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An Update on Varenicline Use in Ontario

Varenicline (brand names: Chantix™ or Champix™) is a promising smoking cessation drug that has shown to be effective in clinical trials.¹ In Ontario, varenicline is one of the primary medications used for smoking cessation and is recommended by the Ontario Committee to Evaluate Drugs as an efficacious drug that should be funded for the treatment of smoking cessation in the context of a broader government non-smoking strategy.² It is currently funded as a *Limited Use Benefit* on the Ontario Drug Benefit Formulary. Little is known, however, about who uses varenicline and how varenicline use has changed over time in Ontario. This update explores use of varenicline in Ontario using data from OTRU's Ontario Tobacco Survey.

Key Finding: According to OTRU's Ontario Tobacco Survey, use of varenicline among those using pharmaceutical aids in quitting peaked at 19.1% in 2010.

The Ontario Tobacco Survey collected information about a random sample 4500 Ontario smokers from 2005-2011. Survey participants were followed every 6 months for up to 3 years. Questions about varenicline were added in the second wave of the survey just after the introduction of varenicline in the province.

There were 1302 individuals who reported using pharmacological aids to assist quit attempts in the survey. Of these, 317 (24%) used varenicline at some point during follow up. Use of varenicline was low initially with only 2.6% of pharmaceutical users choosing varenicline; however, within a year, varenicline use had increased to 14.0% of those using pharmaceutical aids before peaking at 19.1% of use in 2010 (Figure 1). Potential reasons for the lack of further uptake of varenicline include the difficulty in obtaining it compared to over the counter aids, the cost of the drug, and safety concerns about the side effects of the drug.

In Ontario, varenicline users were more likely to be female, be middle aged, intend to quit smoking, and perceive it hard to quit smoking compared to users of other pharmaceutical aids. These results suggest that varenicline users may be more committed to the quitting process than users of other aids. There were also differences between male and female varenicline users. Male users were more likely to be married than users of other cessation aids, while female users were more likely to have more education. Among males, rates of use were higher in Northern Ontario (Table 1).

Overall, these results suggest that, while a popular pharmaceutical option for survey respondents, more could be done to promote the use of varenicline; however, effectiveness of the drug at the population level may be affected by its use among highly motivated subjects.

Figure 1: Prevalence of Varenicline Users over All Pharmacological Aid Users over Time, Ontario

