Aging and HIV: Key Clinical Issues

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RUTGERS HEALTH

ANAC Association of Nurses in AIDS Care

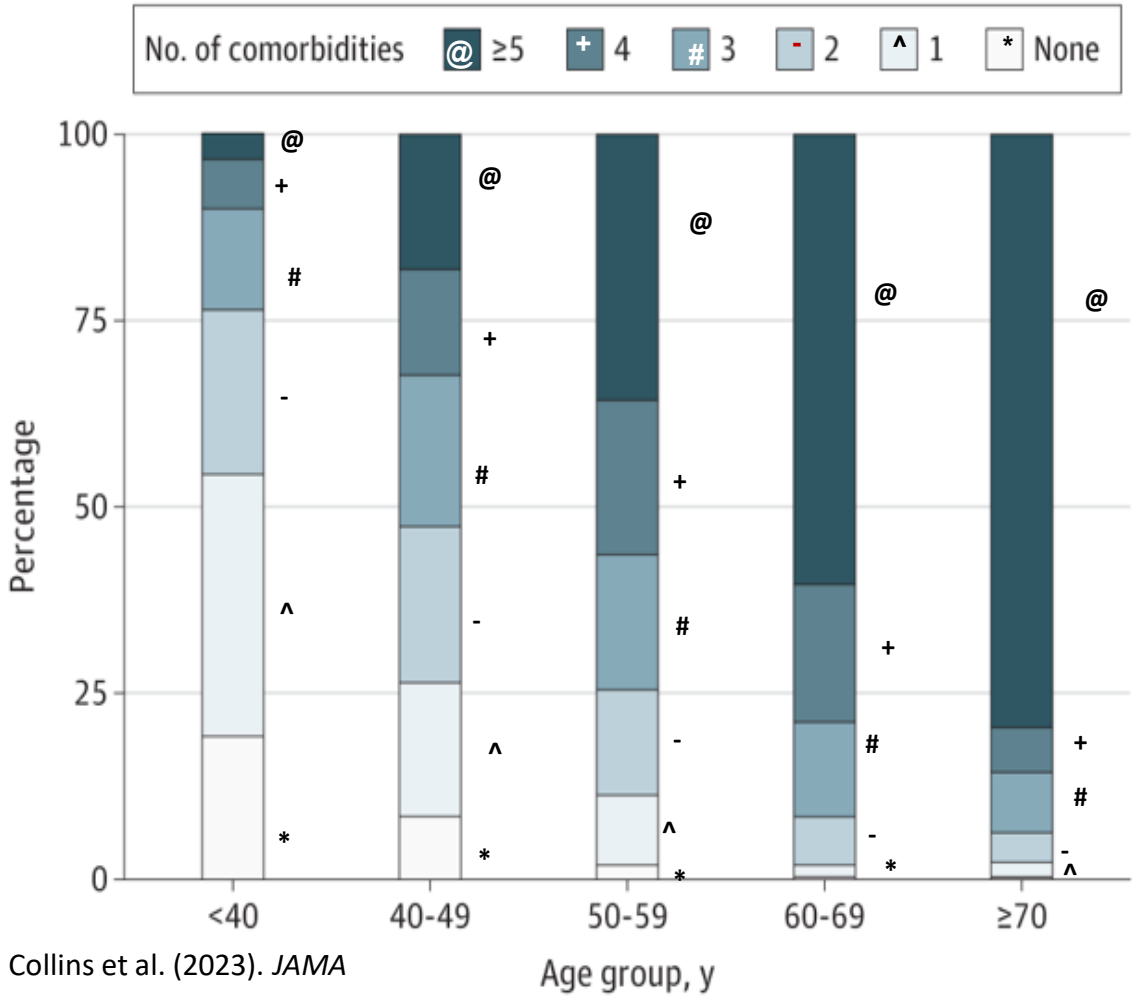
70% of Persons with HIV will be 50 years or older by 2030

WING EJ. The Aging Population with HIV Infection. Trans Am Clin Climatol Assoc. 2017;128:131-144.

