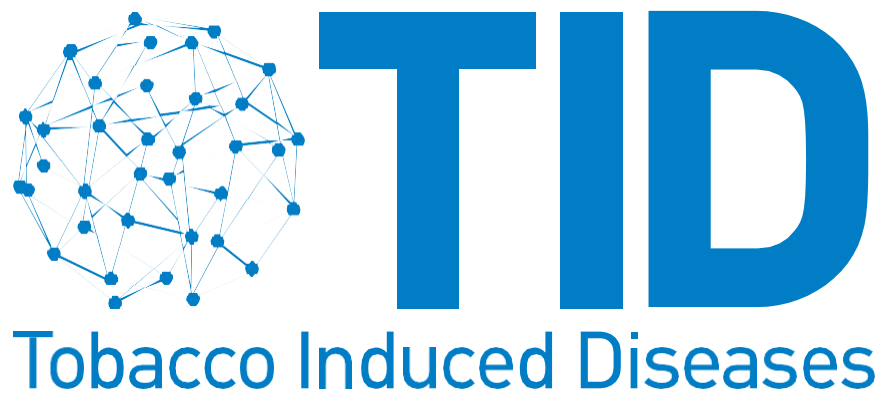




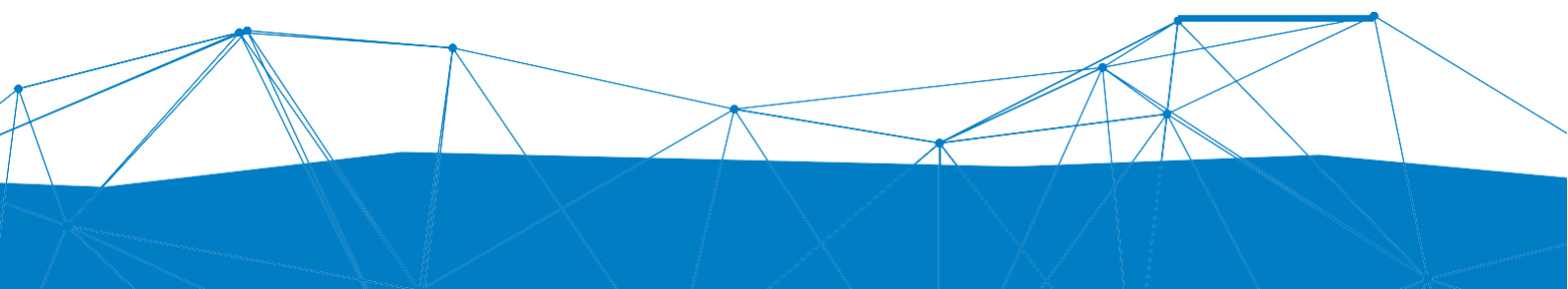
Supplementary file

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Supplementary Tables

Smoking-attributable musculoskeletal disorders

Supplementary Table S1

Supplementary Table S1. Detailed global, SDI, and regional burden of smoking-attributable musculoskeletal disorders in a secondary dataset analysis of GBD 2021 estimates, 1990 and 2021.

Location	DALYs 1990 (95% UI)	DALYs 2021 (95% UI)	Change (%)	ASDR 1990 (95% UI)	ASDR 2021 (95% UI)	EAPC (95% CI)
Global	6817893.48(3846047.12-10121030.78)	8885766.69(4720131.54-13678166.55)	30.33%	153.57(85.94-228.28)	102.44(54.6-157.3)	-1.2 (-1.24 - -1.16)
SDI quintiles						
Low SDI	390610.52(206987.1-606886.9)	670714.5(368154.6-1070987.32)	71.71%	85.32(44.87-131.92)	63.16(34.35-101.01)	-0.94 (-1.03 - -0.85)
Low-middle SDI	419767.85(218888.52-648822.1)	560440.55(296842.02-920138.75)	33.51%	88.11(46.03-136.61)	55.58(29.64-91.59)	-1.37 (-1.48 - -1.25)
Middle SDI	427147.97(243367.29-639866.16)	807931.88(444894.05-1223177.64)	89.15%	104.78(59.1-157.65)	84.43(46.03-128.32)	-0.64 (-0.7 - -0.57)
High-middle SDI	1008721.69(583491.96-1522282.89)	1386579.57(766273.85-2121313.93)	37.46%	116.65(67.25-178.02)	70.86(39.25-108.41)	-1.49 (-1.52 - -1.47)
High SDI	4560698.14(2602809.47-6725599.17)	5447974.89(2822817.57-8310741.63)	19.45%	209.92(120.23-309.62)	154.13(81.19-231.32)	-0.88 (-0.91 - -0.85)
GBD regions						
Andean Latin America	13436.23(7039.55-21766.96)	27571.88(14217.7-46071.77)	105.21%	54.08(28.21-86.81)	42.28(21.79-71.12)	-0.79 (-0.81 - -0.76)
Australasia	61145.95(32917.47-91971.21)	75905.27(37441.03-116703.06)	24.14%	271.26(146.46-405.39)	187.33(91.78-289.52)	-1.16 (-1.22 - -1.1)
Caribbean	28215.67(15090.06-44846.02)	39848.37(21270.52-66418)	41.23%	99.99(53.55-156.58)	74.9(39.98-125.2)	-1.1 (-1.23 - -0.98)
Central Asia	63604.86(35203.1-97749.93)	109446.26(61501.54-172567.34)	72.07%	119.75(65.55-180.48)	111.12(62.08-174.51)	-0.09 (-0.24 - 0.06)
Central Europe	505346.27(293557.8-	509841.03(266324.18-	0.89%	346.73(201.93-	303.04(161.72-	-0.42 (-0.45 - -

	771863.94)	778526.63)		526.57)	455.38)	0.39)
Central Latin America	111711.36(62306.31-175973.02)	168346.74(89989.26-275912.17)	50.70%	104.56(58.16-165.07)	62.54(33.34-102.82)	-1.72 (-1.8 - -1.65)
Central Sub-Saharan Africa	15158.43(7664.54-24919.97)	34812.75(18141.74-58755.39)	129.66%	49.87(25.27-82.49)	42.29(22.15-71.64)	-0.37 (-0.48 - -0.27)
East Asia	1340230.97(797520.65-2028748.53)	1937243.92(1103808.22-2919399.3)	44.55%	130.18(76.72-197.22)	91.2(51.58-135.67)	-0.9 (-0.98 - -0.82)
Eastern Europe	490796.26(284265-741183.77)	627776.8(326424.86-951781.47)	27.91%	183.84(106-273.98)	206.15(109.59-308.17)	0.62 (0.46 - 0.77)
Eastern Sub-Saharan Africa	57212.09(29802.61-89834.77)	123290(66454.3-199789.58)	115.50%	59.46(30.82-92.43)	52.01(28.07-84.28)	-0.45 (-0.46 - -0.43)
High-income Asia Pacific	461087.1(259460.85-684199.74)	442026.5(236349.23-708673.06)	-4.13%	226.57(127.43-334.92)	160.75(85.54-257.33)	-1.08 (-1.15 - -1.02)
High-income North America	886040.31(474994.59-1289636.4)	949035.49(467546.01-1444485.56)	7.11%	279.31(150.5-403.34)	193.91(94.96-290.4)	-1.03 (-1.08 - -0.98)
North Africa and Middle East	269310.27(147354.64-415967.73)	659320.93(374522.93-1036578.57)	144.82%	123.55(66.76-188.66)	111.1(63.34-174.11)	-0.32 (-0.36 - -0.28)
Oceania	4624.2(2431.21-7149.34)	10870.75(5755.21-17178.38)	135.08%	111.26(58.78-171.19)	99.83(52.74-157.66)	-0.44 (-0.5 - -0.38)
South Asia	640290.58(339894.81-1003524.76)	841662.11(443853.96-1354043.93)	31.45%	90.36(48.19-140.8)	51.66(27.62-84.1)	-1.68 (-1.77 - -1.58)
Southeast Asia	283215.05(162334.07-426342.14)	539799.68(290587.81-806241.84)	90.60%	89.31(50.28-134.75)	71.89(38.81-107.34)	-0.7 (-0.75 - -0.65)
Southern Latin America	93006.42(51398.25-145020.83)	128810.94(65277.93-207063.48)	38.50%	197.11(109.01-306.35)	160.93(81.29-256.59)	-0.61 (-0.72 - -0.5)
Southern Sub-Saharan Africa	39691.79(21745.29-61095.43)	57518.06(31545.93-89658.05)	44.91%	121.18(64.77-188.9)	76(41.95-119.02)	-1.57 (-1.78 - -1.37)
Tropical Latin America	229828(132363.52-348176.12)	289630.51(145574.49-455034.77)	26.02%	199.51(113.12-306.31)	111.01(55.74-174.09)	-2.17 (-2.28 - -2.05)
Western Europe	1173170.33(644167.87-1734488.07)	1227010.32(636060.67-1884230.44)	4.59%	247.94(137.84-365.28)	195.09(102.22-293.24)	-0.68 (-0.7 - -0.65)
Western Sub-Saharan Africa	50771.36(25022.35-85124.63)	85998.39(42946.79-149634.95)	69.38%	46.16(22.73-76.28)	30.61(15.19-53.5)	-1.4 (-1.53 - -1.27)
African Region	177547.07(93346.67-276554.69)	336092.64(179365.86-553162.69)	89.30%	63.56(33.08-98.5)	47.73(25.61-78.26)	-0.96 (-0.97 - -0.94)
Central Africa	18269.09(9293.21-29401.09)	38943.77(20118.53-66435.19)	113.17%	49.49(25.07-79.79)	40.06(20.85-68.51)	-0.57 (-0.68 - -0.45)
Central Europe, Eastern Europe, and	1059747.39(617232.67-1611444.01)	1247064.09(654650.61-1906756.23)	17.68%	227.45(132.76-343.95)	216.9(116.01-330.07)	-0.01 (-0.11 - 0.09)

