



HealthFlex Summit— October 2022



Wespath

BENEFITS | INVESTMENTS

Data Insights: Cedar Gate Health Data Warehouse

Agenda

- Why have a health data warehouse?
- What's in it?
- What do we do with it?
- *Data Insights:*
 - PART 1: Social Determinants of Health and HealthFlex
 - PART 2: Long COVID



Why have a health data warehouse?

- Maintain privacy of HealthFlex members
 - All members have a Blinded ID in the application
- Makes HIPAA compliance easier
- Provides a very specialized digital application and team to bring health and well-being data together in one place



What data goes into the data warehouse?

- Medical claims:
 - Blue Cross Blue Shield (BCBS)
 - UnitedHealthcare (UHC)
- OptumRx pharmacy claims
- Eligibility—who's in what plan from each plan sponsor
- Lab—Quest Blueprint for Wellness®
- Participation (Well-Being programs)
 - Omada Health (chronic disease prevention, diabetes management)
 - Virgin Pulse®



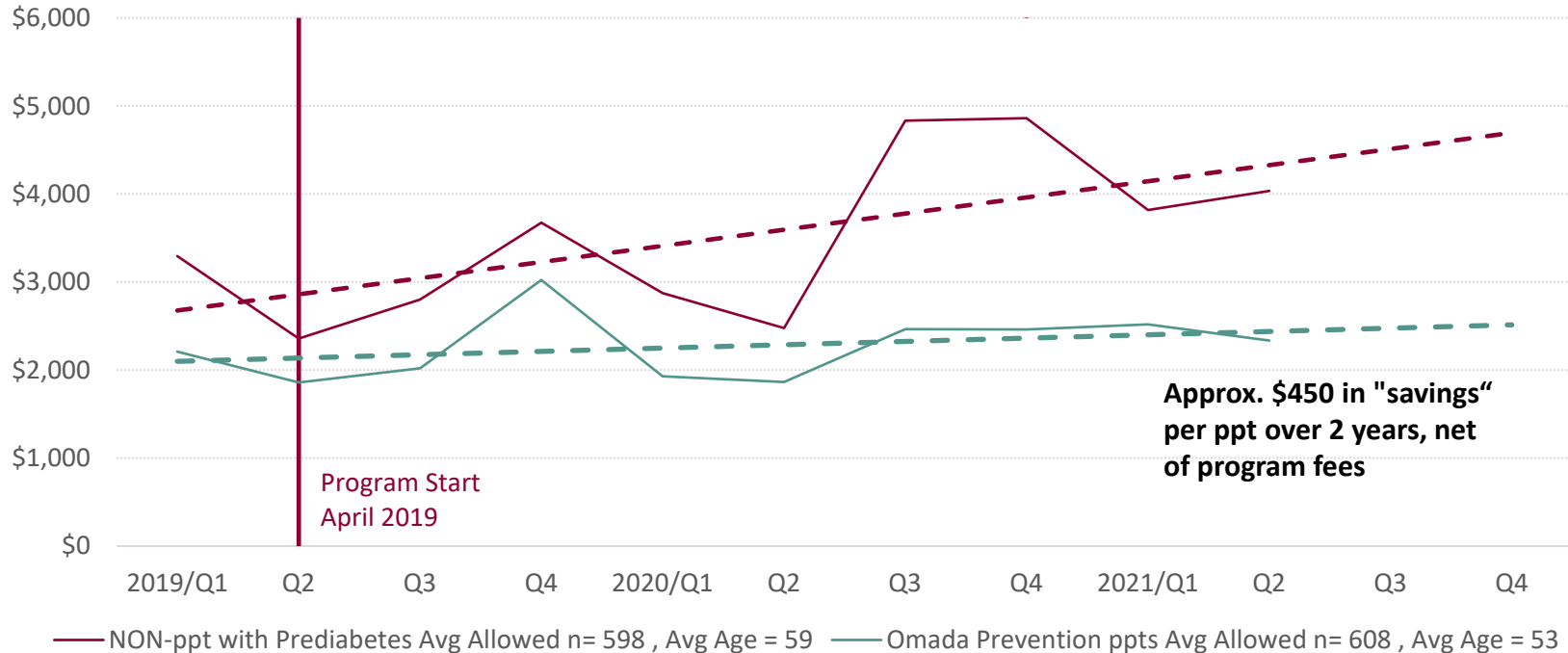
What do we do with the data?

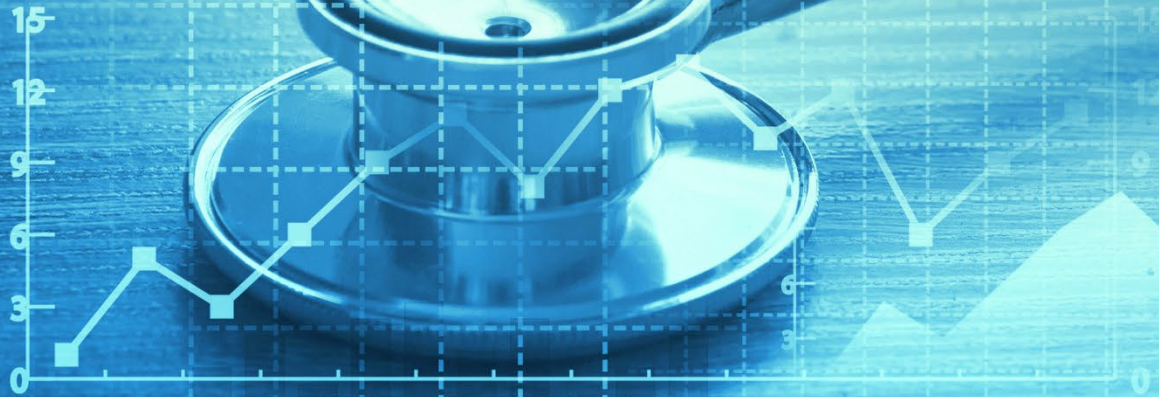
- Willis Towers Watson (WTW) consultants use medical and Rx claims data for each HealthFlex plan sponsor to help set premiums
- Reporting to plan sponsors:
 - WTW quarterly report
 - Benefit Plans Summary Reports
- Analyze whether participation in a well-being program affects medical and/or Rx costs



Omada Prevention Ppts vs Non-Ppts with Prediabetes

Prevention Medical + Rx Average Allowed Costs





Social Determinants of Health Insights

Social Determinants of Health (SDOH)

