AGENDA

• Protecting the public’s health: Emergency Preparedness
• The impact of cancer on the health of Harford County residents
• What are the other contributory factors affecting the County’s health?
How far is the Peach Bottom nuclear power plant from Bel Air, Maryland?

Distance between Peach Bottom plant in Delta, PA and downtown Bel Air, MD is:

(A) 21 miles
(B) 31 miles
(C) 41 miles
(D) 51 miles
Peach Bottom Nuclear Power Station
Delta, PA (21 miles from Bel Air, MD)
Peach Bottom Nuclear Plant
10-mile Plume Exposure
Emergency Planning Zone (EPZ)
HOW POTASSIUM IODIDE (KI) WORKS

How does KI work?

The thyroid gland is a butterfly-shaped gland located in the neck near the Adam’s apple. It plays a crucial role in the body’s metabolism by producing hormones that help convert food into energy.

When radioactive iodine is present, the thyroid gland absorbs it and converts it into hormones, which can be harmful. Potassium iodide acts as a block to this process, preventing the absorption of radioactive iodine into the thyroid gland.

1. Potassium iodide is a pill or liquid that can be used in radiation emergencies that contain radioactive iodine.
2. Non-radioactive potassium iodide helps prevent the body from absorbing radioactive iodine.
3. As radioactive iodine is absorbed into the thyroid gland, potassium iodide helps block the absorption and prevents the production of harmful radiation.

With KI: The thyroid gland is blocked from absorbing radioactive iodine.

Without KI: The thyroid gland absorbs radioactive iodine and produces harmful radiation.
50-mile Ingestion Exposure Pathway
Emergency Planning Zone (EPZ)

- Calvert Cliffs Nuclear Power Plant
- Limerick Generating Station
- North Anna Power Station
- Peach Bottom Atomic Power Station
- Salem Nuclear Generating Station
- Three Mile Island Nuclear Station
How healthy are Harford County residents?

Of Maryland’s 24 jurisdictions, what is Harford County’s health ranking?

(A) # 1 (most healthy)
(B) # 8
(C) # 12
(D) # 16
(E) # 24 (least healthy)
State-by-state: Counties rated highest and lowest in health

Researchers ranked counties by "health outcomes" and "health factors." This map represents "health outcomes," based on disease and death rates in each county.

Five healthiest counties in state

Five least healthy counties in state

County Health Rankings & Roadmaps
Building a Culture of Health, County by County

A Robert Wood Johnson Foundation program
Health is not just medical care

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

- 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

Health Outcomes Rankings
By Maryland Jurisdiction, 2018

Montgomery, Howard, Carroll, Calvert, Frederick, St. Mary’s, Anne Arundel, Harford, Queen Anne’s, Talbot, Charles, Worcester, Baltimore, Prince George’s, Garrett, Kent, Cecil, Washington, Wicomico, Allegany, Dorchester, Caroline, Somerset, Baltimore City

8th Healthiest for Health Outcomes:
- Birth outcomes
- Death rates
- Quality of life

Source: County Health Rankings, RWJF, 2018
Health Factors Rankings
By Maryland Jurisdiction, 2018

8th Healthiest for Health Factors:
Health behaviors
Access to care
Socio-economics
Environment

Source: County Health Rankings, RWJF, 2017
Harford County ranks 185th healthiest among the 3,000 counties nationwide.

U.S. News & World Report ranks Harford County’s health 185th best of 3,000 counties nationwide.
What are the leading causes of mortality in Harford County?

What is the leading cause of death in Harford County in 2016?

(A) Heart Disease
(B) Cancer
(C) Stroke
(D) Chronic Obstructive Pulmonary Disease
(E) Accidents
What are the leading causes of mortality in Harford County?

What is the leading cause of death in Harford County in 2016?

(A) Heart Disease
(B) Cancer
(C) Stroke
(D) Chronic Obstructive Pulmonary Disease
(E) Accidents
Top 10 Causes of Death
Harford County, 2016

Cancer, not heart disease, is the leading cause of death in Harford County.

Source: * Maryland Drug and Alcohol-Related Intoxication Deaths, 2016
Cancer Mortality Rates
By Maryland Jurisdiction, 2011-2015

Harford County has the 14th highest mortality rate.

