Race-based or Race-conscious?:
Exploring the utility and function of screening for Body Mass Index in Asian American communities
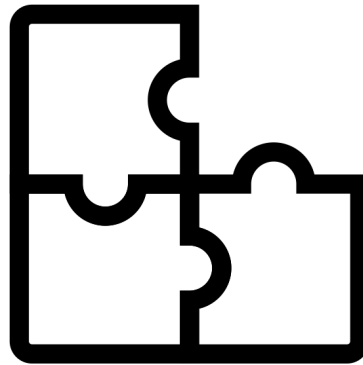
July 6th, 2023

EXAMINING THE HISTORY, CONSEQUENCES, AND EFFECTS OF RACE-BASED CLINICAL ALGORITHMS ON HEALTH EQUITY

NATIONAL ACADEMY OF SCIENCES, ENGINEERING, & MEDICINE
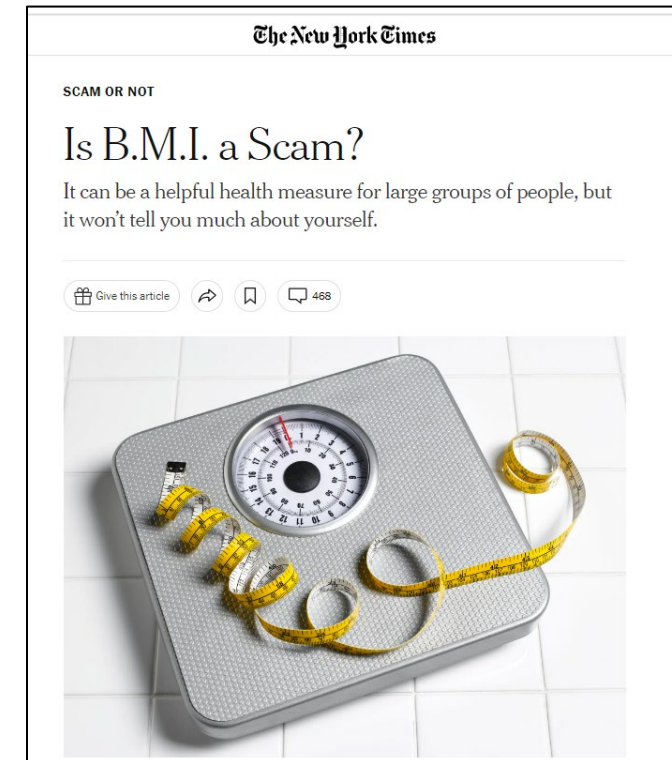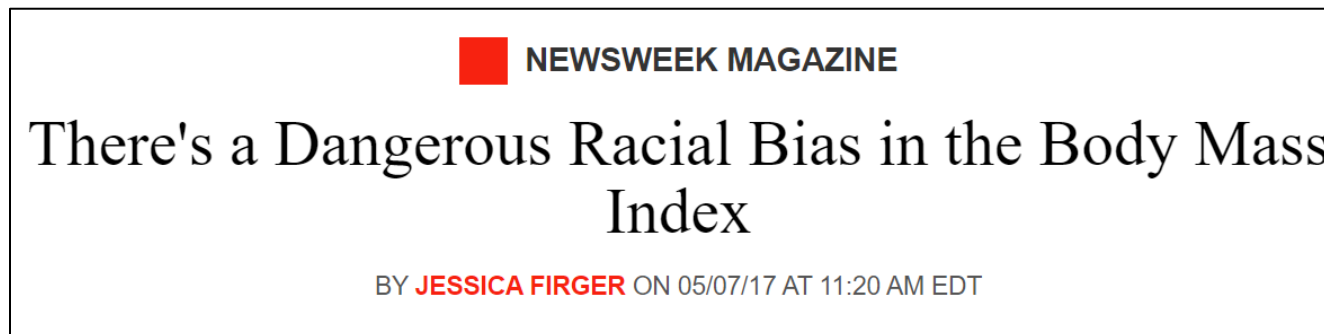
Nadia Islam, PhD

Associate Professor, Department of Population Health

Associate Director, NYU Langone Institute for Excellence in Health Equity
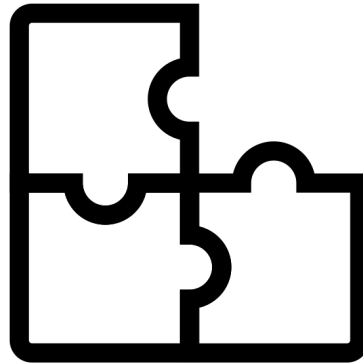
What's the Problem with BMI?

Current Controversies

AMA Journal of Ethics®

July 2023, Volume 25, Number 7: E469-471

FROM THE EDITOR
What's Wrong With Overreliance on BMI?
Kratika Mishra and Astrid Floegel-Shetty, MA

I yearn for more than neutrality, acceptance, and tolerance—all of which strike me as meek pleas to simply stop harming us, rather than asking for help in healing that harm or requesting that each of us unearth and examine our existing biases against fat people.
Aubrey Gordon[1]

PRESS RELEASES

AMA adopts new policy clarifying role of BMI as a measure i medicine

Bookmark

JUN 14, 2023

CHICAGO — Delegates at the Annual Meeting of the American Medical Association (AMA) House of Delegates adopted policy aimed at clarifying how body mass index (BMI) can be used as a measure in medicine. The new

The New York Times

SCAM OR NOT

Is B.M.I. a Scam?

