

## Ann Clark

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**From:** Jennifer Greene <jen.greene@apphealth.com>  
**Sent:** Friday, January 17, 2020 10:55 AM  
**To:** Adam Stumb  
**Cc:** Ann Clark  
**Subject:** Request to Present to Commissioners  
**Attachments:** Annual Report FY 18-19\_FINAL.pdf; Ashe State of the Health Report 2019 01.15.20.pdf

Good morning! I wanted to reach out and ask if I could get on a future Commissioner agenda to share our annual report and the Ashe State of Health report? I'm available Monday, February 3<sup>rd</sup> or 17<sup>th</sup> and of course, I'm happy to make myself available whenever is convenient.

Thank you!  
Jennifer

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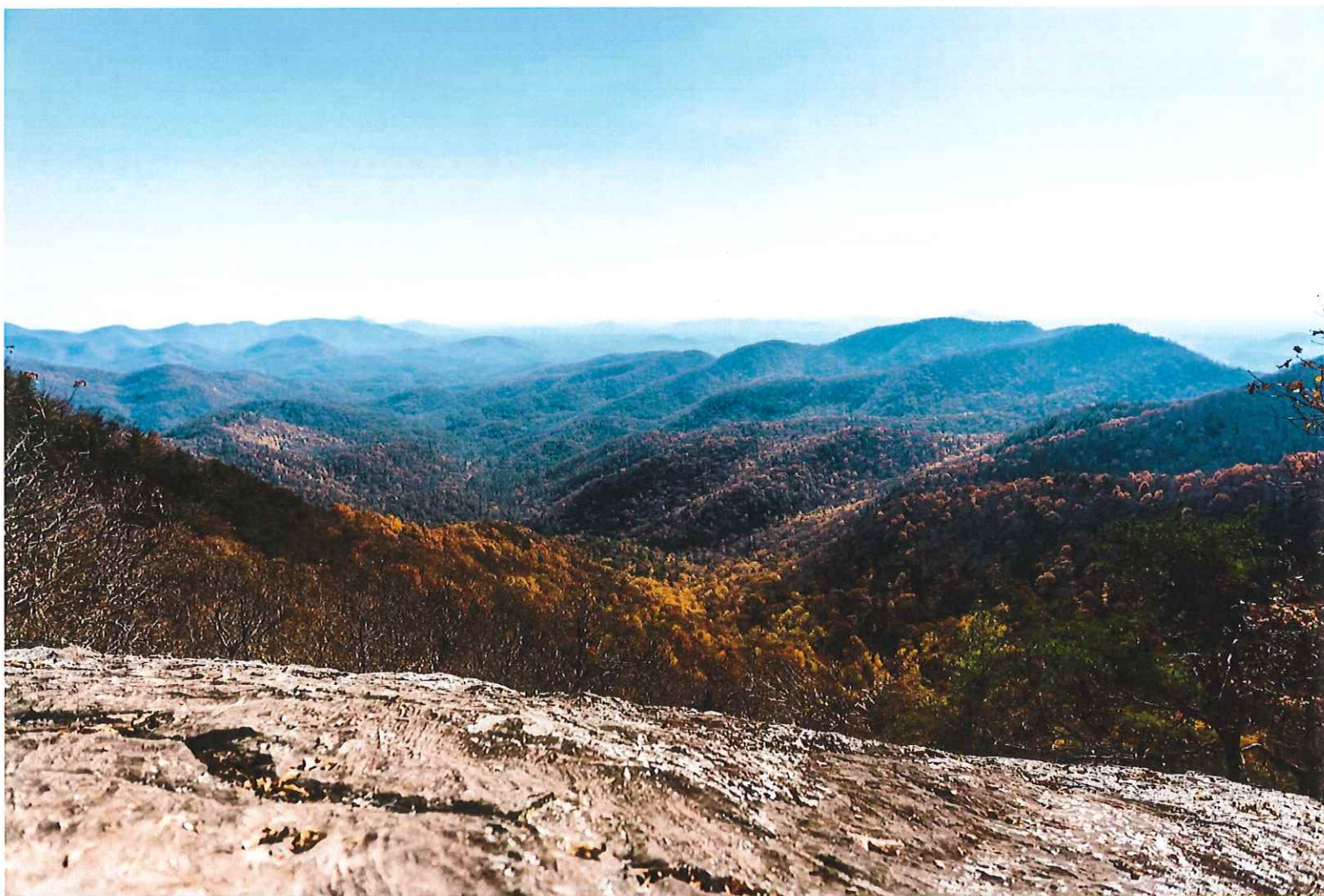
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# 2018-19 Annual Report



Caring for Our Community



# Public health, healthcare, and AppHealthCare

A message from the Health Director & CEO

This year, we have experienced continued growth and opportunity to better serve our communities. Our tagline is *Caring for Our Community* because that's what our team does every day, for everyone. As we continue to work with other local partners to achieve our vision of *Health for All*, we continue working to improve health for everyone through partnerships, meeting immediate needs for care and response, and working together to measure and address key health challenges facing us.

AppHealthCare is one of only three dual-entity public health department-federally qualified health centers in North Carolina. This dual status offers our communities even greater opportunities and allows us to further stretch our reach to build on prior successes. In this report, you will see many updates on how we care for individuals, and I hope you will be sure to focus on that as well as the areas that provide public health infrastructure support like finance and technology as well as our community health initiatives.

*Here are a few highlights as we look back on the success of 2018-19 and look forward to continued impacts next year:*

## **Public health 3.0 and the opportunity to be more visible, memorable, and impactful**

In September, 2017, a journal article entitled, [Public Health 3.0: A Call to Action for Public Health to Meet the Challenges of the 21<sup>st</sup> Century was published in Preventing Chronic Disease](#) (DeSalvo, Wang, Harris, Auerbach, & O'Carroll). As our healthcare system continues to move toward a value-based system, this article also challenges us to move along the continuum of public health interventions that include providing innovative clinical prevention outside the clinical setting and implementing interventions that reach whole populations through community-wide prevention. However, one of the key challenges in optimizing our public health improvements by implementing more public health 3.0 inspired interventions is core public health staff infrastructure.

Fees, grants, and mostly federal funding supports core staff positions. Simply put, there needs to be a greater investment in public health funding from state and local sources.

## **Triple Aim Healthcare**

[The Institute for Healthcare Improvement launched the Triple Aim](#) initiative years ago with a goal of improving 3 key areas of healthcare: population health, experience of care, and per capita cost. This past year, AppHealthCare maintained its recognition by the National Council on Quality Assurance as a Patient Centered Medical Home and received recognition from HRSA for high value care with lower cost and higher quality in comparison to peer health centers. The move toward value-focused care is one we embrace, and continue to see challenges ahead to better serve patients in connecting with community resources that support key social drivers of health like transportation, housing, environments free of interpersonal violence, and food security.

One element of reaching this goal, I believe, is helping ensure all people have access to a primary medical home. To date, NC has remained one of the few states that have opted not to expand Medicaid coverage. Controlling cost of healthcare will be impossible without controlling access to preventive care for everyone. We know the delay of primary care, lack of key preventive care for mental health, substance abuse, oral health, and chronic disease often result in a more expensive patchwork version of care. At AppHealthCare alone, we know that 1 in 4 of our patients would likely qualify for Medicaid if it were expanded. When we care for the whole person: their primary care, oral healthcare, behavioral health, substance abuse risk or needs, and better manage chronic diseases like diabetes, high blood pressure, and obesity, we then have an opportunity to control costs and have healthier people.

## **Staying prepared and emerging threats**

This past year has brought forward old public health challenges that have continued to grow like communicable disease. This year, we have increased concern about ensuring we have broad immunity from vaccine preventable diseases like mumps, pertussis, and measles, and remain focused on others that affect so many like influenza. Sexually transmitted infections continue to rise across our area and our nation, and we have an increasing trend of Lyme's disease as well. Nearby, we have seen others facing crises with environmental contaminants, extreme weather patterns, and other emergencies. These, along with foodborne illness outbreaks, lead investigations, and emerging trends like the rise of electronic nicotine devices like e-cigarettes or other vape devices bring forward the importance of solid staffing levels in public health to be able to prevent, plan, and respond to these ongoing and emerging threats.

## Addressing root causes, social determinants, and all populations

### Local actions to address the opioid epidemic

We are proud to be a partner with others in our community to address the opioid epidemic—which is only part of the substance abuse picture in our area. This year, we launched an initiative focused on reaching justice-involved persons at the Watauga County Detention Center thanks to the leadership and support of the Watauga County Sheriff's office. Additionally, we launched peer support services across all three counties to have local individuals who have firsthand experience and expertise to help link people to treatment and reduce harm. Looking ahead, we aim to continue building our peer support work and boost harm reduction activities as outlined in [NC's Opioid Action Plan 2.0](#). Learn more about statewide, regional, and local data about the Opioid Epidemic on the [NC DHHS Opioid Action Plan Data Dashboard](#).

Regardless of what you know now about the opioid epidemic, I hope you will be open to learning more about our [Save a Life NC Campaign](#). See our own Medical Director, Dr. Jessica Ange, High Country Healthcare Hero, Ashley Wurth, and retired Appalachian State football coach hero, Jerry Moore, talk more at this web link about what you can do to support saving lives here in the high country.

### Partnerships to address social determinants of health are more important than ever

We often think about healthcare when we think of health, but we know that our health is defined more by our environments and behaviors than our access to healthcare. Every year, the Robert Wood Johnson Foundation and the Wisconsin Population Health Institute release [County Health Rankings](#). While not complete without our local community health needs assessment report, this data offers us insight to consider how we must look beyond clinical care to impact public health. *Lack of safe, affordable housing, transportation, interpersonal violence, and food insecurity all underpin greater risks for poorer health outcomes.*

### We must focus upstream. The ACE study focused on adverse childhood experiences outlines a clear call-to-action

[Adverse Childhood Experiences](#), or ACEs, are potentially traumatic events that occur in childhood from 0-17 years like experiencing violence, abuse, or neglect; witnessing violence in the home; and having a family member attempt or die by suicide. Also included are aspects of the child's environment that can undermine their sense of safety, stability, and bonding such as growing up in a household with substance misuse, mental health problems, or instability due to parental separation or incarceration of a parent, sibling, or other member of the household.

ACEs have been linked to:

- Risky health behaviors
- Chronic health conditions
- Low life potential
- Early death

And, the good news? The presence of ACEs does not mean that a child will experience poor outcomes. Building community awareness, resiliency, and other strategies such as [CDC's Essentials for Childhood](#) offer ways to prevent ACEs and assure safe, stable, nurturing relationships and environments for all children. Our work to promote Triple P Positive Parenting Program and partnerships to address these key issues will be critical to support as we move forward. Local groups are taking action, convening conversations, and talking more about building resilient people through more supportive, resilient environments.

### Connecting is key

In the age where news and information moves at the speed of light and many of us find ourselves with information fatigue, our public health work is even more important. Routinely, our team focuses on informing the public about health education, emerging issues, outbreaks, and key action steps. I hope you will pause and connect with us on Facebook and Twitter so you can stay engaged with us on this journey.

Regardless of where you see yourself in the year ahead, thank you for taking time to learn more about AppHealthCare and invite you to join us as we work together to improve public health for all.



Jennifer Greene, MPH  
Health Director/CEO



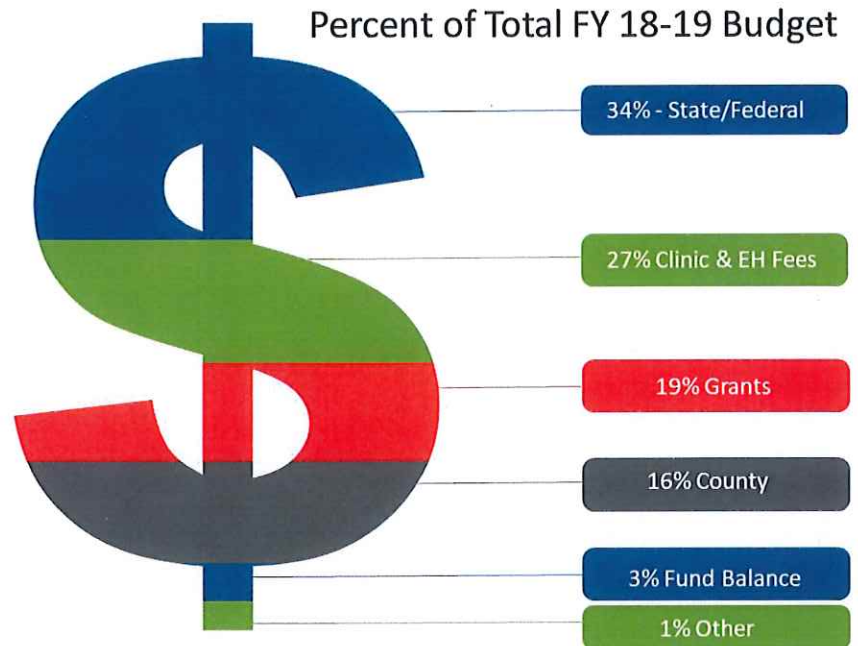


# Finance

AppHealthCare staff continually seek grant opportunities to bring additional funds and resources to our communities. In addition to grants, we have received financial awards recognizing our continued growth, high quality care and commitment to the health of our communities.