Age-Adjusted Rates
Source: https://statecancerprofiles.cancer.gov/
Cancer Mortality Rates
Harford County & Maryland, 2012-2016

Per 100,000 Population

Harford County rates worse than the State.

* Age-Adjusted Rates
Source: Maryland Vital Statistics Reports
Cancer Mortality Rates, By Site
Harford County & Maryland, 2011-2015

Harford County rates worse for most cancers than the State.

- **Lung**
  - Harford: 39.0
  - Maryland: 35.4

- **Breast**
  - Harford: 22.8
  - Maryland: 22.4

- **Prostate**
  - Harford: 17.8
  - Maryland: 20.1

- **Colorectal**
  - Harford: 13.2
  - Maryland: 11.9

Age-Adjusted Rates
Source: https://statecancerprofiles.cancer.gov/
Cancer Mortality Rates, By Race
Harford County & Maryland, 2011-2015

Racial disparities exist in Harford County and Maryland for cancer mortality.

<table>
<thead>
<tr>
<th>Age-Adjusted Rate Per 100,000 Population</th>
<th>White</th>
<th>Black</th>
</tr>
</thead>
<tbody>
<tr>
<td>Source: <a href="https://statecancerprofiles.cancer.gov/">https://statecancerprofiles.cancer.gov/</a></td>
<td>169.1</td>
<td>181.2</td>
</tr>
<tr>
<td></td>
<td>160.0</td>
<td>182.8</td>
</tr>
</tbody>
</table>
Cancer Incidence Rates
By Maryland Jurisdiction, 2011-2015

Harford County has the 3rd highest incidence rate.

Age-Adjusted Rates
Source: https://statecancerprofiles.cancer.gov/
Cancer Incidence Rates, By Site
Harford County & Maryland, 2011-2015

Age-Adjusted Rates
Source: https://statecancerprofiles.cancer.gov/

Harford County rates worse for than the State.

<table>
<thead>
<tr>
<th>Site</th>
<th>Harford</th>
<th>Maryland</th>
</tr>
</thead>
<tbody>
<tr>
<td>Breast</td>
<td>137.0</td>
<td>131.7</td>
</tr>
<tr>
<td>Prostate</td>
<td>131.0</td>
<td>125.7</td>
</tr>
<tr>
<td>Lung</td>
<td>70.4</td>
<td></td>
</tr>
<tr>
<td>Colorectal</td>
<td>39.6</td>
<td>37.0</td>
</tr>
</tbody>
</table>

Per 100,000 Population
Cancer Incidence Rates, By Race
Harford County & Maryland, 2011-2015

Racial disparity exists in Harford County for cancer mortality.

Age-Adjusted Rate Per 100,000 Population

Age-Adjusted Rates
Source: https://statecancerprofiles.cancer.gov/

Harford
Maryland

White
Black
TERTIARY PREVENTION

Limiting the progression of disease

Comprehensive Cancer Center
A Cancer Center Designated by the National Cancer Institute

Johns Hopkins and University of Maryland are 2 of 49 NCI-Designated Comprehensive Cancer Centers of the 1500 cancer centers in the U.S. – the top 4%. 
SECONDARY PREVENTION

CANCER SCREENING CAN SAVE YOUR LIFE

SCREENING AND EARLY DETECTION

Colorectal Cancer Screening Rates, Harford & Maryland, 2008-2014

Percent Screened

Harford County’s colorectal cancer screening is improving, though still not as good as the State average.
Preventing disease before it occurs

How is Harford County doing with tobacco use prevention?

SMOKING HEALTH RISKS

- Atherosclerosis (Coronary Artery Disease)
- Cataracts & Loss of Eyesight
- Periodontal Disease (Gums, Breath, Teeth)
- Rheumatoid Arthritis
- Cancers (Lung/Mouth/Kidney, Pancreas/Bladder, Throat/Oesophagus)
- Reduced Fertility
- Impotence
- Erectile Dysfunction
- Reduced Life Expectancy
- Asthma
- Ageing & Facial Wrinkles
- Cardiovascular Disease (Coronary Thrombosis/Heart Attack, Cerebral Thrombosis/Stroke, High Blood Pressure)
- Ulcers
- Chronic Obstructive Pulmonary Disease (Emphysema, Bronchitis)
The Leading Actual Underlying Causes of Death

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

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 Remember Momma and Poppa!