Central Asia						
Commonwealth High Income	345628.77(185355.84-507382.55)	364846.29(184288.5-556495.59)	5.56%	263.23(142.58-383.79)	179.37(93.39-268.6)	-1.22 (-1.26 - -1.18)
Commonwealth Low Income	18304.22(9338.14-28809.93)	37534.54(20288.8-60849.05)	105.06%	63.74(32.49-100.67)	58.16(31.52-94.6)	-0.28 (-0.47 - -0.09)
Commonwealth Middle Income	720370.85(378148.58-1130201.11)	988454.35(524149.47-1609546.49)	37.21%	84.52(44.54-132.25)	49.77(26.72-81.54)	-1.6 (-1.72 - -1.49)
East Asia & Pacific - WB	2141037.03(1265889.61-3217886.2)	2998077.85(1663034.66-4479873.04)	40.03%	135.83(80.19-204.9)	93.8(52.47-141.1)	-1.02 (-1.07 - -0.98)
Eastern Africa	52744.42(27490.36-82475.13)	117728.36(63366.78-192197.69)	123.21%	58.56(30.4-91.17)	51.96(28.09-85.01)	-0.41 (-0.43 - -0.39)
Eastern Mediterranean Region	231083.44(124109.94-358318.98)	570697.36(309142.74-918003.47)	146.97%	103.3(55.15-158.61)	93.81(51.13-150.14)	-0.27 (-0.33 - -0.2)
Europe & Central Asia - WB	2297793.3(1311264.63-3417839.55)	2608311.41(1355027.52-3997157.05)	13.51%	236.23(136.17-354.68)	203.68(108.39-307.33)	-0.36 (-0.42 - -0.3)
European Region	2309132.03(1318139.98-3435709.48)	2626026.49(1364115.46-4028724.28)	13.72%	236.18(136.18-354.67)	203.34(108.19-307.15)	-0.37 (-0.42 - -0.31)
High-income	2674450.11(1465122.6-3972918.01)	2822788.52(1440372.2-4302089.37)	5.55%	251.74(139.03-369.31)	186.58(94.79-278.97)	-0.87 (-0.9 - -0.85)
Latin America & Caribbean - WB	475177.8(259404.94-733603.81)	652784.33(330309.09-1054812.03)	37.38%	147.17(79.54-227.14)	89.86(45.51-145.28)	-1.74 (-1.82 - -1.66)
Latin America and Caribbean	383191.26(213252.52-587897.59)	525397.5(269250.32-848973.78)	37.11%	139.15(75.96-216.26)	81.26(41.62-131.48)	-1.92 (-2.01 - -1.84)
Middle East & North Africa - WB	185352.91(99762.38-288511.67)	485745.44(268807.56-762184.84)	162.07%	116.03(61.95-178.06)	106.3(59.2-168.45)	-0.24 (-0.3 - -0.18)
North America	885947.89(474943.41-1289520.28)	948924.4(467473.81-1444333.18)	7.11%	279.27(150.48-403.29)	193.88(94.95-290.36)	-1.03 (-1.08 - -0.98)
Northern Africa	83768.24(45970.98-128391.24)	196263.42(112090.82-300430.33)	134.29%	106.72(57.99-162.24)	100.84(57.71-154.29)	-0.15 (-0.22 - -0.08)
Region of the Americas	1358082.7(743747.49-2019149.45)	1597760.58(797901.35-2452534.48)	17.65%	212.19(115.86-315.79)	130.61(64.96-199.47)	-1.55 (-1.57 - -1.52)
South Asia - WB	651972.88(345734.2-1022222.58)	862344.82(455199.08-1390323.97)	32.27%	89.36(47.6-139.32)	51.5(27.55-83.89)	-1.65 (-1.79 - -1.52)
South-East Asia Region	668496.88(358574.46-1034529.44)	853756.21(446344.91-1333178.79)	27.71%	88.8(47.52-137.16)	50.09(26.5-78.6)	-1.74 (-1.86 - -1.61)
Southeast Asia, East Asia, and Oceania	1628070.22(963504.6-2458167.49)	2487914.35(1395386.38-3701914.11)	52.81%	120.64(71.04-181.68)	86.35(48.69-127.76)	-0.87 (-0.93 - -0.81)
Southern Africa	53867.85(29043.04-83594.8)	86435.57(47659.61-133492.44)	60.46%	99.3(52.96-155.95)	66.93(36.69-103.68)	-1.32 (-1.41 - -1.23)

Sub-Saharan Africa	162833.66(85176.87-254525.98)	301619.2(160356.25-500254.49)	85.23%	60.76(31.48-94.46)	44.97(24.07-74.04)	-1.01 (-1.03 - -0.99)
Sub-Saharan Africa - WB	169640.78(88613.71-265403.58)	317427.33(168457.31-527714.53)	87.12%	60.49(31.31-94.02)	45.3(24.2-74.8)	-0.97 (-0.99 - -0.95)
Western Africa	44271.54(21696.65-75027.85)	74100.5(36679.4-129016.36)	67.38%	44.5(21.76-74.58)	29.47(14.54-51.64)	-1.41 (-1.53 - -1.29)
Western Pacific Region	2034862.45(1206160.97-3066159.99)	2838795.41(1572962.49-4235526.95)	39.51%	138.86(82.22-210.02)	95.53(53.39-143.67)	-1.02 (-1.07 - -0.98)
World Bank High Income	3418306.89(1906968.01-5052547.72)	3744559.91(1913901.83-5713708.19)	9.54%	246.36(138.5-363.6)	191.73(99-288.37)	-0.71 (-0.75 - -0.68)
World Bank Low Income	102588.53(53786.42-159361.81)	217476.99(114556.94-357272.66)	111.99%	60.71(31.65-93.6)	54.57(29.04-89.68)	-0.32 (-0.41 - -0.24)
World Bank Lower Middle Income	951108.27(502112.66-1477135.86)	1450132.6(777052.34-2345266.24)	52.47%	88.96(46.76-137.88)	57.33(31.04-92.83)	-1.36 (-1.46 - -1.25)
World Bank Upper Middle Income	2334918.9(1362058.99-3538926.88)	3461446.08(1915675.19-5212713)	48.25%	134.51(78.29-205.32)	95.61(53.19-145.17)	-0.96 (-1 - -0.93)

Note: DALY = disability-adjusted life year; ASDR = age-standardized DALY rate per 100,000 population; SDI = Socio-demographic Index; GBD = Global Burden of Disease; UI = uncertainty interval; CI = confidence interval; EAPC = estimated annual percentage change. Values are for both sexes combined.

Supplementary Table S2

Supplementary Table S2. Segment-specific annual percentage changes in age-standardized DALY rates for smoking-attributable musculoskeletal disorders from joinpoint regression in a secondary dataset analysis of GBD 2021 estimates, 1990-2021.

Location	Range	APC	95%LCI	95%UCI	p
Global	1990-1993	-1.662	-1.7472	-1.5768	<0.001
	1993-1996	-1.1336	-1.3076	-0.9593	<0.001
	1996-2006	-1.2769	-1.4487	-1.1048	<0.001
	2006-2011	-0.8979	-0.9266	-0.8692	<0.001
	2011-2016	-1.1222	-1.1755	-1.0689	<0.001
	2016-2021	-1.4995	-1.554	-1.445	<0.001
High SDI	1990-1994	-1.5198	-1.573	-1.4665	<0.001
	1994-1999	-0.8648	-0.9196	-0.81	<0.001
	1999-2006	-0.6996	-0.7284	-0.6708	<0.001
	2006-2011	-0.7916	-0.8448	-0.7384	<0.001
	2011-2016	-0.9892	-1.0432	-0.9351	<0.001
	2016-2021	-1.2505	-1.2901	-1.2109	<0.001
High-middle SDI	1990-1993	-2.2514	-2.3785	-2.1242	<0.001
	1993-1996	-1.4644	-1.722	-1.2061	<0.001
	1996-1999	-1.8859	-2.1377	-1.6335	<0.001
	1999-2009	-1.3191	-1.3417	-1.2965	<0.001
	2009-2019	-1.5056	-1.529	-1.4822	<0.001
	2019-2021	-2.097	-2.3594	-1.834	<0.001
Middle SDI	1990-1993	-0.7741	-0.8636	-0.6845	<0.001
	1993-1999	-0.4125	-0.453	-0.3719	<0.001
	1999-2005	-0.237	-0.2756	-0.1983	<0.001
	2005-2008	-0.4892	-0.6651	-0.3129	<0.001
	2008-2011	-0.7738	-0.9481	-0.5992	<0.001
	2011-2014	-1.4326	-1.6095	-1.2554	<0.001
Low-middle SDI	2014-2021	-1.031	-1.0554	-1.0065	<0.001
	1990-1996	-0.9782	-1.0115	-0.9449	<0.001
	1996-1999	-2.4522	-2.6475	-2.2566	<0.001

Low SDI	1999-2007	-0.494	-0.5199	-0.4681	<0.001
	2007-2011	-1.109	-1.207	-1.0108	<0.001
	2011-2016	-2.4581	-2.5203	-2.3959	<0.001
	2016-2019	-2.7155	-2.9195	-2.511	<0.001
	2019-2021	-1.8367	-2.0462	-1.6267	<0.001
	1990-1996	-0.3178	-0.3657	-0.2698	<0.001
	1996-1999	-1.4596	-1.7394	-1.179	<0.001
	1999-2006	-0.3131	-0.3603	-0.2658	<0.001
	2006-2011	-0.9747	-1.063	-0.8862	<0.001
	2011-2016	-1.6438	-1.7319	-1.5556	<0.001
	2016-2019	-2.0377	-2.3192	-1.7553	<0.001
	2019-2021	-1.2328	-1.5239	-0.9408	<0.001

Note: APC = annual percentage change; ASDR = age-standardized DALY rate per 100,000 population; DALY = disability-adjusted life year; SDI = Socio-demographic Index; GBD = Global Burden of Disease; LCI = lower confidence interval; UCI = upper confidence interval.

Supplementary Table S3

Supplementary Table S3. ARIMA model parameters and residual diagnostics for smoking-attributable musculoskeletal disorder burden estimates in a secondary dataset analysis of GBD 2021 estimates, 1990-2021.

Measure	Location	ARIMA model	χ^2	AIC	Ljung-Box Q	RMSE	MAPE
ASDR	Global	1,1,1	0.04	-27.13	0.85	0.13	8.04%
	High SDI	0,2,1	1.26	-17.66	0.26	0.16	16.58%
	High-middle SDI	0,1,4	0.07	-19.5	0.79	0.13	13.22%
	Middle SDI	0,2,1	0.94	-52.02	0.33	0.09	7.82%
	Low-middle SDI	0,2,1	0.1	-1.39	0.75	0.21	15.35%
	Low SDI	4,1,1	0.01	-20.12	0.92	0.13	5.69%
Number of DALYs cases	Global	0,2,1	0.51	644.13	0.48	10026.52	9.77%
	High SDI	0,2,1	0.43	612.58	0.51	5952.60	8.54%
	High-middle SDI	3,1,0	0.35	608	0.55	3570.05	15.11%
	Middle SDI	1,1,1	0.13	515.38	0.72	818.55	10.86%
	Low-middle SDI	0,1,4	0.2	532.39	0.65	953.61	14.25%
	Low SDI	2,1,0	0.95	532.59	0.33	1083.30	16.14%

Note: ARIMA = autoregressive integrated moving average; AIC = Akaike information criterion; RMSE = root mean square error; MAPE = mean absolute percentage error; ASDR = age-standardized DALY rate per 100,000 population; DALY = disability-adjusted life year; GBD = Global Burden of Disease. Diagnostics were based on 1990-2021 observed series.

Supplementary Table S4

Supplementary Table S4. Country-level DALY burden and age-standardized DALY rates of smoking-attributable musculoskeletal disorders in a secondary dataset analysis of GBD 2021 estimates, 1990 and 2021.

Countries	DALY number (95% UIs)	DALY number (95% UIs)	Percentage change(100%)	DALY number (95% UIs)	DALY number (95% UIs)	EAPC (95% CIs)
Countries	1990	2021	Percentage change(100%)	1990	2021	EAPC (95% CIs)
Afghanistan	2113.47(986.6-3740.33)	10636.58(5262.39-18062.15)	403.28%	29.42(13.74-52.24)	55.22(27.29-94.35)	2.52 (2.35 - 2.68)
Albania	6237.51(3382.7-9450.34)	9811.12(5351.25-15500.2)	57.29%	242.52(128.08-362.9)	265.69(149.57-422.87)	0.45 (0.36 - 0.55)
Algeria	16319.63(8652.68-25125.75)	39208.25(21277.39-61359.08)	140.25%	110.16(57.98-166.66)	89.51(48.23-140.54)	-0.71 (-0.76 - -0.66)
American Samoa	37.06(19.5-59.09)	48.83(24.52-79.05)	31.76%	113.31(59.27-180.22)	91.97(46.19-149.3)	-0.82 (-0.95 - -0.69)
Andorra	151.26(81.65-226.27)	277.87(153.31-439.62)	83.70%	238.37(129.73-358.43)	215.39(119-339.25)	-0.32 (-0.33 - -0.3)
Angola	4618.44(2353.73-7647.09)	10157.17(5258.2-17316.44)	119.93%	83.27(42.74-137.36)	53.72(27.72-92.4)	-1.38 (-1.46 - -1.29)
Antigua and Barbuda	30.61(14.04-57.81)	74.65(35.18-135.42)	143.87%	60.65(28.1-114.36)	65.82(30.96-119.7)	0.2 (0.18 - 0.23)
Argentina	62323.5(33807.72-98171.38)	80003.62(42019.28-131907.72)	28.37%	193.9(105.43-304.8)	151.59(80.03-248.65)	-0.74 (-0.86 - -0.62)
Armenia	5201.49(3010.72-7783.83)	6555.48(3639.05-9896.8)	26.03%	166.74(96.3-248.55)	158.1(89.26-238.71)	-0.07 (-0.11 - -0.02)
Australia	50709.37(27444.35-76261.64)	64595.16(31640.23-100241.53)	27.38%	269.23(146.15-402.41)	190.2(92.49-296.28)	-1.08 (-1.15 - -1.01)
Austria	18915.76(10320.56-29687.82)	25108.52(13777.68-38134.83)	32.74%	201.71(111.57-308.22)	193.6(105.23-293.45)	0.05 (-0.04 - 0.14)
Azerbaijan	6654.36(3566.11-9697.23)	15711.29(9121.75-24275.35)	136.11%	114.82(61.94-167.5)	129.51(75.52-200.52)	0.54 (0.38 - 0.7)
Bahamas	86.09(41.09-148.79)	184.18(88.13-348)	113.94%	43.39(20.8-74.49)	38.98(18.45-73.87)	-0.38 (-0.45 - -0.3)
Bahrain	427.07(213.98-680.25)	1826.51(985.39-2978.55)	327.68%	116.57(58.43-176.85)	104.57(55.86-168.95)	-0.25 (-0.4 - -0.11)
Bangladesh	81213.52(45080.81-121127.27)	160140.2(89008.41-246341.05)	97.18%	141.52(78.22-212.18)	112.54(62.57-171.41)	-0.66 (-0.75 - -0.57)