It can be a helpful health measure for large groups of people, but it won't tell you much about yourself.

Give this article   468

NEWSWEEK MAGAZINE

There's a Dangerous Racial Bias in the Body Mass Index

BY **JESSICA FIRGER** ON 05/07/17 AT 11:20 AM EDT

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The Asian American Context

The Model Minority

Tunisia: Power is in the streets | Health Special: Kids and concussions | Zodiac: No really, what's your sign?

JANUARY 31, 2011

TIME

THE TRUTH ABOUT TIGER MOMS

A mother's memoir on tough-love parenting unleashed an international debate. Is that because she's onto something?

BY ANNIE MURPHY PAUL

OP-ED CONTRIBUTOR

Asians: Too Smart for Their Own Good?

By CAROLYN CHEN
Published: December 19, 2012

Evanston, Ill.

Related in Opinion

ROOM FOR DEBATE
Fears of an Asian Quota in the Ivy League
With a disproportionate number of Asian-American students acing standardized tests, are top colleges limiting the number they admit?

AT the end of this month, high school seniors will submit their college applications and begin waiting to hear where they will spend the next four years of their lives.

To get into elite colleges, some advised to 'appear less Asian'

As lawsuits allege racial quotas at elite colleges, high-achieving applicants call on consultants to help win admission — and receive guidance on minimizing their ethnicity
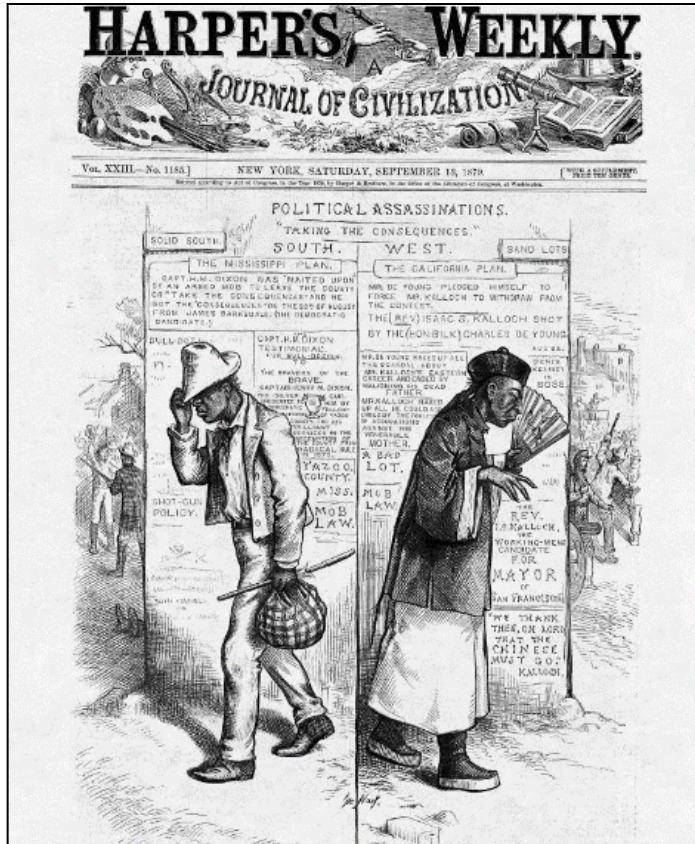
SUZANNE KREITER/GLOBE STAFF

The Army's Secret Army

TIME

Those Asian-American **WHIZ KIDS**

NYU Langone Health

Perpetual Foreigner

1882 Chinese Exclusion Act
First time in U.S. history a specific ethnic group was barred from immigration and naturalization

"The [Blacks] must go" and "The Chinese must go." The poor barbarians can't understand our civilized Republican form of government – Sept 13, 1879
Source: https://www.loc.gov/pictures/item/2010644337/

NEWSFEED • LANGUAGE

The Scripps National Spelling Bee Has Co-Champions, Again

BY KATY STEINMETZ   MAY 28, 2015 11:02 PM EDT

In a dramatic, flawless final round, two eighth-graders proved to be joint

Only one white kid left in the spelling bee, let's go buddy make America proud
8:51 PM - 28 May 2015
↩   ⇄ 6   ★ 12

B. Pacey   ▸ Follow
@Bennypac

When was the last time a true American won the spelling bee? 1815? Not meant to be racist, but come on..
9:53 PM - 28 May 2015
↩   ⇄ 9   ★ 4