... and OK for kids...
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.
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
Adult Smoking Rates
Harford County & Maryland, 2012-2016

Harford County rates worse than the State.

Source: CDC Maryland Behavioral Risk Factor Surveillance System (BRFSS)
Adolescent Tobacco Use Rates*
Harford County & Maryland, 2010-2016

Source: Maryland Youth Risk Behavior Survey (YRBS)
Note: Students, Gr 9-12 who smoked at least 1 cigarette in the past 30 days
* Data gap between 2010-2013 and 2014-2016

Harford County rates better than the State.
Current cigarette smoking among U.S. high school students lowest in 22 years
Teen smoking may be replaced with teen vaping one day

From Varvel, G, Indianapolis Star, 9.14.18
Adolescent E-Vaping Rates
Harford County & Maryland, 2016

15 14.3

Flash Drive or Vape Pen?

Harford  Maryland

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
FDA chief calls youth use of Juul, other e-cigarettes an ‘epidemic’

By Laurie McGinley

Food and Drug Administration Commissioner Scott Gottlieb called youth use of Juul an “epidemic” of teenage vaping.

On Wednesday, he announced a series of initiatives to combat the growing少年 smoking problem and督促 retailers for all youth-friendly products, including e-cigarettes. The announcements are part of a broader effort to crack down on what the agency says is a significant increase in the number of young people using e-cigarettes.

On Wednesday, the agency said that a preliminary analysis of data from the National Youth Tobacco Survey, which was conducted from April 2017 to March 2018, found that 3.6 million high school students used e-cigarettes last year. That’s up by 75% from the 6.6 million who said they used the devices in the last year.

The FDA has mandated enforcement procedures that, if followed, would significantly upend the fast-growing $3 billion industry. The agency recently announced it would require retailers, including Juul, to use towers or other methods to prevent sales to children. The agency also said it would stop making e-cigarettes available to children.

The new 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, which is conducted by the Centers for Disease Control and Prevention.

Gottlieb said the agency is working on a plan to target the problem, which he said is “well beyond epidemic.” He said the agency is trying to reverse a trend that has seen the number of youth using e-cigarettes grow from 1.8 million in 2013 to 3.6 million in 2017.

The agency is also working on a plan to reduce the number of youth using cigarettes, which has remained stable at around 12 million in recent years. The agency is also trying to reduce the number of youth who use tobacco products, including cigarettes, cigars and chewing tobacco.

Gottlieb said the agency will announce new initiatives in the coming weeks to address the growing problem of youth vaping.

He said the agency is trying to educate parents and teachers about the dangers of e-cigarettes and encourage them to talk to their children about the risks.

The FDA is also working to improve the accuracy of data on youth vaping, which it said has been inconsistent in recent years.

Gottlieb said the agency is also trying to improve the accuracy of data on youth vaping, which it said has been inconsistent in recent years.

He said the agency is trying to educate parents and teachers about the dangers of e-cigarettes and encourage them to talk to their children about the risks.

The FDA is also working to improve the accuracy of data on youth vaping, which it said has been inconsistent in recent years.

He said the agency is trying to educate parents and teachers about the dangers of e-cigarettes and encourage them to talk to their children about the risks.

The FDA is also working to improve the accuracy of data on youth vaping, which it said has been inconsistent in recent years.

He said the agency is trying to educate parents and teachers about the dangers of e-cigarettes and encourage them to talk to their children about the risks.

The FDA is also working to improve the accuracy of data on youth vaping, which it said has been inconsistent in recent years.

He said the agency is trying to educate parents and teachers about the dangers of e-cigarettes and encourage them to talk to their children about the risks.

The FDA is also working to improve the accuracy of data on youth vaping, which it said has been inconsistent in recent years.

