

ORIGINAL RESEARCH ARTICLE

# Global burden of ischemic stroke and attributable risk factors from 1990 to 2021: Insights from the Global Burden of Disease study

## Supplementary Files

**Table S1. The prevalence and age-standardized rate of ischemic stroke in 1990 and 2021, and the percentage change in the age-standardized rates (ASRs) per 100,000, by location**

Location/Subgroup	1990		2021		1990–2021
	No. × 10 <sup>3</sup> (95% UI)	ASRs per 100,000 No. (95% UI)	No. × 10 <sup>3</sup> (95% UI)	ASRs per 100,000 No. (95% UI)	Percentage change in the ASRs per 100,000
Global	34668.0 (32153.6–37171.6)	849.5 (785.9–913.2)	69944.9 (64788.7–75009.6)	819.5 (760.3–878.7)	–3.5 (–5.1––2.1)
Sex					
Men	16806.8 (15523.9–18033.0)	905.0 (833.6–973.1)	35241.2 (32609.8–37813.5)	881.9 (818.6–944.5)	–2.6 (–4.4––0.8)
Women	17861.3 (16549.8–19146.8)	812.3 (754.3–870.8)	34703.7 (32097.0–37274.0)	769.4 (713.0–826.0)	–5.3 (–6.9––3.5)
SDI					
High SDI	10142.0 (9487.7–10833.0)	933.8 (874.5–998.0)	15864.9 (14925.8–16872.9)	813.9 (768.6–864.1)	–12.8 (–15.1––10.5)
High-middle SDI	9174.4 (8429.8–9882.6)	906.2 (834.7–975.0)	17110.6 (15738.9–18478.8)	893.3 (824.0–960.0)	–1.4 (–4.3–1.2)
Middle SDI	8555.8 (7763.2–9309.8)	765.9 (693.0–837.5)	22230.7 (20239.6–24119.9)	838.4 (764.8–911.0)	9.5 (7.0–11.9)
Low-middle SDI	4631.4 (4229.1–5023.6)	680.8 (620.6–741.7)	10234.3 (9419.0–11004.0)	669.3 (616.3–720.6)	–1.7 (–3.6–0.2)
Low SDI	2124.9 (1976.6–2270.9)	838.1 (776.3–901.2)	4447.7 (4174.2–4699.7)	755.7 (707.7–800.1)	–9.8 (–11.5––8.1)
High-income North America	3403.9 (3107.3–3724.9)	991.5 (904.5–1081.9)	5699.1 (5260.9–6152.3)	950.0 (880.6–1024.5)	–4.2 (–8.4–0.1)
Canada	302.8 (291.0–313.8)	946.6 (909.9–981.0)	562.1 (548.5–574.8)	847.2 (825.7–869.4)	–10.5 (–13.4––7.5)
Greenland	0.6 (0.5–0.6)	1668.4 (1573.2–1782.8)	0.6 (0.6–0.7)	977.2 (933.7–1018.6)	–41.4 (–44.5––38.9)
United States of America	3100.4 (2812.9–3417.4)	996.3 (901.9–1095.5)	5136.3 (4700.3–5584.6)	962.1 (885.8–1044.7)	–3.4 (–8.0–1.2)
Australasia	176.2 (169.8–183.6)	751.3 (724.3–783.4)	297.0 (286.4–308.3)	581.9 (560.2–603.2)	–22.6 (–24.6––20.4)
Australia	148.5 (143.7–154.0)	759.6 (735.3–787.6)	252.3 (244.1–260.2)	586.3 (567.2–604.8)	–22.8 (–24.8––20.8)
New Zealand	27.7 (24.6–30.8)	710.3 (633.6–787.2)	44.6 (40.1–49.8)	558.4 (502.9–618.0)	–21.4 (–27.4––15.2)
High-income Asia Pacific	2058.5 (1893.1–2220.2)	1030.5 (947.1–1109.2)	3296.0 (3048.5–3555.1)	775.6 (723.0–832.2)	–24.7 (–27.5––21.1)
Brunei Darussalam	1.7 (1.7–1.8)	1612.3 (1530.1–1698.9)	3.4 (3.2–3.5)	954.5 (914.2–999.3)	–40.8 (–42.8––38.7)
Japan	1506.7 (1353.5–1651.5)	903.8 (815.2–987.9)	2455.6 (2232.2–2694.6)	746.6 (682.0–817.6)	–17.4 (–21.4––12.1)
Singapore	30.8 (29.3–32.3)	1381.1 (1313.0–1451.7)	56.1 (53.4–58.8)	668.2 (637.8–701.3)	–51.6 (–53.7––49.4)
Republic of Korea	519.3 (493.9–545.1)	1716.4 (1632.6–1807.9)	780.9 (748.7–815.5)	864.8 (828.3–903.0)	–49.6 (–51.4––47.7)
Western Europe	4563.8 (4344.0–4819.2)	806.9 (768.4–850.6)	5540.1 (5333.5–5752.4)	625.7 (600.1–649.9)	–22.4 (–24.3––20.4)
Andorra	0.4 (0.3–0.4)	613.4 (578.3–651.7)	0.7 (0.7–0.7)	478.9 (453.5–504.4)	–21.9 (–24.8––18.9)
Austria	86.6 (83.7–89.8)	745.2 (717.5–772.7)	153.6 (148.1–159.5)	861.2 (828.5–893.6)	15.6 (12.0–19.1)
Belgium	98.1 (91.4–105.3)	661.0 (616.2–706.5)	123.0 (119.0–126.8)	555.4 (535.8–573.0)	–16.0 (–20.9––10.7)
Cyprus	4.6 (4.3–5.0)	561.1 (524.8–602.6)	6.1 (5.6–6.7)	312.3 (288.4–346.1)	–44.3 (–47.5––40.4)
Denmark	71.0 (67.9–73.9)	884.2 (846.0–918.0)	61.1 (58.5–63.6)	547.8 (524.6–570.4)	–38.0 (–40.3––35.6)
Finland	75.8 (73.2–78.3)	1069.9 (1034.3–1104.8)	96.8 (93.4–100.1)	805.3 (775.8–830.5)	–24.7 (–26.8––22.8)

(Cont'd...)

Table S1. (Continued)

Location/Subgroup	1990		2021		1990–2021
	No. × 10 <sup>3</sup> (95% UI)	ASRs per 100,000 No. (95% UI)	No. × 10 <sup>3</sup> (95% UI)	ASRs per 100,000 No. (95% UI)	Percentage change in the ASRs per 100,000
France	460.9 (436.2–487.2)	565.7 (536.0–594.6)	740.3 (720.5–762.1)	559.0 (544.4–575.9)	–1.2 (–5.4–2.9)
Germany	1365.2 (1315.4–1416.0)	1098.8 (1060.5–1137.9)	1660.9 (1606.1–1709.6)	890.0 (857.8–918.0)	–19.0 (–21.1–16.6)
Greece	120.6 (113.4–128.5)	809.6 (761.2–860.0)	140.8 (134.2–148.2)	617.4 (589.7–646.7)	–23.7 (–27.3–20.0)
Iceland	2.5 (2.3–2.6)	866.8 (820.7–915.2)	3.3 (3.2–3.4)	593.3 (567.3–617.4)	–31.6 (–34.0–29.1)
Ireland	30.3 (28.5–32.3)	737.1 (693.7–783.6)	29.1 (27.5–30.8)	392.9 (370.5–414.8)	–46.7 (–49.1–43.9)
Israel	43.5 (41.7–45.2)	886.5 (851.4–920.9)	74.0 (71.0–77.1)	612.3 (585.9–638.3)	–30.9 (–33.1–28.6)
Italy	516.0 (465.7–574.0)	609.3 (552.7–672.1)	569.3 (512.6–629.7)	429.8 (388.2–471.2)	–29.5 (–32.5–25.7)
Luxembourg	3.7 (3.3–4.2)	704.4 (630.0–783.4)	4.1 (3.9–4.2)	408.8 (391.1–425.7)	–42.0 (–47.0–36.2)
Malta	2.7 (2.5–2.9)	641.0 (596.4–687.2)	3.3 (3.2–3.5)	383.7 (363.2–403.8)	–40.1 (–43.4–36.9)
Monaco	0.6 (0.6–0.7)	904.2 (852.8–955.2)	0.6 (0.5–0.6)	640.6 (609.3–674.0)	–29.2 (–31.7–26.4)
Netherlands	201.2 (192.4–210.7)	1019.1 (974.9–1066.6)	199.6 (189.6–208.8)	614.0 (583.1–641.7)	–39.8 (–42.0–37.8)
Norway	73.2 (64.8–82.0)	1097.6 (980.9–1217.9)	74.9 (67.5–82.6)	759.4 (688.4–834.0)	–30.8 (–34.3–26.8)
Portugal	136.9 (124.5–150.8)	986.9 (899.3–1081.1)	91.6 (86.4–96.8)	411.7 (390.9–433.8)	–58.3 (–61.4–54.8)
San Marino	0.3 (0.3–0.3)	765.9 (727.7–808.9)	0.4 (0.4–0.4)	565.1 (534.5–593.6)	–26.2 (–28.7–23.7)
Spain	384.2 (350.6–418.2)	714.9 (656.5–777.2)	567.0 (552.7–580.9)	606.8 (590.1–623.6)	–15.1 (–21.4–7.8)
Sweden	127.5 (113.8–144.5)	858.8 (770.1–956.1)	140.8 (125.5–156.3)	699.5 (627.3–766.7)	–18.6 (–25.6–11.3)
Switzerland	59.0 (55.7–63.0)	575.2 (544.1–612.1)	79.4 (76.0–82.8)	462.2 (442.4–482.2)	–19.6 (–23.4–16.6)
United Kingdom	695.1 (641.4–754.3)	797.3 (737.3–858.9)	714.5 (661.1–769.8)	581.4 (538.5–622.9)	–27.1 (–29.4–24.7)
Southern Latin America	399.1 (380.5–419.4)	859.4 (819.6–903.1)	546.6 (524.2–570.5)	640.6 (614.8–668.1)	–25.5 (–27.8–23.1)
Argentina	272.4 (258.7–286.7)	844.7 (802.4–889.5)	354.8 (339.4–370.9)	643.1 (615.6–671.1)	–23.9 (–26.8–20.8)
Chile	82.3 (78.4–86.4)	793.9 (754.1–834.6)	155.2 (148.1–162.4)	623.5 (594.8–652.3)	–21.5 (–24.3–18.3)
Uruguay	44.3 (42.1–46.6)	1157.4 (1100.7–1214.5)	36.6 (34.9–38.3)	700.2 (670.4–733.4)	–39.5 (–41.8–36.9)
Eastern Europe	2869.1 (2565.9–3174.2)	1028.0 (921.9–1132.8)	3049.4 (2763.3–3340.3)	920.4 (835.8–1005.3)	–10.5 (–13.6–6.9)
Belarus	139.9 (125.7–152.5)	1086.1 (977.1–1182.9)	151.1 (142.7–160.6)	990.3 (937.1–1047.3)	–8.8 (–16.3–0.0)
Estonia	17.9 (16.3–19.5)	890.4 (814.3–966.9)	15.1 (14.2–16.1)	640.7 (603.7–675.5)	–28.0 (–33.5–22.5)
Latvia	35.0 (31.5–38.1)	998.2 (903.6–1084.0)	34.6 (32.4–36.5)	934.8 (885.2–980.5)	–6.4 (–13.1–2.6)
Lithuania	40.4 (36.2–44.7)	915.4 (818.2–1010.3)	43.6 (37.9–49.8)	866.5 (766.9–970.2)	–5.3 (–17.2–7.4)
Republic of Moldova	34.2 (32.0–36.4)	752.8 (701.3–802.1)	43.7 (41.3–46.1)	771.3 (731.8–813.9)	2.5 (–2.7–8.2)
Russian Federation	1778.8 (1574.0–1981.9)	978.1 (868.9–1085.1)	2048.7 (1836.9–2268.7)	899.7 (810.3–990.4)	–8.0 (–11.7–3.9)
Ukraine	822.8 (725.0–916.6)	1170.6 (1037.3–1300.5)	712.6 (634.5–793.8)	991.1 (885.5–1097.6)	–15.3 (–21.6–9.0)
Central Europe	1418.2 (1324.8–1513.6)	959.6 (897.8–1022.4)	1631.1 (1537.8–1733.8)	776.1 (733.5–820.8)	–19.1 (–21.4–17.2)
Albania	14.7 (13.9–15.4)	646.1 (607.8–680.3)	23.5 (22.2–24.8)	576.6 (543.9–606.3)	–10.7 (–13.8–7.4)
Bosnia and Herzegovina	48.8 (46.1–51.5)	1140.3 (1073.8–1205.1)	63.4 (60.5–66.8)	1110.7 (1062.2–1164.7)	–2.6 (–6.6–2.1)
Bulgaria	130.0 (118.7–143.1)	1059.6 (970.6–1161.1)	137.2 (124.6–150.7)	1031.3 (945.0–1115.8)	–2.7 (–9.9–4.2)
Croatia	52.1 (48.2–56.1)	874.1 (804.7–943.3)	64.4 (62.2–66.3)	741.9 (718.4–763.6)	–15.1 (–21.1–8.9)
Czechia	141.9 (131.2–153.3)	1042.0 (968.2–1125.2)	161.3 (154.9–168.6)	779.1 (749.0–811.0)	–25.2 (–29.4–20.7)
Hungary	183.7 (173.5–195.2)	1272.8 (1205.1–1351.6)	141.7 (134.4–149.1)	778.9 (742.4–817.2)	–38.8 (–41.3–35.9)
Montenegro	3.8 (3.6–4.1)	617.3 (581.2–655.0)	5.6 (5.3–6.0)	607.2 (574.5–640.4)	–1.6 (–5.6–2.0)
North Macedonia	22.7 (20.5–24.9)	1212.9 (1099.3–1334.0)	32.6 (29.5–36.0)	1012.9 (918.8–1116.7)	–16.5 (–22.4–9.9)
Poland	286.0 (257.5–316.5)	661.4 (595.7–728.2)	409.1 (364.8–458.2)	603.4 (542.8–666.4)	–8.8 (–13.3–4.2)

(Cont'd...)

Table S1. (Continued)

Location/Subgroup	1990		2021		1990–2021
	No. × 10 <sup>3</sup> (95% UI)	ASRs per 100,000 No. (95% UI)	No. × 10 <sup>3</sup> (95% UI)	ASRs per 100,000 No. (95% UI)	Percentage change in the ASRs per 100,000
Romania	292.4 (269.1–313.4)	1055.5 (973.2–1130.7)	321.9 (304.6–339.5)	902.8 (860.2–946.8)	–14.5 (–19.6––8.6)
Serbia	119.1 (108.3–130.7)	1073.6 (974.9–1181.4)	131.2 (119.6–143.1)	834.5 (769.2–906.5)	–22.3 (–28.0––16.5)
Slovakia	83.6 (80.3–87.3)	1404.8 (1348.2–1468.0)	95.2 (90.4–99.5)	1033.1 (982.2–1078.4)	–26.5 (–29.0––23.7)
Slovenia	16.8 (15.2–18.4)	697.2 (633.3–760.9)	20.3 (19.5–21.3)	490.3 (468.5–511.7)	–29.7 (–34.7––24.3)
Central Asia	550.5 (523.5–577.2)	1107.9 (1052.3–1164.9)	866.7 (829.5–902.8)	1014.9 (969.9–1063.6)	–8.4 (–10.3––6.3)
Armenia	27.5 (26.0–28.9)	965.1 (912.9–1015.8)	34.4 (32.9–36.0)	827.0 (790.4–863.1)	–14.3 (–17.6––10.5)
Azerbaijan	41.8 (39.3–44.5)	784.6 (733.3–837.4)	81.8 (77.8–85.8)	786.8 (747.6–830.2)	0.3 (–4.0–4.7)
Georgia	52.5 (49.4–55.9)	858.1 (807.2–911.1)	50.8 (48.0–53.9)	929.5 (877.7–981.8)	8.3 (4.2–12.7)
Kazakhstan	201.5 (190.5–213.3)	1516.3 (1429.9–1609.9)	223.1 (213.1–233.9)	1216.0 (1157.3–1275.1)	–19.8 (–23.1––16.3)
Kyrgyzstan	35.2 (33.1–37.1)	1121.5 (1057.7–1188.2)	41.7 (39.7–43.8)	797.2 (753.7–841.3)	–28.9 (–31.9––25.8)
Mongolia	9.8 (9.3–10.4)	764.3 (717.6–813.9)	21.8 (20.7–22.8)	842.4 (798.0–887.0)	10.2 (6.1–15.0)
Tajikistan	24.7 (23.1–26.2)	822.1 (770.6–877.5)	51.7 (48.9–54.3)	801.4 (751.4–850.4)	–2.5 (–6.1–1.5)
Turkmenistan	21.7 (20.5–23.0)	1013.4 (953.2–1079.1)	53.9 (51.4–56.4)	1240.6 (1169.6–1309.0)	22.4 (17.9–27.9)
Uzbekistan	135.7 (127.2–143.8)	1095.5 (1023.3–1164.9)	307.5 (292.3–322.1)	1087.9 (1032.4–1146.3)	–0.7 (–5.3–4.7)
Central Latin America	678.7 (630.1–725.1)	725.2 (673.9–777.8)	1387.6 (1296.8–1484.3)	552.6 (516.9–591.3)	–23.8 (–25.5––22.1)
Colombia	143.5 (136.7–150.8)	750.2 (715.9–785.7)	273.6 (262.0–286.8)	496.9 (475.5–520.2)	–33.8 (–35.9––31.2)
Costa Rica	12.5 (11.8–13.1)	644.9 (611.9–678.6)	29.3 (27.9–30.8)	538.4 (513.2–566.0)	–16.5 (–19.4––13.4)
El Salvador	18.3 (17.3–19.4)	561.3 (531.5–592.9)	29.4 (27.9–30.9)	464.7 (440.8–489.3)	–17.2 (–20.0––14.0)
Guatemala	20.8 (19.6–22.1)	526.5 (498.2–558.0)	52.2 (49.6–54.9)	441.6 (419.7–464.8)	–16.1 (–19.0––12.5)
Honduras	13.5 (12.6–14.3)	559.7 (523.8–592.3)	35.5 (33.7–37.4)	514.1 (486.7–542.0)	–8.1 (–11.6––4.8)
Mexico	376.7 (340.9–413.9)	773.2 (699.4–849.4)	757.8 (687.6–832.3)	596.4 (542.0–655.3)	–22.9 (–25.5––20.1)
Nicaragua	12.1 (11.4–12.8)	689.9 (650.9–731.1)	28.0 (26.6–29.5)	547.8 (521.7–577.6)	–20.6 (–23.4––17.5)
Panama	10.4 (9.9–11.0)	648.8 (616.1–684.4)	24.0 (22.9–25.3)	540.9 (516.7–569.6)	–16.6 (–19.3––13.5)
Venezuela (Bolivarian Republic of)	70.8 (66.9–74.9)	662.0 (626.9–699.6)	157.9 (150.3–165.8)	540.5 (515.4–568.4)	–18.4 (–21.3––15.3)
Andean Latin America	138.2 (131.0–145.9)	604.9 (573.4–638.1)	312.5 (297.5–327.2)	515.1 (490.6–539.0)	–14.8 (–16.7––13.0)
Bolivia (Plurinational State of)	21.3 (20.1–22.7)	586.1 (550.7–623.6)	45.2 (42.8–47.8)	471.7 (445.4–499.0)	–19.5 (–22.5––16.8)
Ecuador	41.6 (39.3–43.7)	703.9 (665.4–738.8)	97.5 (92.7–101.9)	583.0 (554.5–609.3)	–17.2 (–19.9––14.5)
Peru	75.3 (71.2–79.8)	564.6 (534.3–597.8)	169.7 (161.5–178.0)	492.3 (467.9–515.9)	–12.8 (–15.7––9.9)
Caribbean	178.8 (169.9–188.1)	649.1 (616.1–684.1)	327.2 (312.5–341.5)	616.9 (589.7–643.6)	–5.0 (–7.1––3.0)
Antigua and Barbuda	0.4 (0.3–0.4)	673.8 (637.6–714.8)	0.6 (0.6–0.6)	582.4 (552.5–610.2)	–13.6 (–16.3––10.6)
Barbados	2.0 (1.9–2.2)	711.1 (665.9–757.1)	3.0 (2.8–3.2)	630.8 (599.8–661.8)	–11.3 (–15.3––6.8)
Belize	0.6 (0.5–0.6)	522.8 (493.4–555.9)	1.6 (1.5–1.7)	499.8 (473.7–526.2)	–4.4 (–8.0––1.0)
Bermuda	0.4 (0.4–0.5)	703.9 (665.5–747.8)	0.7 (0.6–0.7)	553.3 (525.5–580.7)	–21.4 (–24.0––18.4)
Bahamas	1.2 (1.1–1.2)	683.3 (649.9–719.2)	2.5 (2.4–2.6)	614.4 (586.1–641.5)	–10.1 (–13.3––6.9)
Cuba	66.0 (62.5–69.6)	630.1 (597.6–665.2)	104.4 (99.3–109.6)	577.6 (549.3–606.1)	–8.3 (–11.9––4.4)
Dominica	0.4 (0.3–0.4)	595.6 (561.9–632.7)	0.4 (0.4–0.5)	537.8 (511.6–565.5)	–9.7 (–13.1––6.5)
Dominican Republic	27.9 (26.4–29.6)	657.8 (622.6–697.9)	75.7 (72.2–79.2)	740.9 (706.5–777.9)	12.6 (8.6–16.6)
Grenada	0.6 (0.5–0.6)	826.1 (761.1–899.0)	0.8 (0.7–0.9)	685.8 (629.1–745.3)	–17.0 (–22.0––11.3)

(Cont'd...)