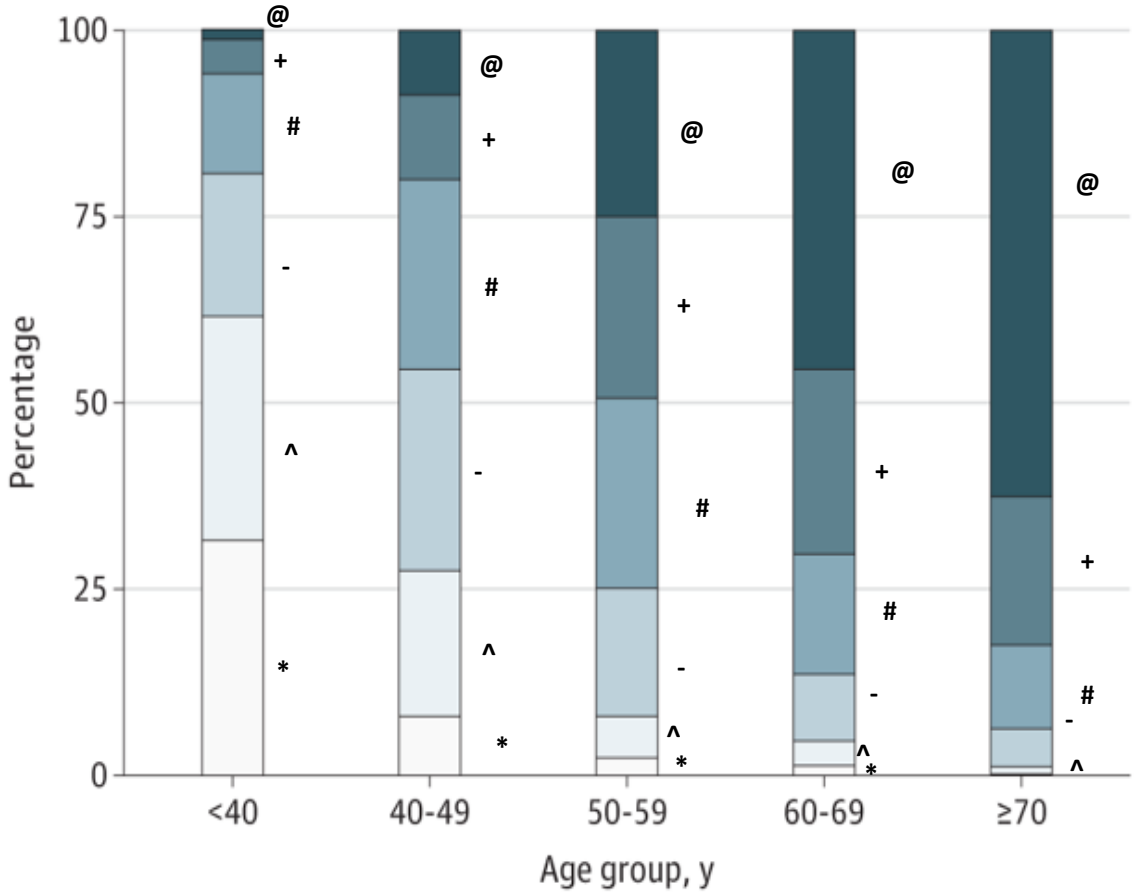
Higher Rates of Multiple Comorbidities as PWH Age

(n=3,768)

Women with HIV

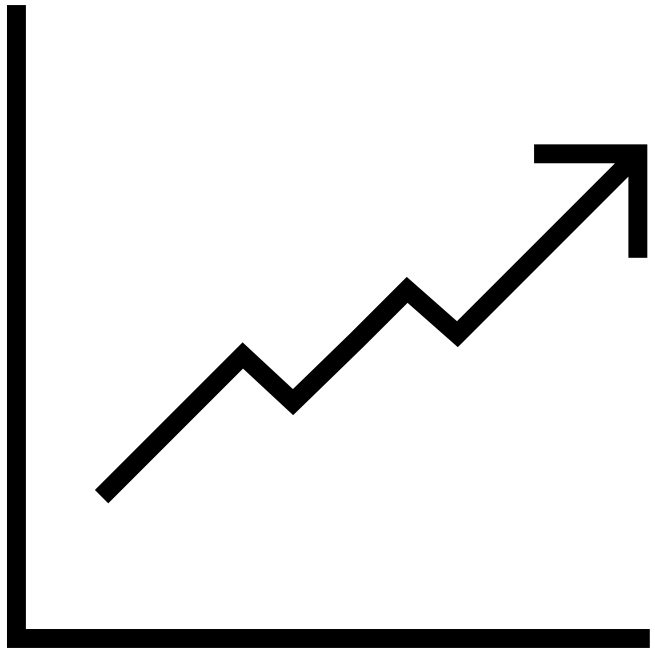


Men with HIV



Collins et al. (2023). *JAMA*

Cardiovascular Disease (CVD)



- 2-fold increased risk of cardiovascular disease in PWH
- Global burden has increased 3x over past 20 years

Shah ASV, Stelzle D, Lee KK, et al. Global Burden of Atherosclerotic Cardiovascular Disease in People Living With HIV: Systematic Review and Meta-Analysis. Circulation. 2018;138(11):1100-1112

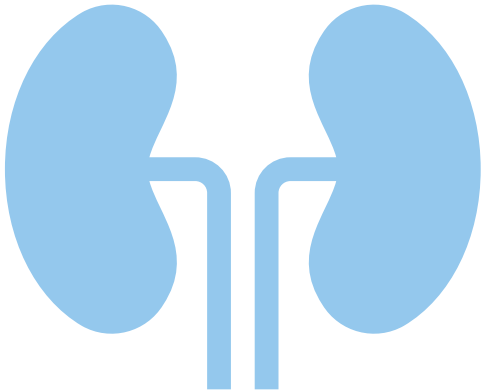
Type II Diabetes

Overall Prevalence

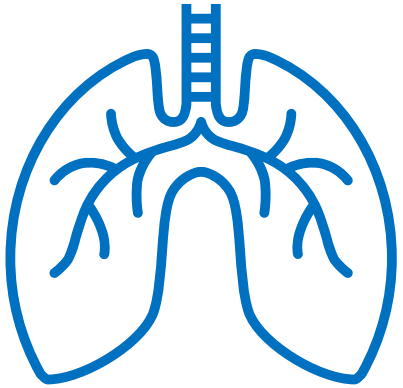
22.1% among PWH **vs** **14.9%** in persons without HIV (n=90,900)

