

2019 Annual Report



KNOX COUNTY
TENNESSEE
HEALTH DEPARTMENT



“Change can only happen if we make healthy choices as a society. This means improving everything that impacts health – from housing, education and income to community design, transportation and our environment. Together, we can all be the generation that changes the course of health in America.”

– American Public Health Association

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LETTER TO KNOX COUNTY

A SEAT AT THE TABLE



Dr. Martha Buchanan
Senior Director and
Public Health Officer,
Knox County Health
Department

“Every person, a healthy person.” The message is clear: Our vision is to make Knox County a community where everyone has the opportunity to be healthy. However, our vision is not just ours to execute. It will take the entire community’s involvement to make this goal a reality.

This starts with making certain health has a voice when important decisions are made. Similar to how health affects an individual’s well-being and quality of life, health also affects the well-being of our community. A healthy community celebrates more economic and educational victories. By giving health a seat at the table, there will be more opportunities for our community to thrive.

In this report, you’ll read about the myriad of ways we work to improve population health. This extends far beyond the walls of our offices. While quality health care is essential for a healthy community, it’s not the only component. We recognize that a lot happens before someone ever walks into a health care provider’s office. As Knox County’s health strategist, we serve as a convener, partner and data analyst, helping our community better understand all the many factors that influence population health. To improve health, our community must focus on the upstream drivers of health – the conditions in which people are born, live, work and age.

The factors listed above may be driving our health. But we, as a community, can do the steering. I encourage you to join us as we work to steer Knox County toward a future where everyone has the opportunity to be healthy.

As always, I remain incredibly proud of our team and the efforts we have made. I look forward to continuing to serve the people of Knox County and building upon our work in 2020.

I welcome any suggestions or questions you may have. Please feel free to contact me directly at 865-215-5273 or health@knoxcounty.org.

Gratefully yours,

A handwritten signature in blue ink, appearing to read 'M Buchanan', with a long horizontal flourish extending to the right.

Dr. Martha Buchanan
Senior Director and Public Health Officer,
Knox County Health Department



WHO WE ARE

From education to public health law and from emergency preparedness to preventive clinical care, our broad scope of work mirrors the World Health Organization's comprehensive definition of health: "a state of complete physical, mental and social well-being – not merely the absence of disease or infirmity."



VISION

Every Person, A Healthy Person

MISSION

To encourage, promote and assure the development of an active, healthy community through innovative public health practices

CORE VALUES

- Responsiveness and commitment to our community
- Excellence through evidence-based and innovative practices
- Accountability and integrity in our operation
- Leading by example

STRATEGIC PRIORITIES

- How do we continually assure that the Knox County Health Department infrastructure empowers us to be at the forefront of public health?
- How do we facilitate a community approach to better health?
- How do we establish communitywide understanding and value for public health?
- How do we respond effectively to our community's public health issues?



STRUCTURE

The Knox County Health Department is a division of Knox County Government under the supervision of Knox County Mayor Glenn Jacobs.

The Knox County Board of Health serves an advisory role.

KNOX COUNTY BOARD OF HEALTH

Martha Buchanan, M.D.
Senior Director and Public Health Officer, Knox County Health Department

Sharon K. Davis, DNP, APRN, WHNP-BC
Clinical Assistant Professor, The University of Tennessee College of Nursing

Dianna C. Drake, Pharm.D.
President, District 2, Tennessee Valley Pharmacists Association

Jack E. Gotcher, Jr., D.M.D., Ph.D., F.A.C.S. (Board Chair)
University Oral and Maxillofacial Surgeons
Professor, The Department of Oral and Maxillofacial Surgery, The University of Tennessee Graduate School of Medicine.

