Supplementary file 1 Estimation of the median survival

We used the following formula to estimate the median survival:
X2 (median survival) = ((Y2 - Y1) (X3 - X1) / (Y3 - Y1)) + x1

Whereby (using men as an example):
X1 = the follow-up year in which more than 50% was still alive at the end (for men in our cohort, the 13th follow-up year
X3 = the follow-up year in which less than 50% was still alive at the end (for men in our cohort, the 14th follow-up year
Y1 = the cumulative survival at the end of X1 (for men cumulative survival 13th follow-p year = 0.5294 (rounded of 0.53)
Y2 = the median (= cumulative survival of 0.5)
Y3 = the cumulative survival at the end of X3 (for men cumulative survival 14th follow-p year = 0.4945)

Median survival of men with T2D = ((0.5 – 0.5294) (14 – 13) / (0.4945 – 0.5294)) + 13 = 13.8424 (rounded of 13.8).

For the general population, linear extrapolation with the average difference between the cumulative survivals of the general population was conducted first, before using linear interpolation to estimate the median survival. We had to do that because after 14 years of follow-up, still more than 50% of the general population was alive (for men after 14 years the cumulative expected survival was 0.56).
For identifying X1, X3, Y1 and Y3 of the general population we used the following steps:

1. We calculated the average difference between the cumulative survivals of the 14 follow-up years (for men in our study population 0.031054)
2. We extrapolated the cumulative survival by extracting this average difference from the cumulative survival of the previous year (see table 1).
3. Finally we measured the median follow-up by using the estimated cumulative survival of the 16th and 17th follow-up year.

Table 1. Extrapolation for men in the general population.

Follow-up year	**Cumulative survival**	**Comment**
12 – 13	0.5922	Calculated
13 - 14	0.5628	Calculated
14 - 15	(0.5628 – 0.031054) = 0.531746	Estimated with extrapolation
15 – 16	(0.531746 – 0.031054) = 0.500692	Estimated with extrapolation
16 – 17	(0.500692 – 0.031054) = 0.469638	Estimated with extrapolation