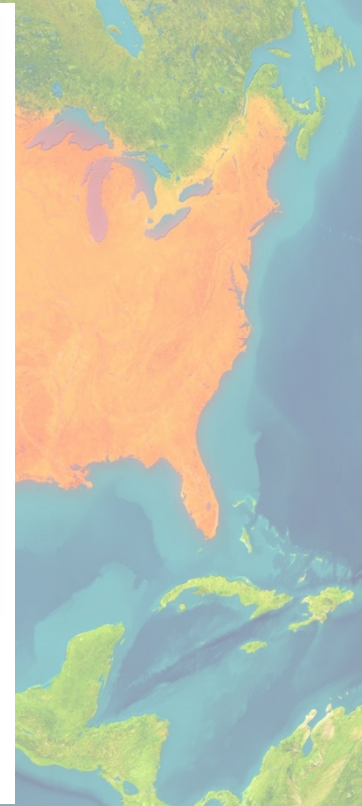
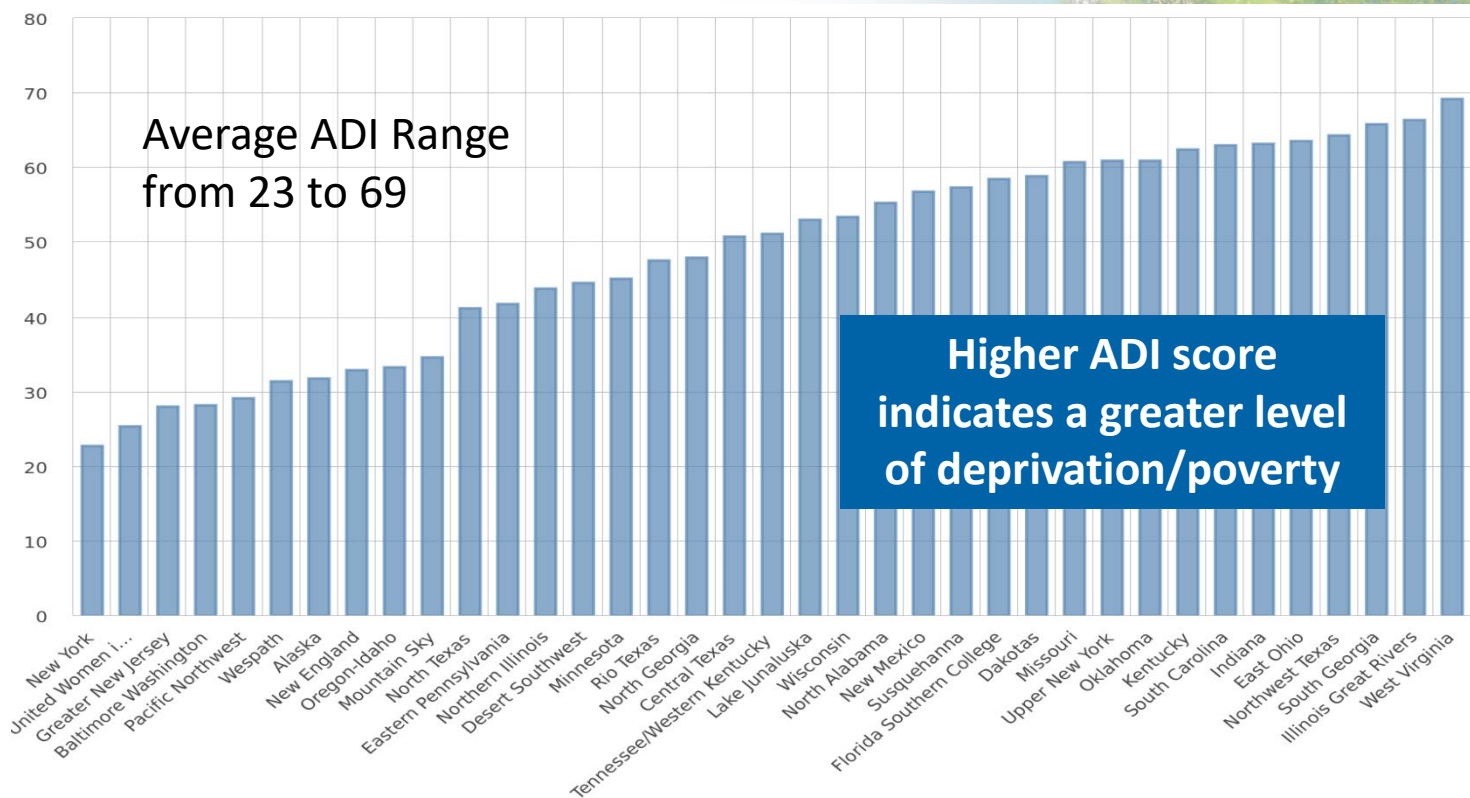


- Area Deprivation Index—ADI
 - A national ranking of neighborhoods' socioeconomic status by ZIP code
 - Range from 0–100 with **higher scores indicating greater levels of deprivation/poverty**
 - Includes housing, income/employment, education, transportation, household factors
 - From University of Wisconsin, integrated into Cedar Gate health data warehouse

Maroko AR, Doan TM, Arno PS, Hubel M, Yi S, Viola D. Integrating Social Determinants of Health With Treatment and Prevention: A New Tool to Assess Local Area Deprivation. *Prev Chronic Dis* 2016;13:160221.

https://www.cdc.gov/pcd/issues/2016/16_0221.htm

Average Deprivation Index by Plan Sponsor



How does ADI relate to Member Health?

- Those in Low ADI areas in general:
 - Have better access to quality health care resources
 - Higher income
 - Access to healthy food
- Those in High ADI areas in general:
 - Use the ER more often
 - Receive less preventive care
 - Have more chronic conditions
 - Chronic conditions not managed optimally



Do the predictions fit HealthFlex?

- Many members “artificially transplanted” into a ZIP code based on church appointment
- Compared Lowest 4 ADI Plan Sponsor Groups to Highest 4 ADI Plan Sponsor Groups
- Used 2021 Plan Sponsor Groups
 - Incurred Jan-Dec 2021
 - Paid Jan 2021-2022



Lowest 4 vs Highest 4 Avg ADI Groups

Metric	Lowest 4 ADI Groups	Highest 4 ADI Groups
# of Members	2,080	1,527
Average Age	42	43

Actual ER Visits

Would expect the **Highest 4 ADI** Groups to have the highest # of ER visits/1000 members

Lowest 4 ADI

Actual = 145 ER visits/1000 members

Highest 4 ADI

Actual = 169 ER visits/1000 members

- **Agrees with prediction**
- **17% difference**

Based on Incurred 2021, Paid 1/22

Highest 4 ADI Groups n = 1,527 members

Lowest 4 ADI Groups n = 2,080 members



Actual Preventive Visits

Would expect the **4 Lowest ADI** Groups to have **more** Preventive Visits per 1000 members

Lowest 4 ADI

Actual = 524 Visits/1000 members

Highest 4 ADI

Actual = 485 Visits/1000 members

- **Agrees with prediction**
 - **8% greater likelihood** of Preventive Visit for Lowest 4 ADI groups

Based on Incurred 2021, Paid 1/22 Highest 4 ADI Groups n = 1,527 Lowest 4 ADI Groups n = 2,080



