Q1.
COMMUNITY BENEFIT NARRATIVE REPORTING INSTRUCTIONS

The Maryland Health Services Cost Review Commission (HSCRC or Commission) is required to collect community benefit information from individual hospitals in Maryland and compile it into an annual statewide, publicly available report. The Maryland General Assembly updated §19-303 of the Health General Article in the 2020 Legislative Session (HB1169/SB0774), requiring the HSCRC to update the community benefit reporting guidelines to address the growing interest in understanding the types and scope of community benefit activities conducted by Maryland's nonprofit hospitals in relation to community health needs assessments. The reporting is split into two components, a Financial Report and a Narrative Report. This reporting tool serves as the narrative report. Detailed reporting instructions have been distributed to your hospital's community benefit contacts, and additional copies can be requested at the email below.

In this reporting tool, responses are mandatory unless specifically marked as optional. If you submit a report without responding to each question, your report may be rejected. You would then be required to fill in the missing answers before resubmitting. Questions that require a narrative response have a limit of 20,000 characters. This report need not be completed in one session and can be opened by multiple users.

For technical assistance, contact HCBHelp@hilltop.umbc.edu.

Q2. Section I - General Info Part 1 - Hospital Identification

Q3. Please confirm the information we have on file about your hospital for the fiscal year.

	Is this information correct?		If no, please provide the correct information here:
	Yes	No	
The proper name of your hospital is: Anne Arundel Medical Center	●	○	
Your hospital's ID is: 210023	●	○	
Your hospital is part of the hospital system called Luminis Health.	●	○	
The primary hospital community benefit (HCB) Narrative contact at your hospital is Kelly Koorey (primary) and Lori Wishard.	○	●	Temi Oshiyoye
The primary HCB Narrative contact email address at your hospital is kkoorey@luminishealth.org (primary); lwishard@luminishealth.org	○	●	toshiyoye@luminishealth.org
The primary HCB Financial report contact at your hospital is Kevin Smith (primary), Renee Kilroy (interim position), Kelly Koorey and Lori Wishard	○	●	Doug Wormer
The primary HCB Financial report contact email at your hospital is kevin.smith@luminishealth.org (primary), rkilroy@luminishealth.org; kkoorey@luminishealth.org; lwishard@luminishealth.org	○	●	dwomer@luminishealth.org

Q4. Please select the community health statistics that your hospital uses in its community benefit efforts.

☑ Median household income
☑ Percentage below federal poverty level (FPL)
☑ Percent uninsured
☑ Percent with public health insurance
☑ Percent with Medicaid
☐ Mean travel time to work
☑ Percent speaking language other than English at home

☑ Race: percent White
☑ Race: percent Black
☑ Ethnicity: percent Hispanic or Latino
☑ Life expectancy
☐ Crude death rate
☐ Other

Q5. Please describe any other community health statistics that your hospital uses in its community benefit efforts.

AAMC uses the Community Health Needs Assessment for Anne Arundel County to identify underserved areas. AAMC also uses the poverty Amidst plenty report as a guide for identifying underserved population.

Q6. Attach any files containing community health statistics that your hospital uses in its community benefit efforts.

Q7. Section I - General Info Part 2 - Community Benefit Service Area

Q8. The next group of questions asks about the area where your hospital directs its community benefit efforts, called the Community Benefit Service Area. You may find these community health statistics useful in preparing your responses.

Q9. Please select the county or counties located in your hospital's CBSA.

- [ ] Allegany County
- [x] Anne Arundel County
- [ ] Baltimore City
- [ ] Baltimore County
- [ ] Calvert County
- [ ] Caroline County
- [ ] Carroll County
- [ ] Cecil County

- [ ] Charles County
- [ ] Dorchester County
- [ ] Frederick County
- [ ] Garrett County
- [ ] Harford County
- [ ] Howard County
- [ ] Kent County
- [ ] Montgomery County

- [ ] Prince George's County
- [x] Queen Anne's County
- [ ] Somerset County
- [ ] St. Mary's County
- [x] Talbot County
- [ ] Washington County
- [ ] Wicomico County
- [ ] Worcester County

Q10. Please check all Allegany County ZIP codes located in your hospital's CBSA.

This question was not displayed to the respondent.

Q11. Please check all Anne Arundel County ZIP codes located in your hospital's CBSA.

- [x] 20701
- [x] 20711
- [x] 20714
- [x] 20724
- [x] 20733
- [x] 20736
- [x] 20751
- [x] 20754
- [x] 20755
- [x] 20758
- [x] 20764
- [x] 20765

- [x] 20776
- [x] 20778
- [x] 20779
- [ ] 20794
- [x] 21012
- [x] 21032
- [x] 21035
- [x] 21037
- [x] 21054
- [ ] 21056
- [x] 21060
- [x] 21061

- [ ] 21062
- [ ] 21076
- [ ] 21077
- [ ] 21090
- [x] 21106
- [x] 21108
- [x] 21113
- [x] 21114
- [x] 21122
- [ ] 21123
- [x] 21140
- [x] 21144

- [ ] 21146
- [ ] 21225
- [ ] 21226
- [ ] 21240
- [x] 21401
- [x] 21402
- [x] 21403
- [ ] 21404
- [x] 21405
- [x] 21409
- [ ] 21411
- [x] 21412

Q12. Please check all Baltimore City ZIP codes located in your hospital's CBSA.

This question was not displayed to the respondent.

Q13. Please check all Baltimore County ZIP codes located in your hospital's CBSA.

This question was not displayed to the respondent.

Q14. Please check all Calvert County ZIP codes located in your hospital's CBSA.

This question was not displayed to the respondent.

Q15. Please check all Caroline County ZIP codes located in your hospital's CBSA.

This question was not displayed to the respondent.

Q16. Please check all Carroll County ZIP codes located in your hospital's CBSA.

This question was not displayed to the respondent.

Q17. Please check all Cecil County ZIP codes located in your hospital's CBSA.

This question was not displayed to the respondent.

Q18. Please check all Charles County ZIP codes located in your hospital's CBSA.

This question was not displayed to the respondent.

Q19. Please check all Dorchester County ZIP codes located in your hospital's CBSA.

This question was not displayed to the respondent.

Q20. Please check all Frederick County ZIP codes located in your hospital's CBSA.

This question was not displayed to the respondent.

Q21. Please check all Garrett County ZIP codes located in your hospital's CBSA.

This question was not displayed to the respondent.

Q22. Please check all Harford County ZIP codes located in your hospital's CBSA.

This question was not displayed to the respondent.

Q23. Please check all Howard County ZIP codes located in your hospital's CBSA.

This question was not displayed to the respondent.

Q24. Please check all Kent County ZIP codes located in your hospital's CBSA.

This question was not displayed to the respondent.

Q25. Please check all Montgomery County ZIP codes located in your hospital's CBSA.

This question was not displayed to the respondent.

Q26. Please check all Prince George's County ZIP codes located in your hospital's CBSA.

This question was not displayed to the respondent.

Q27. Please check all Queen Anne's County ZIP codes located in your hospital's CBSA.

☐ 21607	☑ 21638	☐ 21657
☑ 21617	☐ 21640	☑ 21658
☑ 21619	☐ 21644	☑ 21666
☑ 21620	☐ 21649	☐ 21668
☐ 21623	☐ 21651	☐ 21670
☐ 21628	☐ 21656	☐ 21679

Q28. Please check all Somerset County ZIP codes located in your hospital's CBSA.

This question was not displayed to the respondent.

Q29. Please check all St. Mary's County ZIP codes located in your hospital's CBSA.

This question was not displayed to the respondent.

Q30. Please check all Talbot County ZIP codes located in your hospital's CBSA.

☑ 21601	☐ 21653	☐ 21665
☐ 21612	☐ 21654	☐ 21671
☐ 21624	☐ 21657	☐ 21673
☐ 21625	☐ 21662	☐ 21676
☐ 21647	☐ 21663	☐ 21679
☐ 21652		

Q31. Please check all Washington County ZIP codes located in your hospital's CBSA.

This question was not displayed to the respondent.

Q32. Please check all Wicomico County ZIP codes located in your hospital's CBSA.

This question was not displayed to the respondent.

Q33. Please check all Worcester County ZIP codes located in your hospital's CBSA.

This question was not displayed to the respondent.

Q34. How did your hospital identify its CBSA?

☐ Based on ZIP codes in your Financial Assistance Policy. Please describe.

☐ Based on ZIP codes in your global budget revenue agreement. Please describe.

☑ Based on patterns of utilization. Please describe.

AAMC defines the CBSA as the primary
service area for AAMC in which the
HSCRC identified the Zip codes that
compose the highest number of
inpatient discharges. In addition,
AAMC provides community benefit
program in locations of our
ambulatory offices

☐ Other. Please describe.

Q35. Provide a link to your hospital's mission statement.

https://www.luminishealth.org/en/about-us/mission-vision-values?language_content_entity=en

Q36. (Optional) Is there any other information about your hospital's Community Benefit Service Area that you would like to provide?

Q37. Section II - CHNAs and Stakeholder Involvement Part 1 - Timing & Format

Q38.
Within the past three fiscal years, has your hospital conducted a CHNA that conforms to IRS requirements?

◉ Yes
○ No

Q39. Please explain why your hospital has not conducted a CHNA that conforms to IRS requirements, as well as your hospital's plan and timeframe for completing a CHNA.

This question was not displayed to the respondent.

Q40. When was your hospital's most recent CHNA completed? (MM/DD/YYYY)

> 12/15/2021

Q41. Please provide a link to your hospital's most recently completed CHNA. Please provide the entire CHNA, not just an Executive Summary.

> https://www.luminishealth.org/sites/default/files/2022-10/CHNA-2022-Anne-Arundel-Co1_0.pdf

Q42. Please upload your hospital's most recently completed CHNA. Please provide the entire CHNA, not just an Executive Summary.

CHNA-2022-Anne-Arundel-Co1_0.pdf
4.1MB
application/pdf

Q43. Section II - CHNAs and Stakeholder Involvement Part 2 - Internal CHNA Partners

Q44. Please use the table below to tell us about the internal partners involved in the development of your most recent CHNA.

	CHNA Activities										
	N/A - Person or Organization was not Involved	N/A - Position or Department does not exist	Member of CHNA Committee	Participated in development of CHNA process	Advised on CHNA best practices	Participated in primary data collection	Participated in identifying priority health needs	Participated in identifying community resources to meet health needs	Provided secondary health data	Other (explain)	Other - If you selected "Other (explain)," please type your explanation below:
CB/ Community Health/Population Health Director (facility level)	☐	☐	✔	✔	✔	☐	✔	✔	✔	☐	
CB/ Community Health/ Population Health Director (system level)	☐	☐	✔	✔	✔	☐	✔	✔	✔	☐	
Senior Executives (CEO, CFO, VP, etc.) (facility level)	☐	☐	✔	✔	✔	☐	✔	☐	☐	☐	
Senior Executives (CEO, CFO, VP, etc.) (system level)	☐	☐	✔	✔	✔	☐	✔	☐	☐	☐	
Board of Directors or Board Committee (facility level)	☐	☐	☐	☐	☐	☐	☐	☐	☐	✔	Reviewed and approved CHNA priorities, and implementation...
Board of Directors or Board Committee (system level)	☐	☐	☐	☐	☐	☐	☐	☐	☐	✔	Reviewed and approved CHNA

	N/A - Person or Organization was not Involved	N/A - Position or Department does not exist	Member of CHNA Committee	Participated in development of CHNA process	Advised on CHNA best practices	Participated in primary data collection	Participated in identifying priority health needs	Participated in identifying community resources to meet health needs	Provided secondary health data	Other (explain)	Other - If you selected "Other (explain)," please type your explanation below:
Clinical Leadership (facility level)	☐	☐	☑	☑	☑	☐	☑	☐	☐	☐	
Clinical Leadership (system level)	☐	☐	☑	☑	☑	☐	☑	☐	☐	☐	
Population Health Staff (facility level)	☐	☐	☑	☑	☑	☐	☑	☑	☑	☐	
Population Health Staff (system level)	☐	☐	☑	☑	☑	☐	☑	☑	☑	☐	
Community Benefit staff (facility level)	☐	☐	☑	☑	☑	☐	☑	☑	☑	☐	
Community Benefit staff (system level)	☐	☐	☑	☑	☑	☐	☑	☑	☑	☐	
Physician(s)	☐	☐	☑	☑	☐	☐	☑	☐	☐	☐	
Nurse(s)	☐	☐	☑	☑	☐	☐	☑	☑	☐	☐	
Social Workers	☐	☐	☑	☑	☑	☐	☑	☑	☐	☐	

	N/A - Person or Organization was not Involved	N/A - Position or Department does not exist	Member of CHNA Committee	Participated in development of CHNA process	Advised on CHNA best practices	Participated in primary data collection	Participated in identifying priority health needs	Participated in identifying community resources to meet health needs	Provided secondary health data	Other (explain)	Other - If you selected "Other (explain)," please type your explanation below:
Hospital Advisory Board	☐	☐	☐	☐	☐	☐	☐	☑	☐	☐	
Other (specify)	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	

Q45. Section II - CHNAs and Stakeholder Involvement Part 3 - Internal Hospital Community Benefit Partners

Q46. Please use the table below to tell us about the internal partners involved in your community benefit activities during the fiscal year.

			Activities								
	N/A - Person or Organization was not Involved	N/A - Position or Department does not exist	Selecting health needs that will be targeted	Selecting the initiatives that will be supported	Determining how to evaluate the impact of initiatives	Providing funding for CB activities	Allocating budgets for individual initiatives	Delivering CB initiatives	Evaluating the outcome of CB initiatives	Other (explain)	Other - If you selected "Other (explain)," please type your explanation below:
CB/ Community Health/Population Health Director (facility level)	☐	☐	☑	☑	☑	☑	☑	☑	☑	☐	
CB/ Community Health/ Population Health Director (system level)	☐	☐	☑	☑	☑	☑	☑	☑	☑	☐	
Senior Executives (CEO, CFO, VP, etc.) (facility level)	☐	☐	☑	☑	☑	☑	☑	☐	☑	☐	
Senior Executives (CEO, CFO, VP, etc.) (system level)	☐	☐	☑	☑	☑	☑	☑	☐	☑	☐	
Board of Directors or Board Committee (facility level)	☐	☐	☐	☐	☐	☐	☐	☐	☑	☐	
Board of Directors or Board Committee (system level)	☐	☐	☐	☐	☐	☐	☐	☐	☑	☐	

	N/A - Person or Organization was not Involved	N/A - Position or Department does not exist	Selecting health needs that will be targeted	Selecting the initiatives that will be supported	Determining how to evaluate the impact of initiatives	Providing funding for CB activities	Allocating budgets for individual initiatives	Delivering CB initiatives	Evaluating the outcome of CB initiatives	Other (explain)	Other - If you selected "Other (explain)," please type your explanation below:
Clinical Leadership (facility level)	☐	☐	☑	☑	☑	☑	☑	☐	☑	☐	
Clinical Leadership (system level)	☐	☐	☑	☑	☑	☑	☑	☐	☑	☐	
Population Health Staff (facility level)	☐	☐	☑	☑	☑	☐	☐	☑	☑	☐	
Population Health Staff (system level)	☐	☐	☑	☑	☑	☐	☐	☑	☑	☐	
Community Benefit staff (facility level)	☐	☐	☑	☑	☑	☐	☐	☑	☑	☐	
Community Benefit staff (system level)	☐	☐	☑	☑	☑	☐	☐	☑	☑	☐	
Physician(s)	☐	☐	☑	☑	☑	☐	☐	☐	☑	☐	
Nurse(s)	☐	☐	☑	☑	☑	☐	☐	☐	☑	☐	
Social Workers	☑	☐	☐	☐	☐	☐	☐	☐	☐	☐	
Hospital Advisory Board	☐	☐	☑	☑	☐	☐	☐	☐	☑	☐	
Other (specify)	☑	☐	☐	☐	☐	☐	☐	☐	☐	☐	

Q48. Community participation and meaningful engagement is an essential component to changing health system behavior, activating partnerships that improve health outcomes and sustaining community ownership and investment in programs. Please use the table below to tell us about the external partners involved in your most recent CHNA. In the first column, select and describe the external participants. In the second column, select the level of community engagement for each participant. In the third column, select the recommended practices that each stakeholder was engaged in. The Maryland Hospital Association worked with the HSCRC to develop this list of eight recommended practices for engaging patients and communities in the CHNA process.

Refer to the FY 2023 Community Benefit Guidelines for more detail on MHA's recommended practices. Completion of this self-assessment is mandatory for FY 2023.

	Level of Community Engagement						Recommended Practices							
	Informed - To provide the community with balanced & objective information to assist them in understanding the problem, alternatives, opportunities and/or solutions	Consulted - To obtain community feedback on analysis, alternatives and/or solutions	Involved - To work directly with community throughout the process to ensure their concerns and aspirations are consistently understood and considered	Collaborated - To partner with the community in each aspect of the decision including the development of alternatives & identification of the preferred solution	Delegated - To place the decision-making in the hands of the community	Community-Driven/Led - To support the actions of community initiated, driven and/or led processes	Identify & Engage Stakeholders	Define the community to be assessed	Collect and analyze the data	Select priority community health issues	Document and communicate results	Plan Implementation Strategies	Implement Improvement Plans	Evaluate Progress
Other Hospitals -- Please list the hospitals here: BWMC	☐	☐	☐	☑	☐	☐	☐	☐	☐	☑	☐	☐	☐	☐
Local Health Departments -- Please list the Local Health Departments here: Anne Arundel county Department of Health	☐	☐	☐	☑	☐	☐	☐	☐	☐	☑	☐	☑	☑	☐
Local Health Improvement Coalition -- Please list the LHICs here: Health Anne Arundel Coalition	☐	☑	☐	☐	☐	☐	☐	☐	☐	☐	☐	☑	☑	☐
Maryland Department of Health	☐	☐	☐	☑	☐	☐	☐	☐	☐	☑	☑	☑	☐	☐
Other State Agencies -- Please list the agencies here:	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Organization	Informed - To provide the community with balanced & objective information to assist them in understanding the problem, alternatives, opportunities and/or solutions	Consulted - To obtain community feedback on analysis, alternatives and/or solutions	Involved - To work directly with community throughout the process to ensure their concerns and aspirations are consistently understood and considered	Collaborated - To partner with the community in each aspect of the decision including the development of alternatives & identification of the preferred solution	Delegated - To place the decision-making in the hands of the community	Community-Driven/Led - To support the actions of community initiated, driven and/or led processes	Identify & Engage Stakeholders	Define the community to be assessed	Collect and analyze the data	Select priority community health issues	Document and communicate results	Plan Implementation Strategies	Implement Improvement Plans	Evaluate Progress
Local Govt. Organizations -- Please list the organizations here: Anne Arundel County Mental Health Agency, Partnership for Children, Youth, and Families, Anne Arundel County Department of Aging	☐	☐	☐	☑	☐	☐	☐	☑	☐	☑	☐	☑	☑	☐
Faith-Based Organizations	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
School - K-12 -- Please list the schools here:	☐	☐	☐	☑	☐	☐	☑	☑	☑	☑	☑	☑	☑	☑
School - Colleges, Universities, Professional Schools -- Please list the schools here:	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Behavioral Health Organizations -- Please list the organizations here: Arundel Lodge	☐	☐	☑	☑	☐	☐	☐	☐	☐	☐	☑	☑	☐	☐
Social Service Organizations -- Please list the organizations here: Anne Arundel County Mobile Integrated community Healthcare, Queens Anne's County Mobile Integrated Community healthcare	☐	☐	☐	☑	☐	☐	☑	☐	☑	☐	☑	☑	☑	☑

	Informed - To provide the community with balanced & objective information to assist them in understanding the problem, alternatives, opportunities and/or solutions	Consulted - To obtain community feedback on analysis, alternatives and/or solutions	Involved - To work directly with community throughout the process to ensure their concerns and aspirations are consistently understood and considered	Collaborated - To partner with the community in each aspect of the decision including the development of alternatives & identification of the preferred solution	Delegated - To place the decision-making in the hands of the community	Community-Driven/Led - To support the actions of community initiated, driven and/or led processes	Identify & Engage Stakeholders	Define the community to be assessed	Collect and analyze the data	Select priority community health issues	Document and communicate results	Plan Implementation Strategies	Implement Improvement Plans	Evaluate Progress
Post-Acute Care Facilities -- please list the facilities here:	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Community/Neighborhood Organizations -- Please list the organizations here:	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Consumer/Public Advocacy Organizations -- Please list the organizations here:	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Other -- If any other people or organizations were involved, please list them here:	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Q49. Section II - CHNAs and Stakeholder Involvement Part 5 - Follow-up

Q50. Has your hospital adopted an implementation strategy following its most recent CHNA, as required by the IRS?

🔘 Yes
⚪ No

Q51. Please enter the date on which the implementation strategy was approved by your hospital's governing body.

9/22/2022

Q52. Please provide a link to your hospital's CHNA implementation strategy.

> https://www.luminishealth.org/sites/default/files/2022-10/Luminis-Health-CHNA-Implementation-Plan-FY22-24.pdf

Q53. Please upload your hospital's CHNA implementation strategy.

Luminis-Health-CHNA-Implementation-Plan-FY22-24 - Copy.pdf
571.5KB
application/pdf

Q54. Please explain why your hospital has not adopted an implementation strategy. Please include whether the hospital has a plan and/or a timeframe for an implementation strategy.

This question was not displayed to the respondent.

Q55. (Optional) Please use the box below to provide any other information about your CHNA that you wish to share.

Q56. (Optional) Please attach any files containing information regarding your CHNA that you wish to share.

Q57. Section II - CHNAs and Stakeholder Involvement Part 6 - Initiatives

Q58. Were all the needs identified in your most recently completed CHNA addressed by an initiative of your hospital?

○ Yes
◉ No

Q59.
Using the checkboxes below, select the Community Health Needs identified in your most recent CHNA that were NOT addressed by your community benefit initiatives.

☐ Health Conditions - Addiction
☑ Health Conditions - Arthritis
☐ Health Conditions - Blood Disorders
☐ Health Conditions - Cancer
☑ Health Conditions - Chronic Kidney Disease
☐ Health Conditions - Chronic Pain
☑ Health Conditions - Dementias
☐ Health Conditions - Diabetes
☑ Health Conditions - Foodborne Illness
☐ Health Conditions - Health Care-Associated Infections
☐ Health Conditions - Heart Disease and Stroke
☑ Health Conditions - Infectious Disease
☐ Health Conditions - Mental Health and Mental Disorders
☑ Health Conditions - Oral Conditions
☑ Health Conditions - Osteoporosis
☐ Health Conditions - Overweight and Obesity
☐ Health Conditions - Pregnancy and Childbirth
☐ Health Conditions - Respiratory Disease

☐ Health Behaviors - Vaccination
☐ Health Behaviors - Violence Prevention
☐ Populations - Adolescents
☐ Populations - Children
☐ Populations - Infants
☑ Populations – LGBT
☐ Populations - Men
☐ Populations - Older Adults
☐ Populations - Parents or Caregivers
☐ Populations - People with Disabilities
☐ Populations - Women
☐ Populations - Workforce
☐ Settings and Systems - Community
☐ Settings and Systems - Environmental Health
☑ Settings and Systems - Global Health
☐ Settings and Systems - Health Care
☑ Settings and Systems - Health Insurance
☐ Settings and Systems - Health IT

☑ Health Conditions - Sensory or Communication Disorders
☐ Health Conditions - Sexually Transmitted Infections
☐ Health Behaviors - Child and Adolescent Development
☐ Health Behaviors - Drug and Alcohol Use
☐ Health Behaviors - Emergency Preparedness
☑ Health Behaviors - Family Planning
☐ Health Behaviors - Health Communication
☑ Health Behaviors - Injury Prevention
☐ Health Behaviors - Nutrition and Healthy Eating
☐ Health Behaviors - Physical Activity
☐ Health Behaviors - Preventive Care
☑ Health Behaviors - Safe Food Handling
☑ Health Behaviors - Sleep
☐ Health Behaviors - Tobacco Use

☐ Settings and Systems - Health Policy
☐ Settings and Systems - Hospital and Emergency Services
☐ Settings and Systems - Housing and Homes
☐ Settings and Systems - Public Health Infrastructure
☐ Settings and Systems - Schools
☐ Settings and Systems - Transportation
☐ Settings and Systems - Workplace
☐ Social Determinants of Health - Economic Stability
☐ Social Determinants of Health - Education Access and Quality
☐ Social Determinants of Health - Health Care Access and Quality
☐ Social Determinants of Health - Neighborhood and Built Environment
☐ Social Determinants of Health - Social and Community Context
☐ Other Social Determinants of Health
☐ Other (specify) [_____]

Q60. Why were these needs unaddressed?

> AAMC had to prioritize resources to ensure a measurable impact that aligns with the immediate need of the community. This alignment ensures the strength of our resources with the mission of the health system.

Q61. Please describe the hospital's efforts to track and reduce health disparities in the community it serves.

> Luminis Health developed a plan to become a national model for justice, equity, diversity, and inclusion (JEDI). The HEART Force's goal is to help Luminis Health address structural racism and systemic inequity in health care. We do this by evaluating our processes, policies and practices. Our objective is to eliminate inequities from health care operations. The implementation of the plan began in 2020 with the formation of a system wide Health Equity and Anti-racism Task (HEART) force. This is a multidisciplinary group including members of board of trustee, senior leaders, medical staff, community partners and stakeholders. Recommendations from the HEART force were; lead as an anti-racist organization, and confront racism and eradicate inequities in health care, enhance cultural informed communications and community collaboration, measure and ingrate accountability. Luminis will continue to track these measures and ensure efforts to reduce disparity.

Q62. If your hospital reported rate support for categories other than Charity Care, Graduate Medical Education, and the Nurse Support Programs in the financial report template, please select the rate supported programs here:

☑ None
☐ Regional Partnership Catalyst Grant Program
☐ The Medicare Advantage Partnership Grant Program
☐ The COVID-19 Long-Term Care Partnership Grant
☐ The COVID-19 Community Vaccination Program
☐ The Population Health Workforce Support for Disadvantaged Areas Program
☐ Other (Describe) [_____]

Q63. (Optional) If you wish, you may upload a document describing your community benefit initiatives in more detail.

Q64. Section III - CB Administration

Q65. Does your hospital conduct an internal audit of the annual community benefit financial spreadsheet? Select all that apply.

☑ Yes, by the hospital's staff
☑ Yes, by the hospital system's staff
☐ Yes, by a third-party auditor
☐ No

Q66. Please describe the third party audit process used.

Q67. Does your hospital conduct an internal audit of the community benefit narrative?

- ⦿ Yes
- ◯ No

Q68. Please describe the community benefit narrative audit process.

> The narrative and financial information is collected from the department leaders and cross check by the financial team. The core team working on the community benefit report, complies this information and presents to senior leadership for accuracy and contribution. Edits and changes are made per senior leadership recommendations. Final reports are reviewed by the CEO of the health system. The report is submitted and final adoption is provided by the board of AAMC

Q69. Does the hospital's board review and approve the annual community benefit financial spreadsheet?

- ⦿ Yes
- ◯ No

Q70. Please explain:

Q71. Does the hospital's board review and approve the annual community benefit narrative report?

- ⦿ Yes
- ◯ No

Q72. Please explain:

Q73. Does your hospital include community benefit planning and investments in its internal strategic plan?

- ⦿ Yes
- ◯ No

Q74. Please describe how community benefit planning and investments were included in your hospital's internal strategic plan during the fiscal year.

> The foundation for Luminis Health is its mission, vision, values, and strategic framework. These are the fundamental principles by which we serve, defining both who we are and who we aspire to be. Our mission is our purpose, our vision represents our future, and our values serve as our guideposts. Our values are brought to life daily in the behaviors and attitudes we exhibit and the choices and decisions we make. They serve as a beacon to guide Luminis Health in allocating resources, in drafting policies and procedures and responding to daily and long-term situations. This is reviewed annually by senior leadership, clinical leadership, and administrative leadership to identify growth and health improvement opportunities through planning retreats, meetings, and data analysis. Strategic imperatives were chosen based on their ability to significantly impact the care of patients and the community: shift to focus on the health ecosystem, address health through social determinants, and adopt technology proactively. Luminis Health leaders identify Community Benefits through strategic initiatives and report the data and information to the Department of Community Health Improvement for collection and analysis. Community Health tracks the data and reports monthly to leadership through the True North Metrics process and the Annual Operating Plan.

Q75. If available, please provide a link to your hospital's strategic plan.

> https://www.luminishealth.org/sites/default/files/2022-04/Luminis%20Health%20Vision%202030.pdf

Q76. Do any of the hospital's community benefit operations/activities align with the Statewide Integrated Health Improvement Strategy (SIHIS)? Please select all that apply and describe how your initiatives are targeting each SIHIS goal. More information about SIHIS may be found here.

- ☑ Diabetes - Reduce the mean BMI for Maryland residents

☑ Opioid Use Disorder - Improve overdose mortality

☑ Maternal and Child Health - Reduce severe maternal morbidity rate

☐ Maternal and Child Health - Decrease asthma-related emergency department visit rates for children aged 2-17

☐ None of the Above

Q77. (Optional) Did your hospital's initiatives during the fiscal year address other state health goals? If so, tell us about them below.

Q78. Section IV - Physician Gaps & Subsidies

Q79. (Optional) Please attach any files containing further information and data justifying physician subsidies at your hospital.

(This year, all information on physician gap subsidies is collected on the financials. However, if you have additional information on these subsidies to report, you may do so through attachments here.)

Q80. Section V - Financial Assistance Policy (FAP)

Q81. Upload a copy of your hospital's financial assistance policy.

[FAP-FY21.pdf](#)
191.6KB
application/pdf

Q82. Provide the link to your hospital's financial assistance policy.

https://www.luminishealth.org/sites/default/files/2022-08/FAP-FY21.pdf

Q83. Has your FAP changed within the last year? If so, please describe the change.

◉ No, the FAP has not changed.
◯ Yes, the FAP has changed. Please describe:

Q84. Maryland acute care and chronic care hospitals are required under Health General §19-214.1(b)(2)(i) COMAR 10.37.10.26(A-2)(2)(a)(i) to provide free medically necessary care to patients with family income at or below 200 percent of the federal poverty level (FPL).

Please select the percentage of FPL below which your hospital's FAP offers free care.

	100	150	200	250	300	350	400	450	500

Percentage of Federal Poverty Level ──────────────●────────────── `300`
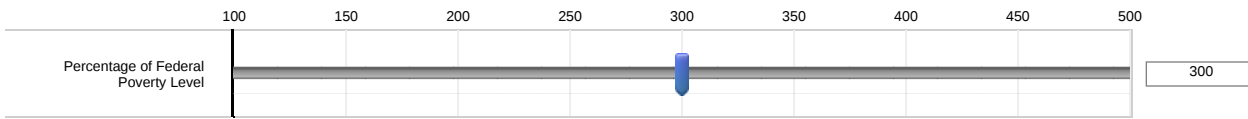
Q85. Maryland acute care and chronic care hospitals are required under COMAR 10.37.10.26(A-2)(2)(a)(ii) to provide reduced-cost, medically necessary care to low-income patients with family income between 200 and 300 percent of the federal poverty level.

Please select the range of the percentage of FPL for which your hospital's FAP offers reduced-cost care.

	200	250	300	350	400	450	500

Lowest FPL ●──────────────────────────────── [ ]

Highest FPL ●──────────────────────────────── [ ]
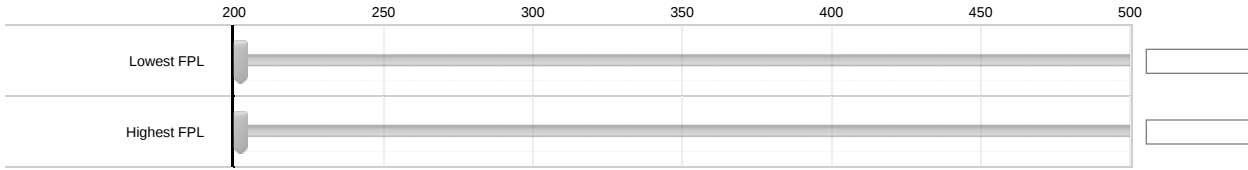
Q86. Maryland acute care and chronic care hospitals are required under Health General §19-214.1(b)(2)(iii) COMAR 10.37.10.26(A-2)(3)(a) to provide reduced-cost, medically necessary care to patients with family income below 500 percent of the federal poverty level who have a financial hardship. Financial hardship is defined in Health General §19-214.1(a)(2) and COMAR 10.37.10.26(A-2) (1)(b)(i) as a medical debt, incurred by a family over a 12-month period that exceeds 25 percent of family income.

Please select the range of the percentage of FPL for which your hospital's FAP offers reduced-cost care for financial hardship.

	0	100	200	300	400	500	600	700

Lowest FPL ──────●────────────────────────── `200`

Highest FPL ────────────●────────────────────── `300`
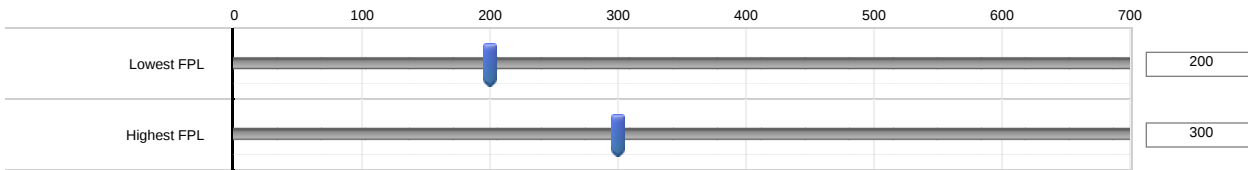
Q87. Please select the threshold for medical debt as a percentage of family income above which qualifies as a financial hardship.

	0	10	20	30	40	50	60	70	80	90	100

Debt as Percentage of Income ────────────────────●──────────────────── `50`
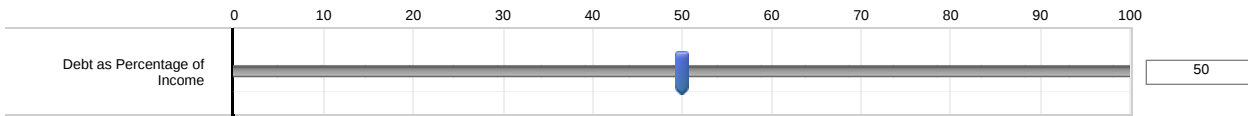
Q88. Section VI - Tax Exemptions

Q89. Per Health General Article §19-303 (c)(4)(ix), list each tax exemption your hospital claimed in the preceding taxable year (select all that apply)

- ☑ Federal corporate income tax
- ☑ State corporate income tax
- ☑ State sales tax
- ☑ Local property tax (real and personal)
- ☐ Other (Describe) [ ]

Q90. Summary & Report Submission

Q91.

Attention Hospital Staff! IMPORTANT!

You have reached the end of the questions, but you are not quite finished. Your narrative has not yet been fully submitted. Once you proceed to the next screen using the right arrow button below, you cannot go backward. You cannot change any of your answers if you proceed beyond this screen.

We strongly urge you to contact us at hcbhelp@hilltop.umbc.edu to request a copy of your answers. We will happily send you a pdf copy of your narrative that you can share with your leadership, Board, or other interested parties. If you need to make any corrections or change any of your answers, you can use the Table of Contents feature to navigate to the appropriate section of the narrative.

Once you are fully confident that your answers are final, return to this screen then click the right arrow button below to officially submit your narrative.

Location Data

Location: (38.867, -76.8173)

Source: GeoIP Estimation

COMMUNITY HEALTH NEEDS ASSESSMENT

ANNE ARUNDEL COUNTY

2022
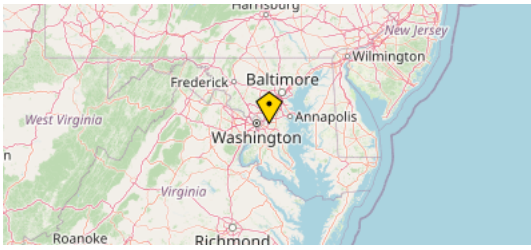
THE CONTEXT OF HEALTH CARE IN MARYLAND AND ANNE ARUNDEL COUNTY

The health care landscape in Anne Arundel County, Maryland, and the United States has been rapidly changing over the past several years and will continue to evolve. Health system reforms in public health, health care, insurance and other sectors are resulting in dramatic changes to both financing and service delivery. These changes include improving the efficiency and effectiveness of health organizations and services, as well as increasing connections and collaborations among public health, health care, and other sectors. (Centers for Disease Control and Prevention, 2014).