Keith Gray, M.D., M.B.A., F.A.C.S.
Senior Vice President and Chief Medical Officer, University of Tennessee Medical Center

Glenn Jacobs
Knox County Mayor

John W. Lacey, III, M.D.
Chief Medical Officer, Emeritus, University Health System, Inc.
Medical Director, Knoxville Area Project Access

Marcy J. Souza, DVM, MPH, MPPA, DABVP (Avian), DACVPM
Associate Professor, The Department of Biomedical and Diagnostic Sciences; Director of Veterinary Public Health, The University of Tennessee College of Veterinary Medicine

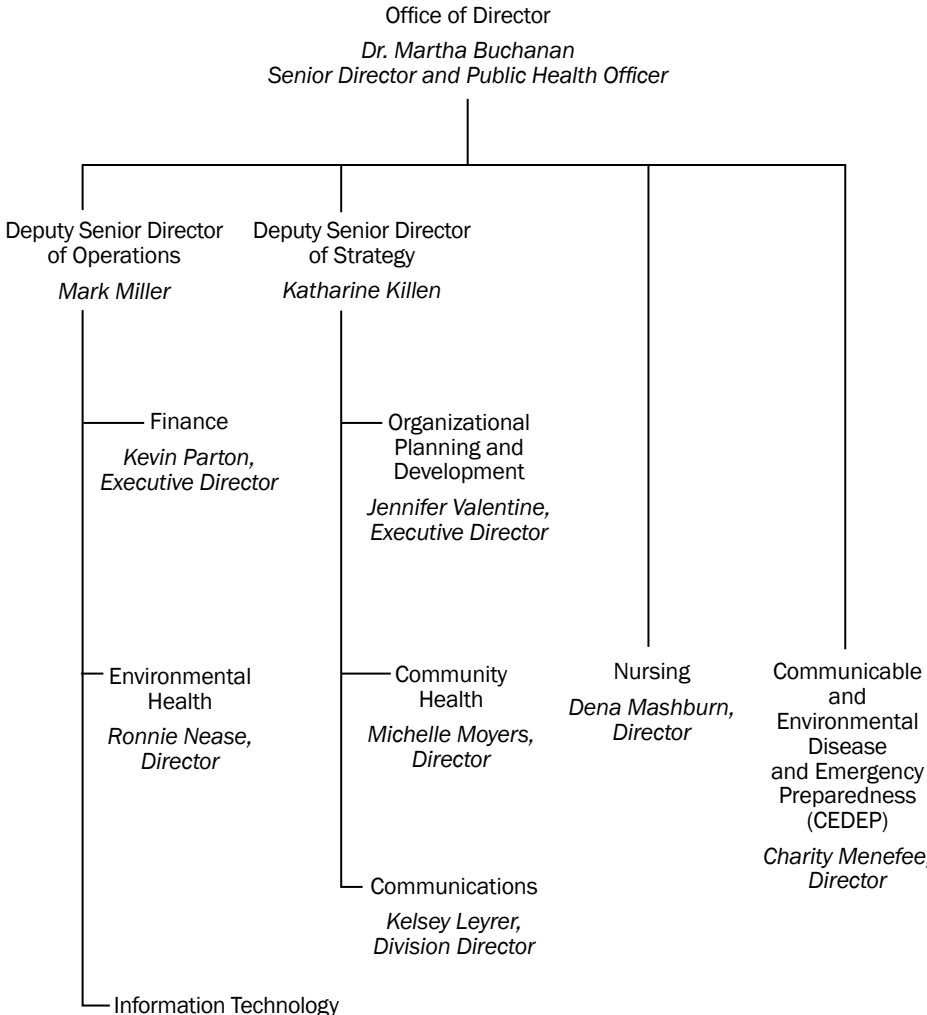
Bob Thomas
Superintendent, Knox County Schools



ORGANIZATIONAL CHART

KCHD consists of numerous divisions and employs more than 250 professionals including epidemiologists, nurses, environmental specialists, public health educators, dentists, dieticians, emergency preparedness specialists and many others.

KNOX COUNTY HEALTH DEPARTMENT





ABOUT KCHD

LOCATIONS

The Teague Clinic in North Knox County
405 Dante Road
865-215-5500

Main Office and Clinic
140 Dameron Avenue
865-215-5300



The West Clinic in West Knox County
1028 Old Cedar Bluff Road
865-215-5950

GENERAL INFORMATION

- Hours of operation: 8 a.m. – 4:30 p.m.; Days and hours of service may vary per department.
- Main: 865-215-5000
- Email: health@knoxcounty.org
- Online: www.knoxcounty.org/health
- Facebook: @KnoxCountyHealthDepartment
- Twitter: @KnoxCoHealthTN
- Instagram: @KnoxCountyHealthDepartment
- On the first Wednesday of each month, all offices and clinics are closed in the morning for staff in-service. On these days, the main location opens at 11 a.m. The Teague and West clinics open at 11:30 a.m.



