

Financial incentives for smoking cessation

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Valorization

VALORIZATION

The aim of this addendum is to describe the societal relevance and impact on society of the current thesis. During the CAPHRI Research Day in 28 November 2019, our research project was the winner of the CAPHRI Societal Relevance Award. The award was granted to our research team because our scientific work has brought about a change that can be seen and felt outside the academic world.

This addendum starts with a description of the societal relevance of applying financial incentives to increase smoking cessation, and subsequently explains why this thesis is relevant for certain target groups. Next, the activities are presented that were conducted to disseminate the findings of the current thesis and products that were developed based on the research findings. After this, the innovativeness of the current research is discussed, and the addendum closes with a paragraph that describes the planning of a follow-up research project that aims to study the implementation of financial incentives for smoking cessation in Dutch companies.

Relevance

Smoking is the main preventable cause of death worldwide.¹ The World Health Organization estimated that globally, 12% of deaths among adults aged 30 years and over can be attributed to tobacco.² Smoking is responsible for deaths from cardiovascular diseases, cancer, and respiratory diseases.² In Western countries, smoking is more prevalent among people with a lower income and education. This makes smoking the largest contributor to socioeconomic differences in health and mortality.^{3,4}

To reduce smoking prevalence in society and decrease this socioeconomic gap in smoking, it is therefore necessary to find new approaches that are effective in helping people with a lower education and income to stop smoking.⁵ The current thesis provides evidence on such a new approach; it shows the potential of financial incentives in combination with a group smoking cessation training at the workplace to stimulate smoking cessation.

Our study showed that adding a financial incentive of €350 to a group training increased the proportion of successful quitters after 12 months from 26% to 41%. This result demonstrates that with a relatively easy measure, the effectiveness of a smoking cessation group training can be significantly enhanced. Moreover, we found that the financial incentives were effective for participants with a low socioeconomic status, and our results showed that the incentives may be particularly attractive for people with a lower income.

This thesis also revealed several other success factors of a workplace group training that facilitated quit success, which are particularly relevant for smokers with a low socioeconomic status.⁶ For example, a training at the workplace is cost-free for employees, and regarded as convenient by them. This lowers the threshold to enroll in the smoking cessation training. Furthermore, the smoking cessation trainer shares important strategies on how to quit smoking and remain abstinent, and provides counselling for an extensive

period of about 2 months. In addition, the group setting facilitates social support from colleagues and creates positive peer pressure, which helps to refrain from smoking.

The results of the current thesis provide evidence for financial incentives being an effective new method to stimulate smoking cessation. We also show that group trainings in a work setting are experienced as an effective way to quit smoking, and that the convenience of cost-free trainings at the work setting may make it easier for employees to participate in such a training. Workplace smoking cessation group trainings with financial incentives may thus help to decrease health disparities attributable to smoking if they are specifically aimed at smokers with a lower socioeconomic status.

Target groups

The results of the current thesis are relevant for several target groups. In the first place, it informs **people who want to quit smoking** on an intervention that can help them quit smoking. The results of the current thesis may convince smokers to enroll in a smoking cessation program with incentives if this is offered by their employer, or may motivate them to quit smoking in a community-based smoking cessation group training.

Secondly, the current results may inspire **employers** to offer smoking cessation group trainings with incentives to their employees. We are currently collaborating with VNO-NCW and MKB-Netherlands to disseminate smoking cessation group trainings with financial incentives among large branch organizations. Our results not only show that this method is effective to increase smoking cessation; it is also much appreciated by the employees. Additionally, our cost-effectiveness analysis offers more insight in the cost-effectiveness of financial incentives which facilitate the decision making process of implementation of smoking cessation trainings with financial incentives.

Thirdly, our study results are relevant for **providers of smoking cessation counselling**, such as smoking cessation coaches who offer community and company group trainings. Our research findings may stimulate smoking cessation counsellors to add financial incentives to their trainings in order to enhance their success rates, or to promote this idea to employers who organize a group training.

Fourthly, the results of the current thesis are relevant for **health insurance companies**, who have an interest in interventions that potentially reduce healthcare costs of their customers. Insurance companies offer collective insurance policies to organizations and can provide companies with a budget for health promotional interventions aimed at employees. Since January 2020, smoking cessation treatment is already fully reimbursed by all insurance companies. Based on the current thesis, insurers may decide to additionally reimburse financial incentives when used in the context of a smoking cessation training.