Birabaharan, et al. Prevalence of Type II Diabetes Mellitus Among Patients Living with HIV in the United States, *Open Forum Infectious Diseases* 2019

Other Chronic Conditions



Nearly **twice** the rate of Chronic Kidney Disease



Highest risk of **lung cancer** in PWH **60** years and older

Higher rates of Alzheimer Disease and Alzheimer-Related Dementias

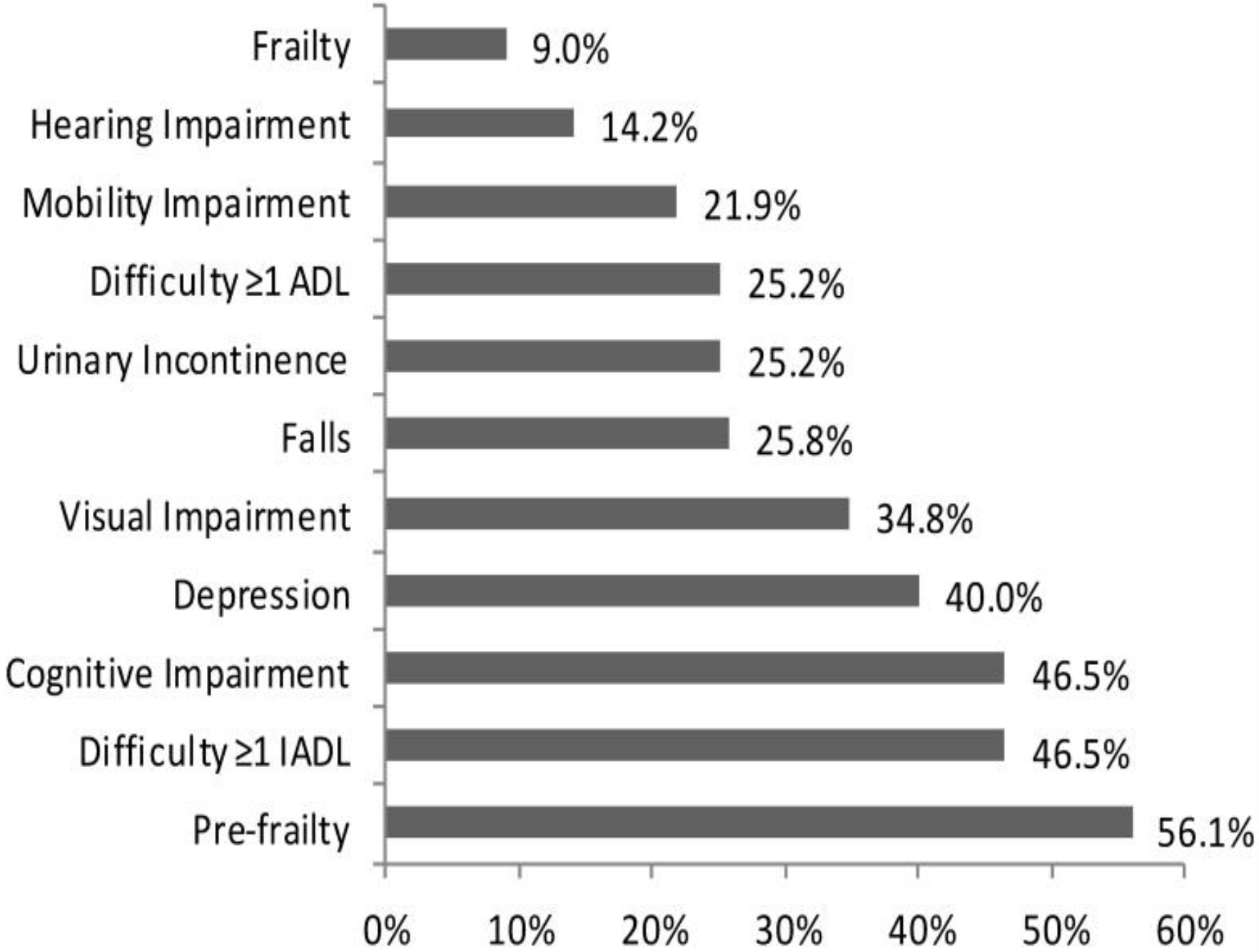
Haas CB, Engels EA, et al. Trends and risk of lung cancer among people living with HIV in the USA: a population-based registry linkage study. *Lancet HIV*. 2022;9(10):e700-e708.

Ekrikpo UE, Kengne AP, et al. Chronic kidney disease in the global adult HIV-infected population: A systematic review and meta-analysis. PLoS One. 2018;13(4):e0195443.

