



# Community Health Needs Assessment

For

Sheppard Pratt Hospital – Ellicott City Campus

May 10, 2019

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# Sheppard Pratt Community Health Needs Assessment Outline

## Introduction

The purpose of this document is to summarize the research conducted to support the development of the Community Health Needs Assessment document for Sheppard Pratt Hospital – Ellicott City Campus. The document helps Sheppard Pratt better understand needs in its service area.

This document contains the following sections:

- Hospital profile
- Outreach activities since the previous CHNA
- Methodology summary and service area profile
- Service areas
- Secondary research profile
  - Demographic factors (population, gender, race and ethnicity, and age)
  - Social and physical environment factors (educational attainment, income, and poverty)
  - Risk and protective lifestyle behaviors (access to care, overweight/obesity, and physical activity)
- Health status profile
  - General health status
  - Mortality – Leading causes of death
  - Morbidity - Leading causes of illness
  - Behavioral health condition incidence
- Primary research
  - Focus group discussions and interviews
  - List of focus group participants and interviewees
- Community needs to be considered for prioritization;
- Prioritized list of community needs
- Community health resources list (included as a separate document)

## Sheppard Pratt Hospital Profile

Sheppard Pratt Health System, a private non-profit health system was founded in Baltimore, Maryland, to provide compassionate solutions to help those suffering from mental illness recover and get back to their lives. With hospital facilities in Towson and Ellicott City, the organization offers a full range of mental health, substance use, and special education services for people throughout Maryland, to meet the needs of children, adolescents, adults, and older adults.

A patient-centered treatment approach, combined with a legacy of clinical excellence, sets Sheppard Pratt apart from other health systems, on both a local and national level. As a free-standing system focused solely on mental health treatment, healing, and recovery, we are able to provide our patients with the specialized care they need in a supportive and compassionate environment.



### A History of Community Focus

Sheppard Pratt Health System has been improving the quality of life in our community by providing mental health, special education, and substance use services for more than 100 years. While our treatments and therapies have always been modern and ahead of their time, our patient-centered approach and compassionate care has remained the same since we first opened our doors in 1891. Our founder, Moses Sheppard, envisioned an institution that treated patients with respect and dignity, with a window in each room and soothing grounds to look at through that window.



This vision was also shared by Enoch Pratt, a wealthy merchant and philanthropist who left an endowment for The Sheppard Asylum upon his death in 1896.

More than 100 years later, Sheppard Pratt Health System continues to carry out Sheppard's dream to provide compassionate care to help people with mental illness heal. Today, Sheppard Pratt is Maryland's largest provider of mental health, special education, and substance use services, helping more than 70,000 individuals annually.

### Mission & Values

**Our Mission:** To improve the quality of life of individuals and families by compassionately serving their mental health, addiction, special education, and community support needs.

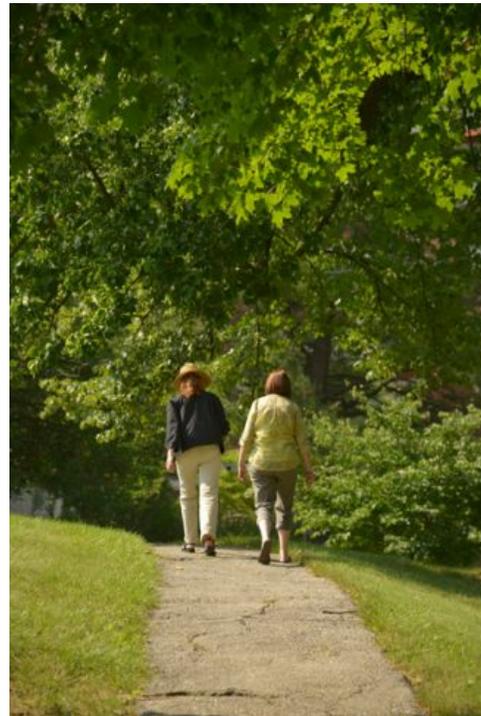
**Our Values Statement:** Since our founding in 1853, Sheppard Pratt Health System has remained loyal to our Quaker heritage. The Quaker testimonies of simplicity, peace, integrity, community, and equality drive not only our core values, but our guiding principles, as well.

**Our Core Values:**

- **To Meet a Need** - to work toward recovery of health and quality of life for people we serve
- **To Lead** - to continually seek and create more effective ways to serve individuals
- **To Care** - to employ the highest standards of professionalism, with compassion, at all times
- **To Respect** - to recognize and respond to the human dignity of every person

**Our Guiding Principles:**

- **Quality** - We will meet professional standards in our field and continuously improve all aspects of our work.
- **Empowerment** - We will encourage the autonomy of our consumers and staff using teamwork to achieve individualized goals.
- **Integrity** - We will conduct ourselves in an ethical, honest, and forthright manner.
- **Innovation** - We will use the expertise of our staff, as well as the latest scientific advancements, to create a system that is a model for others.
- **Community** - We will work to reduce stigma to increase access to mental health services and to increase awareness of the benefits of treatment.
- **Learning** - We will enhance professional knowledge and skills through inquiry, teaching, learning, and research.
- **Value** - We will assure that the cost of our services reflects their value and we will operate in a cost-efficient way.
- **Safety** - We will provide a safe environment for consumers, volunteers, staff, and visitors.
- **Diversity** - We will foster an environment that embraces the diversity of all of our constituents.
- **Charity** - We will meet our charitable responsibilities to serve the community and to honor the intent of our donors.
- **Caring** - We will provide all of our services with compassion and sensitivity.



## Outreach Activities Since the Previous CHNA

Through its programs and services, as well as its affiliate and partner relationships, Sheppard Pratt Health System has been active in providing the community with a continuum of care that can include inpatient hospitalization, partial hospitalization, intensive outpatient treatment, outpatient referrals, and housing and rehabilitation services, as needed. Some of the highlights since its last community assessment include:

- Engaged 400 people in its 2018 “Stride” community walk event in Towson benefiting individuals with serious mental illness. The event raised over \$ 25,000 to support patients and students.
- Provided a broad continuum of care to those who rely on Medical Assistance. In FY ’18 our payor mix was over 31% Medical Assistance.
- Served as one of the largest private providers of special education services in Maryland with schools throughout the state.
- Contributed over \$4.6 million in charity health care in the past year alone.
- Fielded 11,818 calls through our Therapy Referral Service in the past year.
- Maintained an Autism Specialty page as part of Sheppard Pratt’s Virtual Resource Center. This specialty page has received more than 1,500 views in FY 2018.
- Provided a Parent Lecture Series with 997 individuals attending in FY 2018.
- Operated the Positive Behavioral Intervention System (PBIS). This program engages teachers and school systems staff in professional educational opportunities that better prepare them to identify student with mental health needs. A total of 117 training events were held, training 6,766 school staff in PBIS in FY ’18.
- Operated the Life Space Crisis Program. This program provides school staff with an intensive experiential training which integrates evidenced-based practices related to prevention and integration, behavioral management and modification which results in positive student relationships with school staff. In FY 2018, 1,000 school staff received training.
- Provided Crisis Services: In FY 2018:
  - 4,570 individuals utilized the Crisis Walk In Clinic
  - 715 individuals utilized the Urgent Assessment, Scheduled Crisis Intervention and Bridge programs
- Operated the Crisis Referral Outpatient Program – 1,449 individuals served in FY 2018.
- Provided Tele-psychiatry Services.
  - 2,101 encounters were provided to active clients at 9 centers, including 471 initial evaluations and 1,630 medication management sessions
- Provided Professional Education – “Wednesday Lecture Series” – 3,181 people attended the series in FY 2018.

- Provided services to low income or underinsured individuals.
  - 1,261 individuals were provided with Financial Assistance
  - 225 individuals were provided with assistance in accessing insurance and other support programs
- Opened a new observation unit in FY '17, the Behavioral Observation Service, with the intention of reducing hospital emergency department referrals for patients presenting for co-occurring (mental health & addictions care) as well as inpatient admissions for such care. After being medically stabilized in observation status, patients can be evaluated to determine the most appropriate level of care. In FY '18 104 patients were treated by this service.
- Developed and implemented a collaborative care project with GBMC in 2017. The goals were to create more capacity for mental health services in alliance with somatic care providers, reduce the stigma often associated with seeking mental health treatment, and reduce ED visits related to mental health conditions. In FY '18 there were 2,031 patients seen in the 10 primary care medical homes operated by GBMC, with a total of 5,875 visits.
- Expanded availability of outpatient. Mental health services for general psychiatric conditions for the child and adolescent population with public insurance by beginning to provide child psychiatry time at no charge to Way Station's Howard County mental health clinic to help meet the need for urgent crisis assessment of children. This service is provided via telemedicine from our Towson location to Howard County. In FY '18 there were 37 active clients who received 68 visits (34 evaluations and 34 follow up visits).

## Methodology Summary and Service Area Profile

**The ACA requires all U.S. not-for-profit hospitals to complete a Community Health Needs Assessment (CHNA) every three years. The purpose of the CHNA is to help identify prioritized community needs that can confirm and/or help focus hospital outreach programs. CHNAs are required to contain the following components:**

- Definition of the Primary Service Area (PSA) market served
- Description of the methodology used to collect a comprehensive list of community needs from people representing a broad range of community interests – especially those of underserved populations
- A prioritized list of community health needs and a description of the methodology used to prioritize them
- A summary of activities conducted since the prior CHNA
- Description of the community resources potentially available to address significant health needs as identified in the CHNA
- NOTE: Each hospital – Towson and Ellicott City – is required to submit its own CHNA document and draft its own Implementation Plan (in response to the IRS Schedule 990H requirements). However, for hospitals that jointly conduct their CHNA research, common activities and/or data “may be substantively identical.”

**Sheppard Pratt used a multi-modal approach to conduct the research for the 2019 CHNA. The CHNA for each hospital included the following:**

- Demographic and other secondary research
- Focus group discussions with key stakeholders – many of whom serve underserved populations (including public health officials)<sup>1</sup>
- One-on-one telephone interviews with key stakeholders
- Discussions with hospital leaders
- Needs prioritization activities

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<sup>1</sup> A list of stakeholders who participated in the leadership group and one-on-one interviews is included in the appendix.

## Service Areas

The market areas for the Towson hospital and the Ellicott City hospital overlap, but each have areas in which they have greater concentrations of patients.

Towson location patients are more highly concentrated in Baltimore County and Baltimore City while Ellicott City has a greater concentration of patients from Anne Arundel County and Howard Counties. Ellicott City also has a higher percent of patients coming from other counties in Maryland than the Towson facility.

**Table 1: Percent of 2018 In-Patient Population by Sheppard Pratt Service Area**

Area	Population	Percent of Maryland Population	Percent of 2018 Towson In-patient Population	Percent of 2018 Ellicott City In-patient Population
Anne Arundel County	564,600	9.4%	10.7%	24.9%
Baltimore County	828,637	13.8%	19.2%	15.1%
Baltimore City	619,796	10.3%	31.2%	18.3%
Howard County	312,495	5.2%	5.6%	9.4%
Harford County	250,132	4.2%	5.4%	2.8%
All other Maryland counties	N/a	N/a	19.4%	25.6%
Non-Maryland	N/a	N/a	8.5%	3.8%
<b>Total</b>			<b>100.0%</b>	<b>100.0%</b>

Data Source: US Census Bureau, [American Community Survey](#). 2013-17. Source geography: Tract

- Sheppard Pratt, in general, and the Towson location in particular have an outstanding reputation and tend to draw patients from a relatively wide geography, as one in three (27.9%) inpatients at the Towson location reside in Maryland counties other than those listed above or from other states. Approximately one-third of Ellicott City patients (29.4%) reside in other areas.
- Approximately one-third (31.2%) of in-patient patients at the Towson facility reside in Baltimore City. Followed by 19.2% in Baltimore County.
- For the Ellicott City facility, a disproportionately high percentage of patients come from Anne Arundel County (24.9% of patients) and other Maryland counties (25.6%).