Maryland, in particular, is a leader in health system transformation. Since January 2014, Maryland's hospitals, guided by an innovative agreement with the Centers for Medicare & Medicaid Services, have been making progress toward the Institute for Healthcare Improvement's Triple Aim of Health Care: to reduce costs, improve the health of communities and improve the experience of care for patients. Maryland is the only state in the nation that sets the rates hospitals can charge for their services. Rates are the same for all patients for the same service in the same hospital, whether they have Medicare, Medicaid, private health insurance, or pay out of their own pocket. The Maryland Medicare waiver or "All-Payer" model was modernized to better reflect the current state of health care – a trend toward more outpatient care and prevention, and less inpatient care. The new waiver agreement aligns with the goals of the Triple Aim of Health Care — less expensive care, better experiences for patients, and healthier communities. The new agreement requires hospitals and the state to achieve specific cost and quality targets. (Maryland Hospital Association, n.d.)

All of Maryland's hospitals now operate under fixed annual budgets that shift incentives from volume to value. This is a model where hospitals are not rewarded based on how many patients they treat, but rather on how successful they are in keeping their patients and communities healthy. The result; hospitals are keeping costs down by trimming unnecessary use of hospital services, improving quality, and working to keep members of their communities healthier and out of the hospital. To do this, hospitals have moved care beyond their walls and into communities by expanding preventive care and collaborating with others to make sure care does not stop after a patient leaves the hospital. (Maryland Hospital Association, n.d.) New models of care are being developed that include care coordination and navigation services, community health workers, non-traditional settings of care and unique partnerships. There is an increased awareness of the need to address the socioeconomic determinants of health through these new care models.

In January, 2019, Maryland's hospitals began operating under a contract with the federal government, designed to test whether the improvements hospitals have made under the All-Payer Model can be expanded to all health care providers. Rather than focusing on how hospitals alone can deliver efficient, high-quality care, physicians, skilled-nursing facilities, home health providers, and others, will be incentivized to improve how they coordinate care for patients and how they address societal health problems such as diabetes, heart disease, and opioid use disorders. In doing so, Maryland's entire health care system will work to ensure that patients receive the right care, at the right time, in the right setting. (Maryland Hospital Association, 2022)

The IHI Triple Aim

POPULATION HEALTH

EXPERIENCE OF CARE

PER CAPITA COST
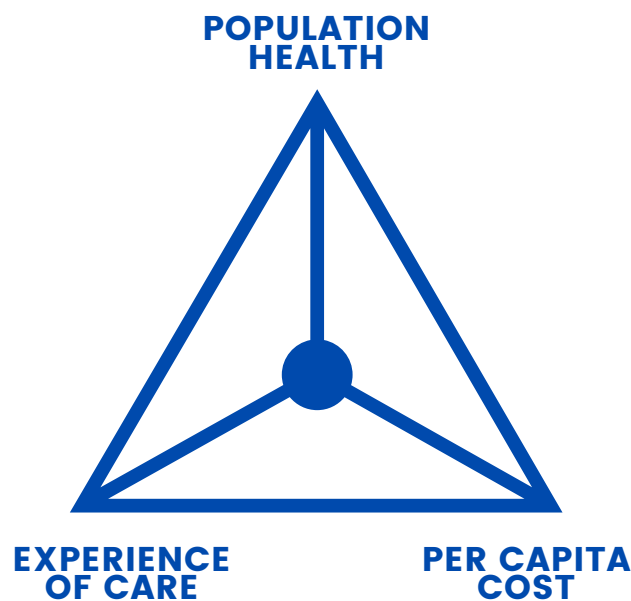
At the same time, due to the expansion of Medicaid and the decrease in uninsured patients, many public health departments are reducing the direct clinical services they provide. Increasingly, health departments are focusing their efforts on prevention and education, helping newly insured and others access health care services, and convening community stakeholders in coalitions to improve community health. Other governmental agencies are also increasingly being tasked with helping to keep the communities they serve healthier and able to live more productive lives. All of these changes have placed an increased emphasis on public-private partnerships, coalition building and advocacy for community health improvements. There is increased collaboration between health systems, community hospitals, insurance companies, physician practices, long-term care and other providers, as well as community-based organizations, public health departments, patients and consumers. These collaborations will only continue to grow and mature. Anne Arundel County is fortunate that it has many strong, existing partnerships to improve the health and well-being of Anne Arundel County residents.

FOREWORD

The summative (quantitative) data contained in this needs assessment was gathered from a variety of local, state and national sources. Population and socio-economic statistics were compiled using data from the United States (U.S.) Census Bureau's Population Estimates Program and the American Community Survey 1-Year and 5-Year Estimates. This data should be considered less reliable due to the gap of ten years since the last full census. All data here is based on census estimates except for 2020 census population data, which has been updated. Birth and death data files were obtained from the Maryland Department of Health and Mental Hygiene, Vital Statistics Administration. The emergency department and inpatient hospital discharge data files were obtained from the Maryland Health Services Cost Review Commission for topics like birth, mortality and hospital utilization. Other data sources used for this report were: Maryland Vital Statistics Annual Reports, Maryland Department of Health and Mental Hygiene's Annual Cancer Reports, Behavioral Risk Factor Surveillance System (BRFSS), Centers for Disease Control and Prevention's CDC WONDER Online Database, Centers for Medicare and Medicaid Services, National Vital Statistics Reports and County Health Rankings, and a variety of local databases. The specific data sources are listed throughout the report.

THE 2022 CHNA DRAWS ON QUALITATIVE DATA GATHERED FROM 11 KEY INFORMANTS AS FOLLOWS

- CEO, Anne Arundel Medical Center (AAMC)
- CEO, University of Maryland Baltimore Washington Medical Center (UMBWMC)
- Anne Arundel County Health Officer
- Executive Director, Anne Arundel County Mental Health Agency (AACMHA)
- Director, Anne Arundel County Crisis Response
- Clinical Director, Anne Arundel County Mental Health Agency (AACMHA)
- Schools Superintendent
- County Executive
- Faith Leader
- Public Housing Resident
- Primary Care Doctor

FOREWORD

SIXTEEN FOCUS GROUPS/COMMUNITY MEETINGS CONTRIBUTED TO THE REPORT AS FOLLOWS:

• AAMC and UMBWMC Emergency Department and Emergency Response (6)
• Behavioral Health Providers (20)
• Behavioral Health Co-occurring Committee (10)
• Disabled Residents (Providers and Clients) (8)
• Seniors (Providers and Clients) (10)
• Childcare Providers and Early Childhood Educators (15)
• Human Services Team (10)
• Pupil Personnel Workers (12)
• Anne Arundel County Health Department Senior Staff (12)
• Public Housing Providers (2)
• Not for Profit Leaders (30)
• South County Stakeholders (24)
• North County Stakeholders (28)
• West County Stakeholders (12)
• Annapolis Stakeholders (25)
• Hispanic Needs Assessment Group (12)

Interviews and conversations were recorded, with the permission of participants, and transcribed verbatim. The author thanks Lisa Kovacs, Administrative Coordinator at the Anne Arundel County Partnership for Children, Youth and Families, for the hours of transcription time spent ensuring this CHNA accurately represents the voices of our community. The data was read and reread until dominant themes emerged which became the subtext of the report. All participants gave permission for their words to be used in the final report, although their identities are protected. Special thanks to Alexander Alty and Myra Ray-Howett for their work to ensure all charts and figures are accurately presented.

TABLE OF CONTENTS

KEY FINDINGS

The Anne Arundel County Community Health Needs Assessment (CHNA) is a collaboration with our county hospitals, the county mental health agency, the county health department and the Local Management Board (the Partnership for Children, Youth and Families). Representatives from each of these agencies act as a guiding coalition to ensure the most comprehensive and holistic approach to community health. Our approach is to meet together when all data gathering is concluded and a draft prepared, discuss the results and create a path forward, understanding that the social determinants of health impact every aspect of community health outcomes.

Negative Social Determinants of Health in Anne Arundel County are determined, to a large extent, by geography and color. Key zip codes and neighborhoods, disproportionately African American and to some extent Hispanic, have been identified throughout this needs assessment as areas requiring a comprehensive and collaborative response from all county systems.

HEART DISEASE AND CANCER

Heart disease and cancer, respectively, are the top two causes of death in Anne Arundel County. Every year, over 2,500 Anne Arundel County residents are diagnosed with cancer. Seven main cancers are targeted by the Maryland Department of Health; breast, cervical, colo-rectoral, lung, oral, prostate and skin cancer because they have the most significant impact on incidence and mortality.

In 2019, 1,047 Anne Arundel County residents died of heart disease. African Americans have a higher rate of cardiovascular disease and cancer than Whites. This may be due to their overrepresentation in county zip codes and census blocks where the negative social determinants of health are rising. Between 2016 and 2018, African Americans had the highest rate of inpatient stays due to cardiovascular disease. While the rate has decreased since 2016, it is still higher than all other races/ethnicities.

OVERWEIGHT AND OBESITY

Overweight and obesity are contributing factors to heart disease and cancer. They continue to create health issues for county residents. Between 2017 and 2019, the percent of overweight adults (Body Mass Index of 25 to 29.9) 18 years and older in the county rose slightly from 34.9% to 37.9%, while the state average fell. The percent of county residents who are classified as obese (Body Mass Index 30 and over) also rose from 25.5% in 2015 to 30.5% in 2019.

Many factors play a role in weight, including low income, lifestyle, surrounding environment, access to healthy food, lack of recreational opportunities, stress, genetics and certain diseases. Obesity is prevalent in low-income families in the county for a variety of reasons: Their neighborhoods often lack full-service grocery stores and farmers markets; lack of accessible primary care; extra expenses associated with healthy food; no transportation to get to a supermarket; greater availability of fast food restaurants selling cheap and filling food and fewer recreational facilities and green spaces for exercise.

DIABETES

Diabetes is a chronic disease that often develops as a result of overweight, obesity, and lack of physical activity. Diabetes has a significant genetic component and occurs more often in minority groups: African American, American Indian, Asian American, and Hispanic/Latino. In 2019, 10.4% of Anne Arundel County residents had Type 2 Diabetes. Residents aged 65+ had the highest percentage of diabetes (22.1%) compared to those in younger age groups. Individuals with diabetes are hospitalized for a variety of reasons, the most common being congestive heart failure and severe dysglycemia. Emergency Department encounters for diabetes are trending downwards from 2016 to 2018, but there are disparities. African Americans are accessing emergency diabetes care at almost four times the rate of Whites.

BEHAVIORAL HEALTH

(This term covers both mental health and substance use disorders.)

Mental Health

There were over 11,000 county Emergency Department encounters for mental health issues in 2019. Maryland numbers for the use of public mental health services by age for 2018-2021 show an increasing trend of usage for those ages 13-45. The trend line is also increasing for those ages 66 and older. The 0-12 population data does not show an increase in usage even though childcare providers, parents, and teachers are all reporting increases in mental health issues. The trend line for the use of public mental health services is also increasing for those ages 66 and older (Figure 17). The issue is exacerbated due to the growing number of county seniors over age 75 who may also have issues related to dementia.

The county has an overall shortage of mental health therapists, an issue exacerbated by the current labor shortages caused by COVID-19. There are 1,180 mental health providers overall for a ratio of 490:1 to the county's population, a lower rate compared to the state and almost half the ratio of the top US counties. The lack of Spanish-speaking counselors and psychiatrists continues to be a huge issue, although there have been some small improvements among our mental health providers.

The county still lacks residential care for those residents with serious mental issues who require 24-hour care. There are 274 residential rehabilitation beds in Anne Arundel County, 119 are intensive beds and 75 are general beds. There are no residential beds for youth in the county. However, every school in the Anne Arundel County Public School System (AACPS) now has Expanded School-Based Mental Health (ESBMH) services. Students enrolled in Medicaid can receive mental health services at their school during the school day. AACPS served 2,224 students during the 2020-21 school year, a predictable decline of 300 students from the 2019-2020 school year, given that much of the time, schools were offering virtual instruction only. Overall, ADHD (27.56%) and anxiety (27.02%) are the most frequent primary diagnoses for ESBMH students. The number of crisis hotline calls related to children increased by 48% between 2018 and 2020.

Substance Use

The data on opioid use is encouraging. County Emergency Department encounters for opioid overdoses continue to trend downwards from 851 in 2016 to 531 in 2020. In 2019, deaths involving fentanyl decreased for the first time since 2011 but were still up by more than 400% from 2015 and fentanyl was involved in 79% of all intoxication deaths. Zip code data for opioid use shows Glen Burnie, Annapolis, Brooklyn Park and Pasadena zip codes in the top five.

Deaths involving phencyclidine or PCP more than doubled from 2018 to 2019 (5 to 11 deaths.) PCP was the only drug with an increase in deaths in 2019. Between 2015 and 2019, deaths involving cocaine increased 279%, from 19 to 72 deaths. Deaths from benzodiazepines fell to the same level they were at in 2015, with 11 deaths. Much of the increase in deaths involving cocaine and benzodiazepines can be attributed to their combined use with opioids, mainly fentanyl. In fact, more than 85% of cocaine-related deaths and 72% of benzodiazepine-related deaths in Maryland also involved fentanyl.

INTRODUCTION
COUNTY OVERVIEW

The 2022 Anne Arundel County Community Health Needs Assessment was researched and developed during the second year of the COVID-19 pandemic. The full impact of the virus on our county will not be fully understood for some years. Nonetheless, the lived experiences of residents, the changes to county systems, and the spotlight placed on inequities through COVID-19 are threaded through this needs assessment to help us plan for better community health, post-pandemic. County racial/ethnic health and other disparities are apparent throughout the most recent data used for this needs assessment. Rather than create a special section, those disparities will be highlighted throughout each CHNA section.

Arundel County is the fifth largest landmass in the state covering 415 square miles, which includes 534 miles of natural shoreline. The 2020 U.S. Census data shows Anne Arundel County is now the 4th largest jurisdiction in the state with a population of 588,261. We are the third fastest growing county in Maryland with more than 50,000 residents added over the past ten years, an increase of 9.4% (Anne Arundel County Economic Development Corporation, 2021).

ANNE ARUNDEL COUNTY HEALTH AND MENTAL HEALTH LOCATIONS

Figure 1: Anne Arundel County Hospital Locations

Anne Arundel County is served by two major hospitals: Anne Arundel Medical Center in Annapolis and the University of Maryland Baltimore Washington Medical Center in Glen Burnie (Figure 1.) Due to their location, residents living in the northern part of the county also have the option to be served by Med Star Harbor Hospital, in Baltimore City. Residents in the southern part of the county may seek medical care in Calvert and Prince George's counties.

Physical and behavioral health services are available at three Federally Qualified Health Centers (FQHCs) and at the Anne Arundel County Department of Health (six clinic sites.) Medicaid recipients and other low-income, uninsured residents can obtain a wide variety of quality mental health services through The Anne Arundel County Mental Health Agency, Inc (AACMHA).

There are eight options for primary care community clinics in Anne Arundel County. The clinics serve newborns to geriatrics, and work with those who are low-income, uninsured, or have other means of Medical Assistance, such as Medicaid. Self-pay patients are charged for services based on gross household income and number of household dependents.

Source: Anne Arundel County Department of Health, 2021

POPULATION DEMOGRAPHICS

The most recent census estimates on the diversity of the county illustrate a diminishing White, Caucasian population. Since 2010, the percentage change for the Hispanic population is 48.6%, and for the African American population is 25.3% while the White population has a negative percentage change of -5.5% (Table 1).

Table 1: Anne Arundel County Ethnic and Racial Composition (2010-2020)

	2010		2016		2020		% Change 2010-2020
	Amount	%	Amount	%	Amount	%	%
Total	537656	100%	568346	100%	588261	100%	9.4%
Non-Hispanic Whites	389386	72.4%	392285	69.0%	367893	62.5%	-5.5%
Other Races/Ethnicities	148270	27.6%	176061	31.0%	220368	37.5%	48.6%
Hispanic or Latino	32902	6.1%	42802	7.5%	56796	9.7%	72.6%
Black/African American	81819	15.2%	89798	15.8%	102555	17.4%	25.3%
Other*	33549	6.2%	43461	7.6%	61017	10.4%	81.9%

*Includes: "American Indian and Alaskan Native", "Asian", "Native Hawaiian or other Pacific Islander, "Some other race", or "Two or more races". Therefore, the "White" and "Black" figures are those who were counted as "White alone" or "Black alone"

Source: U.S. Decennial Census 2010 and 2020 Table P2, 2016 ACS 1-Year Estimates DP05

NATIVE AMERICANS IN ANNE ARUNDEL COUNTY

The 2021 Community Health Needs Assessment acknowledges that Native Americans occupied Anne Arundel County land approximately 10,000 years prior to the first European settlers. The Lenape, Nanticoke, Piscataway, Conoy, Powhatan, Accohannock, Shawnee, Susquehannock, Tutelo and Saponi tribes lived and worked on county land. These early indigenous people were highly influential to Arundel County, as it is today, in the areas of art and music, law and government, conservation and environmental sustainability (Native Land Digital, 2021).

While European colonization in the 1640s brought about their enslavement and cultural disruption, 1,175 descendants of these indigenous people still live in Anne Arundel County (U.S. Census, 2-19).

THE HISPANIC COMMUNITY

While the White Caucasian population of the county continues to diminish, the Hispanic population is growing more significantly than all races/ethnicities and is now at 9.7% (still lower than the state average of 9.8%). The county has the fourth largest Hispanic population by percentage among Maryland counties. It is worth noting that the City of Annapolis is much more diverse. As of 2019 U.S. Census estimates, the White (non-Hispanic) population stands at 63.1%, African American (non-Hispanic) residents make up 21.8% and Hispanic (any race) residents make up 22.8% of the population. The largest sector of the Hispanic population is from Central American countries, including a growing population from El Salvador. This is significantly different from the overall U.S. Hispanic population, which is overwhelmingly Mexican (63%).

Figure 2: Anne Arundel County Hispanic Population, 2019 Country of Origin

- El Savador, 64%
- Mexico, 13%
- Honduras, 12%
- Guatemala, 6%
- Venezuela, 2%
- Ecuador, 1%
- Argentina, 1%
- Peru, 1%
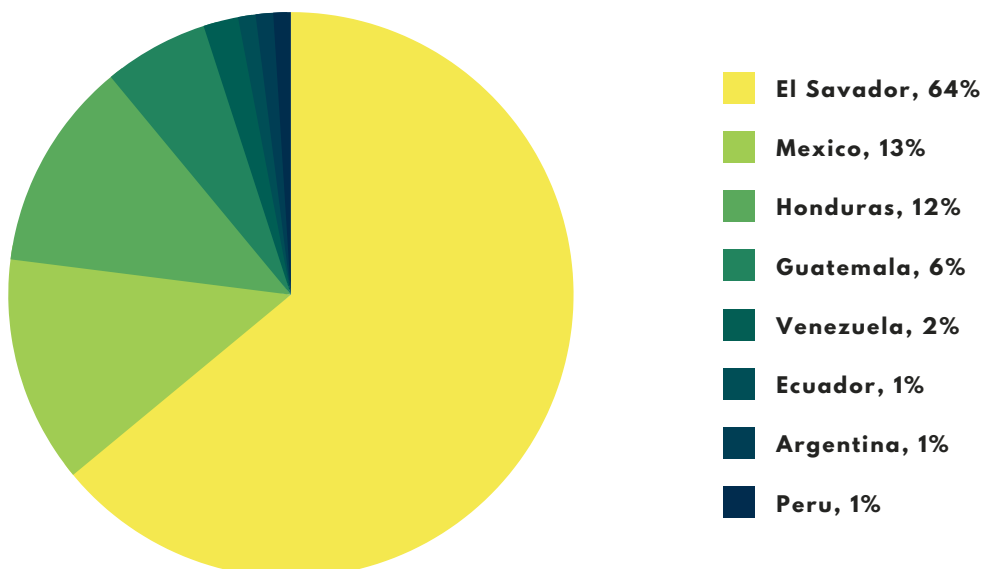
Traditional governmental systems, from the city and county police departments to the public schools and health systems, are struggling to adequately respond to this growing Spanish-speaking population. However, there have been some improvements. Anne Arundel County Police Department maintains a roster of certified Spanish-speaking officers and now has 12 police officers who successfully completed a Spanish Proficiency Test. At any given time, the actual number of Spanish-speaking officers in the department range from 25 to 35 officers.

The public school system still has a shortage of teachers for English Language Learners, but there have been improvements since 2018. There are 147 English Language Development Teachers on staff at AACPS although some of them are part-time (Anne Arundel County Public Schools, 2021). The county mental health agency reports a continuing lack of Spanish-speaking mental health counselors, although the situation has improved somewhat, and there are now three Spanish-speaking psychiatrists (Anne Arundel County Mental Health Agency, 2021).

According to a 2020 survey of the county's Hispanic performed by the City of Annapolis, (1450 responses) there is a range of countries of origin for our residents, with El Salvador being the most common (64%) (Figure 2). According to the survey, the main areas of employment for this 13

population are landscaping, house cleaning, construction, restaurant work, delivery and childcare services (all areas hit hard by the pandemic). Almost 50% of those surveyed had no health insurance.

SENIOR POPULATION

The number of older Marylanders is increasing. Of the nearly 6.1 million people in Maryland in 2020, 22.62% were aged 60 or over. This percentage is expected to increase to 26.57% by the year 2040. Individuals 85 and over are the fastest growing segment of the population. In 2020, 62.8% of Maryland's older adults (60+) reside in Baltimore City and in Anne Arundel, Baltimore, Montgomery and Prince George's counties. In 2035, these will remain the jurisdictions with the largest number of individuals over 60 (Maryland Department of Aging, 2021). The Anne Arundel County 60+ population is expected to rise over 27% between 2020 and 2045, from 129,440 to 164,524.

Figure 3: Anne Arundel Senior Population Growth, 2018-2020

Legend: ■ 60-65 ■ 65+

Year	60-65	65+
2018	35,973	85,959
2019	36,452	87,485
2020	37,139	90,180
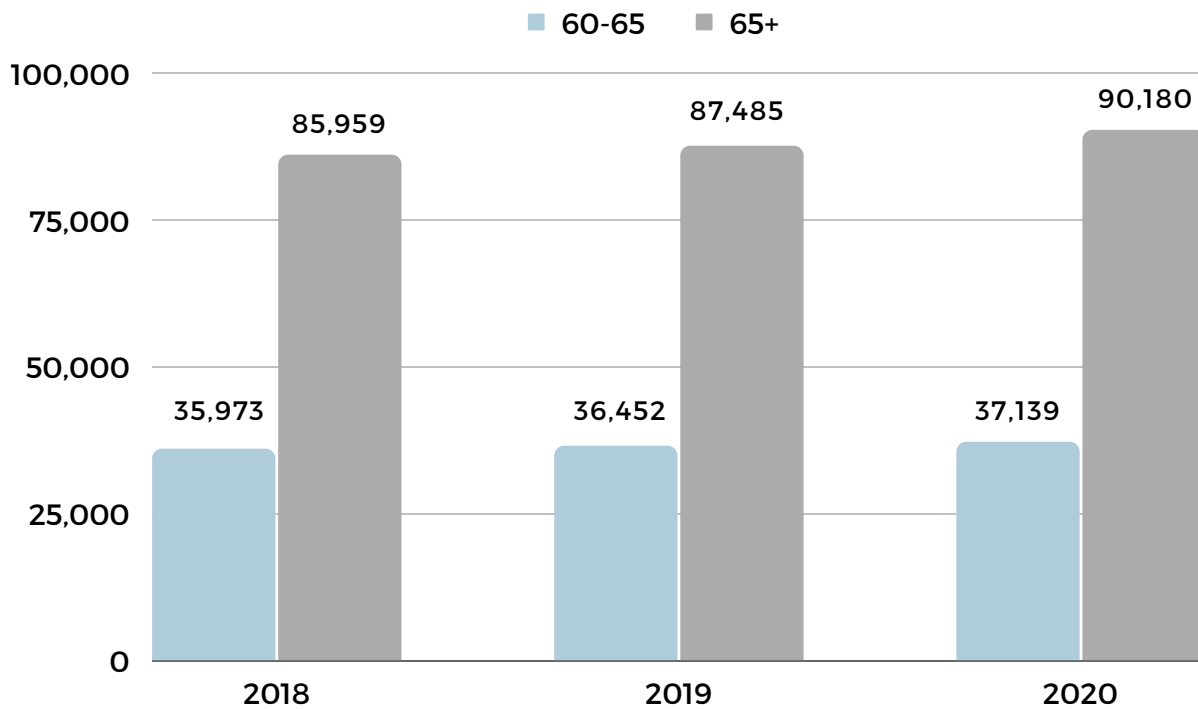
Maryland Department of Aging, 2021

'Seniors' is a very broad term for a group that spans almost four decades. Service providers see the aging population in three distinct groups: 55-70 years of age, 70-85 years of age, and 85 and older. Each group has specific needs emotionally, physically and psychologically. In Anne Arundel County, there has been an increase since 2018 in those residents over 60 from 35,973 to 37,139. The largest increase is in the 65+ group from 85,959 to 90,180. As each group continues to age, their requirements for supports and services increase.

THE DISABLED POPULATION

According to 2019 U.S. Census estimates, approximately 62,869 county residents live with one or more disabilities, many of whom are low income (U.S. Census Bureau, 2019). Persons with developmental disabilities may have deafness/severe hearing impairment, orthopedic impairment, autism spectrum disorder, behavioral problems, blindness/severe visual impairment, cerebral palsy, epilepsy/seizure disorder, head injury, mental disorder, intellectual disability, speech/language impairment, and other neurological impairments (Centers for Disease Control and Prevention, 2021).

The Centers for Disease Control and Prevention (2021) estimates that Autism Spectrum Disorder (ASD) affects 1 in 44 (2.3%) 8-year-old children in the United States. Among this age cohort, boys are about four times as likely to be identified with ASD as girls. In Maryland, the estimated prevalence of ASD among children aged eight years is 1 in 49, a 6.5% increase compared to data collected in 2016, which previously estimated that 1 in 52 children are affected. On average, medical expenditures for children and adolescents with ASD were 4.1 to 6.2 times greater than those without ASD. In addition to medical costs, intensive behavioral interventions for children with ASD cost $40,000 to $60,000 per child per year (Centers for Disease Control and Prevention, 2021).

SOCIAL DETERMINANTS OF HEALTH

The U.S. Department of Health and Human Services (2021) defines the social determinants of health (SDOH) as 'the conditions in the environments where people are born, live, learn, work, play, worship, and age that affect a wide range of health, functioning, and quality-of-life outcomes and risks.' Economic distress and rising social determinants of health are spread unequally throughout the county, with pockets of low income and poverty-level families clustered in North and South County areas, parts of Annapolis, and the Meade/Severn area of West County. These areas are disproportionately African American and Hispanic, pointing to a geography and color to county poverty (Report of Community Health Indicators, 2021, Community Plan, 2020).

Health disparities are apparent throughout the life cycle of county residents, from inequities in prenatal care to heart disease, diabetes, and cancer rates (Report of Community Health Indicators, 2021). The documented difference of fifteen years in life expectancy rates between the census tracts of Brooklyn Park and those of Arnold is particularly worrying and confirms that the social determinants of health can be pinpointed to particular zip codes. Life expectancy is 15 years longer for a resident living in Arnold as opposed to someone who lives in Brooklyn Park (Figure 31).

Anne Arundel County is an increasingly expensive place to live, especially now that we are experiencing post-pandemic inflation. According to MIT's Living Wage Calculator (2021), a single adult with one child in Anne Arundel County must make $34.18 per hour to cover their expenses (Table 2).

Table 2: Living Wage Calculator for Anne Arundel County

	1 Adult				2 Adults (1 Working)				2 Adults (Both Working)			
Number of Children ➡	0	1	2	3	0	1	2	3	0	1	2	3
Living Wage	$15.84	$34.18	$42.52	$55.16	$25.81	$31.22	$34.81	$37.85	$12.91	$18.47	$23.13	$27.67
Poverty Wage	$6.13	$8.29	$10.44	$12.60	$8.29	$10.44	$12.60	$14.75	$4.14	$5.22	$6.30	$7.38
Minimum Wage	$11.00	$11.00	$11.00	$11.00	$11.00	$11.00	$11.00	$11.00	$11.00	$11.00	$11.00	$11.00

MIT, 2021

The United Way organization coined the term Asset Limited Income Constrained Employed (ALICE) for the individuals and families across the nation who, despite being employed, do not earn enough to afford the five basic household necessities: housing, childcare, food, transportation and healthcare. As of 2018, there were 212,687 Anne Arundel County residents (35%) who could be categorized as ALICE, or lived at or below the Federal poverty level of $26,500 for a family of four (United Way, 2020) (Table 3). Even though these residents are working, their income does not cover the cost of living in the county and they often require public assistance to survive.

Table 3. ALICE Families by County in Maryland, 2018

County	Total Households	% Alice & Poverty
Allegany	27,190	55%
Anne Arundel	212,689	35%
Baltimore	313,259	40%
Baltimore City	237,204	55%
Calvert	31,726	33%
Caroline	12,081	42%
Carroll	60,371	29%
Cecil	36,930	39%
Charles	55,903	38%
Dorchester	13,264	45%
Frederick	95,903	37%
Garrett	12,073	43%

Table 4: Anne Arundel County Estimated Annual Household Income Numbers, 2016-2019

The gap between rich and poor continues to widen. The number of resident households with an income above $200,000 has grown by 47% since 2016. Meanwhile, those households with an income below $25,000 have shrunk, but not at the same rate (Table 4).

Totals	2016: 204,829		2019: 216,000		
Per Household	Number	%	Number	%	% Change
Less than $25,000	20,439	10%	16,127	7.4%	21%
$25,000 -$34,999	10,875	5.3%	10,386	4.8%	4%
$35,000 - $49,999	18,775	9.2%	14,214	6.6%	24%
$50,000 - $74,999	32,573	15.9%	34,349	15.9%	5%
$75,000 - $99,999	29,158	14.2%	30,813	14.3%	6%
$100,000 - $199,999	68,234	33.6%	74,692	34.6%	9%
$200,000 or more	24,284	11.9%	35,619	16.5%	47%

U.S. Census Estimates, 2020
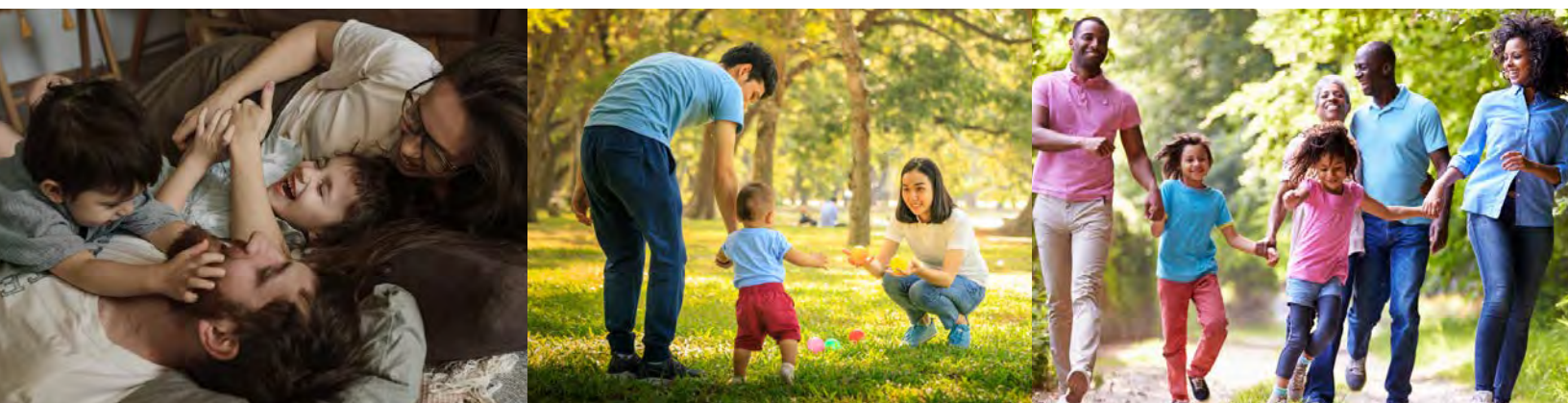
The most recent household median income estimates stand at $100,798 (U.S. Census, 2019). The unemployment rate pre-pandemic (2018) was 3.9%. It grew to 9.8% in 2020. In September 2021, the rate dropped again to 4.6%, still slightly lower than the Maryland average of 5.4% (Maryland Department of Labor, 2021).

POVERTY

Poverty is defined in different ways. The official United States poverty rate is decided by the Federal government. As of 2021, for a family or household of 4 persons living in one of the 48 contiguous states or the District of Columbia, the Federal guideline is $26,500. According to 2019 U.S. Census estimates (Table 5), five percent of the overall county population, 28,044 residents, live in poverty. That percentage increases for children to 7.4%. The county's trend line for poverty is moving downwards for every category except those residents 18 and under.

Table 5: Poverty Status in Anne Arundel County, 2014-2019

	2014		2015		2016		2017		2018		2019	
	Below Poverty Level	% Below Poverty Level	Below Poverty Level	% Below Poverty Level	Below Poverty Level	% Below Poverty Level	Below Poverty Level	% Below Poverty Level	Below Poverty Level	% Below Poverty Level	Below Poverty Level	% Below Poverty Level
Population below poverty level	31,573	5.90%	31,573	5.90%	33,168	6.10%	32,368	5.80%	39,678	7.1%	28,044	5.0%
Age												
Under 18 years	8,846	7.10%	8,359	6.70%	8,923	7.10%	9,024	7.10%	13,887	11.0%	9,433	7.4%
18 to 64 years	8,377	6.80%	19,571	5.70%	20,126	5.80%	18,585	5.30%	21,663	6.2%	15,256	4.4%
65 years and over	3,563	5.20%	3,643	5.10%	4119	5.60%	4,759	6.00%	4,128	5.0%	3,335	3.9%

Source: data.census.gov ACS 1-Year Estimate Subject Tables

THE ENVIRONMENT

Anne Arundel County is a place of natural beauty that can be enjoyed through 2 state and 70 county parks linked by an extensive network of recreation and transportation trails. With 534 miles of linear coastline, the county ranks second for waterfront in the state and second in the nation when compared to other counties. The county has a wealth of waters, including the Magothy River, the Upper Patuxent River, the Rhode River, the Severn River, the South and West Rivers and the Patapsco River.

The Chesapeake Bay is perhaps Anne Arundel County's most treasured natural resource, constituting the largest estuary in the United States. Many Anne Arundel communities are within one mile of the Bay shoreline. The 2020 State of the Bay Report from the Chesapeake Bay Foundation shows that in each of the three indicator categories; pollution, habitat, and fisheries, there have been improvements since 2018 (Table 6). In 2020, there are further signs that pollution reduction efforts are working: less nitrogen and phosphorus, a smaller dead zone, and improving water clarity. However, despite many efforts by federal, state, and local governments and other interested parties, pollution in the Bay still does not meet existing water quality standards.

Table 6: Chesapeake Bay Health Indicators, 2018 to 2020 Comparison

	Indicator	2020	Change from 2018	Grade
Pollution	Nitrogen	17	+5	F
	Phosphorus	27	+8	D
	Dissolved Oxygen	44	+2	C
	Water Clarity	17	+1	F
	Toxics	28	0	D
Habitat	Forested Buffers	56	-1	B
	Wetlands	42	0	C
	Underwater Grasses	22	-3	D-
	Resource Lands	33	0	D+
Fisheries	Rockfish	49	-17	C+
	Oysters	12	+2	F
	Blue Crabs	60	+5	B+
	Shad	7	-3	F

Chesapeake Bay Foundation, 2020 State of the Bay Report

According to the Anne Arundel County Department of Public Works (2020), all of Anne Arundel County's waterways are considered impaired because of excessive levels of major contaminants, which are largely a result of untreated stormwater runoff. Without prior treatment, all stormwater runoff ends up in nearby streams, rivers, and eventually the Chesapeake Bay. Since stormwater comes into contact with litter, gasoline, oils, brake pad dust from cars, pesticides, waste from pets and many other toxins along its journey, stormwater is a significant source of pollution to the county waterways.

GROUND WATER

As of August, 2021, the Anne Arundel County Department of Health identified five potential groundwater problem areas within the county due to saltwater intrusion, volatile organic compounds (VOCs), and elevated levels of nitrate, radium, arsenic and cadmium. The five groundwater problem areas are Annapolis Neck (Saltwater Intrusion), Gambrills Area (elevated nitrate levels), Northern Anne Arundel (elevated radium levels,) Fort Meade/Odenton Area (three groundwater contaminant plumes,) and the Annapolis/Edgewater Peninsula (elevated arsenic and cadmium.) In many of these areas, residents depend on private wells for drinking water rather than public water. The process for requesting public water in a neighborhood is both arduous and cost-prohibitive for low-income residents.

AIR QUALITY

Air quality is another issue for the county. Anne Arundel County was given an F by the American Lung Association in 2021 for a weighted average of 7.5 high ozone days, a reduction from the 2018 rate of 13 days. High ozone causes respiratory harm (e.g., worsened asthma, worsened COPD, inflammation) can cause cardiovascular harm (e.g., heart attacks, strokes, heart disease, congestive heart failure) and may cause harm to the central nervous system. Groups at risk in the county include 12,464 pediatric asthma patients, 40,950 adult asthma patients and 31,515 adults with cardiovascular disease (American Lung Association, 2021).

