

Estimating the effect of smoking bans on acute myocardial infarction based on trends in US states.

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Abstract

Background : A meta-analysis by Glantz claims that smoking bans reduce acute myocardial infarction (AMI) risk by 19%, the Institute of Medicine considering this plausible from expected reductions in small particle exposure. We investigate these claims by analyzing US state trends in AMI mortality.

Methods : Age-adjusted AMI mortality rates by sex for all US states for 1979-2006 were analyzed to estimate changes associated with smoke-free legislation by 2005 in 15 states.

Results : Our analysis of US state AMI trends suggests a much smaller effect of smoking bans than claimed. From the overall data, reductions of about 3% are estimated for both sexes, different age groups, and using various assumptions. However, not all states introducing bans show a reduction.

Conclusions : Our approach has limitations, as has any other approach to estimate the effect of smoking bans. However, our conclusion that Glantz's claimed 19% reduction in AMI risk is excessive is consistent with recently published estimates using alternative approaches. Any reduction in risk of AMI resulting from a ban is probably less than 5%.

Background

Following reviews that concluded that environmental tobacco smoke exposure (ETS) was associated with an increased risk of heart disease [1-4], Sargent et al. [5] reported a 40% reduction in hospital admissions from acute myocardial infarction (AMI) in Helena, Montana subsequent to introduction in June 2002 of a local law banning smoking in public and in workplaces. Over the following years, further such studies have been carried out, and in 2008 Glantz [6] presented the results of a meta-analysis of eight published studies [5,7-13] concluding that smoking bans were associated with a reduction in AMI rates by 19% (95% confidence interval [CI] 14% to 24%). Considering also data from a further four studies [14-17], a recent review by the Committee on Secondhand Smoke Exposure and Acute Coronary Events of the US Institute of Medicine (IOM) [18] (referred to subsequently as the IOM report) concluded that there was a causal relationship between smoking bans and a decreased risk of AMI. They also concluded, based on a study by Peng et al. [19] that the magnitude of risk reduction observed in these published studies of smoking bans and heart disease is consistent with what might be expected from changes in exposure to particulate matter less than 2.5 micrometers across ($PM_{2.5}$) following a ban, a conclusion which seems difficult to reconcile with the data presented in that study (see Appendix A).

In a recent paper [20] we reassessed the implicit conclusion that smoking bans substantially reduce the risk of heart disease. We reevaluated the evidence of a risk reduction from formally published studies on bans and heart disease, using a consistent approach to derive estimates of the ban effect, taking account of underlying time trends in heart disease and data from control populations, and avoiding selection of results from particular subgroups. Preferring national to regional estimates where available, we estimated a 5% (95% CI 3% to 8%) reduction in heart disease risk following a ban. This estimate became 2.7% (2.1% to 3.4%) when studies in which trend adjustment was not possible were

excluded, a result consistent with reported post-ban reductions of 2% to 3% in large national populations (England, France, Italy, USA). We also noted that reductions of 19% were implausibly large considering the likely magnitude of changes in smoking habits and in exposure to passive smoking following a ban.

In this paper we use an alternative approach to investigate the likely magnitude of any effect of smoking bans. This involves an analysis of trends in AMI mortality in US states in relation to the year the bans were introduced.

Methods

Sex-specific data on mortality rates from AMI per 100,000 per year, age-adjusted to the 2000 US standard population, were obtained from the National Center for Health Statistics website (<http://wonder.cdc.gov/mortSQL.html>) for each US state (including the District of Columbia) for each of the years 1979 to 2006. Data on the years in which the states have introduced smokefree legislation were obtained from a chronological table available on the website of the American Nonsmokers' Rights Foundation (<http://www.no-smoke.org>).

The effect of a ban was assessed, separately for males and females, by multiple regression [21]. A number of models were fitted, including the following:

$$\text{MODEL 1a: } \log M_{ij} = \mu + s_j + y_i$$

$$\text{MODEL 1b: } \log M_{ij} = \mu + s_j + y_i + b x_{ij}$$

$$\text{MODEL 1c: } \log M_{ij} = \mu + s_j + y_i + c_j x_{ij}$$

$$\text{MODEL 2a: } \log M_{ij} = \mu + s_j + i v_j$$

$$\text{MODEL 2b: } \log M_{ij} = \mu + s_j + i v_j + b x_{ij}$$

$$\text{MODEL 2c: } \log M_{ij} = \mu + s_j + i v_j + c_j x_{ij}$$

$$\text{MODEL 3a: } \log M_{ij} = \mu + s_j + i v_j + i^2 w_j$$

$$\text{MODEL 3b: } \log M_{ij} = \mu + s_j + iv_j + i^2w_j + bx_{ij}$$

$$\text{MODEL 3c: } \log M_{ij} = \mu + s_j + iv_j + i^2w_j + c_jx_{ij}$$

where i refers to year ($i=1, \dots, 28$ for years 1979, ... 2006) and j to state ($j=1, \dots, 51$ for Alabama, ... Wyoming), M_{ij} are the age-adjusted AMI mortality rates, s_j represent state effects, y_i year effects, and v_j and w_j allow for interactions of state with, respectively, year and year squared. x_{ij} takes the value 1 for years after a ban was introduced to state j and takes the value 0 otherwise. b indicates the overall effect of the bans and c_j represents state-specific effects of a ban. Models 1a to 1c assume that the trend over time in AMI rates has a shape that is common over state, Models 2a to 2c fit the trend by a state-specific linear relationship, and Models 3a to 3c fit the trend by state-specific quadratic curves.

The RR and 95% CI associated with the bans were estimated by

$$\text{RR} = \exp(b) \quad \text{and}$$

$$V = \exp(b \pm Z \cdot \text{SE}(b))$$

and similarly for state-specific effects, where Z is the standardized normal deviate for $p = 0.025$, and SE indicates the standard error.

In addition to these unweighted multiple regression analyses, similar analyses were also conducted weighted on the number of deaths, N_{ij} .

Three sensitivity analyses were conducted. In sensitivity analysis 1, estimates for the year of the ban were excluded. In sensitivity analysis 2, x_{ij} took the value 1 for the year of the ban, as well as for years after the ban. In sensitivity analysis 3, the analysis was restricted to years 1990 to 2006.

The analyses above were conducted on age-adjusted rates for age 25+ years. Some additional analyses were also conducted on age-adjusted rates for ages 25 to 64 years and 65+ years separately, given the evidence that the relationship of smoking to heart disease varies by age [22] and the likelihood that any effect of smoking bans would be greater for people of

working age.

Results

State-wide smokefree legislation was introduced first in Utah, in 1995 and then in California in 1998. 18 further states went smokefree in 2002 to 2006, with a further 9 by 2008.

Table 1 (males age 25-64 years), Table 2 (females age 25-64 years), Table 3 (males age 65+ years) and Table 4 (females age 65+ years) give the logarithms of the AMI mortality rates by state for each year from 1979 to 2006. Figures 1 to 51 plot, separately for each state, and for each of the four sex/age combinations, the observed log rate together with that fitted using Models 2c and 3c.

Over the period 1979 to 2006, age-adjusted AMI mortality rates have fallen markedly in all US states, in each sex and for both ages 25-64 and 65+ years, as is clearly evident from the Figures. For all states combined, fitting Model 1a (see Methods) indicated that, from 1979, rates in males fell by 27% up to 1986, by 53% up to 1996 and by 75% up to 2006. For females, corresponding falls were by 19%, 43% and 69%. Rates also varied widely by states, being, in both sexes, about 2.5 times greater in those states (Arkansas and Kentucky) with the highest rates than in those (Alaska, Hawaii and New Mexico) with the lowest rates. Though the general pattern of decline for each state can be clearly seen in the Figures, the states show substantial variation in the rate of decline, implying that Models 1b and 1c are not satisfactory for testing for effects of a ban. Models 2a, 2b and 2c, which fit a linear relationship of log AMI to year for each state are also unsatisfactory, as judged by a significant ($p < 0.001$) improvement to the fit when quadratic terms are introduced. However the quadratic models (3a, 3b and 3c) appear adequate for testing for the effects of smoking bans, both because inspection of the observed and fitted rates over time presented in Figures 1 to 51 show an apparently good fit for states without a ban and for states before a ban, and

because, as discussed in the next paragraph, the estimated effects of a ban using Model 3b are quite consistent by age and sex and whether weighted or unweighted analyses are used. This is not the case for Model 1b (results not shown). Model 3a explains over 97.5% of the variance in each sex, whether using unweighted or weighted analyses, and produces a substantially better ($p < 0.001$) fit to the data than does Model 1a.

Table 5 shows the results of the tests for possible effects of bans. In the main analyses, which assume that the effects apply only for the years after a ban, and to those 15 states where bans were in place by the end of 2005, a modest overall effect of the ban is seen based on Model 3b, with the estimated RRs being 0.95 (95% CI 0.92-0.98) for males and 0.97 (95% CI 0.93-1.00) for females in unweighted analyses. Estimates are similar in the weighted analyses, 0.97 (95% CI 0.94-0.99) for males and 0.97 (95% CI 0.95-1.00) in females. The weighted analyses give more importance to the larger states, where more deaths from AMI occurred.

Some evidence of a small overall effect of the bans is also seen in the three sensitivity analyses. Compared to the main analysis, the estimated effects are very similar in sensitivity analysis 1 (where the effect is assumed to apply from the year of the ban, so that bans in 20 states are relevant) and in sensitivity analysis 2 (where rates for the year of the ban are omitted from analysis). The estimated effects are somewhat more variable in sensitivity analysis 3 (which omits data for 1979 to 1989) but again suggest a small effect of the bans.

Although the unweighted and weighted analyses for both sexes indicate some overall effect of smoking bans using Model 3b, the fit of the model is significantly ($p < 0.001$) improved when allowance is made for the effects of state-specific bans using Model 3c. As can be seen from Table 5, this reflects the fact that while in most states the estimated RR suggests a decline following the ban, in some, notably California and Utah, it suggests an increase. This pattern is also evident in the sensitivity analyses (data not shown).

Analyses were also conducted separately for ages 25-64 and 65+ years, again based on rates age-adjusted for the 2000 US population. The results for age 65+ years are very similar to those in the main analysis based on age 25+. The results for age 25-64, though based on smaller numbers of AMI deaths, also consistently indicate some reduction in AMI risk following a ban. However, there is no real evidence that the reduction is greater for age 25-64 than for age 65+, as might have been expected given the stronger relationship of smoking to AMI in younger men and women.

Discussion

While earlier reviews [6,18,23,24] of the effect of smoking bans on AMI admission rates have claimed a substantial reduction in risk following the ban, of order 20%, reported declines in large national populations (England [25], France [26], Italy [27] and USA [28,29]) have suggested a much smaller effect, of order 2% to 3%, an effect consistent with our recently published meta-analyses [20]. Given the availability of annual AMI mortality rates by US state over a long period (<http://wonder.cdc.gov/mortSQL.html>), and of data on the timing of the introduction of bans, if any, in each US state (<http://www.no-smoke.org>) we tried a different approach to try to assess the likely magnitude of the effect of smoking bans on risk of AMI. This approach is much simpler, and it surprises us that others (including the IOM) seem not to have used it before we did. While the data are limited by being on an annual rather than a monthly basis, so that one cannot compare rates in the exact year post-ban with those expected pre-ban from the underlying trend, our analyses (see Table 5) consistently suggested a modest reduction in risk following a ban, whether we considered males or females, considered age groups 25-64, 65+ or 25+ years, used unweighted or weighted analysis, looked for a shift in rates for the years subsequent to the ban (including or excluding the ban year in our analysis) or in the years starting with the year of the ban, or

omitted earlier years (1979-1989) from consideration. All of the 24 overall estimates shown in Table 5 indicated a reduction in AMI associated with the ban, ranging from 1% to 6%. Although not all these estimates are statistically significant (at $p < 0.05$) many are, including the 3% reductions seen in both sexes in the weighted analyses for age 25+, which might be regarded as the most appropriate estimates. This reflects the narrow 95% CI in our analyses, which appears to rule out the possibility of a reduction in risk of more than 10%.

While our analyses are consistent with a smoking ban leading to a modest reduction in AMI mortality rates, they cannot be regarded as having clearly demonstrated this. Some caveats should be noted. First, virtually all the various national estimates of decline shown in Table 5 are not statistically significant, or are only marginally significant (at $p < 0.05$). Second, the reason for the massive decline in AMI rates over time in the USA is not well understood. In the absence of such an understanding, predictions of future trends must inevitably be uncertain. The quadratic model in log AMI rate used to fit the trends in the individual states appears to fit the decline well, but is not based on any scientific justification, being chosen only because it was suggested by inspection of plots of the observed data. Finally, our analyses take no potential confounding variables into account. It should be noted however that such variables would only be expected to be relevant if they differed systematically between states introducing and not introducing bans, varied over time, and were related to risk of the health endpoint studied. Even if our analyses have not demonstrated an effect of smoking bans with certainty, they would appear to rule out the existence of an effect anything like as large as suggested by the meta-analysis of Glantz [6].

The mortality data available when we conducted our analyses were only available up to 2006. This meant that only the effects of bans in those 15 states that introduced smokefree legislation by the end of 2005 were considered in our main analysis, though the effects of bans in the five states which introduced legislation in 2006 were also considered in our

sensitivity analysis 1. Given that, since 2006, smokefree legislation has been introduced in a number of other states, it will be of interest to carry out further analyses, possibly with more detailed analysis by age group, when later mortality data become available. Such analyses could also look at possible effects on other smoking-related diseases, and perhaps take into account relevant potential confounding variables.

