

SUPPLEMENTARY DATA

Details on handling of uncertainty

As mentioned in the article, confidence intervals for cost estimates reflect the sampling error underlying the prevalence and mortality data used to project the future number of individuals and deaths due to diabetes. While additional assumptions for the calculation of excess costs per patient were introduced, we did not aim to incorporate these in the confidence intervals in order to ensure that confidence intervals can be easily interpreted in line with standard sampling theory. As we made use of age-, sex-, and location-specific (i.e. rural vs. urban) prevalence and age- and sex-specific mortality data – and consequently age- and sex-specific (and location-specific) confidence intervals – it was necessary to first aggregate standard errors across these strata in order to be able to calculate aggregate country-level as well as global-level confidence intervals. Since the exact correlation structure between strata was unknown, we aggregated standard errors within countries with a correlation coefficient of one and across countries with a correlation coefficient of zero. The rationale for this assumption was that random shocks within countries are likely to affect all strata in a similar manner while it is unlikely that shocks across countries stand in any relation to each other.

Supplementary Table S1. Projected per capita GDP, adult diabetes prevalence and number of deaths by country

Country	2015			Projections for 2030						
	GDP p.c.	Prevalence (20 – 79)	#deaths (20 – 65)	GDP p.c.	All scenarios	Baseline scenario	Past-trends scenario	Target scenario	Prevalence (20 – 79)	#deaths (20 – 65)
					Prevalence (20 – 79)	#deaths (20 – 65)	Prevalence (20 – 79)	#deaths (20 – 65)		
Afghanistan	605.75	6.5	16460	706.03	6.9	28389	8.3	34105	6.3	18926
Albania	3932.22	12.0	1120	6113.98	13.7	1210	17.0	1185	13.1	806
Algeria	4154.12	6.8	8496	4859.34	8.1	12566	9.5	12623	8.0	8377
Angola	4114.87	3.3	5465	5293.91	3.5	9188	4.4	10844	3.3	6126
Antigua and Barbuda	14764.49	13.7	63	18602.89	16.0	85	17.0	76	16.4	56
Argentina	13467.42	6.2	9704	17756.61	6.7	12313	7.1	11319	6.7	8208
Armenia	3489.13	7.2	1136	5114.64	8.2	1214	10.3	1246	7.9	809

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Australia	5613 0.20	6.3	2312	7792 6.42	6.9	2680	6.7	1937	6.7	1786
Austria	4411 7.69	9.5	1390	5798 6.61	11.0	1657	12.3	1278	11.0	1105
Azerbaijan	5441. 31	6.3	2819	8146. 70	8.0	3746	10.1	3798	7.7	2497
Bahamas, The	2281 8.47	13.3	247	2640 5.80	15.1	303	16.1	276	15.5	202
Bahrain	2260 0.21	15.6	604	2846 0.37	19.6	989	21.7	863	20.1	659
Bangladesh	1211. 70	7.4	96319	2109. 05	8.8	14911 4	11.0	16542 0	8.5	99410
Barbados	1555 7.94	17.0	156	1887 0.98	19.2	161	20.5	148	19.6	108
Belarus	5945. 22	6.5	3514	7788. 28	7.6	3371	9.5	3370	7.3	2247
Belgium	4026 7.60	6.7	1594	5246 5.05	7.4	1700	8.3	1293	7.2	1134
Belize	4850. 01	14.2	227	5773. 51	15.6	373	17.9	399	15.9	249
Benin	762.0 5	0.6	464	934.3 7	0.7	767	0.8	851	0.7	511
Bhutan	2656. 00	7.9	124	5110. 79	10.0	197	12.6	224	8.4	132
Bolivia	3077. 03	6.5	3054	4177. 60	7.1	4551	8.2	4927	6.8	3034
Bosnia and Herzego.	4244. 63	12.3	1210	6343. 67	14.3	1185	17.8	1172	13.9	790
Botswana	6378. 21	4.0	1200	8364. 55	5.1	1850	6.3	2206	5.0	1233
Brazil	8677. 77	10.2	77569	1168 6.41	12.2	10394 3	14.1	11418 0	11.3	69295
Brunei	3055 4.73	12.9	206	2827 7.77	15.3	330	14.9	243	15.9	220
Darussala m	7021. 06	8.3	2656	1018 7.71	9.2	2413	11.5	2414	8.7	1609
Bulgaria	615.7 6	1.8	2914	763.6 8	1.8	4920	2.2	5357	1.8	3280
Burkina Faso	277.0 7	2.3	2691	322.1 2	2.9	4532	3.4	4872	2.8	3021
Burundi	3024. 56	1.9	45	4676. 42	2.3	75	2.9	89	2.3	50
Cabo Verde	1158. 69	2.6	4286	2148. 73	3.0	6233	3.6	6907	2.9	4155
Cambodia	1217. 26	5.2	13179	1472. 54	5.8	21397	7.2	25200	5.6	14264
Cameroon	4320	9.5	7458	5214	10.5	7968	10.8	7326	11.1	5312
Canada										

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	5.64			6.65						
Central African Rep.	323.20	5.2	3276	240.64	5.7	5103	6.8	5501	5.5	3402
Chad	775.70	4.5	6345	908.67	4.6	11073	5.5	11944	4.4	7382
Chile	13512.15	11.0	4609	23087.48	12.7	5962	13.5	5518	12.9	3975
China	8040.90	10.6	799224	15431.34	13.1	979653	15.7	1106080	13.4	653102
Colombia	6044.53	9.6	11466	8640.87	11.6	15429	13.5	16902	10.9	10286
Comoros	717.45	7.5	232	631.42	8.4	383	10.1	431	8.0	255
Congo, Dem. Rep.	468.36	5.3	27866	559.80	5.5	46995	6.6	50873	5.0	31330
Congo, Rep.	1851.20	6.0	2386	2055.42	6.3	3749	7.9	4434	6.0	2499
Costa Rica	11406.37	8.6	900	16649.75	10.3	1208	11.9	1332	10.0	805
Cote d'Ivoire	1446.09	1.9	4030	1759.70	1.9	6199	2.4	7332	1.9	4132
Croatia	11479.41	6.8	912	14098.72	7.2	850	8.0	654	7.1	567
Cuba	7650.23	12.1	3942	9838.01	14.4	4679	16.8	5186	14.1	3120
Cyprus	16785.33	10.4	197	20511.63	11.9	246	13.5	197	12.5	164
Czech Republic	17561.71	9.9	3319	29075.30	11.3	3413	12.6	2680	11.0	2275
Denmark	53149.32	9.8	1340	66286.59	10.2	1378	11.5	1053	9.9	918
Djibouti	1945.12	7.4	514	2439.18	8.3	754	9.6	732	8.0	503
Dominican Republic	6468.47	8.1	4331	10636.23	9.1	5560	10.6	6070	9.0	3707
Ecuador	6205.06	8.5	4951	7547.93	9.6	7030	11.1	7667	9.3	4687
Egypt, Arab Rep.	3635.72	14.9	50072	5250.75	16.9	73327	19.7	74901	15.9	48885
El Salvador	4252.34	8.8	1879	6237.04	9.7	2394	11.2	2609	9.2	1596
Equatorial Guinea	14392.02	7.0	499	16690.37	7.0	752	8.7	890	7.0	502
Eritrea	817.99	3.0	1030	958.52	3.8	1722	4.6	1870	3.6	1148
Estonia	17111.98	6.0	278	28238.78	6.8	272	7.5	209	6.9	182
Ethiopia	648.6	2.9	19578	1147.	3.5	33567	4.2	36354	3.3	22378

