## The Health of Harford County

Local Health Improvement Coalition (LHIC) 8<sup>th</sup> Annual Meeting, October 16, 2018 Russell Moy, MD, MPH, Health Officer



Harford County Health Department



- Review of the LHIC health priorities
- Review of Maryland and Harford County health status data
  - Behavioral health
  - Chronic diseases and health behaviors
  - Family health and resiliency



### Harford County LHIC Meeting October 26, 2017



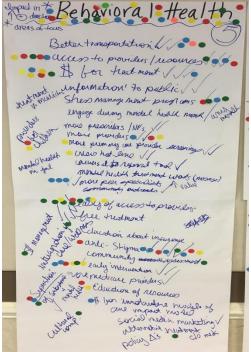
COMMUNITY FORUM • OCTOBER 26, 2017 HARFORD COUNTY COMMUNITY COLLEGE • BEL AIR, MD



## Harford County LHIC Health Priorities, 2011 - 2017







Chronic Disease Prevention/Wellness Access to Services Navigation Health Education to Al Financial, Enough local providers ACE community adoption ?? Early Screening + Response Intervention Multi-cultural Jocial Community Isolation & Eldero Accessible Communication V Using technology, digital impacts on serving providing Caregiver Support and Education Elder Wellness Incentives ... Creating a culture of wells PROACTIVE VS REACTIVE =lder 1 obacco What would Have Timpart?? 500% TAX on ALL to bacabouts Tage to 21 for purchase For tobacco users ON Service Smoking Properties - FINES . APING RULES Some A de 3 de de 100 > Eliminating Smoking near manging cutural view to NOT-COOL Strong Cessation program Contestin momence providence mandated coverage

-> Changing zoning for Vipe stores

allow Tharmac to prove de

• Manase licensing fees per

Consistent Laws

, Environmenta la Stability accestions Trupine builtenvillo-biteable walkat T access he atthy tools Comm.police Presence Family wellings -> exercise Southurs Vilves -> Hatth, wellness, disease prevention as Family Community holistic, welling Constrainty • Financial Stability · access to Doctors /PCP, tele medicine Accessible housing, disabilities, Stable, affordable Youth development, opportunities to hangoat Other altern. to sports, Low/no tee 1 \* Topport. For trade schools Ace inform 1 economic opport, jobs Port transportation adaptite for all Raconing OBESITY

O access to Care Health Equity What has the greatest impact ? Transportation ///// Connectivity (Builtenvironment)/ Health Literacy 1/00 Awareness of Resources //// Health Insurance (co-pays/affordability), Education of Healthcare Spending Accounts Cultural Competence/Language barriers? Inadequate Sick Leave Viers Milg Stability/ Ear Coordination / Centralized Center /// Federally Qualified Health Centers / Care in your neighborhood // Rapic Access /

Personal Motivation to use resources

what would impact. areasot View and Thatthey Easting Elucarte Community awareness / Involvement Access to headby food (afformable) · darge community Event VI. Active Exercise | community / weekable V. Assure Recess rot laken auchy · Community Parts -> access to pay · Healthy VENDORS - A auet Education! · ID personal ( Community motivator S · Cooking Demos V. School lunche So · Generational program

- Create D & healthy ENURAN
- . FOOD Culture / Colebration S meetings

5

## Summary

BEHAVIORAL HEALTH	26	ТОВАССО	0
- Improve ease of access to providers	10	- Change cultural perception of smoking	14
- Access to providers/resources	9	- Education about all tobacco producta	8
- Destigmatize behavioral health problems	9	- Increase taxes on all tobacco products	7
CHRONIC DISEASE PREVENTION/WELLNESS	16	OBESITY	0
- Creating culture of wellness	17	- Childhood healthy eating education	23
- Health education to all (elderly to child)	12	- After-school activities	6
- ACEs – community adoption	12	<ul> <li>School wellness culture</li> </ul>	5
ENVIRONMENTAL STABILITY	15		
- Culture and values	21		
- Youth developments	16		
- Improve built environment	9		
SUBSTANCE ABUSE	9		
- 24-hour resources/hotline	8		
- Understanding root cause (co-occurring)	8		
- Peer Recovery Coaches/Facilities	7		
ACCESS TO CARE	2		
- Transportation	28		57
- Care coordination/centralized care	11		Public Hoc1th
- Family stability	9		Prevent. Promote. Protect Harford County Health Department

## Harford County LHIC Health Priorities, 2018

#### Behavioral Health

- Mental Health
- Substance Use Disorders
- Overdose Prevention

Chronic Disease Prevention & Wellness

- Tobacco Use Prevention
- Healthy Eating/Active Living and Obesity Prevention
- Chronic Diseases, including Cancer, COPD, Diabetes, Asthma and others

#### Family Health & Resiliency

- Substance-Exposed Newborns
- ACE scores/Trauma-Informed Community
- Transportation
- e Housing



## Harford County LHIC New Health Priorities, 2018





## Impact of the overdose crisis





### Drug-related deaths reach all-time high in 2017 In the U.S.

#### **Ehe New York Eimes**

#### **Bleak New Estimates in Drug Epidemic:** A Record 72,000 Overdose Deaths in 2017

Fentanyl is a big culprit, but there are also encouraging signs from states that have prioritized public health campaigns and addiction treatment. 10% increase over the past year

**By Margot Sanger-Katz** 

Aug. 15, 2018

Drug overdoses killed about 72,000 Americans last year, a record number that reflects a rise of around 10 percent, according to new preliminary estimates from the Centers for Disease Control. The death toll is higher than the peak yearly death totals from H.I.V., car crashes or gun deaths.

Analysts pointed to two major reasons for the increase: A growing number of Americans are using opioids, and drugs are becoming more deadly. It is the second factor that most likely explains the bulk of the increased number of overdoses last year.

### Drug-related deaths reach all-time high in 2017 In Maryland

## Maryland's drug-related deaths increase for seventh straight year, reach all-time high in 2017



By Andrea K. McDaniels The Baltimore Sun

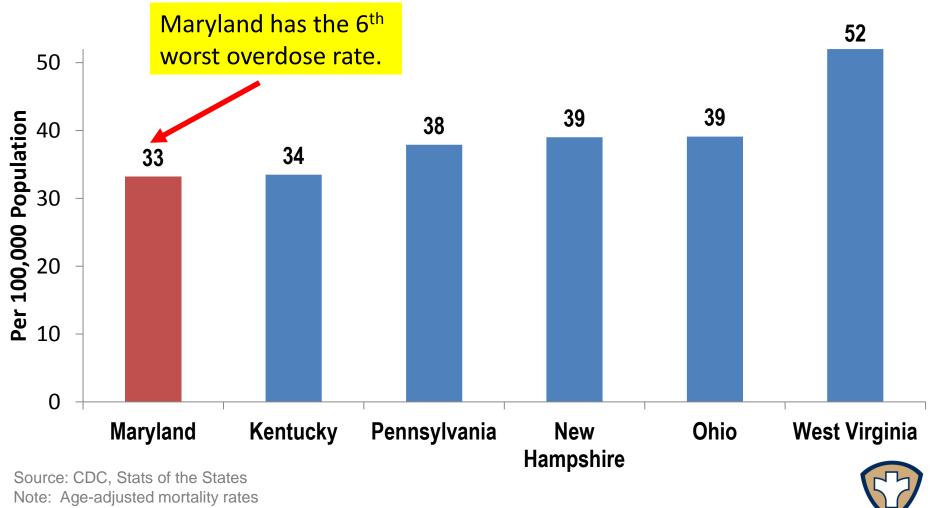
JULY 26, 2018, 2:45 PM

The number of drug- and alcohol-related deaths in Maryland soared to an all-time high of 2,282 last year as the state continued to struggle with an opioid addiction problem that has gripped the entire country.

9% increase over the past year

Last year there were 9 percent more such overdose deaths than in 2016 and most of them -2,009 – were opioid-related, according to data released Thursday by the Maryland Department of Health.

## State Drug Overdose Mortality Rankings, 2016



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# How much has Harford County's overdose death rate increased over the past 5 years?

(A) 1.8%
(B) 18%
(C) 180%
(D) 280%

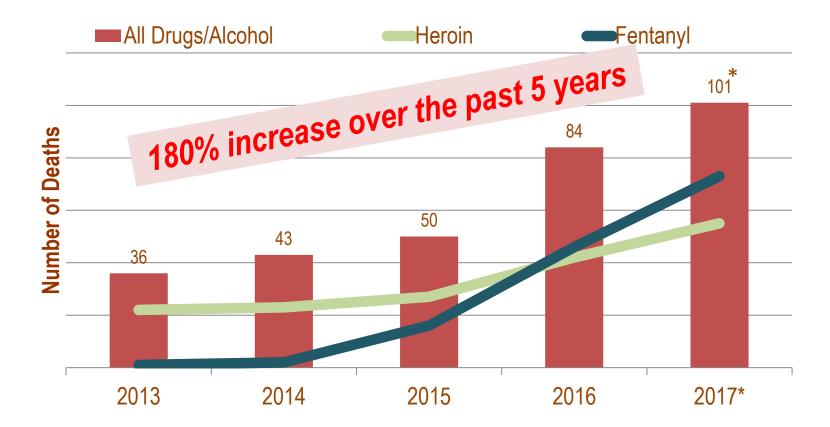


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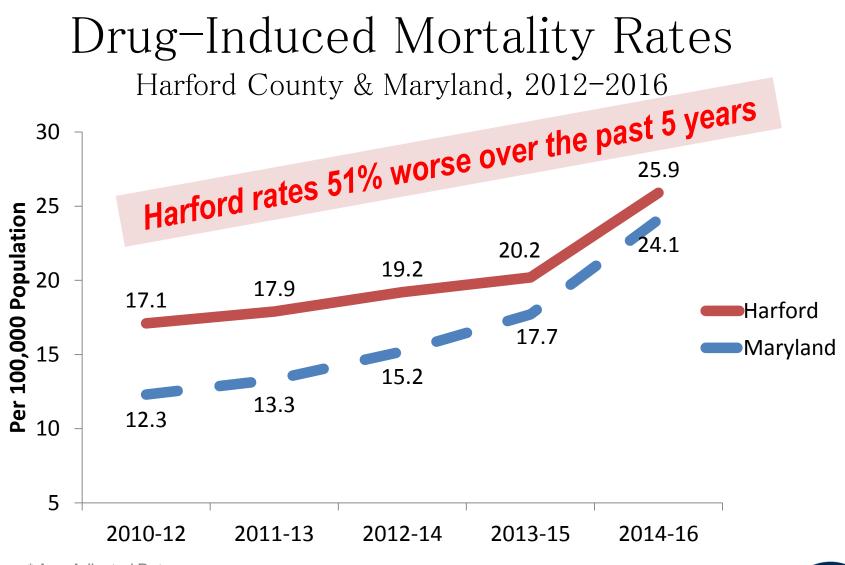


#### Drug & Alcohol Intoxication Deaths By place of occurrence, Harford County, 2013–2017\*



Source: Maryland Vital Statistics: Drug- and Alcohol-Related Intoxication Deaths in Maryland, 2016 \* 2017 estimates based on 3 quarters of 2017 data, Maryland Vital Statistics

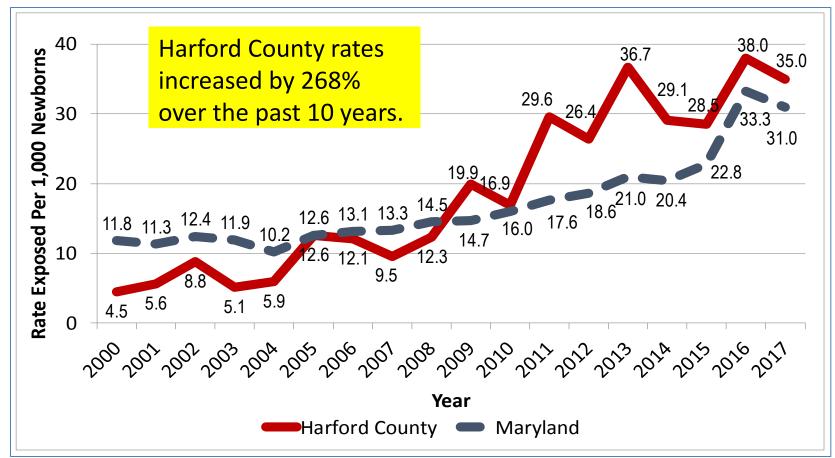




\* Age-Adjusted Rates Source: Maryland Vital Statistics Reports



Rate of Hospital Encounters for Newborns Born with Maternal Drug/Alcohol Exposure in Harford County and Maryland, 2000-2017\*



NOTE: ICD 9 Codes used 760.70, 760.71. 760.72, 760.73, 760.75, 760.77, 779.5 ICD 10 Codes used P04.3, P04.4, P04.41, P04.49, P04.8, P04.9, P96.1

\* 2017 DATA IS PRELIMINARY – Data compiled by MCHB/MDH. Chart prepared by HCHD.

Source: HSCRC Hospital Data, 2000-17, Maryland resident births only, does not include Maryland resident births born out of state.



#### Maryland has the 5<sup>th</sup> highest rate of new moms addicted to opioids

#### Maryland Has 5th Highest Rate Of New Moms Addicted To Opioids

The CDC says the number of pregnant women using opioids has increased exponentially, including in Maryland.

By Elizabeth Janney, Patch Staff | Aug 21, 2018 10:56 am ET | Updated Aug 21, 2018 10:59 am ET



MARYLAND — The number of pregnant women using opioids such as heroin and fentanyl has skyrocketed nationwide. Federal health officials say it now poses a "significant public health concern."

Between 1999 and 2014, the national prevalence of opioid use disorder more than quadrupled from 1.5 cases per 1,000 deliveries to 6.5, the Centers for Disease Control and Prevention (CDC) reported this month.



## The reason this epidemic is so deadly



Comparing the size of lethal doses of heroin, fentanyl, and carfentanil. The vials here contain an artificial sweetener for illustration. (New Hampshire State Police Forensic Laboratory)



# Short-term, Narcan (naloxone) spray can reverse an opioid overdose and save lives





Intermediate-term, more substance use disorder medication treatment services are needed

#### **Medication-assisted opioid addiction treatment**



(Buprenorphine + Naloxone)

Approved: by FDA in 2002 Dosage: Taken daily - most commonly as a film under the tongue

**Cost:** \$125-\$250 for a 30-day set **Insurance:** Covered my many providers

**Prescription:** Can be prescribed at MercyHealth Behavioral Health Services and Compass Behavioral Health Clinic



**Approved:** by FDA in 1972 **Dosage:** Taken daily in liquid form

**Cost:** Less than \$100 per month **Insurance:** Covered my many providers

**Prescription:** Prescribed at Beloit Comprehensive Treatment Center



Approved: by FDA in 2006 Dosage: Taken as an injection, lasts four weeks Cost: About \$450 per injection Insurance: Covered my many providers Prescription: Can be prescribed

by a medical doctor

SOURCE: U.S. Food and Drug Administration

Tony DiNicola/tdinicola@gazettextra.com

# Intermediate-term, more substance use disorder crisis and care coordination services are needed



#### WATCH WELLNESS ACTION TEAMS OF CECIL & HARFORD

- Home visits including Community Health Workers, RNs, Social Workers
- Primary Care Physician referrals and collaboration
- Referrals to transportation, insurance, housing, food
- Self-care, healthful living and care plan management

Proudly serving the residents of Harford and Cecil counties.

For information, please contact 800-515-0044 healthyharford.org



# HARFORD CRISIS CENTER 24/7 800-NEXT-STEP



#### Long-term, prevention works best

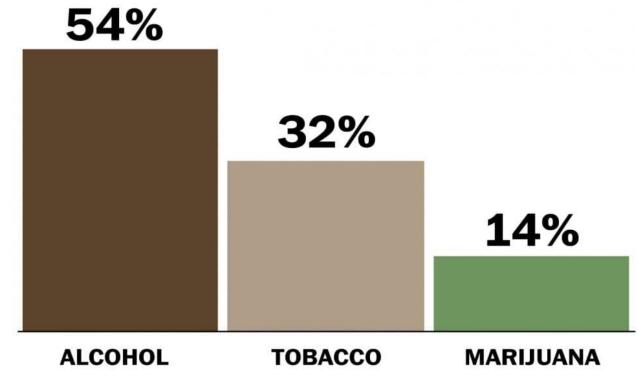


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## Is there a gateway drug?