Our analysis of US state AMI trends was based on mortality rates, rather than on incidence rates of fatal and non-fatal AMI. If bans have an effect one would expect to see changes in both mortality and incidence, given that the evidence of an association of AMI with smoking and ETS exposure has been demonstrated for both.

We note that the lack of evidence of a large reduction in AMI risk following smoking bans is also consistent with analyses published by Shetty et al. [29] based on a more complex approach involving nationally representative hospital admission and mortality data from AMI and other diseases, based on the Multiple Cause of Death database for 1989-2004, Medicare claims for 1997-2004 and the Nationwide Inpatient Survey for 1993-2004. (See Table 6)

Conclusion

While it is likely that public smoking bans, by reducing ETS exposure and encouraging some smokers to quit or reduce their consumption, have had some effect on heart disease risk, it is clear that any effect is likely to be quite small. Glantz's meta-analysis estimate [6] of a 19% reduction in AMI risk, and the IOM's conclusion [18] that declines in PM_{2.5} exposure following a smoking ban could plausibly cause reductions in risk of this magnitude, are clearly inappropriate. The IOM's data on PM_{2.5} actually suggest a very small decrease in risk of heart disease to the population at large following the likely reduction in exposure, lower than our own estimates of the likely effects of a ban on ETS exposure, smoking prevalence and consumption per smoker which we have presented elsewhere [20].

Glantz's meta-analysis estimate is based on individual study estimates which are subject to numerous errors and would be substantially lower if these were corrected [20]. Our estimate of the effect on all-age AMI mortality rates of smokefree legislation introduced in 15 US states by 2005 is also much lower. Though considerable uncertainty remains, we suggest that overall declines in heart disease resulting from a ban seem unlikely to exceed 5%, and may be only 2% or 3%. This is much less than the effect claimed by Glantz [6] and in the IOM report [18].

Abbreviations

AMI: acute myocardial infarction; CI: confidence interval; ETS: environmental tobacco smoke; IOM: Institute of Medicine; PM_{2.5}: particulate matter less than 2.5 micrometers across; RR: relative risk; SE: standard error.

Competing interests

PNL, founder of P N Lee Statistics and Computing Ltd, is an independent consultant in statistics and an adviser in the fields of epidemiology and toxicology to a number of tobacco, pharmaceutical and chemical companies. JSF works for P N Lee Statistics and Computing Ltd.

Authors' contributions

PNL planned the study, developed the methods, carried out literature searches, and prepared the meta-analyses, text and tables. JSF carried out the regression analyses of US state AMI mortality data and checked and commented on the drafts. Both authors read and approved the final manuscript.

Acknowledgements

Funding for the publication was provided by Japan Tobacco International. This is an independent scientific assessment and the views expressed are those of the authors. We thank Pauline Wassell and Diana Morris for typing the various drafts of this paper and Yvonne Cooper who assisted in obtaining the relevant literature. Barbara Forey extracted the data used in the AMI mortality analyses and commented on drafts of the paper. Jan Hamling also provided comments.

APPENDIX A

Comments on the paper by Peng et al. [19] and the conclusions drawn from it in the IOM report [18]

The IOM report [18] presents an analysis of possible effects of a ban based on data from a study by Peng et al. [19] which provides estimates of the increase in number of emergency hospital admissions from cardiovascular disease, IHD and heart failure per $10 \mu\text{g}/\text{m}^3$ increase in $\text{PM}_{2.5}$, and estimates of the increase in $\text{PM}_{2.5}$ exposure in 16 exposure scenarios, an increase assumed to be eliminated by a smoking ban. While the IOM [18] argue that “the analyses are clearly consistent with the magnitude of effects observed in the smoking-ban studies”, inspection of the results of Peng et al. [19] reveals that this conclusion is clearly incorrect. For the 16 exposure scenarios and three disease endpoints they considered, the estimated percentage reduction in risk is often only 1 or 2% and is never more than 10.6%, and the maximum 10.6% decline is linked to an $87.5 \mu\text{g}/\text{m}^3$ reduction in $\text{PM}_{2.5}$ following the elimination of 8 hours ETS exposure at work and 2 hours at a pub or bar. Of course, the average reduction in $\text{PM}_{2.5}$ following a ban would be much less than in this quite extreme scenario. A major weakness of the analysis is that the IOM [18] makes no attempt to estimate the average reduction in $\text{PM}_{2.5}$ exposure following a ban for the whole population. If it were as high as $42.9 \mu\text{g}/\text{m}^3$ (the average for the 16 scenarios, all of which assume at least an hour in a pub or bar), the reduction would be about 5% for heart failure, about 3% for cardiovascular disease and about 1% for IHD, which seems inconsistent with the estimated 19% reduction of Glantz [6].

Table 1

Effect of smoking bans on acute myocardial infarction (AMI) rates

Data listing

Log AMI Rate Males, Age: 25-64

State	US State	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
1	Alabama	5.05497	4.90156	4.95301	4.82270	4.78582	4.81543	4.69592	4.63764	4.52829	4.46476	4.39198	4.43793	4.43438	4.31749
2	Alaska	4.33336	4.35671	4.23120	3.98341	4.15888	4.01998	3.91402	4.00369	3.82647	3.67883	3.77506	3.60550	3.60005	3.68387
3	Arizona	4.42724	4.44147	4.39692	4.39692	4.26409	4.21804	4.12713	4.02177	4.02177	3.83081	3.71113	3.66356	3.70130	3.79997
4	Arkansas	4.96494	5.00730	4.88280	4.81786	4.82831	4.83628	4.67376	4.60517	4.68306	4.62301	4.72827	4.61907	4.67656	4.74232
5	California	4.35799	4.30542	4.24563	4.25277	4.15732	4.10594	4.05004	3.92197	3.87328	3.80888	3.76120	3.64545	3.65325	3.60821
6	Colorado	4.53152	4.49758	4.49088	4.47050	4.31080	4.32281	4.28772	4.25277	4.14789	3.98898	3.98713	3.92395	3.74950	3.62167
7	Connecticut	4.67096	4.58904	4.50314	4.46591	4.29183	4.20170	4.15732	3.93964	3.92986	3.73290	3.76584	3.64806	3.43721	3.56671
8	Delaware	4.85593	4.72384	4.57985	4.66250	4.49536	4.36564	4.31749	4.21804	4.01277	3.89995	4.02892	4.05699	3.86283	3.98527
9	District of Columbia	3.89182	3.87120	4.05526	3.88773	3.62167	3.97218	3.91801	3.59457	3.75654	3.69635	3.57795	3.52342	3.26957	3.36038
10	Florida	4.61611	4.60817	4.49758	4.41764	4.41764	4.30811	4.28909	4.15104	4.01998	3.97781	3.92986	3.87328	3.83514	3.71113
11	Georgia	5.11199	5.04600	4.96842	4.93950	4.82270	4.76984	4.76303	4.68583	4.62301	4.52179	4.40428	4.35543	4.29183	4.22975
12	Hawaii	4.08766	4.13996	4.11904	4.02356	4.13196	3.99452	3.95124	3.81991	3.87950	3.55820	3.62167	3.62167	3.58906	3.58629
13	Idaho	4.75617	4.59714	4.65776	4.45783	4.64439	4.54966	4.42604	4.29046	4.24133	4.13996	4.21804	4.10099	4.07073	4.11578
14	Illinois	4.81381	4.73883	4.68028	4.62399	4.53582	4.49981	4.43201	4.33990	4.30946	4.25135	4.21213	4.14155	4.16356	4.09767
15	Indiana	4.97189	4.92653	4.81300	4.81786	4.73268	4.67376	4.55598	4.60517	4.41643	4.41764	4.34510	4.28359	4.22975	4.13036
16	Iowa	4.88809	4.91998	4.83071	4.77828	4.76388	4.63570	4.56643	4.27249	4.25986	4.09767	4.16200	4.07923	4.06389	3.83730
17	Kansas	4.85281	4.82189	4.70682	4.68951	4.70139	4.55913	4.56747	4.47506	4.42843	4.26409	4.20170	4.15888	4.16976	4.10759
18	Kentucky	5.23271	5.19573	5.04471	5.02388	4.99315	5.00997	4.89709	4.86676	4.75531	4.80074	4.73532	4.64439	4.58395	4.57883
19	Louisiana	5.05242	4.97259	4.94093	4.83549	4.78832	4.85748	4.76644	4.69043	4.70953	4.61611	4.62301	4.58190	4.61512	4.51525
20	Maine	4.93231	4.83628	4.88129	4.84261	4.72827	4.65014	4.61611	4.52070	4.42604	4.46130	4.20618	3.92593	4.11741	4.00369
21	Maryland	4.61710	4.51961	4.46245	4.41643	4.33990	4.24707	4.16667	4.07584	4.03424	3.78872	3.94158	3.91999	3.76584	3.73050
22	Massachusetts	4.83787	4.83469	4.80566	4.81867	4.76217	4.63860	4.50976	4.45783	4.30271	4.22244	3.99452	3.91202	3.94158	3.86493
23	Michigan	4.89185	4.84261	4.78415	4.74406	4.67096	4.57985	4.60717	4.43675	4.40305	4.27388	4.35157	4.29456	4.21361	4.10429
24	Minnesota	4.63473	4.52179	4.59815	4.50976	4.44265	4.23411	4.20170	4.08933	4.07244	4.00003	3.94739	3.84374	3.83945	3.75420
25	Mississippi	4.99991	5.04084	5.04729	4.96145	4.93231	4.96981	4.86368	4.64150	4.69043	4.72827	4.80811	4.68491	4.64631	4.66908
26	Missouri	4.74493	4.67002	4.66908	4.63084	4.58904	4.48300	4.47050	4.32942	4.33860	4.25703	4.23844	4.32148	4.30676	4.25419
27	Montana	4.80074	4.84103	4.66721	4.60016	4.45202	4.35414	4.11251	4.27249	4.16821	4.00186	4.18965	4.16511	3.92593	3.83514
28	Nebraska	4.72916	4.62104	4.57368	4.60617	4.43319	4.55177	4.33205	4.26970	4.29456	3.97218	4.05004	3.89792	3.79773	3.73290
29	Nevada	4.54860	4.59411	4.39938	4.42004	4.26268	4.27528	4.40794	4.15418	3.99636	4.02535	3.91202	3.82428	3.86912	3.56671
30	New Hampshire	5.04084	4.98292	4.87672	4.87596	4.74057	4.68675	4.62986	4.51743	4.49758	4.34251	4.12228	4.09101	3.91999	3.85439
31	New Jersey	4.85671	4.79662	4.79579	4.68859	4.62301	4.53903	4.53367	4.39321	4.29046	4.21509	4.14155	4.00369	3.93574	3.91202
32	New Mexico	4.11087	4.08261	4.12875	4.03424	3.90600	3.97406	3.98713	3.74005	3.69387	3.50556	3.59731	3.62966	3.33932	3.36384
33	New York	4.73970	4.69410	4.66627	4.63084	4.57780	4.53796	4.45667	4.37071	4.27249	4.19870	4.09933	4.01277	3.95891	3.91002
34	North Carolina	5.07330	5.02651	4.99991	4.95018	4.90379	4.81543	4.65491	4.64823	4.56226	4.49647	4.46245	4.36310	4.26970	4.15732
35	North Dakota	4.99518	4.91998	4.79662	4.55808	4.51305	4.60016	4.51961	4.35286	4.41401	4.29320	4.10594	4.29183	4.32413	4.33336

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Data listing

Log AMI Rate Males, Age: 25-64

State	US State	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
36	Ohio	4.86291	4.79662	4.79414	4.75531	4.67470	4.59310	4.51852	4.47847	4.40428	4.28359	4.23120	4.21065	4.15104	4.12390
37	Oklahoma	4.88204	4.81543	4.75273	4.73004	4.63764	4.58904	4.55703	4.44030	4.39568	4.27110	4.23700	4.28221	4.16821	4.10264
38	Oregon	4.28082	4.28496	4.13677	4.17131	4.08261	4.08598	3.94739	3.92593	3.86073	3.84802	3.65066	3.64545	3.51155	3.40784
39	Pennsylvania	4.98361	4.91998	4.86059	4.77744	4.71043	4.67656	4.60517	4.49758	4.41643	4.30000	4.38078	4.29729	4.24420	4.21213
40	Rhode Island	4.82911	4.90379	4.65396	4.75789	4.76046	4.72916	4.58802	4.45202	4.22975	4.25703	4.05872	3.96840	3.68387	3.83514
41	South Carolina	5.12575	5.01463	4.91412	4.98224	4.91925	4.82431	4.78832	4.79165	4.72117	4.61710	4.63473	4.53903	4.53903	4.51415
42	South Dakota	4.92798	4.96564	4.90527	4.85593	4.68675	4.70048	4.62693	4.51415	4.40428	4.46820	4.33205	4.42004	4.20020	4.42004
43	Tennessee	5.15040	4.97742	4.96284	4.88204	4.86599	4.69135	4.64439	4.60916	4.55703	4.53582	4.47050	4.49647	4.42604	4.30136
44	Texas	4.72739	4.66532	4.56122	4.47847	4.43793	4.34899	4.32015	4.23411	4.17746	4.07244	4.10594	4.16821	4.01638	4.07244
45	Utah	4.53367	4.45899	4.46935	4.18965	4.13196	4.05526	3.87743	3.82864	3.83081	3.60821	3.52636	3.50856	3.23868	3.34639
46	Vermont	4.74057	4.70411	4.81056	4.59208	4.62104	4.36437	4.42963	4.42004	4.25561	4.19870	4.20767	4.13036	3.87120	3.88978
47	Virginia	4.86368	4.75359	4.70230	4.64054	4.54116	4.52504	4.44265	4.33336	4.25561	4.19570	4.07414	4.01818	3.97968	3.94546
48	Washington	4.49647	4.50645	4.46706	4.40916	4.32942	4.23120	4.12228	4.07754	3.96272	3.85862	3.70130	3.69387	3.68135	3.60821
49	West Virginia	5.13756	4.99247	4.96215	4.94805	4.79165	4.78916	4.76559	4.69866	4.57883	4.42724	4.49088	4.41280	4.39321	4.31882
50	Wisconsin	4.70411	4.67002	4.60617	4.55071	4.49981	4.50976	4.39198	4.39692	4.28082	4.19570	4.22537	4.19268	4.04655	3.99452
51	Wyoming	4.96494	4.81381	4.56643	4.55282	4.52721	4.48639	4.35286	3.91801	4.16667	3.94352	4.03954	3.96840	3.92986	4.09767
52	US Total	4.80074	4.74232	4.68859	4.64054	4.57368	4.51415	4.44852	4.35799	4.28772	4.20320	4.16976	4.11578	4.06217	4.01458