SUMMARY

The 2021 Community Health Needs Assessment included the opinions of residents from every economic sector and stakeholders working in public and private systems. The majority were highly concerned about the current labor shortage across the county, from school bus drivers and hospitality workers to nurses, accountants and childcare workers. The increase in mental health issues in all age groups, but particularly children and youth, was of equal concern, with a consensus that these issues have been exacerbated by the pandemic.

The shortage of primary care doctors was noted by residents and health providers across the county who expressed the need for more mobile and place-based services. The lack of regular and accessible transportation continues to create access issues for our most vulnerable residents, although the increase in access to telehealth was noted as a positive of the pandemic. Rising family homelessness related to the growing shortage of rental properties and the lack of affordable housing was another major concern among participants.

In 2021, Anne Arundel County residents have much to be thankful for. Despite inflation and the high cost of living, many residents enjoy a higher than average income in a county known for its natural beauty. However, health and economic disparities based on race and ethnicity can be seen in neighborhoods throughout the county. In each of those neighborhoods, the social determinants of health are rising with the numbers of residents whose incomes are below what is required for a healthy life. While our Bay and watershed are improving, there is much work to do to ensure that our air quality improves, and the quality of drinking water is at the same standard for all residents.

HEALTH

The average life expectancy in Anne Arundel County is 79.8 years. There is a 15-year difference between the census tract with the lowest life expectancy (70.9 years) and the highest life expectancy (85.9 years). As with other markers of well-being, these inequities are caused by the social determinants of health, including race and ethnicity. Life expectancy also differs with sex and race. White women have a life expectancy of 81.9 years, while Black men have a much lower life expectancy of 75.3 years (Figure 5).

Figure 5: Life Expectancy by Sex and Race in Anne Arundel County, 2017-2019
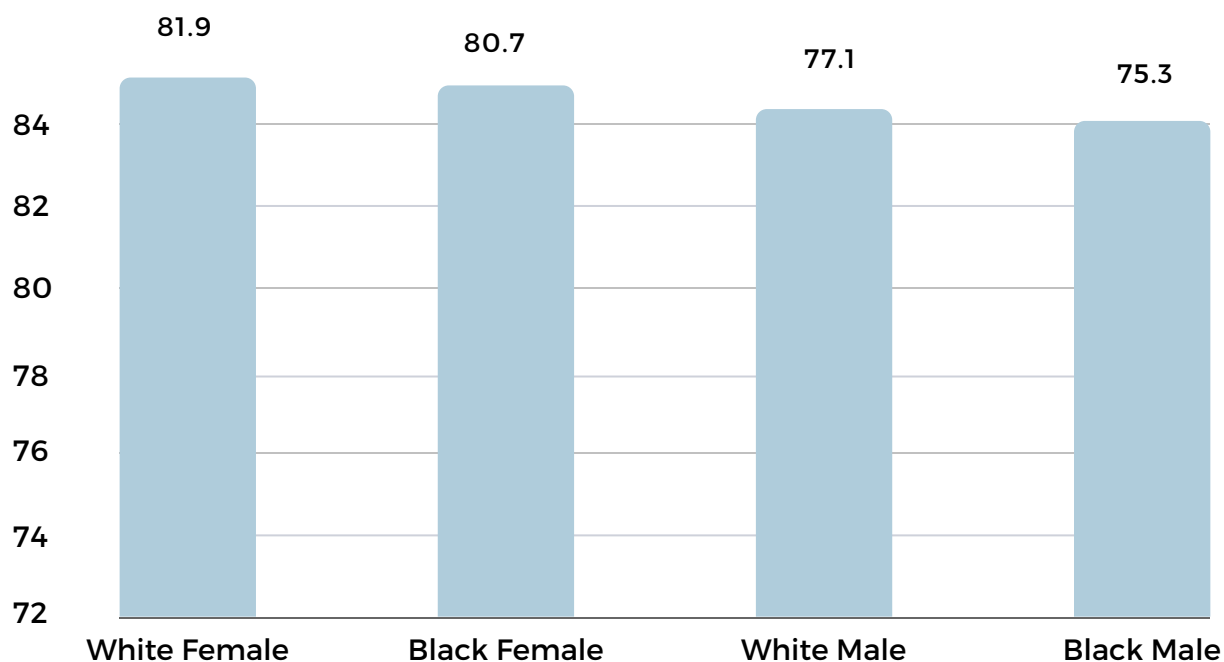
Maryland Department of Health Vital Statistics Administration, 2019

Using the most recent data available, the age-adjusted death rate for the county continues to show disparities between Black and White residents.

Figure 6: Age Adjusted Death Rate per 100,000 (2015-2019)
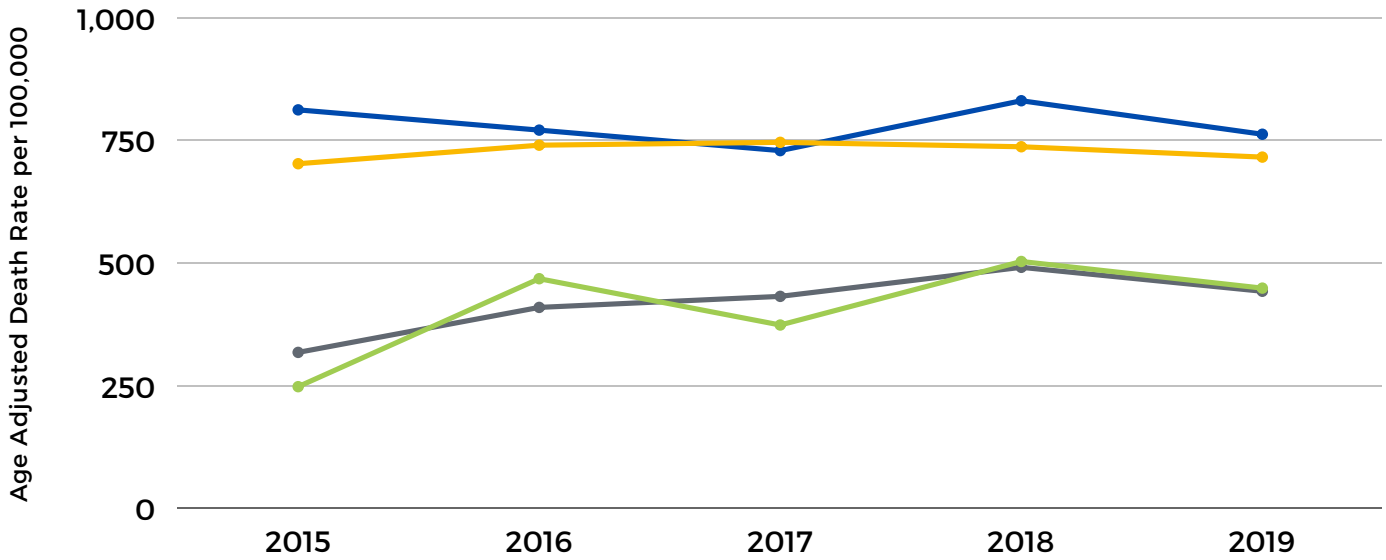
	2015	2016	2017	2018	2019
Black	812.3	771	729.2	830.9	762.6
White	702.5	740.3	746.1	737.1	716
Asian	317.9	409.6	432.1	491.3	442.5
Hispanic	248	468.1	373.7	503.2	448.9

Source: Centers for Diseaase Control and Prevention, National Center for Health Statistics. Underlying Cause of Death 199-2019 on CDC WONDER Online Database, Released in 2020

Heart disease is now the leading cause of death in the county, although intentional self-harm (suicide) has moved into the top ten causes. Not unexpectedly, Alzheimer's disease has moved up two places since the 2018 needs assessment, most likely related to our growing senior population (Table 7).

Table 7: Leading Causes of Death in Anne Arundel County, 2019

Casue of Death	Number
Heart Disease	1,047
Cancer	1,003
Stroke and other Cerebrovascular Diseases	303
Accidents (Unintentional Injury)	232
CLRD*	213
Alzheimer's Disease	108
Diabetes Mellitus	107
Influenza and Pneumonia	90
Intentional Self-Harm (Suicide)	75
Septicemia	74

*Chronic Lower Respiratory Diseases (CLRD) include both chronic obstructive pulmonary disease and asthma.
Source: Maryland Vital Statistics Annual report, 2019, Maryland Department of Health

CARDIOVASCULAR DISEASE

In Anne Arundel County, African Americans have a much higher rate of cardiovascular disease than Whites (Figure 7). This may be due to their overrepresentation in county zip codes and census blocks where the negative social determinants of health are rising. Social determinants of health are discussed in Section 3.

Figure 7: Prevalence of Cardiovascular Disease by Race in Anne Arundel County, 2019

Anne Arundel County Department of Health, 2020
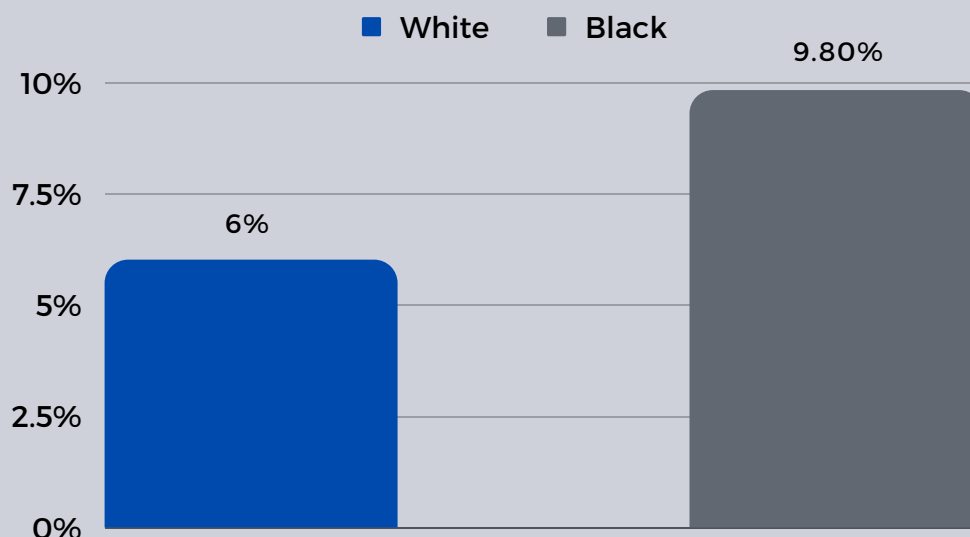
Figure 8: Cardiovascular Disease-Related Inpatient Stays by Race in Anne Arundel County, 2016-2018

Between 2016 and 2018, African Americans had the highest rate of inpatient stays due to cardiovascular disease. While the rate has decreased since 2016, it is still higher than all other races/ethnicities (Figure 8).

Black ■ White ■ Asian

Year	Black	White	Asian
2016	1203.4	1010.1	342.6
2017	1063.2	960.7	288.4
2018	940.7	874.4	229.6

Maryland HSCRC Impatient Files, 2015-2018
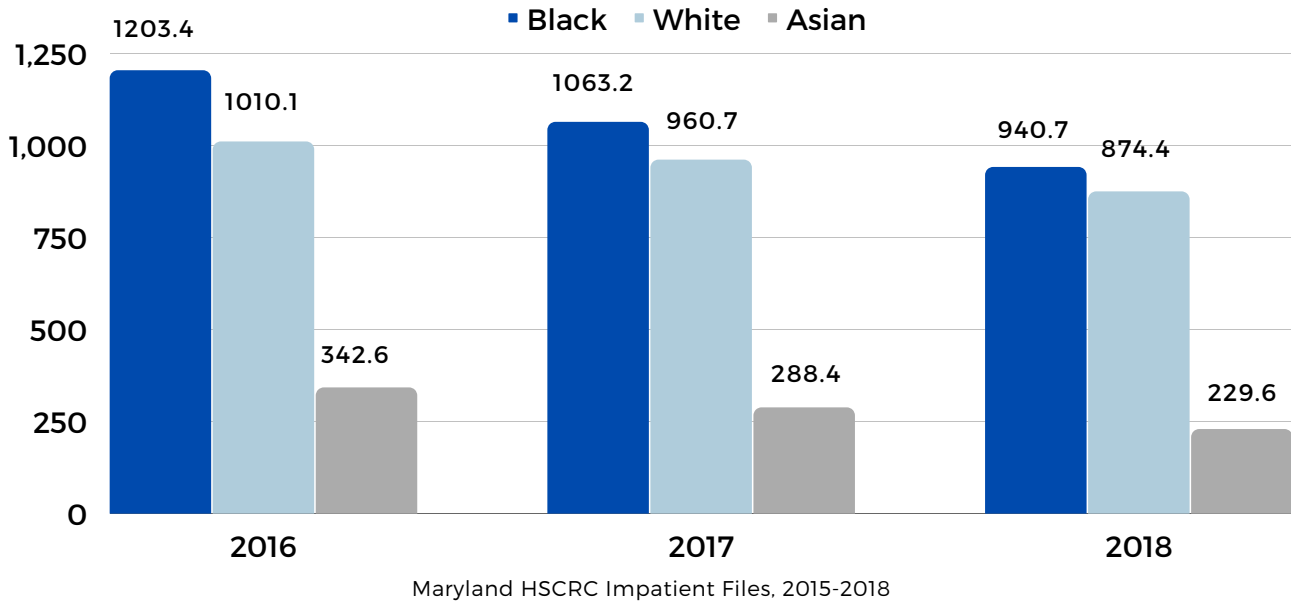
DIABETES

Diabetes Mellitus Type 2 is a chronic disease that often develops as a result of overweight, obesity, and lack of physical activity. Other risk factors include hypertension, low HDL cholesterol or high triglycerides, or being age 45 or older. Diabetes has a significant genetic component and occurs more often in minority groups: African American, American Indian, Asian American, and Hispanic/Latino.

Figure 9: Diabetes Prevalence by Race, Anne Arundel County, 2017-2019
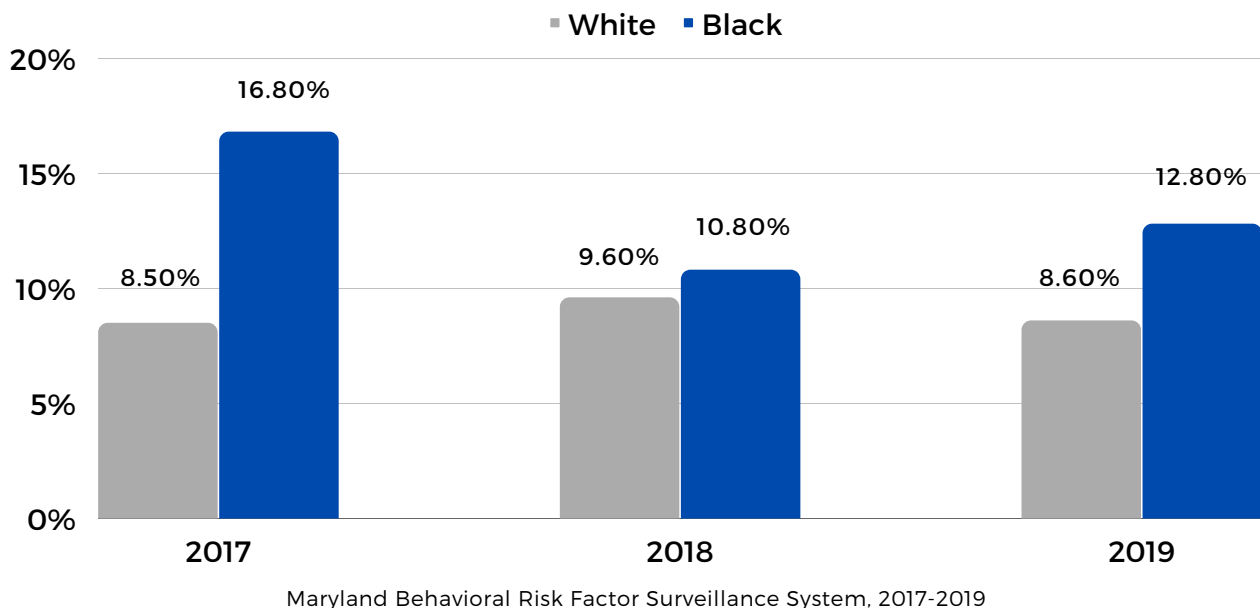
■ White ■ Black

Year	White	Black
2017	8.50%	16.80%
2018	9.60%	10.80%
2019	8.60%	12.80%

Maryland Behavioral Risk Factor Surveillance System, 2017-2019

In 2019, 10.4% of Anne Arundel County residents had Type 2 Diabetes. Residents aged 65+ had the highest percentage of diabetes (22.1%) compared to those in younger age groups. A higher proportion of males had diabetes compared to females (11.2% vs. 7.1%) and non-Hispanic Black residents had a higher proportion of diabetes compared to White residents (12.8% vs. 8.6%) (Figure 9). The data in Figure 9 is deducted from a survey and the question asked does not distinguish between Type 1 and Type 2 diabetes.

Emergency Department encounters for diabetes are trending downwards from 2016 to 2018, but there are disparities. African Americans are accessing emergency diabetes care at almost four times the rate of Whites (Figure 10). According to health providers, this is often due to their lack of access to a primary care doctor and a general lack of access to good health education about diabetes. Several providers noted the life-shortening effects of unmanaged diabetes. As one provider noted:

> *Basically, if you have poorly controlled diabetes and poorly controlled hypertension, then your life expectancy is mid-fifties.*

Figure 10: Diabetes-Related Emergency Department Encounters by Race, Anne Arundel County, 2016-2018
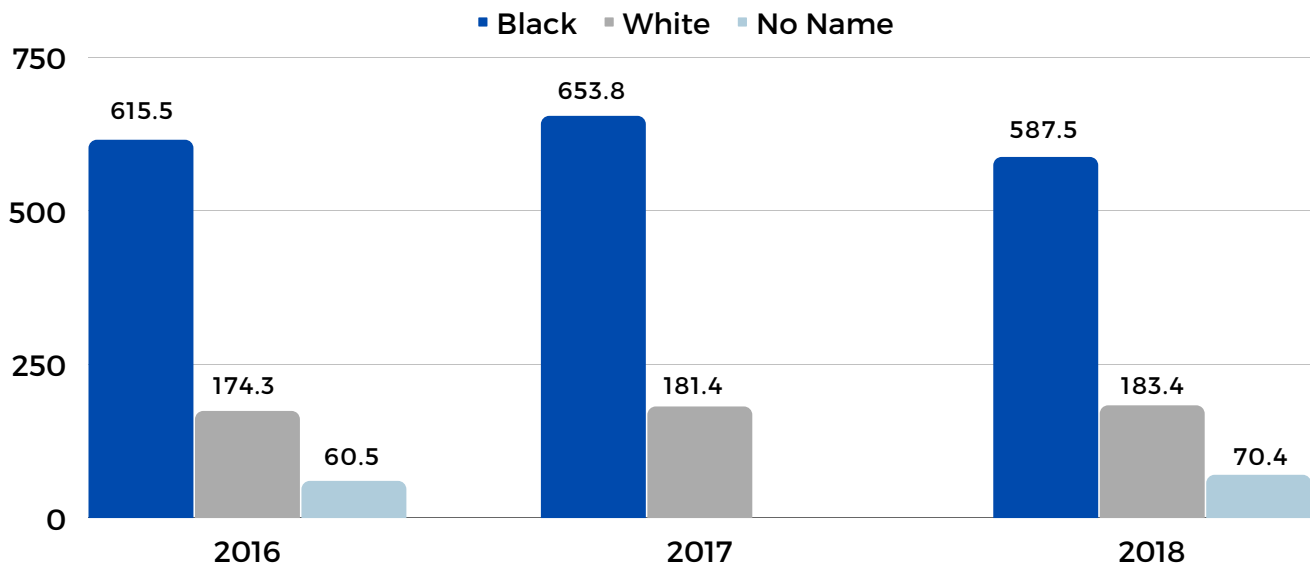
Maryland HSCRC Outpatient Files, 2015-2018

As noted by another provider:
I would think if you're poor and have diabetes and live in a zip code where you can't get to a primary care, your diabetes probably is not well controlled – or controlled by the ER which is absolutely the wrong place.

Individuals with diabetes are hospitalized for a variety of reasons, the most common being congestive heart failure and severe dysglycemia. There was a 22.3% decrease in hospitalizations of African American individuals and an 11.3% decrease in hospitalizations of White individuals in 2018. However, over the 4-year period between 2015 and 2018, African Americans were hospitalized for diabetes-related causes at 2-2.5 times the rate of Whites (Anne Arundel County Department of Health, 2021).

OVERWEIGHT AND OBESITY

Overweight and obesity continue to create health issues for county residents. Many factors play a role in weight, including low income, lifestyle, surrounding environment, access to healthy food, lack of recreational opportunities, stress, genetics and certain diseases. Overweight and obesity are determined using weight and height to determine a BMI or "body mass index" measure. Between 2017 and 2019, the percent of overweight adults (Body Mass Index of 25 to 29.9) 18 years and older in Anne Arundel County rose slightly from 34.9% to 37.9%, while the state average fell (Figure 11).

Figure 11: Percent of Adults Age 18 and Over Who Are Overweight in Anne Arundel County, 2015-2019
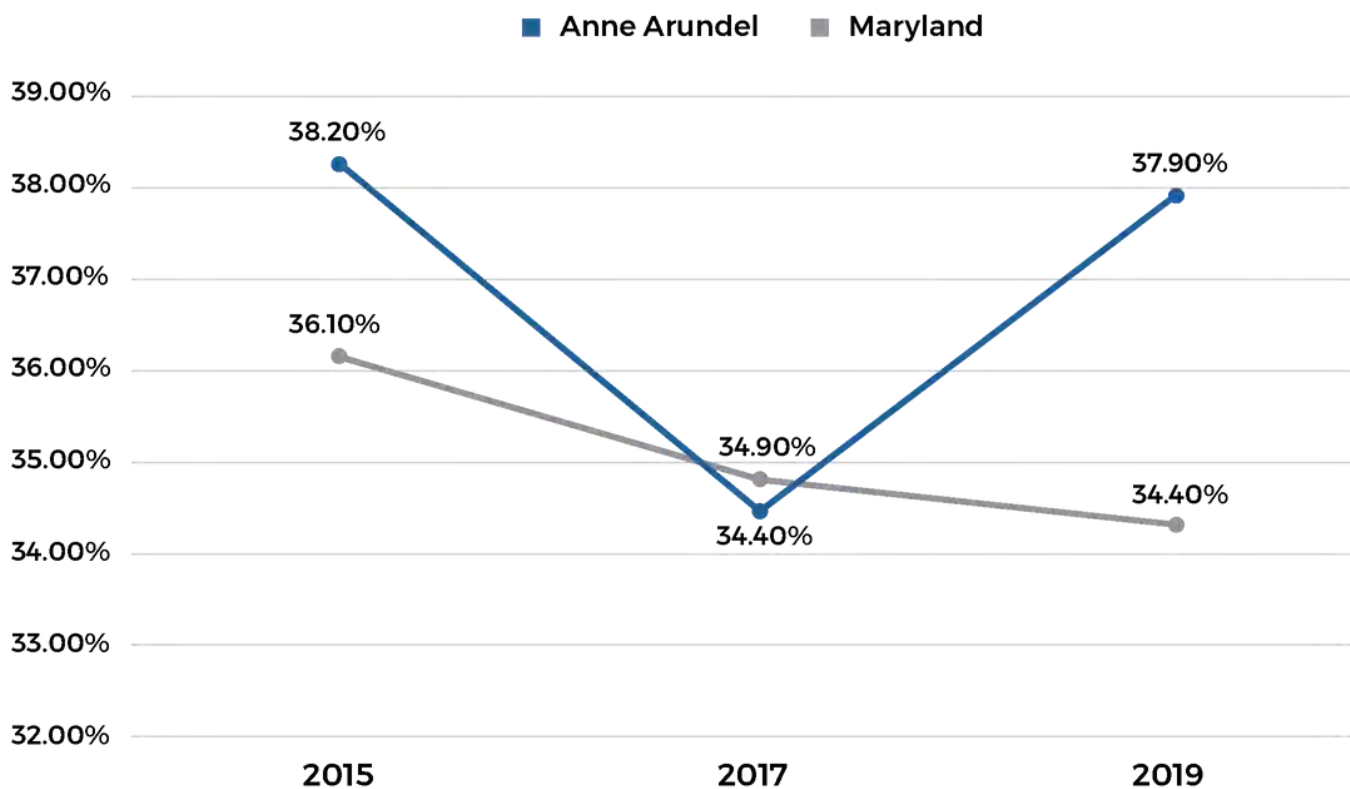
Behavioral Risk Factor Surveillance System (BRFSS), 2015-2019

The percent of county residents who are classified as obese (Body Mass Index 30 and over) also rose from 25.5% in 2015 to 30.5%, still under the state average of 32.2% (Figure 12). Obesity is prevalent in low-income families in the county for a variety of reasons: Their neighborhoods often lack full-service grocery stores and farmers markets; lack of accessible primary care; extra expenses associated with healthy food; no transportation to get to a supermarket; greater availability of fast food restaurants selling cheap and filling food and fewer recreational facilities and green spaces for exercise.

Figure 12: Percent of Adults Age 18 and Over Who Are Obese in Anne Arundel County, 2015-2019

Behavioral Risk Factor Surveillance System (BRFSS), 2015-2019
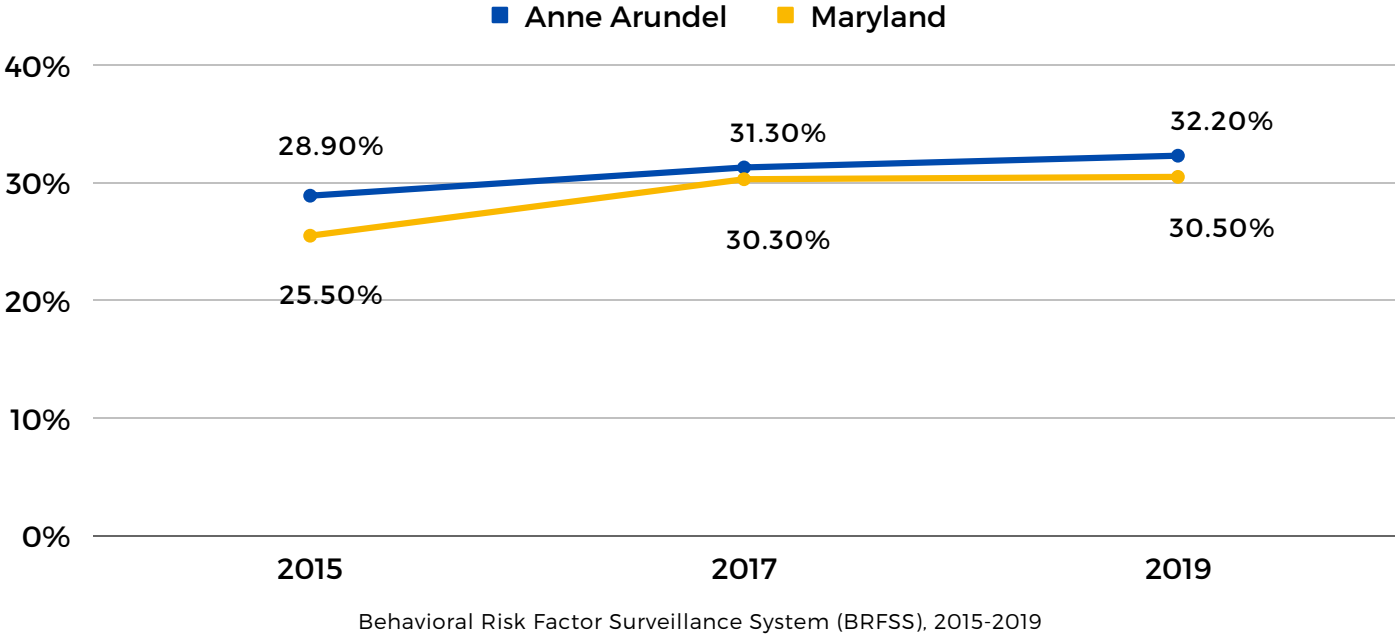
ANNE ARUNDEL COUNTY BIRTHS

Table 8: Anne Arundel County Births by Race and Ethnicity (2015-2019)

	2015	2016	2017	2018	2019
Total	6,924	6,994	6,895	6,783	6,830
NH White	4,383	4,357	4,242	4,118	3,975
NH Black	1,259	1,291	1,273	1,251	1,320
Hispanic	847	896	936	1,009	1,070

Maryland Department of Health, Vital Statistics Administration Reports, 2015-2019

The overall number of county births per year has dropped slightly between 2015 and 2019 from 6,924 to 6830. When data is disaggregated by race and ethnicity, Whites have had the largest drop in number while Hispanic births have increased.

INFANT MORTALITY

Infant mortality measures deaths during the first year of life. The infant mortality rate has dropped for Anne Arundel County since 2015 from 5.1 to 4.2 deaths per 1000 live births in 2019. The overall infant mortality rate for the county in 2019 continues to be lower than the state and the nation. There is still a significant disparity for Blacks at 8.3 and Hispanics at 8.3 and 6.5 per 1000 live births respectively (Table 9).

Table 9: Infant Mortality Rate Comparison (2015-2019)

	2015	2016	2017	2018	2019
Infant Mortality Rate Comparison, 2015 - 2019					
Anne Arundel	5.1	5.6	4.1	3.2	4.2
Maryland	6.7	6.5	6.5	6.1	5.9
United States	5.9	5.9	5.8	5.9	5.7
Infant Mortality- Non-Hispanic White per 1,000 Live Births					
Anne Arundel	3.6	5.3	2.8	3.2	2.3
Maryland	4.0	4.3	4.0	4.1	4.1
United States	4.8	4.8	4.9	4.9	4.6
Infant Mortality- Non-Hispanic White per 1,000 Live Births					
Anne Arundel	9.5	10.1	7.9	4.0	8.3
Maryland	11.3	10.5	11.2	10.2	9.3
United States	11.7	11.8	11.4	10.8	10.8
Infant Mortality- Hispanic (Any Race) per 1,000 Live Births					
Anne Arundel	**	**	5.3	**	6.5
Maryland	5.5	5.4	4.7	3.8	5.1
United States	5.2	5.2	5.0	5.0	4.9

**Rate not calculated; fewer than 5 deaths.
Source: Maryland Department of Health, Vital Statistics Administration, 2015-2019 Annual Reports
U.S. Department of Health and Human Services, Healthy People 2020

LOW BIRTHWEIGHT

Low birthweight is a term used to describe babies who are born weighing less than 2,500 grams (five and a half pounds.) In contrast, the average newborn weighs about 8 pounds. Risk factors for low birthweight include using street drugs and abusing prescription drugs, exposure to air pollution or lead, low socioeconomic status and domestic violence (March of Dimes, 2018). In Anne Arundel County, the percentage of low birth weight babies has stayed stable at 7.8% since 2017 and is less than the state average of 8.7%.

Table 10: Percentage of Babies Born of Low Birth Weight (2019)

Percentage of Low Birth Weight (<2500g) Babies	Anne Arundel	Maryland	United States
2017	7.8%	8.9%	8.3%
2019	7.8%	8.7%	8.3%

Maryland Department of Health, Vital Statistics Administration Reports, 2017-2019 Annual Reports

The trend for county teen births was dropping for all races/ethnicities between 2015 and 2018 (Figure 13). The data for 2019 is showing an increase for all with the highest increase occurring for the Hispanic community.

Figure 13: Teen (Aged 15-19) Birth Rates by Race/Ethnicity for Anne Arundel County (2015-2019)
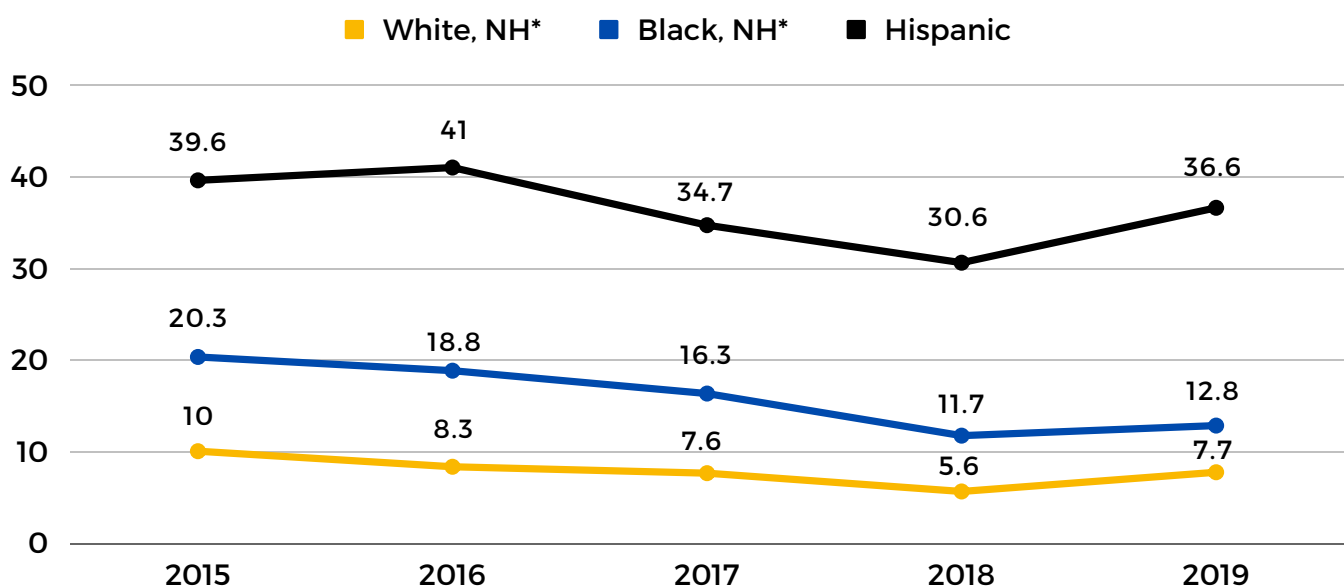
Maryland Department of Health, Vital Statistics Administration Reports, 2015-2019 Annual Reports

ACCESS TO CARE

One important measure of access to health care is the ability of people to pay for the care they need. People without health insurance are more likely to avoid preventive care such as routine check-ups and dental cleanings and delay necessary care, leading to serious illness or other health problems.

The percent of uninsured residents in Anne Arundel County has declined steadily over time and reached a low of 3.6% in 2019 (Table 11). The Affordable Care Act (ACA) continues to increase county residents' access to health care. Under the ACA, persons whose income is up to 138% of the poverty level are eligible for Medicaid. The number of residents enrolled in Medicaid continue to increase. The numbers rose from 83,167 in May, 2019 to 97,543 in May, 2021 (Anne Arundel County Department of Health, 2021).

Persons whose income is above 138% but below 400% of the poverty level have the option to purchase health insurance through the Maryland Health Connection (the state's insurance marketplace/exchange). While this is encouraging, it still means that over 20,000 county residents remain without health insurance coverage. Additionally, high deductible insurance plans and steep copays can prevent even those with insurance from affording and accessing care. In 2019, 9.0% of Anne Arundel County adults reported being unable to see a doctor due to cost even when they needed to, which is down from 11.2% in 2018 but up from 8.3% in 2017 (Maryland Behavioral Risk Factor Surveillance Survey, 2019).

Table 11: Anne Arundel County Uninsured Residents, 2019 Estimates

	Percent of Residents Uninsured	Number of Residents Insured
White, NH	2.3%	8,665
Black, NH	5.0%	4,812
Hispanic	8.7%	3,998
Asian, NH	5.7%	1,195
Total	3.6%	20,195

U.S. Census Bureau, 2019 American Community Survey; CDC, 2019 Maryland BFRSS

There are racial and ethnic disparities in those who lack health insurance. Black residents are more than twice as likely to have no health insurance and the Hispanic population is almost three times more likely, in comparison to White residents (Table 11).

Adequate access to healthcare involves not only insurance coverage and the ability to pay for care but also access to providers. Anne Arundel County's provider-patient ratios continue to be much higher than those of both Maryland and the United States (Table 12). High provider/patient ratios are associated with poorer patient health outcomes, as patients can wait longer to see their doctors, which can delay necessary preventive care. Doctors have less time to devote to each patient and can face burnout. In 2019, 77.2% of county residents reported having a routine yearly check-up with their doctor, while almost nine percent of residents reported that they were unable to see a doctor in the past year because they could not afford the cost. Additionally, 84.9% of residents reported having at least one personal doctor or a doctor they routinely see (Anne Arundel County Department of Health, 2020).