Yu X, Kuo YF, Raji et al. . Dementias Among Older Males and Females in the U.S. Medicare System With and Without HIV. J Acquir Immune Defic Syndr. 2023;93(2):107-115

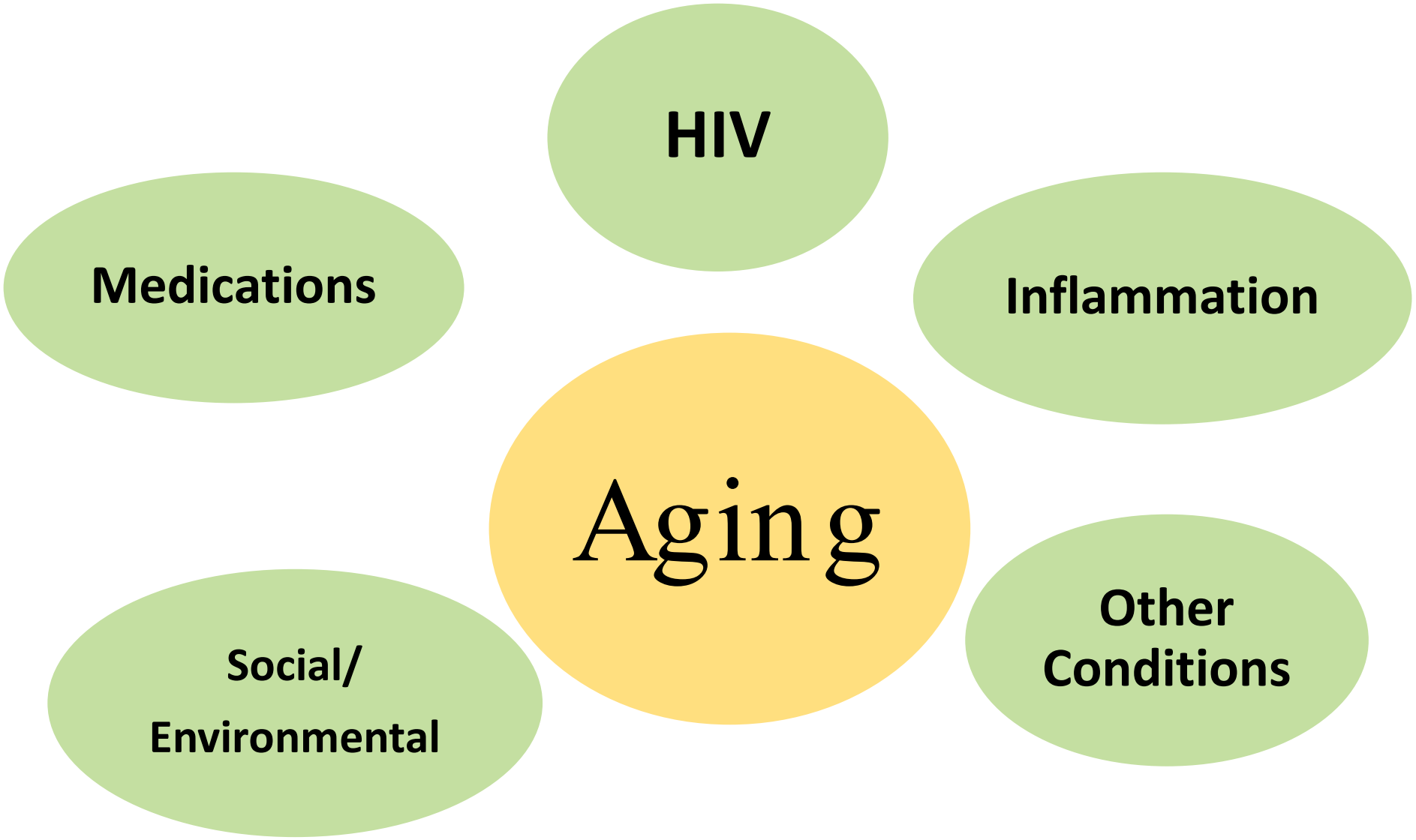
Pre-Frailty and Frailty Seen More Frequently

Frailty associated with increased risk for poor health, falls, disability, hospitalization, and mortality.



Greene M, Covinsky KE, Valcour V, et al. Geriatric Syndromes in Older HIV-Infected Adults. *J Acquir Immune Defic Syndr*. 2015;69(2):161-167

Multiple Factors Impact Aging



RESPOND – Hypertension and Associated Complications

- **Integrase Inhibitors** (BIC, DTB, RAL, EVG/c) vs **Non-Integrase Inhibitors** (ATV/b, DRV/b, RPV, EFV)
- Of the **9,704** <u>without</u> hypertension at baseline, **30.7% developed hypertension** over 39993 person-years.
- Integrase Inhibitors ± Tenofovir Alafenamide (TAF) associated with hypertension

1. Byonanebye. IAS 2023. Abstr OALBB0505. 2. Rupasinghe. IAS 2023. Abstr OAB0402.

There is a GAP in Evidence Based Guidelines

Circulation
Volume 148, Issue 13, 26 September 2023; Page e148

American Heart Association.

