

Take Charge Of Your Health Today. Be Informed. Be Involved.



ESTHER L. BUSH

Emergency Preparedness

This month's Take Charge of Your Health topic is emergency preparedness. Emergencies and social determinants of health are on our minds—particularly as we continue to move through a pandemic that has greatly affected Black individuals and families. Black folks around the Pittsburgh region experience health disparities, limiting life expectancy and the chance to thrive. Disparities include higher rates of cancers, heart disease and maternal/infant mortality. These conditions lay the foundations for emergencies, like strokes and heart attacks.

Social, economic and environmental circumstances help shape people's health and likelihood of experiencing emergencies. Systemic oppression has only cemented disparities in our communities. For example, a 2019 State Equity in PA report (<https://www.health.pa.gov/topics/Documents/Health%20Equity/The%20State%20of%20Health%20Equity%20in%20PA%20Report%20FINAL.pdf>) states that Black workers in the Commonwealth of Pennsylvania work as much as white workers but face poverty at nearly four times the rate of white people. We know that poverty, food insecurity, housing, transportation and proximity to environmental concerns affect mental and physical health outcomes.

Community resources and connections are critical in facing disparities. It is essential that we allow for pathways to be carved between health institutions and our communities. Prehospital care, as it is defined in this month's Take Charge of Your Health page by researcher and provider Sylvia Owusu-Ansah, MD, MPH, includes in-home and in-community medicine. When in-home and in-community health care providers (like some EMS personnel) help identify and address health concerns in the Black community, that may help in stopping disease progression.

Readers who are involved with community clinics or resource centers, consider inviting health care providers and researchers to your spaces. By submitting a request to the newly launched Clinical and Translational Science Institute Speaker's Bureau, they can learn more about the people you serve. The speaker's bureau is a chance to share people's lived experiences with those who make health decisions. Email ctsi7@pitt.edu for more information.

Being prepared for a medical emergency—even as we tackle health disparities—is within our reach. UPMC offers CPR and first aid courses, including those geared toward parents and caregivers to be prepared for child-related emergencies. More information can be found by calling the community education office at 412-692-7105. The Allegheny County Health Department website (www.alleghenycounty.us/Health-Department) lists locations and steps to accessing Naloxone or Narcan, a medicine that works to reverse opioid overdose symptoms. Narcan is available at most pharmacies, even without a doctor's prescription. The number of incidences of Sudden Infant Death Syndrome, or SIDS, and other sleep-related emergencies can be reduced by ensuring babies sleep on their back. Calling 2-1-1 for support on safe sleep for infants connects you to resources like helloworldpgh.org for a checklist to reduce risks.

Other ways to take charge of your health include connecting with us at the Urban League of Greater Pittsburgh to achieve educational and financial success goals through our Opportunity Broker program, health programming, family support centers and housing assistance. For more information, call the Urban League of Greater Pittsburgh at 412-227-4802.

Prehospital and EMS Health Care

Most of us think of emergency medical services (EMS) as calling 911 after a health event that requires emergency care and/or transport to the nearest hospital. Calling 911 in such a scenario is only one part of EMS; it is also an entire health system and public health service itself, says Sylvia Owusu-Ansah, MD, MPH, assistant professor of pediatrics and of emergency medicine at the University of Pittsburgh School of Medicine.

As director of prehospital and EMS care for UPMC Children's Hospital of Pittsburgh, Dr. Owusu-Ansah makes sure that EMS personnel know how to take care of children in emergency situations. EMS personnel are trained to treat any age level and are essential to public health and safety. However, Dr. Owusu-Ansah says only about 7-13% of out-of-hospital calls are for pediatric patients. Of those children, data show that very few are extremely sick or need immediate care.

"When EMS personnel do have to provide care for children, it can cause a lot of anxiety," says Dr. Owusu-Ansah. "Their pediatric care skills may be rusty because they've had few encounters with children beyond their initial simulation training. Also, it's also a vulnerable population and may remind them of loved ones who are children."

Caring for children is not the same as caring for adults. Children's bodies are not yet the same as adults'. Children specifically need to be given medication



DR. OWUSU-ANSAH

based on weight, and, in the case of trauma, EMS personnel immediately focus on different areas of children's bodies than adults'. Training EMS personnel with up-to-date skills and helping them feel comfortable to take care of children is vital.

Dr. Owusu-Ansah and colleagues also look at ways to prevent children from having to be admitted to the hospital. One such research area is asthma. Researchers know that certain patients with asthma are more likely to be admitted to the hospital and in the intensive care unit (ICU). Social determinants of health—like systemic racism, educational opportunities, income level, food insecurity, access to housing, etc.—influence hospital

admissions. Dr. Owusu-Ansah is conducting a study to see whether there is a racial disparity in out-of-hospital treatment of asthma. If there is, doctors can target those children ahead of time.