Competitive grant and financial awards were 19% of our revenues in Fiscal Year 2018-19. This totaled \$1,615,172 from the following sources:

- NC Office of Rural Health Grant: \$272,872
- Opioid Action Plan Implementation: \$78,176
- HRSA Federally Qualified Health Center
  - Substance Use Disorder & Mental Health: \$41,549
  - Medical and Dental: \$1,203,304
  - Quality Award: \$103,101
- Miscellaneous grants less than \$5,000 each: \$2,000



The FQHC grants are paid through reimbursement requests and carried forward into future fiscal years if unexpended. There is over \$300,000 of carry forward funds from FY 2018-19 to be added to the grant funds for FY 2019-20. These grant funds continue to help sustain AppHealthCare and lower the costs for Alleghany, Ashe and Watauga county governments to provide public health services throughout our district as required by NC General Statute 130-A.

AppHealthCare offers a great value for our local governments by being a regional North Carolina public authority and a Federally Qualified Health Center. The costs of providing services are much lower at AppHealthCare for the county governments. However, over the past 15 years, the steady decline of public health funding at all government levels has caused AppHealthCare to use more and more of our fund balance. Alleghany, Ashe and Watauga County governments are working with AppHealthCare to remedy this by appropriating additional funds for a three year period. **Fiscal year 2018-19 was year one of this funding cycle and increased the county funds by 10% over their prior year's appropriations. These increased investments are critical to the longevity and success of AppHealthCare.**

## *Key areas to watch in finance include:*

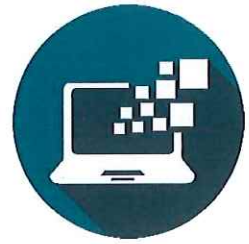
### **Medicaid Transformation**

AppHealthCare staff have been actively preparing for Medicaid transformation which will launch managed care for the NC Medicaid system in NC. This change will involve credentialing and billing five (5) Medicaid insurance providers rather than NC Medicaid Direct (the traditional one governmental system) Division of Health Benefits. While all data available indicate providers should be held harmless, we know there are risks in maintaining current fees collected. In addition to adapting to this change, there is additional risk in managing cost control and cost settlement payments that will now require new processes to receive critical wraparound funding.

### **Public Health Infrastructure Funding**

The NC Association of Local Health Directors and members, including AppHealthCare, have advocated for key policy decisions that would help offset the burden to safety net organizations in caring for many people who fall in the NC Medicaid Coverage Gap. In addition, much advocacy has been conducted to encourage more state funding for communicable disease control and response. We are hopeful that the NC General Assembly will take action to help meet these increasing concerns. State action, paired with local funding increases are vital to our future in protecting public health.

# Information Technology



This past year, we conducted a **HIPAA security and privacy risk assessment with Carolinas IT**. They worked closely with our staff to identify areas of strength and areas for improvement. This security penetration test was thorough and assisted us in tightening up areas of concern. Since the visit, we have worked diligently to improve in key areas highlighted. In 2020, we will be inviting CarolinasIT to return and conduct a reassessment so that we remain on track.

Also, the IT team has led **continued and regular updates** to our network so the staff can work efficiently. Since effective, efficient tools are critical to our success, our IT team have replaced computers for medical providers as part of an effort to streamline technology for behavioral health and substance abuse screening, thanks to two grant opportunities awarded.

One area that continues to be a priority is **Disaster Recovery**. There are so many vulnerabilities with different software packages and devices that one of the most important areas to maintain vigilance is our ability to recover from an incident. Our efforts continue to improve the ability and speed to recover in the event of an attack. The preventive measures we have in place serve as the first layer of defense. Utilizing multiple locations for redundant physical backups and also cloud based solutions allows us to **protect our data and manage our valuable time for employees and our customers**.

*Looking ahead, our information technology needs remain top priority for our leadership team and include:*

- Expanding our capacity in primary care, integrated behavioral health and substance abuse services by launching a new electronic medical record practice management system.
- Exploring opportunities for better quality improvement through practice metrics and linking to advanced medical home resources through partner networks like NC Community Health Center Association
- Launching data-sharing to NC Health Connex, the NC Health Information Exchange. Read more about [NC Health Connex](#) and [state law NCGS 90-414.7 requirements](#).
- Expanding our capacity in dental care, including our work in our dental clinic itself as well as our portable clinic that must have technology to chart, take x-rays, and protect data as we travel to offsite locations.
- Preparing to help support community-wide preparation and launch of [NCCARE360](#) in our area in 2020. NCCARE360 is the first statewide coordinated care network to better connect individuals to local services and resources. This platform is innovative and builds on the prior work of United Way's 211 system and other state and national partners including the Foundation for Health Leadership & Innovation, Unite Us, and Expound. There is no wrong door and this system offers web-based, self-referral or agency/provider-driven referrals that is localized for our community.



# Dental

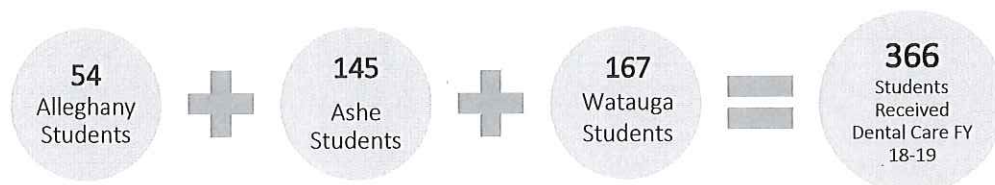


The dental program has seen tremendous growth, with **over 150% increase in visits in the past year.**



Portable dental services continue to serve Alleghany and Ashe School systems and provide preventive and restorative care to students. In FY 18-19, 54 students were seen in Alleghany, 145 students were seen in Ashe and 167 students were seen in Watauga. Portable services were expanded to include Watauga County Schools in fall, 2018.

Calendar Year	Unduplicated Patients
2017	1,024
2018	1,239

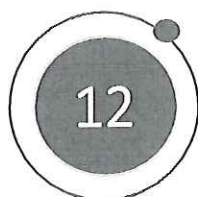


With Dr. Stroud's leadership, the dental program now has a panoramic x-ray machine (pictured above) to take high resolution images. *This \$20,000 machine was donated to the dental program by Dr. Duc Tang from Charlotte, NC.*

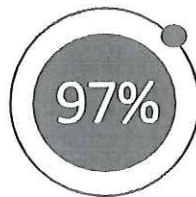
# Nutrition



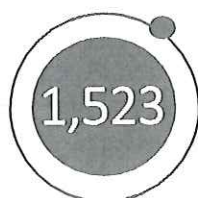
This year the WIC & Nutrition team received the gold level for the **2019 Loving Support Award of Excellence** that recognizes local WIC agencies that have exemplary breastfeeding promotion and support activities. The team has also hosted numerous interns from ASU & UNC dietetic programs.



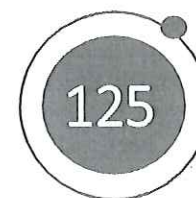
Diabetes Today classes provide health cooking and nutrition education to the community. This past year, 12 classes were conducted.



WIC has maintained 97% of their caseload which has secured stable funding for another year.



Participants in the Women, Infant & Children's (WIC) Program from Alleghany, Ashe and Watauga



Clients seen by Registered Dietitian for diabetes management, nutrition education and more.



WIC Dollars Spent in Local Grocery Stores*	
Alleghany	\$151,859.05
Ashe	\$338,125.37
Watauga	\$401,327.30

\*October 1, 2018 through September 30, 2019



# Community Health



## Current Public Health Priorities:

- ✓ Mental and Behavioral Health
- ✓ Substance Use & Misuse Prevention
- ✓ Physical Activity & Nutrition
- ✓ Health Equity for a Vibrant Community (Alleghany)

## Opioid Response

- ✓ Board of Health resolution to support comprehensive strategies to address the opioid epidemic
- ✓ NC Peer Support Specialists (PSS) have served approximately **170 individuals** across Alleghany, Ashe, and Watauga Counties.
  - **66 of those are justice-involved persons** (16 of whom were contacted for follow-up post release)
- ✓ NC Peer Support Specialists have been in contact with all of these individuals **500 times over** the course of the last six months.
- ✓ Of those 170 individuals, **38 have been referred** to some type of evidence-based treatment.
- ✓ **39 individuals** are now registered Syringe Exchange Program participants.
  - Of those, **23 received additional services** and 100% were given information regarding treatment and resources.
- ✓ PSS have trained over **150 community members** in the use/administration of naloxone.
- ✓ 19 justice involved individuals and/or their family members in Alleghany county were trained; 137 persons in group trainings in Watauga



## Tobacco Prevention and Cessation

- ✓ Board of Health resolution to support tobacco free environments
- ✓ In partnership with Avery County Health Department and Wilkes County Health Department, ICO4MCH coordinated the implementation of the CATCH My Breath e-cigarette prevention program in each of the **five school systems**.
- ✓ A marketing campaign was launched to educate both adults and youth on the dangers of e-cigarette use in adolescence. The campaign reached over **48,811 individuals** in Watauga, Ashe, and Alleghany counties.

## Families and Children

- ✓ Positive parenting practitioners have reached over **4,080 families** and more than **7,396 children**.
- ✓ This past year Innovative Approaches across North Carolina impacted **11,913 stakeholders** via **59 projects** in **15 counties**.
- ✓ Over **600 men and women** of reproductive age were educated on the topic of reproductive life planning. In addition, **80 providers and staff** were trained in Long Acting Reversible Contraception (LARC) insertion and tiered counseling methods for reproductive health.

## What Makes Us Healthy





# Public health preparedness & response

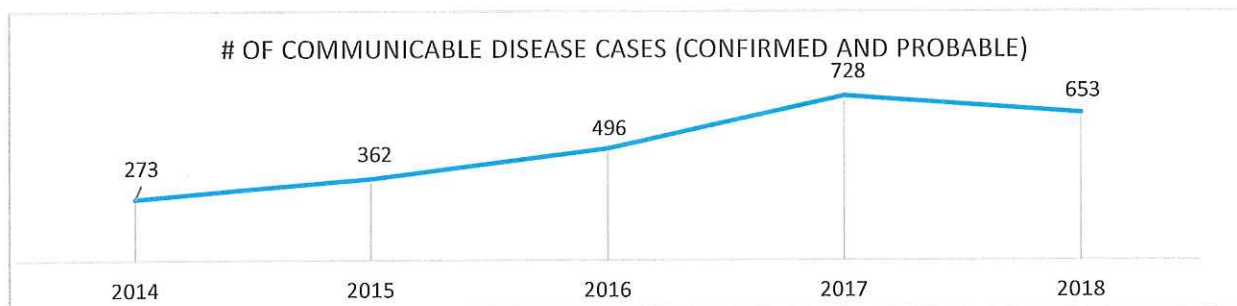
AppHealthCare is on-call 24 hours a day, 7 days a week to protect our communities from all types of public health emergencies.

## What Trends Do We See?

- ✓ Hepatitis C-Chronic cases are almost **4 times higher** in 2018 vs 2016
- ✓ Vector borne diseases continue to be of significance, specifically Lyme Disease
- ✓ Sexually Transmitted Diseases/Infections continue to be significantly on the rise.