The Sheppard Pratt Hospital – Ellicott City Campus CHNA will be addressed in a separate report. However, due to the proximity of both service areas, demographics, and other key quantifiable data for the Ellicott City service area is included in the Towson report where helpful.

## Secondary Research Profile

During the secondary research phase of the project, data was collected from four domains:

- Demographics
- Social and Physical Environment Factors
- Risk and Protective Lifestyle Behaviors
- Health Status

As a summary of the secondary research, the Towson service area is diverse in respect to race, income, lifestyle factors, and others. The overall population of the service area is stable, yet the Baltimore City population is contracting while Baltimore County and Harford County is increasing. However, the challenging characteristics of Baltimore City are reflected in community needs, as identified in the research.

The Ellicott City service area is characterized by increasing population, higher income and educational attainment, and healthier lifestyles compared to the Towson service area. Though some demographic and environmental factors are favorable for Howard and Anne Arundel Counties, research respondents identified a clear list of community health needs.

In the following sections that present demographic and other data, information is shown for the Towson and Ellicott City service areas; the Ellicott City data is presented for comparison purposes. The following tables highlight data that provides a profile of the primary areas served by each hospital.

### Demographic Factors

There are over 1.44 million people in Baltimore County and Baltimore City and approximately 1.7 million people in the primary Sheppard Pratt service area.

**Table 2: Population by County**

Towson Facility Service Area			Ellicott City Facility Service Area		
Area	Population	Percent Change since 2000	Area	Population	Percent Change since 2000
Baltimore County	828,637	6.73%	Anne Arundel County	564,600	9.8%
Baltimore City	619,796	-4.64%	Howard County	312,495	15.83%
Harford County	250,132	12.0%			
Maryland	5,996,079	9.01%			

Source: US Census Bureau, Decennial Census. 2000 - 2010. Source geography: Tract.

- From 2000 to 2015, there was a shift in population out of the most urban area (Baltimore City) to other areas.
- Growth was especially strong in Howard and Harford counties where the population grew over 15.83% and 12.0%, respectively.

The population in each facility’s service area includes slightly more females than males. However, for the Towson location service area, the difference is more pronounced. Men and women may have different disease prevalence and healthcare needs.

**Table 3: Gender by County**

Towson Facility Service Area			Ellicott City Facility Service Area		
Area	Perfect Male	Percent Female	Area	Perfect Male	Percent Female
Baltimore County	47.42%	52.58%	Anne Arundel County	49.52%	50.48%
Baltimore City	47.01%	52.99%	Howard County	48.91%	51.09%
Harford County	48.91%	51.09%			
Maryland	48.47%	50.77%			

Data Source: US Census Bureau, [American Community Survey](#). 2013-17. Source geography: Tract

- The population in Baltimore County and Baltimore City is nearly 53% female. The Ellicott City service area and Harford County split is more even – 51% female; 49% male.
- Anne Arundel County has the highest percentage of males.

The Towson service area is highly diverse, especially in Baltimore City where over 62% of the population is African American. The Ellicott City service area is largely white with pockets of diversity. Harford County has the least diversity in the Sheppard Pratt service area.

**Table 4: Race and Ethnicity by County**

Towson Facility Service Area					Ellicott City Facility Service Area				
Area	% Afri. Amer.	% White	% Hispanic	% Lang. Other than English	Area	% Afri. Amer.	% White	% Hispanic	% Lang. Other than English
Baltimore County	27.94%	62.07%	5.12%	2.77%	Anne Arundel County	31.21%	58.28%	7.31%	1.86%
Baltimore City	62.80%	30.29%	4.96%	2.26%	Howard County	18.48%	58.69%	6.51%	2.87%
Harford County	13.47%	79.40%	4.24%	0.88%					
Maryland	29.72%	56.62%	17.60%	3.35%					

Data Source: US Census Bureau, [American Community Survey](#). 2013-17. Source geography: Tract

- Nearly two of three (62.80%) Baltimore City residents are African American while about three of ten (30.29%) are white. Within the Towson service area, Baltimore County has the opposite racial makeup.
- Harford County has the least racial diversity with approximately 80% of the population identifying as white.

Baltimore County, Anne Arundel County, and Howard County each have a median age similar to the Maryland average while the median age is lower (35.0 years) in Baltimore City. Harford County has the oldest median age at 40.6 years.

**Table 5: Median Age and Age Groups by County**

Towson Facility Service Area					Ellicott City Facility Service Area				
Area	Median Age	% under 25	% 25 to 64	% 65 and older	Area	Median Age	% under 25	% 25 to 64	% 65 and older
Baltimore County	39.2	30.81%	39.59%	16.10%	Anne Arundel County	38.5	31.40%	41.97%	13.76%
Baltimore City	35.0	31.39%	43.41%	12.79%	Howard County	38.7	32.69%	41.96%	12.55%
Harford County	40.6	31.23%	39.96%	14.94%					
Maryland	38.5	31.70%	41.09%	14.16%	United States	37.8	32.62%	52.50%	14.87%

Data Source: US Census Bureau, [American Community Survey](#). 2013-17. Source geography: Tract

- The median age in Baltimore City is relatively low (35.0 years). It is substantially lower than Baltimore County (39.2), the state of Maryland (38.5) and the U.S. total (37.8).
- The median age of residents in the Ellicott City facility service area and Baltimore County are near the Maryland state average.
- About one in three people in both service areas are age 25 or younger.
- Baltimore County (16.10%) and Harford County (14.94%) have the highest percentage of individuals 65 years and old. Seniors often have different needs than children and younger adults.

## Social and Physical Environment Factors

The high school graduation rates are similar in each facility’s service area. However, the percentage of those with college degrees is substantially higher in the Ellicott City service area.

**Table 6: Educational Attainment by County**

Towson Facility Service Area						Ellicott City Facility Service Area					
Area	% No H.S. Diploma	% H.S. Grad	% with Some College	% College Grad	% Advanced Degree	Area	% No H.S. Diploma	% H.S. Grad	% with Some College	% College Grad	% Advanced Degree
Baltimore County	8.37%	23.44%	18.83%	21.63%	16.89%	Anne Arundel County	7.44%	21.02%	19.77%	23.25%	17.46%
Baltimore City	15.38%	24.54%	18.95%	15.95%	15.14%	Howard County	4.28%	12.40%	13.91%	29.80%	32.68%
Harford County	6.70%	24.15%	21.65%	20.93%	14.75%						
Maryland	9.59%	22.12%	18.70%	20.89%	18.91%	United States	12.29%	23.00%	20.52%	19.60%	12.18%

Source: ACS 2010-2014.

- Nearly two of five (39.92%) Baltimore City adults have only a high school diploma (24.54%) or less (15.38%).
- About five of seven people (68%) in the Ellicott City service area have at least some college (including those with a degree).
- Howard County is the most educated county with over 62% of the population having at least a bachelor’s degree.
- Approximately 50% of the population in Baltimore City has at least some college or a degree while over 57% of the population in Harford County has at least some college or a degree.

The Ellicott City service area has a substantially higher household income than the Towson location and is higher than the state median. In the respective service areas, there is also a dramatic difference in the percentage of children aged 0-17 who are living in households with income below the Federal Poverty Level (FPL).

**Table 7: Income and Poverty by County**

Towson Facility Service Area					Ellicott City Facility Service Area				
Area	Median HH Income	% under 100% FPL	% Children under 100% FPL	% HH Income \$100,000+	Area	Median HH Income	% under 100% FPL	% Children under 100% FPL	% HH Income \$100,000+
Baltimore County	\$71,810	9.10%	11.46%	34.1%	Anne Arundel County	\$94,502	6.07%	7.35%	47.1%
Baltimore City	\$46,641	22.43%	32.90%	20.0%	Howard County	\$115,576	5.16%	5.79%	58.0%
Harford County	\$83,445	7.47%	9.24%	41.2%					
Maryland	\$78,916	9.68%	12.89%	39.1%	United States	\$57,652	14.58%	20.31%	26.2%

Data Source: US Census Bureau, [American Community Survey](#). 2013-17. Source geography: Tract

- Nearly one-third (32.90%) of children in Baltimore City live under 100% of the FPL.
- More than 34% of Baltimore County households earn annual income of over \$100,000 – nearly double the rate of Baltimore City.
- Over 40% of Harford County residents earn a household income over \$100,000, which is the highest in the Towson service area and over twice the rate of Baltimore City.
- More than half (58%) of Howard County households earn over \$100,000.

## Risk and Protective Lifestyle Behaviors

This indicator reports the number of providers per 100,000 population. The ratios of providers – PCP, dental, and mental health – in Harford County and Anne Arundel County are lower (worse) than the state average.

**Table 8: Provider Rates per 100,000 Population by County**

Towson Facility Service Area				Ellicott City Facility Service Area			
	Rate per 100,000 population				Rate per 100,000 population		
Area	Primary Care Physicians <sup>2</sup>	Mental Health Care	Dental Care	Area	Primary Care Physicians	Mental Health Care	Dental Care
Baltimore County	119.72	251.00	73.27	Anne Arundel County	74.09	153.80	66.47
Baltimore City	176.62	372.70	64.32	Howard County	207.58	251.90	81.68
Harford County	63.17	146.20	61.53				
Maryland	104.50	216.00	74.20	United States	87.80	202.80	65.60

Data Source: US Department of Health & Human Services, Health Resources and Services Administration, [Area Health Resource File](#), 2015.

- Baltimore City has the highest ratio of population to mental health providers in the combined service areas meaning there are an above average number of mental health providers in the city. Baltimore City has more mental health providers than both the state and national average.
- Harford County has the lowest ratio of primary care, mental health, and dental providers than any of the other counties in both service areas. Harford County has nearly half the primary care providers than the state average.

<sup>2</sup> Note: This indicator reports the population per provider. Primary care doctors classified as "primary care physicians" by the AMA include: General Family Medicine MDs and DOs, General Practice MDs and DOs, General Internal Medicine MDs and General Pediatrics MDs.

- Anne Arundel County has slightly more providers than Harford County, but has the lowest ratio of providers in the Ellicott City service area. Both Anne Arundel and Harford Counties are geographically more rural, and the United States is currently facing a physician shortage in rural areas<sup>3</sup>.

Overall, the health status measures that indicate an overweight population in each facility’s service area are similar to the state and the nation. However, the percentage for Baltimore City in the Towson service area is higher whereas the percentage is substantially lower in Howard County. Obesity is a major risk factor for chronic diseases, such as diabetes and heart disease<sup>4</sup>.

**Table 9: Obesity and Physical Activity by County**

Towson Facility Service Area			Ellicott City Facility Service Area		
Area	BMI of 30 or more	% with no leisure physical activity	Area	BMI of 30 or more	% with no leisure physical activity
Baltimore County	30.7%	21.8%	Anne Arundel County	28.8%	18.4%
Baltimore City	33.2%	24.7%	Howard County	23.9%	15.4%
Harford County	29.8%	21.9%			
Maryland	30.0%	20.6%	United States	28.3%	21.6%

Data Source: Centers for Disease Control and Prevention, [National Center for Chronic Disease Prevention and Health Promotion](#). 2015.

Source geography: County

- In Baltimore City, one in three adults have a BMI over 30; and one in four (24.7%) have no leisure physical activity.
- Howard County residents have the lowest percentage of people with BMI over 30 (23.9%) and percent with no leisure physical activity (15.4%).
- Baltimore County, Harford County, and Anne Arundel County rates are similar to the state averages.

<sup>3</sup> Warshaw R. Health disparities affect millions in rural U.S. communities. AAMCNews. <https://news.aamc.org/patient-care/article/health-disparities-affect-millions-rural-us-commun/>

<sup>4</sup> <https://www.cdc.gov/obesity/adult/causes.html>

## Health Status Profile

### General Health Status

The Towson service area has a higher percentage of adults age 18 and older self-report having poor or fair health in response to the question "Would you say that in general your health is excellent, very good, good, fair, or poor?" This indicator is relevant because it is a measure of general poor health status. The self-reported measure for mental health status is also above the state.

