Electronic Supplementary Material (ESM)

ESM Table 1: Description and source of data used as inputs for life table models.

Model input and description	Data source
Population:	
The 2017 population of Bangladesh, stratified by gender and 5-year age groups	International Diabetes Federation: IDF Diabetes Atlas (8th edition) (1).
Diabetes Prevalence:	
Prevalence of T2Dm in Bangladesh in 2017, stratified by gender and 5-year age group	International Diabetes Federation: IDF Diabetes Atlas (8th edition) (1).
Mortality rates:	
Mortality rate in the 2017 population of Bangladesh, stratified by gender and 5-year age groups	IHME-Global Health Data Exchange (GHDx) database (2)
Temporal trends in population mortality rate	Projected average annual proportional reduction in adult mortality in Bangladesh (1.0%) from the United Nations (UN) World Population Prospects (WPP) forecast.(3)
Relative risk (RR) of all-cause mortality associated with diabetes	The Chennai Urban Rural Epidemiology Study (CURES - 150) of adults with diabetes. (4)
Population Labour force participation: Labour force participation in Bangladesh in 2017, stratified by gender and 5-year age groups	International Labour Office: ILO Labour force estimates and projections: 1990-2030.(5)
Diabetes-related productivity losses:	
Productive time loss due to diabetes in 2017, stratified by gender and 5-year age groups	Primary data collected from a cross-sectional survey among Bangladeshi population with diabetes in 2017.
Labour force participation shortfall and absenteeism in those with T2DM	Bommer et al. The global economic burden of diabetes in adults aged 20–79 years: a cost-of-illness study. The Lancet Diabetes & Endocrinology 2017;5:423-430.(6)
Gross Domestic Product (GDP):	
The GDP and GDP per equivilent full-time (EFT) Bangladeshi worker in 2017.	International Labour Organization, ILOSTAT database. Data retrieved in September 2018. (https://data.worldbank.org/indicator/SL.GDP.PCAP.EM.KD?locations=BD&view=chart) The World Bank: World Development indicators, 2017.(7)

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Temporal trends in GDP growth rate	Organisation for Economic Co-operation and Development (OECD) long-term GDP forecasts.(8)

ESM Table 2: Annual mortality rate in the total population, those with diabetes and those without diabetes in Bangladesh in 2017 by age group and sex based on the GBD 2017 (1)**.**

Age group	Mortality rate in the total population per person year	Mortality rate among people without diabetes per person year	Mortality rate among people with diabetes per person year
Men			
20-24	0·00074	0.00067	0.00501
25-29	0·00088	0.00078	0.00451
30-34	0·00115	0.00100	0.00468
35-39	0·00142	0.00123	0.00474
40-44	0·00223	0.00191	0.00626
45-49	0·00382	0.00326	0.00925
50-54	0·00679	0.00583	0.01452
55-59	0·01131	0.00922	0.02617
Women			
20-24	0·00078	0.00058	0.00704
25-29	0·00087	0.00065	0.00599
30-34	0·00087	0.00064	0.00474
35-39	0·00119	0.00087	0.00526
40-44	0·00201	0.00147	0.00750
45-49	0.00253	0.00187	0.00818
50-54	0.00532	0.00400	0.01527
55-59	0·00748	0.00529	0.02315

Calculation of annual mortality rates in those with and without diabetes in the Bangladeshi population by age group and sex was based on the following formula:

MortNon-diabetes = MortTotal / (DiabetesPrevalence*RR+(1-DiabetesPrevalence))

The mortality rate for those with diabetes were based on the following formula:

MortDiabetes = MortNon-diabetes*RR

Where:
MortTotal = total deaths in population/total population

MortDiabetes = mortality rate in those with diabetes

MortNon-diabetes = mortality rate in those without diabetes

RR=relative rate of all-cause mortality in those with diabetes compared to those without diabetes

Average annual proportional reduction in adult mortality in Bangladesh (1.0% per year) from the United Nations (UN) World Population Prospects (WPP) forecast,[4] was applied progressively across the model time horizon.

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Electronic Supplementary Material references:

1. International Diabetes Federation. IDF Diabetes Atles (8th edition). Brussels, Belgium: International Diabetes Federation, 2017.

2. IHME-Global Health Data Exchange (GHDx).

3. United Nations Department of Economic and Social Affairs Population Division. World Population Prospects: The 2017 Revision. 2017.

4. Anjana RM, Unnikrishnan R, Mugilan P, Jagdish PS, Parthasarathy B, Deepa M, et al. Causes and predictors of mortality in Asian Indians with and without diabetes–10 year follow-up of the Chennai Urban Rural Epidemiology Study (CURES-150). PloS one. 2018;13(7):e0197376.

5. International Labour Office. ILO Labour force estimates and projections: 1990-2030. Geneve, Switzerland: International Labour Office,, 2017.

6. Bommer C, Heesemann E, Sagalova V, Manne-Goehler J, Atun R, Bärnighausen T, et al. The global economic burden of diabetes in adults aged 20–79 years: a cost-of-illness study. The Lancet Diabetes & Endocrinology. 2017;5(6):423-30.

7. The World Bank. World Development indicators, 2017. Washington D.C: The World Bank, 2018.

8. Organisation for Economic Co-operation and Development (OECD). OECD Economic Outlook: Statistics and Projections: Long-term baseline projections, Real GDP long-term forecast (indicator). OECD publishing, Paris: 2018.