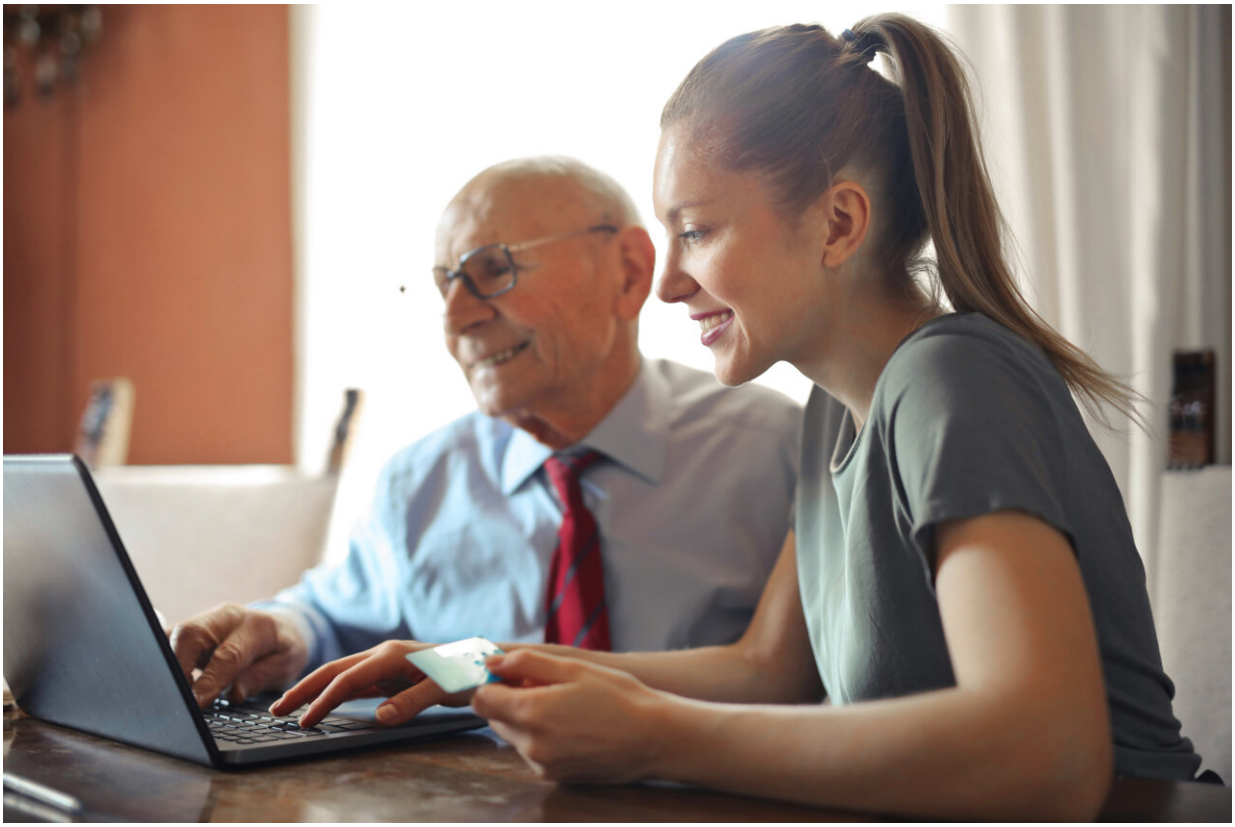
Pay people to stop smoking? It works, especially in vulnerable groups

March 27 2017, by Stephen Higgins, Allison Kurti And Danielle R. Davis



Credit: Andrea Piacquadio from Pexels

Cigarette smoking in the U.S. has dropped dramatically since the landmark publication of the 1964 U.S. Surgeon General's report on smoking and health. This has led to improved health for millions of

Americans.

Those reductions, however, are unevenly distributed. Smoking remains prevalent among impoverished groups, those with other substance-use disorders or mental illness, certain ethnic/racial minorities, and gender/sexual minorities. In some populations, such as disadvantaged women, smoking rates have actually increased during this period.

There are few silver bullets when it comes to serious health challenges like cigarette smoking. However, research has shown something that works: Financial incentives, in the form of vouchers, to promote smoking cessation and other health-related behavior change works especially well among vulnerable populations.

Considering that cigarette smoking still kills about 480,000 people in the U.S. annually and five million globally – and accounts for nearly US$170 billion in direct medical care for American adults – using financial incentives to decrease smoking merits serious consideration.

As public health researchers, one of whom has worked with vulnerable populations on these issues since the 1980s, we have seen how financial incentives can promote health-related behavior change.

A brief history of financial incentives

Financial incentives gained recognition in the early 1990s through studies on outpatient treatment of cocaine dependence. With intensive counseling, an intervention offering vouchers exchangeable for retail items helped keep people off cocaine.

The vouchers were contingent on objective evidence of cocaine abstinence. They proved to be the only intervention among many tested, such as counseling and the use of medications, to work in controlled

studies.

The benefits lasted not only during the 12 weeks the incentives were used but also for at least two years beyond. Because incentives worked when virtually everything else tried failed, researchers studied the treatment model across a wide range of drug use and other health problems.

