The future is equitable

Insights into social determinants open new doors to lower costs and more equitable outcomes

Andy Hiles, F.S.A.
VP, Plan Sponsor Insights

Steven Serra, M.D.
Plan Sponsor Insights

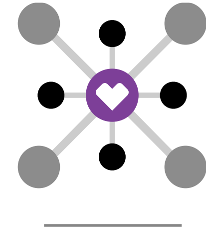
December 2, 2022

©2022 Aetna Inc.

Questions we will answer today

New analytics

Can we apply new analytics to determine the causes of unequal health outcomes among commercially insured workers and their families?

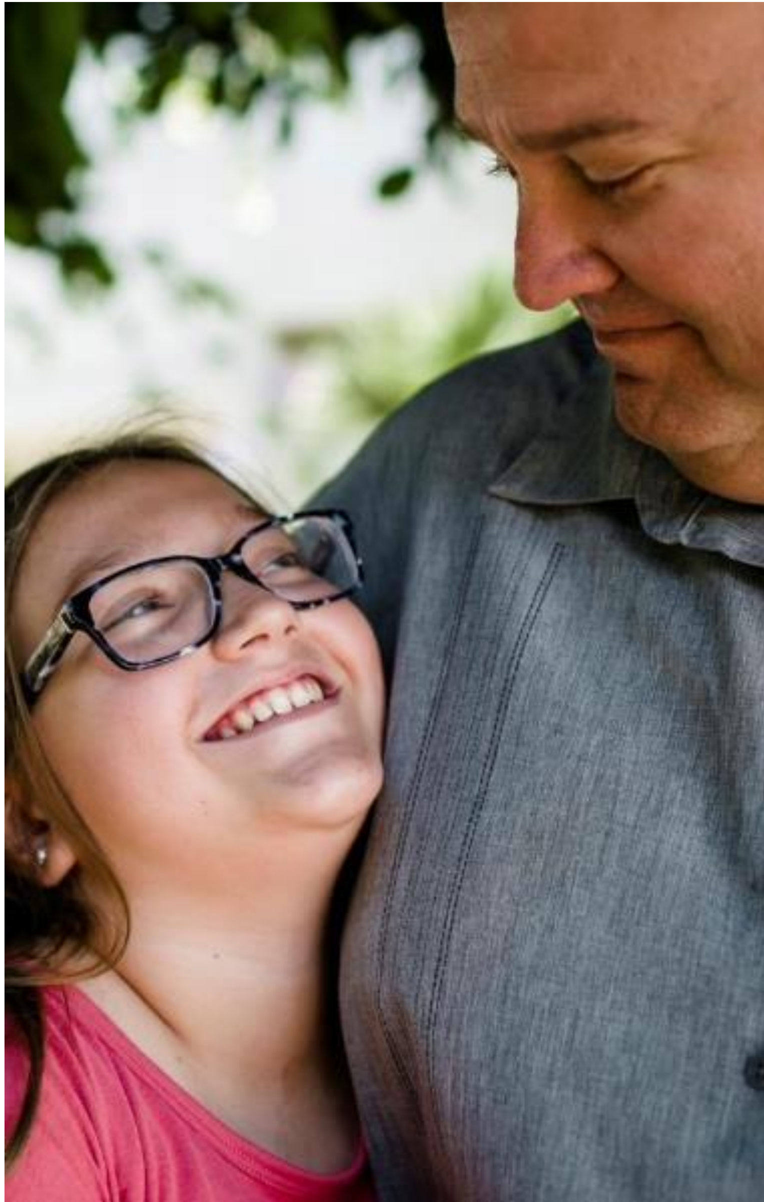


Data-driven solutions

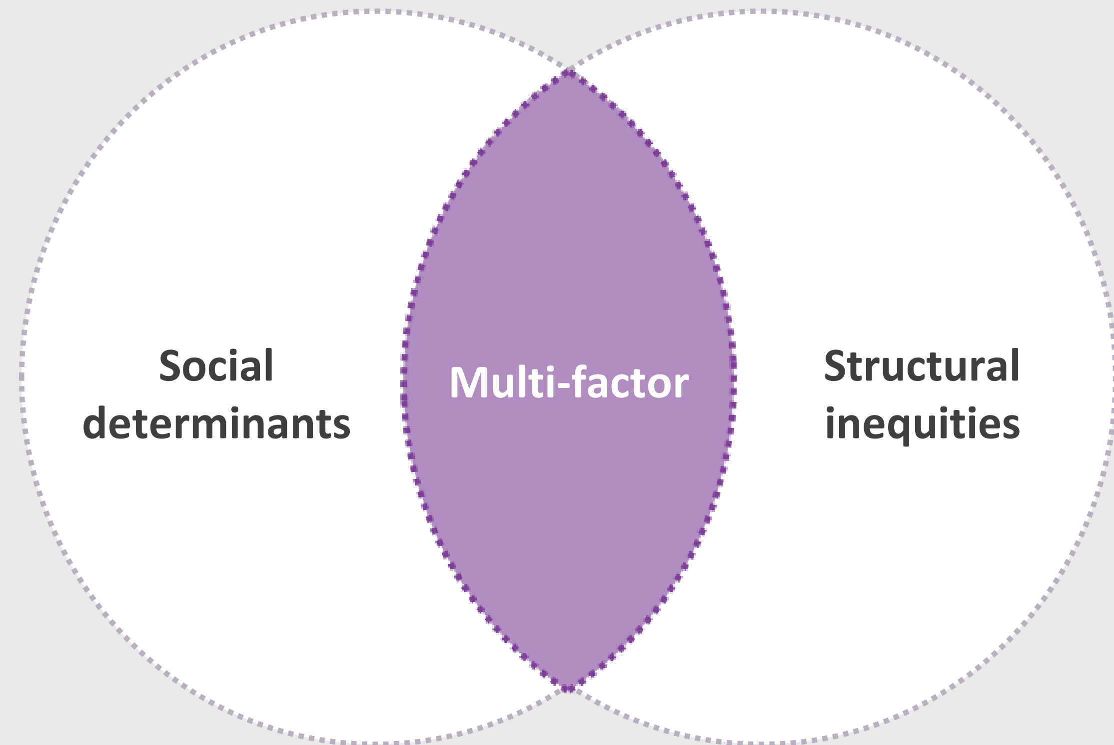
And by zeroing-in on cause, can we build upstream and downstream data-driven interventions that improve plan performance and create more equitable outcomes?

©2022 Aetna Inc.

aetna



Addressing health inequities begins by understanding root cause[1]



[1] Baciu A, Negussie Y, Geller A, et al., editors. **Communities in action: pathways to health equity**. National Academies Press. January 2017.

©2022 Aetna Inc.

aetna

Agenda

How we got here

Taking action

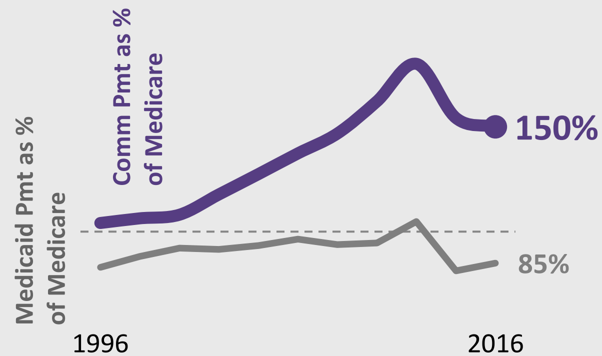
Examples

Looking forward

©2022 Aetna Inc.

Social determinants have become a key issue

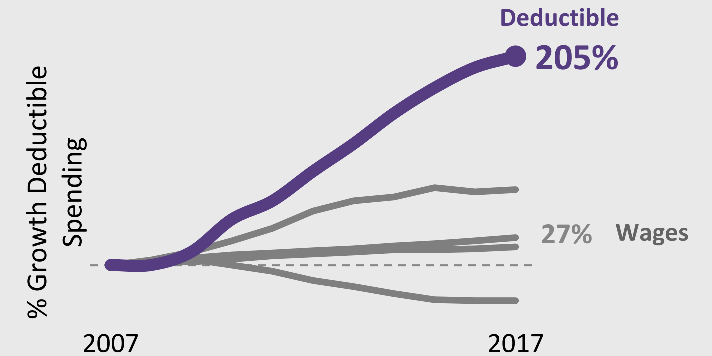
Employers responded to cost pressure



Cost burden pushed to commercial payors as providers were limited in increasing reimbursement rates for public programs[1]

Cohort as % of labor force	1998	2028
Age 16 - 24	16%	12%
Age 55+	11%	25%

And the labor force is aging, further driving up health costs to plan sponsors[2]



Plan sponsors embraced consumerism to manage costs—increasing member point-of-care spending requirements[3]