Table 12: Primary Care Physicians and Dentists in Anne Arundel County, Maryland, 2021

	Anne Arundel County Total	Anne Arundel County Ratio	Maryland Ratio	Top US Counties
Primary Care Physicians (2018)	391	1,470:1	1,130:1	1,030
Dentists (2019)	403	1,440:1	1,260:1	1,210:1

County Health Rankings Report, 2021

Lack of access to health care can mean that health issues are not addressed and become chronic and/or much more difficult to treat. In low-income neighborhoods, situational depression and other mental health issues may further exacerbate the issue. As one resident noted:

> **"** *There are long term health issues that haven't really been addressed and I don't know if it's necessarily because they haven't had insurance or they haven't had access, but the other root causes are that mental health, the addiction, has caused people to neglect their actual day to day life.* **"**

Access to dental care continues to be a huge issue in the county. There are only 403 dentists in the county; a ratio of 1 dentist to 1,470 residents, which is much lower than the state or the nation (Table 12). Those residents fortunate enough to have dental insurance often have large copays. For those without dental insurance, there is a dental clinic at the Stanton Center in Annapolis and one in Glen Burnie, operated by Anne Arundel County Department of Health, and another at the Chase Braxton Federally Qualified Health Center in Glen Burnie. Several participants commented on the lack of affordable dental services. As one resident noted:

> **"** *If you have a bad mouth, it messes with your heart, your kidneys and everything but the access to that is just null and void… If you look in people's mouths you can see the teeth missing, you can see that they need services and they'll say, we can't even go to the dentist, we might get approved to get a tooth pulled out or something, but you know, the cleanings, and all of that, no, it's just not there.* **"**

HEALTH EDUCATION

A majority of participants in this needs assessment, residents and providers, talked about the need for more health education for youth and adults, especially in schools. Topics ranged from understanding and managing diabetes, to the importance of exercise. As one commented:

> **"** *We need to know how you take care of your heart or here's why you need to eat well and exercise, but let's talk about the flu vaccine and why it's really important.* **"**

Health professionals were particularly interested in using health education from the earliest stages of life to help residents combat avoidable health issues 'that will hopefully impact community health ten years from now,' as one provider said.

A representative for the county public school system explained that health education is integrated in the curriculum at the elementary school level. At middle school level it is taught for one quarter of the year through grades 6, 7 and 8. High school students receive one semester of health education as a graduation requirement. Topics include Health skills, Mental and Emotional health and Substance Abuse, Safety and Injury, Human Sexuality, Healthy Living and Disease Prevention.

HEALTH PROFESSIONAL SHORTAGE AREAS

Health Professional Shortage Areas (HPSAs) are designated by the Health Resources and Services Administration (HRSA) as having shortages of primary medical care, dental or mental health providers and may be geographic or facility-based. In Anne Arundel County, there is currently one designated Primary Care HPSA facility (Bay Community Health in South County), 1 Dental HPSA facility (Bay Community Health) and 2 Mental Health HPSA facilities (Bay Community Health and Maryland Correctional Institution, Jessup). Bay Community Health Center has recently extended health care to a location in Lothian. However, it takes time to build trust among residents. As one provider noted:

> " *It takes a while for people to know you're there and to trust you enough to come. I know if we opened a place tomorrow in Deale it wouldn't be swamped with poor people that need healthcare. You have to be in the culture long enough and go out and meet people.* "

Figure 14: Health Professional Shortage Areas in Anne Arundel County
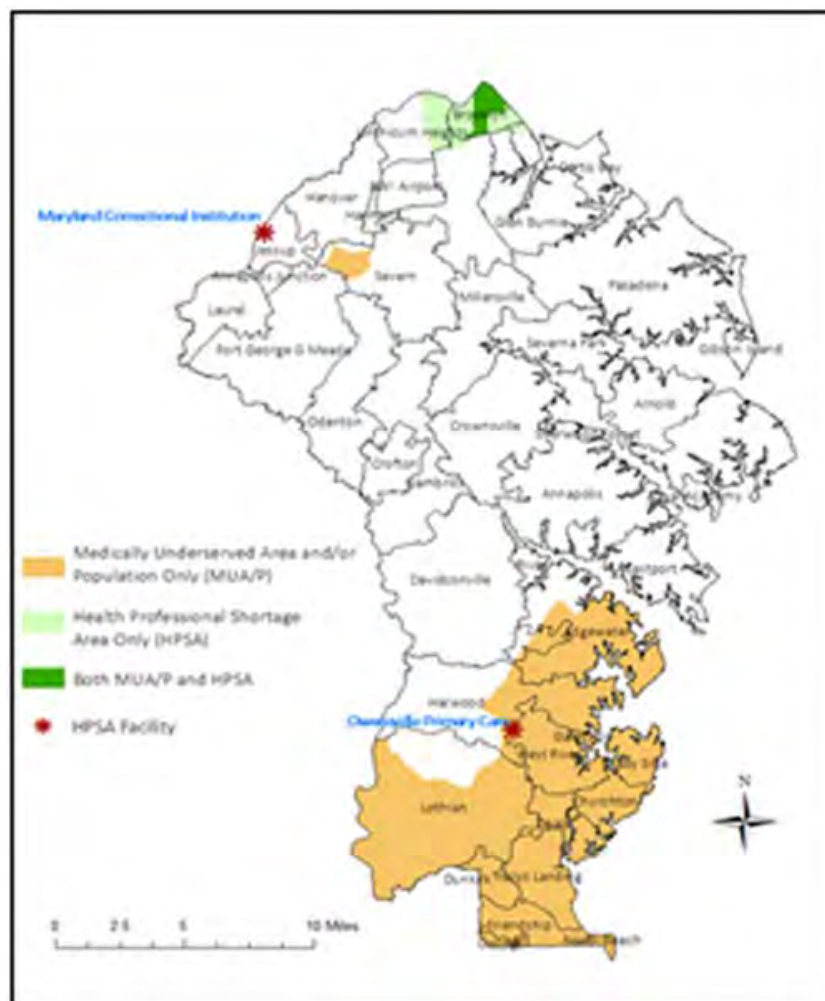
Source: Health Resources and Services Administration, 2021

MEDICALLY UNDERSERVED AREAS

Medically Underserved Areas (MUAs) are designated based on four variables: ratio of primary medical care physicians per 1,000 population, infant mortality rate, percentage of the population with incomes below the poverty level and percentage of the population age 65 or over. There are 11 census tracts in Anne Arundel County designated as medically underserved areas or populations. Approximately 54,700 (10%) of the county's population lives in these 11 census tracts. Brooklyn Park in North County is both an HPSA and an MUA.

IN-PATIENT HOSPITALIZATIONS

In 2019, there were 55,671 hospital stays in Anne Arundel County: a rate of 96.1 per 1,000 (Table 9). The hospitalization rate increased with age from 68.5 hospitalizations per 1,000 population among those aged 0-18 years old to 227.3 hospitalizations per 1,000 population among those aged 65 years and over (This data only includes Anne Arundel County residents admitted to hospitals in Maryland). The rates have decreased in every category since the last needs assessment in 2018.

Table 13: Inpatient Hospitalizations in Anne Arundel County, 2019

	Number	Rate per 1,000
Total Hospitalizations	55.671	96.1
Age		
0 to 18 Years	9,332	68.5
19 to 39 Years	11,677	71.7
40 to 64 Years	14,922	77.2
65 Years and Over	19,740	227.3
Sex		
Male	23,957	83.6
Female	31,714	108.3
Race/Ethnicity		
White, NH	35,510	92.5
Black, NH	11,442	112.3
Asian, NH	1,274	58.9
Hispanic (Any Race)	3,665	75.1

Health Services Cost Review Commission 2019 Inpatient Files

The most common diagnoses for hospitalizations are for births. Those numbers are not included in Table 14. Every diagnosis for inpatient hospitalization has seen a reduction, except for Sepsis which has risen every year since 2016. The reduction for acute or congestive heart failure is dramatic; from 729 admissions in 2016, to 60 in 2019.

Table 14: Top Ten Diagnoses for Inpatient Hospitalizations

Diagnoses	2016	2017	2018	2019
Sepsis (A419)	1,731	1,962	2,564	2,571
Pneumonia (J189)	1,200	900	768	423
COPD, acute exacerbation (J441)	1,010	812	758	742
Non-STEMI Heart Attack (I214)	701	700	651	631
Acute Kidney Failure (N179)	684	716	699	596
Urinary Tract Infection (N390)	591	436	358	336
Ischemic Stroke (I639)	498	522	476	367
Major Depressive Disorder (F332)	451	44	404	350
Acute or Congestive Heart Failure (I5023 and I5033)	729	99	70	60
Pulmonary Embolism (I2699)	317	281	279	246
Total Admissions	61,058	59,277	57,088	55,671

Health Services Cost Review Commission 2019 Inpatient Files

When the rates of hospitalization are disaggregated by zip code, the areas of the county where the hospitalization rates are highest are also the areas where both access to care and rising social determinants are notable (Table 15).

Table 15: Inpatient Hospitalizations by ZIP Code in Anne Arundel County, 2019

Town	Zip Code	Number	Rate per 1,000
Friendship	20758	74	164.1
Galesville	21077	41	148.6
Brooklyn	21225	4,934	143.6
Curtis Bay	21226	896	143.4
Glen Burnie (East)	21060	4,052	116.1
Glen Burnie (West)	21061	6,244	115.9

Health Services Cost Review Commission 2019 Inpatient Files

GUN VIOLENCE

Gun violence continues to be a concern for the county. While there was a 12% decrease in the number of gun incidents county-wide in 2018, there was a 74% increase in gun incidents in 2019 (Anne Arundel County Police Department, 2021). Firearm deaths by census tract show that our most vulnerable neighborhoods have the highest rate of firearm deaths in the county at greater than 9.7 per 100,000 of the population (Figure 15) (Anne Arundel County Department of Health, 2020). Social and economic inequities are often at the root cause of community violence. The majority of participants in this needs assessment commented on the number of guns in the county, especially those accessible to teenagers. As one noted:

> "*Right and wrong doesn't even kick in until they're 25, so if you put a gun in my hand, at 14 and say hey I can show you how to permanently get rid of this fear and that kid won't bully you no more - I'm dangerous.*"

Figure 15: Firearm Deaths by Census Tract, Anne Arundel County, 2013-2019

Firearm Deaths by Census Tract, Anne Arundel County, 2013-2019
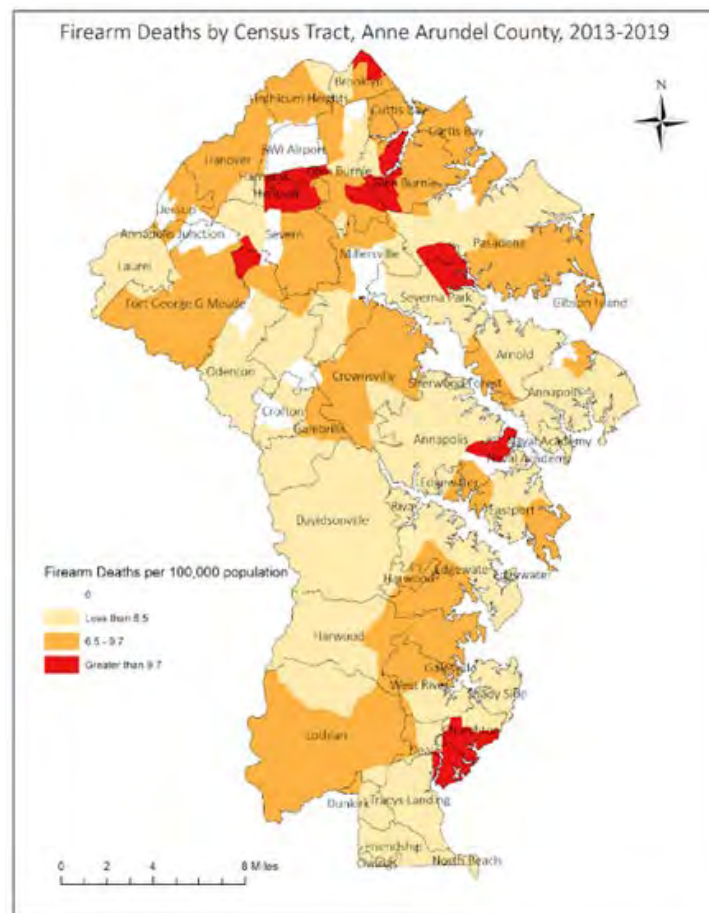
The most recent gun crime data from the Anne Arundel County Gun Violence Taskforce shows little change from 2016 - 2021 (Figure 16), although there was a small spike in 2020.

Figure 16: Gun Crimes in Anne Arundel County 2016-2021
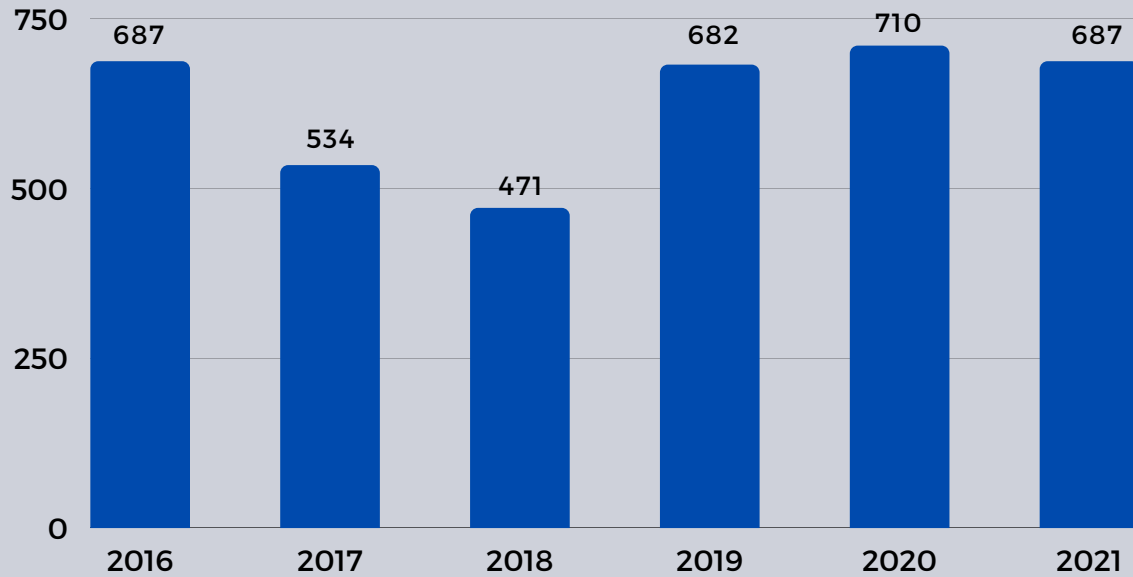
Anne Arundel County Gun Violence Task Force

Anne Arundel County and the City of Annapolis Police Departments are struggling with a growing number of ghost guns. Such guns have no serial number, are usually bought in parts on the internet and assembled by the user. In 2020, Anne Arundel County submitted 31 ghost guns (population of 600,000), whereas Annapolis submitted a much higher rate of 15 ghost guns for a population size of 39,000 (Anne Arundel County Gun Violence Intervention Taskforce, 2021).

Between 2016 and 2019, there were a total of 594 injuries due to firearms in Anne Arundel County (Table 16). Black males had 11 times the rate of firearm injury than White males and while White males comprised nearly one quarter of the total firearm injuries, Hispanic males had the second highest injury rate after Black males.

Table 16: Anne Arundel County Firearm Injury by Race and Ethnicity, 2016-2019

Sex and Race/Ethnicity	Total Injuries (Percent)	Yearly rate per 100,000 Population
Black Male	349 (59%)	194.7
White Male	129 (22%)	16.5
White Female	27 (5%)	3.4
Black Female	38 (6%)	20.3
Hispanic Male	20 (3%)	23.3
Other/Hispanic Female	31 (5%)	13.3
Total	594	26.3

Anne Arundel County Gun Violence Task Force, 2021

The trend line for inpatient hospitalizations and Emergency Department visits for firearm injuries in the county is moving downwards between 2016 and 2019 for a total of 138 total admissions (Table 17).

Table 17: Inpatient Hospitalizations and Emergency Department Visits for All Firearm Injuries

Place of Admission	2016	2017	2018	2019
Impatient Hospitilizations	58	77	47	62
Emergency Department Visits	94	90	90	76
Total Admissions	152	167	137	138

Anne Arundel County Department of Health, 2021

The total cost of firearm related injuries was more than $12.3 million from 2016 to 2019. The majority of injuries were accidental discharges (53%) followed by assaults (40%). The cost to the healthcare system has increased every year since 2016 and stands at $3,034,203.80 in 2019 (Table 13).

Total Charges for All Patients	2016	2017	2018	2019
Impatient Hospitilizations	$2,376,695.49	$3,765,813.67	$2,661,434.28	$2,925,442,42
Emergency Department Visits	$131,111.09	$246,838.84	$103,422.48	$108,761.45
Total Costs	$2,507,807	$4,012,653	$2,764,857	$3,034,204

Anne Arundel County Department of Health, 2021

SUICIDE

2019 was the second year in a row with a decrease in suicides for the county. The number of completed suicides has dropped from 95 in 2017 to 75 in 2019. Those under the age of 34 attempt suicide at the highest rates, while those above the age of 85 have the highest death rate (Figure 16).

Figure 16: Suicide Mortality and Attempt Rate per 100,000 Population by Age in Anne Arundel County, 2015-2019

Legend: ■ Suicide Mortality Rate ■ Suicide Attempt Rate

Age	Suicide Mortality Rate	Suicide Attempt Rate
10-17	2.8	411.4
18-24	17.3	354.3
25-34	15.9	360.6
35-44	14	224.8
45-54	17.6	198.2
55-64	18.9	118.8
65-74	14.9	41.1
75-84	12.1	14.5
84+	24.5	6.4

Maryland HSHRC Outpatient and Inpatient Files, 2017-2019, Maryland Department of Health, Vital and Statistics Administration, Death Files, 2015-2019
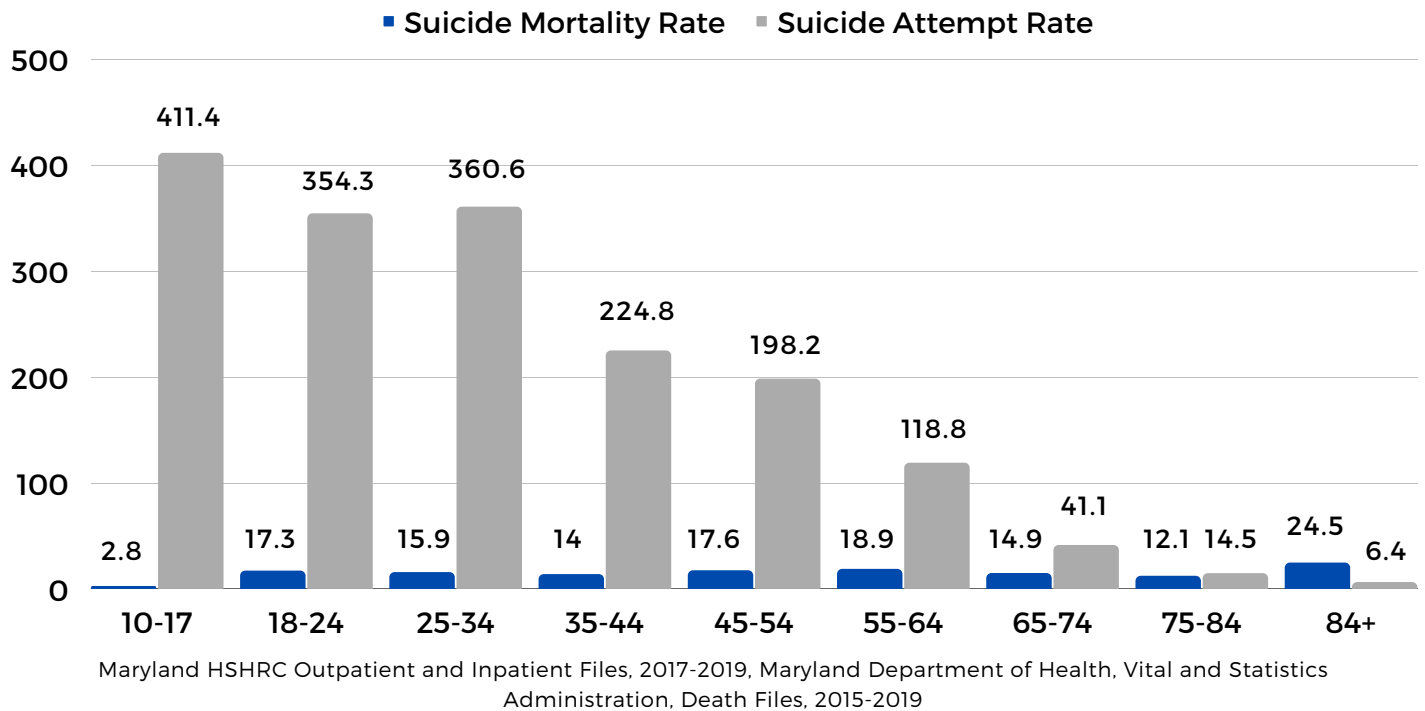
White males make up the majority of suicide deaths in Anne Arundel County followed by Hispanic males and Black males (Table 19). Guns are the most common means of suicide in the county. Of all suicides, gun suicides make up 40% on average (Anne Arundel County Department of Health, 2020).

Table 19: Anne Arundel County Suicides by Sex and Race, 2015-2019

Race/Sex Category	Suicides	Rate per 100,000 Population
White Male	234 (63%)	24
White Female	88 (24%)	8.9
Black Male	24 (7%)	10.7
Black Female	3 (1%)	1.3
Hispanic Male	13 (4%)	12.1
Hispanic Female	0 (0%)	-
Other	9 (2%)	4.7
Total Suicide Deaths (2015-2019)	371	13.1

Maryland HSHRC Outpatient and Inpatient Files, 2017-2019, Maryland Department of Health, Vital and Statistics Administration, Death Files, 2015-2019

SUMMARY

Anne Arundel County has an excellent health care system. Most residents have good access to both preventative and ongoing health care. However, life-shortening issues such as obesity and diabetes continue to rise in the county and occur, disproportionately, among African American residents related to social, economic and racial disparities in some of our neighborhoods. Those disparities help create gun violence incidents which continue to drive up costs for hospitals and other systems within the county.

Heart disease is now the leading cause of death in the county. A majority of participants expressed the need for more formal methods of educating and informing the public about their health. The approach should be to make residents partners in their own health outcomes. Access to health care is still an issue for low-income residents who often live in areas with little transportation and few healthcare facilities.

NEEDS

- More primary care doctors. This is a nationwide issue that has multiple impacts.
- More comprehensive health education at the school and community level. Participants talked about general health strategies, healthy eating, the value of exercise, and how vaccinations work.
- Evidence-based programs to address gun violence, including hospital diversion programs.
- Access to dental care for all residents.
- Planning to increase access in medically underserved areas.
- More funding for programs like REACH (Residents Access to a Coalition of Health) which is specifically for residents not eligible for Medicaid, Medicare and plans available through MD Health Connection. REACH offers low-cost health services. Currently, the REACH program has a long waiting list. It is funded through grants by the Anne Arundel County Department of Health and is reduced fee based on income.
- More translation services for the immigrant population, especially the growing Spanish-speaking population.

SECTION 2

MENTAL HEALTH AND SUBSTANCE USE

The State of Maryland changed its Administrative Services Organization for public behavioral health services on January 1, 2020. The consequent change in publicly available data has been challenging for this assessment of county mental health needs, especially in terms of comparison data. Nonetheless, locally available numeric data and anecdotal information from stakeholders have helped fill the gap.

While the county's numeric data on mental health for the period from 2019-2021 is unreliable, the stakeholders in this assessment; primary care doctors, therapists, pupil personnel workers, and a wide diversity of residents, lamented the enormous toll mental health issues are taking on our systems, our neighborhoods and our county. Stress-related anxiety and depression through isolation, economic distress and the trauma related to increasing racial tension were all mentioned as issues to be addressed. As one participant noted: Clearly, we need more clinicians, but we also have the situational response to a circumstance which is not necessarily mental illness, it's, you know, trauma-induced challenges.

Figure 17: Number of Maryland Individuals Receiving Mental Health Services by Age Group in the Public Behavioral Health System, 2018-2021
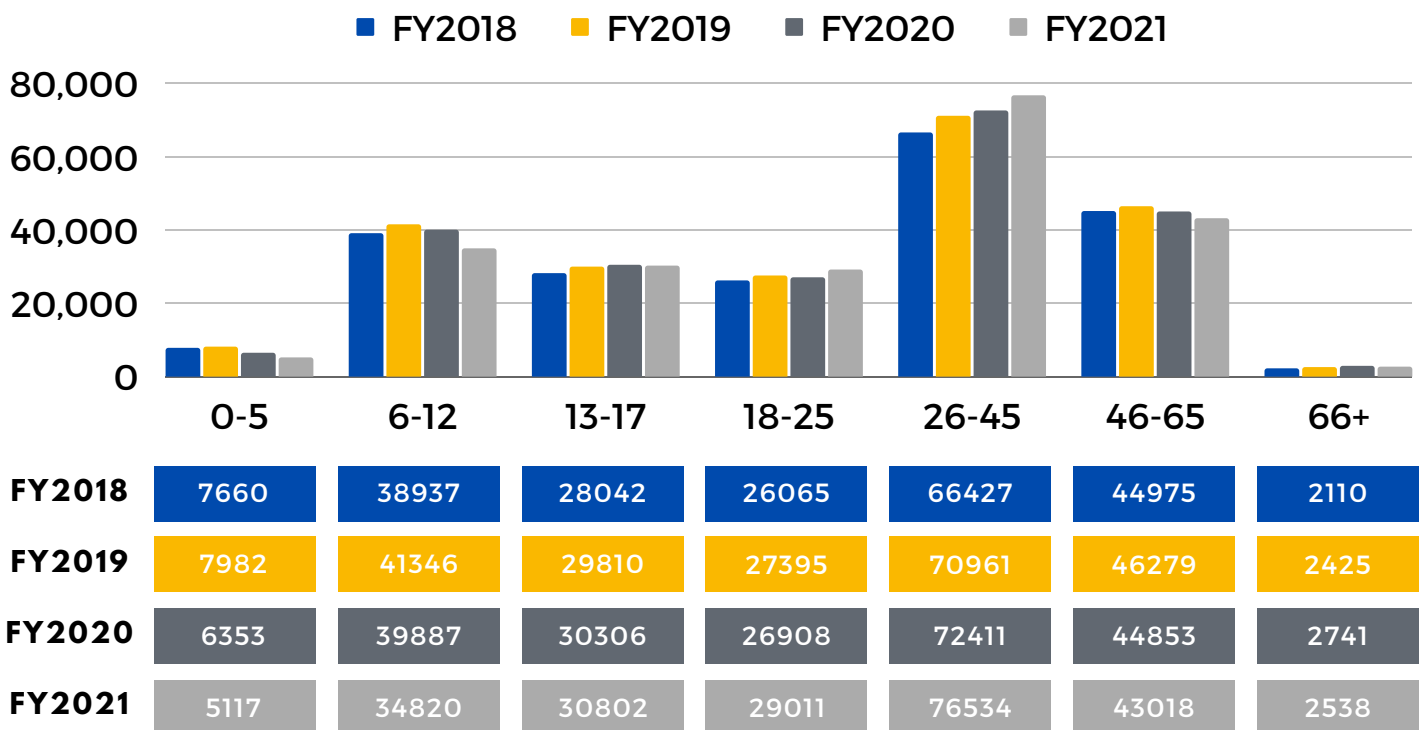
	0-5	6-12	13-17	18-25	26-45	46-65	66+
FY2018	7660	38937	28042	26065	66427	44975	2110
FY2019	7982	41346	29810	27395	70961	46279	2425
FY2020	6353	39887	30306	26908	72411	44853	2741
FY2021	5117	34820	30802	29011	76534	43018	2538

Maryland Department of Health

Maryland numbers for the use of public mental health services by age for 2018-2021 show an increasing trend of usage for those ages 13-45 (Figure 17). The trend line is also increasing for those ages 66 and older. The 0-12 population data does not show an increase in usage even though childcare providers, parents, and teachers are all reporting increases in mental health issues. Several providers commented on the increase in anxiety and depression. As one noted:

> **"***The most common things are anxiety and depression - they are going to be your highest volume of problems.***"**

Anne Arundel County's award-winning crisis system is the envy of the state and the nation. The Crisis Response System, known as the Community Warmline, is a service that provides Anne Arundel County residents in crisis with supportive assistance and linkages to resources within the community, twenty-four hours per day and seven days per week. Crisis Response System staff intervene with callers who are experiencing a mental health and/or substance use disorder emergency. The system also provides service to the community through Mobile Crisis Teams, Homeless Outreach Services, Urgent Care Clinic, Sexual Assault Clinic, Community Education and Crisis Beds. Mobile crisis team dispatches over the past two years show a marked increase in calls for services, with the 2021 trend line higher overall than 2020 (Figure 18).

Figure 18: Anne Arundel County FY 20-FY 21 Mobile Crisis Team Dispatches by Month

Anne Arundel County Mental Health Agency, 2021
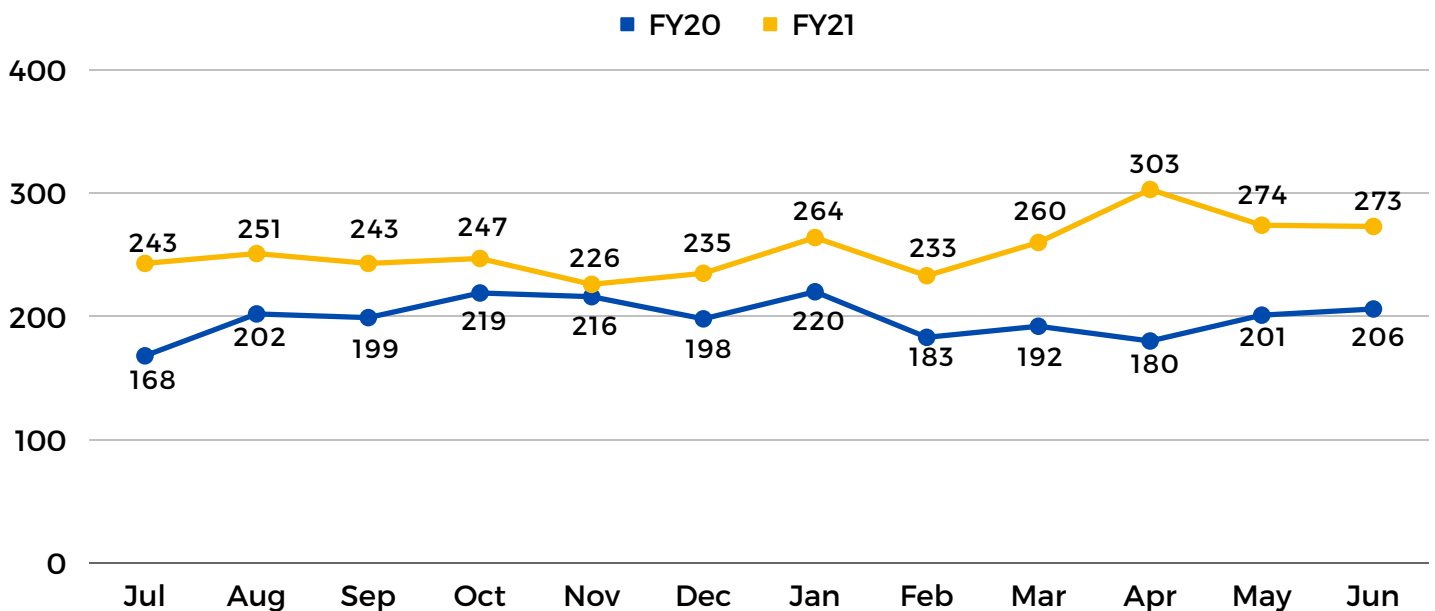
ACCESS AND SERVICE ISSUES

The county has an overall shortage of mental health therapists, an issue exacerbated by the current labor shortages caused by COVID-19. The county has 1,180 mental health providers overall for a ratio of 490:1 to the county's population, a lower rate compared to the state and almost half the ratio of the top U.S. counties. The lack of Spanish-speaking counselors and psychiatrists continues to be a huge issue, although there have been some small improvements among our mental health providers (Table 19).

Table 19: Mental Health Providers, 2020 Anne Arundel County, MD

	Anne Arundel County Total	Anne Arundel County Ratio	Maryland Ratio	Top U.S. Counties (90th Percentile)
Mental Health Providers	1,180	490:1	360:1	270:1

County Health Ratings Report, 2021

The lack of providers is creating waiting lists throughout the county and increasing the number of referrals to emergency rooms. The emergency room tends not to be a therapeutic place. Providers described the environment as crowded, noisy and fast-moving. As one health worker noted:

> *We don't have the expertise to create a therapeutic environment for those individuals in the emergency department… it is never a place for behavioral health patients to have anything therapeutic happen.*

According to the most recent annual data for the Health Services Cost Review Commission, Anne Arundel County emergency rooms saw over 11,000 patients for behavioral health issues. This number is reduced from 12, 446 ED Encounters reported in the 2018 Community Health Needs Assessment. The top three categories were mood disorders, alcohol-related disorders and substance use disorders (Table 20).

Table 20: Emergency Department Encounters for Mental Health Conditions in Anne Arundel County, 2019

Condition	Frequency	Percent
Mood Disorders	2,945	26,7%
Alcohol Related Disorders	2,501	22.7%
Substance Related Disorders	2,131	19.3%
Anxiety Disorders	1,402	12.7%
Schizophrenia and Other Psychotic Disorders	642	5.8%
Suicide and Intentional Self-Inflicted Injuries	619	5.6%
Adjustment Disorders	351	3.2%
Delirium Disorders and Amnestic and Other Cognitive Disorders	248	2.3%
Attention-Deficit Conduct and Disruptive Behavior Disorders	151	1.4%
Miscellaneous Health Disorders	23	.02%
Total	11,013	-

Health Services Cost Review Commission Outpatient Files, 2019

Victims of domestic violence, sexual assault and other violence are also referred to the emergency room for medical care. These residents are usually highly traumatized and require trauma-informed care in a trauma-informed setting. As one provider commented:

> "A lot of these patients having just been victimized and traumatized, it's hard for them to be relaxed and to be able to speak with us, maybe speaking with police, with advocacy, maybe care management, and the best practice really is to have them in a trauma-informed care setting. And that would not be an ER care setting."

Table 21: Emergency Department Visits for Sexual Assault and Other Violent Injuries.

	2016	2017	2018	2019
Sexual Assault*	25	24	41	37
All Violent Injuries**	2,110	2,219	2,053	1,587

Health Services Cost Review Commission Outpatient Files, 2019

Primary care doctors are filling the gap in mental health services where they can. Generally, they are prescribing medicines for patients with anxiety and depression and referring to a psychiatrist when necessary. Unfortunately, there is still a huge shortage of psychiatrists in the county, according to participants in this needs assessment. Behavioral health issues take time away from the limited supply of primary care. As one health worker noted:

> *I certainly know that every primary care doctor who treats those things doesn't say, 'oh, you have to go see a psychiatrist.' That's because there aren't enough psychiatrists. Certainly, if somebody's acutely suicidal we need to get them some place but if it's just a matter of 'should I start medicine' and follow up, I think we all do that. So that access is as much a problem as the primary care access is.*

The county still lacks residential care for those residents with serious mental issues who require 24-hour care. There are 274 residential rehabilitation beds in Anne Arundel County, 119 are intensive beds and 75 are general beds. As of January 2022, there are 134 individuals on the waitlist. All of these beds are for adults. There are no residential beds for youth in the county. Children requiring residential care are often placed in other counties and sometimes out of state. Such distances create issues for parents to act as strong, ongoing supports and do not aid each child's recovery. As one provider noted:

> *How can you transfer a kid out to Western Maryland and expect the family to be involved in their care and recovery and we know the family have to be in central component of that. But its three hours one way out to where their child is being hospitalized, you're setting yourself up for failure right from the get-go*

AWARENESS AND STIGMA

There was a consensus among participants that while mental health needs have grown, awareness of those issues has grown among residents at the same pace, especially in the Anne Arundel County Public School System. As one participant noted:

> *I think our awareness around the county, around the state, the country, and certainly in the public schools, our awareness is likewise more acute and we're having more broad conversations that help with stigma.*

Residents in low-income neighborhoods expressed the same change in attitudes among African American and Hispanic residents and less avoidance related to stigma. One noted,

> *Now it's more acceptable to say I may need mental health help. I may need to see a therapist, or I may need to address some of these issues.*

VIRTUAL SERVICES

Many mental health providers now offer services virtually. At the beginning of the pandemic, regulations changed to allow for billing of tele-behavioral health services, which increased access to services to every demographic. Most participants commented on the importance of this increased capacity, especially for those clients who lack transportation. Mental health providers also noted that virtual capacity decreased the amount of "no-show" patients. As one noted:

> *Telehealth has a way of delivering services to people who are having access issues and who can have access to that type of virtual platform, we have, you know, we have less no-shows now than we did back then.*

CHILDREN'S MENTAL HEALTH

Stakeholders in this needs assessment were almost unanimous in their concern for what they perceived as growing mental health issues in children and adolescents, a concern previously voiced in the 2018 Community Health Needs Assessment. As one provider noted 'you know, we've always been behind with what the mental health needs are for our children.' However, in 2021, stakeholders reported an overall increase in county awareness of the need to recognize and treat mental health issues, especially those related to trauma. As one respondent said, "I think the needs are more acute and greater … but I think our awareness has increased around the county, around the state and certainly in public schools.'