Opie   ▸ Follow
@Opie_Won_Kinobi

I'm rooting for the white people in the spelling bee on in the bar right now because America 🇺🇸🇺🇸🇺🇸
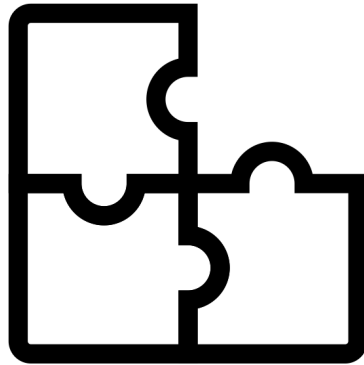8:49 PM - 28 May 2015
↩   ⇄ 3   ★

salbul1   ▸ Follow
@salbulonee

two left in the spelling bee they ain't even American
9:32 PM - 28 May 2015
↩   ⇄ 6   ★ 2

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Asian Americans
Remain Invisible Due to Data Aggregation

HealthAffairs

- describe the poor-quality data infrastructure and biases on the part of researchers and public health professionals
- highlight examples from the health disparities literature
- provide recommendations on how to implement systems-level change and educational reform to infuse racial equity in future policy and practice for Asian American communities

ANALYSIS | HEALTH EQUITY

HEALTH AFFAIRS > VOL. 41, NO. 2: RACISM & HEALTH
ANALYSIS

The Mutually Reinforcing Cycle Of Poor Data Quality And Racialized Stereotypes That Shapes Asian American Health

Stella S. Yi, Simona C. Kwon, Rachel Suss, Lan N. Đoàn, Iyanrick John, Nadia S. Islam, and Chau Trinh-Shevrin
AFFILIATIONS ⌄

PUBLISHED: FEBRUARY 2022   🔓 Open Access   https://doi.org/10.1377/hlthaff.2021.01417

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Asian Americans: The _fastest growing_ minority group
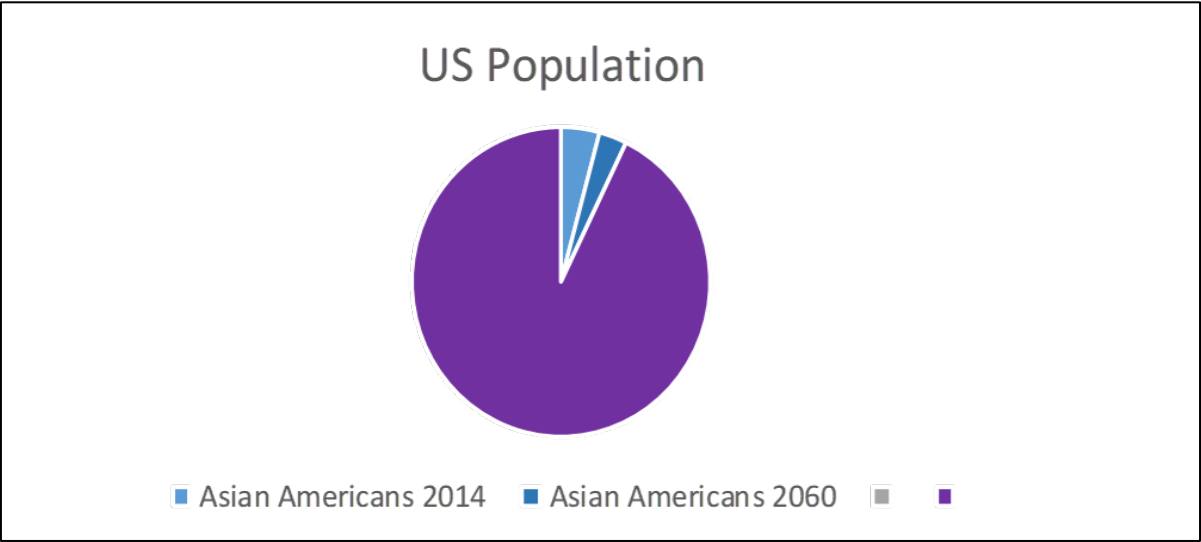
By 2060, Asian American population is projected to be **39 million** – or 9.3% of the entire US population (+128% increase).

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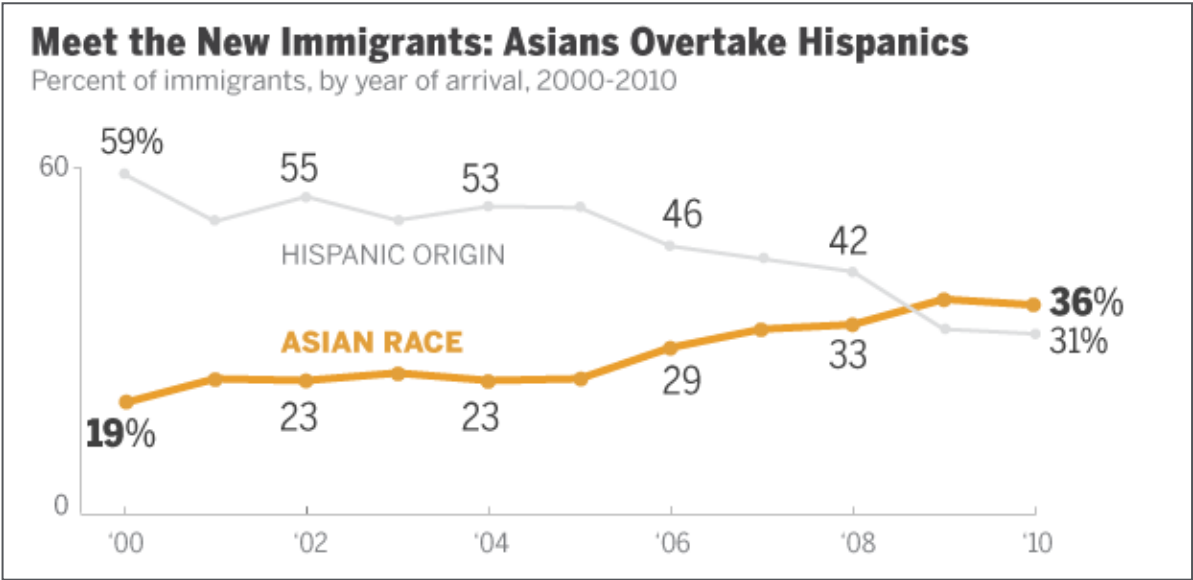
Many Ethnicities Fall Under The Asian American Umbrella