CORRECTIONS

Correction to: 2023 AHA/ACC/ACCP/ASPC/NLA/PCNA Guideline for the Management of Patients With Chronic Coronary Disease: A Report of the American Heart Association/American College of Cardiology Joint Committee on Clinical Practice Guidelines

In the article by Virani et al, "2023 AHA/ACC/ACCP/ASPC/NLA/PCNA Guideline for the Management of Patients With Chronic Coronary Disease: A Report of the American Heart

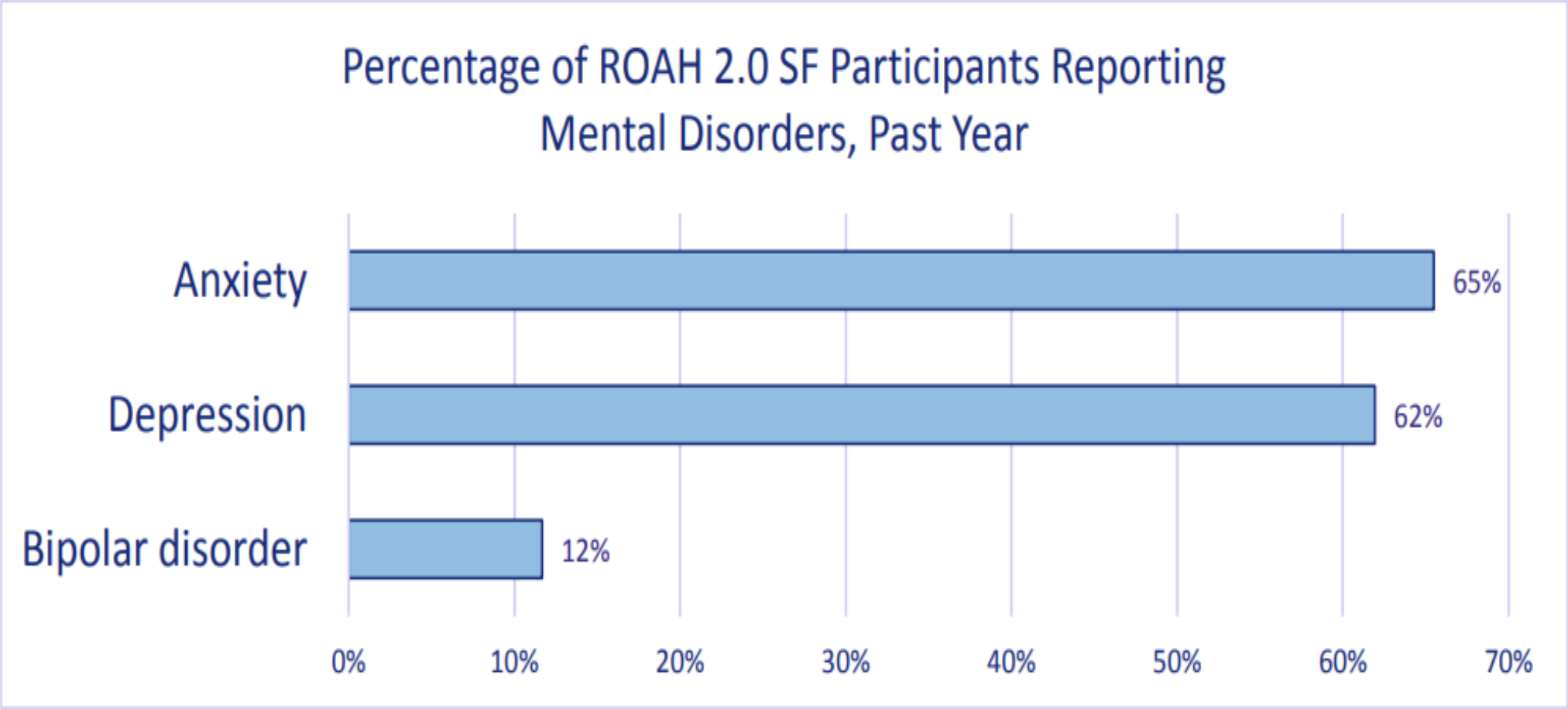
35% reduction in Major Cardiac Events in persons with HIV at "**low-to-moderate**" **risk** who were administered pitavastatin

The NEW ENGLAND JOURNAL of MEDICINE
ESTABLISHED IN 1812 AUGUST 24, 2023 VOL. 389 NO. 8

Pitavastatin to Prevent Cardiovascular Disease in HIV Infection

Steven K. Grinspoon, M.D., Kathleen V. Fitch, M.S.N., Markella V. Zanni, M.D., Carl J. Fichtenbaum, M.D., Triin Umbleja, M.S., Judith A. Aberg, M.D., Edgar T. Overton, M.D., Carlos D. Malvestutto, M.D., M.P.H., Gerald S. Bloomfield, M.D., M.P.H., Judith S. Currier, M.D., Esteban Martinez, M.D., Ph.D., Jhoanna C. Roa, M.D., Marissa R. Diggs, B.A., Evelynne S. Fulda, B.A., Kayla Paradis, M.B.A., Stephen D. Wiviott, M.D., Borek Foldyna, M.D., Sara E. Looby, Ph.D., Patrice Desvigne-Nickens, M.D., Beverly Alston-Smith, M.D., Jorge Leon-Cruz, M.S., Sara McCallum, M.P.H., Udo Hoffmann, M.D., M.P.H., Michael T. Lu, M.D., M.P.H., Heather J. Ribaudo, Ph.D., and Pamela S. Douglas, M.D., for the REPRIEVE Investigators*

Depression and Anxiety



Erenrich R, Seidel L, et al. 2018. Roah 2.0

Alcohol & Substance Use

- Prevalence of alcohol use **17%** in people with HIV >60 y.o.
- Higher morbidity/mortality at lower levels of alcohol consumption among people with HIV vs without HIV
- Impacts cognitive function
- Associated with lower adherence to care continuum

Crane HM, McCaul ME, Chander G, et al. AIDS Behav. 2017;21(7):1914-1925.
Vagenas P, Azar MM, Copenhaver MM, et al. Curr HIV/AIDS Rep. (2015) 12:421– 36.