Barbados	131.61(64.55-229.16)	174.56(83.02-336.08)	32.63%	52.31(26.02-91.69)	42.92(20.03-83.39)	-0.97 (-1.13 - -0.81)
Belarus	22808.49(12969.23-34979.17)	25476.15(14103.43-40084.12)	11.70%	188.5(106.66-284.31)	185.33(100.82-289.68)	0.08 (-0.04 - 0.2)
Belgium	32405.81(18106.98-48995.22)	30856.46(14602.94-47632.81)	-4.78%	256.44(145.39-385.93)	193.2(90.97-296.96)	-0.92 (-0.97 - -0.86)
Belize	72.14(36.25-120.18)	219.31(108.39-379.86)	204.01%	69.19(35.11-114.79)	62.16(30.7-106.48)	-0.12 (-0.24 - -0.01)
Benin	1158.6(551.86-1889.21)	2215.16(1071.14-3751.06)	91.19%	47.69(23.44-77.61)	31.02(15.01-52.76)	-1.69 (-1.96 - -1.42)
Bermuda	64.71(32.81-103.73)	74.16(38.26-134.07)	14.60%	94.12(48.53-150.9)	73.48(37.65-133.17)	-1.03 (-1.15 - -0.91)
Bhutan	250.07(116.58-429.82)	437.78(214.25-803.2)	75.06%	75.33(35.24-127.21)	60.82(29.74-110.89)	-0.75 (-0.79 - -0.72)
Bolivia (Plurinational State of)	1794.76(826.02-2964.34)	4899.5(2564.01-8195.26)	172.99%	45.18(21.22-73.88)	45.16(23.7-76.33)	0.52 (0.25 - 0.79)
Bosnia and Herzegovina	12800.14(7199.3-19699.91)	15180.28(8057.17-23380.01)	18.59%	269.46(150.34-414.81)	317.65(168.95-475.13)	0.78 (0.57 - 0.98)
Botswana	647.68(341.63-1003.12)	1879.74(1001.77-3036)	190.23%	90.46(48.43-141.36)	95.58(51.51-153.54)	0.25 (0.22 - 0.27)
Brazil	225972.59(130276.92-342856.38)	282866.62(142253.07-444493.69)	25.18%	200.74(114.07-308.74)	110.95(55.73-174.29)	-2.19 (-2.31 - -2.07)
Brunei Darussalam	308.22(165.46-488.09)	586.96(298.57-975.67)	90.44%	170.87(92.17-261.38)	114.23(58.2-190.17)	-1.34 (-1.47 - -1.21)
Bulgaria	37392.99(20692.99-57606.06)	36752.45(19843.71-54869.3)	-1.71%	342.39(191.36-520.21)	353.08(193.93-519.01)	0.01 (-0.05 - 0.07)
Burkina Faso	2339.39(1166.24-3666.11)	4557.59(2262.72-7710.73)	94.82%	44.02(21.96-68.79)	34.14(17.16-56.76)	-0.94 (-0.98 - -0.9)
Burundi	1884.26(931.88-3052.45)	3488.29(1755.29-6242.41)	85.13%	63.64(31.78-103.81)	48.97(25.19-86.04)	-0.68 (-0.84 - -0.52)
Cabo Verde	98.61(48.89-166.22)	180.1(89.07-318.52)	82.64%	48.29(23.91-80.98)	38.07(18.86-67.41)	-0.81 (-0.86 - -0.76)
Cambodia	5821.31(3324.5-8804.84)	11570.27(5983.24-17733.99)	98.76%	105.32(58.21-158)	77.02(40.27-118.5)	-1.4 (-1.57 - -1.23)
Cameroon	3650.64(1885.93-5649.91)	6972.02(3578.6-12362.57)	90.98%	61.83(31.74-96.09)	37.86(19.44-66.54)	-1.62 (-1.84 - -1.4)
Canada	84692.17(45095.45-127203.22)	91857.11(46465.82-140883.76)	8.46%	266.06(142.57-395.54)	174.75(87.86-265.72)	-1.56 (-1.65 - -1.48)
Central African Republic	834.54(414.95-1373.47)	1514.29(760.55-2605.22)	81.45%	54.56(27.55-89.16)	43.85(21.87-75.77)	-0.8 (-0.91 - -0.68)

Chad	2177.14(1070.04-3598.83)	3783.17(1879.25-6604.85)	73.77%	66.03(32.62-109.35)	46.98(23.05-81.36)	-1.23 (-1.46 - -0.99)
Chile	24266.16(13677.66-37154.32)	40812.74(20014.19-66494.53)	68.19%	205.96(117.09-315.04)	177.72(86.66-287.06)	-0.41 (-0.48 - -0.34)
China	1297713.72(775509.73-1968781.52)	1865486.99(1054455.62-2816022.52)	43.75%	130.88(77.46-198.77)	90.75(50.97-135.53)	-0.92 (-1.01 - -0.84)
Colombia	26537.7(14077.23-41269.78)	35694.56(17041.75-60170.66)	34.51%	114.88(60.28-177.95)	63.58(30.33-107.37)	-1.81 (-1.91 - -1.7)
Comoros	154.83(79.19-240.47)	282.66(142.75-469.79)	82.56%	61.29(31.41-96.65)	46.97(23.61-77.49)	-1 (-1.11 - -0.9)
Congo	588.26(298.91-981.99)	2077.59(1048.15-3469.18)	253.18%	43.64(21.95-72.42)	53.95(27.23-92.34)	0.91 (0.78 - 1.03)
Cook Islands	19.77(10.72-29.95)	21.64(11.17-36)	9.46%	134.16(72.29-205.04)	116.51(60.57-196.18)	-0.48 (-0.57 - -0.39)
Costa Rica	2371.2(1237.27-3742.98)	3888.77(1936.17-6487.93)	64.00%	109.74(58.7-174.71)	66.17(32.98-110.35)	-1.43 (-1.62 - -1.23)
Croatia	21864.43(12326.16-32923.72)	19285.79(10529.39-29215.21)	-11.79%	356.76(202.43-529.99)	330.07(184.39-499.03)	0 (-0.08 - 0.08)
Cuba	14217.21(7624.04-22401.92)	19911.19(10225.28-33493.37)	40.05%	136.78(73.67-215.08)	119.44(60.9-199.78)	-0.6 (-0.72 - -0.48)
Cyprus	1949.22(1081.83-2986.91)	3642.85(2017.59-5725.3)	86.89%	242.74(134.57-370.56)	198.15(110.26-311.22)	-0.65 (-0.75 - -0.55)
Czechia	45767.8(25866.49-70173.47)	47324.25(26412.11-73698.29)	3.40%	366.72(207.4-563.35)	304.54(170.73-472.41)	-0.68 (-0.71 - -0.65)
Côte d'Ivoire	3820.9(1814.3-6088.73)	9630.64(4922.96-16473.26)	152.05%	58.89(28.91-96.05)	49.68(25.56-85.54)	-0.5 (-0.7 - -0.3)
Democratic People's Republic of Korea	19452.43(11090.62-28637.54)	30144.32(16654.45-48398.2)	54.96%	99.01(55.66-147.03)	88.84(49.11-142.69)	-0.49 (-0.6 - -0.39)
Democratic Republic of the Congo	8780.3(4369.11-14346.68)	19897.77(10263.66-33414.7)	126.62%	41.66(20.91-68.23)	36.96(19.23-62.22)	-0.16 (-0.31 - -0.01)
Denmark	28456.38(15862.27-41387.75)	20178.22(10451.58-30933.31)	-29.09%	429.2(242.09-623.63)	235.75(120.05-363.56)	-2.32 (-2.48 - -2.16)
Djibouti	165.44(82.55-259.5)	877.88(453.14-1359.31)	430.63%	78.31(39.6-123.34)	90.09(46.04-141.98)	0.68 (0.56 - 0.8)
Dominica	36.51(17.27-65.7)	57.05(28.5-100.83)	56.26%	60.55(29.12-108.62)	68.07(34.05-120.16)	0.42 (0.26 - 0.57)
Dominican Republic	4236.21(2224.51-6761.6)	5571.76(2782.88-9651.31)	31.53%	94.96(48.93-151.09)	52.97(26.64-92.21)	-2.19 (-2.41 - -1.98)
Ecuador	4564.51(2369.33-7216.83)	7385.6(3925.49-12386.12)	61.80%	71.23(37.22-111.16)	42.62(22.65-71.56)	-1.43 (-1.54 - -1.31)
Egypt	38642.62(21488.27-58811.76)	101188.96(58959.33-153117.11)	161.86%	106.44(58.42-161.47)	117.4(67.64-177.99)	0.44 (0.33 - 0.54)