State legislation to let minors as young as 12-years-old seek mental and emotional health care without their parent or guardians' consent became law in Maryland on October 1, 2021. The legislation does not allow minors to refuse mental health treatment that their parents have authorized. Under the newly enacted legislation, health care providers maintain the ability to inform parents of their child's care plan regardless of whether they give their consent. Additionally, youths under 16 can't be prescribed psychiatric medication without parental permission.

Every school in the AACPS system now has Expanded School-Based Mental Health (ESBMH) services. Students enrolled in Medicaid can receive mental health services at their school during the school day through Villa Maria, Children's Guild, Innovative Therapeutic Services, or Thrive Behavioral Health. AACPS served 2,224 students during the 2020-21 school year, a predictable decline of 300 students from the 2019-2020 school year, given that much of the time, schools were offering virtual instruction only. Overall, ADHD (27.56%) and anxiety (27.02%) are the most frequent primary diagnoses for ESBMH students (Table 22). Third to sixth grade students were the most likely to be served (Anne Arundel County Public Schools, 2021).

Table 22: Anne Arundel County Public Schools Students Served by Primary Diagnosis

Provider	ADHD	Anxiety	Conduct	Developmental	Mood	Other	Trauma	Blank	Grand Total
Army	4	8		2	4	19			37
ITS	22	43	6		19	29		2	121
Thrive								219	219
TCG	117	130	23	3	143	15	150	1	642
Villa Maria	410	420	59		121	10	77	108	1205
Grand Total	613	601	88	5	287	73	227	330	2224

Source: Anne Arundel County Public Schools, 2020

Half the children served are in elementary schools, with Grade 5 having the most referrals (236 or 12.6% of the population). Most students served (80.65%) qualified for Free and Reduced Lunch (Maryland State Department of Education, 2021). This should not be surprising as the school-based mental health system is based mostly on Medicaid billing rather than county dollars. The children hardest to serve are those with no health insurance. Participants in this needs assessment were concerned about the mounting waitlist for school-based mental health and the high turnover rate of therapists. In some schools, the wait can be as long as five months. As one noted:

> **"**High turnover so the kids are not being able to get a really good rapport with one person and then on top of that, it just seems like the more significant behaviors that we're seeing this year, they don't seem to be equipped to take care of those. So, I'd say the high turnover but also the waitlist.**"**

Table 23: Children's and Adult's Warmline Calls, FY18-FY20

	FY 18	FY 18	FY 18 - FY 19 % Change	FY 20	FY 18 - FY 19 % Change
Children's Warmline Calls	1,375	1,811	32%	2,672	48%
Adult's Warmline Calls	25,182	24,977	1%	28,391	14%

Source: Anne Arundel County Crisis Response System, 2020

The percentage change in numbers of calls to the county's crisis hotline are another indicator of rising mental health issues for our children. The number of calls related to children increased by 48% between 2018 and 2020.

Figure 19: Trends in Reports of Threats to Self-Harm by AACPS Students, 2012-2019
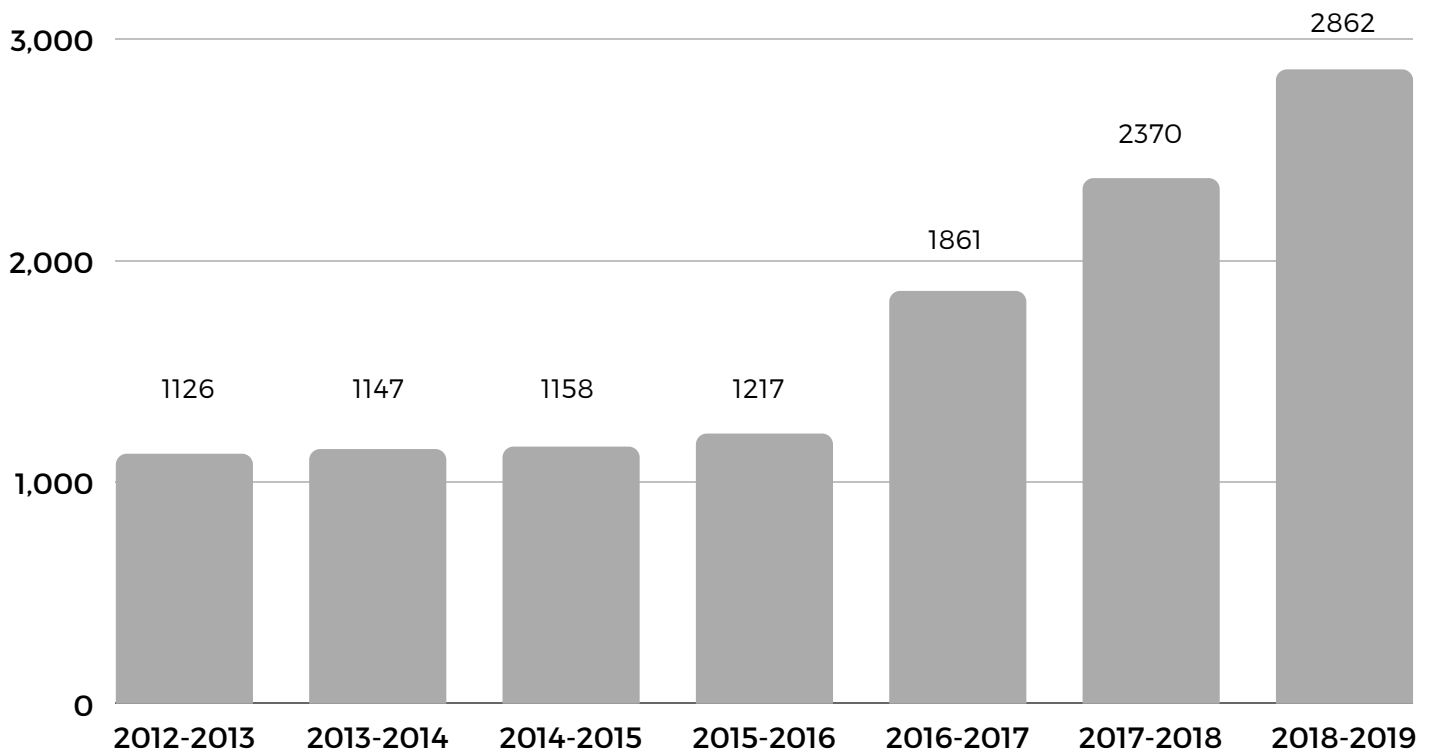
Source: Anne Arundel County Mental Health Task Force

Threats of self-harm by county public school students have been rising since 2021 (Figure 19) and were more than double in the 2018-19 school year. While some participants suggested isolation during the pandemic might be a root cause for rising youth mental health issues, this data would suggest otherwise.

While there is no accessible numeric data related to behavioral issues in the 0-5 population, the majority of participants were concerned about increasing issues in childcare centers, at home and in programs like Head Start and Pre-K. Childcare providers spoke about increases in 'biting, hitting and tantrums' among this group. Those issues were already increasing prior to the pandemic. As one provider noted, "We were already, way before the pandemic, seeing an increase in behavioral issues; we've talked about that over again." There was a growing frustration among participants that concerns for the 0-5 population have not been addressed. The county has no home visiting programs, yet childcare professionals stressed their importance, especially for noting behavioral issues arising from the social determinants of health. As one early childhood professional commented:

> *You can get at a lot of other issues going on in the home…you can get at drug use, you can get at cleanliness and hygiene and health issues, you can get at nutrition, I mean it takes very talented people to do that, but you can address almost every issue that's going on in the home, as long as you get your foot in the door*

SENIORS

The trend line for the use of public mental health services is also increasing for those ages 66 and older (Figure 17). The issue is exacerbated due to the growing number of county seniors over age 75 who may also have issues related to dementia. Several professionals serving the senior population commented on the co-occurring issues related to dementia, mental health and the shortage of specialized professionals to treat them. As one provider noted:

> *"Geriatric mental health issues are always an area of the significant gap. There aren't a lot of community providers who are focused in those areas and the hospitals don't have the acute care services for that either."*

There is no available quantitative data on geriatric mental health services. According to correspondence from the Anne Arundel County Department of Aging and Disabilities (2022) there are only two geriatricians in the county. The majority are located in Baltimore City. Clients appear most willing to disclose mental health challenges to their primary care provider. Health providers in this needs assessment noted that elderly patients may wait in the Emergency Room for days, sometimes weeks, waiting for an inpatient geriatric psychiatry bed, while at the same time, there are few community services to support the person and their family members. As another provider noted:

> *"They emergency petition to the ER, they get certified to go in-patient geri-psyc and then they sit forever waiting for an appropriate bed to the point where they stabilize and get discharged back to the family with no support services - so we haven't actually accomplished anything."*

There have been several mental health service improvements since 2018. Anne Arundel Medical Center (Luminus) has opened an inpatient psychiatric day center. The system also provides behavioral health therapists and funds Pathways, a residential treatment and detox program. UM Baltimore Washington Medical Center provides inpatient psychiatric care and partial hospitalization and inpatient treatment. Arundel Lodge has received its license to operate an Urgent Care Walk-In Center as part of the Certified Community Behavioral Health Center (CCBCH), located on the Luminus campus. They began accepting referrals from the Crisis Response System (CRS) and the Emergency Department at Luminus beginning December 13, 2021.

SUBSTANCE USE

OPIOIDS

The opioid crisis was a major concern for all participants in the 2018 needs assessment. While the number of opioid related overdoses in 2020 (985) were less than those in 2018 (1092), the trend line for overdoses continues to rise (Figure 20). According to the Maryland State Department of Health, in 2020, Anne Arundel County had the third highest rate of intoxication deaths for the year at 251 (Figure 21). Those figures include overdose deaths from alcohol and cocaine.

Figure 20: Opioid-Related Overdoses Occurring in Anne Arundel County, 2015-2020
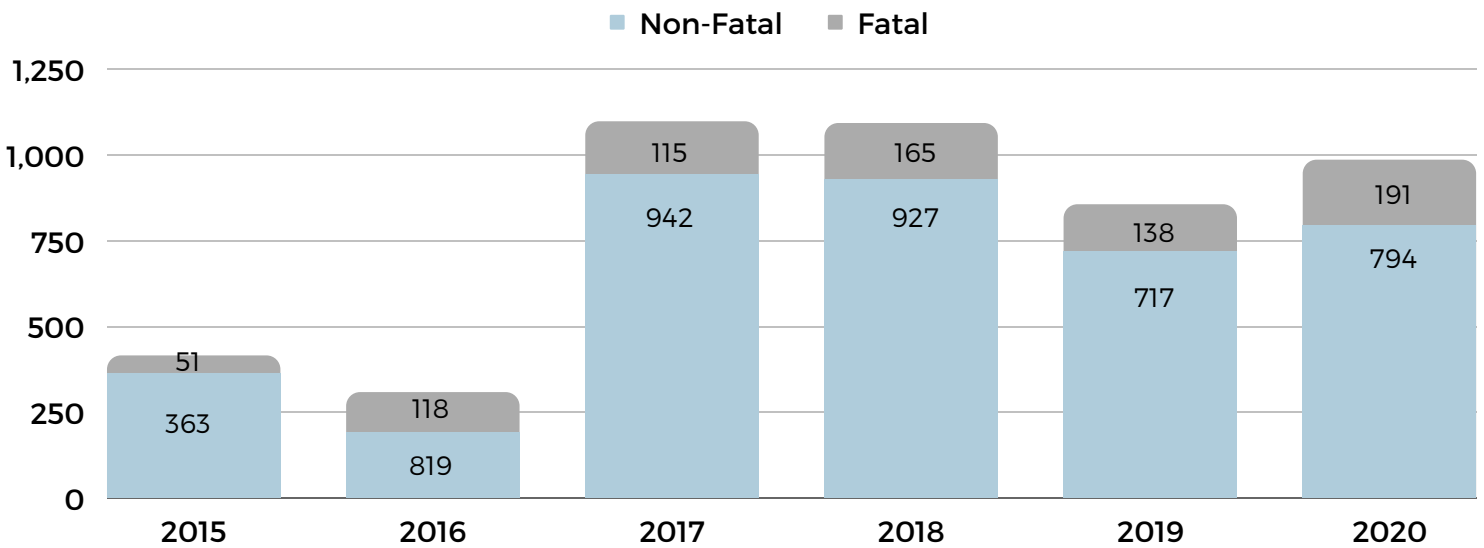
Source: Maryland Department of Health, 2021

Figure 21: Total Number of Intoxication Deaths Occurring in Maryland by Place of Occurrence, 2019

Source: Maryland Department of Health, 2020

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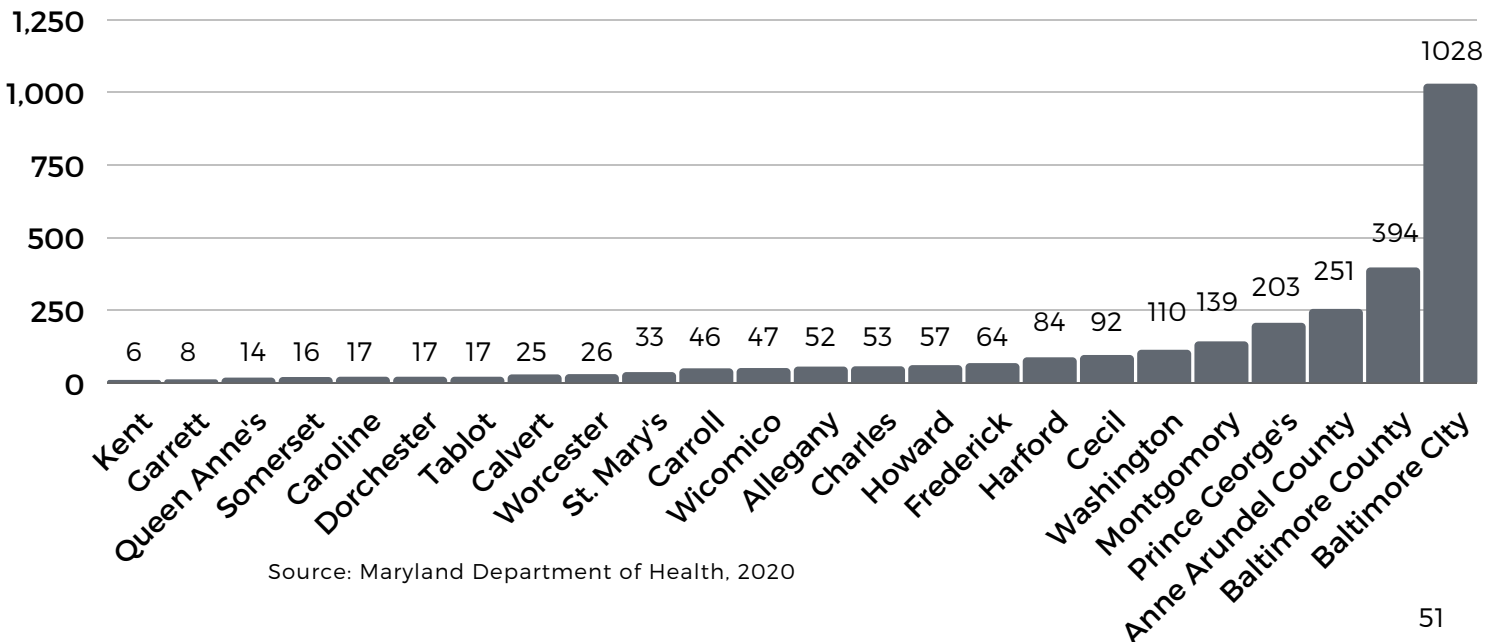
According to data from the State of Maryland Department of Health, from 2017 to 2019, opioid-related fatalities decreased by 11.5% among non-Hispanic White Marylanders while increasing by 40.4% among non-Hispanic Black Marylanders and by 35.9% among Hispanic Marylanders. Overdose deaths involving other races were excluded from Figure 22 due to the relatively small numbers. In 2010, near the beginning of the acceleration in overdose-related fatalities in Maryland, non-Hispanic Whites accounted for a vast majority (75.4%) of opioid-related intoxication fatalities. Since that time, as shown in Figure 22, the proportion of opioid-related intoxication deaths involving non-Hispanic Blacks has steadily increased, while the proportion of such deaths involving non-Hispanic Whites has steadily decreased. This numeric data was supported by comments from county residents who attributed the increasing numbers to the increase in pain and trauma created by racism and poverty in vulnerable neighborhoods. As one said:

> *So you know, people will go looking for fentanyl...You hear somebody say 'I got that fenty'- people want that high...people don't want to die, just don't want to deal with the pain. So, the strongest thing that I can get to numb that pain for however long.*

Figure 22: Anne Arundel County Opioid Related Fatal Overdoes by Race/Ethnicity, 2010-2019
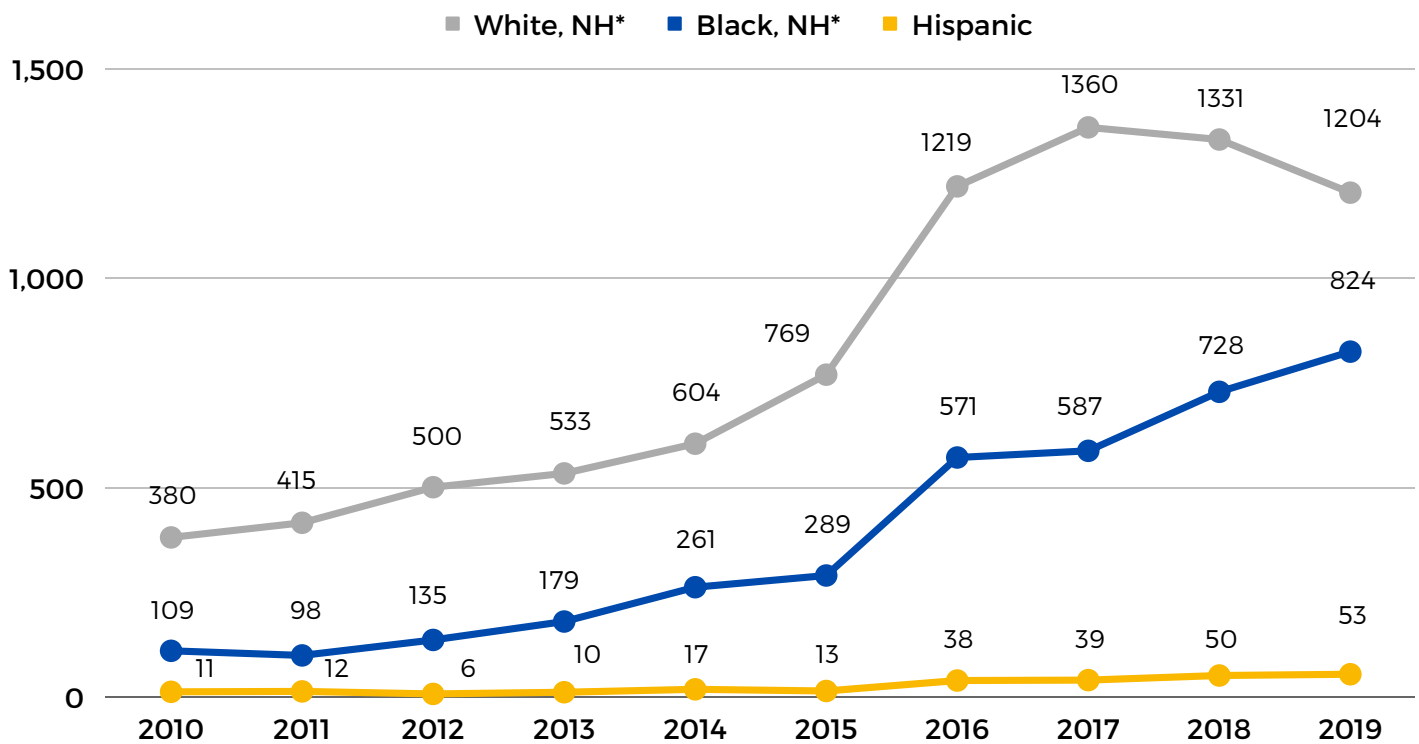
Source: Maryland Department of Health, 2020

In 2019, deaths involving fentanyl decreased for the first time since 2011 but were still up by more than 400% from 2015 and fentanyl was involved in 79% of all intoxication deaths (Anne Arundel County Department of Health, 2020).

Table 24: Total Opioid Overdoses by Incident Zip Code, Anne Arundel County, 2021

Incident ZIP Code	Non-Fatal Opioid Overdoses		Fatal Opioid Overdoses		All Opioid Overdoses	
	Frequency	Percent	Frequency	Percent	Frequency	Percent
Glen Burnie 21061	89	13.8%	24	16.1%	113	14.2%
Annapolis 21401	86	13.4%	10	6.7%	96	12.1%
Brooklyn Park 21225	72	11.2%	18	12.1%	90	11.3%
Pasadena 21122	72	11.2%	16	10.7%	88	11.1%
Glen Burnie 21060	62	9.6%	15	10.1%	77	9.7%
Annapolis 21403	47	7.3%	11	7.4%	58	7.3%
Linthicum 21090	25	3.9%	8	5.4%	33	4.2%
Severn 21144	25	3.9%	4	2.7%	29	3.7%
Edgewater 21037	19	3%	4	2.7%	23	2.9%
Hanover 21076	20	3.1%	3	2%	23	2.9%

Source: Anne Arundel County Department of Health, 2022

Figure 23: Opioid Overdoses Jan 1 - Mar 8, 2022
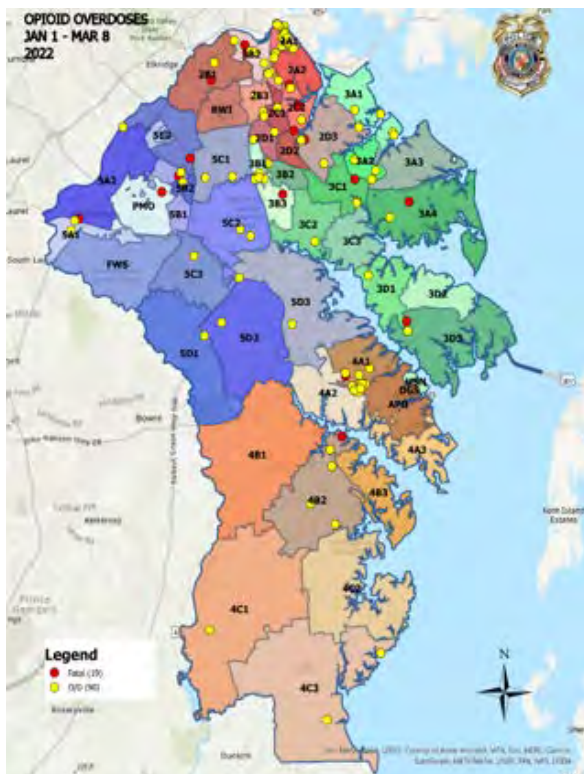
County Zip Code data for 2021 for both fatal and non-fatal overdoses shows the top ten areas for opioid although they are not weighted for resident numbers in each zip code. Clearly the rural areas of South County are less likely to appear in this list. Opioid overdoses for the first three months of 2022 show a similar pattern (Figure 23).

Source: Anne Arundel County Police Department, 2022

Table 24: Drug and Alcohol-Related Intoxication Deaths, Anne Arundel County, 2015-2019
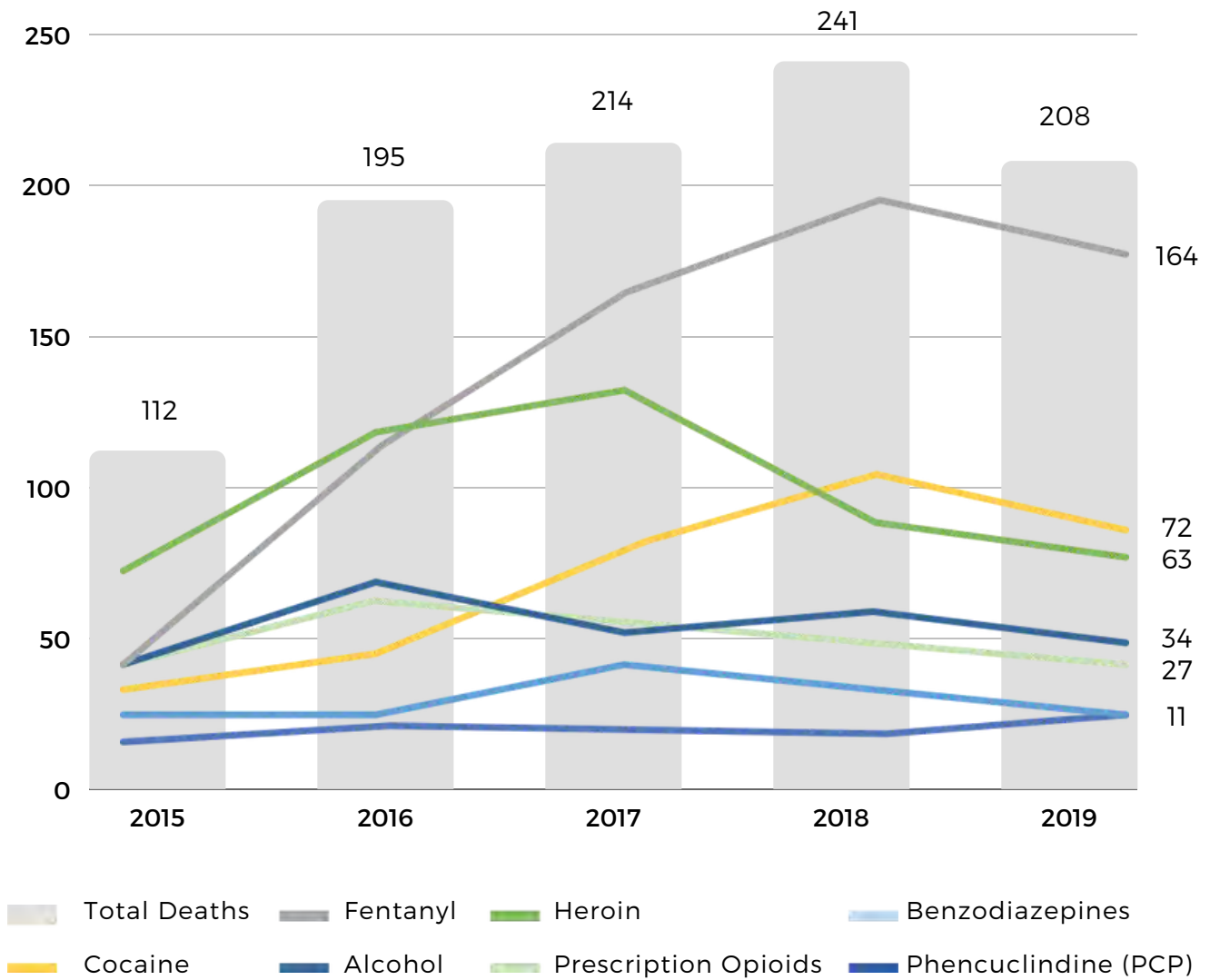
Source: 2019 Drug and Alcohol-Related Intoxication Deaths Report, Maryland Department of Health, 2020
Data note: People with more than one substance in their system at the time of death

County Emergency Department encounters for opioid overdoses continues to trend downwards (Figure 25). This may be due to the very successful Safe Stations program instituted by the county's mental health agency. This program allows residents to ask for help at any fire or police station. Safe Stations has served over 5,000 residents since 2017 (Figure 26).

Figure 25: ED Encounters for Opioid-Related Overdose in Maryland Hospitals, Anne Arundel County Residents, 2016-2020
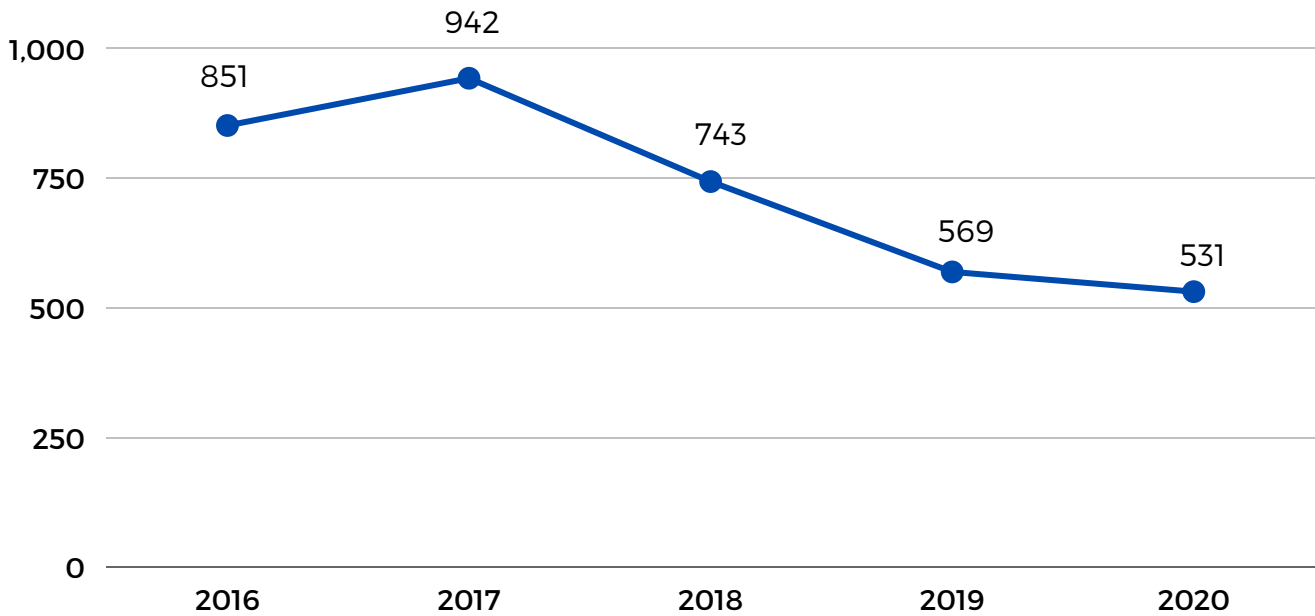
Source: CRISP Public Heath Dashboard, 2021

Figure 26: FY21-FY22* Safe Stations Assessment
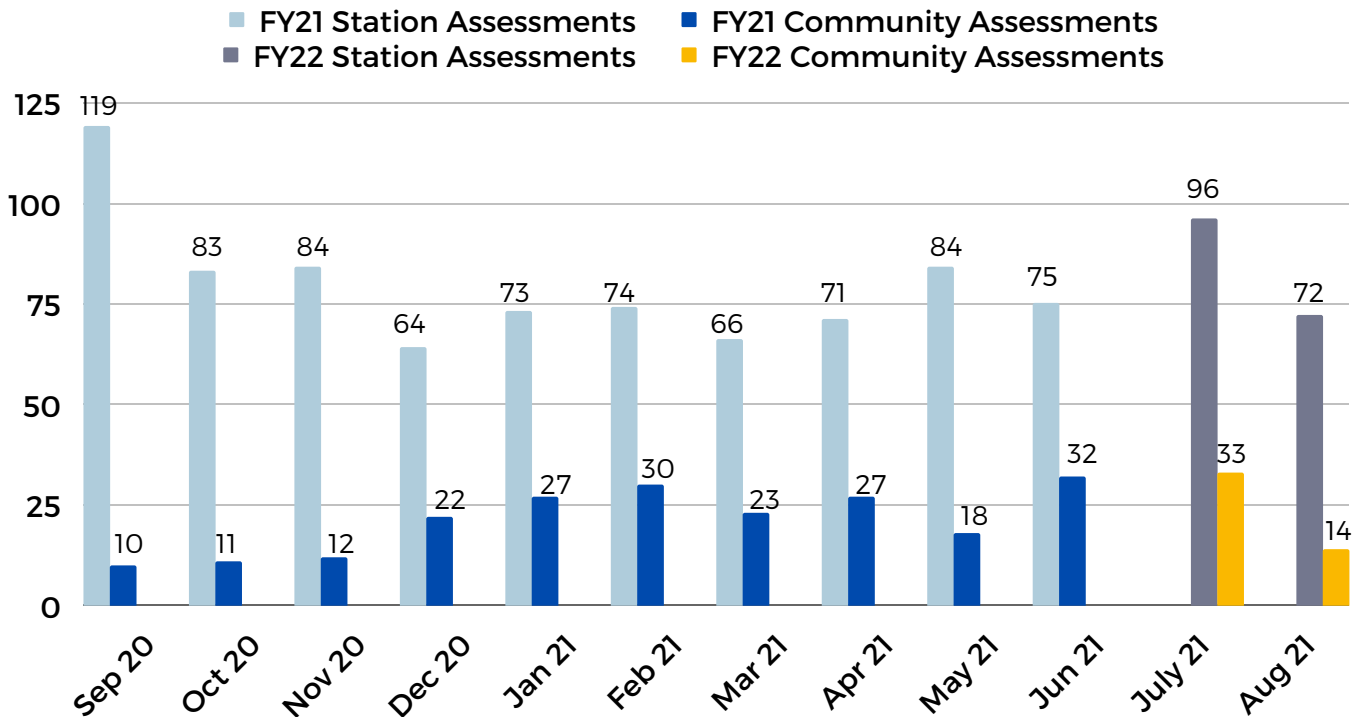
Source: Anne Arundel County Mental Health Agency, 2021

COCAINE AND STREET DRUGS

Deaths involving phencyclidine or PCP more than doubled from 2018 to 2019 (5 to 11 deaths). PCP was the only drug with an increase in deaths in 2019. Between 2015 and 2019, deaths involving cocaine increased 279%, from 19 to 72 deaths. Deaths from benzodiazepines fell to the same level they were at in 2015, with 11 deaths. Much of the increase in deaths involving cocaine and benzodiazepines can be attributed to their combined use with opioids, mainly fentanyl. In fact, more than 85% of cocaine-related deaths and 72% of benzodiazepine-related deaths in Maryland also involved fentanyl (Anne Arundel County Department of Health, 2020). Several participants noted the continuing use of 'street drugs' at the neighborhood level. Crack cocaine is still readily available. One noted, "same old, same old. Crack hasn't gone anywhere. PCP hasn't gone anywhere." The trend line for intoxication deaths using cocaine continued to rise between 2015 and 2020 (Figure 28).

Figure 28: Cocaine Intoxication Deaths in Anne Arundel County, 2015-2020
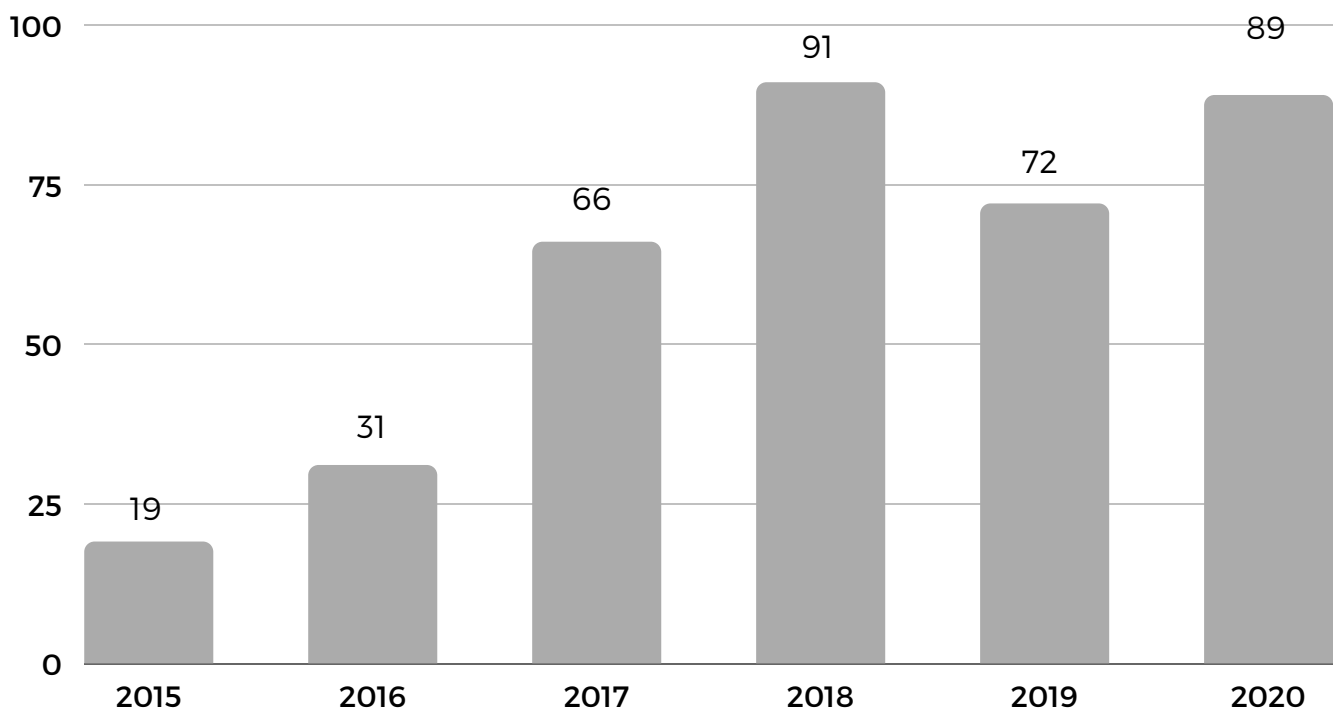
Source: Maryland Department of Health, 2021

ALCOHOL

Many participants noted the rise in alcohol use as a response to the pandemic. However, since 2012, county needs assessments have pointed to the 'social norm' of alcohol use in the county. According to Maryland Department of Health data, alcohol-related deaths continued to rise in the county between 2015 and 2020 (Figure 29).

