The Opioid Crisis in Maryland: Impact on Health

Maryland Behavioral Health Consortium
Russell Moy, MD, MPH
Harford County Health Officer
September 27, 2018
How is Maryland doing in the areas of opioid/substance use disorders?
How is overall health impacted by substance use disorders?
What can we do to address these issues?
How much has Maryland’s overdose death rate increased over the past 7 years?

(A) 5.2%
(B) 52%
(C) 152%
(D) 252%
(E) 352%
Drug-related deaths reach all-time high in 2017
In the U.S.

The New York Times

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.

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.

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.

180% increase over 10 years.
Total Number of Intoxication Deaths Occurring in Maryland by Place of Occurrence, 2017.
Total Number of Opioid* and Non-Opioid-Related Deaths Occurring in Maryland, 2007-2017.

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<table>
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<td>2016</td>
<td>1212</td>
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<td>2017</td>
<td>1078</td>
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Number of Fentanyl-Related Deaths Occurring in Maryland, 2007-2017.
Number of Benzodiazepine-Related Deaths Occurring in Maryland, 2007-2017.
Number of Cocaine-Related Deaths Occurring in Maryland, 2007-2017.

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of Deaths</th>
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<tr>
<td>2007</td>
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<td>2015</td>
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<td>2016</td>
<td>464</td>
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<tr>
<td>2017</td>
<td>691</td>
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Leading Causes of Death
Maryland, 2016

Heart Disease: 11,408
Cancer: 10,919
Stroke: 2,706
Accidents: 2,282
Overdose*: 2,089
COPD: 2,073
Alzheimer's: 1,357
Influenza: 1,025
Septicemia: 878
Kidney Disease: 824
Suicide: 581

Overdose deaths now the 5th leading cause of death

Source: * Maryland Drug and Alcohol-Related Intoxication Deaths, 2016
Drug-Induced Mortality Rates
Maryland & U.S., 2012-2016

Per 100,000 Population

Maryland rates up by 96% over 5 years.

Source: Maryland Vital Statistics Reports and CDC Health, United States 2017
Note: Age-adjusted mortality rates
How does Maryland rank in its overdose mortality rate among states?

(A) #1 (worst)
(B) #6
(C) #16
(D) #36
(E) #50 (best)
State Drug Overdose Mortality Rankings, 2016

Maryland has the 6th worst overdose rate.

Source: CDC, Stats of the States
Note: Age-adjusted mortality rates
Maryland has the 6th worst overdose rate.

Source: CDC, Stats of the States
Note: Age-adjusted mortality rates
Maryland ranks 2\textsuperscript{nd} highest in the nation.

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

Harford County rates increased by 268% over the past 10 years.

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 5th 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, 2016 10:56 am ET | Updated Aug 21, 2016 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**

**SUBOXONE**
*(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 by many providers
- **Prescription:** Can be prescribed at MercyHealth Behavioral Health Services and Compass Behavioral Health Clinic

**METHADONE**
*(Opioid pain reliever)*
- **Approved:** by FDA in 1972
- **Dosage:** Taken daily in liquid form
- **Cost:** Less than $100 per month
- **Insurance:** Covered by many providers
- **Prescription:** Prescribed at Beloit Comprehensive Treatment Center

**VIVITROL**
*(Extended release naltrexone)*
- **Approved:** by FDA in 2006
- **Dosage:** Taken as an injection, lasts four weeks
- **Cost:** About $450 per injection
- **Insurance:** Covered by many providers
- **Prescription:** Can be prescribed by a medical doctor

**SOURCE:** U.S. Food and Drug Administration
Intermediate-term, more substance use disorder crisis and care coordination services are needed.
Every drug – whether it’s alcohol, nicotine, marijuana or opioids – is a gateway drug if used during adolescence or young adulthood while brain development is still underway…
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:

- Alcohol: 54%
- Tobacco: 32%
- Marijuana: 14%

Source: Prioritizing Alcohol Prevention: Establishing Alcohol as the Gateway Drug and Linking Addiction to Health Systems

WAPO.ST/WONKBLOG
What is the safest level of alcohol consumption?


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 life-years (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.
Safest level of alcohol consumption is none, worldwide study shows

By Joel Achenbach

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
Maryland, 2016

Source: Maryland Youth Risk Behavior Survey (YRBS), 2016, Students, Grades 9-12
The Leading Actual Underlying Causes of Death

Smoking is the leading actual underlying cause of death in the U.S.