= 100,000 people

EAST ASIAN: 8.6 MILLION PEOPLE

Chinese: 4.9M   Korean: 1.9M   Japanese: 1.5M   Taiwanese: 204K

SOUTHEAST ASIAN: 7.6 MILLION PEOPLE

Filipino: 4M   Vietnamese: 2.1M   Cambodian: 322K   Thai: 313K

Hmong: 309K   Laotian: 261K   Burmese: 182K   Indonesian: 120K

SOUTH ASIAN: 5.3 MILLION PEOPLE

Indian: 4.3M   Pakistani: 515K   Bangladeshi: 188K   Nepalese: 168K

PACIFIC ISLANDER: 1.5 MILLION PEOPLE

Native Hawaiian: 600K   Samoan: 209K   Guamanian or Chamorro: 159K   Other Pacific Islander: 253K

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Research on Asian Americans is Sparse

- Asian Americans are the most understudied U.S. racial/ethnic minority group
  - **0.2%** of federal health grants on Asian Americans, Native Hawaiians & Pacific Islanders (1966-2000)
  - **0.17%** of NIH grants on AANHPIs (2000-2018)
    - # of amount of grants have increased since 2000, yet proportion is still the same
- A Medline/PubMed search of articles from 1966 to 2000 reported
  - **0.01%** of articles included any Asian Americans in the study sample (1966-2000)
- Lack of evidence-based programs, resources and services for Asian American populations
  - **1.4%** of NYC social service funding benefited the Asian American community which makes up **15%** of the population
- Not invited to participate in health disparities conversations

Sources: Islam et al. 2010. Journal of Health Care for the Poor and Underserved; 21:1354-81.; Trinh-Shevrin et al. Asian Americans Communities and Health, Wiley 2009; Dolan et al.. JAMA Network Open. 2019;2(7):e197432.

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Age-Sex-BMI Adjusted Prevalence of Total, Diagnosed and Undiagnosed Diabetes, by Race/Ethnicity, ages 20+ years, NHANES 2011-2016
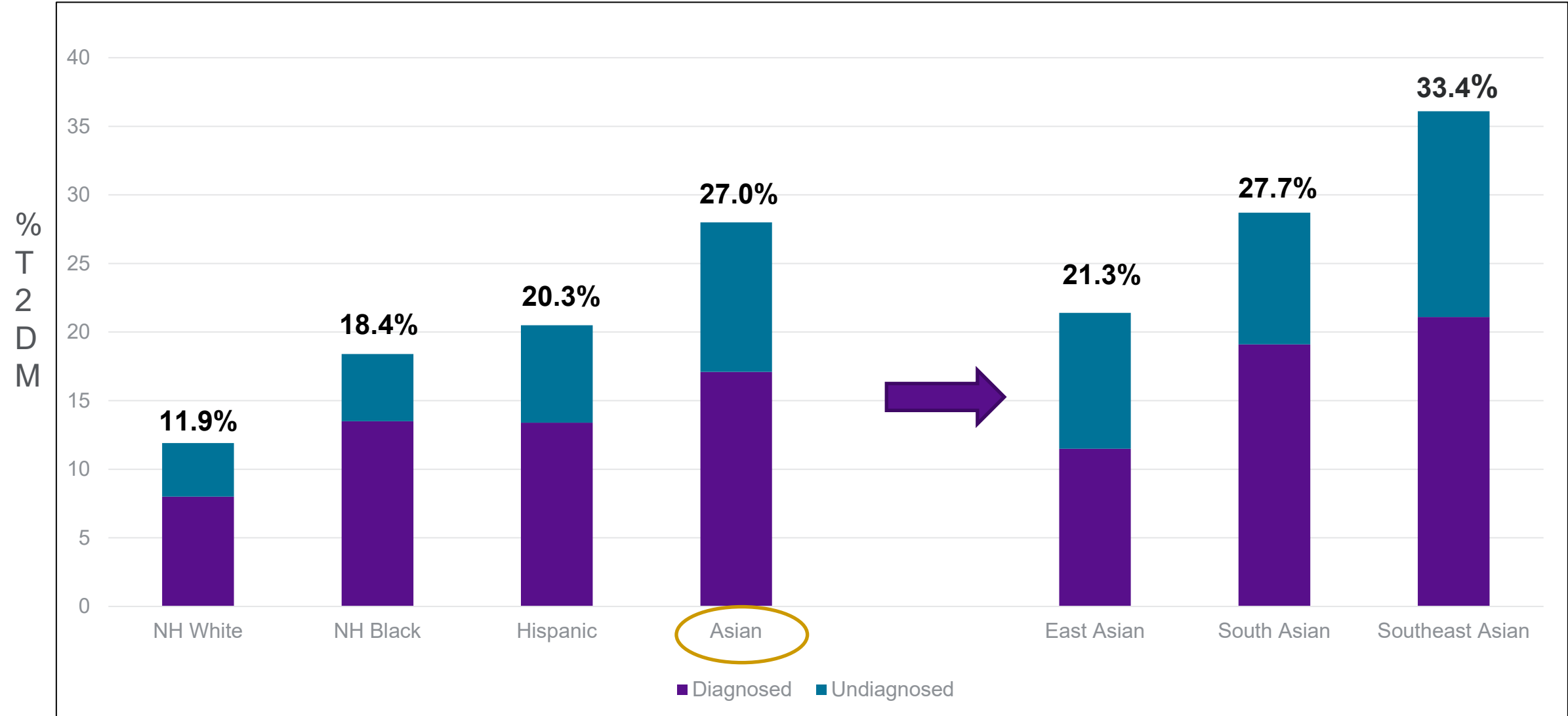
Source: Cheng, Kanaya, Araneta et al JAMA 2019; 322 (24): 2389 - 98