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	0			27						
Fiji	4921. 92	13.4	884	6260. 72	14.8	1038	17.5	1157	14.6	692
Finland	4222 1.04	9.0	1117	5844 4.76	9.5	1008	10.7	792	9.3	672
France	3779 0.96	7.4	11589	5171 8.95	7.9	11570	8.8	9170	7.3	7713
Gabon	8266. 45	6.8	797	9005. 45	7.3	1239	9.1	1467	7.2	826
Gambia, The	471.5 4	1.6	166	465.9 1	1.7	286	2.0	317	1.6	191
Georgia	3498. 55	7.5	1300	4763. 55	8.9	1461	11.2	1434	7.9	974
Germany	4168 6.21	10.6	16381	4920 3.70	11.9	17558	13.4	13645	10.8	11706
Ghana	1369. 70	1.9	4084	1862. 11	2.1	6245	2.6	7420	2.0	4163
Greece	1778 7.95	7.5	1451	3077 1.37	8.6	1586	9.5	1220	8.5	1058
Grenada	9212. 02	10.3	53	1215 6.75	12.1	71	14.0	76	12.3	47
Guatemala	3901. 85	9.1	6018	4709. 80	9.8	9784	11.3	10593	9.4	6523
Guinea	531.3 2	1.9	1599	616.0 7	1.9	2538	2.3	2785	1.8	1692
Guinea- Bissau	572.9 9	1.9	325	641.5 3	2.0	500	2.4	548	1.9	333
Guyana	4144. 40	11.2	657	5568. 30	11.8	749	13.6	825	11.9	500
Haiti	814.5 5	5.6	4404	980.3 1	6.5	6532	6.9	6236	6.4	4354
Honduras	2581. 32	7.4	1600	3244. 33	8.6	2583	9.9	2817	8.1	1722
Hungary	1235 0.58	9.3	4440	1729 2.70	10.3	4513	11.6	3595	10.1	3009
Iceland	5094 8.52	7.5	40	6117 1.50	8.8	45	9.9	34	8.8	30
India	1610. 73	8.7	69654 7	3247. 48	9.9	96382 4	12.5	10945 15	9.7	642549
Indonesia	3343. 86	6.2	14064 3	6443. 75	7.1	19646 3	8.4	21624 2	6.6	130975
Iran, Islamic Rep.	4973. 32	8.5	21899	6185. 87	11.6	35607	13.5	36248	11.1	23738
Iraq	4932. 00	7.2	11613	5661. 42	8.0	20339	9.3	20299	7.5	13559

SUPPLEMENTARY DATA

2015

Projections for 2030

Country	2015			Projections for 2030						
	GDP p.c.	Prevalence (20 – 79)	#deaths (20 – 65)	All scenarios GDP p.c.	Baseline scenario Prevalence (20 – 79)	Baseline scenario #deaths (20 – 65)	Past-trends scenario Prevalence (20 – 79)	Past-trends scenario #deaths (20 – 65)	Target scenario Prevalence (20 – 79)	Target scenario #deaths (20 – 65)
Ireland	6051 3.63	5.3	456	8424 7.24	6.0	562	6.7	432	5.9	375
Israel	3712 9.76	8.5	944	4715 3.54	9.3	1165	10.5	1088	9.3	776
Italy	3051 7.94	7.8	6526	4169 8.45	9.0	7229	10.1	5561	9.1	4820
Jamaica	5105. 72	11.3	1147	6053. 25	13.5	1422	15.7	1545	12.8	948
Japan	3462 8.71	7.6	31471	4285 6.09	8.0	29869	7.8	22863	7.6	19913
Jordan	4940. 05	9.1	1981	6137. 05	11.0	3430	12.8	3512	11.6	2287
Kazakhstan	1046 1.62	6.2	6544	1411 4.52	7.3	8384	9.1	8569	6.9	5590
Kenya	1384. 74	2.2	8701	1677. 90	2.5	14070	3.1	16425	2.4	9380
Kiribati	1424. 28	16.3	99	1430. 30	18.0	138	21.3	154	17.9	92
Korea, Rep.	2749 3.92	8.7	17822	4012 3.30	11.1	21346	10.8	16293	10.7	14230
Kuwait	2930 0.58	14.3	697	3244 9.89	18.8	1289	20.9	1164	20.5	859
Kyrgyz Republic	1124. 28	5.1	1587	1328. 19	6.5	2293	8.1	2339	6.1	1529
Lao PDR	2115. 59	2.9	2232	4066. 80	3.6	3539	4.3	3878	3.5	2359
Latvia	1371 5.30	7.3	538	1868 9.22	7.9	519	8.7	398	7.5	346
Lebanon	8047. 65	12.2	2674	1087 7.08	15.4	3343	18.2	3477	15.0	2229
Lesotho	1093. 76	2.9	1373	1571. 57	3.2	1963	4.1	2307	3.0	1309
Liberia	451.6	1.9	647	535.4	2.0	1035	2.3	1138	1.8	690

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	5			1						
Libya	6644.11	9.2	1703	5312.44	11.2	2851	13.1	2907	11.8	1901
Lithuania	14383.67	5.4	797	21264.90	6.0	766	6.6	590	5.9	511
Luxembourg	102357.99	5.7	65	134724.47	6.6	86	7.3	67	6.6	57
Macedonia, FYR	4836.13	12.0	830	6579.28	13.9	909	17.2	898	13.7	606
Madagascar	401.84	3.3	4358	420.15	3.6	7327	4.3	8093	3.4	4885
Malawi	370.21	2.7	7297	427.87	2.9	13543	3.5	14588	2.8	9029
Malaysia	9768.33	16.6	23991	15439.58	19.2	34593	22.8	38860	18.3	23062
Maldives	9446.39	7.5	44	17082.60	9.5	81	12.0	94	9.3	54
Mali	724.26	1.8	1983	957.29	1.8	3349	2.2	3652	1.7	2233
Malta	24570.68	13.9	102	35562.58	14.9	101	16.8	93	14.6	67
Mauritania	1190.94	2.0	493	1416.17	2.1	776	2.6	924	2.0	517
Mauritius	9175.03	24.2	1604	15833.97	26.8	1792	33.2	2164	25.3	1195
Mexico	9062.06	14.7	50500	11915.30	17.0	75201	19.6	82873	16.6	50134
Micronesia, Fed. Sts.	3015.23	13.6	73	3361.02	14.2	82	16.9	91	14.0	55
Moldova	1600.65	7.7	1766	2053.94	9.3	1839	11.6	1834	9.4	1226
Mongolia	3967.83	5.1	2087	7024.62	5.8	2905	6.9	3292	5.5	1936
Montenegro	6423.80	12.8	264	8381.77	13.9	267	17.2	263	13.6	178
Morocco	2926.14	7.7	5876	4313.75	9.1	8233	10.7	8442	9.1	5489
Mozambique	528.93	2.3	9143	761.73	2.4	14491	2.9	15530	2.2	9661
Myanmar	1161.49	6.5	49517	2643.44	7.6	65558	8.9	72190	7.1	43705
Namibia	4673.57	3.5	917	6296.79	4.0	1390	5.0	1638	4.0	926
Nepal	747.48	3.3	7603	1167.08	4.0	10697	4.8	12942	3.8	7131
Netherlands	44332.13	7.9	2408	61778.00	9.0	2477	10.1	1866	9.0	1651
New	3876	9.1	721	4999	9.8	799	9.5	581	10.2	533