Maryland ranks 7th in adult smoking rates, 22nd in adolescent tobacco use rates

tobacco use in maryland

Cigarette use: Maryland*

- In 2016, 13.7 percent of adults smoked. Nationally, the rate was 17.1 percent.¹
- In 2017, 8.2 percent of high school students smoked on at least one day in the past 30 days. Nationally, the rate was 8.8 percent.²

Source: CDC BRFSS Website 2016
The Rise and Decline of Cigarette Smoking

Source: AHRQ.gov
Community Norms Have Changed Over the Past 50 Years
There was a time when it seemed OK for babies ...
I'm sending Chesterfields to all my friends. That's the merriest Christmas any smoker can have—Chesterfield mildness plus no unpleasant after-taste.

Ronald Reagan

OK for future presidents …
OK for doctors who preferred the toasted taste …
OK for the Flintstones to light up in front of the kids ...
“Mind if I smoke?”

“Care if I die?”

... but finally a culture change
1950s-1970s Anti-Smoking Ads: Moralistic, Logical
1980s-1990s Anti-Smoking Ads: Sharper Tone, More Emotional
1990s-Present Anti-Smoking Ads: Shock value to “break through the fog” of denial

- Record Your Voice for Loved Ones While You Still Can.
  - Terrie, Age 52
  - North Carolina

- Allow Extra Time to Put on Your Legs.
  - Brandon, Age 31
  - Diagnosed at 18
  - North Dakota

Smoking causes immediate damage to your body. For Terrie, it gave her throat cancer. You can quit. For free help, call 1-800-QUIT-NOW.
Current cigarette smoking among U.S. high school students lowest in 22 years
Teen smoking may be replaced with teen vaping one day
FDA chief calls youth use of Juul, other e-cigarettes an ‘epidemic’

By Laurie McGinley

Laurie McGinley
Reporter covering health and medicine
Email □ Bio □ Follow □
September 12 at 10:56 AM

Food and Drug Administration Commissioner Stephen Hahn calls youth e-cigarette use an “epidemic” of teenage vaping, and is working through state and federal retailers for all vaping products, including Juul.

Outbreaks of a new illness, linked to vaping, have prompted accelerated enforcement actions. If the new rules are put into effect, would significantly upend the fast-growing industry.

The FDA, in data, 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 the agency relies.

Most teens think they are only vaping flavoring.
Dangers of Synthetic Cannabinoids

Spike In Synthetic Marijuana Overdoses In Washington, D.C.: NPR

NPR's Michel Martin speaks with Washington, D.C., Fire and EMS Chief Gregory Dean about a recent spate of overdoses involving a synthetic drug known as K2.

MICHEL MARTIN, HOST:

By now, the flooding and other disaster zones we've heard about. Now, here's a crisis you don't hear about. Now, here's a crisis you probably didn't believe to have been caused by the government shutdown. In Washington, D.C., officials say medics evaluated nearly 300 people for K2 overdoses this past Friday for suspected K2. And, according to the D.C. Fire and EMS spokesman, we think may be more to come.

But this isn't a new trend. Last month, 70 people presented to the Fire and EMS. Chief Gregory Dean joins us now.

Source: NPR.org, 9/15/18 and 4/18/14
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.
What effect does quitting smoking / smoking cessation intervention have on SUD treatment outcomes?

(A) Negatively impacts substance use treatment outcomes
(B) Has no impact on substance use treatment outcomes
(C) Positively impacts substance use treatment outcomes
What effect does quitting smoking / smoking cessation intervention have on SUD treatment outcomes?

(A) Negatively impacts substance use treatment outcomes

(B) Has no impact on substance use treatment outcomes

(C) Positively impacts substance use treatment outcomes
What effect does quitting smoking / smoking cessation intervention have at time of SUD treatment outcomes?

A literature review of 24 studies published between 2006 and 2016 concluded that:

Quitting smoking/smoking cessation has a **positive effect on substance use outcomes**. Improvement in a range of alcohol and drug use outcomes was reported.