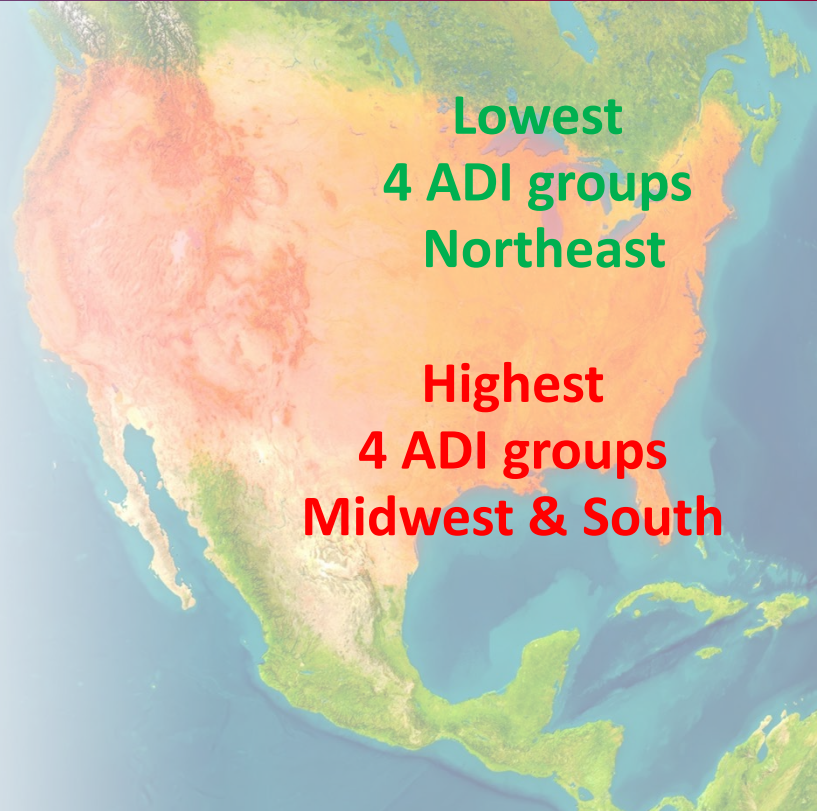
Lowest 4 vs Highest 4 Avg ADI Groups

Metric (per 1000 members)	Lowest 4 ADI Groups	Highest 4 ADI Groups
Depression	91	83
Mental Health Office Visits	2626	946

Based on Incurred Jan-Dec 2021, Paid Jan 2021-Jan 2022

Potential factors involved

- Rural vs suburban
- Cultural, stigma?
- Health care availability
- Lack of privacy
- Income
- Others

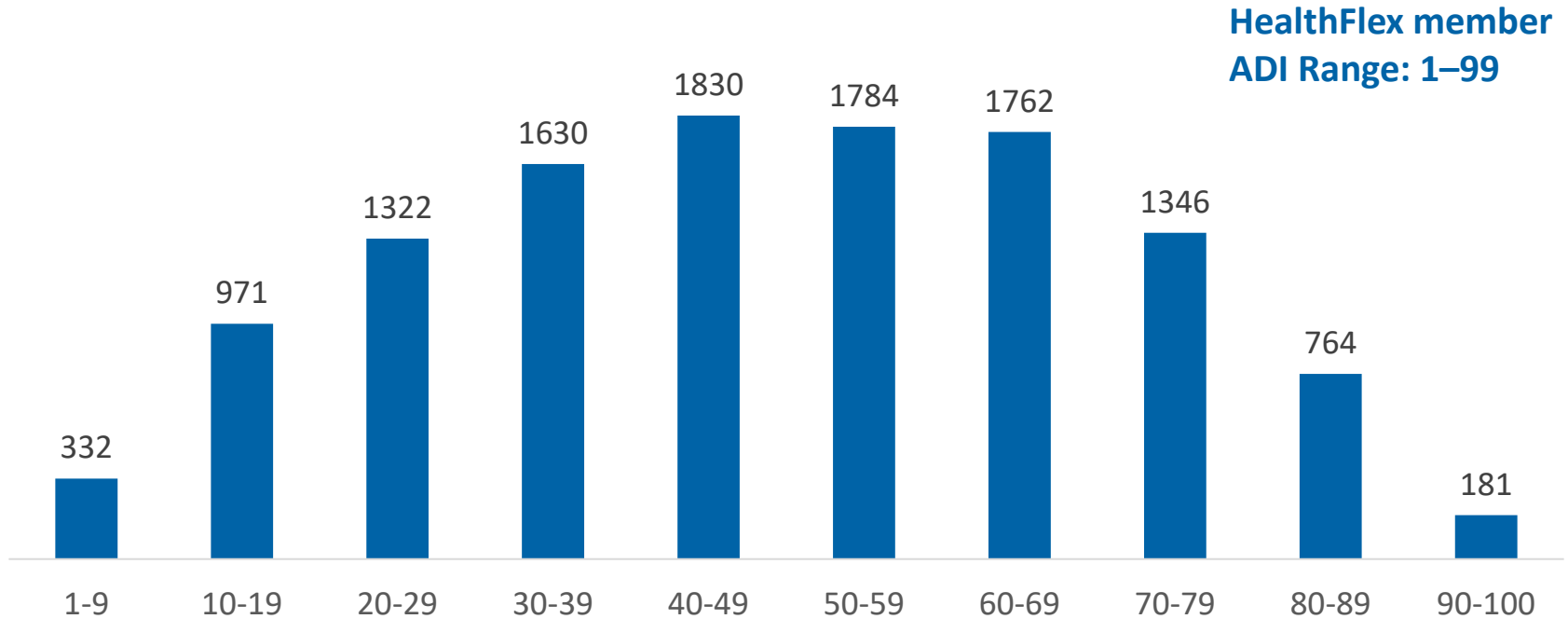


What about Members vs Plan Sponsors?