Table 1

Effect of smoking bans on acute myocardial infarction (AMI) rates

Data listing

Log AMI Rate Males, Age: 25-64

State	US State	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
1	Alabama	4.29046	4.27249	4.22975	4.14946	4.06560	3.92986	4.05699	4.06217	4.04305	4.03247	4.01096	3.89182	3.81331	3.81551
2	Alaska	3.51155	3.37759	3.23080	3.22684	3.28840	3.36038	2.93916	2.90690	2.77882	2.52573	2.24071	2.12823	2.51770	2.29253
3	Arizona	3.64021	3.41773	3.58629	3.56953	3.41115	3.48431	3.31419	3.20275	3.18635	3.15700	3.05400	3.00568	2.69463	2.65324
4	Arkansas	4.69318	4.67470	4.60217	4.50314	4.51305	4.48187	4.33336	4.37701	4.41643	4.41037	4.41884	4.35927	4.39321	4.42724
5	California	3.52636	3.50556	3.45316	3.43399	3.31054	3.33220	3.20275	3.16125	3.01062	3.00568	2.98062	2.88480	2.83908	2.79728
6	Colorado	3.50856	3.56953	3.53515	3.46574	3.26576	3.30689	3.29584	3.12236	2.97553	3.01553	2.78501	2.92852	2.82138	2.77882
7	Connecticut	3.35341	3.40453	3.29953	3.22684	3.21084	3.15700	2.97553	3.05400	2.84491	2.88480	2.87356	2.83321	2.67415	2.72785
8	Delaware	3.72328	3.73529	3.52342	3.69138	3.70377	3.42751	3.28840	3.54096	3.33220	3.14845	2.89591	3.14415	3.10459	3.03013
9	District of Columbia	3.26576	3.07269	3.30322	3.35341	3.54674	3.27336	2.80940	2.76632	3.21888	3.19867	3.27336	2.70805	2.78501	3.10906
10	Florida	3.73050	3.67883	3.70868	3.63495	3.50856	3.53223	3.44042	3.43076	3.28840	3.32504	3.29953	3.16125	3.05871	3.04927
11	Georgia	4.22829	4.11087	4.11415	4.00003	3.92986	3.87950	3.78646	3.69138	3.64545	3.58352	3.49651	3.46261	3.28840	3.30689
12	Hawaii	3.49043	3.38439	3.26957	3.17805	3.39115	3.19867	3.23080	3.00072	3.11352	3.01062	3.00072	2.96011	2.87356	2.75366
13	Idaho	3.90197	3.97968	4.10429	4.13357	3.99268	3.76352	3.94932	3.84802	3.74005	3.88978	3.86493	3.78191	3.63759	3.73050
14	Illinois	4.10923	4.05699	3.97968	3.93378	3.88978	3.81551	3.76584	3.69635	3.62434	3.56388	3.49347	3.49347	3.46574	3.39115
15	Indiana	4.23120	4.13677	4.09933	4.03247	4.07584	3.95124	3.88156	3.92986	3.80444	3.71601	3.71844	3.70623	3.60821	3.56953
16	Iowa	4.00003	3.92790	3.96840	3.84588	3.88362	3.77735	3.63231	3.68387	3.56388	3.44681	3.55820	3.39786	3.36384	3.35341
17	Kansas	3.94739	3.83081	3.90197	3.91002	3.82428	3.80888	3.50856	3.58906	3.47197	3.34286	3.38099	3.36730	3.24259	3.12236
18	Kentucky	4.59107	4.49200	4.54542	4.45667	4.36182	4.31615	4.25561	4.16511	4.25561	4.10923	4.24563	4.09268	4.09767	4.12713
19	Louisiana	4.48413	4.43201	4.33073	4.32678	4.26690	4.28082	4.09767	4.11578	4.13357	4.13677	4.23555	4.03247	4.04480	4.07584
20	Maine	3.91602	3.95508	3.97968	3.81551	3.90197	3.77276	3.46574	3.41115	3.21888	3.39451	3.25810	2.87356	3.12676	3.35341
21	Maryland	3.58074	3.64545	3.63231	3.65066	3.54674	3.48738	3.39786	3.30322	3.19458	3.24649	3.33932	3.12676	3.08191	3.02042
22	Massachusetts	3.81551	3.75887	3.65066	3.60278	3.59182	3.42751	3.35690	3.32863	3.20680	3.19458	3.21888	3.12676	2.99573	2.78501
23	Michigan	4.08766	4.05872	3.97218	3.89995	3.74242	3.68888	3.62434	3.55249	3.43721	3.37759	3.30322	3.23475	3.22684	3.17388
24	Minnesota	3.64806	3.64284	3.66099	3.45316	3.41444	3.33220	3.23868	3.16125	3.11352	2.83908	2.92852	2.89591	2.85647	2.61007
25	Mississippi	4.70592	4.63860	4.43082	4.47050	4.45667	4.46014	4.38950	4.29046	4.20020	4.29729	4.14155	4.12066	4.20916	4.09268
26	Missouri	4.23844	4.19117	4.21951	4.12066	4.15418	4.09601	4.09268	3.97218	3.96840	3.91801	3.89995	3.90600	3.77046	3.85439
27	Montana	3.96840	3.85439	3.91402	3.77506	3.62434	3.54674	3.39115	3.60005	3.36730	3.37417	3.44042	3.11352	3.10009	3.07731
28	Nebraska	3.65066	3.75420	3.70868	3.46261	3.61631	3.31782	3.32863	3.25037	3.31054	3.20275	3.18221	3.03013	3.05400	3.01553
29	Nevada	3.72569	3.53806	3.67630	3.54962	3.45316	3.38099	3.23475	3.38777	3.34639	3.17388	3.13549	2.99573	3.01553	2.78501
30	New Hampshire	3.74715	3.54962	3.61092	3.53806	3.40120	3.44042	3.23080	3.16125	3.02529	3.01062	2.86220	2.86220	2.73437	2.79117
31	New Jersey	3.89995	3.86283	3.81771	3.63495	3.60550	3.49651	3.45947	3.46261	3.38099	3.32143	3.20275	3.11352	3.10459	2.92316
32	New Mexico	3.05400	3.03013	3.22684	3.14845	3.08191	2.92852	2.88480	2.58022	3.07269	3.12236	2.76632	3.00072	2.74084	2.54160
33	New York	3.90197	3.81771	3.71357	3.65066	3.56671	3.40120	3.38777	3.37074	3.31419	3.24649	3.16969	3.06339	2.98568	2.94969
34	North Carolina	4.12875	4.03777	3.95316	3.98898	3.83081	3.81331	3.69635	3.57795	3.53806	3.38777	3.40784	3.35341	3.29584	3.25037
35	North Dakota	4.20170	4.04480	4.10759	3.83514	4.16044	3.86703	3.90197	3.89182	3.79324	3.45947	3.60005	3.39115	3.36730	3.60005

Table 1

Effect of smoking bans on acute myocardial infarction (AMI) rates

Data listing

Log AMI Rate Males, Age: 25-64

State	US State	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
36	Ohio	4.03424	4.02356	3.99452	3.90801	3.93574	3.86283	3.75185	3.72086	3.71844	3.66099	3.55535	3.51750	3.46886	3.44999
37	Oklahoma	4.02535	4.09767	3.97406	3.87328	3.85651	3.70868	3.70130	3.69883	3.42100	3.56671	3.49347	3.45632	3.34639	3.39115
38	Oregon	3.56105	3.46261	3.39786	3.38439	3.26957	3.25810	3.21084	3.15700	2.96527	2.88480	3.06339	2.68102	2.82731	2.70136
39	Pennsylvania	4.12228	4.09601	4.04655	4.02356	3.86073	3.80444	3.80888	3.71113	3.59731	3.58352	3.53806	3.47197	3.47816	3.41773
40	Rhode Island	3.83945	3.95508	4.02356	3.99083	3.94739	3.85015	3.57795	3.59457	3.68888	3.82428	3.51155	3.40120	3.43721	3.23475
41	South Carolina	4.42963	4.38078	4.45783	4.29320	4.28496	4.16821	4.23989	4.09933	3.95700	3.91002	3.87743	3.90600	3.88156	3.79324
42	South Dakota	4.32413	4.40060	4.19870	4.15104	3.98341	4.13517	4.00733	3.97594	3.94739	3.65325	3.86703	3.73767	3.68638	3.76352
43	Tennessee	4.44030	4.32546	4.28082	4.25703	4.21065	4.14630	4.09101	4.05178	4.00915	3.98155	4.01998	3.92790	3.95124	3.86493
44	Texas	3.93183	3.95316	3.93964	3.95124	3.93183	3.85015	3.74479	3.70623	3.69387	3.66612	3.56105	3.54674	3.49651	3.41115
45	Utah	3.34639	3.40784	3.39115	3.24259	3.15274	3.12676	2.94444	3.12236	2.98568	2.82731	2.89037	2.93386	2.68785	2.74727
46	Vermont	4.04305	3.92986	3.87328	3.56388	3.44681	3.42100	3.46574	3.25424	3.28091	2.76632	2.77259	2.79117	2.38876	2.59525
47	Virginia	3.83514	3.82864	3.81551	3.77046	3.70377	3.68387	3.49953	3.53515	3.42100	3.38439	3.34639	3.20680	3.26957	3.16125
48	Washington	3.68888	3.61631	3.37417	3.43076	3.31054	3.26194	3.17388	3.10009	3.13114	3.08191	3.04452	2.92316	2.97041	2.76632
49	West Virginia	4.39198	4.21065	4.28359	4.26409	4.15261	4.27528	3.98527	4.07244	3.92986	3.67883	3.73290	3.44362	3.36730	3.49953
50	Wisconsin	4.04655	4.00915	3.87950	3.88156	3.79549	3.84802	3.76584	3.71357	3.73050	3.64545	3.61092	3.47197	3.36038	3.32504
51	Wyoming	3.94932	4.09434	3.91002	3.91999	3.77276	3.86703	3.44999	3.64021	3.81771	3.49651	3.89386	3.47197	3.56953	3.39115
52	US Total	3.97968	3.93378	3.89386	3.83945	3.77506	3.71601	3.63495	3.59182	3.52636	3.48124	3.44999	3.37074	3.32504	3.27714