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Zealand	8.56			4.29						
Nicaragua	2095.97	7.7	1634	2736.12	9.2	2541	10.7	2779	8.6	1694
Niger	358.96	1.9	2476	415.93	1.8	4186	2.1	4581	1.7	2791
Nigeria	2640.29	1.9	35910	3215.12	1.9	55122	2.4	65195	1.9	36748
Norway	74185.55	7.8	734	92748.66	8.6	834	9.7	642	8.6	556
Oman	15550.86	9.9	836	19952.32	15.4	1542	17.0	1405	15.5	1028
Pakistan	1434.70	6.9	58112	1939.21	7.7	90665	9.7	100910	7.3	60443
Panama	13268.11	9.4	883	21827.40	10.9	1283	12.7	1408	10.3	855
Papua New Guinea	2500.17	12.8	7454	3340.93	13.7	11652	16.3	12829	13.3	7768
Paraguay	4109.37	8.4	1717	5612.39	9.4	2407	10.9	2638	9.0	1605
Peru	6030.34	6.3	5419	8393.28	7.3	7852	8.4	8554	6.8	5235
Philippines	2907.41	6.1	38855	4104.96	6.7	54721	7.9	61303	6.5	36481
Poland	12362.46	7.6	10273	17488.18	8.9	9683	9.9	7506	8.5	6455
Portugal	19235.37	13.6	2836	26950.32	15.3	2911	17.2	2293	15.3	1941
Qatar	73653.39	13.5	417	83967.15	17.5	766	19.4	691	17.7	511
Romania	9098.45	10.6	8763	14519.01	11.8	8595	14.8	8644	11.0	5730
Russian Federation	9521.08	11.1	95049	15409.31	12.7	90235	15.7	90117	12.0	60157
Rwanda	711.57	3.5	4008	994.81	4.8	6669	5.7	7214	4.3	4446
Samoa	4160.77	7.2	106	5071.44	7.6	129	9.1	143	7.6	86
Sao Tome and Princ.	1669.06	1.8	18	1942.19	2.0	30	2.5	36	1.9	20
Saudi Arabia	20743.89	17.6	16578	23767.49	21.3	31416	23.5	27759	21.8	20944
Senegal	899.58	1.8	1468	1020.00	1.9	2536	2.3	2804	1.9	1691
Serbia	4198.45	13.2	4245	5279.53	14.1	3937	17.5	3886	13.9	2625
Seychelles	14903.15	17.4	78	21817.55	22.5	102	28.4	115	22.0	68
Sierra	658.8	1.8	1407	682.8	1.9	2149	2.3	2339	1.8	1433

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Leone	7			7						
	5297	12.8	2275	7164	15.4	2817	14.9	2076	19.1	1878
Singapore	1.89			7.48						
Slovak Republic	1608	9.8	1827	2470	12.4	1923	13.7	1473	12.4	1282
	2.46			6.17						
Slovenia	2068	10.7	554	2925	12.7	575	14.1	443	13.4	383
	9.81			4.79						
Solomon Islands	1934.	13.6	321	2269.	14.6	524	17.4	584	14.0	349
	86			86						
South Africa	5825.	7.0	49647	1087	7.7	61593	9.5	72810	7.4	41062
	00			7.24						
South Sudan	730.5	6.6	4657	652.5	6.8	7536	8.1	8320	6.5	5024
	8			3						
Spain	2586	10.4	8451	3456	12.6	10178	14.0	7992	14.5	6785
	5.38			0.05						
Sri Lanka	3891.	8.5	8506	7400.	9.3	9515	11.8	10872	9.7	6343
	48			51						
St. Lucia	7735.	10.9	70	9748.	12.5	93	14.5	101	13.0	62
	91			69						
St. Vinc. & the Gren.	6739.	11.7	69	8417.	13.7	80	15.8	88	13.9	53
	17			43						
Sudan	2414.	7.7	18320	3277.	8.2	29516	10.3	35010	8.2	19677
	72			26						
Suriname	8985.	12.2	345	1129	13.5	436	15.6	477	13.3	291
	19			0.59						
Swaziland	3215.	2.8	1042	3823.	2.9	1512	3.7	1766	2.9	1008
	02			79						
Sweden	5068	6.3	1085	6826	6.6	1134	7.4	861	6.7	756
	7.47			8.49						
Switzerland	8083	7.7	968	9991	8.7	1138	9.7	860	8.5	759
	1.09			4.21						
Syrian Arab Republic	5152.	7.0	4708	5937.	7.7	9662	9.0	9787	7.3	6441
	43			67						
Tajikistan	925.9	4.5	1304	1113.	5.6	2252	7.1	2265	5.3	1501
	1			69						

2015

Projections for 2030

	Projections for 2030			
	All scenarios	Baseline scenario	Past-trends scenario	Target scenario

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Country	GDP p.c.	Prevalence (20 – 79)	#deaths (20 – 65)	GDP p.c.	Prevalence (20 – 79)	#deaths (20 – 65)	Prevalence (20 – 79)	#deaths (20 – 65)	Prevalence (20 – 79)	#deaths (20 – 65)
Tanzania	853.34	3.5	15303	1174.27	4.4	25367	5.2	27231	4.1	16912
Thailand	5874.61	8.0	56382	9112.93	9.9	62097	11.8	69505	9.5	41398
Timor-Leste	1216.88	6.3	425	1552.12	6.1	552	7.3	609	5.8	368
Togo	559.60	4.0	1906	669.09	4.4	3086	5.2	3369	4.1	2057
Tonga	4101.26	12.6	67	5023.17	12.6	87	14.9	94	12.6	58
Trinidad and Tobago	1732.88	14.5	989	2149.97	16.8	1119	17.8	1020	17.0	746
Tunisia	3834.93	9.5	2915	4901.29	11.5	3931	13.5	4031	10.9	2621
Turkey	1092.48	12.5	24893	1898.72	14.7	34643	18.2	34033	13.4	23096
Turkmenistan	6662.25	5.2	1935	1206.43	6.5	2845	8.1	2894	6.0	1897
Uganda	713.67	2.5	10466	948.39	3.0	19295	3.6	20663	2.9	12864
Ukraine	2030.86	8.0	24256	1986.75	9.0	23378	11.3	23916	9.1	15585
United Arab Emirates	3909.38	14.6	1229	4196.60	19.1	2197	21.2	1979	19.2	1465
United Kingdom	4421.07	6.2	8547	6101.36	6.7	9586	7.5	7368	6.7	6390
United States	5605.38	12.8	119962	7390.57	13.6	123558	13.9	114406	14.0	82372
Uruguay	1552.83	6.9	609	2142.95	7.2	696	7.7	643	7.1	464
Uzbekistan	2238.07	5.2	6783	3382.90	6.7	10177	8.3	10363	6.2	6784
Vanuatu	2805.31	14.4	192	2922.14	16.1	312	19.1	345	15.9	208
Venezuela, RB	1473.71	11.1	10062	1535.65	12.9	14294	14.9	15730	12.0	9529
Vietnam	2067.91	5.6	36962	3990.04	7.1	51858	8.4	58146	6.7	34572
Yemen, Rep.	1406.29	3.8	4431	1513.20	4.4	7538	5.1	7393	4.2	5025

SUPPLEMENTARY DATA

Zambia	1304.88	3.1	7539	1611.64	3.4	13418	4.3	15760	3.3	8945
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Age range in parentheses. GDP per capita presented in 2015 US-\$. Prevalence estimates are percentage of adult population (20 – 79) suffering from diabetes and “#deaths” is the absolute number of people dying due to diabetes.

