Annals 2025 *Obesity Collection* Articles You Should Know About

ACP MA Annual Meeting, September 2025

Christina C. Wee, MD, MPH, FACP
Senior Deputy Editor, *Annals of Internal Medicine*
Vice President, American College of Physicians

Annals of Internal Medicine®

ACP
American College of Physicians
Leading Internal Medicine, Improving Lives

Disclosure of Financial Relationships

- Visit any speaker's profile on Annals.org for disclosures

OBESITY

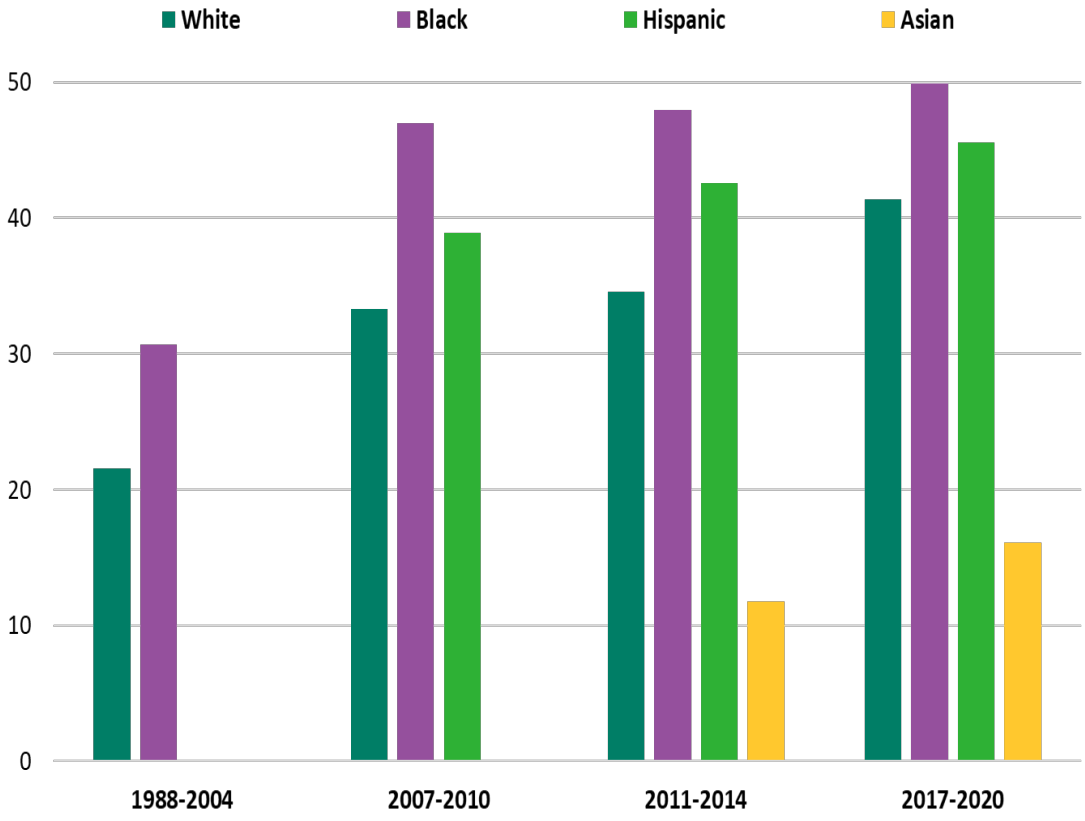
- A leading cause of morbidity, disability, high healthcare cost and the 2nd leading cause of preventable deaths
- Crosscuts IM specialties

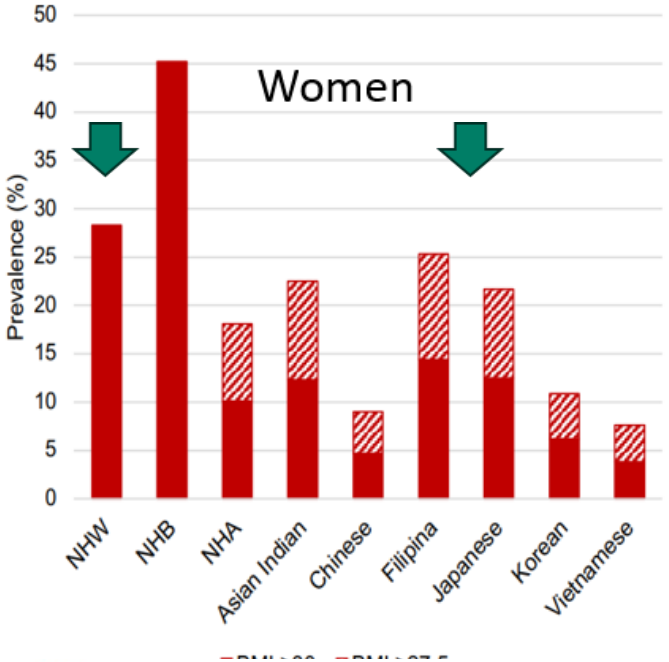
Table. BMI and Waist Circumference Thresholds for Elevated Disease Risk in Adults*

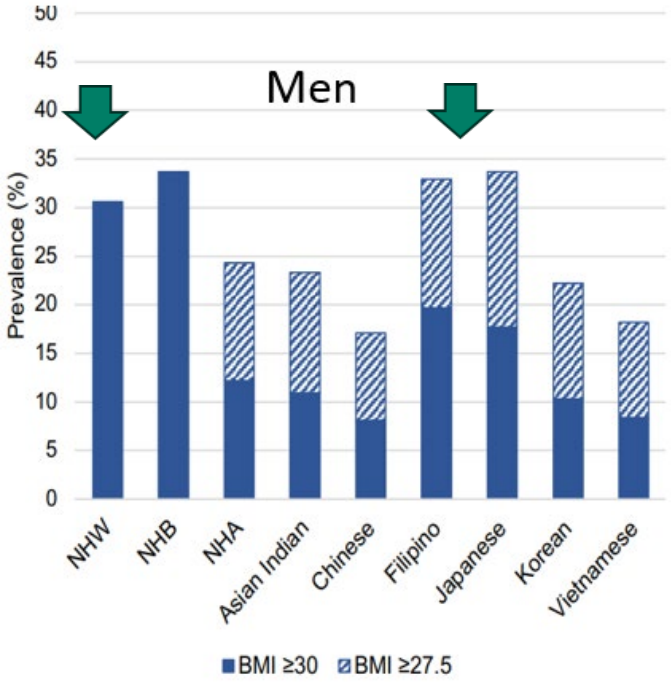
Categories	Most Populations	Asian Population†	U.S. and Canada‡
BMI, kg/m^2			
Overweight	25	23	-
Obesity	30	27.5	-
Class I	30	-	-
Class II	35	-	-
Class III	40	-	-
Waist circumference, *cm*			
Men	≥94	≥85	≥102
Women	≥80	≥ 4 to 80	≥88

BMI = body mass index.
* Reproduced from Gilden and colleagues (1).
† Refers to South Asian, Southeast Asian, and East Asian.
‡ BMI thresholds are the same as for "Most populations."

Rising Prevalence of Obesity in the U.S.