Neither smoke-free policy nor cessation intervention worsened SUD treatment outcomes. Not offering smoking cessation in SUD treatment is tantamount to increased harm.
Since 1999, all of the following population groups in Harford County have reduced their death rates, **EXCEPT:**

(A) White males: 12% decrease  
(B) **White females:** 9% increase  
(C) Black males: 55% decrease  
(C) Black females: 34% decrease
Death Rate Change for White Females
Ages 45-54, Since 1999, By Maryland Jurisdiction

Source: Keating, Elliott & Shapiro, “White women are dying faster all over America – but what about where your live?” Washington Post, 8/31/16
**Black : White health disparities in mortality rates continue to exist ...**

![Graph showing mortality rates for various conditions and demographics]

- **Per 100,000 Population**
- **Heart Disease**
- **Cancer**
- **Stroke**

<table>
<thead>
<tr>
<th>Group</th>
<th>Heart Disease</th>
<th>Cancer</th>
<th>Stroke</th>
</tr>
</thead>
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<tr>
<td>White males</td>
<td>203.3</td>
<td>177.4</td>
<td>34.9</td>
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<tr>
<td>White females</td>
<td>125.8</td>
<td>136.8</td>
<td>37.3</td>
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<tr>
<td>Black males</td>
<td>252.1</td>
<td>224</td>
<td>50.6</td>
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<tr>
<td>Black females</td>
<td>142.6</td>
<td>149</td>
<td>47.1</td>
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</table>

Source: Maryland Vital Statistics Reports, 2016

Note: Age-adjusted mortality rates
White women are dying faster all over America — but what about where you live?
Which population group (ages 45-54) is dying at the fastest rate?

U.S. White population has had a marked increase in all-cause mortality between 1999-2013.

Source: Case and Deaton, “Rising morbidity and mortality in midlife among white non-Hispanic Americans in the 21st century,” PNAS 12/8/15
Are just people ages 45-54 dying faster?

U.S. White population, ages 30-64, are all dying at a faster rate.

Source: Case and Deaton, “Rising morbidity and mortality in midlife among white non-Hispanic Americans in the 21st century,” PNAS 12/8/15
Are both men and women dying faster?

Source: Case and Deaton, “Rising morbidity and mortality in midlife among white non-Hispanic Americans in the 21st century,” PNAS 12/8/15

U.S. White women are dying at a faster rate than men.
Why are people dying so fast?

Poisonings or drug and alcohol intoxication deaths are increasing the most.

Source: Case and Deaton, “Rising morbidity and mortality in midlife among white non-Hispanic Americans in the 21st century,” PNAS 12/8/15
Rising morbidity and mortality in midlife among white non-Hispanic Americans in the 21st century

Anne Case¹ and Angus Deaton

Woodrow Wilson School of Public and International Affairs and Department of Economics, Princeton University, Princeton, NJ 08544

Contributed by.

This paper examines the striking rise in morbidity and mortality in midlife among white non-Hispanic Americans, a phenomenon that has not been observed in any other age group in the United States, or in any other country. The rise in death rates has been especially pronounced for white men between the ages of 45 and 64, who have experienced an increase in mortality rates that is not seen in any other age group.

New York Times, 11/2/15

“Death Rates Rising for Middle-Aged White Americans, Study Finds:

Something startling is happening to middle-aged white Americans. Unlike every other age group, unlike every other racial and ethnic group, unlike their counterparts in other rich countries, death rates in this group have been rising, not falling . . .”
"Young adult (25-34 yrs) Whites in suburban areas and middle-aged (45-64 yrs) Whites in rural areas had the most marked increase in premature death relative to other sub-populations in each respective age group..."

"The marked increases in accidental poisonings and suicide death rates, together with unfavorable chronic disease trends, are driving increased premature mortality in Whites. A large portion of these deaths are caused by underlying behavioral risk factors and behavioral health. Case and Deaton coined such deaths as ‘despair deaths’... as they enter the labor market and are met with bleaker prospects and lower paying jobs..."

"Despair manifests in health, including ending life intentionally or soothing through opiates, food, tobacco or alcohol use ... having the highest increases in poisonings, suicide... CVD and respiratory disease."
However, since 2010 the death rates for almost all groups, ages 25-44, have been rising.
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 opioid drug overdoses, suicides and chronic liver 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.
Leading Causes of Death
Maryland, 2016

<table>
<thead>
<tr>
<th>Cause</th>
<th># of Deaths</th>
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<td>Heart Disease</td>
<td>11,408</td>
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<tr>
<td>Cancer</td>
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<tr>
<td>Stroke</td>
<td>2,706</td>
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<tr>
<td>Accidents</td>
<td>2,282</td>
</tr>
<tr>
<td>Overdose*</td>
<td>2,089</td>
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<tr>
<td>COPD</td>
<td>2,073</td>
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<td>Alzheimer's</td>
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<td>Septicemia</td>
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<td>Kidney Disease</td>
<td>824</td>
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<td>Suicide</td>
<td>581</td>
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</table>


Source: * Maryland Drug and Alcohol-Related Intoxication Deaths, 2016
Health consequences of drug misuse are wide-ranging, affecting both physical and mental health.

