

Title: Retailer Compliance as a Predictor of Youth Smoking Participation and Consumption

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Abstract:

Background: Although decreasing in recent years, the prevalence of youth smoking is still a health concern. In Canada, the prevalence of smokers aged 15-19, was 18% in 2003. Although most youth obtain their cigarettes from social sources (family and friends), many obtain their cigarettes from retail sources even though the Tobacco Act prohibits retailers from furnishing tobacco products to minors.

Objectives: The objective of this study was to examine the impact of retailer compliance and price on youth smoking rates (participation) and the quantity of cigarettes consumed by those who are already smokers.

Methods: Several sources of data, from a five year period (1999-2003), were employed in this analysis. Data on individual smoking behaviour (prevalence, quantity smoked, source of cigarettes) was obtained from the Canadian Tobacco Use Monitoring Survey - an ongoing annual survey of over 20,000 Canadians 15 years of age and older. Information on retailer compliance was obtained from the Retailers' Behaviour Towards Certain Youth Access-to-Tobacco Restrictions study where minors attempted to buy a pack of cigarettes but refused the transaction if retailers appeared willing to sell. Statistics Canada's consumer price index for cigarettes was used as the price variable. Using pooled data for youth aged 15 to 18 (minors), the effects of price and retailer compliance on cigarette smoking participation and consumption were estimated using a two-part model. An aggregate model which used province as the unit of observation had a total of 50 observations (ten provinces, five years). A individual-level model included 19,609 observations. The independent variables included the provincial compliance rate, provincial cigarette price index, and sex.

Results: Both the aggregate and individual-level models yielded similar results. Price and the compliance rate were both significant predictors of whether youth obtained their cigarettes from retail or social sources. In the first equation of the two-part model, compliance was a significant indicator of whether or not minors chose to smoke, while price was insignificant. In the conditional demand equations, both the compliance and price variables were significant. The elasticity of conditional demand in the aggregate model was -0.35. In the individual-level data model, the elasticity of conditional demand was -0.21.

Conclusions: This paper is unique in that it contains five years of individual level data and uses actual retailer compliance rate data. The results of this analysis show that as the compliance rate of retailer increases, youth switch to social sources for cigarettes. The results also suggest that while compliance rates affect both the smoking rate and the quantity of cigarettes smoked, price only affects the latter. Given many youth obtain their cigarettes from social sources it was not surprising to find that price was not an important indicator of smoking. The price elasticity of conditional demand was within the range observed in the literature, but at the low end. Consistent with past research, this can be attributed to the inclusion of a strong compliance/access variable included in this analysis. Based on these findings promoting retailer compliance is an effective anti-smoking strategy amongst youth.

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