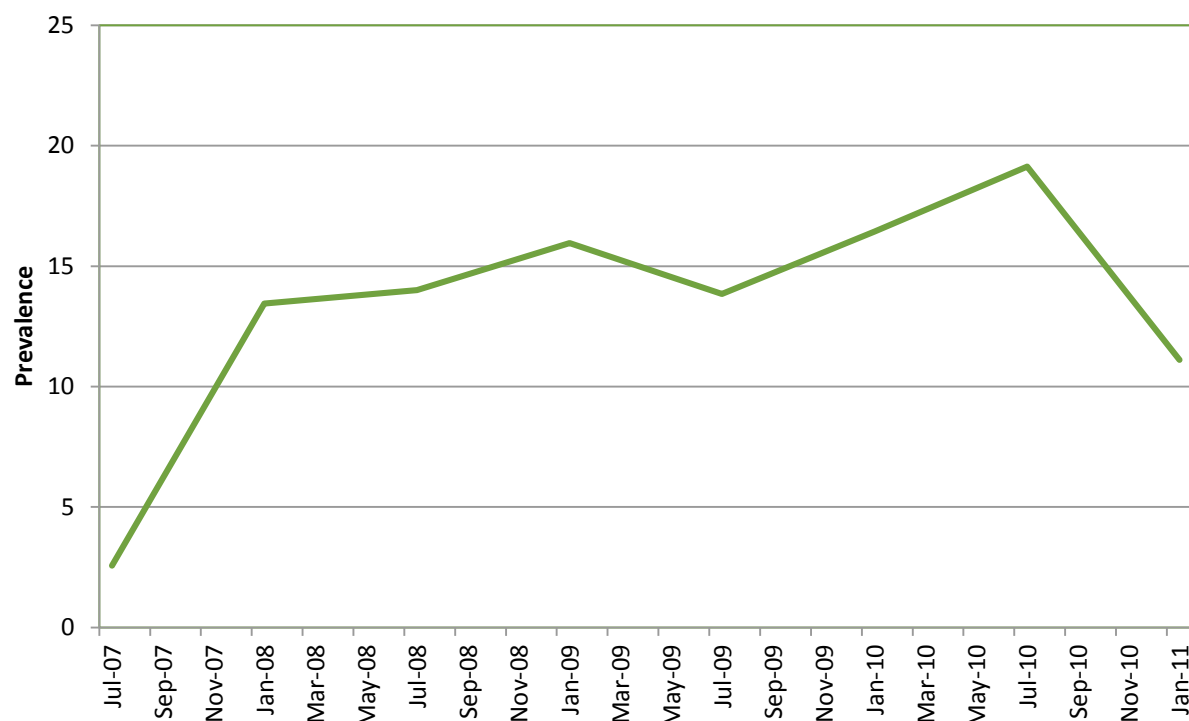


Table 1: Odds Ratio of the Factors Associated with Use of Varenicline and Use of All Other Pharmacological Aids, by Sex

	Relative Risk	p Value	Lower Confidence Limit	Upper Confidence Limit
Males				
18-34	1.00			
35-44	2.53	0.017	1.18	5.42
45-54	2.92	0.002	1.47	5.80
55-64	2.45	0.019	1.16	5.18
65+	0.82	0.703	0.29	2.32
High school or less education	1.38	0.314	0.74	2.60
Married	0.52	0.029	0.29	0.94
Has children in the home	0.88	0.722	0.45	1.74
Perceived hard to quit	3.47	0.000	1.94	6.23
Difficult to refrain from smoking	1.06	0.842	0.59	1.90
Confident in ability to quit	1.17	0.240	0.90	1.53
Higher number of quit attempts	0.98	0.376	0.95	1.02
Intention to quit in next 6 months	2.27	0.009	1.22	4.20
Number of cigarettes smoked	1.00	0.880	0.97	1.04
Survey Date	1.00	0.620	1.00	1.00
Occasional smoker	0.91	0.602	0.62	1.31
Location: Greater Toronto Area	1.00			
North	1.92	0.042	1.03	3.59
East	1.10	0.784	0.55	2.18
South	1.49	0.258	0.75	2.98

	Relative Risk	p Value	Lower Confidence Limit	Upper Confidence Limit
Females				
18-34	1.00			
35-44	2.09	0.085	0.90	4.82
45-54	2.22	0.061	0.97	5.11
55-64	2.56	0.033	1.08	6.06
65+	2.43	0.075	0.91	6.44
High school or less education	0.53	0.011	0.32	0.86
Married	0.84	0.405	0.55	1.27
Has children in the home	1.55	0.052	1.00	2.41
Perceived hard to quit	2.07	0.008	1.21	3.54
Difficult to refrain from smoking	0.52	0.006	0.32	0.82
Confident in ability to quit	1.06	0.621	0.85	1.31
Higher number of quit attempts	1.03	0.001	1.01	1.06
Intention to quit in next 6 months	2.30	0.000	1.54	3.45
Number of cigarettes smoked	1.03	0.000	1.01	1.05
Survey date	1.00	0.989	1.00	1.00
Occasional smoker	1.21	0.171	0.92	1.61
Location				
Greater Toronto Area	1.00			
North	1.76	0.059	0.98	3.18
East	1.10	0.768	0.59	2.04
South	1.24	0.471	0.69	2.24

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References

- ¹ Cahill K, Stead LF, Lancaster T (2012). "Nicotine receptor partial agonists for smoking cessation". In Cahill, Kate. *Cochrane Database Syst Rev* 4: CD006103.
- ² Ontario Committee to Evaluate Drugs. Varenicline. November 2012. Available at <http://www.health.gov.on.ca/en/pro/programs/drugs/ced/pdf/champix.pdf>