Table 2

Effect of smoking bans on acute myocardial infarction (AMI) rates

Data listing

Log AMI Rate Females, Age: 25-64

State	US State	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
1	Alabama	3.78419	3.69883	3.68888	3.56105	3.54962	3.57515	3.49347	3.43076	3.31782	3.37074	3.33220	3.30689	3.38099	3.22287
2	Alaska	2.92852	3.00568	3.10009	3.05400	2.40695	2.21920	2.55723	2.40695	2.63906	1.28093	2.14007	2.43361	2.11626	2.42480
3	Arizona	3.03013	3.01062	3.12236	2.95491	3.01062	3.02529	2.70136	2.76001	2.72130	2.68785	2.72785	2.37955	2.53370	2.60269
4	Arkansas	3.72810	3.58074	3.57795	3.53515	3.43076	3.54385	3.56105	3.50556	3.61092	3.53223	3.47816	3.58074	3.48431	3.54962
5	California	3.09104	3.04927	3.05871	3.03495	2.98568	2.91777	2.87920	2.86220	2.75366	2.80336	2.72130	2.55723	2.63189	2.59525
6	Colorado	3.14845	3.08191	3.29584	3.14845	2.95491	2.83908	2.85071	2.82138	2.72130	2.86790	2.62467	2.55723	2.54945	2.46810
7	Connecticut	3.37074	3.20680	3.10906	3.16125	3.09558	2.84491	2.92852	2.81541	2.83321	2.60269	2.66026	2.57261	2.56495	2.14007
8	Delaware	3.64021	3.45947	3.58906	3.09558	3.41115	3.06339	3.52636	3.14845	3.31054	2.96527	2.91777	3.06805	3.20275	3.21084
9	District of Columbia	2.72130	2.85647	3.05871	3.05400	2.96011	2.98062	2.99573	2.90690	3.03495	2.75366	2.67415	2.93916	2.76001	2.48491
10	Florida	3.21487	3.13983	3.19458	3.12236	3.09104	3.00072	3.01553	2.92852	2.92316	2.91235	2.83321	2.66026	2.72130	2.63189
11	Georgia	3.79549	3.86073	3.78191	3.67377	3.72810	3.55535	3.53806	3.56953	3.45632	3.54962	3.32504	3.24259	3.20680	3.32504
12	Hawaii	2.99573	2.76632	2.66723	2.89037	2.93386	2.98062	2.91235	2.96011	2.42480	2.23001	2.73437	2.65324	2.54945	2.75366
13	Idaho	3.41115	3.21084	3.19458	3.21888	3.02529	3.05871	3.03013	2.76632	2.66026	2.86790	3.10459	2.98062	2.89591	2.68102
14	Illinois	3.55820	3.49347	3.45316	3.49347	3.46574	3.36038	3.32504	3.30322	3.19867	3.15274	3.14415	3.10009	3.16548	3.02042
15	Indiana	3.65584	3.66612	3.58629	3.48738	3.53223	3.34286	3.43721	3.29584	3.23868	3.10906	3.10009	3.16125	3.05871	2.98062
16	Iowa	3.44999	3.42751	3.41115	3.30689	3.25037	3.18635	3.32504	3.12676	3.10459	2.77882	2.79117	2.86220	2.55723	2.78501
17	Kansas	3.35690	3.48124	3.24649	3.27714	3.28091	3.39451	3.33220	3.10009	3.16125	3.00568	2.87920	3.02042	3.03975	2.82731
18	Kentucky	3.93769	3.88978	3.82647	3.73767	3.74479	3.74005	3.61092	3.61631	3.55820	3.58074	3.44999	3.46886	3.43076	3.33577
19	Louisiana	3.83945	3.78191	3.75887	3.59731	3.68888	3.62700	3.65842	3.71357	3.63759	3.58074	3.61092	3.54096	3.46261	3.47816
20	Maine	3.78646	3.49347	3.42751	3.61362	3.48431	3.36038	3.37074	3.20275	3.27336	3.07731	2.90690	2.97041	2.81541	2.79117
21	Maryland	3.48431	3.43399	3.41115	3.30689	3.28840	3.25424	3.13114	3.11795	3.02529	2.80940	2.77259	2.80940	2.78501	2.71469
22	Massachusetts	3.50556	3.47197	3.47816	3.47197	3.41773	3.36384	3.28091	3.10906	3.14415	3.02042	2.76001	2.69463	2.77259	2.49321
23	Michigan	3.66099	3.67122	3.51155	3.51453	3.56671	3.49043	3.37759	3.38777	3.34639	3.21084	3.20680	3.22287	3.13549	3.13114
24	Minnesota	3.18221	3.16548	3.04452	3.02042	2.86790	2.89037	2.81541	2.64617	2.81541	2.56495	2.56495	2.67415	2.64617	2.36085
25	Mississippi	3.92790	3.70623	3.85862	3.79549	3.85227	3.83298	3.75420	3.50255	3.62434	3.60278	3.81771	3.57795	3.80888	3.56671
26	Missouri	3.36038	3.45632	3.32504	3.44362	3.39786	3.35690	3.36038	3.19048	3.08191	3.13549	3.06805	3.14415	3.24649	3.15274
27	Montana	3.54096	3.51155	3.46886	2.99072	3.05871	3.21084	3.16125	3.35341	3.08191	2.79117	2.61007	2.89037	2.54160	2.48491
28	Nebraska	3.11795	2.95491	3.17388	3.32504	3.16125	3.10459	2.90142	2.82731	3.22684	2.89591	2.80336	2.72130	2.72785	2.54945
29	Nevada	3.08191	3.11795	3.39115	3.24649	2.64617	3.10459	3.32504	2.54945	3.14415	2.97041	2.86790	2.61740	2.49321	2.30259
30	New Hampshire	3.61631	3.49651	3.42751	3.54674	3.23475	3.16548	3.28466	3.02042	3.21888	3.38777	2.62467	2.82138	2.49321	2.83321
31	New Jersey	3.56953	3.48738	3.44362	3.47507	3.40453	3.30322	3.24649	3.21084	3.10009	3.04927	2.97553	2.90142	2.90142	2.82138
32	New Mexico	2.86790	2.74084	2.90142	2.64617	2.58022	2.72785	2.58022	2.81541	2.42480	2.40695	2.16332	2.29253	2.17475	2.15176
33	New York	3.54962	3.49953	3.44999	3.49953	3.50556	3.43399	3.38439	3.26194	3.21084	3.14845	3.09104	3.01062	2.97041	2.92852
34	North Carolina	3.60005	3.68888	3.60821	3.66356	3.53223	3.47816	3.36384	3.39451	3.35341	3.33932	3.23868	3.12236	3.11795	3.02529
35	North Dakota	3.28091	3.10009	3.15274	3.21487	3.13549	3.03013	3.19048	2.71469	2.69463	2.56495	2.94444	2.79117	2.82731	2.87920

Table 2

Effect of smoking bans on acute myocardial infarction (AMI) rates

Data listing

Log AMI Rate Females, Age: 25-64

State	US State	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
36	Ohio	3.55820	3.44681	3.53806	3.53223	3.52046	3.47197	3.43399	3.32504	3.21084	3.16125	3.17805	3.09104	3.01062	3.01062
37	Oklahoma	3.42426	3.51750	3.59731	3.44681	3.41115	3.30689	3.37074	3.29953	3.31054	3.32863	3.20680	3.14415	3.10459	3.00568
38	Oregon	2.98568	2.89037	2.80940	3.07731	3.02042	2.87356	2.82138	2.69463	2.59525	2.77259	2.39790	2.51770	2.58022	2.15176
39	Pennsylvania	3.67630	3.64284	3.63495	3.56388	3.48431	3.48124	3.45316	3.37759	3.26194	3.22684	3.16969	3.13983	3.18221	3.10009
40	Rhode Island	3.42100	3.44362	3.36038	3.43399	3.37759	3.48124	3.53515	3.30322	3.18221	2.95491	2.92316	3.02529	2.54945	2.84491
41	South Carolina	3.92986	3.76584	3.79773	3.66612	3.87536	3.73767	3.68387	3.73529	3.58629	3.57235	3.48738	3.40120	3.34990	3.46886
42	South Dakota	3.49347	3.32863	3.13983	3.25810	3.13983	3.23475	3.15274	3.11352	3.16125	3.03013	2.66723	2.92316	3.06339	3.00072
43	Tennessee	3.73767	3.60005	3.62700	3.59731	3.60550	3.50255	3.38099	3.25424	3.42751	3.35341	3.21487	3.31419	3.29584	3.18221
44	Texas	3.43076	3.37759	3.34990	3.23080	3.19048	3.22684	3.12676	3.07731	3.08649	2.92852	2.99573	2.99573	2.94969	3.00072
45	Utah	2.92316	2.92316	2.83321	2.89591	2.79728	2.58022	2.46810	2.66026	2.74727	2.60269	2.30259	2.11626	2.66026	2.07944
46	Vermont	3.36038	3.66868	3.50856	3.45947	3.05400	2.98568	3.31782	3.02042	3.43721	3.05871	2.90142	2.31254	2.66026	2.50144
47	Virginia	3.54962	3.46261	3.39451	3.39115	3.38099	3.33932	3.24259	3.15700	3.19048	3.09558	3.03975	2.94969	2.87356	2.92852
48	Washington	3.16125	3.15274	3.13549	3.14845	3.08191	3.01553	2.83908	2.77882	2.85647	2.78501	2.49321	2.58022	2.47654	2.54160
49	West Virginia	3.84374	3.72328	3.78646	3.72569	3.60550	3.73050	3.61899	3.54962	3.59731	3.48431	3.40453	3.43721	3.33220	3.25810
50	Wisconsin	3.33577	3.23868	3.37074	3.37074	3.11795	3.14845	3.10009	3.10459	3.14845	2.98062	3.01062	2.93386	2.85647	2.68102
51	Wyoming	3.21888	3.43076	2.94444	2.98062	3.00568	2.95491	2.97553	2.45101	2.75366	2.74727	2.29253	2.61007	3.19867	2.93916
52	US Total	3.50255	3.45316	3.43076	3.40120	3.37074	3.31419	3.26957	3.19867	3.15700	3.10009	3.03975	2.99072	2.98062	2.92316

Table 2

Effect of smoking bans on acute myocardial infarction (AMI) rates

Data listing

Log AMI Rate Females, Age: 25-64

State	US State	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
1	Alabama	3.37074	3.18221	3.09558	3.18635	3.05871	2.91777	3.10459	3.21888	3.07269	3.10009	2.96527	3.00072	2.97041	2.92852
2	Alaska	1.77495	2.36085	1.19392	2.21920	2.06686	1.58924	2.45959	1.93152	1.43508	1.13140	1.25276	1.64866	1.33500	0.95551
3	Arizona	2.45101	2.43361	2.44235	2.33214	2.34181	2.23001	2.33214	2.18605	1.91692	2.04122	1.96009	1.85630	1.90211	1.43508
4	Arkansas	3.55249	3.55535	3.41773	3.48431	3.40453	3.39115	3.30322	3.40120	3.42100	3.55820	3.19458	3.37417	3.33577	3.41444
5	California	2.50960	2.45101	2.38876	2.38876	2.39790	2.26176	2.24071	2.07944	2.11626	2.05412	2.02815	1.91692	1.82455	1.85630
6	Colorado	2.40695	2.35138	2.28238	2.23001	2.14007	2.19722	2.02815	1.94591	1.74047	1.84055	1.72277	1.74047	1.43508	1.48160
7	Connecticut	2.27213	2.35138	2.09186	2.36085	2.16332	2.05412	2.11626	2.01490	1.79176	1.96009	1.50408	1.52606	1.52606	1.54756
8	Delaware	2.78501	3.00072	3.11795	2.94969	2.57261	2.10413	2.58776	2.34181	2.36085	2.38876	2.53370	2.37955	2.07944	1.88707
9	District of Columbia	2.33214	2.87920	2.82138	2.98062	2.49321	2.54160	2.05412	2.58022	2.46810	2.54160	2.28238	2.24071	2.16332	1.80829
10	Florida	2.47654	2.56495	2.56495	2.54945	2.48491	2.45101	2.36085	2.39790	2.34181	2.15176	2.16332	2.11626	2.01490	2.04122
11	Georgia	3.12676	2.99573	3.03495	3.03975	2.86790	2.85071	2.85071	2.71469	2.68102	2.66723	2.58022	2.45101	2.37955	2.19722
12	Hawaii	2.28238	2.58022	2.41591	2.23001	2.07944	2.19722	2.02815	2.00148	2.32239	1.64866	2.01490	1.70475	1.54756	1.74047
13	Idaho	3.11352	3.06805	2.85071	2.86220	2.65324	2.42480	2.83321	2.57261	2.45959	2.76001	2.50144	2.48491	2.46810	2.66723
14	Illinois	3.03495	3.07269	2.94444	2.90690	2.86790	2.77259	2.70805	2.68785	2.65324	2.58776	2.54945	2.45959	2.36085	2.35138
15	Indiana	3.14845	3.01062	2.97041	2.98568	2.91777	2.82138	2.81541	2.85071	2.69463	2.63189	2.65324	2.50960	2.56495	2.56495
16	Iowa	2.78501	2.72130	2.74084	2.60269	2.45101	2.66723	2.61007	2.50960	2.38876	2.36085	2.27213	2.15176	2.04122	2.15176
17	Kansas	2.91777	2.65324	2.68785	2.67415	2.52573	2.51770	2.76632	2.54160	2.37955	2.37955	2.02815	2.04122	2.07944	2.06686
18	Kentucky	3.33932	3.44999	3.39115	3.33932	3.35341	3.16548	3.23080	3.25810	3.14845	3.15274	3.10459	2.99573	3.19867	3.05400
19	Louisiana	3.51453	3.46886	3.28840	3.32143	3.26194	3.25810	3.10459	3.19048	3.14415	3.21888	3.21888	3.13983	3.13114	3.16548
20	Maine	2.86790	2.75366	2.91235	2.61007	2.76632	2.30259	2.37955	2.32239	2.40695	2.12823	2.04122	2.06686	2.06686	1.87180
21	Maryland	2.83321	2.56495	2.54945	2.66723	2.67415	2.50960	2.39790	2.53370	2.37024	2.36085	2.38876	2.31254	2.14007	2.25129
22	Massachusetts	2.51770	2.61740	2.53370	2.54945	2.35138	2.27213	2.25129	2.26176	2.14007	2.00148	2.09186	1.94591	1.75786	1.48160
23	Michigan	3.07731	2.98062	2.87920	2.91235	2.79728	2.67415	2.71469	2.57261	2.56495	2.46810	2.29253	2.12823	2.26176	2.19722
24	Minnesota	2.43361	2.26176	2.32239	2.06686	2.21920	1.82455	2.10413	1.62924	1.68640	1.66771	1.45862	1.45862	1.41099	1.33500
25	Mississippi	3.58906	3.60821	3.31419	3.35341	3.56105	3.40120	3.33577	3.48431	3.37417	3.34990	3.20275	3.08649	3.17805	3.20275
26	Missouri	3.04452	3.27336	3.16125	3.19867	3.00072	3.14415	3.01553	2.98568	2.93386	2.88480	2.87356	2.86220	2.75366	2.83908
27	Montana	2.70805	2.57261	2.70136	2.54945	2.55723	1.97408	1.91692	1.98787	1.88707	2.21920	2.24071	2.17475	1.85630	1.79176
28	Nebraska	2.64617	2.38876	2.52573	2.65324	2.50144	2.37955	2.10413	2.09186	2.28238	2.02815	2.28238	2.09186	1.91692	1.48160
29	Nevada	2.45101	2.59525	2.37955	2.44235	2.10413	2.39790	2.26176	2.06686	2.14007	2.09186	1.90211	1.75786	2.06686	1.75786
30	New Hampshire	2.52573	2.46810	2.27213	2.24071	2.29253	2.12823	2.40695	2.21920	1.87180	1.68640	1.52606	1.85630	0.78846	1.70475
31	New Jersey	2.79728	2.75366	2.76632	2.74084	2.52573	2.45101	2.44235	2.43361	2.38876	2.29253	2.24071	2.06686	2.09186	1.94591
32	New Mexico	2.00148	2.19722	1.77495	2.00148	1.43508	1.87180	1.93152	2.10413	2.09186	1.85630	1.60944	1.06471	1.77495	1.62924
33	New York	2.76632	2.73437	2.63906	2.62467	2.50960	2.41591	2.37955	2.39790	2.25129	2.26176	2.18605	2.04122	2.00148	1.96009
34	North Carolina	2.91235	2.94969	2.87920	2.78501	2.79117	2.70136	2.66026	2.51770	2.49321	2.29253	2.46810	2.27213	2.27213	2.24071
35	North Dakota	2.82731	3.22684	2.99072	2.93386	2.28238	2.54160	2.66723	2.42480	2.28238	2.66723	2.39790	2.49321	2.11626	2.07944