#### **Alcohol: the true gateway drug**

First drug of use, among 12th graders who had ever used alcohol, tobacco or marijuana:



#### WAPO.ST/WONKBLOG

Source: Prioritizing Alcohol Prevention: Establishing Alcohol as the Gateway Drug and Linking

# What is the safest level of alcohol consumption?

# THE LANCET

Alcohol use and burden for 195 countries and territories, 1990–2016: a systematic analysis for the Global Burden of Disease Study 2016

GBD 2016 Alcohol Collaborators\*

#### Summary

**Background** Alcohol use is a leading risk factor for death and disability, but its overall association with health remains complex given the possible protective effects of moderate alcohol consumption on some conditions. With our comprehensive approach to health accounting within the Global Burden of Diseases, Injuries, and Risk Factors Study 2016, we generated improved estimates of alcohol use and alcohol-attributable deaths and disability-adjusted lifeyears (DALYs) for 195 locations from 1990 to 2016, for both sexes and for 5-year age groups between the ages of 15 years and 95 years and older.

**Methods** Using 694 data sources of individual and population-level alcohol consumption, along with 592 prospective and retrospective studies on the risk of alcohol use, we produced estimates of the prevalence of current drinking, abstention, the distribution of alcohol consumption among current drinkers in standard drinks daily (defined as 10 g of pure ethyl alcohol), and alcohol-attributable deaths and DALYs. We made several methodological improvements compared with previous estimates: first, we adjusted alcohol sales estimates to take into account tourist and unrecorded consumption; second, we did a new meta-analysis of relative risks for 23 health outcomes associated with alcohol use; and third, we developed a new method to quantify the level of alcohol consumption that minimises the overall risk to individual health.



Articles



#### Lancet 2018; 392: 1015-35

Published **Online** August 23, 2018 http://dx.doi.org/10.1016/ S0140-6736(18)31310-2

See **Comment** page 987

\*Collaborators listed at the end of the Article

Correspondence to: Prof Emmanuela Gakidou, Institute for Health Metrics and Evaluation, University of Washington, Seattle, WA 98121, USA

gakidou@uw.edu

### Safest level of alcohol consumption is none

The Washington Post

Health & Science

512 researchers, 243 institutions, death/disability records from 1990 to 2016, 23 health problems.

# Safest level of alcohol consumption is none, worldwide study shows

#### By Joel Achenbach

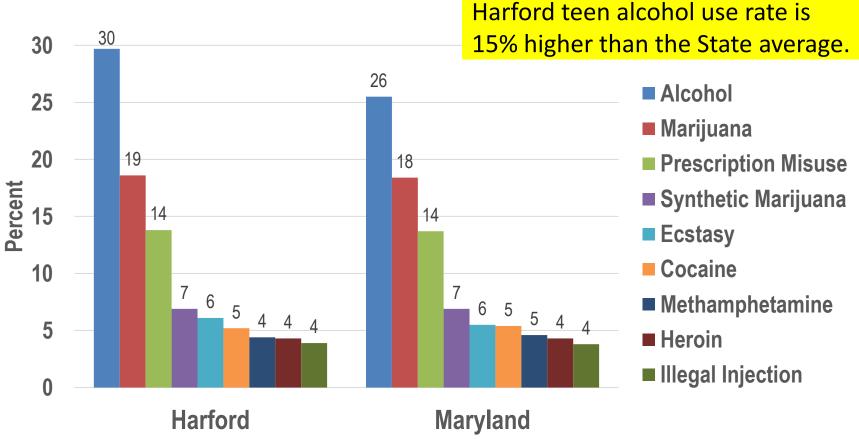


Joel Achenbach Reporter covering science and politics Email Bio 2 August 23



To minimize health risks, the optimal amount of alcohol someone should consume is none. That's the simple, surprising conclusion of a massive study, co-written by 512 researchers from 243 institutions, published Thursday in the prestigious journal the Lancet.

#### Adolescent Alcohol and Drug Use Rates Harford County & Maryland, 2016



Source: Maryland Youth Risk Behavior Survey (YRBS), 2016 Note: Students, Gr 9-12 who drank at least 1 drink of alcohol in the past 30 days



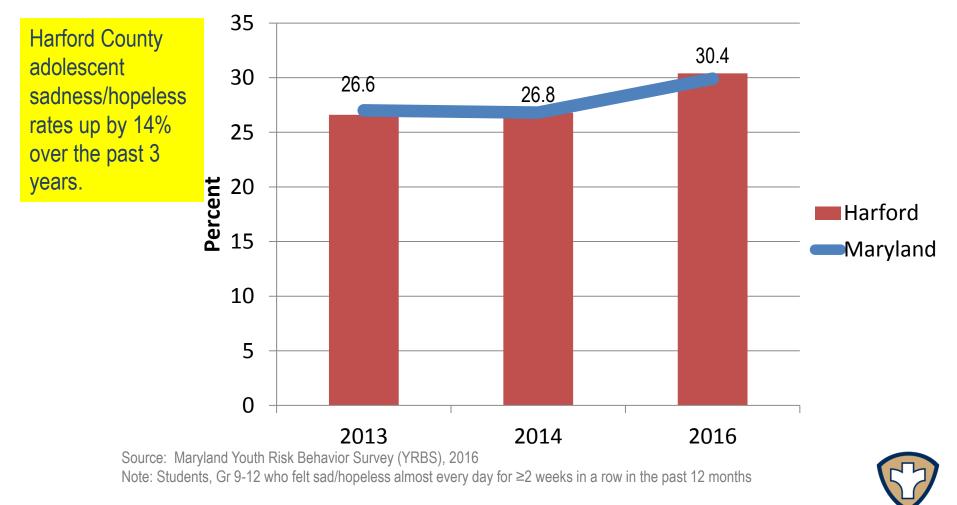
# Relationship between untreated substance abuse disorders and suicide

Among Patients with Untreated Substance Abuse Disorders...



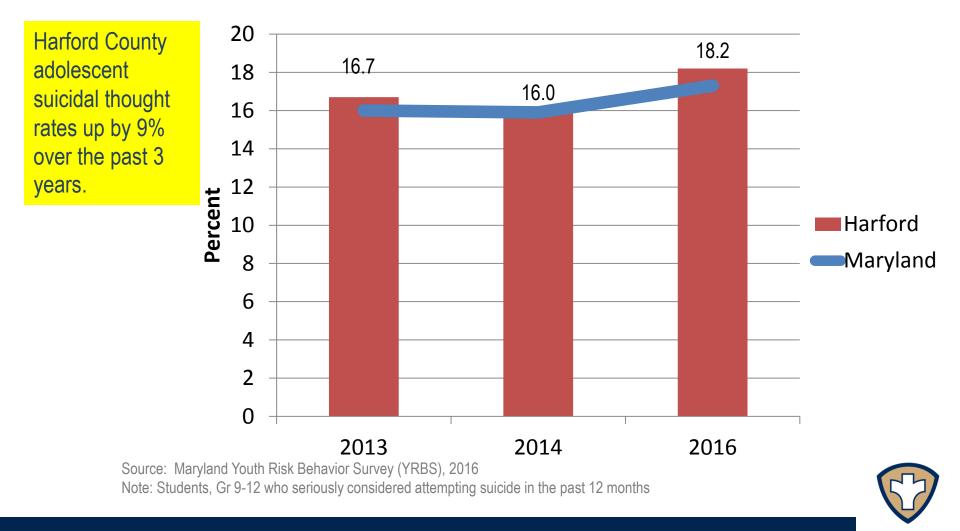


#### Adolescent Sadness/Hopeless Rates Harford County & Maryland, 2013–2016



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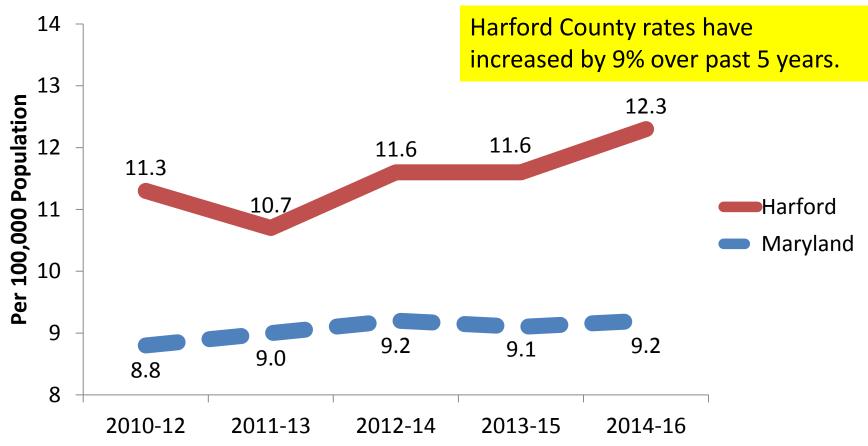
#### Adolescent Suicidal Thought Rates Harford County & Maryland, 2013–2016



**Public Healtl** 

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#### Suicide Mortality Rates Harford County & Maryland, 2012–2016



\* Age-Adjusted Rates Source: Maryland Vital Statistics Reports



# Suicide is the top cause of death in young people, ages 15-29

#### **BIGGEST KILLERS**

The top five causes of death in the age group 15-29 in 2010-13.

RANK	CAUSE OF DEATH	DEATHS (% OF TOTAL)
1	Suicide	18
2	Unintentional injuries (motor vehicle accidents)	13.7
3	Unintentional injuries (others)	10.9
4	Cardiovascular diseases	7.5
5	Digestive diseases	7.2

Source: Office of the Census Commissioner



## From 1999 to 2015, death rates for middle aged white Americans increased ....

PUBLIC HEALTH

# The Forces Driving Middle-Aged White People's 'Deaths Of Despair' Deaths of despair – by suicide, drugs and alcohol



March 23, 2017 · 5:00 AM ET **Heard on Morning Edition** 

#### JESSICA BODDY

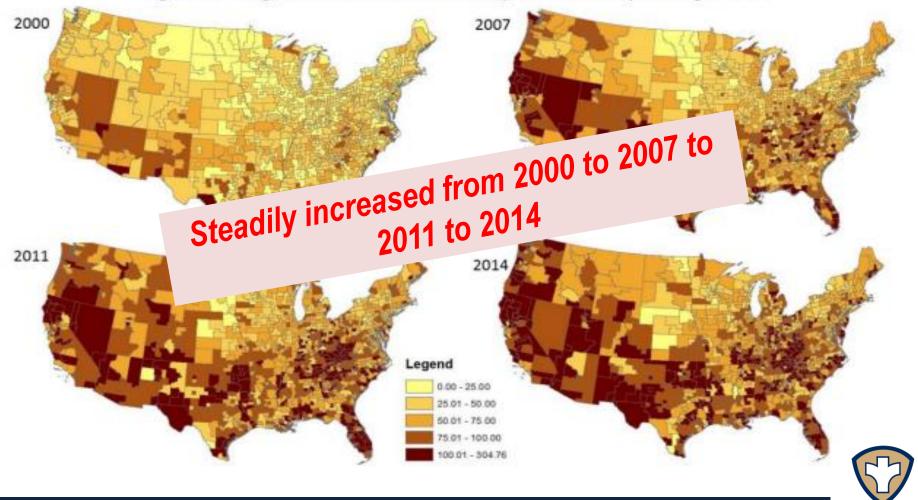
In 2015, when researchers Anne Case and Angus Deaton discovered that death rates had been rising dramatically since 1999 among middle-aged white Americans, they weren't sure why people were dying younger, reversing decades of longer life expectancy.

Now the husband-and-wife economists say they have a better understanding of what's causing these "deaths of despair" by suicide, drugs and alcohol.



### "Deaths of despair" – suicide, drugs, alcohol – have increased dramatically

Figure 1.6 Drug, alcohol and suicide mortality, white non-Hispanics ages 45-54



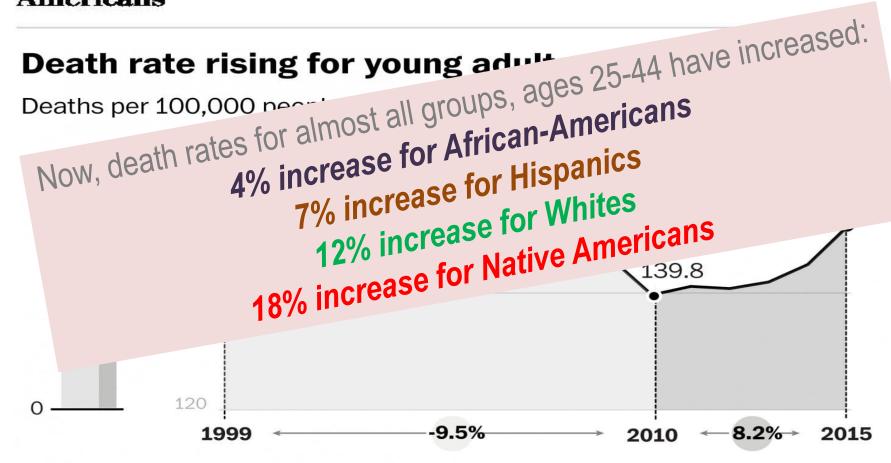
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# ... However, since 2010 the death rates for almost all groups, ages 25-44, have been rising

The Washington Post

Health & Science

Drug crisis is pushing up death rates for almost all groups of Americans



## U.S. & MD Life Expectancy is Declining

#### **Opioids Driving U.S. Life Expectancy Decline:** CDC

By Dennis Thompson

HealthDay Reporter

THURSDAY, Sept. 20, 2018 (HealthDay News) -- Life expectancy in the United States has declined for two years in a row, fueled by increasing death rates from <u>opioid</u> drug overdoses, suicides and chronic <u>liver</u> disease, a new government report shows.

"It's really the first time we've seen this multi-year drop" in decades, said Renee Gindi, chief of the Analytic Studies Branch of the National Center for Health Statistics (NCHS), part of the U.S. Centers for Disease Control and Prevention. She's one of the lead coordinators for the report.

Babies now can expect to live 78.6 years on average, based on 2016 data that's the most recent, according to NCHS researchers.

That's down from 78.7 years in 2015 and 78.9 years in 2014.

## What is the average life expectancy of a Harford County resident?

(a) 84.9 years
(b) 79.5 years
(c) 79.4 years
(d) 76.8 years
(e) 73.4 years



## What is the average life expectancy of a Harford County resident?

(a) 84.9 years - Montgomery County
(b) 79.5 years - Maryland State average
(c) 79.4 years - Harford County
(d) 74.7 years - Cecil County
(e) 73.4 years - Baltimore City

### **Location – Location - Location**

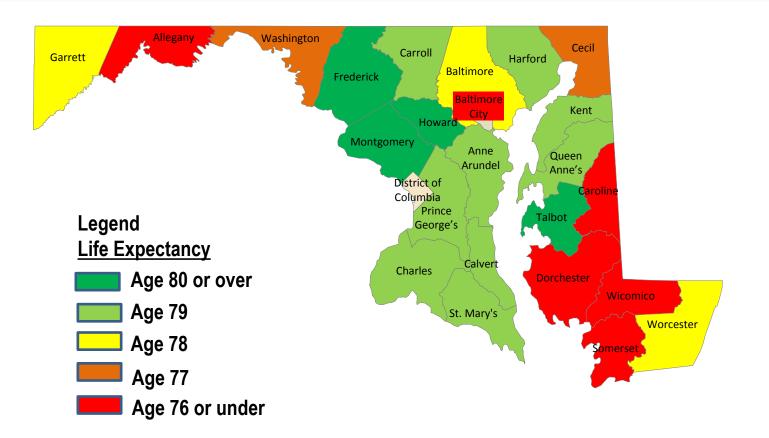
There's an 11.5 year geographic disparity in average life expectancy within Maryland.