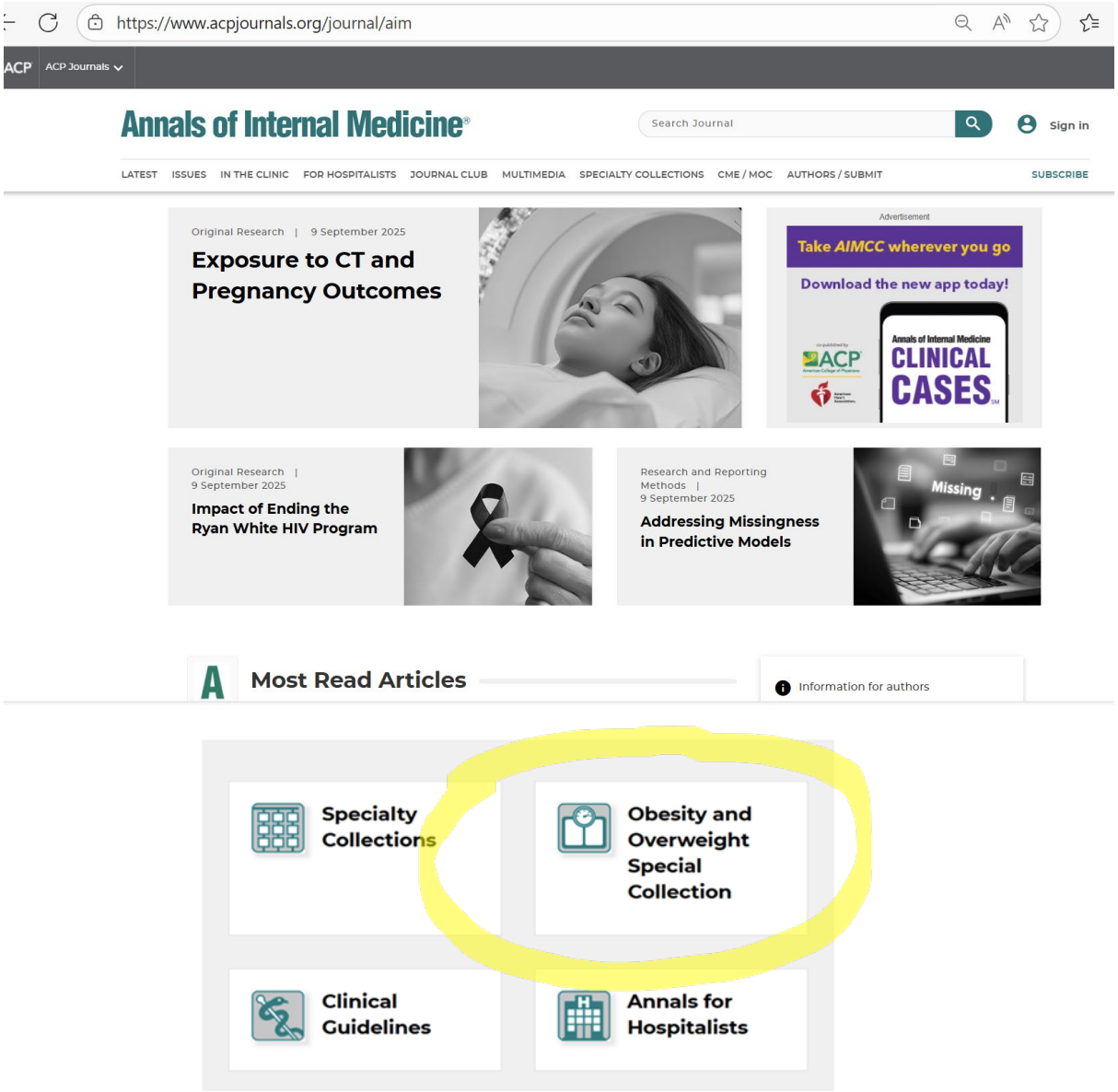






Article Selection Criteria

- Published between August 2024 to August 2025
- Relevance to practice



Annals of Internal Medicine

Annals.org

Obesity and Overweight Special Collection

- Unifying Efforts to Empower Equitable Obesity Care: Synopsis of an American College of Physicians and Council of Subspecialty Societies Summit

- Development and Validation of Body Mass Index–Specific Waist Circumference Thresholds in Postmenopausal Women
  A Prospective Cohort Study

- Comparison of an Energy-Reduced Mediterranean Diet and Physical Activity Versus an Ad Libitum Mediterranean Diet in the Prevention of Type 2 Diabetes
  A Secondary Analysis of a Randomized Controlled Trial

- Efficacy and Safety of Glucagon-Like Peptide-1 Receptor Agonists for Weight Loss Among Adults Without Diabetes
  A Systematic Review of Randomized Controlled Trials

- Improvements in Cardiometabolic Risk Factors by Weight Reduction: A Post Hoc Analysis of Adults With Obesity Randomly Assigned to Tirzepatide

Annals of Internal Medicine

SPECIAL ARTICLE

Unifying Efforts to Empower Equitable Obesity Care: Synopsis of an American College of Physicians and Council of Subspecialty Societies Summit

Christina C. Wee, MD, MPH; Alicia I. Arbaje, MD, MPH, PhD; Harriet Bering, MD; Linda Blount, MPH; Joshua J. Joseph, MD, MPH; Scott Kahan, MD, MPH; Caroline M. Apovian, MD; and Adrienne White-Faines, MPA

Context

ACP recognized need to address barriers to comprehensive obesity care:

- Inadequate physician/clinician education
- Lack of alignment of health care policy and care delivery
- Need to reduce weight bias

Goals of Summit:

- Engage partner organizations
- Conduct a needs assessment in the 3 domains
- Identify collaborative path forward

GOALS	RECOMMENDATIONS
Physician/Clinician Education	
Access to educational resources, curricula	Conduct inventory of currently available educational resources across organizations; ACP serve as clearing-house
Integration of obesity care competencies into licensing and CME requirements across all relevant specialties	Ensure curricula include cultural nuances, acknowledgment of long-standing inherent biases
	Identify local clinical experts/institutional champions; develop train-the-trainer programs to scale
	Engage diverse community/public representatives when setting obesity care standards/priorities and developing clinician education curricula
	Secure funding to develop competency testing
Clinical Care Delivery	
Important to know patients as people to help address SDOH	Consider unique issues across the lifespan/age and across care settings (clinic, hospital, assisted living/long-term care/skilled-nursing facilities, home)
Address learned helplessness	Create/integrate interprofessional teams to support physicians—through shared resources, referral pathways, technology support, and telehealth
Improve clinician practice engagement by developing consensus around standards of care and quality metrics and providing adequate resources to support clinicians in care delivery	Establish pilot programs and measure outcomes at the local level to inform national standards
Optimization of care delivery teams	Shared and consistent messaging that welcomes patients and supports their care—e.g., "Obesity is a disease (medical/health condition), it's not your fault, resources and treatments are available"
Increase community–patient engagement	
Align health and public policy with care delivery	Collaborate across medical societies to advocate for better reimbursement for obesity care services and on policies to improve food environment/supply of affordable healthy foods

GOALS

RECOMMENDATIONS

Reduce Weight Bias/Stigma

- Patients view obesity as a disease/health condition with effective treatment and know where to go for information and care
- Medical and behavioral treatments are readily available, including across a variety of medical specialties, to ensure access and choice
- Innovative and effective interventions are readily scalable

- Create welcoming practice/care environments both culturally (refrain from stigmatizing language) and physically (appropriately sized equipment, etc.)
- Collaborate with community-based organizations to amplify stigma-reducing messaging and raise awareness of health risks of obesity and availability of effective treatment
- Improve public health campaigns and broad-based messaging with an emphasis on featuring personal stories from diverse voices

Cross-Cutting Themes

- Key themes centered on knowledge, advocacy, action, compassion
- Need for culture change and paradigm shifts
- Need for stakeholder engagement and collaboration
- Facilitate empowerment
- Embrace AI/technology as disruptive innovations
- Adequate support/funding for research

- Collaborative advocacy for health care payment reform for comprehensive obesity care
- Develop speakers' forum at respective societies and create a central repository shared across societies
- Consider task force/commission including ACP-CSS representatives to continue the work
- Medical societies and their scientific journals increase focus on obesity (e.g., special symposia, theme issues)
- Foster cross-society collaborations for research or clinical engagement funding

Appendix Table 1. Selected List of ACP and ACP-CSS Activities on Obesity*

Organization	Clinical	Education	Public Policy/Advocacy	Dissemination/Other Activities
ACP	Clinical guidelines (*in process*)	Obesity Management Learning Series (CME series) (9) Obesity Management Conversation Tool (9) ACP/*Annals* Overweight and Obesity Forum (11) and other *Annals*-commissioned articles/features (1, 58–62) Obesity-related sessions at annual IMMs† ACP App Library for weight management apps (62) Patient education materials (9)	Collaborating with other organizations on quality measures related to BMI screening and follow-up ACP policy position papers on obesity-related topics (63) Congressional roundtable on obesity policy event with Rep. Dwight Evans (November 2023) Support for Medicare coverage of obesity drugs, e.g., Treat and Reduce Obesity Act and CMS rule making	Advancing Equitable Obesity Care initiative (7) Research grants program (with AHA) *Annals of Internal Medicine*: Obesity and Overweight collection (compilations of all *Annals* articles on obesity and related topics since 2019) (10), In the Clinic (1, 57–59), Beyond the Guidelines (60), and Annals Guide to Journal Club (61) articles and patient article summaries on management of obesity and related conditions

Annals of Internal Medicine

Annals.org

Obesity and Overweight Special Collection

Unifying Efforts to Empower Equitable Obesity Care: Synopsis of an American College of Physicians and Council of Subspecialty Societies Summit

Development and Validation of Body Mass Index–Specific Waist Circumference Thresholds in Postmenopausal Women

A Prospective Cohort Study

Comparison of an Energy-Reduced Mediterranean Diet and Physical Activity Versus an Ad Libitum Mediterranean Diet in the Prevention of Type 2 Diabetes

A Secondary Analysis of a Randomized Controlled Trial

Efficacy and Safety of Glucagon-Like Peptide-1 Receptor Agonists for Weight Loss Among Adults Without Diabetes

A Systematic Review of Randomized Controlled Trials

Improvements in Cardiometabolic Risk Factors by Weight Reduction: A Post Hoc Analysis of Adults With Obesity Randomly Assigned to Tirzepatide

Annals of Internal Medicine ORIGINAL RESEARCH

Development and Validation of Body Mass Index–Specific Waist Circumference Thresholds in Postmenopausal Women

A Prospective Cohort Study

Aaron K. Aragaki, MS; JoAnn E. Manson, MD, DrPH; Erin S. LeBlanc, MD, MPH; Rowan T. Chlebowski, MD, PhD; Lesley F. Tinker, PhD; Matthew A. Allison, MD, MPH; Bernhard Haring, MD, MPH; Andrew O. Odegaard, MPH, PhD; Sylvia Wassertheil-Smoller, PhD; Nazmus Saquib, PhD, MBA; Kamal Masaki, MD; Holly R. Harris, MPH, ScD; Leah R. Jager, PhD; Jennifer W. Bea, PhD; Jean Wactawski-Wende, PhD; and Garnet L. Anderson, PhD

Does stratifying body mass index (BMI) categories by BMI-specific waist circumference (WC) thresholds improve mortality risk prediction?