Table S1. (Continued)

Location/Subgroup	1990		2021		1990–2021
	No. × 10 <sup>3</sup> (95% UI)	ASRs per 100,000 No. (95% UI)	No. × 10 <sup>3</sup> (95% UI)	ASRs per 100,000 No. (95% UI)	Percentage change in the ASRs per 100,000
Guyana	4.2 (4.0–4.5)	957.5 (893.2–1030.4)	5.1 (4.8–5.3)	751.6 (715.5–793.5)	–21.5 (–25.1––17.9)
Haiti	25.6 (24.2–27.3)	695.2 (647.5–745.9)	53.0 (50.2–55.8)	633.2 (596.1–669.0)	–8.9 (–12.7––5.2)
Jamaica	11.1 (10.5–11.8)	595.4 (560.5–629.3)	16.2 (15.4–17.1)	529.8 (503.1–559.9)	–11.0 (–14.7––7.7)
Puerto Rico	19.5 (18.4–20.6)	536.3 (506.5–568.5)	31.4 (29.9–32.8)	496.6 (470.4–519.8)	–7.4 (–10.8––3.7)
Saint Kitts and Nevis	0.4 (0.4–0.5)	1109.6 (1020.2–1211.0)	0.5 (0.5–0.5)	734.0 (694.7–777.0)	–33.9 (–37.6––29.6)
Saint Lucia	0.8 (0.7–0.9)	848.2 (784.9–912.8)	1.5 (1.4–1.6)	641.6 (611.8–672.3)	–24.4 (–28.7––19.6)
Saint Vincent and the Grenadines	0.6 (0.6–0.6)	778.3 (727.2–834.5)	0.9 (0.8–0.9)	607.9 (576.9–639.8)	–21.9 (–25.5––18.2)
Suriname	2.0 (1.9–2.1)	723.8 (681.5–766.8)	4.2 (4.0–4.4)	660.7 (628.4–695.7)	–8.7 (–12.1––5.1)
Trinidad and Tobago	8.5 (8.1–9.0)	938.8 (888.2–988.7)	12.8 (12.2–13.4)	695.2 (661.7–728.6)	–25.9 (–28.7––23.0)
United States Virgin Islands	0.5 (0.5–0.5)	542.7 (511.1–574.0)	0.9 (0.8–0.9)	533.8 (507.4–562.7)	–1.7 (–5.4–2.5)
Tropical Latin America	827.7 (739.3–917.7)	850.0 (757.8–943.6)	1543.6 (1392.4–1692.6)	605.7 (546.6–663.9)	–28.7 (–31.5––26.0)
Brazil	811.0 (723.7–900.2)	853.3 (759.5–948.5)	1507.6 (1357.1–1656.0)	605.7 (545.7–664.7)	–29.0 (–31.8––26.2)
Paraguay	16.6 (15.7–17.6)	711.2 (669.2–753.7)	36.0 (34.2–37.8)	607.1 (576.3–638.9)	–14.6 (–18.0––10.6)
East Asia	6921.7 (6208.4–7617.5)	774.2 (691.5–863.7)	21503.8 (19292.8–23714.7)	1018.0 (920.0–1120.1)	31.5 (27.4–35.7)
China	6577.2 (5875.4–7262.4)	759.2 (675.2–850.3)	20803.9 (18615.9–22995.5)	1018.8 (918.5–1123.4)	34.2 (29.9–38.8)
Democratic People's Republic of Korea	172.4 (163.0–182.7)	1087.4 (1023.8–1153.1)	346.7 (330.1–365.8)	1079.6 (1026.2–1142.0)	–0.7 (–4.8–3.7)
Taiwan (Province of China)	172.1 (164.7–179.6)	1163.0 (1112.5–1212.3)	353.1 (338.4–367.8)	871.4 (836.6–906.2)	–25.1 (–27.7––22.7)
Southeast Asia	2557.6 (2350.5–2762.2)	921.2 (846.8–999.6)	6105.0 (5651.3–6562.9)	919.0 (851.9–986.3)	–0.2 (–2.1–1.8)
Cambodia	35.8 (33.7–38.0)	716.1 (670.8–763.3)	92.1 (87.6–96.7)	713.1 (673.0–753.9)	–0.4 (–4.6–4.3)
Indonesia	1179.8 (1041.6–1324.3)	1085.9 (961.6–1226.0)	2721.7 (2432.2–3036.2)	1108.8 (989.0–1233.7)	2.1 (–0.9–5.4)
Lao People's Democratic Republic	20.1 (18.9–21.3)	890.8 (833.1–946.4)	42.2 (40.1–44.2)	852.3 (808.1–900.1)	–4.3 (–8.2––0.4)
Malaysia	99.5 (94.1–104.8)	998.6 (940.6–1058.7)	280.5 (268.1–293.8)	979.8 (937.2–1027.7)	–1.9 (–5.3–1.7)
Maldives	1.1 (1.0–1.2)	1113.8 (1054.2–1175.6)	2.7 (2.5–2.8)	701.1 (665.8–736.1)	–37.1 (–39.6––34.5)
Mauritius	9.0 (8.5–9.4)	1168.4 (1102.6–1235.5)	12.8 (12.2–13.4)	728.3 (695.4–760.8)	–37.7 (–40.1––35.2)
Myanmar	219.3 (206.7–232.5)	875.2 (820.4–929.1)	397.6 (379.2–417.6)	801.6 (762.9–843.4)	–8.4 (–11.7––4.7)
Philippines	230.2 (207.5–254.6)	692.0 (615.6–774.2)	691.8 (621.9–768.6)	800.9 (714.4–885.9)	15.7 (12.1–19.1)
Sri Lanka	100.0 (94.7–105.5)	869.1 (823.8–916.2)	204.0 (194.4–213.4)	770.3 (732.7–806.4)	–11.4 (–14.3––8.3)
Seychelles	0.6 (0.5–0.6)	957.2 (902.2–1009.5)	1.0 (0.9–1.0)	834.6 (792.7–873.2)	–12.8 (–16.1––9.3)
Thailand	317.3 (301.8–334.5)	848.9 (804.3–898.3)	754.9 (723.1–787.8)	724.7 (694.2–754.1)	–14.6 (–17.9––11.4)
Timor-Leste	2.3 (2.1–2.4)	694.1 (650.7–739.1)	6.7 (6.4–7.1)	735.5 (696.7–773.5)	6.0 (1.8–9.9)
Vietnam	339.0 (319.2–359.4)	790.1 (741.3–837.9)	888.4 (852.5–926.8)	881.8 (844.4–920.6)	11.6 (7.1–17.3)
Oceania	26.5 (25.1–27.9)	809.7 (767.7–855.0)	59.5 (57.1–62.2)	741.4 (711.4–772.0)	–8.4 (–10.6––6.1)
American Samoa	0.3 (0.2–0.3)	1001.4 (947.2–1054.8)	0.4 (0.4–0.4)	853.1 (818.1–891.4)	–14.8 (–17.5––11.8)
Cook Islands	0.1 (0.1–0.1)	894.5 (850.7–942.1)	0.2 (0.2–0.2)	915.7 (879.1–950.6)	2.4 (–1.0–5.9)
Micronesia (Federated States of)	0.6 (0.6–0.6)	1075.7 (1018.3–1142.0)	0.8 (0.7–0.8)	1001.7 (955.5–1052.2)	–6.9 (–10.1––3.5)
Fiji	4.6 (4.4–4.9)	1146.1 (1087.9–1209.8)	7.9 (7.5–8.2)	1029.4 (987.3–1074.1)	–10.2 (–13.0––6.9)

(Cont'd...)

Table S1. (Continued)

Location/Subgroup	1990		2021		1990–2021
	No. × 10 <sup>3</sup> (95% UI)	ASRs per 100,000 No. (95% UI)	No. × 10 <sup>3</sup> (95% UI)	ASRs per 100,000 No. (95% UI)	Percentage change in the ASRs per 100,000
Guam	0.8 (0.7–0.8)	969.4 (924.5–1018.9)	2.0 (1.9–2.0)	966.7 (927.2–1003.5)	–0.3 (–3.7–3.2)
Kiribati	0.5 (0.5–0.6)	1272.6 (1209.7–1344.2)	0.9 (0.9–1.0)	1156.3 (1107.6–1211.5)	–9.1 (–12.4––6.1)
Marshall Islands	0.2 (0.2–0.2)	1013.2 (954.9–1076.1)	0.4 (0.3–0.4)	975.1 (926.6–1024.7)	–3.8 (–7.3––0.2)
Nauru	0.1 (0.1–0.1)	1441.4 (1366.5–1520.0)	0.1 (0.1–0.1)	1369.0 (1315.8–1425.0)	–5.0 (–8.4––1.8)
Niue	0.0 (0.0–0.0)	1172.7 (1113.1–1235.1)	0.0 (0.0–0.0)	1068.6 (1023.7–1114.8)	–8.9 (–11.9––5.8)
Northern Mariana Islands	0.2 (0.2–0.2)	919.5 (876.9–966.7)	0.4 (0.4–0.4)	827.5 (792.4–865.2)	–10.0 (–13.3––6.9)
Palau	0.1 (0.1–0.1)	1182.0 (1125.3–1243.1)	0.3 (0.2–0.3)	1194.3 (1138.2–1246.8)	1.0 (–2.2–4.8)
Papua New Guinea	13.1 (12.3–13.9)	647.1 (610.0–688.8)	34.6 (33.0–36.3)	616.2 (587.1–645.1)	–4.8 (–8.1––1.1)
Samoa	1.0 (0.9–1.0)	1050.2 (994.6–1116.0)	1.6 (1.5–1.6)	1032.8 (989.7–1077.9)	–1.7 (–5.2–2.3)
Solomon Islands	1.8 (1.7–1.9)	1143.1 (1073.0–1214.8)	4.3 (4.1–4.5)	1135.4 (1076.8–1192.4)	–0.7 (–4.6–3.1)
Tokelau	0.0 (0.0–0.0)	890.5 (843.3–943.0)	0.0 (0.0–0.0)	870.2 (834.1–908.7)	–2.3 (–6.0–1.2)
Tonga	0.5 (0.5–0.5)	814.7 (768.8–857.7)	0.6 (0.6–0.7)	780.7 (746.4–814.8)	–4.2 (–7.2––1.0)
Tuvalu	0.1 (0.1–0.1)	952.6 (899.4–1005.8)	0.1 (0.1–0.1)	934.9 (895.0–979.7)	–1.9 (–5.6–1.5)
Vanuatu	0.9 (0.8–0.9)	1209.0 (1144.9–1280.5)	2.3 (2.3–2.5)	1213.8 (1156.1–1271.6)	0.4 (–3.1–3.9)
North Africa and Middle East	1847.8 (1741.9–1963.3)	909.3 (852.4–967.6)	4366.5 (4157.8–4571.2)	866.3 (823.7–909.4)	–4.7 (–6.8––2.5)
Afghanistan	63.7 (59.3–68.2)	855.3 (791.8–918.4)	117.2 (111.2–123.1)	822.0 (773.8–869.8)	–3.9 (–8.5–0.4)
Algeria	148.3 (140.0–157.1)	1027.6 (968.9–1090.8)	369.7 (354.4–385.9)	982.9 (939.4–1028.1)	–4.3 (–7.8––0.7)
Bahrain	2.0 (1.8–2.1)	656.9 (619.8–697.7)	6.9 (6.5–7.3)	540.4 (511.2–573.5)	–17.7 (–20.8––14.8)
Egypt	273.3 (254.6–293.4)	801.9 (740.7–863.4)	737.1 (702.5–773.6)	975.3 (921.5–1031.2)	21.6 (14.6–27.7)
Iran (Islamic Republic of)	303.4 (269.9–336.5)	899.2 (795.7–1001.6)	653.0 (591.3–718.5)	784.9 (710.5–863.9)	–12.7 (–15.9––9.0)
Iraq	99.0 (93.1–104.8)	1015.9 (951.1–1080.9)	284.9 (271.7–297.9)	1012.9 (962.0–1063.3)	–0.3 (–4.2–4.3)
Jordan	20.5 (19.3–21.6)	1182.3 (1103.5–1252.3)	97.9 (93.5–102.0)	1190.7 (1132.6–1246.8)	0.7 (–2.9–5.4)
Kuwait	8.5 (8.0–9.0)	937.6 (890.8–984.6)	32.4 (30.8–33.9)	865.7 (828.7–903.2)	–7.7 (–10.9––4.1)
Lebanon	19.3 (18.1–20.3)	818.8 (770.8–868.7)	52.5 (49.6–55.5)	880.7 (833.5–927.8)	7.6 (4.0–11.8)
Libya	19.1 (18.1–20.1)	761.6 (721.2–806.5)	52.2 (49.8–54.5)	837.4 (799.0–875.0)	10.0 (6.2–13.9)
Morocco	146.4 (137.5–155.2)	883.1 (828.5–940.3)	333.6 (317.1–351.3)	924.9 (877.8–978.0)	4.7 (0.7–8.7)
Palestine	8.1 (7.6–8.6)	747.1 (702.3–796.3)	22.0 (20.8–23.1)	685.3 (647.8–718.6)	–8.3 (–12.1––4.4)
Oman	9.0 (8.5–9.5)	902.0 (844.1–953.8)	29.3 (28.0–30.7)	924.1 (883.3–966.3)	2.5 (–1.8–7.0)
Qatar	2.4 (2.3–2.6)	1221.6 (1162.4–1279.0)	14.4 (13.6–15.3)	747.7 (708.1–787.4)	–38.8 (–40.7––36.6)
Saudi Arabia	58.9 (55.3–62.8)	740.9 (693.4–791.1)	202.7 (193.4–212.3)	763.4 (724.1–803.1)	3.0 (–1.0–7.1)
Sudan	95.7 (89.9–102.1)	831.8 (775.9–889.5)	225.1 (214.0–236.5)	898.5 (852.1–949.6)	8.0 (3.5–12.5)
Syrian Arab Republic	65.9 (62.3–69.5)	928.7 (874.2–977.9)	106.0 (100.7–111.4)	754.9 (712.8–797.3)	–18.7 (–21.4––16.0)
Tunisia	38.7 (36.4–40.9)	674.5 (634.6–714.2)	97.2 (92.9–102.1)	728.2 (693.7–764.5)	8.0 (4.3–12.2)
Turkey	405.3 (382.1–427.3)	1041.5 (978.0–1099.2)	701.9 (671.7–733.9)	758.6 (724.7–794.8)	–27.2 (–29.7––24.5)
United Arab Emirates	11.4 (10.7–12.1)	1378.6 (1299.8–1468.3)	88.4 (84.3–92.7)	1201.6 (1134.5–1263.3)	–12.8 (–16.7––9.3)
Yemen	48.2 (45.5–51.3)	745.7 (696.3–792.6)	137.9 (130.8–145.3)	751.0 (707.9–794.9)	0.7 (–3.2–4.9)
South Asia	3441.9 (3041.7–3833.0)	526.0 (462.2–586.9)	7828.4 (6997.1–8621.3)	497.7 (445.7–549.0)	–5.4 (–7.9––2.7)
Bangladesh	330.6 (310.0–351.9)	620.4 (580.0–665.8)	865.8 (820.0–914.5)	601.5 (568.0–638.2)	–3.0 (–6.7–0.9)
Bhutan	1.6 (1.5–1.7)	554.3 (514.1–593.4)	3.4 (3.2–3.6)	538.3 (506.3–569.7)	–2.9 (–6.5–1.3)

(Cont'd...)

Table S1. (Continued)

Location/Subgroup	1990		2021		1990–2021
	No. × 10 <sup>3</sup> (95% UI)	ASRs per 100,000 No. (95% UI)	No. × 10 <sup>3</sup> (95% UI)	ASRs per 100,000 No. (95% UI)	Percentage change in the ASRs per 100,000
India	2590.1 (2262.6–2903.5)	487.9 (424.7–547.6)	5797.6 (5134.7–6439.0)	460.3 (408.7–512.1)	–5.7 (–8.5––2.6)
Nepal	53.6 (50.4–57.3)	502.6 (468.7–539.7)	112.5 (106.0–119.2)	454.3 (426.0–484.3)	–9.6 (–12.9––5.8)
Pakistan	465.9 (409.9–523.2)	744.0 (651.7–838.9)	1049.1 (930.0–1169.9)	740.3 (660.0–829.3)	–0.5 (–4.4–3.5)
Southern Sub-Saharan Africa	364.2 (330.9–399.5)	1274.6 (1149.8–1404.1)	640.2 (583.5–694.9)	1122.0 (1019.9–1224.9)	–12.0 (–15.3––8.8)
Botswana	7.5 (7.1–7.9)	1325.1 (1246.9–1408.4)	19.3 (18.4–20.2)	1339.1 (1275.7–1408.7)	1.1 (–3.0–5.4)
Lesotho	7.1 (6.7–7.6)	822.0 (767.6–876.6)	10.6 (10.0–11.1)	989.6 (932.5–1052.0)	20.4 (15.0–26.2)
Namibia	8.2 (7.8–8.7)	1266.6 (1195.7–1341.6)	15.0 (14.3–15.7)	1096.7 (1036.4–1158.5)	–13.4 (–16.9––9.9)
South Africa	295.6 (265.2–327.3)	1355.1 (1206.9–1511.4)	510.2 (458.1–561.0)	1123.2 (1006.0–1240.1)	–17.1 (–20.9––13.6)
Eswatini	3.2 (3.0–3.4)	1050.6 (983.9–1118.3)	6.1 (5.8–6.4)	1064.5 (1009.6–1122.1)	1.3 (–2.5–5.8)
Zimbabwe	42.5 (40.2–44.9)	954.4 (901.8–1009.4)	79.1 (75.1–82.8)	1059.0 (1007.2–1112.1)	11.0 (7.0–15.0)
Western Sub-Saharan Africa	1111.0 (1034.2–1188.5)	1109.4 (1026.9–1194.5)	2479.4 (2331.9–2621.7)	1046.0 (977.7–1112.6)	–5.7 (–7.3––3.9)
Benin	26.7 (25.4–28.2)	1164.7 (1101.1–1228.8)	63.6 (60.5–66.7)	1018.4 (972.3–1068.2)	–12.6 (–15.5––9.2)
Burkina Faso	41.5 (39.1–43.8)	846.7 (801.1–895.7)	86.5 (82.4–90.4)	776.3 (741.6–811.4)	–8.3 (–11.5––5.6)
Cameroon	52.0 (49.3–54.8)	1025.7 (968.0–1082.6)	154.9 (148.0–161.9)	1015.7 (967.8–1064.8)	–1.0 (–4.3–2.4)
Cabo Verde	2.5 (2.3–2.6)	1019.3 (963.6–1068.5)	4.8 (4.6–5.0)	1011.8 (970.0–1055.6)	–0.7 (–3.8–2.5)
Chad	34.8 (32.9–36.7)	1094.5 (1036.3–1153.9)	75.9 (72.4–78.9)	1039.2 (992.1–1084.3)	–5.1 (–8.2––2.0)
Côte d'Ivoire	66.7 (63.3–70.1)	1304.6 (1229.9–1378.5)	152.9 (146.0–159.9)	1109.4 (1060.8–1157.8)	–15.0 (–17.6––12.0)
Gambia	5.4 (5.1–5.7)	1250.4 (1191.5–1316.6)	13.5 (12.9–14.1)	1148.8 (1100.1–1199.8)	–8.1 (–11.3––5.0)
Ghana	115.9 (110.1–121.8)	1568.4 (1483.2–1647.0)	313.6 (301.3–327.6)	1603.9 (1542.0–1675.7)	2.3 (–1.3–5.7)
Guinea	39.2 (37.2–41.2)	1099.7 (1042.0–1154.7)	72.9 (69.7–76.0)	1096.7 (1045.0–1144.1)	–0.3 (–3.8–3.2)
Guinea-Bissau	6.1 (5.8–6.4)	1302.8 (1230.8–1373.3)	11.0 (10.5–11.5)	1199.5 (1143.8–1256.9)	–7.9 (–11.0––4.8)
Liberia	14.6 (13.9–15.4)	1116.2 (1054.6–1177.0)	25.8 (24.6–26.9)	953.4 (910.4–995.2)	–14.6 (–17.4––11.7)
Mali	42.4 (40.3–44.7)	941.8 (890.2–996.1)	90.8 (86.4–95.0)	822.7 (785.5–860.4)	–12.6 (–15.4––9.9)
Mauritania	15.5 (14.7–16.2)	1393.6 (1324.1–1463.7)	26.2 (25.0–27.4)	1073.3 (1025.4–1121.9)	–23.0 (–25.4––20.5)
Niger	36.3 (34.5–38.3)	1069.9 (1012.5–1131.6)	93.3 (88.2–97.8)	906.9 (860.8–953.3)	–15.2 (–18.0––12.7)
Nigeria	512.5 (456.9–568.5)	1039.2 (917.9–1162.5)	1089.2 (987.5–1197.1)	987.4 (883.0–1096.0)	–5.0 (–7.0––2.7)
Sao Tome and Principe	1.0 (0.9–1.0)	1427.5 (1354.5–1498.2)	1.8 (1.8–1.9)	1422.2 (1361.8–1485.1)	–0.4 (–3.8–2.9)
Senegal	48.8 (46.4–51.4)	1297.9 (1231.2–1365.8)	99.8 (95.4–104.1)	1116.3 (1068.7–1164.8)	–14.0 (–16.5––11.2)
Sierra Leone	29.5 (28.1–31.1)	1265.2 (1202.7–1331.0)	53.0 (50.8–55.2)	1148.2 (1098.9–1202.8)	–9.2 (–12.4––6.5)
Togo	19.5 (18.5–20.5)	1257.6 (1193.1–1325.8)	49.9 (47.6–52.4)	1104.8 (1054.5–1156.9)	–12.1 (–14.9––8.8)
Eastern Sub-Saharan Africa	867.8 (811.7–925.1)	1066.6 (996.2–1139.8)	1869.3 (1761.9–1973.4)	992.1 (934.2–1049.9)	–7.0 (–8.7––5.0)
Burundi	32.4 (30.6–34.3)	1287.4 (1206.8–1365.2)	53.3 (50.7–55.8)	957.7 (910.9–1008.2)	–25.6 (–28.3––22.8)
Comoros	2.8 (2.6–2.9)	1322.7 (1252.0–1398.8)	5.6 (5.3–5.8)	1110.0 (1058.5–1162.2)	–16.1 (–19.1––12.9)
Djibouti	1.9 (1.8–2.1)	1281.0 (1210.9–1351.0)	8.3 (7.9–8.6)	1225.6 (1168.8–1287.1)	–4.3 (–7.8–0.7)
Eritrea	14.2 (13.4–15.0)	1156.6 (1089.4–1227.4)	32.5 (31.0–34.0)	1074.6 (1020.6–1125.3)	–7.1 (–10.7––3.1)
Ethiopia	185.3 (162.4–207.3)	857.0 (755.1–960.4)	338.6 (304.5–374.4)	687.2 (614.1–767.0)	–19.8 (–23.6––15.9)
Kenya	98.2 (87.5–108.9)	1041.9 (923.9–1167.2)	242.4 (218.3–267.6)	978.7 (881.0–1083.6)	–6.1 (–8.4––3.7)
Madagascar	77.0 (73.2–80.8)	1413.0 (1336.7–1491.2)	171.9 (163.8–179.2)	1365.6 (1302.4–1428.9)	–3.3 (–6.6–0.1)

(Cont'd...)

Table S1. (Continued)

Location/Subgroup	1990		2021		1990–2021
	No. × 10 <sup>3</sup> (95% UI)	ASRs per 100,000 No. (95% UI)	No. × 10 <sup>3</sup> (95% UI)	ASRs per 100,000 No. (95% UI)	Percentage change in the ASRs per 100,000
Malawi	47.3 (44.7–50.0)	1119.3 (1055.2–1182.6)	87.6 (83.3–91.8)	1040.3 (987.0–1091.8)	-7.1 (-10.7--3.4)
Mozambique	72.1 (67.9–76.3)	1114.1 (1043.5–1186.2)	158.5 (151.2–166.1)	1250.5 (1187.9–1316.4)	12.2 (7.5–17.3)
Rwanda	38.9 (36.7–41.3)	1277.1 (1195.3–1363.0)	62.4 (59.3–65.5)	928.1 (874.6–977.3)	-27.3 (-30.3--24.4)
Somalia	30.0 (28.4–31.8)	1030.4 (964.0–1104.4)	71.9 (68.3–75.8)	927.4 (875.4–978.1)	-10.0 (-13.4--6.4)
South Sudan	28.7 (27.1–30.4)	1055.3 (999.2–1119.9)	39.6 (37.5–41.7)	932.3 (887.4–978.3)	-11.7 (-14.7--8.6)
United Republic of Tanzania	119.0 (112.5–125.1)	1003.3 (948.2–1060.3)	328.7 (314.0–343.9)	1164.8 (1107.1–1220.7)	16.1 (11.5–20.6)
Uganda	84.8 (79.9–90.1)	1210.5 (1144.6–1282.1)	179.1 (170.9–188.2)	1094.9 (1041.9–1144.4)	-9.5 (-12.5--5.9)
Zambia	34.6 (32.8–36.6)	1113.1 (1052.3–1178.4)	87.3 (83.1–91.2)	1155.1 (1097.6–1214.9)	3.8 (0.0–7.7)
Central Sub-Saharan Africa	266.9 (253.0–281.6)	1113.6 (1052.2–1178.4)	596.2 (568.9–624.2)	995.7 (947.7–1046.3)	-10.6 (-13.3--8.0)
Angola	52.4 (49.7–55.1)	1254.0 (1189.3–1322.5)	148.9 (142.4–156.1)	1164.2 (1111.7–1224.7)	-7.2 (-11.1--3.4)
Central African Republic	12.8 (12.1–13.5)	1055.5 (993.0–1120.8)	23.6 (22.4–24.8)	967.6 (912.0–1026.1)	-8.3 (-12.1--4.7)
Congo	15.8 (15.0–16.6)	1424.1 (1345.6–1499.0)	35.0 (33.3–36.6)	1225.3 (1168.7–1285.4)	-14.0 (-17.3--10.4)
Democratic Republic of the Congo	175.7 (166.1–186.0)	1044.7 (980.6–1112.4)	369.9 (351.7–388.4)	920.0 (869.3–972.5)	-11.9 (-15.7--8.5)
Equatorial Guinea	2.4 (2.3–2.5)	1198.9 (1128.9–1271.3)	6.2 (5.9–6.5)	1060.2 (1012.9–1114.1)	-11.6 (-14.8--8.4)
Gabon	7.8 (7.4–8.2)	1365.5 (1289.9–1438.6)	12.6 (12.1–13.2)	1200.1 (1151.1–1251.3)	-12.1 (-15.2--8.3)

Abbreviations: 95% UI: 95% uncertainty intervals; SDI: Sociodemographic index.