**Table 10: Health Status of Residents by County**

Towson Facility Service Area				Ellicott City Facility Service Area			
Area	% Poor or Fair Health	Poor Physical Health Days	Poor Mental Health Days	Area	% Poor or Fair Health	Poor Physical Health Days	Poor Mental Health Days
Baltimore County	13%	3.1	3.7	Anne Arundel County	11%	3.0	3.4
Baltimore City	19%	3.7	4.1	Howard County	9%	2.4	2.9
Harford County	13%	3.3	3.6				
Maryland	14%	3.1	3.5				

Source: 2019 County Health Rankings.

- The Towson and Ellicott City services areas differ in that – consistent with some demographic and lifestyle indicators – Baltimore County, Harford County, and Baltimore City have generally poorer health and poorer physical and mental health days, especially Baltimore City.

## Mortality – Leading Causes of Death

In nearly all cases, the most common causes of death in respective services areas for each facility are consistent with those of the U.S. as a whole: Diseases of the Heart, Cancer (Malignant Neoplasms), Cerebrovascular Diseases, and Chronic Lower Respiratory Disease. However, the rates in the Towson service area are higher, driven in large part by the heart disease rates in Baltimore City.

**Table 11: Leading Cause of Death by County**

Towson Facility Service Area		Ellicott City Facility Service Area	
Area	Deaths per 100,000 <sup>5</sup>	Area	Deaths per 100,000 <sup>6</sup>
<b>Baltimore County</b>	<b>763.8</b>	<b>Anne Arundel County</b>	<b>713.4</b>
Diseases of the Heart	179.3	Diseases of the Heart	158.5
Malignant Neoplasms	167.8	Malignant Neoplasms	153.9
Cerebrovascular Diseases	43.6	Cerebrovascular Diseases	45.8
Accidents / Unintentional Poisoning	39.6	Chronic Lower Respiratory Disease	36.7
Chronic Lower Respiratory Disease	32.0	Accidents / Unintentional Poisoning	33.1
Suicide	9.7	Suicide	12.1
<b>Baltimore City</b>	<b>1033.3</b>	<b>Howard County</b>	<b>525.0</b>
Diseases of the Heart	241.4	Malignant Neoplasms	117.6
Malignant Neoplasms	201.9	Diseases of the Heart	106.2
Cerebrovascular Diseases	54.8	Cerebrovascular Diseases	32.7
Accidents / Unintentional Poisoning	49.7	Accidents / Unintentional Poisoning	24.4
Chronic Lower Respiratory Disease	37.5	Chronic Lower Respiratory Disease	17.8
Suicide	8.3	Suicide	8.0
<b>Harford County</b>	<b>745.0</b>	<b>Maryland</b>	<b>715.3</b>

<sup>5</sup> 2011 – 2013 age adjusted death rates for leading causes, per 100,000 population

<sup>6</sup> 2011 – 2013 age adjusted death rates for leading causes, per 100,000 population

Towson Facility Service Area		Ellicott City Facility Service Area	
Area	Deaths per 100,000 <sup>5</sup>	Area	Deaths per 100,000 <sup>6</sup>
Diseases of the Heart	167.1	Diseases of the Heart	166.4
Malignant Neoplasms	164.1	Malignant Neoplasms	154.5
Cerebrovascular Diseases	36.6	Cerebrovascular Diseases	39.3
Chronic Lower Respiratory Disease	39.0	Accidents / Unintentional Poisoning	34.3
Accidents / Unintentional Poisoning	34.6	Chronic Lower Respiratory Disease	30.4
Suicide	10.7	Suicide	9.3

Source: Neall RR. And Hurt SL. Maryland Vital Statistics Annual Report 2017. Retrieved March 29, 2019, from <https://health.maryland.gov/vsa/Documents/Reports%20and%20Data/Annual%20Reports/2017annual.pdf>.

### Suicide Rates

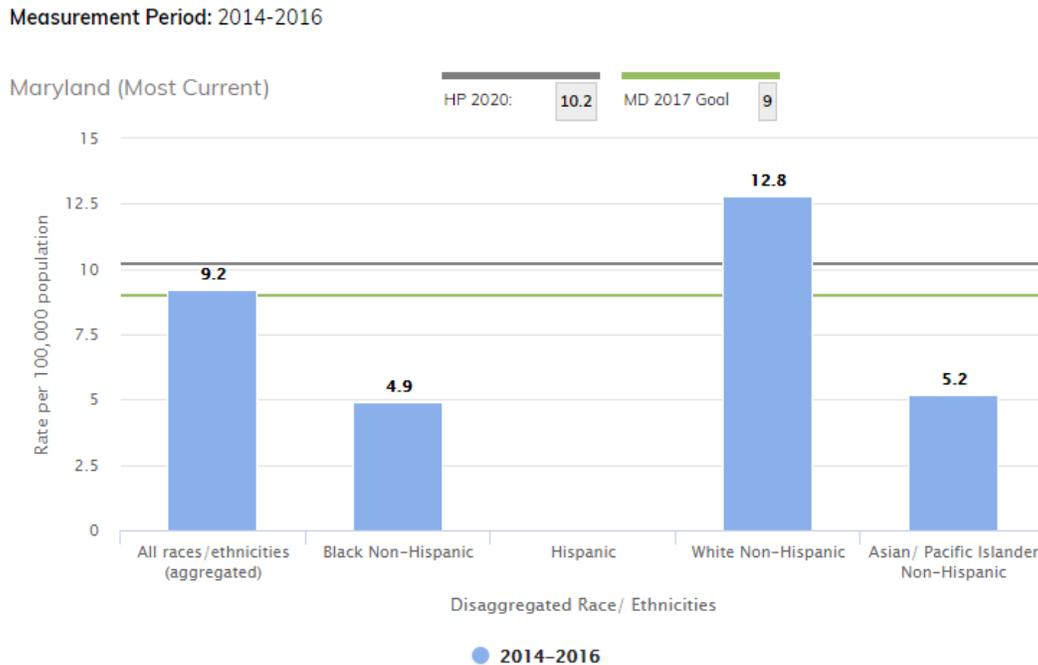
Suicide is a serious public health problem that can have lasting effects on individuals, families, and communities. Suicide is highly correlated with mental health and substance abuse disorders. The State Health Improvement Process<sup>7</sup> (SHIP) indicates that approximately 500 lives are lost each year in the state to this preventable cause of death.

The SHIP provides a framework for accountability, local action, and public engagement in order to advance the health of Maryland residents. The SHIP measures for improvement are aligned with the Healthy People (HP) 2020 objectives established by the Department of Health and Human Services. State and county level data on critical health measures is also provided through the SHIP.

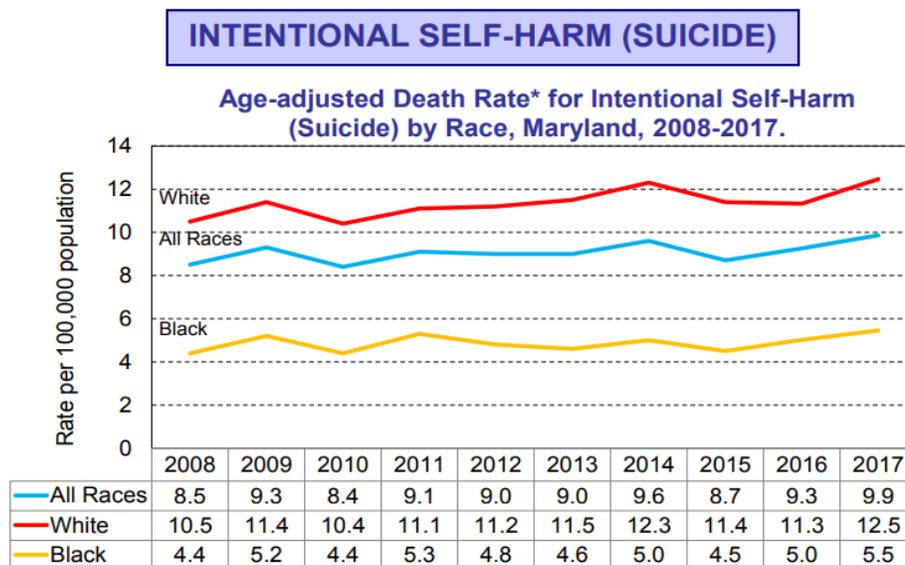
<sup>7</sup> SHIP Accessed March 2019: <http://dhmh.maryland.gov/ship/Pages/home.aspx>

During the measurement period 2014-2016, the statewide rate of completed suicides was 9.2 people per 100,000. The Maryland rate of suicide is already below the national Healthy People 2020 goal of 10.2. All racial groups in Maryland were at, or below, this rate except for non-Hispanic whites where the rate was 12.8, which increased since 2007.

**Figure 1: Suicide Rates by Race and Ethnicity for Maryland, 2014-2016**



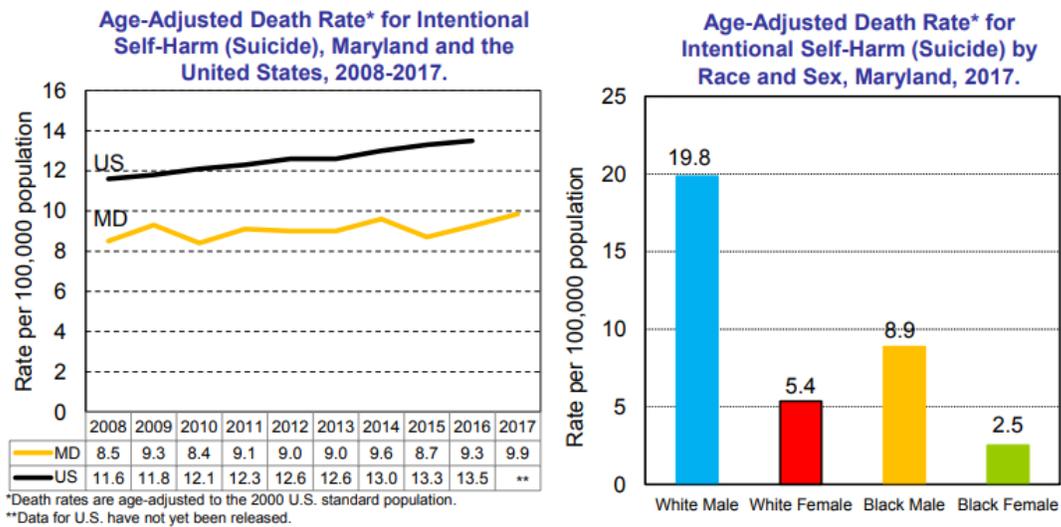
**Figure 2: Suicide Age-adjusted Death Rate by Race for Maryland, 2008-2017**



Source: Neall RR. And Hurt SL. Maryland Vital Statistics Annual Report 2017. Retrieved March 29, 2019, from <https://health.maryland.gov/vsa/Documents/Reports%20and%20Data/Annual%20Reports/2017annual.pdf>.

- The suicide rates in Maryland peaked in 2009 and then reached an all-time low in 2010. Since 2010, the age-adjusted death rate for suicide has steadily climbed for all races before dipping again in 2015. Once again, the death rate for suicide is increasing for all races.
- White people have the highest age-adjusted death rate for suicide, which is over twice that of black people.

**Figure 3: Age-adjusted Death Rate for Suicide**



- Age-adjusted death rate for suicide is significantly higher in white males than white females and black males and females.

## Morbidity

According to the CDC, six in ten adults in the United States have at least one chronic disease. Chronic diseases, such as heart disease, cancer, and diabetes are the leading causes of death and disability in the U.S. Howard County residents have the lowest incidences of cancer, diabetes, and asthma; whereas, Harford County has some of the highest incidence rates.

