.17)
Cook Islands	18924.25 (17454.63 to 20873.04)	660.02 (604.42 to 712.06)	63.46 (39.77 to 97.34)	2.37 (1.49 to 3.48)	0.17 (0.13 to 0.20)
Guam	18184.09 (16672.95 to 19987.84)	650.79 (602.85 to 705.03)	64.62 (50.32 to 84.04)	2.11 (1.65 to 2.75)	0.15 (0.11 to 0.19)
Nauru	16685.06 (15271.42 to 18423.60)	623.94 (573.43 to 677.16)	110.17 (72.99 to 166.73)	3.68 (2.43 to 5.59)	0.13 (0.10 to 0.17)
Niue	18622.11 (16980.56 to 20626.32)	667.08 (616.26 to 718.49)	51.91 (35.04 to 75.47)	1.74 (1.18 to 2.58)	0.23 (0.20 to 0.26)
Northern Mariana Islands	20472.76 (18732.53 to 22489.04)	721.58 (662.54 to 775.76)	112.85 (80.43 to 149.49)	4.2 (2.96 to 5.59)	0.11 (0.09 to 0.14)
Palau	19341.09 (17622.56 to 21292.22)	697.33 (639.82 to 751.10)	77.05 (50.88 to 113.41)	2.89 (1.88 to 4.26)	0.22 (0.19 to 0.25)
Tokelau	17336.64 (15806.71 to 19212.45)	642.12 (593.97 to 693.09)	35.46 (23.81 to 50.03)	1.31 (0.85 to 1.94)	0.22 (0.19 to 0.26)
Tuvalu	16817.77 (15191.25 to 18601.88)	629.42 (578.20 to 684.47)	84.73 (57.26 to 123.05)	2.89 (1.98 to 4.14)	0.24 (0.21 to 0.28)
Southeast Asia	15116.91 (13795.09 to 16758.44)	613.74 (561.47 to 665.04)	43.61 (33.13 to 55.86)	1.56 (1.15 to 2.00)	0.17 (0.16 to 0.18)
Cambodia	11934.99 (10773.20 to 13276.78)	490.12 (447.55 to 531.86)	27.97 (17.7 to 41.43)	1.03 (0.62 to 1.53)	0.09 (0.05 to 0.12)
Indonesia	16716.27 (15281.83 to	683.66 (628.10 to 742.74)	56.39 (39.67 to 76.58)	1.93 (1.29 to 2.67)	0.19 (0.17 to 0.20)

	18562.85)				
Lao People's Democratic Republic	11397.10 (10397.74 to 12654.15)	458.30 (417.14 to 498.61)	35.88 (24.53 to 47.82)	1.34 (0.91 to 1.78)	0.15 (0.11 to 0.18)
Malaysia	19658.34 (17836.15 to 21710.54)	763.48 (692.75 to 828.60)	41.65 (29.85 to 55.57)	1.81 (1.28 to 2.42)	0.19 (0.16 to 0.22)
Maldives	15896.01 (14528.81 to 17607.21)	622.96 (569.34 to 680.59)	26.07 (17.92 to 36.14)	1.33 (0.91 to 1.88)	0.21 (0.18 to 0.25)
Myanmar	15036.29 (13717.37 to 16741.45)	624.32 (571.74 to 673.68)	35.94 (21.60 to 54.10)	1.09 (0.67 to 1.61)	0.14 (0.11 to 0.17)
Philippines	12899.04 (11689.67 to 14321.84)	522.83 (477.80 to 572.14)	25.23 (19.36 to 33.07)	0.97 (0.75 to 1.24)	0.11 (0.10 to 0.13)
Sri Lanka	15654.32 (14253.59 to 17399.54)	641.87 (584.48 to 700.51)	17.09 (12.56 to 22.48)	0.70 (0.52 to 0.91)	0.14 (0.11 to 0.17)
Thailand	14717.46 (13392.79 to 16242.50)	588.32 (537.11 to 641.13)	57.14 (43.54 to 75.7)	2.06 (1.58 to 2.73)	0.22 (0.19 to 0.25)
Timor-Leste	13556.84 (12335.44 to 15095.38)	562.17 (513.45 to 614.64)	22.12 (14.18 to 32.22)	0.85 (0.51 to 1.24)	0.09 (0.07 to 0.12)
Mauritius	15082.30 (13684.84 to 16739.11)	581.32 (530.60 to 633.26)	25.63 (18.61 to 35.27)	0.89 (0.66 to 1.21)	0.24 (0.21 to 0.29)
Seychelles	16463.61 (14977.62 to 18266.95)	624.30 (574.52 to 678.81)	45.65 (33.03 to 62.88)	1.70 (1.24 to 2.34)	0.19 (0.16 to 0.22)

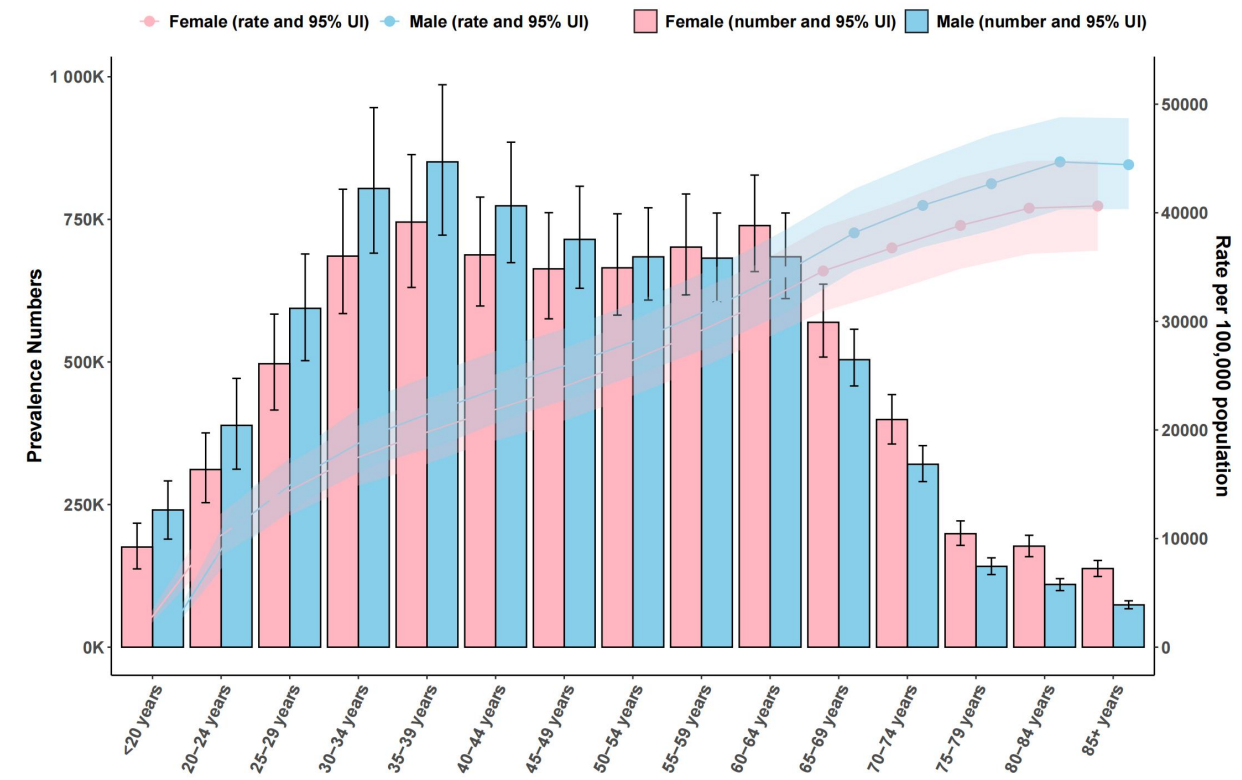
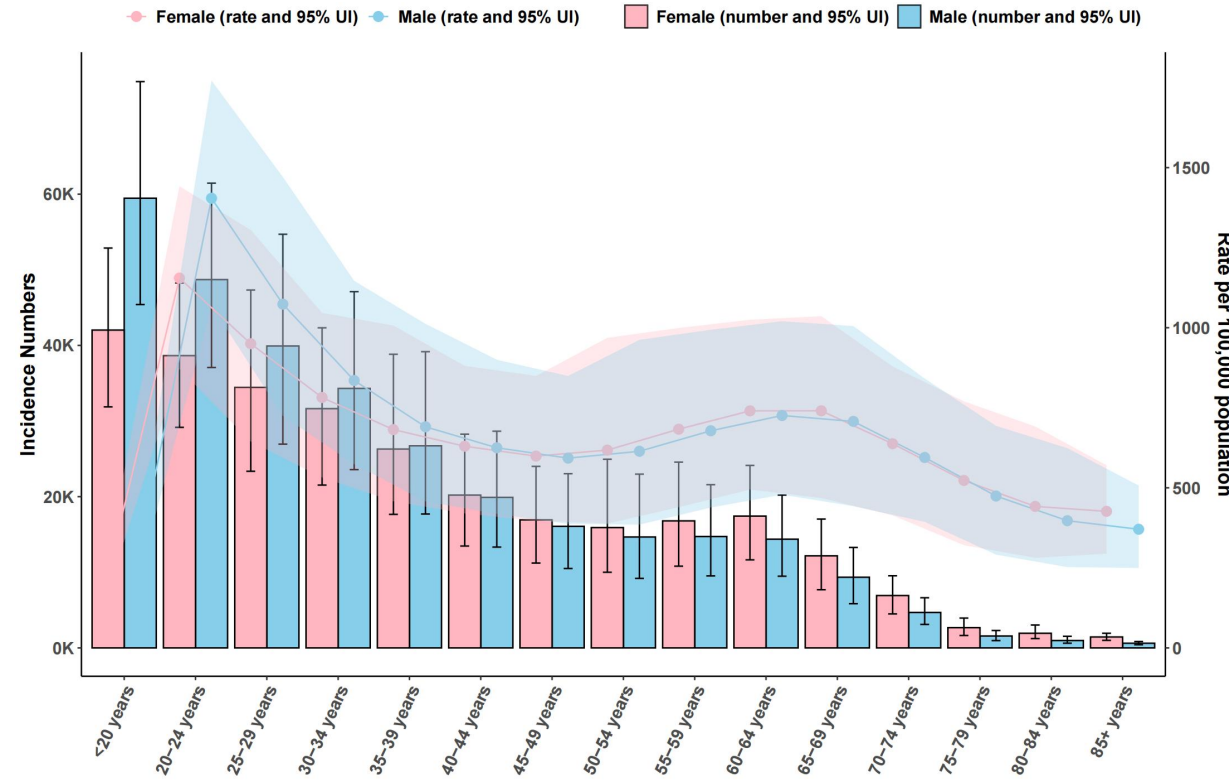
Abbreviations: CI, confidence interval; DALYs, disability-adjusted life year; UI, uncertainty interval.