Supplementary Table S2. Cost projections by country

Country	2015			Projections for 2030					
	Total costs (Billion \$)	Total costs / GDP	Share indirect costs	Baseline scenario		Past-trends scenario		Target scenario	
				Total costs (Billion \$)	Total costs / GDP	Total costs (Billion \$)	Total costs / GDP	Total costs (Billion \$)	Total costs / GDP
Afghanistan	0.25	1.3	46.8	0.53	1.7	0.63	2.0	0.43	1.4
Albania	0.25	2.2	29.5	0.46	2.5	0.56	3.1	0.42	2.3
Algeria	2.59	1.6	21.1	4.62	2.0	5.32	2.3	4.37	1.9
Angola	0.71	0.7	48.6	1.60	0.8	1.95	0.9	1.34	0.6
Antigua and Barbuda	0.02	1.8	67.4	0.04	1.9	0.04	1.9	0.03	1.7
Argentina	3.21	0.5	59.2	5.27	0.6	5.36	0.6	4.83	0.6
Armenia	0.12	1.1	38.6	0.20	1.3	0.24	1.6	0.18	1.2
Australia	10.65	0.8	33.6	17.43	0.8	16.56	0.7	16.32	0.7
Austria	5.43	1.4	26.6	7.73	1.5	8.49	1.7	7.51	1.5
Azerbaijan	0.71	1.3	11.2	1.44	1.6	1.80	2.1	1.35	1.5
Bahamas, The	0.18	2.0	56.8	0.25	2.1	0.26	2.2	0.23	2.0
Bahrain	0.59	1.9	47.1	1.16	2.5	1.23	2.6	1.13	2.4
Bangladesh	1.68	0.9	73.1	4.12	1.0	4.74	1.2	3.27	0.8
Barbados	0.09	2.0	53.1	0.11	2.0	0.12	2.1	0.11	2.0
Belarus	1.03	1.8	24.2	1.43	2.1	1.76	2.5	1.27	1.8
Belgium	4.73	1.0	33.1	6.61	1.0	7.14	1.1	6.25	1.0
Belize	0.04	2.2	33.1	0.07	2.6	0.08	2.9	0.07	2.4
Benin	0.01	0.1	25.1	0.02	0.1	0.02	0.2	0.02	0.1
Bhutan	0.01	0.6	44.5	0.04	0.8	0.04	1.0	0.03	0.6
Bolivia	0.46	1.4	19.9	0.91	1.7	1.05	1.9	0.85	1.5
Bosnia	0.44	2.7	21.0	0.75	3.3	0.93	4.1	0.71	3.1

SUPPLEMENTARY DATA

and

Herzegovina

Botswana	0.13	0.9	47.5	0.25	1.1	0.31	1.3	0.21	0.9
Brazil	57.73	3.2	17.9	106.6	4.0	123.5	4.6	97.14	3.6
Brunei				7		6			
Darussalam	0.20	1.5	75.4	0.26	1.8	0.23	1.6	0.23	1.7
Bulgaria	1.10	2.2	16.7	1.51	2.3	1.86	2.9	1.41	2.2
Burkina Faso	0.03	0.3	40.3	0.07	0.4	0.09	0.4	0.06	0.3
Burundi	0.02	0.6	30.4	0.04	0.7	0.05	0.9	0.04	0.7
Cabo Verde	0.01	0.4	16.7	0.01	0.5	0.02	0.6	0.01	0.5
Cambodia	0.07	0.4	17.9	0.20	0.5	0.24	0.6	0.19	0.5
Cameroon	0.27	1.0	39.0	0.54	1.1	0.67	1.4	0.47	1.0
Canada	24.65	1.6	42.2	33.41	1.6	33.97	1.6	33.38	1.6
Central African Rep.	0.02	1.0	47.4	0.02	1.3	0.02	1.5	0.02	1.1
Chad	0.08	0.8	50.1	0.17	0.9	0.20	1.0	0.14	0.7
Chile	3.85	1.6	48.8	8.12	1.7	8.44	1.8	7.82	1.7
China	222.3	2.0	36.3	533.8	2.4	631.7	2.9	507.2	2.3
	2			5		2		5	
Colombia	7.03	2.4	13.7	14.41	3.1	16.78	3.7	13.35	2.9
Comoros	0.01	1.4	18.6	0.01	1.8	0.01	2.1	0.01	1.6
Congo, Dem. Rep.	0.27	0.7	41.3	0.56	0.8	0.65	1.0	0.46	0.7
Congo, Rep.	0.17	2.0	19.0	0.30	2.2	0.38	2.7	0.28	2.0
Costa Rica	1.19	2.2	19.7	2.48	2.7	2.88	3.2	2.36	2.6
Cote d'Ivoire	0.16	0.5	35.4	0.30	0.5	0.37	0.7	0.27	0.5
Croatia	0.47	1.0	45.8	0.55	1.0	0.57	1.0	0.50	0.9
Cuba	3.08	3.5	14.7	4.48	4.1	5.24	4.7	4.26	3.9
Cyprus	0.29	1.5	30.2	0.45	1.7	0.50	1.9	0.46	1.7
Czech Republic	2.01	1.1	35.1	3.48	1.1	3.72	1.2	3.24	1.1
Denmark	4.94	1.6	35.8	6.30	1.6	6.80	1.7	5.85	1.5
Djibouti	0.04	2.3	22.8	0.07	2.7	0.08	3.0	0.06	2.4
Dominican Republic	0.92	1.3	41.2	1.99	1.5	2.27	1.8	1.78	1.4
Ecuador	2.35	2.3	19.6	4.13	2.8	4.76	3.2	3.88	2.6
Egypt, Arab Rep.	5.38	1.6	37.4	11.47	1.9	12.91	2.1	10.06	1.6
El Salvador	0.44	1.7	25.6	0.79	2.0	0.91	2.3	0.72	1.8
Equatorial Guinea	0.11	0.9	31.1	0.20	1.0	0.25	1.2	0.19	0.9

