Supplementary Materials

Table S1. Hba1c comparisons by sex in pooled age-groups (18-49 years).

Cohort	Sex	N	Mean HbA1c (%)	SD	95% CI	p value
2012	Women	25	7.54	2.07	6.69–8.40	0.870
2012	Men	45	7.46	1.65	6.97–7.96	0.870
2017	Women	35	8.50	1.36	8.03–8.96	0.072
2017	Men	70	8.00	1.23	7.71–8.29	0.072
2024	Women	35	7.85	1.34	7.38–8.31	0.612
2024	Men	44	8.01	1.55	7.54–8.48	0.612

Age categories between 18 and 49 years were pooled to increase sample size and statistical power. Comparisons between sexes within each cohort were performed using Welch's t test. Mean values and 95% confidence intervals (CI) are reported.

Table S2. Continuous age-adjusted linear regression models for HbA1c by cohort.

Cohort	Sex (Women vs Men) β	95% CI	p value	Age β (per year)	p value
2012	−0.12	−0.28 to 0.04	0.131	−0.005	0.223
2017	0.05	−0.11 to 0.21	0.534	−0.017	<0.001
2024	0.07	−0.08 to 0.22	0.359	−0.006	0.034

Linear regression models were fitted separately for each cohort with HbA1c as the dependent variable and sex and age as independent variables. Regression coefficients (β) are shown with 95% confidence intervals.

Table S3. Absolute and relative changes in HbA1c by sex and age with interquartile ranges (IQR).

Age group (years)	Sex	Interval	Δ HbA1c median (%)	Δ HbA1c IQR	Relative change (%)
40-49	Women	2017–2024	-0.80	-0.80–-0.80	-8.79
50-59	Women	2012–2017	-1.10	-1.75–-0.30	-14.10
50-59	Women	2017–2024	0.00	-0.15–0.90	0.00
60-69	Women	2012–2017	0.10	-0.75–0.45	1.41
60-69	Women	2017–2024	0.00	0.00–0.00	0.00
70-79	Women	2012–2017	0.80	0.03–2.42	11.11
70-79	Women	2017–2024	0.00	-0.13–0.00	0.00
≥80	Women	2012–2017	-1.40	-1.45–-0.25	-14.58
≥80	Women	2017–2024	0.00	0.00–0.00	0.00
30-39	Men	2017–2024	0.00	0.00–0.00	0.00
40-49	Men	2017–2024	0.20	0.10–0.90	2.44
50-59	Men	2012–2017	0.05	-0.68–1.08	0.75
50-59	Men	2017–2024	0.00	-1.50–0.40	0.00
60-69	Men	2012–2017	-0.15	-0.88–0.40	-2.05
60-69	Men	2017–2024	0.00	0.00–0.00	0.00
70-79	Men	2012–2017	1.40	0.10–2.45	19.44
70-79	Men	2017–2024	0.00	0.00–0.00	0.00
≥80	Men	2012–2017	0.80	0.60–1.05	10.53
≥80	Men	2017–2024	0.00	0.00–0.00	0.00

Values are median HbA1c (%). Absolute (Δ) and relative (%) changes refer to differences between sex-stratified cohort-specific medians. Percentage changes were calculated relative to the earlier timepoint.

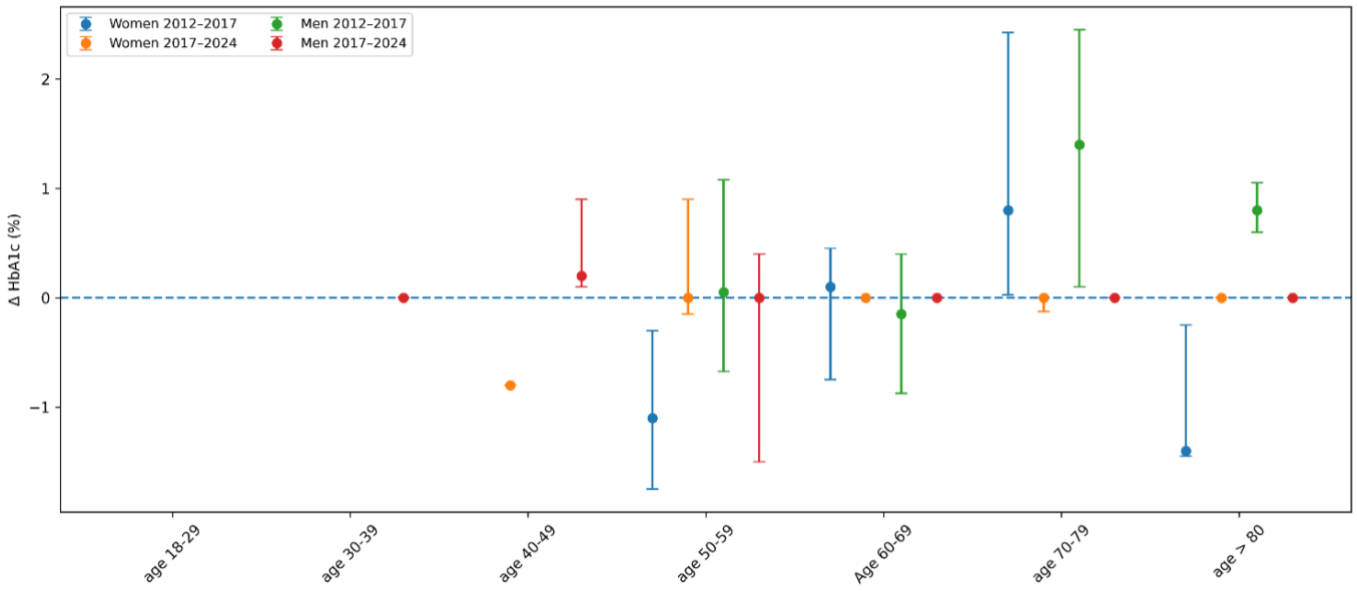


Figure S1. Median differences in HbA1c between cohorts (2012–2017 and 2017–2024), by sex and age group. Points represent median HbA1c change; vertical bars indicate IQR. The dashed horizontal line denotes no change.