A new study by University of Southern California economists shows that hospital productivity growth — the increase in output produced from inputs such as labour and capital — has actually improved in recent years. The finding suggests that U.S. hospitals may actually be able to deliver on the assumption in the Patient Protection and Affordable Care Act that they can provide better quality care for less.

Previous research has not adequately addressed quality of care or severity of patient illness in their assessments, making it appear that healthcare lags behind other industries economically.

The study, "U.S. Hospitals Experienced Substantial Productivity Growth During 2002-11", is published online in the journal Health Affairs. After adjusting for trends in the severity of patient conditions and health outcomes, researchers found rates of annual productivity growth were 0.78 percent for heart attack, 0.62 for heart failure, and 1.90 percent for pneumonia, countering the unadjusted productivity growth rates that were negative.

For the study, researchers examined hundreds of thousands of Medicare patient stays between 2002 and 2011 for each of three cohorts: heart attack, heart failure and pneumonia. Initially their analysis and computation revealed negative productivity growth for hospitals for each cohort. However, after researchers adjusted for patient severity and outcomes achieved after hospitalisation, productivity showed positive growth for each diagnosis.

In addition, the productivity trend line became more positive over time due to relatively slow growth in health spending in the United States in the later years being studied, the researchers note. The study did not include physician costs when doctors were not employed by the hospital.

"These finding suggest that productivity growth in U.S. healthcare could be better than is sometimes believed, and may help alleviate concerns about Medicare payment policy under the Affordable Care Act," says the USC research team.

The study could have implications for how hospitals are reimbursed by Medicare, which adjusts for productivity, according to the study's lead author John Romley, an economist at the Leonard D. Schaeffer Center for Health Policy and Economics and a research assistant professor in the Sol Price School of Public Policy, both at the USC in Los Angeles.

"Hospitals may be more productive than believed and therefore better able to operate as Medicare squeezes payments," says Prof. Romley.