BMI, kg/m^2	
Overweight	25
Obesity	30
Class I	30
Class II	35
Class III	40
Waist circumference, *cm*	
Men	≥94
Women	≥80

IAS-ICCR Classification

BMI, WC thresholds (ref: <25 kg/m², <80 cm, ideal)
- Overweight, normal WC (25–<30 kg/m², <90 cm)
- Obesity-1, normal WC (30–<35 kg/m², <105 cm)
- Obesity-2, normal WC (35–<40 kg/m², <115 cm)
- Obesity-3, normal WC (≥40 kg/m², <115 cm)
- Normal BMI, large WC (<25 kg/m², ≥80 cm)
- Overweight, large WC (25–<30 kg/m², ≥90 cm)
- Obesity-1, large WC (30–<35 kg/m², ≥105 cm)
- Obesity-2, large WC (35–<40 kg/m², ≥115 cm)
- Obesity-3, large WC (≥40 kg/m², ≥115 cm)

Women's Health Initiative

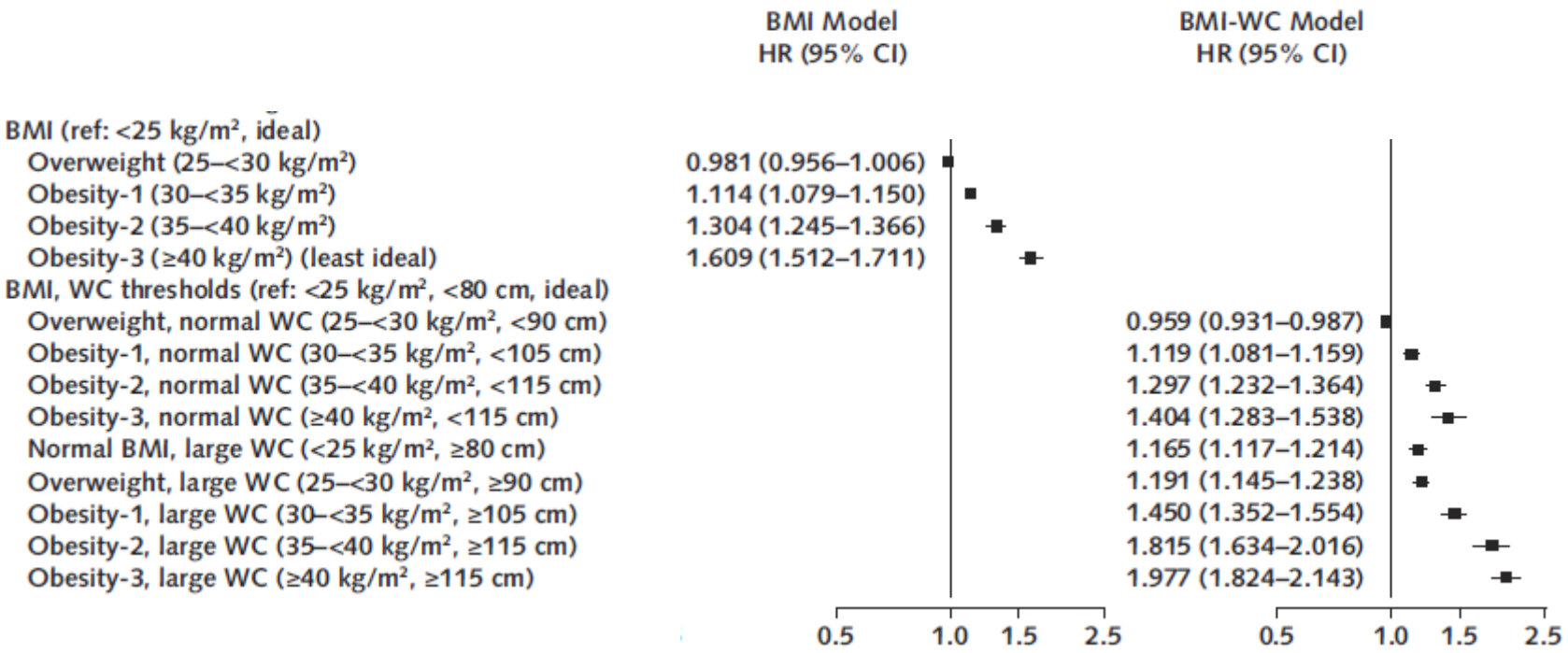
Postmenopausal women

Enrolled 1993–1998, followed through 2021

Table. Participant Characteristics Stratified by Cohort (n = 139 213)

Characteristic	Development Cohort (n = 67 774)	Validation Cohort 1 (n = 48 335)	Validation Cohort 2 (n = 23 104)
Baseline characteristics			
Mean age (SD), *y*	63.7 (7.3)	62.9 (7.0)	63.0 (7.3)
Hispanic or Latina, *n (%)**	2076 (3.1)	1710 (3.5)	2105 (9.1)
Race, *n (%)**			
American Indian/Alaska Native	150 (0.2)	134 (0.3)	144 (0.6)
Asian/Pacific Islander	2212 (3.3)	1333 (2.8)	93 (0.4)
Black/African American	4331 (6.4)	4266 (8.8)	2943 (12.7)
White	59 237 (87.4)	41 171 (85.2)	19 017 (82.3)
Multiracial/unknown	1844 (2.7)	1431 (3.0)	907 (3.9)
Clinical trial participation, *n (%)*	0 (0.0)	48 335 (100.0)	9015 (39.0)
Low-fat dietary trial	0 (0.0)	34 687 (71.8)	6677 (28.9)
Hormone therapy trial	0 (0.0)	19 166 (39.7)	3532 (15.3)
U.S. region, *n (%)*			
Northeast	17 229 (25.4)	11 630 (24.1)	3047 (13.2)
South	10 823 (16.0)	8160 (16.9)	16 258 (70.4)
Midwest	18 191 (26.8)	12 879 (26.6)	0 (0.0)
West	21 531 (31.8)	15 666 (32.4)	3799 (16.4)
College degree or higher, *n (%)*	29 643 (44.1)	18 125 (37.8)	7609 (33.2)
Prior disease status, *n (%)*			
No prior disease† or preexisting condition‡	34 002 (50.2)	26 425 (54.7)	11 074 (47.9)
Preexisting condition‡, no prior disease†	22 351 (33.0)	18 241 (37.7)	8835 (38.2)
Prior disease†	11 421 (16.9)	3669 (7.6)	3195 (13.8)
LE-8 BMI component, *n (%)*			
Normal (<25 kg/m^2)	27 744 (40.9)	13 235 (27.4)	7793 (33.7)
Overweight (25-<30 kg/m^2)	23 411 (34.5)	17 334 (35.9)	8047 (34.8)
Obesity-1 (30-<35 kg/m^2)	10 746 (15.9)	10 820 (22.4)	4468 (19.3)
Obesity-2 (35-<40 kg/m^2)	3955 (5.8)	4826 (10.0)	1860 (8.1)
Obesity-3 (≥40 kg/m^2)	1918 (2.8)	2120 (4.4)	936 (4.1)

Figure 2. Hazard Ratios (HR) Predicting All-Cause Mortality in the Development Cohort (n=67,774)*



*Models accounted for age, comorbidity, diet, physical activity, smoking, sleep, BP