He said the agency is trying to educate parents and teachers about the dangers of e-cigarettes and encourage them to talk to their children about the risks.
Most teens think they are only vaping flavoring
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 damage from yesterday's storms have surely been heard about. Now, here's a crisis you won't have heard about. Now, here's a crisis you may have heard about. Now, here's a crisis you may have heard about. Now, here's a crisis you may have heard about. Now, here's a crisis you may have heard about. Now, here's a crisis you may have heard about. Now, here's a crisis you may have heard about. Now, here's a crisis you may have heard about. Now, here's a crisis you may have heard about. Now, here's a crisis you may have heard about. Now, here's a crisis you may have heard about.

But this isn't a weather crisis. This is a drug crisis. Two weeks ago, D.C., officials say medics evaluated nearly 100 people for exposure to the synthetic drug K2.

And, according to Chief Dean, they think they know where most users are getting it. However, he cautions that these devices are often laced with THC. Courtesy

Pot Smoke And Mirrors: Vaporizer Pens Hide Marijuana Use : Shots

Source: NPR.org, 9/15/18 and 4/18/14
Synthetic Cannabinoids 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.
Since 1999, all of the following population groups in Harford County have reduced their death rates, EXCEPT:

(a) White men
(b) White women
(c) Black men
(d) Black women
Since 1999, all of the following population groups in Harford County have reduced their death rates, EXCEPT:

(a) White men: 12% decrease
(b) White women: 9% increase
(c) Black men: 55% decrease
(d) Black women: 34% decrease
White women are dying faster all over America — but what about where you live?
Death Rate Change for White Women
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 Exist

Black mortality rates exceed White mortality rates by:

- 13% for Cancer
- 15% for Heart Disease

Black E.D. visit rates exceed White E.D. visit rates by:

- 35% for Addictions-Related
- 46% for Alzheimer’s/dementia
- 187% for Diabetes
- 267% for High Blood Pressure
- 306% for Asthma

Source: ship.md.networkofcare.org/ph/
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
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."
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.
Drug & Alcohol Intoxication Deaths
By place of occurrence, Harford County, 2013-2017

Harford County overdose deaths top 100 for the first time. U.

Source: Maryland Vital Statistics: Drug- and Alcohol-Related Intoxication Deaths in Maryland
Top 10 Causes of Death
Harford County, 2016

Harford County overdose deaths will likely be the 5th leading cause of death in 2017.

Source: * Maryland Drug and Alcohol-Related Intoxication Deaths, 2016
Drug-Induced Mortality Rates
Harford County & Maryland, 2012-2016

Per 100,000 Population

- Harford County rates increased by 51% over the past 5 years.

* 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*

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.
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

Tony DiNicola/tdincola@gazettextra.com
Intermediate-term, more substance use disorder crisis and care coordination services are needed.
Health consequences of drug misuse affect both mental and physical health.

Longer-term effects 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.
Relationship between untreated substance abuse disorders and suicide

Among Patients with Untreated Substance Abuse Disorders...

45% commit suicide

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
Suicide Mortality Rates
Harford County & Maryland, 2012-2016

* Age-Adjusted Rates
Source: Maryland Vital Statistics Reports

Harford County rates have increased by 9% over past 5 years.
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.
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 gonorrhea, syphilis and chlamydia have risen steeply in recent years, with the number of diagnoses hitting a record 2.3 million in 2017, the Centers for Disease Control and Prevention reports. The number of infections in the U.S. increased by 98% over the last five years compared with the previous low of 1.2 million in 2009.

That number includes more than 200,000 cases of gonorrhea, the most commonly reported sexually transmitted disease, as well as 17,375 cases of syphilis, a disease that can be fatal if left untreated. In 2017, chlamydia accounted for 1.7 million infections. In 2017, chlamydia was the most common condition reported to CDC.

For more information, visit cdc.gov/nchhstp/newsroom
Chlamydia Rates
Harford County & Maryland, 2013-2017

Per 100,000 Population

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

* Age-Adjusted Rates
Source: Maryland Vital Statistics Reports
Chlamydia & Gonorrhea Cases by High School Attendance Area, Harford County, 2016-2017, Ages 15-19

Number of Cases
- <= 20
- 21 - 40
- 41 - 60
- 61 - 100
- 101+

Source: Maryland Department of Health, Center for STI Prevention
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.

Liver Cancer

click here to learn more.
What percent of Maryland teens, ages 13-17, have received at least one HPV vaccine?