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Source: Maryland Vital Statistics, 2016

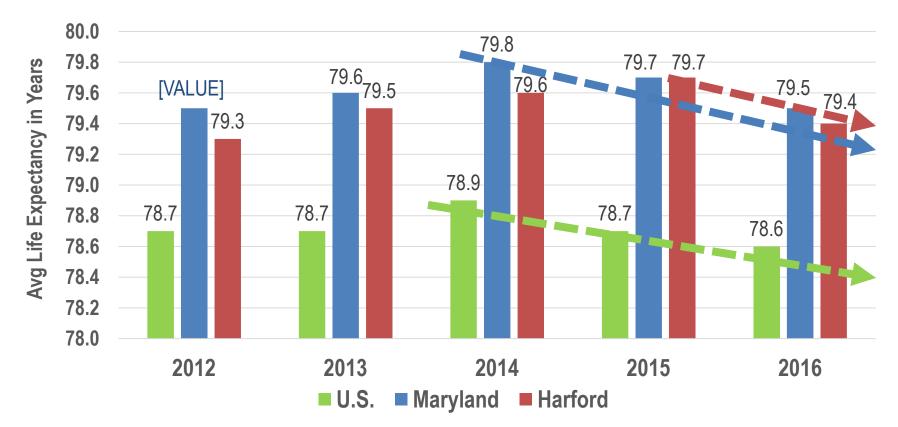
## How healthy are Harford County residents? What is our average life expectancy?



"Beyond Health Care," RWJF Commission to Build a Healthier America, 2009 Source: Maryland Vital Statistics, 2016



# Average Life Expectancy in Years U.S., Maryland & Harford County, 2012-2016



Source: Maryland Vital Statistics, 2016 Source: \* Maryland Drug and Alcohol-Related Intoxication Deaths, 2016



Which Harford County zip code area has the highest average life expectancy?

(a) Edgewood
(b) Aberdeen
(c) Havre de Grace
(d) Churchville
(e) Bel Air



# Which Harford County zip code area has the highest average life expectancy?

(a) Edgewood - 74.7 years
(b) Aberdeen - 75.5 years
(c) Havre de Grace - 76.6 years
(d) Churchville - 78.4 years
(e) Bel Air - 81.5 years



Source: www.rwjf.org

## Average Life Expectancy, By Zip Code Harford County, 2016

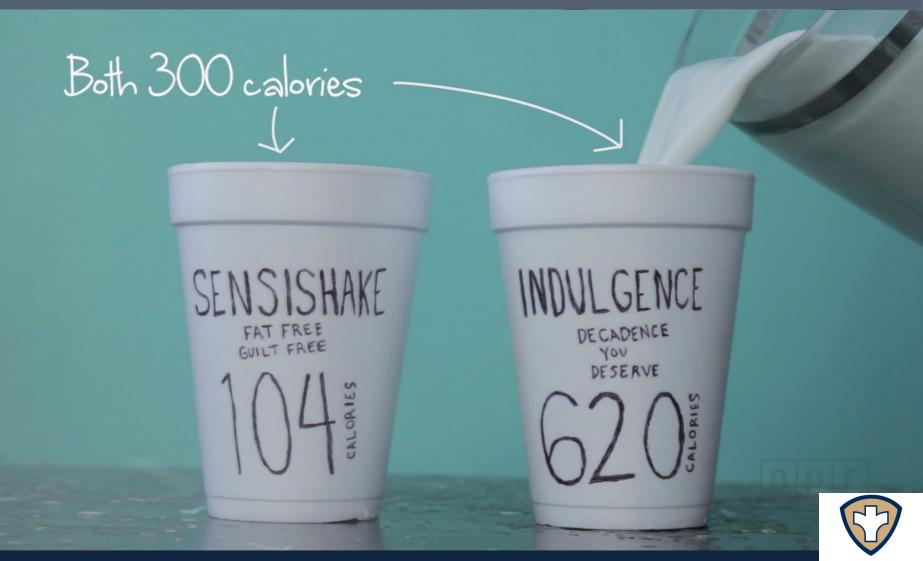
Bel Air 21015 81.5 Abingdon 21009 81.0 Forest Hill 21050 80.1 MARYLAND 79.5 HARFORD COUNTY 79.4 Fallston 21047 79.3 Whiteford 21160 78.9 **Pylesville 21132** 78.9 U.S. 78.8 Joppa 21085 78.5 **Churchville 21028** 78.4 Jarrettsville 21084 77.9 Belcamp 21017 77.8 White Hall 21161 77.1 Havre de Grace 21078 76.6 **Street 21154** 76.5 **Darlington 21034** 76.3 Aberdeen 21001 75.5 Edgewood 21040 74.7 70 72 76 78 80 82 84 74

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Source: www.rwjf.org

Average Life Expectancy in Years

## Mind Over Milkshakes



From Crum AJ et al, "Mind over milkshakes: mindsets, not just nutrients, determine ghrelin response," Health Psychology, May 2011



## The Power of Labels

#### **KEEP REFRIGERATED**

SHAKE WELL BEFOR

Nutrition Serving Size 1 bottle Servings Per Contail	(12 oz)	S
Amount Per Serving		
	dories from Fat 0	
	% Daily Value"	
Total Fat 0g	0%	
Saturated Fat 0g	0%	
Cholestarol 5mg	2%	
Sodium 200mg	8%	
Total Carbohydrates	200 7%	
Dietary Fiber 0g	0%	
Sugars 20g		
Protein 15g		
Vitamin A 0% •	Vitamin C 4%	
Calcium 50% +	Iron 2%	
	s may be higher r calorie needs 2,060 2,500 65g IDg 20g 25g 300mg 300mg 2,400mg 2,400mg 300g 375g 25g 30g	Product of U.S.

#### INGREDIENTS:

Nonfat yogurt (outured grade A nonfat milk modified com starch kosher geolatin, Vitamin A palmitate, vitamin D3), water, vanilla puree (natural and artificial flavors), sucralose, potassium sorbate (to maintain freshness), maile acid, red 40, blue 1, sodium othate



added sugar

French Vani

12 F

calories!

fat

Get sensible with the new light healthy Sensi-Shake. It has all the taste, without the guilt - no fat,

#### KEEP REFRIGERATED

SHAKE WELL BEFORE DRINKING

#### Product of U.S.A.

Nutrition Facts
Serving Size 1 bottle (12 oz) Servings Per Container 1

Amount Per Servin	g		
Calories 620	Calor	ies from	Fat 270
		% D	aily Value
Total Fat 30g		45%	
Saturated Fat		91%	
Cholesterol 115	39%		
Sodium 460mg	19%		
Total Carbohydrates 63g		21%	
Dietary Fiber 2g			7%
Sugars 56g			
Protein 31g			
Vitamin A 0%	•	Vitamin C 4%	
Calcium 50%	() <b>.</b> .	Iron 2%	
*Percent Daily Vaule diet. Your daily value depending on your	s may be h	higher or lo	
Total Fat	Less than	65g	2,500 80g
Saturated Fat	Less than		25g
Cholesterol	Less than		300mg
Sodium	Less than		2,400mg
Total Carbohydrate Dietary Fiber		300g 25g	375g 30g
Calories per gram:			

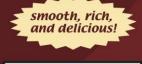
Fat 9 · Carbohydrate 4 · Protein 4

## INDULGENCE.

Decadence you Deserve premium ingredients



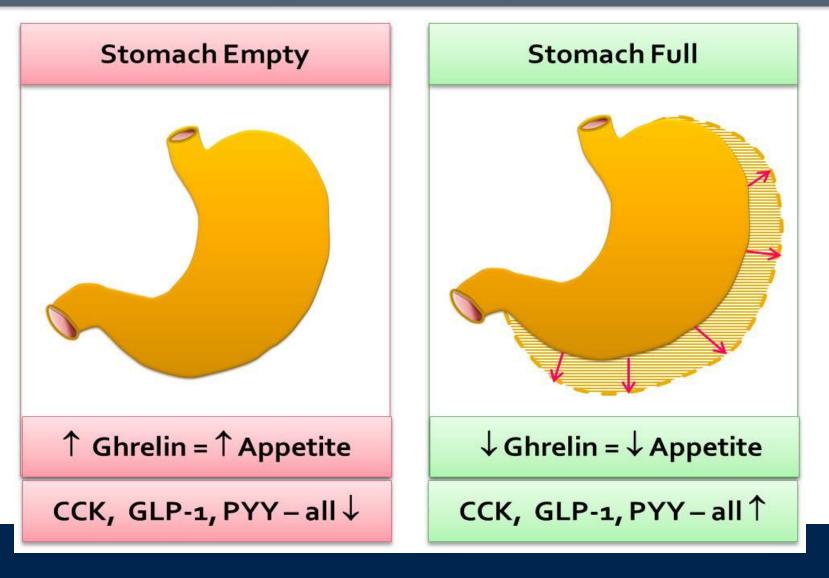
Indulge yourself with this rich and oreamy blend of all of our premium ingredients - sumptuously smooth ice oream, satin whole milk, and sweet vanilla. It is heaven in a bottle and irresestibly gratifying.





French Vanilla 12 FL 02 (355)

# Mindset, not just nutrients, determine ghrelin response





## Impact of word choice on stigma

### ScienceDi

#### Don't call people 'addicts,' Penn researchers say

By Joel Wolfram · August 13, 2018



Sanitation workers clear away mounds of garbage from a heroin encampment at Lehigh and Kensington avenues. (Emma Lee/WHYY)

Addiction researchers at the University of Pennsylvania say it's time to stop using "addict" and "alcoholic" when talking about people with substance use disorders. The recommendation comes out of a new study that found the terms are associated with a strong perative bias

Full length article Substance choice on ( Robert D. Ashford <sup>a</sup> E Show more https://doi.org/10.1(

#### Highlights

Impl
 bias





While some negative language is okay to use in mutual aid meetings, its use should be avoided in public, when advocating and in journalism.

## Impact of labels can be reduced – Stigma can be reduced too



REVIEW

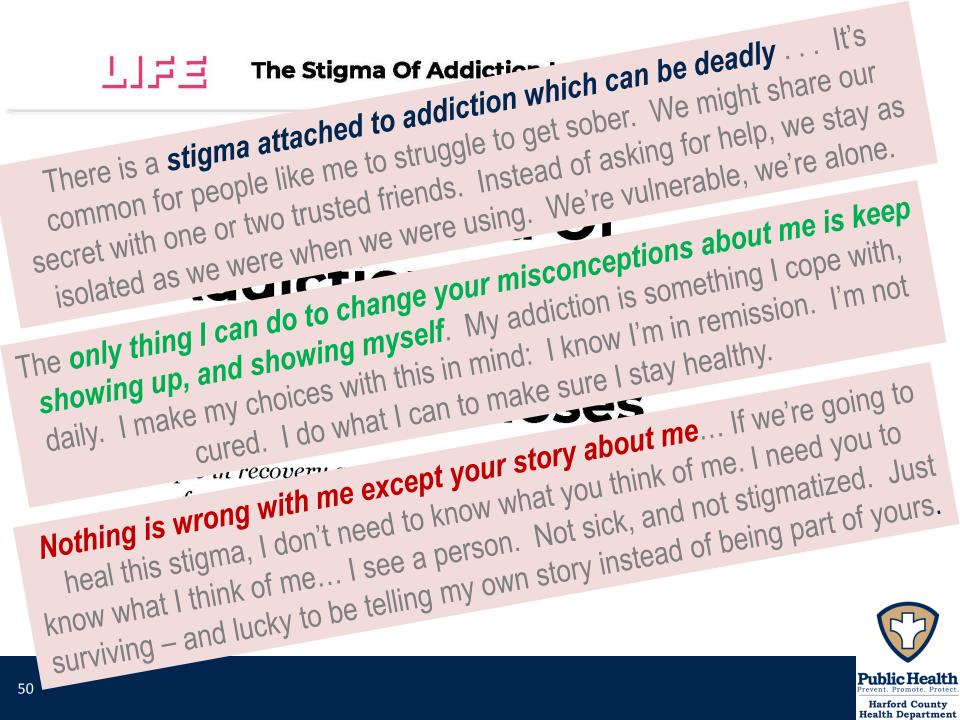


doi:10.1111/j.1360-0443.2011.03601.x

# The effectiveness of interventions for reducing stigma related to substance use disorders: a systemations

James D. Livingston<sup>1</sup>, Teresa Milne<sup>2</sup> Milne<sup>2</sup> Forensic Psychiatric Services Conference of 13 research studies evaluated interventions of Prensic Psychiatric Services Conference on the Studies evaluated interventions of Psychiatric Services Conference on the Studies evaluated interventions of Psychiatric Services Conference on the Studies evaluated interventions of Psychiatric Services Conference on the Studies evaluated interventions of Psychiatric Services Conference on the Studies evaluated interventions of Psychiatric Services Conference on the Studies evaluated interventions of Psychiatric Services Conference on the Studies evaluated interventions of Psychiatric Services Conference on the Studies evaluated interventions of Psychiatric Services Conference on the Studies evaluated interventions of Psychiatric Services Conference on the Studies evaluated interventions of Psychiatric Services Conference on the Studies evaluated interventions of Psychiatric Services Conference on the Studies evaluated interventions of Psychiatric Services Conference on the Studies evaluated interventions of Psychiatric Services Conference on the Studies evaluated interventions of Psychiatric Services Conference on the Studies evaluated interventions of Psychiatric Services Conference on the Studies evaluated interventions of Psychiatric Services Conference on the Studies evaluated interventions of Psychiatric Services Conference on the Studies evaluated interventions of Psychiatric Services Conference on the Studies evaluated interventions of Psychiatric Services Conference on the Studies evaluated interventions of Psychiatric Services Conference on the Studies evaluated interventions of Psychiatric Services Conference on the Studies evaluated interventions of Psychiatric Services Conference on the Studies evaluated interventions of Psychiatric Services eva

inclusion criteria were synthesized and assessed using systematic review methods. **Results** Thirteen studies met the inclusion criteria. The methodological quality of the studies was moderately strong. Interventions of three studies (23%) focused on people with substance use disorders (self-stigma), three studies (23%) targeted the general public

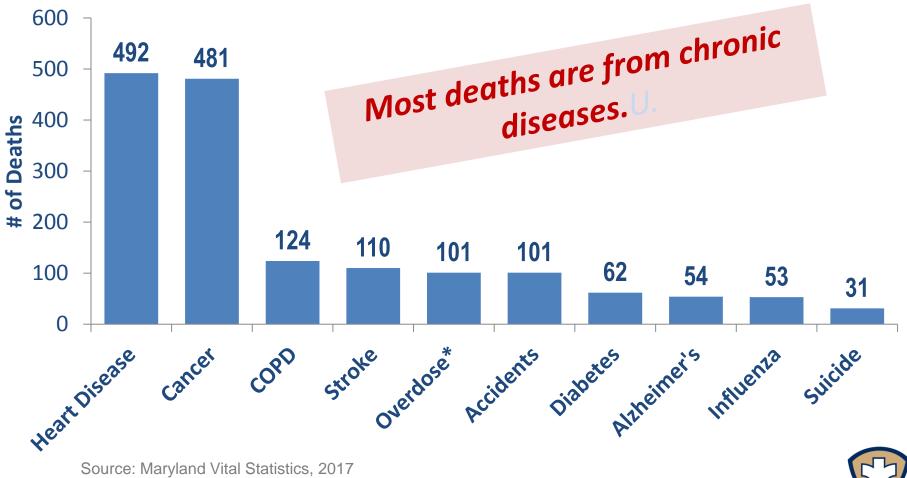


# Impact of chronic diseases on health and wellness





# Leading Causes of Death Harford County, 2017



Source: \* Maryland Drug and Alcohol-Related Intoxication Deaths, 2017



## The reason this epidemic is so deadly, long-term

### SUBSTANCE ABUSE

Nationally, the large majority of people in treatment for substance abuse addiction smoke (77%-93%), compared to 18% of the general population.<sup>11</sup>