Table 2

Effect of smoking bans on acute myocardial infarction (AMI) rates

Data listing

Log AMI Rate Females, Age: 25-64

State	US State	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
36	Ohio	2.87920	2.96011	2.93386	2.91235	2.77259	2.70805	2.70805	2.63189	2.61740	2.58776	2.56495	2.39790	2.41591	2.29253
37	Oklahoma	3.02042	2.99573	2.87920	2.91235	2.79117	2.86790	2.66026	2.64617	2.50960	2.55723	2.54945	2.50960	2.48491	2.42480
38	Oregon	2.63189	2.55723	2.32239	2.15176	2.29253	2.24071	2.09186	1.87180	1.97408	2.01490	1.88707	1.88707	1.60944	1.52606
39	Pennsylvania	3.03013	2.99573	2.94444	2.96011	2.84491	2.72130	2.70136	2.68785	2.58776	2.57261	2.39790	2.38876	2.37955	2.23001
40	Rhode Island	3.02042	2.63906	2.93916	2.70805	2.55723	2.58776	2.58022	2.61007	2.40695	2.61007	2.29253	2.54945	2.12823	2.23001
41	South Carolina	3.31054	3.36384	3.39451	3.29953	3.14845	3.16548	3.02529	3.09558	2.90142	2.92316	2.86790	2.73437	2.63906	2.67415
42	South Dakota	2.79117	2.96527	3.20680	2.52573	2.86220	2.62467	2.76001	2.63189	2.59525	2.39790	2.80940	2.50960	2.63906	2.62467
43	Tennessee	3.23080	3.26194	3.03975	3.18635	3.11795	3.13549	2.93916	3.03013	3.07731	2.92852	2.86220	2.91777	2.95491	2.79728
44	Texas	2.91777	2.92852	2.93916	2.86220	2.90690	2.80336	2.73437	2.76001	2.78501	2.76001	2.58022	2.54160	2.52573	2.53370
45	Utah	2.45101	2.09186	2.16332	1.88707	1.94591	1.87180	1.58924	1.64866	1.68640	1.50408	1.62924	1.56862	1.58924	1.56862
46	Vermont	2.92852	2.58776	2.34181	2.69463	2.46810	2.09186	1.94591	2.48491	2.35138	1.13140	1.72277	1.45862	0.99325	1.22378
47	Virginia	2.87356	2.67415	2.66026	2.63189	2.67415	2.62467	2.45101	2.51770	2.40695	2.28238	2.23001	2.26176	2.14007	2.11626
48	Washington	2.47654	2.50144	2.24071	2.07944	2.16332	2.19722	1.97408	2.05412	2.02815	2.02815	1.96009	1.88707	1.80829	1.68640
49	West Virginia	3.17388	3.21487	3.23080	3.33577	3.11795	3.05400	2.93386	2.85071	2.93386	2.71469	2.86790	2.44235	2.83321	2.43361
50	Wisconsin	2.69463	2.63189	2.74084	2.64617	2.59525	2.66723	2.40695	2.58776	2.45101	2.33214	2.25129	2.16332	2.09186	2.10413
51	Wyoming	2.86220	2.58022	2.89037	2.60269	2.43361	2.95491	2.21920	2.66026	2.67415	2.45101	1.74047	2.80940	2.70136	2.51770
52	US Total	2.87920	2.86220	2.79728	2.78501	2.71469	2.64617	2.59525	2.58022	2.51770	2.47654	2.39790	2.32239	2.29253	2.25129

Table 3

Effect of smoking bans on acute myocardial infarction (AMI) rates

Data listing

Log AMI Rate Males, Age: 65 Plus

State	US State	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
1	Alabama	7.27163	7.21274	7.20615	7.16989	7.15867	7.10398	7.13903	7.01553	6.97756	6.92893	6.86150	6.85002	6.79403	6.76400
2	Alaska	7.01428	6.95930	6.96470	6.64353	6.34704	6.64418	6.25690	6.70760	6.50024	6.47743	6.31427	6.24378	6.27325	6.50922
3	Arizona	6.78581	6.86683	6.79705	6.81190	6.78231	6.71150	6.67039	6.61473	6.60245	6.60327	6.50981	6.46365	6.43503	6.40638
4	Arkansas	7.22118	7.19444	7.16015	7.11428	7.07758	7.05781	7.07081	7.00660	7.05721	7.04934	7.10661	7.07893	7.06527	7.06544
5	California	6.92766	6.93644	6.87503	6.88459	6.82361	6.82600	6.80793	6.68236	6.65544	6.61780	6.59742	6.53408	6.50084	6.44508
6	Colorado	7.05721	6.98703	7.00887	6.98268	6.91721	6.84864	6.82589	6.74723	6.73720	6.68198	6.62831	6.63634	6.51501	6.49330
7	Connecticut	7.07961	7.01248	6.90746	6.94736	6.83841	6.84033	6.74158	6.71962	6.68511	6.57284	6.52003	6.43999	6.35576	6.39409
8	Delaware	7.23965	6.96913	7.06056	6.90935	6.90485	6.90776	6.94678	6.85951	6.74288	6.71247	6.86182	6.81355	6.64223	6.65942
9	District of Columbia	6.36887	6.48905	6.57438	6.54262	6.32990	6.35315	6.33647	6.19929	6.10099	6.27589	6.26015	6.07970	6.03285	6.11700
10	Florida	6.94640	6.96706	6.92844	6.89781	6.86056	6.82785	6.84694	6.75414	6.71793	6.67633	6.63621	6.59044	6.51353	6.46723
11	Georgia	7.28297	7.28352	7.23548	7.17564	7.20704	7.11818	7.12978	7.06211	6.99714	6.98175	6.93751	6.86527	6.81410	6.72707
12	Hawaii	6.48768	6.55450	6.53379	6.49057	6.38249	6.59878	6.47374	6.38114	6.35854	6.13231	6.20557	6.07627	5.96152	6.20859
13	Idaho	7.09697	7.13950	7.06655	7.10357	6.97887	6.95883	6.97625	6.83303	6.80650	6.87997	6.80805	6.75437	6.70417	
14	Illinois	7.24172	7.20890	7.21642	7.14393	7.11534	7.07123	7.04351	6.99099	6.94138	6.90103	6.94986	6.90565	6.88898	6.85678
15	Indiana	7.30391	7.23201	7.21443	7.17135	7.11672	7.10283	7.09357	7.01795	6.93137	6.94794	6.90655	6.87109	6.80251	6.78480
16	Iowa	7.32732	7.27607	7.23447	7.25375	7.20266	7.13473	7.10390	6.89982	6.91681	6.86370	6.80948	6.79010	6.78559	6.73114
17	Kansas	7.26396	7.23418	7.13306	7.19923	7.20162	7.09994	7.05730	6.93098	6.94428	6.89528	6.83948	6.78151	6.72167	6.62300
18	Kentucky	7.45281	7.46107	7.34414	7.28249	7.30680	7.28503	7.24573	7.17687	7.13433	7.19436	7.13966	7.08137	7.06936	7.05064
19	Louisiana	7.11648	7.05350	7.00561	7.08774	7.04943	7.07259	7.05272	6.90284	6.93010	6.92520	6.92815	6.91005	6.90655	6.85129
20	Maine	7.28612	7.29478	7.17150	7.18273	7.11094	7.08966	7.07859	7.07021	6.95702	6.84545	6.80771	6.82154	6.71962	6.58050
21	Maryland	7.08766	7.06193	6.99485	7.01733	6.95588	6.90284	6.82655	6.80904	6.73981	6.66823	6.67595	6.68349	6.63988	6.55720
22	Massachusetts	7.18045	7.23850	7.18630	7.20028	7.14449	7.06945	6.98915	6.95864	6.90345	6.84332	6.73803	6.68698	6.57522	6.58865
23	Michigan	7.31075	7.28187	7.26031	7.21737	7.14866	7.12962	7.10554	7.05410	6.98952	6.92775	6.97859	6.94524	6.88765	6.85572
24	Minnesota	7.06245	7.07691	7.01284	7.01481	6.95902	6.93264	6.82687	6.77822	6.72503	6.66836	6.70257	6.67935	6.60137	6.50937
25	Mississippi	7.21869	7.19323	7.18811	7.11053	7.14172	7.15508	7.11591	6.91205	6.92785	7.00986	7.02705	6.97429	6.97082	6.85888
26	Missouri	7.17816	7.17511	7.15290	7.10201	7.10159	7.06578	6.98694	7.00932	6.96650	6.89274	6.96461	6.93984	6.91483	6.89193
27	Montana	7.15664	7.08372	6.97485	6.98323	6.91085	6.97691	6.91005	6.76999	6.74064	6.70417	6.65673	6.64730	6.51041	6.35350
28	Nebraska	7.21920	7.18334	7.18379	7.16758	7.08389	7.08347	7.13138	6.99338	6.91035	6.79917	6.78593	6.72815	6.70380	6.64483
29	Nevada	6.89629	6.80295	6.77194	6.73364	6.76388	6.81058	6.88510	6.59537	6.47358	6.51011	6.43294	6.29840	6.19746	6.27476
30	New Hampshire	7.26354	7.31489	7.21920	7.17319	7.06253	7.06510	6.92176	7.02171	6.87864	6.96177	6.85751	6.77833	6.61123	6.46084
31	New Jersey	7.25975	7.25049	7.17426	7.18417	7.15321	7.09307	7.09780	7.00896	6.96612	6.94476	6.86192	6.84354	6.79571	6.75017
32	New Mexico	6.68798	6.72551	6.55251	6.71138	6.60001	6.57814	6.54979	6.36973	6.39893	6.26872	6.33948	6.26206	6.32865	6.13924
33	New York	7.23605	7.28049	7.23497	7.23093	7.21612	7.14583	7.12601	7.07403	6.97457	6.97756	6.93049	6.86161	6.81827	6.75379
34	North Carolina	7.28701	7.24786	7.22308	7.16789	7.19369	7.17969	7.09224	7.02403	7.05773	7.07750	6.93887	6.89112	6.88305	6.74723
35	North Dakota	7.35398	7.25771	7.15211	7.18159	7.20497	7.10890	7.21244	6.91413	6.88623	6.90875	6.88755	6.86119	6.78818	6.84513

Table 3

Effect of smoking bans on acute myocardial infarction (AMI) rates

Data listing

Log AMI Rate Males, Age: 65 Plus

State	US State	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
36	Ohio	7.22125	7.21082	7.15125	7.11883	7.08883	7.06211	7.01831	6.95129	6.88192	6.84928	6.85488	6.82089	6.73042	6.69950
37	Oklahoma	7.39234	7.33778	7.27635	7.25177	7.21134	7.09232	7.19609	7.09083	6.99897	6.96819	6.89437	6.86286	6.81366	6.76123
38	Oregon	6.78536	6.83432	6.74970	6.70061	6.75984	6.62340	6.66160	6.56301	6.56216	6.51841	6.46490	6.53510	6.43406	6.34914
39	Pennsylvania	7.26557	7.25474	7.17426	7.15836	7.13441	7.08749	7.04167	7.00479	6.94534	6.89071	6.97579	6.89821	6.86797	6.83141
40	Rhode Island	7.41734	7.32317	7.29939	7.21796	7.29932	7.27531	7.16123	7.03773	7.02189	6.89892	6.77262	6.75530	6.66109	6.62632
41	South Carolina	7.20534	7.16131	7.14520	7.11826	7.20853	7.10151	7.09423	7.05566	7.04403	7.04045	6.96205	6.90826	6.87905	6.82904
42	South Dakota	7.37394	7.37713	7.34672	7.35135	7.29050	7.23555	7.17388	7.16170	7.13306	7.09049	7.15758	7.05116	6.97176	6.90965
43	Tennessee	7.34077	7.27066	7.23519	7.21362	7.19893	7.08983	7.08523	6.99448	7.04639	7.08003	7.04264	7.04194	6.96338	6.95158
44	Texas	7.12311	7.11964	7.07259	7.02037	7.02509	6.98564	6.93566	6.86901	6.80273	6.74993	6.78468	6.83465	6.76492	6.78468
45	Utah	7.04665	7.04115	6.89639	6.96941	6.80605	6.90706	6.83087	6.64535	6.54089	6.63306	6.45771	6.46941	6.48662	6.38418
46	Vermont	7.14425	7.08849	7.01580	7.14764	6.96998	7.06005	6.92491	6.88582	6.79111	6.74264	6.75937	6.62712	6.53131	6.62407
47	Virginia	7.09970	7.15976	7.10365	7.04001	7.07479	6.95588	6.95340	6.83368	6.82795	6.83690	6.68299	6.65170	6.67557	6.58548
48	Washington	6.98388	6.96725	6.93128	6.95769	6.87956	6.82405	6.74323	6.64782	6.62061	6.63292	6.55706	6.52649	6.45928	6.49466
49	West Virginia	7.26263	7.24630	7.21678	7.15430	7.08188	7.11996	7.03817	6.93196	6.93020	6.88336	7.00097	6.95340	6.80006	6.82056
50	Wisconsin	7.23907	7.21008	7.16804	7.11469	7.07174	7.07657	7.07572	7.02010	6.98091	7.01203	6.97251	6.91642	6.86870	6.80771
51	Wyoming	7.29363	7.30324	7.13760	7.03624	6.99567	6.96650	7.02652	6.86453	6.68198	6.80860	6.65041	6.58810	6.65325	6.50024
52	US Total	7.17120	7.16193	7.11322	7.09099	7.06099	7.01965	6.99246	6.91423	6.86985	6.84268	6.82231	6.78208	6.73090	6.68885

