Addressing rural area drug addiction key to reducing spread of hepatitis C

Indiana Gov. Mike Pence approved a needle-exchange program in March in response to a rural HIV epidemic. MICHAEL CONROY / AP

DON SAPATKIN, INQUIRER STAFF WRITER
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Every year, hepatitis C kills significantly more Americans than HIV. Yet the liver-attacking virus doesn't get nearly the popular respect, or trigger the same fears.

That understated reputation will be both a help and a hindrance as the public health community tries to control the spread of the virus. New cases of hepatitis C rose 150 percent between 2010 and 2013 nationwide, and even more in New Jersey and Pennsylvania.

By far the highest rates of new cases, according to studies around the country, were among adolescents and young adults who inject drugs - particularly in rural areas. This latest wave of hepatitis C is linked to the epidemic of addiction to prescription pain pills. As tolerance built or money ran out, users began crushing and injecting the pills, or buying cheaper heroin, to avoid withdrawal sickness.
Still, baby boomers make up 75 percent of the more than 5 million Americans estimated to have hepatitis C. Some
of them also injected drugs. But many got infected years ago through transfusions and other contaminated blood
products, some while serving in the military. Effective screening of donated blood began in 1992, and the new-
infection rate associated with that source plummeted.

The virus typically causes no symptoms for years; between half and three-quarters of people infected don't know it.
And though chronic infections can eventually cause fatigue and depression, the most serious effects, liver cancer and
cirrhosis, may not show up for two or three decades.

Drugs that can effectively cure the disease with few side effects began coming on the market only within the last
couple of years, with more in the pipeline. They cost tens of thousands of dollars for a typical course of treatment,
and drugmakers are marketing them heavily. The ads are essentially part of a crucial public health campaign,
because a key element of preventing transmission of hepatitis C is simply knowing what it is.

"The important thing is to draw attention to it," said Shruti Mehta, an epidemiologist who studies injection-drug
users at the Johns Hopkins Bloomberg School of Public Health.

HIV was forced into the public's consciousness in the 1980s and '90s as death spread swiftly through gay
communities and AIDS activists shamed the government and drugmakers into speeding development of effective
treatments. Hepatitis C, by contrast, is known as the "silent killer."

"There is not as much of a movement for hepatitis C," Mehta said.

People under 30 have no memory of the huge campaign - aimed at HIV but benefitting hepatitis C control, as well -
for safe sex and clean needles. Even today, funding for HIV testing, treatment, and care is exponentially greater than
for hepatitis C.

Those efforts were concentrated in cities, which historically have had the highest rates of HIV and hepatitis C, as
well as heroin addiction. Advocacy organizations target the highest-risk neighborhoods, offering tests and
information.

"In rural areas, lots of people may not have come into contact with that sort of prevention messaging." said David S.
Festinger, a senior scientist at the Treatment Research Institute in Philadelphia. "People may not understand the
consequences of sharing needles."

Philadelphia and Pittsburgh have had needle exchanges for decades - users hand in used syringes and get back an
equal number of clean ones - but they operate in legal gray areas. New Jersey allowed its first pilot exchanges to
open a few years ago.

Most syringe exchanges offer referrals to treatment and other services, and research shows they reduce disease
without increasing addiction. But they remain controversial and receive no federal funding. It took an unprecedented
epidemic in a rural Indiana county recently for Gov. Mike Pence to approve an emergency exchange program. Over
the last several months, Scott County has identified at least 153 cases of HIV, most of them in people co-infected
with hepatitis C. It never before had more than five in one year.

"Until the outbreak, the closest place to get an HIV test was about 30 miles from Scott County," said Alexis Roth,
who studies drug-use risk behaviors at the Drexel University School of Public Health.

Most rural counties don't have any of the services, from testing to outreach and treatment, that are taken for granted
in big cities. Building the infrastructure would take years and enormous amounts of money.
The initial response to epidemics that are linked to prescription drugs has always been to crack down, close pill mills, find the physicians who are overprescribing and the patients who are doctor-shopping, said Daniel Raymond, policy director of the Harm Reduction Coalition in New York.

"We keep seeing the downstream consequences of failure to ramp up treatment," said Raymond.

Treatment for HIV is considered a form of prevention. The powerful antiretroviral drugs, though not a cure, keep the virus at levels so low it will not be transmitted.

The latest hepatitis C treatments are a cure; the virus is gone. For injection-drug users, however, banning the disease without attacking the addiction will accomplish little; one jab with a dirty needle can produce another infection. (Hepatitis C is more easily transmitted via needles than by sexual activity; HIV is the opposite.)

Because intravenous drug use has long been considered an urban problem, there has been little research into the practices and behaviors of addicts in rural areas. The epidemic of prescription opioid deaths - mainly from pills taken orally - showed up there first, in the late 1990s.

A few recent studies have found rural substance abusers are more likely to crush and inject prescription pain pills than shoot heroin, which is harder to find far from cities. But pills don't dissolve as thoroughly as heroin, requiring bigger needles that can transfer more virus.

More residue also remains on the "works" used to prepare the opioid. Even a needle exchange wouldn't get those filters and cookers, adding another challenge for controlling the virus.

Preventing the spread of hepatitis C will require multiple approaches.

"There is no single answer," said Festinger, the Philadelphia treatment researcher, who likens it to a more familiar health challenge. "Diabetes is a combination of, 'you have to take your medication, you have to cut down on carbs, you have to exercise,' and there also is education."

Nearly all the answers for hepatitis C, however, target the disease by first attacking the addiction.

Until proven strategies like medication-assisted treatment and syringe exchange programs come to rural areas, "the number of new infections will continue to increase" and spread HIV and hepatitis C, said Richard S. Garfein, a professor of medicine and an addiction specialist at the University of California, San Diego.

"The rate of increase," he added, "will really depend on how aggressive our response is."