Supplementary Figure 1

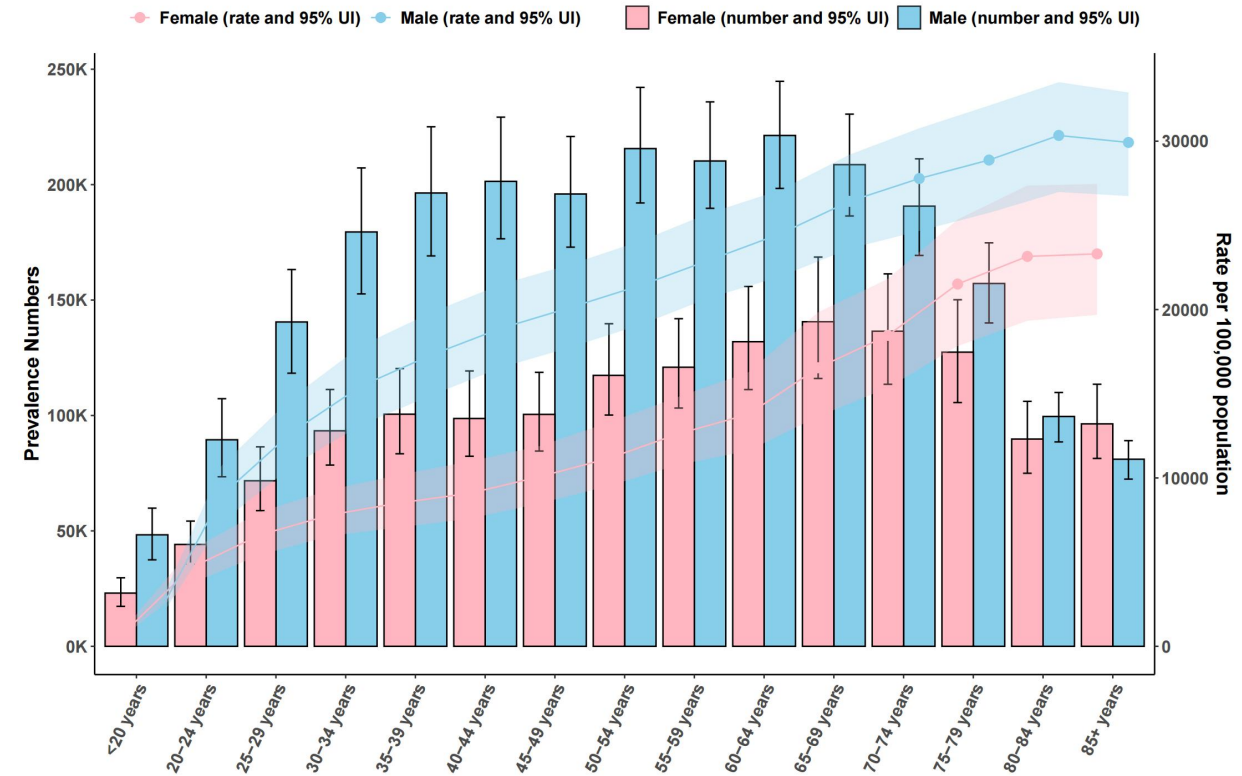
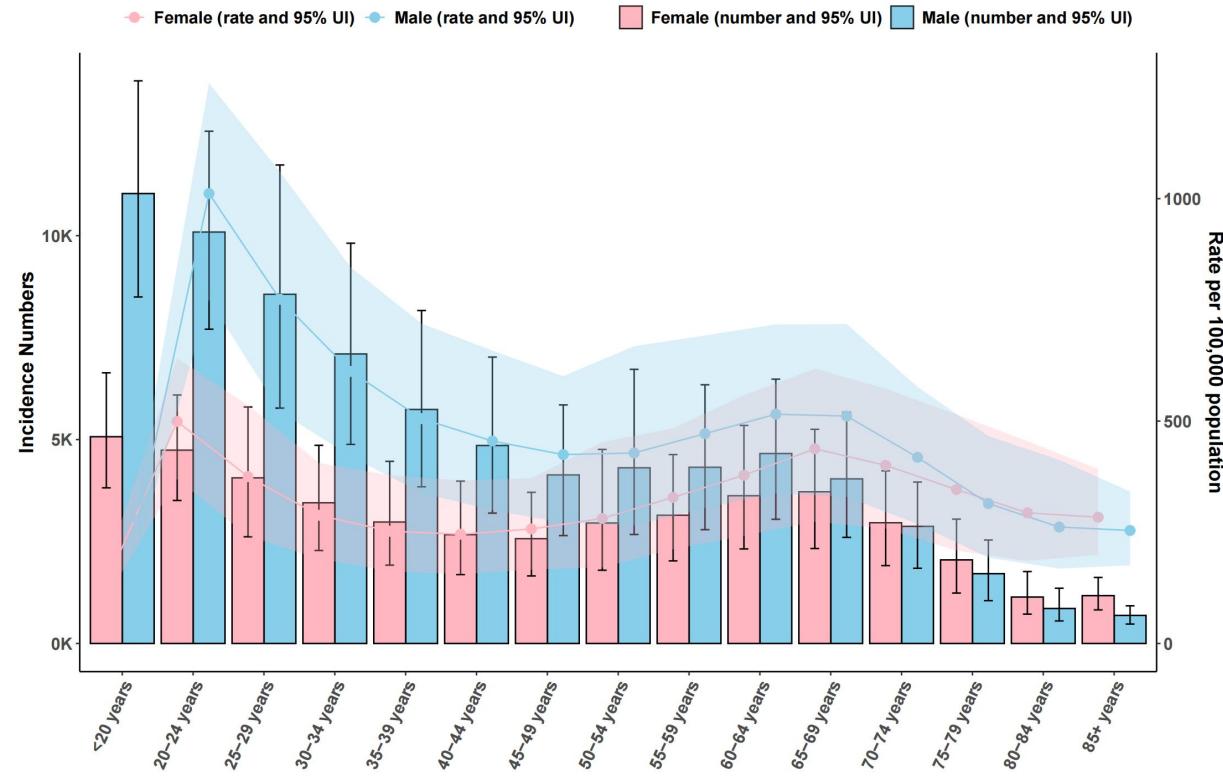
Central Asia Australasia High-income Asia Pacific South Asia East Asia Oceania Southeast Asia



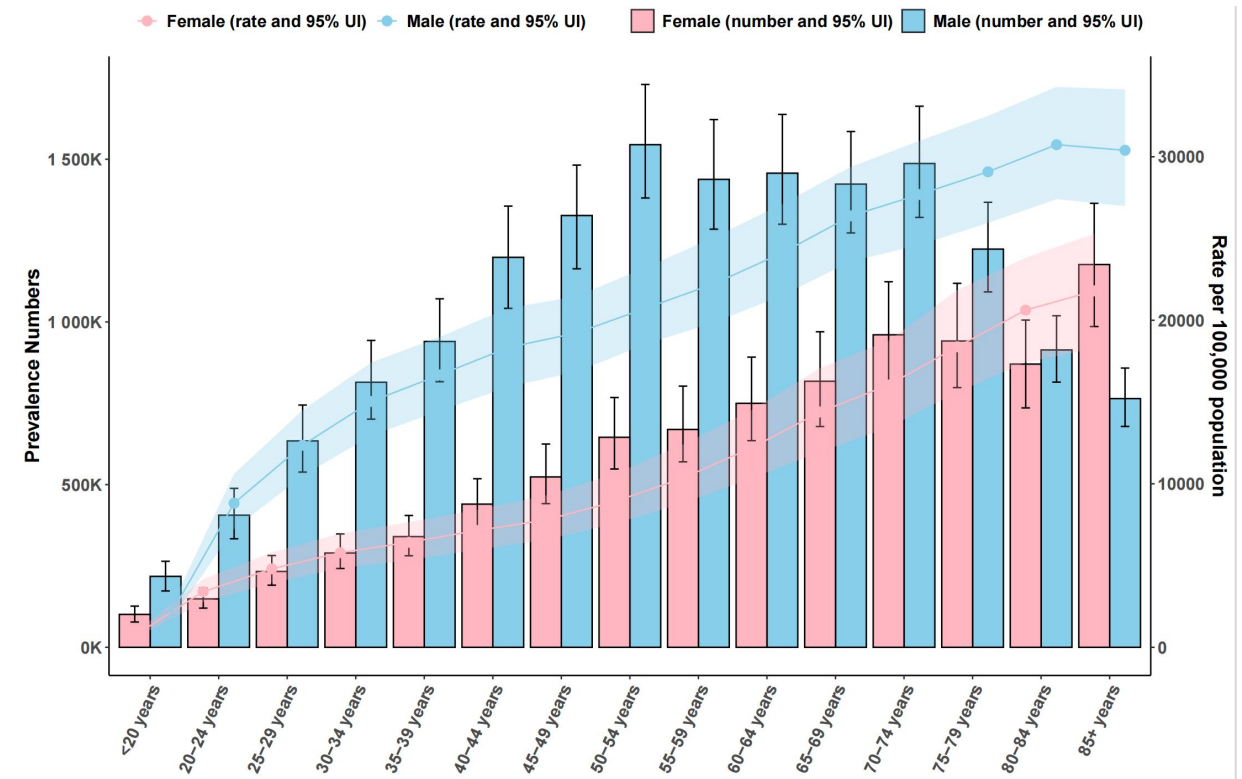
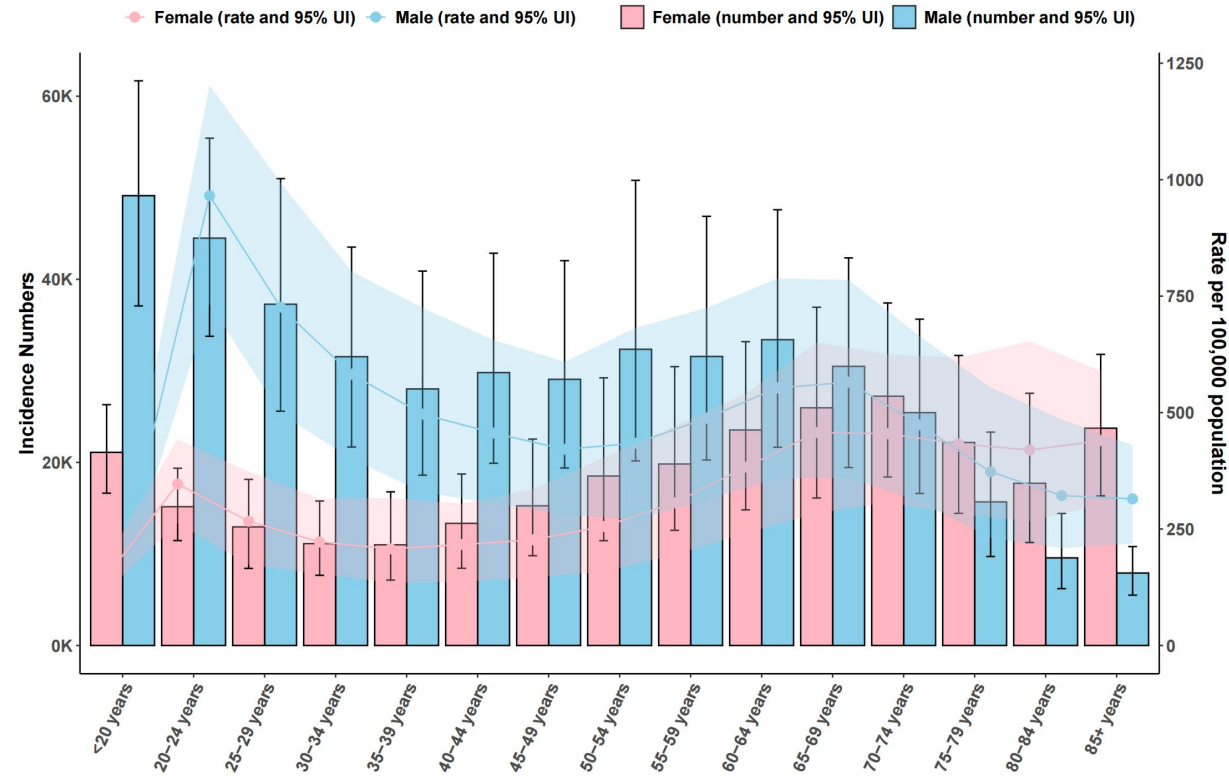
Central Asia



