

Using PCORnet to Monitor Provider and Patient Risk Factors Related to the Opioid Epidemic

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Organization

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PCORI funded the development of PCORnet®, the National Patient-Centered Clinical Research Network, to make research faster, easier, and less costly to conduct.

PCORnet is made up of Partner Networks of healthcare systems, patients and communities, and health plans that harness the power of large amounts of health data.

PCORI supports brief, descriptive projects to assess the feasibility of conducting research using data gathered and shared securely through PCORnet. This project is one of several designed to test the network while addressing priorities identified by PCORI and its stakeholders.

What was the project about?

Opioid dependence is a public health crisis. Opioids can treat cancer pain effectively and safely. But people have a higher risk of becoming dependent on opioids when they get prescriptions for opioids that they don't need, when they have other health problems, or when they take other medicines that affect how opioids work. PCORnet created a shared database system that includes information about patients and opioid prescriptions. The database includes information from patients' electronic health records, or EHRs. It also includes data from insurance claims, state information about prescription medicines, results of drug tests, and information about people's cause of death. The project team looked at the database to answer two questions:

1. Can researchers use the database to identify patients at risk for becoming dependent on opioids?

2. Can researchers use the database to identify risk factors, such as age, diagnosis, or treatment, related to opioid dependence?

What were the results?

Can researchers use the database to identify patients at risk for becoming dependent on opioids?

The team collected data about patients, their diagnoses, and what kinds of treatment they received. They also looked at how doctors prescribed opioids and tests and treatments for opioid dependence. Using the database, the team determined that about 19 percent of all patients had opioids in some form in 2011. In 2017, this number dropped to 16 percent. Among patients without cancer, the rate was 18 percent in 2011 and 15 percent in 2017.

Can researchers use the database to identify risk factors related to opioid dependence?

The database had enough data for the team to assess how likely patients were to get opioids based on factors such as age, race, and diagnosis. They also compared patients with fatal and non-fatal overdoses based on factors such as long-term opioid use.

Who was in the project?

The project team gathered data for more than 15 million patients from nine hospitals and clinics. They separated data for patients who had cancer and those who didn't.

What did the project team do?

The team used information from the shared database about patients who received prescriptions for opioids. The team looked for patterns in the patient and prescription data.

What were the limits of the project?

Some hospitals and health centers used both old and new database codes for the same types of care, so

some data were duplicates. The project team is identifying ways to fix this issue in the future.

How can people use the results?

Researchers can use data gathered by PCORnet to identify prescriptions, diagnoses, and types of health care that can lead to opioid dependence.

To learn more about this project, visit www.pcori.org/RI-Lyman040.