"We have data from in hospital and emergency room care that shows African Americans are more likely to be hospitalized and to die from asthma," she says. "Those who have been admitted before, who have been in the ICU or have been intubated and put on a ventilator are at higher risk of being hospitalized or, worse, dying. So, if data show disparities in out-of-hospital asthma treatment, let's be proactive. If there are patients who frequently call 911 for asthma, let's be more aggressive in getting

them the medication they need before they get to a hospital."

Dr. Owusu-Ansah is part of a pioneering field of research—studying racial disparities in prehospital care, the results of which may help to curtail eventual hospitalizations or disease progression. For example, she says studies have shown that African Americans are less likely to receive pain medication in general. In the out-of-hospital environment, not treating pain appropriately can eventually affect a spectrum of health issues, including disease processes, stroke recognition and care and cardiac arrest.

As medical director for Pittsburgh EMS, Dr. Owusu-Ansah creates curriculum for and helps train EMS personnel in pediatric advanced life

support. She has brought innovative change to the Pediatric Assessment Triangle, a quick way to assess in an out-of-hospital environment whether a child is needs immediate medical treatment. She has also integrated information about social determinants of health into curriculum and other information—like how to tell when a person of color looks blue from lack of oxygen or is pale (because those pictures aren't usually included in training textbooks).

A growing part of prehospital care includes in-home care. Paramedics, instead of traditional caregivers like nurses, are going into the home to provide care, which is known as community paramedicine. In many areas, paramedics can give immunizations through mobile health care. During the COVID pandemic, Dr. Owusu-Ansah says EMS personnel have been going to homes to do follow-up checks on issues like people's oxygen, getting vital signs and referring people to hospitals for more care. Community paramedicine can also be used to help in the opioid epidemic, for stroke care and cardiac care.

All in all, Dr. Owusu-Ansah says she and other researchers and physicians are trying to help people live healthier lives—not just when they get sick or have an emergency.

"We're trying to provide the best evidence-based care to people outside of the hospital as much as we try to do inside of the hospital," says Dr. Owusu-Ansah.

Freedom House 2.0 prepares high risk youths and non-traditional students for health careers

As much as we now depend on EMS and prehospital care, there was a time when such life-saving services did not exist. The only responders—often police—had no medical training or equipment and would often place people in the back seat of a car and race them to the hospital. But this lack of formal prehospital care also meant that police would not serve every neighborhood equally. Communities of color were often left with no help at all during emergencies.

To fill that gap in equitable prehospital care, community activists and University of Pittsburgh physicians created Freedom House, a paramedic training and prehospital services program for underserved communities (for more details about the original Freedom House, visit https://www.pittmed.health.pitt.edu/feb_2004/attending.pdf). In a further effort to help the community, Freedom House specifically recruited people who were unemployed. From 1968-75, Freedom House became a thriving EMS service in the City of Pittsburgh, pioneering a model for many EMS programs across the country.

In 1975, the City of Pittsburgh ended its contract with Freedom House only to create its own EMS, which still exists. Despite the original Freedom House para-



GRADUATES—UPMC Health Plan recently held their second graduation ceremony for their Freedom House 2.0 training program. Both the training and ceremony took place at Hosanna House in Wilkinsburg and included a cohort of 10 students. Graduates pictured are, from top left: Lorin Demun, Jonathan Moss, Trevon Epps, Brandon McQuade, Kenneth Hickey; and bottom row, from left: Keivonne Williams, Rayquel Pack, Asia Strader, Deshay Allen, Khadijah Cook. The program allows individuals to jumpstart a health career in as little as 10 weeks and includes paid training and mentorship.

medics' years of expertise in prehospital services, only some of them were hired for the new EMS program.

While the EMS system in Allegheny County has evolved dramatically in the past 50 years, it is ready for a transformation to meet the current demands of its patients. According to studies and discussions with providers and medical directors from across the country, the portion of modern EMS calls for true life- or limb-threatening medical emergencies is, at most, 20% of the call

volume. Yet 100% of current training is focused on managing these medical emergencies.

The other 80% of calls to 911 represent emergencies of different natures; they are emergencies that are not likely to be resolved by taking the person to an emergency department. These calls represent a wide variety of other psychosocial needs, including poorly managed chronic medical and mental health conditions and myriad social-determinants-of-health concerns. Today's EMS pro-

viders are not trained to assess or intervene with these kinds of needs.

In 2020, UPMC and UPMC Health Plan began Freedom House 2.0. With expertise from Pitt's School of Health and Rehabilitation Sciences' Department of Emergency Medicine, the 10-week program includes cohorts of high-risk youths, people recently unemployed because of the COVID pandemic and other nontraditional students. They take part in an innovative curriculum that includes employ-

ment skills, an emergency medical technician (EMT) course, community paramedic and resiliency training. Successful graduates are guaranteed an interview with UPMC and other job placement support. As of this summer, two cohorts have graduated from the program (<https://newpittsburghcourier.com/2021/06/21/freedom-house-2-0-training-program-celebrates-latest-graduates/>). Another cohort will begin training in fall 2021.