El Salvador	2070.07(999.7-3687.68)	2212.83(1026.92-4424.89)	6.90%	60.33(29.33-107.06)	36.8(17.08-73.5)	-1.61 (-1.7 - -1.51)
Equatorial Guinea	127.66(66.28-201.88)	384.14(206.45-609)	200.91%	51.51(26.42-82.51)	45.98(24.65-74.77)	-0.32 (-0.38 - -0.27)
Eritrea	610.01(314.62-955.97)	1439.65(729.96-2384.14)	136.00%	32.28(16.51-51.03)	30.77(15.61-50.77)	-0.18 (-0.24 - -0.13)
Estonia	4388.02(2434.12-6762.91)	4356.6(2146.67-6795.77)	-0.72%	234.6(128.86-357.96)	227.6(115.15-355.86)	0.24 (0.06 - 0.43)
Eswatini	178.89(90.69-292.3)	263.84(124.75-446.79)	47.49%	47.26(23.86-79.11)	31.64(15.07-54.5)	-1.48 (-1.69 - -1.28)
Ethiopia	8671.49(4270.14-13942.25)	16539.74(8185.45-29980.93)	90.74%	32.37(16.02-51.28)	27.15(13.6-48.64)	-0.33 (-0.56 - -0.11)
Fiji	601.09(310.77-926.57)	788.57(430.21-1303.67)	31.19%	111.76(57.55-171.34)	84.55(46.06-141.98)	-1.08 (-1.18 - -0.98)
Finland	12394.79(7025.42-18335.65)	12394.8(6624.09-18520.49)	0.00%	198.08(112-291.45)	159.68(83.51-236.35)	-0.54 (-0.6 - -0.48)
France	144891.88(77231.99-219200.33)	191203.59(98732.44-296241.8)	31.96%	210.7(114.02-316.64)	207.54(107.1-310.45)	0.05 (-0.01 - 0.11)
Gabon	209.22(101.07-366.47)	781.79(402.41-1332.45)	273.67%	32.96(16.12-56.99)	54.54(27.94-94.14)	2.02 (1.79 - 2.24)
Gambia	396.29(211.19-617.14)	703.54(377.73-1139.67)	77.53%	80.61(42.53-126.46)	50.48(26.84-82.86)	-1.74 (-1.81 - -1.67)
Georgia	7946.11(4420.32-11927.82)	7401.35(4208.03-11315.94)	-6.86%	130.64(73.5-194.6)	152.35(85.59-231.31)	0.72 (0.62 - 0.81)
Germany	302368.88(167732.49-458195.65)	282207.99(150237.16-432766.32)	-6.67%	292.38(164.95-439.54)	229.73(123.15-347.28)	-0.58 (-0.64 - -0.53)
Ghana	3164.32(1520.57-5272.43)	5308.32(2587.28-9210.62)	67.76%	38.95(18.62-64.85)	24.98(12.24-42.83)	-1.58 (-1.65 - -1.52)
Greece	31279.8(17589.47-46971.64)	39087.58(20806.65-58447.48)	24.96%	242.75(139.54-360.27)	242.79(134.13-353.11)	0.13 (0.04 - 0.23)
Greenland	137.12(75.9-214.55)	170.77(95.82-265.24)	24.54%	262.28(147.74-399.76)	240.76(134.77-373.52)	-0.27 (-0.4 - -0.14)
Grenada	41.13(19.63-73.81)	72.55(35.51-134.1)	76.39%	59.22(27.99-105.94)	53.8(25.84-99.27)	-0.29 (-0.39 - -0.19)
Guam	127.6(66.08-203.71)	211.39(113.33-328.57)	65.67%	112.74(59.46-182.43)	110.62(58.26-170.05)	-0.01 (-0.04 - 0.02)
Guatemala	4004.86(2020.26-6710.39)	6271.26(2906.49-11401.45)	56.59%	86.93(43.84-146.7)	49.38(23.03-89.73)	-1.76 (-1.84 - -1.67)
Guinea	2422.62(1199.99-4093.06)	3935.07(1974.04-6803.7)	62.43%	63.86(31.51-107.52)	52.89(26.38-91.96)	-0.68 (-0.8 - -0.56)
Guinea-Bissau	117.91(55.47-213.76)	390.66(195.45-669.88)	231.32%	22.08(10.47-39.04)	32.91(16.6-57.68)	1.65 (1.52 - 1.77)

Guyana	309.46(158.05-492.4)	475.8(247.82-802.93)	53.75%	61.65(31.39-99.94)	60.68(31.61-103.19)	-0.05 (-0.12 - 0.02)
Haiti	2244.19(1138.2-3688.99)	3797.71(1842.06-7407.4)	69.22%	53.5(27.14-88.19)	37.7(18.66-74.89)	-1.34 (-1.48 - -1.2)
Honduras	2243.05(1153.67-3734.48)	3720.5(1827.85-6142.4)	65.87%	86.25(44.49-142.02)	46.86(23.17-77.79)	-2.21 (-2.39 - -2.04)
Hungary	49781.12(28703.93-75615.2)	43120.16(22955.02-66998.23)	-13.38%	382.95(220.68-581.04)	311.73(167.32-481.17)	-0.56 (-0.66 - -0.45)
Iceland	636.22(360.49-988.35)	768.99(403.84-1271.23)	20.87%	242.81(137.93-375.1)	160.83(85.1-266.22)	-1.46 (-1.5 - -1.42)
India	463602.37(248725.83-725155.33)	525137.25(262279.28-854606.35)	13.27%	79.87(43.01-124.69)	40.29(20.49-65.42)	-2.03 (-2.22 - -1.83)
Indonesia	102395.48(58843.26-154355.98)	237330.02(129524.9-352542.68)	131.78%	79.84(45.67-119.34)	79.95(43.09-119.06)	0.13 (0.01 - 0.24)
Iran (Islamic Republic of)	38502.12(19761.89-61584.44)	100890.89(51496.87-166521.82)	162.04%	113.29(57.91-177.13)	101.02(51.92-168.57)	-0.25 (-0.32 - -0.18)
Iraq	13093.27(7073.74-20121.61)	38797.03(21971.87-60335.52)	196.31%	131.64(69.43-201.72)	120.63(68.77-187.8)	-0.17 (-0.26 - -0.09)
Ireland	10128.57(5394.99-15151.4)	11163.76(5940.69-17368.07)	10.22%	269.68(144.53-404.59)	163.17(85.94-254.13)	-1.73 (-1.86 - -1.59)
Israel	10359.94(5816.41-16230.16)	16486.91(8485.9-26358.14)	59.14%	223.62(126.92-350.06)	162.84(84.76-259.76)	-1.03 (-1.08 - -0.97)
Italy	172472.8(92799.95-259659.86)	157459.1(85059.59-248995.78)	-8.70%	238.5(127.25-354.99)	172.68(92.69-271.6)	-1.03 (-1.1 - -0.95)
Jamaica	1544.06(812.34-2417.24)	1733.34(844.64-3032.61)	12.26%	90.3(47.49-140.03)	56.7(27.57-99.18)	-1.79 (-2 - -1.59)
Japan	385884.89(216721.42-573183.03)	324532.03(174884-526226.36)	-15.90%	242.79(136.88-357.7)	174.21(93.51-280.7)	-1.03 (-1.13 - -0.92)
Jordan	3102.29(1750.3-4674.54)	18190.8(10413.14-27453.37)	486.37%	161.79(89.34-246.98)	169.16(98.09-258.44)	0.18 (0.12 - 0.24)
Kazakhstan	19261.3(10918.58-29682.01)	26555.26(13289.23-40970.04)	37.87%	128.31(72.01-196.59)	124.18(62.11-191.52)	0.01 (-0.19 - 0.21)
Kenya	6845.03(3490.79-10800.89)	16400.75(8872.87-26303.36)	139.60%	65.65(33.03-104.79)	51.92(27.64-84.18)	-0.94 (-1.03 - -0.86)
Kiribati	73.32(40.88-112.09)	158.46(88.3-243.97)	116.12%	153.44(86.39-233.99)	162.57(90.87-247.41)	0.07 (-0.17 - 0.31)
Kuwait	1693.81(937.77-2643.44)	6136.23(3321.65-9584.48)	262.27%	131.85(71.58-198.47)	112.02(60.15-177.84)	-0.61 (-0.65 - -0.57)
Kyrgyzstan	4113.49(2352.76-6242.06)	8275.01(4481.33-12366.33)	101.17%	125.63(71.01-191.16)	129.66(69.57-194.19)	0.47 (0.3 - 0.65)
Lao People's Democratic Republic	2466.52(1328.23-3777.7)	5278.16(3001.48-8238.61)	113.99%	97.85(52.54-149)	86.33(49.51-134.17)	-0.29 (-0.37 - -0.21)

Latvia	7128.51(4000.77-10797.39)	5465.2(3179.87-8306.89)	-23.33%	216.39(120.93-324.35)	196.35(110.47-296.47)	-0.05 (-0.18 - 0.07)
Lebanon	3576.72(1875.96-5498.11)	11224.94(6231.1-17445.79)	213.83%	141.66(73.7-218.11)	189.59(104.86-295.38)	1.14 (0.85 - 1.42)
Lesotho	567.42(290.96-906.57)	719.98(393.58-1107.88)	26.89%	60.33(30.87-97.48)	50.4(27.53-78.09)	-0.68 (-0.8 - -0.57)
Liberia	705.43(357.65-1134.02)	1357.19(666.99-2339.26)	92.39%	50.43(25.53-79.45)	38.51(19.07-67.01)	-0.95 (-1.1 - -0.81)
Libya	2607.58(1424.08-4016.71)	8421.59(4750.65-12784.69)	222.97%	105.52(56.45-162.71)	111.71(62.75-169.98)	0.43 (0.29 - 0.57)
Lithuania	8174.33(4620.57-12577.38)	8671.24(4566.15-13206.21)	6.08%	196.45(111.45-300.79)	215.55(115.57-321.45)	0.59 (0.5 - 0.68)
Luxembourg	1150.42(633.11-1783.38)	1686.07(915.4-2688.64)	46.56%	236.47(130.91-365.71)	191.59(104.68-301.08)	-0.73 (-0.8 - -0.66)
Madagascar	5199.38(2809.93-8040.23)	8959.21(5011.98-14128.7)	72.31%	79.98(42.91-122.6)	51.06(27.78-80.26)	-1.51 (-1.77 - -1.25)
Malawi	3283.97(1695.38-5132.49)	6054.71(3159.73-9768.69)	84.37%	70.35(36.33-112.04)	61.83(32.27-100.37)	-0.45 (-0.49 - -0.4)
Malaysia	9223.69(5047.55-13726.76)	20146.25(10975.59-31347.58)	118.42%	74.86(40.67-110)	57.72(31.59-91.07)	-1.02 (-1.15 - -0.89)
Maldives	111.13(63-165.34)	426.63(233.09-688.11)	283.90%	98.82(55.39-146.53)	82.44(45.35-132.37)	-0.73 (-0.87 - -0.58)
Mali	1624.68(802.74-2635.7)	5320.4(2627.37-9043.47)	227.47%	32.07(15.8-52.22)	44.39(21.94-74.88)	1.3 (1.15 - 1.45)
Malta	1115.91(621.42-1687.59)	1398.94(748.65-2214.76)	25.36%	258.29(144.57-389.29)	186.88(101.49-294.89)	-1 (-1.12 - -0.88)
Marshall Islands	20.01(10.09-32.55)	29.46(15.78-47.92)	47.23%	83.55(42.05-132.36)	79.29(41.79-129.46)	-0.18 (-0.2 - -0.17)
Mauritania	653.32(332.69-1041.65)	1097.01(551.9-1837.8)	67.91%	52.28(26.94-83.56)	39.17(19.88-65.85)	-1.12 (-1.23 - -1.01)
Mauritius	747.65(401.1-1136.25)	1092.56(601.08-1755.03)	46.13%	81.92(43.73-122.69)	63.8(35.05-103.42)	-0.67 (-0.78 - -0.55)
Mexico	57086.14(31144.36-89128.19)	92161.54(46514.27-143066.68)	61.44%	105.16(58.05-163.88)	66.53(33.47-103.05)	-1.65 (-1.79 - -1.5)
Micronesia (Federated States of)	87.36(47.11-132.64)	134.19(75.64-214.45)	53.61%	143.35(79.27-221.44)	141.39(79.43-223.96)	0.01 (-0.07 - 0.09)
Monaco	107.75(54.31-171.83)	116.11(60.93-193.53)	7.76%	234.43(118.75-376.37)	193.62(105.34-325.29)	-0.67 (-0.7 - -0.64)
Mongolia	1813.92(994.15-2788.28)	4621.72(2475.8-7042.07)	154.79%	143.48(76.63-222.4)	145.11(77.57-221.43)	0.11 (0.08 - 0.15)
Montenegro	2367.81(1333.84-	3249.66(1807.76-	37.24%	363.97(203.19-	368.35(205.63-	0.14 (0.04 - 0.25)