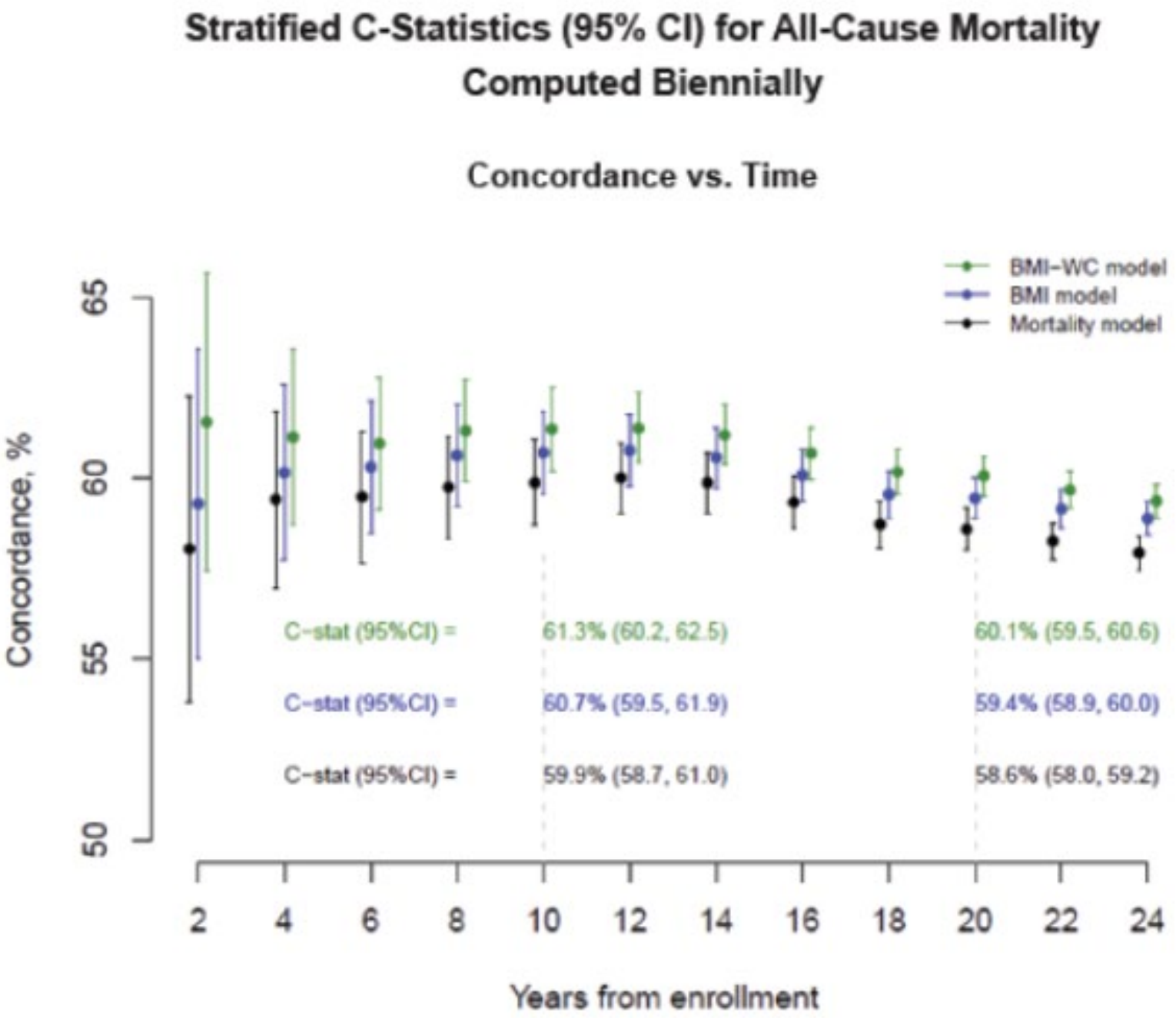
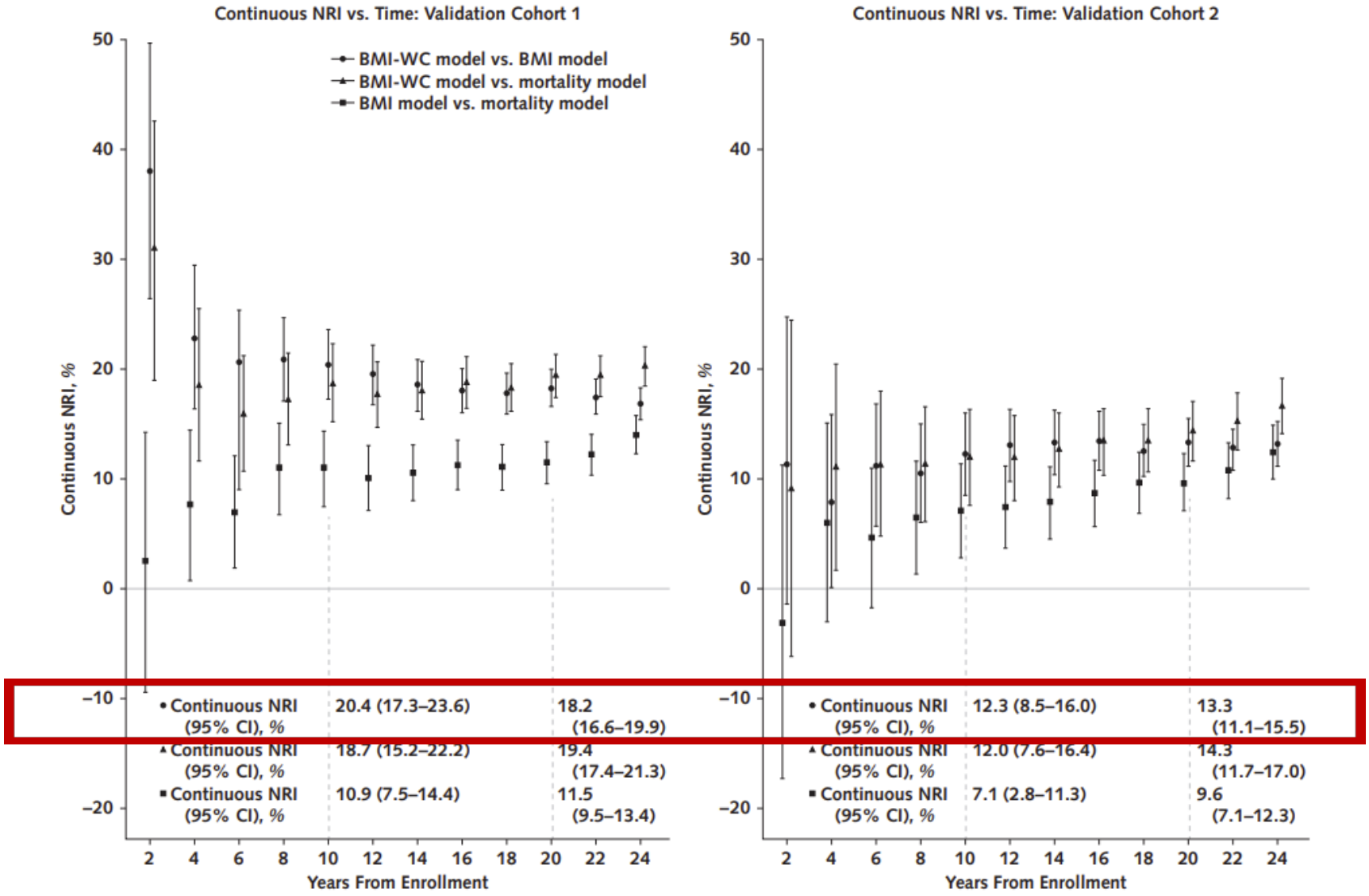

Stratified C-Statistics (95% CI) for All-Cause Mortality
Computed Biennially
Concordance vs. Time
BMI-WC model
BMI model
Mortality model
Concordance, %
65
60
55
50
C-stat (95%CI) =
61.3% (60.2, 62.5)
60.1% (59.5, 60.6)
C-stat (95%CI) =
60.7% (59.5, 61.9)
59.4% (58.9, 60.0)
C-stat (95%CI) =
59.9% (58.7, 61.0)
58.6% (58.0, 59.2)
2
4
6
8
10
12
14
16
18
20
22
24
Years from enrollment

Figure 4. Continuous NRIs for all-cause mortality, computed biennially.



Continuous NRIs were evaluated with increasingly longer periods of cumulative follow-up; prediction models were exclusively developed using follow-up through 2021. Confidence intervals were estimated using the percentile method with 10 000 stratified bootstrap samples. The BMI model comprised the mortality model plus BMI categories. The BMI-WC model comprised the mortality model plus BMI categories further stratified by WC thresholds. BMI = body mass index; NRI = net reclassification improvement; WC = waist circumference.

Conclusion and implications

- Risk stratification with the IAS-ICCR **BMI-WC framework** using **improves mortality risk prediction** -- appropriately reclassifying individuals by approx. 20 %, though discrimination not consistent across populations
- **Requires validation** in younger women, men and more diverse populations
- Importantly, it **needs to be incorporated in treatment trials** to examine whether framework appropriately targets patients most likely to respond and derive benefit

Annals of Internal Medicine

Annals.org

Obesity and Overweight Special Collection

Unifying Efforts to Empower Equitable Obesity Care: Synopsis of an American College of Physicians and Council of Subspecialty Societies Summit

Development and Validation of Body Mass Index–Specific Waist Circumference Thresholds in Postmenopausal Women

A Prospective Cohort Study

Comparison of an Energy-Reduced Mediterranean Diet and Physical Activity Versus an Ad Libitum Mediterranean Diet in the Prevention of Type 2 Diabetes