WHAT WE DO

We investigate disease outbreaks, identify and stop threats to our community's health, conduct extensive outreach and education, prepare for public health emergencies, provide and connect people with medical care, enforce food safety and air quality laws, and more — all with the goal to ensure the conditions so every resident has the opportunity to be healthy.

While a medical provider typically treats illness, most of our work, as the county's health strategist, centers on trying to prevent illness and injuries from happening in the first place.



Public health is what we do together as a society to ensure the conditions in which everyone can be healthy.

EDUCATE AND ENGAGE

Providing accurate, reliable health information to the public is crucial to improving population health. And, we have a dedicated team of experts to carry out this work. Our staff provides education in the community, in our clinics and on the news media. Just last year, we provided content and data, including interviews, for more than 300 news stories on topics such as infectious disease, emerging health threats, nutrition, the opioid epidemic and many others.

Education and outreach accompany nearly every area of our work, but we don't stop with education – we also engage the community. We build strategic partnerships with schools, farmers markets, health care providers, nonprofits, law enforcement agencies and many others. We convene coalitions and serve on community groups, including All4Knox, East Tennessee HCV Task Force, Knox/East TN Healthcare Coalition, Fetal Infant Mortality Community Action Team, and many others. All this work is to help ensure our community members have the information they need and the support systems in place to make informed health decisions.

This year we:

- Had more than **8** public health educators and **3** public health nutritionists working in the community
- Reached more than **230** women in treatment and recovery centers with Neonatal Abstinence Syndrome (NAS) prevention education
- Granted **11** worksites, reaching more than **6,000** employees, with resources to promote wellness through the East Tennessee Wellness Roundtable
- Provided mental health awareness information to more than **2,500** high school students
- Provided education to more than **1,100** professionals on Adverse Childhood Experiences (ACEs) and trauma-informed care
- Provided balance screenings to **100** seniors to increase fall prevention awareness
- Reached **1,100** students through our Nutrition Education and Activity Training program
- Provided professional development and service learning opportunities to **24** high school students through the Knox County Youth Health Board.

We hope you'll join us, learn about our outreach efforts and how you can help make our community healthier.



Population health can't be mandated by one authority, but is the responsibility of the entire community, working together.

PROVIDE AND CONNECT CARE

Providing and connecting our community to medical care is a key public health service. We serve thousands each year, reducing the human and economic costs of illness, and ultimately the burden of disease in our community. We offer a broad range of preventive care and treatment, including women's wellness and gynecological care, screening and treatment for sexually transmitted infections, and dental care. We also provide routine immunizations as well as immunizations for international travel.

