

The Effect of Tobacco Control Policies on Smoking Prevalence using the Ireland SimSmoke Model: Is Tobacco Free Ireland 2025 Feasible?

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Background

Tobacco Free Ireland Action Plan sets a target for Ireland to be tobacco free (i.e. with a smoking prevalence rate of less than 5%) by the year 2025.



Objective

This study estimates the impact of tobacco control policies implemented between 1998 and 2016 on smoking prevalence reduction in Ireland by 2016. It then assesses the potential of further strong policies, to see if Tobacco Free Ireland 2025 is feasible.

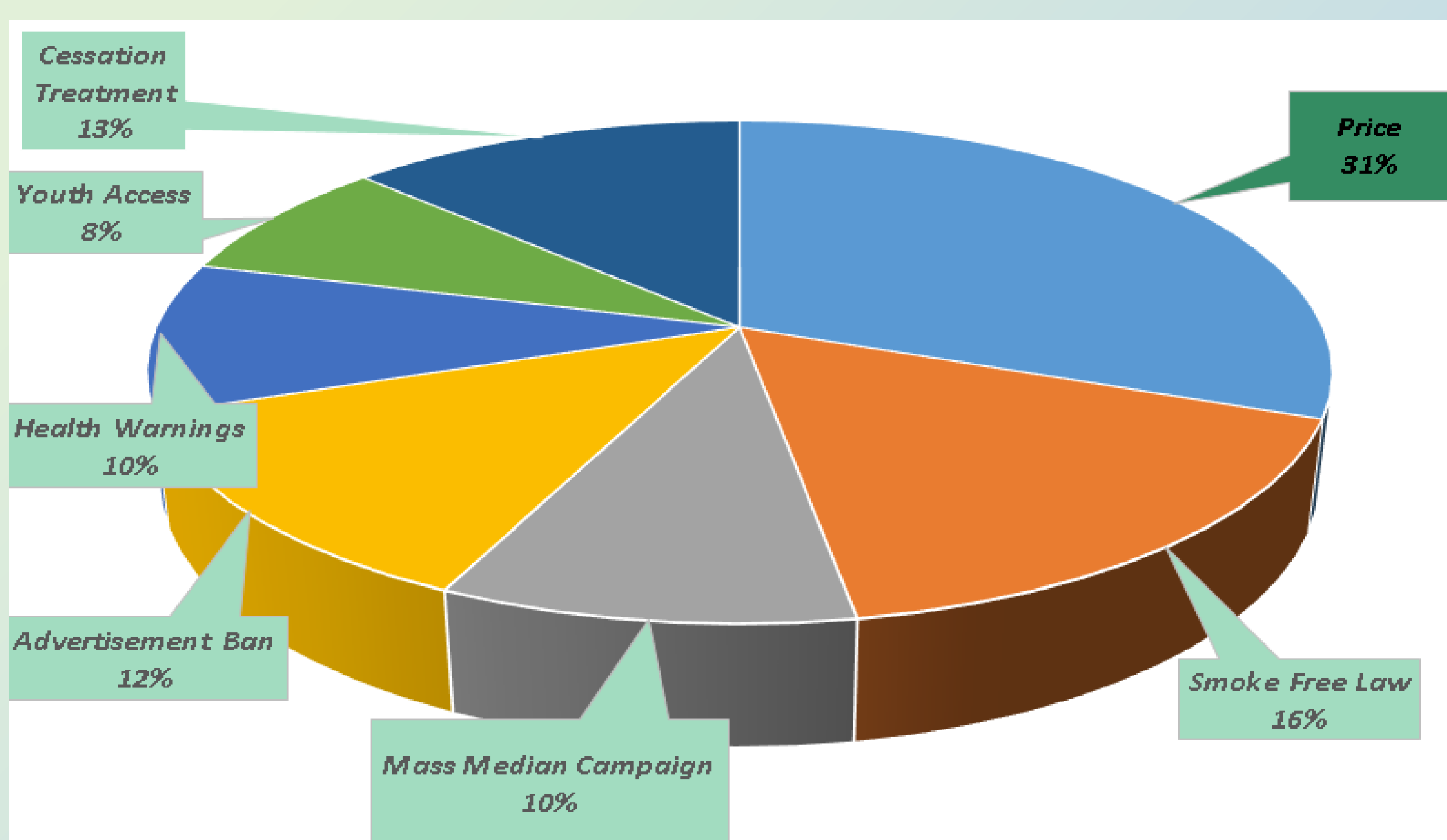
Methods

SimSmoke, the dynamic simulation model of tobacco control policy, was adapted to examine the impact of existing tobacco control policies on smoking prevalence and to make predictions for the future.

