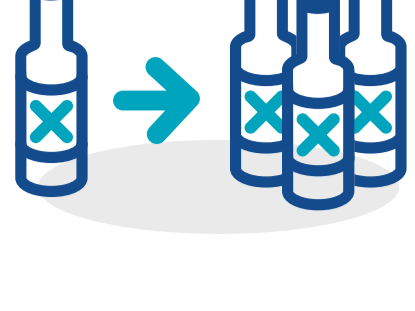


DISEASES OF DESPAIR



Alcoholism

Alcohol-related deaths per 100,000 is higher than any time since the start of WWI



Drug Abuse

Among Americans ages 25 to 64

1999
6.7 overdose deaths per 100,000

2017
32.5 overdose deaths per 100,000



Suicide

Suicides among middle-aged men are on the rise

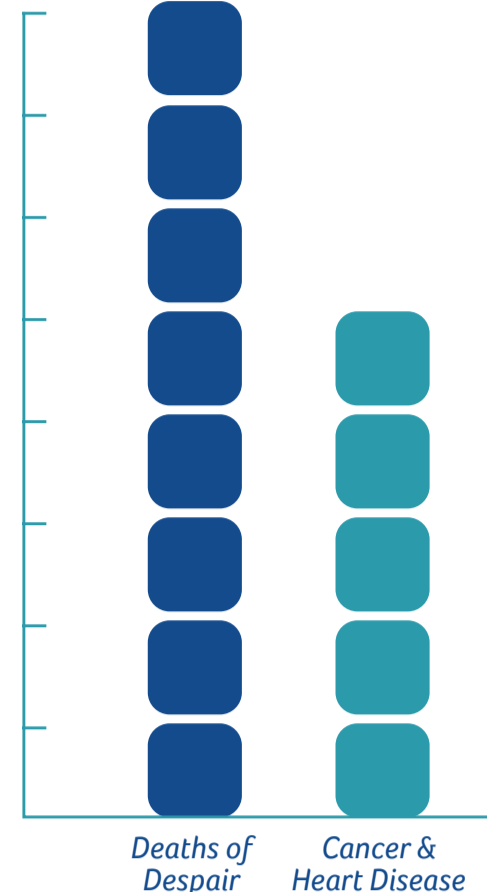
Princeton study 2015 by economists Anne Case and Angus Deaton focused on disturbing mortality data for white non-Hispanic Americans

MIDDLE-AGE KILLER

The biggest middle-age killers, cancer and heart disease, have been surpassed by drug overdoses, alcohol-related deaths and suicide.