Health Consequences of Drug Misuse

Drug use can have a wide range of short- and long-term direct and indirect effects. These effects often depend on the specific drug or drugs used, how much is taken, the person taking it, and how often. Long-term effects can include heart or lung disease, cancer, mental 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.
How healthy is Maryland when compared with other states?

(A) # 1 (most healthy)
(B) # 13
(C) # 25
(D) # 38
(E) # 50 (least healthy)
State Health Rankings, 2018

Maryland ranks 13th healthiest among the 50 states.

Source: U.S. News and World Report
Health is not just medical care

- Clinical Care: 20%
- Physical Environment: 10%
- Health Behaviors: 30%
- Socio-economic Factors: 40%

- Environmental Quality & Built Environment
- Access to Health & Quality of Health
- Tobacco Use, Diet & Exercise, Alcohol Use, Sexual Activity
- Education, Employment, Income, Family & Social Support, Community Safety
80% of what influences your health and life expectancy happens outside of the healthcare system.

What is the average life expectancy of a Maryland resident?

(A) 84.9 years – Montgomery County
(B) 79.5 years – Maryland State average
(C) 79.4 years – Harford County
(C) 78.6 years – U.S. average
(D) 73.4 years – Baltimore City

Location – Location - Location
There’s an 11.5 year geographic disparity in average life expectancy within Maryland.

Source: Maryland Vital Statistics, 2016 and CDC Health United States
Zip Code Matters More Than Genetic Code for Your Health*

There’s an 11-year life expectancy disparity within Maryland.

Legend

Life Expectancy

- **Age 80 or over**
- **Age 79**
- **Age 78**
- **Age 77**
- **Age 76 or under**

“Beyond Health Care,” RWJF Commission to Build a Healthier America, 2009

Zip code matters more than genetic code for your health*

Lifestyle behaviors, environment, genetics, and medical care impact health outcomes.

There’s a nearly 20-year disparity within Baltimore City.

* Source: “Beyond Health Care,” RWJF Commission to Build a Healthier America, 2009
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 Scott County...
Harm reduction strategies helped turn around this HIV epidemic.

Harm reduction public health strategies focus on preventing the harms of substance use, reducing deaths and crimes, including: naloxone/Narcan distribution, HIV/STD services, medication-assisted treatment, peer recovery services, mental health services, pre-exposure prophylaxis (PrEP), condom & syringe services, and others.
Over the last year, I’ve seen a growing number of comparisons between the current overdose crisis and the height of the HIV/AIDS epidemic three decades ago. The parallels are certainly striking: an escalating number of deaths, particularly among younger people; a sense of hard-hit communities feeling under siege; and a growing wave of new advocates demanding action and innovative solutions.
How does Maryland rank in new HIV diagnosis rate among states?

(A) #1 (worst)  
(B) #4  
(C) #14  
(D) #34  
(E) #50 (best)
States with Highest HIV Diagnosis Rates, 2016

<table>
<thead>
<tr>
<th>State</th>
<th>Per 100,000 Population</th>
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<tbody>
<tr>
<td>Georgia</td>
<td>26.3</td>
</tr>
<tr>
<td>Louisiana</td>
<td>24.6</td>
</tr>
<tr>
<td>Florida</td>
<td>24.0</td>
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<tr>
<td>Maryland</td>
<td>18.3</td>
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<tr>
<td>Nevada</td>
<td>17.9</td>
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<td>Texas</td>
<td>16.1</td>
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<tr>
<td>South Carolina</td>
<td>15.3</td>
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<tr>
<td>New York</td>
<td>14.6</td>
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<tr>
<td>Mississippi</td>
<td>14.2</td>
</tr>
<tr>
<td>North Carolina</td>
<td>13.9</td>
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</tbody>
</table>

Source: * Maryland Drug and Alcohol-Related Intoxication Deaths, 2016
STDs have dramatically increased in the U.S. over the past 5 years.

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

By Karen Zraick

Aug. 28, 2018

New cases of sexually transmitted diseases have increased sharply in the U.S. for the past five years, driven by increases in chlamydia, gonorrhea, and syphilis, according to the Centers for Disease Control and Prevention.