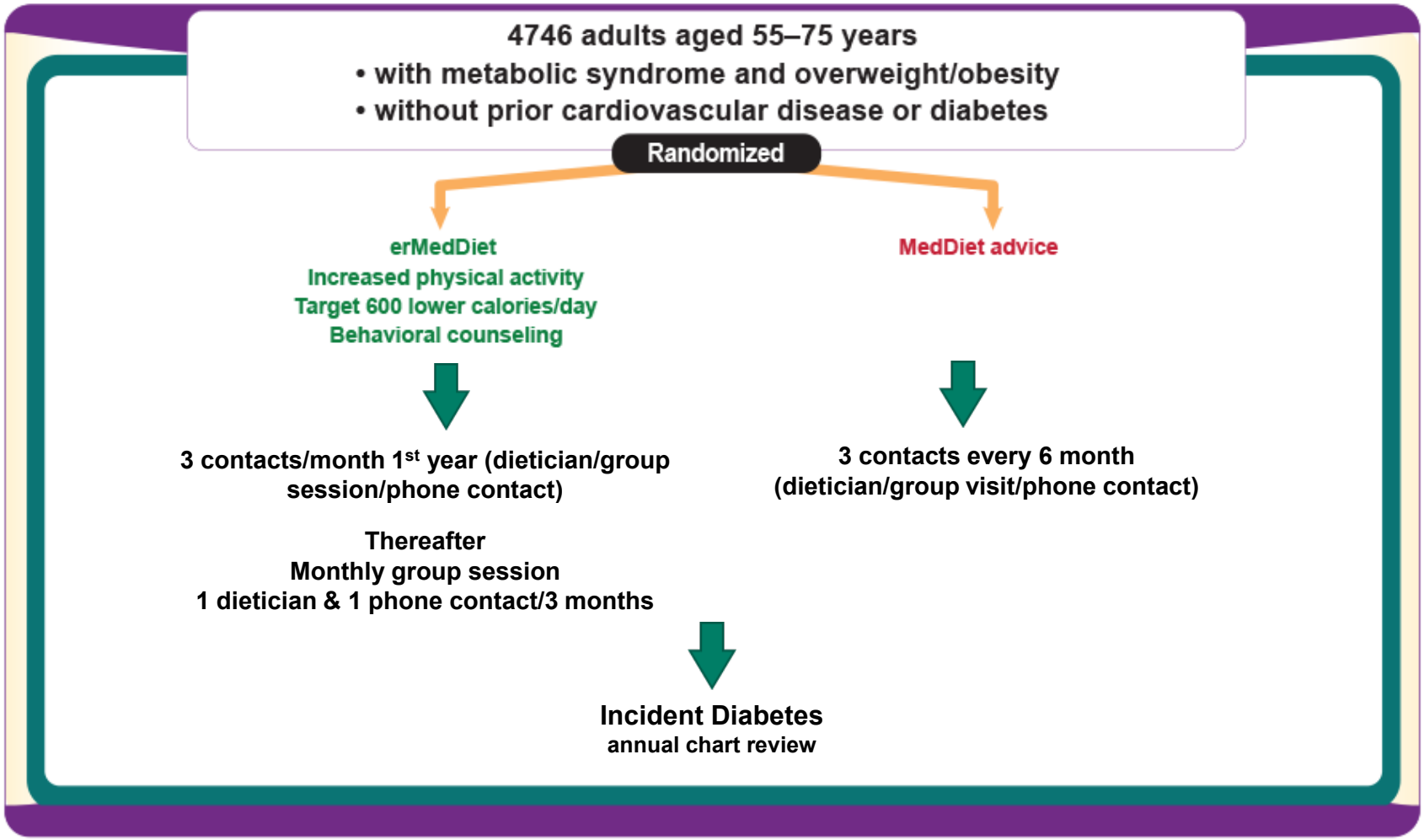
A Secondary Analysis of a Randomized Controlled Trial

Efficacy and Safety of Glucagon-Like Peptide-1 Receptor Agonists for Weight Loss Among Adults Without Diabetes

A Systematic Review of Randomized Controlled Trials

Improvements in Cardiometabolic Risk Factors by Weight Reduction: A Post Hoc Analysis of Adults With Obesity Randomly Assigned to Tirzepatide

What is the comparative effectiveness of an energy-reduced Mediterranean diet (erMedDiet) plus physical activity compared with a standard Mediterranean diet (MedDiet) on the incidence of type 2 diabetes?

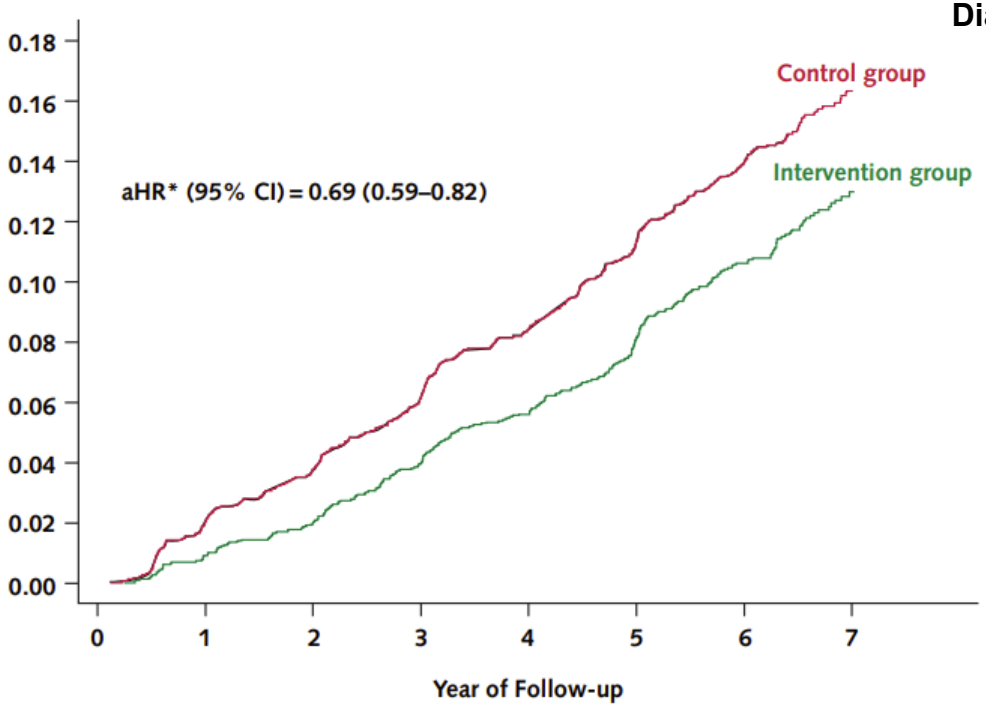


Annals of Internal Medicine

Ruiz-Canela M, Corella D, Martínez-González MÁ, et al. Comparison of an energy-reduced Mediterranean diet and physical activity versus an ad libitum Mediterranean diet in the prevention of type 2 diabetes.A secondary analysis of a randomized controlled trial.Ann Intern Med. 26 August 2025. [Epub ahead of print]. doi:10.7326/ANNALS-25-00388 http://acpjournals.org/doi/10.7326/ANNALS-25-00388

© 2025 American College of Physicians

Figure 2. Cumulative incidence of type 2 diabetes by randomized arm of the PREDIMED-Plus trial.



Diabetes incidence
(median 6.6 y)
14.5%

11.9%

aHR = adjusted hazard ratio; PREDIMED = Prevención con Dieta Mediterránea.
* Adjusted for age, sex, and fasting glucose level (≤5.55; >5.55 to <6.11; 6.11 to <6.99; and ≥6.99 mmol/L [≤100; >100 to <110; 110 to <126; and ≥126 mg/dL]), body mass index (kg/m^2), smoking status (never, former, current smoker), baseline prevalence of dyslipidemia (yes/no) and hypertension (yes/no), family history of diabetes, leisure-time physical activity level (metabolic equivalent of task minutes per day), adherence to energy-reduced MedDiet, and alcohol intake (grams per day, adding quadratic term), and stratified by center and educational level.

Annals of Internal Medicine

Annals.org

Obesity and Overweight Special Collection

Unifying Efforts to Empower Equitable Obesity Care: Synopsis of an American College of Physicians and Council of Subspecialty Societies Summit

Development and Validation of Body Mass Index–Specific Waist Circumference Thresholds in Postmenopausal Women

A Prospective Cohort Study

Comparison of an Energy-Reduced Mediterranean Diet and Physical Activity Versus an Ad Libitum Mediterranean Diet in the Prevention of Type 2 Diabetes

A Secondary Analysis of a Randomized Controlled Trial

Efficacy and Safety of Glucagon-Like Peptide-1 Receptor Agonists for Weight Loss Among Adults Without Diabetes

A Systematic Review of Randomized Controlled Trials

Improvements in Cardiometabolic Risk Factors by Weight Reduction: A Post Hoc Analysis of Adults With Obesity Randomly Assigned to Tirzepatide

Included Studies

Search Articles of RCTs through October 2024

5152 records screened

26 RCTs of 12 GLP1 receptor agonists, including:

- Liraglutide
- Semaglutide
- Tirzepatide

Heterogeneity Across RCTs Precluded Metanalysis

Rx duration median = 43 weeks (16-106 weeks)

Comparators:

- mostly included lifestyle interventions but variable intensity

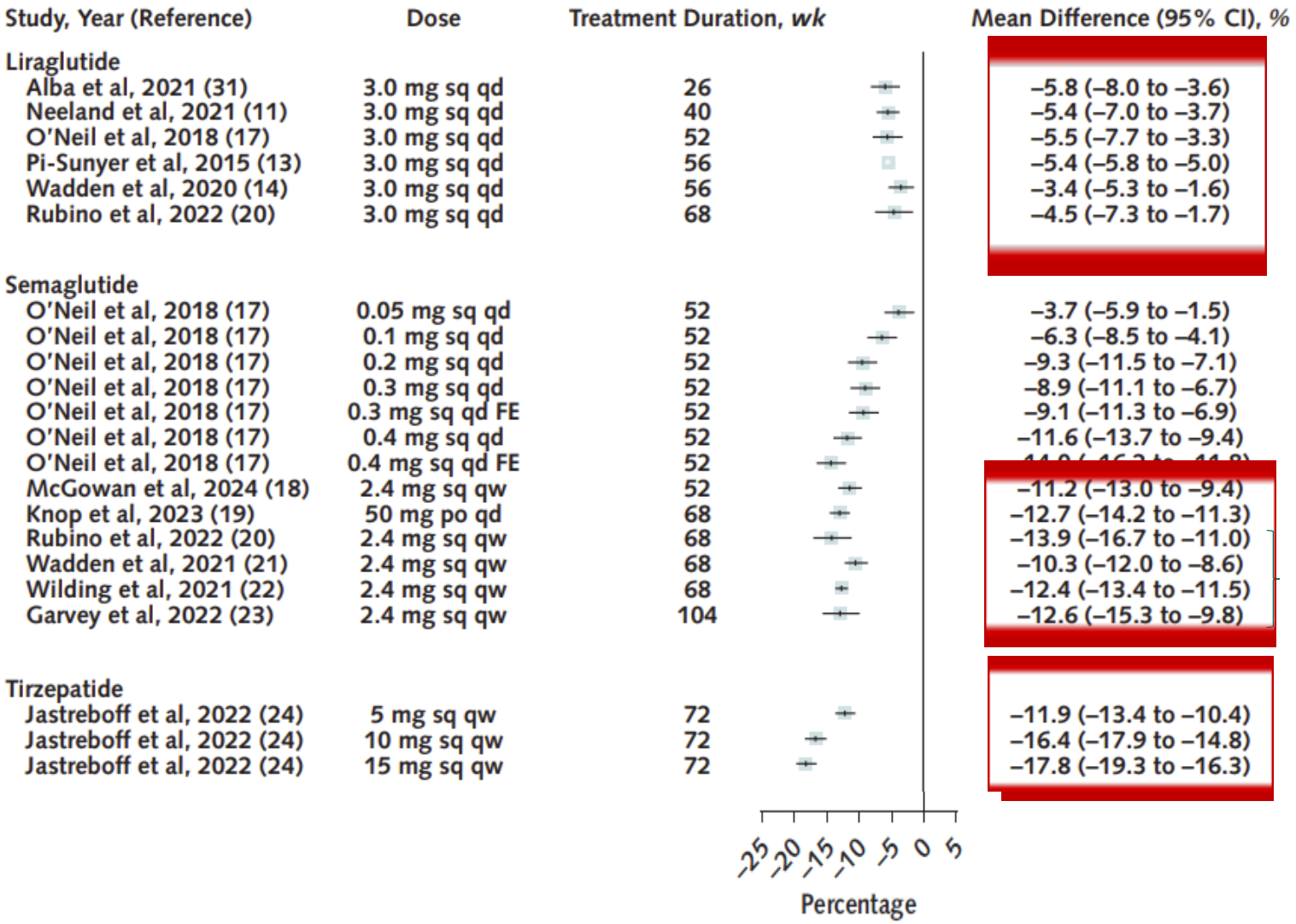
Study Populations

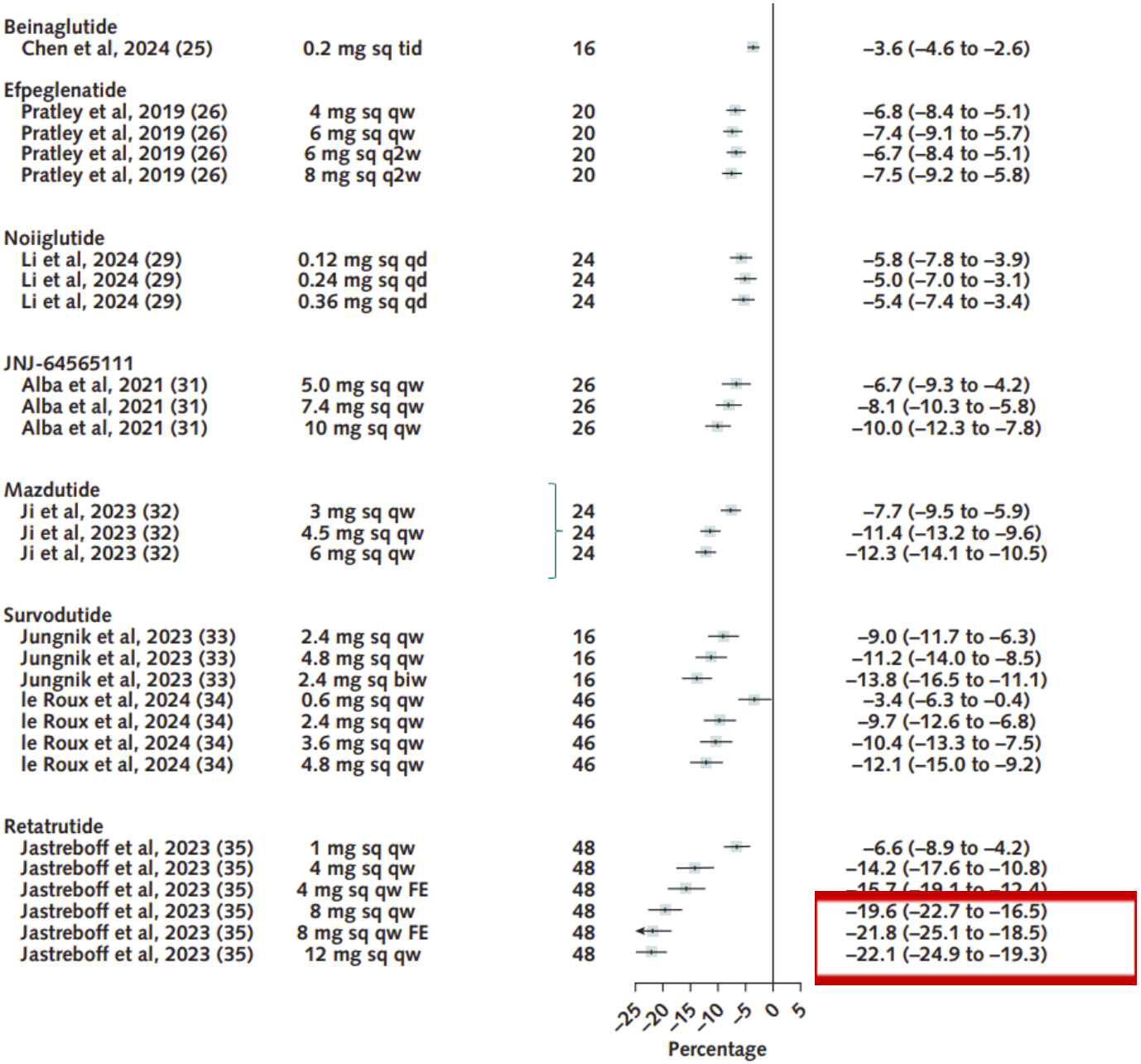
- Majority female: 72%
- Mean age: 34-57 y
- Mean body weight (BMI): 87-115 kg (30-41 kg/m^2)

Study quality/outcomes reported

- 22 low risk of bias
- Some reported absolute or % weight loss but not both

Forest plot of mean differences in relative body weight change with use of GLP-1 RAs versus placebo.




Beinaglutide
Chen et al, 2024 (25) 0.2 mg sq tid 16 –3.6 (–4.6 to –2.6)
Efpeglenatide
Pratley et al, 2019 (26) 4 mg sq qw 20 –6.8 (–8.4 to –5.1)
Pratley et al, 2019 (26) 6 mg sq qw 20 –7.4 (–9.1 to –5.7)
Pratley et al, 2019 (26) 6 mg sq q2w 20 –6.7 (–8.4 to –5.1)
Pratley et al, 2019 (26) 8 mg sq q2w 20 –7.5 (–9.2 to –5.8)
Noiiglutide
Li et al, 2024 (29) 0.12 mg sq qd 24 –5.8 (–7.8 to –3.9)
Li et al, 2024 (29) 0.24 mg sq qd 24 –5.0 (–7.0 to –3.1)
Li et al, 2024 (29) 0.36 mg sq qd 24 –5.4 (–7.4 to –3.4)
JNJ-64565111
Alba et al, 2021 (31) 5.0 mg sq qw 26 –6.7 (–9.3 to –4.2)
Alba et al, 2021 (31) 7.4 mg sq qw 26 –8.1 (–10.3 to –5.8)
Alba et al, 2021 (31) 10 mg sq qw 26 –10.0 (–12.3 to –7.8)
Mazdutide
Ji et al, 2023 (32) 3 mg sq qw 24 –7.7 (–9.5 to –5.9)
Ji et al, 2023 (32) 4.5 mg sq qw 24 –11.4 (–13.2 to –9.6)
Ji et al, 2023 (32) 6 mg sq qw 24 –12.3 (–14.1 to –10.5)
Survodutide
Jungnik et al, 2023 (33) 2.4 mg sq qw 16 –9.0 (–11.7 to –6.3)
Jungnik et al, 2023 (33) 4.8 mg sq qw 16 –11.2 (–14.0 to –8.5)
Jungnik et al, 2023 (33) 2.4 mg sq biw 16 –13.8 (–16.5 to –11.1)
le Roux et al, 2024 (34) 0.6 mg sq qw 46 –3.4 (–6.3 to –0.4)
le Roux et al, 2024 (34) 2.4 mg sq qw 46 –9.7 (–12.6 to –6.8)
le Roux et al, 2024 (34) 3.6 mg sq qw 46 –10.4 (–13.3 to –7.5)
le Roux et al, 2024 (34) 4.8 mg sq qw 46 –12.1 (–15.0 to –9.2)
Retatrutide
Jastreboff et al, 2023 (35) 1 mg sq qw 48 –6.6 (–8.9 to –4.2)
Jastreboff et al, 2023 (35) 4 mg sq qw 48 –14.2 (–17.6 to –10.8)
Jastreboff et al, 2023 (35) 4 mg sq qw FE 48
Jastreboff et al, 2023 (35) 8 mg sq qw 48 –19.6 (–22.7 to –16.5)
Jastreboff et al, 2023 (35) 8 mg sq qw FE 48 –21.8 (–25.1 to –18.5)
Jastreboff et al, 2023 (35) 12 mg sq qw 48 –22.1 (–24.9 to –19.3)
–25 –20 –15 –10 –5 0 5
Percentage