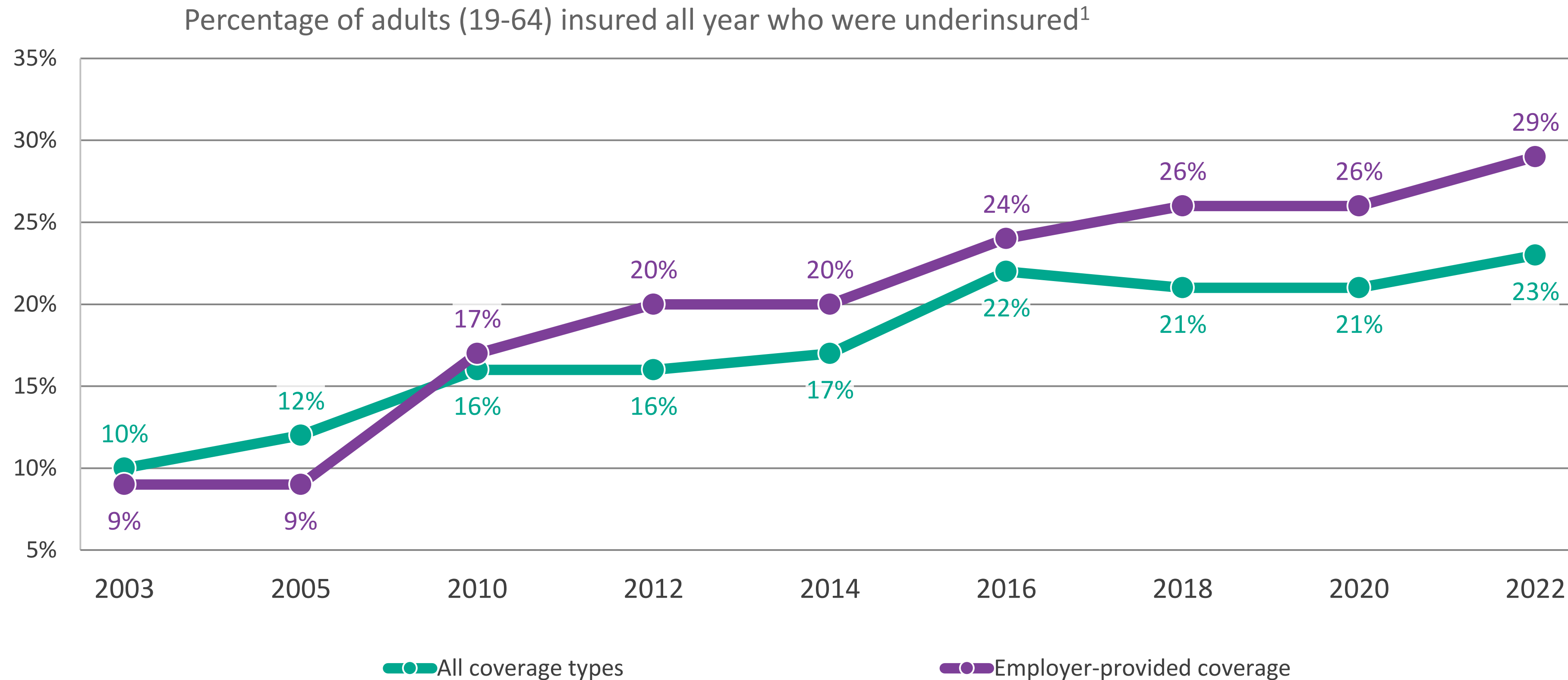
[1] Data analysis 1996–2016 Medical Expenditure Panel Survey. Selden et al, Health Affairs January 2020

[2] U.S. Bureau of Labor Statistics, employment projections, civilian labor force by age, sex, race and ethnicity.

[3] KFF analysis of IBM MarketScan Commercial Claims and Encounters Database

©2021 Aetna Inc.

Resulting in an underclass of ~45M underinsured*



* ”Underinsured” refers to adults who were insured all year but experienced one of the following: out-of-pocket costs, excluding premiums, equaled 10% or more of income; out-of-pocket costs, excluding premiums, equaled 5% or more of income if low-income (<200% of poverty); or deductibles equaled 5% or more of income.

[1] **The State of U.S. Health Insurance in 2022. Findings from the Commonwealth Fund Biennial Health Insurance Survey.** (2003, 2005, 2010, 2012, 2014, 2016, 2018, 2020, 2022). Commonwealth Fund. September 2022

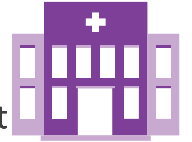
©2021 Aetna Inc.

aetna

We know a great deal about underinsured workers facing social determinants

50%
more likely to have an inpatient hospital stay and 52% higher readmission rate.[1]

~30%
less likely to use urgent care or telehealth, and twice as likely to use ER for nonurgent care.[1]

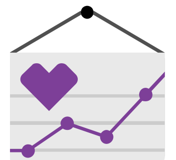


30%
less likely to get preventive screenings and 40% less likely to be treated for mental health.[1]

43%
skipped a recommended test or follow-up.[2]

2x
more likely to have chronic conditions like hypertension and diabetes[1] and increased absenteeism.[3]

4.6%
of total plan costs are attributable to unaddressed social needs.[1]



1 Aetna internal study of self-insured members. Aetna. September 2022.
2 Collins SR, Haynes LA, Masitha R. **The state of U.S. health insurance in 2022. Findings from the Commonwealth Fund Biennial Health Insurance Survey.** The Commonwealth Fund. September 29, 2022.
3 Fouad AM, Waheed A, Gamal A, et al.. **The effect of chronic diseases on work productivity: a propensity analysis.** Journal of Occupational and Environmental Medicine. May 2017.

aetna

Aetna takes action

aetna

Analysis begins by assigning each member a "social risk score"

According to the World Health Organization:

Social risk is created by "conditions in the places where people live, learn, work and play. *And it affects a wide range of health risks and outcomes.*"[1]

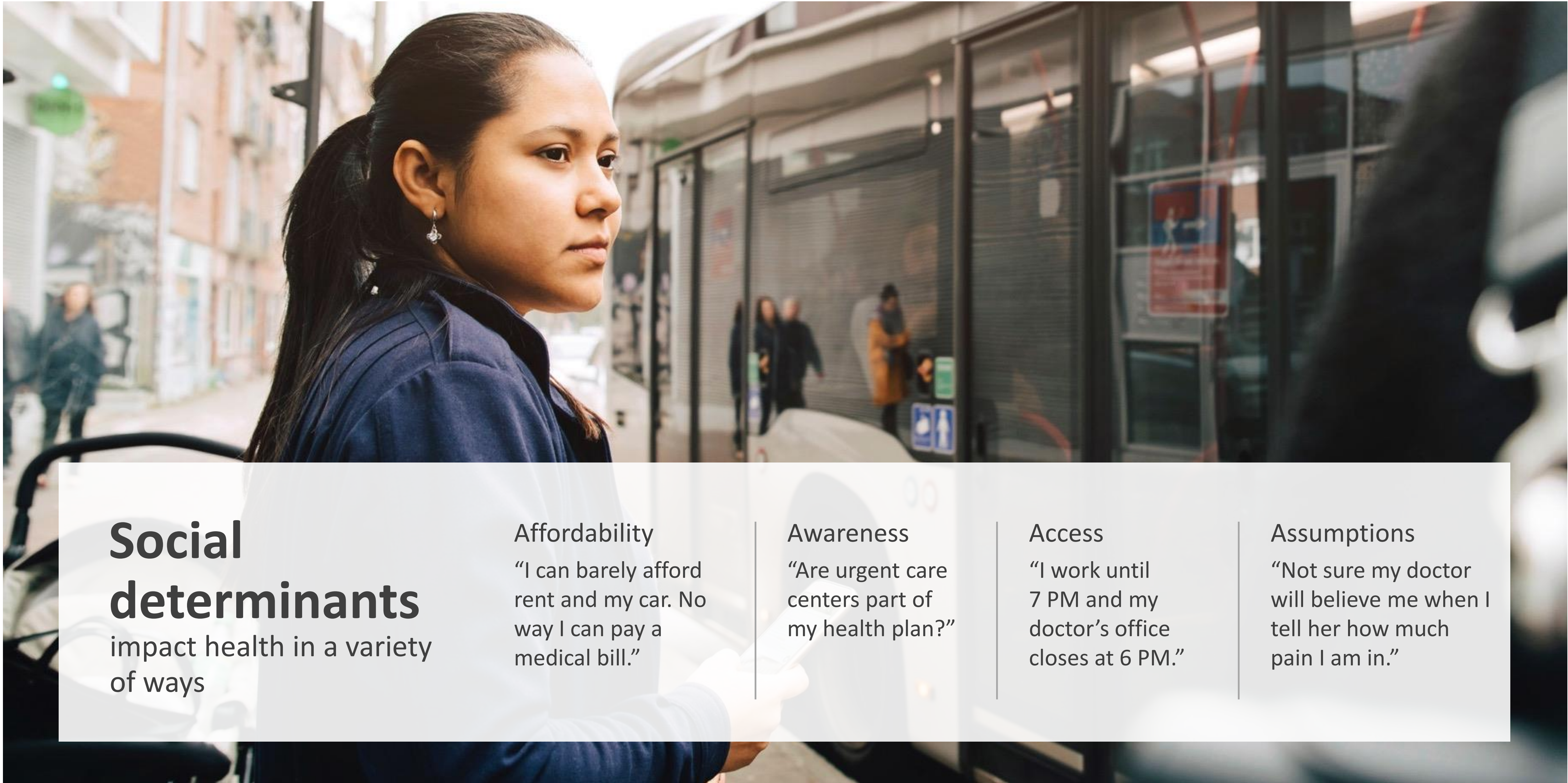
Examples include:

- Health care access and quality
- Education access and quality
- Social and community context
- Economic stability of community
- Neighborhood and familial environment

Unlike pay alone, community-level social risk captures concentrated and intergenerational poverty

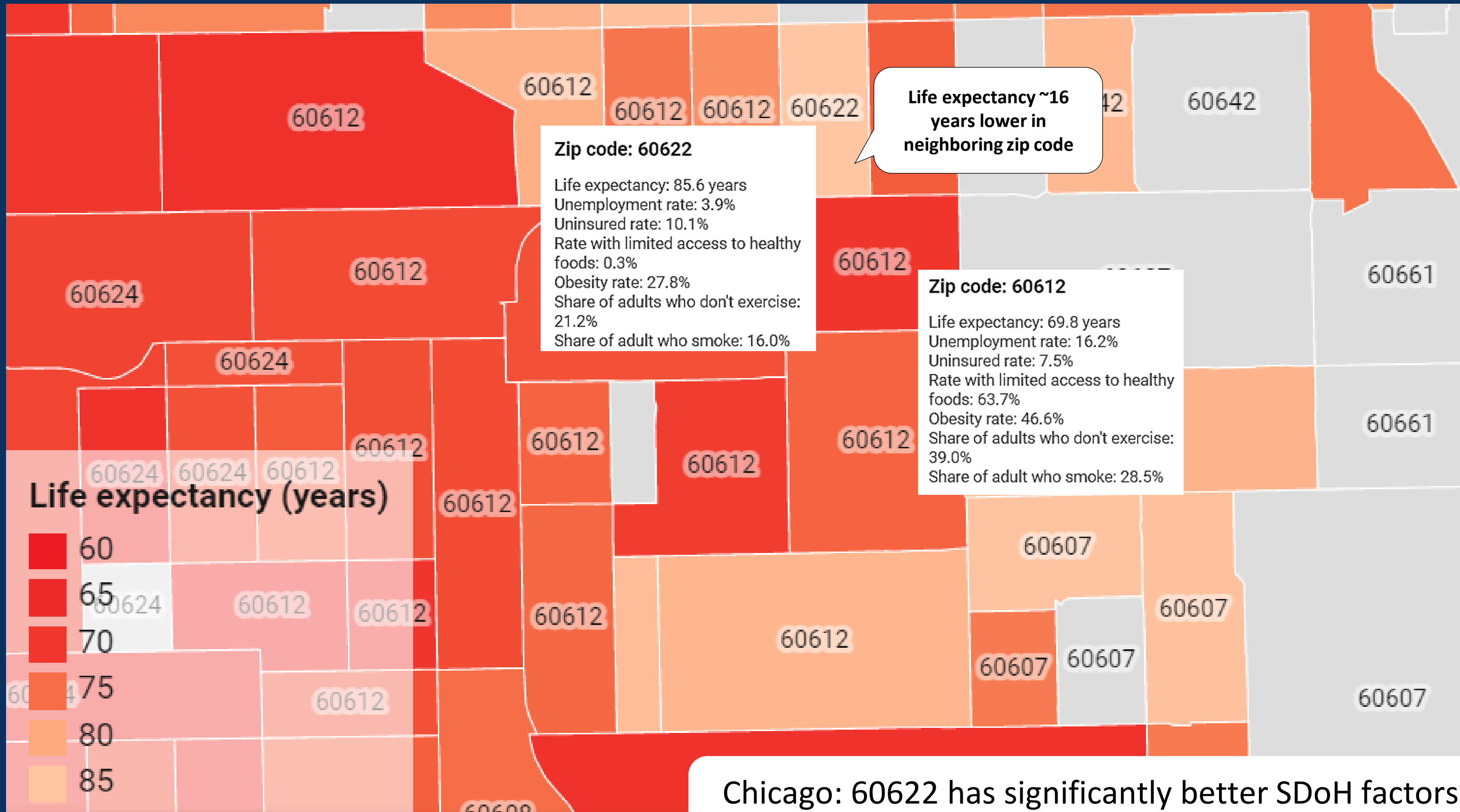
[1] World Health Organization (WHO). Social determinants of health.

©2022 Aetna Inc.



 ©2022 Aetna Inc.

Social risk can vary dramatically in neighboring areas



Chicago: 60622 has significantly better SDoH factors than its neighboring ZIP code 60612[1]

Example

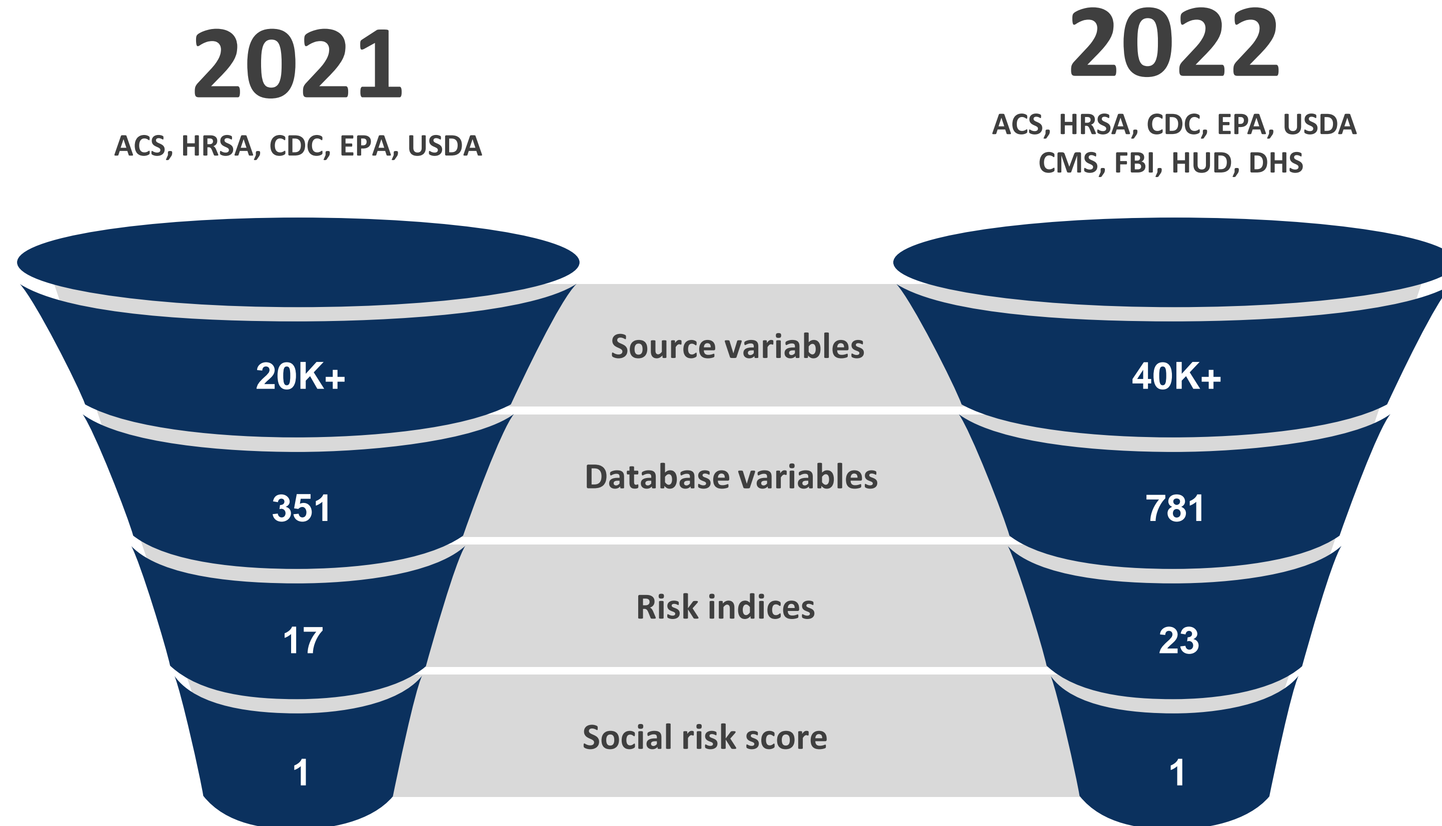
Two neighboring ZIP codes in Chicago have very different SDoH factors

Metric	% Difference
Unemployment rate	12.3%
Uninsured rate	-2.6%
Limited access to healthy food	63.4%
Obesity rate	19.8%
Inactivity rate	17.8%
Smoke rate	12.5%

