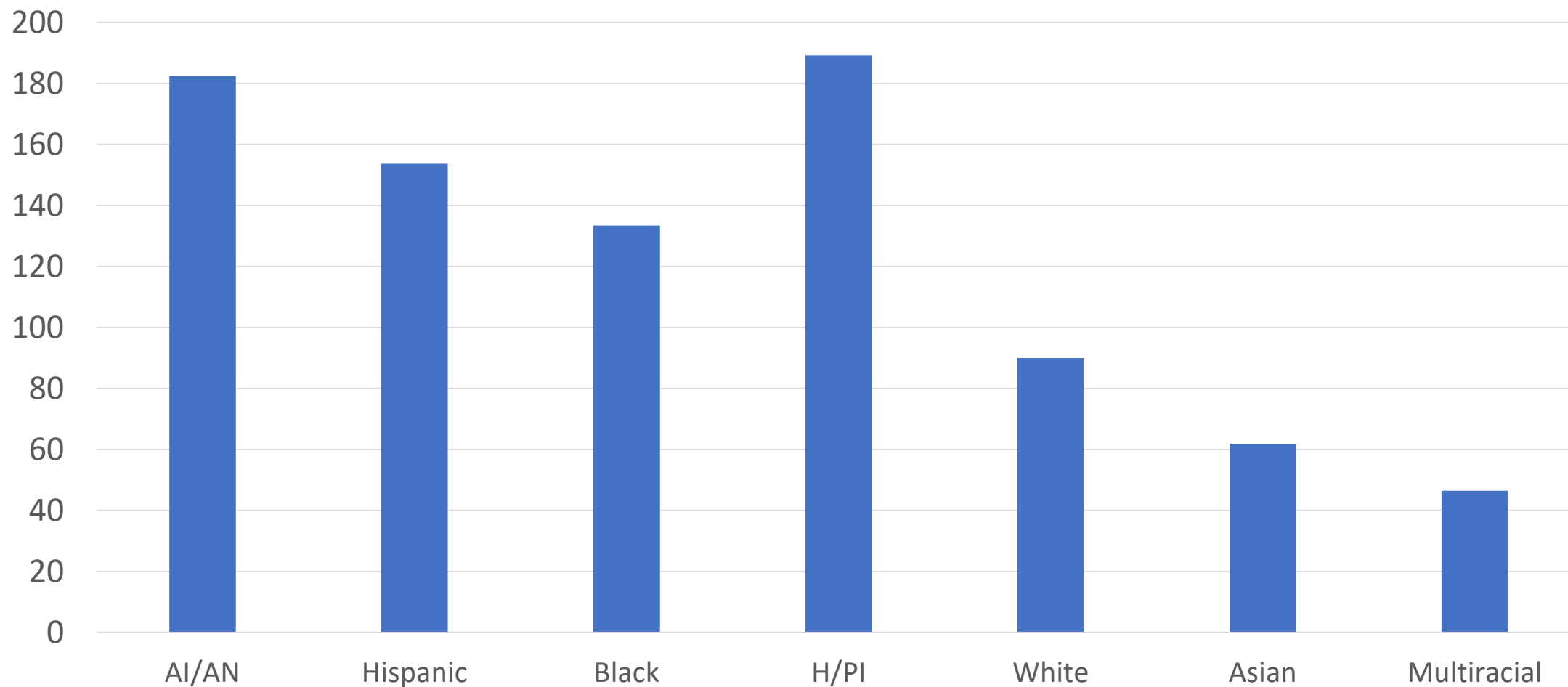


COVID-19 and pre-existing  
medical and social conditions

# Social & biological risk both matter

- Certain racial/ethnic minorities more likely to acquire COVID-19 infection
- Also more likely to have chronic disease risk factors for poor outcomes from COVID-19