Table S2. The incidence and age-standardized rate of ischemic stroke in 1990 and 2021 and the percentage change in the age-standardized rates (ASRs) per 100,000, by location

Location/Subgroup	1990		2021		1990–2021
	No. × 10 <sup>3</sup> (95% UI)	ASRs per 100,000 No. (95% UI)	No. × 10 <sup>3</sup> (95% UI)	ASRs per 100,000 No. (95% UI)	Percentage change in the ASRs per 100,000
Global	4152.0 (3536.8–4868.1)	109.8 (93.6–127.6)	7804.4 (6719.8–8943.7)	92.4 (79.8–105.8)	-15.8 (-18.8--13.3)
Sex					
Men	2011.1 (1696.3–2365.2)	117.0 (99.3–136.4)	4022.4 (3444.6–4666.9)	102.8 (88.7–118.0)	-12.2 (-15.4--9.1)
Women	2140.9 (1826.4–2500.9)	102.9 (87.9–119.6)	3782.0 (3253.6–4336.2)	82.9 (71.3–94.8)	-19.5 (-22.0--17.0)
SDI					
High SDI	1153.4 (992.8–1333.3)	105.5 (91.2–121.2)	1351.9 (1179.8–1535.7)	66.1 (58.2–74.7)	-37.4 (-39.7--34.9)
High-middle SDI	1306.3 (1096.3–1547.8)	141.4 (119.9–164.1)	2243.3 (1899.8–2614.5)	116.0 (99.2–133.9)	-17.9 (-21.0--15.0)
Middle SDI	953.5 (800.9–1134.8)	97.5 (81.4–115.6)	2648.5 (2240.6–3082.6)	103.5 (88.0–120.0)	6.2 (1.5–10.8)
Low-middle SDI	516.9 (439.6–603.9)	87.3 (74.1–102.4)	1120.4 (971.6–1273.7)	80.7 (70.0–91.7)	-7.6 (-11.4--3.5)
Low SDI	216.5 (184.0–252.0)	94.4 (80.4–110.8)	433.3 (374.6–494.2)	82.2 (71.0–93.1)	-12.9 (-16.3--9.3)
High-income North America	315.4 (259.2–383.5)	90.0 (74.4–108.3)	353.0 (299.1–413.3)	56.9 (48.6–66.1)	-36.8 (-40.2--33.0)
Canada	32.5 (28.2–37.2)	101.9 (88.4–116.4)	41.3 (38.0–44.8)	61.5 (56.6–66.4)	-39.7 (-45.3--32.6)
Greenland	0.1 (0.1–0.1)	200.3 (176.5–227.9)	0.1 (0.0–0.1)	93.8 (82.8–106.0)	-53.2 (-56.6--49.1)
United States of America	282.8 (230.2–345.3)	88.8 (72.5–107.7)	311.6 (259.1–370.3)	56.3 (47.5–66.3)	-36.6 (-40.0--32.6)
Australasia	21.0 (19.4–22.5)	91.1 (84.1–97.8)	28.2 (25.2–31.1)	52.8 (47.3–58.5)	-42.1 (-45.9--38.5)
Australia	17.6 (16.3–18.8)	91.7 (85.6–98.0)	23.8 (21.3–26.5)	53.0 (47.7–58.8)	-42.2 (-46.7--37.8)

(Cont'd...)

Table S2. (Continued)

Location/Subgroup	1990		2021		1990–2021
	No. × 10 <sup>3</sup> (95% UI)	ASRs per 100,000 No. (95% UI)	No. × 10 <sup>3</sup> (95% UI)	ASRs per 100,000 No. (95% UI)	Percentage change in the ASRs per 100,000
New Zealand	3.4 (2.8–4.1)	88.0 (72.7–105.6)	4.3 (3.7–5.0)	51.8 (44.5–58.9)	–41.1 (–46.2––35.9)
High-income Asia Pacific	234.9 (193.8–281.0)	121.0 (100.7–144.0)	284.4 (249.3–322.7)	64.6 (56.4–73.7)	–46.6 (–50.6––42.2)
Brunei Darussalam	0.2 (0.2–0.2)	170.6 (147.1–198.2)	0.3 (0.3–0.4)	94.6 (82.4–108.6)	–44.5 (–49.3––39.3)
Japan	172.0 (137.0–211.5)	105.2 (85.2–127.6)	212.9 (185.0–243.9)	62.0 (54.5–71.5)	–41.1 (–45.9––34.4)
Singapore	3.3 (2.9–3.8)	151.3 (131.6–173.4)	4.4 (3.7–5.3)	52.9 (44.6–61.9)	–65.0 (–68.9––61.1)
Republic of Korea	59.5 (51.5–68.7)	207.5 (181.2–236.8)	66.8 (57.0–76.6)	74.9 (64.4–85.3)	–63.9 (–67.1––60.8)
Western Europe	613.8 (538.4–692.8)	106.0 (94.0–118.0)	549.2 (496.8–601.6)	58.1 (52.9–63.7)	–45.1 (–48.1––42.1)
Andorra	0.0 (0.0–0.0)	65.1 (55.0–77.2)	0.1 (0.1–0.1)	44.8 (38.3–53.7)	–31.1 (–36.9––25.6)
Austria	11.6 (10.6–12.7)	95.8 (87.9–104.1)	13.2 (11.5–15.4)	72.5 (64.0–84.2)	–24.3 (–32.3––14.0)
Belgium	15.1 (12.9–17.4)	99.0 (85.7–112.6)	13.0 (11.7–14.2)	54.0 (48.3–58.8)	–45.5 (–51.4––38.5)
Cyprus	0.7 (0.6–0.8)	86.8 (73.6–100.3)	0.8 (0.7–0.9)	41.8 (37.1–46.8)	–51.8 (–57.1––46.2)
Denmark	8.7 (7.7–9.7)	106.9 (96.2–118.0)	6.1 (5.2–6.9)	51.9 (44.9–59.2)	–51.5 (–55.7––46.4)
Finland	9.3 (8.4–10.3)	130.5 (118.3–143.8)	9.3 (8.2–10.4)	72.6 (64.2–81.6)	–44.4 (–48.9––39.7)
France	54.0 (49.9–58.6)	63.9 (59.4–68.6)	70.2 (64.6–76.1)	49.9 (46.1–54.1)	–21.9 (–26.9––16.8)
Germany	165.0 (147.7–182.1)	131.0 (118.4–143.4)	151.5 (134.2–167.8)	79.3 (70.8–87.8)	–39.4 (–44.6––34.1)
Greece	18.6 (16.3–21.3)	126.0 (111.7–142.9)	19.1 (16.8–21.4)	70.3 (61.5–79.3)	–44.2 (–49.5––38.5)
Iceland	0.3 (0.3–0.4)	106.6 (92.5–123.6)	0.3 (0.3–0.4)	52.6 (45.1–60.9)	–50.7 (–55.9––45.2)
Ireland	4.3 (3.7–5.0)	106.0 (91.8–121.9)	3.1 (2.7–3.6)	39.6 (34.4–45.7)	–62.6 (–65.9––58.9)
Israel	4.7 (4.0–5.5)	98.8 (85.0–114.0)	5.8 (5.0–6.7)	46.9 (40.4–54.8)	–52.5 (–56.9––48.1)
Italy	88.0 (69.5–109.5)	100.3 (80.5–123.2)	67.7 (59.3–77.1)	43.7 (38.7–49.2)	–56.4 (–60.8––50.9)
Luxembourg	0.5 (0.5–0.6)	99.7 (88.9–111.4)	0.4 (0.4–0.5)	41.1 (37.0–45.2)	–58.8 (–62.1––55.0)
Malta	0.4 (0.3–0.5)	96.3 (83.2–110.5)	0.4 (0.3–0.4)	38.9 (33.9–44.5)	–59.6 (–62.9––56.0)
Monaco	0.1 (0.1–0.1)	113.4 (97.2–131.1)	0.1 (0.1–0.1)	62.6 (54.2–72.2)	–44.8 (–49.4––39.6)
Netherlands	22.3 (19.8–25.0)	112.1 (99.5–125.3)	19.4 (16.7–22.6)	56.8 (49.4–65.6)	–49.3 (–53.6––44.5)
Norway	9.2 (7.3–11.5)	134.6 (107.6–165.6)	7.6 (6.4–8.9)	73.8 (62.5–86.2)	–45.2 (–49.7––40.3)
Portugal	21.4 (18.8–24.3)	161.9 (144.2–182.0)	13.0 (11.4–14.5)	48.0 (42.2–53.5)	–70.3 (–72.4––68.1)
San Marino	0.0 (0.0–0.0)	89.7 (75.8–104.8)	0.0 (0.0–0.0)	53.7 (45.7–63.0)	–40.1 (–45.0––35.4)
Spain	60.5 (52.4–69.5)	112.2 (97.7–127.5)	53.3 (49.6–56.8)	55.0 (51.3–58.9)	–51.0 (–55.7––45.2)
Sweden	15.8 (12.8–19.0)	100.6 (83.1–120.4)	14.2 (11.7–17.2)	62.9 (52.3–74.3)	–37.5 (–42.0––32.2)
Switzerland	7.9 (6.9–8.9)	73.7 (65.0–82.9)	7.8 (6.8–8.9)	42.6 (36.9–48.6)	–42.2 (–47.4––34.9)
United Kingdom	94.6 (78.2–112.1)	104.2 (87.4–121.9)	72.3 (63.0–82.4)	55.3 (48.3–63.0)	–46.9 (–50.0––43.4)
Southern Latin America	44.2 (38.7–49.9)	97.8 (86.3–109.9)	52.1 (46.2–58.2)	60.3 (53.5–67.6)	–38.3 (–42.1––34.3)
Argentina	29.9 (26.0–34.2)	95.1 (82.9–108.2)	33.3 (29.4–37.7)	60.0 (53.2–68.0)	–37.0 (–42.0––31.7)
Chile	9.4 (8.2–10.7)	93.9 (82.3–107.1)	14.9 (12.9–17.0)	59.1 (51.5–67.4)	–37.1 (–42.6––31.7)
Uruguay	4.9 (4.3–5.6)	130.9 (115.4–147.0)	3.9 (3.5–4.4)	69.8 (61.7–79.1)	–46.7 (–51.1––42.1)
Eastern Europe	515.8 (425.3–623.6)	197.9 (164.9–232.4)	490.2 (415.4–571.5)	142.6 (122.1–164.7)	–28.0 (–31.4––24.6)
Belarus	23.3 (20.1–26.7)	183.5 (159.2–208.6)	22.2 (19.3–25.3)	140.6 (122.4–159.4)	–23.4 (–30.0––16.6)
Estonia	3.4 (3.1–3.8)	170.0 (154.2–187.8)	1.9 (1.6–2.2)	71.5 (62.1–81.8)	–57.9 (–62.2––53.1)
Latvia	7.2 (6.4–8.3)	205.6 (181.2–235.8)	5.7 (5.0–6.3)	137.5 (122.1–153.3)	–33.2 (–38.7––27.3)
Lithuania	9.5 (8.3–10.5)	211.0 (184.7–235.1)	8.9 (7.6–10.1)	151.8 (132.6–172.2)	–28.0 (–34.8––21.9)
Republic of Moldova	5.2 (4.5–5.9)	128.9 (113.6–146.8)	6.4 (5.6–7.3)	109.7 (95.4–124.4)	–14.9 (–22.9––5.4)

(Cont'd...)

Table S2. (Continued)

Location/Subgroup	1990		2021		1990–2021
	No. × 10 <sup>3</sup> (95% UI)	ASRs per 100,000 No. (95% UI)	No. × 10 <sup>3</sup> (95% UI)	ASRs per 100,000 No. (95% UI)	Percentage change in the ASRs per 100,000
Russian Federation	325.9 (266.4–396.7)	196.7 (163.2–232.2)	337.7 (285.5–395.2)	144.2 (122.8–167.4)	–26.7 (–30.5––22.7)
Ukraine	141.4 (115.1–172.9)	209.5 (172.6–249.7)	107.5 (90.0–126.6)	143.5 (121.3–167.0)	–31.5 (–36.4––26.3)
Central Europe	222.5 (193.3–251.3)	158.0 (138.4–177.7)	238.9 (209.9–266.6)	107.0 (95.3–118.4)	–32.3 (–34.5––30.0)
Albania	1.6 (1.3–1.8)	75.2 (65.2–86.4)	2.7 (2.3–3.2)	66.8 (58.6–76.7)	–11.1 (–16.5––5.1)
Bosnia and Herzegovina	6.5 (5.7–7.5)	169.1 (149.0–193.2)	8.7 (7.5–9.8)	145.2 (126.8–164.0)	–14.1 (–21.4––5.9)
Bulgaria	19.4 (16.6–22.5)	174.3 (153.5–197.7)	23.7 (20.7–26.7)	168.9 (149.2–188.3)	–3.1 (–10.5–5.2)
Croatia	9.2 (8.5–10.0)	162.7 (149.3–175.7)	9.2 (8.6–9.8)	99.9 (93.8–105.9)	–38.6 (–42.1––35.1)
Czechia	25.4 (21.8–29.0)	188.4 (163.2–213.5)	19.4 (16.7–22.3)	89.6 (78.8–101.8)	–52.4 (–56.9––47.4)
Hungary	26.2 (23.0–29.3)	186.2 (166.1–208.3)	18.2 (16.0–20.7)	94.2 (82.1–105.8)	–49.4 (–53.3––44.6)
Montenegro	0.5 (0.4–0.5)	78.1 (66.9–89.4)	0.7 (0.6–0.8)	79.8 (70.0–90.5)	2.2 (–6.3–9.9)
North Macedonia	3.8 (3.3–4.3)	223.5 (196.6–255.3)	5.7 (4.9–6.4)	214.4 (190.5–239.9)	–4.1 (–12.0–4.7)
Poland	47.0 (38.1–56.3)	113.0 (93.2–134.4)	58.6 (48.8–69.3)	81.1 (67.9–94.7)	–28.2 (–32.0––24.4)
Romania	46.8 (40.1–54.4)	183.6 (160.9–209.6)	49.4 (43.3–55.1)	129.3 (114.5–143.4)	–29.6 (–35.8––23.1)
Serbia	19.1 (16.3–22.1)	192.2 (166.7–218.3)	25.5 (22.7–28.4)	153.3 (137.4–168.8)	–20.2 (–27.0––13.3)
Slovakia	10.3 (8.7–11.8)	173.6 (148.1–197.7)	10.7 (9.3–12.3)	114.6 (99.4–130.5)	–34.0 (–39.8––27.3)
Slovenia	3.3 (2.9–3.8)	137.3 (119.7–156.0)	2.7 (2.4–3.0)	59.1 (53.0–65.5)	–57.0 (–60.8––53.4)
Central Asia	66.0 (58.3–73.9)	141.9 (124.6–159.1)	102.6 (91.0–114.5)	132.9 (118.2–148.1)	–6.3 (–11.7––1.3)
Armenia	3.5 (3.1–4.0)	134.8 (117.6–152.8)	3.6 (3.2–4.0)	86.1 (76.9–95.0)	–36.1 (–41.3––29.8)
Azerbaijan	4.6 (4.0–5.3)	91.1 (79.3–104.8)	9.0 (7.9–10.3)	98.7 (86.0–112.6)	8.3 (–1.6–18.9)
Georgia	6.9 (6.0–8.0)	119.2 (104.3–136.6)	7.5 (6.6–8.4)	125.2 (110.2–139.5)	5.1 (–4.8–15.6)
Kazakhstan	23.7 (21.0–26.9)	192.7 (168.9–219.0)	25.5 (22.3–28.9)	154.8 (135.2–173.9)	–19.7 (–27.1––12.2)
Kyrgyzstan	4.7 (4.2–5.4)	160.6 (141.6–182.6)	5.1 (4.5–5.8)	107.4 (94.0–122.2)	–33.1 (–39.6––25.6)
Mongolia	0.8 (0.7–0.9)	64.5 (55.2–74.9)	1.8 (1.6–2.1)	73.7 (64.2–84.4)	14.2 (5.2–23.6)
Tajikistan	3.1 (2.7–3.6)	110.4 (94.7–126.8)	6.9 (6.0–7.8)	132.7 (115.5–150.9)	20.2 (10.1–31.2)
Turkmenistan	2.5 (2.2–2.9)	129.9 (113.3–148.4)	6.0 (5.2–6.8)	147.1 (129.7–165.9)	13.3 (3.2–23.9)
Uzbekistan	16.1 (14.1–18.3)	134.6 (118.0–152.7)	37.2 (33.0–42.5)	150.7 (133.6–170.3)	11.9 (1.6–22.8)
Central Latin America	68.6 (58.9–78.9)	80.5 (69.0–93.2)	127.1 (110.2–144.2)	52.0 (45.1–58.8)	–35.4 (–37.6––33.2)
Colombia	15.1 (13.1–17.1)	84.8 (73.8–95.3)	25.9 (22.4–29.3)	46.3 (40.2–52.5)	–45.3 (–49.9––40.3)
Costa Rica	1.3 (1.1–1.4)	69.2 (60.0–79.9)	2.7 (2.3–3.1)	49.6 (42.5–57.1)	–28.3 (–33.6––22.6)
El Salvador	1.9 (1.7–2.2)	60.5 (52.2–69.2)	3.0 (2.6–3.4)	45.6 (40.0–51.9)	–24.5 (–29.9––18.5)
Guatemala	2.0 (1.7–2.3)	58.8 (51.2–66.7)	5.1 (4.4–5.8)	46.9 (41.2–52.9)	–20.3 (–26.7––13.1)
Honduras	1.3 (1.1–1.5)	60.0 (51.7–68.8)	3.7 (3.2–4.2)	63.2 (55.0–72.3)	5.3 (–2.9–12.9)
Mexico	37.4 (31.4–43.9)	84.8 (71.1–100.5)	65.2 (55.0–75.8)	53.4 (45.3–62.3)	–37.0 (–39.8––33.7)
Nicaragua	1.3 (1.1–1.5)	82.6 (71.8–94.2)	2.8 (2.4–3.2)	57.6 (50.4–65.4)	–30.3 (–36.2––24.6)
Panama	1.2 (1.0–1.3)	78.6 (67.6–89.7)	2.5 (2.2–2.9)	56.3 (48.2–64.6)	–28.4 (–34.4––22.6)
Venezuela (Bolivarian Republic of)	7.2 (6.2–8.4)	74.2 (64.4–86.1)	16.2 (14.0–18.5)	56.9 (49.4–64.9)	–23.3 (–29.5––16.7)
Andean Latin America	13.6 (11.8–15.4)	63.5 (55.4–71.9)	27.4 (24.0–31.1)	46.3 (40.6–52.4)	–27.1 (–30.9––23.1)
Bolivia (Plurinational State of)	2.1 (1.8–2.5)	66.2 (56.9–76.8)	4.4 (3.7–5.1)	51.0 (43.5–58.8)	–23.0 (–27.5––17.0)
Ecuador	3.9 (3.4–4.4)	69.1 (60.2–77.7)	8.7 (7.6–9.8)	53.8 (47.7–60.5)	–22.1 (–27.1––16.3)
Peru	7.5 (6.5–8.6)	60.3 (52.3–69.1)	14.4 (12.5–16.4)	41.8 (36.6–48.0)	–30.6 (–35.7––24.9)

(Cont'd...)

Table S2. (Continued)

Location/Subgroup	1990		2021		1990–2021
	No. × 10 <sup>3</sup> (95% UI)	ASRs per 100,000 No. (95% UI)	No. × 10 <sup>3</sup> (95% UI)	ASRs per 100,000 No. (95% UI)	Percentage change in the ASRs per 100,000
Caribbean	19.6 (17.2–22.0)	76.2 (67.5–85.7)	36.0 (32.1–40.0)	67.3 (60.0–74.7)	–11.6 (–15.1––8.0)
Antigua and Barbuda	0.0 (0.0–0.1)	82.5 (71.8–93.8)	0.1 (0.1–0.1)	66.3 (58.7–74.1)	–19.7 (–26.3––12.7)
Barbados	0.3 (0.2–0.3)	90.8 (80.1–102.5)	0.3 (0.3–0.4)	70.3 (61.6–79.0)	–22.5 (–28.6––15.8)
Belize	0.1 (0.1–0.1)	58.0 (50.1–65.8)	0.2 (0.1–0.2)	52.7 (46.3–59.0)	–9.1 (–16.9––0.4)
Bermuda	0.0 (0.0–0.1)	81.9 (72.0–92.6)	0.1 (0.1–0.1)	51.5 (44.6–57.9)	–37.1 (–41.8––32.1)
Bahamas	0.1 (0.1–0.1)	76.2 (66.5–87.5)	0.2 (0.2–0.3)	63.2 (55.5–70.0)	–17.1 (–23.5––10.3)
Cuba	7.2 (6.4–8.2)	72.0 (63.1–81.4)	12.0 (10.6–13.4)	62.7 (55.8–69.8)	–13.0 (–19.2––5.3)
Dominica	0.0 (0.0–0.0)	69.2 (59.9–79.5)	0.0 (0.0–0.1)	63.6 (54.8–71.9)	–8.1 (–15.9––0.2)
Dominican Republic	2.5 (2.2–2.9)	64.9 (56.7–73.5)	8.0 (7.0–9.0)	79.3 (68.9–90.1)	22.2 (14.9–31.5)
Grenada	0.1 (0.1–0.1)	108.5 (96.5–123.4)	0.1 (0.1–0.1)	88.4 (79.9–97.8)	–18.6 (–25.5––12.0)
Guyana	0.5 (0.5–0.6)	136.1 (120.0–153.8)	0.6 (0.5–0.7)	98.5 (87.1–110.2)	–27.7 (–32.4––22.4)
Haiti	3.0 (2.6–3.5)	100.3 (87.6–115.5)	6.0 (5.3–6.9)	89.6 (78.9–102.5)	–10.7 (–17.0––3.8)
Jamaica	1.5 (1.4–1.7)	82.0 (71.7–93.2)	2.2 (2.0–2.5)	69.2 (60.4–76.8)	–15.7 (–22.5––7.9)
Puerto Rico	2.0 (1.7–2.3)	56.5 (49.1–64.9)	2.8 (2.4–3.2)	39.2 (33.6–45.5)	–30.7 (–36.0––25.4)
Saint Kitts and Nevis	0.1 (0.0–0.1)	147.5 (131.4–166.9)	0.1 (0.1–0.1)	96.5 (85.1–108.1)	–34.6 (–39.3––29.6)
Saint Lucia	0.1 (0.1–0.1)	118.2 (104.2–133.0)	0.2 (0.1–0.2)	72.9 (64.7–81.7)	–38.4 (–43.4––33.2)
Saint Vincent and the Grenadines	0.1 (0.1–0.1)	99.9 (88.0–114.0)	0.1 (0.1–0.1)	71.7 (63.5–80.4)	–28.3 (–34.0––22.2)
Suriname	0.2 (0.2–0.2)	84.5 (73.8–96.2)	0.5 (0.4–0.5)	77.4 (67.7–87.1)	–8.3 (–15.9––0.4)
Trinidad and Tobago	0.9 (0.8–1.1)	113.8 (99.9–129.6)	1.3 (1.1–1.5)	72.7 (63.3–82.0)	–36.1 (–40.7––31.2)
United States Virgin Islands	0.0 (0.0–0.1)	60.2 (52.1–68.9)	0.1 (0.1–0.1)	59.0 (51.6–67.6)	–2.0 (–9.8–6.8)
Tropical Latin America	106.0 (88.2–125.9)	119.2 (98.3–142.3)	166.7 (141.0–194.7)	66.4 (56.0–77.5)	–44.3 (–47.4––41.2)
Brazil	104.0 (86.4–123.7)	120.0 (98.8–143.4)	162.7 (137.4–190.3)	66.3 (55.8–77.6)	–44.7 (–47.9––41.6)
Paraguay	2.0 (1.7–2.3)	88.4 (76.8–100.9)	4.0 (3.5–4.5)	70.6 (61.5–79.3)	–20.2 (–27.7––11.9)
East Asia	800.3 (656.3–982.1)	101.3 (83.0–121.9)	2850.1 (2363.2–3405.9)	134.8 (112.6–158.4)	33.0 (25.7–40.3)
China	761.2 (621.4–937.7)	100.0 (81.5–120.9)	2772.1 (2295.7–3319.2)	135.8 (113.3–159.8)	35.7 (27.9–43.7)
Democratic People's Republic of Korea	19.8 (17.0–23.1)	132.9 (114.6–154.5)	43.9 (38.1–50.5)	138.1 (119.8–157.8)	3.9 (–5.2–14.4)
Taiwan (Province of China)	19.4 (16.8–22.2)	133.9 (116.4–152.2)	34.1 (29.3–39.4)	82.6 (71.6–94.9)	–38.3 (–44.6––32.1)
Southeast Asia	265.8 (228.0–310.2)	107.3 (91.5–125.6)	667.3 (582.3–763.0)	107.3 (93.7–122.7)	–0.0 (–3.8–4.0)
Cambodia	4.1 (3.5–4.8)	99.0 (84.6–116.2)	11.2 (9.6–12.8)	101.0 (86.8–115.5)	2.1 (–6.3–11.9)
Indonesia	116.7 (97.7–138.2)	121.5 (100.6–146.6)	306.6 (258.9–363.1)	142.6 (120.4–168.4)	17.3 (12.0–23.5)
Lao People's Democratic Republic	2.3 (2.0–2.7)	117.1 (101.4–134.8)	4.7 (4.1–5.4)	108.0 (93.9–124.0)	–7.8 (–16.1–2.6)
Malaysia	11.4 (9.8–13.0)	121.7 (104.3–140.1)	26.7 (23.1–30.7)	97.7 (84.2–111.4)	–19.7 (–25.9––12.4)
Maldives	0.1 (0.1–0.1)	128.6 (111.2–149.0)	0.3 (0.2–0.3)	77.7 (67.7–88.5)	–39.6 (–44.6––34.3)
Mauritius	1.1 (0.9–1.2)	155.4 (134.2–178.2)	1.4 (1.2–1.6)	80.3 (69.2–91.5)	–48.3 (–52.8––43.4)
Myanmar	24.8 (21.4–28.8)	113.1 (97.6–131.4)	45.3 (39.6–51.8)	99.1 (86.7–112.2)	–12.4 (–20.1––3.7)
Philippines	20.0 (16.5–23.9)	67.5 (54.9–82.0)	68.8 (58.9–80.3)	85.6 (72.8–99.8)	26.8 (19.8–35.2)
Sri Lanka	10.5 (9.0–12.0)	106.8 (92.1–121.4)	21.9 (18.9–25.2)	88.2 (77.4–99.8)	–17.4 (–22.9––10.9)
Seychelles	0.1 (0.1–0.1)	106.2 (92.3–120.8)	0.1 (0.1–0.1)	85.5 (74.1–97.5)	–19.4 (–25.3––13.1)
Thailand	31.4 (27.1–36.3)	89.7 (77.1–103.8)	68.5 (59.6–78.3)	65.5 (57.2–74.3)	–27.0 (–32.3––21.2)

(Cont'd...)