SUPPLEMENTARY DATA

Eritrea	0.02	0.4	36.1	0.04	0.6	0.05	0.7	0.04	0.5
Estonia	0.16	0.7	40.8	0.26	0.7	0.27	0.8	0.25	0.7
Ethiopia	0.29	0.4	34.2	0.95	0.6	1.10	0.7	0.82	0.5
Fiji	0.10	2.3	54.0	0.15	2.5	0.17	2.9	0.12	2.1
Finland	2.92	1.3	32.2	3.96	1.2	4.31	1.3	3.76	1.1
France	28.60	1.2	29.7	40.58	1.2	43.94	1.2	36.64	1.0
Gabon	0.17	1.2	40.5	0.29	1.4	0.36	1.7	0.25	1.2
Gambia, The	0.00	0.3	20.0	0.01	0.4	0.01	0.4	0.00	0.3
Georgia	0.23	1.6	19.3	0.34	1.8	0.42	2.3	0.29	1.6
Germany	54.99	1.6	30.1	65.70	1.7	71.97	1.8	58.42	1.5
Ghana	0.11	0.3	32.6	0.23	0.3	0.28	0.4	0.20	0.3
Greece	1.50	0.8	36.2	2.64	0.8	2.82	0.9	2.49	0.8
Grenada	0.02	1.8	41.0	0.03	2.3	0.04	2.6	0.03	2.1
Guatemala	0.98	1.5	35.4	1.91	1.9	2.17	2.2	1.70	1.7
Guinea	0.02	0.3	21.9	0.04	0.4	0.05	0.4	0.04	0.3
Guinea- Bissau	0.00	0.4	31.6	0.01	0.5	0.01	0.6	0.01	0.4
Guyana	0.08	2.4	56.8	0.11	2.4	0.12	2.7	0.10	2.1
Haiti	0.12	1.4	27.0	0.23	1.8	0.23	1.9	0.21	1.7
Honduras	0.36	1.7	22.9	0.73	2.3	0.84	2.7	0.67	2.1
Hungary	1.58	1.3	41.7	2.23	1.4	2.33	1.5	2.00	1.2
Iceland	0.19	1.1	37.2	0.28	1.3	0.31	1.4	0.28	1.2
India	22.00	1.0	56.4	60.46	1.2	72.62	1.5	51.41	1.0
Indonesia	6.96	0.8	47.7	17.27	0.9	19.92	1.0	14.42	0.8
Iran, Islamic Rep.	5.43	1.4	20.7	11.44	2.1	13.23	2.4	10.58	1.9
Iraq	2.45	1.4	32.0	4.69	1.5	5.20	1.7	4.06	1.3
Ireland	1.65	0.6	36.3	2.78	0.6	3.00	0.7	2.59	0.6
Israel	2.54	0.8	32.4	4.20	0.9	4.64	1.0	4.11	0.9
Italy	16.29	0.9	29.1	23.15	0.9	25.32	1.0	22.76	0.9
Jamaica	0.26	1.8	39.5	0.39	2.2	0.44	2.5	0.34	2.0

SUPPLEMENTARY DATA

Country	2015			Projections for 2030					
	Total costs (Billion \$)	Total costs / GDP	Share indirect costs	Baseline scenario		Past-trends scenario		Target scenario	
				Total costs (Billion \$)	Total costs / GDP	Total costs (Billion \$)	Total costs / GDP	Total costs (Billion \$)	Total costs / GDP
Japan	38.07	0.9	47.3	43.44	0.8	40.76	0.8	38.78	0.8
Jordan	0.61	1.6	26.2	1.13	2.0	1.28	2.3	1.09	2.0
Kazakhstan	2.04	1.1	31.7	3.44	1.2	4.18	1.5	3.06	1.1
Kenya	0.50	0.8	43.9	1.02	0.9	1.25	1.1	0.88	0.8
Kiribati	0.01	4.1	31.2	0.01	4.6	0.01	5.4	0.01	4.3
Korea, Rep.	17.01	1.2	52.5	28.46	1.4	26.50	1.3	25.48	1.2
Kuwait	1.40	1.2	40.1	2.66	1.6	2.92	1.8	2.82	1.7
Kyrgyz Republic	0.07	1.0	24.9	0.12	1.3	0.15	1.6	0.11	1.1
Lao PDR	0.03	0.2	44.7	0.09	0.3	0.11	0.3	0.08	0.2
Latvia	0.24	0.9	49.7	0.30	0.9	0.31	0.9	0.27	0.8
Lebanon	1.07	2.3	28.0	1.73	3.0	2.01	3.5	1.59	2.8
Lesotho	0.03	1.1	36.2	0.06	1.5	0.07	1.8	0.05	1.2
Liberia	0.01	0.6	20.2	0.02	0.7	0.03	0.8	0.02	0.6
Libya	0.65	1.6	25.6	0.83	2.1	0.96	2.4	0.83	2.1
Lithuania	0.29	0.7	45.1	0.39	0.7	0.40	0.7	0.36	0.6
Luxembourg	0.36	0.6	25.5	0.59	0.7	0.65	0.7	0.58	0.6
Macedonia, FYR	0.22	2.2	22.7	0.36	2.6	0.44	3.2	0.34	2.5
Madagascar	0.04	0.4	34.8	0.07	0.4	0.08	0.5	0.06	0.4
Malawi	0.06	1.0	57.1	0.14	1.2	0.16	1.4	0.11	1.0
Malaysia	7.18	2.4	31.9	16.33	2.9	19.26	3.5	14.57	2.6
Maldives	0.05	1.4	10.0	0.14	1.9	0.18	2.4	0.13	1.8
Mali	0.04	0.3	31.2	0.10	0.4	0.11	0.4	0.08	0.3
Malta	0.16	1.6	28.4	0.24	1.6	0.26	1.7	0.23	1.5
Mauritania	0.02	0.3	37.4	0.03	0.4	0.04	0.5	0.03	0.3
Mauritius	0.29	2.5	33.0	0.58	2.8	0.71	3.4	0.51	2.5
Mexico	35.44	3.1	27.9	66.87	3.8	76.99	4.4	62.52	3.5
Micronesia, Fed. Sts.	0.01	3.7	26.8	0.02	4.8	0.02	5.7	0.02	4.5

