

**Impact of Weight Change on Glycemic Control and Metabolic Parameters in T2D: A
Retrospective US Study Based on Real-World Data**

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SUPPLEMENTAL DATA

Table S1. Participant exclusion criteria

Condition
Pregnancy
Gestational diabetes
Human immunodeficiency virus
Cancer
End-stage renal disease
Cachexia
Anorexia
Abnormal weight gain or loss
Feeding difficulties
Acute or chronic pancreatitis
Celiac disease
Inflammatory bowel disease
Non-vitamin-related nutritional deficiencies
Cushing syndrome
Severe psychiatric disorders

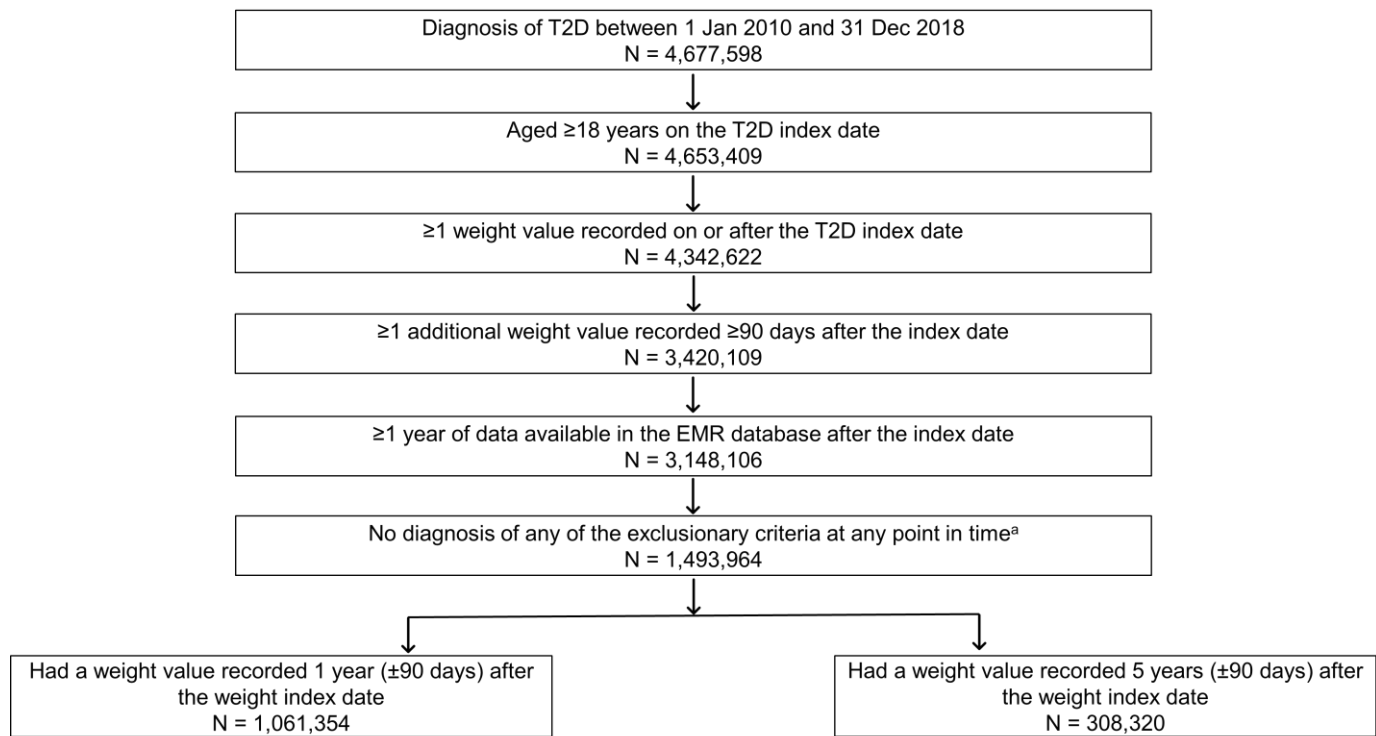
Table S2. Interactive predictors of $\geq 15\%$ and $\geq 10\%$ weight loss at 1-year and 5-year follow-up