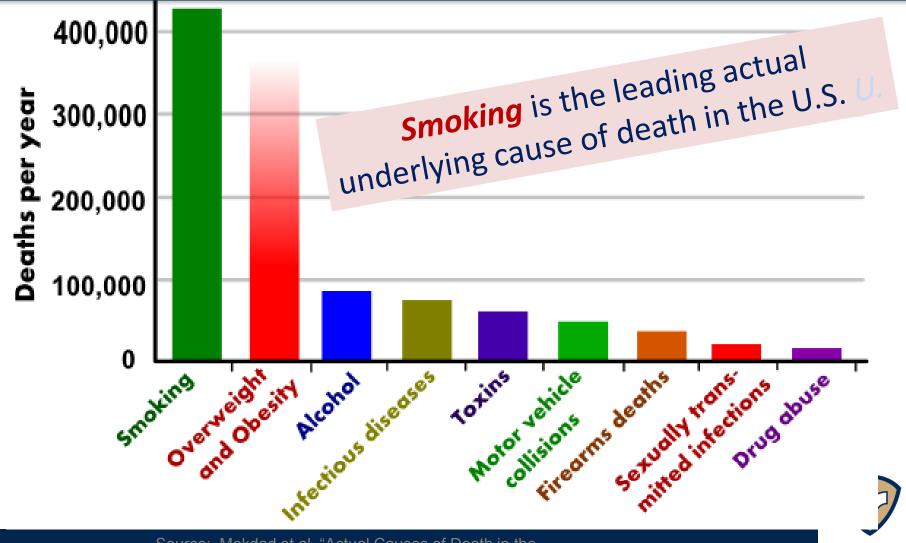
People with substance use disorders who smoke are much more likely to die from their tobacco use than from their drug or alcohol addiction.<sup>11</sup>



Guydish, et al, "Smoking-related outcomes and associations with tobaccofree policy in addiction treatment," Drug and Alcohol Depdence, 4/15/17



## The Leading Actual Underlying Causes of Death



Source: Mokdad et al, "Actual Causes of Death in the U.S., 2000" JAMA, 3/19/2004

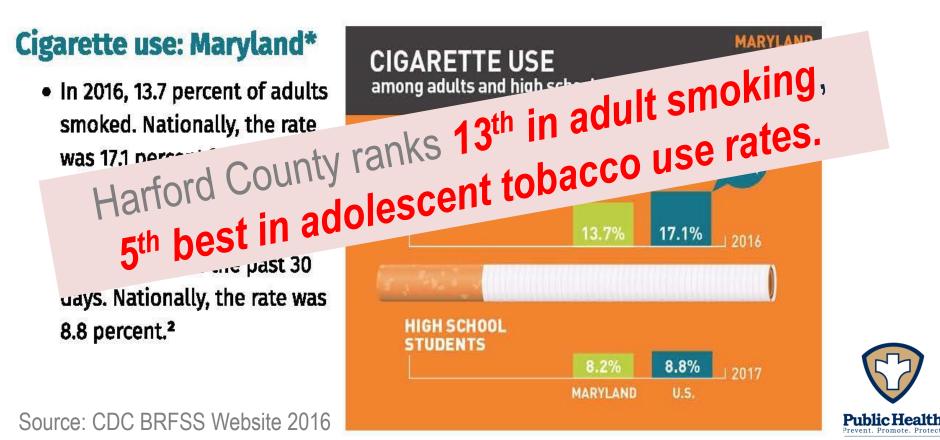
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Public Health

ent. Promote

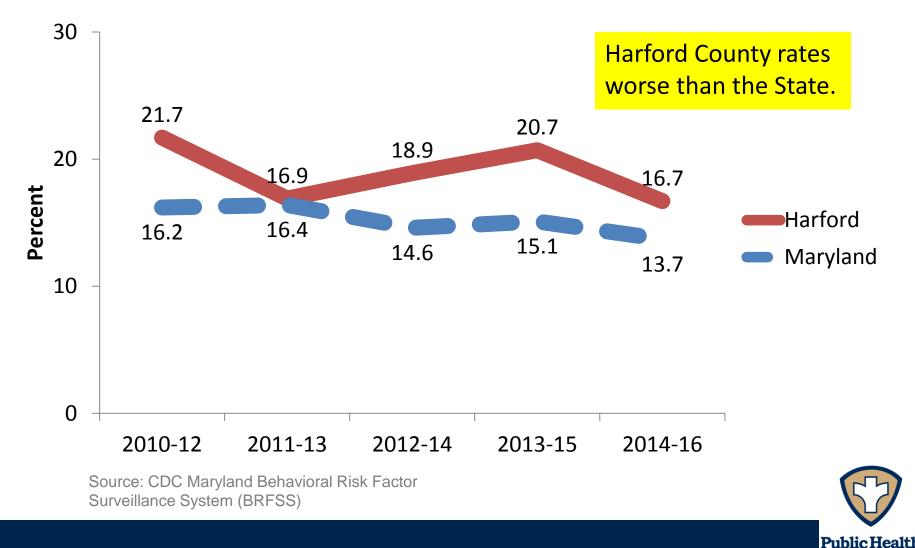
# Maryland ranks 7<sup>th</sup> in adult smoking rates, 22<sup>nd</sup> in adolescent tobacco use rates

# tobacco use in maryland



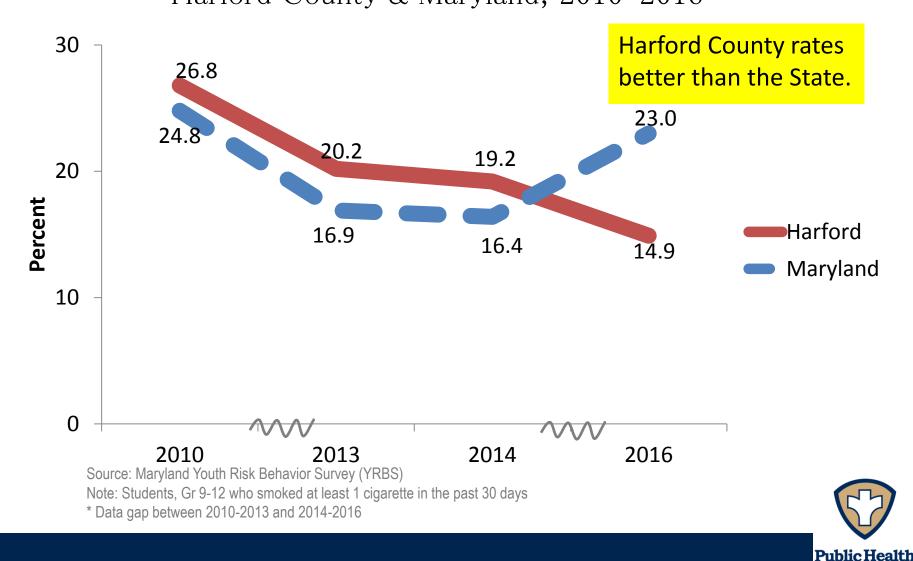
Harford County Health Department

## Adult Smoking Rates Harford County & Maryland, 2012–2016



Prevent. Promote. Protect Harford County Health Department

### Adolescent Tobacco Use Rates\* Harford County & Maryland, 2010–2016



Harford County Health Department

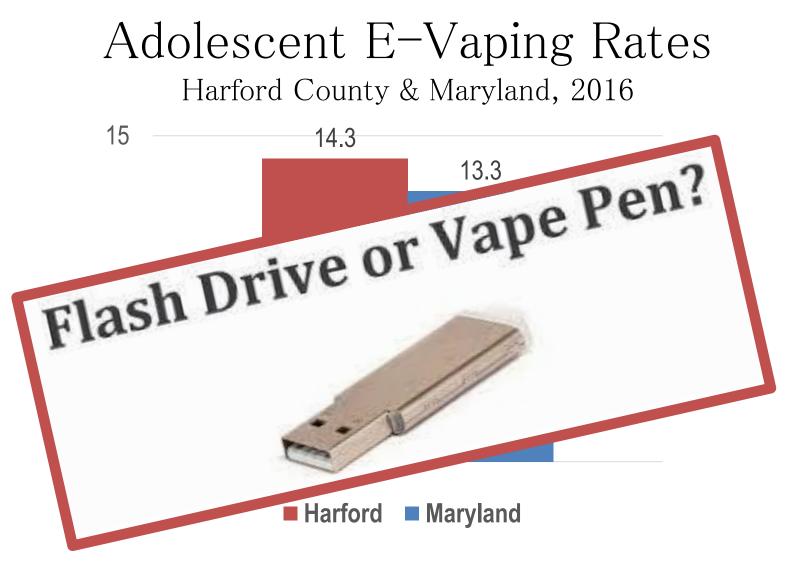
# TEEN SMOKING AT ALL TIME LOWS WHILE VAPING INCREASES

### Current cigarette smoking among U.S. high school students **lowest in 22 years**





**Health Department** 



Source: Maryland Youth Risk Behavior Survey (YRBS), 2016



# Teen smoking may be replaced with teen vaping one day



Moving from a more regulated tobacco industry to a less regulated vaping industry.



From Varvel, G, Indianapolis Star, 9.14.18

#### The Washington Post

Health & Science

### FDA chief calls youth use of Juul, other e-cigarettes an 'epidemic'

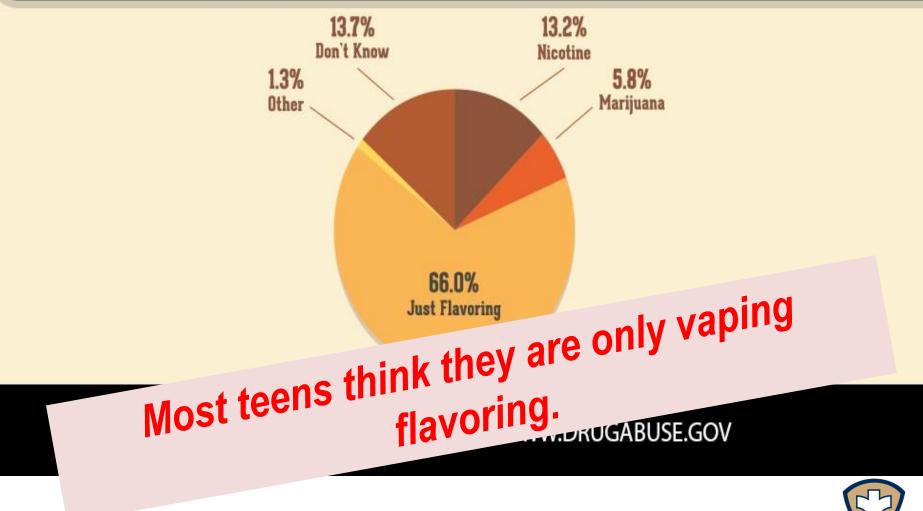
JUU By Laurie McGinley Laurie McGinley Youth e-cigarette use an "epidemic" – a 75% increase in use among high school students this Reporter covering health and medicine Email 🔜 Blo 💋 Follow 💓 September 12 at 10:56 AM Food and Drug Administration Commissioner St an "epidemic" of teenage vanir retailers for year compared to 2017. £ O: act gro

The Loca, not yet published, show a 75 percent increase in e-cigarette use among high school students this year compared to 2017. The FDA declined to publicly release the numbers, but people familiar with them said they were preliminary data from the National Youth Tobacco Survey, on which

h

nt

## WHAT DO TEENS SAY IS IN THEIR E-CIG?<sup>3</sup>





# 1/3 of high school e-cigarette users vape marijuana



Since March 2018, synthetic cannabinoids laced with what substance has led to > 130 E.D. visits and 4 deaths in at least 5 states, including Maryland?

(A) Arsenic(B) Cyanide(C) Warfarin(D) Brodifacoum(E) Fentanyl



Since March 2018, synthetic cannabinoids laced with what substance has led to > 130 E.D. visits and 4 deaths in at least 5 states, including Maryland?

(A) Arsenic
(B) Cyanide
(C) Warfarin
(D) Brodifacoum
(E) Fentanyl



# Dangers of Synthetic Cannabinoids

#### Spike In Synthetic Marijuana Overdoses In

CmerGregory Dean to with us.

d EMS Chief Gregory drug known as K2.

er is something you've uch about - overdoses ina. Here in Washington, lnesday and midday of them to the hospital. g into five deaths that they bo people overdosed in

SMOKING LIQUID SYNTHETIC MARIJUANA IN E-CIGS

Source: NPR.org, 9/15/18 and 4/

# Synthetic Cannabinoid is Not Marijuana

### SYNTHETIC CANNABINOIDS (K2/SPICE) UNPREDICTABLE DANGER

### K2/SPICE IS NOT MARIJUANA

It's often called synthetic marijuana or fake weed because some of its chemicals are like those in marijuana. The effects can be unpredictable and in some cases, severe or even life-threatening.

#### SYNTHETIC CANNABINOIDS (K2/SPICE) UNPREDICTABLE DANGER

#### HEALTH EFFECTS OF K2/SPICE ARE UNPREDICTABLE

These drugs can sol or many different brain cell receptors, including the receptors that hird to THC (Pound in margumal.

here excellent

BRAIN Solidited theory are Solidited to be approved Solidited to be approved N Paramonal M Andread Tables

Shredde plant n



Harford County Health Department

# Health consequences of drug misuse affect both physical and mental health



Home » Related Topics » Health Consequences of Drug Misuse

#### Health Consequences of Drug Misuse

Drug use can have a wide range of short- and long-ter direct and indirect effects. These effects of the definition of the pertaken, the per-Longer-term effects include heart or lung, the patient of the definition of the defin

Le constant include heart or lung disease, cancer, manar illness, HIV/AIDS, hepatitis, and others. Long-term drug use can also lead to addiction. Drug addiction is a brain disorder. Not everyone who uses drugs will become addicted, but for some, drug use can change how certain brain circuits

work. These brain changes interfere with how people experience normal pleasures in life such as food and sex, their ability to control their stress level, their decision-making, their ability to learn and remember, etc. These changes make it much more difficult for someone to stop taking the drug even when it's having negative effects on their life and they want to quit.

Image by ©Shutterstock/<u>Turvosky</u>

# A Case Study: How the opioid epidemic sparked an HIV, hepatitis, and STD outbreak

PUBLIC HEALTH

### Mapping How The Opioid Epidemic Sparked An HIV Outbreak

January 14, 2018 · 6:00 AM ET

HEATHER BOERNER

In late 2014, there was an HIV outbreak in rural Scott County, Indiana, population 4,200. By June 2015, 170 people had been diagnosed with HIV infection. To put this number in perspective, during the 10 years before the outbreak, only 5 people had been diagnosed with HIV in

Austin Community Outreach Center in Austin, Ind., is aimed at stopping spread of HIV.



When people started to show up to Dr. William Cooke's primary care office in Austin, Ind., in 2014 with HIV, Cooke knew it was probably related to the region's opioid

# Harm reduction strategies helped turn around this HIV epidemic



Harford County Health Department

## Politics are tricky but science is clear: Syringe programs work



# Harm reduction strategies helped turn around this HIV epidemic

The Washington Post

#### **Health & Science**

# Fentanyl test strips lead to more caution among illicit drug users

#### By Lenny Bernstein October 3

Illicit drug users who are certain that fentan likely to take precautions that reduce their c a small study.

The survey examined the use of fentanyl test over a two-month period last year. Distribut "harm reduction" technique in the past few overdosing on the powerful narcotic that has

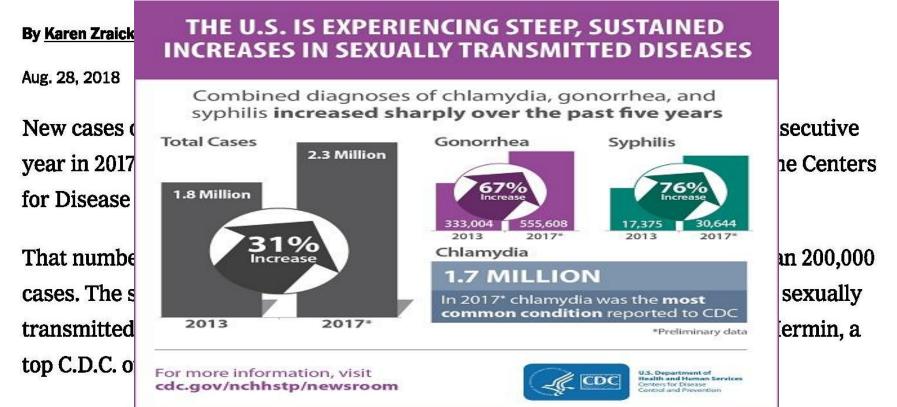
Users whose drugs tested positive for fentan users whose strips were negative, according think tank in North Carolina's Research Tria



# STDs have dramatically increased in the U.S. over the past 5 years

#### The New York Times

#### S.T.D. Diagnoses Reach Record 2.3 Million New Cases in U.S.



### STDs increased by 10.5% in Maryland over the past year

## STDs such as syphilis and gonorrhea rising rapidly in Maryland



By Andrea K. McDaniels The Baltimore Sun

SEPTEMBER 18, 2018, 5:00 AM

T he number of people with sexually transmitted diseases in Maryland is growing rapidly and many might not even know they are infected, fueling the spread.