Figure 29: Alcohol Intoxication Deaths in Anne Arundel County, 2015-2020
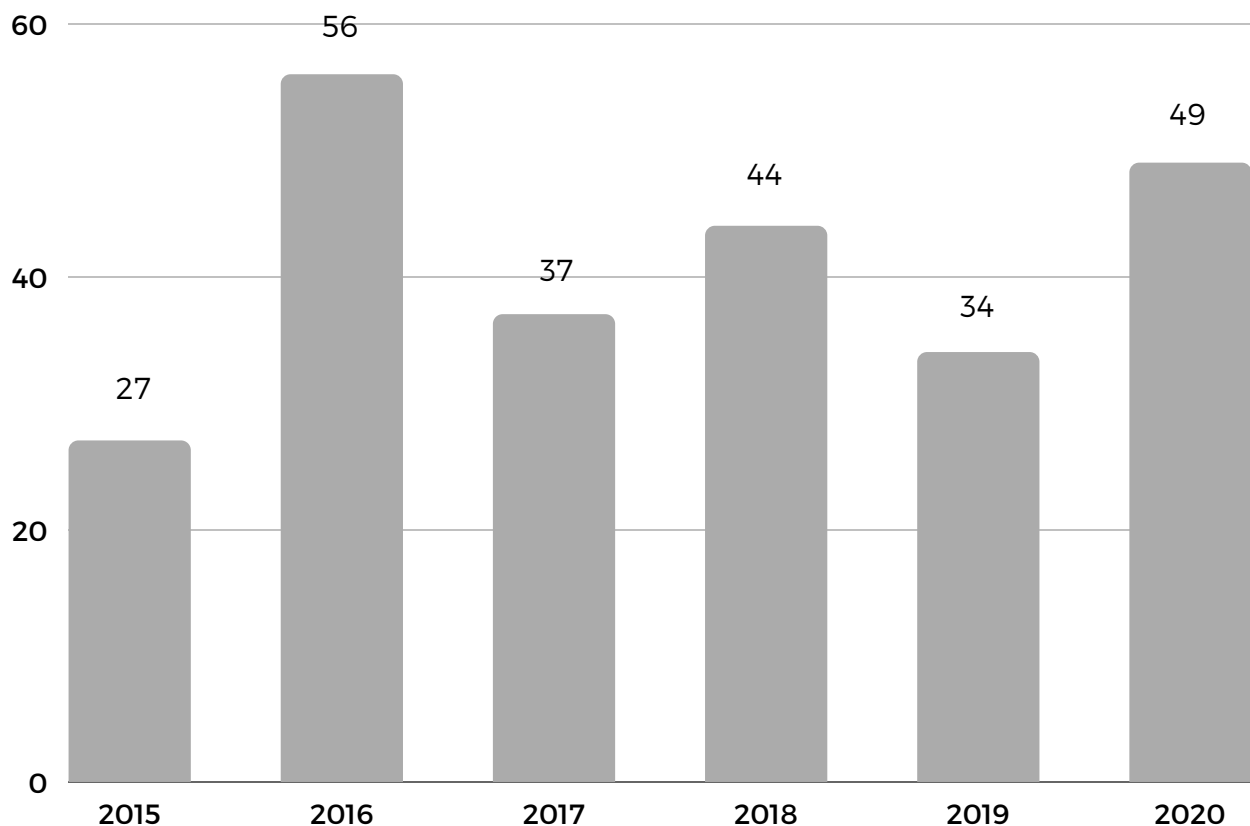
Source: Maryland Department of Health, Unintentional Drug and Alcohol-Related Intoxication Death Report, 2020

CIGARETTES

County, state and national comparison data for cigarette smoking among those 18 and older is quite disappointing for the county. The rate of smoking in Anne Arundel County continues to be higher than that of the state and nation and between 2015 and 2019 that trend is increasing (Figure 30).

Figure 30: County, State and National Comparison Data of Cigarette Smoking Adults 18 Years and Older
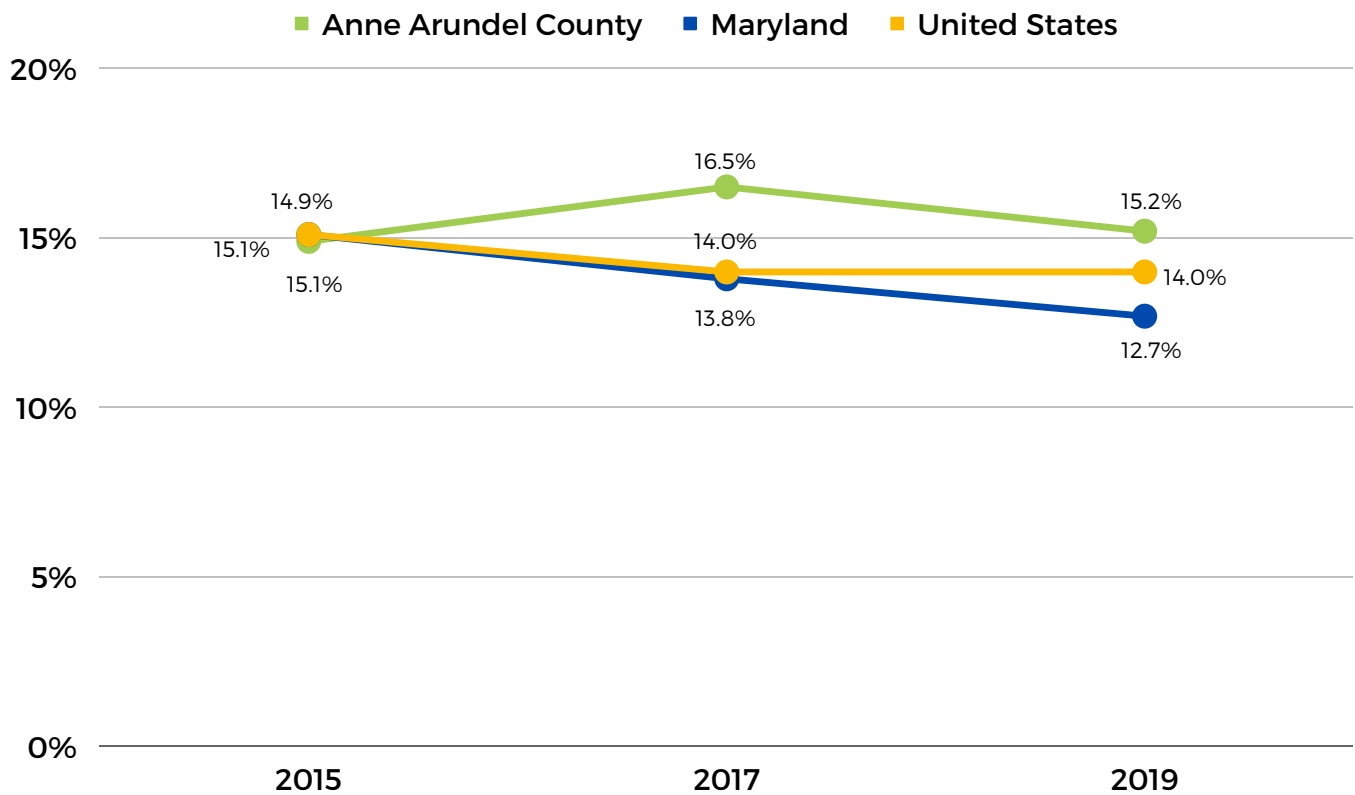
Source: Maryland Department of Health, 2020

SUMMARY

Rising mental health issues, especially anxiety and depression, were the chief concerns raised by participants in this needs assessment. They are most troublesome at each end of the scale, our children and our seniors. Substance use continues to increase, despite enormous efforts across the various county health agencies. While services have improved since the 2018 assessment, there is still too much reliance on programs such as Medicaid to fill gaps in funding. There should be an increased financial commitment from the public and private sectors to address the behavioral health issues impacting so many of our residents, especially our youth.

NEEDS

- More providers of psychiatric, geri-psychiatric and counseling services, especially Spanish-speaking services.
- Residential beds, especially for the adolescent population.
- Further financial support for mental health programming, including social workers.
- Mental health and behavioral services for all childhood populations, especially the 0-5 group.
- Increased school-based mental health services leveraging all county providers.
- Counselors available in childcare centers and Head Start programs.
- Home visiting programs for the 0-5 populations.
- Support for seniors with co-occurring mental health issues and dementia.
- Increased support at the neighborhood level to address those zip codes where opioid overdoses are highest.

SECTION 3
THE SOCIAL DETERMINANTS OF HEALTH

The U.S. Department of Health and Human Services (2021) defines the social determinants of health (SDOH) as 'the conditions in the environments where people are born, live, learn, work, play, worship, and age that affect a wide range of health, functioning, and quality-of-life outcomes and risks.' Although Anne Arundel County has a high standard of living overall, there are pockets of poverty and health access issues to be found in neighborhoods throughout Anne Arundel County. The majority of negative social and health indicators continue to polarize in the Annapolis, Glen Burnie, Severn, Brooklyn Park and Lothian zip codes (Table 25).

Table 25: All Demographic, Socioeconomic, and Health Indicators by Zip Code in Anne Arundel County, 2019

ZIP Code	Area	Poverty Percentage	Percent Without High School	Percent of Household on SNAP	ED Visit Rate per 1,000	Percent Low Birth Weight Infants (2015-2019)	Minority Population
20711	Lothian	9.4%	10.6%	9.8%	333.2	7.3%	32.4%
20724	Laurel	7.3%	8.9%	3.5%	250.0	8.6%	67.6%
20765	Galesville	23.6%	11.3%	25.5%	289.9	0.0%	45.7%
20776	Harwood	13.5%	13.0%	14.2%	311.8	5.8%	29.8%
21060	Glen Burnie (East)	7.5%	12.9%	9.2%	356.2	7.7%	33.4%
21061	Glen Burnie (West)	8.4%	11.8%	11.8%	404.4	8.9%	43.0%
21122	Pasadena	6.1%	7.8%	6.5%	255.2	8.2%	16.3%
21144	Severn	6.4%	6.0%	9.0%	279.9	8.7%	55.2%
21225	Brooklyn	24.8%	20.6%	29.3%	732.4	11.1%	60.9%
21226	Curtis Bay	9.6%	15.4%	12.3%	576.8	8.3%	27.6%
21401	Annapolis	8.1%	7.3%	7.5%	344.5	7.0%	30.1%
21403	Eastport	7.4%	9.2%	7.8%	308.1	7.9%	38.1%
	Anne Arundel	5.8%	7.9%	6.1%	310.3	7.7%	31.8%

███ = Higher than County Average

Source: U.S. Census American Community Survey 5-Year Estimates, 2015-2019; Maryland Health Services Cost Review Outpatient Files, 2019

Annapolis (zip code 21403) has a high proportion of public and subsidized housing. Eighty-five percent of the households living in public or subsidized housing are African American and are led by a single female with an income at or below the poverty level (Housing Authority of the City of Annapolis, 2019). Between 2016 and 2020, 8.3% of people were in poverty, almost twice the county average. An estimated 18.2% of children under 18 were below the poverty level, compared with 3.5% of people 65 years old and over (U.S. Census, 2020).

To the north of the county and sharing a boundary with Baltimore City, Brooklyn Park (zip code 21225) has the largest number of residents living in poverty in the county at 24.8% (U.S. Census, 2020). This part of the county has rising rates of poor outcomes related to the social determinants of health. This area of four-square miles (15,000 residents) is a food desert (Figure 35). Life expectancy is fifteen years shorter for residents of Brooklyn Park than it is for those in Arnold, MD, just 15 miles down the road (Figure 31) (Anne Arundel County Department of Health, 2020). Brooklyn Park (North County) is also both a Medically Underserved and a Health Shortage Area (Figure 33).

According to stakeholders, South County, the most rural area in Anne Arundel County, has pockets of low-income residents who lack access to jobs, health care, transportation, affordable housing and internet services. The area of Lothian has several mobile home communities for low and very low-income families. Due to the short supply of industry in South County, unemployment among young people is reported as an issue and the lack of transportation and connectivity may add to the number of youth who leave South County for other areas. Health access continues to be an issue even as health and behavioral health providers switched to telehealth during the pandemic. There are several internet 'black spots' throughout the area (South County Needs Assessment, 2018). The Federally Qualified Health Clinic in Owensville is inaccessible to those without transportation. Fortunately, there are plans, currently, for the opening of a primary care satellite office in Lothian.

The county area that includes zip code 21144, Odenton/Severn/Meade, is home to over 35,335 people who are disproportionately African American and Hispanic compared to the county population. 2019 Census estimates have Blacks at 36.9% and Hispanic residents at 8.3%. The median income is around two thirds of that of the county and the number of rental units is three times higher. Over half of the population is rent overburdened, meaning they pay over 50% of their income in rent (Anne Arundel County Community Development Services, 2018). The zip code includes over 1000 units of public and subsidized housing and four mobile home parks (Anne Arundel County Housing Commission, 2019). The residents of public and subsidized housing are overwhelmingly female and 88% African American. According to the most recent United Way ALICE Report, the Fort Meade area population is at 58% low income and the Severn area is at 35% low income. As of 2019, the Free and Reduced Lunch data for Severn area schools includes Van Bokkelen Elementary at 80.96%, Quarterfield at 37.08%, Ridgeway at 22.29%, and Severn at 29.77% (Maryland School Report Card, 2019).

LIFE EXPECTANCY

Given the above information related to the geography of the social determinants of health in Anne Arundel County, it should be expected that life expectancy can be determined by the zip code and sometimes the census tract residents live in. As stated previously, life expectancy can be up to 15 years longer for a resident living in Arnold as opposed to someone who lives in Brooklyn Park. Participants in this assessment were quick to name violence, lack of healthy food, poorly controlled diabetes, substandard housing and environmental issues such as contaminated water as the reasons for these disparities.

Figure 31: Average Life Expectancy by Census Tract in Anne Arundel County, 2010-2015
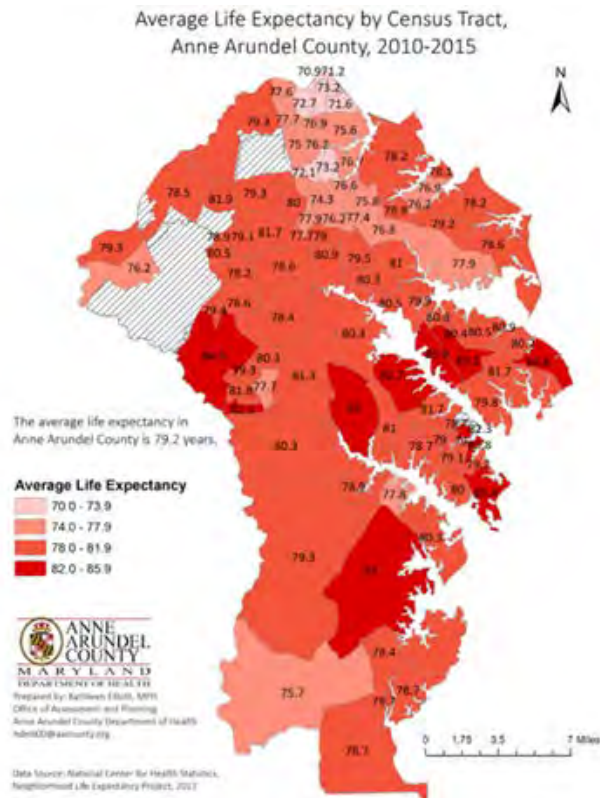
Figure 32: Hospitalization Rate per 1,000 Population by ZIP Code, Anne Arundel County, 2019
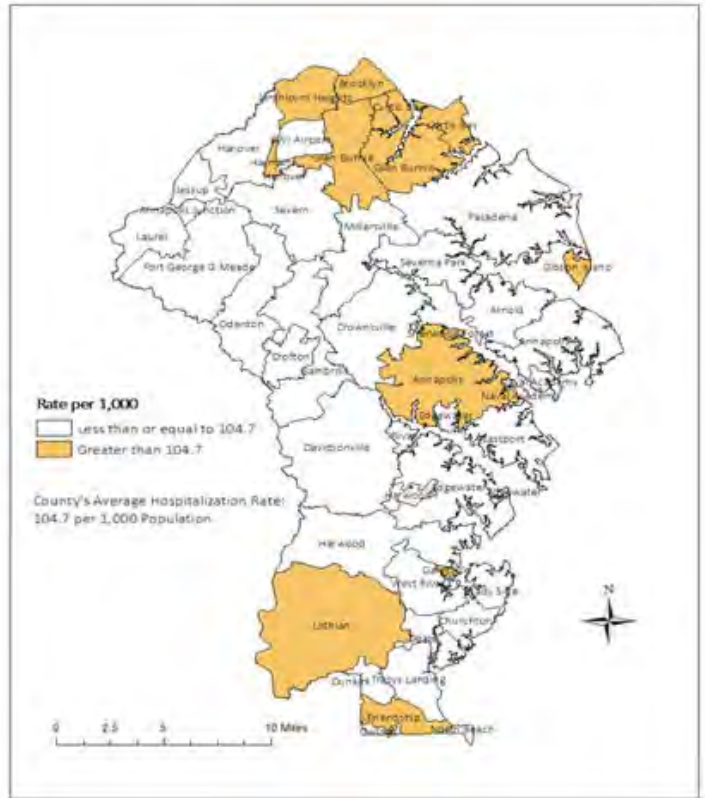
Source: Health Services Cost Review Commission Outpatient, 2019

HOSPITALIZATION AND EMERGENCY DEPARTMENT PATTERNS RELATED TO SOCIAL DETERMINANTS

When patterns of hospitalization and Emergency Department visits are examined by ZIP code (Figure 29, Figure 30), they generally reflect the social determinants illustrated in Table 18. Zip code 21225, which contains Brooklyn Park, has the highest hospitalization and emergency department visit rate of anywhere else in the county. The only access to primary care for most is a mobile health van from Harbor hospital in Baltimore, which visits Brooklyn Park twice weekly. The Federally Qualified Health Center located on Route 2 closed its doors six years ago. As one resident noted:

> " *The lack of primary care and primary care physicians, the access to the doctors that we need to be able to stay healthy…isn't there. So, people are using their emergency room as their primary care physicians.* "

Figure 33: Emergency Department Encounters per 1,000 Population by Zip Code, Anne Arundel County, 2019
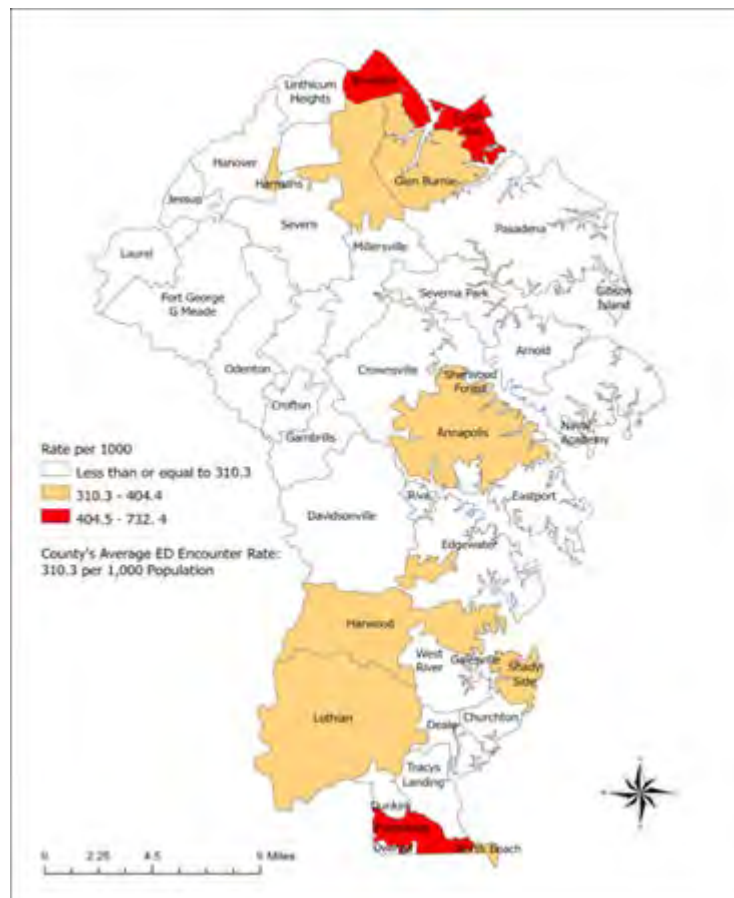
Source: Health Services Cost Review
Commission Outpatient, 2019

POVERTY

While the overall poverty rate for the county is 5%, there are clear inequities related to race, ethnicity and zip code. The most reliable U.S. Census estimate data for 2018 shows Whites at a 5% poverty rate, Asians at 7%, Hispanic at 13.9% and African Americans at 12.16%. While the trend line is decreasing for Whites, it is increasing for all other race/ethnicities. There are significant racial and ethnic gaps in median household income throughout the county, with Whites at $104,458, African Americans at $91,784 and Hispanics at $93,475.

Figure 34: Percent below Poverty Level by Race in Anne Arundel County, 2016-2018

■ 2016　■ 2017　■ 2018

	White, NH	Black, NH	Hispanic	Asian, NH
2016	6.30%	8.50%	11.30%	3.00%
2017	4.10%	10.70%	12.50%	3.70%
2018	5.00%	12.16%	13.90%	3.70%
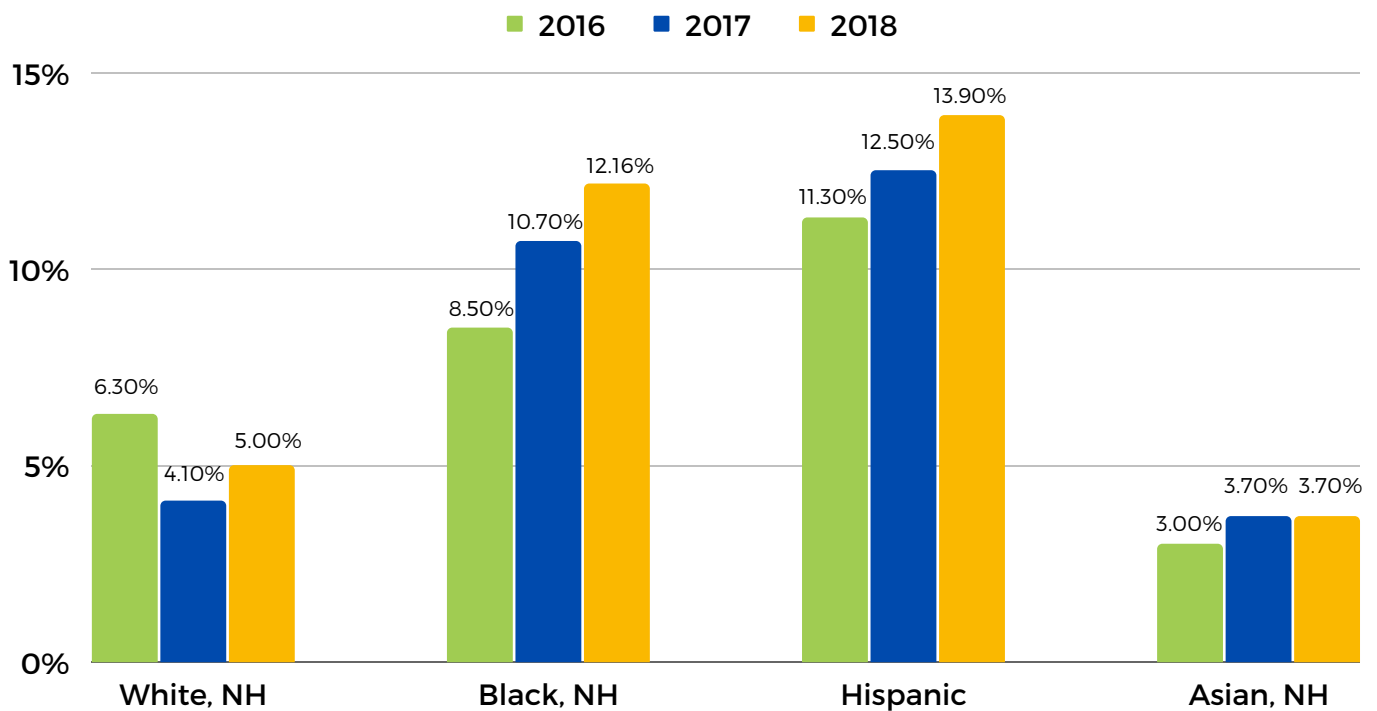
US Census Estimates, 2018

Poverty percentages also change depending on zip code. The geographic nature of county poverty percentages match other data sets related to the social determinants of health (Table 26). Poverty continues to be concentrated in the north and south of the county (Table 26). The highest percentage of poverty is in the zip code that contains Brooklyn Park is 24.8%, followed by Curtis Bay at 9.6%; both areas border Baltimore City. North Beach and Deale (South County) have almost twice the level of poverty as the county average. The trendlines for poverty between 2015 and 2019 have decreased in all county zip codes except 21401 and 21403 (Annapolis).

Table 26: Anne Arundel County Percentage of Poverty by Zip Code, 2016-2019

ZIP Code	Area	Poverty Percentage			
		2016	2017	2018	2019
21225	Brooklyn Park	27.3%	24.9%	24.8%	24.8%
21226	Curtis Bay	16.6%	15.4%	12.9%	9.6%
21060	Glen Burnie (East)	7.9%	7.1%	7.1%	7.5%
21061	Glen Burnie (West)	9.2%	9.1%	8.2%	8.4%
20714	North Beach	10.6%	9.1%	5.8%	6.1%
20751	Deale	10.8%	12.0%	5.5%	5.6%
21401	Annapolis	7.9%	6.9%	7.8%	8.1%
21403	Annapolis	6.9%	7.0%	7.9%	7.4%
	Anne Arundel County	6.9%	5.8%	7.1%	5.0%

Source: U.S. Census Estimates, 2020

FOOD ACCESS

Low-income residents can also be measured by the numbers receiving what used to be called food stamps and is now the Supplemental Nutrition Assistance Program (SNAP). 19.3% of African American households were receiving SNAP benefits in 2019, a 10% rise from 2018. The rate is over six times higher than White residents, which is most likely related to the disproportionate numbers of African Americans living in poverty or/and receiving less than a living wage. African American households are also more likely to experience food insecurity, compared with all U.S. households (Center for Budget and Policy Priorities, 2018).

Table 27: Households on Food Stamps/SNAP Benefits by Race/Ethnicity in Anne Arundel County, 2016-2019

	2016	2017	2018	2019
White, NH	4.4%	4.6%	3.4%	3.3%
Black, NH	19.3%	12.0%	9.9%	19.3%
Hispanic	18.8%	13.2%	10.6%	4.1%
Asian	8.9%	4.4%	4.8%	4.8%

Source: U.S. Census Bureau, American Community Survey 1-Year Estimates 2017-2019

Anne Arundel County has 74,522 residents living in a food desert. There are 17 census tracts in the county that are considered food deserts; Glen Burnie, Brooklyn Park, Linthicum Heights, Eastport, Fort Meade, Jessup and Severn (Anne Arundel County Department of Health, 2020). Food deserts are defined by the United States Department of Agriculture (USDA) as urban neighborhoods and rural towns without ready access to fresh, healthy and affordable food. Typically, these areas are low-income, where the population lacks economic resources to travel for food purchases. SNAP recipients also follow the color and geography of poverty in Anne Arundel County. Figure 35 shows that those with the least access to food and are more likely to be receiving SNAP benefits are spread unevenly in the county and most likely to be in the areas where other social determinants of health are rising.

Figure 35. Access to Healthy Food in Anne Arundel County, 2019

Lack of access to healthy food causes many issues for county residents. According to America's Health Rankings (2021), food insecurity impacts health due to the mental and physical stress that it places on the body. Children are particularly susceptible. Among children, food insecurity is related to; depression and anxiety; cognitive and behavioral problems; and higher risk of being hospitalized. Hungry children also are prone to fighting, hyperactivity, aggression, anxiety, mood swings and bullying. They are more likely than children who have enough nutritious food to eat to have lower test scores and lower overall academic achievement. As one participant noted

Legend

Greater than County Average (1.39%) Households with Low Access to Food

Greater than County Average (6.7%) Households on SNAP

Data Source: Supplemental Nutrition Assistance Program (SNAP) Participation: 2013-2017 American Community Estimates; Low Access Areas: United States Department of Agriculture (USDA) Food Access Research Atlas.
NOTE: Low access is defined as the percentage of housing units more than 1 mile from nearest supermarket or grocery store without access to vehicle.

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The Anne Arundel County Public Schools Food and Nutrition Services offers breakfast and lunch to school children. As indicated in table 28, in 2018 and 2019 over 9 million meals were served each year. The school system also supplies summer meals at various sites in the county.

Table 28: Anne Arundel County Public Schools Food and Nutrition Services: Total Meals Served, Pre and Post Pandemic

	2017/2018	2018/2019	2020/2021	2021/2022
Total Breakfasts Served	3,717,762	3,471,076	2,222,449	990,373
Total Lunches Served	5,837,279	5,920,448	2,366,715	1,586,962
Total Dinners Served	131,001	125,210	1,896,114	34,743
Total Snacks Served	28,234	33,654	1,896,114	34,743
Total Meals Served	9,714,276	9,550,388	8,381,392	2,646,821

Source: Anne Arundel County Public Schools

HOMELESSNESS

It is almost impossible to accurately calculate the numbers of homeless residents in Anne Arundel County. Some of the data is captured in the Federal HMIS system, but only the residents served who meet the federal definition of homelessness. It is clear, however, that sections of the homeless population have increased over the last three years. Given that county services increased during the pandemic, the actual numbers might have been even higher. Federal funds helped stave off eviction for some and provided hotel shelter for many more (Figure 38).

Figure 37: Anne Arundel County Homeless Figures, 2018-2021
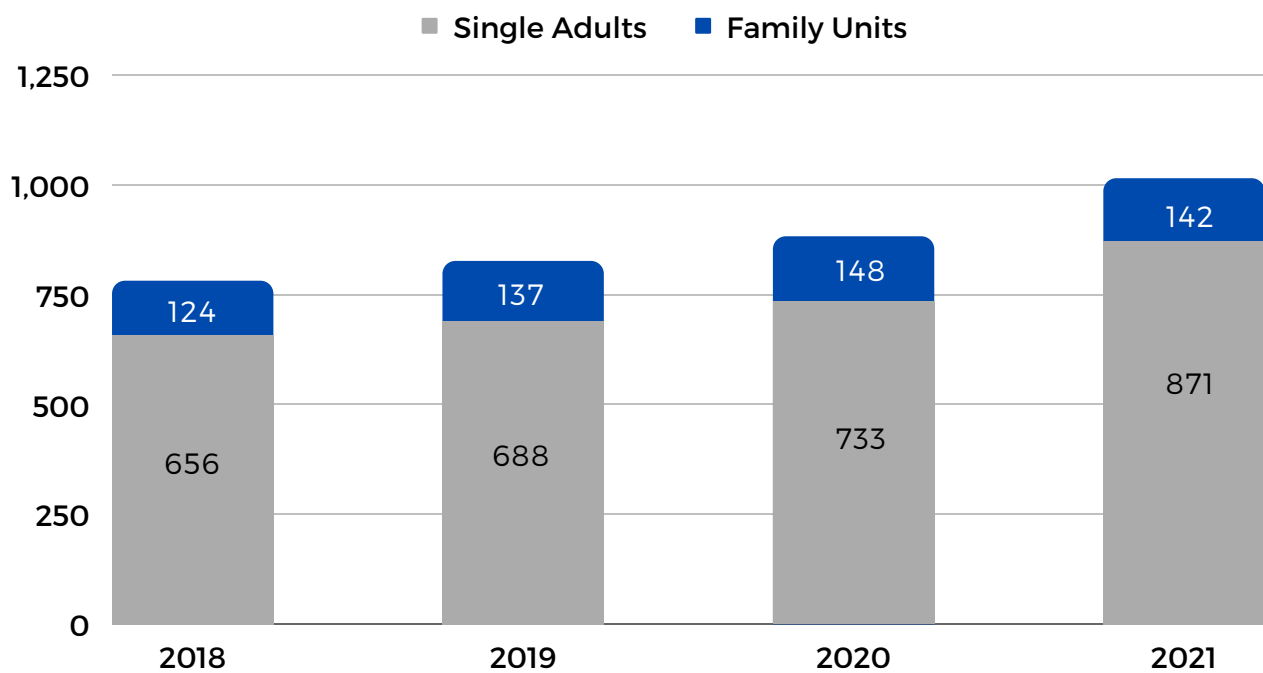
Source: Anne Arundel County Department of Social Services, 2021

Since 2018, chronically homeless residents are the only demographic that has decreased in the county. Noted in the chart below, seniors are a growing number of the reported homeless. The cost of living in the county and the lack of affordable housing leaves seniors without good retirement income and struggling to survive (Figure 38).

Figure 38: Anne Arundel County Homeless Youths, Seniors, and Chronically Homeless Served, 2018022
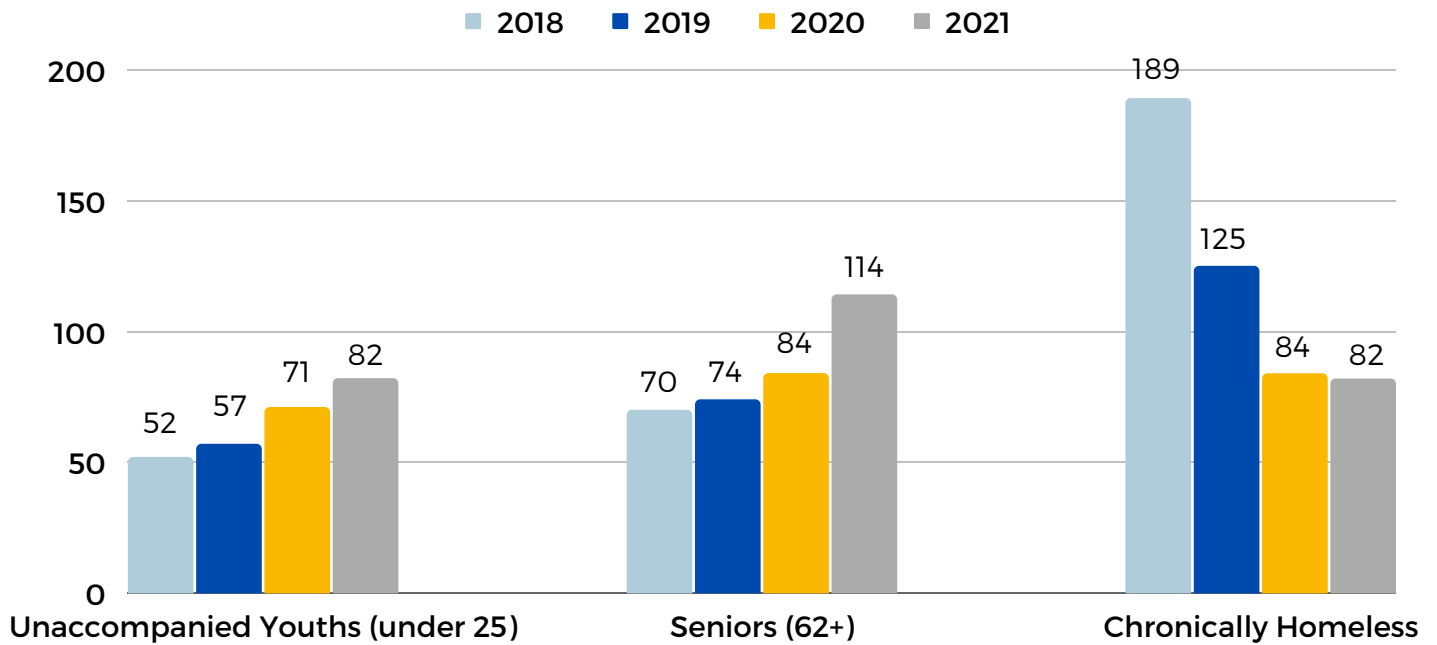
Source: Anne Arundel County Department of Social Services, 2021

Families make up a large proportion of our homeless population, but the numbers are notoriously difficult to estimate. Family homelessness, as measured by the HMIS system, stands at 142 families in 2021, but they are families who meet the strict federal definition of homelessness, i.e., living either on the street or in a hotel but unable to pay (Anne Arundel County Department of Social Services, 2021). Families often 'double up' with friends or pay for lodgings in hotels. When numbers from service providers, the Anne Arundel County Public School System and the Department of Social Services are merged, there are at least 850 homeless families in the county as of December 2021. All participants in this needs assessment agreed that the number of homeless families is growing. They are living in hotels, church basements and their cars during good weather. The positive housing market has led to a decrease in affordable rental housing in a county where there is already a huge shortage of affordable housing. Homeless families are becoming more prevalent in our human services systems, including the emergency room, childcare centers and public schools. As one participant noted:

"*Families in hotels cycling and not being able to get out of hotels. It is the root cause of a lot of families' challenges.*"

Health systems do not track homelessness separately from other health indicators, so there are no accurate estimates of how big an impact the homeless population creates. Anecdotal data suggests homeless residents repeatedly return for emergency and hospital services and that their placement after discharge is difficult. There are only three regular shelters for the homeless in Anne Arundel County and no supported housing for those who need care after emergency room or hospital services. One participant reported that patients are often released to shelters that do not have the services for aftercare. Those residents return quickly to a hospital setting. Another health provider noted:

> "What I found is really lacking in Anne Arundel County is… shelter placements for our homeless population. The majority of the time we have to send our patients up to Baltimore City which presents an issue."