SUPPLEMENTARY DATA

Moldova	0.20	3.1	23.1	0.33	4.1	0.40	5.1	0.32	4.0
Mongolia	0.17	1.5	42.3	0.39	1.6	0.46	1.8	0.33	1.3
Montenegro	0.10	2.4	27.1	0.14	2.7	0.17	3.3	0.13	2.5
Morocco	1.16	1.2	24.5	2.40	1.4	2.76	1.6	2.30	1.3
Mozambique	0.16	1.1	43.8	0.39	1.2	0.44	1.4	0.31	1.0
Myanmar	0.51	0.8	69.9	1.49	0.9	1.70	1.1	1.17	0.7
Namibia	0.20	1.7	35.6	0.43	2.1	0.52	2.5	0.38	1.8
Nepal	0.08	0.4	51.1	0.19	0.5	0.24	0.6	0.16	0.4
Netherlands	9.49	1.3	30.5	14.14	1.3	15.46	1.4	13.74	1.3
New Zealand	2.35	1.3	37.8	3.39	1.3	3.21	1.3	3.40	1.3
Nicaragua	0.24	1.9	20.7	0.50	2.6	0.58	3.0	0.45	2.4
Niger	0.02	0.3	31.8	0.04	0.3	0.05	0.3	0.04	0.2
Nigeria	1.12	0.2	17.3	2.17	0.3	2.69	0.3	2.04	0.2
Norway	4.79	1.2	24.9	7.09	1.3	7.80	1.4	6.91	1.3
Oman	0.53	0.8	37.3	1.20	1.1	1.30	1.2	1.17	1.1
Pakistan	1.43	0.5	61.8	2.97	0.6	3.51	0.7	2.47	0.5
Panama	0.94	1.8	17.2	2.17	2.1	2.51	2.4	1.99	1.9
Papua New Guinea	0.26	1.4	36.1	0.51	1.5	0.59	1.7	0.44	1.3
Paraguay	0.67	2.5	12.5	1.34	3.1	1.56	3.5	1.25	2.8
Peru	2.10	1.1	16.3	4.16	1.3	4.79	1.5	3.79	1.2
Philippines	2.88	1.0	35.5	5.56	1.1	6.51	1.3	4.94	1.0
Poland	4.74	1.0	43.0	6.87	1.1	7.24	1.1	6.20	1.0
Portugal	3.50	1.8	35.0	4.87	1.8	5.29	2.0	4.67	1.8
Qatar	1.11	0.7	30.5	2.18	0.9	2.40	1.0	2.18	0.9
Romania	3.24	1.8	30.1	5.15	2.0	6.28	2.5	4.57	1.8
Russian Federation	43.11	3.2	27.2	72.91	3.4	88.67	4.2	64.13	3.0
Rwanda	0.08	0.9	29.1	0.21	1.3	0.25	1.6	0.18	1.1
Samoa	0.01	1.8	48.4	0.02	1.8	0.02	2.1	0.02	1.6
Sao Tome and Princ.	0.00	0.8	12.6	0.00	0.9	0.01	1.1	0.00	0.8
Saudi Arabia	10.75	1.6	44.1	20.24	2.2	21.29	2.3	19.21	2.1
Senegal	0.05	0.3	31.3	0.09	0.4	0.11	0.5	0.09	0.4
Serbia	1.64	4.4	18.2	2.17	5.0	2.68	6.1	2.07	4.7
Seychelles	0.01	1.0	53.4	0.02	1.1	0.03	1.4	0.02	1.0
Sierra Leone	0.06	1.3	52.7	0.09	1.5	0.10	1.7	0.07	1.2
Singapore	3.47	1.2	52.5	5.91	1.3	5.49	1.2	6.73	1.5
Slovak Republic	1.11	1.3	31.7	1.89	1.4	2.01	1.5	1.80	1.4
Slovenia	0.64	1.5	38.5	0.94	1.6	1.00	1.7	0.94	1.6

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Solomon Islands	0.02	1.9	41.2	0.04	2.2	0.04	2.6	0.03	1.9
South Africa	11.74	3.7	49.6	26.24	4.0	31.87	4.9	21.83	3.3
South Sudan	0.10	1.1	55.2	0.14	1.2	0.16	1.4	0.11	1.0
Spain	16.43	1.4	40.0	24.48	1.5	26.33	1.7	27.12	1.7
Sri Lanka	0.88	1.1	75.9	1.83	1.1	2.18	1.4	1.57	1.0
St. Lucia	0.02	1.7	37.7	0.04	1.9	0.04	2.2	0.04	1.9
St. Vinc. & the Gren.	0.02	3.4	28.5	0.04	4.1	0.04	4.7	0.04	3.9
Sudan	1.52	1.6	48.8	3.30	1.8	4.03	2.2	2.87	1.6
Suriname	0.14	2.8	40.4	0.21	3.1	0.24	3.5	0.19	2.8
Swaziland	0.08	1.9	71.6	0.14	2.4	0.16	2.8	0.10	1.8
Sweden	5.19	1.0	25.8	7.25	1.0	7.96	1.1	7.15	1.0
Switzerland	8.58	1.3	35.1	12.15	1.3	13.33	1.4	11.61	1.3
Syrian Arab Republic	0.58	0.6	77.2	1.37	0.8	1.45	0.9	1.07	0.6
Tajikistan	0.07	0.8	9.4	0.13	1.1	0.17	1.4	0.12	1.0
Tanzania	0.32	0.7	20.7	0.82	0.8	0.97	1.0	0.74	0.8
Thailand	6.94	1.7	36.3	12.78	2.1	15.06	2.4	11.35	1.8

Country	2015			Projections for 2030					
	Total costs (Billion \$)	Total costs / GDP	Share indirect costs	Baseline scenario		Past-trends scenario		Target scenario	
				Total costs (Billion \$)	Total costs / GDP	Total costs (Billion \$)	Total costs / GDP	Total costs (Billion \$)	Total costs / GDP
Timor-Leste	0.01	0.9	49.4	0.02	0.9	0.03	1.0	0.02	0.7
Togo	0.03	0.7	25.3	0.06	0.8	0.07	1.0	0.05	0.7
Tonga	0.01	1.7	46.2	0.01	1.9	0.01	2.1	0.01	1.7
Trinidad and Tobago	0.48	2.0	57.9	0.66	2.2	0.67	2.3	0.61	2.1
Tunisia	0.78	1.8	23.5	1.39	2.2	1.61	2.6	1.27	2.0

SUPPLEMENTARY DATA

Turkey	14.35	1.7	21.4	34.20	2.1	41.82	2.5	30.37	1.8
Turkmenistan	0.26	0.7	46.3	0.68	0.9	0.81	1.1	0.57	0.8
Uganda	0.19	0.7	34.7	0.49	0.8	0.57	1.0	0.43	0.7
Ukraine	2.08	2.3	28.9	2.11	2.6	2.58	3.2	1.94	2.4
United Arab Emirates	3.76	1.1	40.4	6.61	1.4	7.27	1.6	6.53	1.4
United Kingdom	23.70	0.8	39.7	35.08	0.8	37.84	0.9	33.94	0.8
United States	475.24	2.6	36.0	668.94	2.5	680.07	2.6	652.59	2.5
Uruguay	0.43	0.8	34.9	0.65	0.8	0.68	0.9	0.62	0.8
Uzbekistan	0.56	0.8	26.8	1.27	1.1	1.57	1.3	1.14	1.0
Vanuatu	0.02	2.2	43.8	0.03	2.6	0.03	3.0	0.02	2.3
Venezuela, RB	9.13	2.0	21.8	13.78	2.4	15.92	2.8	12.49	2.2
Vietnam	2.18	1.1	21.7	6.27	1.5	7.46	1.8	5.70	1.4
Yemen, Rep.	0.24	0.6	38.9	0.51	0.9	0.55	1.0	0.44	0.8
Zambia	0.29	1.4	54.5	0.63	1.6	0.77	1.9	0.52	1.3

Total costs / GDP and share of indirect costs are presented as percentages. Absolute costs are in 2015 US-\$.