[1] Ducharme J, Wolfson E, **Your ZIP Code Might Determine How Long You Live—and the Difference Could Be Decades**, Time, June 2019

©2022 Aetna Inc.
aetna

Our dynamic proprietary Equity Impact Database



We have renamed variables for clarity

American Community Survey (ACS), Health Resources and Services Administration (HRSA), Centers for Disease Control and Prevention (CDC), Environmental Protection Agency (EPA), U.S. Department of Agriculture (USDA), Center's for Medicare & Medicaid Services (CMS), Federal Bureau of Investigation (FBI), Department of Housing and Urban Development (HUD), Department of Homeland Security (DHS)

 ©2022 Aetna Inc.

aetna

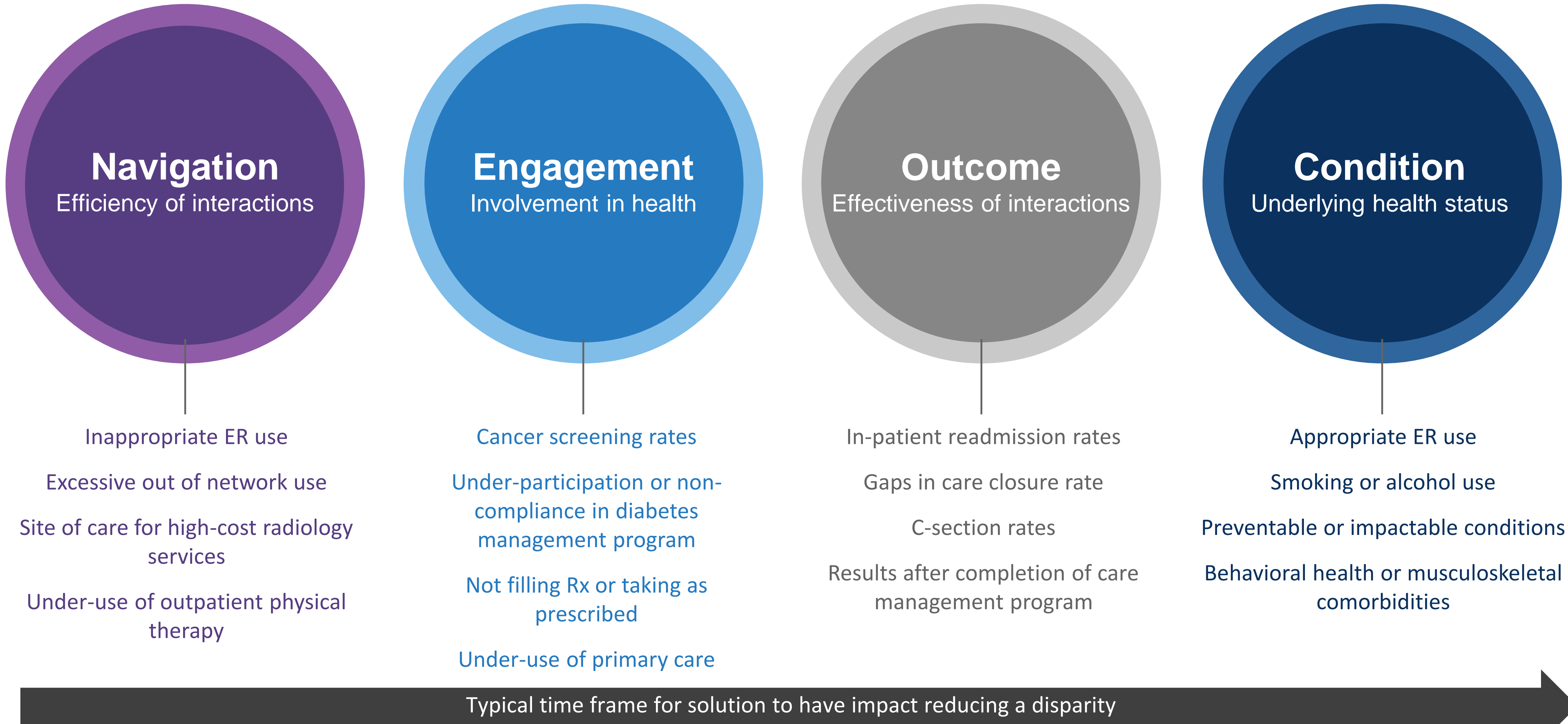
SDoH Indices summary

Index name	Old	New
Health Habits	●	●
Health Access	✕	●
Disability	●	●
Citizenship	✕	●
Economic Condition	●	●
Education	●	●
Social Isolation	●	●
Housing Deserts	✕	●
Owned Housing	✕	●
Housing Quality	✕	●
Employment	●	●
Transport Availability	●	●

Index name	Old	New
Food Access	●	●
Health Infrastructure	✕	●
Air Quality	✕	●
Water Quality	✕	●
Diversity	●	●
Natural Hazard	✕	●
Crime	✕	●
Proactive Health	✕	●
Technology Access	✕	●
Income Inequality	✕	●
Poverty	●	●
Language	✕	●

©2022 Aetna Inc.
aetna

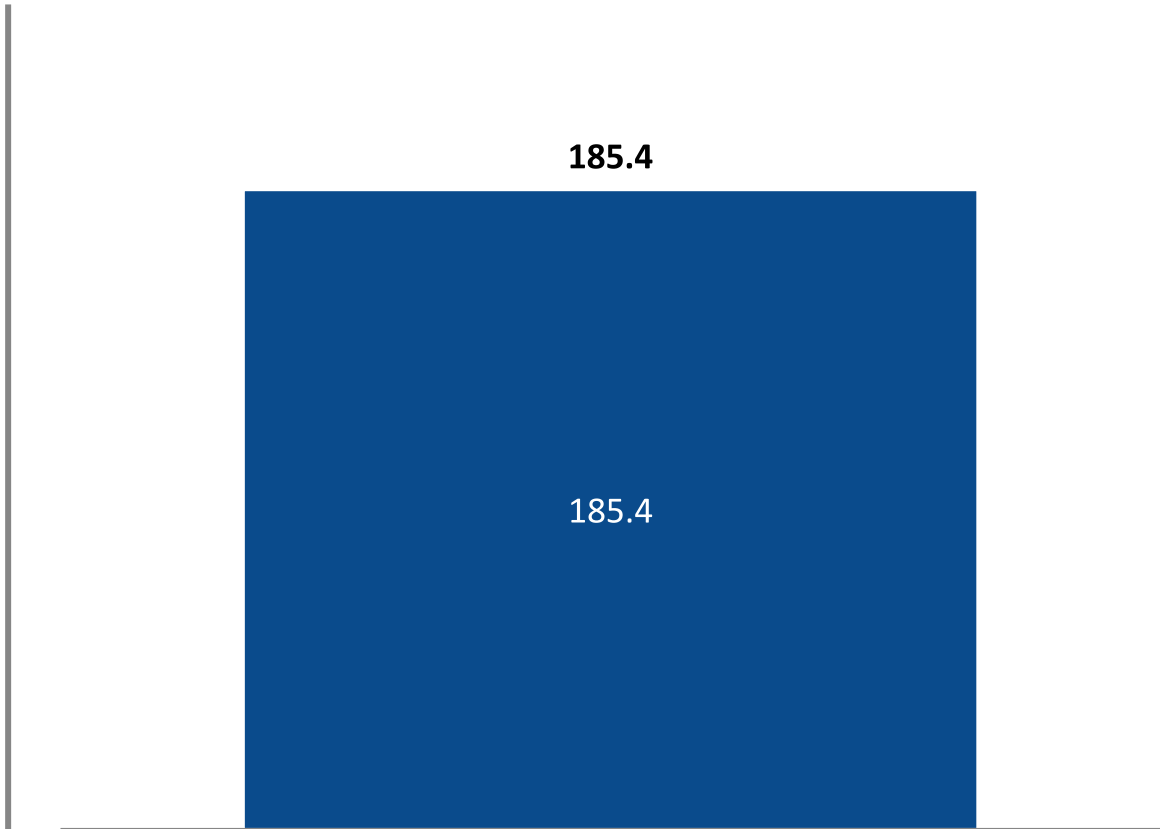
To build solutions, we analyze health equity metrics by type