Is Undiagnosed Diabetes Decreasing?: NHANES 1988 to 2020

- Diagnosed diabetes has risen: 4.6% to 11.7%

- No change in undiagnosed diabetes: 2.23% to 2.53%

- Proportion with undiagnosed diabetes has fallen from 32.8% to 17.8%

- Highest proportions with undiagnosed DM:
  - Asian Americans: **24.6%**
  - Those without health insurance: **28.8%**

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Health

Percent distribution of Asian Americans with newly diagnosed Type 2 Diabetes by BMI

Araneta, Kanaya, Hsu et al. *Diabetes Care* 2015
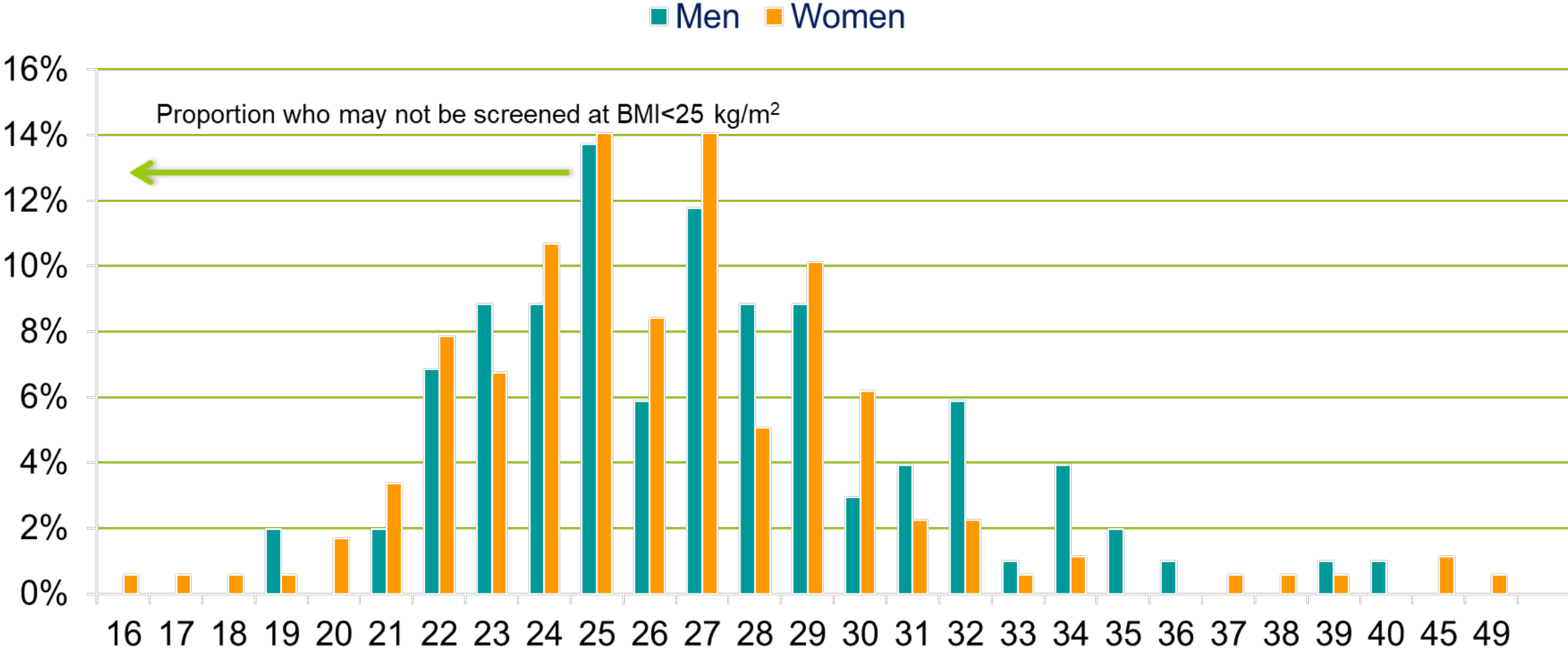
ADA recommended Screen at 23 for AsA in 2015