Supplementary Table S3. Overview of key results for GBD data

	2015	Projections for 2030		
		Baseline scenario	Past-trends scenario	Target scenario
Prevalence (age group 20–79)	8.6%	9.9%	11.8%	9.7%
	(8.3%–8.9%)	(9.6%–10.3%)	(11.4%–12.2%)	(9.4%–10.1%)
#deaths (age group 20–65)	540,438	772,442	859,721	514,961
	(509,536–579,026)	(727,475–829,504)	(808,939–924,186)	(484,983–553,003)
Total costs (Trillion \$)	1.07	1.81	2.02	1.78
	(1.04–1.09)	(1.77–1.86)	(1.97–2.07)	(1.74–1.83)
Direct costs (Trillion \$)	0.81	1.42	1.60	1.41

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\$)

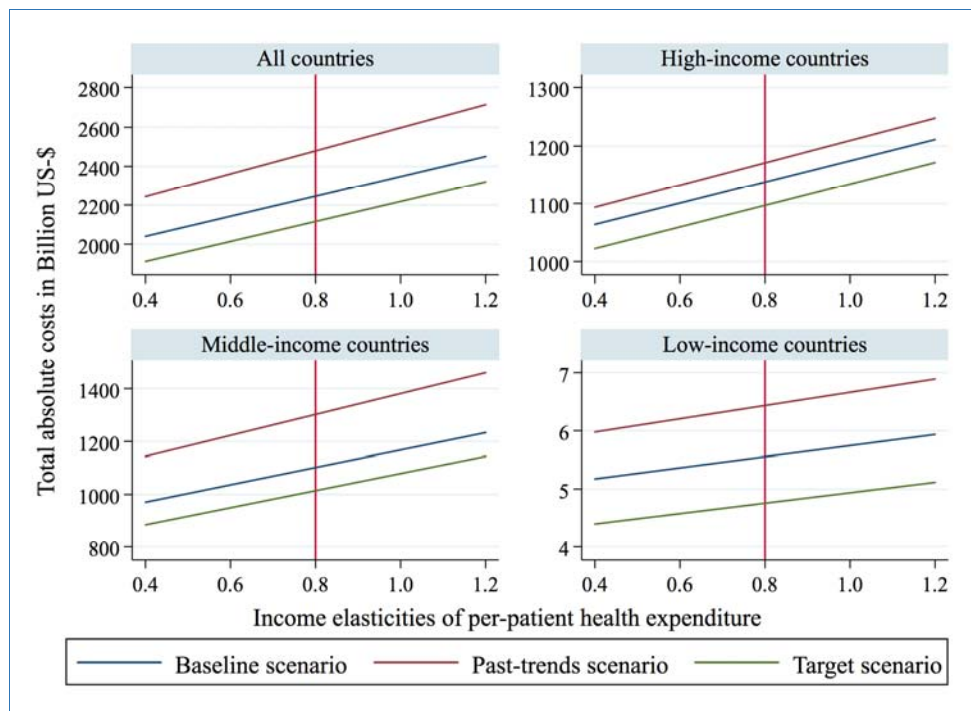
	(0.79–0.83)	(1.39–1.46)	(1.56–1.63)	(1.38–1.45)
Indirect costs (Trillion \$)	0.25	0.39	0.42	0.37
	(0.25–0.26)	(0.38–0.41)	(0.41–0.44)	(0.36–0.39)
Mortality ^a	11.2%	12.1%	11.4%	8.5%
Drop out ^a	78.9%	77.5%	77.8%	80.7%
Absenteeism ^a	6.4%	6.6%	6.8%	6.9%
Presenteeism ^a	3.5%	3.8%	4.0%	4.0%
Share indirect costs ^b	23.9%	21.6%	21.0%	20.9%
Total costs / global GDP	1.5%	1.6%	1.8%	1.5%
	(1.4%–1.5%)	(1.5%–1.6%)	(1.7%–1.8%)	(1.5%–1.6%)
Mean (total costs / GDP)	1.2%	1.4%	1.7%	1.4%
	(1.2%–1.2%)	(1.4%–1.5%)	(1.7%–1.7%)	(1.4%–1.4%)

This table replicates the results from table 1 in the article using Global Burden of Disease Study data rather than data from the International Diabetes Federation. Numbers in parentheses are 95%-CI.

^aIndicated numbers are the fraction of the respective indirect cost component in total indirect costs. 95%-CI not shown.

^bIndicated numbers are the fraction of total costs allotted to indirect cost components. 95%-CI not shown.

Supplementary Figure S1. Sensitivity of results to different income elasticities



SUPPLEMENTARY DATA

The figure shows total costs in billion US-\$ in 2030 for varying income elasticities by country income group and for the full sample of countries. The vertical red line marks the elasticity used in the main analysis.

Supplementary Figure S2. Costs in 2030 for varying GDP growth assumptions (baseline scenario)

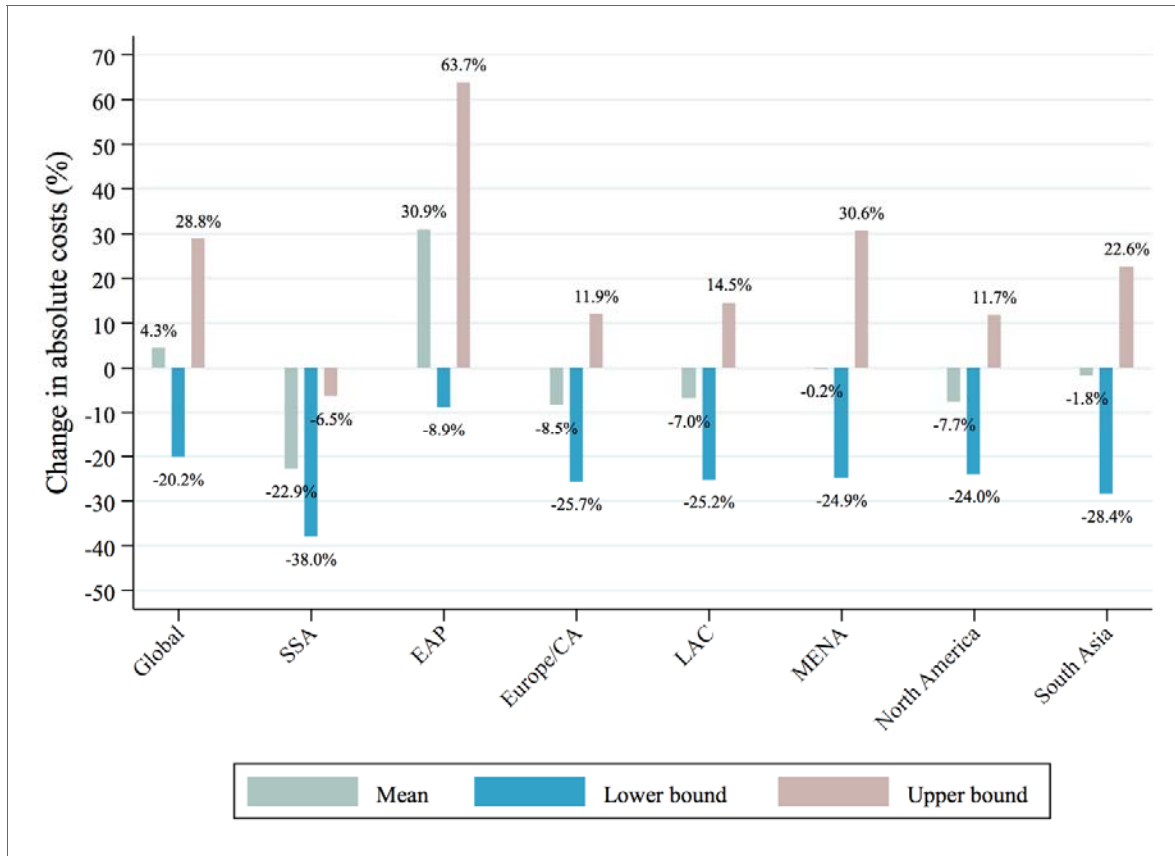


Figure illustrates how absolute costs change with different GDP assumptions (relative to costs estimated in main analysis). MENA is Middle East and North Africa, LAC is Latin America and the Caribbean, CA is Central Asia, EAP is East Asia and Pacific, SSA is sub-Saharan Africa.