- Most Plan Sponsor groups have members in areas of greater resources and those in areas of lower resources—may even out differences
- Compared the Lowest 20% ADI HealthFlex Members to Highest 20% ADI Members



2021 Members by ADI Zip Rank



Lowest vs Highest 20% ADI Members

Metric	Lowest 20% ADI Members	Highest 20% ADI Members
# of Members	2,438	2,421
Average Age	42	44
Average ADI ranking	18	71



Lowest vs Highest 20% ADI Members

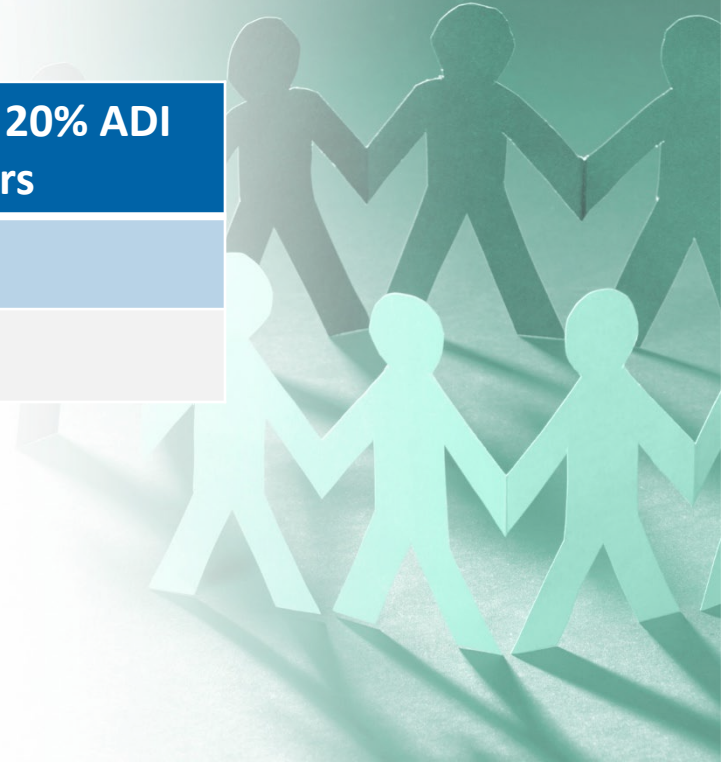
Metric (per 1000 members)	Lowest 20% ADI Members	Highest 20% ADI Members
ER Visits	122	225
Urgent Care Visits	270	62
Preventive Office Visits	518	439
Mental Health Office Visits	2,417	1,351



Based on Jan-Dec 2021 Paid Claims

Lowest vs Highest 20% ADI Members

Metric (per 1000 members)	Lowest 20% ADI Members	Highest 20% ADI Members
Inpatient Days	348	580
Average Length of Stay	6 days	9 days



Lowest vs Highest 20% ADI Members

Highest ADI group has higher rates of **multiple chronic conditions**:

- Diabetes
- Hypertension
- Chronic pain
- Depression
- Cancer
- Heart disease
- Lung diseases

Lowest ADI group—only the following conditions are more common compared to the Highest ADI group:

- Autism
- ADHD
- Developmental disorders



What To Do With ADI Data

- Are clergy with poor health appointed to high ADI areas?
- Do clergy appointed to high ADI areas develop poor health?
- **Promote MDLIVE** to members in high ADI areas
 - Telemedicine for non-urgent conditions
 - Mental health added in 2022
- **Promote Omada** to members in high ADI areas
 - Chronic disease prevention
 - Diabetes management added in 2022
- **Other ideas?**