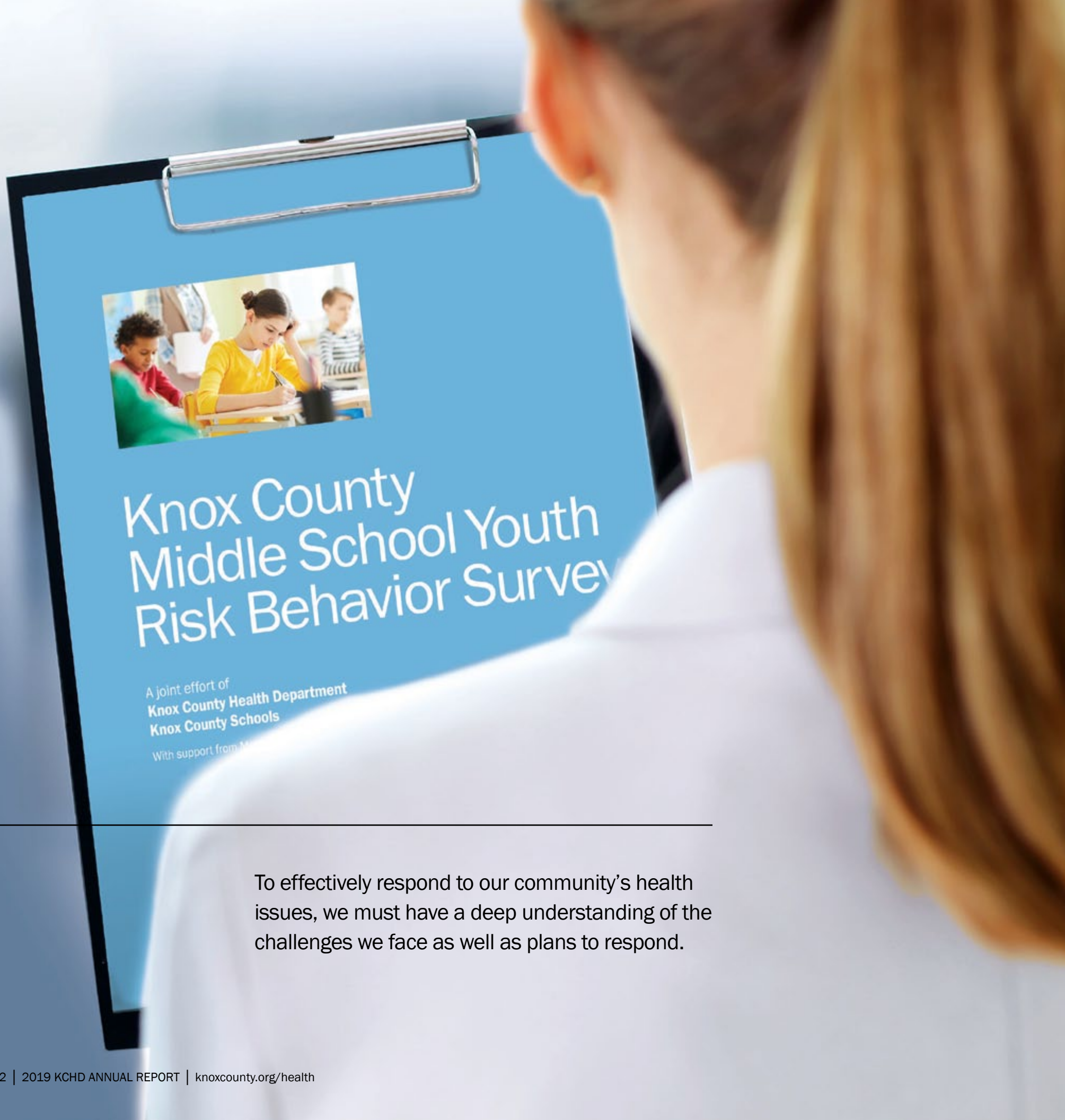
Our clinical work also extends beyond the walls of our building. One example is our Community Health Access and Navigation in Tennessee (CHANT) model, which provides care coordination services to eligible families at no cost. By conducting a comprehensive family screening and assessment, this program helps address needs while educating and referring families to community resources.

Connecting care does not apply to just medical care. Our Special Supplemental Nutrition Program for Women, Infants and Children (WIC) not only provides nutrition and breastfeeding education, it also provides growth screenings and benefit cards for purchasing healthy foods, all while connecting participants to important community services and programs.

This year we:

- Had more than **47,000** patient visits
- Tested more than **7,000** people for hepatitis C, linking many to crucial medical care
- Provided dental health care to more than **1,600** children in the schools, applying **10,000** sealants
- Convened the East Tennessee HCV Task Force, composed of **15** agencies to develop collaborative strategies for addressing the hepatitis C epidemic in the region
- Administered more than **6,000** doses of hepatitis A vaccines, **3,000** of which were given during outreach events in the community

We encourage you to learn more about our clinical services and how we may be of service to you.



Knox County Middle School Youth Risk Behavior Survey

A joint effort of
Knox County Health Department
Knox County Schools
With support from...

To effectively respond to our community's health issues, we must have a deep understanding of the challenges we face as well as plans to respond.