**Table 12: Percent of the Adult Population with Select Chronic Conditions**

Chronic Condition	Baltimore County	Baltimore City	Anne Arundel County	Harford County	Howard County	Maryland
<b>Arthritis</b>	28.2%	23.1%	23.7%	30.7%	18.6%	23.5%
<b>Asthma</b>	14.3%	17.5%	11.4%	15.3%	13.2%	13.9%
<b>Cardiovascular Disease (angina or coronary disease)</b>	4.6%	3.8%	3.3%	4.0%	2.7%	3.7%
<b>COPD</b>	6.2%	7.6%	5.0%	ND	ND	6.1%
<b>Diabetes</b>	11.9%	10.9%	9.4%	10.8%	7.8%	10.4%
<b>Cancer – Rate per 100,000 Population (all sites)<sup>8</sup></b>	135.7	124.2	134.2	137.0	132.4	131.7

Data Source: Maryland Department of Health. 2015 Maryland BRFSS.

[https://phpa.health.maryland.gov/ccdpc/Reports/Documents/MD-BRFSS/2015\\_MD\\_BRFSS\\_County\\_Level\\_Data\\_Tables.pdf](https://phpa.health.maryland.gov/ccdpc/Reports/Documents/MD-BRFSS/2015_MD_BRFSS_County_Level_Data_Tables.pdf)

- Chronic disease incidence rates in Baltimore County and Baltimore City are generally slightly higher than the state average.
- Ellicott City service area counties rates are lower than the state average except for cancer.

<sup>8</sup> Data Source: [State Cancer Profiles](#). 2011-15

## Behavioral Health Condition Incidence

### Depression and Anxiety Disorder Prevalence

There is a greater concentration of residents in Harford County diagnosed with Depressive Disorders than the other counties and Maryland. Baltimore County has a higher percentage of residents with Depressive Disorders and Anxiety Disorders than Baltimore City.

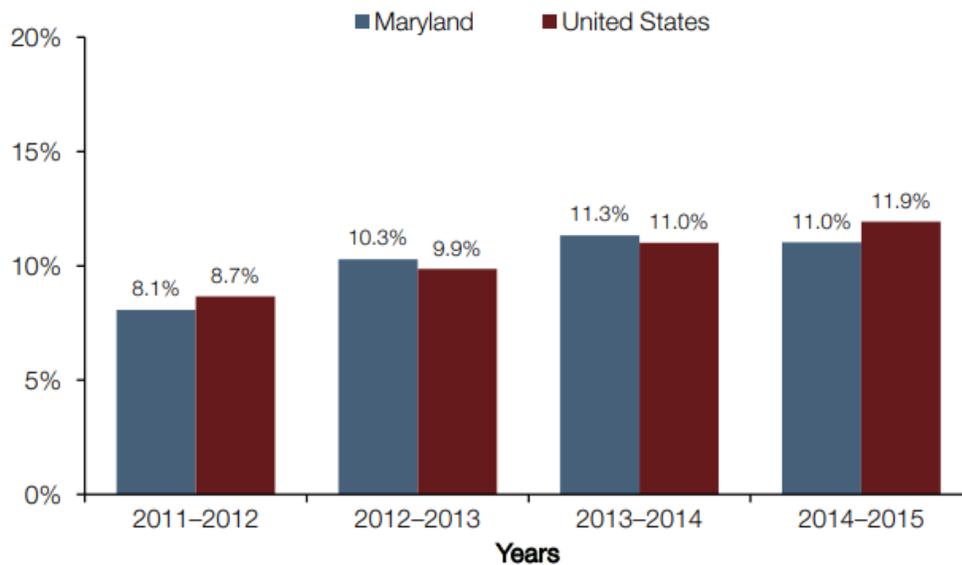
**Table 13: Adult Depression and Anxiety Disorder Prevalence by County**

Towson Facility Service Area			Ellicott City Facility Service Area		
Area	% Depressive Disorder	% Anxiety Disorder	Area	% Depressive Disorder	% Anxiety Disorder
Baltimore County	19.8%	16.7%	Anne Arundel County	14.3%	8.7%
Baltimore City	18.7%	11.6%	Howard County	14.5%	16.7%
Harford County	23.1%	ND			
Maryland	16.3%	13.5%			

Data Source: Maryland BRFSS, 2015.

- Harford County has the highest percentage of residents (23.1%) with Depressive Disorder with Baltimore County coming in second at 19.8%.
- The Ellicott City service area has the lowest concentration of residents with Depressive Disorders, but Howard County is tied with Baltimore County for the highest percentage of residents with Anxiety Disorders (16.7%).
- Baltimore City has the highest percentage of residents with a Depressive Disorder, but a lower percentage of residents with an Anxiety Disorder compared to the state.

**Figure 4: Youth (12 -17 years) Major Depressive Episode Diagnosed in Past Year, 2013-2014**



Data Source: Substance Abuse and Mental Health Services Administration. Behavioral Health Barometer – Maryland Vol. 4. Rockville MD: Substance Abuse and Mental Health Services Administration, 2015.

[https://www.samhsa.gov/data/sites/default/files/Maryland\\_BHBarometer\\_Volume\\_4.pdf](https://www.samhsa.gov/data/sites/default/files/Maryland_BHBarometer_Volume_4.pdf)

- From 2014-2015, 11.0% (50,000) adolescents in Maryland between the ages of 12 – 17 years of age were diagnosed with a Major Depressive Episode in the past year, which is down by 0.3% from 2013-2014. Maryland is below the national percentage of 11.9%.
- Of the adolescents aged 12 -17 with a past year Major Depressive Event, 44.4% (20,000) received treatment for their depression. The national percentage for 2011 to 2015 was 38.9%. Over half (55.6%) did not receive treatment for depression<sup>9</sup>.
- Approximately 64.0% of Maryland children under 18 who were treated or served in the public mental health system reported improved functioning. The national rate of improved functioning was 71.6%<sup>10</sup>.

<sup>9</sup> Substance Abuse and Mental Health Services Administration. Behavioral Health Barometer – Maryland Vol. 4. Rockville MD: Substance Abuse and Mental Health Services Administration, 2015.

[https://www.samhsa.gov/data/sites/default/files/Maryland\\_BHBarometer\\_Volume\\_4.pdf](https://www.samhsa.gov/data/sites/default/files/Maryland_BHBarometer_Volume_4.pdf)

<sup>10</sup> Ibid.

## Incidence of Excessive Alcohol Consumption

Ellicott City service area has both the highest percent of adult excessive drinking (Anne Arundel County) and the lowest percent (Howard County). Baltimore City has the highest percent of adult binge drinking in the Towson service area while Baltimore County and Harford County are above the state average.

**Table 14: Adult Alcohol Consumption by County**

Towson Facility Service Area			Ellicott City Facility Service Area		
Area	% Adult Excessive Drinking	% Adult Excessive Drinking Age-Adjusted	Area	% Adult Excessive Drinking	% Adult Excessive Drinking Age-Adjusted
Baltimore County	15.8%	16.5%	Anne Arundel County	18.7%	19.2%
Baltimore City	17.1%	17.7%	Howard County	15.4%	15.2%
Harford County	15.8%	16.2%			
Maryland	15.4%	15.7%	United States	16.4%	16.9%

Data Source: Centers for Disease Control and Prevention, [Behavioral Risk Factor Surveillance System](#). Accessed via the [Health Indicators Warehouse](#). US Department of Health & Human Services, [Health Indicators Warehouse](#). 2006-12. Source geography: County

- Anne Arundel County has the highest age-adjusted percent of adult excessive drinking (19.2%); whereas, Howard County has the lowest (15.2%).
- Baltimore County, and Harford County fall below the national average (16.9%) and above the Maryland average (15.7%) for age-adjusted percent of adult excessive drinking.
- Approximately 12.1% (55,000) of Maryland young people between the ages of 12-17 years of age reported drinking alcohol within the month prior to being surveyed, which is similar to previous years<sup>11</sup>.

<sup>11</sup> Substance Abuse and Mental Health Services Administration. Behavioral Health Barometer – Maryland Vol. 4. Rockville MD: Substance Abuse and Mental Health Services Administration, 2015. [https://www.samhsa.gov/data/sites/default/files/Maryland\\_BHBarometer\\_Volume\\_4.pdf](https://www.samhsa.gov/data/sites/default/files/Maryland_BHBarometer_Volume_4.pdf)

## Incidence of Illicit Drug Use

Although fewer than five percent of people in Baltimore County and Baltimore City used cocaine or non-medical pain medications in the past year, there is a sizable concentration of drug-related intoxication deaths that have occurred.

**Table 15: Behavioral Health Measures for Baltimore-Towson Metropolitan Statistical Area (MSA) among Persons Aged 12 and Older**

Drug	Baltimore-Towson <sup>12</sup>	Maryland	United States
<b>Substance Use in Past Year</b>			
Any Illicit Drug	14.3%	12.6%	14.7%
Marijuana	10.2%	9.1%	10.7%
Pain Relievers (Nonmedical)	4.4%	3.7%	4.9%
<b>Substance Use or Mental Disorder in Past Year</b>			
Substance Use Disorder	10.4%	8.4%	9.0%
Major Depressive Episode (Aged 18 or Older)	6.7%	5.5%	6.6%
<b>Substance Use in Past Month</b>			
Cigarettes	24.2%	20.7%	24.1%
Binge Alcohol	22.3%	20.1%	23.2%

Data Source: SAMHSA, Center for Behavioral Health Statistics and Quality, National Surveys on Drug Use and Health (NSDUHs), 2005 and 2006 to 2010 (revised March 2012).

- Residents in the Baltimore-Towson MSA have reported using any illicit drug (14.2%) above the Maryland average (12.6%), but below the national average (14.7%).
- The Baltimore-Towson MSA has a higher percentage of residents with a Substance Use Disorder (10.4%) and Major Depressive Episode (6.7%) than both the state and national averages.
- Approximately one in four residents of the Baltimore-Towson MSA have reported using cigarettes (24.2%) and binge alcohol (22.3%) in the past month.

<sup>12</sup> The Baltimore-Towson MSA consists of Anne Arundel County, Baltimore County, Carroll County, Harford County, Howard County, Queen Anne's County, and Baltimore City.

**Table 16: Selected Drug Use, Past Year Substance Use Disorder and Treatment, and Past Year Mental Health Measures in Maryland by Age Group**

Measure	12 - 17	18 - 25	26+
<b>Illicit Drugs</b>			
Past Month Illicit Drug Use	9.05%	28.26%	9.70%
Past Year Marijuana Use	13.76%	39.47%	12.00%
Past Month Marijuana Use	7.13%	26.24%	8.71%
Past Year Cocaine Use	0.35%	6.20%	1.69%
Past Year Heroin Use	0.05%	1.03%	0.52%
Past Year Methamphetamine Use	0.09%	0.32%	0.26%
Past Year Misuse of Pain Relievers	3.05%	7.32%	3.47%
<b>Alcohol</b>			
Past Month Alcohol Use	9.48%	59.08%	57.41%
Past Month Binge Alcohol Use	4.63%	39.58%	23.53%
<b>Tobacco Products</b>			
Past Month Tobacco Product Use	4.45%	26.10%	19.69%
Past Month Cigarette Use	2.68%	19.79%	16.56%
<b>Past Year Substance Use Disorder and Treatment</b>			
Illicit Drug Use Disorder	2.73%	8.01%	1.99%
Pain Reliever Use Disorder	0.47%	0.78%	0.58%
Alcohol Use Disorder	1.44%	10.46%	5.04%
Substance Use Disorder	3.45%	16.84%	6.52%
<b>Past Year Mental Health Issues</b>			
Serious Mental Illness	ND	6.48%	3.51%
Any Mental Illness	ND	23.18%	15.99%
Received Mental Health Services	ND	15.15%	14.04%
Had Serious Thoughts of Suicide	ND	9.04%	3.23%
Major Depressive Episode	12.91	12.93%	6.02%

Data Source: SAMHSA, Center for Behavioral Health Statistics and Quality, National Survey on Drug Use and Health, 2016 and 2017.