Our two public housing authorities, the Housing Authority of the City of Annapolis and the Anne Arundel County Housing Commission, continue to have long waiting lists. There is also a waitlist to obtain a housing voucher (Table 29).

Table 29: Anne Arundel County Housing Choice Voucher List, 2021

	% of Families	% of Total Families	Average Days Waiting
Waiting list total	18,453		602
Extremely low income (<=30% but <=50% AMI)	14,274	77.35%	
Very low income (>50% but 80% AMI)	3,116	16.89%	
Low income (>50% but 80% AMI)	617	3.34%	
Over limit for low income (>80% AMI)	446	2.42%	
Families with Children	9,983	54.10%	
Elderly Families	664	3.60%	
Families with disabilities	4,134	22.40%	
White	3,177	17.22%	
African American	13,384	72.53%	
Amer. Indian/Alaskan Native	123	0.67%	
Asian	186	1.01%	
Native Hawaiian/Other Pacific Islander	68	0.37%	
Other	739	4.00%	
Not Assigned	776	421.00%	

Anne Arundel County Housing Commission, 2021

AFFORDABLE HOUSING

According to the Anne Arundel County Consolidated Plan 2021-2025 a county household paying more than 50% of their income on housing costs is considered to be severely housing cost burdened and is at great risk of losing their home or becoming homeless. Twenty-one percent of renter households with an income of 80% and below area median income. A market analysis of available affordable housing stock showed there are 17,603 rental households earning $50,000 or less per year in the county, which represents about 50% AMI for a household size of four. Yet, there are approximately 8,680 affordable rental units available at the appropriate price level for this income group. This leaves a large gap of approximately 8,923 low and very low income households who are not served by the current market

HEALTH DISPARITIES

The social determinants of health impact residents even before they are born; the mother's pre-pregnancy health status, access to health care, and socioeconomic status are all factors that impact healthy babies. Severe maternal morbidity (SMM) is associated with high rates of preventability and disparities. In Maryland, African American mothers experience nearly twice the rate of SMM as compared to White mothers. In addition, the SMM rate for Asian Pacific Islander mothers and Hispanic mothers is nearly 1.4 times that of White mothers. Anne Arundel County is one of the 12 jurisdictions in Maryland with severe maternal morbidity rates (Figure 39).

Figure 39: Number of Severe Maternal Morbidity (SMM) Events by Residence Jurisdiction, Maryland 2016-2020

Source: Maryland Department of Health, 2021
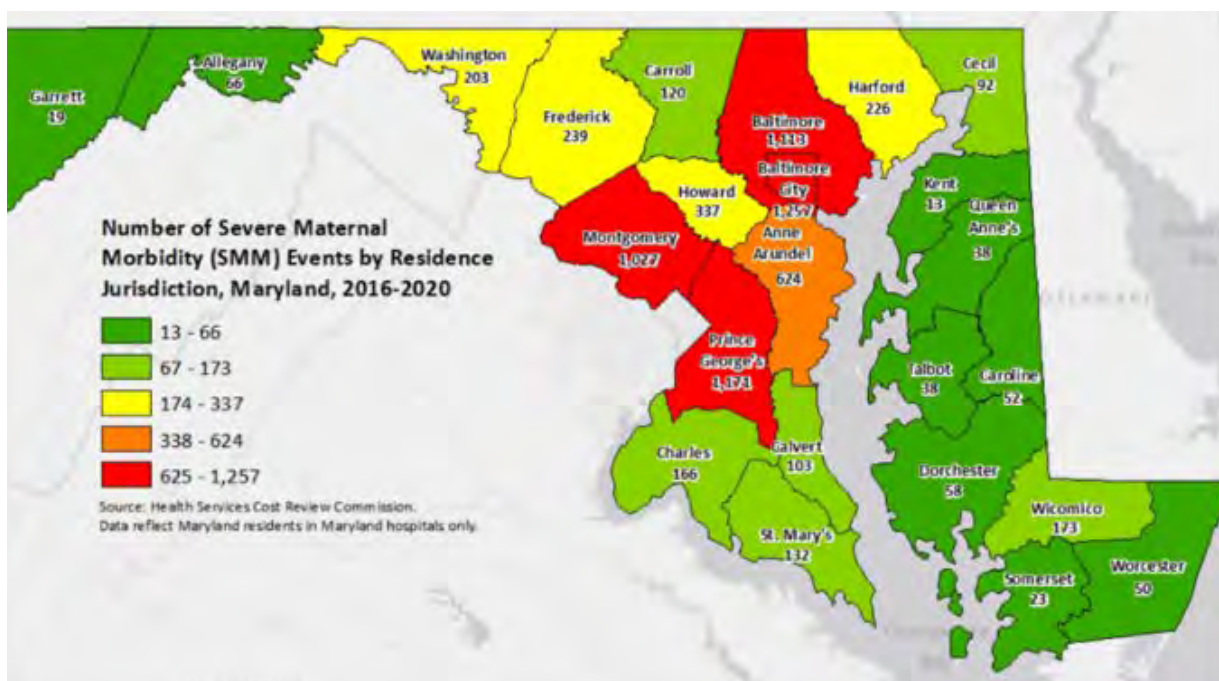
PRENATAL CARE

Prenatal care is essential for positive birth outcomes including the risk of pregnancy complications, such as hypertension and diabetes. Prenatal care also reduces the risk of complications for the child. Babies of mothers who do not get prenatal care are three times more likely to have low birth weight and five times more likely to die than those babies born to mothers who do get care. According to the Maryland Department of Health (2019), White women have the highest percentage of prenatal care (77%), followed by African American women (71%) and Hispanic women (56%) (Figure 37).

Figure 40: Percent of Women Receiving First Trimester Prenatal Care by Race/Ethnicity, Anne Arundel County, 2015-2019
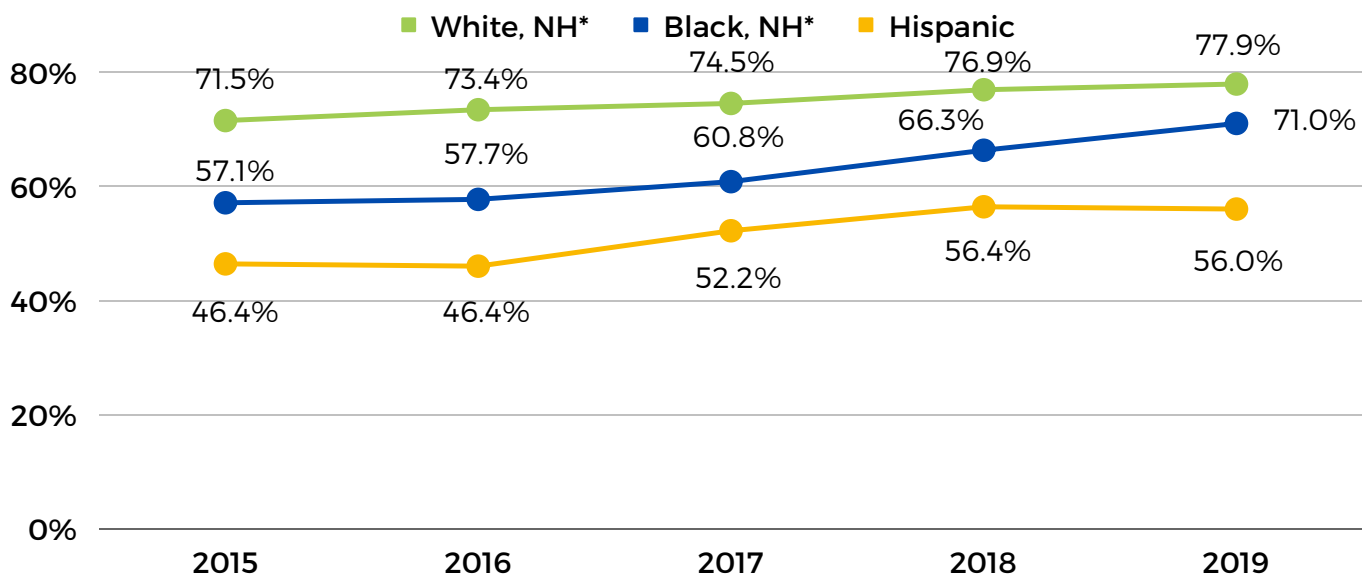
Source: Maryland Department of Health, Vital Statistics Administration, 2015-2019 Annual Reports, U.S. Department of Health and Human Services, Healthy People 2020

Black infants had the highest instance of low birth weights in 2019, with 11.3% of infants born underweight, while 6.6% and 6.9% of White and Hispanic infants were at a low birth weight (Figure 38). Low birthweight is a term used to describe babies who are born weighing less than 2,500 grams (five and a half pounds) In contrast, the average newborn weighs about 8 pounds. Risk factors for low birthweight include using street drugs and abusing prescription drugs, exposure to air pollution or lead, low socioeconomic status and domestic violence (March of Dimes, 2018). Infants born below normal birth weight are at risk for health conditions later in life, including diabetes, heart disease, intellectual and developmental disabilities, high blood pressure, and obesity (March of Dimes, 2018).

A preterm baby is one who is born too early, before 37 weeks of pregnancy. Preterm babies may not be fully developed at birth. They may have more health problems and may need to stay in the hospital longer than babies born later (March of Dimes, 2018). The percent of preterm births is highest among Black children, with 10.8% of children being preterm in 2018. In 2019, 9.5% of White children were born preterm, while 10.6% of Hispanic children were born preterm. Preterm births also put children at risk for more health problems, such as problems with their organs and intellectual and developmental disabilities (March of Dimes, 2019).

Figure 41: Percent of Low Birth Weights by Race/Ethnicity in Anne Arundel County, 2015-2019
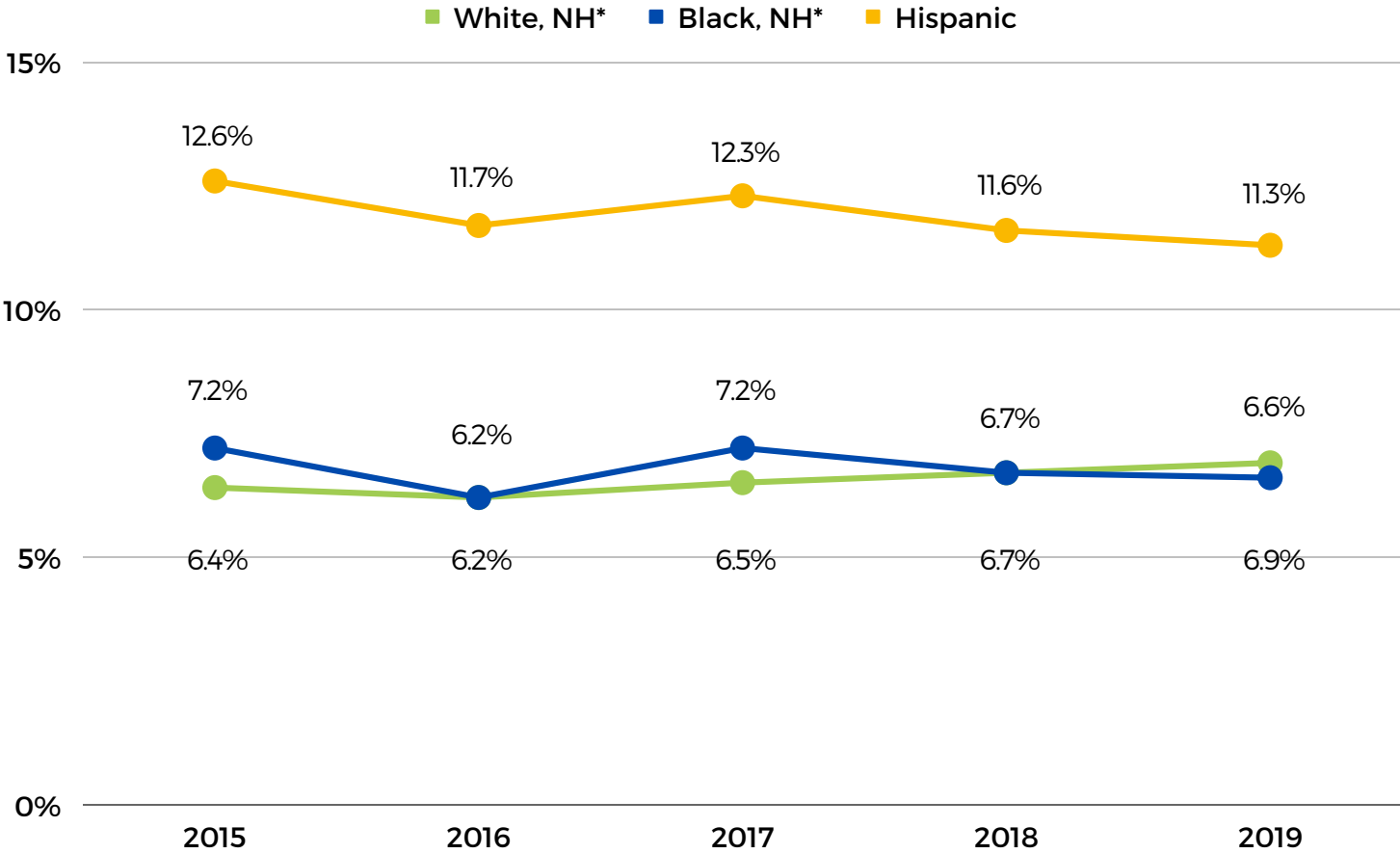
Source: Maryland Department of Health Vital Statistics Administration 2015-2019 Reports

In Anne Arundel County, the percentages for low birth weight change depending on zip code. As we can see from Figure 42, areas to the North, West and South,

Figure 42: Anne Arundel County Low Birth Weight by Area (2019)
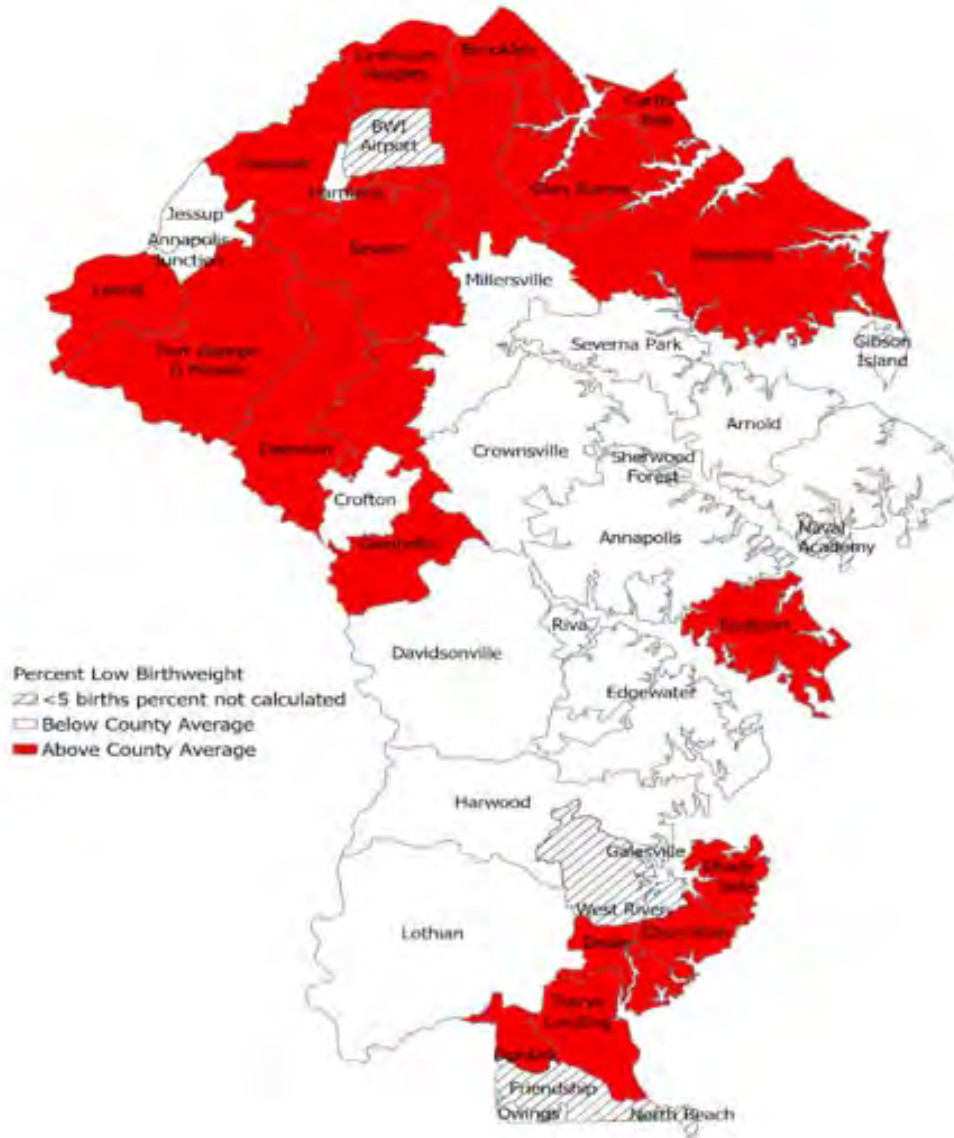
Source: Anne Arundel County Department of Health, 2020

OVERDOSE DEATHS BY ZIP CODE

Much has been written about the potential connection between geography and drug overdoses. According to McGranahan and Parker (2021) since the early 2010s, illicit opioids such as heroin and, increasingly, fentanyl and related synthetic opioids have caused a growing share of drug overdose deaths, particularly among young adult males. Local (county) economic hardship is a significant factor in those deaths. As evidenced in Table 30 county zip codes with higher poverty rates tend to have higher overdose deaths.

Table 30: Overdose Deaths by Zip Code, 2020

ZIP Code	# Deaths	Percent
21061 (Glen Burnie)	33	17.28%
21122 (Pasadena)	27	14.14%
21403 (Eastport)	25	13.09%
21225 (Brooklyn Park)	25	13.09%
21060 (Glen Burnie)	23	12.04%
21401 (Annapolis)	21	10.99%
21090 (Linthicum)	10	5.24%
21113 (Odenton)	10	5.24%
21144 (Severn)	9	4.71%
21146 (Severna Park)	8	4.19%

Source: Anne Arundel County Department of Health, 2020

HEALTH CARE ACCESS

Health care access was a recurring theme among participants in this needs assessment. As one health provider noted:

> *Access is the biggest thing… if the access is better, then the medicines would be more available, the information and knowledge and teaching would be more available and that would move things in the right direction.*

Many of those access issues are created by lack of transportation, poor or no health insurance, or the lack of a primary care provider. There are racial and ethnic disparities related to those county residents who have health insurance. Hispanic residents are the group with the highest number of uninsured residents in Anne Arundel County, with 8.7% of Hispanic residents uninsured in 2019 (Table 31) and 7.3% of Hispanic children (Table 32). The Anne Arundel County Department of Health, in collaboration with the Anne Arundel County Medical Society, developed the REACH Program (Residents Access to a Coalition of Health), which provides access to primary, specialty, and ancillary care to eligible, uninsured low-income county residents. However, the slots are limited by funding amounts. Several participants noted the need for more funding for this program.

Table 31: Residents Lacking Health Insurance by Race/Ethnicity in Anne Arundel County, 2019

	Percent of Residents Uninsured	Number of Residents Uninsured
White, NH	2.3%	8,665
Black, NH	5.0%	4,812
Hispanic	8.7%	3,998
Asian, NH	5.7%	1,195
Total	3.6%	20,195

Source: Kids Count Data Center, 2021

The State of Maryland offers enhanced Medicaid for children which means the disparities in health care are less. However, there are still disparities in care for our children. There are more than three times the number of Hispanic children who are uninsured compared to White children.

Table 32: Uninsured Children by Race in Anne Arundel County, 2019

Race/Ethnicity	Percent Uninsured
White, NH	2.1%
Black, NH	3%
Hispanic	7.3%

Source: Kids Count Data Center, 2021

TRANSPORTATION

At every focus group and key stakeholder interview, transportation was noted by participants as the number one need for county residents. There are five traditional bus routes in the county. Issues relate to how routes attach to one another, the regularity of service and the hours they run for residents who need to get to work. Since 2009, Anne Arundel County needs assessments have noted access to transportation as one of the top three needs. Lack of reliable transportation impacts our most vulnerable residents, including low-income families, persons with disabilities, young adults and the elderly. Health care access is a major issue for our vulnerable populations. The limited transit offered to seniors and the disabled requires an appointment in advance. Medicaid transportation will allow only the child needing access to be served and the caregiver. This is a barrier to access for caregivers with other children in the family. Both county emergency rooms are on a limited bus route which makes them preferred centers for those without transportation.

In our most vulnerable neighborhoods, transportation is an even bigger barrier. Many parents in neighborhoods like Brooklyn Park may have one unreliable car or none at all. This barrier often contributes to school absences. As one participant noted:

> "*A lot of their parents do not feel safe with them walking to school. Parents can walk them but a lot of them have to go to work or just work odd hours, work nights. So, I think the transportation piece is probably what I'm seeing the most of as far as a barrier*"

ELECTRONIC AND SOCIAL MEDIA

Electronic and social media was represented as a double-edged sword by many participants. Residents continued to express concern about the use of social media, especially for children. Unfortunately, cyberbullying appears to be increasing, as well as online threats of violence. School personnel highlighted these concerns.

Nonetheless, most participants acknowledged the importance of having a good internet connection and spoke highly of telehealth services, especially for seniors, the disabled and those who lack transportation or have other barriers to care. The same point was made by county school system representatives who have seen an increase in parental involvement due to parental ability to access their teachers from home. However, several professional participants made the point that increased access to their services through electronic connection made for longer and more irregular schedules. Here is a typical comment:

> "*Now I can do computer work and all that stuff until 2 a.m. if I want to… the problem is the patients have also gotten used to sending the emails, so I'm averaging about 25 emails after dinner every night which is easily an hour and a half to two hours.*"

Early childhood participants suggested that the overuse of electronics for the 0-5 population is contributing to some of the developmental delays we are seeing in this population. Even prior to the pandemic, very young children were becoming adept with tablets and cell phones. For busy parents working at home during the pandemic, electronics were a useful distraction for their children who could no longer access pre-school.

Several participants were concerned about the amount of incorrect health information given out on social media about COVID-19, the vaccines and the mitigation strategies. Here is a typical comment:

> "*Everybody has a blog; it just gets out of control… They're influencers who cause us to have divisions and incorrect health information so that's definitely a challenge that we're facing.*"

INCREASE IN VIOLENCE

In the 2018 Community Health Needs Assessment, many participants commented on the increase in violence within agencies and facilities. According to 2021 participants, violence has increased. Early childhood workers were unanimous in their concern about children biting, hitting and kicking in their centers. Health workers at every level commented on the amount of verbal and physical abuse personnel are subjected to. As one participant commented: "Not a day goes by where profanities aren't used, or a staff member isn't shoved by a family member and or a patient." Other participants commented on the increase in school violence, including stabbings and weapons brought to school. As one noted:

> "*Violence in our schools, at least at my school this year. We've seen a huge increase in that, and that's also leading to home and hospital teaching. I'm sure other high schools are dealing with this as well, just the violent behavior that's happening at school on a daily basis.*"

SUMMARY

The geography and color of the social determinants in our county should be addressed. Health and economic disparities are driving distress. Lack of transportation for vulnerable residents increases the difficulties of accessing health and other services. The lack of affordable housing and growing family homelessness continues to be of great concern.

NEEDS

- Access to transportation continues to be a huge issue, especially for low-income residents and seniors living in areas of North and South County.
- Lack of affordable housing was mentioned by many participants. It is non-existent in most parts of the county creating stress, and worst of all homelessness for low-income families.
- Increased planning and services related to the geography and color of social determinants in our county.
- Supportive permanent and temporary housing for those exiting health systems.
- Evidence-based conflict resolution programs for social systems and neighborhoods.
- Expanded access to healthy foods in low-income neighborhoods.
- Access to recreational and social opportunities for low-income youth within their own communities.

IMPACT OF THE COVID-19 PANDEMIC

The pandemic caused by the COVID-19 virus continues to impact every aspect of life for Anne Arundel County residents. As of January 2022, there is another spike in cases caused by the advent of the Omicron variant. Despite the positive impact of vaccines and booster shots, any rapid rise in cases stretches hospital, health care and other services to the maximum. The Omicron variant has created the greatest number of COVID cases for the county since the pandemic began (Figure 43). According to the CDC (2022), our county has had a total of 73,346 cases as of January 2022 and 858 deaths since the pandemic began.

Figure 43: Anne Arundel County New COVID-19 Cases per 100,000
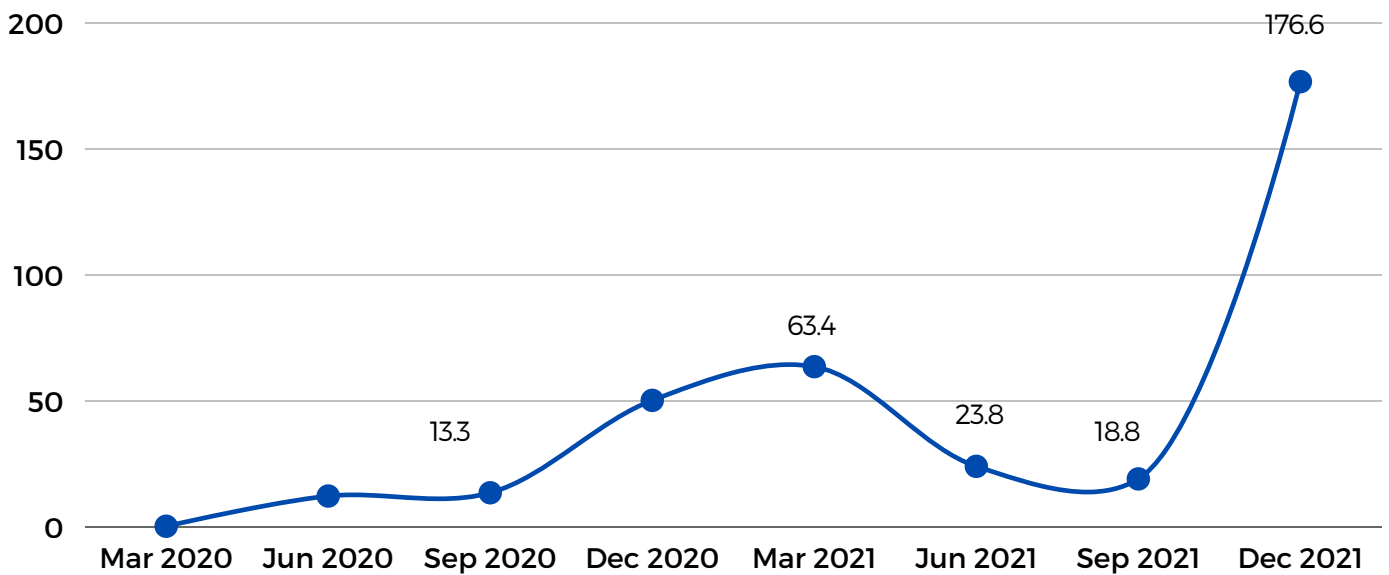
Source: Anne Arundel County Department of Health, 2021

DISPARITIES RELATED TO COVID-19

In Anne Arundel County, health disparities related to race and ethnicity were already noted prior to the onset of the pandemic. As with many issues, COVID-19 shed a bright light on these disparities. As of January 2021, while Whites are 67% of the county's population, they suffered 67% of the COVID-19 related deaths and 46% of the cases. African Americans, at 17% of the population, suffered 27% of the COVID-19 related deaths and 22% of the cases, while Hispanics, at 8% of the population, suffered 5% of the COVID-19 related deaths but 18% of the cases (Figure 44). While research continues as to why such disparities exist, it is clear that those at the lower end of the economic scale, disproportionately African American and Hispanic, were the least likely to have jobs that allowed work from home and the most likely to find themselves unemployed or have their hours cut. Without good access to transportation, healthy food and medical care, the burden of the pandemic has fallen squarely on this population.

Figure 44: Anne Arundel County Cases and Deaths by Race and Ethnicity
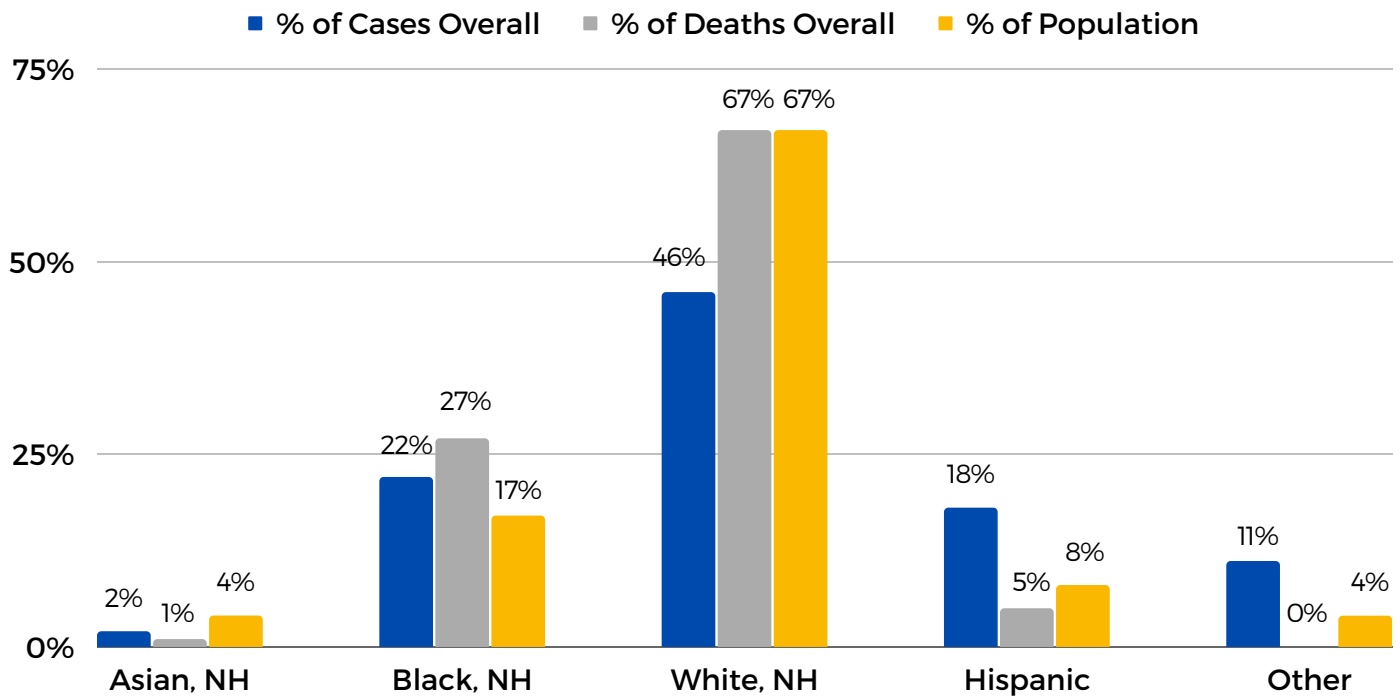
Source: Anne Arundel County Department of Health, January 2, 2021

INCREASE IN MENTAL HEALTH ISSUES

The numeric data related to the impact of COVID-19 on mental health is currently under collection. However, the majority of participants in this needs assessment noted the increasing issues seen at every level of our systems and neighborhoods related to the trauma, anxiety and depression created by social isolation, fear and grief. As one resident commented:

> *There's no question of isolation being an issue, we are social animals. If you isolate us, we become anxious and depressed. Period. It's not a matter of character, or toughness, it's just the way that we are. And so, I think there is a lot more depression and anxiety during this time because of that isolation.*

The county's crisis response system has seen a major increase in crisis calls during 2021, most likely due to the lingering impact of COVID-19 on our mental health (Figure 41).

Figure 45: Anne Arundel County Crisis Response FY 20 – FY 21 Warmline Calls by Month
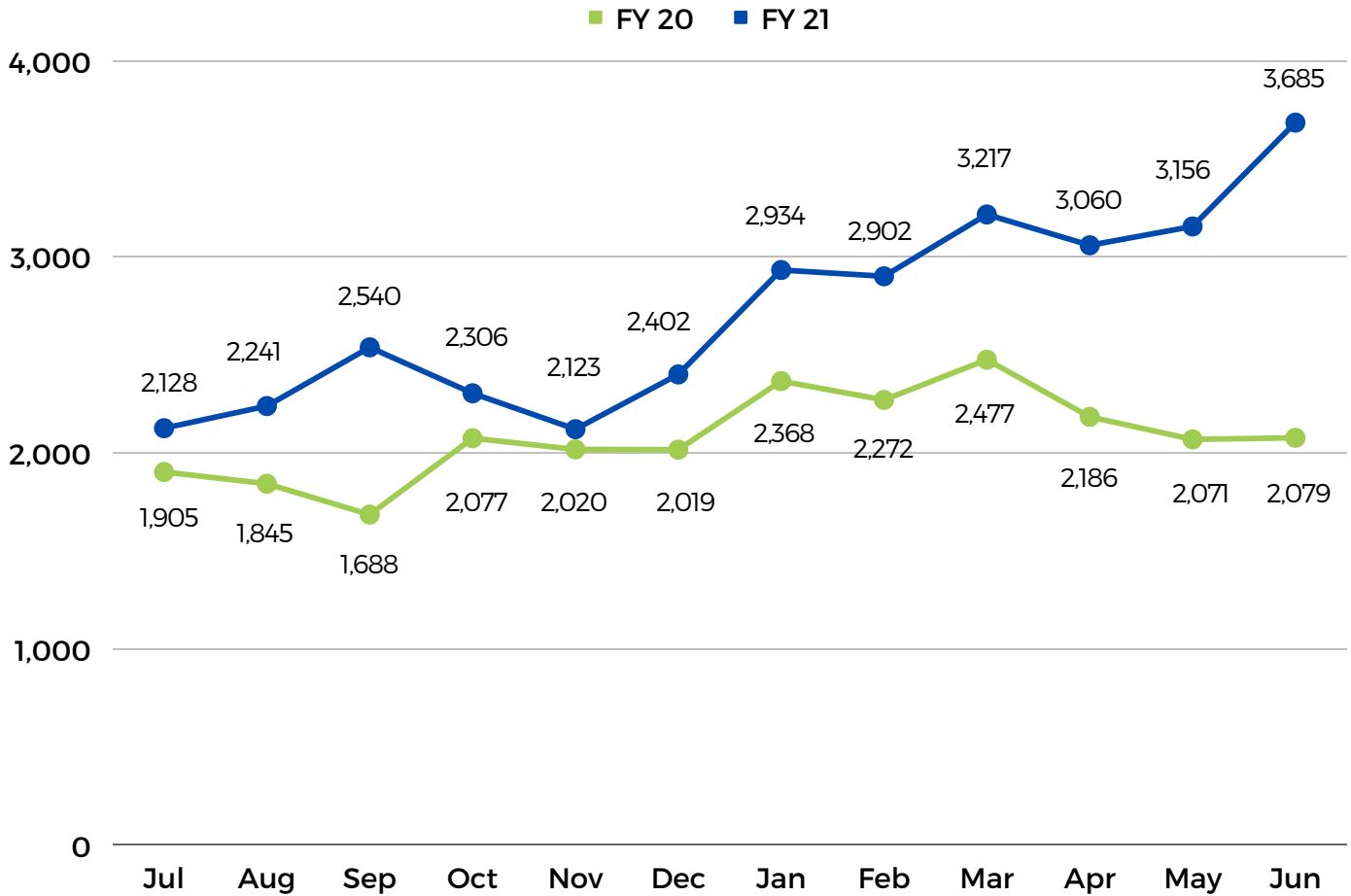
Source: Anne Arundel County Mental Health Agency, 2021

The majority of participants, however, pointed out that COVID related mental health issues have helped to reduce some of the stigma associated with mental health. Here's a typical comment:

> *I think a positive outcome (silver lining) is that people are talking about the importance of mental health and well-being and there is an opportunity to increase conversations and awareness and decrease stigma.*

THE EARLY CHILDHOOD (0-5) POPULATION

At the end of 2020, ages 0-9 represented 5% of the COVID-19 cases in Anne Arundel County (Anne Arundel County Department of Health, 2021). Throughout the pandemic, parents of young children had the added stress of job instability, the new virtual classroom and their own mental health. Many young children stayed at home without access to early childhood care. Participants in this needs assessment commented on the increased screen time use for the early childhood population during the pandemic. Some childcare programs attempted to continue virtually. Pre-K and Kindergarten programming were also offered virtually. Additionally, parents were under stress, trying to work at home and needing to occupy their children. As one participant noted, "parents are also using screen time for their little ones so that they can work."