Table S2. (Continued)

Location/Subgroup	1990		2021		1990–2021
	No. × 10 <sup>3</sup> (95% UI)	ASRs per 100,000 No. (95% UI)	No. × 10 <sup>3</sup> (95% UI)	ASRs per 100,000 No. (95% UI)	Percentage change in the ASRs per 100,000
Timor-Leste	0.2 (0.2–0.3)	86.3 (73.5–100.3)	0.8 (0.7–0.9)	98.1 (84.7–112.9)	13.7 (4.1–26.0)
Vietnam	42.7 (36.9–49.1)	108.9 (94.0–125.5)	110.0 (100.1–120.8)	116.1 (105.6–127.4)	6.6 (–4.2–16.3)
Oceania	2.3 (2.0–2.7)	81.5 (70.0–94.3)	5.3 (4.6–6.0)	73.2 (63.7–82.9)	–10.2 (–15.2––4.5)
American Samoa	0.0 (0.0–0.0)	96.4 (82.2–111.4)	0.0 (0.0–0.0)	80.1 (69.9–92.2)	–17.0 (–23.8––10.2)
Cook Islands	0.0 (0.0–0.0)	84.5 (72.4–96.3)	0.0 (0.0–0.0)	78.6 (69.1–89.7)	–7.0 (–14.1–0.9)
Micronesia (Federated States of)	0.1 (0.0–0.1)	114.4 (98.7–132.9)	0.1 (0.1–0.1)	107.1 (93.2–122.3)	–6.4 (–13.9–1.8)
Fiji	0.4 (0.4–0.5)	113.3 (97.5–130.0)	0.7 (0.6–0.8)	98.0 (87.0–112.0)	–13.5 (–20.5––5.6)
Guam	0.1 (0.1–0.1)	93.2 (80.8–106.8)	0.2 (0.1–0.2)	76.4 (67.4–86.5)	–18.0 (–24.8––11.0)
Kiribati	0.0 (0.0–0.1)	127.5 (110.8–146.5)	0.1 (0.1–0.1)	119.1 (104.1–136.2)	–6.6 (–13.3–0.8)
Marshall Islands	0.0 (0.0–0.0)	108.1 (92.9–125.2)	0.0 (0.0–0.0)	104.3 (91.1–119.9)	–3.4 (–10.5–3.3)
Nauru	0.0 (0.0–0.0)	132.8 (114.5–152.4)	0.0 (0.0–0.0)	104.4 (92.2–118.5)	–21.4 (–28.1––14.2)
Niue	0.0 (0.0–0.0)	112.4 (97.6–129.8)	0.0 (0.0–0.0)	96.4 (83.3–109.9)	–14.3 (–21.6––5.9)
Northern Mariana Islands	0.0 (0.0–0.0)	82.8 (70.3–95.1)	0.0 (0.0–0.0)	76.0 (65.8–86.4)	–8.2 (–16.4–2.5)
Palau	0.0 (0.0–0.0)	114.4 (98.6–131.8)	0.0 (0.0–0.0)	110.7 (96.4–126.7)	–3.2 (–10.0–5.1)
Papua New Guinea	1.1 (1.0–1.4)	64.7 (54.7–75.7)	3.0 (2.6–3.5)	61.2 (52.9–69.7)	–5.4 (–12.2–2.9)
Samoa	0.1 (0.1–0.1)	103.1 (88.2–120.4)	0.1 (0.1–0.2)	94.3 (82.4–107.1)	–8.5 (–17.1–1.4)
Solomon Islands	0.2 (0.1–0.2)	129.6 (110.9–152.3)	0.4 (0.4–0.5)	132.7 (114.9–151.6)	2.4 (–5.4–12.3)
Tokelau	0.0 (0.0–0.0)	90.5 (77.7–105.2)	0.0 (0.0–0.0)	76.2 (66.2–86.8)	–15.8 (–24.3––7.7)
Tonga	0.0 (0.0–0.0)	74.9 (64.1–86.3)	0.1 (0.1–0.1)	73.0 (63.7–82.4)	–2.5 (–10.4–6.4)
Tuvalu	0.0 (0.0–0.0)	98.7 (84.8–114.1)	0.0 (0.0–0.0)	95.5 (83.9–109.3)	–3.2 (–10.5–5.4)
Vanuatu	0.1 (0.1–0.1)	117.6 (101.8–137.4)	0.2 (0.2–0.2)	118.2 (104.1–133.5)	0.5 (–6.9–8.7)
North Africa and Middle East	199.9 (175.5–229.0)	117.5 (102.6–133.5)	461.1 (409.8–516.8)	103.6 (91.6–116.1)	–11.9 (–16.3––7.4)
Afghanistan	8.2 (7.2–9.5)	127.9 (112.5–146.5)	13.5 (11.9–15.3)	119.1 (107.1–135.4)	–6.9 (–13.6–0.7)
Algeria	16.1 (13.9–18.5)	135.7 (119.3–155.9)	40.5 (34.8–46.6)	117.7 (100.3–135.0)	–13.3 (–22.5––3.6)
Bahrain	0.2 (0.1–0.2)	79.5 (70.5–89.2)	0.5 (0.4–0.6)	56.5 (49.7–63.5)	–28.9 (–34.6––23.3)
Egypt	30.1 (26.4–34.6)	114.1 (99.5–130.6)	83.1 (73.1–95.7)	132.1 (117.8–151.0)	15.7 (7.7–28.2)
Iran (Islamic Republic of)	31.6 (26.8–37.6)	118.3 (99.5–139.5)	62.3 (53.4–72.1)	82.8 (70.5–95.7)	–30.0 (–33.8––26.8)
Iraq	11.9 (10.5–13.4)	135.9 (119.0–155.1)	32.0 (28.2–36.5)	139.0 (122.1–158.5)	2.3 (–6.6–11.2)
Jordan	2.3 (2.0–2.6)	163.2 (142.7–186.2)	9.8 (8.6–11.0)	134.2 (115.8–150.5)	–17.8 (–24.9––9.4)
Kuwait	0.6 (0.6–0.7)	86.9 (76.2–97.2)	2.5 (2.2–2.8)	78.6 (68.8–87.6)	–9.6 (–16.5––3.0)
Lebanon	2.2 (2.0–2.6)	108.9 (94.7–123.6)	5.7 (4.9–6.4)	93.0 (80.9–104.8)	–14.7 (–21.0––7.3)
Libya	1.7 (1.5–1.9)	77.1 (68.1–87.2)	4.8 (4.3–5.4)	88.6 (78.8–100.1)	14.9 (6.1–25.0)
Morocco	16.8 (14.9–19.3)	115.8 (101.7–132.3)	40.5 (35.6–46.1)	123.8 (109.5–139.5)	6.9 (–1.2–16.0)
Palestine	1.1 (1.0–1.2)	125.7 (110.4–143.2)	2.8 (2.5–3.1)	123.1 (111.0–135.9)	–2.1 (–9.9–5.9)
Oman	0.9 (0.8–1.0)	113.5 (98.8–131.6)	2.3 (2.1–2.6)	110.0 (96.3–123.5)	–3.1 (–12.5–7.9)
Qatar	0.2 (0.2–0.2)	119.0 (105.2–136.1)	0.9 (0.8–1.1)	77.1 (67.2–88.5)	–35.2 (–41.2––29.6)
Saudi Arabia	6.7 (5.9–7.6)	110.7 (96.7–127.1)	19.0 (16.7–21.5)	96.0 (85.3–106.8)	–13.3 (–21.4––5.5)
Sudan	11.1 (9.7–12.8)	116.5 (102.0–132.5)	24.6 (21.6–27.8)	118.0 (104.0–132.4)	1.3 (–6.2–9.8)
Syrian Arab Republic	6.6 (5.8–7.4)	108.0 (95.1–121.4)	10.5 (9.3–11.9)	88.7 (78.9–99.5)	–17.9 (–24.4––11.8)
Tunisia	4.3 (3.8–5.0)	91.1 (78.6–103.1)	11.5 (10.0–13.3)	91.3 (79.8–104.8)	0.2 (–7.2–8.2)

(Cont'd...)

Table S2. (Continued)

Location/Subgroup	1990		2021		1990–2021 Percentage change in the ASRs per 100,000
	No. × 10 <sup>3</sup> (95% UI)	ASRs per 100,000 No. (95% UI)	No. × 10 <sup>3</sup> (95% UI)	ASRs per 100,000 No. (95% UI)	
Turkey	40.4 (35.2–46.7)	116.4 (101.0–134.2)	69.5 (60.0–79.8)	78.5 (68.4–90.2)	–32.5 (–38.6––25.4)
United Arab Emirates	1.0 (0.9–1.2)	182.9 (161.2–209.2)	7.8 (6.5–9.3)	138.8 (123.3–156.8)	–24.1 (–30.4––17.9)
Yemen	5.8 (5.0–6.6)	113.4 (99.3–128.2)	16.6 (14.6–18.6)	113.2 (100.4–126.6)	–0.2 (–8.2–9.4)
South Asia	398.1 (331.7–474.0)	72.6 (60.6–86.5)	853.4 (727.6–990.2)	61.2 (52.3–70.7)	–15.8 (–19.8––11.7)
Bangladesh	39.0 (33.4–44.8)	84.2 (72.5–96.5)	107.1 (92.2–123.1)	83.6 (72.3–95.6)	–0.8 (–8.9–8.3)
Bhutan	0.2 (0.1–0.2)	71.6 (60.9–84.1)	0.4 (0.3–0.4)	65.5 (57.0–74.4)	–8.6 (–16.0–0.7)
India	302.3 (249.9–362.0)	68.8 (57.0–82.8)	626.0 (529.5–730.4)	55.8 (47.5–65.0)	–18.9 (–23.1––14.9)
Nepal	6.0 (5.1–7.1)	66.7 (56.7–77.5)	13.1 (11.3–15.2)	60.7 (52.5–69.0)	–8.9 (–16.0––1.6)
Pakistan	50.5 (42.2–60.4)	89.3 (73.9–106.7)	106.7 (91.9–124.1)	86.5 (73.6–100.9)	–3.1 (–8.8–3.2)
Southern Sub-Saharan Africa	33.3 (28.1–39.2)	122.3 (101.9–146.7)	64.7 (54.5–75.0)	121.9 (102.5–142.2)	–0.3 (–4.3–4.6)
Botswana	0.8 (0.7–0.9)	154.5 (131.2–181.7)	2.1 (1.8–2.5)	163.1 (140.4–187.1)	5.6 (–3.7–16.2)
Lesotho	0.8 (0.7–1.0)	100.3 (83.7–117.6)	1.3 (1.1–1.5)	141.0 (118.9–163.1)	40.6 (28.8–56.5)
Namibia	0.9 (0.8–1.1)	153.2 (129.4–177.1)	1.7 (1.5–2.0)	139.5 (119.5–160.3)	–8.9 (–16.6–0.4)
South Africa	26.2 (21.9–31.4)	125.3 (103.3–151.5)	50.9 (42.1–60.0)	119.4 (99.3–141.1)	–4.7 (–9.6–1.0)
Eswatini	0.3 (0.3–0.4)	124.1 (106.0–146.7)	0.7 (0.6–0.8)	138.0 (118.9–157.7)	11.2 (0.8–21.6)
Zimbabwe	4.2 (3.6–4.8)	103.7 (89.9–119.5)	8.0 (6.8–9.1)	122.0 (106.5–139.6)	17.7 (9.3–27.1)
Western Sub-Saharan Africa	98.6 (84.0–114.6)	104.1 (88.2–122.1)	208.3 (181.4–236.5)	94.7 (82.1–106.9)	–9.0 (–12.6––4.9)
Benin	2.5 (2.1–2.8)	111.9 (97.0–129.6)	5.5 (4.8–6.2)	93.8 (82.0–108.2)	–16.2 (–22.6––8.0)
Burkina Faso	3.5 (2.9–4.1)	73.0 (63.3–84.1)	7.2 (6.2–8.3)	68.1 (59.6–77.3)	–6.6 (–13.7–1.0)
Cameroon	4.3 (3.7–5.0)	89.3 (76.1–104.5)	13.0 (11.5–14.8)	92.8 (81.3–105.6)	3.9 (–3.7–13.8)
Cabo Verde	0.2 (0.2–0.2)	78.2 (67.3–90.0)	0.4 (0.3–0.4)	84.7 (73.9–97.7)	8.3 (0.4–18.2)
Chad	3.1 (2.7–3.6)	99.2 (85.6–114.4)	6.5 (5.7–7.5)	94.8 (82.4–106.8)	–4.5 (–11.7–3.0)
Côte d'Ivoire	5.5 (4.8–6.3)	115.4 (99.9–132.8)	12.5 (10.9–14.2)	99.0 (85.6–112.6)	–14.2 (–21.1––6.7)
Gambia	0.5 (0.4–0.5)	110.4 (96.2–127.3)	1.2 (1.0–1.3)	105.0 (92.5–118.6)	–4.9 (–11.5–4.2)
Ghana	9.8 (8.6–11.2)	139.8 (121.8–161.1)	26.2 (23.2–29.3)	143.1 (125.6–160.4)	2.3 (–7.1–11.0)
Guinea	3.5 (3.0–4.1)	101.9 (88.3–117.4)	6.4 (5.7–7.2)	102.1 (90.2–114.9)	0.2 (–7.6–9.2)
Guinea-Bissau	0.5 (0.5–0.6)	117.7 (101.8–137.0)	0.9 (0.8–1.1)	110.6 (96.1–127.2)	–6.1 (–14.9–2.4)
Liberia	1.3 (1.1–1.5)	105.8 (90.4–122.2)	2.1 (1.8–2.4)	85.5 (74.7–96.7)	–19.2 (–25.3––11.6)
Mali	3.8 (3.3–4.4)	91.8 (80.1–105.4)	7.6 (6.5–8.8)	76.9 (67.3–87.1)	–16.2 (–21.9––9.2)
Mauritania	1.4 (1.2–1.6)	129.2 (112.6–149.3)	2.2 (1.9–2.5)	93.6 (81.5–106.3)	–27.5 (–33.3––21.6)
Niger	3.3 (2.8–3.8)	103.0 (88.3–119.7)	8.2 (7.0–9.5)	85.7 (73.9–98.1)	–16.8 (–23.1––10.4)
Nigeria	47.0 (39.3–56.1)	101.3 (83.9–122.3)	91.6 (77.8–107.2)	90.3 (76.5–105.6)	–10.8 (–14.9––6.2)
Sao Tome and Principe	0.1 (0.1–0.1)	120.5 (103.8–137.8)	0.2 (0.1–0.2)	124.7 (109.8–140.1)	3.5 (–4.1–11.7)
Senegal	4.2 (3.6–4.9)	114.7 (99.3–131.6)	8.1 (7.1–9.2)	96.1 (84.8–109.6)	–16.2 (–22.7––9.7)
Sierra Leone	2.6 (2.2–2.9)	114.3 (99.7–131.4)	4.4 (3.9–5.0)	101.6 (89.0–116.1)	–11.1 (–17.4––4.0)
Togo	1.7 (1.5–1.9)	115.3 (99.9–131.4)	4.2 (3.7–4.8)	101.5 (88.1–115.4)	–12.0 (–17.8––4.6)
Eastern Sub-Saharan Africa	85.2 (72.7–99.2)	110.9 (94.2–130.1)	179.3 (155.0–204.3)	103.6 (89.2–118.4)	–6.6 (–10.8––2.1)
Burundi	3.4 (3.0–4.0)	141.8 (121.9–164.7)	5.2 (4.5–6.0)	101.9 (87.6–117.2)	–28.2 (–34.3––21.2)
Comoros	0.3 (0.2–0.3)	134.4 (115.0–156.8)	0.5 (0.5–0.6)	111.2 (96.2–127.0)	–17.3 (–25.0––9.7)
Djibouti	0.2 (0.2–0.2)	127.8 (108.7–148.0)	0.8 (0.7–0.9)	125.3 (107.1–144.8)	–2.0 (–10.9–7.5)
Eritrea	1.4 (1.2–1.7)	129.8 (110.5–150.6)	3.1 (2.7–3.6)	110.5 (94.9–128.2)	–14.8 (–21.5––7.0)

(Cont'd...)

Table S2. (Continued)

Location/Subgroup	1990		2021		1990–2021
	No. × 10 <sup>3</sup> (95% UI)	ASRs per 100,000 No. (95% UI)	No. × 10 <sup>3</sup> (95% UI)	ASRs per 100,000 No. (95% UI)	Percentage change in the ASRs per 100,000
Ethiopia	18.7 (15.5–22.3)	92.5 (76.7–111.3)	31.9 (26.7–37.1)	71.3 (59.4–83.4)	–22.9 (–27.1––18.3)
Kenya	9.0 (7.5–10.8)	101.1 (83.2–121.7)	22.4 (19.0–26.1)	100.6 (85.0–117.9)	–0.5 (–5.2–4.6)
Madagascar	7.3 (6.3–8.3)	138.8 (118.6–160.4)	16.1 (14.0–18.5)	137.3 (120.1–157.6)	–1.0 (–9.1–7.0)
Malawi	4.6 (3.9–5.3)	117.5 (100.9–135.6)	8.4 (7.3–9.7)	111.2 (96.5–125.9)	–5.4 (–13.4–3.3)
Mozambique	7.5 (6.5–8.8)	124.6 (106.1–145.6)	16.5 (14.4–18.8)	140.7 (121.9–161.7)	13.0 (4.2–23.5)
Rwanda	4.1 (3.5–4.8)	144.0 (123.5–170.0)	6.1 (5.2–7.1)	100.7 (86.1–117.6)	–30.1 (–35.4––23.7)
Somalia	3.0 (2.5–3.5)	110.6 (93.5–130.5)	6.9 (5.9–8.0)	99.3 (86.6–112.9)	–10.2 (–17.8––2.8)
South Sudan	2.8 (2.4–3.3)	106.9 (92.1–125.4)	3.7 (3.2–4.3)	95.8 (82.4–110.2)	–10.4 (–18.1––2.3)
United Republic of Tanzania	11.5 (9.9–13.4)	102.5 (87.8–119.2)	31.7 (27.7–36.1)	119.8 (102.6–137.0)	16.8 (8.2–25.9)
Uganda	8.0 (6.7–9.4)	119.0 (101.0–139.6)	16.9 (14.5–19.4)	111.1 (94.3–127.4)	–6.7 (–15.3–2.4)
Zambia	3.4 (2.9–4.0)	116.1 (98.6–135.1)	9.0 (7.8–10.3)	131.6 (112.6–150.5)	13.4 (3.5–25.4)
Central Sub-Saharan Africa	27.1 (23.2–32.0)	122.7 (104.3–142.6)	59.2 (51.5–68.0)	109.0 (95.0–124.8)	–11.1 (–16.4––4.9)
Angola	5.2 (4.5–6.0)	134.7 (115.4–155.8)	14.1 (12.3–16.3)	119.6 (103.2–137.6)	–11.2 (–19.3––2.0)
Central African Republic	1.3 (1.1–1.6)	118.6 (100.3–140.9)	2.4 (2.0–2.8)	110.9 (94.6–127.6)	–6.5 (–14.4–2.3)
Congo	1.6 (1.4–1.9)	152.2 (130.4–177.4)	3.4 (2.9–3.9)	129.9 (112.9–148.7)	–14.7 (–22.1––6.9)
Democratic Republic of the Congo	18.0 (15.2–21.3)	117.0 (98.9–136.8)	37.5 (32.5–43.2)	103.6 (89.5–121.1)	–11.4 (–18.0––3.8)
Equatorial Guinea	0.3 (0.2–0.3)	135.9 (116.1–158.7)	0.5 (0.5–0.6)	105.4 (89.0–120.9)	–22.5 (–29.5––15.2)
Gabon	0.8 (0.6–0.9)	135.0 (115.3–154.9)	1.2 (1.0–1.4)	121.9 (104.8–139.6)	–9.7 (–18.2––0.6)

Abbreviations: 95% UI: 95% uncertainty intervals; SDI: Sociodemographic index.

Table S3. The DALYs and age-standardized rate of ischemic stroke in 1990 and 2021 and the percentage change in the age-standardized rates (ASRs) per 100,000, by location

Location/Subgroup	1990		2021		1990–2021
	No. × 10 <sup>3</sup> (95% UI)	ASRs per 100,000 No. (95% UI)	No. × 10 <sup>3</sup> (95% UI)	ASRs per 100,000 No. (95% UI)	Percentage change in the ASRs per 100,000
Global	46176.2 (42961.9–49414.6)	1286.3 (1195.2–1376.1)	70357.9 (64329.6–76007.1)	837.4 (763.7–905.0)	–34.9 (–39.5––30.0)
Sex					
Men	21880.3 (20063.4–24119.2)	1383.2 (1267.5–1510.0)	37007.4 (33581.1–40659.7)	112.1 (93.3–135.3)	–29.5 (–37.1––21.3)
Women	24295.9 (22551.2–26052.7)	1200.0 (1105.6–1248.1)	33350.5 (29775.9–36653.2)	92.2 (76.8–111.2)	–40.0 (–44.4––35.2)
SDI					
High SDI	10239.3 (9461.5–10819.1)	916.4 (845.1–969.3)	8975.2 (7913.8–9812.0)	395.6 (352.2–434.8)	–56.8 (–59.2––54.7)
High–middle SDI	16876.4 (15868.6–17770.7)	1885.8 (1768.1–1980.9)	21054.3 (19044.8–23026.6)	1076.5 (973.4–1176.2)	–42.9 (–47.6––37.6)
Middle SDI	10950.9 (9944.4–12298.2)	1221.8 (1103.2–1364.8)	23896.9 (21522.6–26137.5)	960.7 (864.0–1047.8)	–21.4 (–31.3––10.6)
Low–middle SDI	5912.1 (5266.5–6751.7)	1094.9 (975.4–1254.6)	12300.9 (11013.2–13998.9)	942.3 (846.1–1065.9)	–13.9 (–22.4––4.1)
Low SDI	2126.1 (1791.1–2645.8)	1074.9 (910.4–1345.2)	4059.5 (3492.4–4963.6)	914.3 (789.8–1116.6)	–14.9 (–23.9––4.5)
High-income North America	2017.6 (1818.8–2187.5)	554.8 (500.0–602.5)	2384.6 (2094.2–2640.7)	352.6 (309.3–392.7)	–36.4 (–38.9––34.2)
Canada	186.9 (171.4–201.2)	583.9 (533.4–628.7)	206.2 (180.7–231.1)	270.4 (235.0–306.5)	–53.7 (–57.0––50.6)
Greenland	0.4 (0.4–0.5)	1687.8 (1491.6–1885.1)	0.3 (0.3–0.4)	611.6 (516.5–733.1)	–63.8 (–69.7––56.6)
United States of America	1830.3 (1644.8–1989.9)	552.6 (496.6–601.4)	2178.1 (1909.5–2407.9)	362.8 (318.4–404.8)	–34.3 (–36.9––32.1)

(Cont'd...)