The rise in STDs is happening across the state and not just in trouble spots such as Baltimore, which has a history of high rates.

The spread of syphilis, gonorrhea and chlamydia are of particular concern to public health officials and doctors, who say they are treating many more cases.

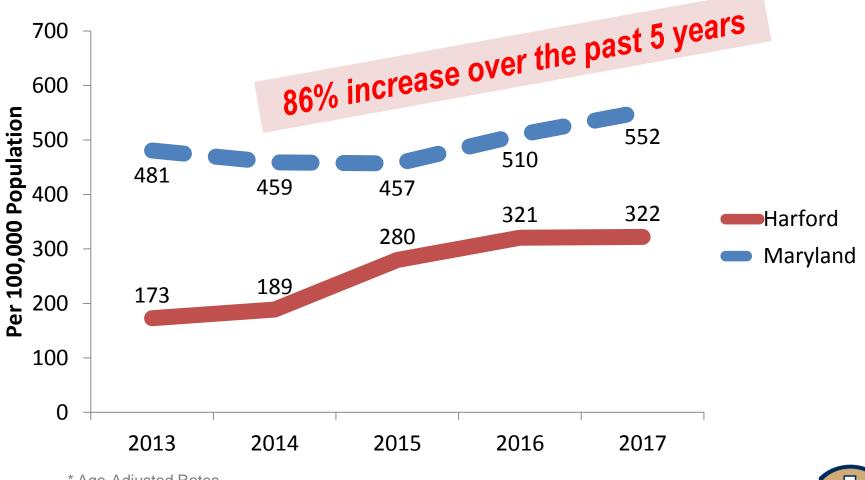
The STDs can be asymptomatic, which means they produce no symptoms in early stages, making it challenging to capture everyone who is infected and increasing the chances of passing it on to others.

There were 44,967 cases of the three diseases in the state in 2017, a 10.5 percent increase from the year before, according to the Maryland Health Department. Cases of gonorrhea increased 15 percent, syphilis by 12.3 percent and chlamydia by 9 percent.

"We definitely have seen drastic increases," said Dr. Sebastian Ruhs, director of the infectious disease center of excellence at Chase Brexton Health Services, a Baltimore-based system of health clinics. "We are diagnosing new cases every day."

What is happening in Maryland reflects a national trend.

#### Chlamydia Rates Harford County & Maryland, 2013–2017



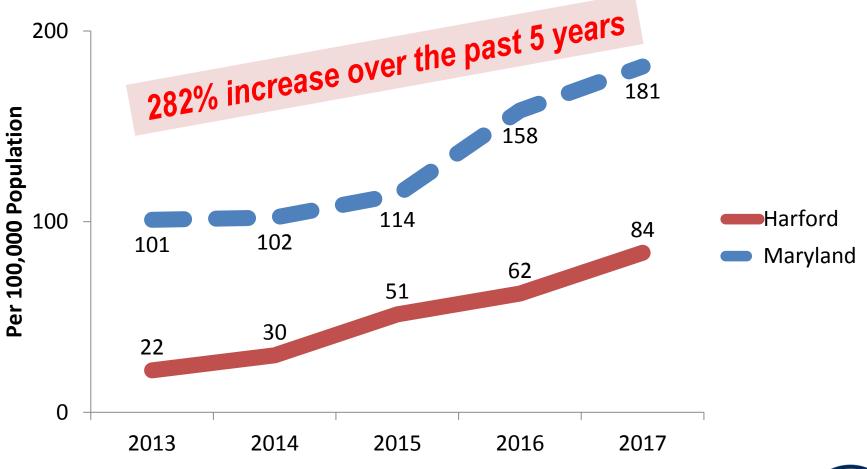
**Public Health** 

Prevent. Promote. Protect Harford County Health Department

\* Age-Adjusted Rates Source: Maryland Vital Statistics Reports

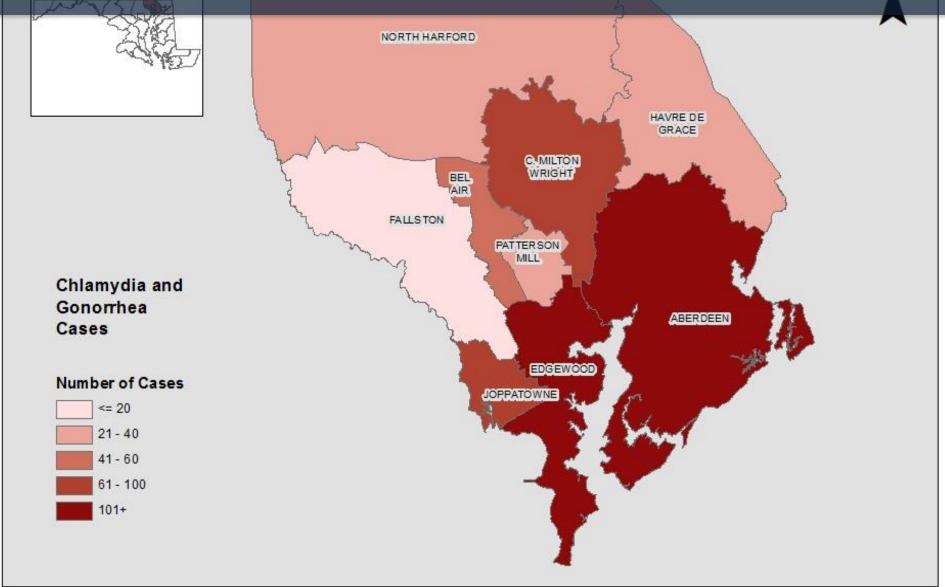
75

#### Gonorrhea Rates Harford County & Maryland, 2013–2017



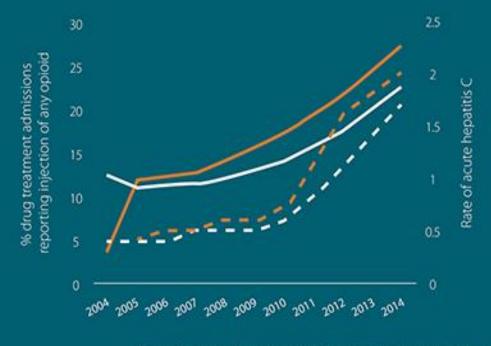


#### Chlamydia & Gonorrhea Cases by High School Attendance Area, Harford County, 2016-2017, Ages 15-19



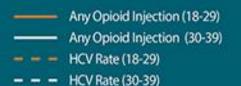
# The opioid epidemic is also linked to the increase in Hepatitis C infections

#### HEPATITIS C AND OPIOID INJECTION ROSE DRAMATICALLY IN YOUNGER AMERICANS FROM 2004-2014



 Among people aged 18-29, HCV increased by 400% and admission for opioid injection by 622%

 Among people aged 30-39, HCV increased by 325% and admission for opioid injection by 83%



Source: Centers for Disease Control and Prevention and Substance Abuse and Mental Health Services Administration



### Hepatitis C is a Leading Cause of Liver Cancer

# FACT

Hepatitis C is a leading cause of liver cancer.

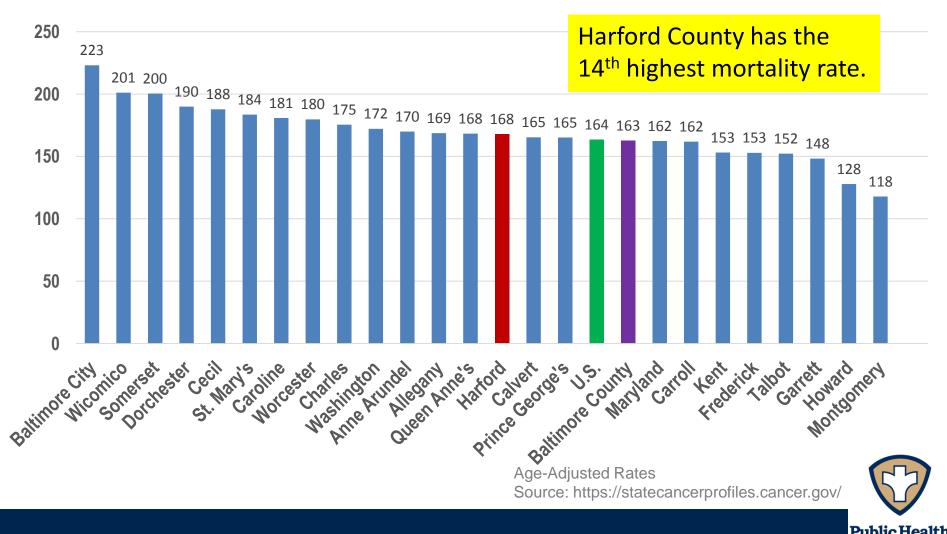


click here to learn more.



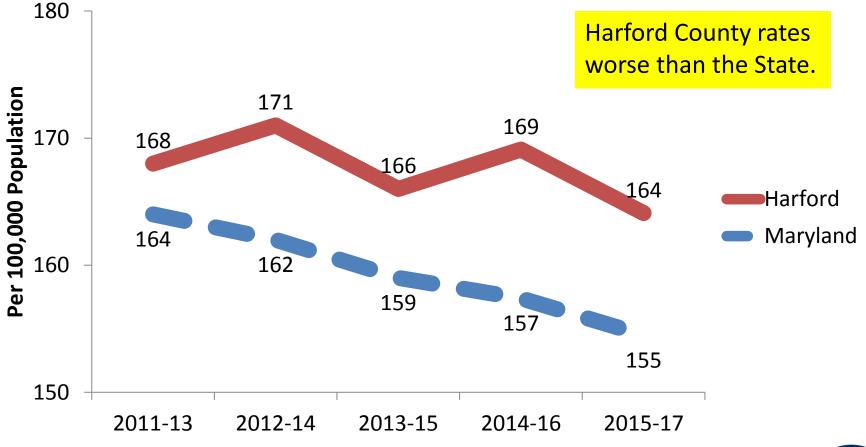


#### Cancer Mortality Rates By Maryland Jurisdiction, 2011–2015



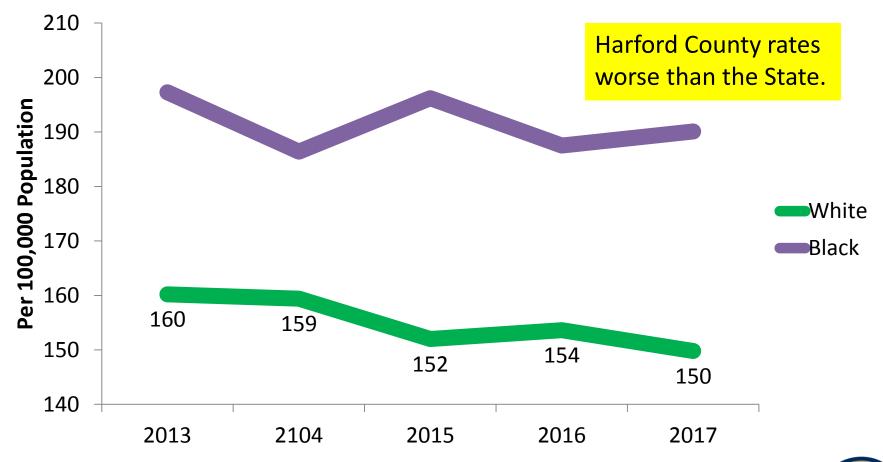
Harford County Health Department

#### Cancer Mortality Rates Harford County & Maryland, 2013–2017





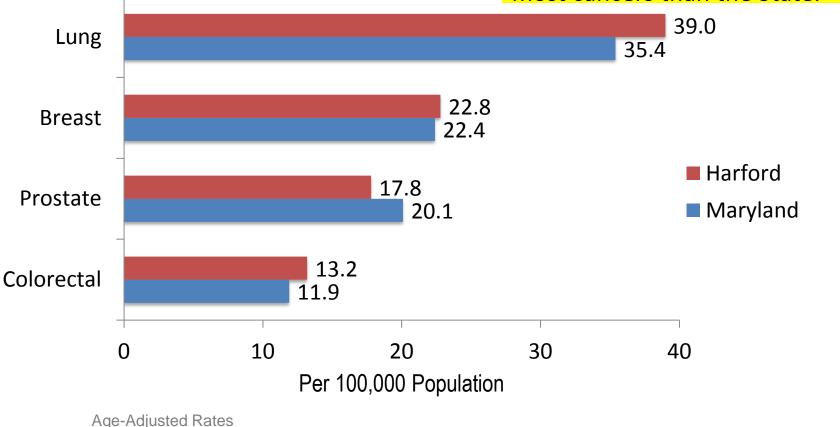
#### Cancer Mortality Rates, By Race Harford County & Maryland, 2013–2017





#### Cancer Mortality Rates, By Site Harford County & Maryland, 2011–2015

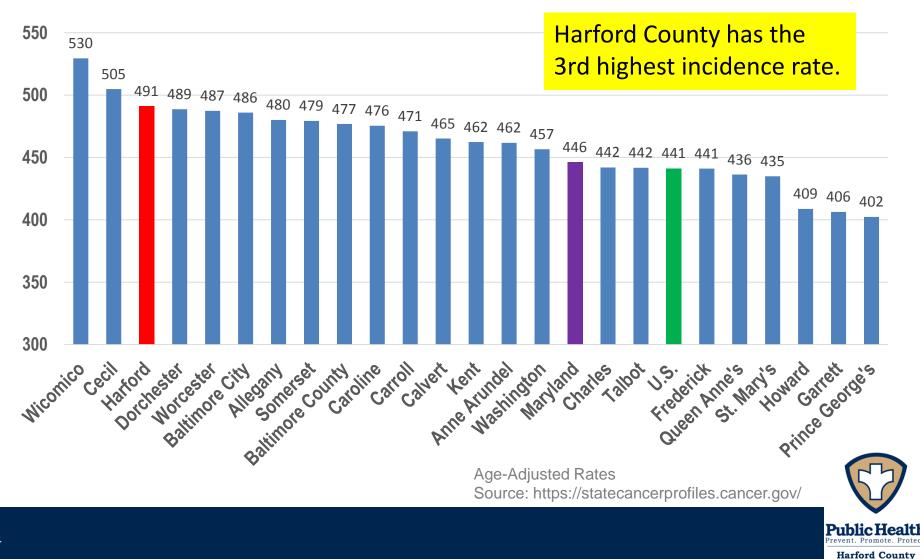
Harford County rates worse for most cancers than the State.