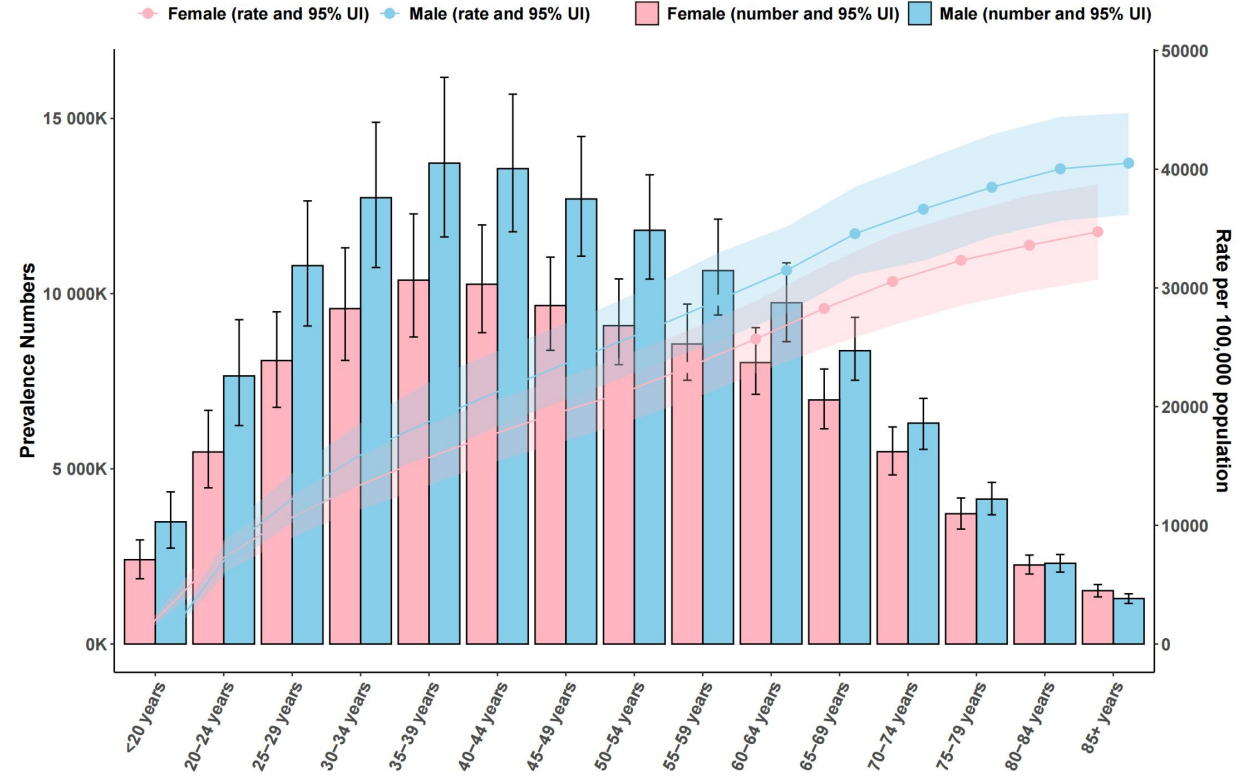
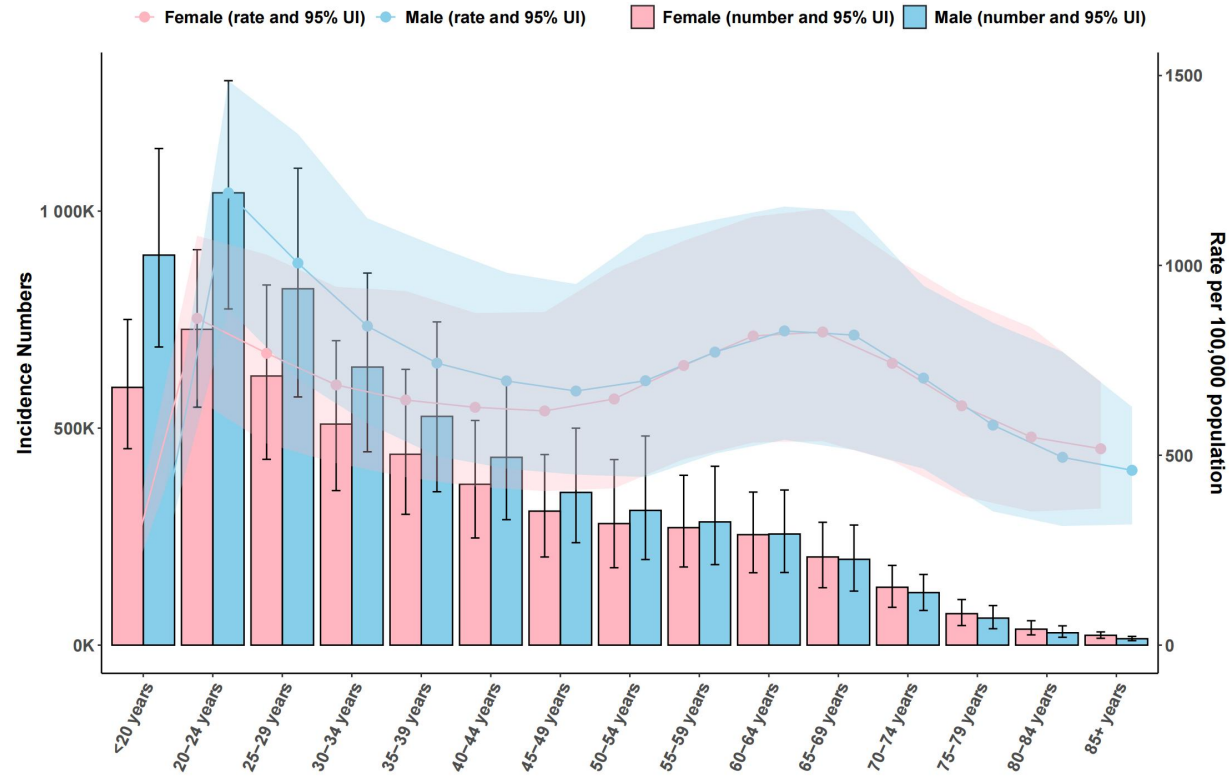
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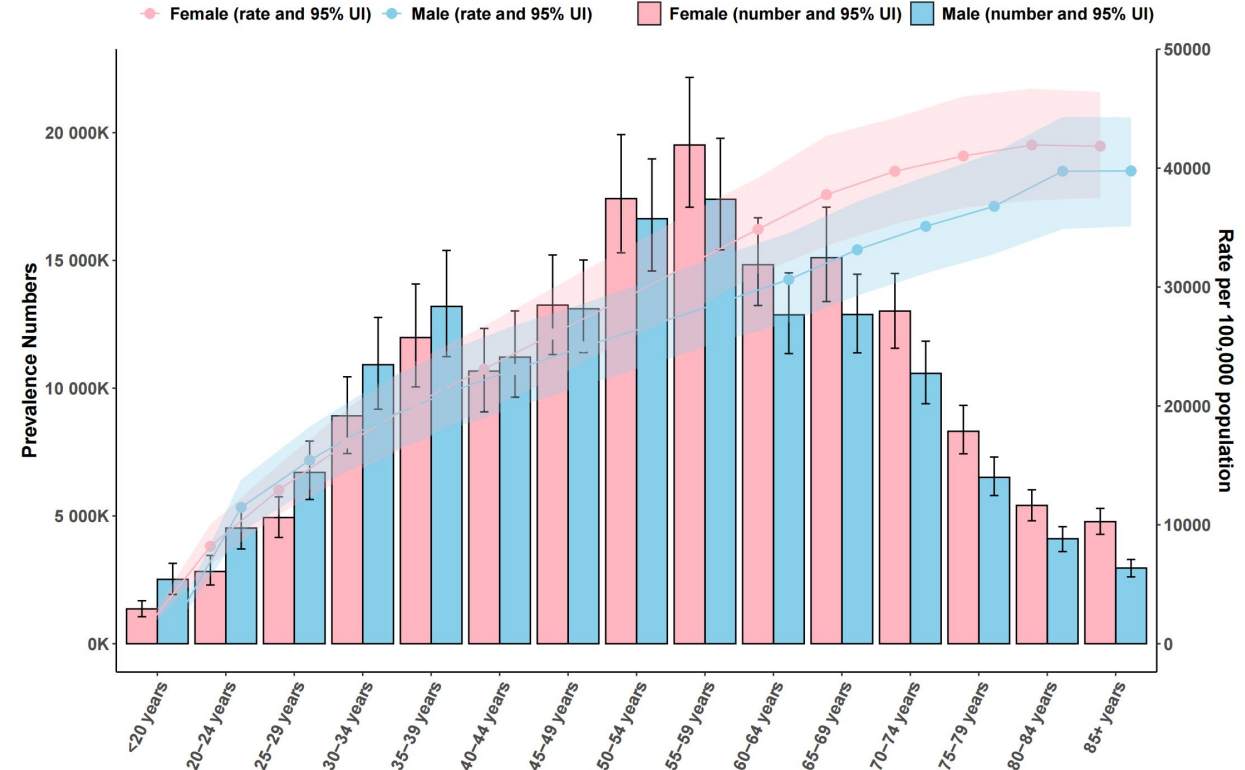
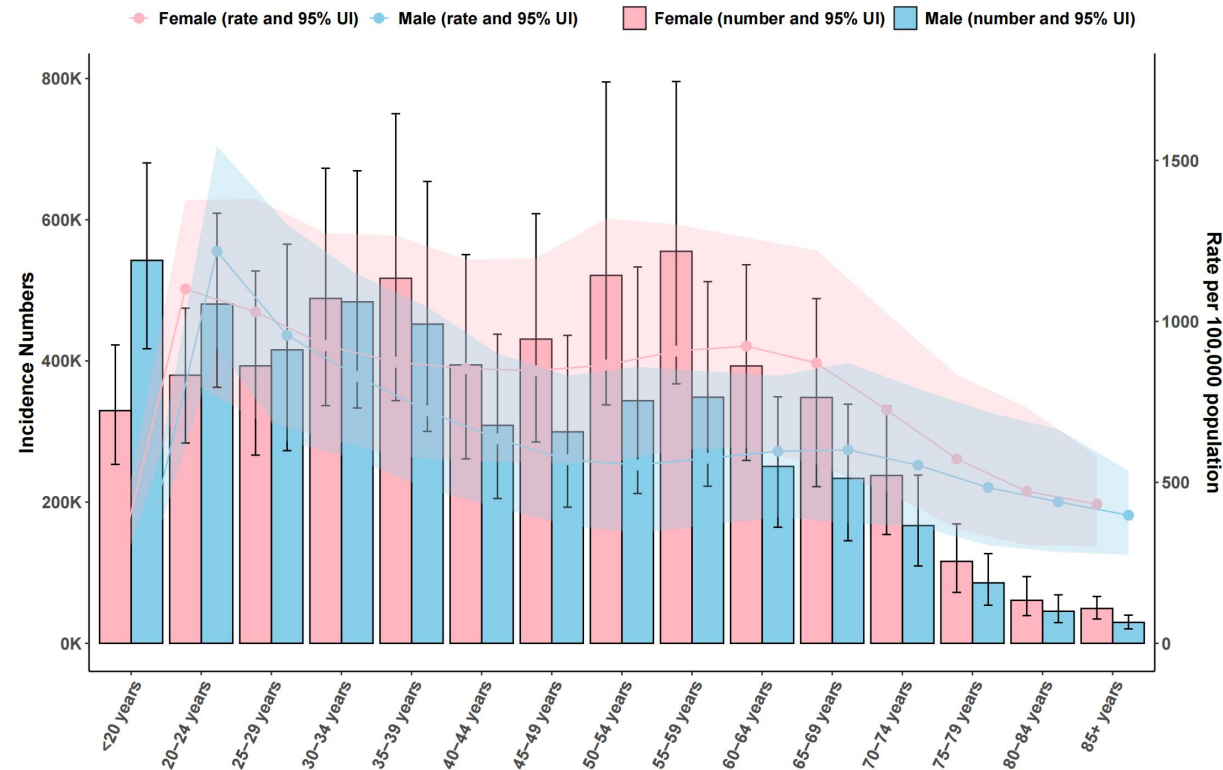
High-income Asia Pacific