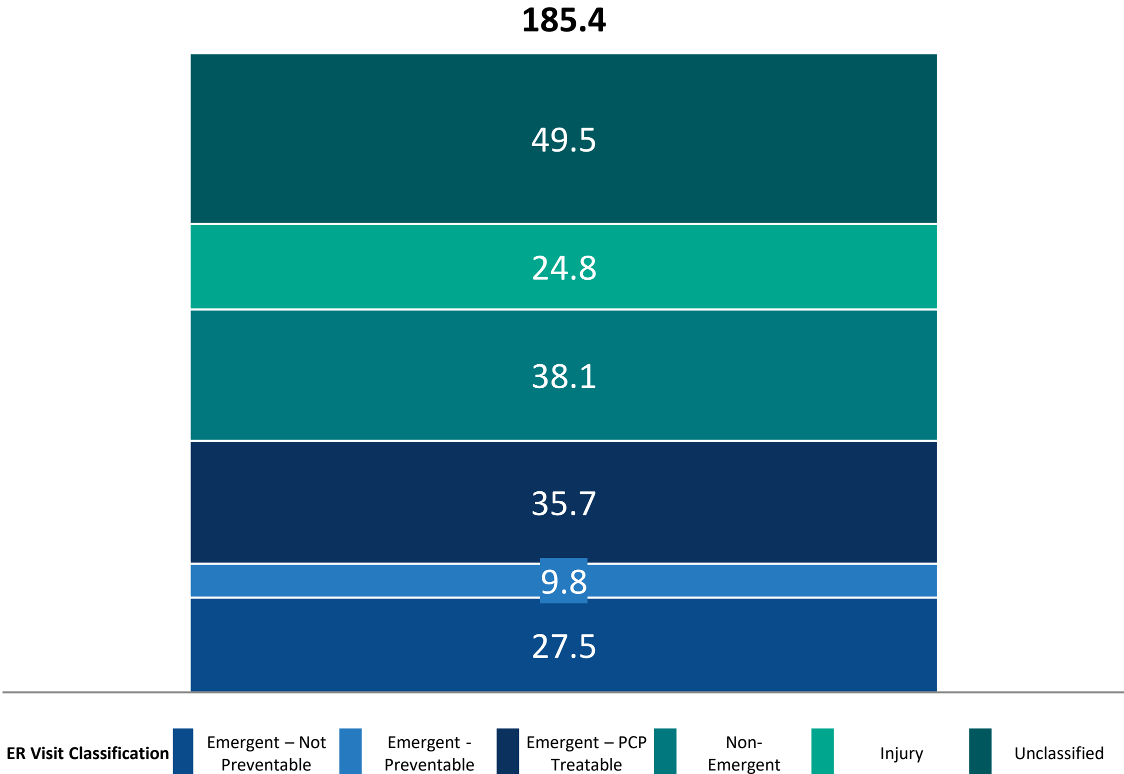


©2022 Aetna Inc.
aetna

Traditional population health analytics

Emergency room utilization example

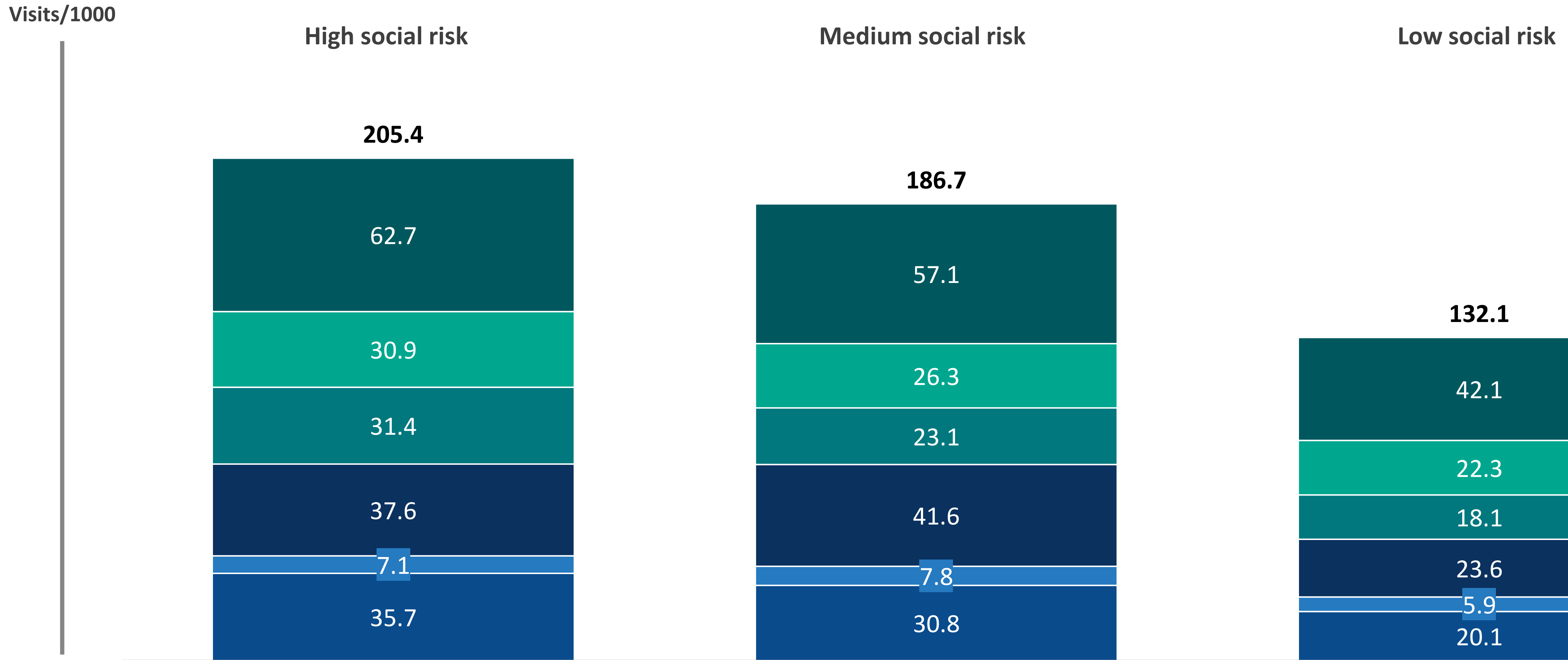




©2022 Aetna Inc.

Current population health analytics (at Aetna®)

Emergency room utilization example



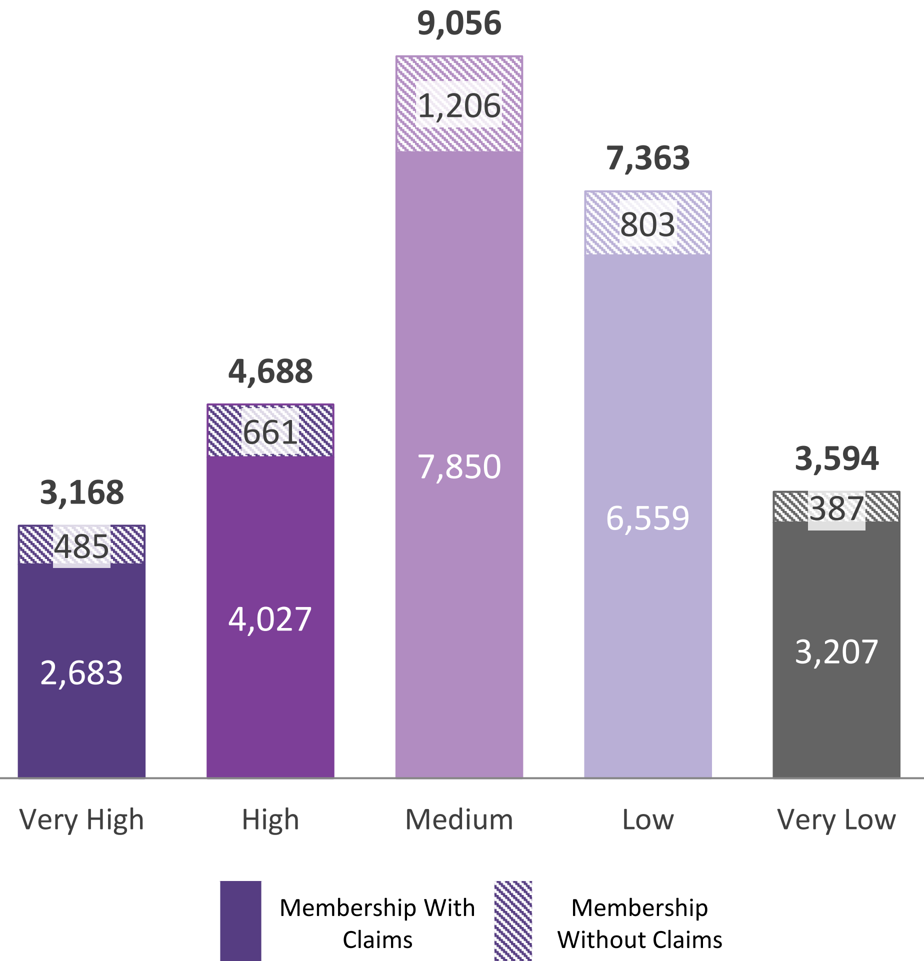
©2022 Aetna Inc.
aetna

Operationalizing these new insights

Example #1: Case study[1]

Addressing Impactable Emergency Room Visits Among Population Facing SDoH Challenges

1 Sizeable share of the membership faces social risk



2 Significant disparities exist when segmenting emergency room utilization by Social Risk and type of visit

ER Visit Classification	Very High	High	Med	Low	Very Low
Unclassified	108	77	62	49	35
Injury	58	45	36	31	34
Non-Emergent	84	58	39	39	31
Emergent – PCP Treatable	81	56	45	42	31
Emergent - Preventable	18	16	11	10	7
Emergent – Not Preventable	60	46	43	37	27
Total	**409.3**	**297.8**	**235.9**	**206.9**	**165.6**

©2022 Aetna Inc.

aetna

[1] Aetna Internal Study of Commercially Insured Members. Aetna. September 2022.