ASSESS AND RESPOND

Our goal is to improve the health of everyone in Knox County, not just those who visit one of our offices. One way we do this is by studying Knox County's overall health, which health departments are uniquely positioned to do. Our epidemiologists collect and analyze health data so we can present a comprehensive picture, or state of health, for our entire community. In addition to conducting our own surveys, we also examine data from a variety of sources, including hospitals, medical providers, schools and many others. Perhaps the largest report we produce is our Community Health Assessment, which outlines Knox County's priority health issues. The next iteration will be released in 2020. This information helps us, our partners and community leaders evaluate needs, make policy decisions and plan for the future.

In addition to assessing our community's overall health, we prepare for and respond to public health threats. This includes monitoring infectious diseases, investigating outbreaks, and providing emergency preparedness education and guidance to families, businesses, churches, partner agencies, schools and others.

This year we:

- Kicked off the joint City of Knoxville/Knox County All4Knox substance misuse prevention initiative by convening **9** community sectors to contribute to the communitywide strategic plan
- Responded to more than **7,500** reports of infectious disease
- Managed more than **15** outbreaks
- Investigated more than **170** cases of hepatitis A as part of a national outbreak
- Helped train more than **600** people in the "Stop the Bleed" program
- Participated in **8** community, state and federal emergency preparedness exercises
- Worked with more than **200** partners including health care facilities, law enforcement, EMS and others to improve our community's emergency preparedness plans and response
- Educated nearly **900** students on emergency preparedness and public health response

We encourage you to learn more about our Epidemiology and Emergency Preparedness divisions and how you, your family and even business can be better prepared for emergencies.

“The health of the individual is almost inseparable from the health of the larger community...”

- Howard K. Koh, MD, MPH

PROTECT HEALTH

Part of our role as a public health agency is to enforce public health laws, which are designed to prevent and reduce potential health threats. These laws help ensure the conditions, such as safe food and clean air, so that every resident can be healthy.

Our Environmental Health division enforces state regulations for tattoo studios, public swimming pools, restaurants, hotels, grocery stores and others. We conduct thousands of food-related regulatory inspections each year and provide extensive food safety education for these agencies and the public. This work helps ensure food in Knox County is prepared, stored and served safely.

This division also works to achieve and maintain the U.S. Environmental Protection Agency’s National Ambient Air Quality Standards in Knox County. This is accomplished in many ways, including the continuous monitoring of fine particulate matter and ozone in the outdoor air; issuance of air quality health alerts and daily forecasts; and permitting of air contaminant sources, such as industrial manufacturers, gas stations, dry cleaners and many others.

This year we:

- Conducted more than **11,000** food-related and groundwater regulatory inspections
- Provided **1,660** rabies vaccinations for dogs and cats at community clinics in partnership with the Knoxville Veterinary Medical Association – KVMA
- Trained more than **1,000** food service workers through our online food safety program
- Surveyed more than **430** sites for mosquito activity
- Investigated more than **190** asbestos, open burning and other air quality-related complaints
- Conducted air quality regulatory inspections at nearly **480** businesses

We encourage you to learn more about food safety and air quality to help protect yourself and the ones you love.



