

**COVER ESSAY**

# Happy Birthday Marlboro: the cigarette whose taste outlasts its customers

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## Marlboro is 50 years old—and still killing its customers

**O**n 5 November 2005, Philip Morris celebrated the 50th anniversary of its Marlboro brand with invitation only parties held in 49 US cities featuring popular entertainers. Fifty years ago, Philip Morris repositioned Marlboro from a feminine brand to one featuring a series of masculine models, eventually settling on the now iconic cowboy (see the cover for examples of Marlboro advertising, which can also be found at <http://roswell.tobaccodocuments.org>).

Today, Marlboro holds over 40% of the US cigarette market share and has become one of the leading consumer products sold worldwide, generating massive profits for Philip Morris.<sup>1</sup> Unfortunately, there is a downside—Marlboro kills its customers.<sup>2</sup> Because Philip Morris thought it important to bring attention to the 50th anniversary of the modern Marlboro brand, we thought it was only fitting to try to estimate the number of US Marlboro customers that have died and are projected to die as a result of visiting “Flavor Country”.

### NUMBER OF DEATHS

In order to calculate the fraction of deaths attributable to Marlboro cigarettes in the United States over the past 50 years (table 1), we first determined the number of smoking attributable deaths in a given year and then multiplied this by the estimated market share for Marlboro cigarettes in the 10 years before, reflecting a 10 year latent period between smoking and disease. The number of tobacco deaths was derived from published estimates for 1985, 1988, 1990–1994, and 1995–1999.<sup>2,3</sup> If data were not available for a given year estimates were interpolated between data points. The cumulative US tobacco-attributable mortality data from 1964 to 1985 (5.7 million attributable deaths) were available<sup>4</sup> and annual estimates were interpolated to reflect a linear increase during that period, with the conditions that the cumulative total equals 5.7 million and the 1985 data point equals the published total of 390 000. Mortality estimates for the period between 1955 to 1963 assume the same linear constant change. Marlboro’s share of the cigarette market in a given year between 1955 and 2005 was based on reports compiled from industry documents and financial reports.<sup>5</sup> Future US deaths from Marlboro cigarettes are based on recent estimates of smoking attributable deaths and

Marlboro market share. The total number of tobacco-attributable deaths to Marlboro smokers is the sum of the annual number of deaths. Future expected Marlboro-attributable deaths are estimated by multiplying the constant tobacco-attributable mortality in a given year between 2006 and 2015 by the Marlboro market share 10 years previous and summing across years.

### MARKET SHARE

The market share for Marlboro steadily increased to over 10% by 1971, to over 20% by 1983, to over 30% by 1995, and to over 40% by 2005. Marlboro cigarettes have killed more than 2.3 million Americans since 1955 with another expected 1.6 million deaths in the next 10 years. Put another way, in 2005, Marlboro is estimated to account for 30% of all smoking-attributable deaths in the United States.

It is important to recognise that the estimates presented in this paper are subject to limitations including the length of the lag period used, the amount smoked by Marlboro smokers compared to other smokers, and brand switching to and from Marlboro products; however, there is no getting around the overall conclusion that Marlboro is by far and away the most lethal consumer product ever produced. More Americans have died or will die because of Marlboro than US soldiers who have died in all foreign wars combined.<sup>6</sup> However, merely considering the number of deaths attributable to Marlboro in the United States over the past half century is surely a huge underestimate of the total death toll from Marlboro, given the brands position as the world’s best selling cigarette. According to a recent Philip Morris International report, Marlboro is considered the greatest asset of the company with projected strong growth predicted for the future worldwide.<sup>7</sup> With the death toll from tobacco estimated to reach 10 million annually by 2020, it is likely that Marlboro’s next 50 years could prove to be its most deadly.<sup>8</sup>

Birthdays are a time to reflect on the good and bad that has taken place in the past and what the future might hold. Perhaps instead of sponsoring a birthday bash commemorating 50 years of the Marlboro man, Philip Morris should hold a funeral and send the Marlboro man to his grave like so many of his loyal customers.