Variable ^a	1-Year Follow-up				5-Year Follow-up			
	$\geq 15\%$ Weight Loss		$\geq 10\%$ Weight Loss		$\geq 15\%$ Weight Loss		$\geq 10\%$ Weight Loss	
	OR (95% CI)	p-value	OR (95% CI)	p-value	OR (95% CI)	p-value	OR (95% CI)	p-value
Female/BMI <25/Age <65	1.82 (1.36 – 2.44)	<0.001	1.80 (1.56 – 2.07)	<0.001	1.65 (1.16 – 2.33)	0.005	1.48 (1.23 – 1.78)	<0.001
Female/BMI <25/Age 65–74	2.11 (1.58 – 2.82)	<0.001	1.87 (1.62 – 2.15)	<0.001	3.42 (2.52 – 4.64)	<0.001	2.88 (2.45 – 3.38)	<0.001
Female/BMI <25/Age 75+	2.94 (2.21 – 3.91)	<0.001	2.75 (2.39 – 3.16)	<0.001	5.86 (4.25 – 8.08)	<0.001	4.67 (3.91 – 5.58)	<0.001
Female/BMI 25 to <30/Age <65	3.48 (2.73 – 4.45)	<0.001	2.68 (2.38 – 3.02)	<0.001	3.23 (2.44 – 4.28)	<0.001	2.70 (2.33 – 3.12)	<0.001
Female/BMI 25 to <30/Age 65–74	3.09 (2.41 – 3.96)	<0.001	2.59 (2.29 – 2.92)	<0.001	5.40 (4.10 – 7.11)	<0.001	3.90 (3.38 – 4.51)	<0.001
Female/BMI 25 to <30/Age 75+	3.80 (2.94 – 4.91)	<0.001	3.25 (2.87 – 3.69)	<0.001	9.16 (6.89 – 12.18)	<0.001	6.80 (5.83 – 7.92)	<0.001
Female/BMI 30 to <35/Age <65	5.01 (3.95 – 6.35)	<0.001	3.38 (3.01 – 3.79)	<0.001	5.92 (4.50 – 7.77)	<0.001	4.19 (3.64 – 4.82)	<0.001
Female/BMI 30 to <35/Age 65–74	4.12 (3.23 – 5.26)	<0.001	3.21 (2.85 – 3.61)	<0.001	8.26 (6.29 – 10.85)	<0.001	5.92 (5.14 – 6.82)	<0.001
Female/BMI 30 to <35/Age 75+	4.74 (3.66 – 6.13)	<0.001	3.71 (3.26 – 4.22)	<0.001	14.21 (10.70 – 18.88)	<0.001	9.51 (8.15 – 11.10)	<0.001
Female/BMI 35+/Age <65	10.17 (8.07 – 12.83)	<0.001	5.20 (4.65 – 5.82)	<0.001	11.89 (9.09 – 15.53)	<0.001	7.07 (6.16 – 8.11)	<0.001
Female/BMI 35+/Age 65–74	7.57 (5.98 – 9.59)	<0.001	4.30 (3.83 – 4.83)	<0.001	13.66 (10.43 – 17.89)	<0.001	8.89 (7.72 – 10.22)	<0.001
Female/BMI 35+/Age 75+	7.51 (5.82 – 9.68)	<0.001	4.85 (4.26 – 5.52)	<0.001	18.40 (13.80 – 24.52)	<0.001	12.71 (10.84 – 14.90)	<0.001
Male/BMI <25/Age 65–74	1.56 (1.14 – 2.12)	0.005	1.29 (1.10 – 1.50)	0.001	2.24 (1.61 – 3.11)	<0.001	1.97 (1.65 – 2.34)	<0.001
Male/BMI <25/Age 75+	1.68 (1.21 – 2.34)	0.002	1.63 (1.39 – 1.92)	<0.001	2.90 (1.98 – 4.24)	<0.001	2.63 (2.14 – 3.23)	<0.001
Male/BMI 25 to <30/Age <65	1.64 (1.28 – 2.10)	<0.001	1.58 (1.41 – 1.78)	<0.001	1.74 (1.31 – 2.30)	<0.001	1.70 (1.47 – 1.96)	<0.001

Variable ^a	1-Year Follow-up				5-Year Follow-up			
	≥15% Weight Loss		≥10% Weight Loss		≥15% Weight Loss		≥10% Weight Loss	
	OR (95% CI)	p-value	OR (95% CI)	p-value	OR (95% CI)	p-value	OR (95% CI)	p-value
Male/BMI 25 to <30/Age 65–74	1.94 (1.51 – 2.48)	<0.001	1.63 (1.44 – 1.84)	<0.001	2.68 (2.03 – 3.53)	<0.001	2.43 (2.11 – 2.81)	<0.001
Male/BMI 25 to <30/Age 75+	2.38 (1.83 – 3.10)	<0.001	2.11 (1.86 – 2.41)	<0.001	4.96 (3.70 – 6.63)	<0.001	4.17 (3.58 – 4.87)	<0.001
Male/BMI 30 to <35/Age <65	3.16 (2.49 – 4.00)	<0.001	2.32 (2.07 – 2.60)	<0.001	3.40 (2.59 – 4.46)	<0.001	2.83 (2.46 – 3.25)	<0.001
Male/BMI 30 to <35/Age 65–74	3.14 (2.47 – 4.01)	<0.001	2.39 (2.12 – 2.69)	<0.001	4.76 (3.62 – 6.25)	<0.001	3.91 (3.39 – 4.50)	<0.001
Male/BMI 30 to <35/Age 75+	3.37 (2.59 – 4.39)	<0.001	2.73 (2.39 – 3.11)	<0.001	7.53 (5.62 – 10.10)	<0.001	5.76 (4.92 – 6.75)	<0.001
Male/BMI 35+/Age <65	8.62 (6.84 – 10.87)	<0.001	4.45 (3.98 – 4.98)	<0.001	9.20 (7.04 – 12.03)	<0.001	5.73 (4.99 – 6.57)	<0.001
Male/BMI 35+/Age 65–74	7.04 (5.56 – 8.93)	<0.001	4.03 (3.59 – 4.53)	<0.001	10.59 (8.07 – 13.89)	<0.001	6.85 (5.95 – 7.89)	<0.001
Male/BMI 35+/Age 75+	8.25 (6.36 – 10.70)	<0.001	4.54 (3.95 – 5.21)	<0.001	16.88 (12.50 – 22.79)	<0.001	10.84 (9.13 – 12.87)	<0.001

Abbreviations: BMI, body mass index (kg/m²); CI, confidence intervals; OR, odds ratio (calculated based on logistic regression analysis).

^aReference for sex (male/female), BMI (kg/m²), and age (years) – male / BMI <25 kg/m² / age <65 years



Abbreviations: EMR, electronic medical records; N; total number of participants; T2D, type 2 diabetes.

^aPregnancy, gestational diabetes, human immunodeficiency virus, cancer, end-stage renal disease, cachexia, anorexia, abnormal weight gain or loss, feeding difficulties, acute or chronic pancreatitis, celiac disease, inflammatory bowel disease, non-vitamin-related nutritional deficiencies, Cushing syndrome, and severe psychiatric disorders.

Figure S1. Participant selection criteria