VISION & HYPERTENSION CHALLENGE FROM CDC
HYPERTENSION CONTROL – A CALL TO ACTION

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Gun Violence
Vaping-related illness
Cancer
Diabetes
Weight loss
Depression
Anxiety
Stroke
Lyme Disease
Dementia
Heart Disease
Alcohol consumption
Causes of death in the US
What Americans die from, what they search on Google, and what the media reports on

*This represents each cause’s share of the top ten causes of death in the US plus homicides, drug overdoses and terrorism. Collectively these 13 causes accounted for approximately 88% of deaths in the US in 2016. Full breakdown of causes of death can be found at the CDC’s WONDER public health database: https://wonder.cdc.gov/*

Based on data from Shen et al (2018) - Death: reality vs. reported. All data available at: https://overatethe24.github.io/charting-death
All values are rounded to 4% so they represent their relative share of the top causes rather than absolute counts, e.g. "Deaths" represents each cause’s share of deaths within the 13 categories shown rather than total deaths. The causes of death shown here account for approximately 88% of total deaths in the United States in 2016.

This is a visualization from OurWorldinData.org, where you find data and research on how the world is changing. Licensed under CC-BY by the authors Hannah Ritchie and Max Roser.
U.S.

Heart Attack at 49—America’s Biggest Killer Makes a Deadly Comeback

Younger people, women and nonsmokers are more likely to be victims of the crisis in cardiovascular health, driven by skyrocketing obesity and diabetes

Cardiovascular Disease in the US

860,000 deaths occur annually from heart disease and stroke.

1 in 3 of these life-changing cardiovascular events happened in adults 35-64.

80% of premature deaths caused by heart disease and stroke are preventable.
Hypertension – A Closer Look

104.6 million adults have Stage 1 or Stage 2 hypertension.

1 in 3 adults has Stage 2 hypertension*. 

1 in 6 deaths in 2017 included a hypertension diagnosis.

*Based on the ACC/AHA 2017 hypertension guideline, hypertension is defined as a blood pressure ≥130/≥80 mmHg. Stage 2 hypertension is defined as a blood pressure ≥140/≥90 mmHg.
Hypertension Control Trends

Figure 5. Age-adjusted trends in hypertension and controlled hypertension among adults aged 18 and over: United States, 1999–2016

![Graph showing trends in hypertension and controlled hypertension from 1999 to 2016.]

1Significant increasing trend for 1999–2010, p < 0.001.

NOTES: Hypertension estimates are age adjusted by the direct method to the 2000 U.S. Census population using age groups 18–39, 40–59, and 60 and over. Estimates of controlled hypertension are age adjusted by the direct method using computed weights based on the subpopulation of persons with hypertension in the 2007–2008 National Health and Nutrition Examination Survey, using age groups 18–39, 40–59, and 60 and over. Access data table for Figure 5 at: https://www.cdc.gov/nchs/data/databriefs/db289_table.pdf#5.

County-level heart disease death rates are categorized into five equally-sized groups, with the lightest and darkest shades of blue representing the lowest and highest heart disease death rates, respectively.

Counties with increasing heart disease death rates during 2010-2017 are shown in red, with darker red indicating a stronger increase. Counties with decreasing heart disease death rates during 2010-2017 are shown in gray, with darker gray indicating a stronger decrease.

Hypertension is the major contributor to heart attacks, strokes, heart failure, dementia, and kidney disease.

Hypertension is also costly in dollars: $131 B annually in health care services, meds & missed days of work.
Million Hearts® 2022 is a national initiative, co-led by CDC and CMS, with the ultimate goal of preventing one million heart attacks, strokes, and other acute cardiovascular events by 2022 using evidence-based interventions. This goal is composed of mutually exclusive ED visits, acute hospitalizations, and deaths that the Million Hearts strategies could potentially prevent. Nationally, in 2016, 2.2 million hospitalizations (850.9 per 100,000 population) resulting in $32.7 billion in costs, and 415,480 deaths (157.4 per 100,000) occurred. Using the rates from table 1, table 2 shows your state's number of "Million Hearts-preventable events" that are slated to occur if there is no intervention. To meet the ultimate goal, Million Hearts is asking each state to aim for a 6% decrease in these events from 2017-2022.

### Table 1. Age-standardized Million Hearts–preventable emergency department, hospitalization, mortality rates (per 100,000 population), and hospitalization costs among adults aged ≥18 years, 2016

<table>
<thead>
<tr>
<th>Treat-and-Release ED Visit Rate</th>
<th>Acute Hospitalizations</th>
<th>Mortality Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Rate (thousands)</td>
<td>Cost, In US$ (2016) billions</td>
</tr>
<tr>
<td>154.7</td>
<td>698.3</td>
<td>4.23</td>
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</tbody>
</table>

### Table 2. Expected number of Million Hearts–preventable events and hospitalization costs among adults aged ≥18 years during 2017–2021 without intervention

<table>
<thead>
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<tbody>
<tr>
<td>241.4</td>
<td>1088.6</td>
<td>229</td>
<td>1558.9</td>
<td>93.5</td>
<td>22.3</td>
</tr>
</tbody>
</table>

For additional information regarding methods, please see Ritchey MD, Wall HK, Owens PL, Wright JS. Vital Signs: State-Level Variation in Nonfatal and Fatal Cardiovascular Events Targeted for Prevention by Million Hearts 2022. MMWR. 2018;67:974-982.
Measures how many Americans live with, are treated for, or die from heart disease and stroke.

Studies interventions to find out what works best to prevent heart disease and stroke and develops tools for partners to use in the field.

Funds and guides states, cities, tribes, and territories to use interventions to prevent and manage heart disease and stroke.

Shares information to help all Americans understand the risk factors for heart disease and stroke and how to reduce them.
WHAT NEEDS TO BE DONE

- Focus on wellness: a scorecard, incentives that fit the issue
- Can this impact retention?
- Align incentives
- Identify best practice models and bring us into teams
- Multi-disciplinary teams: include youth as messengers
- Patient engagement
- Preventative benefits
- New payment models for medication therapy
- Wrap-around services for patients
- Coord. plans around hypertension
- Use implementation science to reach those most in need
- Partnership & teamwork with other sectors
- Partners being in best practices... make it sustainable
- Team-based care... sustained collaborative practice agreements
- CDC's call to action
COMING SOON:
Million Hearts® Hospitals & Health Systems

A new program to recognize institutions working to improve the cardiovascular health of the population & communities they serve by:

1. Keeping People Healthy
2. Optimizing Care
3. Improving Outcomes for Priority Populations
4. Innovating for Health
HYPERTENSION CONTROL EFFORTS
• Requesting **novel interventions** for non-communicable disease.

• https://www.hhs.gov/cto/initiatives/request-for-information-preventionx/index.html
The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.