	3679.48)	4961.21)		565.06)	547.87)	
Morocco	18185.3(9813.41-27418.71)	30389.49(16830.56-49263.81)	67.11%	103.31(54.82-157.91)	77.15(42.73-125.2)	-1.01 (-1.08 - -0.95)
Mozambique	3866.96(1936.94-6319.02)	8346.34(4283.57-13887.39)	115.84%	49.41(24.7-81)	53.34(27.67-86.41)	0.51 (0.13 - 0.89)
Myanmar	27479.1(15162.15-41085.73)	30811.32(16090.05-48120.7)	12.13%	101.19(55.45-151.28)	55.92(29.17-87.1)	-2.19 (-2.32 - -2.07)
Namibia	718.84(355.59-1163.42)	1293.88(656.06-2170.83)	80.00%	91.77(45.17-149.12)	67.11(34.36-112.63)	-1.18 (-1.28 - -1.08)
Nauru	9.69(5.27-14.89)	12.78(7.08-19.34)	31.89%	154.11(84.93-239.44)	147.79(79.95-224.28)	-0.1 (-0.17 - -0.03)
Nepal	30939.59(17456.21-46878.53)	40623.49(23071.59-64459.44)	31.30%	266.77(149.09-405.76)	151.74(86.31-241.36)	-2.06 (-2.3 - -1.82)
Netherlands	45734.45(25706.46-67350.25)	45754.52(23313.85-70051.37)	0.04%	255.6(144.37-375.03)	178.72(90.46-269.91)	-1.09 (-1.17 - -1)
New Zealand	10436.57(5509.02-16009.05)	11310.11(5610.77-17390.81)	8.37%	281.36(149.16-428.28)	172.58(85.61-262.59)	-1.61 (-1.67 - -1.55)
Nicaragua	1656.33(810.98-2945.35)	3337.92(1616.03-5802.65)	101.53%	79.1(39.2-139.26)	55.71(27.22-96.91)	-0.83 (-0.94 - -0.72)
Niger	1089.76(527.59-1836.56)	4100.81(1839.13-7402.23)	276.30%	26.15(12.58-44.44)	35.68(16.48-63.81)	1.06 (1.01 - 1.11)
Nigeria	21556.99(10187.73-38448.37)	27812.92(12735.85-50977.45)	29.02%	40.64(19.02-72.34)	21.23(9.82-38.73)	-2.15 (-2.31 - -1.99)
Niue	1.9(0.98-3.03)	1.74(0.91-2.94)	-8.42%	93.91(48.38-149.5)	86.68(44.48-146.36)	-0.34 (-0.42 - -0.26)
North Macedonia	6371.08(3535.03-9905.43)	8419.92(4567.28-12890.39)	32.16%	307.29(170.96-475.48)	321.92(180-485.59)	0.23 (0.19 - 0.27)
Northern Mariana Islands	44.26(22.08-73.05)	61.64(32.76-102.01)	39.27%	117.68(60.64-194.44)	101.6(54.19-169.63)	-0.54 (-0.59 - -0.49)
Norway	12226.88(7161.66-19043.46)	11509.21(5737.4-18730.07)	-5.87%	239.61(141.51-373.67)	157.74(77.77-255.24)	-1.63 (-1.74 - -1.52)
Oman	1351.87(710.84-2259.76)	3296.14(1700.04-5453.65)	143.82%	102.56(53.1-164.34)	67.27(34.76-111.57)	-1.26 (-1.52 - -1.01)
Pakistan	64285.03(34960.76-101995.11)	115323.39(62105.9-199095.47)	79.39%	102.43(55.55-161.71)	76.17(41.06-128.05)	-0.93 (-1.01 - -0.84)
Palau	11.65(5.84-18.65)	21.29(11.03-35.42)	82.75%	93.99(47.27-150.02)	87.65(45.42-146.23)	-0.35 (-0.42 - -0.28)
Palestine	1285.83(687.2-1964.8)	4456.89(2450.07-6823.45)	246.62%	123.77(65.82-193.14)	123.06(67.57-188.86)	-0.16 (-0.22 - -0.11)
Panama	1342.98(637.83-	1422.77(639.05-	5.94%	76.79(36.44-129.8)	33.33(14.98-57.27)	-3.15 (-3.31 - -

	2287.79)	2451.51)				2.98)
Papua New Guinea	2754.68(1458.56-4241.88)	7630.72(4002.68-11877.78)	177.01%	106.53(54.31-165.83)	97.11(50.78-154.71)	-0.39 (-0.47 - -0.32)
Paraguay	3855.4(2009.12-5926.56)	6763.9(3606.29-11423.27)	75.44%	147.14(76.43-224.39)	113(60.41-191.16)	-1 (-1.09 - -0.9)
Peru	7076.96(3616.31-11987.04)	15286.78(7806.18-25317.81)	116.01%	48.87(25.08-81.76)	41.24(21.07-68.7)	-0.79 (-0.9 - -0.68)
Philippines	48634.5(27215.08-73307.41)	76803.28(39700.93-125344.24)	57.92%	127.55(72.29-192.28)	79.27(40.7-127.94)	-1.61 (-1.78 - -1.44)
Poland	172926.7(96929.01-254946.33)	169266.4(86976.12-253248.7)	-2.12%	389.77(220.31-568.92)	299.76(153.3-448.72)	-0.83 (-0.89 - -0.77)
Portugal	24202.85(12760.92-36996.51)	28918.21(15261.39-43917.11)	19.48%	203.62(107.52-315.23)	193.46(102.14-290.73)	-0.02 (-0.08 - 0.05)
Puerto Rico	2912.76(1431.86-4814.84)	3811.33(1801.44-6222.84)	30.85%	80.62(39.58-134.14)	72.93(35.53-117.15)	-0.36 (-0.39 - -0.33)
Qatar	418.1(227.8-659.53)	3580.85(1860.51-5805.75)	756.46%	102.86(53.44-164.25)	97.29(51.13-158.32)	0.02 (-0.07 - 0.11)
Republic of Korea	72180.4(42033.83-109685.2)	110600.74(58026.82-179107.37)	53.23%	175.17(100.41-267.5)	142.17(74.46-227.5)	-0.71 (-0.76 - -0.66)
Republic of Moldova	6886.44(3833.78-10845.75)	8884.4(4894.73-13748.97)	29.01%	146.7(82.16-230.04)	168.37(92.12-257.84)	0.51 (0.47 - 0.55)
Romania	80745.63(44543.48-125509.71)	75951.85(41380.81-115937.44)	-5.94%	299.15(164.7-462.31)	275.24(153.55-417.81)	-0.46 (-0.54 - -0.38)
Russian Federation	309405.01(167568.36-461280.46)	455074.44(239283.48-683666.28)	47.08%	174.97(94.28-258.07)	211.97(113.61-317.37)	0.91 (0.75 - 1.06)
Rwanda	3443.57(1708.01-5544.18)	7628.4(3793.78-12817.18)	121.53%	98.86(49.47-158.45)	96.61(47.95-166.06)	-0.01 (-0.19 - 0.17)
Saint Kitts and Nevis	15.57(7.38-28.88)	21.67(10.04-41.45)	39.18%	48.54(22.99-88.8)	36.18(16.8-70)	-1.21 (-1.35 - -1.07)
Saint Lucia	70.72(35.1-120.79)	144.94(75.19-269.32)	104.95%	76.02(37.63-130.51)	63.77(33-118.77)	-0.9 (-1.1 - -0.69)
Saint Vincent and the Grenadines	42.77(21.77-71.51)	71.61(36.44-130.36)	67.43%	58.64(29.91-97.55)	51.54(25.73-93.66)	-0.45 (-0.48 - -0.42)
Samoa	142.21(73.31-219.36)	224.6(123.25-351.62)	57.94%	140.35(72.39-216.64)	129.42(70.98-203.79)	-0.53 (-0.65 - -0.4)
San Marino	59.12(32.73-93.95)	94.65(50.39-161.51)	60.10%	228.67(126.83-364.87)	173.98(94.38-296.39)	-1.04 (-1.1 - -0.99)
Sao Tome and Principe	17.06(8.36-29.9)	44.71(21.65-79.61)	162.08%	24.8(12.13-43.09)	28.77(13.86-52.14)	0.53 (0.25 - 0.8)
Saudi Arabia	6302.8(3177.31-10228.23)	28544.18(14698.59-44718.38)	352.88%	61.44(30.99-101.8)	84.24(44.07-133.17)	0.85 (0.7 - 1.01)

Senegal	2467.42(1338.84-3847.77)	3685.19(1808.01-5912.62)	49.35%	60.24(32.54-93.44)	34.32(17.03-55.15)	-2.07 (-2.25 - -1.9)
Serbia	38800.19(22193.99-57739.56)	44664.08(23431.96-67767.93)	15.11%	350.66(200.26-522.97)	349.78(183.69-527.78)	0.03 (-0.06 - 0.12)
Seychelles	44.67(23.37-71.04)	89.71(48.02-148.27)	100.83%	78.16(40.8-123.51)	70.04(36.99-115)	-0.53 (-0.6 - -0.47)
Sierra Leone	2228.67(1185.79-3396.52)	2772.95(1538.12-4450.06)	24.42%	85.68(45.04-130.27)	56.41(31.22-91.43)	-1.37 (-1.43 - -1.31)
Singapore	2713.59(1378.58-4383.39)	6306.78(2978.55-10555.96)	132.41%	87.25(44.14-140.2)	73.59(34.75-124.2)	-0.18 (-0.29 - -0.06)
Slovakia	15941.48(8739.49-24528.57)	20516.54(11116.37-31933.35)	28.70%	277.47(153.21-422.91)	264.49(145.39-412.6)	-0.01 (-0.06 - 0.04)
Slovenia	6230.77(3331.95-9762.48)	8442.16(4423.86-13294.26)	35.49%	265.58(142.23-412.64)	274.31(146.04-421.68)	0.39 (0.28 - 0.51)
Solomon Islands	232.74(127.8-364)	793.41(433.19-1262.24)	240.90%	125.74(69.16-191.89)	135.42(73.01-217.07)	0.46 (0.35 - 0.56)
Somalia	2191.24(1085.07-3724.51)	4937.93(2485.32-8420.75)	125.35%	53.17(26.65-91.96)	46.89(23.87-78.49)	-0.42 (-0.43 - -0.41)
South Africa	32500.27(18182.07-49368.31)	46748.79(24817.95-72340.33)	43.84%	130.76(71.96-201.06)	78.34(41.03-121.86)	-1.72 (-1.97 - -1.47)
South Sudan	942.47(447.64-1588.34)	2108.63(1038.76-3599)	123.73%	32.61(15.81-55.02)	37.16(18.39-63.87)	0.66 (0.57 - 0.75)
Spain	88328.91(49498.02-129044.75)	111501.57(57539.21-170912.95)	26.23%	199.51(111.97-288.91)	160.6(82.97-242.21)	-0.34 (-0.47 - -0.2)
Sri Lanka	9457.7(5282.52-14661.83)	9619.5(4729.87-15126.56)	1.71%	71.19(38.82-108.7)	36.92(18.16-57.44)	-2.12 (-2.17 - -2.08)
Sudan	6222.11(3080.71-10236.7)	15605(7890.81-26915.82)	150.80%	52.54(26.18-84.63)	55.01(27.92-94.79)	0.13 (-0.03 - 0.29)
Suriname	309.47(169.07-498.27)	545.96(286.04-942.11)	76.42%	104.41(57.08-167.71)	82.75(43.22-142.58)	-0.89 (-1.04 - -0.73)
Sweden	16104.78(9090.63-25982.68)	22381.6(11259.73-35350.82)	38.97%	137.26(78.62-213.46)	147.96(73.83-236.3)	0.04 (-0.15 - 0.24)
Switzerland	24517.45(13744.72-35690.63)	29131.02(15222.07-45445.15)	18.82%	285.43(160.73-414.34)	227(120.69-349.47)	-0.63 (-0.75 - -0.51)
Syrian Arab Republic	9546.84(4937.44-14900.08)	20374.72(10815.79-31167.16)	113.42%	142.21(73.4-218.71)	118.59(62.44-182.58)	-0.63 (-0.73 - -0.53)
Taiwan	23064.82(12376.45-33929.57)	41612.61(22053.62-63596.86)	80.42%	123.11(65.95-183.16)	119.29(64.05-181.8)	-0.04 (-0.18 - 0.1)
Tajikistan	3605.48(1919.91-5638.18)	5431.07(2803.95-9518.38)	50.63%	112.97(60.73-174.24)	67.79(34.85-119.08)	-1.67 (-1.74 - -1.59)
Thailand	35625.41(20478.54-53661.89)	55742.2(29891.59-86368.84)	56.47%	80.35(44.82-122.32)	56.69(30.29-86.99)	-1.07 (-1.22 - -0.92)