- Young people aged 18 to 25 have a significantly higher illicit drug use rates than people ages 12 to 17 and 26 and over, especially for cocaine, heroin, and misuse of pain relievers.

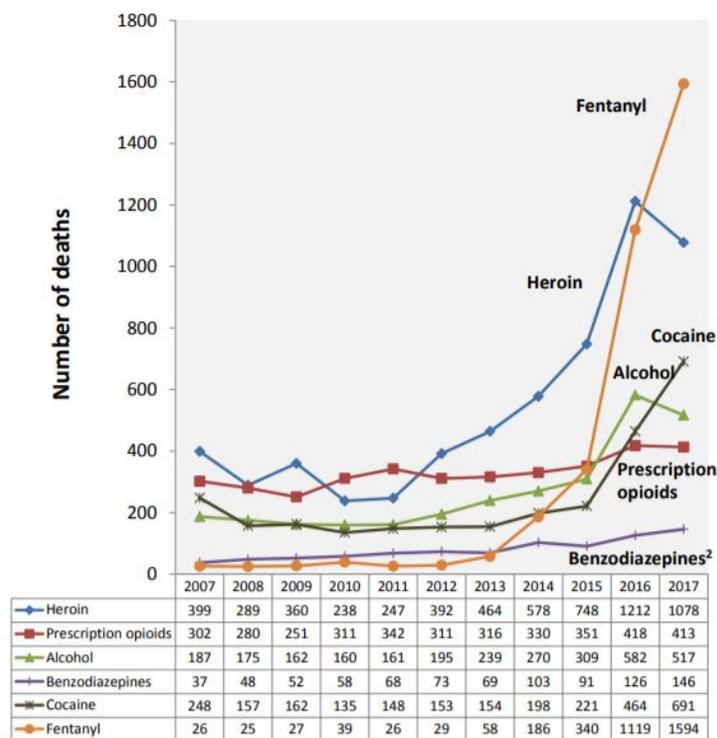
- Tobacco product use is higher in the 18 to 25 age group than the 12 to 17 and 26 and over age groups.
- Young people aged 18 to 25 have significantly higher illicit drug use disorder (8.01%), Alcohol Use Disorder (10.46%), and Substance Use Disorder (16.84%) than the other two age groups.
- Approximately one in four young adults aged 18 to 25 has had a mental illness in the past year compared to approximately one in six adults aged 26 and over.

### Opioid-Related Data

Overall, the number of drug- and alcohol-related deaths have steadily increased from 2007 to 2017 with some decrease in death rates for selected substances in the past year.

**Figure 5: Number of Drug- and Alcohol-Related Deaths by Selected Substance in Maryland, 2007-2017**

**Number of Drug- and Alcohol-Related Intoxication Deaths by Selected Substances<sup>1</sup>, Maryland, 2007-2017.**



<sup>1</sup>Since an intoxication death may involve more than one substance, counts of deaths related to specific substances do not sum to the total number of deaths.

<sup>2</sup>Includes deaths caused by benzodiazepines and related drugs with similar sedative effects.

Data Source: Maryland Department of Health. Unintentional Drug- and Alcohol-Related Intoxication Deaths in Maryland Annual Report, 2017.

[https://bha.health.maryland.gov/OVERDOSE\\_PREVENTION/Documents/Drug\\_Intox\\_Report\\_2017.pdf](https://bha.health.maryland.gov/OVERDOSE_PREVENTION/Documents/Drug_Intox_Report_2017.pdf)

- The number of drug- and alcohol-related deaths in Maryland have increased since 2007, especially in Fentanyl, Heroin, Cocaine, and prescription opioids.
- As of March 19, 2019, Anne Arundel County has experienced 29 fatal opioid-related overdoses with 28% involving Fentanyl and 21% involving a Cocaine/Fentanyl mix. There was a total of 177 overdoses in 2019, which is a 25.6% decrease from 238 overdoses YTD 2018<sup>13</sup>.
- In 2018, Howard County experienced 225 total (fatal and non-fatal) opioid overdoses, which is up slightly from 2017.<sup>14</sup>
- In 2017, Baltimore City had 692 opioid-related deaths<sup>15</sup>. As of September 30, 2018, the citywide Staying Alive program has trained over 34,644 individuals on Narcan treatment and dispensed 3,891 naloxone kits across the city. There are 904 reversals reported in 2018<sup>16</sup>.

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<sup>13</sup> Anne Arundel County Department of Health. Opioid-Related Data. <https://www.aahealth.org/opioid-related-data/>.

<sup>14</sup> Howard County Department of Health. Howard County Opioid Scorecard.

<https://www.howardcountymd.gov/LinkClick.aspx?fileticket=inW6R5vr-M%3d&tabid=2851&portalid=0>

<sup>15</sup> Maryland Department of Health. Unintentional Drug- and Alcohol-Related Intoxication Deaths in Maryland Annual Report, 2017. [https://bha.health.maryland.gov/OVERDOSE\\_PREVENTION/Documents/Drug\\_Intox\\_Report\\_2017.pdf](https://bha.health.maryland.gov/OVERDOSE_PREVENTION/Documents/Drug_Intox_Report_2017.pdf)

<sup>16</sup> Baltimore City Department of Health. Substance Use Disorder. <https://health.baltimorecity.gov/programs/substance-abuse>

## Sheppard Pratt Patient Profile

### Diagnoses – Top 7 Diagnoses FY18 by discharge<sup>17</sup>

The top five most frequent diagnoses at discharge in FY18 were the same in both SPHS facility service areas with only slight variations in overall rank and order.

**Table 17: Top 7 FY18 Diagnoses by Discharge Data by Sheppard Pratt Service Area**

Townson Facility Service Area			Ellicott City Facility Service Area		
Rank	Diagnoses	Number of Discharges	Rank	Diagnoses	Number of Discharges
1	Major Depressive Disorders	1,925	1	Major Depressive Disorders	933
2	Bipolar Disorders	997	2	Bipolar Disorders	759
3	Schizoaffective disorders	485	3	Schizoaffective disorders	308
4	Eating Disorders	263	4	Mood Disorders	268
5	Adjustment Disorders	48	5	Adjustment Disorders	35
6	Anxiety Disorders	40	6	Anxiety Disorders	29
7	Mood Disorders	3	7	Eating Disorders	4
	All others diagnoses	1,871		All others diagnoses	222
	TOTAL	5,632		TOTAL	2,558

- The Towson campus provided treatment to over twice as many individuals than the Ellicott City campus.
- There were twice as many patients discharged with the diagnosis of Major Depressive Disorder (from the Towson campus than the Ellicott City campus.
- Across both SPHS campuses, Major Depressive Disorders and Bipolar Disorders were the top two recurring diagnoses at discharge in FY2018.

<sup>17</sup> SPHS Diagnosis at Discharge, FY18

## Digital / Social Media Data Analysis

Over four billion people across the globe use the internet with approximately 3.2 billion using social media in 2018.<sup>18</sup> The internet and social media has become a powerful channel to share information at home and around the world.

Approximately two-thirds of all U.S. adults (68%) are Facebook users and 75% of those users access Facebook at least daily. YouTube, while not considered a traditional social media platform, has increased in popularity in the recent years with 73% of U.S. adults reported using the platform<sup>19</sup>. Google continues to be the top search engine with 70% of all search market share.

With an abundance of information at an individual's fingertips, one in three Americans have searched online to figure out a medical condition.<sup>20</sup> Of those who seek medical information online, 46% of the individuals sought attention from their medical provider. Reviewing online search interest and social media can help identify the most common, emerging, and surging healthcare-related issues in the local community.

### Approach:

As noted, Crescendo deployed data analysis and reporting techniques based on digital communications resources such as the following:

- Facebook Business Manager
- Meltwater Social Media Insight
- Google Analytics and Trend Analysis

### Goal:

To Better understand community members' interest in mental health and substance use disorder topics by identifying the most common, emerging, and/or surging mental health and substance use disorder issues included in publicly available online discussions.

Digital tools, such as Google Trends, Meltwater Services, and others can help identify mental health and substance use disorder issues that are increasingly pertinent in online discussions across social media and the internet.

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<sup>18</sup> We Are Social. *Digital in 2018: World's Internet User Pass the 4 Billion Mark*. <https://wearesocial.com/blog/2018/01/global-digital-report-2018>

<sup>19</sup> Pew Research Center. *Social Media Use in 2018*. <http://www.pewinternet.org/2018/03/01/social-media-use-in-2018/>

<sup>20</sup> Pew Research Center. *Health Online 2013*. <http://www.pewinternet.org/2013/01/15/health-online-2013/>

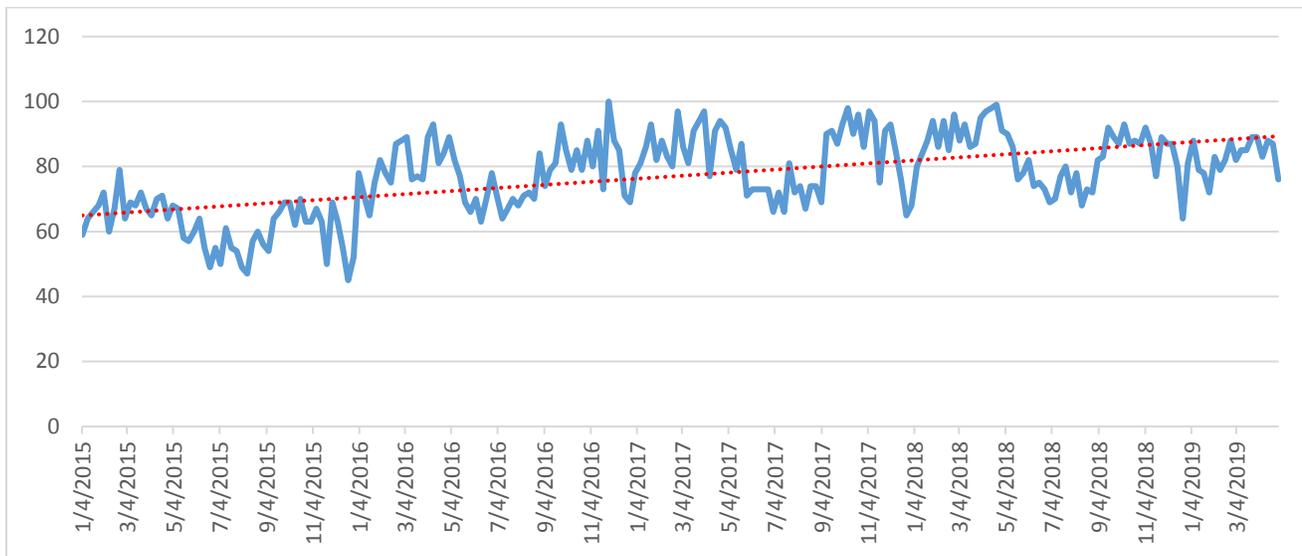
## About Google Trends

Google Trends is a search trends feature from Google that shows how frequently a given search term is entered into Google’s search engine relative to the site’s total search volume over a given time period. Google uses a relative score to measure the index of search activity. The maximum value, or peak popularity, is 100. For example, if the value for “Baltimore” is 100 and the value for “donut” is 50, the number of searches for “donut” is half as popular as “Baltimore.” A score of 0 means there was not enough data for the term.

The following charts depict the search interest for mental health issues in the Baltimore area over a specific time period.