Table S3. (Continued)

Location/Subgroup	1990		2021		1990–2021
	No. × 10 <sup>3</sup> (95% UI)	ASRs per 100,000 No. (95% UI)	No. × 10 <sup>3</sup> (95% UI)	ASRs per 100,000 No. (95% UI)	Percentage change in the ASRs per 100,000
Australasia	162.9 (150.0–174.0)	714.1 (655.9–763.6)	149.1 (129.8–166.0)	249.5 (216.5–278.2)	–65.1 (–67.4––62.8)
Australia	134.4 (123.8–143.9)	710.9 (652.4–762.9)	121.5 (105.3–135.4)	239.8 (209.1–268.0)	–66.3 (–68.7––64.0)
New Zealand	28.5 (26.0–30.5)	730.0 (660.9–782.8)	27.7 (23.9–30.7)	304.1 (261.7–339.4)	–58.3 (–61.3––55.3)
High-income Asia Pacific	1927.9 (1766.0–2055.9)	1047.1 (954.8–1117.8)	1862.3 (1582.7–2083.6)	335.4 (287.8–378.9)	–68.0 (–70.4––65.8)
Brunei Darussalam	1.2 (1.1–1.4)	1433.0 (1251.7–1636.4)	1.8 (1.5–2.0)	684.0 (590.7–779.0)	–52.3 (–59.2––43.8)
Japan	1436.4 (1312.2–1539.6)	908.0 (819.3–973.8)	1409.4 (1190.4–1583.3)	307.9 (262.3–348.6)	–66.1 (–68.7––63.6)
Singapore	22.3 (20.6–23.9)	1138.6 (1056.4–1220.9)	17.0 (14.4–19.7)	205.8 (174.5–237.2)	–81.9 (–83.9––80.2)
Republic of Korea	467.9 (420.8–512.5)	2013.6 (1812.7–2204.0)	434.2 (367.7–495.7)	473.7 (401.6–540.2)	–76.5 (–79.6––73.2)
Western Europe	5852.5 (5397.7–6160.5)	964.0 (888.1–1017.4)	3307.8 (2903.2–3626.3)	297.7 (262.8–327.9)	–69.1 (–70.9––67.5)
Andorra	0.2 (0.2–0.3)	474.0 (368.1–596.5)	0.4 (0.3–0.5)	239.0 (188.0–296.8)	–49.6 (–62.7––34.7)
Austria	129.2 (119.5–136.3)	1024.1 (945.3–1080.7)	60.5 (52.7–68.1)	290.7 (252.5–328.9)	–71.6 (–74.5––69.0)
Belgium	138.0 (126.6–146.4)	865.8 (792.3–919.0)	74.8 (64.9–82.8)	272.7 (240.6–301.1)	–68.5 (–70.5––66.5)
Cyprus	8.4 (7.2–9.6)	1577.4 (1347.9–1811.3)	7.2 (6.0–8.3)	414.8 (350.2–480.1)	–73.7 (–78.6––68.2)
Denmark	71.5 (66.2–76.1)	816.9 (759.7–869.9)	41.7 (36.9–45.4)	313.6 (279.0–343.3)	–61.6 (–64.0––59.1)
Finland	75.2 (68.7–80.4)	1029.4 (939.5–1102.4)	53.0 (46.2–58.6)	357.8 (314.4–397.5)	–65.2 (–67.9––62.7)
France	584.5 (529.7–619.9)	651.1 (591.8–690.6)	425.6 (370.4–471.8)	244.5 (214.5–270.5)	–62.5 (–65.0––59.7)
Germany	1470.7 (1334.7–1565.3)	1093.6 (991.7–1165.2)	797.3 (701.8–883.7)	362.9 (322.8–402.4)	–66.8 (–69.3––64.2)
Greece	211.0 (194.9–222.0)	1432.3 (1317.0–1509.8)	142.0 (123.2–154.8)	443.6 (392.6–484.0)	–69.0 (–70.7––67.4)
Iceland	2.0 (1.8–2.2)	673.2 (610.5–721.7)	1.6 (1.4–1.8)	241.5 (209.8–273.7)	–64.1 (–67.1––60.7)
Ireland	38.8 (36.4–40.8)	953.0 (887.5–1002.8)	18.9 (16.2–21.0)	225.2 (193.2–250.1)	–76.4 (–78.4––74.5)
Israel	29.4 (26.9–31.8)	622.4 (568.1–672.7)	29.6 (25.3–33.2)	221.0 (189.4–248.7)	–64.5 (–66.9––61.6)
Italy	859.8 (784.5–909.1)	958.6 (866.5–1017.2)	539.9 (447.4–596.6)	285.8 (244.1–316.0)	–70.2 (–72.1––68.6)
Luxembourg	7.4 (6.9–7.7)	1354.7 (1268.8–1418.9)	3.0 (2.6–3.3)	251.4 (221.8–277.0)	–81.4 (–82.9––79.8)
Malta	4.0 (3.7–4.2)	969.6 (895.8–1029.0)	2.7 (2.3–3.0)	245.9 (211.5–273.9)	–74.6 (–76.8––72.3)
Monaco	1.0 (0.8–1.1)	1173.1 (929.3–1394.4)	0.6 (0.5–0.7)	492.3 (403.8–588.8)	–58.0 (–66.6––44.0)
Netherlands	160.9 (146.2–173.1)	779.6 (708.0–840.0)	129.8 (113.7–142.2)	336.1 (294.8–368.9)	–56.9 (–59.5––54.6)
Norway	70.1 (64.6–74.8)	918.3 (844.6–981.2)	32.0 (27.9–35.8)	281.2 (243.3–316.5)	–69.4 (–71.7––67.5)
Portugal	303.3 (286.1–316.6)	2326.9 (2180.8–2434.7)	123.1 (106.0–133.9)	402.0 (353.0–437.2)	–82.7 (–84.0––81.7)
San Marino	0.3 (0.2–0.3)	749.8 (630.6–867.6)	0.3 (0.2–0.3)	269.8 (207.4–344.2)	–64.0 (–72.3––53.8)
Spain	547.9 (500.4–581.5)	1009.5 (920.6–1073.7)	306.5 (264.9–339.2)	257.6 (225.2–285.7)	–74.5 (–76.5––72.7)
Sweden	127.9 (116.3–136.9)	756.4 (687.7–810.3)	73.2 (62.1–82.9)	287.3 (245.9–328.4)	–62.0 (–65.3––58.7)
Switzerland	73.9 (66.8–79.0)	641.6 (579.8–686.3)	44.2 (37.9–49.5)	202.3 (174.2–225.8)	–68.5 (–70.8––66.1)
United Kingdom	932.3 (869.0–973.7)	962.4 (894.9–1008.3)	397.3 (354.5–433.4)	269.4 (240.5–295.9)	–72.0 (–73.6––70.5)
Southern Latin America	424.8 (394.5–452.0)	974.1 (900.6–1035.8)	352.9 (323.1–382.3)	391.3 (357.8–424.2)	–59.8 (–62.4––57.1)
Argentina	284.5 (262.2–306.7)	934.1 (854.1–1005.0)	215.0 (197.3–233.7)	371.4 (340.4–403.8)	–60.2 (–63.2––57.0)
Chile	91.0 (85.9–95.8)	983.7 (924.5–1035.7)	102.5 (92.8–112.2)	394.1 (356.8–432.3)	–59.9 (–62.5––57.5)
Uruguay	49.3 (45.8–52.5)	1260.1 (1167.6–1338.7)	35.4 (31.9–38.0)	565.0 (513.6–606.1)	–55.2 (–57.7––51.8)
Eastern Europe	7422.4 (7152.1–7643.1)	2826.0 (2711.2–2913.4)	5713.7 (5295.0–6142.8)	1601.2 (1483.5–1723.1)	–43.3 (–46.9––39.6)
Belarus	253.7 (233.4–270.3)	1987.3 (1825.1–2119.3)	226.4 (192.6–263.1)	1386.5 (1178.1–1609.3)	–30.2 (–40.1––18.6)
Estonia	48.3 (45.6–50.9)	2372.9 (2233.7–2496.6)	15.0 (13.2–16.7)	514.3 (453.8–575.4)	–78.3 (–80.8––76.1)

(Cont'd...)

Table S3. (Continued)

Location/Subgroup	1990		2021		1990–2021
	No. × 10 <sup>3</sup> (95% UI)	ASRs per 100,000 No. (95% UI)	No. × 10 <sup>3</sup> (95% UI)	ASRs per 100,000 No. (95% UI)	Percentage change in the ASRs per 100,000
Latvia	89.5 (84.4–94.6)	2504.4 (2362.8–2647.6)	65.5 (58.4–72.3)	1458.6 (1298.9–1616.3)	–41.8 (–47.8––35.9)
Lithuania	66.0 (61.5–70.2)	1466.4 (1364.6–1561.5)	60.8 (54.1–67.3)	969.8 (863.9–1072.1)	–33.9 (–41.1––27.4)
Republic of Moldova	52.7 (47.4–57.4)	1418.7 (1286.1–1541.3)	63.1 (57.4–69.4)	1045.9 (950.3–1148.5)	–26.3 (–34.1––15.8)
Russian Federation	5134.7 (4943.0–5276.2)	3081.0 (2948.3–3170.6)	4128.0 (3829.1–4445.4)	1713.2 (1588.5–1846.1)	–44.4 (–47.7––41.0)
Ukraine	1777.6 (1682.5–1859.7)	2593.1 (2442.0–2713.4)	1154.9 (916.0–1417.1)	1462.1 (1160.2–1796.0)	–43.6 (–54.8––31.1)
Central Europe	3203.8 (3074.6–3318.8)	2300.3 (2201.6–2386.8)	2593.4 (2385.3–2776.5)	1101.6 (1014.2–1180.5)	–52.1 (–55.2––49.2)
Albania	16.2 (13.6–19.3)	915.3 (770.1–1092.3)	29.3 (22.4–37.6)	694.7 (537.3–886.1)	–24.1 (–43.8–1.5)
Bosnia and Herzegovina	78.0 (67.5–89.0)	2212.9 (1947.1–2497.6)	100.4 (82.6–116.9)	1571.7 (1292.3–1836.1)	–29.0 (–42.2––12.2)
Bulgaria	295.3 (282.0–309.3)	2833.7 (2709.9–2952.7)	352.1 (310.5–397.9)	2383.6 (2105.1–2689.8)	–15.9 (–25.2––5.1)
Croatia	117.6 (111.0–124.3)	2217.6 (2091.0–2339.4)	77.6 (69.2–86.4)	781.5 (698.0–867.0)	–64.8 (–68.0––60.9)
Czechia	353.9 (333.4–374.7)	2561.6 (2408.3–2713.5)	129.1 (114.2–143.1)	565.8 (502.2–629.1)	–77.9 (–80.2––75.3)
Hungary	337.5 (320.1–354.2)	2362.5 (2241.1–2481.0)	165.5 (145.1–185.3)	806.7 (708.2–902.1)	–65.9 (–69.8––61.9)
Montenegro	3.9 (3.3–4.6)	673.4 (570.1–797.1)	8.4 (6.8–10.3)	945.5 (772.0–1150.2)	40.4 (7.5–81.6)
North Macedonia	53.1 (48.4–57.9)	3251.1 (2952.1–3545.2)	81.0 (66.7–95.5)	3037.4 (2559.0–3507.5)	–6.6 (–22.5–10.5)
Poland	839.2 (803.7–869.7)	2008.9 (1910.0–2086.3)	563.6 (506.1–617.9)	745.1 (672.6–818.0)	–62.9 (–65.6––59.9)
Romania	605.8 (560.8–646.8)	2492.5 (2311.7–2651.9)	593.6 (534.6–651.7)	1455.3 (1311.7–1597.8)	–41.6 (–48.0––34.4)
Serbia	309.8 (276.3–341.8)	3588.3 (3214.9–3931.0)	344.3 (293.4–398.2)	1967.5 (1676.1–2285.4)	–45.2 (–53.8––34.9)
Slovakia	107.6 (96.0–119.7)	1826.8 (1636.9–2026.1)	89.4 (76.1–104.5)	927.7 (789.4–1083.3)	–49.2 (–57.1––39.1)
Slovenia	34.9 (32.6–37.0)	1422.1 (1324.1–1509.6)	21.4 (18.6–23.9)	418.2 (365.3–469.6)	–70.6 (–73.5––67.8)
Central Asia	719.9 (669.6–766.9)	1625.4 (1511.2–1730.1)	985.3 (892.2–1076.5)	1356.1 (1234.2–1474.8)	–16.6 (–24.1––7.8)
Armenia	34.2 (31.5–36.8)	1401.7 (1292.9–1501.2)	41.2 (37.1–45.9)	957.3 (861.4–1066.2)	–31.7 (–38.5––23.3)
Azerbaijan	42.7 (34.9–51.6)	928.2 (761.2–1122.3)	67.0 (53.7–82.7)	774.5 (623.6–951.1)	–16.6 (–38.3–10.8)
Georgia	79.4 (65.5–90.9)	1358.4 (1127.9–1549.1)	104.0 (93.1–114.5)	1653.1 (1472.8–1821.5)	21.7 (3.3–48.8)
Kazakhstan	269.7 (239.0–298.0)	2300.8 (2059.6–2535.2)	270.1 (235.8–304.4)	1757.3 (1546.4–1964.3)	–23.6 (–33.2––11.3)
Kyrgyzstan	59.5 (53.9–65.1)	2130.9 (1934.0–2328.4)	58.3 (49.6–66.8)	1274.8 (1095.5–1458.2)	–40.2 (–48.9––29.7)
Mongolia	5.6 (4.6–6.6)	539.7 (435.4–652.0)	11.5 (9.3–14.0)	549.7 (436.6–677.5)	1.9 (–23.6–32.9)
Tajikistan	42.9 (35.2–50.4)	1643.9 (1350.6–1927.4)	63.4 (51.4–76.8)	1333.4 (1083.6–1597.0)	–18.9 (–37.5–5.0)
Turkmenistan	29.9 (24.9–34.4)	1633.3 (1377.4–1861.6)	72.3 (56.4–90.1)	1933.3 (1522.3–2395.4)	18.4 (–3.9–44.9)
Uzbekistan	155.9 (143.9–169.3)	1371.0 (1264.8–1484.0)	297.4 (259.4–339.1)	1268.9 (1116.7–1438.8)	–7.5 (–19.9–8.1)
Central Latin America	487.7 (465.0–508.6)	642.8 (610.1–669.7)	804.7 (727.6–889.4)	336.6 (304.4–372.0)	–47.6 (–52.1––42.7)
Colombia	111.1 (104.9–116.9)	692.8 (651.3–728.3)	150.4 (129.2–173.4)	272.1 (234.3–313.7)	–60.7 (–66.0––54.8)
Costa Rica	7.7 (7.0–8.2)	456.7 (418.4–490.0)	15.1 (13.3–16.6)	274.4 (242.7–301.6)	–39.9 (–46.2––34.4)
El Salvador	14.0 (12.5–15.6)	473.2 (420.4–528.6)	18.9 (15.7–22.3)	290.1 (239.9–342.5)	–38.7 (–50.7––26.1)
Guatemala	15.1 (13.4–16.6)	520.1 (469.3–567.7)	30.4 (26.8–34.4)	304.0 (269.2–342.2)	–41.5 (–49.6––31.7)
Honduras	14.3 (11.4–17.6)	735.7 (590.5–896.4)	48.6 (37.8–62.1)	887.2 (694.2–1123.9)	20.6 (–2.2–52.1)
Mexico	258.0 (246.7–268.9)	680.5 (649.9–707.0)	385.0 (347.0–430.1)	325.0 (293.1–362.3)	–52.2 (–56.4––47.6)
Nicaragua	7.8 (6.9–8.7)	531.1 (469.7–596.4)	13.9 (11.9–16.5)	310.5 (266.0–371.0)	–41.5 (–50.7––30.3)
Panama	8.9 (8.0–9.5)	627.6 (566.3–674.3)	17.1 (13.8–20.3)	378.4 (305.4–448.2)	–39.7 (–50.7––28.9)
Venezuela (Bolivarian Republic of)	50.9 (45.8–55.4)	575.2 (518.0–624.2)	125.3 (99.4–156.8)	456.5 (362.6–569.4)	–20.6 (–36.9–4.1)

(Cont'd...)

Table S3. (Continued)

Location/Subgroup	1990		2021		1990–2021
	No. × 10 <sup>3</sup> (95% UI)	ASRs per 100,000 No. (95% UI)	No. × 10 <sup>3</sup> (95% UI)	ASRs per 100,000 No. (95% UI)	Percentage change in the ASRs per 100,000
Andean Latin America	113.7 (101.8–126.1)	574.2 (516.6–631.3)	183.3 (154.6–215.0)	320.1 (270.1–375.3)	–44.2 (–52.7––34.7)
Bolivia (Plurinational State of)	26.4 (19.3–35.1)	880.2 (652.1–1134.3)	40.8 (29.1–55.8)	510.3 (366.9–690.3)	–42.0 (–55.0––22.9)
Ecuador	33.7 (30.1–36.4)	658.2 (592.3–709.1)	50.8 (42.6–60.0)	328.0 (276.7–385.9)	–50.2 (–58.1––41.2)
Peru	53.7 (46.1–61.4)	463.3 (393.1–532.2)	91.7 (73.7–112.6)	275.3 (221.2–338.3)	–40.6 (–54.2––25.5)
Caribbean	224.9 (209.6–241.9)	904.3 (839.8–969.0)	353.7 (313.6–399.1)	656.5 (582.4–742.0)	–27.4 (–35.1––18.5)
Antigua and Barbuda	0.5 (0.5–0.6)	927.0 (858.2–988.6)	0.6 (0.5–0.6)	587.5 (549.2–628.8)	–36.6 (–41.4––31.7)
Barbados	3.5 (3.2–3.7)	1101.8 (1019.7–1167.4)	3.5 (2.9–4.2)	681.9 (559.7–812.2)	–38.1 (–49.0––25.1)
Belize	0.5 (0.4–0.5)	504.7 (457.1–545.5)	1.2 (1.0–1.3)	434.4 (383.6–484.1)	–13.9 (–23.3––2.4)
Bermuda	0.5 (0.4–0.5)	823.7 (748.2–897.4)	0.5 (0.4–0.6)	337.7 (293.1–399.6)	–59.0 (–64.9––50.0)
Bahamas	1.0 (0.9–1.1)	717.7 (637.7–791.7)	1.8 (1.5–2.1)	490.7 (419.9–574.8)	–31.6 (–43.2––17.0)
Cuba	71.9 (67.0–76.6)	724.3 (674.6–770.3)	119.0 (105.6–132.8)	584.5 (519.5–653.2)	–19.3 (–29.5––8.5)
Dominica	0.6 (0.5–0.7)	1021.8 (919.0–1130.5)	0.6 (0.6–0.7)	835.8 (735.3–957.1)	–18.2 (–29.4––4.0)
Dominican Republic	23.4 (20.4–26.5)	696.6 (603.3–787.7)	62.1 (49.6–77.7)	636.5 (507.1–797.2)	–8.6 (–29.0–20.2)
Grenada	1.3 (1.1–1.4)	1612.2 (1435.9–1768.3)	0.8 (0.7–0.9)	832.6 (745.8–909.9)	–48.4 (–55.4––40.7)
Guyana	7.4 (6.7–8.1)	2105.1 (1923.0–2321.0)	6.7 (5.4–8.3)	1214.0 (998.6–1477.8)	–42.3 (–54.2––29.1)
Haiti	53.7 (41.0–66.9)	1927.2 (1509.4–2345.8)	84.4 (60.5–118.3)	1437.4 (1054.0–1973.5)	–25.4 (–43.1––3.1)
Jamaica	20.3 (18.8–22.0)	1074.4 (994.1–1166.6)	24.0 (19.5–29.4)	747.0 (603.7–912.8)	–30.5 (–44.6––12.9)
Puerto Rico	16.3 (15.4–17.2)	476.1 (447.0–502.2)	14.7 (12.5–16.9)	180.9 (154.4–208.2)	–62.0 (–66.7––57.2)
Saint Kitts and Nevis	0.8 (0.7–0.9)	2161.7 (1956.5–2343.5)	0.6 (0.5–0.7)	1147.2 (991.4–1277.3)	–46.9 (–54.7––38.8)
Saint Lucia	1.4 (1.3–1.4)	1768.9 (1647.8–1869.7)	1.8 (1.5–2.1)	784.3 (669.0–903.3)	–55.7 (–62.1––48.2)
Saint Vincent and the Grenadines	0.8 (0.8–0.9)	1225.3 (1122.2–1324.7)	1.0 (0.9–1.1)	761.5 (685.5–837.9)	–37.9 (–44.5––30.3)
Suriname	2.3 (2.1–2.6)	1004.0 (903.1–1109.4)	4.4 (3.5–5.4)	737.1 (582.9–902.4)	–26.6 (–42.5––7.1)
Trinidad and Tobago	10.6 (10.0–11.2)	1398.7 (1310.7–1470.2)	13.3 (10.8–16.3)	716.6 (581.7–872.3)	–48.8 (–58.0––37.0)
United States Virgin Islands	0.5 (0.4–0.6)	698.9 (589.4–806.0)	0.6 (0.5–0.7)	327.0 (270.3–392.5)	–53.2 (–63.2––41.4)
Tropical Latin America	1095.1 (1036.4–1137.1)	1368.1 (1271.0–1425.6)	1292.9 (1180.7–1372.0)	520.4 (473.3–553.1)	–62.0 (–63.6––60.6)
Brazil	1076.2 (1018.1–1117.1)	1379.8 (1282.4–1438.6)	1258.9 (1149.1–1335.4)	518.0 (471.0–550.0)	–62.5 (–64.0––61.1)
Paraguay	18.9 (16.4–21.3)	928.4 (801.8–1044.2)	34.0 (27.3–41.7)	634.0 (509.3–775.6)	–31.7 (–46.1––16.2)
East Asia	10279.5 (8853.6–12005.9)	1382.7 (1191.1–1606.7)	24021.2 (20420.3–27562.2)	1165.9 (998.2–1336.6)	–15.7 (–31.3–2.5)
China	9926.1 (8510.1–11656.2)	1387.9 (1188.7–1621.4)	23430.4 (19918.9–26933.9)	1181.0 (1009.7–1356.7)	–14.9 (–30.9–4.2)
Democratic People's Republic of Korea	198.4 (157.6–250.8)	1412.4 (1131.0–1762.3)	429.3 (341.9–548.7)	1358.8 (1088.6–1728.9)	–3.8 (–22.7–20.9)
Taiwan (Province of China)	155.0 (143.5–165.6)	1144.3 (1059.5–1224.1)	161.4 (139.1–182.8)	383.3 (329.7–435.1)	–66.5 (–69.7––63.8)
Southeast Asia	3004.2 (2687.9–3310.7)	1355.4 (1203.6–1499.1)	7318.3 (6239.0–8317.3)	1266.5 (1088.1–1430.1)	–6.6 (–19.8–6.8)
Cambodia	51.1 (42.5–61.4)	1369.4 (1149.6–1642.0)	122.7 (99.1–146.2)	1249.2 (1004.5–1478.1)	–8.8 (–29.1–12.4)
Indonesia	1173.2 (974.9–1365.8)	1394.2 (1144.1–1632.9)	3339.8 (2536.6–4124.8)	1741.1 (1361.9–2109.4)	24.9 (–1.4–53.2)
Lao People's Democratic Republic	37.7 (30.5–46.6)	2048.2 (1656.3–2525.1)	55.5 (43.0–69.5)	1420.1 (1115.5–1751.5)	–30.7 (–48.3––8.1)
Malaysia	95.4 (85.2–106.6)	1103.5 (983.7–1235.8)	222.3 (197.1–248.1)	862.3 (764.6–960.0)	–21.9 (–31.1––11.9)

(Cont'd...)