Case study[1]
Addressing Impactable Emergency Room Visits Among Population Facing SDoH Challenges

3 Customer and Aetna team explore possible root causes of impactable ER usage

Possible root cause	Hypothesis	Discovery actions
Affordability	Not applicable	Not applicable
Awareness	Colleagues impacted by SDoH not aware of plan urgent care coverage or location, scope and quality of services offered at urgent care	Meet with call center HR rep and embedded Aetna health coach. Test knowledge of call center employees through limited focus groups
Access	Colleagues live outside catchment area of urgent care	GeoSpatial analysis for non-urgent ER users
Assumptions	Skepticism that information provided about urgent care is only about saving money for the plan sponsor, and not in the best interest of the member	Meet with CRG representatives, and leverage call center focus groups to understand any hidden biases

 ©2022 Aetna Inc.

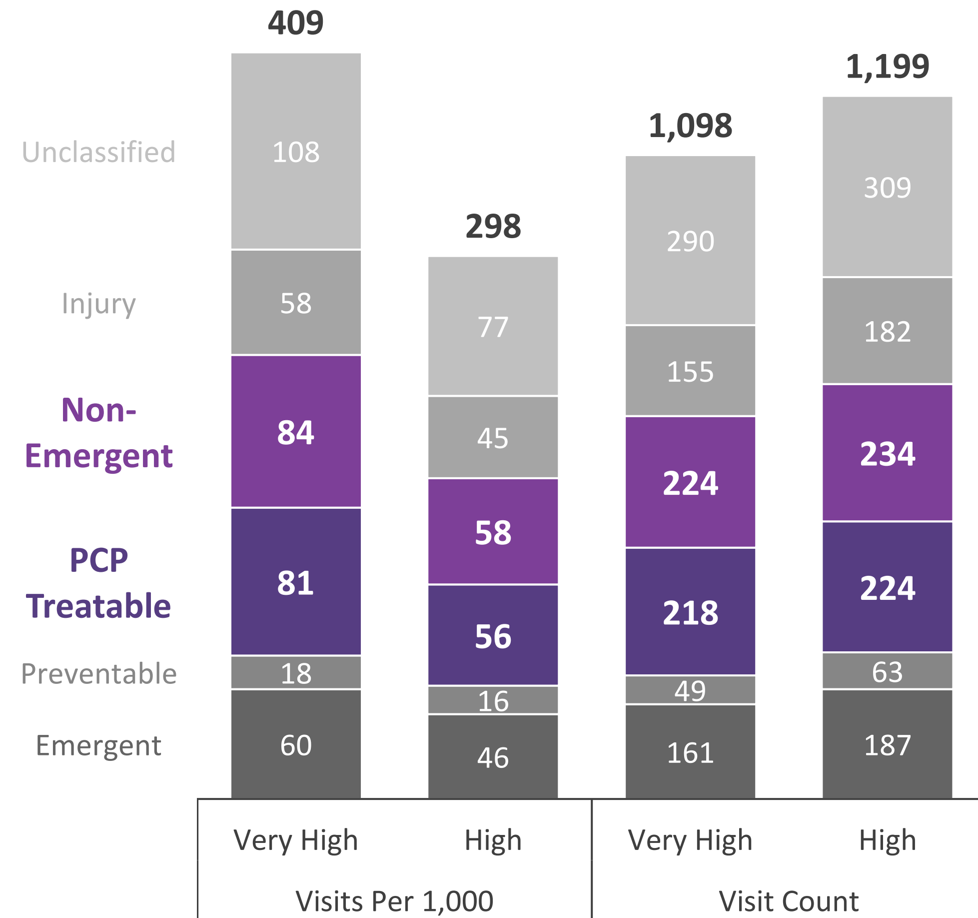
aetna

[1] Aetna Internal Study of Commercially Insured Members. Aetna. September 2022.

Case study[1]

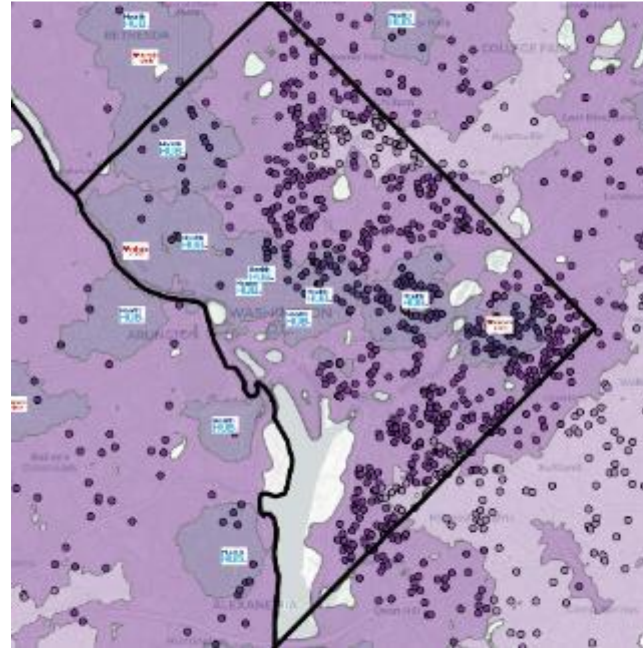
Addressing Impactable Emergency Room Visits Among Population Facing SDoH Challenges

4 How many ER visits are impactable? (PCP treatable or non-emergent)



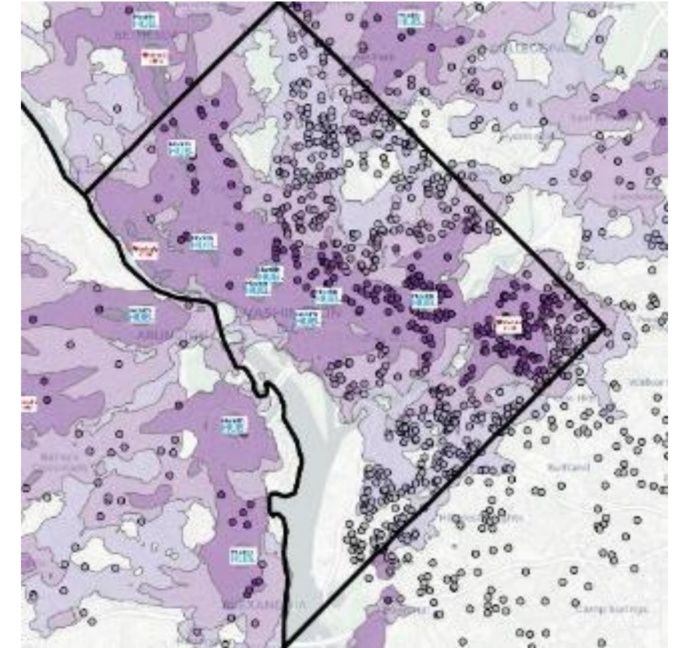
5 How many of these ER visits occur within a reasonable drive or public transit trip of an urgent care?

Access via driving

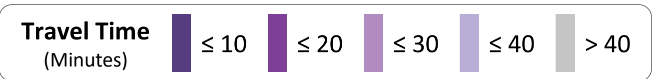


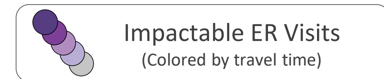
2,149 impactable ER visits, costing over **$3.0 million**, occur within a 30-minute drive of an urgent care

Access via public transit



790 impactable ER visits, costing over **$1.2 million**, occur within a 30-minute public transit trip of an urgent care





©2022 Aetna Inc.

aetna

[1] Aetna Internal Study of Commercially Insured Members. Aetna. September 2022.