POSITION STATEMENT

Standards of Medical Care in Diabetes—2015
## Abridged for Primary Care Providers
American Diabetes Association

Testing should be considered in adults who are overweight (BMI ≥25 kg/m² or ≥23 kg/m² in Asian Americans) and have additional risk factors:

- Physical inactivity

- First-degree relative with diabetes

- High-risk race/ethnicity (e.g., African American, Latino, Native American, Asian American, Pacific Islander)

- Women who delivered a baby weighing >9 lb or were diagnosed with GDM

- Hypertension (≥140/90 mmHg or on therapy for hypertension)

- HDL cholesterol level <35 mg/dL (0.90 mmol/L) and/or a triglyceride level >250 mg/dL (2.82 mmol/L)

- Women with polycystic ovary syndrome

- A1C ≥5.7%, IGT, or IFG on previous testing

- Other clinical conditions associated with insulin resistance (e.g., severe obesity, acanthosis nigricans)
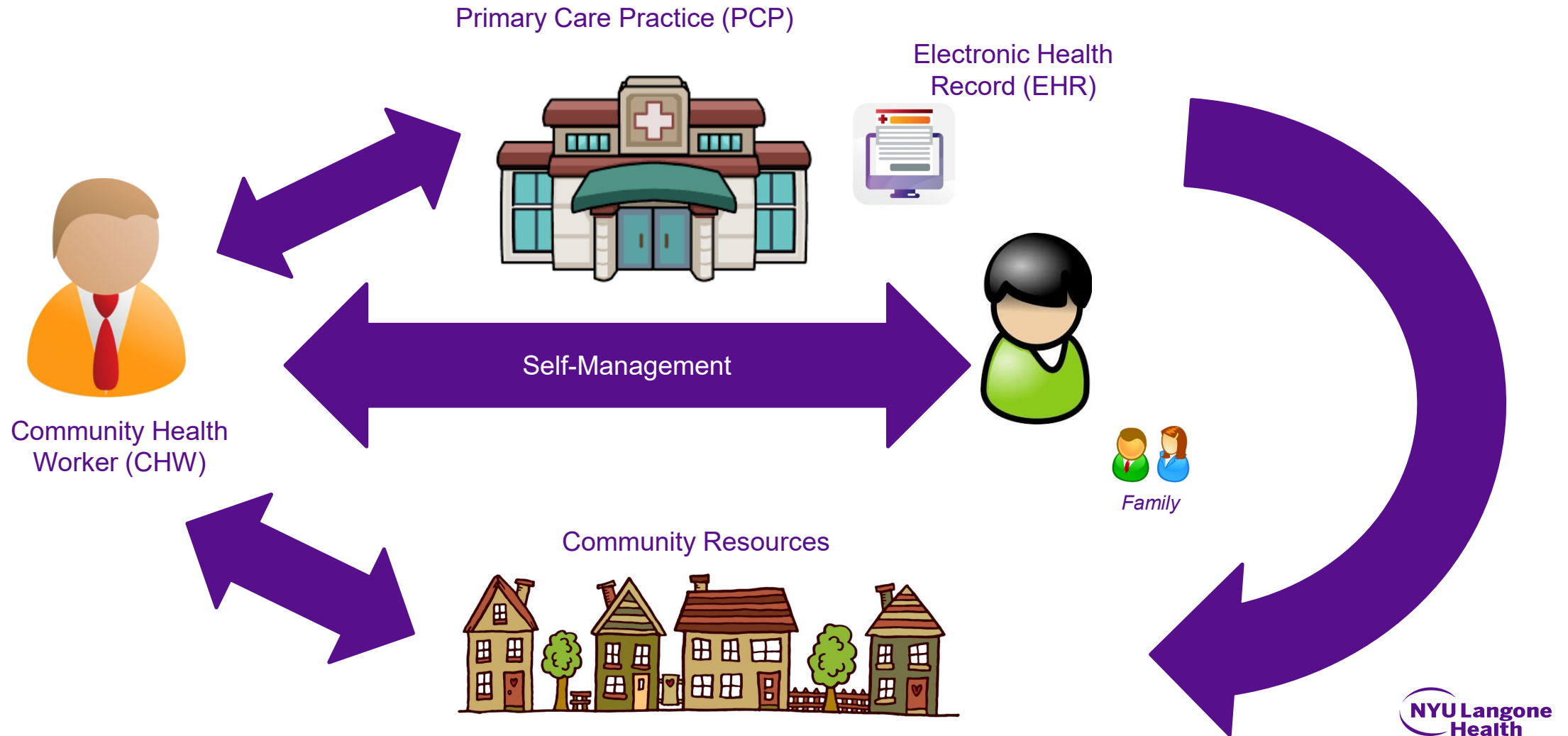
- History of CVD