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**Table 1** Marlboro market share and estimated number of Marlboro smokers dying from smoking attributable diseases in the United States, 1955–2015

Estimated number of Marlboro attributable deaths assuming a 10 year lag period							Estimated future Marlboro attributable deaths				
Year	Marlboro market share	Total smoking attributable mortality	Mortality attributed to Marlboro	Year	Marlboro market share	Total smoking attributable mortality	Mortality attributed to Marlboro	Year	Marlboro market share	Total smoking attributable mortality	Mortality attributed to Marlboro
1955	1.7%	109066		1981	18.3%	329983	36668	2006	40.5%	442398	143197
1956	3.7%	113810		1982	19.2%	344337	43722	2007	40.5%	442398	151862
1957	4.8%	118761		1983	20.1%	359316	49634	2008	40.5%	442398	157926
1958	4.7%	123927		1984	21.5%	374946	55343	2009	40.5%	442398	165075
1959	4.5%	129318		1985	22.4%	390000	60242	2010	40.5%	442398	161475
1960	4.6%	134943		1986	23.0%	404667	63655	2011	40.5%	442398	165899
1961	4.9%	140813		1987	23.6%	419333	67287	2012	40.5%	442398	165899
1962	5.1%	146938		1988	24.7%	434000	72461	2013	40.5%	442398	170323
1963	5.0%	153330		1989	25.7%	432350	73353	2014	40.5%	442398	174747
1964	5.0%	160000		1990	25.9%	430700	76293	2015	40.5%	442398	179171
1965	5.3%	166960	2856	1991	25.8%	430700	78750	<b>TOTAL</b>			<b>1635576</b>
1966	6.0%	174223	6372	1992	24.4%	430700	82577				
1967	6.6%	181801	8668	1993	23.5%	430700	86777				
1968	7.4%	189710	9009	1994	28.1%	430700	92572				
1969	8.5%	197962	8862	1995	30.1%	442398	99089				
1970	9.8%	206574	9558	1996	32.4%	442398	101855				
1971	11.1%	215559	10599	1997	34.3%	442398	104377				
1972	12.7%	224936	11367	1998	35.7%	442398	109423				
1973	13.8%	234721	11741	1999	37.3%	442398	113559				
1974	14.8%	244931	12143	2000	36.5%	442398	114420				
1975	15.4%	255586	13455	2001	37.5%	442398	114004				
1976	15.7%	266704	16123	2002	37.5%	442398	108088				
1977	16.0%	278306	18256	2003	38.5%	442398	104052				
1978	16.7%	290412	21571	2004	39.5%	442398	124463				
1979	17.0%	303045	25746	2005	40.5%	442398	133213				
1980	17.7%	316227	30972	<b>TOTAL</b>			<b>2383178</b>				

Marlboro market share from 1955 to 1999 is obtained from various industry documents compiled by Goldstein (see Warner and Murt<sup>4</sup>).

Marlboro market share from 2000 to 2005 is estimated from the October 2005 IRI report (see Prudential Equity Group<sup>1</sup>).

Tobacco attributable mortality data come from published estimates for 1985, 1989, 1990–1994, and 1995–1999 (see <sup>3</sup>). Data from 2000–2005 are assumed to equal the 1995–1999 period. Years in this period without a direct estimate were interpolated between data points. Cumulative smoking-attributable mortality data from 1964 to 1985 were available (see Warner and Murt<sup>4</sup>) and annual estimates were interpolated to reflect a linear increase during that period with the conditions that the cumulative total equals the published total of 5.7 million and the 1985 data point equals the published total of 390000. Mortality estimates from 1955 to 1963 assumed the same linear constant change.

Marlboro attributable deaths assume a 10 year lag period. Future Marlboro attributable deaths assume the Marlboro market share and total smoking attributable deaths remain at the 2005 levels for the next 10 years.

Happy birthday Marlboro

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