## What Are We Doing?

- ✓ Provided additional training to Epi-team members who respond during emergencies
- ✓ Meningococcemia response to students attending Appalachian State and those living in the Watauga County area
- ✓ Hepatitis A outbreak response, public information, and vaccine clinics
- ✓ Boil Water Notices public messaging and guidance
- ✓ Flu outbreak response, coordinating, vaccination, and messaging
- ✓ Rabies: Across all three counties, hundreds of rabies cases are investigated
- ✓ Lead investigations conducted at homes for children whose blood lead levels indicate exposure
- ✓ Purchased prescription medication for students in need of head lice treatment through mini-grants for school districts
- ✓ 21-day assessment and symptom monitoring for area healthcare workers returning from service in Ebola Treatment Center in Democratic Republic of the Congo
- ✓ Provided healthcare shelter staffing in Watauga and Ashe County (by request) in response to Hurricane Florence
- ✓ Conducted planning activities to prepare for vaccine preventable outbreaks with Appalachian State University partners
- ✓ Continued ongoing monitoring of public health threats through our triage line and on-call staff 365 days a year



# Clinical Services



In November 2018, we welcomed three auditors from Health Resources and Services Administration (HRSA) for a **comprehensive review of clinical services and site visit** of our Alleghany and Ashe locations. It was a successful review with only minor findings which were promptly corrected for full compliance.

Received HRSA quality award of \$103,101 for providing high quality care.

Began distributing Naloxone, life saving medication for an opioid overdose, and expanded 340B discount medications.

Selected a new Electronic Health Record with AthenaHealth for conversion in October 2019.

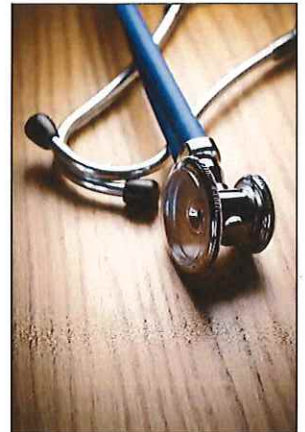
Staff huddle twice daily to discuss plan of care for scheduled patients with diabetes and purchased glucometers for patient home use for better glycemic control.

As **NC Medicaid transforms into a managed care model**, we are preparing in various ways. We have attested as a Tier III Advanced Medical Home, reviewed Prepaid Health Plan contracts and provider manuals for service expectations, prepared in-reach materials to educate patients, partnered with Emtiro Health for readiness assessment of care management services, identified internal candidate to serve as Licensed Clinical Social Worker Associate/Care & Support Manager, and identified internal candidate to serve as Panel Manager.

## Behavioral Health Expansion

This past year we hired a second full time behavioral health consultant so we are now able to provide services in both Alleghany and Ashe Counties 5 days a week. We began implementing a questionnaire to address Screening, Brief Intervention, and Referral to Treatment for substance use of alcohol and other drugs. Two medical providers received the Drug Addiction Treatment Act of 2000 waiver to prescribe Medication Assisted Treatment for Opioid-Use Disorder.

We have also engaged in a partnership with our local domestic violence prevention agency to train staff and enhance collaboration in intimate partner violence.



We served as a pilot site for NC DHHS to test a Social Determinants of Health screening tool to assess patients' unmet health-related resource needs, and are working to integrate this screening for all patients.

Location	Unduplicated Patient Count	Nurse Visits	Provider Visits	% Uninsured
Ashe	2205	990	4943	40%
Alleghany	1706	757	3914	36%
School Based Health Center	347	130	1155	9%
Watauga	1881	1546	1262	35%



# Environmental Health



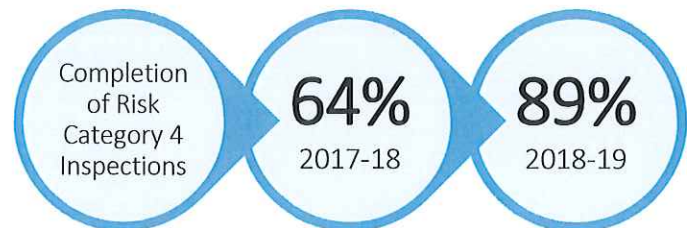
Our staff responded to **249 complaint investigations** (19 in Alleghany, 64 in Ashe and 166 in Watauga).

These complaints included septic system failures, lack of water in a facility, food contamination, facility concerns and follow-ups for other health concerns like mold in a facility.

AppHealthCare **issued 2,400 permits** in fiscal year 2018-2019 for on-site water protection purposes, like septic systems and wells. Alleghany: 441, Ashe: 955, Watauga: 1004

Staff conducted **5 lead investigations**. These are services provided at no charge for children or areas where children reside or frequent such as childcare facilities or schools. No state funding is provided for this service.

Food & lodging inspectors **performed 1,481 inspections** of restaurants, food service facilities, daycares, hospitals, pools, etc. The Food, Lodging and Institutions Branch continues to make great strides in improving the inspection percentages for food service facilities. Risk category 4 establishments require quarterly inspections (4 per year) due to a higher risk for spreading foodborne disease due to their food operations (heating, cooling and reheating) and/or because they serve susceptible populations such as daycares, residential care facilities and hospitals.



Inspections have **increased from 64% in 2017-18 to 89%**

**in 2018-19.** Our ongoing goal is to reach 100%, however, we value quality over quantity. Lean staffing and complaint investigation response challenge our ability to reach this and remain committed to quality inspections or re-inspections to our establishments.

Completion of Risk Category 4 Inspections					
County or District	1st Quarter FY 2018-19	2nd Quarter FY 2018-19	3rd Quarter FY 2018-19	4th Quarter FY 2018-19	Overall County or District FY 2018-19
Alleghany	96%	86%	100%	70%	88%
Ashe	94%	89%	85%	74%	86%
Watauga	98%	92%	93%	88%	93%
District	96%	89%	93%	77%	89%

For more information, please contact us:

[www.apphealthcare.com](http://www.apphealthcare.com)

**Alleghany Health Center**

157 Health Services Road, Sparta NC 28675

Phone: (336) 372-5641

Fax: (336) 372-7793

**Ashe Health Center**

413 McConnell St, Jefferson NC 28640

Phone: (336) 246-9449

Fax: (336) 246-8163

**Ashe Environmental Health**

626 Ashe Central School Rd, Jefferson NC 28640

Phone: (336) 246-3356

Fax: (336) 846-1039

**Top Dog Clinic, School Based Health Center, Ashe Middle School**

255 Northwest Lane, Jefferson NC 28640

Phone: (336) 384-1625

**Dental Health Center**

225 Court Street, Jefferson NC 28640

Phone: (336) 246-9449 Ext. 2131

**Watauga Health Center**

126 Poplar Grove Connector, Boone NC 28607

Phone: (828) 264-4995

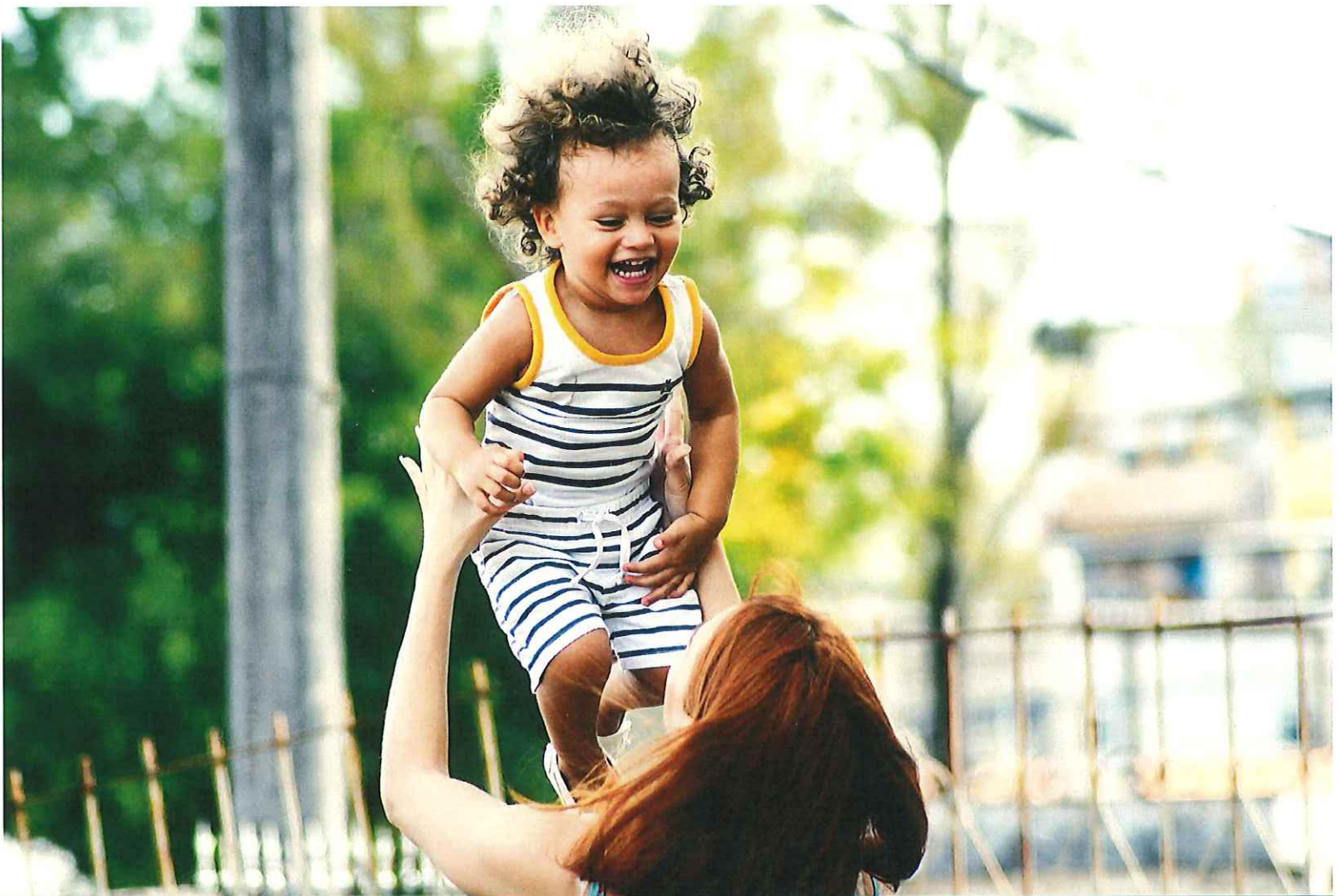
Fax: (828) 265-3101





# State of the Community's Health

Ashe County | 2019



Promote. Prevent. Empower.

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For more information, please contact us:

(336) 246-9449

[www.apphealthcare.com](http://www.apphealthcare.com)

**Alleghany County Health Center**

157 Health Services Road  
Sparta, NC 28675

**Ashe County Health Center**

413 McConnell Street  
Jefferson, NC 28640

**Watauga County Health Center**

126 Poplar Grove Connector  
Boone, NC 28607





## Overview and Demographics

In North Carolina, each local health department conducts a **Community Health Assessment (CHA)** every four years. AppHealthCare recently published the CHA in March 2018. During the years between community health assessments, health departments submit a **State of the County's Health (SOTCH) report**. In Ashe County, this report includes a summary of demographics, health indicators, and main causes of death. This report also contains updates on the community's top three health priorities, action plan projects, local initiatives and emerging trends.