Lastly, our research informs the **Dutch government** on a new evidence-based approach to stimulate smoking cessation in the Netherlands, and has the interest of the ministry of Health, Welfare and Sport and the ministry of Foreign Affairs. Dependent on the scale of

the implementation, our research could contribute to the aims of the National Prevention Agreement, which include effective and accessible smoking cessation counselling and smoke free companies, which should result in a reduction of smoking prevalence among adults to less than 5% of the population and 0% in youth and pregnant women by 2040.

Activities and products

Dissemination of research results through conferences and media appearances

We have stimulated the dissemination of our research project in various ways. We have published nine research papers in international scientific journals and three in Dutch medical journals. We have additionally presented our research at national and international scientific conferences including World- and Europe meetings of the Society for Research on Nicotine and Tobacco (SRNT), the World Conference on Tobacco or Health (WCTOH), the Lisbon Addictions conference, the conference of the European Respiratory Society (ERS), and the annual conferences of the Dutch Network of Tobacco Researchers (NNvT). We furthermore issued press releases which have resulted in massive media attention, including several television appearances (including NOS News, RTL News, Hart van Nederland (SBS6), L1 News, and EditieNL (RTL4)), radio interviews (including Radio 1, 3FM, L1 radio, BNR News radio), newspaper articles (NRC, De Telegraaf, De Limburger, AD, Metro, and many local newspapers), and articles on various online platforms, which together have raised the public knowledge of the research project and results. The digital links to various news items are provided in the Appendix.

National Prevention Agreement

Our study was included in the National Prevention Agreement that was published by the Ministry of Health, Welfare and Sport,⁷ in which our intervention of group trainings with financial incentives was recommended as an effective method to stimulate smoking cessation.

Collaborations with stakeholders to stimulate the implementation of financial incentives

During the research project, we have collaborated with SineFuma, the largest provider of smoking cessation counselling in the Netherlands. Because our research has shown that financial incentives for smoking cessation can significantly increase quit success, SineFuma now advises their clients to implement financial incentives. In addition, SineFuma has included new information in their handbook for companies on how to organize a smoking cessation training, about applying financial incentives, and about effective communication methods to reach employees with a low socioeconomic status. Furthermore, we have advised two large hospitals on the implementation of group trainings with financial incentives for their employees. We also are working with two large health insurance companies and a health insurance collective on stimulating the implementation of group trainings with incentives among their corporate clients. Finally, during the research project we have collaborated with the Lung Alliance Netherlands, and our project was part of their National Action Program Chronic Lung Diseases.

Website, videos and posters

We present the results of the research project on the effectiveness of financial incentives on a website that we developed as part of a follow-up implementation research project: <http://www.samensterkerstoppen.nl>. Our website informs employers and intends to convince them to offer their employees a smoking cessation group training with financial incentives. The information and materials that we provide on the website are focused on helping employers reach employees with a low socioeconomic status and motivating them to enroll in the smoking cessation group training. Among other things, our website provides information on reasons to stimulate smoking cessation and to use financial incentives, offers an overview of the costs and benefits of providing a smoking cessation group training with incentives, provides strategies to recruit employees, and answers on frequently asked questions. Moreover, employers can download posters that we developed to recruit employees. Our website also contains an animated video, which explains the advantages of providing smoking cessation group trainings with financial incentives. In addition, it includes a corporate video (see <https://www.samensterkerstoppen.nl/videos>) that we filmed in one of the companies that participated in our research, in which employees explain how they experienced quitting smoking.

Innovation

Using financial incentives to simulate health behavior including smoking cessation is still very uncommon in the Netherlands. The current research project is the first in the Netherlands to conduct a large-scale cluster randomized trial to assess the effect of financial incentives on smoking cessation. In addition, international studies on financial incentives for smoking cessation have mostly investigated financial incentives without combining this with an extensive group smoking cessation program at the workplace. Therefore, this thesis provides new and valuable insights on this combination of incentives with group counseling. Moreover, little research has been performed on the cost-effectiveness of financial incentives for smoking cessation. The current thesis adds to the literature with a detailed trial-based economic evaluation of the cost-effectiveness of financial incentives to inform employers and policy makers.

Planning

A follow-up implementation research project is currently conducted to facilitate the implementation of financial incentives for smoking cessation in the Netherlands. This research project, running from December 2019 to December 2023, aims to develop a strategy to stimulate the implementation of smoking cessation group trainings with financial incentives in Dutch companies. The project is targeted specifically towards smokers with a lower socioeconomic status. It is funded by ZonMw and conducted by Maastricht University and IVO Research Institute. In order to achieve an effective nationwide dissemination and implementation of the intervention, it is essential to reach a large proportion of the companies in the Netherlands. This can only be accomplished if the implementation strategy will be developed together with, and

supported and disseminated by, important stakeholders, including health insurance companies, trade organizations, occupational health and safety services, and providers of smoking cessation trainings. Therefore, various important stakeholders are actively involved in the development of our implementation strategy: Leiden University Medical Center, SineFuma, Rotterdam University of Applied Sciences, Lung Alliance Netherlands, RadboudUMC, Trimbos Institute, Centre for Motivation and Change, Heartbeat Ventures, HumanCapitalCare B.V., InGuide, Fire Brigade South-Limburg, social employment center SBCM, social work place MTB, Pharos, and Zuyderland Medical Center.