Table 3

Effect of smoking bans on acute myocardial infarction (AMI) rates

Data listing

Log AMI Rate Males, Age: 65 Plus

State	US State	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
1	Alabama	6.72191	6.61927	6.56808	6.62114	6.49934	6.44667	6.47235	6.45441	6.34546	6.26245	6.21000	6.11744	5.98040	5.88416
2	Alaska	6.32167	6.42600	6.32400	5.79240	5.65739	6.10769	5.70145	5.81503	5.66919	5.24860	5.74939	4.61907	4.96564	5.18010
3	Arizona	6.38351	6.28767	6.33061	6.28618	6.15888	6.15295	6.15910	6.08655	5.97635	5.93410	5.81024	5.69171	5.61422	5.41965
4	Arkansas	7.08439	7.00697	6.97980	6.93186	6.92047	6.94909	6.87864	6.82893	6.76838	6.81772	6.69097	6.63765	6.57284	6.46287
5	California	6.42875	6.40125	6.38249	6.33097	6.27174	6.27646	6.25556	6.20557	6.14225	6.09673	6.02224	5.93674	5.85048	5.79788
6	Colorado	6.43807	6.33859	6.26758	6.33399	6.21361	6.19705	6.09312	6.04501	5.97177	5.92852	5.84180	5.75701	5.68698	5.49430
7	Connecticut	6.26872	6.23715	6.17732	6.15846	6.09942	6.03237	6.04168	5.98821	5.84731	5.79940	5.74939	5.67023	5.61240	5.49183
8	Delaware	6.75425	6.62592	6.41001	6.49813	6.46552	6.39443	6.31228	6.43791	6.15994	6.12534	5.96717	6.05162	5.80393	5.81054
9	District of Columbia	5.93118	6.15825	6.08382	6.03811	6.01762	5.88610	5.97660	6.16647	6.14996	6.04950	5.94830	5.74140	5.62474	5.68324
10	Florida	6.42536	6.36784	6.32149	6.29471	6.24417	6.24843	6.22416	6.13665	6.10591	5.97254	5.90563	5.80604	5.69205	5.57063
11	Georgia	6.73126	6.67595	6.55834	6.45959	6.44079	6.44572	6.35333	6.35732	6.22693	6.15103	6.10836	5.90154	5.85507	5.76425
12	Hawaii	6.09875	5.94568	5.87071	5.93754	5.83715	5.95012	5.89880	5.77827	5.75003	5.74907	5.47855	5.47688	5.26476	5.47605
13	Idaho	6.73981	6.61967	6.60962	6.49527	6.59523	6.64236	6.60962	6.44142	6.36406	6.34036	6.29249	6.15124	6.14397	6.08632
14	Illinois	6.84119	6.80650	6.76573	6.66300	6.65183	6.59810	6.58534	6.50504	6.37298	6.37230	6.28897	6.18229	6.11545	6.04973
15	Indiana	6.76412	6.72034	6.70257	6.63213	6.53944	6.56343	6.51219	6.47636	6.38637	6.32167	6.26739	6.10189	6.04572	6.07512
16	Iowa	6.66288	6.58603	6.59564	6.53350	6.57116	6.52459	6.43711	6.41722	6.35472	6.29490	6.11964	6.12731	6.09199	5.94934
17	Kansas	6.71089	6.58727	6.61754	6.47095	6.48219	6.40324	6.34212	6.20738	6.20132	6.21501	6.06866	5.87240	5.81503	5.79088
18	Kentucky	7.01212	7.03165	6.94167	6.86265	6.88918	6.79649	6.82056	6.71016	6.69481	6.63161	6.53161	6.44667	6.40721	6.35680
19	Louisiana	6.84875	6.77125	6.73685	6.62936	6.57535	6.55806	6.52664	6.46100	6.43919	6.39893	6.37024	6.24920	6.18600	6.08814
20	Maine	6.50578	6.54290	6.47126	6.35228	6.58203	6.34826	6.29803	6.35001	6.20456	6.09627	6.02900	5.93251	5.83569	5.70044
21	Maryland	6.53088	6.49360	6.46770	6.52018	6.44127	6.36492	6.35750	6.39643	6.35193	6.24940	6.22158	6.06704	5.99171	5.88721
22	Massachusetts	6.54836	6.44063	6.45959	6.39359	6.34124	6.26054	6.27061	6.15634	6.12731	6.08972	6.05585	5.92932	5.86760	5.66400
23	Michigan	6.78525	6.73744	6.69827	6.61754	6.54750	6.53553	6.45693	6.39108	6.28730	6.26206	6.15571	6.01543	5.93964	5.85335
24	Minnesota	6.52679	6.41280	6.38046	6.33115	6.17877	6.15825	6.07695	6.05749	5.90672	5.79879	5.74556	5.50858	5.47646	5.32350
25	Mississippi	6.91553	6.77262	6.63935	6.63450	6.67771	6.64756	6.59824	6.64600	6.52956	6.52562	6.34529	6.24901	6.25075	6.12096
26	Missouri	6.88837	6.84556	6.81674	6.82448	6.78412	6.75192	6.72815	6.68273	6.58175	6.59291	6.46162	6.33930	6.27457	6.29471
27	Montana	6.58147	6.36973	6.28525	6.25882	6.26682	6.07028	6.04097	5.96255	6.10368	6.11876	5.95142	5.68765	5.76048	5.52864
28	Nebraska	6.53944	6.46630	6.36699	6.32936	6.21281	6.10233	6.09312	6.00042	5.85765	5.87465	5.70245	5.58161	5.64332	5.33320
29	Nevada	6.10814	6.04997	6.17379	6.03357	5.84904	5.82600	6.01957	5.74332	5.82186	5.80061	5.62004	5.54009	5.42495	5.32155
30	New Hampshire	6.42016	6.46910	6.55194	6.42227	6.46178	6.27099	6.21701	6.14268	6.22555	6.05091	5.96435	5.87914	5.73140	5.62546
31	New Jersey	6.72935	6.64574	6.62817	6.57633	6.56018	6.47682	6.47512	6.39660	6.34739	6.25344	6.17545	6.07235	5.98419	5.90127
32	New Mexico	6.08108	6.10345	6.03930	5.95584	5.88304	5.83276	5.90045	5.84702	5.79575	5.66192	5.46468	5.55451	5.47605	5.43285
33	New York	6.72755	6.63068	6.56329	6.52854	6.46397	6.38621	6.33824	6.31355	6.26530	6.23147	6.16121	5.98293	5.92879	5.86986
34	North Carolina	6.72671	6.68848	6.61029	6.57018	6.49072	6.44588	6.39526	6.37298	6.23147	6.19481	6.08427	6.02538	5.90345	5.85278
35	North Dakota	6.77216	6.76157	6.80384	6.63227	6.53059	6.52268	6.63029	6.52576	6.49179	6.40935	6.41001	6.22416	6.16898	6.20637

Table 3

Effect of smoking bans on acute myocardial infarction (AMI) rates

Data listing

Log AMI Rate Males, Age: 65 Plus

State	US State	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
36	Ohio	6.68773	6.63765	6.61499	6.58714	6.55322	6.47111	6.47651	6.37656	6.35211	6.25364	6.17981	6.04950	6.03954	5.98040
37	Oklahoma	6.70906	6.61780	6.61633	6.54406	6.50294	6.48799	6.42065	6.34388	6.18950	6.20678	6.16100	6.03548	5.97432	5.90917
38	Oregon	6.36509	6.31644	6.30518	6.31680	6.17504	6.09785	6.06402	6.06052	6.06076	6.02538	5.87099	5.79727	5.76048	5.66885
39	Pennsylvania	6.76884	6.75472	6.71150	6.64600	6.53944	6.55151	6.49285	6.43775	6.35454	6.27212	6.21461	6.12074	6.07189	5.97584
40	Rhode Island	6.65917	6.77696	6.84460	6.73304	6.74253	6.67102	6.54851	6.57856	6.43165	6.48966	6.40374	6.32418	6.36423	6.24669
41	South Carolina	6.81069	6.77457	6.75763	6.70257	6.60381	6.61459	6.57981	6.57828	6.36303	6.38063	6.27570	6.17274	5.97075	5.91512
42	South Dakota	6.93887	6.96395	6.82350	6.88387	6.69308	6.59837	6.62473	6.57466	6.58299	6.40655	6.42016	6.37995	6.28842	6.27156
43	Tennessee	6.90294	6.90525	6.84450	6.77571	6.81903	6.73102	6.70637	6.66185	6.58714	6.58106	6.47064	6.39409	6.30792	6.28693
44	Texas	6.70539	6.72106	6.70711	6.67077	6.68223	6.63516	6.60800	6.56864	6.49148	6.47405	6.35507	6.27457	6.25055	6.04168
45	Utah	6.34546	6.33221	6.16773	6.16982	6.17732	6.11014	6.10546	5.97889	5.91889	5.83364	5.82688	5.69070	5.60727	5.49553
46	Vermont	6.58686	6.51605	6.59346	6.29360	6.28749	6.14182	6.33930	6.24417	6.18970	6.21341	5.88025	5.92077	5.80904	5.79758
47	Virginia	6.53306	6.51531	6.45990	6.43181	6.32454	6.34071	6.27514	6.22772	6.10635	6.12731	6.05936	5.92906	5.89330	5.83335
48	Washington	6.44968	6.39909	6.26606	6.31246	6.18888	6.19461	6.14118	6.08473	6.07925	6.03524	5.96101	5.84470	5.80333	5.66400
49	West Virginia	6.82318	6.73602	6.69925	6.62473	6.61593	6.63200	6.50966	6.52165	6.36784	6.25690	6.23107	6.18621	6.13816	6.00635
50	Wisconsin	6.71635	6.69790	6.62738	6.66505	6.57939	6.53364	6.52297	6.47420	6.33736	6.34142	6.23147	6.18146	6.09402	5.98015
51	Wyoming	6.71974	6.54765	6.49042	6.34212	6.35663	6.44731	6.28077	6.40407	6.05420	6.26416	5.85479	6.04737	6.09762	5.81174
52	US Total	6.65647	6.60665	6.56695	6.52018	6.47080	6.43567	6.40324	6.35036	6.27363	6.22654	6.14032	6.03261	5.96589	5.87549