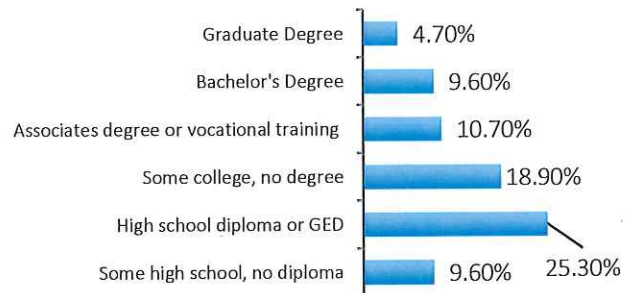


### Ashe County Demographics Snap Shot Total Population 27,109 (US Census, 2018)

**Unemployment (N.C. Department of Commerce 2014-2019)**



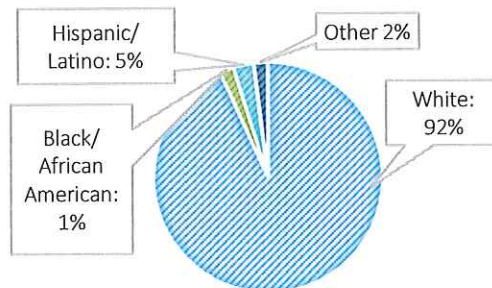
**Educational Attainment (US Census 2017)**



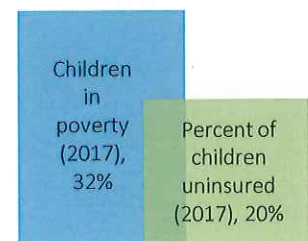
**Median Household Income (NC Department of Commerce, 2018)**



**Race Distribution (US Census, 2018)**



**Poverty & the Uninsured (SAHIE, County Health Rankings, 2017)**



#### Leading Causes of Death

(North Carolina County Health Data Book, 2017)

1. Diseases of the Heart
2. Cancer
3. Alzheimer's Disease
4. Chronic Lower Respiratory Disease

#### Leading Risk Factors

- Poor Nutrition
- Lack of Physical Activity
- Tobacco Use

#### Sharing the State of the Community's Health

Copies of this report may be found at [www.apphealthcare.com](http://www.apphealthcare.com). The report will be presented to community leaders and groups during different events. To learn more, follow us on Facebook at [AppHealthCare](https://www.facebook.com/AppHealthCare), log on to our website, and check your local radio and newspapers. To request more information or to schedule a presentation of this information for your group, call our Ashe County Health Center at 336.246.9449 or email [info@apphealthcare.com](mailto:info@apphealthcare.com).

## About Public Health: Reaching for Health Equity and Resilience

AppHealthCare is committed to making sure that all people have full and equal access to opportunities that enable them to lead healthy lives.<sup>1</sup> In order to reach this vision of health equity, AppHealthCare is working to eliminate health disparities—differences in health outcomes among groups of people—that are created by social, economic, and environmental conditions. These conditions lead to behaviors such as smoking, poor nutrition, and lack of exercise, which affect our health.

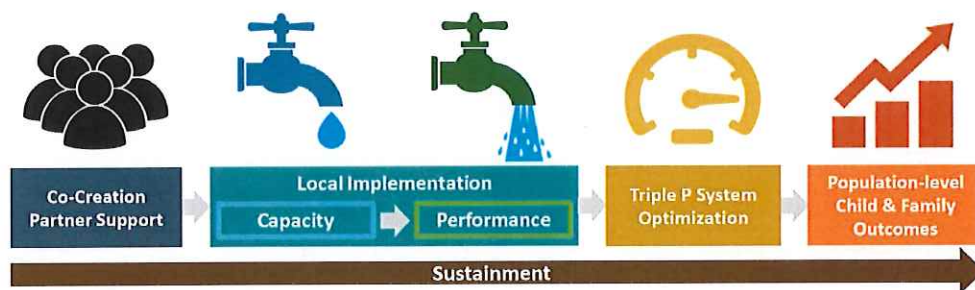
Ashe County Partners are making changes to service delivery and expanding critical services to encourage behaviors that make us healthy. This year, AppHealthCare served more patients than ever before<sup>2</sup>. In Ashe County, AppHealthCare has expanded its ability to care for patients with multiple health conditions, such as depression and diabetes, in a more complete way by introducing chronic health case management, mental health and substance abuse screenings, and medical nutrition therapy.

Reaching for health equity is also a priority for school-aged children in Ashe County. The Ashe Health Alliance, Ashe County Schools, and the Partnership of Ashe are working to develop evidence based interventions and approaches to better support children and their families in a variety of ways, including integration of tobacco and e-cigarette awareness campaigns, the establishment of a full time school position to deliver Social and Emotional Learning to all Ashe County students, and by providing family based interventions to all Ashe County families through the Partnership of Ashe. “By working together, we can ensure that every young person in every school in our community is healthy, safe, engaged, supported, and challenged.”<sup>3</sup>



### *Family Based Intervention: Positive Parenting Program*

Working closely with community partners, Ashe County continues to carry out positive parenting strategies in hopes of reducing serious negative childhood outcomes. Healthy children equal



healthy adults later in life. How do we know that the Positive Parenting Program is working locally? In Ashe County since 2013, practitioners have reached over 1,289 families, which means the Positive Parenting Program has reached more than 2,672 children. From January to September 2019, 398 families and 904 children were reached. It is clear that effective parenting services are happening because the program is showing high approval scores from families. Improved child behavior and decreased parent stress is being reported based on Client Satisfaction Questionnaires received. Community based prevention allows us to tackle the root causes of health disparities and find solutions that will promote health throughout a person’s entire life.

## Public Health Priorities

Image source: <http://bipartisanpolicy.org/library/what-makes-us-healthy-vs-what-we-spend-on-being-healthy/>

<sup>1</sup> <https://healthequity.sfsu.edu/>

<sup>2</sup> Patagonia electronic health record report: all services offered, 2018

<sup>3</sup> [http://www.cdc.gov/healthyyouth/wsc/pdf/wsc\\_fact\\_sheet\\_508c.pdf](http://www.cdc.gov/healthyyouth/wsc/pdf/wsc_fact_sheet_508c.pdf)



The Ashe Health Alliance and Community Health Assessment workgroup members selected the public health priorities from October 2017 to January of 2018. These priorities were chosen based on the 2017 Ashe County Community Health Assessment. The public health priorities identified for Ashe County include mental and behavioral health, substance use and misuse prevention, physical activity and nutrition.

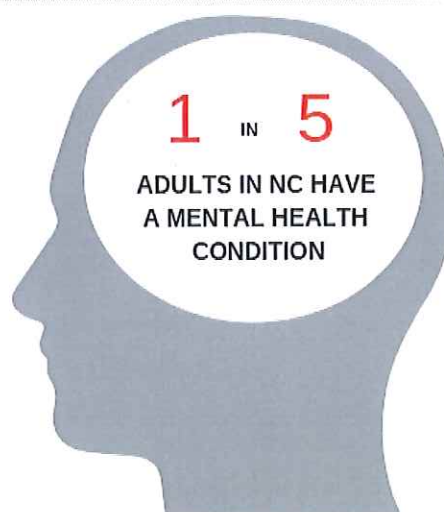
## Health Priority: Mental and Behavioral Health

**Program Goal: Increase the use of evidence-based screening tools for depression and referrals to treatment among AppHealthCare service providers**

### Update to Local Community Objectives

#### *Mental Health Screenings*

AppHealthCare has integrated standardized screening tools for depression into multiple clinical and non-clinical areas to increase the number of eligible individuals (over age 12) to 70% who are screened routinely for depressive symptoms and receive brief intervention services or who are referred to treatment. AppHealthCare is continuing to focus on screening more individuals with the use of the Screening, Brief Intervention, and Referral to Treatment (SBIRT), a depression, alcohol and substance use screening tool. SBIRT is an evidence-based practice used to identify, reduce, and prevent problematic use, abuse, and dependence on alcohol and illicit drugs.



#### *Integrated Behavioral Health and Peer Support*

Behavioral health describes the connection between behaviors and the wellbeing of the body, mind, and spirit. Behavioral health includes not only our mental health, but how our behaviors—such as eating habits or use of alcohol—impact our wellbeing. The number of adults with a serious mental illness has increased from 3.5 percent from 2011-2012 to 4.9 percent from 2013-2014. With the increase in mental illness, AppHealthCare's Health Clinic in Ashe County continues to improve access to counseling, referral services, case management, and crisis management. One way this has been accomplished is by establishing a full time onsite Behavioral Health Consultant to provide integrated behavioral health.

AppHealthCare, in 2019, hired a peer support specialist for Ashe County in order to provide the community with better access to resources regarding substance use and misuse.

#### *Mobile Crisis Management*

Daymark Recovery Services offers Mobile Crisis Management services that provide a comprehensive crisis intervention in the least restrictive environment with a team perspective to meet any individual's needs. The service operates year-round, seven days per week, twenty-four hours per day.

Seeking primary healthcare is often the first step to accessing behavior healthcare. Primary care providers are now moving toward a system of integrated care where both general and behavioral healthcare are provided. Integrating mental health and primary care services have been shown to produce the best outcomes for people with multiple healthcare needs. People with mental health and substance misuse disorders may die decades earlier than those without mental health or substance use disorders. This is mostly due to untreated and preventable chronic illnesses like hypertension, diabetes, obesity, and cardiovascular disease. Poor health habits such as lack of physical activity, poor nutrition, smoking, and substance misuse can worsen these chronic diseases. Trauma can also increase the risk of developing substance misuse, and substance misuse increases the

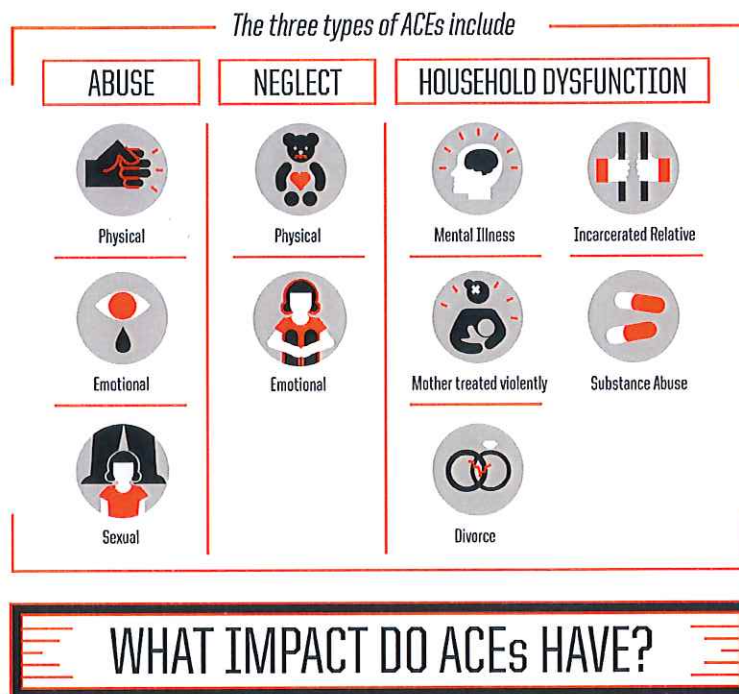
likelihood that individuals will experience trauma. Building resilience in a community is a key strategy for addressing trauma and substance use.

#### School Based Behavioral Health

AppHealthCare's School Based Health Center reaches all middle school students in Ashe County and has an on-site Behavioral Health Clinician to work with youth. The Assessment, Support, & Counseling (ASC) Center is a valuable program that supports Ashe County School students in mental and behavioral health. As the school mental health program, the ASC Center works closely with schools and local partners to prevent suicide.

According to the 2017 North Carolina Youth Risk Behavior Survey which states, 29.4% of students reported that they felt sad or hopeless for two weeks or more in a row

during the past 12 months, 16.2% of students considered attempting suicide, 13.8% of students made a suicide plan, and 8.2% of students attempted suicide. The table below outlines this data locally in Ashe County. More information through the NC Institute of Medicine about Youth Suicide & Suicide Attempts Rising in U.S. and N.C. can be found [here](#).



Where	During the past 12 months, did you ever seriously consider attempting suicide?	During the past 12 months, did you make a plan about how you would attempt suicide?	During the past 12 months, how many times did you actually attempt suicide? (one or more times)
Ashe County High School 2017 (n= 695 survey respondents out of 904 students enrolled)	14.2%	10.1%	6.1%
Ashe County High School 2014 (n= 615 survey respondents out of 930 students enrolled)	16.9%	13.8%	N/A
NC State Comparison 2017	16.2%	13.8%	8.2%
National Comparison 2017	17.2%	13.6%	7.4%

Where	Seriously thought about killing yourself, EVER	Have you EVER made a plan to kill yourself	Have you EVER tried to kill yourself
Ashe County Middle School 2017 (n= 570 survey respondents out of 691 students enrolled)	19.6%	15%	7.4%
Ashe County Middle School 2011 (n= 450 survey respondents out of 530 students enrolled)	22.8%	15.2%	11%
NC State Comparison 2017	21.4%	13.7%	10.0%



Ashe Health Alliance (AHA) has a subgroup focused on Mental and Behavioral Health. This subgroup understands that high doses of early adversity significantly increase an individual's risk of suicide later in life, therefore this subgroup has distributed a Survive and Thrive resource card to ensure that Ashe County citizens are aware of mental health services that are available to them. These cards outline signs of serious distress, helpful tips for reducing stress, and a list of local and national crisis resources. Through our partnership with Western Youth Network these cards have now been disseminated to all Ashe County High School students.