SCREEN AT 23

NCAPIP
National Council of Asian
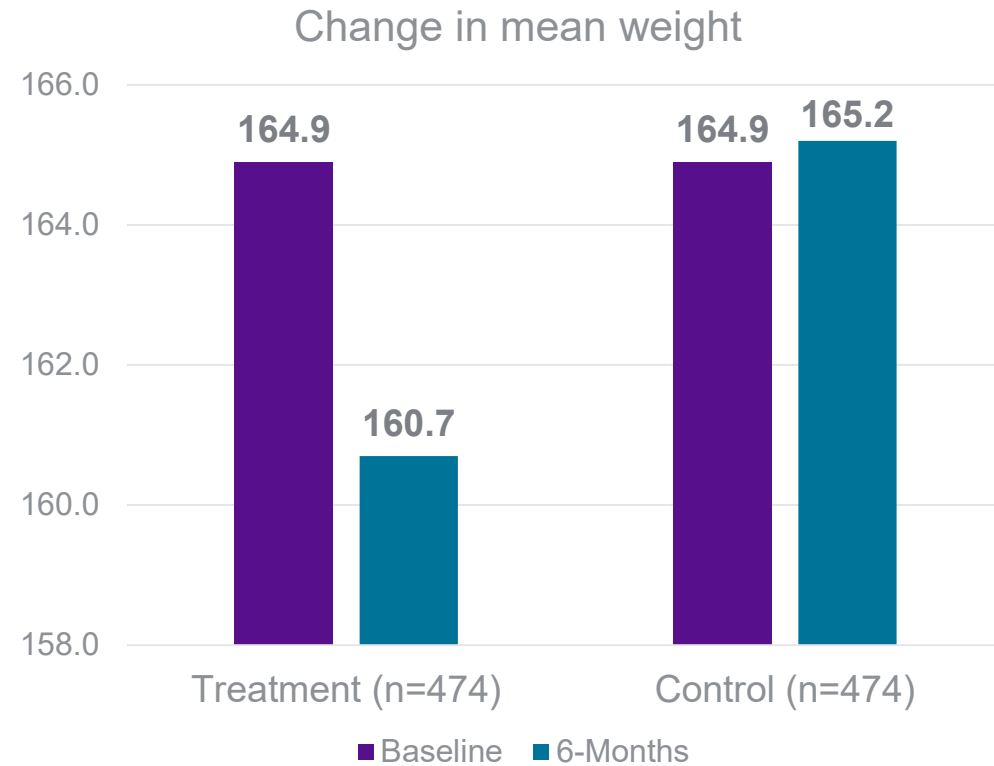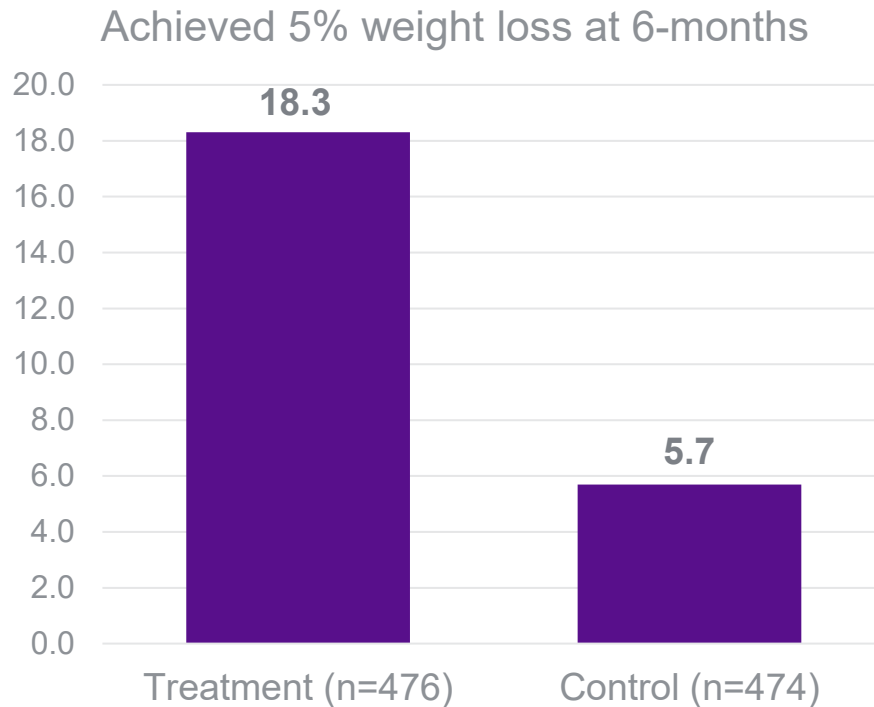Pacific Islander Physicians