That number rose to a record 2.3 million in 2017 from 1.8 million in 2013, the last year for which there are complete records from all states, the agency said in a report released Thursday.

If the increase continues, it could mean that in 2017 there were more than 200,000 new cases of syphilis and 1.7 million new cases of chlamydia, the most common sexually transmitted infection in the country, the report said.

For more information, visit [cdc.gov/nchhstp/newsroom](https://www.cdc.gov/nchhstp/newsroom)
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

The 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
Maryland, 2013-2017

Rates up 15% over past 5 years.

* Age-Adjusted Rates
Source: Maryland Vital Statistics Reports
Gonorrhea Rates
Maryland, 2013-2017

Rates up 79% over past 5 years.

* Age-Adjusted Rates
Source: Maryland Vital Statistics Reports
Syphilis Rates
Maryland, 2013-2017

Rates up 23% over past 5 years.

* Age-Adjusted Rates
Source: Maryland Vital Statistics Reports
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
... but some of the most preventable cancers are caused by HPV ...

80-90% of all people are infected with HPV at some point in their lives.

HPV
the most common STD, can cause Cancer or Warts

Percentages represent cases attributable to HPV infection
... and HPV can be prevented by a vaccine.

3 vaccine shots needed between ages 15-26. Only 2 vaccine shots needed < age 15.
HPV can be transmitted sexually, but also non-sexually


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

The objective was to determine the prevalence of human papillomavirus (HPV) infection in young females receiving the first dose of a quadrivalent HPV vaccine. The data were collected from 190 females aged 13 to 21 years who received the vaccine. The study was conducted in a pediatric primary care clinic between June 2008 and June 2010. The participants were recruited if they had not received the vaccine previously and had no prior history of HPV infection. The study was approved by the institutional review board.

Methods. A total of 190 female patients aged 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 following questions: “Have you ever had sexual contact with another person?” and “How many sexual partners have you had?” The prevalence of HPV infection was determined by polymerase chain reaction (PCR) analysis of specimens collected from the cervix.

Results. Of the 190 females, 17.4% (33 of 190) had HPV-16 infection, 6.3% (12 of 190) had HPV-18 infection, and 8.9% (17 of 190) had either HPV-16 or HPV-18 infection. The only variable independently associated with HPV in a multivariable model was history of sexual partners (2-5 partners vs. none: odds ratio, 6.2; 95% CI, 2.1-18.1 and 10 partners or more vs. none: odds ratio, 10.3; 95% CI, 1.6-115.8). The most common types detected were HPV-16 and HPV-18, which are the most commonly detected types. A total of 46 (24.2%) had multiple types: 2 had 2 types, 1 had 3 types, and 1 had 4 types. No variables were significantly associated 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. 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 that 11.6% of sexually inactive young females were positive for HPV further underscores the need for vaccination.
Oral cancer is on the rise:

“My name is Eva Grayzel. At age 33, I was diagnosed with stage IV squamous cell carcinoma of the lateral tongue. I never smoked and rarely consumed alcohol... No longer is the male over the age of 60 who uses tobacco the only patient who requires a screening for oral cancer. Now it includes younger patients. The new face of oral cancer is the one who doesn’t smoke or drink. The new face of oral cancer looks more like mine.”
Relationship between untreated substance abuse disorders and suicide

Among Patients with Untreated Substance Abuse Disorders...

45% Attempt suicide, according to one study

Source: PsychologyToday.com
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.

<table>
<thead>
<tr>
<th>RANK</th>
<th>CAUSE OF DEATH</th>
<th>DEATHS (% OF TOTAL)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Suicide</td>
<td>18</td>
</tr>
<tr>
<td>2</td>
<td>Unintentional injuries (motor vehicle accidents)</td>
<td>13.7</td>
</tr>
<tr>
<td>3</td>
<td>Unintentional injuries (others)</td>
<td>10.9</td>
</tr>
<tr>
<td>4</td>
<td>Cardiovascular diseases</td>
<td>7.5</td>
</tr>
<tr>
<td>5</td>
<td>Digestive diseases</td>
<td>7.2</td>
</tr>
</tbody>
</table>

Source: Office of the Census Commissioner
The role of adverse childhood experiences (ACEs) in substance misuse

What are Adverse Childhood Experiences (ACEs)?
ACEs are potentially traumatic events that occur in a child’s life:

- Physical Abuse
- Emotional Abuse
- Sexual Abuse
- Domestic Violence
- Parental Substance Abuse
- Mental Illness
- Suicide or Death
- Crime or Imprisoned Family

Causing lifelong medical, mental & social suffering
What did the ACE Study find?

