

Take charge of your health today. Be informed. Be involved.

Drug use and abuse

This month, the "Take Charge of Your Health Today" page examines drugs—chemicals that can provide great benefit or cause great harm to our bodies. Jennifer R. Jones, MPH, community engagement coordinator with the University of Pittsburgh CTSI, and Esther L. Bush, president and CEO of the Urban League of Greater Pittsburgh, had a discussion about this important topic.

JJ: Good afternoon, Ms. Bush. For a few months we have known that our March page will have a focus on drug use. It's a very delicate yet timely topic.

EB: Yes, Jennifer. I'm glad that we're focusing our health page on a topic that has recently received so much local and national media attention. We know that most every person has taken at least one drug at least one time, most likely an over-the-counter headache or cold remedy. When taken properly, some drugs can assist our bodies in regaining or

maintaining health. That's not what we are talking about today, though. When used inappropriately, at the wrong time, in the wrong amount, and certainly when used habitually over time, any drug has the ability to harm the body and destroy our health. That's what we are talking about today. I want to be very clear of our intention.

JJ: Great point; thank you for that important clarification. The overview with Dr. Burke discusses a specific drug problem—dependence on heroin. Heroin is an opioid—that's a type of drug often used to relieve pain. Dr. Burke tells us that research done at the University of Pittsburgh's Graduate School of Public Health shows that in the past 10



ESTHER BUSH

years deaths due to heroin overdoses has risen to the extent that it is now the leading cause of death among middle-aged Pennsylvanians.

EB: I want to stop right there, Jennifer. That disturbs me. This is a problem that is affecting everyone. Black people, white people, rich people, poor people, those who live in the city and those who live in the suburbs as well as rural areas. We all need to realize that. I know that the Obama Administration speaks directly to heroin in their new drug policy. Our U.S. Attorney for the Western District of Pennsylvania, David Hickton, a friend of mine, is the co-chair of the National Heroin Task Force. I can tell you from conversations we've had that we are taking this

matter very seriously here in Western PA.

JJ: I appreciate your concern for the well-being of our city and those who live in it. There are a lot of researchers, medical professionals, policy makers and law enforcement officials who are working to save lives and reduce the burden of these overdoses in our communities.

EB: But we can all help. If you know someone who is suffering from drug dependence, please get them help. Talk to a healthcare professional. There are many treatment options available. I don't want to read about another overdose casualty.

EB: Thank you so much for your time, Ms. Bush. Our topic for April is organ donation, a unique area of health in which we can all act to save lives. I'm looking forward to chatting with you about it!

For more information or with questions, e-mail partners@hs.pitt.edu.

Drug overdoses on the rise in Allegheny County... What's in your medicine cabinet?

The use of drugs can range from taking aspirin for a headache to using illegal drugs like cocaine or heroin. When used as directed, many drugs are helpful. But some drugs are strong enough to cause dependence. When people are addicted to a drug, they cannot stop taking it, even if they want to. Their bodies and minds are unable to function normally without the drug.

Researchers at the University of Pittsburgh Graduate School of Public Health (Pitt Public Health) have been looking at the abuse of one drug in particular—an opioid called heroin. (An opioid is a drug that relieves pain.) The National Institute on Drug Abuse defines heroin as "an illegal, highly addictive drug processed from morphine, a naturally occurring substance extracted from the seed pod of certain varieties of poppy plants." Heroin comes in different forms that can be snorted, smoked or injected.

Pitt Public Health researchers have long been looking at the effects of drug abuse on the general population. But when they started using the school's large public health data systems—one of which tracks every death in the United States for the past 50 years by cause and location—researchers noticed a surprising trend, according to Donald S. Burke, MD, dean of Pitt Public Health, associate vice chancellor for global health, UPMC Jonas Salk Professor of Global Health and director of the Center for Vaccine Research at Pitt.

"When we started to analyze the data, I was struck by the increasing death rates, particularly from overdoses," says Dr. Burke. "The rates started to increase dramatically about 10 years ago. Now, drug overdoses are the leading cause of



Rules about dispensing prescription OxyContin have tightened significantly. (Darren McColleston/Getty Images/File)

death among middle-aged Pennsylvanians."