NEARLY TWO-THIRDS OF OLDER ADULTS WITH HIV EXPERIENCE BOTH HIV STIGMA AND AGEISM.

Stigma and Adherence

- Increased HIV stigma associated with increased odds of detectable viral load

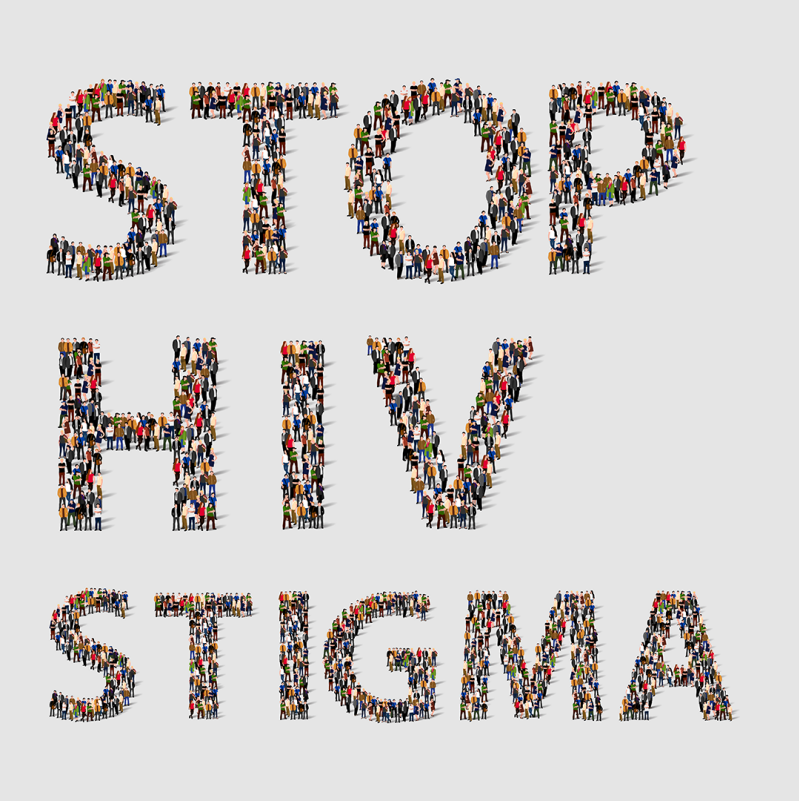
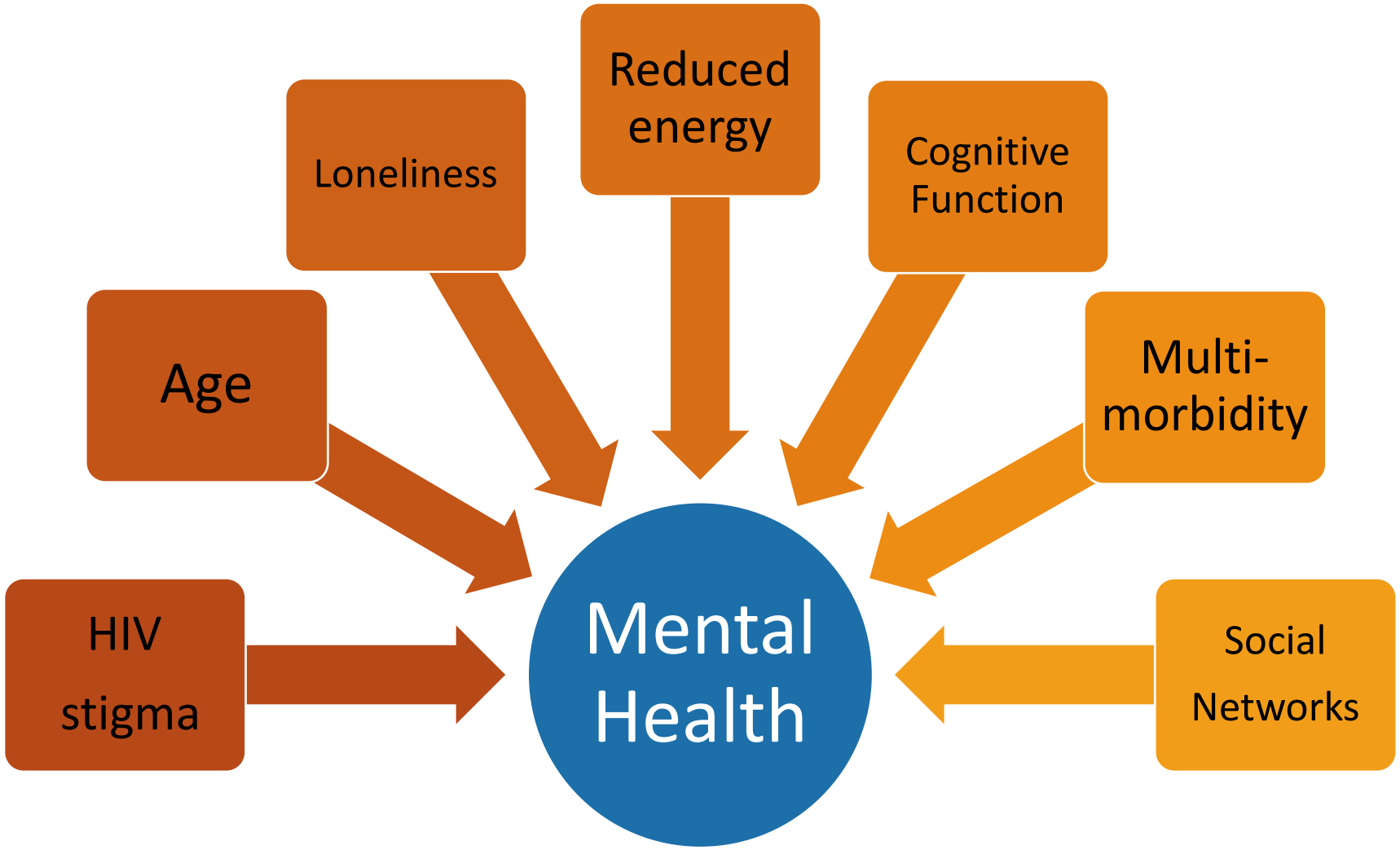