#### *Social and Emotional Learning in Schools*

AppHealthCare established a Behavioral Health School Outreach Coordinator in 2018 through 2019 with the objective of supporting Ashe County Schools in the implementation of a mental health and substance use prevention curriculum closely aligned with the Social-Emotional Learning (SEL) core competencies. Approximately 160 students from Ashe County High School and Ashe Early College participated in LifeSkills Training. This included collaboration with the school board, key administrators, and both teaching and counseling staff at the schools. Seeing the value in Social-Emotional Learning with students, Ashe County Schools was in agreement that this should be integrated into the job description of one of its employees, furthering the use of such curriculum at the high school level. In addition, the school system hired a full-time position at Ashe County High School who will have Social-Emotional Learning integrated into their formal job description.

**Program Goal: Increase the number of individuals trained in evidence-based interventions for mental health.**

#### **Update to Local Community Objectives**

##### *Maternal and Child Health*

Perinatal mood and anxiety disorders (PMADs) affects up to 1 in 5 women during pregnancy or the first year after the baby arrives and are some of the most common complications of pregnancy and childbirth. Perinatal Mental Health workshops offered by AppHealthCare to both community members and providers increases the awareness of PMADs by giving providers education around how to identify and properly treat PMADs. Community members also learn how to recognize signs & symptoms in themselves or others, as well as how to take the correct steps to prevent or treat PMADs with resources available locally. Another resource offered to Ashe County residents in partnership with Wilkes County Health Department is a Doula Pilot Program which works to improve the mental health outcomes of women and families across the district by offering free doula services to pregnant women, including prenatal counseling, labor support, and postpartum care. These doula services have been proven through research to reduce the instances of mental health issues experienced by postpartum mothers. In 2019, AppHealthCare and the Improving Community Outcomes for Maternal and Child Health (ICO4MCH) initiative provided training to 49 providers in the district on how to recognize and treat post-partum depression. ICO4MCH supported the local [Postpartum Support International](#) High Country chapter who organized the event called "Climb Out of the Darkness", to provide a space for families to acknowledge the impact of postpartum mental health disorders as well as share resources locally and nationally.

##### *Certified Application Counselor*

With greater access to health insurance also comes greater mental health outcomes which is why AppHealthCare has a Certified Application Counselor to assist and enroll consumers in healthcare coverage through the Marketplace. Specifically, they help individuals navigate the marketplace exchange by computer or over the phone and provide technical assistance with the process.

##### *Expansion of Behavioral Health Services*

AppHealthCare expanded behavioral health services in the health center's through HRSA funding. Now there is a full time Behavioral Health Specialist in the Ashe County AppHealthCare Clinic to provide onsite brief interventions around mental and behavioral health. This ensures full integration of behavioral health into primary care.

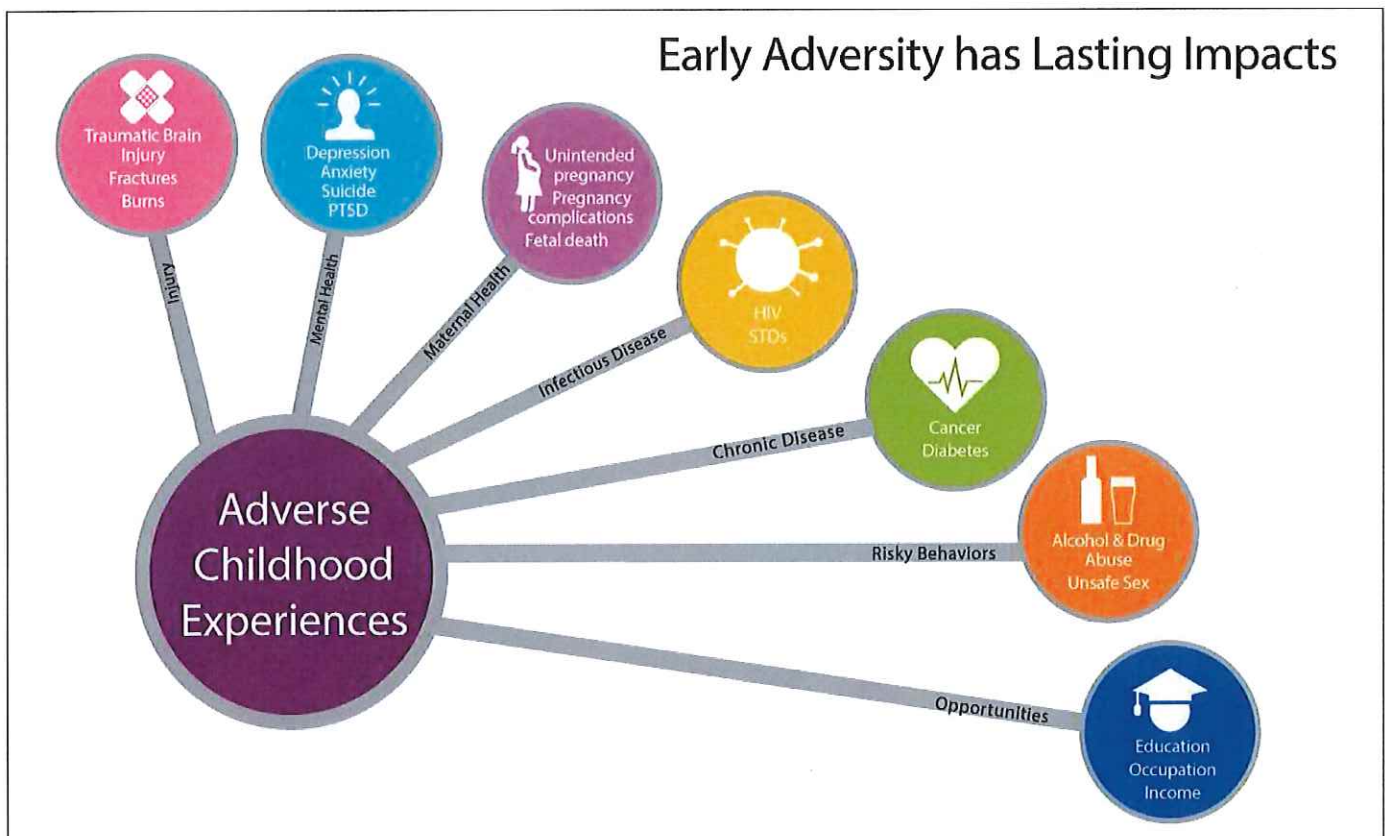


### Community Trainings

Ashe County has increased the number of individuals trained in Question, Persuade, Refer (QPR), Mental Health First Aid, Counseling on Access to Lethal Means (CALM) and other evidence-based training programs to address mental and behavioral health issues specifically in Ashe County Schools. Suicide Prevention Workshop, QPR teaches participants how to Question, Persuade and Refer someone who may be suicidal, how to get help for yourself or learn more about preventing suicide, the common causes of suicidal behavior, the warning signs of suicide, and how to get help for someone in crisis. Additionally, Ashe Substance Misuse Coalition hosted a training around the use of Naloxone, a lifesaving overdose reversal intervention.

### Adverse Childhood Experiences

Many health disparities begin early in life with [Adverse Childhood Experiences \(ACEs\)](#). ACEs are potentially traumatic events that can have negative, lasting effects on health and well-being. These experiences range from physical, emotional, or sexual abuse to parental divorce or the imprisonment of a parent. Initiatives such as the Positive Parenting Program and other family interventions through the Partnership of Ashe and the Ashe County Schools are successful at addressing these challenges because they address the whole person in the context of our relationships and local environment. In addition to this program, parent advocates and Innovative Approaches crafted an individualized education program handout for children and youth to help better understand the needs of the students allowing educators to be better informed and students to feel more empowered in the individualized education program process. Innovative Approaches also hosted a screening of the film “Resilience” to educate the general population as well as professionals about the topic of ACEs and the power of resilience as a protective factor against trauma.



In partnership with Ashe Health Alliance, Western Youth Network, and Ashe Memorial Hospital AppHealthCare is implementing a series of trainings within the community on adverse childhood experiences (ACEs) and



resilience. These trainings are intended to increase community awareness of ACEs, decrease stigma associated with substance misuse, and teach signs, symptoms and reversal of opioid overdose.

#### *National Alliance on Mental Illness*

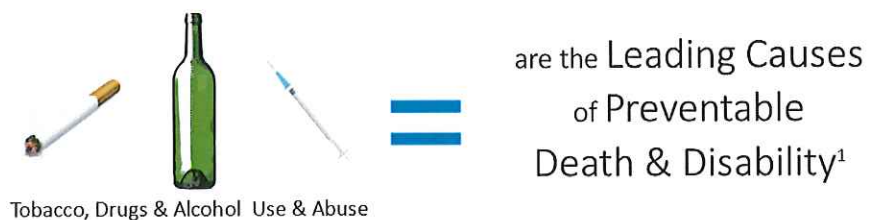
The [National Alliance on Mental Illness \(NAMI\)](#) is the nation's largest grassroots mental health organization dedicated to building better lives for the millions of Americans affected by mental illness. NAMI High Country, which includes Ashe County representation, wants to make the High Country a safer space for those experiencing mental illness by ending the stigma associated with it. NAMI High Country wants to ensure that those who need help have access to affordable care and support. NAMI High Country is here to facilitate recovery and resiliency for families and individuals and ultimately empower those who join us to be able to serve their community.

## Health Priority: Substance Use and Misuse Prevention

AppHealthCare utilizes the [Strategic Prevention Framework](#) to guide our work in addressing substance use and misuse, specifically with opioids. We work with coalitions in Alleghany, Ashe, and Watauga Counties to reduce overdoses and mortality rates related to prescription drugs.

AppHealthCare continues to collaborate with community partners to distribute lock boxes, publicize drop box locations, educate community members about the dangers of misuse of prescription drugs, and promote proper disposal of unused or expired prescriptions in each district county. AppHealthCare is one of 22 health departments in the state receiving grant money from the Department of Health and Human Services N.C. Division of Public Health to combat opioid and substance use. This money was set aside to implement high-impact, community-level strategies to address the opioid crisis based on the N.C. Opioid Action Plan. The action plan was launched in June 2017 and identifies key strategies to reduce the opioid epidemic. These strategies include reducing the overprescribing of opioids, decreasing the flow of illicit drugs and diversion, increasing community awareness and prevention, expanding access to naloxone and growing treatment options and recovery-oriented systems of care.

### Tobacco, Drugs & Alcohol in Ashe



Of those who died from unintentional **poisoning** in Ashe County **most** were from **narcotics**<sup>2</sup>  
(includes prescription medications)

<sup>1</sup>Centers for Disease Control and Prevention, 2013 <sup>2</sup>NC SCHS, 2009-2013 <sup>3</sup>Project Lazarus <sup>4</sup>RWJF

**Program Goal: Implement one local tobacco-free policy; increase the number of individuals who are trained to provide evidence-based tobacco/e-cigarette cessation education; increase merchant/retailer education and compliance checks**

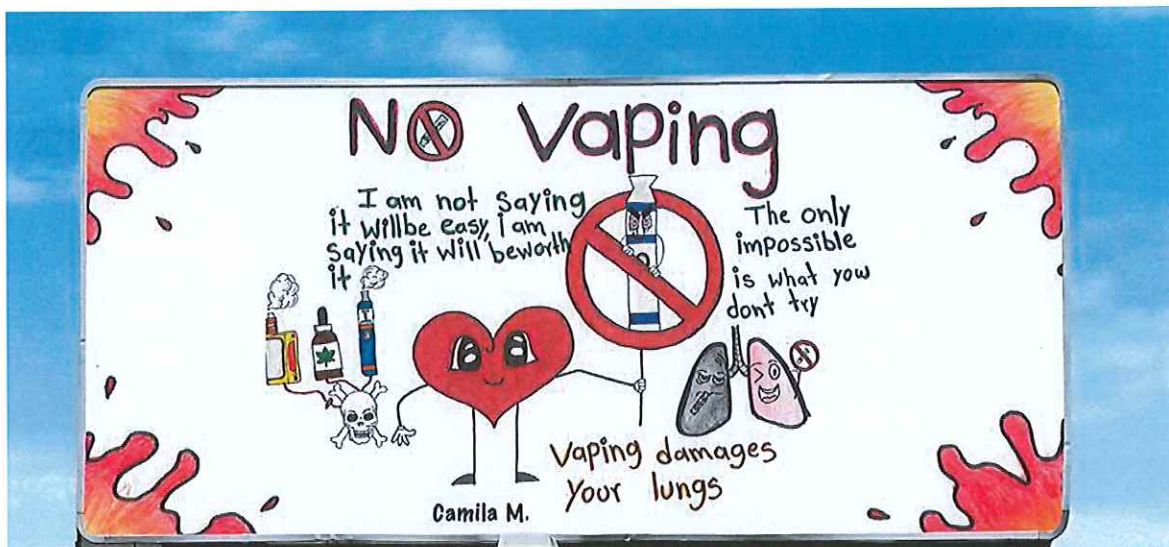
#### **Update to Local Community Objectives**

##### *E-Cigarette and Vaping Awareness in Schools*

AppHealthCare partnered with Ashe County Schools to support an anti-e-cigarette campaign that launched in September 2019. This campaign began with a poster competition in which all students were invited to develop their own message against the use of e-cigarettes. The top two winners of the poster competition will have their poster enlarged and placed on a billboard in Ashe County (see image below). The educational piece of this campaign will take place in November and students will learn more about the dangers of e-cigarette use from



guest speaker, Luka Kinard, a North Carolina teen who stopped using e-cigarettes after 39 days of rehabilitation therapy to treat his addiction to nicotine.