## Mental Health Search Interest Overview

**Figure 6: Google Search Interest Over Time for Mental Health**



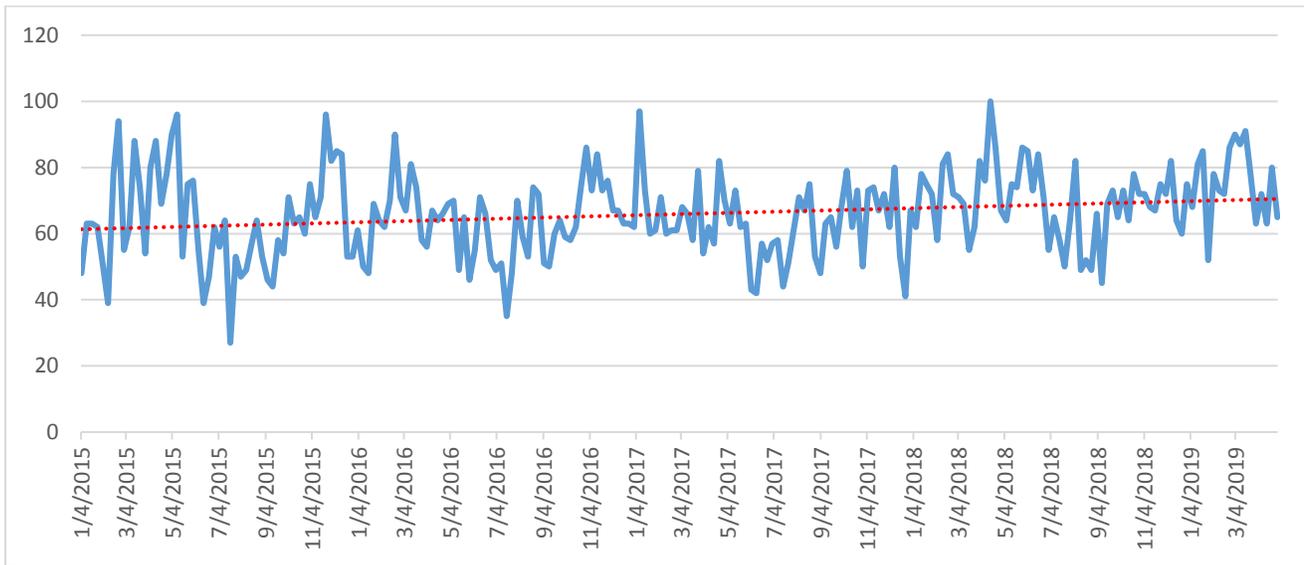
- From January 1, 2015 through April 30, 2019, search interest for “Mental Health” increased approximately 42%, which is above the national increase of 29% for mental health.
- Top search queries for mental health include anxiety, depression, autism, bipolar, and ADHD. The top rising search term, which is the term with the biggest increase in search frequency since January 1, 2015 is “psychiatrist near me.”

## Mental Health Disorders Google Search Interest

Approximately 35% of U.S. adults have reported they have gone online to try to figure out what medical condition they or someone else might have.<sup>21</sup> Search interest for mental health in the Greater Baltimore area has increased above the national trend since the 2015 Community Health Needs Assessment in 2015. Search interest for anxiety has increased above the national average while search interest in substance abuse has decreased slightly during the same time period.

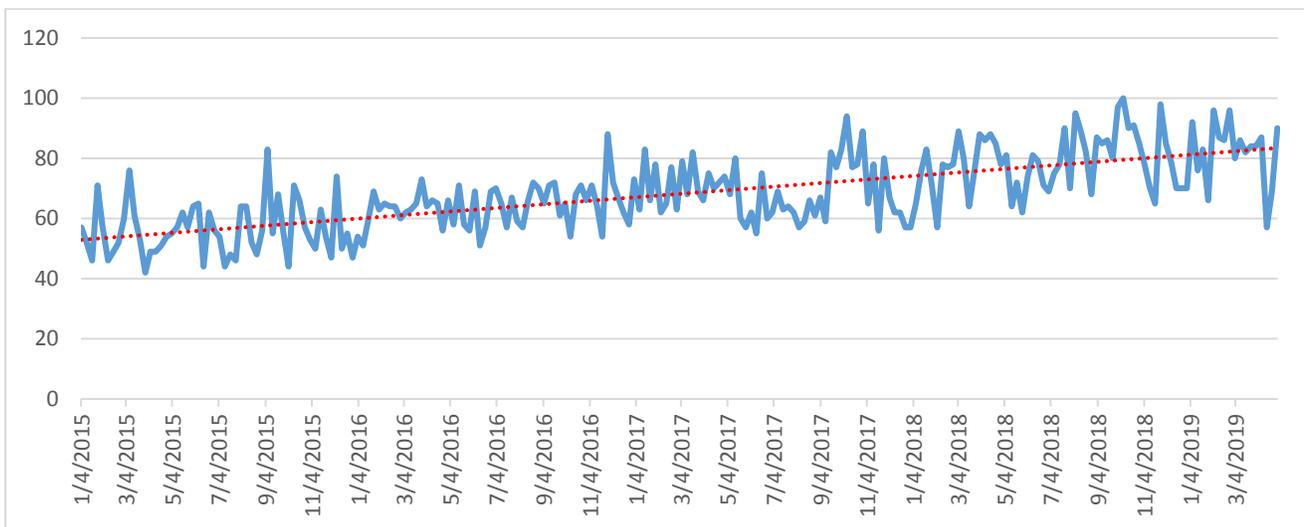
<sup>21</sup> Pew Research Center. Health Online 2013. <http://www.pewinternet.org/2013/01/15/health-online-2013/>

**Figure 7: Google Search Interest Over Time for Depression**



- Search interest for Depression increased approximately 17% from January 1, 2015 through April 30, 2019, which is below the national increase of 22%.
- Depression as a search term was most popular in Stevensville, Towson, Pasadena, Lake Shore, and Catonsville.
- Top search terms for Depression include depressions, anxiety, depression symptoms, and bipolar. The top two rising search terms are ketamine and bupropion.

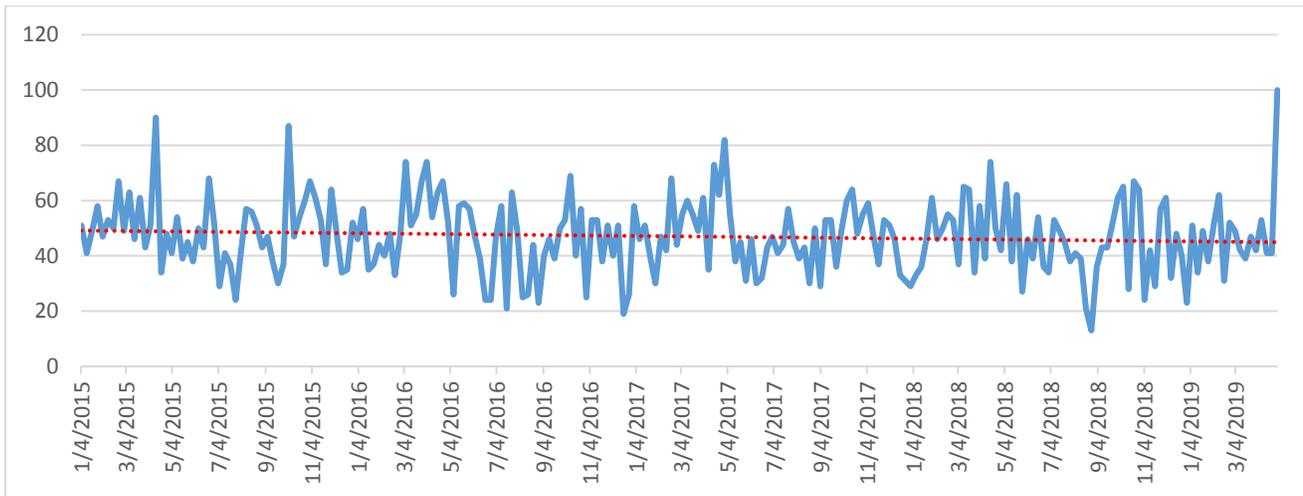
**Figure 8: Google Search Interest Over Time for Anxiety**



- From January 1, 2015 through April 30, 2019, search interest for Anxiety increased 63% in the Baltimore area. The Baltimore area is slight above the national increase rate of 57% during the same time period.
- Anxiety has a search term was most popular in Bel Air, Towson, White Marsh, Bel Air North, and Arnold.

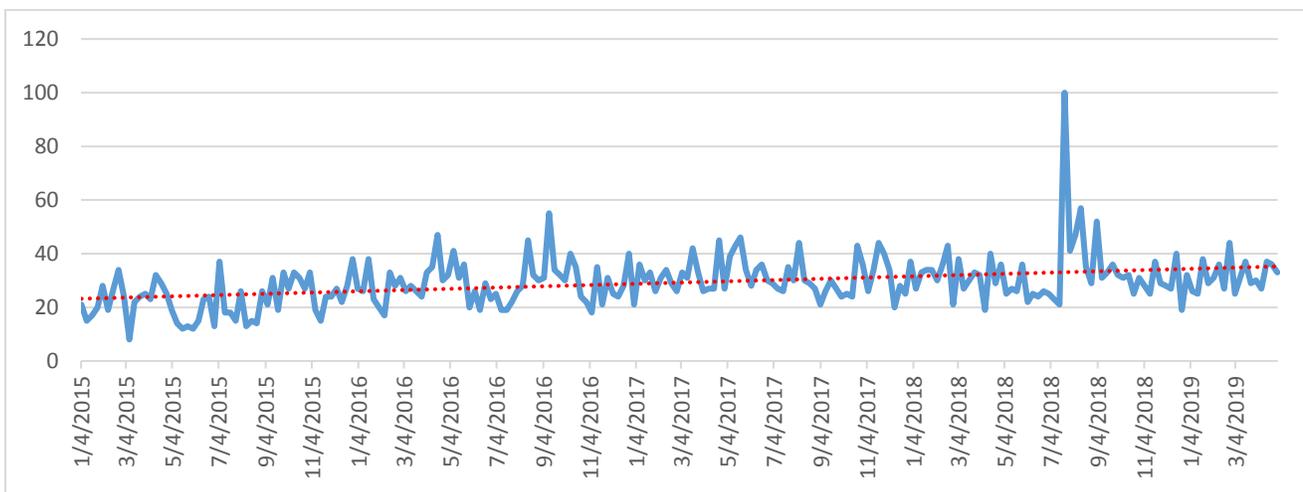
- The top search terms include anxiety symptoms, social anxiety, depression, anxiety medication, and anxiety attack.
- The top rising search terms include CBD oil, medical cannabis, and weighted blanket indicating that people are researching alternative treatment options for anxiety.

**Figure 9: Google Search Interest Over Time for Substance Abuse**



- Search interest for Substance Abuse decreased by approximately 8% overall from January 1, 2015 through April 30, 2019 although there is great variability in search interest.
- Search interest was highest in Towson, Baltimore, Catonsville, and Columbia where a high percentage of substance abuse services are location in the region.