South Asia

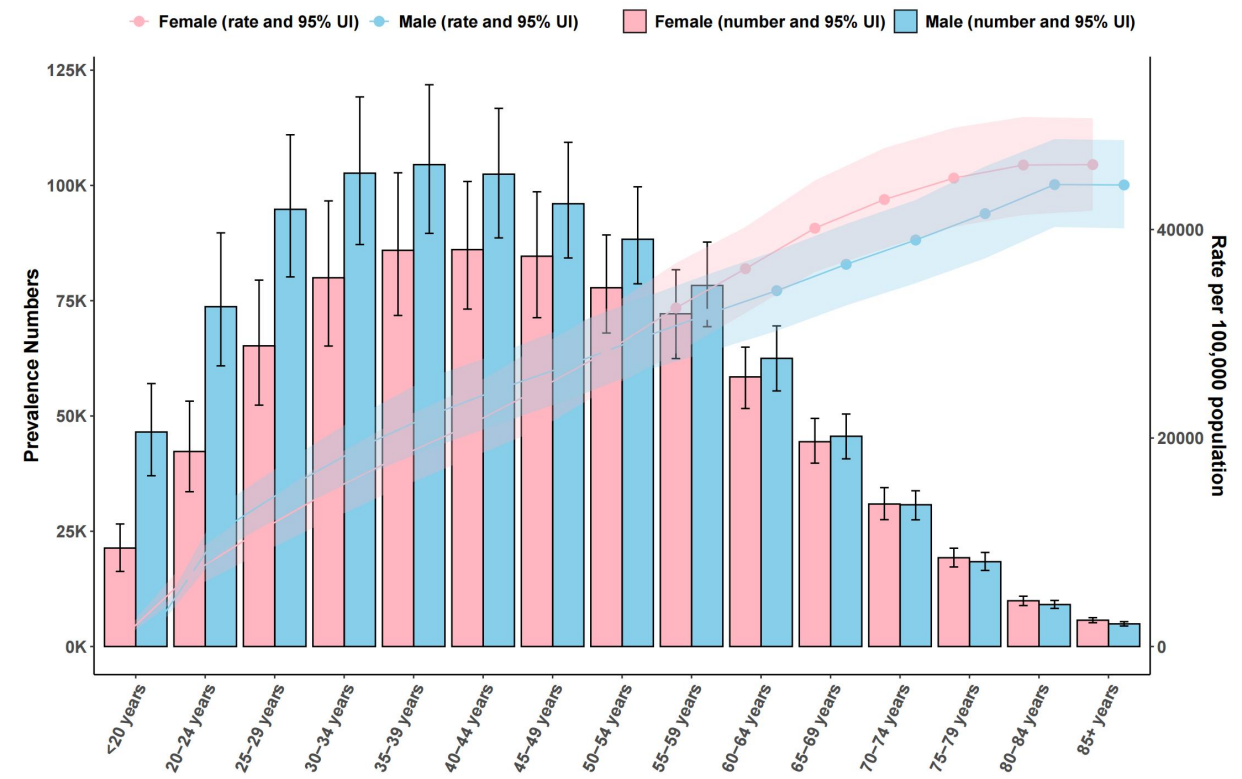
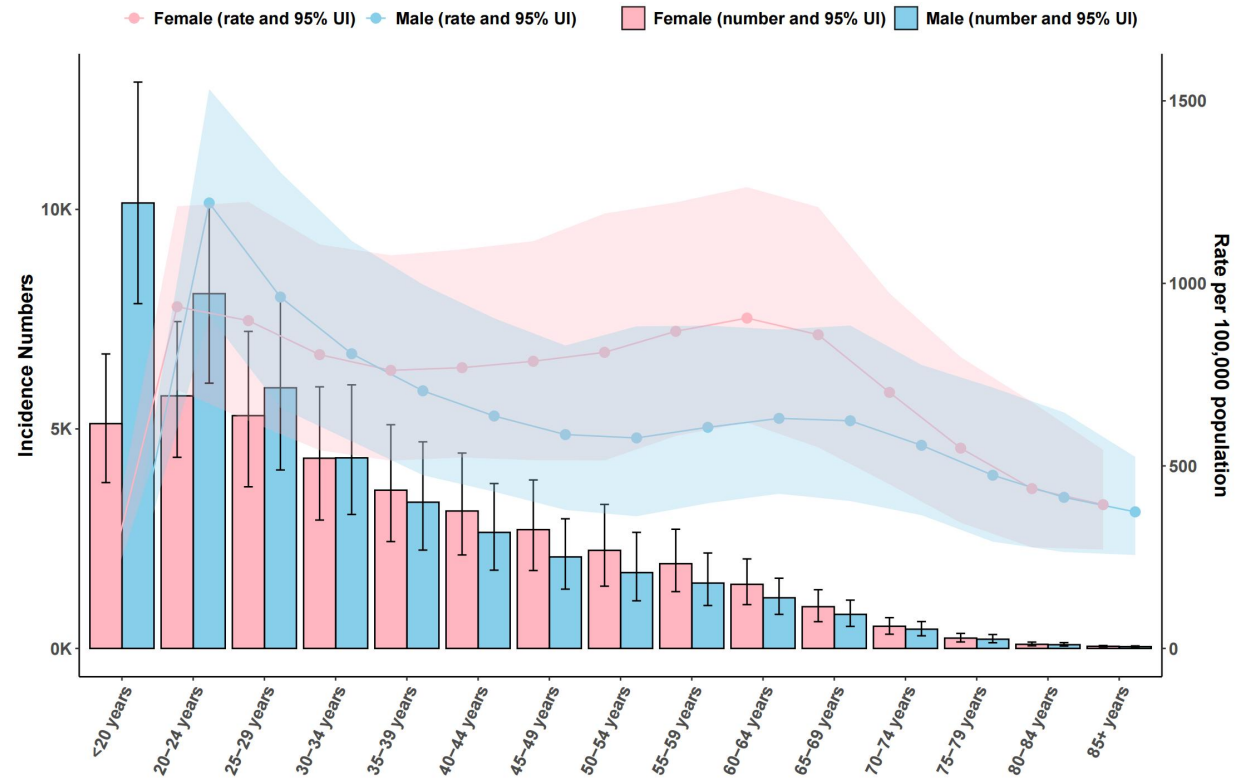