Image: https://www.cdc.gov/stophivtogether/partnerships/toolkit/february-202-toolkit.html

Kemp CG, Lipira L, Huh D, et al. *AIDS*. 2019;33(9):1511–1519.

Lipira L, Williams EC, Huh D, et al. *AIDS Behav*. 2019;23(8):2025–2036.



Yoo-Jeong M, Hepburn K, Holstad M, Haardo¨rfer R, Waldrop- Valverde D. Correlates of loneliness in older persons living with HIV. AIDS Care. 2019:

Cost and Coverage

Prescription abandonment rates

- < 5% when the no out-of-pocket cost
- 45% when cost is > $125
- 60% when cost is > $500

Image:istock

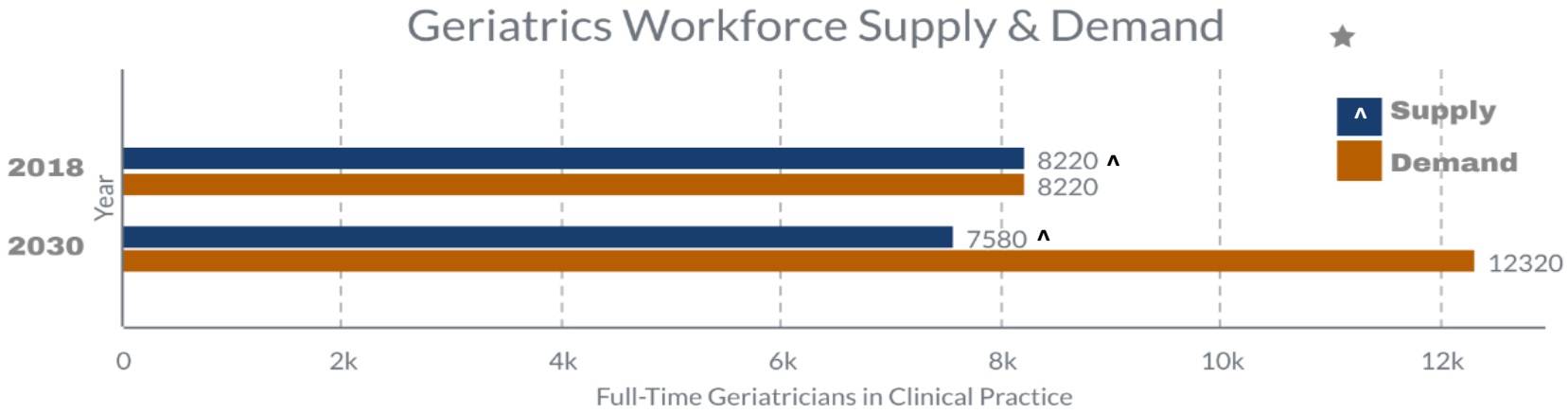
Rose, J (2022). *AJMC*. Medication Adherence is not a zero sum game

Why Is This Important?

- Quality of Life
- Health Care Costs
- Mortality

Where is the Expertise?