Additionally, AppHealthCare has partnered with Ashe County Schools and Ashe Early College to deliver the Lifeskills curriculum, an evidence-based substance use prevention program, to all high school freshmen students. This program addresses substance use prevention strategies by helping students to develop healthy coping skills, establish healthy relationships, consider the consequences of risk taking, and the promoting self-regulation of emotions. AppHealthCare has partnered with school administration in all three counties to ensure full implementation of the evidence-based e-cigarette prevention program, CATCH My Breath. This curriculum serves as an avenue to recruit youth to participate in advocacy work focused on tobacco use.

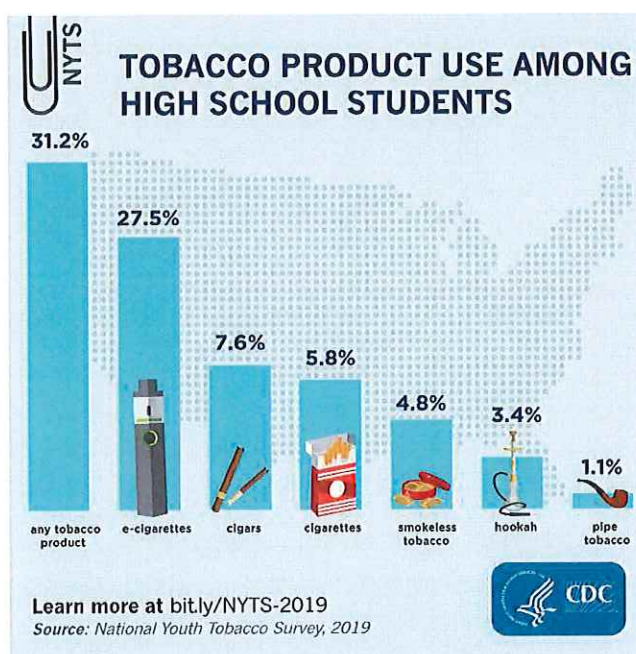
#### *Tobacco Treatment Specialists*

A total of 5 clinicians have been trained to provide evidence-based tobacco/e-cigarette cessation education in Ashe County. These clinicians provide services through various organizations, including AppHealthCare and Blue Mountain Center for Integrative Health.

Western Youth Network is hiring a staff person for Ashe and Alleghany County to focus on e-cigarette prevention. Upon hire, this person will conduct merchant education site visits in order to ensure compliance with all local and federal laws. Education of merchants is important in order to keep e-cigarettes out of the hands of underage youth.

#### *Opioid Epidemic Response*

The opioid epidemic has become a major concern in many rural communities. In collaboration with Ashe County Partners, AppHealthCare is working on a strategy to help empower communities against this growing epidemic. With the NC Opioid Action Grant, HRSA Substance Use Disorder-Mental Health Grant, and the HRSA AIMS Grant, AppHealthCare can help support treatment, prevention and recovery. Community collaboration is





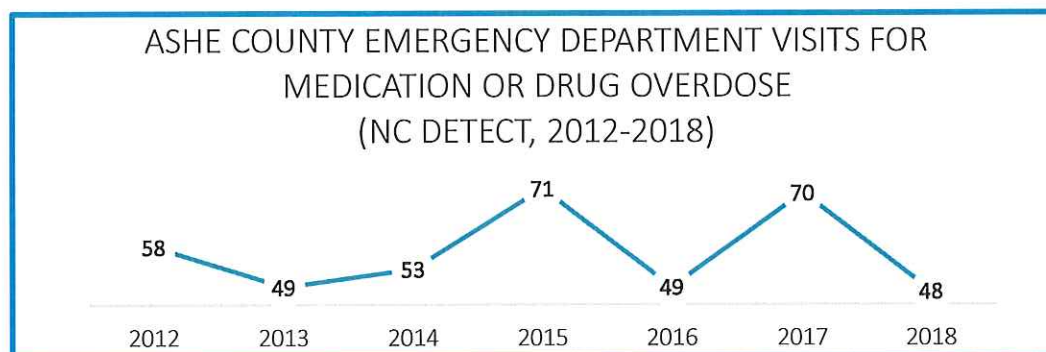
a key component of this strategy and having resources like the Ashe Health Alliance's Substance Use/Behavioral Health sub-committee is crucial for recovery. AppHealthCare is addressing the opioid crisis in our communities by increasing training on motivational interviewing, tobacco cessation and gaining technical assistance from experts at the state and locally. AppHealthCare is also focused on harm reduction and has met with many agencies to discuss the medication distribution program, specifically with distributing naloxone throughout the community and increasing access to care with community paramedicine and care management. Working on preventive measures is also an important step in stopping the crisis, with increased work with early childhood education, social and emotional curriculum integration and Hepatitis. AppHealthCare is using this strategy and these resources to address the crisis our community is facing.

#### *Ashe Substance Misuse Coalition*

Ashe Memorial Hospital received the HRSA Rural Communities Opioid Response Program (RCORP) - Planning II Grant in 2019 to implement and sustain substance use disorder prevention, treatment, and recovery services in rural communities. AppHealthCare sits on the steering/leadership committee of the Ashe Substance Misuse Coalition, the coalition (consortium) that carries out the grant. Currently, based on a strategic planning session, the group has split up into subcommittees - Post Overdose Response Team (PORT), Harm Reduction, and Education and began making action plans.

**Program Goal: Develop new community-based harm reduction resources to address substance misuse: Implement and/or expand upon a social marketing, communication and education campaign to complement the new resources, increase community awareness and understanding, decrease stigma and increase referrals to treatment for substance use.**

This chart shows the number of medication or drug overdoses seen in Emergency Departments in Ashe County from 2012 to 2018. The rate of medication or drug overdoses seen in the Emergency Department in 2017 increased greatly.



#### **Update to Local Community Objectives**

AppHealthCare has committed to the incorporation of the North Carolina Opioid Action Plan, evidence-based opioid and substance use prevention strategies, harm reduction tactics and methods, including safer syringe and naloxone distribution programs. These efforts are directly aligned with our mission and values to ensure the continuation of support for the identified Health Priority of Substance Use and Misuse Prevention determined through the Community Health Assessment and reviewed by coalitions within Ashe County. The NC Opioid Action Plan Objectives align with Ashe County's approach. These include the following:

##### *Prevention*

- Cutting supply of inappropriate prescriptions and illicit opioids
- Supporting youth through targeted programs to reduce youth misuse of the drugs
- Improving maternal and prenatal care for women battling substance abuse

##### *Reducing Harm*

- Training systems and pharmacists to connect people to harm reduction services
- Making the naloxone kits more widely available to the most burdened communities

### Connecting to Care

- Expanding access to treatment and recovery support
- Addressing the needs of justice-involved populations

A [data dashboard](#) developed by the NC Department of Health and Human Services helps to track and monitor the metrics in the Opioid Action Plan.

### Medication-Assisted Treatment (MAT)

AppHealthCare has a physician certified to provide medication-assisted treatment (MAT) services to patients with a diagnosis of Opioid Use Disorder and is currently working to develop this service in hopes of launching early 2020. MAT is the use of medications in combination with counseling and behavioral therapies for the treatment of substance use disorders. A combination of medication and behavioral therapies is effective in the treatment of substance use disorders and can help some people to sustain recovery.

### Peer Support Specialists

A peer support specialist has been hired by AppHealthCare to work in Ashe County on substance use and misuse issues. These specialists are important in building trust with community members, which in turn fosters an environment that supports treatment, harm reduction, and honest discussions regarding substance use and misuse. AppHealthCare's peer support specialist for Ashe County has led the effort in distributing naloxone in the community.

The current initiatives are being captured and evaluated using a combination of pre- and post-test comparisons and follow up with program participants and agencies. These objectives are listed along with how AppHealthCare will monitor the project and capture the required metrics for each of the supported strategies included. The following are measures that have already been put in place and have been tracked since February 2019 (when the NC CPSS program started) by the current two NC CPSSs.

- ✓ Board of Health resolution to support comprehensive strategies to address the opioid epidemic
- ✓ NC Peer Support Specialists (PSS) have served approximately 170 individuals across Alleghany, Ashe, and Watauga Counties.

## Health Priority: Physical Activity and Nutrition

The rate of diabetes mortality has increased both for Ashe residents and North Carolinians overall. Because of this growing concern AppHealthCare has put a focus on Diabetes Self-Management Education, specifically through the "What Can I Eat" program. The purpose of "What Can I Eat" curriculum is to prepare those affected by diabetes to: help make informed decisions, cope with the demands of daily living with a complex chronic disease, make changes in their behavior that support their self-management efforts and improve outcomes. Diabetes self-management education and support has been shown to be cost-effective by reducing hospital admissions and readmissions, as well as estimated lifetime health care costs related to a lower

### Physical Activity & Nutrition in Ashe

2 out of 3 adults are  
overweight or obese<sup>1</sup>



1 out of 3 children are  
overweight or obese<sup>1</sup>



4,410 people living in Ashe County, or **16%**, have limited or uncertain access to enough food  
1 out of 3 of these people are children<sup>2</sup>

<sup>1</sup>National Institutes of Health, WIN, 2012 <sup>2</sup>ACS, 2009-2013, Map the Meal Gap Study, Feeding America <sup>3</sup>RWJF



risk for complications. The International Diabetes Federation has issued the following statement, “Diabetes self-management education is a critically important, fundamental and integral component of diabetes prevention and care and should be available and accessible to everyone.”

**Program Goal: Implement or expand an evidence-based strategy around nutrition, diabetes and pre-diabetes risk management strategies, such as What Can I Eat?**

### Update to Local Community Objective

#### *Women, Infant, and Children's Program (WIC)*

In Ashe County, Oct 1<sup>st</sup>, 2018 through September 30<sup>th</sup>, 2019, over \$338k Women, Infant, and Children dollars were spent in Local Grocery Stores. The WIC program provides basic nutritious foods to eligible pregnant, breastfeeding, and postpartum women, as well as infants and children. These foods are rich in protein, iron, calcium, fiber and vitamins. Research has shown that with nutrition education and supplemental foods, the diets of WIC participants and families have improved. This has led to decreased infant mortality, morbidity, and low birth weight and a decrease in the prevalence of anemia (low iron). For more information on how WIC works, please click [here](#).

#### *Medical Nutrition Therapy (MNT)*

Health professionals agree that nutrition services are one of the first treatments that individuals should receive to improve conditions such as diabetes, heart disease and hypertension. AppHealthCare is dedicated to the treatment and prevention of disease for the counties served. AppHealthCare Nutrition services is pleased to provide medical nutrition therapy. Our Registered Dietician (RD) acts as part of a medical team. Referrals are accepted for all patients in Ashe, Alleghany, and Watauga County's regardless of where the patient receives their medical care. Together with a registered dietitian, you will set nutrition goals to improve your health. Medical nutrition therapy provided by an RD includes:

- Review of what you eat and your eating habits.
- Thorough review of your nutritional health.
- Personalized nutrition treatment plan.