Table 4

Effect of smoking bans on acute myocardial infarction (AMI) rates

Data listing

Log AMI Rate Females, Age: 65 Plus

State	US State	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
1	Alabama	6.66530	6.62353	6.59195	6.59851	6.60340	6.60921	6.63713	6.51382	6.43807	6.50339	6.35593	6.36578	6.31337	6.24475
2	Alaska	5.91755	6.22495	6.30024	6.31518	6.09852	5.78996	5.94725	5.77858	5.96512	5.78996	5.74172	5.61568	5.23484	5.69676
3	Arizona	6.18312	6.30244	6.26340	6.37230	6.28339	6.13318	6.07351	5.99918	6.03261	6.11876	5.99371	6.01469	5.93012	5.98896
4	Arkansas	6.53742	6.54319	6.53088	6.48250	6.42243	6.47836	6.44556	6.35141	6.52239	6.48188	6.56822	6.59674	6.52488	6.48158
5	California	6.34564	6.36904	6.33576	6.33346	6.29968	6.29101	6.26891	6.21900	6.22436	6.17483	6.18188	6.11611	6.05585	6.02369
6	Colorado	6.40572	6.29508	6.22495	6.36922	6.19746	6.20274	6.14311	6.16416	6.08153	6.07810	6.01957	6.07051	6.00635	5.93885
7	Connecticut	6.47589	6.42146	6.34195	6.34546	6.34247	6.35158	6.24475	6.22396	6.13427	6.15124	6.00660	6.00042	5.94803	5.90808
8	Delaware	6.49783	6.34159	6.38637	6.35767	6.33948	6.26378	6.31500	6.27533	6.31083	6.28897	6.35141	6.37826	6.37809	6.17212
9	District of Columbia	6.19990	6.06192	6.01859	5.97914	5.93012	5.99869	5.94568	5.85192	5.81503	5.97126	5.69340	5.77920	5.72326	5.63871
10	Florida	6.30828	6.35802	6.34721	6.32149	6.27099	6.26910	6.28114	6.23930	6.20314	6.16079	6.13621	6.09897	6.04737	6.02369
11	Georgia	6.67051	6.65041	6.60706	6.58008	6.58769	6.57814	6.54922	6.55649	6.51249	6.48905	6.38384	6.34335	6.29674	6.30536
12	Hawaii	6.22792	6.04025	6.07397	5.96999	6.09267	5.96794	5.89082	5.97075	5.84788	5.67675	5.65038	5.67915	5.60507	5.63121
13	Idaho	6.40407	6.31173	6.34071	6.34283	6.36990	6.34458	6.22871	6.22733	6.21080	6.15528	6.26035	6.02054	6.18250	6.03357
14	Illinois	6.67469	6.64911	6.60340	6.59755	6.56583	6.53422	6.54736	6.47435	6.45425	6.41657	6.48509	6.43743	6.44873	6.37894
15	Indiana	6.63857	6.58452	6.54779	6.52474	6.50534	6.44461	6.42081	6.41182	6.34581	6.37537	6.31391	6.35001	6.29027	6.25190
16	Iowa	6.65196	6.56976	6.53539	6.56032	6.54679	6.45284	6.40572	6.27061	6.23363	6.21401	6.14397	6.17087	6.17524	6.07281
17	Kansas	6.51100	6.52430	6.49813	6.48509	6.41182	6.42697	6.31500	6.35228	6.30810	6.27608	6.21860	6.23813	6.15273	6.19154
18	Kentucky	6.76769	6.80139	6.69320	6.67153	6.68624	6.62606	6.67001	6.63726	6.55891	6.62353	6.59592	6.50922	6.51456	6.44588
19	Louisiana	6.46816	6.48723	6.48158	6.50444	6.52400	6.46443	6.45708	6.40886	6.32990	6.33983	6.46037	6.44206	6.39007	6.28357
20	Maine	6.67784	6.71247	6.56667	6.60948	6.60421	6.60014	6.57786	6.49647	6.39576	6.37843	6.31137	6.19175	6.12818	6.14096
21	Maryland	6.55749	6.57494	6.46022	6.45142	6.43727	6.39743	6.34036	6.32812	6.29563	6.21601	6.25017	6.27269	6.14397	6.10502
22	Massachusetts	6.59003	6.66313	6.59537	6.60109	6.51723	6.49421	6.44873	6.44381	6.38334	6.35871	6.28245	6.19318	6.12359	6.11014
23	Michigan	6.70454	6.69642	6.66772	6.64301	6.62340	6.58022	6.56244	6.55735	6.47528	6.44604	6.52165	6.47759	6.43983	6.37995
24	Minnesota	6.35576	6.42649	6.30518	6.29729	6.28637	6.23107	6.19420	6.10969	6.08700	6.05091	5.99096	5.99046	5.94699	5.86760
25	Mississippi	6.60679	6.58078	6.60096	6.52986	6.54979	6.56018	6.51605	6.41853	6.36044	6.40523	6.47343	6.41918	6.43567	6.35663
26	Missouri	6.54535	6.53857	6.49239	6.51070	6.47497	6.41461	6.43647	6.39876	6.40556	6.34809	6.38503	6.38199	6.37059	6.38046
27	Montana	6.43487	6.51929	6.34669	6.29212	6.34018	6.26206	6.18600	6.09176	6.10613	6.05491	6.06634	5.95428	5.80574	5.78843
28	Nebraska	6.50219	6.48890	6.45598	6.39007	6.41493	6.41624	6.32954	6.34721	6.25575	6.22693	6.13859	6.06309	6.01420	6.02393
29	Nevada	6.28413	6.15380	6.03405	6.23264	6.20132	6.29434	6.21140	6.11125	6.00265	5.95972	5.71736	5.63014	5.66296	5.52266
30	New Hampshire	6.65480	6.59715	6.63292	6.37093	6.49888	6.51041	6.45724	6.42227	6.38503	6.40952	6.36234	6.20617	6.11788	5.91323
31	New Jersey	6.72839	6.71344	6.61566	6.63240	6.58741	6.57312	6.55294	6.51501	6.43036	6.47126	6.40308	6.41362	6.34054	6.28563
32	New Mexico	5.96538	6.13340	5.91107	5.98394	6.06146	6.06262	5.99446	5.90618	5.91242	5.81890	5.82836	5.81294	5.68901	5.66087
33	New York	6.74829	6.79010	6.72959	6.72058	6.70760	6.68386	6.64976	6.59973	6.54420	6.54290	6.49662	6.41444	6.37707	6.31028
34	North Carolina	6.62234	6.59181	6.57074	6.54693	6.54420	6.54736	6.50429	6.54161	6.52825	6.47728	6.44873	6.36044	6.35437	6.28133
35	North Dakota	6.58727	6.51885	6.49919	6.42503	6.52532	6.46178	6.44286	6.26168	6.29656	6.33824	6.22495	6.14354	5.98343	6.14376

Table 4

Effect of smoking bans on acute myocardial infarction (AMI) rates

Data listing

Log AMI Rate Females, Age: 65 Plus

State	US State	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
36	Ohio	6.59236	6.59564	6.57200	6.51545	6.49042	6.48723	6.45268	6.41411	6.38097	6.30846	6.32829	6.27589	6.29175	6.19949
37	Oklahoma	6.67897	6.63791	6.58851	6.58769	6.58465	6.51501	6.51056	6.46987	6.38012	6.42730	6.32364	6.32954	6.28357	6.18270
38	Oregon	6.14118	6.11390	6.16057	6.06099	6.11832	6.05936	6.09582	6.04073	6.01640	5.98217	5.99720	5.98293	5.90998	5.85479
39	Pennsylvania	6.70845	6.69777	6.65093	6.63068	6.59646	6.55749	6.55749	6.47281	6.45504	6.38452	6.49391	6.42471	6.38688	6.36458
40	Rhode Island	6.75879	6.76930	6.68711	6.69059	6.68424	6.69233	6.58865	6.57717	6.45142	6.33718	6.39175	6.17919	6.15273	6.12425
41	South Carolina	6.59044	6.56597	6.59660	6.52854	6.58796	6.57925	6.54334	6.53944	6.51412	6.53698	6.44635	6.39259	6.36595	6.35628
42	South Dakota	6.73625	6.63555	6.56216	6.73625	6.67469	6.54420	6.50159	6.37588	6.45912	6.41771	6.41755	6.41017	6.38671	6.37366
43	Tennessee	6.64808	6.68486	6.60177	6.62367	6.64743	6.52913	6.52180	6.54836	6.52297	6.50713	6.46334	6.43069	6.48555	6.36492
44	Texas	6.53771	6.52121	6.49163	6.44778	6.45047	6.40886	6.37724	6.32023	6.27212	6.23754	6.31608	6.31028	6.30115	6.24514
45	Utah	6.25862	6.26378	6.22495	6.20436	6.19298	6.13014	6.12883	6.06495	6.02996	6.02175	5.95350	5.89935	5.85936	5.79879
46	Vermont	6.53524	6.51856	6.55834	6.41034	6.39610	6.48219	6.37212	6.36939	6.33275	6.26359	6.14096	6.20496	6.05397	6.21140
47	Virginia	6.51575	6.52371	6.45284	6.44731	6.45881	6.39843	6.31337	6.29194	6.22436	6.25862	6.21960	6.17587	6.13057	6.10233
48	Washington	6.33505	6.39459	6.34018	6.33753	6.27080	6.17545	6.14954	6.06262	6.07649	5.99146	6.05655	5.99471	5.93065	5.88888
49	West Virginia	6.66530	6.61392	6.58382	6.53655	6.49949	6.59933	6.50907	6.47405	6.52430	6.42616	6.39560	6.33186	6.35992	6.30500
50	Wisconsin	6.58590	6.59071	6.52121	6.52386	6.45724	6.42048	6.44286	6.43036	6.44031	6.42016	6.38469	6.37178	6.27401	6.24746
51	Wyoming	6.51516	6.56442	6.60908	6.39926	6.26568	6.37264	6.36664	6.29231	6.22317	6.02127	6.12359	5.99196	6.01078	6.10635
52	US Total	6.57144	6.57326	6.52606	6.51264	6.49088	6.46131	6.43743	6.39409	6.35802	6.33363	6.32686	6.28581	6.24862	6.20051

Table 4

Effect of smoking bans on acute myocardial infarction (AMI) rates

Data listing

Log AMI Rate Females, Age: 65 Plus

State	US State	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
1	Alabama	6.28189	6.15549	6.16036	6.06192	6.06262	5.98620	6.07143	6.01811	5.93384	5.86335	5.76237	5.65108	5.59099	5.49018
2	Alaska	5.89054	5.53536	5.65879	5.60801	5.36223	5.18347	5.25854	5.44803	5.28371	4.68859	5.12575	4.30542	4.57471	4.73795
3	Arizona	5.96435	5.89275	5.88638	5.80061	5.79727	5.74364	5.73431	5.61130	5.56758	5.49717	5.47688	5.29079	5.19960	5.09742
4	Arkansas	6.51752	6.50549	6.42762	6.41853	6.40968	6.37212	6.34476	6.29766	6.36458	6.32633	6.29527	6.23676	6.13945	6.11280
5	California	5.97075	5.98469	5.97559	5.90209	5.87521	5.88165	5.85306	5.78965	5.74364	5.72228	5.63871	5.54908	5.46722	5.38770
6	Colorado	5.83948	5.81234	5.75637	5.82008	5.70044	5.68085	5.61641	5.51060	5.48064	5.42627	5.39090	5.23804	5.10958	5.08636
7	Connecticut	5.88610	5.80121	5.72129	5.76268	5.67195	5.65774	5.64509	5.45831	5.45746	5.50289	5.39226	5.25489	5.21711	5.14749
8	Delaware	6.14440	6.14633	6.04879	5.94725	5.91674	5.99918	6.02296	5.84470	5.92158	5.81711	5.75922	5.51222	5.65144	5.27249
9	District of Columbia	5.68935	5.57405	5.74460	5.59879	5.91485	6.08153	5.75543	5.73851	5.95687	5.62330	5.52744	5.30926	5.40762	5.49471
10	Florida	6.00240	5.95324	5.91539	5.89385	5.82836	5.84296	5.83071	5.81830	5.75448	5.62654	5.54752	5.45873	5.33994	5.20894
11	Georgia	6.27476	6.14290	6.14247	6.03213	5.97711	5.98821	5.92932	5.87381	5.79210	5.73786	5.58837	5.48646	5.42098	5.30181
12	Hawaii	5.50655	5.50574	5.43110	5.40852	5.40583	5.27351	5.27095	5.35186	5.01595	5.06828	4.99586	5.10595	4.94164	4.89410
13	Idaho	6.05982	6.14612	6.06935	5.88721	6.01469	5.83012	5.84586	5.84961	5.72129	5.60543	5.67435	5.66400	5.50492	5.49758
14	Illinois	6.35123	6.37161	6.30792	6.26073	6.19685	6.18970	6.14311	6.09515	6.01981	5.97203	5.86986	5.75859	5.68799	5.59620
15	Indiana	6.18518	6.19093	6.11235	6.10278	6.09447	5.98821	6.07397	6.02005	5.88721	5.90045	5.78043	5.69776	5.59024	5.53141
16	Iowa	6.08700	5.99645	6.02442	6.02900	5.97660	5.98343	5.93912	5.92639	5.85736	5.78904	5.70111	5.53969	5.54479	5.45489
17	Kansas	6.04950	6.00783	5.96615	5.93171	5.88499	5.85450	5.79667	5.78167	5.73786	5.63049	5.64297	5.40087	5.30529	5.31321
18	Kentucky	6.44667	6.40324	6.37724	6.32633	6.30207	6.29249	6.32901	6.23793	6.19113	6.12140	6.05397	5.91350	5.91269	5.86306
19	Louisiana	6.34966	6.27852	6.22654	6.16982	6.07970	6.10680	6.04950	5.98469	6.00240	5.99221	5.94699	5.82127	5.75384	5.53812
20	Maine	6.04879	6.15783	6.01713	5.90591	6.09108	5.90373	5.88999	5.68664	5.69642	5.63586	5.63657	5.49962	5.45746	5.34329
21	Maryland	6.04714	6.07558	6.08882	6.07879	6.09673	6.05444	6.05585	5.97813	5.95350	5.86533	5.85019	5.69036	5.69642	5.53141
22	Massachusetts	6.08450	6.03165	6.01616	5.91566	5.90563	5.85220	5.78904	5.73140	5.69070	5.65704	5.58987	5.49553	5.40178	5.20730
23	Michigan	6.33965	6.30170	6.27457	6.24281	6.16121	6.15846	6.03715	6.00808	5.92959	5.85993	5.80784	5.63800	5.57367	5.50044
24	Minnesota	5.76331	5.75448	5.79818	5.61604	5.56452	5.53576	5.49471	5.39907	5.24544	5.21330	5.12456	4.99247	4.95230	4.75273
25	Mississippi	6.35472	6.29693	6.09852	6.15124	6.13881	6.11280	6.12883	6.14911	6.12052	6.02900	5.89275	5.69944	5.67881	5.58687
26	Missouri	6.39007	6.36303	6.31879	6.33292	6.31046	6.27420	6.28395	6.18456	6.14590	6.08039	6.03500	5.93754	5.83919	5.81681
27	Montana	5.76079	5.57177	5.65424	5.66816	5.61641	5.47646	5.47521	5.49183	5.33465	5.40896	5.49922	5.28726	5.07517	5.07580
28	Nebraska	5.88555	5.83656	5.79758	5.78383	5.58949	5.57633	5.51826	5.41699	5.27964	5.19850	5.20675	5.09865	4.97189	4.90527
29	Nevada	5.75606	5.61822	5.54518	5.41388	5.43895	5.54518	5.55335	5.34901	5.47395	5.46171	5.24913	5.11199	4.93735	4.78999
30	New Hampshire	5.99968	5.89990	5.95713	5.81024	5.80151	5.75732	5.71834	5.84209	5.69843	5.60249	5.50207	5.38770	5.21711	5.09436
31	New Jersey	6.26966	6.22555	6.20436	6.14740	6.07948	6.07489	6.05538	6.01445	5.95739	5.90099	5.77517	5.70412	5.64297	5.48106
32	New Mexico	5.56720	5.45788	5.49059	5.46001	5.38998	5.37990	5.42671	5.37250	5.28371	5.25018	5.08203	5.06386	5.06702	4.78832
33	New York	6.29693	6.22792	6.17128	6.14654	6.03644	6.01738	5.98721	5.92211	5.91269	5.86136	5.79515	5.70044	5.62762	5.52744
34	North Carolina	6.21780	6.14139	6.11523	6.08746	6.00906	5.99918	5.93065	5.94280	5.80904	5.74812	5.70145	5.56490	5.51141	5.35611
35	North Dakota	6.04926	6.02199	6.08108	5.96101	5.93065	5.90835	5.95506	5.91025	5.85822	5.67367	5.75321	5.55991	5.58387	5.57291