Adverse Childhood Experiences are the most basic cause of health risk behaviors, morbidity, disability, mortality, and healthcare costs.
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 SUICIDE
10.3 TIMES AS LIKELY TO USE INJECTION DRUGS
7.4 TIMES AS LIKELY TO BE AN ALCOHOLIC

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

ACEs have a dose-response relationship with many health problems.
**Family Health and Resiliency**

**HOME VISITING**

Supporting Parents and Child Development

A knock on the front door can bring parents the support they need to nurture their young child's healthy development. Home visiting reaches families where they live by delivering parent support and child development services directly to the home environment.

**Developmental Screenings**

**Information on child development and early learning**

**Social Support**

**Referrals to ancillary community services**

**Linkages for enrollment in public benefits**

**How it Started:**

**PEER SUPPORT**

In the 1990's, as additional consumer/survivor groups emerged across the nation, the peer support movement began to focus more on the concept of supporting consumers by offering their own experiences, failures and successes as inspiration.

In more recent years, consumer groups began to advocate for hiring of peer specialists within traditional mental health programs.

- Some focused on the development of 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

**Intimate Partner Violence**

is one of the most common forms of violence against women

includes physical, sexual and emotional abuse, as well as controlling behaviors by an intimate partner.

These violations result in serious short and long-term

- physical problems
- reproductive problems
- sexual problems
- mental health problems
- and increased vulnerability to HIV
How the opioid/HIV outbreak was managed through public health interventions

'There is hope.' Peer recovery coaches use experience to help others overcome addiction.

Billy Kobin, Indianapolis Star  Published 6:00 a.m. ET Aug. 12, 2018

Matt Heskett had been struggling with painkillers, alcohol and heroin for several years. He was sleeping out of his car. He was broke.

Then, in the fall of 2015, police raided a trailer he was in with several others on the west side of Indianapolis.

The police were serving warrants. None of the warrants had been issued for Heskett. Still, with no money and a car almost out of gas, he found himself in a reflective mood.

"That was kind of the moment where it all smacked me in the face," Heskett said. "I just remember going across the street to a gas station and kind of thinking to myself, 'Is this really what my life is today?'"

Fast forward to 2018, and Heskett's life is much different.
Family resilience is the family’s ability to “withstand and rebound from disruptive life challenges, strengthened and more resourceful.”

Family resilience is not just about weathering a storm. It’s about turning adversity into a catalyst for the family’s growth. It’s about enriching relationships and making family members more skilled at coping with future stresses.
HELPING FAMILIES Recover

Do you need help with any of the following services?

- **Addictions/Behavioral Health**
  410.877.2340
  Medication Management, OP/IOP Treatment, & Peer Recovery Services

- **Birth Certificates**
  410.838.1500
  Available to those born in Maryland

- **Care Coordination**
  410.942.7999
  Helps to educate families regarding services offered through the Medicaid system

- **Dental Care**
  443.922.7670
  Serves children ages 1 through 20 and pregnant women on Medical Assistance

- **Family Planning/Reproductive Health**
  410.612.1779
  Provides gynecological exams/pregnancy tests and emergency contraception

- **HIV/STI**
  410.638.3060
  Provides HIV and STI testing and treatment

- **Immunizations**
  410.612.1779
  Offered to uninsured and underinsured children ages 2-18

- **Infants and Toddlers**
  410.638.3823
  Provides early intervention services to children, ages 1-4, who have, or are at risk of, having developmental delays

- **Maryland Health Insurance**
  410.942.7999
  Provides free healthcare to eligible pregnant women and children with low to average income

- **Tobacco Cessation**
  410.612.1781
  Provides tobacco education, treatment and prevention

- **Transportation Services**
  410.638.1671
  Offers transportation to those on Medical Assistance and other populations

- **Women, Infants, and Children (WIC)**
  410.939.6680
  Provides nutrition education, breastfeeding support and healthcare referrals

Contact a Harford County Health Department Care Coordination/Peer Recovery Specialist at 410.459.8727

Families are the Heart of Our Community
September is National Recovery Month

Help us light the way during the month of September for Recovery Month. By using purple lights, show Harford County there is hope and recovery is possible. For help, call 410-877-2340.

Thank you!