Source: https://statecancerprofiles.cancer.gov/

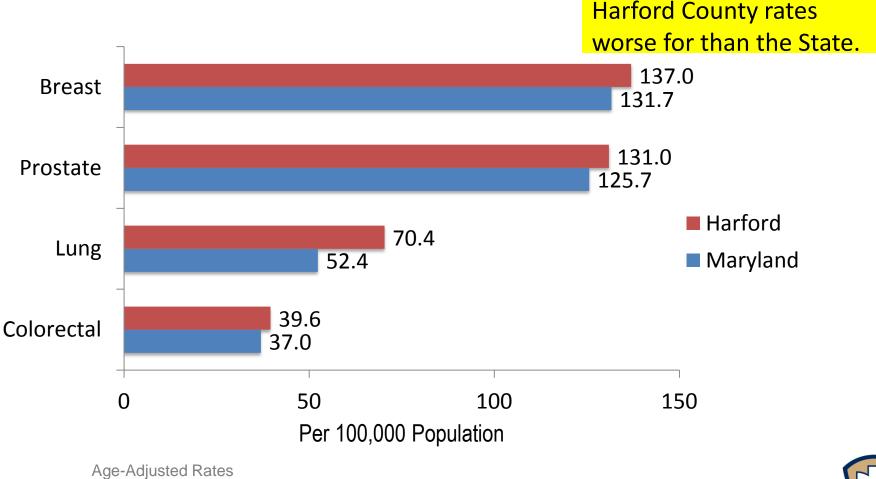


#### Cancer Incidence Rates By Maryland Jurisdiction, 2011–2015



**Health Department** 

#### Cancer Incidence Rates, By Site Harford County & Maryland, 2011–2015



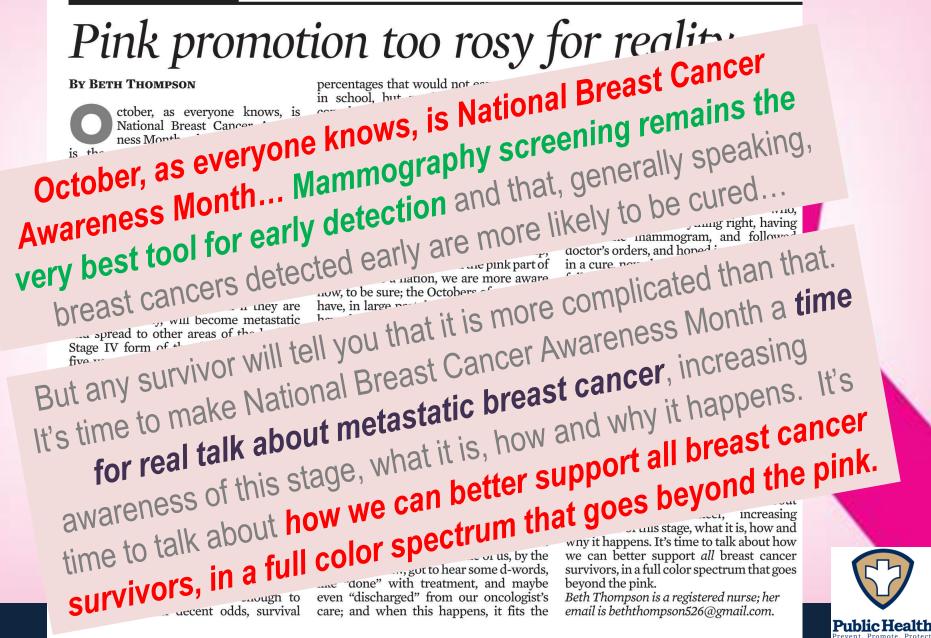
Source: https://statecancerprofiles.cancer.gov/



COMMENTARY

Baltimore Sun op-ed, 10/7/18

SUNDAY, O

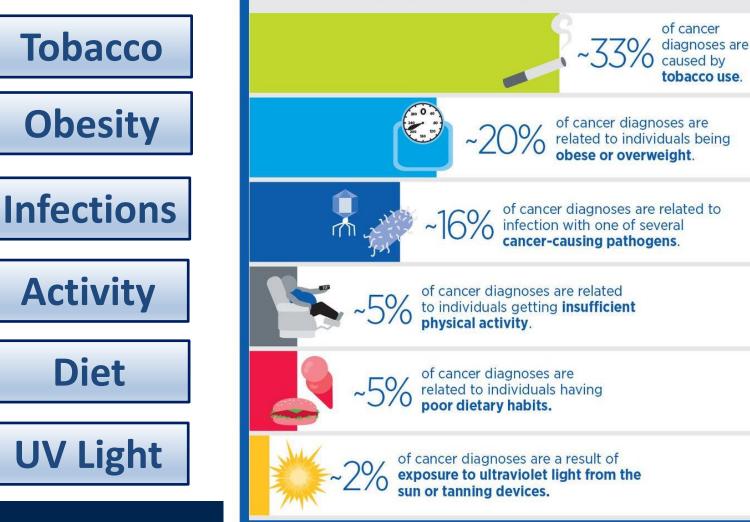


Harford County Health Department

#### From: aicr.org

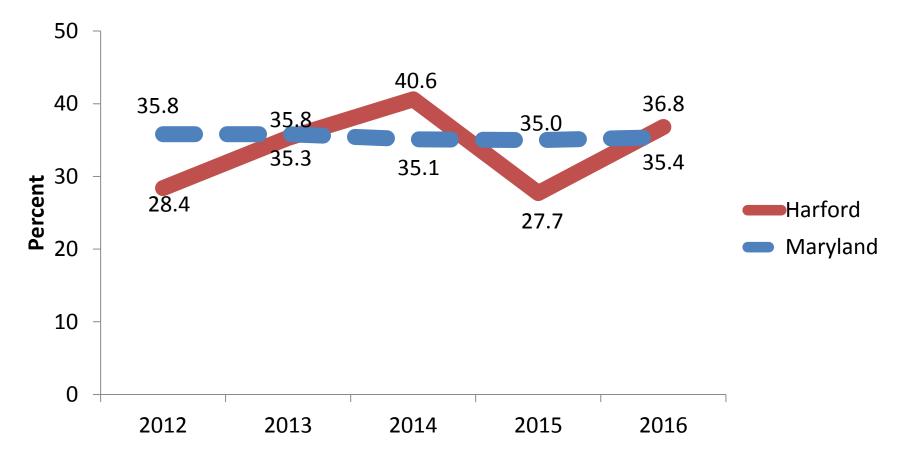
#### **PREVENTABLE CAUSES OF CANCER**

Among the factors with the biggest impact on cancer incidence in the United States are the following:





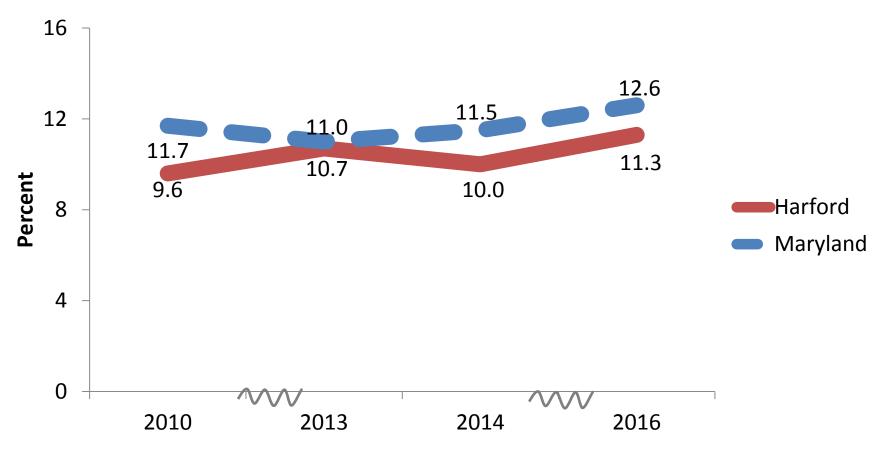
#### Adults at a Healthy Weight Harford County & Maryland, 2012–2016



Note: Adult BMI 18.5-24.9 Source: Maryland BRFSS, 2012-2016



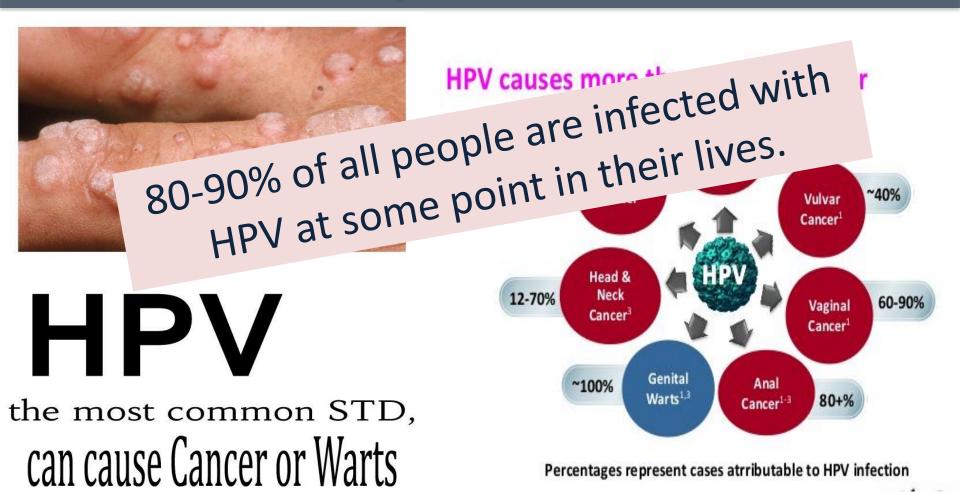
#### Adolescent Obesity Rates\* Harford County & Maryland, 2010–2016



Source: Maryland Youth Risk Behavior Survey (YRBS) Note: High school students who self-report BMI ≥ 95<sup>th</sup> percentile for age and gender \* Data gap between 2010-2013 and 2014-2016



# Some of the most preventable cancers are caused by HPV infection ...



Public Health Prevent. Promote. Protect Harford County Health Department

#### ... and HPV can be prevented by a vaccine.





U.S. Department of Health and Human Services Centers for Disease Control and Prevention



Harford County Health Department

#### HPV can be transmitted sexually, but also non-sexually

#### THE PEDIATRIC FORUM

Source: Widdice et al, "Prevalence of HPV in Young Women," Archives of Pediatric and Adolescent Medicine, Aug 2012

#### RESEARCH LETTERS

he object

**Prevalence of Human Papillomavirus** Infection in Young Women Receiving the First Quadrivalent Vaccine Dose

experience vaccinatio

Methods. F ... were 13- to 21-year-old females receiving their first HPV vaccine dose, recruited from an adolescent primary care clinic between June 2008 and June 2010. These data are from the baseline visit of a longitudinal study that was approved by the hospital's institutional review board. Each participant completed a questionnaire assessing sociodemographic factors and behaviors. History of sexual contact was assessed using the 

of 190) for HPV-18. The only variable independently associated with HPV in a multivariable model was history of multiple sexual partners (2-5 partners up) 11.6% of sexually inactive females, ages 13-21, were HPV positive. ....ed .....only detected types. nad 3 types. No variables were significantly asso-

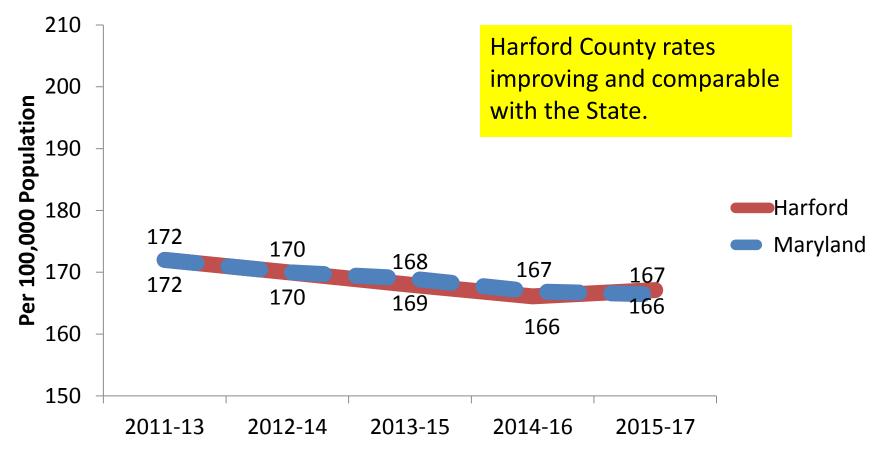
 $(\geq 1 \text{ type}): 17.4\% (33 \text{ of } 190) \text{ for HPV-16 and } 6.3\% (12)$ 

ciated with HPV in sexually inexperienced females.

Comment. The prevalence of HPV in this population was higher than that reported in a nationally representative sample of young women, likely because of differences in sexual behaviors in the 2 populations studied.<sup>3</sup> As expected, sexually inexperienced females had lower rates of HPV than sexually experienced females; however, a subgroup of sexually inexperienced females was positive for both vaccine and nonvaccine types. Our finding  $(1, 1) \subset (1, 1) \subset (1, 1) \subset (1, 1)$ 