East Asia

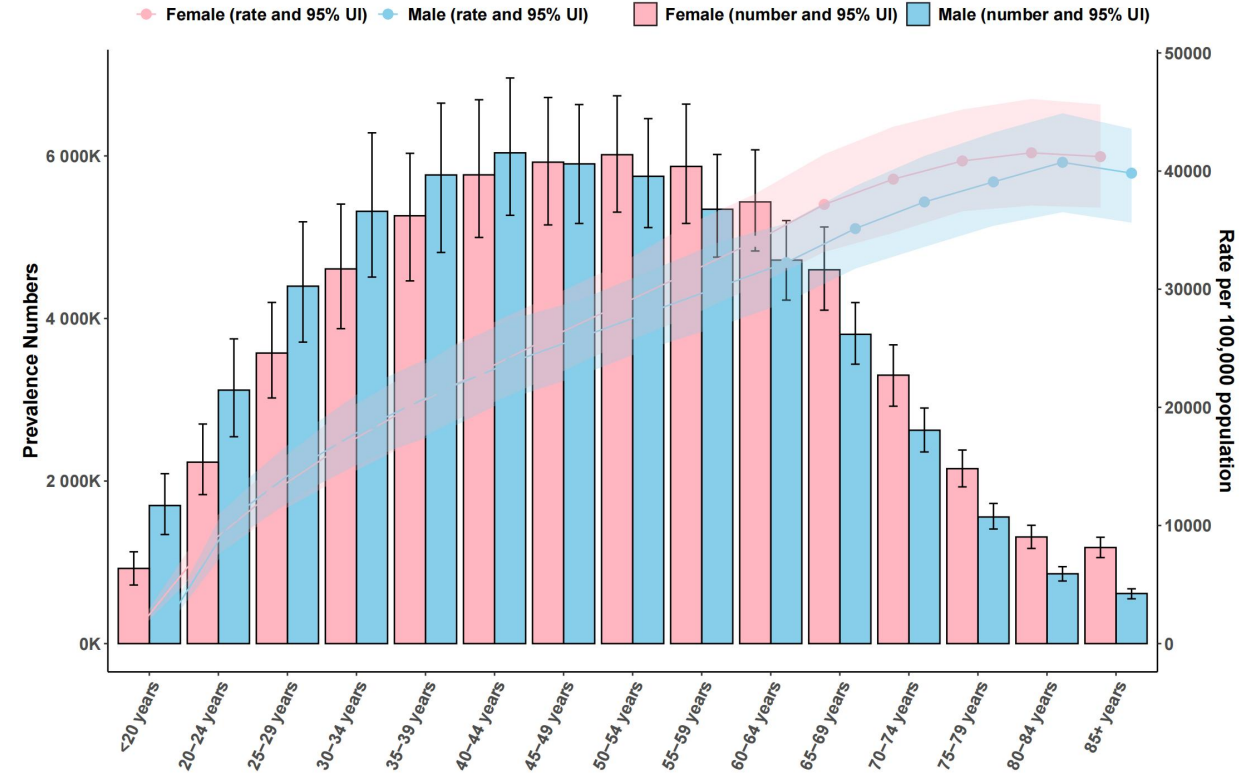
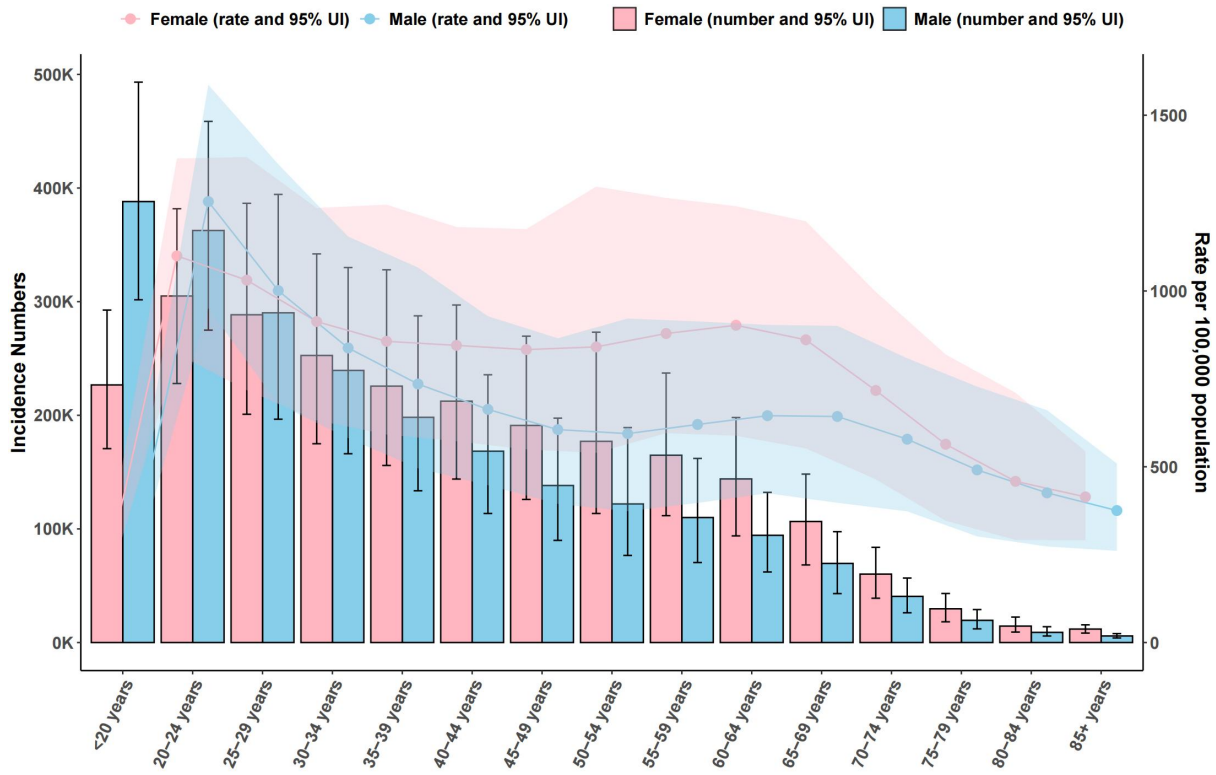