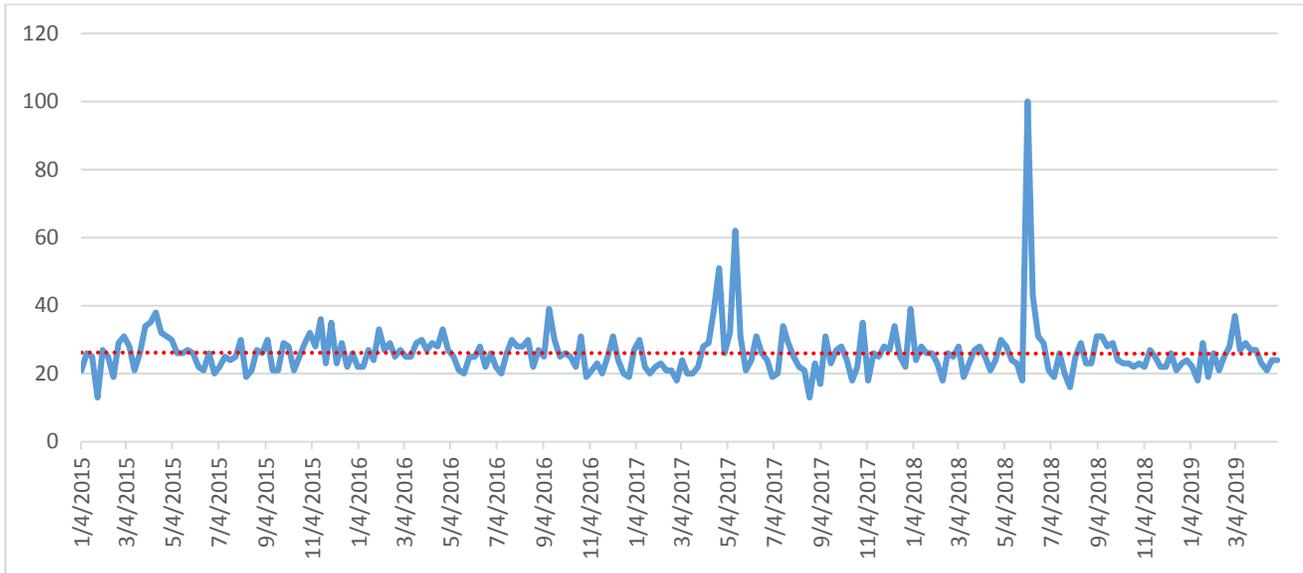
**Figure 10: Google Search Interest Over Time for Drug Overdose**



- From January 1, 2015 through April 30, 2019, search interest for drug overdose increased approximately 64%.
- Search interest reached an all-time high during the week of July 22, 2018 due to the high-profile Heroin overdose of the popstar, Demi Lovato.

- Search interest for the term “drug overdose” was highest in Bel Air South, Glen Burnie, Westminster, Catonsville, and Baltimore.
- The top search terms include overdose, drug overdose, heroin overdose, fentanyl, and Demi Lovato.

**Figure 11: Google Search Interest Over Time for Suicide**



- Search interest for Suicide has remained relatively flat from January 1, 2015 through April 30, 2019 following similar national trends.
- Search interest for the term “suicide” reached peaks around May 2017 and June 2018. The May 2017 peak is due to the release of the movie The Suicide Squad. The June 2018 peaks are due to the high-profile suicides of Kate Spade and Anthony Bourdain.
- Top search terms include suicidal, suicide hotline, suicide prevention, and suicide.

## Summary

The digital analysis of Google search interest trends in the Greater Baltimore area reveals some positive correlations between mental health disorder Google searches and diagnoses. Since the previous Community Health Needs Assessment in 2015, Google search interest for anxiety has increased 63%, which is higher than the national trend. Search interest for depression has also increased during the same time period, but below the national trend. Interestingly, search interest popularity for both depression and anxiety are highest in cities mainly in Baltimore and Harford Counties.

The positive correlation between Google search increase for anxiety and depression may indicate two things: 1) awareness has increased and more individuals are searching for symptoms and prevention information, and 2) mental health stigma may be preventing individuals from seeking treatment and information from their medical providers and are thus turning to the internet for information especially in more affluent suburban areas. For example, top search terms for anxiety included alternative treatment methods like CBD oil and weighted blankets.

Google Trends data can also help Public Health departments monitor search interest for specific diseases or lifestyle behaviors and develop strategies and programs to address the public health issue. For example, new research recently published in the Journal of the American Academy of Child & Adolescent Psychiatry discovered a significant increase in monthly suicide rates among U.S. youth aged 10 to 17 years after the release of the Netflix show, 13 Reasons Why, in 2017.<sup>22</sup> Public health officials can watch trend data to help develop targeted campaigns to curb harmful behaviors or to create awareness campaigns around mental health stigma.

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<sup>22</sup> Bridge JA et al. Association Between the Release of Netflix's 13 Reasons Why and Suicide Rates in the United States: An Interrupted Times Series Analysis. Journal of the American Academy of Child & Adolescent Psychiatry, Volume 0, Issue 0. [https://www.jaacap.org/article/S0890-8567\(19\)30288-6/fulltext](https://www.jaacap.org/article/S0890-8567(19)30288-6/fulltext)

## Primary Research

### Research Approach

Primary research for the Sheppard Pratt Hospital CHNAs included six focus group discussions and 15 one-on-one interviews with key stakeholders from the target service areas. Public health officials, sub-sector specific experts, directors of service organizations engaging the underserved populations, and others were included in the research.

#### **Focus Group Discussions**

The purpose of the focus groups was to gather the insights and perspectives from a diverse set of key stakeholders in the Towson and Ellicott City services areas. Discussions were designed to explore topics such as the following:

- Behavioral health needs that they see most frequently in their professional setting, and in general
- Structural, system-level, and policy issues that impact behavioral health
- High priority community needs that Sheppard Pratt may be able to have an impact on

#### **Key Stakeholder Interviews**

The one-on-one interviews provided the opportunity for more in-depth discussion of behavioral health and substance use issues with local experts. In many instances, interviewees were able to provide granular insight regarding health needs such as identifying counties in which the need is most acute, population sub-groups most highly impacted by particular behavioral health issues, and insight regarding effectiveness and operational aspects of current programs. Interviewees were able to speak of their perceived needs in both Sheppard Pratt hospital service areas.

The results of the focus groups and the one-on-one interviews include comments about, and lists of, high priority behavioral health – as well as observations about structural aspects of community health. The research approach allowed Sheppard Pratt to “cast a wide net” and include experts’ insights on a range of behavioral health and needs issues.

### Initial Qualitative Research Findings and Comments

In many cases, insights and comments could be attributed to specific service areas (i.e., Towson or Ellicott City); however, in others, participants’ feedback referred to the combined region. The material below includes the summary of high-level system and contextual observations from focus group discussions and interviews, and a review of detailed needs as identified by participants. Based on this material, the service area’s highest priority needs are listed below.

## Top Six Community Prioritized Needs

### Access to appropriate care

- Expanded capacity in select services.
- Enhanced transitions of care and “warm handoffs” to help improve the perceived quality of care.
- Increased number of peer support specialists embedded in the healthcare system.
- Support for logistics and other issues impacting the ability of patients to take advantage of existing services (e.g., transportation, finances, convenient hours of operation, and others).

### Enhanced crisis service options

- Greater availability of crisis service providers.
- More widely available information required to access services.
- Enhanced efficiency of the referral networks or points to get initial help.

### Awareness and prevention

- Expanded knowledge of Sheppard Pratt and community service provider locations, capabilities, and access information (e.g., hours of operation, insurances accepted, types of care offered, etc.).
- Increased efforts to reduce stigma.

The following section provides some greater detail – along with illustrative quotes – for the needs categories noted in the table above.

## Access to Appropriate Care

### Access to Providers and Services

#### **There is a perceived need for more providers especially those with specialized skills and populations.**

Many focus group participants and community stakeholders indicated there is limited access to providers and services, especially for youth, in the Ellicott City service area. One community stakeholder stated that the average age of depression and anxiety diagnoses are getting younger, yet we don't have enough providers and services for this demographic. Many families obtain services at the Way Station, a SPHS-affiliated program, but some families struggle with finding the right provider or staying in the program due to its stringent policies. Additionally, several parents expressed concerns that the Ellicott City facility is not currently accepting youth due to construction and have to travel to the Towson facility for youth services.

- *“We use Way Station but getting in to see a psychiatrist is difficult. If you miss one appointment, you're out and there is a long waiting list if you want to get back in.”*
- *“We don't like the therapy or counseling at Way Station. We drive across East Baltimore to receive care for counseling.”*

- *“Ellicott City isn’t taking youth at the moment. We have to drive to Towson for care.”*
- *“There are no child substance abuse services in Anne Arundel County.”*
- *“Sheppard Pratt has the only neuro beds for children in the state, but there are not enough.”*
- *“Maryland is lacking intensive community-based services for kids, such as residential placements. They are hard to come by in the state.”*
- *“Acuity is going up and ages are going down for depression and anxiety. We need better early detection and prevention of suicide too.”*

## Care Coordination

### **Transitions of care and “warm handoffs” help improve the perceived quality of care.**

Several parents discussed the difficulty of coordinating care for their child between all their providers, the school, and various other social service organizations in one focus group. Recently, Howard County has restarted their Local Care Teams (LCT) program to help families coordinate care between various providers. A few of the parents have participated in this program and found it helpful, but they did indicate that the LCTs only met at set times during the months so working parents might struggle with taking time off from work to attend these meetings. Sheppard Pratt providers do not currently attend these meetings.

- *“Howard County has restarted Local Care Teams (LCT) again. During these meetings, the family and providers from many organizations and departments come together to discuss the care of the child.”*
- *“There is no follow-up after discharge from Sheppard Pratt.”*

### **Peer support specialists have been helpful with transitions of care and providing families with additional resources.**

Howard County and Anne Arundel County have started to utilize peer support specialists to help with care coordination and crisis services within the counties. Howard County General Hospital recently hired two behavioral health navigators that are embedded in the hospital. Several parents and community stakeholders spoke highly of these behavioral health navigators. One parent said the navigator has been following up with her by phone weekly after her son was hospitalized several weeks prior.

- *“Howard County General Hospital hired two behavioral health navigators who work with individuals in the hospital with mental health issues. They help the patient connect with resources. We’ve heard great things about them so far.”*
- *“We are trying to use more peer support specialists in Anne Arundel County.”*

## Addiction Services (Capacity)

### **There is a continuing, growing need for services designed to address substance misuse issues.**

The opioid epidemic is not just isolated to Baltimore City, but many of the addiction services and providers are located in the city. Several community stakeholders indicated that there are limited substance abuse services in both Anne Arundel and Howard counties. Baltimore City has developed a Bad Batch text alert

system that has helped county health departments and providers stay informed on tainted drugs and locations of overdoses and to prepare for any increased overdoses in their area.

- *“Baltimore City has a Bad Batch text alert system that lets us know statewide if there is a bad batch of opioid and heroin. It lets people know that there are a high level of overdoses and not to buy in that area.”*
- *“The local fire and police departments are trained and carry naloxone to help with overdoses.”*
- *“We can’t take any substance use intakes after 5 pm on Friday or over the weekends in Anne Arundel County. Sometimes insurance is an issue for access.”*

### Financial / Insurance Reimbursement (Logistics)

#### **Financial and health insurance issues were often cited as major contributors to access to care challenges.**

Focus group participants and community stakeholder indicated that insurance is a majority issue for many people in the community. Howard and Anne Arundel counties are two of the wealthiest counties in the country with a majority of the residents holding private insurance. In both counties, there is a limited number of providers who accept Medicaid. Additionally, many stakeholders recognized that most private insurance plans don’t provide robust behavioral health coverage.

- *“We have limited Medicaid providers in Howard County.”*
- *“A few years ago, we have a major issue with access to psychiatrists for people on private insurance. No one was taking any insurance because of the rep tape it took to get reimbursed. The psychiatrists were either denied their claims or had to wait a long time to receive reimbursement payments.”*
- *“There is limited providers and availability who accept Medical assistance in Anne Arundel County.”*
- *“Anne Arundel County is a wealthy county with about 70% of its residents on private insurance. Private insurance isn’t as robust as public insurance when it comes to mental health coverage.”*

### Transportation (Logistics)

#### **Safe transportation to mental health and SUD treatment services for children is a challenge.**

Several parents recognized that it can be difficult to safely transport a child in crisis to the Towson facility from the Ellicott City service area. One parent mentioned that you can request medical transport, but that information was not widely known to the parents in the focus group or the community.

- *“We live in Howard County. If my child is in crisis, I have to bring him to the Towson facility. I’m scared to drive him there as he could hurt himself or me on the way.”*

### Understanding of “First Steps” (Logistics)

#### **Awareness of mental health entry points is needed for both community members and healthcare providers.**

The healthcare system, especially the mental health system, can be confusing to navigate. One community stakeholder expressed many parents struggle with finding and accessing behavioral health services for this child. More awareness on services available is needed for both the community and healthcare providers.