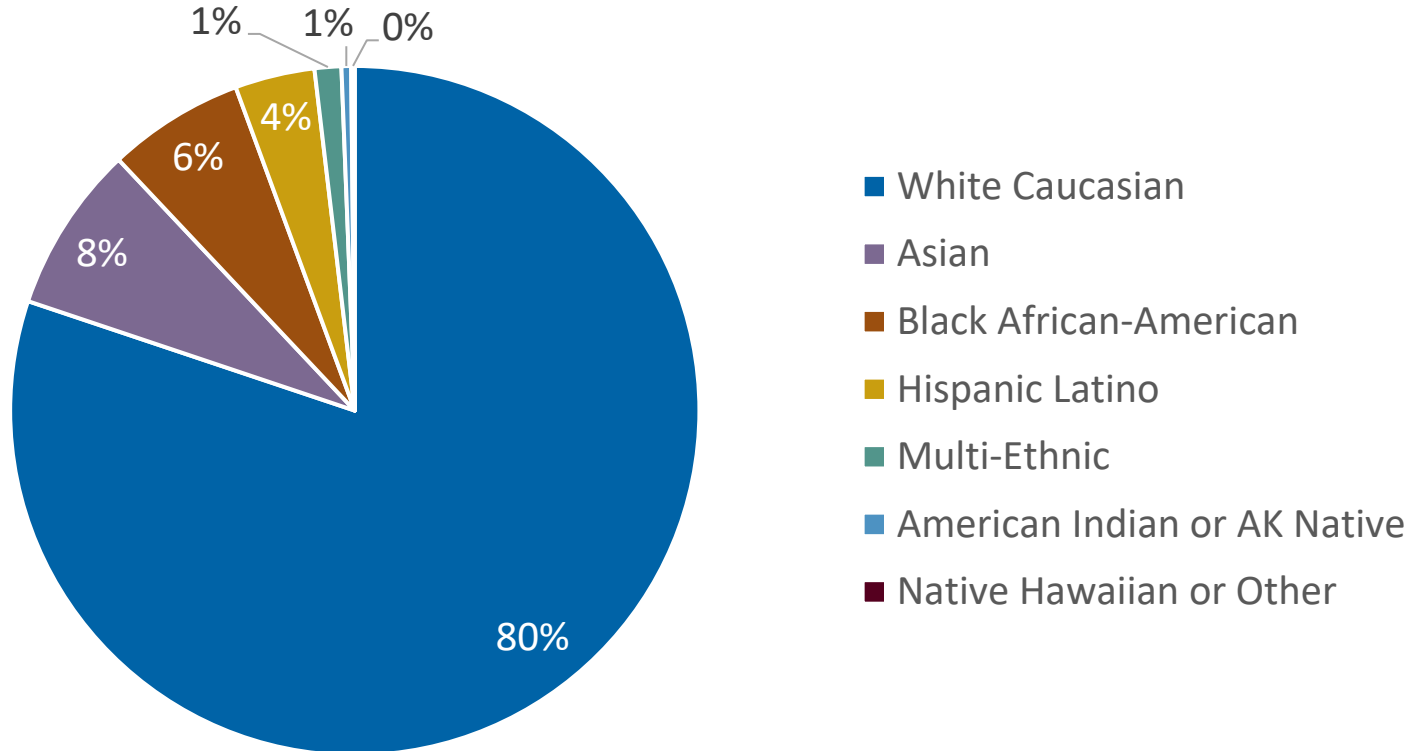


Racial/Ethnic Group Differences

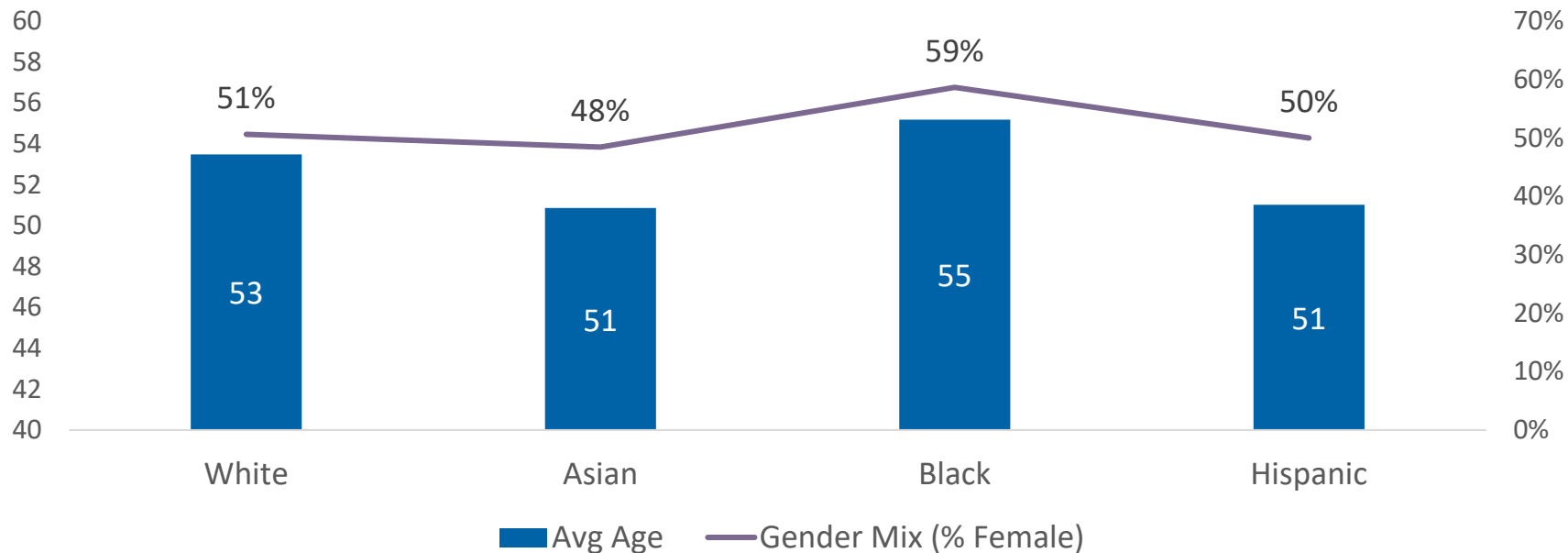
- Used 2020 HealthQuotient (Health risk assessment) Racial/Ethnic Origin question
- Comparison groups include only primary ppts + spouses (no children) who completed HQ in 2020 (so likely somewhat more engaged with health)