Supplementary Figure 2f

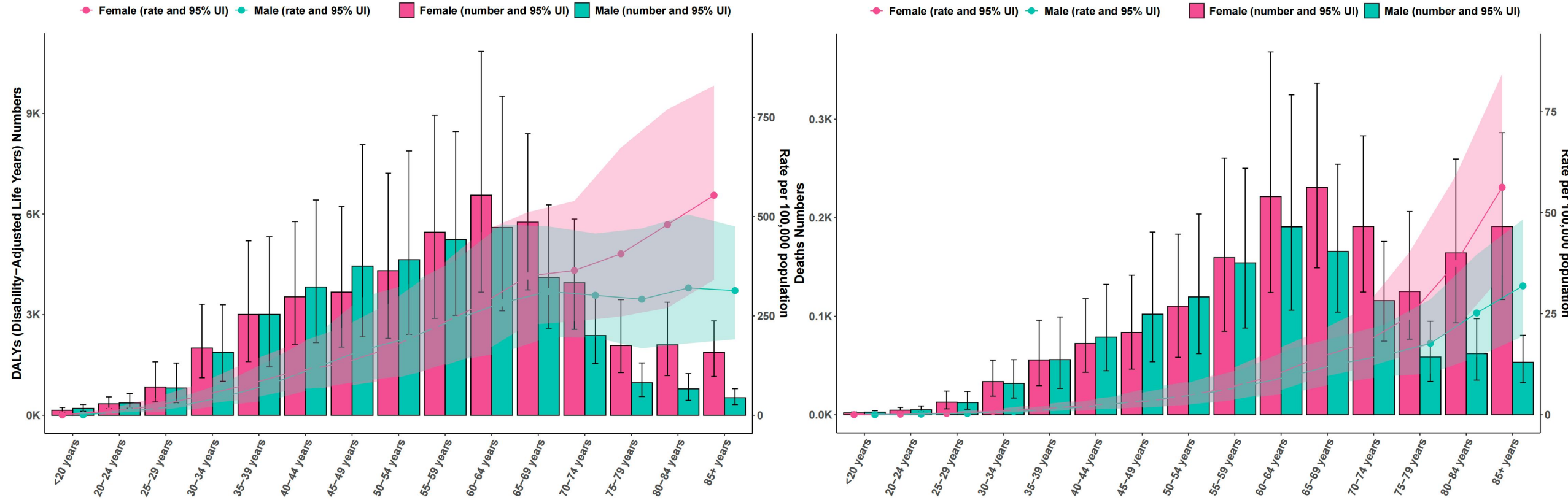
Oceania



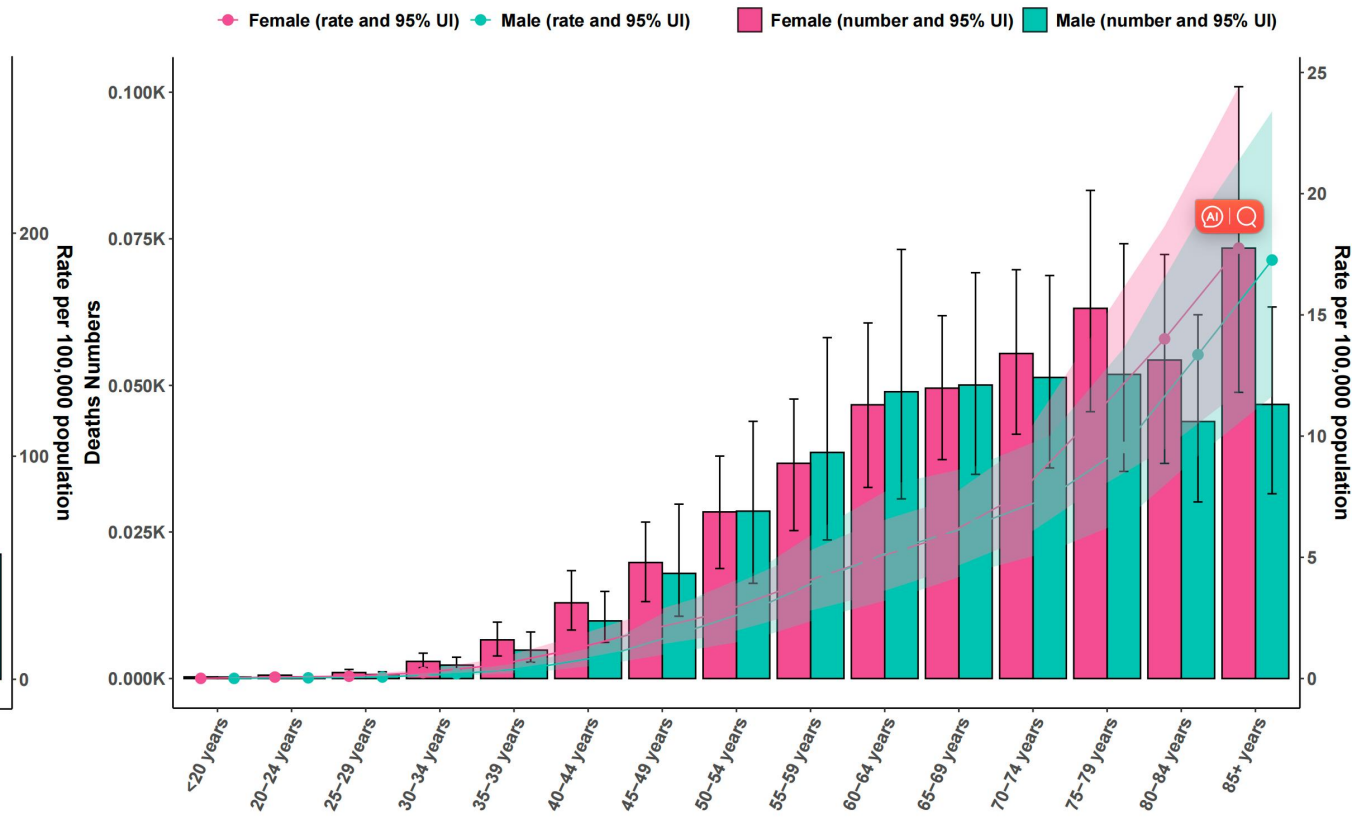
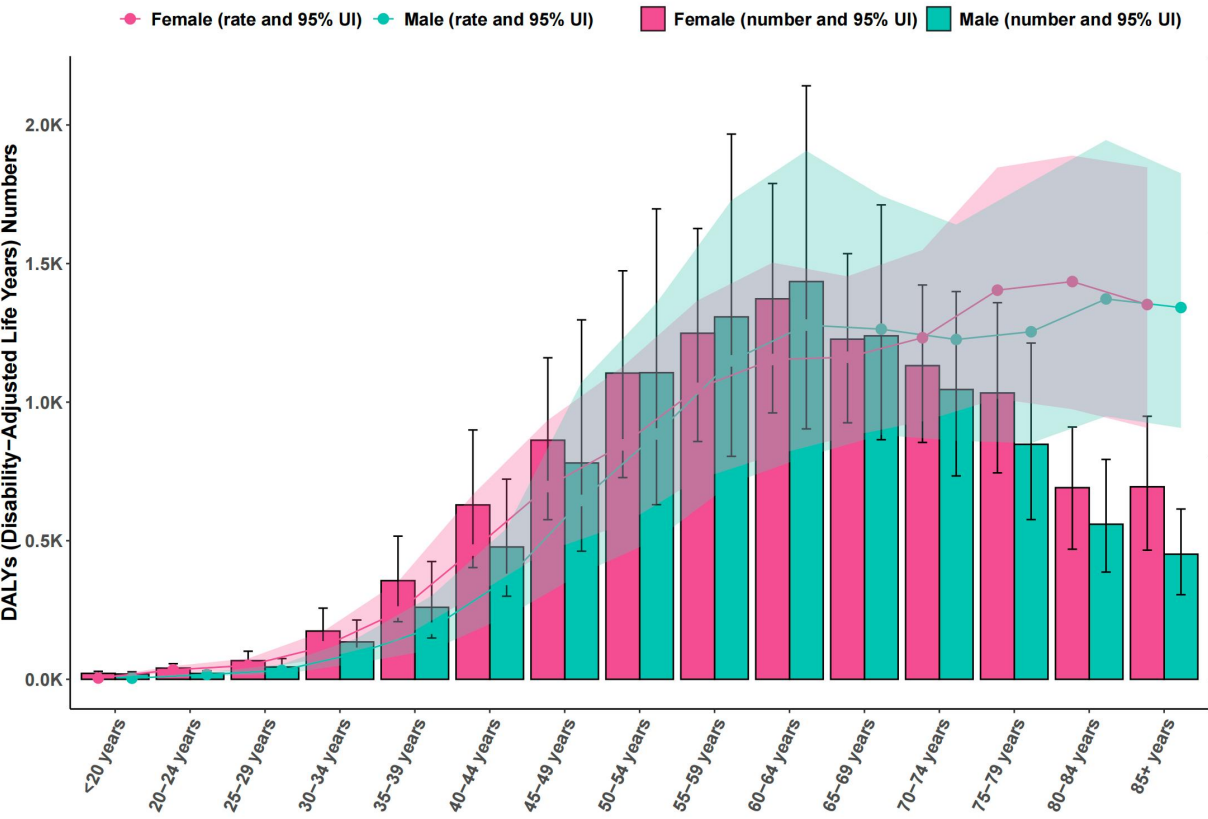
Southeast Asia



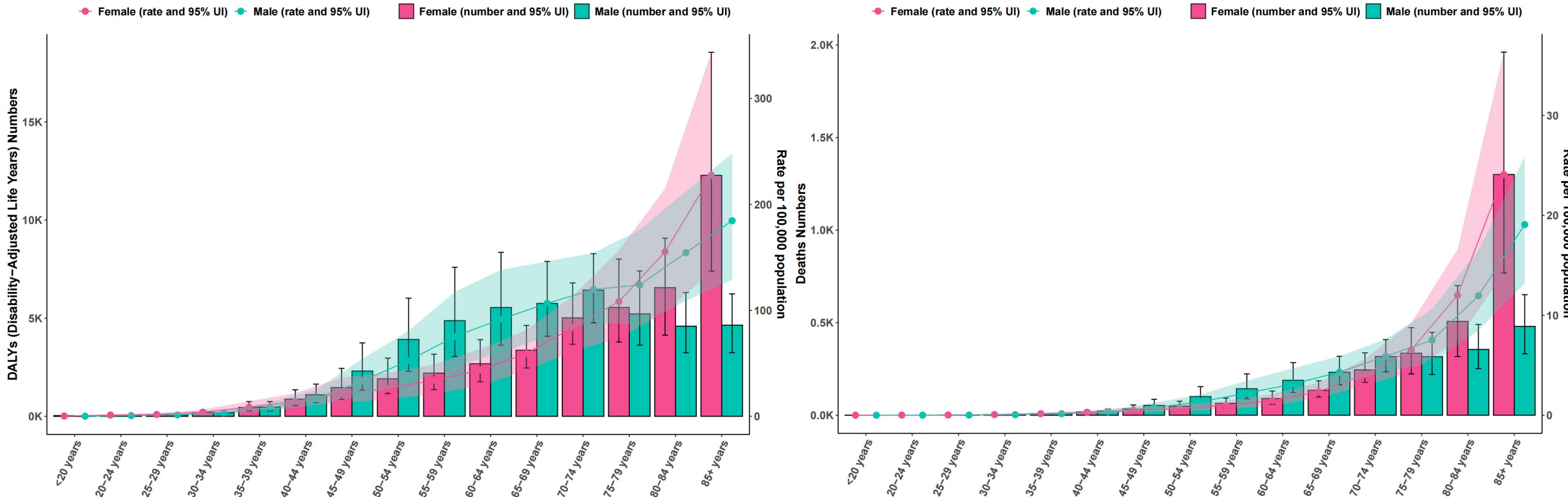
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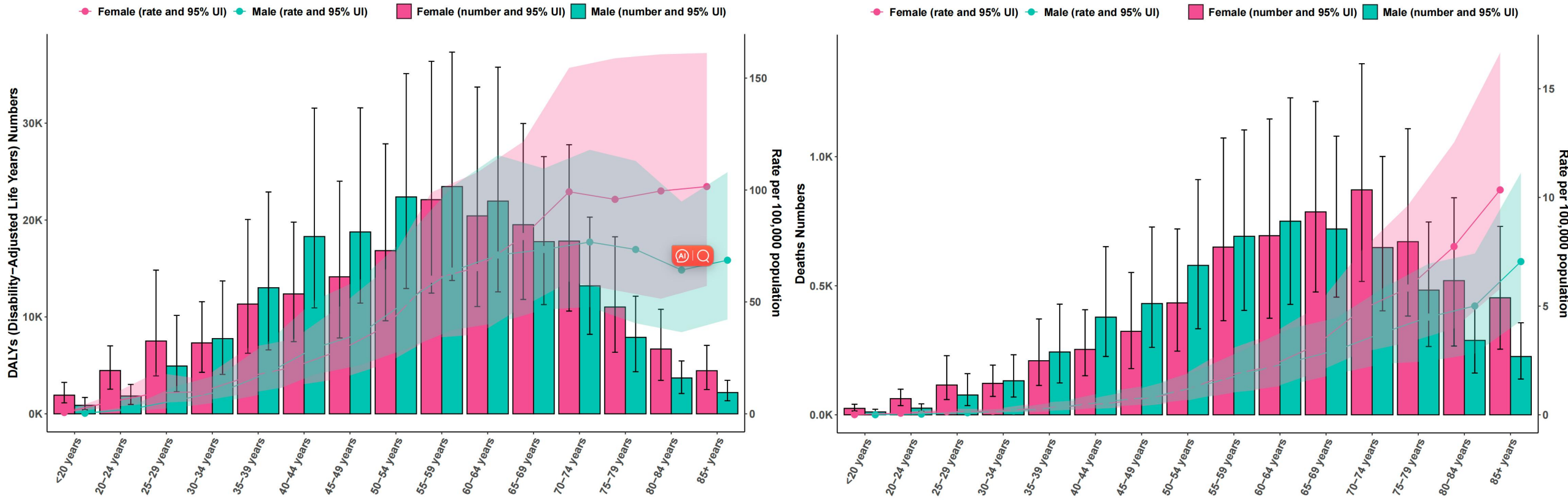
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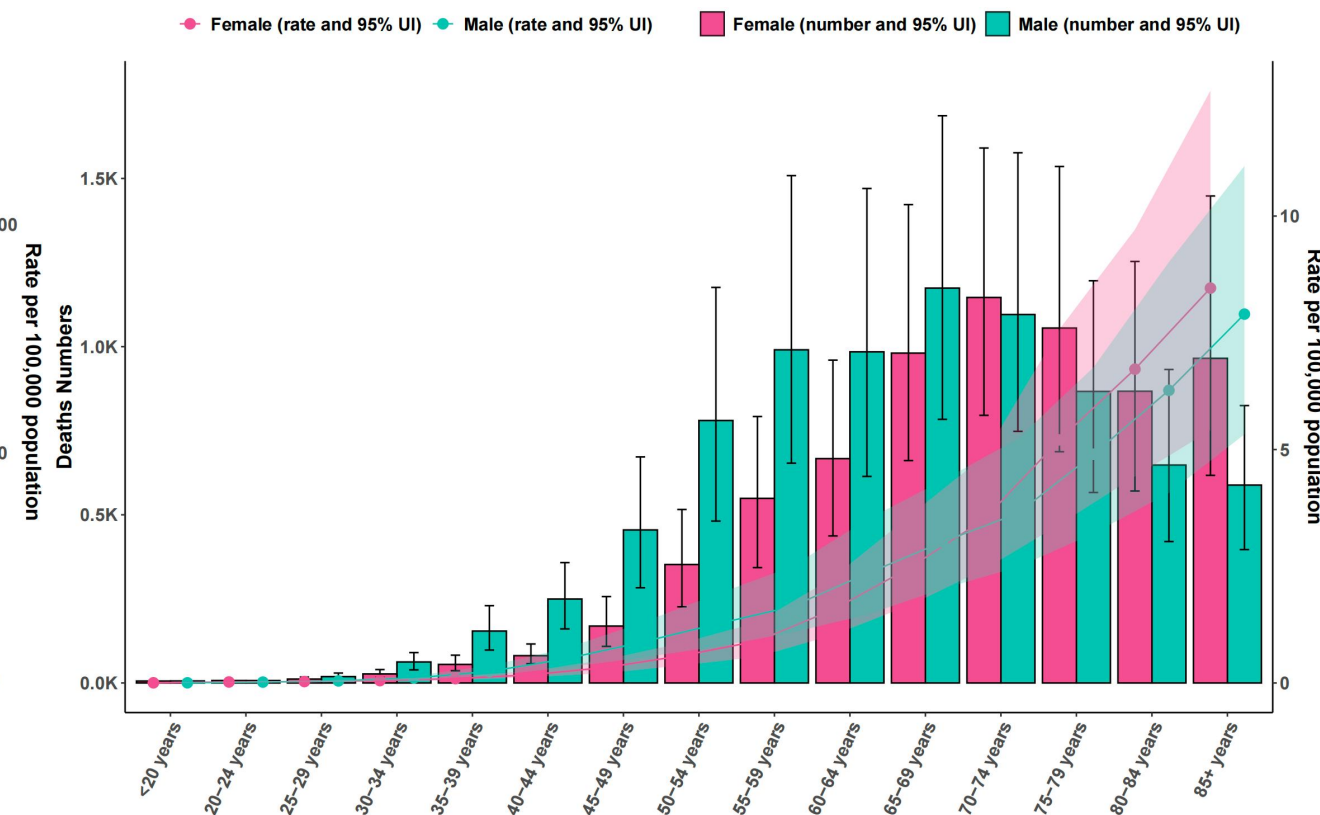
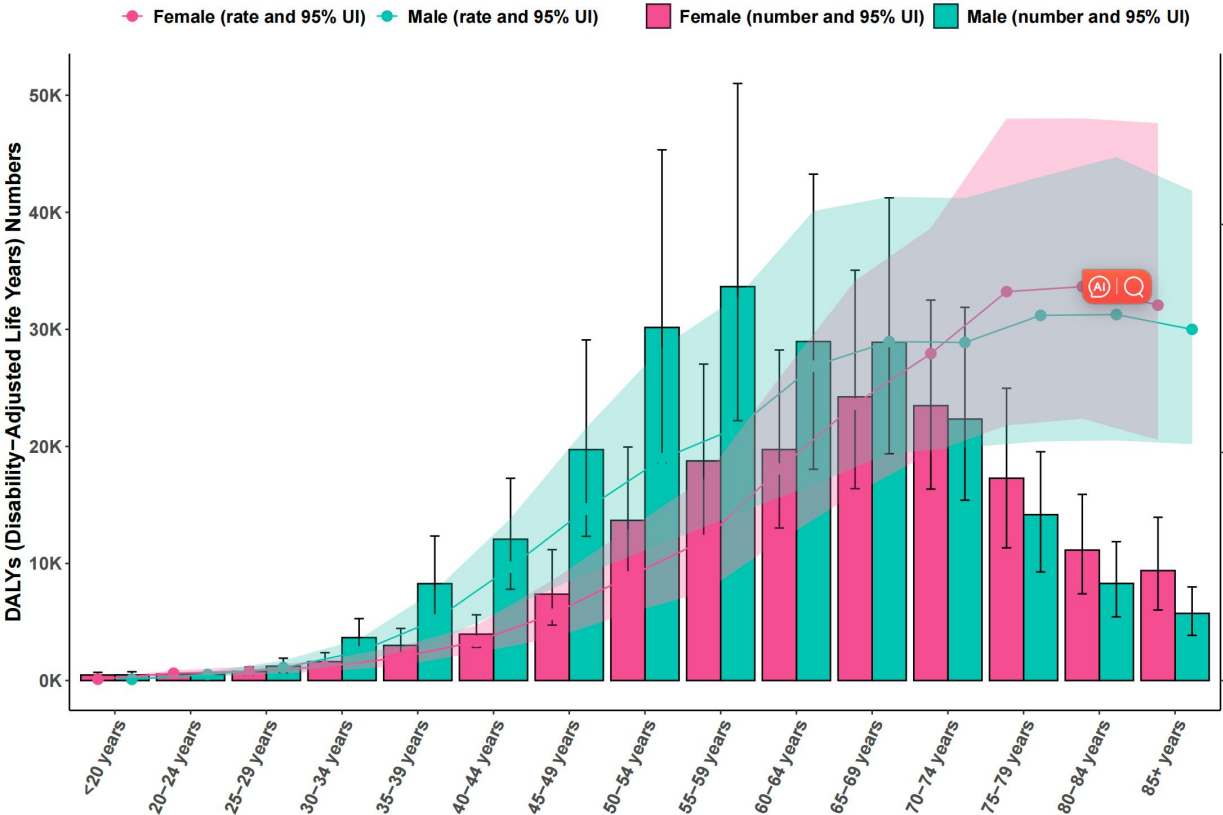
High-income Asia Pacific