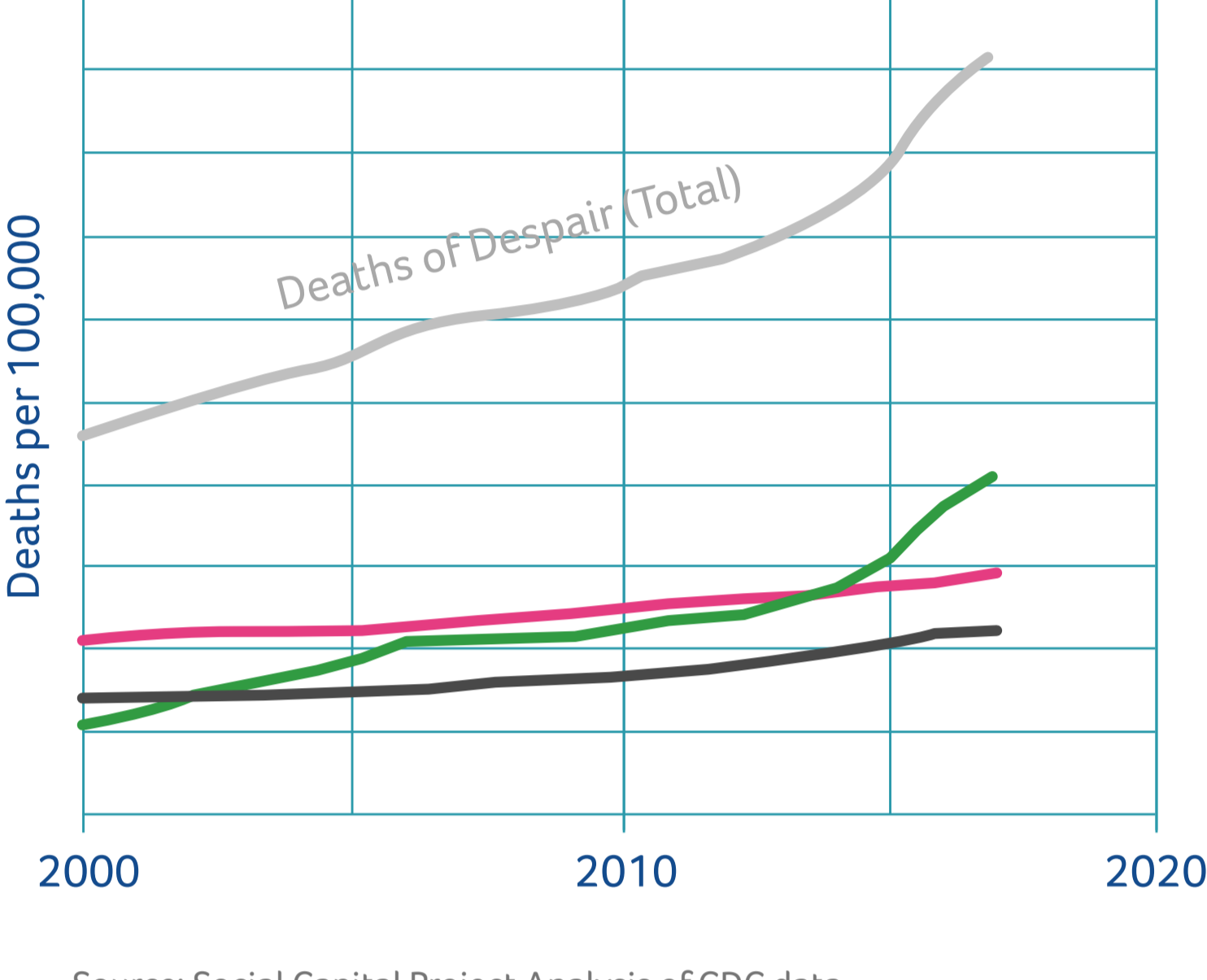
“Ultimately, we see our story as about the collapse of the white, high school educated, working class after its heyday in the 1970s, and the pathologies that accompany that decline.”

- Anne Case and Angus Deaton "Deaths of Despair and the Future of Capitalism"



In 2017, deaths from lung cancer, stroke and car crashes were overtaken by Diseases of Despair.

DEATHS OF DESPAIR AND ITS COMPONENTS



ALCOHOL RELATED



DRUGS



SUICIDE

Source: Social Capital Project Analysis of CDC data.

AMERICAN LIFE EXPECTANCY



1918
American life expectancy goes up



2011
Americans' lifespans stop growing



2017
Americans' life expectancy begins dropping

WHAT'S GOING ON IN MY COMMUNITY?

Data gathered from February 2016 through January 2019



HDMS industry-leading business intelligence platform DART (Data Analysis and Reporting Tool) provides high-level insight into trends in disease prevalence, cost and utilization.

HDMS queries Book of Business database to understand the prevalence of the Diseases of Despair by using five distinct diagnostic groups:

- Alcohol dependence
- Cocaine or amphetamine dependence
- Opioid and barbiturate dependence
- Other drug dependence
- Depressive disorder

Disease of Despair is trending up across all age/gender bands.



Diseases of Despair are affecting females more than males across all age bands



The 40-54 Female group has the highest Diseases of Despair prevalence*



70+ year olds have the highest rate of increase at almost 20%**

* Depression affects women more than men, but that's not necessarily the case with alcohol and drug dependence. To better understand this trend, more information is needed about the distribution of each of the four diseases.

**This needs further study to better understand this group and the contribution of co-morbid conditions.

Utilization* Is Trending Up Across All Age/Gender Bands Leading To Higher Costs

The right target groups for intervention programs:



FEMALES 40-54
Highest utilization, greatest number of individuals affected, and costs nearly \$13 at a PMPM level.



MALES 10-24
Costs are almost 20% higher than other groups, although utilization is comparable to other groups.

*Episodes per 1000

PRESCRIPTION DRUG ABUSE

Over the three-year study period:



Sedative use up 7%



Opioid prescriptions among males continues to rise, up 5%



Opioid prescriptions among females are down 9%



Controlled OTC prescriptions down 36% for males. Down 13% for females.

WHAT'S NEXT?

These baseline analytics serve as a springboard for data-driven strategies around prioritization of resources, intervention models and other clinical transformations.

Who benefits from care management services?

What alternative treatment methods are available?

Can sedative use be reduced through sleep hygiene education?

Are lower-cost service alternatives available?

What employee assistance programs (EAPs) can be expanded?

Are there federal, state or local support partnerships available?