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## Monetary incentives for healthy behavior can pay off, Colorado study says

**WASHINGTON, DC** – Monetary rewards for healthy behavior can pay off both in the pocketbook and in positive psychological factors like increased internal motivation, according to a new University of Colorado Boulder study.

While programs involving monetary incentives to encourage healthy behavior have become more popular in recent years, until now the evidence has been mixed as to how they can be most effective and how participants fare once the monetary incentives stop, said CU-Boulder doctoral student Casey Gardiner, who led the new study.

The study—which encouraged daily consumption of fruits and vegetables in exchange for payment—not only showed monetary incentives worked, but also showed that participants increased their internal motivation to eat fruits and vegetables over time.

“Some psychological research and theories suggest that if individuals have external motivations like payment to perform tasks, their internal or intrinsic motivation can be undermined,” said Gardiner, of the psychology and neuroscience department. “But in our study the subjects who had been assigned to receive payment for eating fruits and vegetables were still consuming more of them than usual two weeks after the study ended.”

In the study, 60 adults were randomly assigned to three different groups. Individuals in one group received \$1 for every serving of fruits and vegetables they reported consuming daily over a three-week period, with the money delivered daily by PayPal.

People in the second group accrued \$1 for every serving of fruits and vegetables eaten, with the money delivered in a lump sum at the end of the study. Participants in the third group reported their fruit and vegetable consumption daily for three weeks with no incentives.

Participants who received daily monetary incentives had the greatest increase in their fruit and vegetable consumption, Gardiner said.

“This finding highlights the importance of incentive design in health programs,” she said. “Differences in the timing or type of incentive can alter their effectiveness.”

Gardiner will present the study results Saturday from 10:15 to 11:15 a.m. ET during a poster session at the Society of Behavioral Medicine's 37th Annual Meeting & Scientific Sessions, being held in Washington, DC, at the Washington Hilton. Gardiner is a society member. The research won a society Citation Award and Meritorious Student Award.

The poster is tied to an upcoming paper on the subject by Gardiner and CU-Boulder professor Angela Bryan, of the psychology and neuroscience department.

"One of our goals in the study was to look at potential psychological mechanisms that underlie incentive-induced changes in behavior," Gardiner said. "We essentially showed that incentives may be able to help people 'jumpstart' behavior changes, but that changes in key psychological factors help people maintain the behavior when the incentives end."

Increased fruit and vegetable consumption by participants was associated with more positive attitudes and self-efficacy—the confidence in one's own ability to succeed—regarding the consumption of such produce, Gardiner said.

The research was supported by a National Science Foundation Graduate Research Fellowship and the Beverly Sears Graduate Student Grant Program.

*The Society of Behavioral Medicine (SBM) is a 2,200-member organization of scientific researchers, clinicians and educators. They study interactions among behavior, biology and the environment, and translate findings into interventions that improve the health and well-being of individuals, families and communities ([www.sbm.org](http://www.sbm.org)).*

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