(A) 88.9%
(B) 70.7%
(C) 64.5%
(D) 60.4%
(E) 43.4%
HPV Vaccine Coverage

What percent of Maryland teens, ages 13-17, have received at least one HPV vaccine?

(A) 88.9% - Rhode Island
(B) 70.7% - Delaware
(C) 64.5% - Maryland
(D) 60.4% - U.S. average
(E) 43.4% - Wyoming
We know that smoking contributes to cancer...

Preventable cancers

More than 40 percent of cancer cases can be prevented, the American Cancer Society finds in a new report. Here is a list of things people can change and their share of cancer cases:

- Smoking: 19.0%
- Obesity: 7.8%
- Alcohol: 5.6%
- UV radiation: 4.7%
- Physical inactivity: 2.9%
- Poor diet: 1.9%
... 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
... and HPV can be prevented by a vaccine.

3 vaccine shots needed between ages 15-26. Only 2 vaccine shots needed < age 15.
Prevalence of Human Papillomavirus Infection in Young Women Receiving the First Quadrivalent Vaccine Dose

The object of this study was to determine the prevalence of HPV in sexually inexperienced females, ages 13-21, who received their first HPV vaccine dose. The study population included 190 females who 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 following question: “Have you ever had sexual contact with any other person?” Respondents were asked to report the number of sexual partners, whether they had a single type or multiple types of HPV, and the number of vaccine types they had received. The study found that 11.6% of sexually inexperienced females, ages 13-21, were HPV positive. The only variable independently associated with HPV in a multivariable model was history of multiple sexual partners (2-5 partners vs. none: OR, 6.2; 95% CI, 2.1-18.1 and ≥ 6 partners vs. none: OR, 10.3; 95% CI, 3.2-33.8). 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 inexperienced females were positive for HPV underscores the need for continued vaccine coverage among younger females.
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.”
<table>
<thead>
<tr>
<th>Factor</th>
<th>Harford 2017</th>
<th>Harford 2018</th>
<th>MD 2018</th>
<th>Harford Trend</th>
</tr>
</thead>
<tbody>
<tr>
<td>Premature death</td>
<td>5,900/100K</td>
<td>5,800/100K</td>
<td>6,500/100K</td>
<td>Improving</td>
</tr>
<tr>
<td>Low birthweight</td>
<td>7%</td>
<td>7%</td>
<td>9%</td>
<td>Stable</td>
</tr>
<tr>
<td>Food environment index</td>
<td>8.8</td>
<td>8.9</td>
<td>9.1</td>
<td>Improving</td>
</tr>
<tr>
<td>Access to exercise</td>
<td>94%</td>
<td>97%</td>
<td>93%</td>
<td>Improving</td>
</tr>
<tr>
<td>Alcohol-driving deaths</td>
<td>24%</td>
<td>21%</td>
<td>30%</td>
<td>Improving</td>
</tr>
<tr>
<td>Teen births</td>
<td>15/1,000</td>
<td>12/1,000</td>
<td>21/1,000</td>
<td>Improving</td>
</tr>
<tr>
<td>Uninsured</td>
<td>6%</td>
<td>4%</td>
<td>7%</td>
<td>Improving</td>
</tr>
<tr>
<td>Dentists</td>
<td>1,630:1</td>
<td>1,590:1</td>
<td>1,320:1</td>
<td>Improving</td>
</tr>
<tr>
<td>Preventable hospital stays</td>
<td>50</td>
<td>490</td>
<td>47</td>
<td>Improving</td>
</tr>
<tr>
<td>Diabetes monitoring</td>
<td>85%</td>
<td>85%</td>
<td>85%</td>
<td>Stable</td>
</tr>
<tr>
<td>Air pollution –particulate matter</td>
<td>10.9</td>
<td>10.9</td>
<td>9.5</td>
<td>Stable</td>
</tr>
</tbody>
</table>

Source: www.countyhealthrankings.org
In 2018, Harford County trend data has improved/stayed stable for 23 of 35 indicators. . .

