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## Cost-Effectiveness Research Needs to Be Considered in Developing New Medical Technology, Expert Argues

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Cost-effectiveness analysis should play a bigger role in the American healthcare system, argued a University of Chicago researcher at the annual conference of the American Association for the Advancement of Science.

"The effects of science and technology on healthcare costs depend on the policy context in which those technologies are developed and applied," said David Meltzer, Associate Professor of Medicine, in his presentation, "Policies to Mobile Technology and Science for Healthcare Cost Control."

Meltzer, who also holds a PhD in economics, pointed out that insurance reimbursement policies are especially important in determining which health technologies are developed and how they are used. Currently, national policymakers resist using cost-effectiveness methods, in regards to healthcare and reimbursement, to determine which technologies are developed, he said.

As a result, healthcare costs are rising as expensive technology and unnecessary tests drive up expenses, he pointed out. Since 1960, healthcare spending has grown 2.5 percent more per year than the rest of the economy, he added.

"Much of the growth comes from the quantity of medical procedures," he said.

For example, some cholesterol tests for older men and exercise tests for middle-aged men have not been shown to be cost-effective, he pointed out.

Additionally, pap smear tests, which women usually undergo annually to detect cervical cancer, could be done nearly as effectively every three years at a great savings.

Research shows that the impact of using pap smear tests every three years increases life expectancy by 70 days at a cost of \$500. The same test given annually at a total cost of \$1,500 increases life expectancy by 71 days, he pointed out. Under current medical standards, 63 percent of women receive pap smear tests annually, while 18 percent receive them every three years.

"Because technology is the major driver of increases in health care and a critical driver of improvements in health, rigorous methods to assess the costs and effectiveness of healthcare technology are critical for effective resource allocation," Meltzer said. By using cost-effectiveness methods in studying healthcare, researchers and policymakers can better understand the value of innovation, he said.

"Cost-effectiveness methods have the potential to address policy questions other than reimbursement policy that can help mobilise technology and science to control healthcare costs while maximising health outcomes," he said.

In addition to being an a faculty member in the Department of Medicine at the University of Chicago, Meltzer is an associated faculty member in the University's Harris School of Public Policy Studies and its Department of Economics. He is director of the University's Center for Health and the Social Sciences. The center, founded in 2005, promotes interdisciplinary health research and training initiatives across campus.

The above story is reprinted (with editorial adaptations by ScienceDaily staff) from materials provided by University of Chicago, via EurekAlert!, a service of AAAS.

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Published on : Mon, 21 Feb 2011