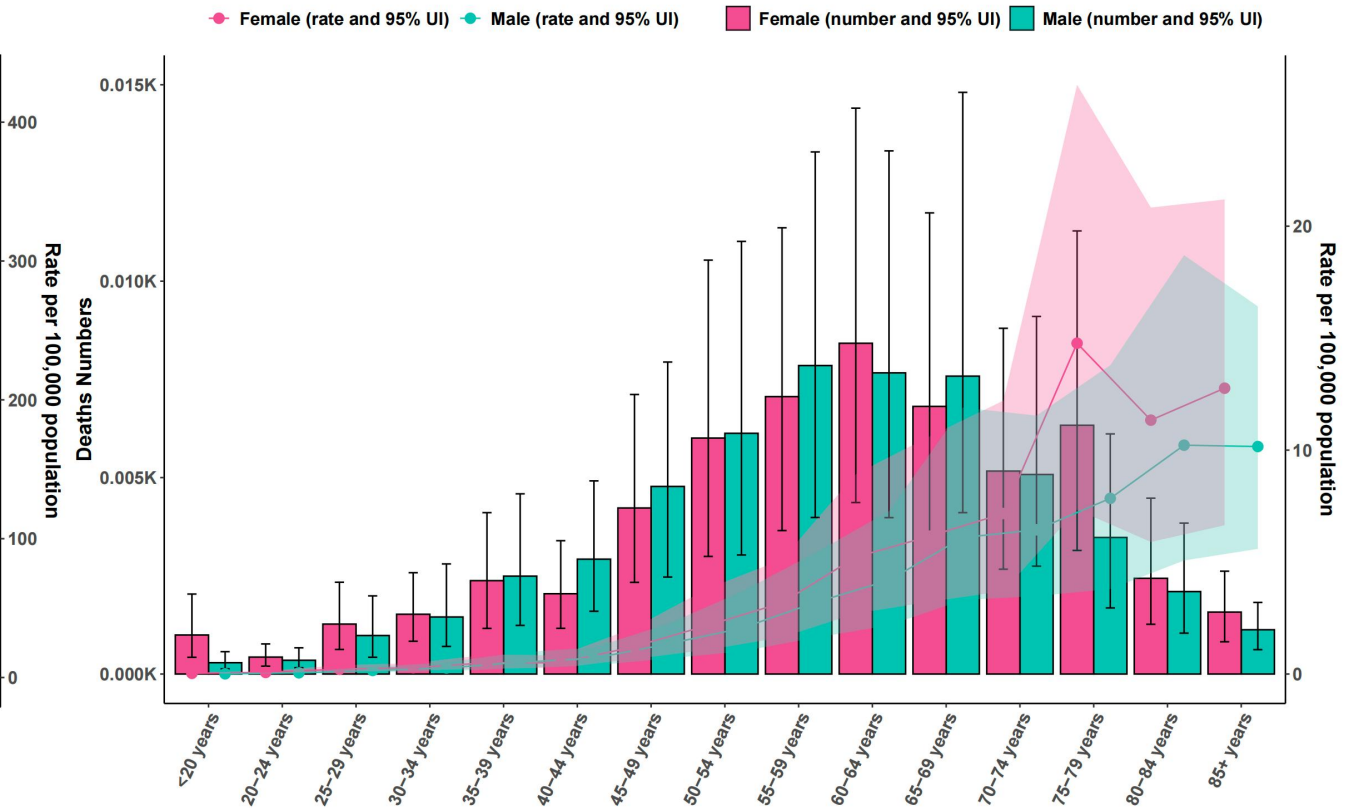
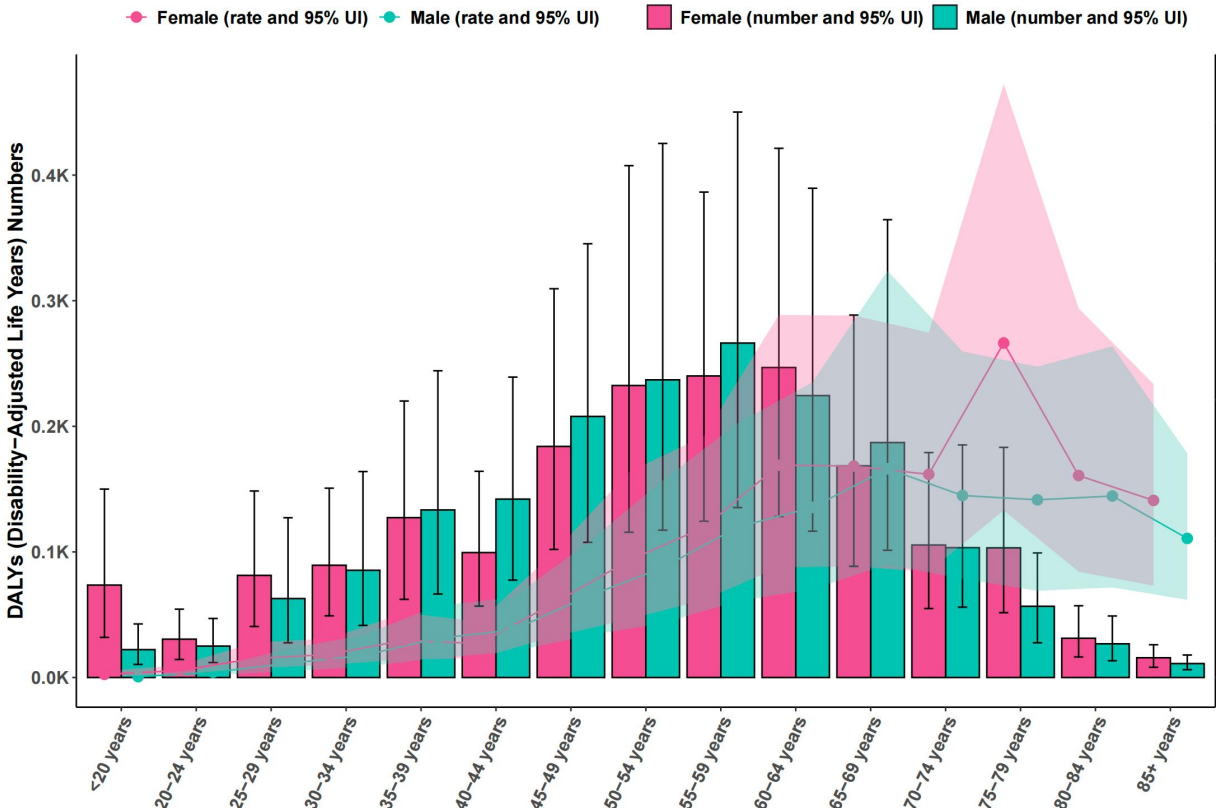
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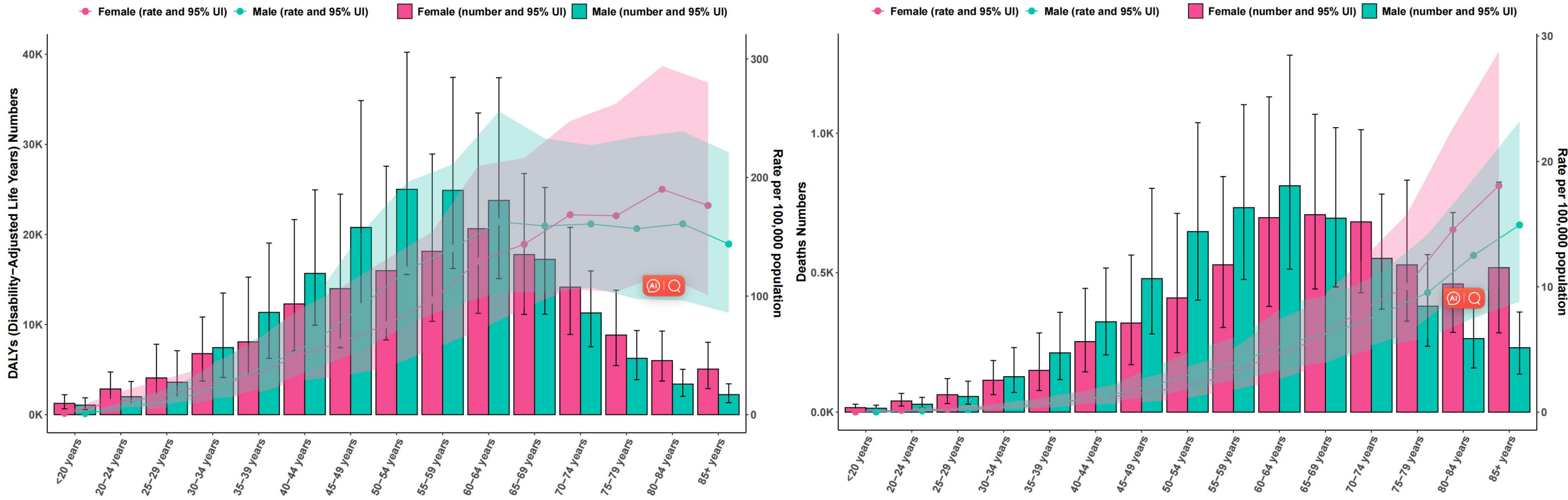
East Asia