- *“Many people don’t know how to access services that currently exist or know what does exists. We often hear parents with a child with behavioral health issues feel frozen as they don’t know what to do.”*

## Housing (Logistics)

### **Specialized housing, especially for seniors and residential rehabilitation and recovery homes, are needed in more rural communities.**

Housing is broad issue that was commonly reported as a need in the local community. Specialized housing, such as residential rehabilitation facilities and recovery homes, are needed in the Ellicott City service area. Additionally, Howard and Anne Arundel counties are aging communities and isolation is becoming an issue in the senior population, which could lead to mental health issues.

- *“Housing is an issue across the board. There are not enough beds for residential rehabilitation for the mentally ill. The wait lists are long.”*
- *“Isolation is a huge issue for seniors, especially during a time of transition. Many experience loneliness and depression.”*

## Enhanced Crisis Service Options

### Crisis Services (Capacity)

#### **Increased capacity of mental health and/or SUD crisis services is an ongoing need.**

Most focus group participants and community stakeholders reported the lack of available crisis services within the service area. While several organizations in Howard and Anne Arundel counties offer some form of crisis services, the programs are understaffed, underfunded, and awareness of the programs in the communities is limited. Howard County utilizes peer support specialists in crisis services and many community stakeholders have spoken positively about peer support specialists.

- *“Grassroots has been helpful with crisis support in Howard County, but we could use more.”*
- *“There is not enough crisis stabilization in Howard County. We just received funding through the State to implement a new crisis service in the county. We’re working on it now.”*
- *“We do have some crisis programs with our Safe Stations program in Anne Arundel County. People can walk into any fire or police station and ask for help.”*
- *“We have six full-time peer support staff roles across the county in several organizations and the Health Department. They have on-call services with the hospital, fire and police department. They often help with medication and eviction issues.”*

## Prevention and Awareness

### Self-Awareness of Issues (Awareness)

#### **Community organizations who are aware of issues and trends in the community are more likely to initiate proactive prevention and awareness campaigns.**

One key community stakeholder indicated the need to be aware of trends in the local community so they can initiate prevention and awareness campaigns and services earlier. For example, one organization saw a rise in teen suicides and acted quickly to create a taskforce and tackle the issue head on.

- *“We started seeing a rise in youth suicides in the county, so we brought back the Mental Health Taskforce to work on awareness and prevention in the school system. We utilize our taskforces in the county to get work done too.”*

### Stigma Reduction (Awareness)

#### **In focus groups and interviews, participants recognized that individuals seeking treatment for mental health and substance use disorders often may not seek help because of stigma-related issues.**

Mental health and substance abuse stigma are still rampant in the Ellicott City service area. The local Health Departments have run public service awareness campaigns to help curb the stigma. One community stakeholder indicated that substance abuse stigma may be higher in older adults who may be ashamed to admit they have a substance abuse issue.

- *“Need education and awareness around medication management for older adults. Many older adults don’t realize they have a substance use issue or are ashamed that they do so they don’t speak up about it.”*
- *“Stigma is very much an issue amongst substance use addiction and mental health.”*

### Knowledge of Available Resources (Awareness)

#### **Awareness of various services in a community is an ongoing need.**

Community stakeholder recognized the need for greater awareness around available resources. Many health departments and organizations stated they had an available resource guides but agree that most people don’t know that it exists or even where to find it. Additionally, Howard County Health Department stakeholders felt that stigma played a role in people seeking out their services as many people perceive Health Departments are for the “poor people.”

- *“Awareness of services is a huge issue. Howard County Health Department offers a lot of services, but people aren’t aware of them. We also have issues with stigma. People think it’s only poor people who go to the Department of Health for services, but anyone can come and use our services.”*
- *“Resources are here, but people don’t know they exist.”*

## Summary

Based on the qualitative research (i.e., focus group discussions, stakeholder interviews, and leadership meetings), secondary data analysis, and the digital and social media research, community needs were identified and categorized as access to appropriate care, enhanced crisis service options, and prevention and awareness. The needs identified during the CHNA research process were used in the needs prioritization process in the following section.

## Needs Prioritization

The needs prioritization process was a two-stage initiative that included (Stage 1) an online quantitative and qualitative survey followed by leadership group meeting and a second quantitative survey (Stage 2).

Leading up to the Stage 1 survey, the results of the secondary data research and the qualitative research from the focus group discussions and stakeholder interviews led to a list of 35 discreet or overlapping needs. Six Sheppard Pratt Health System employees who were part of the leadership group took part in an online survey in which they were asked to rate each of the 35 needs on a 7-point scale (with 7 = the greatest need for more focus). They were also asked to provide qualitative feedback on the needs in the community.

### Stage 1: Prioritization of Needs

Analysis of the Stage 1 survey identified three categories of needs:

- Access to appropriate care
- Enhanced crisis service options
- Prevention and awareness

Respondents were asked to rate the 35 needs within three categories of needs. The median scores of the full list of needs evaluated in the Stage 1 survey appear in Appendix C. Expanding access to primary care and increasing awareness of existing services and community organizations tied as the top need.

## Stage 2: Prioritization of Needs

Stage 2 of the prioritization process included an in-depth workshop-style meeting with the six members of the leadership group. Prior to the meeting, analysis of the Stage 1 survey (as well as the prior secondary and primary research) led to the categorization of needs into a rank order list (below) and three general categories, (i.e., Access to appropriate care, enhanced crisis service options, and prevention and awareness). The workshop-style Stage 2 meeting embedded activities designed to evaluate the three categories, review individual community needs, and – importantly – help develop tactical initiatives by which higher-priority needs can be addressed.

### Prioritized Needs

Based on input from the Leadership Group meetings; analysis of local, State of Maryland, and federal quantitative data; community input; and, the needs evaluation process, the prioritized list of community needs is shown in the table below.

Top Community Needs – Ellicott City	
Rank	Community Needs
1	Improve care coordination between inpatient and outpatient providers
2	Increase Mental Health First Aid training to first responders, schools, public safety, and others
3	Expand hours at the Crisis Walk-in Clinic
4	Create a parent support group for parents with children with SMI
5	Improve provider information on provider network directory lists
6	Increase Sheppard Pratt's regional leadership role by coordinating disparate community services
7	Improve regulation around addiction counseling
8	Increase residential options for teens with co-occurring mental health and behavioral issues
9	Provide Narcan and Evzio training to key community members (i.e., police, fire, schools)
10	Engage in system-level / regulatory / policy change advocacy
11	Increase access to family therapy for families
12	Create a mobile crisis response team
13	Expand wrap-around services for the chronically mentally ill

## Implementation Strategy Considerations

Also, during a Sheppard Pratt Leadership meeting, participants worked collaboratively to build the foundation for Implementation Plan activities (to be conducted after from this CHNA). Group members undertook efforts to identify an initial list of activities designed to address high priority need categories and several detailed opportunities for improvement. A summary of potential next steps to support development of the Implementation Plan is listed below.

- Develop a list of existing programs and how they impact (or are impacted by) higher-priority needs.
- Develop a criterion by which Sheppard Pratt evaluate which community needs to address (and how) and which ones to not address (and the rationale to support the decision).
- Establish a small workgroup that can evaluate each of the community needs based on the evaluation criteria and develop specific strategies to include in the Implementation Plan.
- Draft the Implementation Plan according to requirements and then work to further implement strategies to better meet community members' needs.

## Appendix

- Appendix A: Sheppard Pratt Leadership Group
- Appendix B: Stakeholder Interview Participants
- Appendix C: List of 35 community needs
- Appendix D: Resource Guide

## Appendix A: Sheppard Pratt Leadership Group

The Sheppard Pratt Leadership Group consisted of key staff members of the Sheppard Pratt Health System. The Leadership Group provided insights during two group discussions and the needs prioritization process.

Sheppard Pratt Leadership Group	
Name	Position
Jennifer Wilkerson	VP and Chief Strategy Officer
Laura Lawson	VP and Chief Nursing Officer
Jeff Grossi	Chief of Government Relations
Dr. Ben Borja	Medical Director, Crisis Services & Residency Training
Armando Colombo	Executive VP and Chief Operating Officer
Jeff Richardson	VP and Chief Operating Officer, Sheppard Pratt Community Services
Antonio DePaolo	Chief Transformation Officer

## Appendix B: Community Stakeholder Participants

Fifteen community stakeholders participated in stakeholder interviews to provide valuable insights into the health needs of their local communities and populations their organizations serve in the Greater Baltimore area.

Community Stakeholder Participants	
Name	Organization
Dr. Gregory W. Branch	Baltimore County Department of Health
Billie Penley	Anne Arundel Department of Health
Lt. Michelle Denton	The Listening Place
Jane Gehring	Child Advocacy Center
Ann Geddes	Maryland Coalition of Families
Barbara J. Bazron, PhD	Maryland Behavioral Health Administration
Susan B. Hansell	Maryland Children’s Alliance
Adrienne Mickler	Anne Arundel County Mental Health Agency
Rebecca Rienzi	Family Network – Pathfinders for Autism
Adam Rosenberg	Child Abuse Center
Dr. Joshua Sharfstein	John Hopkins Hospital
Roe Rodgers-Bonaccorsy	Howard County Mental Health Authority
Crista Taylor	Baltimore City Behavioral Health System
Mallory Canami	Harford County Health Department
Bernard Gyebi-Foster	Tuerk House

## Appendix C: Community Needs

The following table is the results of the first round of the Needs Prioritization survey containing the score and rank of the 35 identified community needs.

Rank	Community Need	Score
1	Improve care coordination between inpatient and outpatient providers	6.75
2	Increase Mental Health First Aid training to first responders, schools, public safety, and others	6.75
3	Expand hours at the Crisis Walk-in Clinic	6.50
4	Create a parent support group for parents with children with SMI	6.50
5	Improve provider information on provider network directory lists	6.50
6	Improve regulation around addiction counseling	6.25
7	Increase residential options for teens with co-occurring mental health and behavioral issues	6.20
8	Increase awareness of services offered at what SPHS locations	6.00
9	Provide Narcan and Evzio training to key community members (i.e., police, fire, schools)	6.00
10	Engage in system-level / regulatory / policy change advocacy	6.00
11	Increase access to family therapy for families	5.75
12	Decrease stigma around mental health and substance use disorders	5.75
13	Provider greater support for community efforts to increase general awareness of services available in the community	5.75
14	Provide advocacy around mental health and substance use disorders (i.e., opioid epidemic)	5.50
15	Increase approved patient data sharing across all providers	5.50
16	Increase access to outpatient services for people in rural areas	5.50
17	Expand wrap-around services for the chronically mentally ill	5.50
18	Increase the consistency and thoroughness of inpatient discharge follow-up	5.25
19	Increase the number of therapists trained in trauma-informed care	5.25
20	Develop a trauma-informed care training program for providers in Maryland	5.25
21	Increase number of mental health-trained providers in hospital Emergency Departments across the state	5.25

22	Work with community service providers and Sheppard Pratt sites to increase awareness of services available at county health departments	5.25
23	Increase number of peer support specialists in hospital and outpatient settings	5.25
24	Create a mobile crisis response team	5.00
25	Increase access to outpatient Dialectical Behavioral Therapy (DBT) for children and adolescents	4.75
26	Increase the number of providers who accept Medicaid clients	4.75
27	Provide expanded detox center capacity in Baltimore and Baltimore County	4.75
28	Increase coordination between Sheppard Pratt and Department of Social Services (DSS)	4.75
29	Increase accessibility to the Way Station program	4.50
30	Provide additional parent education classes at non-traditional hours for working families	4.50
31	Provide safe transportation to Towson facility for children in crisis	4.50
32	Improve medication management education for older adults	4.50
33	Increase services for new moms with substance use disorders	4.50
34	Increase the number of providers who accept private insurance clients	4.25
35	Create services to reduce senior isolation	3.75

## Appendix D: Resource Guide

Sheppard Pratt's Resource Guide is available online at <https://www.sheppardpratt.org/for-patients-supports/>.