2020 HQ completion rate = 74%

Racial/Ethnic Groups 2020 Health Quotient



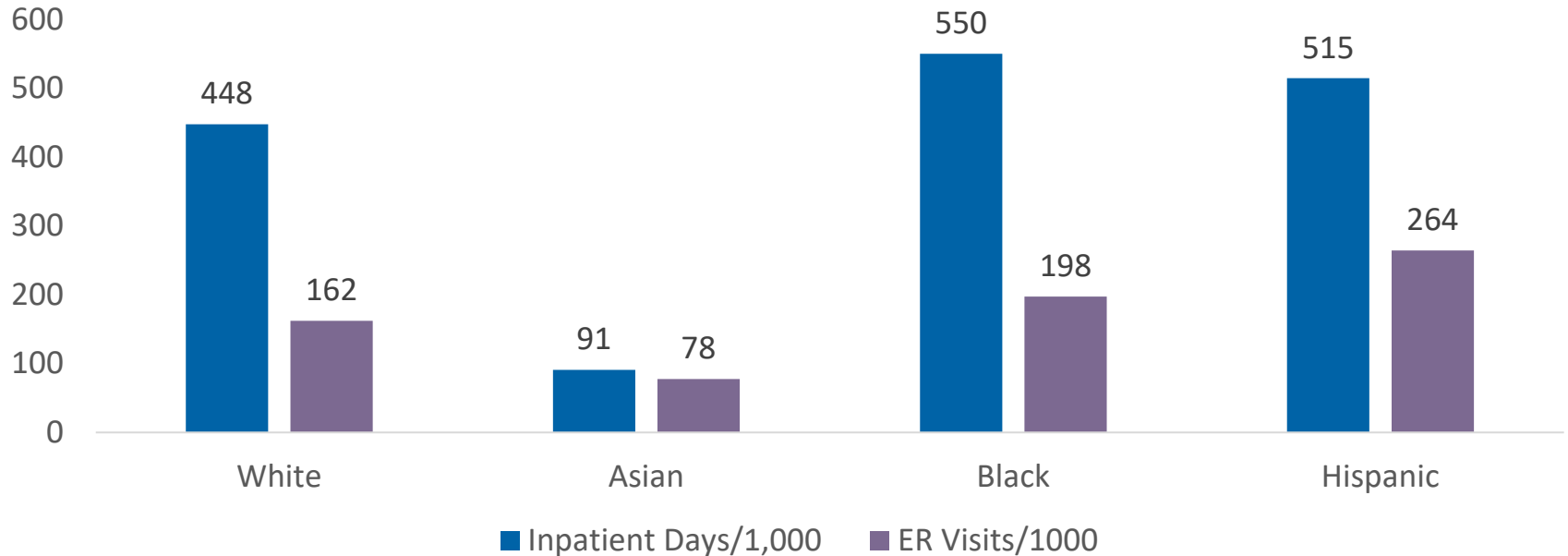
Racial/Ethnic Comparison Groups



White n= 6,198 | Asian n= 605 | Black n= 496 | Hispanic n= 288

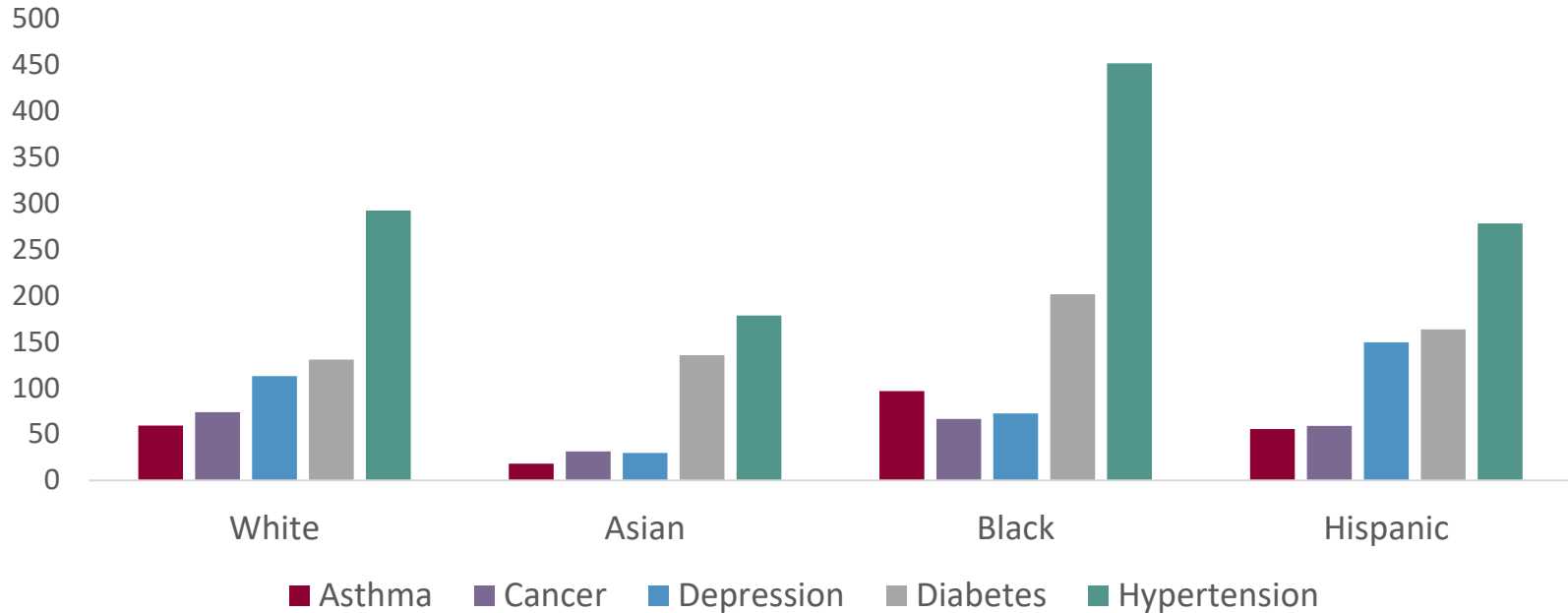
Racial/Ethnic Comparison Groups

Inpatient Days and ER Visits per 1000



Racial/Ethnic Comparison Groups

with Chronic Conditions per 1000



Racial/Ethnic Comparison Groups

- Which of the four groups would you expect to have the highest average ADI (most deprivation)?

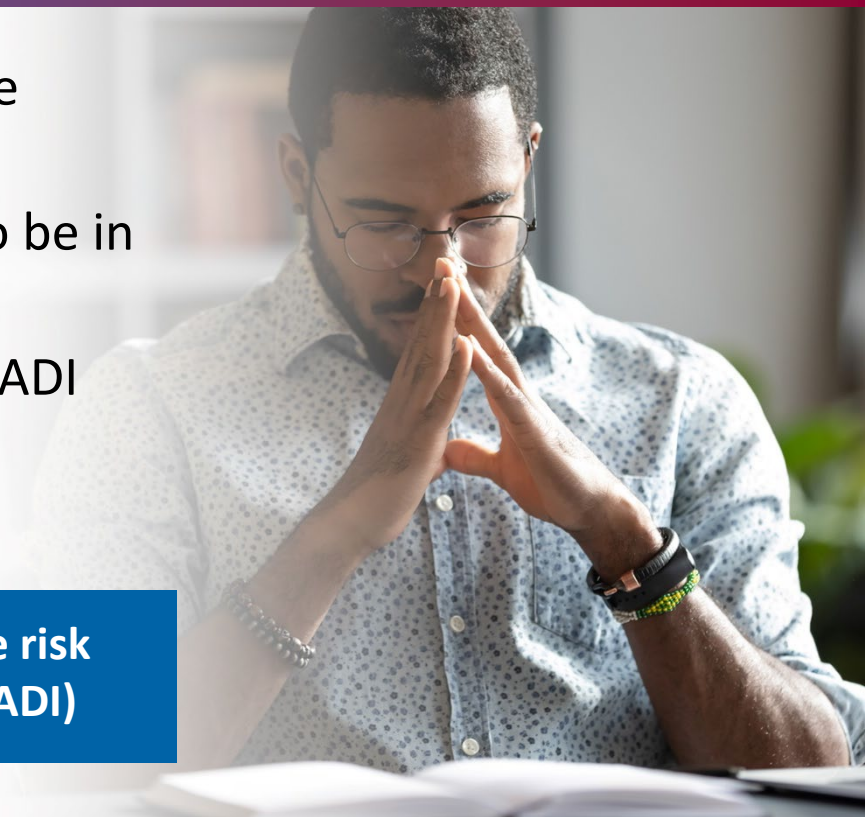
Ranking Highest to Lowest:

White Average	ADI = 51
Hispanic Average	ADI = 49
Black Average	ADI = 47
Asian Average	ADI = 35

Multiple Factors Intersecting

- Most rural churches with higher ADI are white with white clergy
- Racial/Ethnic minority churches tend to be in urban areas
- Urban doesn't necessarily mean lower ADI
- Some cross-cultural appointments but not the norm

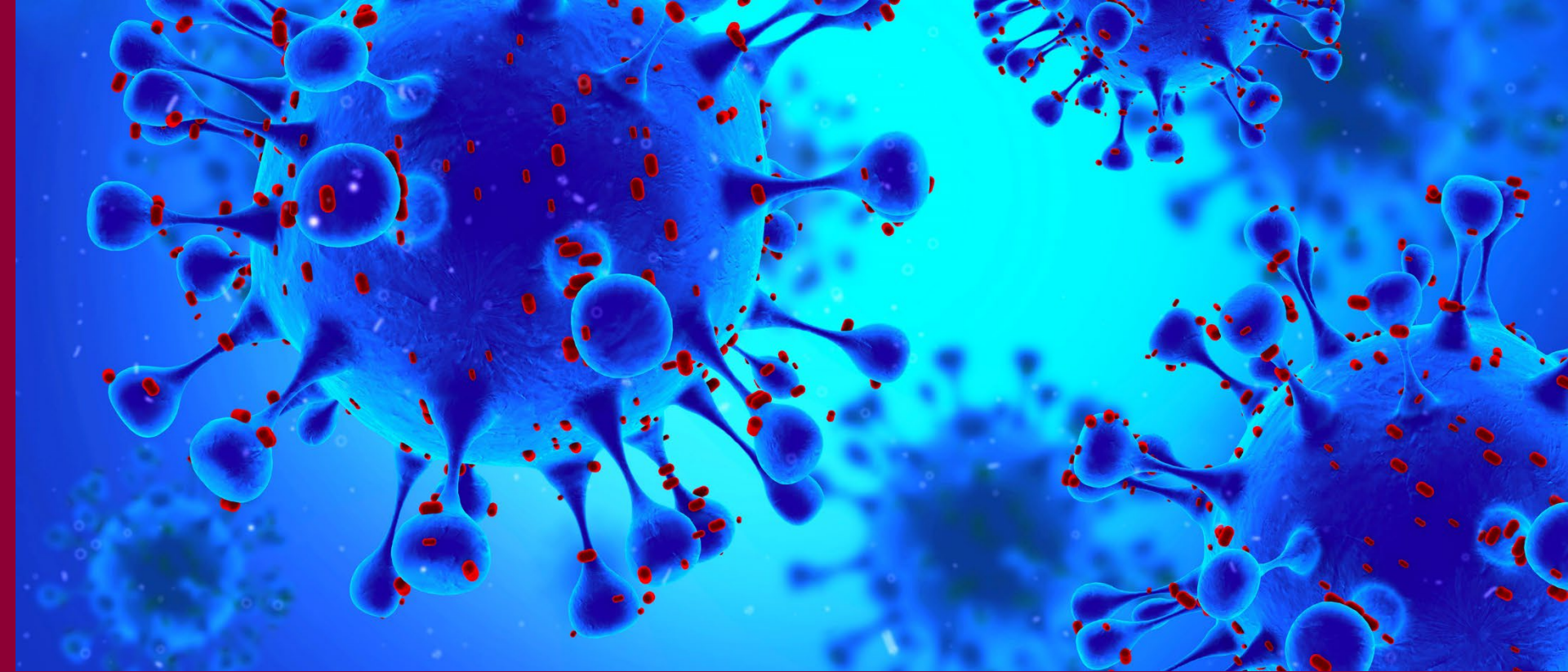
Individuals likely at highest risk where multiple risk factors intersect (e.g. racial/ethnic and higher ADI)