<table>
<thead>
<tr>
<th>Factor</th>
<th>Harford 2017</th>
<th>Harford 2018</th>
<th>MD 2018</th>
<th>Harford Trend</th>
</tr>
</thead>
<tbody>
<tr>
<td>High school graduation</td>
<td>90%</td>
<td>90%</td>
<td>87%</td>
<td>Stable</td>
</tr>
<tr>
<td>Some college</td>
<td>72%</td>
<td>72%</td>
<td>69%</td>
<td>Stable</td>
</tr>
<tr>
<td>Unemployment</td>
<td>5.0%</td>
<td>4.1%</td>
<td>4.3%</td>
<td>Improving</td>
</tr>
<tr>
<td>Children in poverty</td>
<td>10%</td>
<td>9%</td>
<td>13%</td>
<td>Improving</td>
</tr>
<tr>
<td>Income inequality index</td>
<td>4.0</td>
<td>4.0</td>
<td>4.6</td>
<td>Stable</td>
</tr>
<tr>
<td>Children in single-parent house</td>
<td>28%</td>
<td>27%</td>
<td>34%</td>
<td>Improving</td>
</tr>
<tr>
<td>Social associations</td>
<td>7.9/10K</td>
<td>7.9/10K</td>
<td>8.9/10K</td>
<td>Stable</td>
</tr>
<tr>
<td>Violent crime</td>
<td>263/100K</td>
<td>263/100K</td>
<td>465/100K</td>
<td>Stable</td>
</tr>
<tr>
<td>Driving alone to work</td>
<td>83%</td>
<td>83%</td>
<td>74%</td>
<td>Stable</td>
</tr>
<tr>
<td>Long commute – driving alone</td>
<td>50%</td>
<td>50%</td>
<td>49%</td>
<td>Stable</td>
</tr>
<tr>
<td>Drinking water violations</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Stable</td>
</tr>
<tr>
<td>Severe housing problems</td>
<td>13%</td>
<td>13%</td>
<td>17%</td>
<td>Stable</td>
</tr>
</tbody>
</table>

Source: www.countyhealthrankings.org
...But 2018 Harford County trends have worsened for 12 of 35 health indicators

<table>
<thead>
<tr>
<th>Factor</th>
<th>Harford 2017</th>
<th>Harford 2018</th>
<th>MD 2018</th>
<th>Harford Trend</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adult smoking</td>
<td>14%</td>
<td>15%</td>
<td>14%</td>
<td>Worsening</td>
</tr>
<tr>
<td>Adult obesity</td>
<td>28%</td>
<td>29%</td>
<td>29%</td>
<td>Worsening</td>
</tr>
<tr>
<td>Physical inactivity</td>
<td>21%</td>
<td>23%</td>
<td>22%</td>
<td>Worsening</td>
</tr>
<tr>
<td>Excessive drinking</td>
<td>17%</td>
<td>18%</td>
<td>17%</td>
<td>Worsening</td>
</tr>
<tr>
<td>Sexually trans infections</td>
<td>189.8/100K</td>
<td>280.7/100K</td>
<td>459,3/100K</td>
<td>Worsening</td>
</tr>
<tr>
<td>Primary care physicians</td>
<td>1,630:1</td>
<td>1,680:1</td>
<td>1,140:1</td>
<td>Worsening</td>
</tr>
<tr>
<td>Mental health providers</td>
<td>740:1</td>
<td>680:1</td>
<td>460:1</td>
<td>Worsening</td>
</tr>
<tr>
<td>Injury deaths</td>
<td>61/100K</td>
<td>66/100K</td>
<td>64/100K</td>
<td>Worsening</td>
</tr>
<tr>
<td>Poor or fair health</td>
<td>12%</td>
<td>13%</td>
<td>14%</td>
<td>Worsening</td>
</tr>
<tr>
<td>Poor physical health days</td>
<td>3.1 days/mo</td>
<td>3.3 days/mo</td>
<td>3.1 days/mo</td>
<td>Worsening</td>
</tr>
<tr>
<td>Poor mental health days</td>
<td>3.5 days/mo</td>
<td>3.6 days/mo</td>
<td>3.5 days/mo</td>
<td>Worsening</td>
</tr>
<tr>
<td>Mammography screening</td>
<td>65%</td>
<td>64%</td>
<td>64%</td>
<td>Worsening</td>
</tr>
</tbody>
</table>

Source: www.countyhealthrankings.org
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.

If you need help, call 410-877-2340.
Thank you!