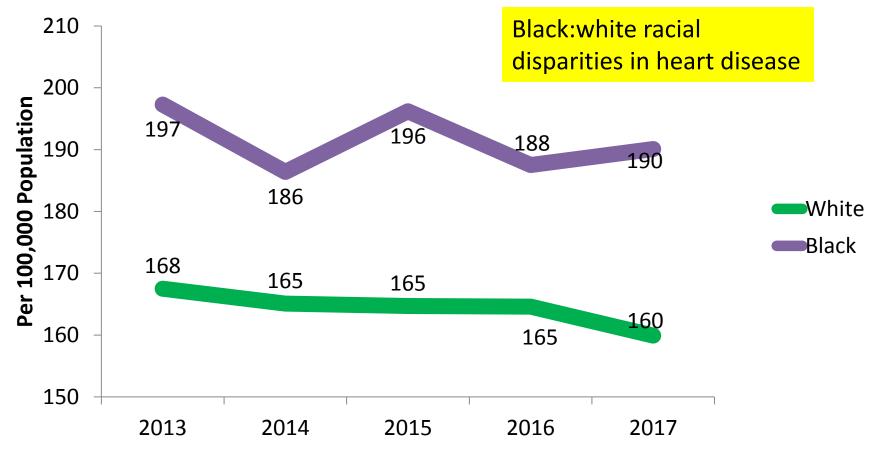


#### Heart Disease Mortality Rates Harford County & Maryland, 2013–2017



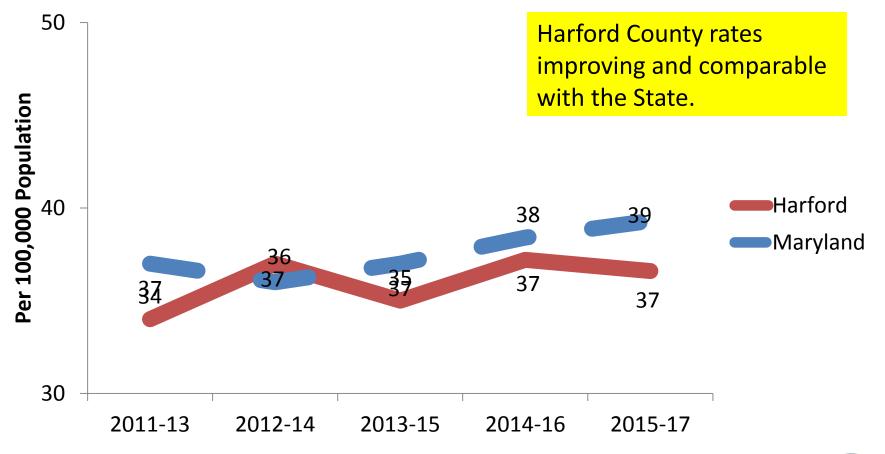


#### Heart Disease Mortality Rates, By Race Harford County & Maryland, 2013–2017

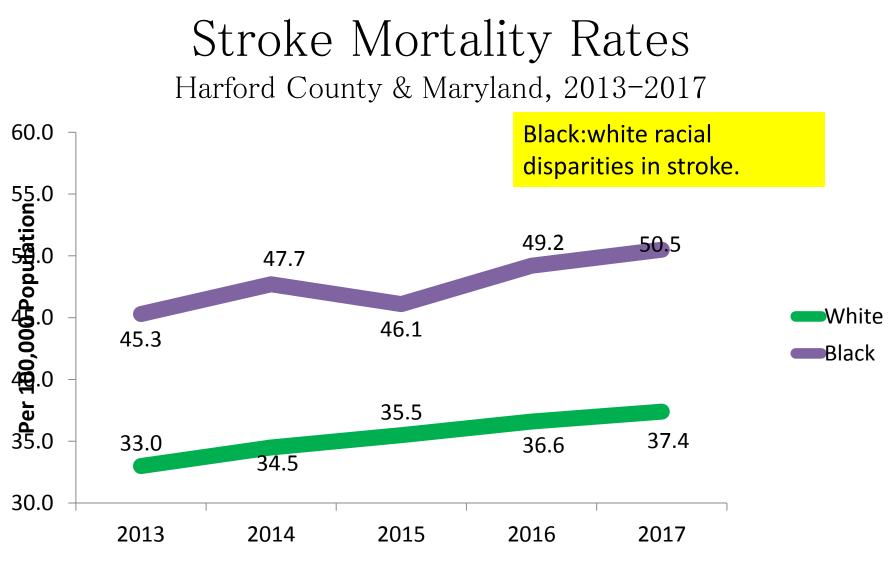




#### Stroke Mortality Rates Harford County & Maryland, 2013–2017

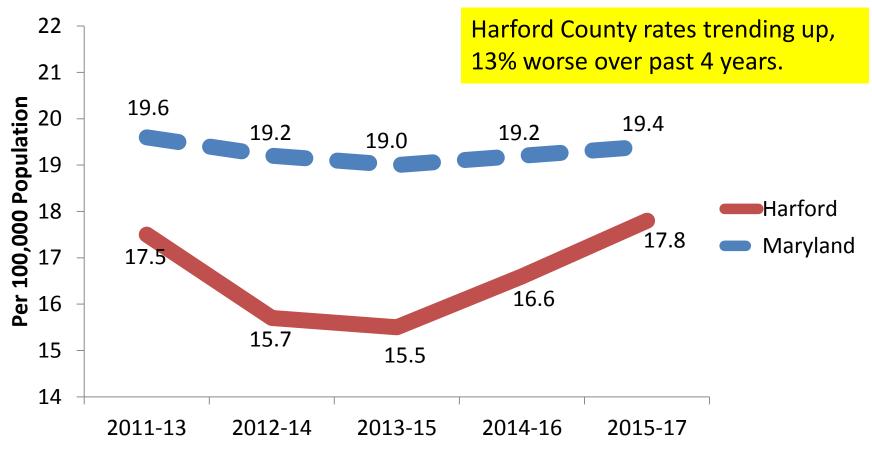






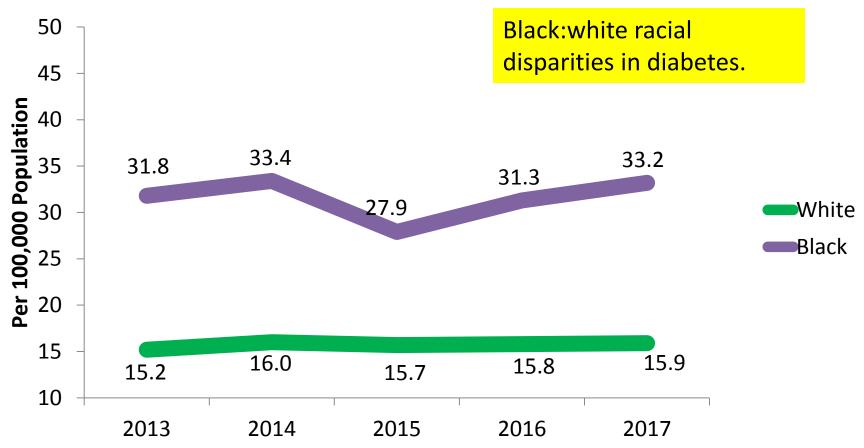


#### Diabetes Mortality Rates Harford County & Maryland, 2013–2017



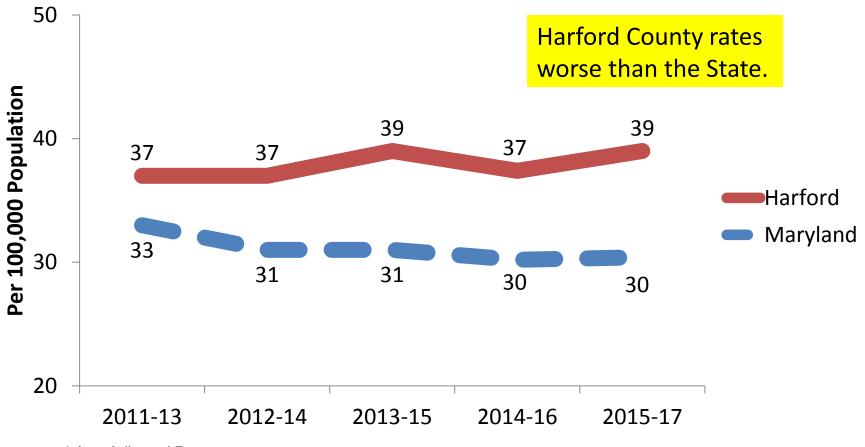


#### Diabetes Mortality Rates, By Race Harford County & Maryland, 2013–2017



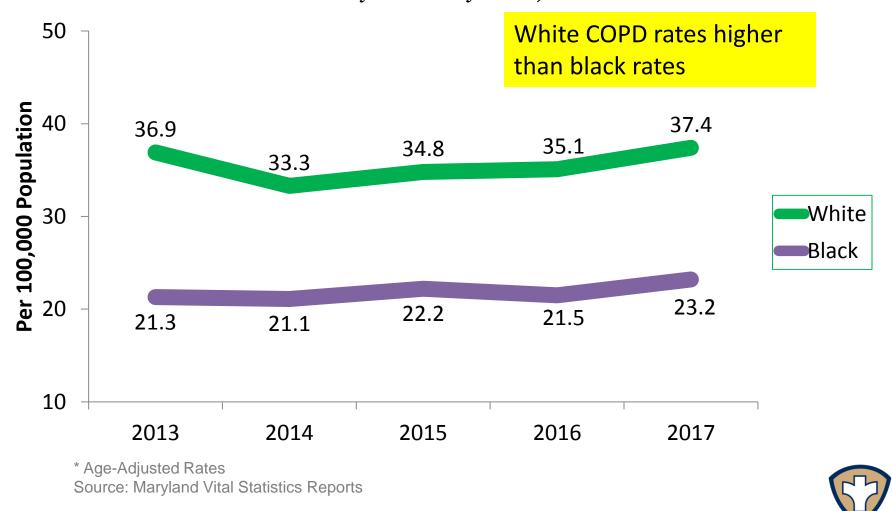


#### COPD Mortality Rates Harford County & Maryland, 2013–2017





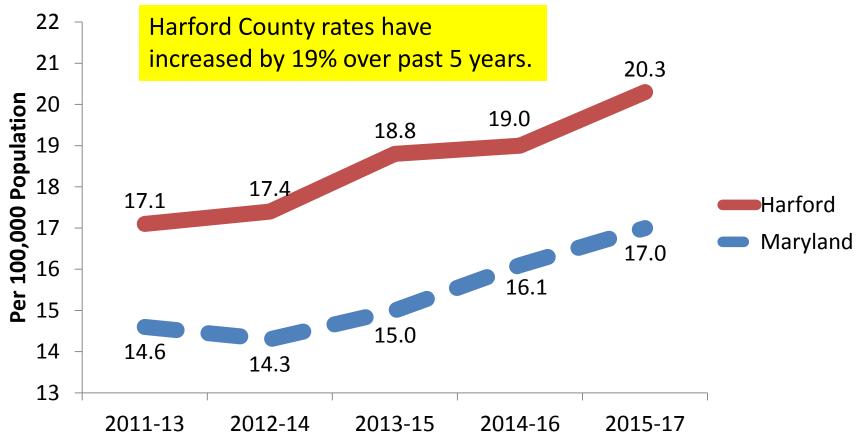
#### COPD Mortality Rates, By Race Harford County & Maryland, 2013–2017



Public Healtl

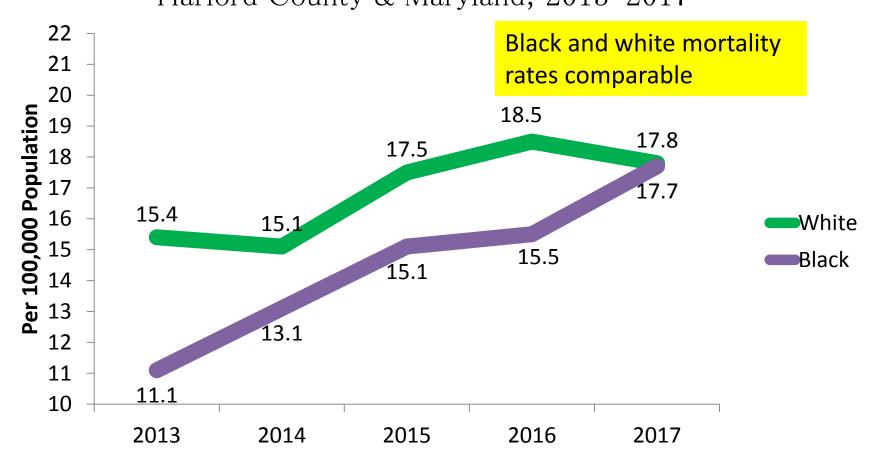
Harford County Health Department

#### Alzheimer's Mortality Rates Harford County & Maryland, 2013–2017





#### Alzheimer's Mortality Rates, By Race Harford County & Maryland, 2013–2017





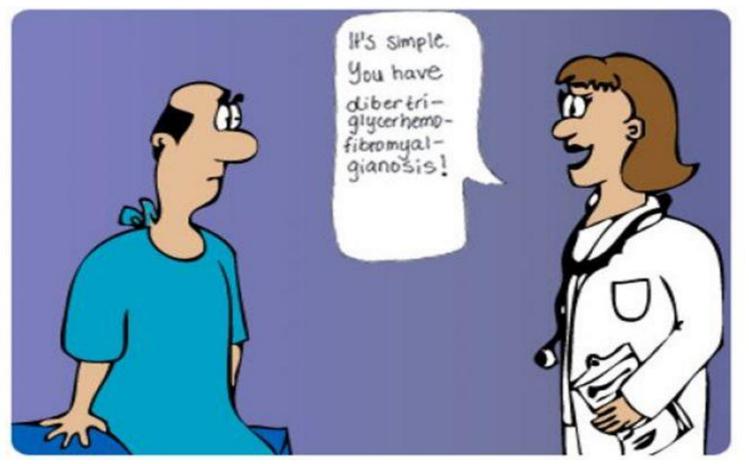
#### Are patients just not listening . . .



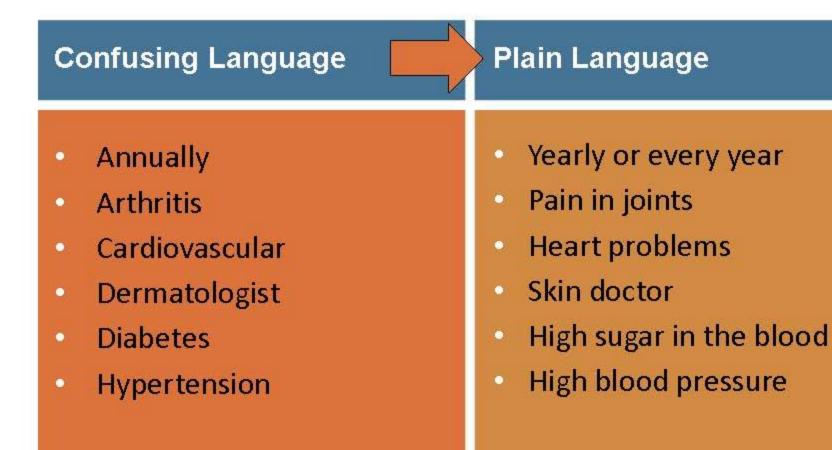


... or are providers just not clear?

### Introduction to Medical Terminology

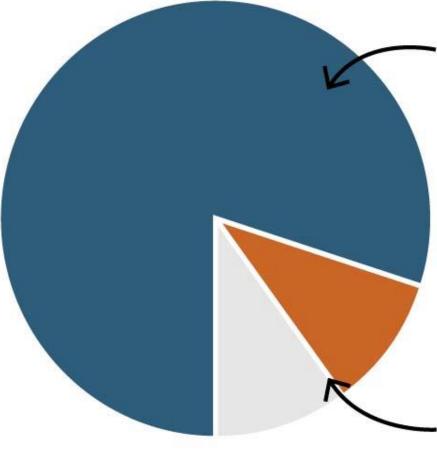


### **Examples of Plain Language**









### **MORE THAN 80%**

of health information provided in a doctor's office is forgotten before patients or parents get home.

#### **MORE THAN HALF** of the recalled information is remembered incorrectly.<sup>1,2</sup>

 Anderson JL, Dodman S, Kopelman M, Fleming A. Patient information recall in a rheumatology clinic. *Rheumatol Rehabil*. 1979;18(1):18-22.
 Kessels RP. Patients' memory for medical information. *J R Soc Med*. 2003;96(5):219-222.



# Do you know what your doctor is talking about?



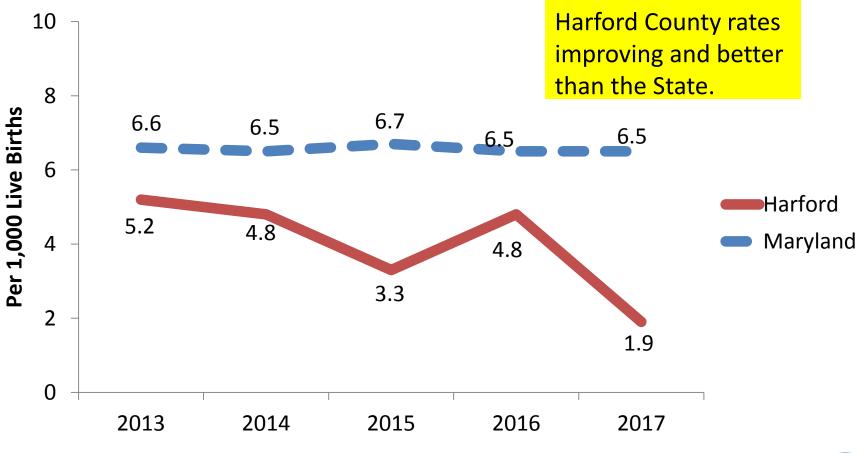
**Health Department** 

## Family health and resiliency





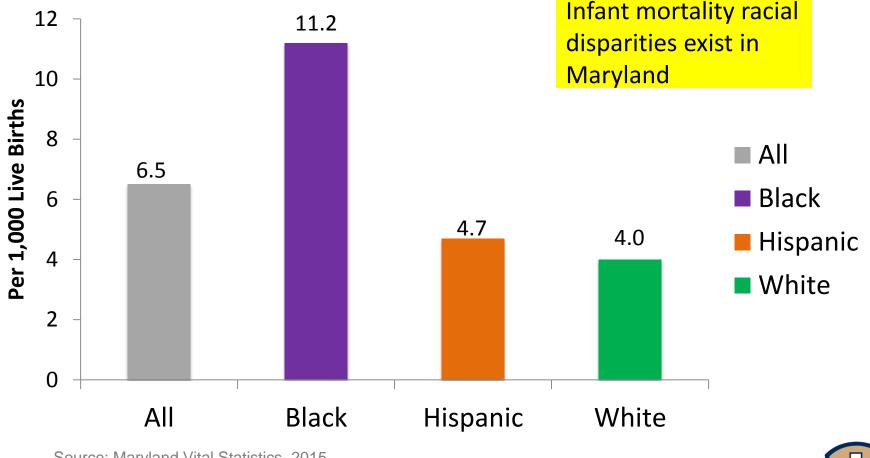
#### Infant Mortality Rates Harford County & Maryland, 2013–2017



\* Age-Adjusted Rates Source: Maryland Vital Statistics Reports



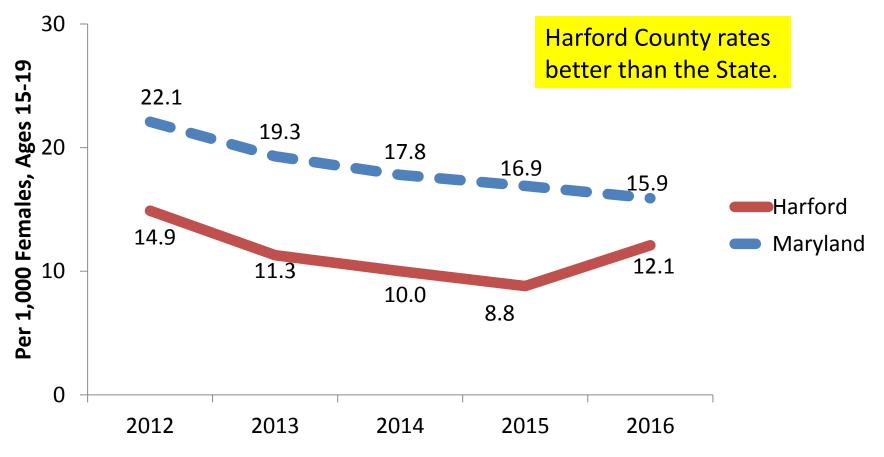
#### Infant Mortality Rates By Race/Ethnicity, Maryland, 2017