**Program Goal: Implement at least one worksite wellness or community-based policy or environmental change encouraging physical activity, nutrition or whole wellness across the district.**

### Update to Local Community Objective

Active Routes to School was a NC Safe Routes to School Project that ended May of 2019 after nearly working in our community for 6 years. The program was supported by a partnership between the NC Department of Transportation and the NC Division of Public Health. Through this project there were ten Active Routes to School project coordinators working across North Carolina to make it easier for elementary and middle school students to safely walk and bike to or at school. The Region 3 Active Routes to School Coordinator was based out of AppHealthCare and worked with partners within 10 Counties (Alleghany, Ashe, Davidson, Davie, Forsyth, Stokes, Surry, Yadkin, Wilkes, and Watauga). Over 40 schools within Region 3 participated in International Walk to School Day, held in October each year, by way of a walk to school or walk at school event. That is more than 17,000 students reached! Locally Westwood Elementary School had a walk to school event in October and a bike to school event in May, 75 kids in the after-school program participated in each event. Active Routes provided 50

helmets to Westwood in October and May for the bike to school event. Additionally, Ashe County Middle School began a before-school walking program on campus, approximately 200 students walk to school in the mornings. Active Routes provided items for participating students. Active routes has provided approximately 650 helmets this fiscal year.

Recent Data on Physical Activity and Nutrition	Our District	Western NC	North Carolina
Adults with a BMI greater than 25, overweight or obese <i>(Behavior Risk Factor Surveillance System, 2016)</i>	51%	66%	67%
Adults that reported no physical activity within the last month other than their regular job <i>(Behavior Risk Factor Surveillance System, 2016)</i>	30%	26%	23%
Children ages 2-4 who are obese <i>(NC-NPASS, 2015)</i>	16%	16%	14%



## Emerging Issues and New Initiatives

### Vaping and Lung Injury

In 2019, federal, state and local agencies investigated lung injuries associated with e-cigarette, or vaping, products. Many people were sick, hospitalized or unfortunately died as a result of vaping use. There has been progress made toward identifying the substances of concern but many substances and product sources remain under investigation. Testing has suggested THC-containing vaping products and vitamin E acetate is associated with the lung injuries.

E-cigarette, or vaping, use remains a public health concern and according to the Youth Risk Behavior Survey, 29.5% of Ashe County High School students reported using an electronic vapor product on at least one day in the past 30 days, compared to 13.2% nationally in 2017 and 22.1% in NC in 2017. Several local initiatives are working to prevent and control tobacco use. Resources:

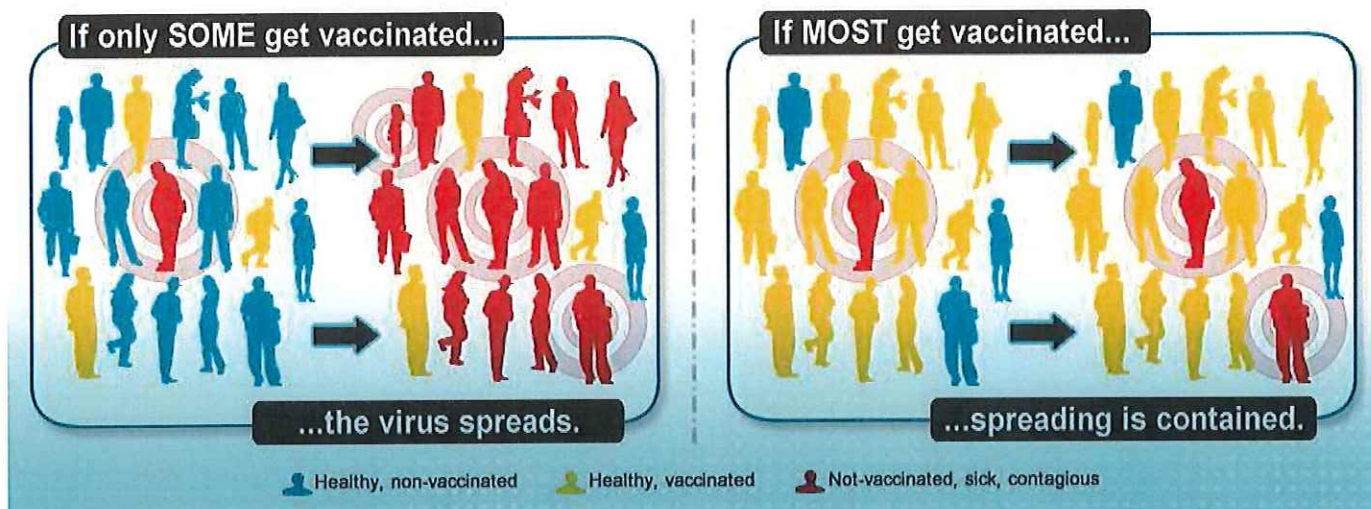
- ✓ Learn About E-Cigarettes - [bit.ly/2mhm6D5](https://bit.ly/2mhm6D5)
- ✓ Centers for Disease Control & Prevention Website on Lung Disease & Vaping - [bit.ly/2kJiDg4](https://bit.ly/2kJiDg4)
- ✓ Food & Drug Administration Website on Lung Disease & Vaping - [bit.ly/2IUsc4](https://bit.ly/2IUsc4)

### Ashe Substance Misuse Coalition

Ashe Substance Misuse Coalition is in full operation and has completed a strategic planning event to develop a community wide plan to address the opioid epidemic locally. This is funded by a grant received by Ashe Memorial Hospital. This work aligns with the NC Opioid Action Plan. Ashe Substance Misuse Coalition is in support of the office based opioid treatment (aka medication assisted treatment) program that AppHealthCare will launch in early 2020. In addition, Ashe Substance Misuse Coalition, in collaboration with AppHealthCare, also supports the NC Opioid Action Plan, which outlines necessary steps and actions to combat the opioid epidemic. Ashe Substance Misuse Coalition and AppHealthCare will do their part in coordinating infrastructure, reducing oversupply of prescription opioids, increasing clean needle use and dirty needle disposal systems, reducing the diversion of prescription and illicit drugs, increasing community awareness and prevention, increasing the availability of naloxone, expanding treatment and recovery systems of care, and measuring effectiveness of chosen strategies in alignment with such.

### Vaccine Preventable Diseases

Controlling vaccine-preventable diseases (VPDs) requires the consistent, concerted and coordinated efforts of public health agencies and healthcare providers to rapidly identify and report suspected cases, and swiftly implement control measures. Although many VPDs remain at or near record low levels, maintaining high immunization rates is still critical to prevent reemergence.





What are we seeing and responding to locally?

- ✓ Flu outbreak response, coordinating, vaccination, and messaging
- ✓ Active investigation of suspect cases of vaccine preventable diseases, including:  
*Note: none of these are confirmed or probable cases that have led to an outbreak*
  - Pertussis
  - Mumps
  - Measles


### *Pertussis*

Pertussis, a respiratory illness commonly known as whooping cough, is a very contagious disease caused by a type of bacteria called *Bordetella pertussis*. Pertussis spreads from person to person by coughing or sneezing or when spending a lot of time near one another where you share breathing space. Many babies who get pertussis are infected by older siblings, parents, or caregivers who might not be aware they have the disease. Infected people are most contagious up to about 2 weeks after the cough begins. Antibiotics may shorten the amount of time someone is contagious. While pertussis vaccines are the most effective tool to prevent this disease, no vaccine is 100% effective. When pertussis circulates in the community, there is a chance that a fully vaccinated person, of any age, can catch this disease. If you have gotten the pertussis vaccine but still get sick, the infection is usually not as bad. Following the introduction of pertussis vaccines in the 1940s when case counts frequently exceeded 100,000 cases per year, reports declined dramatically to fewer than 10,000 by 1965. During the 1980s pertussis reports began increasing gradually, and by 2017 more than 18,000 cases were reported nationwide. AppHealthCare has also seen an increase since 2016. In 2018 AppHealthCare treated 6 cases of pertussis, which is an increase of 2 from 2017. North Carolina reported 340 cases of pertussis in 2018. AppHealthCare saw numerous cases within Alleghany, Ashe, and Watauga in elementary schools, daycares and childcare workers.


### *Measles*

Measles virus causes symptoms that can include fever, cough, runny nose, and red, watery eyes, commonly followed by a rash that covers the whole body. Measles can lead to ear infections, diarrhea, and infection of the lungs. Rarely, measles can cause brain damage or death. Measles remains a leading cause of vaccine-preventable infant mortality. Measles cases in the U.S continued to climb in 2018 and there were 372 reported cases in the U.S in 2018 and 555 reported cases as of April 11, 2019. As of now, 2019 is on pace to be the worst year for measles in the United States since the disease was eradicated in 2000 by vaccinations. The CDC says the increased number of outbreaks is due to an increase in the number of travelers who get measles abroad

**People of all ages need  
WHOOPING COUGH  
VACCINES**



<b>DTaP</b> for young children	<b>Tdap</b> for preteens	<b>Tdap</b> for pregnant women	<b>Tdap</b> for adults
✓ 2, 4, and 6 months ✓ 15 through 18 months ✓ 4 through 6 years	✓ 11 through 12 years	✓ During the 27-36th week of each pregnancy	✓ Anytime for those who have never received it

[www.cdc.gov/whoopingcough](http://www.cdc.gov/whoopingcough) 



# MEASLES & RUBELLA MOVE FAST

Failure to vaccinate children against measles & rubella puts them at risk of severe health complications, such as



**100,000**  
babies are born  
with CRS  
each year globally



A pregnant woman unvaccinated against rubella who is infected during her first trimester has up to a 90% chance of giving birth to a baby with congenital rubella syndrome (CRS) – that is if the baby survives.

Vaccination prevents mothers from giving birth to babies with CRS and prevents life-long disability.

In 2017, over **300** people died per day due to measles with **6.7 million** estimated cases globally.



Measles cases have increased significantly from 2017 to 2018 with outbreaks occurring in previously measles-free countries.



Measles is one of the most contagious diseases but it's entirely preventable with a vaccine.

Countries with the highest number of measles cases

A family can lose a month's income caring for a child who is sick with measles.



Measles is one of the leading causes of death among children around the world.



**More than 300 children** die every day from measles



**10 every hour**

Even though a safe and effective vaccine has been available for over 50 years.

## MEASLES AND RUBELLA MOVE FAST

**WE HAVE COMMITTED TO MOVE FASTER**

Eliminating measles & rubella requires reaching every child to protect them against both diseases.



It costs less than  
**\$2.00**  
to vaccinate a child against both measles and rubella in low-income countries



More than  
**2.9**  
**BILLION**  
vaccinated since 2001



Measles vaccination prevented  
**21.1+**  
**MILLION**  
child deaths from 2000-2017



A global partnership to stop measles & rubella



American Red Cross



[www.measlesrubellainitiative.org](http://www.measlesrubellainitiative.org)



@measlesrubella



measlesandrubellainitiative

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and bring it into the U.S., and further spread of measles in U.S. communities with pockets of unvaccinated people. The U.S. experienced 17 outbreaks in 2018. Three outbreaks in New York State, New York City, and New Jersey, respectively, contributed to most of the cases. Cases in those states occurred primarily among unvaccinated people in Orthodox Jewish communities. These outbreaks were associated with travelers who brought measles back from Israel, where a large outbreak is occurring. Eighty-two people brought measles to the U.S. from other countries in 2018. This is the greatest number of imported cases since measles was eliminated from the U.S. in 2000. The North Carolina Immunization Branch, in conjunction with the Centers for Disease Control and Prevention is working to lower these numbers by discussing the importance of being up to date on the MMR vaccine.

## Mumps

Mumps virus causes fever, headache, muscle aches, tiredness, loss of appetite, and swollen and tender salivary glands under the ears on one or both sides. Mumps can lead to deafness, swelling of the brain and/or spinal cord covering, painful swelling of the testicles or ovaries, and, very rarely, death. A person with two doses of MMR vaccine has about an 88% reduction in risk for mumps; a person with one dose has a 78% reduction in risk for mumps. After the U.S. mumps vaccination program started in 1967, there has been a more than 99% decrease in mumps cases in the United States. However, mumps outbreaks still occur, particularly in settings where people have close, prolonged contact, such as universities and close-knit communities. Examples of this include people who are strongly connected by social, cultural, or family ties, participate in communal activities or share a common living space. Before the U.S. mumps vaccination program began in 1967, about 200,000 cases of mumps were reported each year. Since that time, there has been more than a 99% decrease in mumps cases in the United States. However, the number of reported cases of mumps has recently spiked, with an average of approximately 6,000 cases per year reported during 2016 and 2017. Adolescents and college-aged adults appear to be at increased risk for disease, likely due to close contact, congregate settings like schools and universities.

