European-study on Quantifying Utility of Investment in Protection from Tobacco (EQUIPT)

Project Summary

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European-study on Quantifying Utility of Investment in Protection from Tobacco www.equipt.eu

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The EQUIPT consortium

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European Network for Smoking and Tobacco Prevention, Belgium

National Centre for Smoking Cessation and Training, UK

Agency for Quality & Accreditation in Health Care & Social Welfare, Croatia

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Project Summary:

Context and aims: Protection from tobacco has been a global public health agenda, as tobacco smoking worldwide accounts for millions of deaths both directly and as the result of second-hand smoke. The Framework Convention on Tobacco Control (FCTC) is a comprehensive response to address the scourge of tobacco, of which most EU member states are signatories. Despite the availability of many cost-effective interventions to tackle tobacco use, decision makers in the EU member states and beyond still lack the justification on the economic and wider returns that their tobacco control agenda could generate. Therefore, the EQUIPT study aimed to fill in this important gap by providing European stakeholders with a decision-support tool to estimate the return on investment (ROI) from investing in tobacco cessation interventions. This was done by transferring the existing ROI Tool that was jointly developed by the Brunel University London and the National Institute of Health and Care Excellence in the UK in 2012 to five European countries. In transferring the ROI evidence and tools, the EQUIPT researchers carefully examined several transferability issues, using a methodology that was grounded on the co-creation of research evidence with strong stakeholder partnership.

Methods: The EQUIPT study was organised in 6 working packages (WP). Pre-adaptation studies (WP1) included understanding of local decision contexts and tool-adaptation needs with the help of a desk review; the interviews with 93 stakeholders (decision/policy makers, healthcare purchases, academics/researchers, health advocates, and others) from five countries (Germany, Hungary, Spain, the Netherlands and the UK); and a parameter importance analysis based on the underlying economic model. The outcome of this work fed into tool adaptation work (WP2) which included standardised parameter collection, iterative validation by countries, piloting and usability assessments, and the final model validation by an independent, external expert. Four distinct smoking related diseases (CHD, COPD, Lung Cancer and Stroke) were included in the ROI tool with consideration of smokers in two categories: those who would make a quit attempt in the next 12 months and those who would not. Interventions either encouraged smokers to make a quit attempt (movement between categories) or enhance chances of quitting in those considering making an attempt. The model enabled comparison between alternate packages- Current Investment and Prospective Investment - compared to each other and to a no investment scenario. Transferability of the tool to further three countries (Romania, Bulgaria and Croatia) was studied using parameter uncertainty analysis leading to the collection of additional data from those countries (WP3). Two stakeholder workshops (London and Zagreb) with pre- and post-meeting surveys, coupled with an exemplar analysis of the ROI of current and prospective tobacco control scenarios across five countries, were conducted to evaluate policy proposals (WP4). The final tool (available as both Excel- and web-based tools) and dissemination/support materials including the user guides (WP5) were made available via the EQUIPT website (http://equipt.eu). The tool can be used to estimate the ROI of several prospective scenarios such as the ones included in the exemplar analysis. Ethical clearance was obtained from the Brunel University London Ethics Committee and respective authorities in participating countries; various activities across all working packages were coordinated effectively to achieve the study's overarching aim; and the final results were discussed with stakeholders at the End of the Project Conference (WP6).

Results: The decision contexts in which the tool was being transferred differed in five key domains: each country's population, smoking prevalence, perspective on tobacco use and control, current policy instruments and the level of progress made on the implementation of FCTC. Stakeholders considered it important that decisions on the investment in tobacco control should be supported by scientific evidence around cost of smoking, quality of life, smoking-attributable mortality, and

effectiveness, cost-effectiveness and budget impact of smoking cessation interventions. The proposed ROI tool was required to provide this granularity of information. Generally, stakeholders' answers showed larger variability by country than by stakeholder category. Although nearly two-thirds of the interviewed stakeholders were intending to use the ROI tool, significant differences in stakeholders' beliefs (e.g. in risk perception, attitude, social support, and self-efficacy) were found between non-intenders and intenders of the proposed ROI tool. Stakeholders' views on the importance of various types of tobacco cessation interventions varied within and between countries, and in some cases, differed from the ranking suggested by established cost-effectiveness evidence. Parameter uncertainty analysis identified 16 sets of model parameters (out of 49 sets) as key parameters facilitating transferability of the ROI tool. Those, if collected for a local context, would make the EQUIPT Tool transferable to that context. Those parameters were, for example, smoking prevalence, costs of smoking-related diseases, discount rates and a few general attributes of the population.

This analysis showed that government actions, including maintaining a national network of stop-smoking services and adequately funding mass media campaigns, could save €829m this year across 5 EU countries. Savings come from reduction in costs of treating four diseases caused by smoking – lung cancer, coronary heart disease, chronic obstructive pulmonary disease and stroke (€475m) - and productivity gains (€322m) resulting from 3m fewer days of smoking-related absenteeism. An additional €32m of savings come from reductions in healthcare costs because of fewer non-smokers inhaling other people's smoke. Every € spent in the current provision would provide a return between €3 and €9 over lifetime, depending on the country and what willingness-to-pay threshold for a QALY gain was used.

In addition, a change in current provision through scaling up of more effective intervention(s) – although required additional (upfront) investment costs - was found to be even more cost-effective using the respective country's cost-effectiveness threshold value (this was assumed for Germany). Stakeholders found the EQUIPT ROI Tool a useful tool to write reports and business cases. There was very high level of consensus among stakeholders that the tool is able to support country-level policy decisions. The need for training to use the tool was highlighted in the stakeholder workshops.

Conclusion: Despite significant variation in decision contexts including stakeholders' views on what is important to consider, it is possible to transfer the return on investment (ROI) concepts, evidence and tools to EU member states to help them understand the economic and wider returns that their tobacco control agenda could generate. Although the current provision of tobacco cessation is found to be cost-effective in all study countries (compared to doing nothing), the value of the EQUIPT ROI Tool lies in its ability to produce evidence-based justifications around how the current practice could be improved to provide even better value for money. The EQUIPT ROI Tool is a freely available resource for the European decision makers to use to explore alternative approaches.

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