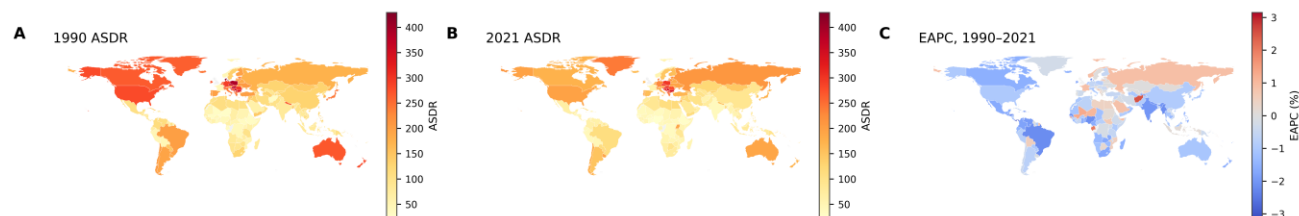
Timor-Leste	365.56(202.25-550.9)	673.51(381.99-1007.7)	84.24%	83.16(45.48-128.68)	70.04(39.41-104.99)	-0.6 (-0.63 - -0.58)
Togo	1079.94(538.38-1753.42)	2129.95(1025.46-3853.45)	97.23%	63.98(31.74-104.1)	38.84(18.78-69.99)	-1.83 (-2.19 - -1.47)
Tokelau	1.93(1.05-3.02)	2.43(1.39-3.89)	25.91%	147(81.04-231.1)	149.95(85.68-239.46)	0.14 (0.08 - 0.2)
Tonga	81.69(44.53-129.32)	90.98(49.03-142.54)	11.37%	131.43(70.96-207.53)	104.77(56.33-164.35)	-0.85 (-0.9 - -0.81)
Trinidad and Tobago	834.2(442.75-1376.25)	1500.6(784.83-2573.33)	79.88%	86.61(45.93-142.15)	82.28(42.71-141.21)	-0.05 (-0.09 - -0.01)
Tunisia	7359.79(3996.12-10903.49)	15958.13(8915.07-24538.98)	116.83%	126.02(68.15-188.16)	114.03(63.74-175.76)	-0.31 (-0.36 - -0.26)
Turkmenistan	3147.62(1709.01-4847.26)	5201.36(2852.67-8598.25)	65.25%	132.48(72.83-201.88)	99.74(54.98-164.86)	-1.04 (-1.23 - -0.85)
Tuvalu	8.32(4.08-13.22)	10.41(5.69-16.37)	25.12%	105.84(52.73-168.02)	103.95(57.53-164.62)	-0.05 (-0.11 - 0)
Türkiye	87115.59(49185.1-127588.46)	165497.52(91174.38-254759.75)	89.97%	200.61(113.15-295.4)	168.62(93.18-258.76)	-0.54 (-0.64 - -0.45)
Uganda	4004.82(2037.62-6549.7)	9898.65(4982.76-16123.29)	147.17%	50.16(25.42-82.06)	49(23.8-80.31)	-0.25 (-0.5 - 0.01)
Ukraine	132005.45(75147.21-201058.99)	119848.76(62323.52-180934.15)	-9.21%	206.16(116.67-316)	194(100.6-292.78)	-0.03 (-0.24 - 0.18)
United Arab Emirates	1514.5(737.9-2386.82)	9709.62(4989.17-16057.16)	541.11%	87.68(42.17-137.89)	60.21(31.34-103.02)	-1.28 (-1.46 - -1.1)
United Kingdom	192241.81(104980.38-281028.66)	182614.44(96843.97-275922.71)	-5.01%	271.98(149.27-392.46)	193.18(107.36-287.72)	-0.97 (-1.06 - -0.87)
United Republic of Tanzania	13501.73(7212.17-20945.56)	31867.59(17096.08-50462.75)	136.03%	99.53(53.66-152.61)	87.94(47.08-138.4)	-0.53 (-0.61 - -0.45)
United States Virgin Islands	65.51(32.88-109)	62.66(31.11-101.29)	-4.35%	62.03(31.24-101.78)	45.91(22.58-74.66)	-1.01 (-1.21 - -0.82)
United States of America	801191.01(430182.11-1169862.43)	856993.14(420048.99-1293736.78)	6.96%	280.92(151.62-407.82)	196.16(95.94-290.47)	-0.97 (-1.03 - -0.91)
Uruguay	6412.33(3460.61-10028.86)	7987.97(4356.21-12160.7)	24.57%	191.56(104.37-301.41)	193.23(104.31-294.9)	-0.11 (-0.22 - -0.01)
Uzbekistan	11861.09(6357.79-18122.58)	29693.73(15793.46-49049.17)	150.35%	90.95(48.14-140.3)	88.47(46.66-144.52)	0.07 (-0.14 - 0.28)
Vanuatu	80.66(41.29-127.03)	163.71(83.98-271.01)	102.96%	92.43(47.31-142.07)	69.82(35.97-116.09)	-1.2 (-1.31 - -1.08)
Venezuela (Bolivarian Republic of)	14399.03(7222.8-24198.75)	19636.58(8767.21-34318.43)	36.37%	112.28(57.48-188.25)	61.52(27.4-107.57)	-1.95 (-2.09 - -1.81)
Viet Nam	40435.18(23258.23-61069.4)	89544.98(47959.08-132577.83)	121.45%	91.52(52.28-137.77)	77.86(41.8-115.39)	-0.55 (-0.6 - -0.51)
Yemen	9781.46(5151.22-	24786.5(12165.11-	153.40%	142.21(74.87-217.99)	113.96(55.76-188.18)	-0.92 (-1.02 - -

	15318.26)	40371.49)				0.82)
Zambia	2406.69(1180.83- 3778.56)	4359.29(2338.76- 7125.29)	81.13%	70.79(34.44-113.59)	48.48(24.9-78.66)	-1.68 (-1.85 - -1.5)
Zimbabwe	5078.69(2655.48- 7684.59)	6611.83(3392.2- 10307.07)	30.19%	101.01(52.47-154.19)	67.97(35.42-105.14)	-1.35 (-1.4 - -1.3)

Note: DALY = disability-adjusted life year; ASDR = age-standardized DALY rate per 100,000 population; SDI = Socio-demographic Index; GBD = Global Burden of Disease; UI = uncertainty interval; CI = confidence interval; EAPC = estimated annual percentage change. Values are for both sexes combined.

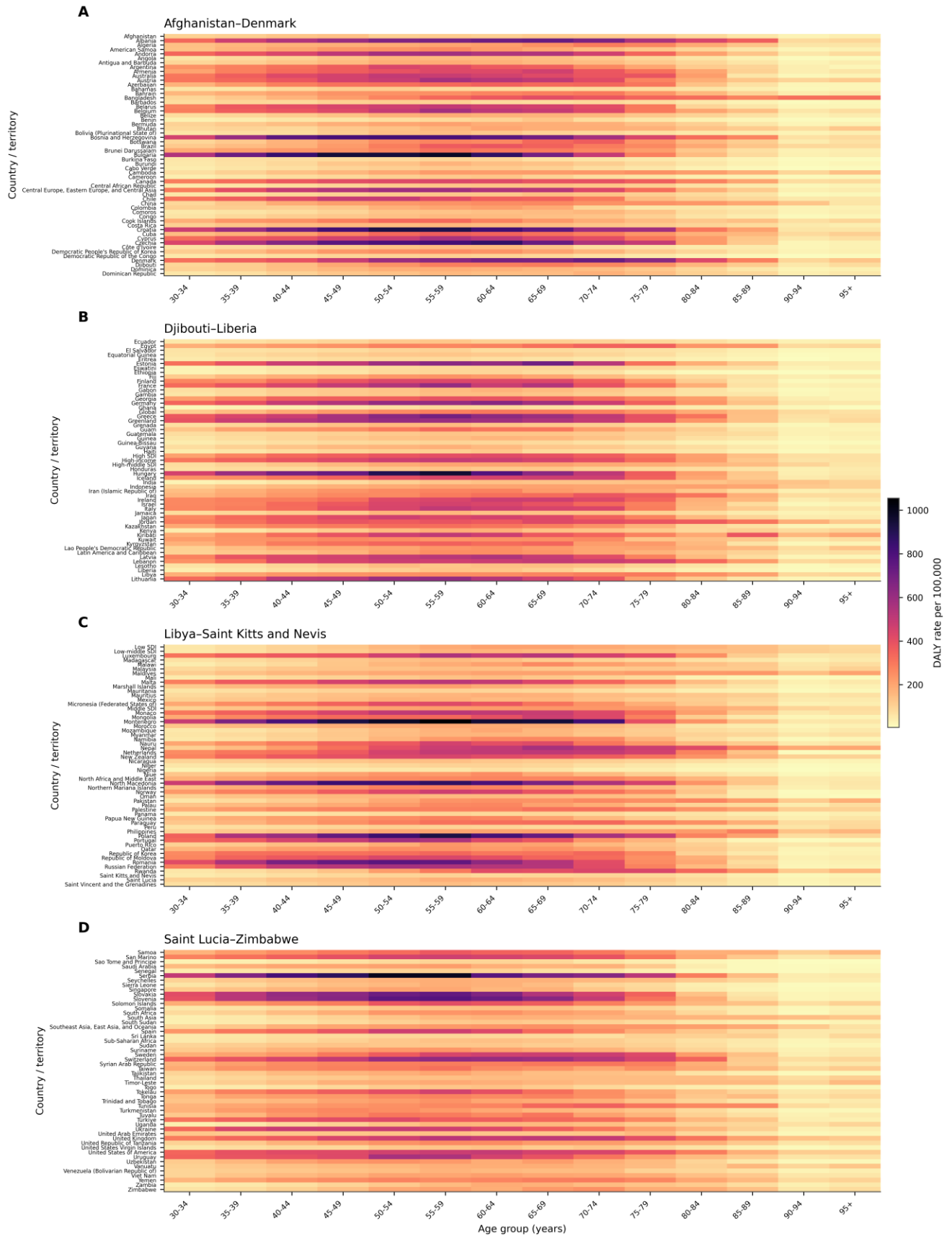
Supplementary Figures S1-S9

Supplementary Figure S1. Geographic distribution of age-standardized DALY rates and EAPC for smoking-attributable musculoskeletal disorders in a secondary dataset analysis of GBD 2021 estimates, 1990-2021