Takeaways

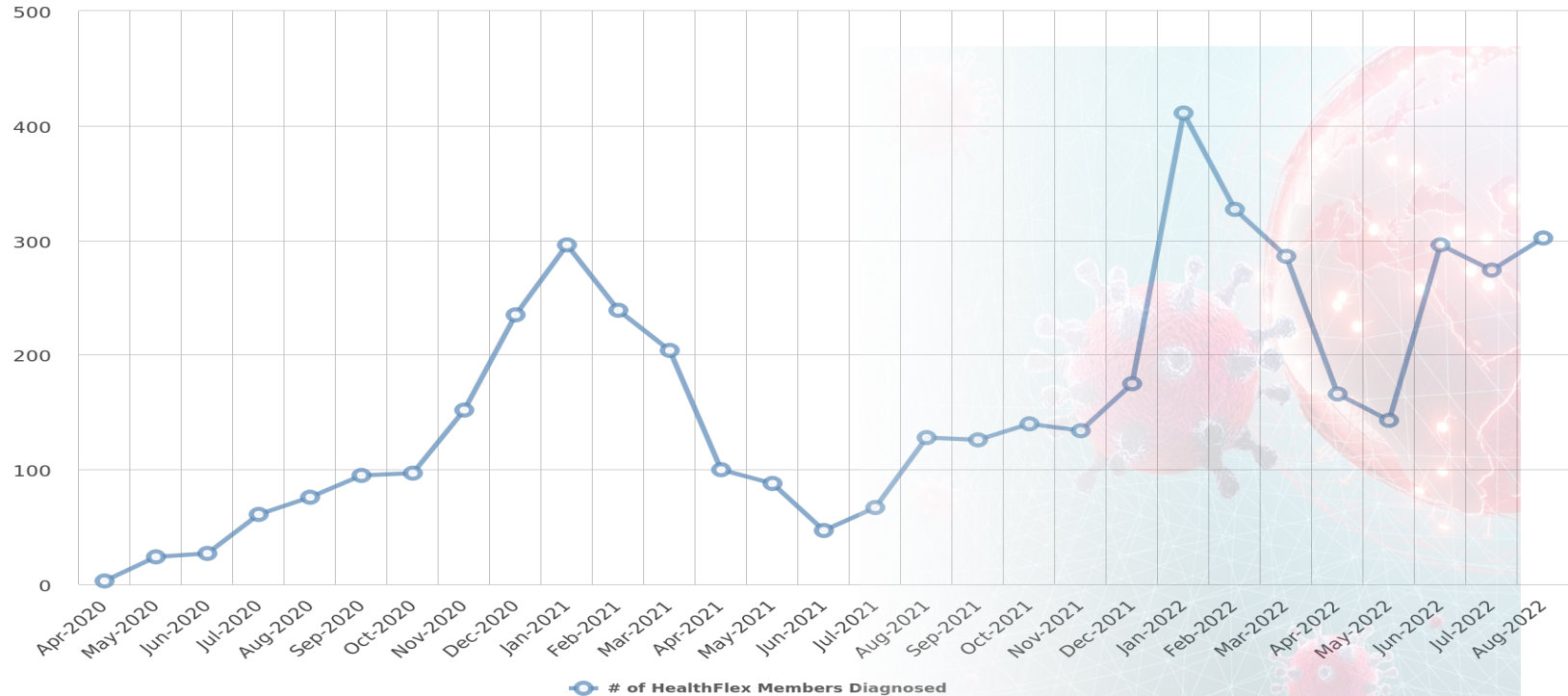
Find creative ways to reach these racial/ethnic groups with resources to help meet their needs

- Through racial/ethnic-related clergy groups?
- Let these individuals share their stories and suggestions.
- Through plan sponsor connections?
- Other ideas?



Long COVID Insights

Monthly COVID Diagnoses: April '20 – Aug '22



“Long COVID” Definition

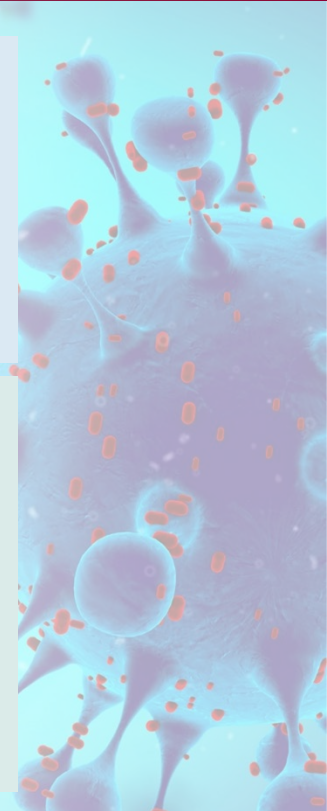
World Health Organization, October 2021

Post COVID-19 condition occurs in individuals with a history of probable or confirmed SARS CoV-2 infection, usually 3 months from the onset of COVID-19 with symptoms and that last for at least 2 months and cannot be explained by an alternative diagnosis.

US National Research Action Plan on Long COVID, August 2022

Signs, symptoms, and conditions present 4 weeks or more after the initial phase of infection. May be multisystemic.

May present with a relapsing-remitting pattern and progression or worsening over time, with the possibility of severe and life-threatening events even months or years after infection.