Developmental issues for the 0-5 population will need to be addressed in the years following the pandemic related to the lack of physical and social contact with other children caused by the pandemic. Children learn gross and fine motor skills when they are in the physical company of other children. Playing and seeing other children play is essential for developing those skills. Children will have missed important lessons related to sharing, body language, and facial expressions. This comment from a stakeholder is typical of many:

> " *We are going to have more behavior issues and nutrition issues. They'll be behind developmentally… they won't have the vocabulary.* "

VIOLENCE

Participants also commented on what they believe to be an increase both in domestic violence and child abuse and neglect. There are no available numbers for domestic violence, but the number of child protection investigations decreased for 2020. Local experts believe those numbers relate more to the fact that schools were closed. Teachers tend to act as the eyes and ears of the child welfare system and are often the first to spot an abused child. Reports for child abuse in 2020 were almost half that of the previous year (Table 24). There was an increase in the number of substance abused newborns for 2020, matching anecdotal data related to the general rise in substance use during the pandemic.

Table 33: Anne Arundel County Child Welfare Key Indicators (2014-2020)

	2014	2015	2016	2017	2018	2019	2020
Families Receiving in Home Services	483	607	662	753	625	587	545
New Children Receiving in Home Services	1005	1016	1139	1429	1196	1093	997
New CPS Accepted Investigations	2400	2154	2161	2185	2243	2917	1886
New Substance Exposed Newborn Assessments	74	169	197	174	191	145	158

Source: Anne Arundel County Department of Social Services, 2021

Participants reported that workplace violence and the threat of violence is also increasing. Healthcare workers commented on the increased level of frustration and anger they experience in their patients. This is one more issue exacerbating the current labor shortages. The hospitals report daily occurrences of violence against nurses. Here is a typical comment:

SENIORS

Seniors have been disproportionately impacted by the pandemic. With senior centers closed and their increased risk of serious consequences from COVID-19 exposure, many seniors became more isolated. Without in-person care and with increased isolation, some seniors' chronic health conditions worsened. Fortunately, as the county moved to virtual communication, the county's Department of Aging increased focus on reaching out to seniors, helping with Zoom lessons and other issues related to technology. Many health and wellness programs moved to a virtual platform. Participants reported that seniors are now more comfortable with the virtual world than they were prior to the pandemic. As one noted:

> "They can click on a link, while they may not be able to drive, or they are too stiff. But they can still move while seated. So that has been a huge improvement for them and when we discussed about going back in person they asked not to. They prefer to stay virtual because, you know, it would take 3-4 hours of their day to get ready to go to an in-person class. While now, within 5 minutes they can connect to class and now they can do two or three classes a day."

Providers of services to the elderly were very positive about virtual medical care for their seniors. Many lack any access to transportation, have physical issues that make movement difficult, and may have difficulty keeping in-person scheduled appointments. However, some health care providers worried that they were no longer getting the opportunity to physically see their patients for routine and/or important physical examinations.

THE DISABLED

Participants in this needs assessment agreed on the lack of services for the disabled prior to the pandemic. Transportation is a huge issue for the population, as is access to buildings, including the lack of accessible doors in some doctor's offices and health care agencies. All of the eligibility programs for the disabled already had long waiting lists. Now there is also a shortage of care providers, especially for parents needing respite. For those who are also low income, it is difficult to find any agency willing to pay for support in the home, including aides and mechanical supports. Many of those issues have been exacerbated by the pandemic. Like seniors, disabled residents became more isolated and less likely to receive any in-home care. As one provider noted:

> "They're not able to leave their home to access socialization and other activities. They became homebound. They weren't able to go so they lost out, lost out on those resources and socialization and you know, I mean, they became like a recluse almost they, they couldn't do the things that we could do."

When schools closed for the young, disabled population, many of the services they and their parents relied on for support and comfort in the school setting were no longer available. Parents and grandparents, who might also be working from home, became 24-hour providers of care. As one noted:

> " *My grandson is on the (autism) spectrum and occupational therapy is also a service that he requires, and he was six at the time, and I was just trying to help, help him do whatever it was his occupational therapist would have done, so the skills that he would have been learning as a kindergartener, we tried the best we could.* "

LABOR SHORTAGES

While there were shortages of nurses, primary care doctors and behavioral care professionals prior to the pandemic, those shortages are now at crisis level. For medical professionals, the ongoing trauma of the pandemic has become exhausting. Many are frustrated, tired, and burnt out, leading to an exodus from the profession. Additionally, there are shortages at every level of care, including food preparers and custodians. Every health care provider commented on the acute labor shortages they are facing. As one noted:

> " *The number one health care issue is workforce shortages to care for patients. I worry that we won't be able to get to somebody who is trying to access care in time for them to get what they need. Or that we will get to a point where we have to choose who gets services, not because we want to, but because we have to. You know, across the industry you're seeing it.* "

Concern about labor shortages crossed every sector responding to this needs assessment. The school system has a shortage of teachers, teacher's aides, canteen workers and custodians. The childcare industry is seeing a huge reduction in available places related to a shortage of teachers and caregivers. Both police departments serving the county have shortages of employees at all levels, as do our human services agencies and not-for-profit providers. Participants suggested these shortages are due to the enormous fatigue created by COVID-19 for those employees serving the public, especially at a time when county residents are under stress and therefore irritable and inpatient. For some workers, COVID-19 offered time to reflect on their career choices and some are choosing less stressful employment.

Salaries in Anne Arundel County lag behind our neighbors in Montgomery and Howard Counties. For example, certified childcare workers in Anne Arundel County earn less than those working without qualifications in the fast-food industry. As one provider commented:

> " *What can we do to get quality staff, and not only quality staff but to pay them more when they can go down the street to Chick-fil-A or Sam's Club where they're going to make $15 an hour when we can't afford to pay them more than $12, and they're certified.* "

THE VIRTUAL WORLD

Support for telehealth and behavioral health was overwhelming in this needs assessment. It has created access for our seniors and disabled population and for those low-income residents who lack transportation and who do not get paid for the hours they must use to attend an appointment. The ability to virtually connect is most important during a time of labor shortages. The ability to attend virtually has increased attendance at parent evenings in the school system, at health-related seminars and in general education programs. However, alarm bells were sounded by primary care providers related to their need for some hands-on experience with their patients and for those working with the early childhood population and youth. Increased screen time may be decreasing developmental advances and important socialization.

COLLABORATION

Participants in this needs assessment commented on the increased collaboration across the county that was born as a result of the pandemic. County and city government representatives worked shoulder to shoulder with hospitals, not-for-profit agencies and the private sector to develop innovative programming and strategies to combat the damage wreaked by COVID-19. As one noted:

> *When you talk about Anne Arundel you don't realize how much we have even if it's not in dollar signs, maybe in relationships. So, for me it's just how we all get along and how we don't work necessarily in silos.*

Notable examples of that collaboration include Feed Anne Arundel, vaccine clinics to address economic and racial disparities, chrome book and internet access for low-income youth, food and medical supplies delivery for low income COVID-19 positive families without transportation, to name just a few. The county now has a coordinated system of food and baby pantries to reduce the immediate need. As one participant commented:

> *I think a lot of new ideas were put out there and especially working in collaboration with other organizations and groups you know, you got your blinders on when you're doing your job but then when you have to think about feeding people, well how are you going to do that so working with partners to get that done. I do think there's a lot of innovative ideas that have happened too.*

Several service providers noted, also, that the spirit of collaboration is beginning to decline after two years, as lockdowns end and emergency needs are met. As one noted:

> *It felt like the agencies were being more collaborative with one another, they weren't working in silos, like we normally do. Now we're back to 'these are my families, you know, this is, these are the people that I work with.' But before it was like, well let's try to get as many families as we can, so you know, the barriers were down a little bit and we were able to access more and communicate more and work with other agencies, but now the walls are back up.*

SUMMARY

The COVID-19 pandemic has changed the world, the nation and our county. Residents in every sector and age group of the county have been traumatized by lockdowns, uncertainty and changing information. Yet we have learned to adapt. Seniors are learning skills that allow them to receive care and socialize virtually. Our children are increasingly adept in a technological world. Most importantly, the public and private sector have learned to collaborate as our county moves through COVID-19 related changes to life in our county.

NEEDS

- A countywide and collaborative focus on labor shortages to include the public and private sectors.
- Increased support for telehealth and tele-behavioral health.
- Increased support for high-speed internet access, countywide.
- Increased focus on trauma-informed care and settings, especially for children and seniors.
- Increased understanding of the racial, economic and health disparities highlighted by COVID-19.
- A countywide focus on the social determinants of health at the neighborhood level.
- Recognition of the importance of inter and intra agency/sector and resident collaboration, not just when there is an emergency.
- Increased focus on the 0 -5 population related to spending the majority of their short lives living with the consequences of a global pandemic. Quantitative data is not yet available but early childhood participants in this needs assessment believe there will be consequences related to developmental stages where social interaction is important.

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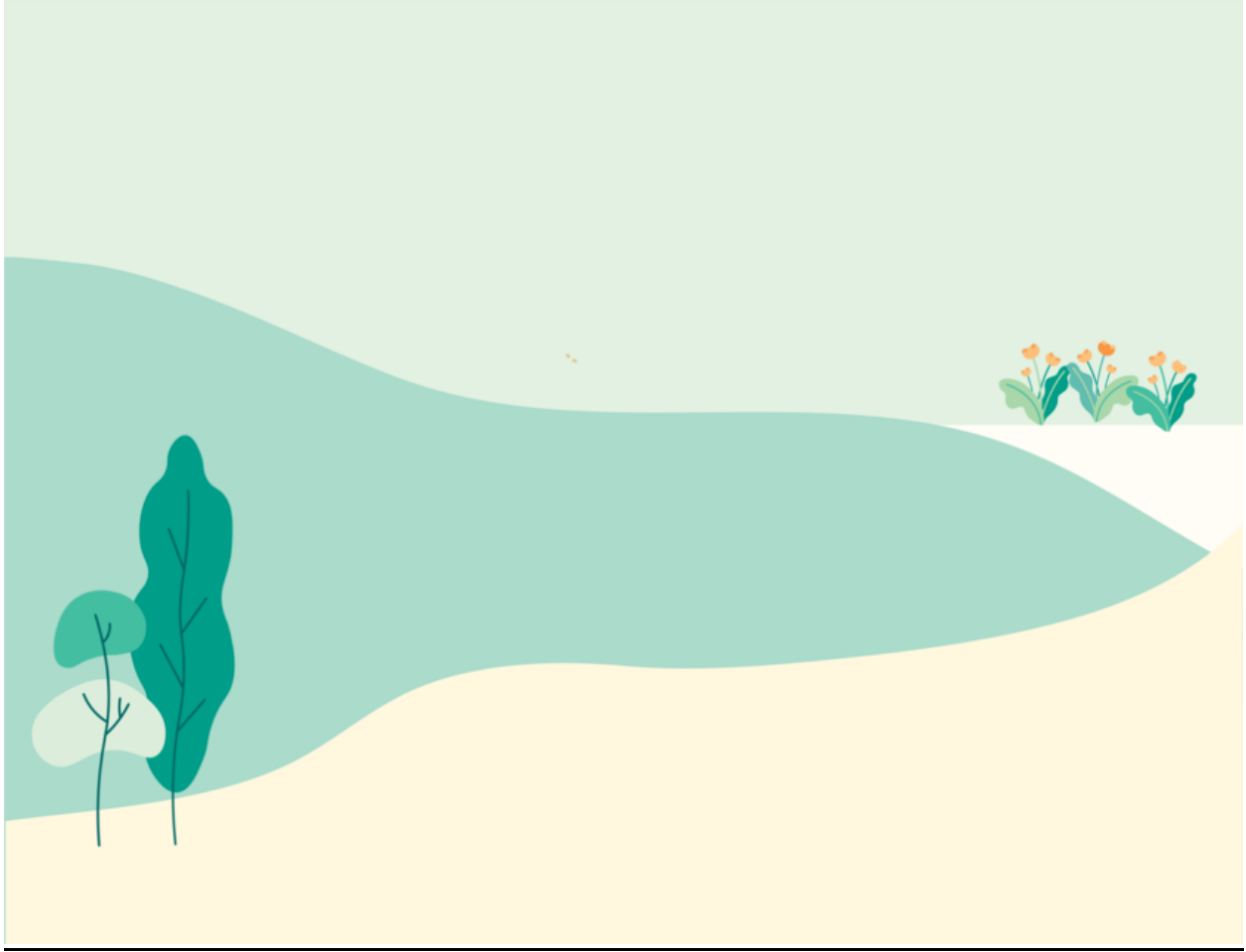
Community Health Needs Assessment

Implementation Plan

FY2022 – FY2024

Luminis Health

Executive Summary

Luminis Health is pleased to provide the FY2022 through FY2024 Community Health Needs Assessment (CHNA) and Implementation Plan. This plan is inclusive of all three hospitals in the health system: Luminis Health Anne Arundel Medical Center (LHAAMC), Luminis Health Doctor's Community Medical Center (LHDCMC), and Luminis Health McNew Family Medical Center.   This report is designed to describe the process of collecting information and ascertaining the community needs, prioritizing those needs and a description of our action plan to address those needs to improve health. For the purpose of this report, the community is defined within Anne Arundel and Prince George's Counties since the majority of patient discharges reside in this area. The Board of Directors approved this plan on September 22, 2022 in accordance with IRS regulations.

About Luminis Health

In 2019, Anne Arundel Medical Center added Doctors Community Medical Center and was renamed to Luminis Health (LH), remaining a not-for-profit health system that serves communities across central Maryland, from Washington D.C. to Delaware. Luminis Health includes three hospitals with 611 licensed beds and over 80 ambulatory locations. As a major employer in central Maryland, we have more than 1770 on the medical staff, 6,500 employees and 1,400 volunteers. Our mission is to enhance the health of the people and communities we serve.

Key Findings

The CHNA data was compiled from secondary data sources and qualitative information obtained from key informant interviews and several focus groups of diverse community members. It outlines multiple health needs in our community, county leaders have narrowed the top needs to chronic disease

(heart disease and cancer), obesity, diabetes/metabolic syndrome disease, behavioral health, and social determinants of health (SDOH). The results and correlating action plans are included in Table 1.

Table 1

Priority	Action Plans
Chronic Disease	Reduce incidence and mortality from Cancer by improving risk factors and screening rates. Reduce mortality from heart disease by providing education related to heart disease and risk factors. Improve access to cardiologists to reduce utilization.
Obesity/ Diabetes Prevention	Increase education for lifestyle risk factors to reduce obesity. Increase access to screenings and prevention programs to reduce incidence of diabetes.
Behavioral Health	Increase community awareness of programs. Increase access to behavioral health treatment for children, teens, and adults.
Social Determinants of Health (SDOH)	Create advisory councils to assist the health system to identify how to improve SDOH. Pilot and determine strategy to address food insecurity and how healthy food access can limit burden of disease (cancer, heart disease, diabetes).

CHNA Methodology and Process

Luminis Health participated in two separate CHNA processes, one for Anne Arundel County and one for Prince George's County. In both CHNA reports, the summative (quantitative) data was gathered from a variety of local, state and national sources. Qualitative data was obtained from key informant interviews, targeted population-based focus groups, and resident-household surveys. While both CHNA reports and data collection processes

were separate, each hospital participated with a diverse group of community partners to gather input including county health departments, hospital systems, public health leaders, faith based leaders, law enforcement, elected officials and business owners. While the CHNA reports are separate by county, Luminis Health has developed a comprehensive Implementation Plan that addresses the needs defined in Table 1.

Documenting and Communicating Results

The 2022–2024 Community Health Needs Assessment process fully embraced community involvement and collaboration with a broad group of community leaders, the general public, and health experts. This report will be posted on our website at (INSERT LINK).

Highlights of this report will also be documented in the Community Benefits Annual Report for FY2022-2024. Reports and data will also be shared with our community partners and community leaders as we work together to make a positive difference in our community by empowering and building healthy communities.

Priorities and Implementation Planning

Luminis Health aligned its identified community health priorities with the state health priorities (SIHIS, Maryland Behavioral Health Plan), and national quality benchmarks (HEIDS). Program objectives and outcome measures will be measured annually for each priority area through the related programming. Adjustments will be made to annual plans as other issues emerge or through our annual program evaluation.

Future Community Health Needs Assessments will be conducted every three years and strategic priorities will be re-evaluated then. Program evaluations

will occur annually, and adjustments to programs will be as needed. All community benefits reporting will occur annually to meet state and federal reporting requirements.

Unmet Community Needs

Each CHNA report contained additional topic areas that will not be addressed within this plan. Due to resource limitations, LH will focus the majority of its efforts on the identified strategic priorities. We will periodically review the complete set of needs identified in the CHNA for future collaboration and work.

The LH identified core priorities target the intersection of the identified community needs and the organization's key strengths and mission. The following table summarizes the programs either currently in use or to be developed to address the identified health priorities.

FY2022-FY2024 Community Health Improvement Implementation Plan

PRIORITY AREA: Chronic Disease- Cancer Heart Disease	

Objectives Supporting SIHIS, MD Behavioral Health Plan, HEDIS:
1. Reduce morbidity and mortality related to cancer.
2. Reduce morbidity and mortality related to heart disease.

Objective	Target Population	Strategy
Increase access to breast, cervical and colorectal cancer screenings.	Patients who meet screening eligibility	Identify opportunities in the care continuum to educate and schedule patients for screenings. Outreach to patients who lack access to screenings and face barriers (language, transportation, insurance).
Increase access to tobacco cessation and prevention programs.	Patients who smoke/ at risk for smoking	Continue on-going efforts to recruit patients through referral process. Identify high risk patients (behavioral health, face barriers) and enroll into programs.
Promote heart failure awareness among community and patients	Community	Increase self-assessment abilities through interactive learning experiences
Encourage participants to assume responsibility for their own health choices through development of a personal wellness plan for maximizing heart health throughout life	Community	Provide educational opportunities for patients to better understand how to implement a heart healthy diet, maintain weight, omit tobacco use, limit alcohol and drug use, get regular exercise.

Increase access to ambulatory cardiology providers to reduce readmissions, ED visits, for CHF and Afib	Heart patients	Increase providers to improve patient wait times and follow up visit adherence Improve process to schedule follow up appointments with providers.

PRIORITY AREA: Obesity/ Diabetes Prevention

Objectives Supporting SIHIS, MD Behavioral Health Plan, HEDIS:

1. Expand Diabetes Prevention Programs across service area to reduce mean BMI, maintain HbA1c, and blood pressure monitoring in adults.
2. Expand diabetes prevention programs to non-English speaking populations.
3. Increase number of patients with access to healthy food.
4. Increase number of patients who are physically active.

Objective	Target Population	Strategy
Increase education and access to programs to improve health, reduce BMI, and reduce incidence of diabetes.	Patients and community who meet CDC diabetes prevention definitions	Expand DPP programs in English and Spanish Expand mobile van testing and screenings (HbA1c, total glucose, total cholesterol, blood pressure) Expand programs in Primary Care offices to improve HbA1c and blood pressure screenings Continue to support Prince George's County HSCRC Diabetes Catalyst Grant initiatives Expand the number of community partners to increase efforts

PRIORITY AREA: Behavioral Health		
Objectives Supporting SIHIS, MD Behavioral Health Plan, HEDIS:		
1. Reduce the suicide rate and reduce the emergency department visits related to mental health		
2. Increase the proportion of persons with co-occurring substance use disorders and mental health disorders who receive treatment for both disorders		
3. Increase the proportion of patients (Children, teens and adults) adults with behavioral health illnesses who receive treatment		
Objective	**Target Population**	**Strategy**
Expand co-occurring capacity of Treatment and Prevention Programs	Staff	Provide awareness and education about programs
		ED continue to facilitate Naloxone distribution
		Partner with Sheppard Pratt to expand Collaborative Care Services in ambulatory practices
Explore new partnerships for community outreach and health promotion for mental health and substance use.	Community organizations	Provide awareness and education about programs
Improve access to Behavioral Health Care for children, teens, and adults	Patients	Expand consult service capacity for mental health and substance use within LHAAMC and LHDCMC
		Expand services at LHDCMC - open an inpatient psychiatric unit, Psychiatric Day Hospital, OMHC, Urgent care and residential addiction-crisis unit for adults
		Expand ED Evaluations at LHDCMC and offer Emergency Petition (EP) capacity
		Develop Child & Adolescent Outpatient Services on a regional basis to serve both Anne Arundel and Prince George's Counties

		Continue to monitor and evaluate programs and access for patients

PRIORITY AREA: Social Determinants of Health

Objectives Supporting SIHIS, MD Behavioral Health Plan, HEDIS:

1. Increase number of patients who have access to healthy food.
2. Reduce number of patients with risk factors for disease since they have access to healthy food.

Objective	Target Population	Strategy
Establish advisory councils for each hospital to develop strategies to address SDOH in a clinical setting and in the community.	Community leaders	Pilot SDOH faith based council at LHDCMC. Develop lessons learned and implement strategies at both hospitals. *Plan to be updated FY23-FY24

Luminis Health

ADM1.1.91 - Patient Financial Services – Hospital Financial Assistance, Billing & Collection

Dates Previously Reviewed/Revised: N/A **Newly Reviewed By:** F&A 9/2012, BOT 9/2012, HPRC 1/2015, BOT 6/2019, BOT6/2020, BOT 1/2021 **Approval Date:** 1/2021 **Effective Date:** 1/2021	**Owner:** Director, Patient Financial Services
Approver Title: Chief Financial Officer On file _____ Approval Signature	

Scope:
This Luminis Health policy applies to hospital services provided at Anne Arundel Medical Center (AAMC), Doctors Community Medical Center (DCMC), J. Kent McNew Medical Center (MMC) and Pathways (collectively hospitals) only. Other providers, including all physicians who deliver emergency and medically necessary care at AAMC, DCMC, MMC and Pathways are not covered by this policy.

Policy Statement:
To promote access to all for medically necessary services regardless of an individual's ability to pay, to provide a method of documenting uncompensated care and to ensure fair treatment of all applicants and applications.

Purpose:
- To assure the hospital communicates patient responsibility amounts in a fair and consistent manner.

- To provide opportunity to resolve questions regarding charges or insurance benefits paid.

- To assure the hospital meets the requirements of Maryland standards for hospital billing and collection practices.

- To provide opportunity to resolve questions regarding charges or insurance benefits paid.

- To define the hospital's decision-making process for referral for collection or legal action.

- To assure the hospital meets the requirements of Maryland standards for hospital billing and collection practices.

Definitions: None

Policy/Procedure:
Financial Assistance:
- A patient's payment for reduced-cost care shall not exceed the amount generally billed (AGB) as determined by the Health Services Cost Review Commission's (HSCRC) approved rates.

- Patients may apply for Financial Assistance by the methods listed below.
    - By calling AAMC at 443-481-6500 or DCMC at 301-552-8093
    - Patients may apply in person at the Financial Advocacy Office which is located in the Ambulatory Care Pavilion on the first floor of AAMC's main campus between 8:30 a.m. and 4:00 p.m., Monday through Friday or at 7404 Executive Place, 3rd floor, Room 300A, Lanham, Maryland 20706

- o The Financial Advocacy Office will mail a free copy of Luminis Health's financial assistance policy and financial assistance application to any patient who requests those documents
  - o Patients may apply on the internet at:
    https://luminis.health/aamc-fa-application for AAMC or MMC
    https://luminis.health/dcmc-fa-application for DCMC
  - o Applications are available in English and en Español

- The following two-step process shall be followed when a patient or a patient's representative requests or applies for financial assistance, Medical Assistance, or both:
  - o Step One: Determination of Probable Eligibility. Within two business days following the initial request for financial assistance, application for Medical Assistance, or both, Luminis Health shall: (1) make a determination of probable eligibility, and (2) communicate the determination to the patient and/or the patient's representative. In order to make the determination of probable eligibility, the patient or his/her representative will be required to provide information about family size, insurance, assets and income, and the determination of probable eligibility will be based solely on the information provided by the patient or patient's representative. No application form, verification or documentation of eligibility will be requested or required for the determination of probable eligibility.
  - o Step Two: Final Determination of Eligibility. Following a determination of probable eligibility, Luminis Health will make a final determination of eligibility for Financial Assistance, which (except as otherwise provided in this Policy) will be based on a completed Uniform Financial Assistance Application and supporting documentation of eligibility.

- Once a request for financial assistance has been approved, dates of service twelve months before the approval and twelve months after the approval shall be included in the adjustment. Service dates outside this twenty-four-month window may be included if approved by a Supervisor, Manager, or Director of the Patient Financial Services Department.

- PROVIDERS NOT COVERED BY FINANCIAL ASSISTANCE POLICY
  Unless otherwise specified, the Luminis Health Financial Assistance Policy does not apply to physicians or certain other medical providers who care for you while you are in the hospital. This includes emergency room doctors, anesthesiologists, radiologists, hospitalists, pathologists, and other providers. These doctors will bill you separately from the hospital bill. This policy does not create an obligation for the hospital to pay for the services of these physicians or other medical providers. The public may obtain a copy of this list by printing from the link below or contacting the Luminis Health Financial Counseling office.

  Providers excluded from the Luminis Health Financial Assistance policy (PDF)

- PROVIDERS COVERED BY FINANCIAL ASSISTANCE POLICY
  This policy applies to services provided by Luminis Health (facility charges) only. Medical professionals who care for you in the hospitals will bill you separately for their services (professional charges). Each of these medical professionals has their own policy and their bills are not covered by this Financial Assistance Policy.

Eligibility Criteria:
- Luminis Health provides 100% financial assistance to individuals with household income at or below 300% of the US Poverty guideline but deemed ineligible for any County, State or Federal Medicaid or other funding program.

- Luminis Health provides 100% financial assistance to individuals enrolled in a means-tested State or Local program. Patients who provide proof of enrollment in one of these programs do not have to complete an application or submit supporting documentation of income to be approved for financial assistance.

- A patient that has qualified for Medical Assistance (Medicaid) is deemed to automatically qualify for financial assistance under this policy. The amount due from a patient on these accounts may be written off to financial assistance with verification of Medicaid eligibility. Standard documentation requirements are waived.

- A patient of Luminis Clinical Enterprises who has been approved for financial assistance by that organization automatically qualifies for financial assistance under this policy at the same percentage of charges discount. The patient does not have to complete a separate application to be eligible under this policy. Some service exclusions may apply.

- Luminis Health provides a sliding fee scale for individuals with household income at or below 350% of the US poverty guideline but deemed ineligible for any County, State or Federal Medicaid or other funding program. The sliding scale provides 50% financial assistance to individuals up to 350%.

- Luminis Health provides financial assistance not only to the uninsured but to patients with a demonstrated inability to pay their deductibles, copayments and balance after insurance.

- Luminis Health recognizes that a portion of the uninsured or under insured population may not engage in the traditional financial assistance application process. If the required information is not provided by the patient, Luminis Health may employ an automated, predictive scoring tool to qualify patients for financial assistance. The patient's score predicts the likelihood of a patient to qualify for Financial Assistance based on publicly available data sources. Approval through the automated scoring method applies only to accounts where obtaining an application is not feasible as determined by the Patient Financial Services Department.

- For all income levels, Luminis Health will consider special circumstances such as the amount of the bill compared to income and cumulative impact of all medical bills from the hospitals. The guidelines in Maryland regulation regarding financial hardship will be followed to determine if a special circumstance is valid.

- AAMC developed an initiative with the Anne Arundel (AA) County Department of Health to help provide free prenatal diagnostic testing for uninsured unregistered immigrants. These individuals are not eligible for any Medicaid program.

- AAMC participates with an AA County specific program (REACH) administered through the AA County Department of Health to provide free care to low income uninsured or under-insured individuals (below 200% of the US Poverty Guideline). These individuals come to AAMC on an elective basis and are prescreened by the local Department of Social Services.

- Diagnostic and Treatment services are provided free of charge to referrals from the AAMC Outreach Free Clinic initiative located in downtown Annapolis.

- Payment plans are interest-free. Payment plans greater than four months will be handled by an external vendor. Payment plans are available to patients regardless of their household income.

Exclusions from Eligibility:
- Services not charged and billed by a Luminis Health Facility listed within this policy are not covered by this policy.

- Cosmetic, other elective procedures, convenience and/or Luminis Health facility services which are not medically necessary, are excluded from this policy.

- The Hospitals exclude assets such as:
  - Equity in the patient's primary residence
  - The first $15,000 of monetary assets
  - The value of transportation necessary to generate an income
  - Certain retirement benefits such as a 401k where the IRS has granted preferential tax treatment as a retirement account including but not limited to deferred-compensation plans qualified under the Internal Revenue Code, or nonqualified deferred-compensation plans where the patient would pay taxes and/or penalties by cashing in the benefit

- Patients who chose to become voluntary self-pay patients do not qualify for Financial Assistance for the amount owed on any account where they have elected to be self-pay.

Appealing an Unfavorable Decision
- Patients who feel they have been denied financial assistance inappropriately under this policy may contact the Health Education and Advocacy Unit of the Maryland Attorney General's Office.
- Email heau@oag.state.md.us
- Telephone 410-576-6300; En español 410-230-1712
- Address 200 St. Paul Place 16th Floor, Baltimore, MD 21202-2021
- Fax 410-576-6571
- Website https://www.marylandattorneygeneral.gov/Pages/CPD/HEAU/default.aspx

Billing:

Patient Statement of Charges:
- A Summary Bill of charges, formally referred to as the Uniform Summary Bill is mailed to every inpatient within 15 days of discharge from the hospital. This contains information on the insurance company billed as well as how to contact the Patient Financial Services office for questions or assistance.

- Uninsured patients receive this Summary as well.

- Each bill for outpatient services includes detail charge information on the first request for payment.

- At any time, the patient may request a copy of their detailed itemized bill.

- The HSCRC required Patient Billing Information sheet data is printed on the Uniform Summary Bill and the back of all patient billing statements.

- A representative list of services and charges is available to the public on the hospital's website and in written form. The website will be updated quarterly with the most recent average charge per case for each of the services.

- Requests and inquires for current charges for specific procedures/services will be directed to the ACP Financial Coordinator or if applicable the specific department Financial Coordinator. The Coordinator will communicate with the patient and the patient's provider of care to provide the best possible estimate of charges. Using the CPT code, service description and/or other supply/hospitalization time charge estimates are based on, a) review of the charge master for the CPT code/service description, and/or b) review of cost of similar surgical procedures/treatments/hospital stays. The patient will be informed cost quotes are estimates and could vary based on the actual procedure(s) performed, supplies used, hospital stay/OR time & changes in HSCRC rates. If the Coordinator requires guidance or additional information to provide the estimate, he/she will contact the Reimbursement Department. Every effort will be made to respond to the request for charges within 2 business days depending on information needed to fulfill the patient's request.

Patient Balance Billing:
- From the point in which it is known that the patient has a balance for which they are responsible the hospital begins billing the patient to request payment.

- Each patient receives a minimum of 4 requests for payment over a 120-day period.

- Each patient bill includes contact information for financial assistance and states where to call to request a payment plan.

- Each bill informs the patient they may receive bills from physicians or other professionals.

- Short- and Long-term interest free payment plans are available. The hospital considers the balance of the bill and the patient's financial circumstances in determining the appropriate agreement.

- Should the patient contact Patient Financial Services Customer Service unit regarding inability to pay – financial assistance is offered, and the financial assistance screening process begins.

- Patients who have made payments to Luminis Health in excess of $25 and later become eligible for financial assistance on those dates of service will be entitled to a refund of the amount paid.

- Patient complaints about the billing or collection agency process should be directed to the Patient Financial Services general telephone number.

Collection Agency process:
- If there is no indication from the patient or a representative that they cannot pay and no attempt at payment or reasonable payment arrangements is made, the account is referred to a collection agency.

- The collection agency referral would typically occur between 120 – 150 days from the first request to the patient to pay assuming the patient made no attempt to work out payment arrangements or indicated financial need.

- The final statement to the patient communicates the account will be referred to an external agency if the balance is not satisfied.

Collections:
- The Director of Patient Financial Services oversees the hospital's business relationship with the Collection Agency. The Patient Financial Services Department is responsible for determining that reasonable efforts have been made to determine whether an individual is eligible for financial assistance before initiating extraordinary collection actions (ECAs).

- Luminis Health permits the following ECAs:

  - Reporting adverse information about an individual to credit agencies
  - Commencing a civil action against an individual**

- Luminis Health does not allow the following ECAs:
  - Selling an individual's debt to a third party
  - Deferring, or denying, or requiring a payment before providing medically necessary care because of non-payment of one or more bills for previously provided care
  - Placing a lien on an individual's property
  - Foreclosing on an individual's real property
  - Attaching or seizing an individual's bank account or other personal property
  - Causing an individual's arrest

- o Causing an individual to be subject to a writ of body attachment
- o Garnishing an individual's wages

** Commencing civil action against an individual is not the normal course of collection, however, Luminis Health reserves the right to pursue collections through civil action in extraordinary circumstances, at the discretion of senior management, to include, but not limited to:
- o When a patient's receivable is >= $5,000 and the patient's ability to pay has been verified
- o When an insurance company confirms payment has been made directly to the patient or patient representative

- If a financial assistance application is received within 240 days of the first post-discharge billing statement, and the account is with a collection agency, the agency will be notified to suspend all ECAs until the application and all appeal rights have been processed.

- Luminis Health does utilize a credit reporting bureau.

- Luminis Health does not charge interest to patients.

- The Luminis Health Business Office staff reviews each case before being referred for legal action.

- The collection agency is educated on how to make referrals to Luminis Health's financial counseling departments for individuals indicating they have an inability to pay.

- The collection agency will establish payment arrangements in compliance with Luminis Health's interest free commitment.

Hospital Financial Assistance Communications:
- The Financial Assistance Signage is conspicuously displayed in English & Spanish in each hospital's Emergency Department, Cashiering & Financial Counseling office. Patients desiring to discuss financial assistance in another language may call the contact numbers in this policy and interpretive services will be provided.

- The Financial Assistance Policy as well as a printable Uniform Financial Assistance Application is posted on the hospitals' websites.

- Financial Assistance information is included in each patient guide located in the inpatient rooms.

- Registration staff and Financial Coordinators are trained on how to refer patients for financial assistance.

- The Uniform Financial Assistance Application is available at all registration points in each hospital, including the Emergency Department.

- A brochure "Patient Information Sheet" is available at every patient access point in each hospital and is posted on the Luminis Health website. This brochure includes information regarding financial assistance/contact points and is available in English/Spanish.

- Individual notice regarding the Financial Assistance Policy shall be provided at the time of admission or preadmission to each person who seeks services in the hospital. It is mandatory that all inpatients receive the "Patient Information Sheet" brochure as part of the admission packet.

- Information is available through the patient access/registration staff to provide to the uninsured or any individual concerned about paying their hospital bill directing them to the hospital's Financial Counseling office for assistance.

- Hospital Patient Financial Service staff receive extensive training on the revenue cycle and are incentivized to obtain AAHAM Technical (CRCS) certification to demonstrate their expertise in billing and revenue cycle requirements.

References: Patient Protection and Affordable Care Act statutory section 501 (r)
IRS Notice 2015-46
Department of Treasury, Internal Revenue Service, Additional Requirements for Charitable Hospitals; Volume 77, No. 123, Part II, 26 CFR, Part 1
Maryland Health General Article § 19-214.2

Cross References: None