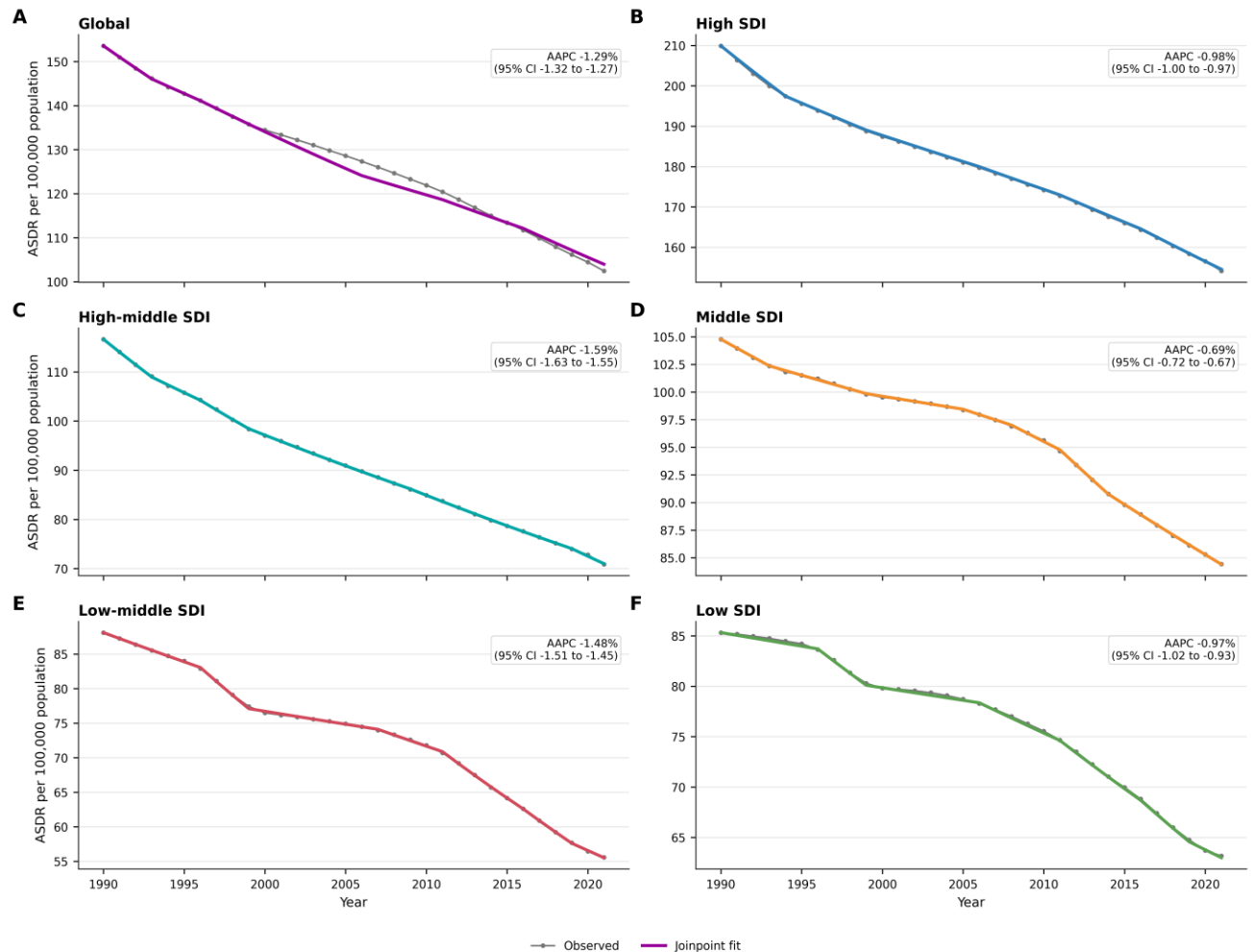
Note: Panel A shows 1990 ASDR, Panel B shows 2021 ASDR, and Panel C shows EAPC in ASDR from 1990 to 2021. ASDR = age-standardized DALY rate per 100,000 population; DALY = disability-adjusted life year; EAPC = estimated annual percentage change; GBD = Global Burden of Disease.

Supplementary Figure S2. Country-age heat map of DALY rates for smoking-attributable musculoskeletal disorders across 204 countries and territories in a secondary dataset analysis of GBD 2021 estimates, 2021



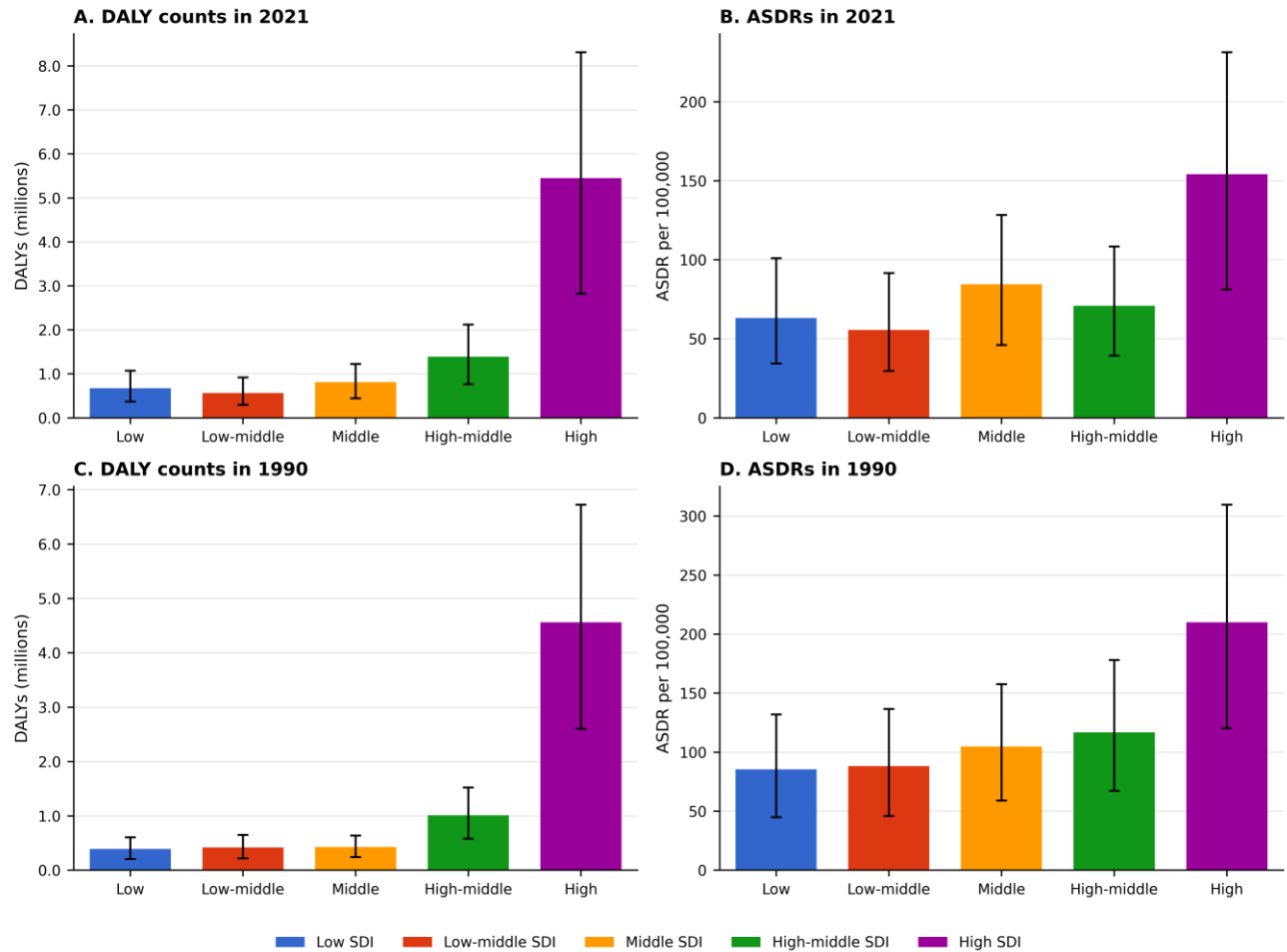
Note: Heat maps display DALY rates per 100,000 population across age groups. Panels divide countries alphabetically for readability. DALY = disability-adjusted life year; GBD = Global Burden of Disease.

Supplementary Figure S3. Complete joinpoint regression panels for global and SDI-specific ASDRs for smoking-attributable musculoskeletal disorders in a secondary dataset analysis of GBD 2021 estimates, 1990-2021



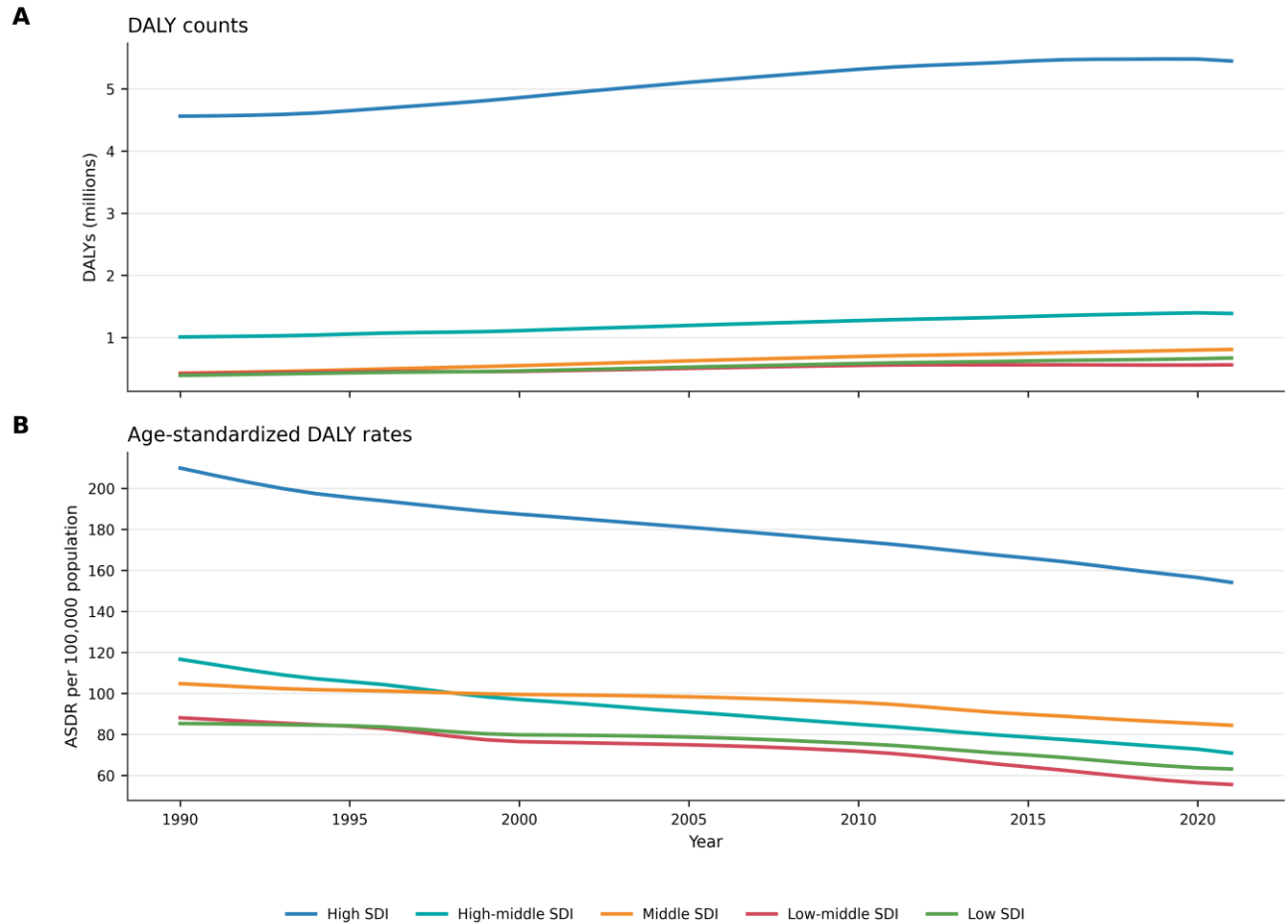
Note: Panels show observed ASDRs and joinpoint-fitted trends. ASDR = age-standardized DALY rate per 100,000 population; SDI = Socio-demographic Index; GBD = Global Burden of Disease.