One large-scale development that grew out of this work is known as Conditional Cash Transfers. This program was underwritten by the World Bank where financial incentives are used to reduce chronic poverty in developing countries.

As just one example of that effort, Brazil has seen a widespread conditional cash transfer program lead to a significant reduction in child mortality rates.

Financial incentives in the form of vouchers exchangeable for goods or services are also now part of routine care for drug use disorders in U.S. Veteran Administration Hospital systems and for smoking cessation and other health-related behavior changes in employee wellness programs.

These types of incentives are not yet being used widely, however, in U.S. publicly supported programs to promote smoking cessation and other health-related behavior changes.

Smoking during pregnancy provides a great example of a problem for which vouchers contingent on evidence of smoking abstinence (e.g., clean urine samples) can help women quit smoking and improve the health of their infants. Smoking during pregnancy can cause catastrophic pregnancy complications and can also harm fetal development and infant health. It can also cause later-in-life disease risk among exposed offspring.

Smoking during pregnancy is largely a problem among economically disadvantaged women, due to greater prevalence, higher nicotine dependence, and greater difficulties in quitting smoking upon becoming pregnant, compared to more affluent women. The search for effective treatments dates back to 1984 and has entailed more than 77 controlled trials involving 29,000 women.

However, most interventions to date produce unacceptably small treatment effects that, on average, only increase cessation rates by about six percent above controls. The exception to that is financial incentives, which produce an average 24 percent increase in cessation rates compared to control groups, along with improvements in birth outcomes.

Financial incentives for pregnant smokers

At the University of Vermont's Center on Behavior and Health , we have conducted a series of clinical trials examining the effectiveness of financial incentives (e.g., vouchers in the form of gift cards to restaurants, movies, baby stores) for quitting smoking during pregnancy.

Participants in our studies were smokers recruited from clinics in the greater Burlington area. They were assigned to one of two conditions: In the incentives condition, women earned vouchers redeemable for retail items for providing urine samples indicating that they were not smoking.

In the control condition, women earned vouchers of equal value regardless of their smoking status. This control condition allowed the researchers to ensure that any differences between the two conditions were due to vouchers being contingent on objective evidence of smoking abstinence rather than the provision of extra resources.

Women in the incentives condition received a voucher worth US$6.25 for the first urine sample that they provided which indicated no

smoking. The vouchers escalated in value for each consecutive negative sample – as measured by urine toxicology testing on a weekly basis by research staff - to a maximum of $45, where they were maintained through 12-weeks postpartum.

For participants who provided urine specimens indicating that they had smoked, the voucher value went back to $6.25. This "reset" - as the researchers refer to it - reinforces sustained abstinence and discourages brief relapses.

To encourage women to keep trying to abstain following a relapse, the voucher was returned to its prior value if a woman provided two consecutive negative tests following the reset. Women could earn incentives from the date they enrolled in the study up through 12-weeks postpartum. Women who abstained throughout the 9-month intervention could earn $1,180.

On average, those who received incentives were more successful at quitting. Among those who received incentives, 34 percent of those in late pregnancy through 12 weeks after birth were able to stop smoking, compared to 7 percent who did not receive incentives.

And, for those who received incentives, 14 percent were still not smoking up to 12 weeks after the incentives were discontinued. This compared to 1 percent who did not receive incentives and remained cigarette-free.

Average earnings in both conditions – those who stopped 12 weeks post-partum and those who did not smoke after the incentives were discontinued – were about $450.

We found that the mean birth weight was about 200 grams greater among infants born to mothers who received the financial incentives, as

was mean gestational age at delivery (by nearly a week).

Women treated with incentives also breastfed longer and were less likely to experience postpartum depressive symptoms.

A research study currently under way at UVM includes a clinical trial to determine the cost-effectiveness of financial incentives, relative to usual care, in improving infant health outcomes among maternal smokers. The trial will be complete by 2018.

Financial incentives and vulnerable populations

There have been a number of studies to assess whether these types of financial incentives help vulnerable populations, more generally, quit smoking. There are 31 controlled studies, published between January 1995 through October 2016, examining efficacy.

Incentives produced a significant treatment effect in 28 of those 31 (90 percent) studies. That evidence should be considered in the context of a total of 176 controlled studies on financial incentives targeting a broad range of substance-use disorders, of which 151 (86 percent) studies demonstrated efficacy.

While there is plenty of room for improvements, a striking amount of evidence indicates that financial incentives are as effective, if not more effective, than any other smoking cessation intervention for vulnerable populations. That being said, the effectiveness of financial incentives depends on certain features of how they are delivered. For example, incentives-based interventions are most effective when the incentives are delivered immediately following evidence of behavior change, and when the magnitude of the incentives is higher.

Importantly, the potential utility and efficacy of financial incentives

extends beyond smoking to a broad range of challenging health problems in vulnerable populations including prevention of unplanned pregnancies among opioid-dependent women and the increasing participation of economically disadvantaged cardiac patients in cardiac rehabilitation.

This article was originally published on The Conversation. Read the original article.

Provided by The Conversation

Citation: Pay people to stop smoking? It works, especially in vulnerable groups (2017, March 27) retrieved 26 April 2024 from https://medicalxpress.com/news/2017-03-people-vulnerable-groups.html

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.