Table S3. (Continued)

Location/Subgroup	1990		2021		1990–2021
	No. × 10 <sup>3</sup> (95% UI)	ASRs per 100,000 No. (95% UI)	No. × 10 <sup>3</sup> (95% UI)	ASRs per 100,000 No. (95% UI)	Percentage change in the ASRs per 100,000
Maldives	1.2 (1.0–1.3)	1547.2 (1355.2–1764.7)	2.1 (1.7–2.4)	701.3 (589.1–807.2)	–54.7 (–62.6––46.3)
Mauritius	13.4 (12.7–14.2)	2004.6 (1893.1–2127.2)	12.5 (11.5–13.3)	723.7 (668.5–773.2)	–63.9 (–66.4––61.7)
Myanmar	392.2 (302.9–495.1)	1909.7 (1498.5–2350.5)	569.5 (454.6–706.4)	1333.7 (1081.5–1646.1)	–30.2 (–46.1––8.2)
Philippines	237.6 (211.2–260.2)	965.7 (863.9–1051.8)	671.4 (585.9–758.8)	913.7 (797.6–1028.7)	–5.4 (–17.4–8.1)
Sri Lanka	140.3 (127.0–153.5)	1637.1 (1494.0–1780.1)	267.6 (199.6–337.9)	1117.7 (830.9–1403.7)	–31.7 (–50.4––10.7)
Seychelles	0.7 (0.6–0.8)	1236.8 (1044.0–1410.3)	0.9 (0.7–1.0)	833.1 (691.4–953.0)	–32.6 (–39.6––25.3)
Thailand	283.7 (240.9–330.8)	900.9 (763.3–1050.6)	615.5 (499.4–746.5)	577.1 (468.7–697.9)	–35.9 (–49.5––17.9)
Timor–Leste	2.6 (2.2–3.1)	1155.2 (960.4–1359.9)	9.6 (7.0–12.3)	1245.2 (926.1–1613.0)	7.8 (–20.4–45.0)
Vietnam	570.6 (469.3–703.5)	1554.3 (1279.6–1917.0)	1418.8 (1129.8–1695.5)	1642.3 (1329.1–1944.7)	5.7 (–19.7–31.5)
Oceania	22.7 (18.5–28.0)	937.3 (770.9–1171.1)	48.7 (40.7–59.3)	789.4 (663.2–980.0)	–15.8 (–28.2––0.5)
American Samoa	0.2 (0.1–0.2)	914.0 (811.8–1015.4)	0.3 (0.2–0.3)	704.4 (605.3–812.1)	–22.9 (–34.1––7.2)
Cook Islands	0.1 (0.1–0.1)	850.8 (736.9–995.8)	0.1 (0.1–0.2)	524.6 (429.7–618.9)	–38.3 (–49.7––25.6)
Micronesia (Federated States of)	0.6 (0.5–0.8)	1289.1 (1019.6–1633.1)	0.6 (0.5–0.8)	1076.9 (866.1–1350.6)	–16.5 (–32.5–4.6)
Fiji	2.9 (2.5–3.4)	959.9 (820.9–1116.6)	5.3 (4.3–6.3)	848.8 (701.1–1011.3)	–11.6 (–27.8–10.8)
Guam	0.5 (0.4–0.6)	837.5 (748.7–932.4)	0.9 (0.7–1.0)	416.5 (353.3–484.5)	–50.3 (–57.0––43.0)
Kiribati	0.4 (0.3–0.4)	1130.2 (937.2–1324.2)	0.7 (0.6–0.8)	1122.0 (940.9–1327.2)	–0.7 (–16.6–24.7)
Marshall Islands	0.2 (0.1–0.2)	1194.8 (967.5–1514.1)	0.3 (0.2–0.4)	1047.0 (827.2–1329.7)	–12.4 (–29.6–6.8)
Nauru	0.1 (0.1–0.1)	1811.8 (1396.0–2213.0)	0.1 (0.1–0.1)	1628.2 (1318.6–1972.9)	–10.1 (–27.5–14.6)
Niue	0.0 (0.0–0.0)	1135.5 (978.1–1333.6)	0.0 (0.0–0.0)	961.0 (811.7–1109.7)	–15.4 (–29.4–1.5)
Northern Mariana Islands	0.1 (0.1–0.2)	946.2 (814.2–1133.2)	0.3 (0.2–0.3)	660.0 (572.6–743.9)	–30.2 (–42.5––15.9)
Palau	0.1 (0.1–0.1)	1302.8 (1101.8–1543.7)	0.2 (0.2–0.2)	1117.3 (947.1–1320.2)	–14.2 (–31.3–6.6)
Papua New Guinea	13.0 (9.5–17.1)	887.9 (648.6–1204.1)	31.5 (25.0–40.3)	780.1 (605.8–1036.1)	–12.1 (–32.2–14.3)
Samoa	0.8 (0.7–0.9)	1011.6 (859.9–1203.4)	1.1 (0.9–1.3)	863.8 (732.7–999.6)	–14.6 (–29.1–2.9)
Solomon Islands	1.2 (1.0–1.6)	1131.0 (900.1–1452.2)	3.0 (2.3–3.9)	1062.0 (825.8–1384.3)	–6.1 (–24.6–17.3)
Tokelau	0.0 (0.0–0.0)	1157.9 (944.1–1396.1)	0.0 (0.0–0.0)	847.3 (693.1–1023.9)	–26.8 (–41.3––8.5)
Tonga	0.3 (0.3–0.4)	652.0 (555.3–762.6)	0.5 (0.4–0.6)	600.9 (495.4–711.1)	–7.8 (–25.1–14.5)
Tuvalu	0.1 (0.1–0.1)	1361.9 (1146.7–1630.0)	0.1 (0.1–0.1)	1065.1 (893.1–1247.3)	–21.8 (–35.0––6.3)
Vanuatu	0.7 (0.6–0.9)	1313.2 (1065.8–1612.6)	1.6 (1.3–1.9)	1097.6 (882.1–1314.4)	–16.4 (–32.2–1.2)
North Africa and Middle East	3002.3 (2668.2–3383.4)	1940.2 (1715.2–2180.5)	5405.4 (4712.0–6041.8)	1329.4 (1165.6–1483.0)	–31.5 (–39.8––22.0)
Afghanistan	143.5 (103.7–197.9)	2251.1 (1647.8–3057.2)	187.3 (140.6–255.6)	2044.0 (1557.0–2733.1)	–9.2 (–30.5–16.3)
Algeria	174.6 (140.5–211.8)	1828.7 (1475.2–2207.3)	364.8 (284.8–458.5)	1261.1 (999.0–1552.3)	–31.0 (–44.4––12.2)
Bahrain	2.0 (1.8–2.2)	1578.8 (1409.3–1743.8)	5.2 (4.4–6.0)	884.3 (764.1–1022.0)	–44.0 (–52.5––33.0)
Egypt	705.1 (509.6–966.4)	3107.3 (2358.7–4097.5)	1267.0 (985.0–1597.2)	2462.6 (1969.1–3002.4)	–20.7 (–38.4–2.5)
Iran (Islamic Republic of)	421.9 (389.7–459.4)	1825.6 (1677.2–1988.3)	684.0 (625.2–745.1)	957.7 (869.8–1044.2)	–47.5 (–52.3––42.0)
Iraq	199.2 (168.5–230.3)	2473.1 (2085.3–2855.4)	443.2 (350.6–534.1)	2163.9 (1728.5–2568.5)	–12.5 (–32.5–10.4)
Jordan	25.4 (21.5–29.9)	2049.8 (1744.0–2421.7)	64.4 (53.9–76.3)	1013.7 (842.9–1193.2)	–50.5 (–61.1––37.0)
Kuwait	4.6 (4.2–5.0)	753.9 (686.3–821.8)	14.7 (12.5–17.1)	526.3 (444.8–612.1)	–30.2 (–39.3––19.6)
Lebanon	26.0 (20.9–33.0)	1343.5 (1088.6–1706.9)	34.1 (29.3–38.7)	536.1 (461.5–610.8)	–60.1 (–70.1––48.9)

(Cont'd...)

Table S3. (Continued)

Location/Subgroup	1990		2021		1990–2021
	No. × 10 <sup>3</sup> (95% UI)	ASRs per 100,000 No. (95% UI)	No. × 10 <sup>3</sup> (95% UI)	ASRs per 100,000 No. (95% UI)	Percentage change in the ASRs per 100,000
Libya	20.1 (16.0–25.6)	1017.9 (802.3–1332.1)	56.0 (42.3–73.8)	1142.5 (863.1–1497.8)	12.2 (–13.2–45.1)
Morocco	250.3 (193.4–319.6)	1807.6 (1396.6–2323.2)	524.4 (408.2–659.4)	1669.1 (1321.6–2088.0)	–7.7 (–27.7–13.6)
Palestine	19.0 (15.5–22.7)	2338.9 (1923.1–2806.9)	29.2 (25.4–33.1)	1423.3 (1235.2–1610.3)	–39.1 (–51.2––24.1)
Oman	10.3 (8.1–12.7)	1563.8 (1222.8–1958.2)	18.1 (15.1–21.2)	1026.2 (852.7–1199.9)	–34.4 (–50.5––11.2)
Qatar	1.1 (1.0–1.3)	1458.9 (1255.2–1693.3)	4.3 (3.5–5.1)	592.2 (488.3–701.2)	–59.4 (–68.0––49.2)
Saudi Arabia	97.8 (77.2–121.6)	1779.7 (1409.0–2201.2)	216.1 (174.9–268.6)	1240.9 (1040.6–1500.1)	–30.3 (–46.1––7.3)
Sudan	184.7 (136.6–238.9)	1977.5 (1446.2–2528.4)	283.4 (203.0–377.4)	1526.3 (1123.1–1997.0)	–22.8 (–41.4–2.5)
Syrian Arab Republic	86.1 (71.7–103.0)	1584.2 (1319.2–1899.4)	134.0 (104.9–167.2)	1185.2 (947.7–1459.0)	–25.2 (–43.7–1.2)
Tunisia	59.0 (47.3–72.6)	1360.1 (1092.5–1665.8)	125.7 (92.5–167.7)	1025.8 (750.4–1367.6)	–24.6 (–43.5––0.8)
Turkey	465.0 (403.3–536.6)	1490.9 (1284.4–1706.2)	670.5 (566.0–797.2)	783.6 (661.8–924.0)	–47.4 (–57.1––35.6)
United Arab Emirates	7.1 (5.7–8.8)	1757.4 (1427.4–2138.1)	27.7 (22.9–33.0)	1113.9 (924.6–1321.2)	–36.6 (–48.4––19.4)
Yemen	98.1 (72.6–129.4)	2141.8 (1591.9–2874.7)	246.3 (178.8–335.8)	1945.5 (1433.7–2655.3)	–9.2 (–31.6–21.5)
South Asia	4009.5 (3328.4–5033.3)	809.3 (676.0–1013.2)	9193.3 (8004.9–11543.8)	690.1 (604.0–851.2)	–14.7 (–25.8––1.9)
Bangladesh	578.1 (469.5–746.0)	1351.9 (1082.6–1719.5)	1403.0 (1086.2–1841.2)	1155.8 (905.2–1492.7)	–14.5 (–32.1–10.6)
Bhutan	1.7 (1.2–2.2)	833.7 (573.6–1107.1)	3.8 (3.0–4.6)	673.3 (531.1–814.3)	–19.2 (–37.8–10.1)
India	2888.9 (2390.4–3642.1)	722.1 (597.9–903.4)	6680.6 (5770.8–8536.8)	611.2 (529.2–766.0)	–15.4 (–27.9––1.7)
Nepal	79.3 (58.1–105.8)	995.2 (718.8–1303.8)	149.3 (114.5–205.0)	724.9 (560.0–979.2)	–27.2 (–45.1––3.3)
Pakistan	461.4 (357.7–588.0)	884.2 (674.2–1138.7)	956.7 (779.5–1193.6)	906.0 (738.5–1124.4)	2.5 (–15.3–28.0)
Southern Sub-Saharan Africa	224.9 (194.6–249.8)	917.3 (782.6–1023.4)	523.2 (480.1–569.3)	1073.7 (979.0–1165.9)	17.1 (6.5–34.7)
Botswana	6.6 (5.2–8.1)	1507.0 (1181.8–1824.5)	12.4 (10.4–15.1)	1069.7 (901.4–1301.7)	–29.0 (–44.1––6.7)
Lesotho	7.3 (5.8–9.1)	995.7 (791.6–1254.1)	13.9 (10.5–18.4)	1581.9 (1222.1–2049.7)	58.9 (15.3–119.2)
Namibia	8.0 (6.7–9.4)	1568.7 (1310.0–1832.3)	15.1 (12.1–18.4)	1386.7 (1105.0–1682.4)	–11.6 (–28.8–9.2)
South Africa	169.7 (142.2–191.1)	879.6 (724.7–991.3)	404.7 (365.3–443.6)	1019.0 (920.2–1114.1)	15.8 (5.2–34.1)
Eswatini	2.9 (2.3–3.6)	1286.3 (1023.6–1575.8)	5.8 (4.3–7.9)	1339.3 (1001.7–1753.8)	4.1 (–22.7–41.1)
Zimbabwe	30.3 (25.7–35.5)	929.8 (781.9–1087.2)	71.2 (58.6–87.0)	1298.6 (1081.0–1544.0)	39.7 (12.7–79.1)
Western Sub-Saharan Africa	1138.3 (925.8–1442.1)	1420.2 (1161.3–1810.1)	2185.3 (1840.3–2608.2)	1256.2 (1075.9–1478.5)	–11.5 (–25.8–8.2)
Benin	29.8 (24.7–36.0)	1578.6 (1316.8–1913.4)	61.1 (50.5–75.4)	1358.5 (1132.7–1656.0)	–13.9 (–27.9–6.4)
Burkina Faso	34.0 (26.6–44.1)	883.3 (692.7–1145.4)	71.5 (57.0–91.5)	867.7 (695.1–1103.1)	–1.8 (–21.1–22.4)
Cameroon	45.8 (35.9–59.1)	1187.6 (931.5–1494.3)	142.5 (109.0–189.8)	1309.6 (1014.3–1735.2)	10.3 (–13.7–44.8)
Cabo Verde	2.4 (2.0–2.9)	982.1 (816.1–1187.1)	5.0 (4.2–5.9)	1195.6 (988.5–1408.6)	21.7 (–4.3–55.4)
Chad	35.7 (27.8–48.4)	1296.0 (1004.9–1760.8)	78.4 (61.2–101.4)	1467.3 (1146.0–1912.1)	13.2 (–10.3–45.6)
Côte d'Ivoire	57.7 (46.7–72.0)	1609.1 (1322.3–1916.0)	144.3 (110.2–188.4)	1463.7 (1151.4–1853.1)	–9.0 (–27.5–17.4)
Gambia	5.1 (4.0–6.6)	1562.0 (1207.9–1995.8)	14.9 (11.4–19.2)	1677.5 (1279.6–2144.4)	7.4 (–20.1–41.5)
Ghana	107.6 (88.5–135.8)	1893.8 (1537.0–2376.3)	285.1 (226.7–358.2)	1936.7 (1534.5–2411.6)	2.3 (–20.7–31.7)
Guinea	43.0 (33.2–54.6)	1340.8 (1026.2–1708.2)	78.6 (59.7–101.6)	1492.2 (1156.2–1909.4)	11.3 (–14.5–49.0)
Guinea-Bissau	7.9 (6.0–10.3)	2116.9 (1641.3–2684.8)	12.3 (9.6–15.7)	1982.2 (1572.4–2505.3)	–6.4 (–27.4–20.7)
Liberia	16.9 (14.0–20.7)	1472.5 (1238.0–1765.8)	25.1 (19.0–33.0)	1367.9 (1061.1–1754.2)	–7.1 (–26.9–19.2)
Mali	37.8 (28.6–51.3)	1086.0 (829.6–1465.3)	79.0 (60.1–106.8)	1006.1 (770.7–1361.5)	–7.4 (–26.2–17.9)
Mauritania	15.8 (12.4–20.4)	1700.5 (1340.5–2206.9)	25.2 (19.1–34.5)	1300.7 (981.0–1763.4)	–23.5 (–39.5––2.2)

(Cont'd...)

Table S3. (Continued)

Location/Subgroup	1990		2021		1990–2021
	No. × 10 <sup>3</sup> (95% UI)	ASRs per 100,000 No. (95% UI)	No. × 10 <sup>3</sup> (95% UI)	ASRs per 100,000 No. (95% UI)	Percentage change in the ASRs per 100,000
Niger	27.7 (19.4–39.7)	1110.8 (796.9–1552.6)	72.3 (52.7–100.3)	1045.0 (775.9–1440.3)	–5.9 (–24.4–19.8)
Nigeria	564.8 (419.3–769.1)	1416.7 (1058.7–1918.7)	883.7 (706.5–1104.7)	1097.5 (898.5–1349.7)	–22.5 (–42.2–6.7)
Sao Tome and Principe	0.8 (0.7–0.9)	1294.4 (1106.8–1497.0)	1.4 (1.2–1.7)	1447.2 (1237.0–1706.5)	11.8 (–4.8–30.3)
Senegal	50.7 (42.3–61.1)	1630.5 (1362.8–1989.3)	99.2 (78.4–128.6)	1439.1 (1130.8–1862.3)	–11.7 (–30.1–7.9)
Sierra Leone	36.5 (28.9–45.0)	1719.2 (1409.3–2071.8)	55.7 (42.6–72.0)	1554.3 (1220.5–1966.9)	–9.6 (–28.1–15.9)
Togo	18.2 (14.9–21.8)	1589.8 (1315.9–1914.3)	49.7 (36.9–62.9)	1542.7 (1169.7–1940.5)	–3.0 (–24.3–21.7)
Eastern Sub-Saharan Africa	616.2 (510.2–758.4)	981.7 (824.1–1188.9)	1231.7 (1050.1–1440.7)	873.5 (749.0–1018.6)	–11.0 (–25.6–6.0)
Burundi	34.0 (25.5–44.8)	1599.7 (1188.9–2079.8)	37.8 (29.1–48.9)	962.4 (729.7–1260.0)	–39.8 (–54.2––20.3)
Comoros	2.1 (1.6–2.7)	1262.9 (990.3–1571.9)	3.8 (3.0–4.8)	905.4 (721.3–1134.1)	–28.3 (–44.8––7.0)
Djibouti	1.1 (0.8–1.5)	1068.9 (821.3–1459.4)	4.9 (3.8–6.5)	1022.1 (785.9–1332.7)	–4.4 (–27.8–27.2)
Eritrea	9.7 (7.0–13.6)	1195.0 (865.3–1644.8)	21.0 (16.1–27.2)	1016.4 (771.4–1293.3)	–14.9 (–32.0–9.3)
Ethiopia	112.9 (80.3–166.7)	691.5 (499.2–980.8)	195.8 (158.2–247.6)	515.1 (412.0–653.9)	–25.5 (–49.1––3.4)
Kenya	50.5 (40.3–62.5)	701.9 (550.7–880.7)	137.0 (110.7–165.9)	759.5 (599.1–929.9)	8.2 (–9.9–29.5)
Madagascar	64.9 (53.8–76.5)	1460.0 (1212.5–1712.2)	117.6 (89.5–149.2)	1340.9 (1012.7–1714.7)	–8.2 (–29.4–16.3)
Malawi	36.4 (29.7–44.0)	1116.0 (911.8–1321.8)	74.1 (59.8–91.5)	1209.1 (982.7–1480.7)	8.3 (–11.0–34.3)
Mozambique	70.6 (59.8–84.2)	1388.1 (1182.3–1652.7)	162.4 (120.6–205.0)	1717.8 (1299.5–2153.8)	23.8 (–6.7–57.2)
Rwanda	38.1 (30.1–48.6)	1613.3 (1288.6–2017.7)	42.4 (32.1–54.8)	862.2 (646.3–1121.9)	–46.6 (–60.4––29.8)
Somalia	18.8 (13.1–27.2)	1010.9 (706.3–1471.3)	39.1 (27.2–56.8)	821.5 (567.7–1146.1)	–18.7 (–36.3–5.3)
South Sudan	23.2 (17.6–30.2)	999.2 (762.3–1298.5)	26.4 (20.0–35.2)	840.4 (635.3–1105.9)	–15.9 (–33.5–7.4)
United Republic of Tanzania	75.0 (60.1–95.1)	800.1 (644.8–1024.0)	211.7 (161.6–275.2)	975.6 (747.6–1259.1)	21.9 (–9.5–65.6)
Uganda	54.8 (42.8–69.5)	976.4 (765.8–1240.9)	93.3 (74.8–118.6)	757.0 (610.5–945.1)	–22.5 (–39.6–1.2)
Zambia	23.7 (18.2–31.8)	1018.9 (784.9–1368.0)	63.1 (48.8–81.7)	1168.3 (897.8–1505.6)	14.7 (–11.7–47.5)
Central Sub-Saharan Africa	225.4 (175.3–276.8)	1219.9 (970.3–1523.6)	447.2 (347.1–580.0)	1076.3 (830.8–1416.6)	–11.8 (–28.7–8.1)
Angola	41.2 (33.6–50.6)	1273.7 (1036.5–1561.8)	105.4 (84.8–128.1)	1172.4 (958.9–1428.1)	–7.9 (–29.0–18.6)
Central African Republic	13.1 (9.5–17.2)	1460.4 (1075.3–1916.6)	20.6 (14.9–28.2)	1292.9 (949.9–1768.7)	–11.5 (–29.7–9.7)
Congo	13.7 (10.8–17.0)	1567.6 (1247.7–1897.5)	26.3 (20.9–31.7)	1272.0 (1008.9–1532.1)	–18.9 (–34.6––1.8)
Democratic Republic of the Congo	149.2 (111.9–187.1)	1162.4 (882.7–1517.3)	281.7 (206.4–389.2)	1021.2 (726.4–1437.1)	–12.1 (–33.4–13.9)
Equatorial Guinea	2.2 (1.7–2.9)	1365.4 (1048.4–1754.3)	4.3 (3.1–5.8)	1045.3 (761.6–1399.7)	–23.4 (–47.9–9.3)
Gabon	6.1 (4.9–7.5)	1197.0 (970.3–1450.3)	8.9 (6.9–11.0)	1066.9 (830.7–1318.5)	–10.9 (–28.3–11.2)

Abbreviations: 95% UI: 95% uncertainty intervals; SDI: Sociodemographic index.

