Many of the estimated 15.4 million Americans diagnosed with heart disease will be told at some point to start taking a daily dose of aspirin to prevent a heart attack or stroke, a prescription offered for the past 40 years. And yet, although we know this common drug is effective for this purpose, research has yet to definitively determine the dose that works best for these patients while minimizing potentially serious side effects, such as internal bleeding. It’s time we figured this out.

To answer that question, PCORI has funded a five-year, $14 million clinical trial comparing the benefits and risks of two commonly used doses of aspirin—low-dose 81 mg ("baby aspirin") and regular strength 325 mg—in preventing heart attacks and strokes in people with heart disease.

This is especially exciting because it’s the first study to be conducted through PCORnet, the National Patient-Centered Clinical Research Network. This collaborative collection of individual research networks seeks to harness the power of health data to conduct research that will answer important healthcare questions—like the one about aspirin—more efficiently and quickly than would be possible otherwise.

The study, called ADAPTABLE (Aspirin Dosing: A Patient-centric Trial Assessing Benefits and Long-Term Effectiveness), aims to enroll and follow as many as 15,000 patients with heart disease using PCORnet’s resources.

The trial is led by researchers at Duke University and involves researchers, clinicians and patients affiliated with nine PCORnet partner networks. Patients, clinicians, and other healthcare stakeholders are part of the research team and will help to design and conduct the study and be involved at every stage.

Patients who have heart disease and are at high risk of having a heart attack or stroke will be randomly assigned to use low- or regular-strength aspirin and followed up to 30 months. Researchers will look at benefits and side effects not just overall, but also by gender, age, ethnicity, and race, as well as in patients with medical conditions in addition to heart disease, such as diabetes. It’s a far cry from traditional studies that assess what works for the “average” patient.

In addition, the study will be conducted in a variety of clinical settings. This also makes ADAPTABLE different from traditional clinical trial, which often take place in specialized centers.

As the first study to be conducted through PCORnet, ADAPTABLE will give us a sense the
new research network’s capacities to conduct interventional research. That researchers would test this transformative research resource by studying one of the oldest drugs around may seem a bit surprising. But the question they seek to answer is extremely important.

Heart disease causes one in four deaths in the U.S., more than 800,000 in 2014 alone, making it this country’s leading killer. It is a disease that places enormous burdens not only on patients and their families but on the nation and its healthcare system as a whole.

What we learn from the ADAPTABLE study will improve care and outcomes for patients with heart disease. And this study will be a major step forward in the effort to leverage health data to conduct the kind of research that can help us answer many other health and healthcare questions that patients—and their clinicians—face every day.

Results of this study will help patients and their caregivers answer questions like:

• How much aspirin should I take each day to reduce my risk of another heart attack or stroke?
• Do the benefits of taking aspirin every day differ based on the dose?
• Do the risks differ based on the dose?
• Based on my health, age, and other circumstances, what’s the best dose to protect my health?

Identifying the aspirin dose that works best could prevent as many as 88,000 deaths per year worldwide.