GLP-1 RAs Reduced Waist circumference, BP

- GLP 1RAs reduced waist circumference and BP
- Side effects were common (mostly GI) but transient
  - associated with dose escalation
  - uncommonly led to Rx discontinuation (most <10%)
  - few deaths: 15 in GLP1RA vs. 7 in control, most deemed unrelated (not enough info provided in few studies)

Annals of Internal Medicine

Annals.org

Obesity and Overweight Special Collection

- Unifying Efforts to Empower Equitable Obesity Care: Synopsis of an American College of Physicians and Council of Subspecialty Societies Summit

- Development and Validation of Body Mass Index–Specific Waist Circumference Thresholds in Postmenopausal Women
  A Prospective Cohort Study

- Comparison of an Energy-Reduced Mediterranean Diet and Physical Activity Versus an Ad Libitum Mediterranean Diet in the Prevention of Type 2 Diabetes
  A Secondary Analysis of a Randomized Controlled Trial

- Efficacy and Safety of Glucagon-Like Peptide-1 Receptor Agonists for Weight Loss Among Adults Without Diabetes
  A Systematic Review of Randomized Controlled Trials

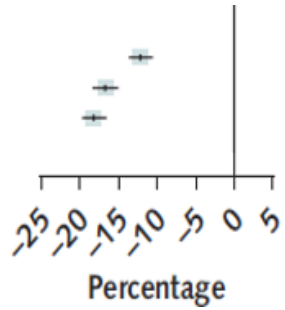
- Improvements in Cardiometabolic Risk Factors by Weight Reduction: A Post Hoc Analysis of Adults With Obesity Randomly Assigned to Tirzepatide

How do cardiometabolic risk factors change by degree of tirzepatide-induced weight reduction?

Post hoc analysis of an RCT
1605 adults, obesity/overweight, weight-related complications (excluding diabetes)
Randomly assigned to once-weekly tirzepatide, 5, 10, or 15 mg

Mean Difference in % Weight Loss between Tirzepatide vs. Placebo: Results from Parent RCT (SURMOUNT-1)*

	Dose	Treatment Duration, *wk*	Mean Difference (95% CI), %
Tirzepatide			
Jastreboff et al, 2022 (24)	5 mg sq qw	72	−11.9 (−13.4 to −10.4)
Jastreboff et al, 2022 (24)	10 mg sq qw	72	−16.4 (−17.9 to −14.8)
Jastreboff et al, 2022 (24)	15 mg sq qw	72	−17.8 (−19.3 to −16.3)



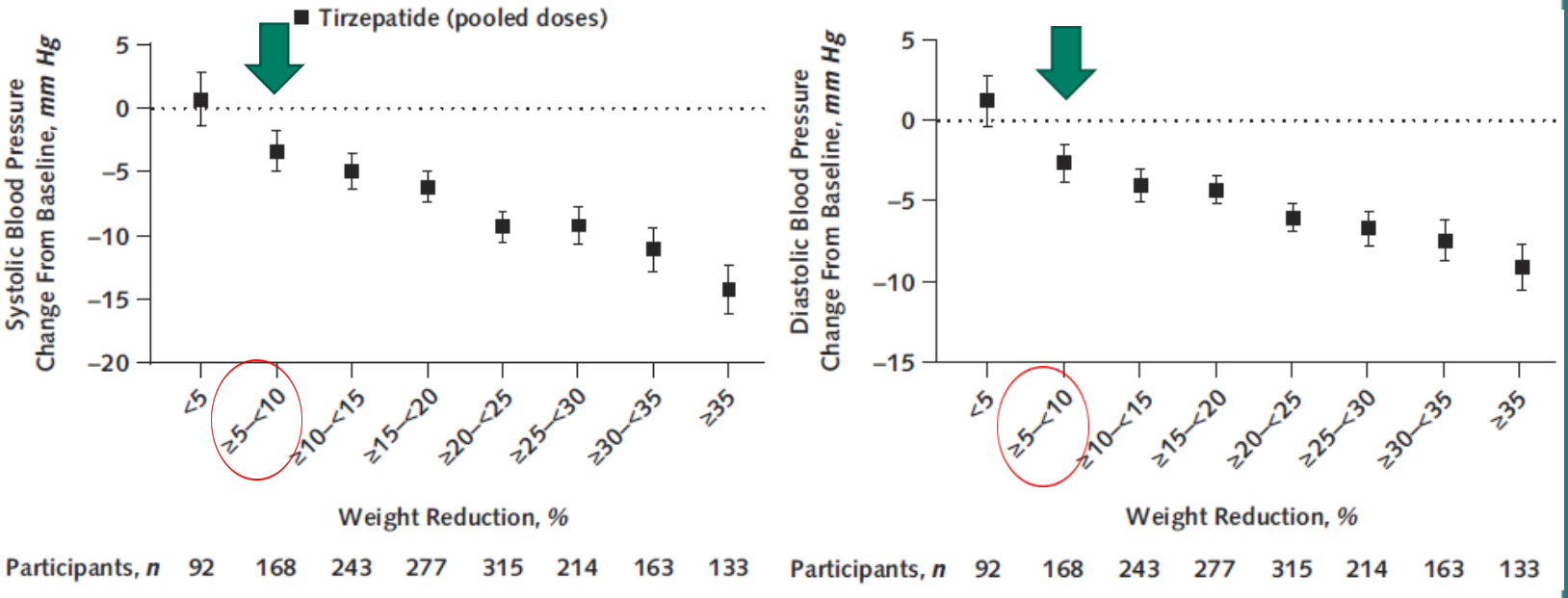
*Moiz et al. Ann Intern Med 2025

Annals of Internal Medicine

Linetzky B, Sattar N, Verma S, et al. Improvements in cardiometabolic risk factors by weight reduction: a post hoc analysis of adults with obesity randomly assigned to tirzepatide. Ann Intern Med. 24 June 2025. [Epub ahead of print]. doi:10.7326/ANNALS-24-02623
http://acpjournals.org/doi/10.7326/ANNALS-24-02623
© 2025 American College of Physicians

How do cardiometabolic risk factors change by degree of tirzepatide-induced weight reduction?

Post hoc analysis of an RCT
1605 adults, obesity/overweight, weight-related complications (excluding diabetes)
Randomly assigned to once-weekly tirzepatide, 5, 10, or 15 mg



* Analyses adjusted for age, sex, race (White/non-White), baseline body mass index

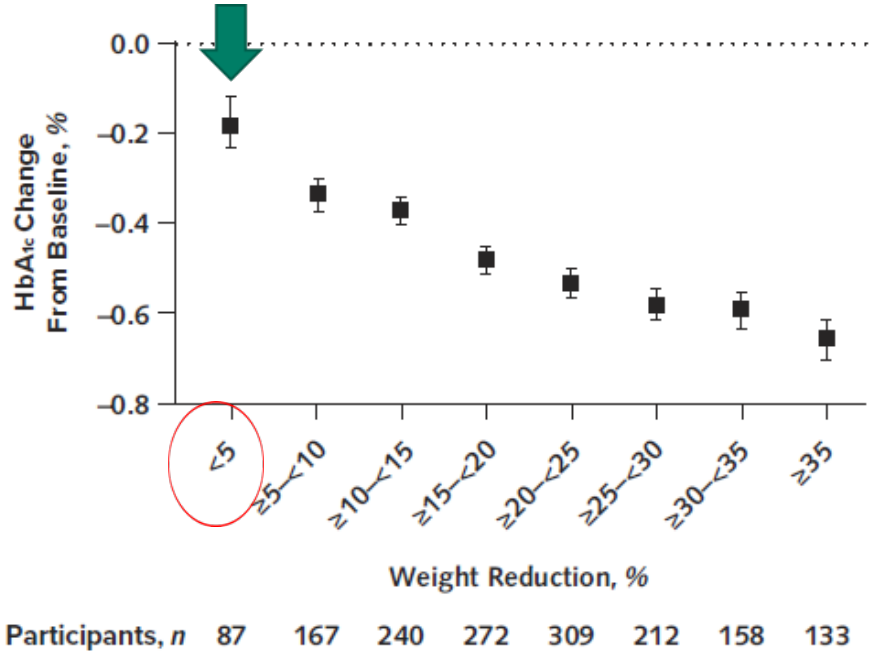
Annals of Internal Medicine

Linetzky B, Sattar N, Verma S, et al. Improvements in cardiometabolic risk factors by weight reduction: a post hoc analysis of adults with obesity randomly assigned to tirzepatide. Ann Intern Med. 24 June 2025. [Epub ahead of print]. doi:10.7326/ANNALS-24-02623
http://acpjournals.org/doi/10.7326/ANNALS-24-02623

© 2025 American College of Physicians

How do cardiometabolic risk factors change by degree of tirzepatide-induced weight reduction?