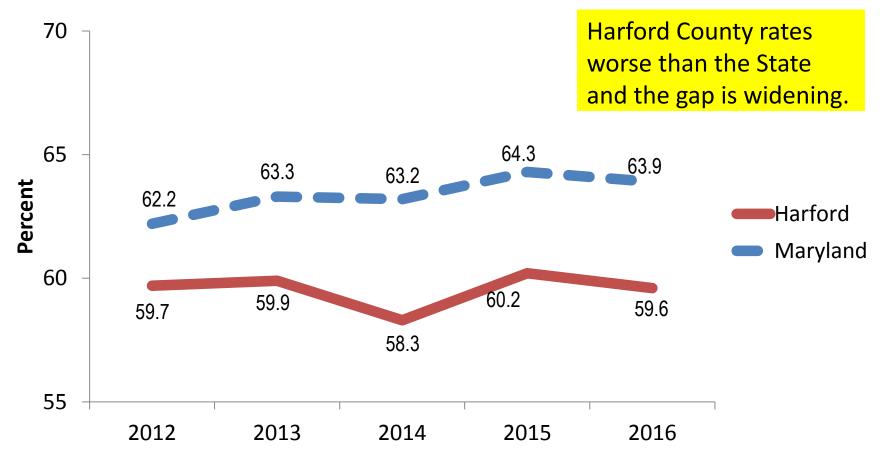
#### Teen Birth Rates Harford County & Maryland, 2010–2015



Source: Maryland Vital Statistics Reports

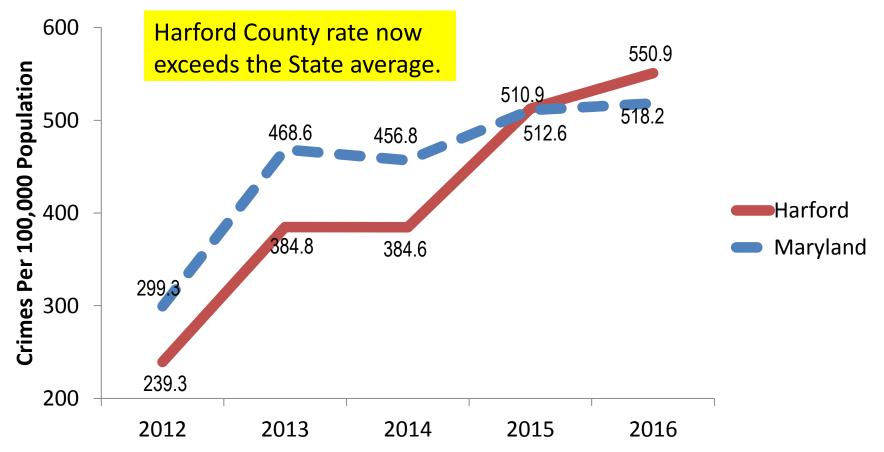


#### Children Receiving Dental Care in Past Year Harford County & Maryland, 2012–2016



Source: Maryland Medicaid Service Utilization

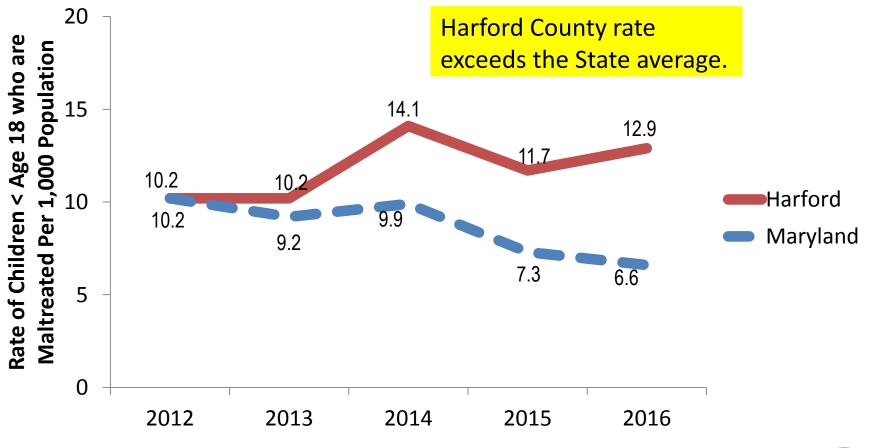
#### Domestic Violence Rates Harford County & Maryland, 2012–2016



Source: Maryland Uniform Crime Reporting Program http://ship.md.networkofcare.org/ph/ship



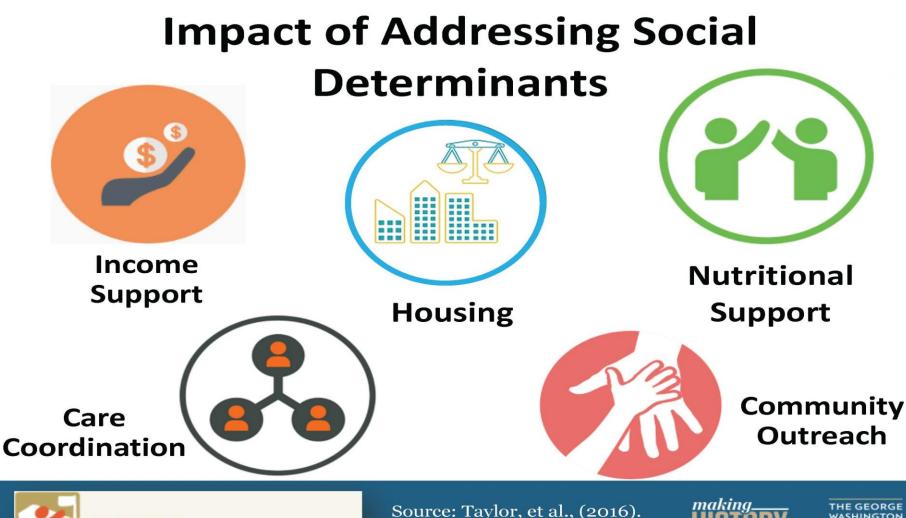
#### Child Maltreatment Rates Harford County & Maryland, 2012–2016



Source: Maryland DHR http://ship.md.networkofcare.org/ph/ship



Addressing cross-cutting, non-medical factors impacting health



The Center for

lealth and Health Care in Schools

PLoS ONE , 11(8)



#### How can the non-medical factors impacting health best be addressed?

DETERMINANTS OF HEALTH

By Joshua R. Vest, Lisa E. Harris, Dawn P. Haut, Paul K. Halverson, and Nir Menachemi



### What is the most basic underlying cause of health risk behaviors and mortality?



#### What are ACEs (Adverse Childhood Experiences)?

## **ADVERSE CHILDHOOD**

In 1995, Felitti and Anda launched a study of 17,000 individuals in a California HMO. The results were shocking: Nearly 2/3 or individuals had encountered 1 or more ACE. These experiences included growing up with a depressed or alcoholic parent; losing a parent to divorce or other causes; or enduring chronic humiliation, emotional neglect, or sexual or physical abuse. Mental Suicide Parental Crime or Substance Abuse Illness or Death **Imprisoned** Family

Causing lifelong medical, mental & social suffering



#### Adverse Childhood Experiences (ACEs) Influences both mental and physical health

#### A PERSON WITH 4 OR MORE ADVERSE CHILDHOOD EXPERIENCES IS\*

# 12.2 TIMES AS LIKELY TO ATTEMPT SUICIDE10.3 TIMES AS LIKELY TO USE INJECTION DRUGS7.4 TIMES AS LIKELY TO BE AN ALCOHOLIC

\*Vincent J. Felitti, et al., The Adverse Childhood Experiences (ACE) study, 14 AMERICAN J. OF PREVENTATIVE MEDICINE 245 (1998).

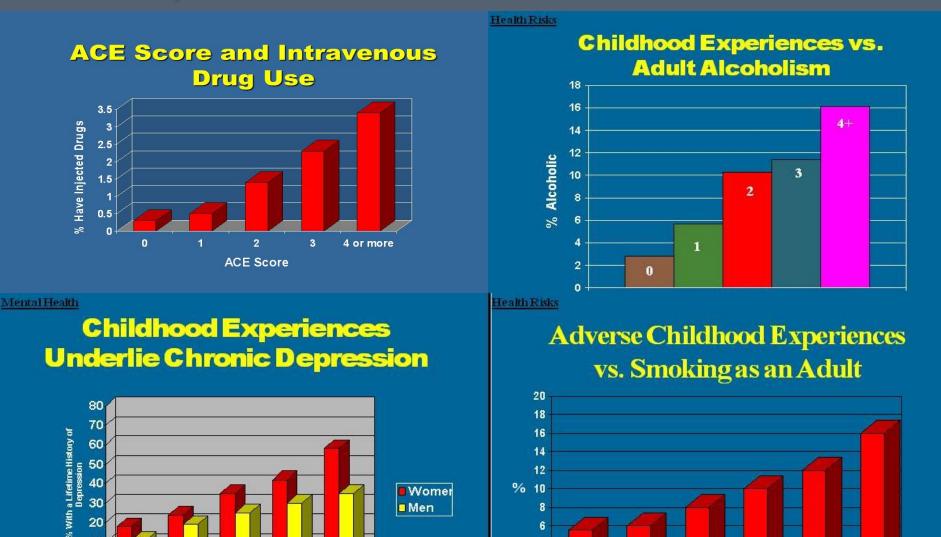
#### A PERSON WITH 4 OR MORE ADVERSE CHILDHOOD EXPERIENCES IS\*

2.2 TIMES AS LIKELY TO HAVE ISCHEMIC HEART DISEASE
2.4 TIMES AS LIKELY TO HAVE A STROKE
1.9 TIMES AS LIKELY TO HAVE CANCER
1.6 TIMES AS LIKELY TO HAVE DIABETES

+Vincent J. Felitti, et al., The Adverse Childhood Experiences (ACE) study, 14 AMERICAN J. OF PREVENTATIVE MEDICINE 245 (1998)



### ACEs have a dose-response relationship that impacts observed health outcomes ...



ACE Score

4-5

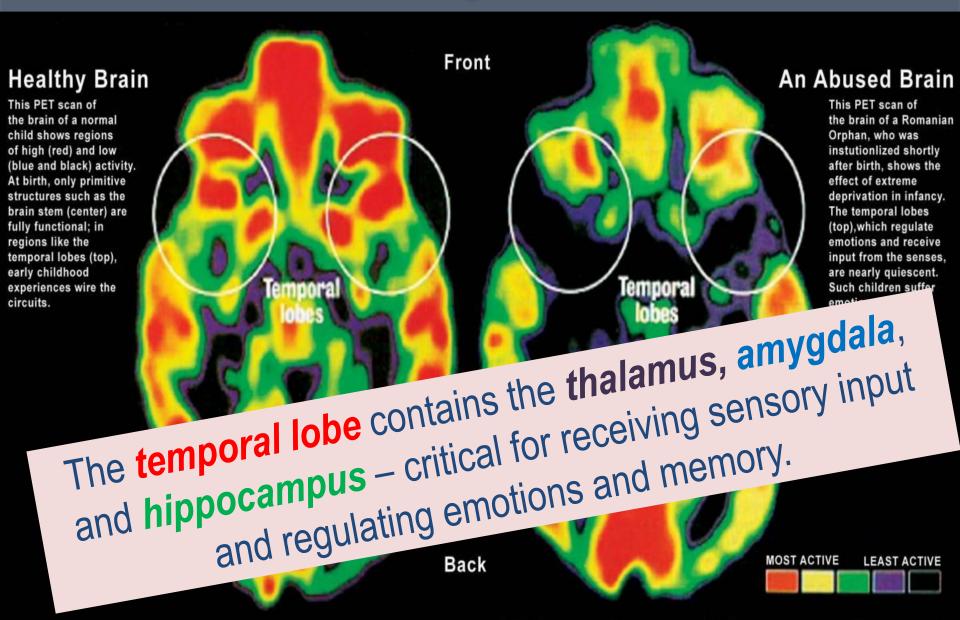
ACE Scot

>=4

p< .001

6 or more

### ... as well as impacting brain development at the neurological level



### Resiliency skills are a proven intervention





recovery/wellness centers



Others chose to offer residential. vocational, socialization and other rehabilitation services

And others specialized in trauma oriented care or consumer's spiritual lives

.C., & Baron, R.C. (2010). Into the Thick of Things: Connecting Consumers to Community Life: A Compendium of nity inclusion Initiatives For People with Psychiatric Disabilities At Consumer-Run Programs. Philadelphia, PA: University Collaborative on Community Inclusion of Individuals with Psychiatric Disabilities. Available at

#### mental health problems

physical problems



These violations result in serious short and long-term

and increased vulnerability to HIV

sexual problems

as well as controlling behaviors by an intimate partner.

reproductive problems

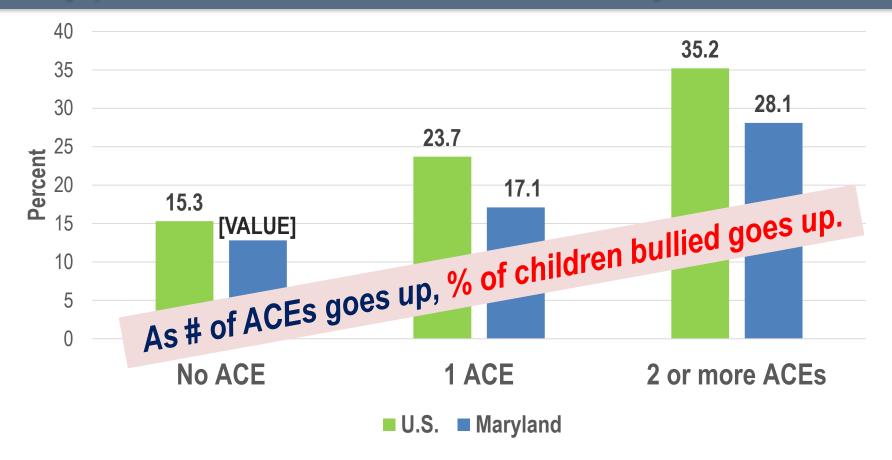
### **Family Resilience**





Harford County Health Department

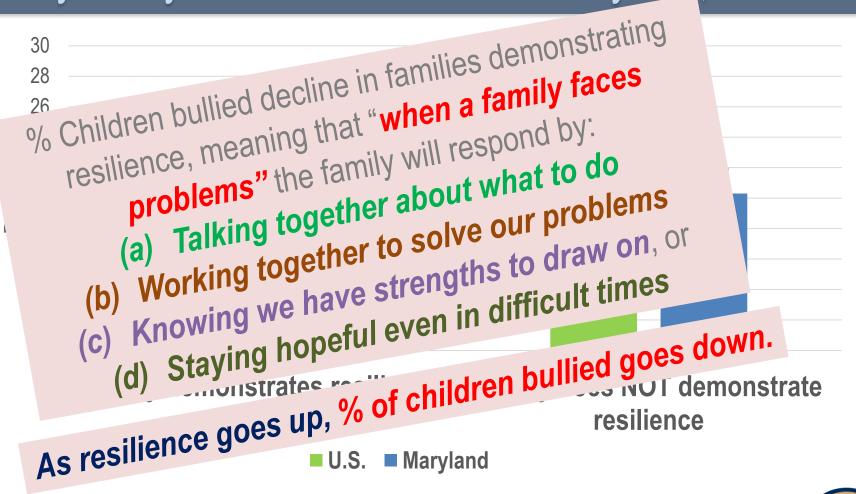
#### % Children, ages 6-17, who are bullied By presence of ACEs – U.S. and Maryland, 2016



Source: 2016 National Survey of Children (ages 6-17)



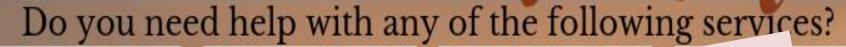
#### % Children, ages 6-17, who are bullied By family resilience – U.S. and Maryland, 2016



Source: 2016 National Survey of Children (ages 6-17)



### HELPING FAMILIES



ecove

Harford County



Contact a Harford County Health Department Care Coordination/Peer Recovery Specialist at 410.459.8727 Families are the Heart of Our Community

#### TO RECAP

#### Behavioral health

- Expansion of treatment services
- Integrated 24/7 Call-In/Crisis Center
- Harm reduction strategies
- Reducing stigma

#### Chronic Disease Prevention & Wellness

- Tobacco use & vaping prevention
- STI prevention
- Cancer & chronic disease prevention
- Health literacy promotion

Family Health & Resiliency

- Addressing non-medical factors impacting health
- Promoting wraparound services
- Addressing Adverse Childhood Experiences (ACEs)
- Building family resiliency skills



Health Departme