# Age-adjusted COVID-19 death rates by race/ethnicity for 2021, per 100,000 population (MMWR 4/29/22)



AI/AN: American Indian or Alaska Native; H/PI: Hawaiian/ Other Pacific Islander

# Social circumstances that increase risk of acquiring COVID-19

- Frontline workers
- Transport-related work
- Commuting on public transportation
- Crowded households
- Multigenerational households
- Shared kitchen

# Higher COVID-19 death rates for persons with certain chronic conditions

- Diabetes
- Smokers
- Chronic lung disease
- Cancer; recent chemotherapy
- High blood pressure
- Mental illness

Embury et al, Preventing Chronic Disease, June 2022  
Reddy et al, J Medical Virology, August 2020  
Williams et al, Clinical Oncology, March 2021

# Vaccine especially important if chronic illness

- Initial vaccine series (1 or 2 shots depending on vaccine)
- Booster important with new variants
- People over the age of 50 can now get a 2nd booster (4<sup>th</sup> shot) 4 months after their last vaccine dose.
- 2<sup>nd</sup> booster especially needed for high risk individuals:
  - 65+ and older
  - People 50 and older with medical conditions that increase their risk for severe disease from COVID-19

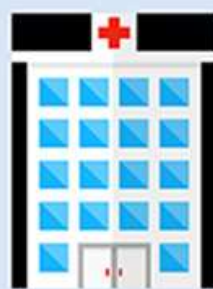
# Obesity diabetes hypertension and severe outcomes among inpatients with COVID-19: a nationwide study

Exposure COVID-19

Outcomes

Results

134,209 French inpatients



**Invasive mechanical ventilation**



IMV = 13,596 (10.1%)



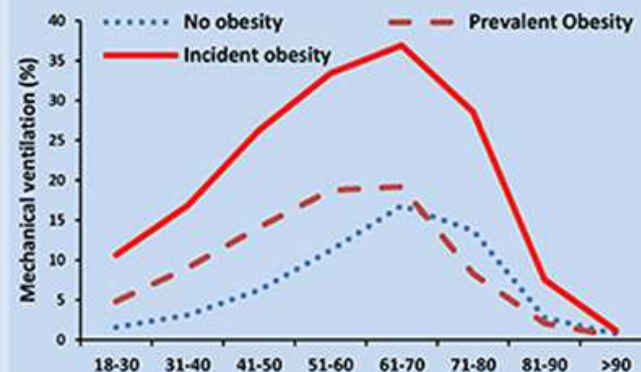
**IMV**

Obesity OR=1.9 [1.8-2.0]\*\*

Diabetes OR=1.4 [1.3-1.4]\*\*

Hypertension OR=1.7 [1.6-1.8]\*\*

Invasive mechanical ventilation and obesity by age



Severe outcomes in patients\*

COVID-19 with obesity diabetes

hypertension vs patients\* COVID-

19 without obesity diabetes or hypertension

**In-hospital death**



19,969 (14,9%)

**Death**

Obesity OR=1.2 [1.1-1.2]\*\*

Diabetes OR=1.2 [1.1-1.2]\*\*

\*Adults admitted to hospital for COVID-19 from February to September 2020

\*\* Adjusted on age, gender and Charlson's comorbidity index score

Bailly L. et al 2021

# Reducing risk from pre-existing conditions

(connect with primary care to manage these)

- Assist with smoking cessation
  - Ask – Advise – Assess – Assist – Arrange (5 A's)
- Dietary strategies for weight loss
- Participate in an appropriate, tailored physical activity program
- Optimize diabetes control with diet and medications
- Address social risk factors if possible: (housing, food security, utilities, transportation) by referral to social services



# Weight loss counseling if obese

(patient should discuss with primary care clinician)

- Eat whole foods, not processed. E.g. Chicken breast, not nuggets.
- Exercise 30 minutes a day (needs ok by health care provider if history of heart disease or kidney disease or diabetes).
- Aim to lose weight gradually, 1-2 pounds per week.
- Don't think "diet." Think long-term plan to eat the right portions of healthy foods you like.