Long COVID

- WHO definition requires 5 months from onset of COVID symptoms, US definition about 2 months
- October 2021, unique diagnosis code created
- Recent studies estimate 13-20% diagnosed with COVID develop Long COVID symptoms*

*Reference

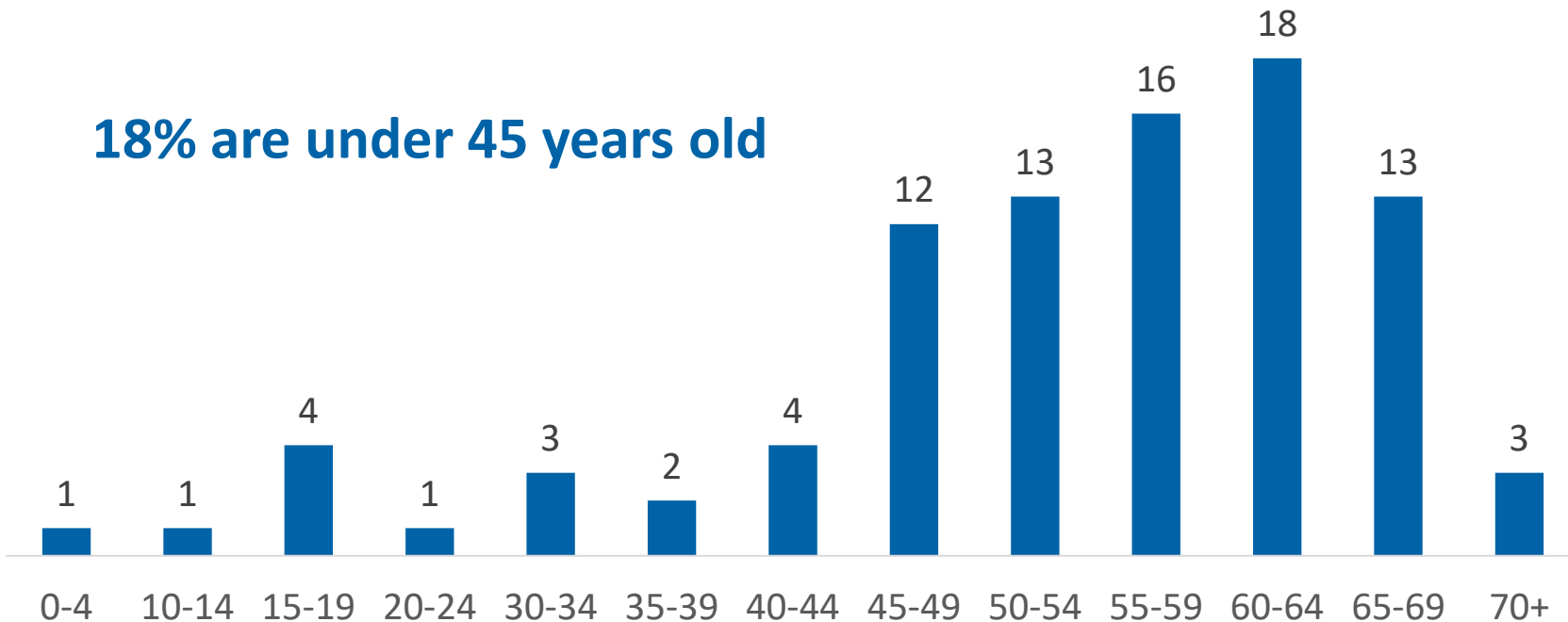
<https://www.covid.gov/assets/files/National-Research-Action-Plan-on-Long-COVID-08012022.pdf>

Long COVID and HealthFlex

- **91** HealthFlex members identified as of 7/31/22:
53% Female | 47% Male
- **Only 3% of 2,904 Total** COVID cases confirmed and sent through medical claims
- Expect many not diagnosed yet with Long COVID who meet definition
- **Only 11%** of HealthFlex Long COVID Members were hospitalized with COVID
- Initial infection symptoms may be mild

Long COVID Members by Age Group

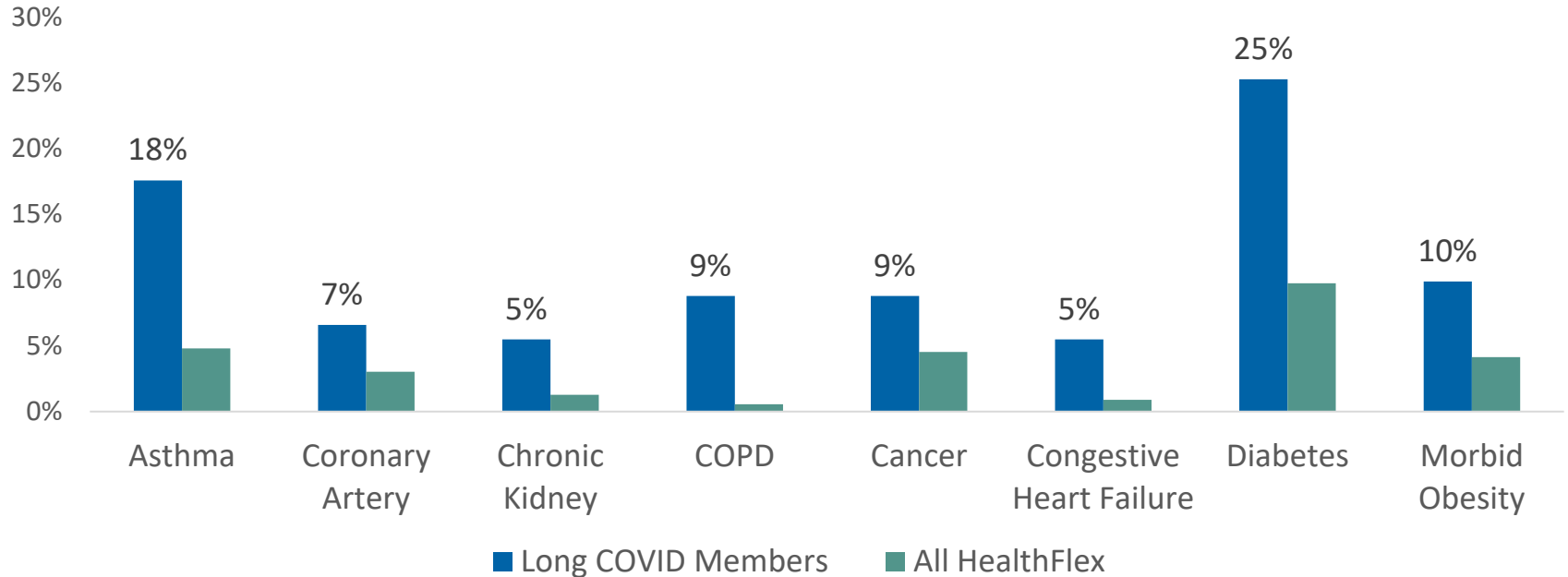
18% are under 45 years old



of Members in each Age Group, 91 Members Total

Long COVID and Chronic Conditions

Chronic Condition Prevalence



Long COVID Implications



- CPP Disability (Not just HealthFlex members)
 - 3 with COVID as primary diagnosis
 - Many more with COVID as a trigger for other disabling conditions
- Expect more diagnoses of Long COVID
- Uncertain long-term outlook for those with Long COVID

Will monitor impact to HealthFlex costs over time

HealthFlex/Wespath positively
impacts the health and productivity
of those who serve the UMC



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