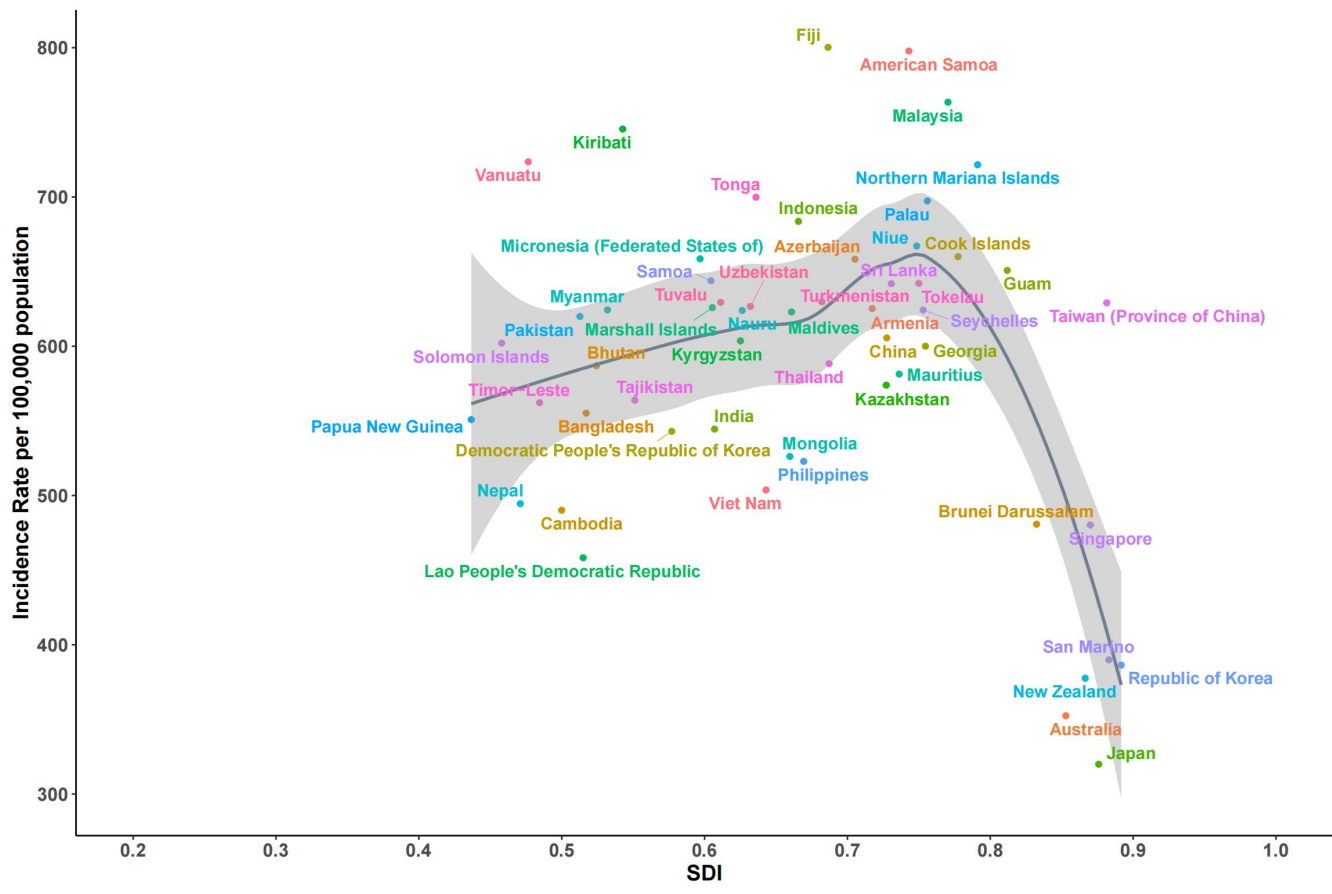
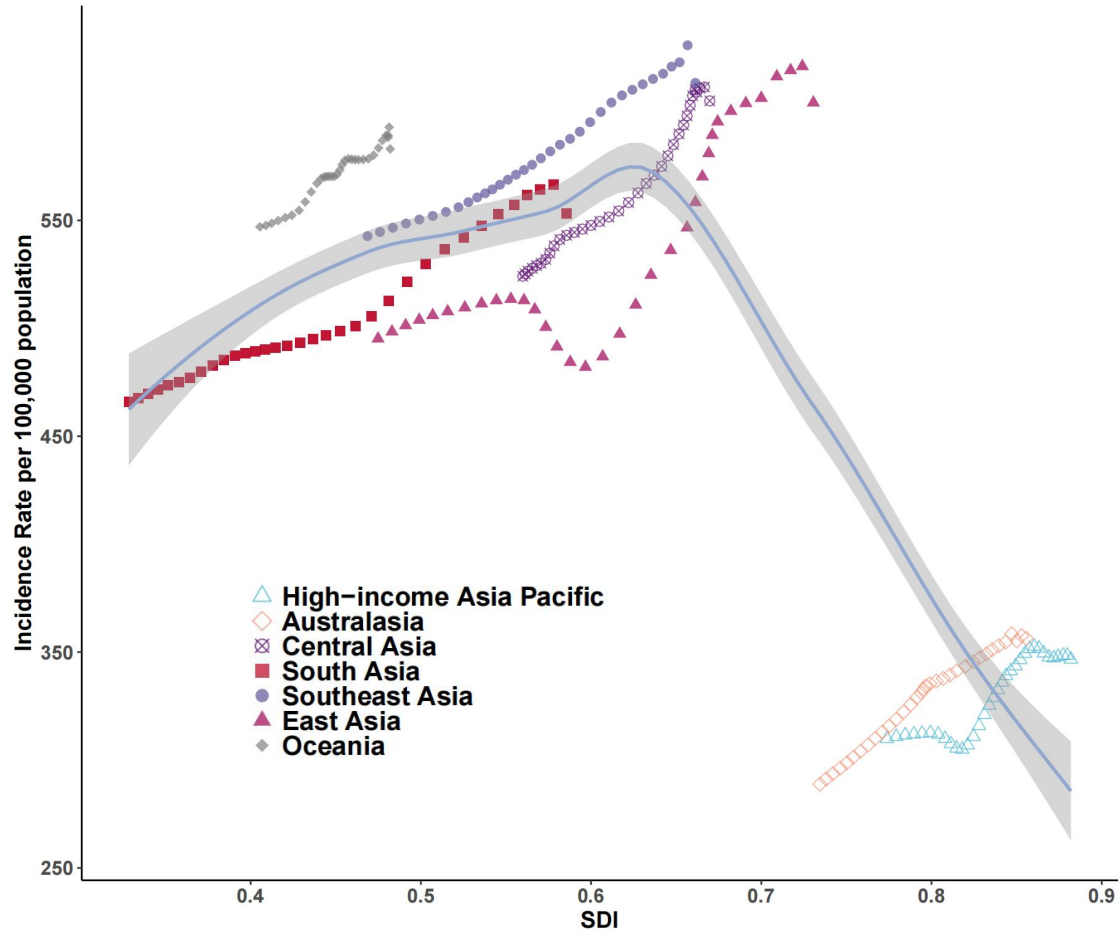
Oceania



Southeast Asia



Supplementary Figure 4



Supplementary Figure 5