Case study[1]

Addressing Impactable Emergency Room Visits Among Population Facing SDoH Challenges

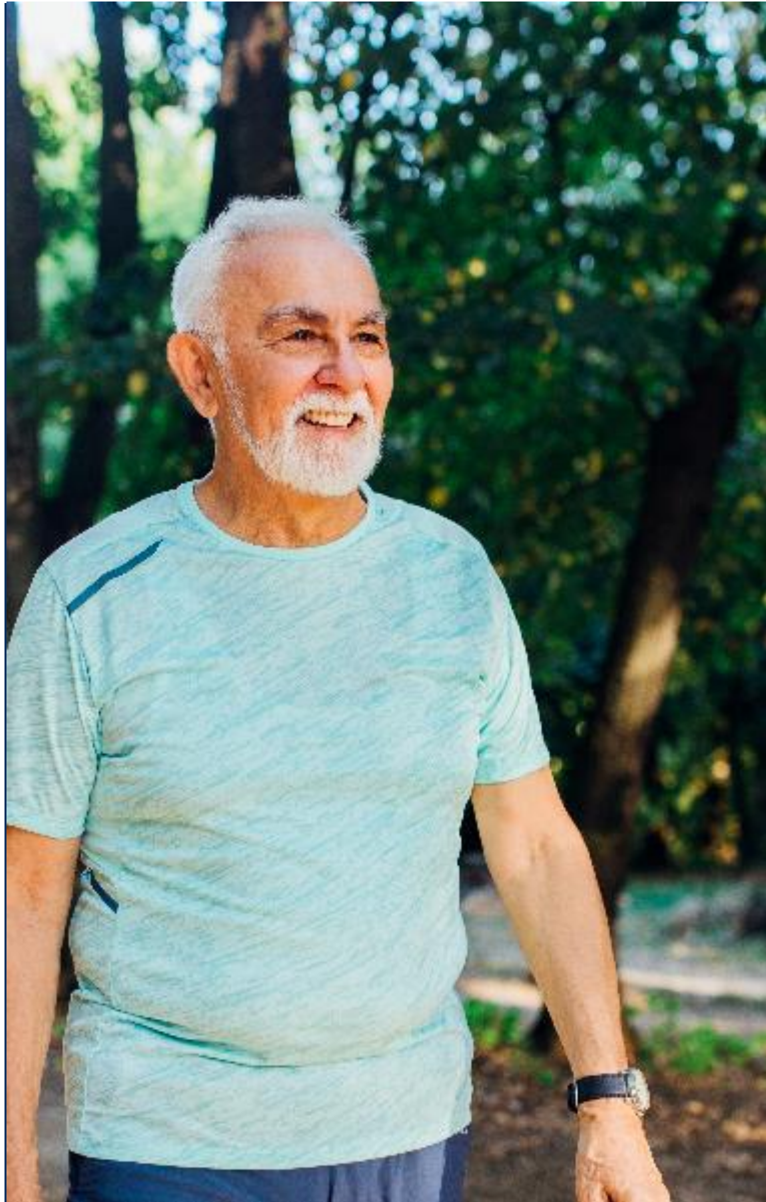
6 Create multi-pronged approach to remediate disparity by addressing unique root cause drivers

	Impacted populations	Likely root cause driver(s)	Remediation strategy	Remediation tactics
Group A	High user of non-emergent ER care. High social risk members living within 30-minutes (drive or transit-time) of an urgent care	Awareness	Boost utilization of routine care and preventive services through a combination of urgent care services along side telehealth options	1. First urgent care visit is available at no cost 2. Omni-channel campaigns about alternative sites of care and when to use them 3. Outreach following first impactable ER visit to share education with members and prevent subsequent addressable ER visits
Group B	High user of non-emergent ER care. High social risk members living outside 30-minutes (drive or transit-time) of an urgent care	Access, Awareness	Address access challenges faced by population by bringing care to members and emphasizing telehealth options	1. Bring network providers on-site for health and wellness fair (in conjunction with biometric screenings) 2. Omni-channel campaigns on telemedicine options and when to use them 3. Telehealth registration drives around open enrollment 4. Transportation assistance for members needing to travel for routine or specialist care
Group C	High users of ER-appropriate care	Awareness, Assumptions	Deep dive on medical conditions driving high usage of ER. Review participation, engagement and compliance with Aetna Chronic Condition Management programs	1. Cultural competence review of key chronic condition management programs including associated communications and access channels • Diabetes • MSK 2. Interview ERG members and program non-participants from historically marginalized groups

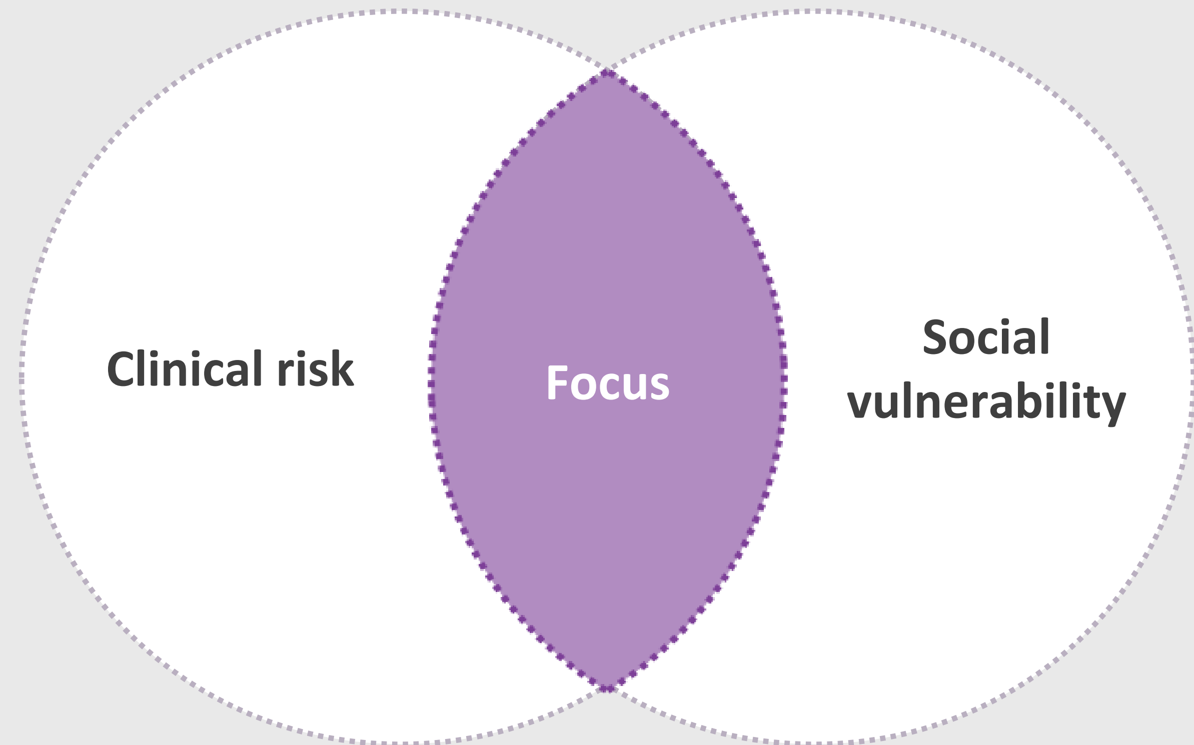
©2022 Aetna Inc.

aetna

[1] Aetna Internal Study of Commercially Insured Members. Aetna. September 2022.



Example #2: targeted action supporting high-cost members[1]



[1] Adopted from Diversity Best Practices HR Primer. Chapter 8 "Strategy Spotlight: Healthcare Benefits Design and Implementation That Truly Take Diversity Into Account". Hiles A. 2016.

©2022 Aetna Inc.