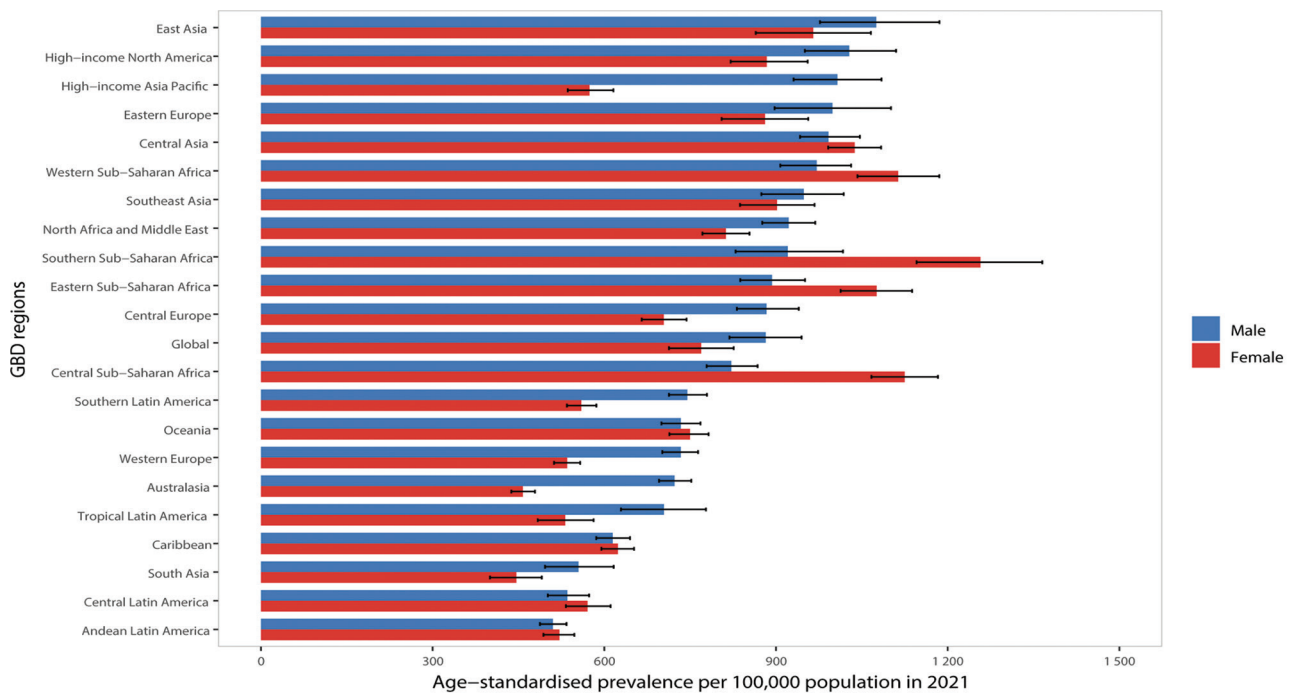


Figure S1. The age-standardized prevalence rate of ischemic stroke in 2021 for the 21 Global Burden of Disease regions, by sex

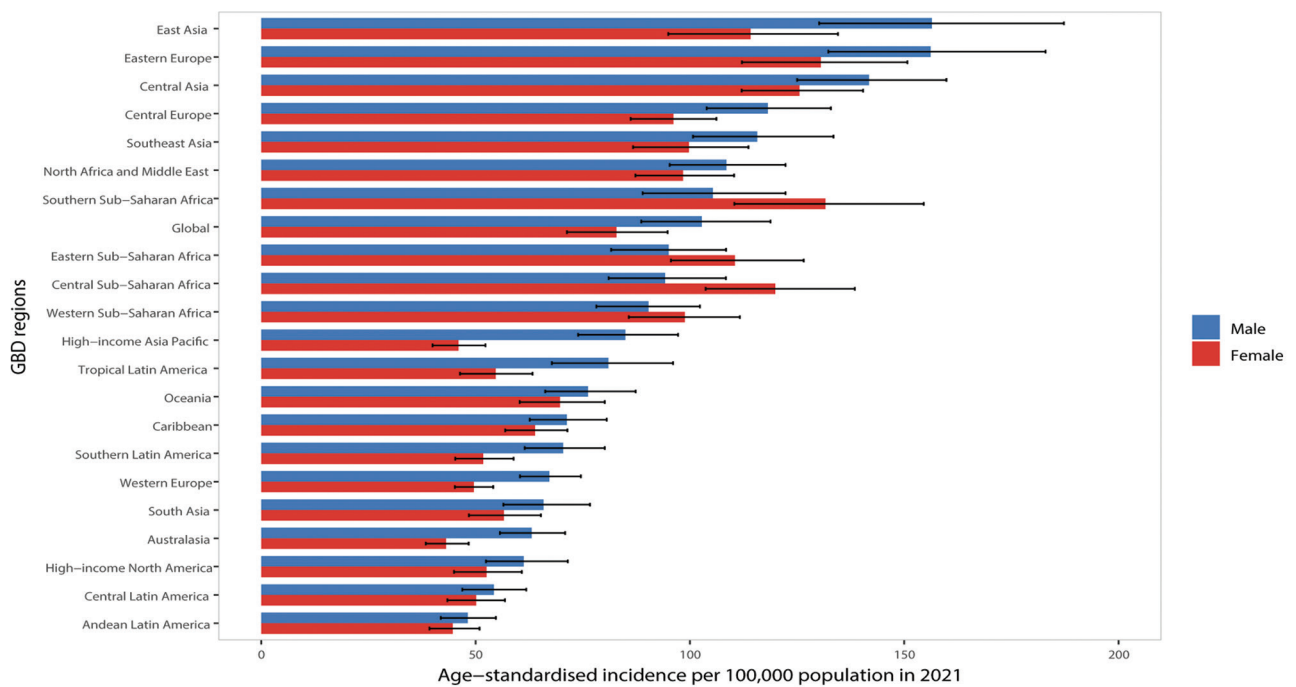


Figure S2. The age-standardized incidence rate of ischemic stroke in 2021 for the 21 Global Burden of Disease regions, by sex

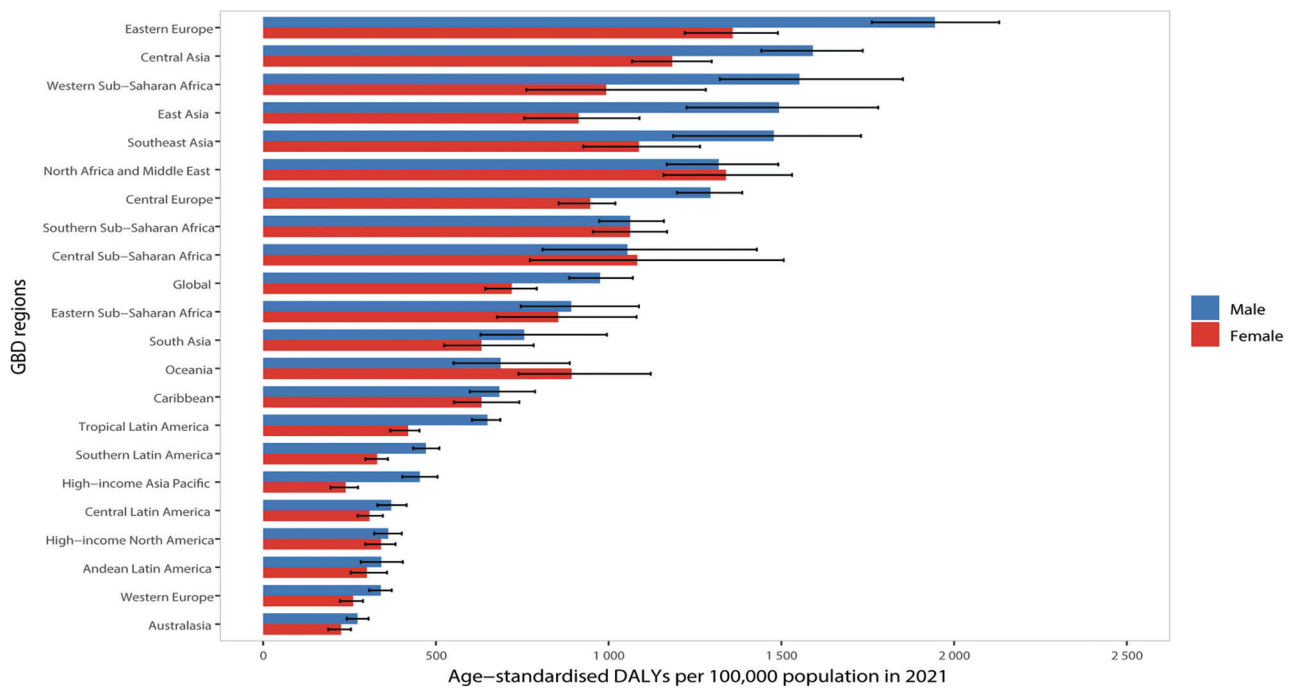


Figure S3. The age-standardized DALY rate of ischemic stroke in 2021 for the 21 Global Burden of Disease regions, by sex

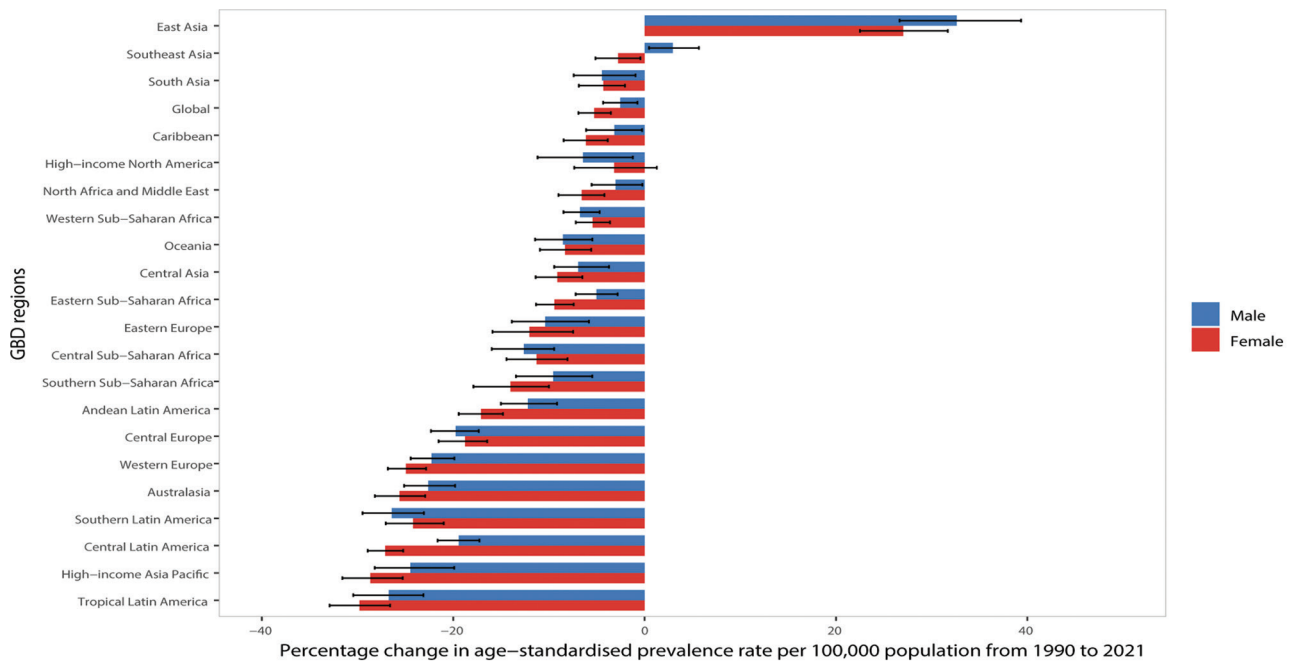


Figure S4. The percentage change in the age-standardized prevalence rate of ischemic stroke from 1990 to 2021 for the 21 Global Burden of Disease regions, by sex

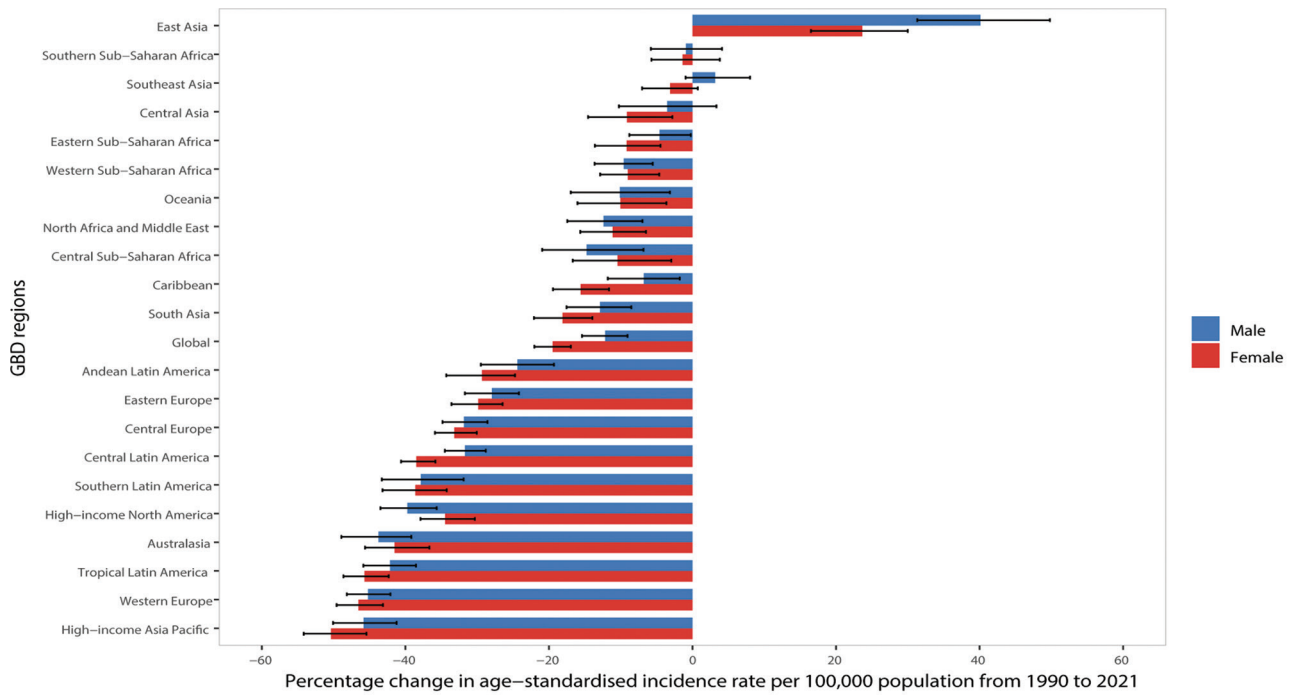


Figure S5. The percentage change in the age-standardized incidence rate of ischemic stroke from 1990 to 2021 for the 21 Global Burden of Disease regions, by sex

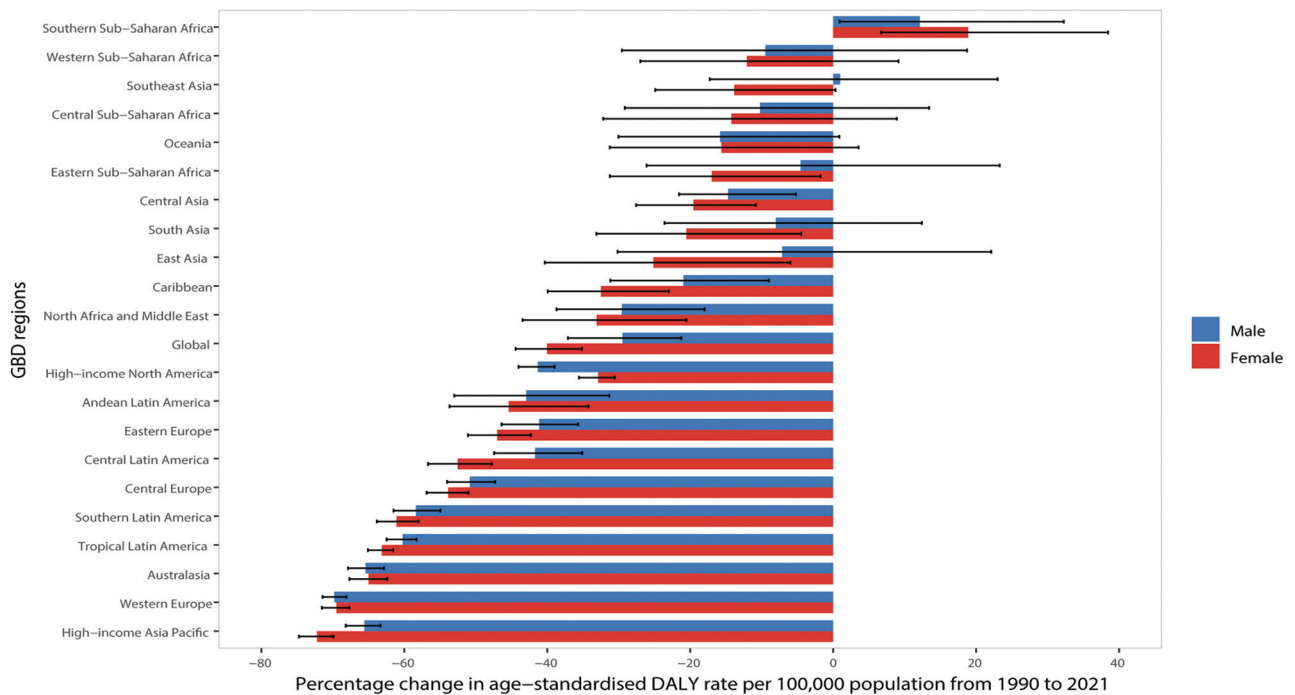


Figure S6. The percentage change in the age-standardized disability-adjusted life year (DALY) rate of ischemic stroke from 1990 to 2021 for the 21 Global Burden of Disease regions, by sex

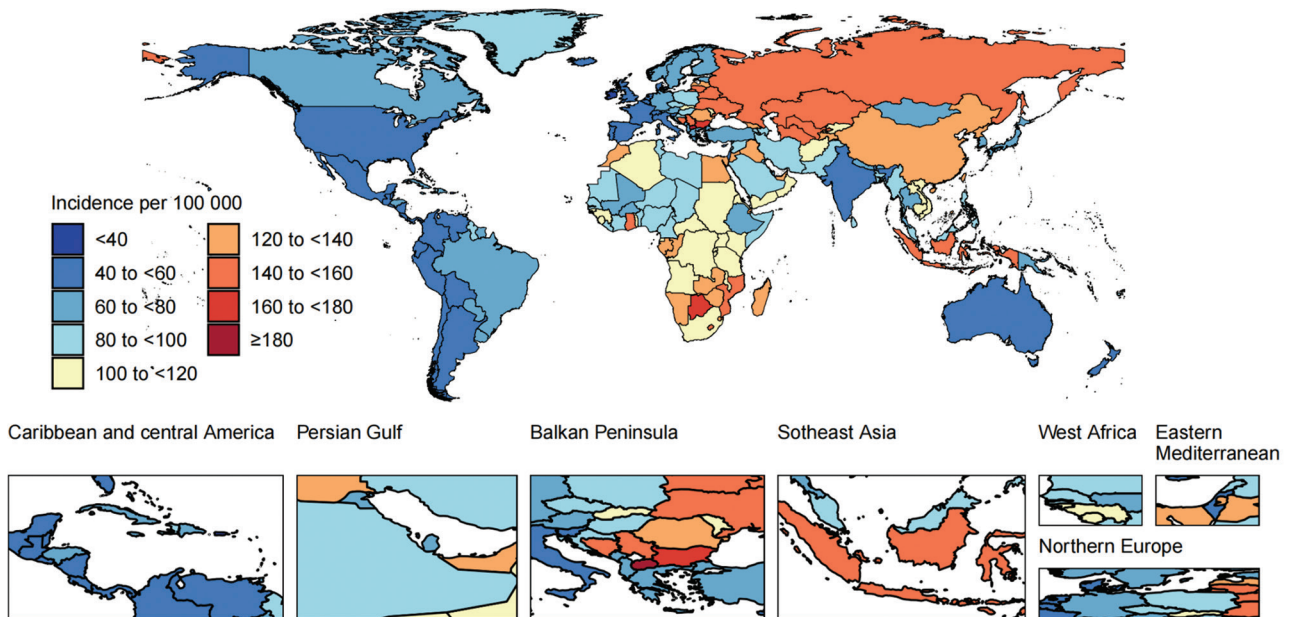


Figure S7. Age-standardized incidence rate of ischemic stroke per 100,000 population in 2021, by country and territory

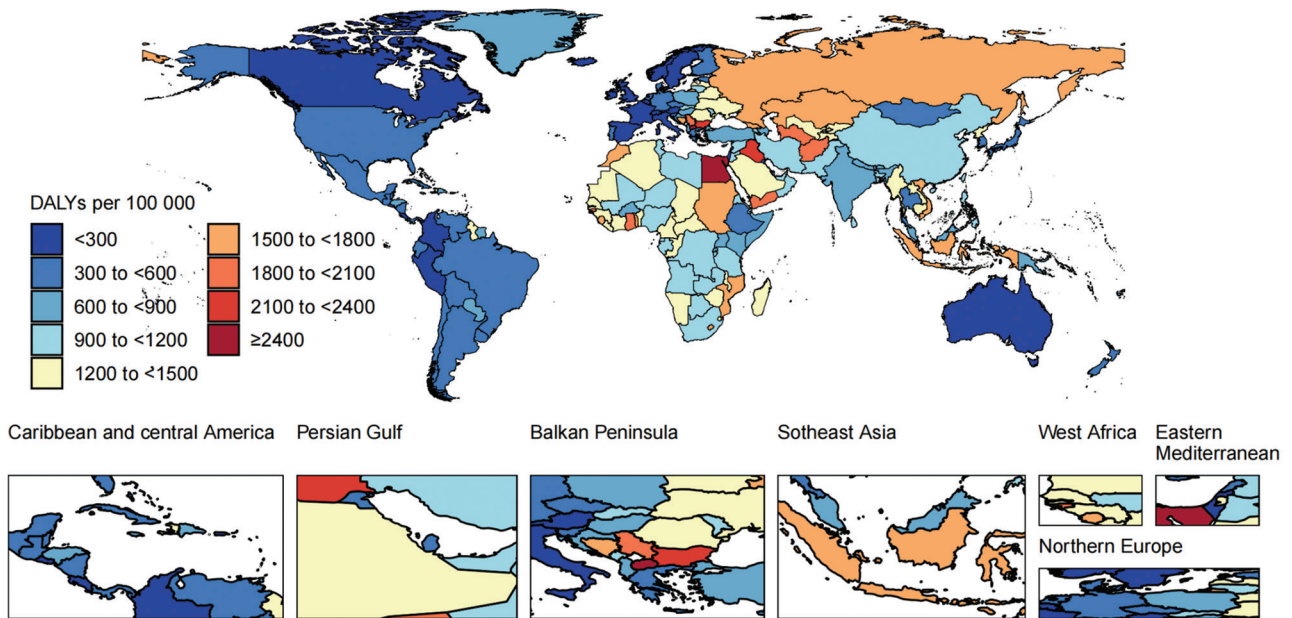


Figure S8. Age-standardized disability-adjusted life year rate of ischemic stroke per 100,000 population in 2021, by country and territory

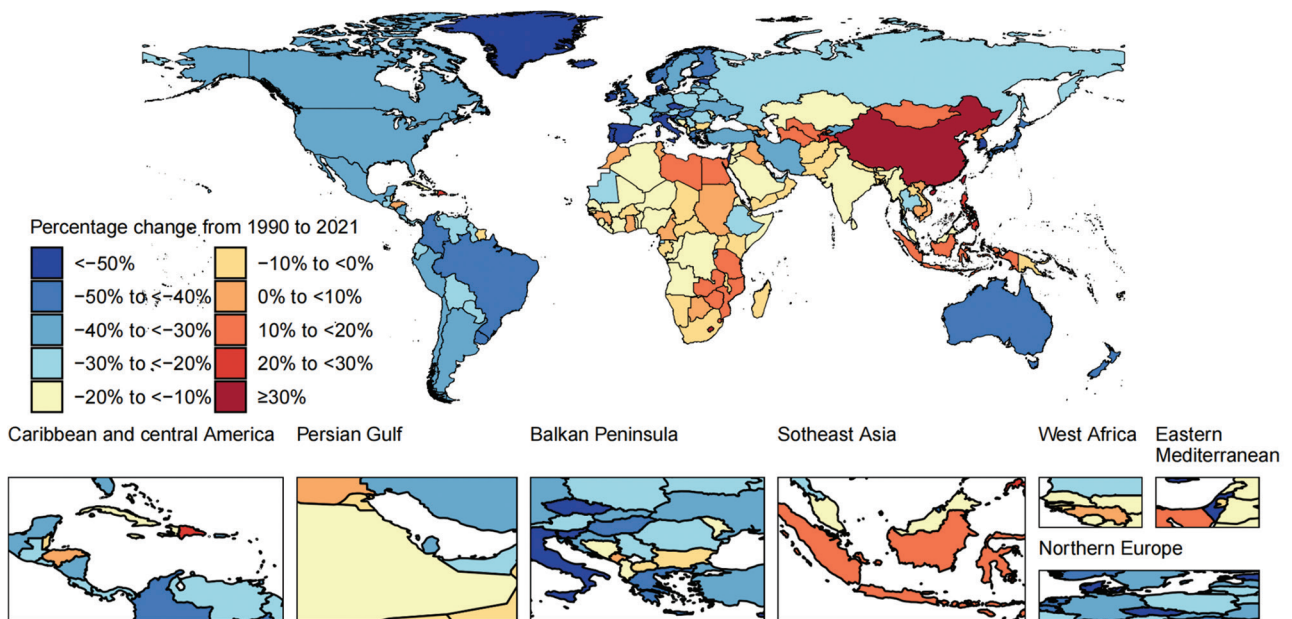


Figure S9. Percentage change of age-standardized incidence rate of ischemic stroke per 100,000 population from 1990 to 2021, by country and territory

