Dr. Ekaterina “Katia” Noyes chose the University of Rochester for her graduate work in biophysics, but it was the public health program that convinced here to make Rochester her long-term home.

“I came to the U.S. in 1989 from Russia, and as I traveled around the country I was puzzled. How can a country that invests so much in biomedical research have people with no preventative medicine and no idea even about healthy eating?” she said. “It got me thinking about care delivery systems. I found the post-doc program here in community medicine, and I did a two-year fellowship.”

Dr. Noyes works with data from medical centers across the country, to look at systems that produce the best outcomes for patient care. “There are many different questions,” she said. “How can we make the best choices based on clinical effectiveness? How can we best allocate limited societal resources?” At the same time, she conducts focus groups with patients and doctors to understand what patients consider a successful outcome.

“Understanding the full implications of disease is not a trivial question,” she said. “For patients with rectal cancer, for example, most surgeons feel that the surgery is successful if they see clean margins. But to the patient, if they go home with a stoma bag, they feel it was a failure. They are permanently disabled, they have quality of life issues, they have pain. This has not been taken into account. If the surgeon would talk to the patient up front, the treatment might be very different.”

From all this research, Dr. Noyes’s team develops protocols for outcome-based treatment. “We just had a protocol approved, so we’d like to start recruiting real patients,” she said. “If the results are positive, it will be implemented on every floor.”