Post hoc analysis of an RCT
1605 adults, obesity/overweight, weight-related complications (excluding diabetes)
Randomly assigned to once-weekly tirzepatide, 5, 10, or 15 mg



*** Analyses adjusted for age, sex, race (White/non-White), baseline body mass index**

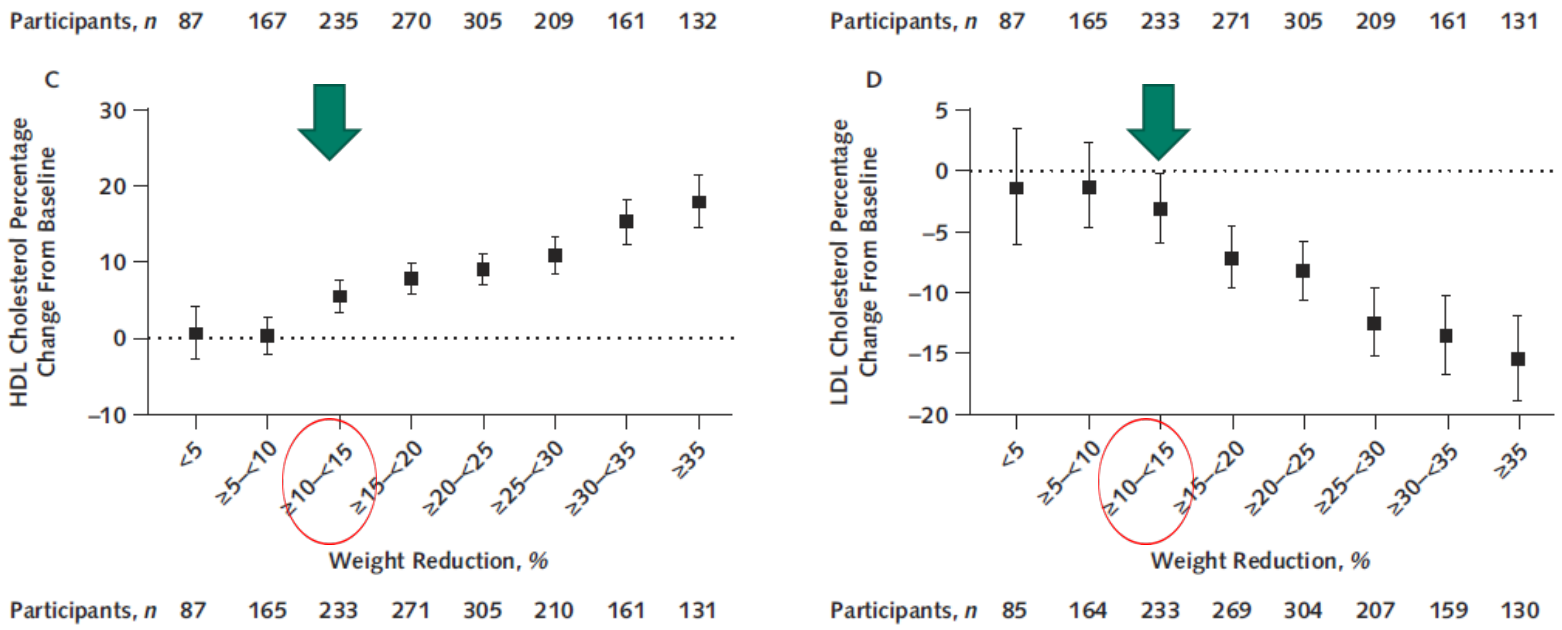
Annals of Internal Medicine

Linetzky B, Sattar N, Verma S, et al. Improvements in cardiometabolic risk factors by weight reduction: a post hoc analysis of adults with obesity randomly assigned to tirzepatide. Ann Intern Med. 24 June 2025. [Epub ahead of print]. doi:10.7326/ANNALS-24-02623
http://acpjournals.org/doi/10.7326/ANNALS-24-02623

© 2025 American College of Physicians

How do cardiometabolic risk factors change by degree of tirzepatide-induced weight reduction?

Post hoc analysis of an RCT
1605 adults, obesity/overweight, weight-related complications (excluding diabetes)
Randomly assigned to once-weekly tirzepatide, 5, 10, or 15 mg



*** Analyses adjusted for age, sex, race (White/non-White), baseline body mass index**

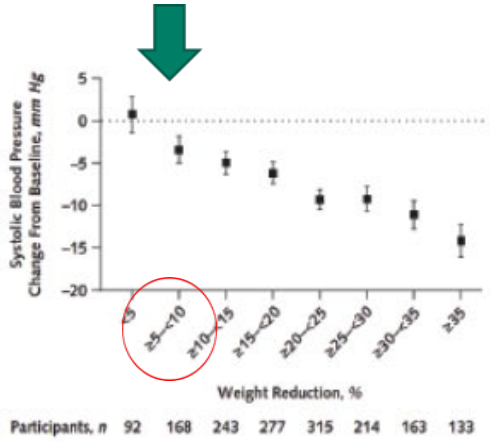
Annals of Internal Medicine

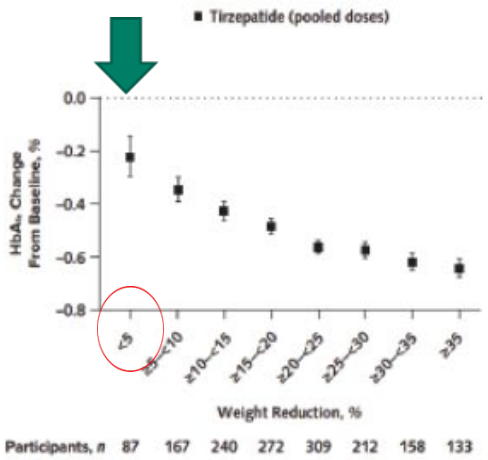
Linetzky B, Sattar N, Verma S, et al. Improvements in cardiometabolic risk factors by weight reduction: a post hoc analysis of adults with obesity randomly assigned to tirzepatide. Ann Intern Med. 24 June 2025. [Epub ahead of print]. doi:10.7326/ANNALS-24-02623
http://acpjournals.org/doi/10.7326/ANNALS-24-02623

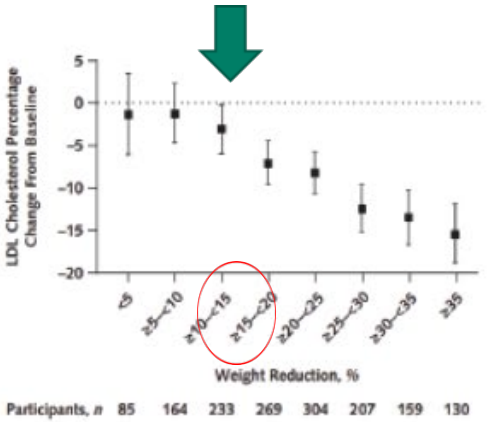
© 2025 American College of Physicians

How do cardiometabolic risk factors change by degree of tirzepatide-induced weight reduction?

Post hoc analysis of an RCT
1605 adults, obesity/overweight, weight-related complications (excluding diabetes)
Randomly assigned to once-weekly tirzepatide, 5, 10, or 15 mg







Go to *Annals.org* for additional cardiometabolic risk factor results.

Annals of Internal Medicine

Linetzky B, Sattar N, Verma S, et al. Improvements in cardiometabolic risk factors by weight reduction: a post hoc analysis of adults with obesity randomly assigned to tirzepatide. Ann Intern Med. 24 June 2025. [Epub ahead of print]. doi:10.7326/ANNALS-24-02623
http://acpjournals.org/doi/10.7326/ANNALS-24-02623

© 2025 American College of Physicians

Summary and Implications

- **Obesity** remains a **prevalent health challenge** that crosscuts IM specialties
  - More work to be done **to improve clinician education**, **align healthcare policy and care delivery**, **reduce weight bias**
  - ACP has available resources, is leading efforts to foster comprehensive care

- Current measures to define obesity remain crude
  - Need for **refinement and validation of diagnosis** and **treatment criteria**

- **Effective pharmacologic therapies** are available with even more promising agents on the horizon, but long-term safety data needed

- **Weight loss treatment thresholds** may need to vary depending on metabolic outcomes targeted

Annals of Internal Medicine

Annals.org

Obesity and Overweight Special Collection

- Unifying Efforts to Empower Equitable Obesity Care: Synopsis of an American College of Physicians and Council of Subspecialty Societies Summit

- Development and Validation of Body Mass Index–Specific Waist Circumference Thresholds in Postmenopausal Women
  A Prospective Cohort Study

- Comparison of an Energy-Reduced Mediterranean Diet and Physical Activity Versus an Ad Libitum Mediterranean Diet in the Prevention of Type 2 Diabetes
  A Secondary Analysis of a Randomized Controlled Trial

- Efficacy and Safety of Glucagon-Like Peptide-1 Receptor Agonists for Weight Loss Among Adults Without Diabetes
  A Systematic Review of Randomized Controlled Trials

- Improvements in Cardiometabolic Risk Factors by Weight Reduction: A Post Hoc Analysis of Adults With Obesity Randomly Assigned to Tirzepatide

QUESTIONS ?