

# Greater efficiency found in hospitals that carry out more research

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A study of UC3M reveals the importance of research in health. Credit: UC3M

To assess the cause and effect relationship between clinical and basic research and efficiency in public health centers, researchers used a database from the Ministry of Health that consists of results from 189 public Spanish hospitals over more than a decade (1996 to 2009). The researchers measured the impact that R&D has on the length of patient's

hospital stays.

The results of the study, published in the journal *Research Policy*, show that both basic and [clinical research](#) have a positive effect on hospital efficiency. "Hospitals that can produce more knowledge in terms of scientific publications are also going to be better hospitals, in both diagnosis and treatment and surgery. As such, they contribute to reducing the patient's average stay in hospitals," said one of the study's authors, Josep A. Tribo, full professor in the UC3M Department of Business Administration.

"Taking into account that approximately 9 percent of the population is hospitalized over the course of the year, each day of a hospital stay entails an annual cost of some 660 euros per patient in Spain," said Álvaro Escribano, full professor in the UC3M Department of Economics. "Therefore, adopting measures that reduce the duration of hospital stays will greatly reduce [health](#) costs." Tribo added, "If you reduce or penalize doctors' research activity, they will be less prepared, which will ultimately lead to an increase in health care costs." In other words, discouraging research can have a great impact on global health care costs.

The study also analyzes the impact of R&D on the sustainability of the National Health System through the cost reduction entailed by the reduction in the length of [hospital](#) stays. "If scientific production increased significantly, [health costs](#) would be reduced by around 1 percent," said another of the researchers, Antonio García-Romero, professor at the IE Business School.

In the study, they also point out the most important factors that affect the efficiency of hospitals, such as human resources, diagnostic activity, investment and capacity to absorb knowledge. Their recommendation, however, is that "it is necessary to promote research, and in particular,

[basic research](#), because this would have very clear effects in the medium to long term on efficiency and a reduction in [health care costs](#). "In addition, there are other indirect benefits that are even more important. For example, if patients recover sooner, they will also return to work sooner, which in turn will increase labor production.

Furthermore, research carried out in hospitals affects other aspects such as reduction in mortality and patient safety patient. The methodology used in this article could be employed to analyze these effects.

**More information:** Antonio García-Romero et al. The impact of health research on length of stay in Spanish public hospitals, *Research Policy* (2017). [DOI: 10.1016/j.respol.2017.01.006](https://doi.org/10.1016/j.respol.2017.01.006)

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