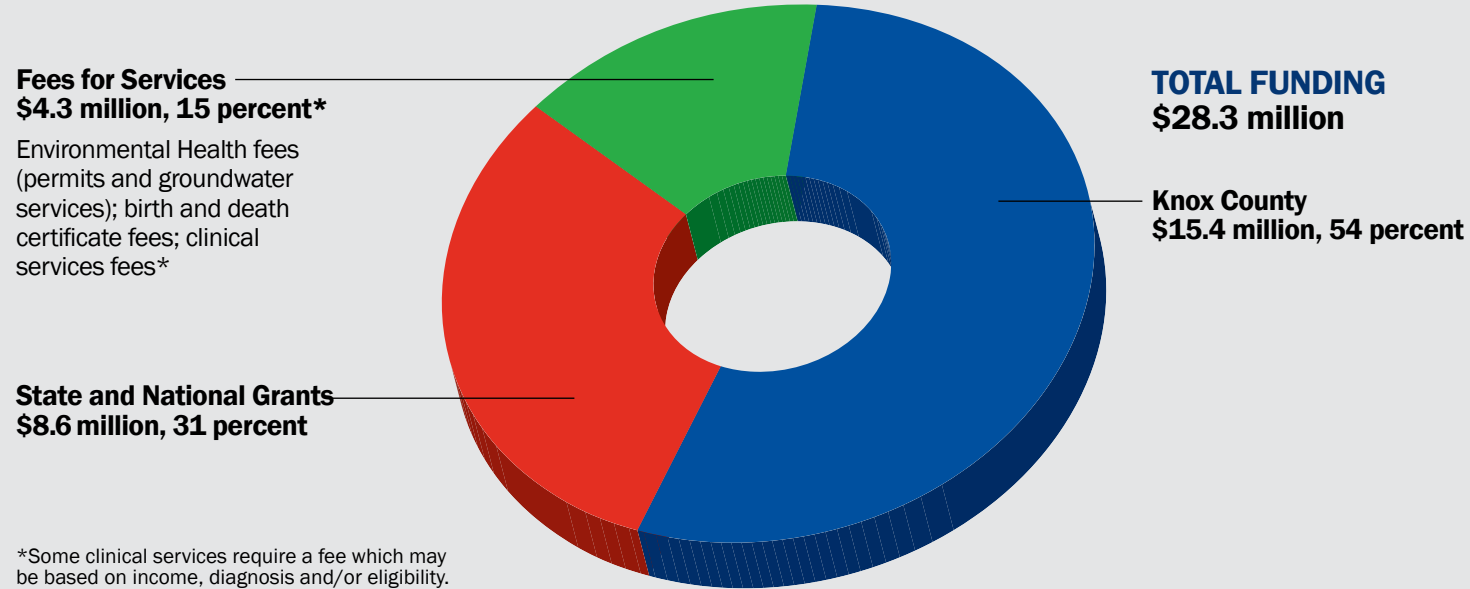
ACCOMPLISHMENTS

ANNUAL ACCOMPLISHMENTS

- We launched the joint City of Knoxville/Knox County All4Knox initiative to address substance misuse with both Mayoral offices and Metro Drug Coalition. We hired a substance misuse response coordinator to oversee the initiative and the development of a communitywide strategic plan to address this devastating epidemic.
- We were once again the only health department in Tennessee to secure the competitive Category A Project Diabetes funding from the Tennessee Department of Health. Over the next three years, we will have \$434,000 to support evidence-based and promising practice prevention efforts to reduce the incidence of diabetes.
- We supported the Tennessee Department of Health's measles investigation by conducting contact tracing for more than 300 individuals, a crucial step in stopping the local spread of this highly-infectious disease.
- Our Air Quality Management division made two major changes to increase its efficiency and cost effectiveness: updating our air quality monitors and implementing a new permitting program for emergency generators, gasoline dispensing facilities and auto body refinishing operations.
- We developed more than 30 active community partnerships to raise awareness about the importance of hepatitis C prevention, testing and linkage to care services.
- In its second year, the Knox County Farmers Market Nutrition Program, administered by Knox County WIC, increased its revenue by 57%. Revenue is paid directly from the United States Department of Agriculture to all participating farmers.
- Our Emergency Preparedness staff was invited to present at two National Healthcare Coalition Preparedness Conferences on lessons learned from our experiences in emergency responses in East Tennessee.
- Our groundwater environmentalists worked with Engineering and Public Works' Stormwater division to help more than a dozen homeowners repair failing septic systems. Repairing these systems helps protect the water quality of nearby watersheds.
- We secured Chronic Disease grant funding from the Tennessee Department of Health to prevent and manage diabetes and heart disease in Knox County over the next five years. This funding enables us to provide training to non-physician staff that focuses on identifying risk factors and treatment of hypertension and high blood cholesterol, in addition to connecting those at risk to community resources.
- We assisted the Tennessee Department of Health, Centers for Disease Control and Prevention, U.S. Food and Drug Administration and others in an investigation of an E. coli outbreak, which resulted in a nationwide recall of contaminated ground beef.
- Our Emergency Preparedness division served as a resource for long-term care facilities, home health and hospice clinics, outpatient care facilities, dialysis care clinics and other health care agencies by providing emergency preparedness education and coordination through the Knox/East Tennessee Healthcare Coalition, composed of nearly 250 member organizations.
