With health care costs rising across the U.S., many companies are looking for new solutions. Recent advances in telecommunications technology have led to the growing usage of telehealth, the ability to transfer medical information using these new technologies.

By drastically increasing the amount of information that is able to be accessed, health care providers can improve efficiency, patient safety and even reduce costs for patients and physicians.

“Telehealth technology breaks down a lot of barriers to access to care that have developed over the years,” says Michael J. Culyba, M.D., the vice president of medical affairs for UPMC Health Plan.

Culyba cites a Center for Information Technology Leadership study that estimates the nationwide adoption of telehealth technologies across a range of health care settings could save $4.28 billion annually in health care costs.

Smart Business spoke with Culyba about how telehealth can make a difference.

What is telehealth and how does it differ from telemedicine?

Basically, telehealth is a general term used to describe the delivery of health-related services and information by the use of telecommunications technologies. It can be as simple as two health professionals discussing a specific case over the telephone. Or, it could be two teams of providers holding a videoconference in two different countries. It could mean robotic technology.

In contrast, telemedicine is more narrowly defined as the specific use of medical information that is exchanged from one site to another via electronic communications for the health and education of a patient or health care provider for the purpose of improving patient care. Telemedicine includes several medical procedures, such as consultative, diagnostic and treatment services.

What is the most significant benefit to be derived from telehealth?

I would have to say that the major benefit is increased access for both patients and physicians. Normally, if you lived in a remote area that was not served by a big-city academic hospital, you might not have access to the latest medical advances that could help you with your condition. Now, the capacity is there for specialists to evaluate your condition via telemedicine from far away distances.

Or, if you were someone who is homebound and unable to get to the doctor's office as frequently as you need to in order to monitor your condition, there is a good chance that the only time you go to a doctor's office is when it is an emergency situation and you go to an emergency room. By using telemonitoring technology, a physician can oversee the progress a patient is making and help the patient avoid problems before they happen. Telehealth is an excellent way to practice preventive medicine.

What are some of the technologies used in telehealth?

There are many different technologies that can be used. Among them are videoconferencing, the Internet, store-and-forward imaging, streaming media, terrestrial communications and wireless communications.

What are some examples of telehealth?

One example of telehealth is the e-visit. In an e-visit, patients do not have to come into their physician's office for a routine problem. Instead, they can correspond over the Internet. Patients may even get a prescription for their condition through an e-visit, if a prescription is needed. There are several advantages to using telehealth in this way. Routine matters do not tie up a physician’s time, and patients do not need to miss work or arrange for day care in order to get medical advice for minor matters.

Also, telehealth can be very useful to patients who have chronic conditions. In some instances when someone has a chronic condition that requires consistent monitoring or they are homebound with a stroke, a telehealth program allows them to be seen by a specialist.

How will telehealth impact health care costs?

While the initial cost of the telehealth technology may be high, the long-term, overall impact should actually reduce costs. If monitoring a condition becomes easier to do because of telehealth access to patients, that should improve preventive care and reduce the number of emergencies, which will help to hold down costs. If telehealth advances can bring specialist care to places where it has never been before, that too should lead to more effective treatments and, ultimately, lower health care costs.

As mentioned, a study by the Center for Information Technology Leadership has estimated that nationwide adoption of telehealth technologies across a range of health care settings could save $4.28 billion annually in health care costs. Those estimates did not factor in the savings from remote monitoring and other telehealth approaches that save money by identifying and treating emerging medical issues sooner.

What are the public benefits that can be expected from accelerating technological advances in telehealth?

Ideally, telehealth solutions should be able to improve the quality of care and associated outcomes, improve access of optimal care, reduce the cost of delivering care, increase access for patients to physicians and facilities, and reduce costs for physicians and patients.

MICHAEL J. CULYBA, M.D., is vice president, medical affairs for UPMC Health Plan. Reach him at culybamj@upmc.edu or (412) 454-7905.