Karl Williams, MD, MPH, Allegheny County Medical Examiner, reports that 109 people died from drug overdoses in 2000. In 2015, 349 people had fatal overdoses. Over the past several years, deaths from heroin overdose have increased dramatically. 50 people in Allegheny County died from heroin overdoses in 2010. In 2015, that number jumped to 206. (All figures are from <http://www.overdosefreepa.pitt.edu/overdose-data/>.)

The Centers for Diseases Control and Prevention published key research in mid-2015:

- Heroin use in the United States increased 63 percent from 2002 through 2013.

This increase happened among men and women, most age groups and all in-

So, why has heroin abuse increased so quickly? Dr. Burke found that, about

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DONALD S. BURKE, MD

come levels.

- From 2002 through 2013, the rate of heroin-related overdose deaths nearly quadrupled.

15 years ago, doctors started prescribing slow-acting painkillers, including drugs like OxyContin (the brand name of a certain kind

of opioid). The belief was that these drugs were not addictive. At the same time, doctors were being encouraged to be both more aggressive and compassionate about treating pain. Doctors were prescribing many of the opioid-like drugs. The slow-acting painkillers ended up being dangerously addictive. Once prescription painkillers became more widely available, people started selling them illegally. Heroin use became an epidemic that quickly got out of hand. Then, cheap heroin became available. It became cheaper to use heroin than to use OxyContin.

One of the important ways to combat drug abuse is through research. President Obama's new budget calls

for \$1.1 billion over the next two years to fight the heroin use and prescription drug abuse epidemics. In his position as dean of Pitt Public Health, Dr. Burke has already funded several new research projects, including studies to find ways to improve the distribution of Narcan, an emergency-use drug that can reverse overdoses; learn from people who use these drugs about their ideas for fighting the epidemic; study prescription patterns and identify the patterns that often lead to overdoses; use social media data to look for patterns of talk about drug use; and also to look at patterns of death in detail in Pennsylvania to see where the clusters are and how those patterns are changing over time. Dr. Burke wants the research to help predict which interventions will help best and to evaluate how well the interventions are working.

Allegheny County Health Department Director Karen Hacker, MD, MPH, created a countywide standing order that allows any licensed pharmacy to dispense naloxone, or Narcan, both to people at risk of a heroin or opioid-related overdose and to those who may witness one. For a list of participating pharmacies, go to <http://www.achd.net/overdoseprevention/index.html>.

To avoid becoming addicted to prescription painkillers, use them only as directed by a health care provider. They are safe and effective when used properly. If you or someone you know is having trouble with addiction, talk to a health care provider. Many treatment options are available.

As Dr. Burke says, "The most important thing is getting people into treatment so that they have a nondependent life."

ACHD Overdose Prevention Project



The Allegheny County Health Department (ACHD) is addressing the opioid epidemic. The county has created a website for residents, pharmacies and health care professionals to help and educate us all in this crisis. ACHD has partnered with multiple agencies and organized helpful information and useful links that focus on areas such prevention, treatment and local pharmacies with naloxone access. The page also includes emergency phone numbers and downloadable resources. All information can be found at <http://www.achd.net/overdoseprevention/>.



COMMUNITY DISCUSSION—President Obama listens to speakers during an event at the East End Family Resource Center in Charleston, W.Va., Oct. 21, 2015. Obama was in Charleston to host a community discussion on the prescription drug abuse and heroin epidemic. (AP Photo/Steve Helber/File)

CTSI Research Participant Registry

The Research Participant Registry is a database of people who have volunteered to consider participation in research studies. This participation can be for themselves or their children. Its goal is to bring medical research advances quickly and more directly to those who can benefit from them. Although the registry is a joint effort between the University of Pittsburgh and UPMC, neither you nor your child need be a patient in the UPMC health care system to sign up for the registry. When you sign yourself or

JOIN
RESEARCH PARTICIPANT REGISTRY

your children up for the registry, you will begin to receive a periodic newsletter. It describes research findings, details of the research process and includes a list of research studies that you may consider joining or allowing your child to join. Participation is voluntary and confidential. Participants can take themselves or their children off from the registry at any time. There are over 200 research studies in the registry. You can view the full list of research studies at www.researchregistry.pitt.edu/.