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APPENDIX: Overview of media coverage

Television

NOS Journaal (<https://bit.ly/2J7yGvM> - vanaf 21.38)
 RTL Nieuws <https://bit.ly/2pZdcJ5>
 Hart van Nederland (SBS 6) <https://bit.ly/2ysFuQy>
 L1 <https://bit.ly/2EvyCHN>
 Editie NL (RTL 4) <https://bit.ly/2o1xPGG>

Radio

Radio 1 <https://bit.ly/2pYe14F>
 Radio 3FM <https://bit.ly/2yNHZfQ>
 L1 Radio (<https://bit.ly/2OwM9U9>)

Newspaper and online articles

NOS nieuws <https://bit.ly/2CScFkv>
 NRC Handelsblad/NRC next <https://bit.ly/2J3hnfA>
 De Telegraaf (1) <https://bit.ly/2CRCnWn>
 De Telegraaf (2) <https://bit.ly/2J4s2X9>
 De Telegraaf (3) <https://bit.ly/2VsOxeL>
 1Limburg <https://bit.ly/2pYaR0G>
 Elsevier Weekblad <https://bit.ly/3bNwcyj>
 Nederlands Tijdschrift voor Geneeskunde (1) <https://bit.ly/2V0Gbeq>
 Nederlands Tijdschrift voor Geneeskunde (2) <https://bit.ly/35tLOGC>

Following a press release that was published by Maastricht University, ANP news agency wrote an article that was distributed online via:

<https://bit.ly/2ErsNeb> Online news platform nu.nl
<https://bit.ly/2QWxM89> Dagblad De Limburger (on Friday the newspaper dedicated the editorial column "Op de Korrel" to the research - <https://bit.ly/2AjhfpA>)
<https://bit.ly/2AgroTI> Algemeen Dagblad (ad.nl) - the same article was also distributed through the regional newspapers Tubantia, De Stentor, De Gelderlander, Eindhovens Dagblad, Brabants Dagblad, BN De Stem, Provinciale Zeeuwse Courant and de Gooi - and Eemlander.
<https://bit.ly/2J5b5Mo> Interview with Floor van den Brand and reactions of the employees of the agricultural cooperative Vitelia in the free newspaper Metro
<https://bit.ly/2Owc1PH> RTV Drenthe dedicates the "Statement of the Day" to the CATCH study: "Employers must help smokers to quit"
<https://bit.ly/2Ox25FW> Leeuwarder Courant and Dagblad van het Noorden
<https://bit.ly/2OuRs6y> Nederlands Dagblad and Reformatorisch Dagblad
<https://bit.ly/2yOxt88> editorial commentary on the study in the Leids Dagblad
<https://bit.ly/2RZgit3> online city newspapers Dagblad 010 in Rotterdam and Dagblad 070 in The Hague
<https://bit.ly/2CS5t85> weekly magazine Panorama
<https://bit.ly/2CsXLjx> articles in trade magazines Voeding Nu and Medisch Contact

<https://bit.ly/2NQnsfU> article on the website of LEF magazine that focuses on addicts in recovery and addiction care

<https://bit.ly/2P3FSi8> websites of the TV programs Kassa (BNNVARA, NPO 1) and Zorg.nu (AVROTROS, NPO 1)

<https://bit.ly/2CtxAcH> Blogger Sylvia writes a comment on the research on the website of the magazine Libelle

<https://bit.ly/2pYg5cV> various online platforms such as Skipr, Welingelichte Kringen, Alles over HR, BlikopNieuws, Nationale Zorggids, Business Insider, nieuws.nl en MSN <https://bit.ly/2PdHJ49>

<https://bit.ly/2Mmhe92> online platform XpertHR

<https://bit.ly/2Wi7lqk> Flemish weekly magazine Knack

<https://bit.ly/2wRShuB> Article in Algemeen Dagblad, which was also distributed through the regional newspapers Tubantia, De Stentor, De Gelderlander, Eindhovens Dagblad, Brabants Dagblad, BN De Stem, Provinciale Zeeuwse Courant and Dagblad van het Noorden.