Supplementary Figure S4. SDI-stratified burden indicators for smoking-attributable musculoskeletal disorders in a secondary dataset analysis of GBD 2021 estimates, 1990 and 2021



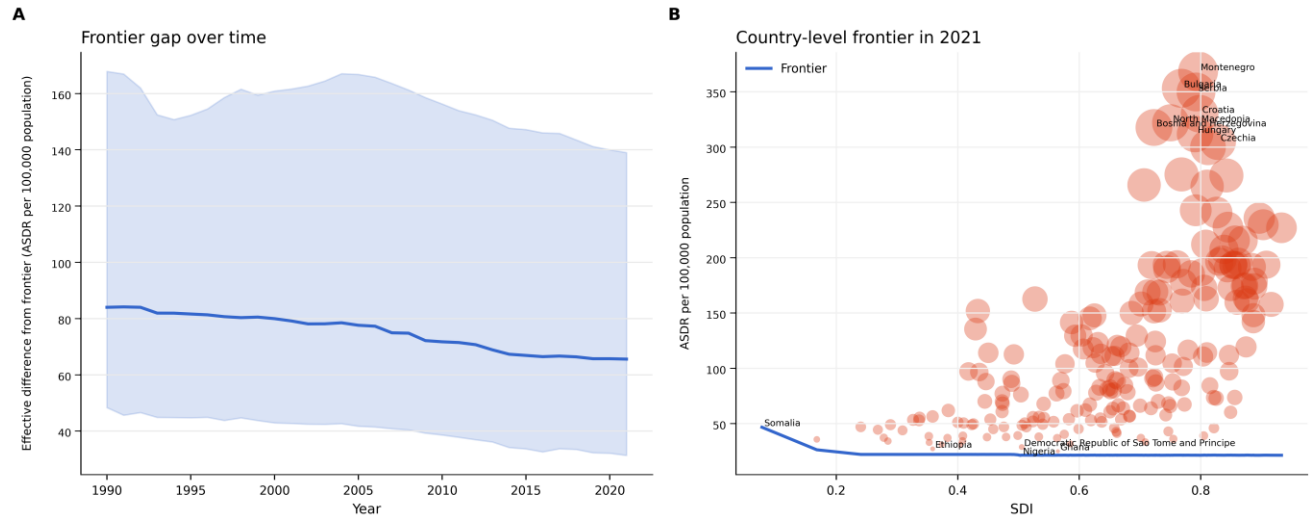
Note: Panels show DALY counts and ASDRs with 95% uncertainty intervals. DALY = disability-adjusted life year; ASDR = age-standardized DALY rate per 100,000 population; SDI = Socio-demographic Index; GBD = Global Burden of Disease; UI = uncertainty interval.

Supplementary Figure S5. Temporal trends in smoking-attributable musculoskeletal disorder burden by SDI quintile in a secondary dataset analysis of GBD 2021 estimates, 1990-2021



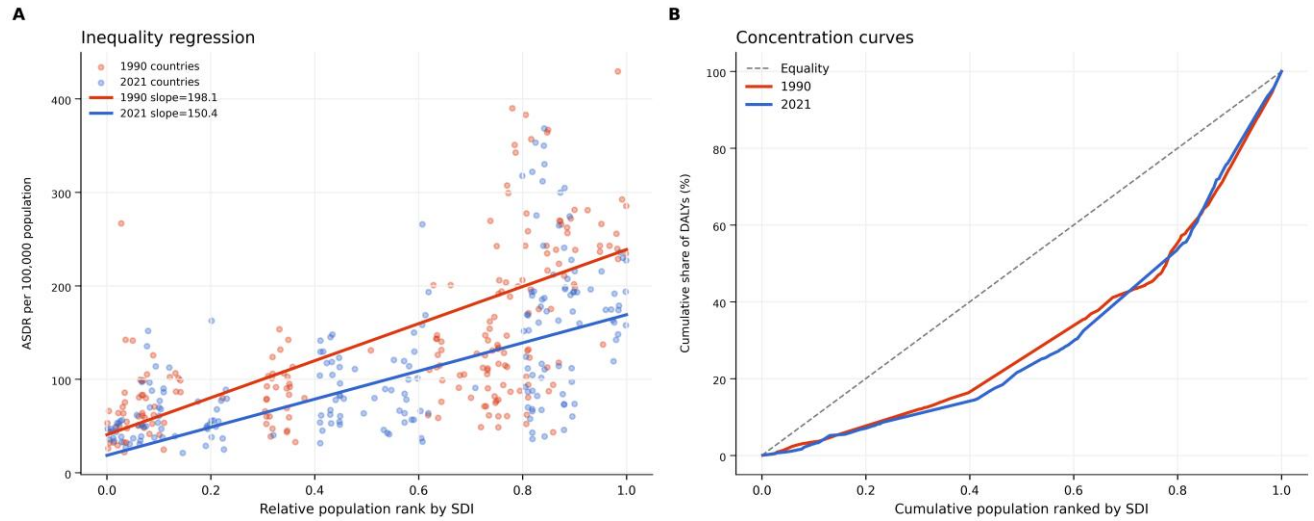
Note: Panel A shows DALY counts in millions. Panel B shows ASDRs per 100,000 population. DALY = disability-adjusted life year; ASDR = age-standardized DALY rate; SDI = Socio-demographic Index; GBD = Global Burden of Disease.

Supplementary Figure S6. Frontier analysis of smoking-attributable musculoskeletal disorder burden across countries and territories in a secondary dataset analysis of GBD 2021 estimates, 1990-2021



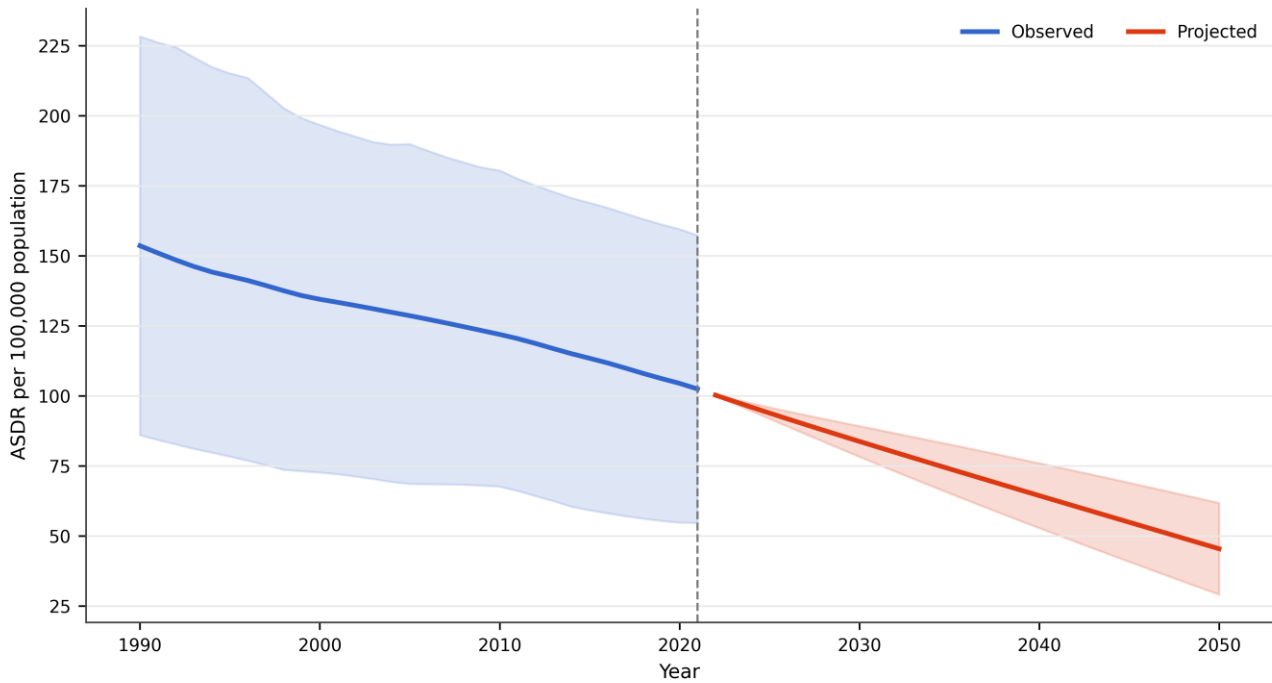
Note: Panel A shows the median effective difference from the frontier, expressed as ASDR per 100,000 population, with interquartile range. Panel B shows the 2021 frontier curve and country-level ASDRs per 100,000 population. ASDR = age-standardized DALY rate; DALY = disability-adjusted life year; GBD = Global Burden of Disease.

Supplementary Figure S7. SDI-related health inequality in smoking-attributable musculoskeletal disorder burden in a secondary dataset analysis of GBD 2021 estimates, 1990 and 2021



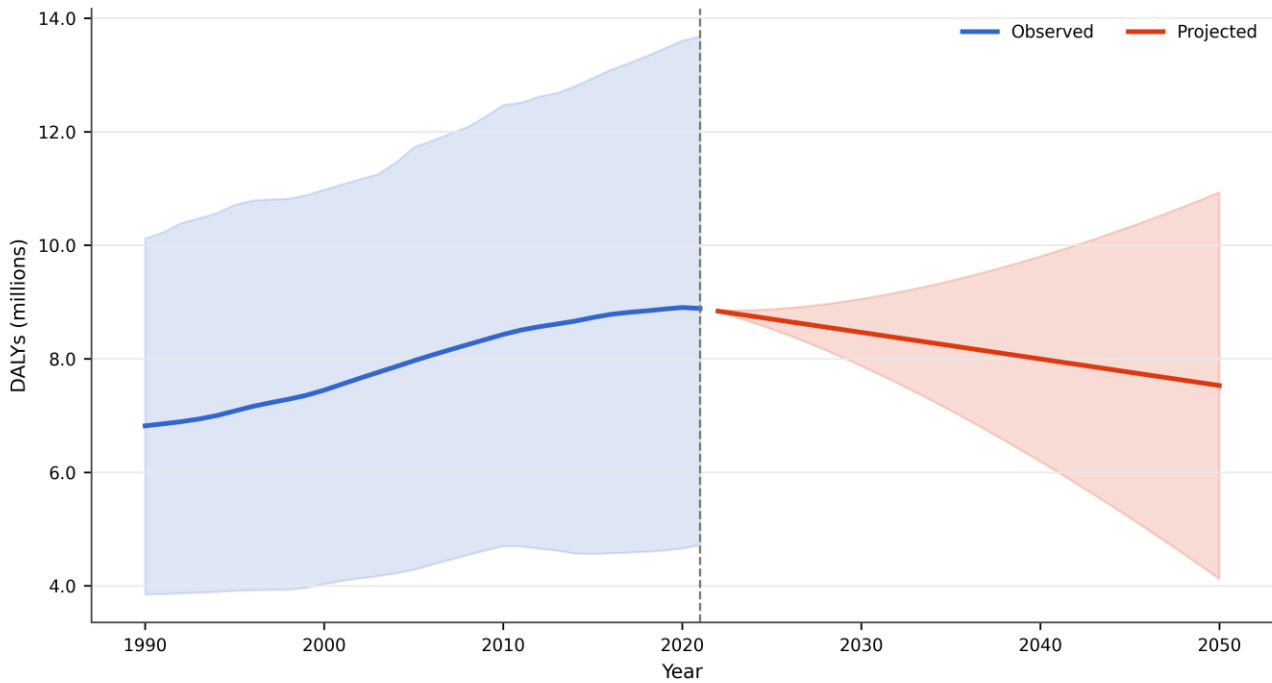
Note: Panel A shows regression-based inequality in ASDRs per 100,000 population across the SDI distribution. Panel B shows concentration curves for DALY counts ranked by SDI, with the y-axis expressed as cumulative share of DALYs (%). DALY = disability-adjusted life year; ASDR = age-standardized DALY rate; SDI = Socio-demographic Index; GBD = Global Burden of Disease.

Supplementary Figure S8. Global observed and projected age-standardized DALY rates for smoking-attributable musculoskeletal disorders in a secondary dataset analysis of GBD 2021 estimates, 1990-2050



Note: The blue line shows observed ASDRs for 1990-2021, and the red line shows ARIMA-based exploratory projections for 2022-2050. Shaded areas indicate 95% uncertainty intervals. ASDR = age-standardized DALY rate per 100,000 population; DALY = disability-adjusted life year; ARIMA = autoregressive integrated moving average; GBD = Global Burden of Disease.

Supplementary Figure S9. Global observed and projected DALY counts for smoking-attributable musculoskeletal disorders in a secondary dataset analysis of GBD 2021 estimates, 1990-2050



Note: The blue line shows observed DALY counts for 1990-2021, and the red line shows ARIMA-based exploratory projections for 2022-2050. Shaded areas indicate 95% uncertainty intervals. DALY = disability-adjusted life year; ARIMA = autoregressive integrated moving average; GBD = Global Burden of Disease.