- One hundred percent of the after-school programs participating in our Nutrition Education Activity Training (N.E.A.T.) program achieved N.E.A.T. Approved status. When comparing snack menus from pre- to post-implementation of N.E.A.T. Approved policies, there is a significant improvement in the nutritional offerings for children at the after-school sites.
- Tennessee WIC transitioned from paper vouchers to electronic benefits in Knox County. The issuance of electronic benefits via debit cards enables WIC clients to have more discretion and flexibility in shopping for their healthy food benefits.
- Our second report of Naloxone Deployment by First Responders, which we produce on behalf of the Harm Reduction Coalition, included important overdose death data from the Knox County Regional Forensic Center. This was the first time this data set was included in the naloxone report, which helped provide additional insight into this epidemic.
- We launched the Baby & Me – Tobacco Free Program, which is a smoking cessation program created to reduce the burden of tobacco use among pregnant women and improve birth outcomes. A national evidence-based, best-practice program, the Baby & Me – Tobacco Free Program recognizes that many mothers need support in quitting.
- We partnered with the University of Tennessee, the City of Knoxville's Parks and Recreation Department, and Office of Neighborhoods to conduct a study exploring physical activity in the City of Knoxville's park system. Funded by the Tennessee Department of Health, our project with UT and City parks is informing the efforts to promote access to parks and physical activity at a state level.
- In January, Public Health Nutritionist and Registered Dietitian Shanthy Appelö was named Recognized Young Dietitian of the Year by the Knoxville Academy of Nutrition and Dietetics.
- As part of the response to a nationwide hepatitis A outbreak, our staff provided more than 6,000 vaccinations and enhanced relationships with more than 20 organizations in the county, serving people at highest risk for infection. Our efforts helped contain the outbreak in Knox County; hence we are not seeing the number of cases that our counterparts in surrounding counties are seeing.
- Our WIC program created an innovative campaign that invites WIC participants to call/text the local WIC agency if they have a question while shopping for healthy foods. This campaign was referenced in the Food Research & Action Center (FRAC) report in May 2019. The FRAC is a national nonprofit organization working to eradicate poverty-related hunger in the United States.

FISCAL YEAR 2019 KCHD FUNDING SOURCES

Percentages reflect figures that have been rounded.



Fees for Services
\$4.3 million, 15 percent*
 Environmental Health fees (permits and groundwater services); birth and death certificate fees; clinical services fees*

