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Trends in the Use of Cigarettes and Other Tobacco Products, 2000-2007

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filed by manufacturers with the Massachusetts Department of Public Health under Massachusetts regulation 105 CMR 660.000). Moist snuff CPEs assumed equivalence of a 1.2 ounce tin to 2.5 packs of cigarettes based on daily consumption.^{5,6} Large cigar sales were not converted to CPEs due to variations in size and tobacco content. Excluded were dry snuff, chewing, and pipe tobacco because of their relatively small and declining use³ and imports (because of absent data for moist snuff).

Results. Cigarette sales declined 18% from 21.1 billion packs in 2000 to 17.4 billion packs in 2007 (TABLE). During the same interval, sales of other tobacco products increased by 1.10 billion CPEs (714 million moist snuff, 256 million roll-your-own tobacco, 130 million small cigar), equal to approximately 30% of the decrease in cigarette sales. Large cigar sales increased 37% over the study duration. The mean price per cigarette pack rose from \$2.93 in 2000 to \$3.93 in 2007, including increases in state and federal taxes.²

Comment. The recent decline in US cigarette consumption may have been partially offset by increases in other tobacco product consumption. This could be a reflection of cigarette price increases associated with (1) payments that are required by the Master Settlement Agreement for cigarette manufacturers but not other tobacco product manufacturers except for US Smokeless Tobacco and (2) stricter tax policies applied to cigarettes. It may also reflect tobacco substitution in places where smoking is prohibited and youth uptake of other tobacco products in lieu of cigarettes due to marketing or price. The public health effects of changing patterns of consumption have not been determined, although tobacco use of any kind likely poses health risks.

Cigarette companies are responding to the changing pattern of consumption by entering other tobacco product markets, including acquisition of major US moist-snuff manufacturer Conwood by R. J. Reynolds, and by marketing new snuff and snus products to attract smokers and new tobacco users.^{1,6}

Cigars, roll-your-own, and smokeless tobacco products are generally priced lower than cigarettes.¹ The weekly cost for a typical user of a premium moist-snuff brand is 55%

RESEARCH LETTER

Trends in the Use of Cigarettes and Other Tobacco Products, 2000-2007

To the Editor: Since 1998, US cigarette sales have declined by approximately 2% per year.^{1,2} We assessed whether recent declines may be offset in part by an increase in use of other tobacco products.

Methods. Taxable removals (actual sales) of cigarettes (including bidis), small cigars, and roll-your-own tobacco were obtained from the Alcohol and Tobacco Tax and Trade Bureau³ and for moist snuff from the US Department of Agriculture⁴ for years 2000 through 2007 based on monthly and quarterly filings by the tobacco companies, respectively. State and federal tax rates and weighted mean cigarette prices were obtained from *The Tax Burden on Tobacco*.²

Cigarette pack equivalents (CPEs) were estimated for other tobacco product sales. A package of 20 small cigars shares the same size, shape, and weight as a pack of 20 cigarettes and was considered equivalent. Roll-your-own tobacco CPEs were based on weight (14.6 g tobacco per cigarette pack, supported by reports of nicotine ratings

Table. Tobacco Products Sales in Cigarette Packs or Cigarette Pack Equivalents

Year	Cigarette Packs, Millions ³	Noncigarette Tobacco Products, Cigarette Pack Equivalents, Millions			
		Small Cigars ³	Roll-Your-Own ³	Moist Snuff ⁴	Total
2000	21 125	112.7	281.0	2161	2555
2001	20 605	108.6	268.9	2209	2587
2002	19 761	112.4	328.4	2285	2726
2003	18 834	114.8	369.7	2365	2850
2004	18 780	135.1	399.4	2491	3025
2005	18 149	188.6	483.1	2556	3228
2006	18 228	209.6	512.5	2715	3437
2007	17 416	242.5	537.0	2875	3654

less than for a typical cigarette smoker.⁶ State and federal cigarette taxation policies appear to have been effective in reducing smoking, but small cigars and roll-your-own tobacco are taxed at 5% to 10% the rate of cigarettes,³ resulting in prices much less than an equivalent pack of cigarettes. These findings should be considered in future policy decisions meant to curb tobacco use.

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Study concept and design: Connolly, Alpert.

Acquisition of data: Alpert.

Analysis and interpretation of data: Connolly, Alpert.

Drafting of the manuscript: Connolly, Alpert.

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