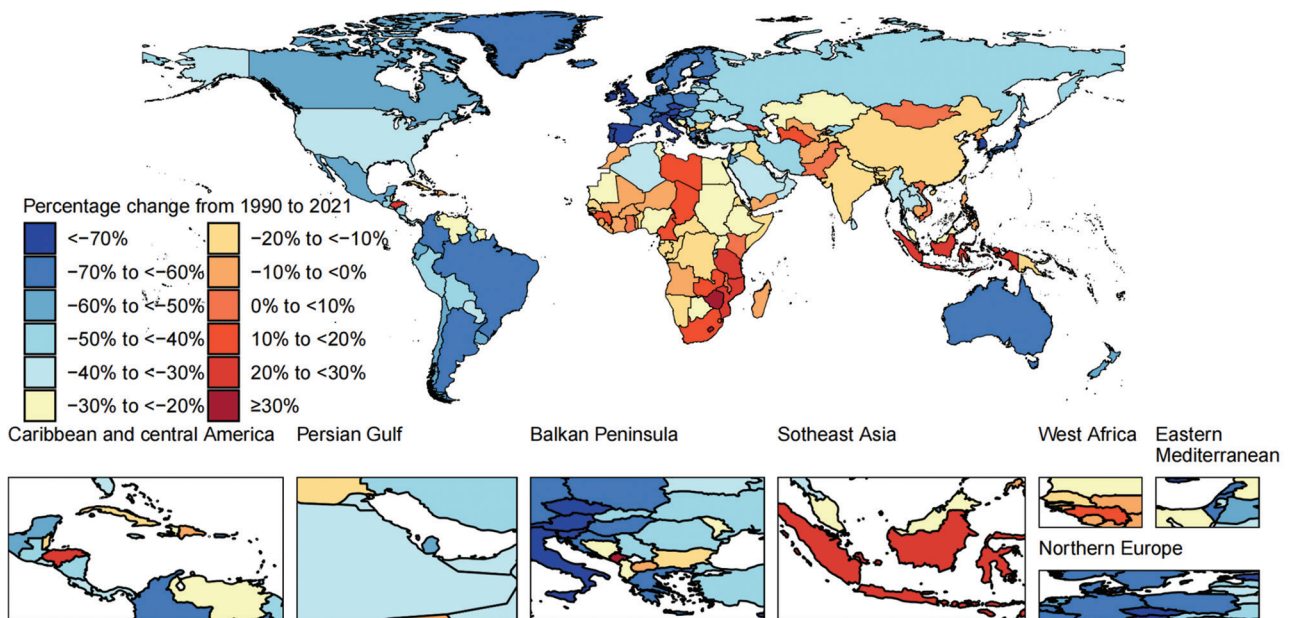
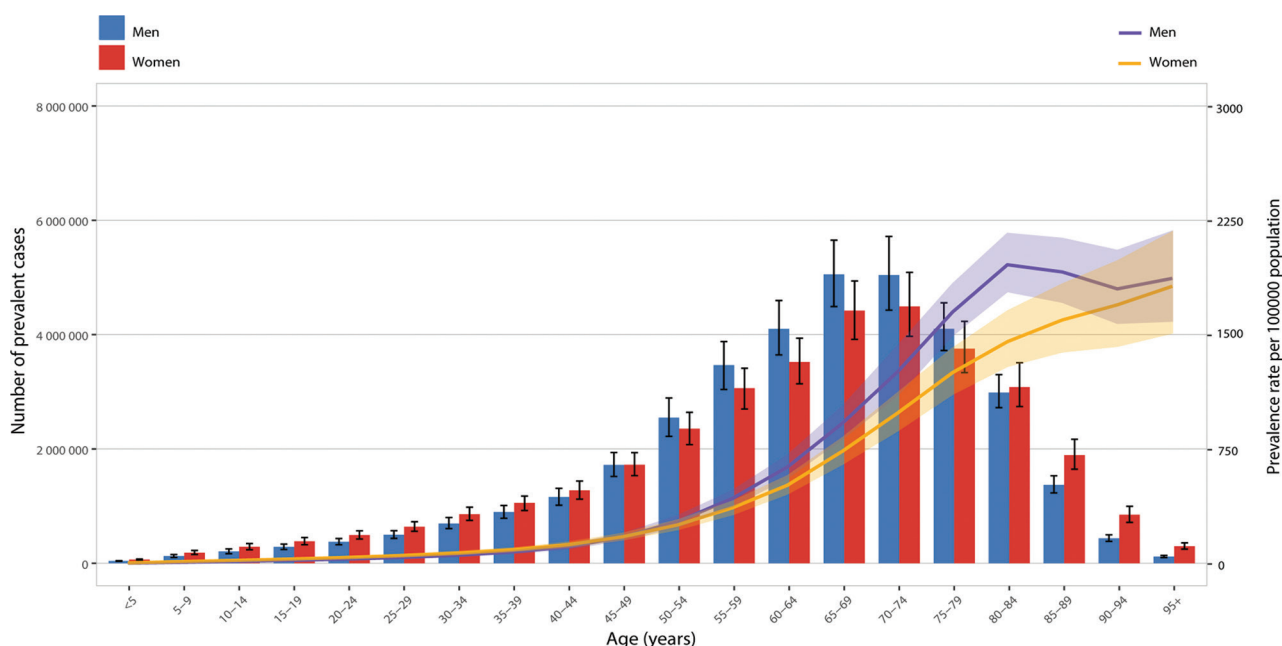
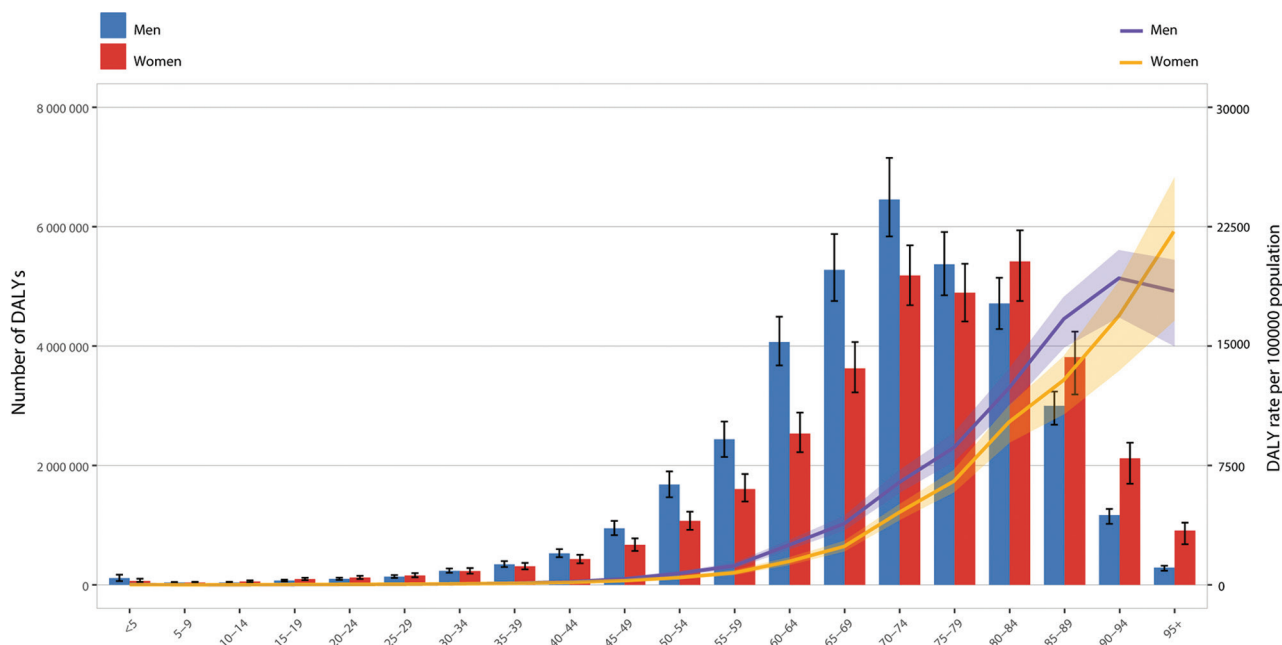


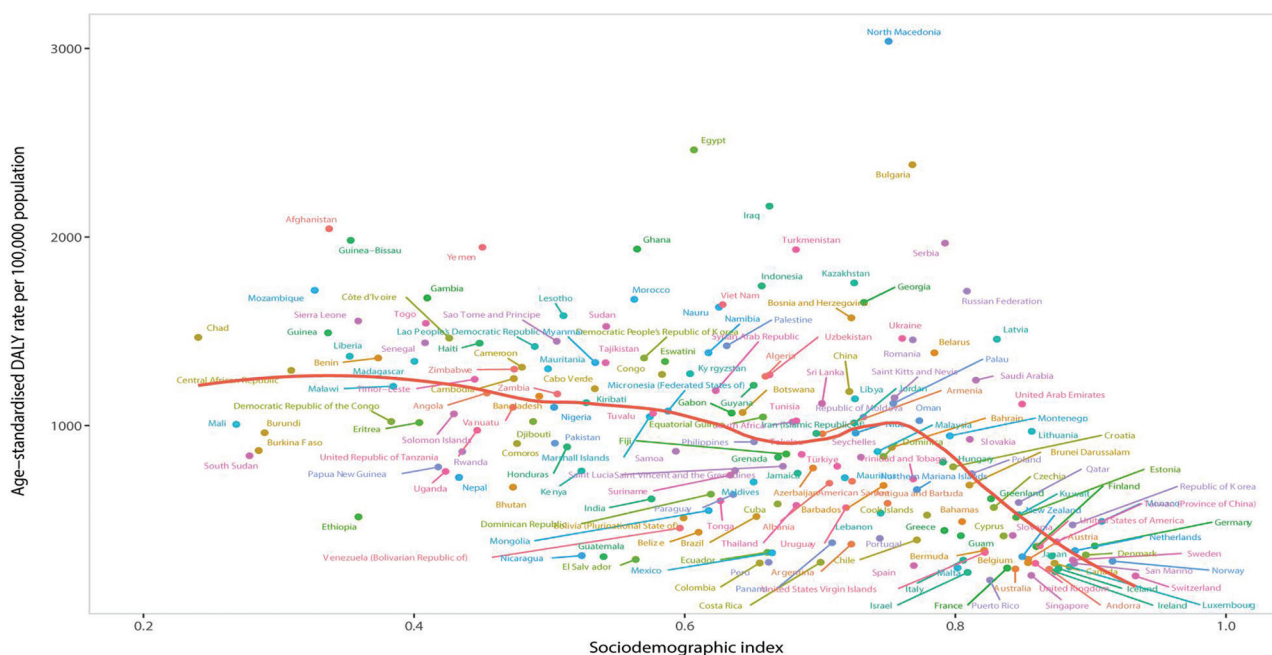
Figure S10. Percentage change of age-standardized disability-adjusted life year rate of ischemic stroke per 100,000 population from 1990 to 2021, by country and territory



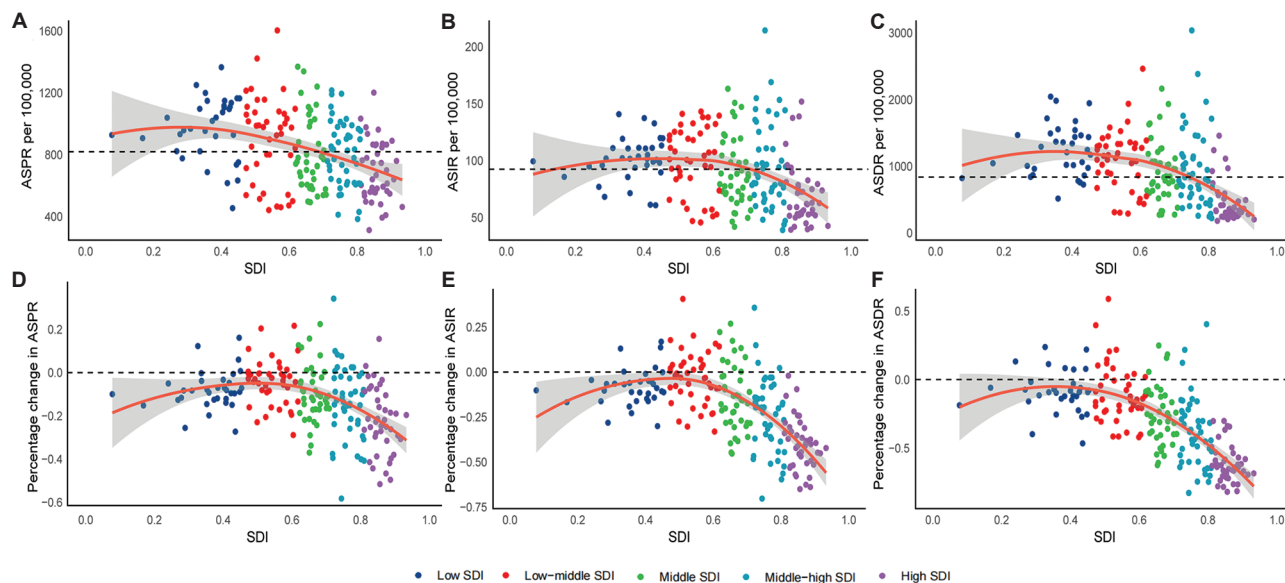
**Figure S11.** Number of prevalent cases globally and age-standardized point prevalence rates of ischemic stroke per 100,000 population, by age and sex in 2021. Lines indicate the incident case with 95% uncertainty intervals for men and women.



**Figure S12.** Number of disability-adjusted life years (DALYs) globally and age-standardized DALY rates of ischemic stroke per 100,000 population, by age and sex in 2021. Lines indicate DALYs with 95% uncertainty intervals for men and women.



**Figure S13.** Age-standardized disability-adjusted life year (DALY) rates of ischemic stroke for 204 countries and territories, by SDI, in 2021. Each point shows the observed age-standardized DALY rate for each country in 2021.



**Figure S14.** Association between SDI and age-standardized prevalence (A), incidence (B), and DALY (C) rates of ischemic stroke in 2021 and corresponding percentage changes from 1990 to 2021 (D, E, F). Dotted lines refer to the global level of rates (A, B, C) and zero (D, E, F), respectively. Abbreviations: DALY: Disability-adjusted life year; SDI: Sociodemographic index.

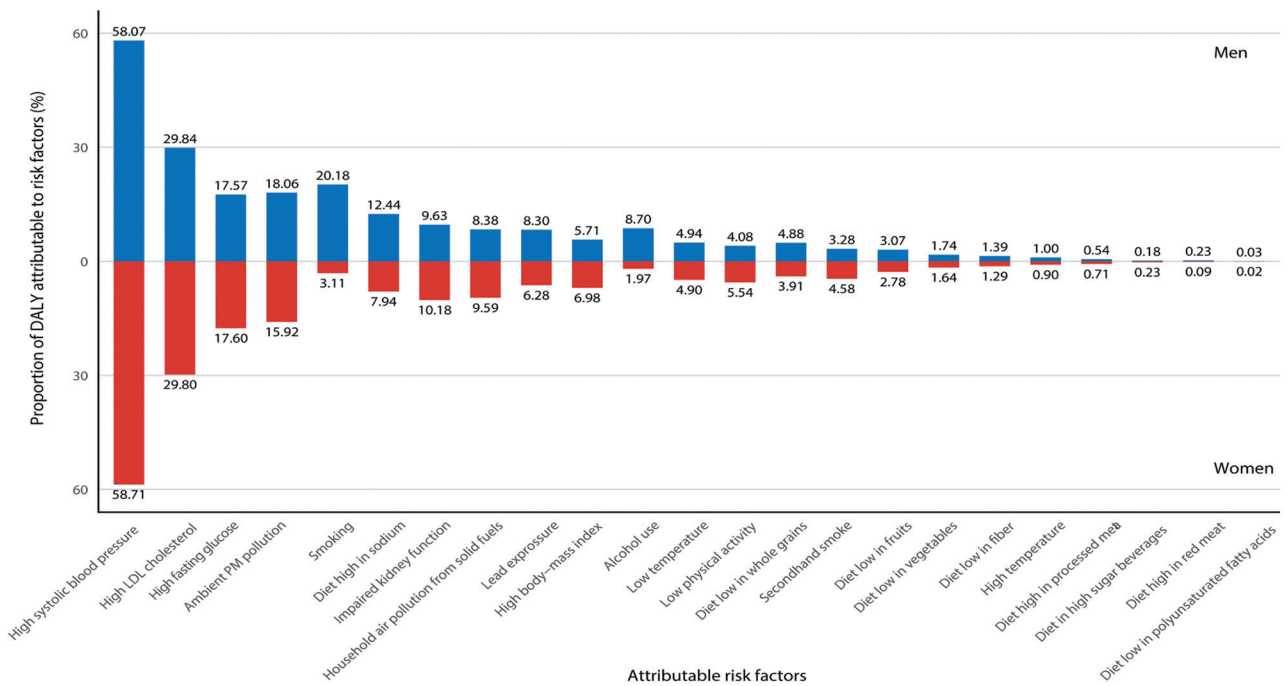


Figure S15. Proportion of ischemic stroke disability-adjusted life years (DALYs) attributable to 23 risk factors classified by sex in 2021

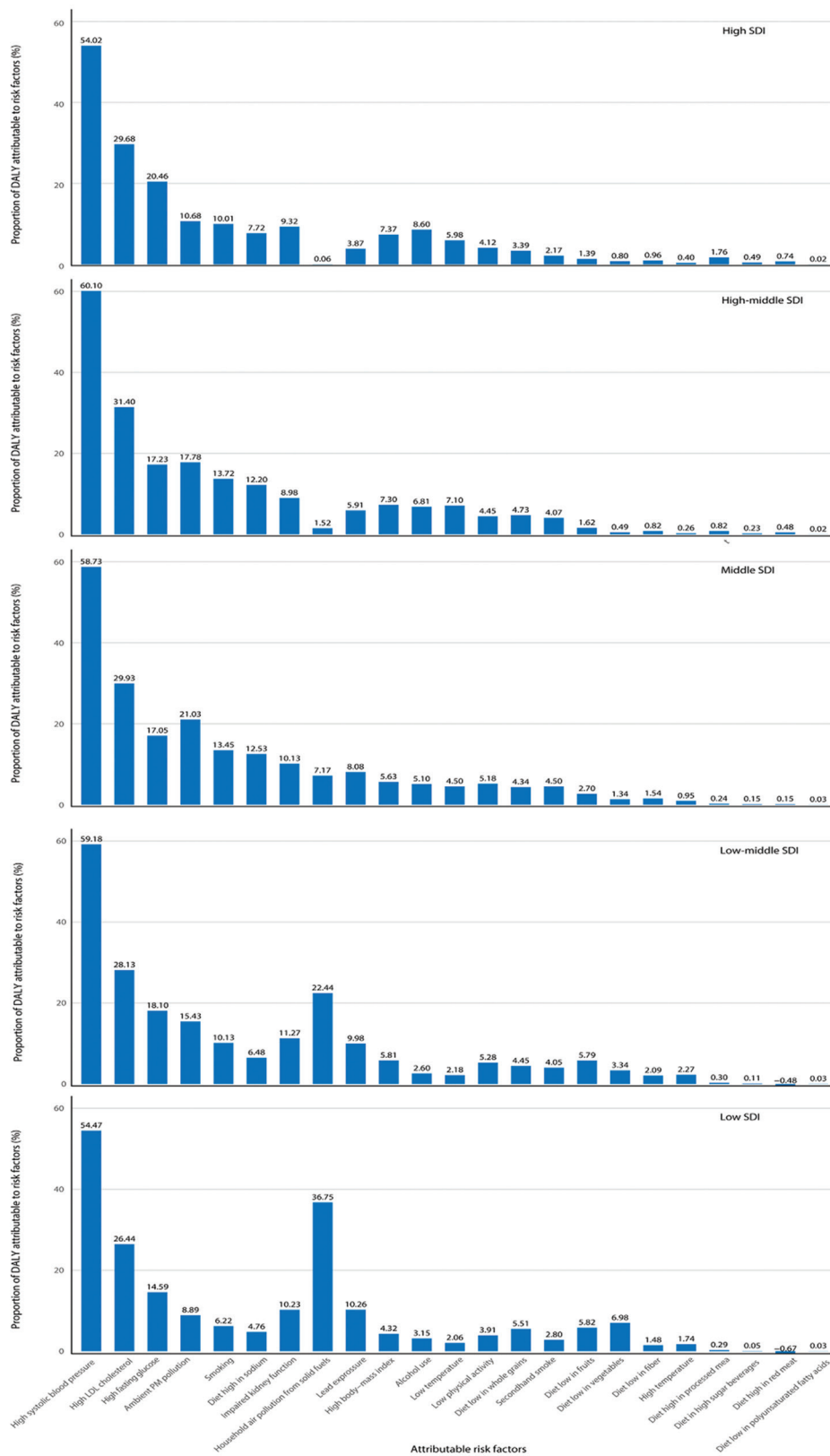


Figure S16. Proportion of ischemic stroke disability-adjusted life years (DALYs) attributable to 23 risk factors in 2021 by sociodemographic index

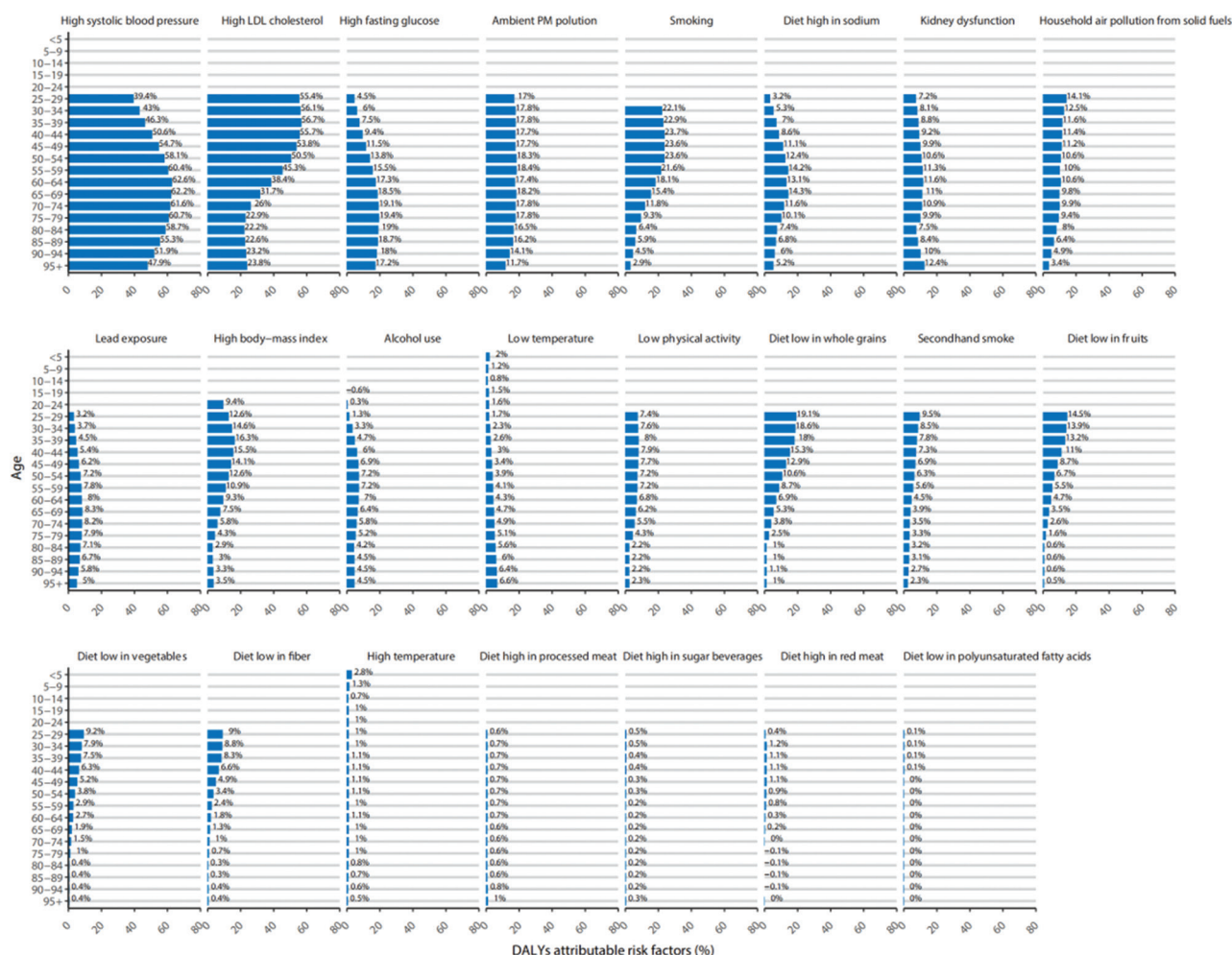


Figure S17. Percentage of disability-adjusted life years (DALYs) due to ischemic stroke to each risk factor globally, by age, in 2021