In North Carolina, thirty-seven cases of mumps were reported in North Carolina during 2017. Most cases were outbreak-associated (see outbreak descriptions below). Two mumps outbreaks occurred in North Carolina during 2017. One outbreak occurred from April–June 2017 at Appalachian State University in Watauga County. Twelve cases were identified among university students. A second outbreak was linked to the Charlotte metropolitan area beginning in May 2017. Twelve cases were identified in total, with eight (67%) occurring in men who have sex with men (MSM).

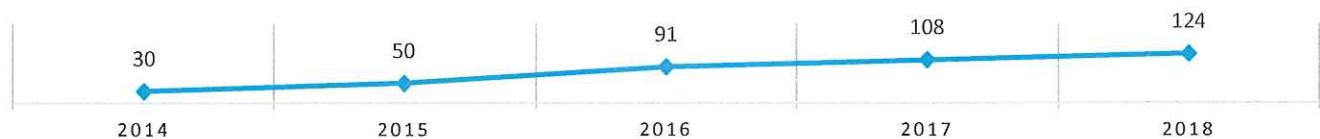


## What Disease Trends And Responses Do We See?

- Hepatitis C-Chronic cases are almost **4 times higher** in 2018 vs 2016
- Vector borne diseases continue to be of significance, specifically Lyme Disease.
- Sexually Transmitted Diseases/Infections continue to be significantly on the rise.
- We have seen an increase in potential Rabies cases in Ashe County and have taken multiple actionable steps to increase prevention. This includes management of bites/exposure reports, procedures for animals who tested positive for rabies and the support people who are recommended for Post Exposure Rabies Therapy.
- Purchased Treatment for Lice through mini-grant for Ashe County Schools



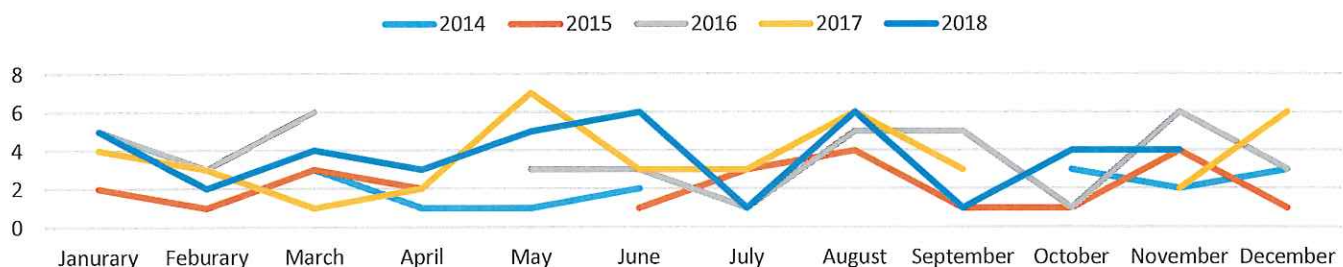
### # OF COMMUNICABLE DISEASE CASES IN ASHE (CONFIRMED AND PROBABLE)



## Sexually Transmitted Infections/Diseases

In Ashe County, Sexually Transmitted Infections/Diseases continue to be on the rise, specifically, Chlamydia. Chlamydia is a bacterial infection that can infect both men and women. It is one of the most common STDs and is spread through vaginal, anal, and oral sex. It can be easily cured with antibiotic medicine but if left untreated can lead to major health problems. It can cause difficulty in a women's reproductive system making it harder to become pregnant. There are no symptoms that come with having the disease, but one may notice abnormal discharge from the vagina or penis, a burning sensation when they urinate, and for men, pain or swelling of the testicles. While abstinence is the only completely effective prevention strategy, monogamy and condoms can reduce the transmission of the disease. Chlamydia is the most commonly reported STD in the United States with an estimated 3 million infections annually. From 1997 to 2017, the rate of reported chlamydial infections increased from 206 to 509 cases per 100,000 population. Rates of the disease have continued to increase over the last twenty years with higher rates among females due to recommendations of screening for ages 14-25 and no screening recommendation for men. In 2018, the average number of people reported in the U.S. with chlamydia was 657.3 females and 330.5 males per 100,000 population. North Carolina is ranked 45 of 50 states as the highest prevalence of chlamydia with 577.6 per 100,000 population.

### MONTHLY CASES OF CHLAMYDIA IN ASHE (2014-2018)

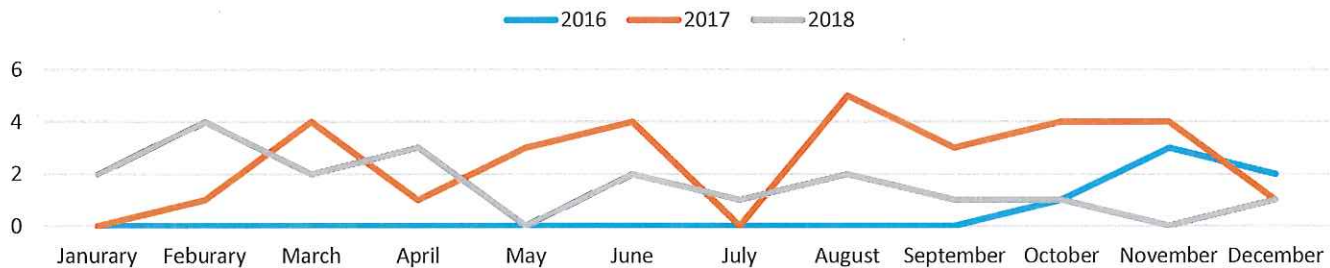




## Hepatitis C

Hepatitis C (HCV) is a liver infection caused by the Hepatitis C virus. This is most commonly transmitted through injection drug use, birth, and receipt of blood. Most people with chronic Hepatitis C virus infection do not have any symptoms or have general, or common symptoms such as chronic fatigue and depression. Hepatitis C can range from a mild illness lasting a few weeks to a serious, lifelong illness. Hepatitis C is often described as “acute,” meaning a new infection or “chronic,” meaning lifelong infection. Acute hepatitis C occurs within the first 6 months after someone is exposed to the hepatitis C virus. Hepatitis C can be a short-term illness, but for most people, acute infection leads to chronic infection. Left untreated, chronic Hepatitis C can cause serious health problems, including liver damage, cirrhosis, liver cancer, and even death.

### MONTHLY CASES OF HEPATITIS C-CHRONIC IN ASHE (2014-2018)



The CDC estimates that nearly 2.4 million Americans are living with Hepatitis C from 2013-2016. Approximately 75%–85% of people who become infected with hepatitis C virus will develop a chronic infection, 15%–25% of people who are infected with the hepatitis C virus clear it from their bodies without treatment and do not develop chronic infection.

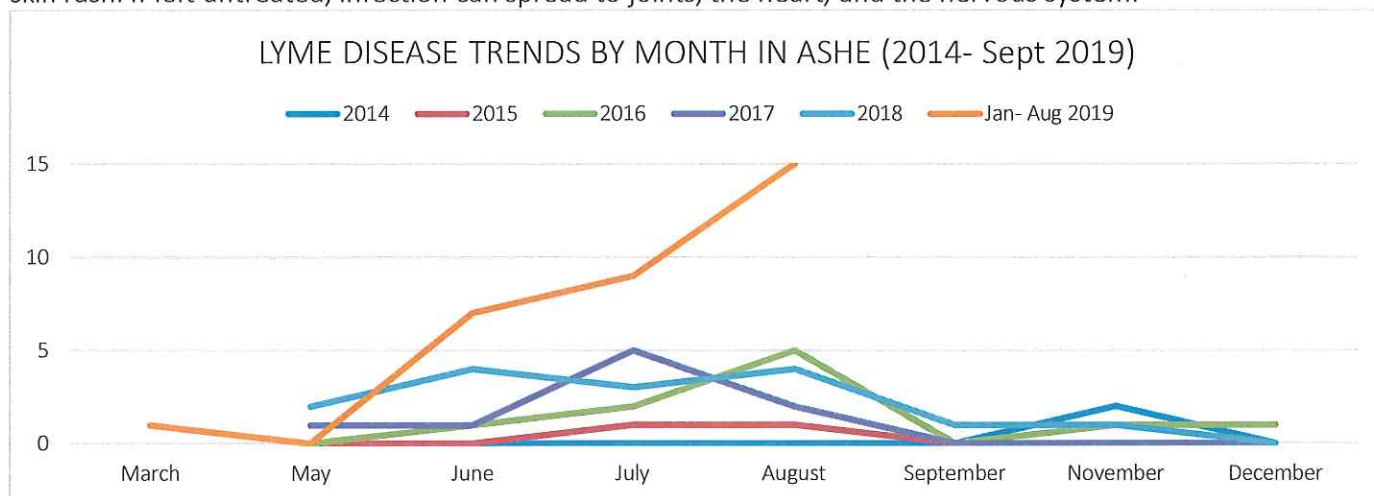


The North Carolina Department of Health and Human Services (NCDHHS) is working on efforts towards increasing the number of people receiving tests for HCV to bring awareness of their status. They are also working to increase their target to hard to reach populations and recommending care facilities for those who test positive for the disease.

Syringe Exchange Programs can reduce the transmission of blood-borne pathogens, including HIV, hepatitis B virus (HBV), and hepatitis C virus (HCV). Injection drug use (IDU) is a risk factor for contracting blood-borne pathogens such as HIV and HCV, and sharing syringes provides a direct route of transmission for diseases. According to the CDC, people who inject drugs can substantially reduce their risk of acquiring and transmitting HIV, HBV, HCV, and other blood-borne infections by using a sterile needle or syringe for every injection. According to the Centers for Disease Control and Prevention, participants in syringe exchange programs are five times more likely to enter drug treatment programs. They're 3.5 times more likely to stop injecting drugs.

## Lyme Disease

Lyme disease is caused by the bacterium *Borrelia burgdorferi* and is transmitted to humans through the bite of infected blacklegged ticks (CDC, 2019). Typical symptoms include fever, headache, fatigue, and a characteristic skin rash. If left untreated, infection can spread to joints, the heart, and the nervous system.



According to the data from NC Electronic Disease Surveillance System (NC EDSS), there has been an increase in human Lyme Disease cases over the past couple of years across Alleghany, Ashe, and Watauga Counties. In Ashe County in 2018, there were 15 cases and for January through August 2019, there have been 32 reported cases.

According to the CDC, the increase is due to tick migration, new species of ticks unique to the US, and increasing reporting in general. They don't know why the ticks are migrating yet, but could be due to land use changes and climate shifts. here is the resource: <https://www.cdc.gov/media/dpk/diseases-and-conditions/lyme-disease/index.html>

"Prevention of tick bites by using insect repellent and eliminating places ticks live are important steps in preventing Lyme Disease and other tick-borne illnesses. If you notice a tick on yourself or your pet, remove it right away. If you have a fever or a rash after removing a tick, see your healthcare provider" stated Jennifer Greene, Health Director, AppHealthCare.





# Here is what we can do:



Practice safe prescription medication use by taking correctly, storing securely, disposing properly, and never sharing.

Health begins where we live, learn, work and play. Take action in building our neighborhood to be safe and healthy.



Being healthy takes a community. Attend a Mental Health First Aid training and join local community groups that work to support mental health systems.

Your opportunity for health starts long before you need medical care. Sign up for your local Women, Infant & Children (WIC) program through your local health department.



The opportunity for health begins in our families, neighborhoods, schools and jobs. Participate in local bike and walk safety programs to and from school. Being healthy takes a community.

Your neighborhood or job should not be hazardous to your health. Support tobacco free living and ask for clean air policies.



Health starts—long before illness—in our homes, schools and jobs. Investing in our mothers and children is investing in our future.

Live active, eat local vegetables and fruits.



All citizens have the opportunity to make the choices that allow them to live a long, healthy life.<sup>3</sup> Support local policies for sidewalks and bike lanes.