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Supplementary Figure S3. Costs in 2030 for varying GDP growth assumptions (past-trends scenario)

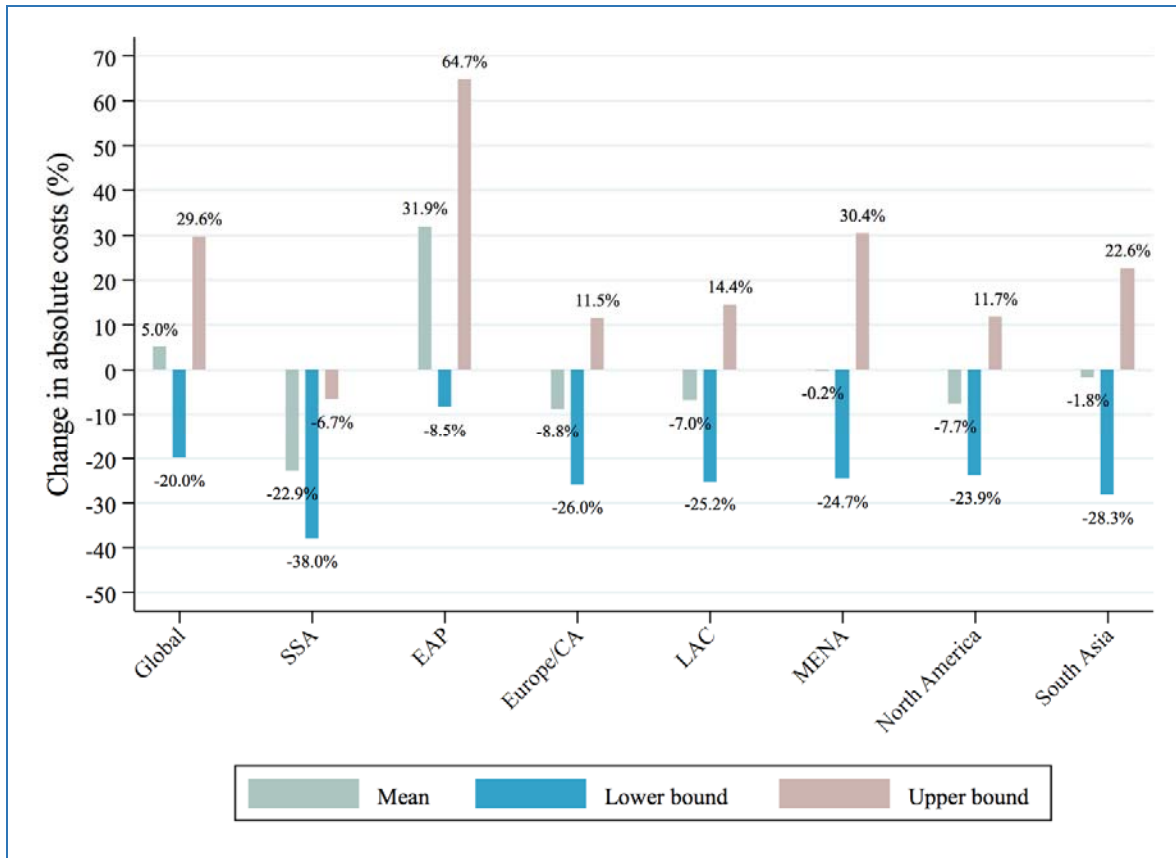


Figure illustrates how absolute costs change with different GDP assumptions (relative to costs estimated in main analysis). MENA is Middle East and North Africa, LAC is Latin America and the Caribbean, CA is Central Asia, EAP is East Asia and Pacific, SSA is sub-Saharan Africa.

SUPPLEMENTARY DATA

Supplementary Figure S4. Costs in 2030 for varying GDP growth assumptions (target scenario)

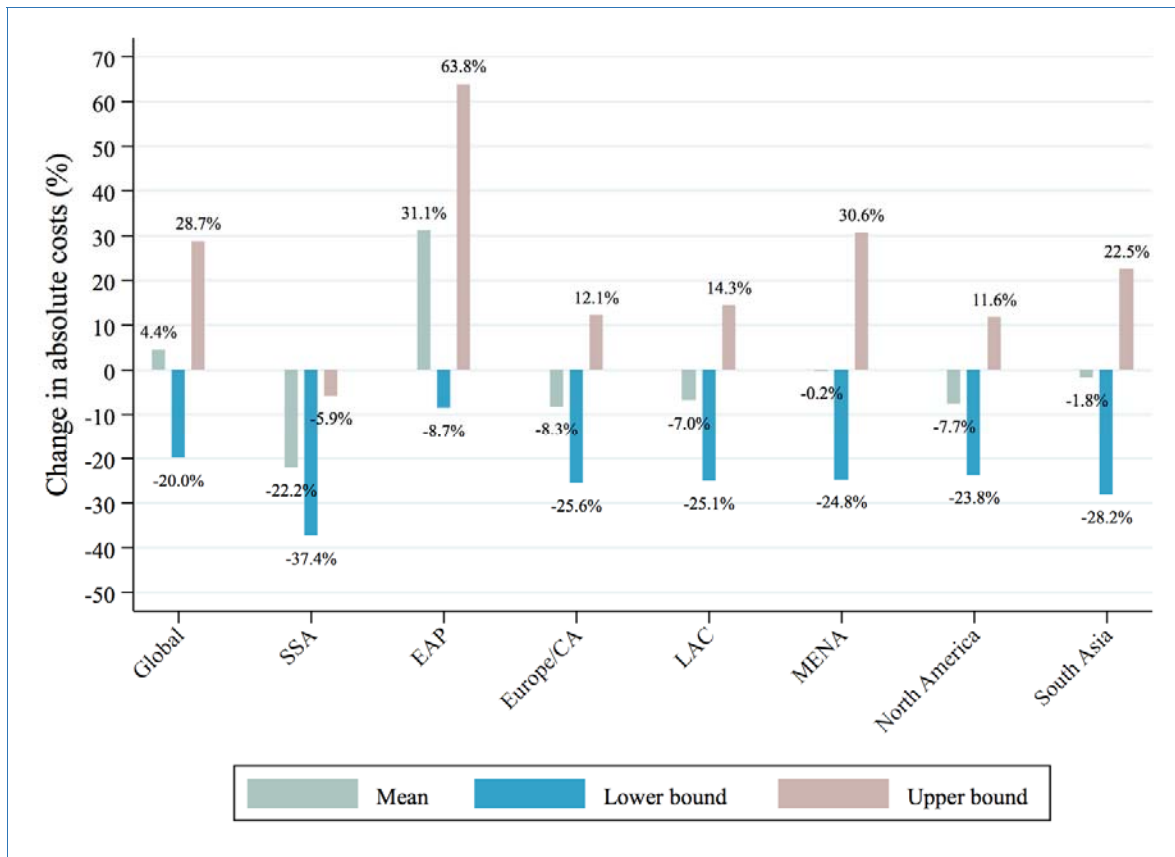


Figure illustrates how absolute costs change with different GDP assumptions (relative to costs estimated in main analysis). MENA is Middle East and North Africa, LAC is Latin America and the Caribbean, CA is Central Asia, EAP is East Asia and Pacific, SSA is sub-Saharan Africa.