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Implementing Screen at 23 in Asian-serving Primary Care Practices: NYC Experience
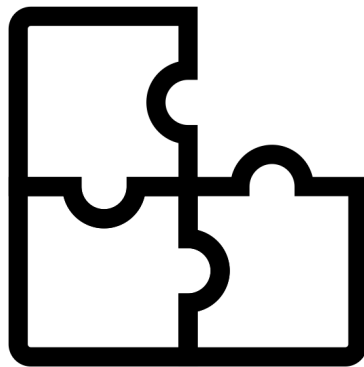
Diabetes Research, Education and Action for Minorities (DREAM): A Multi-Level Diabetes Prevention & Management Intervention

Participants that completed the intervention experienced a greater *reduction in weight*

Achieved 5% weight loss at 6-months

Treatment (n=476): 18.3
Control (n=474): 5.7

Change in mean weight

Treatment (n=474): Baseline 164.9, 6-Months 160.7
Control (n=474): Baseline 164.9, 6-Months 165.2

■ Baseline ■ 6-Months

Screen at 23 efforts paired with culturally tailored coaching can promote diabetes prevention in South Asian communities

NYU Langone Health
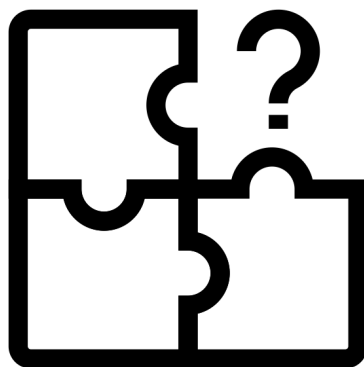
From race-based to race-conscious medicine: how anti-racist uprisings call us to act

Jessica P Cerdeña*, Marie V Plaisime*, Jennifer Tsai*

	How race is used	Rationale for race-based management	Potential harm	Race-conscious approach
eGFR[6]	eGFR for Black patients is multiplied by 1·16–1·21 the eGFR for White patients, depending on the equation used	Black patients are presumed to have higher muscle mass and creatinine generation rate than patients of other races	Black patients might experience delayed dialysis and transplant referral[8,9]	Use eGFR equations that do not adjust for race (eg, CKD-EPI Cystatin C)[10]
BMI risk for diabetes[7]	Asian patients considered at risk for diabetes at BMI ≥23 vs 25 for patients of other races	Asian patients are presumed to develop more visceral than peripheral adiposity than patients of other races at similar BMI levels, increasing risk for insulin resistance[7]	Asian patients screened for diabetes despite absence of other risk factors might experience increased stigma and distrust of medical providers[11]	Screen patients with lower BMIs on the basis of indications of increased body fat (eg, body roundness,[12] body fat percentage), not based on race
FRAX[13]	Probability of fracture is adjusted according to geography or minority status, or both	Different geographical and ethnic minority populations are presumed to have varied relative risks for fracture on the basis of epidemiological data	Some populations, including Black women, might be less likely to be screened for osteoporosis than other populations[14]	Screen patients for osteoporosis on the basis of clinical risk criteria, rather than race; counteract existing biases that place Black patients at risk because of racial essentialist beliefs about variation in bone density[15]

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Another look at NHANES data

American Journal of Preventive Medicine

RESEARCH ARTICLE

Screening for Prediabetes and Diabetes: Clinical Performance and Implications for Health Equity

Matthew J. O'Brien, MD, MSc,[1,2,3,4] Yan Zhang, MPH, MS,[5] Stacy C. Bailey, PhD, MPH,[1,2] Sadiya S. Khan, MD, MSc,[4,6] Ronald T. Ackermann, MD, MPH,[1,2,3] Mohammed K. Ali, MD, MSc,[5,7,8] Stephen R. Benoit, MD, MPH,[5] Giuseppina Imperatore, MD, PhD,[5] Christopher S. Holliday, MPH, PhD,[5] Kai McKeever Bullard, PhD, MPH[5]

- Screening at lower age and BMI thresholds resulted in even greater sensitivity and lower specificity, especially among Hispanic, non-Hispanic Black, and Asian adults

- Screening **all adults aged 35−70 years regardless of BMI** yielded the most equitable performance across all racial and ethnic groups

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Conclusions

- Several Asian American groups have high prevalence of T2DM; disaggregating data is critical to reveal these disparities
- Asian Americans have the highest proportions of individuals with undiagnosed diabetes
- Current screening criteria recommend screening at age 35+ for those who are overweight or a BMI ≥23 for Asian Americans
- Diagnostic screening different from race-based algorithms, or use of BMI for exclusionary practice: *pairing screening with culturally and linguistically tailored diabetes prevention/self-management information is critical*
- More physician education on variation on risk differences among ethnic and age groups at varying BMI
- Using BMI in conjunction with other valid measures of risk: : (a) visceral fat, (b) body adiposity index, (c) body composition, (d) relative fat mass, (e) waist circumference and (f) genetic/metabolic factors.
- Until/unless screening is found to be cost-effective for all adults regardless of age or BMI, we should use the currently recommended ADA/USPSTF guidelines
- **Need to move towards more holistic screening across populations (younger age screening among minoritized groups)**

Acknowledgements

- Faculty, staff, and partners of the NYU Center for the Study of Asian American Health (CSAAH)
- Alka Kanaya, MD, UCSF
- Winston Wong, MD

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