Results

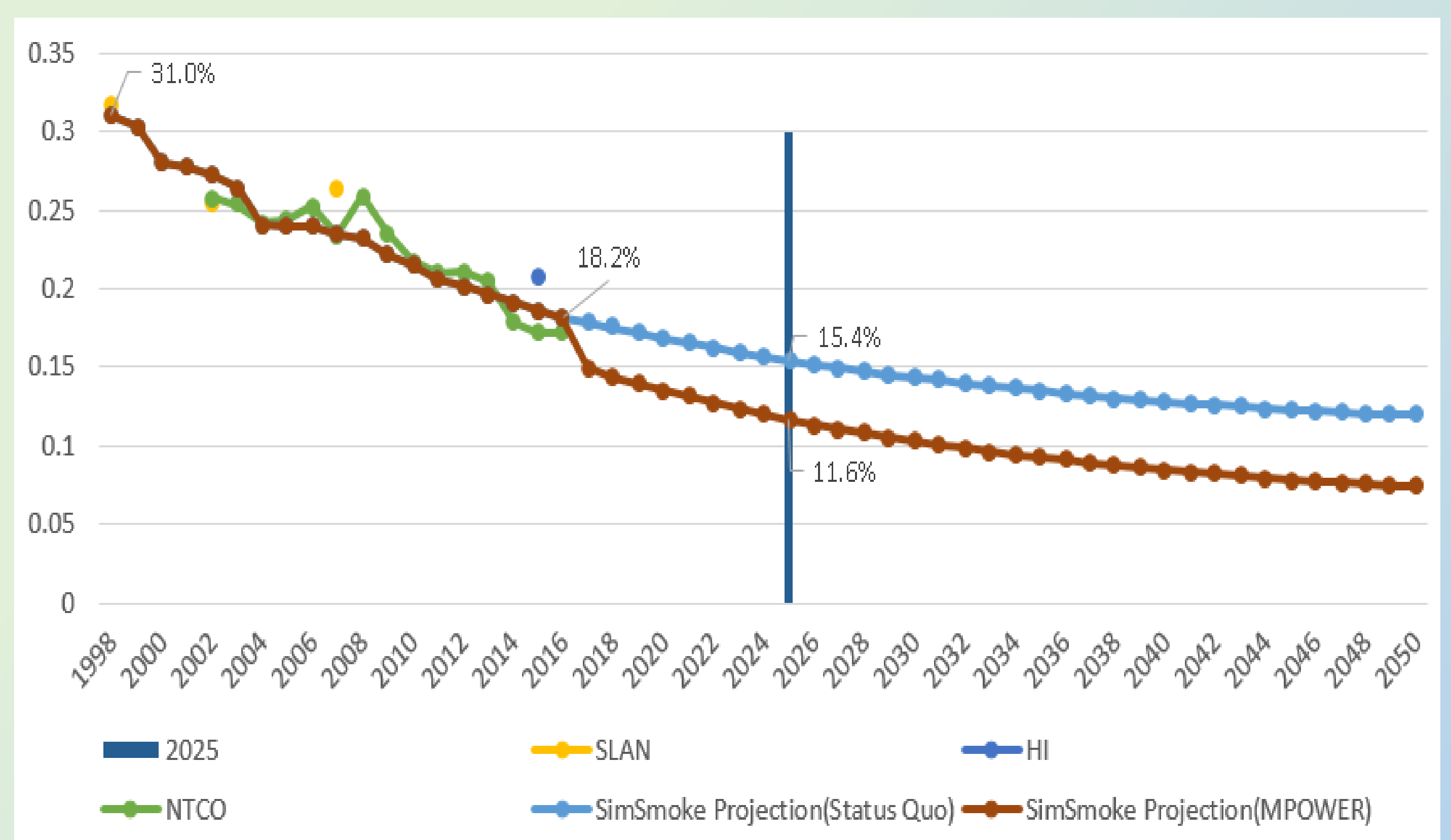
Between 1998 and 2016, model predictions of smoking prevalence were reasonably close to those from several surveys, achieving a 41% reduction for both genders. Increasing price was the most effective tobacco control policy (Figure 1).

Figure 1 Contribution of Tobacco Control Policies Implemented by 2016 to the Reduction in 2016 Ireland Male Smoking Prevalence.



If tobacco control policies remain unchanged from their 2016 levels, smoking prevalence in 2025 is projected to be 16.7% for male and 15.4% for female. With the introduction of stricter MPOWER-compliant policies since 2017, smoking prevalence in 2025 could be further reduced to 12.8% for male and 11.6% for female (Figure 2).

Figure 2 Female Smoking Prevalence from Various Surveys and SimSmoke Projection, for Age 18 and Older, Ireland, 1998-2050.



Discussion

Prediction from the SimSmoke Ireland model confirms that the policies implemented between 1998 and 2016 have had considerable effect. In addition, implementing policies fully compliant with MPOWER could further reduce the smoking prevalence. However, even under stricter MPOWER-compliant policies, there is still a gap between the predicted rate in 2025 and the Tobacco Free Ireland target, i.e. 5%.

Recommendation

The target might be achieved by raising taxes further, maintaining high-intensity media campaigns and improving smoking cessation services.

Acknowledgements: Focas Research Institute, DIT.

Funding: Royal City of Dublin Hospital Trust.

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