State and National Grants
\$8.6 million, 31 percent

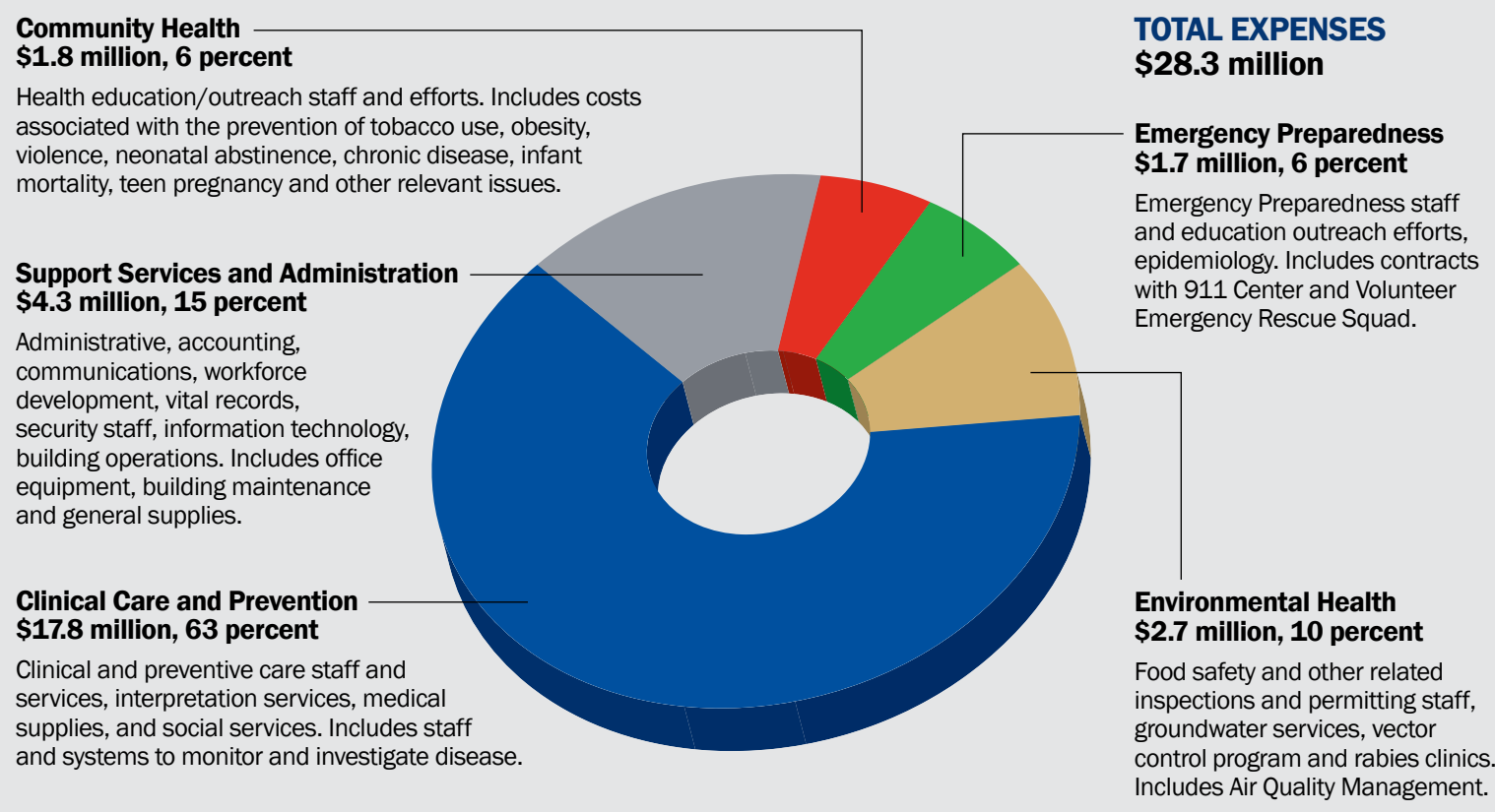
*Some clinical services require a fee which may be based on income, diagnosis and/or eligibility. Some fees are billed to the client's insurance provider if applicable and appropriate. No one is denied service due to an inability to pay.

FINANCE

The Knox County Health Department serves a population of 465,289 people according to the latest U.S. Census population estimate. In the 2019 fiscal year, KCHD had an operating budget of approximately \$28.3 million.

For more detailed budget information, please visit: knoxcounty.org/finance/budget

FISCAL YEAR 2019 KCHD OPERATING EXPENSES



Community Health
\$1.8 million, 6 percent
 Health education/outreach staff and efforts. Includes costs associated with the prevention of tobacco use, obesity, violence, neonatal abstinence, chronic disease, infant mortality, teen pregnancy and other relevant issues.

Support Services and Administration
\$4.3 million, 15 percent
 Administrative, accounting, communications, workforce development, vital records, security staff, information technology, building operations. Includes office equipment, building maintenance and general supplies.

Clinical Care and Prevention
\$17.8 million, 63 percent
 Clinical and preventive care staff and services, interpretation services, medical supplies, and social services. Includes staff and systems to monitor and investigate disease.

Emergency Preparedness
\$1.7 million, 6 percent
 Emergency Preparedness staff and education outreach efforts, epidemiology. Includes contracts with 911 Center and Volunteer Emergency Rescue Squad.

Environmental Health
\$2.7 million, 10 percent
 Food safety and other related inspections and permitting staff, groundwater services, vector control program and rabies clinics. Includes Air Quality Management.

“An ounce of prevention is worth a pound of cure.”

- Benjamin Franklin



KNOX COUNTY
TENNESSEE

HEALTH DEPARTMENT