50%
INCREASE
in demand for
geriatricians,
2018-2030 ★



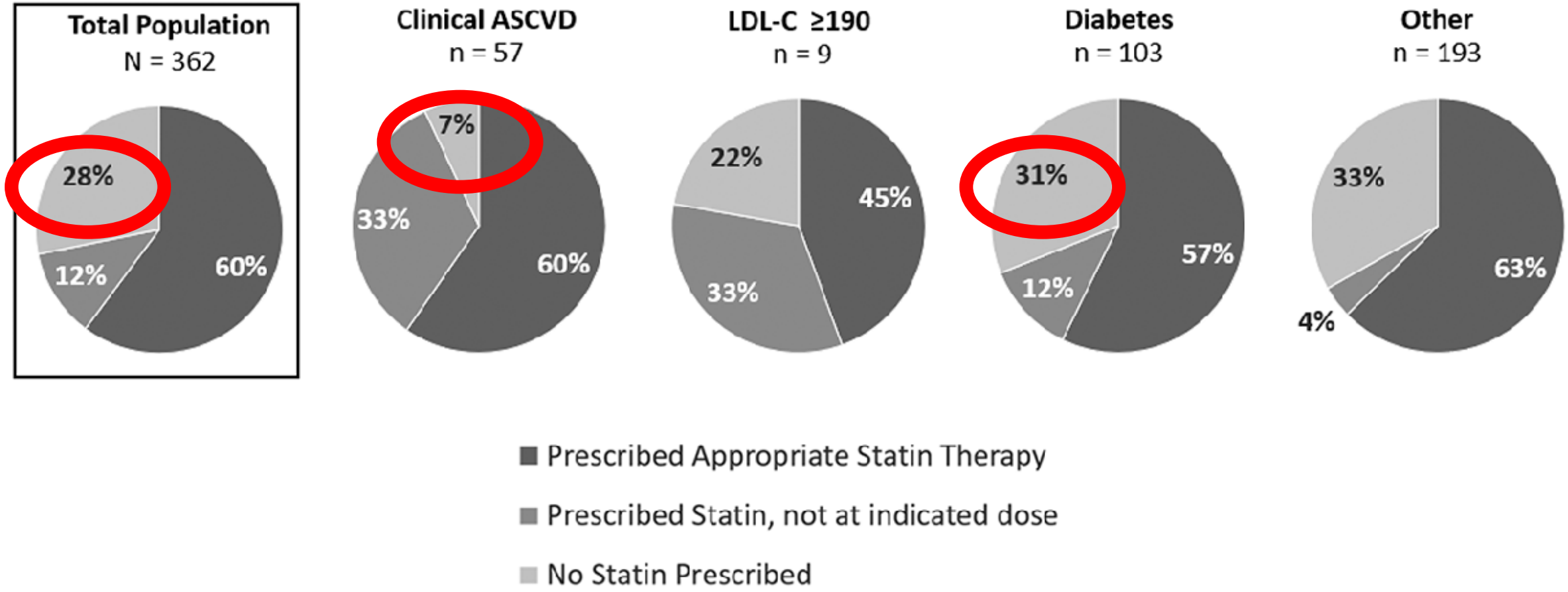
8,220 full-time
practicing geriatricians

Adult-Gerontology Nurse
Practitioners
15.9% of all Nurse Practitioners

52.4 Million People 65 yrs +

https://www.americangeriatrics.org/geriatrics-profession/about-geriatrics/geriatrics-workforce-numbers
https://www.aanp.org/about/all-about-nps/np-fact-sheet

Statin Use: Real World Findings



Cottino M, Kulig C, Suh J, Jimenez H. Evaluation of Statin Prescribing Practices and Predictors of Statin Underutilization in Persons With HIV. *JAIDS Journal of Acquired Immune Deficiency Syndromes.* 2023; 92 (4): 334-339. doi: 10.1097/QAI.0000000000003141.

Undertreatment of Hypertension in PWH

- N=2567
- **69%** with hypertension
- Only **39.3%** prescribed antihypertensive

Mclaughlin MM, Durstenfeld MS, Gandhi M, et al. Cardiovascular health among persons with HIV without existing atherosclerotic cardiovascular disease [published online ahead of print, 2023 Jul 27]. *AIDS*.

Are Our Long Term Care Facilities Prepared?

Nearly **64%** of long stay NH residents with HIV **did not receive** an **ART** regimen during an average observation period of one year.

Zhang T, Shireman TI, et al. Use of antiretroviral therapy in nursing home residents with HIV. J Am Geriatr Soc. 2022;70(6):1800-1806.

Other Clinical Challenges and Issues

- 3,753 **new HIV** diagnosis in persons 55+ yrs in 2022
- Persons diagnosed later have more advanced disease
  - **34%** of those diagnosed @ 55 yrs+ had Advanced HIV disease
- Only **36.7%** of persons **55** yrs or older **in need of PrEP** received it
- Multiple opportunities for screening and early detection are often missed

Centers for Disease Control and Prevention. Core indicators for monitoring the Ending the HIV Epidemic initiative (preliminary data): National HIV Surveillance System data reported through June 2023; and preexposure prophylaxis (PrEP) data reported through March 2023. *HIV Surveillance Data Tables 2023*;4(3). https://www.cdc.gov/hiv/library/reports/surveillance-data-tables/. Published October 2023. Accessed

Key Take Aways

Persons aging with HIV experience higher rates of co-occurring conditions that appear at earlier ages

Multiple factors impact aging – social, biologic, physical, cultural, economic

More research and evidence is needed to understand the impact of aging in PWH

We must educate and train the healthcare workforce to care for persons aging with HIV

Thank You

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