Example #2: targeted action supporting high-cost members

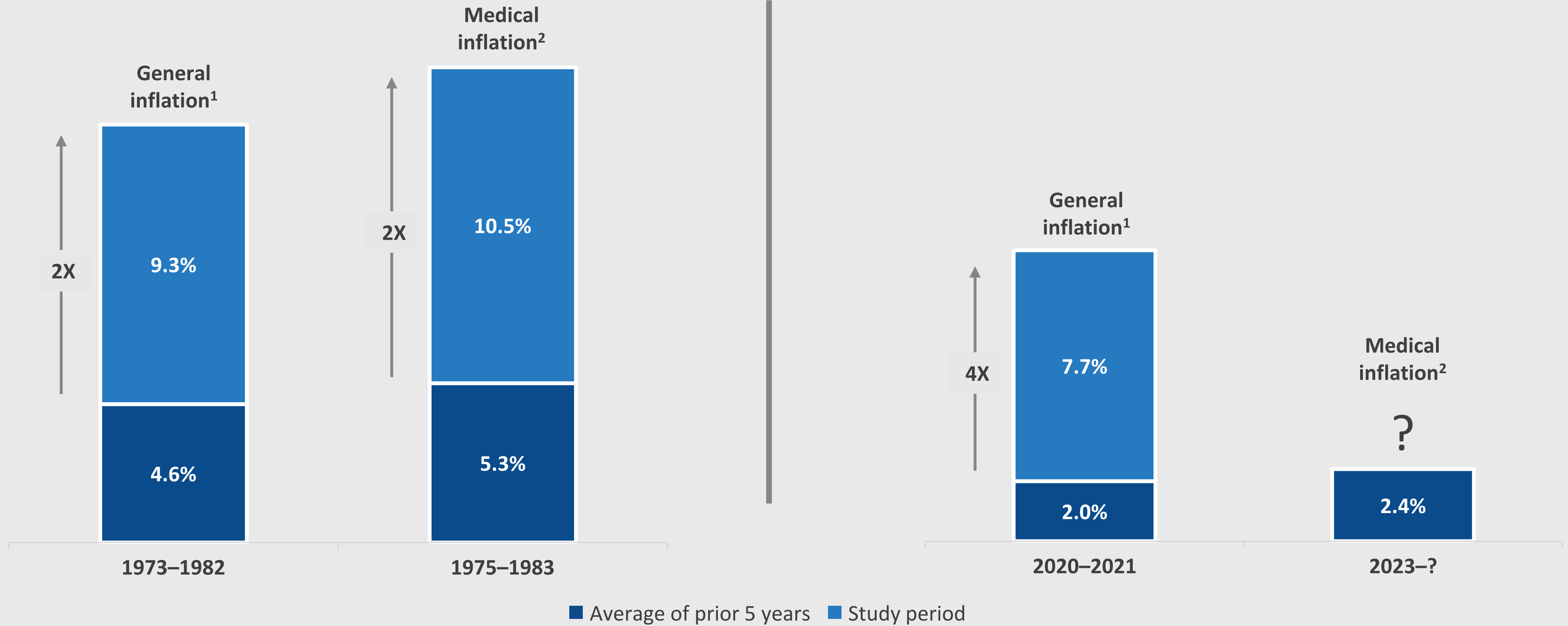
High Cost Case Drilldown	Overall Experience Trend			Current Experience by Social Risk Level					
Metric	Prior	Current	Trend	Very High	High	Medium	Low	Very Low	Unknown
High Cost Cases $100K-299K									
Total Paid Amount	$3,445.87M	$3,677.89M	6.7%	$278.17M	$474.29M	$665.39M	$895.24M	$1,187.38M	$177.42M
Claimants	21527	22564	4.8%	1735	2959	4160	5596	7433	1081
Claimants Per 1,000	4.2	4.3	2.3%	5.0	4.9	4.8	4.5	4.0	3.3
Cost Per Claimant	$160,072	$162,998	1.8%	$160,330	$160,287	$159,950	$159,978	$159,744	$164,129
Paid PMPM	$56.00	$58.32	4.1%	$67.05	$65.58	$63.73	$60.50	$52.88	$44.50
% of Total Paid	15.4%	15.7%	1.5%	16.7%	16.7%	16.5%	15.9%	14.9%	13.1%
Claimants as % of Total Members	0.20%	0.20%	1.4%	0.23%	0.23%	0.22%	0.21%	0.18%	0.14%
High Cost Cases $300K+									
Total Paid Amount	$1,531.75M	$1,575.52M	2.9%	$113.74M	$181.95M	$273.23M	$378.81M	$543.08M	$84.71M
Claimants	3119	3288	5.4%	237	389	582	827	1097	156
Claimants Per 1,000	0.6	0.6	2.9%	0.7	0.6	0.7	0.7	0.6	0.5
Cost Per Claimant	$491,104	$479,173	-2.4%	$479,914	$467,737	$469,468	$458,059	$495,057	$543,004
Paid PMPM	$24.89	$24.98	0.4%	$27.41	$25.16	$26.17	$25.60	$24.19	$21.24
% of Total Paid	6.9%	6.7%	-2.1%	6.8%	6.4%	6.8%	6.7%	6.8%	6.2%
Claimants as % of Total Members	0.03%	0.03%	2.0%	0.03%	0.03%	0.03%	0.03%	0.03%	0.02%
All w/HCC Removed									
Total Paid Amount	$17,185.59M	$18,059.82M	5.1%	$1,248.73M	$2,147.66M	$3,061.16M	$4,321.06M	$6,215.92M	$1,065.29M
Claimants	8,011,486	8,197,471	2.3%	522,274	911,925	1,330,427	1,923,315	2,953,258	555,872
Claimants Per 1,000	1,562.4	1,559.9	-0.2%	1,510.6	1,513.1	1,529.1	1,559.7	1,578.4	1,672.9
Cost Per Claimant	$2,145	$2,203	2.7%	$2,391	$2,355	$2,301	$2,247	$2,105	$1,916
Paid PMPM	$279.30	$286.39	2.5%	$300.98	$296.95	$293.18	$292.02	$276.85	$267.17

©2022 Aetna Inc.

aetna

Looking forward

Concern: impact of inflation on medical costs



[1] Amadeo K. **U.S. inflation rate by year From 1929 to 2023**. The Balance. October 14, 2022.
[2] **Health care inflation in the U.S. (1948-2022).** U.S. Inflation Calculator. October 13, 2022.

©2022 Aetna Inc.

aetna

Will higher trend diminish a balanced focus on cost, outcomes and equity?

Commercial plan sponsors will get more than their fair share of medical inflation

Plan sponsors prefer sharing cost with workers by adjusting plan value more than increasing premiums:

- Kaiser data shows that from 2006–2021:[1]
  - Worker premiums increased 82%
  - Deductibles are up 185%
- Aon reports that for 2021–2022 worker health plan costs increased just 2.6%:[2]
  - 0.6% increase in worker premiums
  - 5.2% increase in out-of-pocket costs

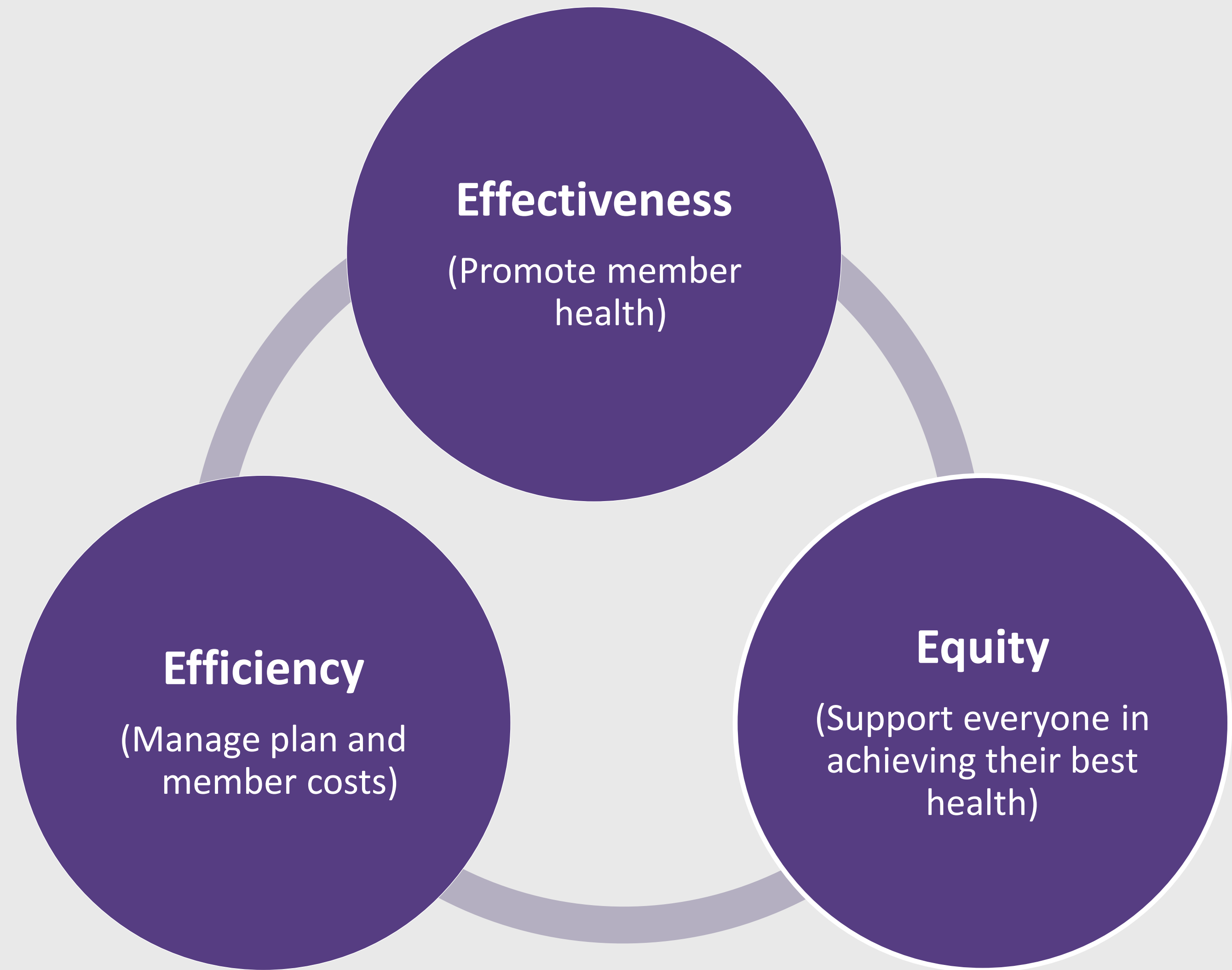
The health equity gap grows as point-of-care costs are pushed uniformly to workers

[1] **2021 employer health benefits survey**. KFF. November 10, 2021. Single coverage
[2] Miller S. **Medical plan costs expected to see bigger rise in 2023**. SHRM. August 16, 2022

aetna

In conclusion: Equity is not a product or initiative

(it is fundamental to everything we do at Aetna)



©2022 Aetna Inc.

aetna

Aetna is the brand name used for products and services provided by one or more of the Aetna group of companies, including Aetna Life Insurance Company and its affiliates (Aetna).

©2022 Aetna Inc.
aetna®

aetna®