Table 4

Effect of smoking bans on acute myocardial infarction (AMI) rates

Data listing

Log AMI Rate Females, Age: 65 Plus

State	US State	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
36	Ohio	6.19990	6.14590	6.15252	6.11457	6.06262	6.02029	5.97330	5.95558	5.88943	5.80724	5.73689	5.64721	5.62510	5.52744
37	Oklahoma	6.11766	6.08859	6.05420	6.08199	5.96307	5.97330	5.96820	5.95194	5.79088	5.81562	5.68935	5.54791	5.57784	5.43982
38	Oregon	5.79271	5.78074	5.72489	5.75194	5.59842	5.60286	5.50003	5.58237	5.47227	5.50248	5.47563	5.32106	5.22736	5.06449
39	Pennsylvania	6.32382	6.29840	6.20859	6.21720	6.13556	6.08176	6.04406	6.00881	5.91188	5.86901	5.78259	5.68596	5.62726	5.49347
40	Rhode Island	6.16794	6.18477	6.31843	6.24882	6.25613	6.09470	5.98821	6.07189	5.99221	5.98167	6.02996	5.81323	5.96307	5.73172
41	South Carolina	6.36078	6.28600	6.24144	6.19298	6.14526	6.15867	6.10345	6.05912	5.92879	5.84064	5.78720	5.67812	5.58837	5.43197
42	South Dakota	6.25824	6.28972	6.21381	6.10278	5.98394	5.96384	6.06006	6.00561	5.76863	5.83715	5.91242	5.68256	5.70910	5.71571
43	Tennessee	6.39192	6.37961	6.33257	6.34634	6.29987	6.27401	6.23264	6.22119	6.18084	6.18497	6.11102	5.99770	5.90672	5.81681
44	Texas	6.25402	6.25996	6.25094	6.23127	6.22416	6.20456	6.22039	6.17295	6.10032	6.04548	5.96717	5.86050	5.80212	5.65073
45	Utah	5.96666	5.79210	5.78935	5.78812	5.67949	5.70578	5.58387	5.51181	5.60911	5.33850	5.36831	5.19960	4.98703	4.86830
46	Vermont	6.04144	6.00463	5.98040	5.92452	5.95713	5.71175	5.64968	5.78136	5.67778	5.73334	5.54674	5.44717	5.21819	5.24913
47	Virginia	6.03333	5.98921	5.96563	5.95220	5.81830	5.91943	5.78751	5.81323	5.74076	5.66122	5.58086	5.54674	5.45233	5.35138
48	Washington	5.92345	5.81383	5.80634	5.74108	5.61931	5.66712	5.63978	5.56873	5.57822	5.50898	5.48480	5.36551	5.33368	5.18178
49	West Virginia	6.35402	6.28730	6.26321	6.24144	6.21341	6.06425	6.09673	6.03309	5.93225	5.92211	5.79606	5.71373	5.69977	5.58875
50	Wisconsin	6.14975	6.11611	6.06355	6.03213	5.92719	5.96922	5.96999	5.96820	5.85536	5.80272	5.64686	5.56299	5.55024	5.42627
51	Wyoming	6.00783	5.95506	5.79484	5.99521	5.95402	6.04097	5.59842	5.46171	5.72685	5.51705	5.50574	5.68630	5.49840	5.47521
52	US Total	6.17545	6.13881	6.10390	6.06819	6.01372	5.99571	5.96743	5.92345	5.86079	5.80664	5.73107	5.62149	5.55528	5.44501

Table 5 – Relative risk of AMI mortality associated with smokefree legislation^a

Analysis/US state (ban year)	Relative risk (95% CI)			
	Males		Females	
	Unweighted	Weighted	Unweighted	Weighted
Age 25+				
Main analysis (effect applies to years after ban)				
Overall	0.95 (0.92-0.98)	0.97 (0.94-0.99)	0.97 (0.93-1.00)	0.97 (0.95-1.00)
California (ban 1998)	1.06 (0.95-1.19)	1.06 (1.01-1.10)	1.07 (0.95-1.22)	1.07 (1.03-1.12)
Connecticut (2003)	0.94 (0.84-1.05)	0.94 (0.82-1.08)	0.92 (0.81-1.04)	0.92 (0.81-1.05)
Delaware (2002)	0.86 (0.77-0.97)	0.85 (0.66-1.09)	0.94 (0.83-1.07)	0.95 (0.75-1.21)
Florida (2003)	0.87 (0.78-0.98)	0.87 (0.83-0.92)	0.86 (0.76-0.97)	0.86 (0.81-0.90)
Idaho (2004)	0.92 (0.82-1.03)	0.91 (0.76-1.09)	0.98 (0.86-1.11)	0.98 (0.79-1.22)
Maine (2004)	0.96 (0.85-1.08)	0.95 (0.78-1.16)	0.96 (0.85-1.10)	0.96 (0.79-1.18)
Massachusetts (2004)	0.90 (0.80-1.01)	0.92 (0.84-1.02)	0.87 (0.77-0.99)	0.88 (0.80-0.97)
Montana (2005)	0.86 (0.74-0.99)	0.84 (0.61-1.16)	0.90 (0.77-1.05)	0.89 (0.62-1.28)
New York (2003)	0.95 (0.84-1.06)	0.97 (0.92-1.02)	0.98 (0.86-1.11)	0.99 (0.95-1.04)
North Dakota (2005)	1.03 (0.90-1.19)	1.00 (0.75-1.34)	0.97 (0.83-1.13)	0.96 (0.69-1.33)
Rhode Island (2005)	0.86 (0.75-0.99)	0.86 (0.68-1.09)	0.84 (0.72-0.98)	0.85 (0.67-1.07)
South Dakota (2002)	1.02 (0.91-1.15)	1.01 (0.83-1.22)	1.11 (0.98-1.26)	1.10 (0.89-1.36)
Utah (1995)	1.10 (1.00-1.21)	1.09 (0.93-1.29)	1.14 (1.03-1.27)	1.12 (0.94-1.34)
Vermont (2005)	1.02 (0.88-1.17)	1.00 (0.67-1.48)	0.95 (0.81-1.11)	0.92 (0.60-1.40)
Washington (2005)	0.88 (0.76-1.01)	0.87 (0.76-1.00)	0.88 (0.75-1.02)	0.87 (0.76-1.01)
Sensitivity analysis 1 ^b (effect applies from ban year on)				
Overall	0.94 (0.92-0.97)	0.99 (0.97-1.01)	0.96 (0.93-0.98)	0.98 (0.96-1.00)
Sensitivity analysis 2 (excludes year of ban)				
Overall	0.94 (0.90-0.97)	0.98 (0.95-1.00)	0.96 (0.93-1.00)	0.98 (0.96-1.01)
Sensitivity analysis 3 (omit years 1979-1989)				
Overall	0.99 (0.95-1.02)	0.97 (0.95-0.99)	0.98 (0.94-1.02)	0.98 (0.95-1.00)
Age 25 to 64				
Main analysis	0.98 (0.94-1.02)	0.95 (0.92-0.99)	0.96 (0.90-1.03)	0.98 (0.94-1.03)
Age 65+				
Main analysis	0.95 (0.91-0.98)	0.97 (0.95-1.00)	0.97 (0.93-1.00)	0.97 (0.95-1.00)

^a Estimates are derived using Model 3b except for the effects specific to the states where the ban occurred prior to 2006, where they are based on Model 3c (see Methods)

^b Also takes into account bans in 2006 in Colorado, Hawaii, Nevada, New Jersey and Ohio

Table 6 – Effect of bans on AMI rates in the USA [29]

Endpoint	Age	Restriction	% change (95% CI)
Mortality	18-64	Workplace	-3.6 (-9.6 to +2.5)
Mortality	All ages	Workplace	+1.9 (-0.9 to +4.7)
Mortality	18-64	Any	-4.1 (-9.4 to +1.3)
Mortality	All ages	Any	+1.3 (-1.1 to +3.6)
Admissions	18-64	Workplace	+1.8 (-4.5 to +8.0)
Admissions	65+	Workplace	+5.1 (-1.6 to +11.8)
Admissions	All ages	Workplace	-2.0 (-7.0 to +3.0)
Admissions	18-64	Any	-0.3 (-5.5 to +5.0)
Admissions	65+	Any	+5.9 (+0.3 to +11.1)
Admissions	All ages	Any	-1.8 (-6.7 to +3.1)

References

1. Glantz SA, Parmley WW: **Passive smoking and heart disease: epidemiology, physiology and biochemistry.** *Circulation* 1991, **83**:1-12.
2. Glantz SA, Parmley WW: **Passive smoking and heart disease. Mechanisms and risk.** *JAMA* 1995, **273**:1047-1053.
3. Law MR, Morris JK, Wald NJ: **Environmental tobacco smoke exposure and ischaemic heart disease: an evaluation of the evidence.** *BMJ* 1997, **315**:973-980.
4. He J, Vupputuri S, Allen K, Prerost MR, Hughes J, Whelton PK: **Passive smoking and the risk of coronary heart disease - a meta-analysis of epidemiologic studies.** *N Engl J Med* 1999, **340**:920-926.
5. Sargent RP, Shepard RM, Glantz SA: **Reduced incidence of admissions for myocardial infarction associated with public smoking ban: before and after study.** *BMJ* 2004, **328**:977-980.
6. Glantz SA: **Meta-analysis of the effects of smokefree laws on acute myocardial infarction: an update [Letter].** *Prev Med* 2008, **47**:452-453.
7. Barone-Adesi F, Vizzini L, Merletti F, Richiardi L: **Short-term effects of Italian smoking regulation on rates of hospital admission for acute myocardial infarction.** *Eur Heart J* 2006, **27**:2468-2472.
8. Bartecchi C, Alsever RN, Nevin-Wood C, Thomas WM, Estacio RO, Bartelson BB, Krantz MJ: **Reduction in the incidence of acute myocardial infarction associated with a citywide smoking ordinance.** *Circulation* 2006, **114**:1490-1494.
9. Cronin E, Kearney P, Sullivan P, Coronary Heart Attack Registry (CHAIR) Working Group: **Impact of a national smoking ban on the rate of admissions to hospital with acute coronary syndromes [Abstract].** European Society of Cardiology Congress 2007, Vienna 1-5 September 2007. *Eur Heart J* 2007, **28 (Abstract Supplement)**:585 (P3506).
10. Juster HR, Loomis BR, Hinman TM, Farrelly MC, Hyland A, Bauer UE, Birkhead GS: **Declines in hospital admissions for acute myocardial infarction in New York state after implementation of a comprehensive smoking ban.** *Am J Public Health* 2007, **97**:2035-2039.
11. Khuder SA, Milz S, Jordan T, Price J, Silvestri K, Butler P: **The impact of a smoking ban on hospital admissions for coronary heart disease.** *Prev Med* 2007, **45**:3-8.
12. Cesaroni G, Forastiere F, Agabiti N, Valente P, Zuccaro P, Perucci CA: **Effect of the Italian smoking ban on population rates of acute coronary events.** *Circulation* 2008, **117**:1183-1188.
13. Lemstra M, Neudorf C, Opondo J: **Implications of a public smoking ban.** *Can J Public Health* 2008, **99**:62-65.

14. Seo D-C, Torabi MR: **Reduced admissions for acute myocardial infarction associated with a public smoking ban: matched controlled study.** *J Drug Educ* 2007, **37**:217-226.
15. Pell JP, Haw S, Cobbe S, Newby D, Pell ACH, Fischbacher C, McConnachie A, Pringle S, Murdoch D, Dunn F, et al.: **Smoke-free legislation and hospitalizations for acute coronary syndrome.** *N Engl J Med* 2008, **359**:482-491.
16. Vasselli S, Papini P, Gaelone D, Spizzichino L, De Campora E, Gnavi R, Saitto C, Binkin N, Laurendi G: **Reduction incidence of myocardial infarction associated with a national legislative ban on smoking.** *Minerva Cardioangiol* 2008, **56**:197-203.
17. Alsever RN, Thomas WM, Nevin-Woods C, Beauvais R, Dennison S, Bueno R, Chang L, Bartecchi CE, Babb S, Trosclair A, et al.: **Reduced hospitalizations for acute myocardial infarction after implementation of a smoke-free ordinance - City of Pueblo, Colorado, 2002-2006.** *MMWR Morb Mortal Wkly Rep* 2009, **57**:1373-1377. Erratum Vol 58, no 4, p91
18. Institute of Medicine: *Secondhand smoke exposure and cardiovascular effects: making sense of the evidence.* Washington, D.C.: The National Academies Press; 2010.
19. Peng RD, Chang HH, Bell ML, McDermott A, Zeger SL, Samet JM, Dominici F: **Coarse particulate matter air pollution and hospital admissions for cardiovascular and respiratory diseases among Medicare patients.** *JAMA* 2008, **299**:2172-2179.
20. Lee PN, Fry JS: **Reassessing the evidence relating smoking bans to heart disease [In press].** *Regul Toxicol Pharmacol* 2011,
21. Draper NR, Smith H: *Applied Regression Analysis.* 3rd edition. New York: Wiley Interscience; 1998. [Wiley Series in Probability and Statistics.]
22. Teo KK, Ounpuu S, Hawken S, Pandey MR, Valentin V, Hunt D, Diaz R, Rashed W, Freeman R, Jiang L, et al.: **Tobacco use and risk of myocardial infarction in 52 countries in the INTERHEART study: a case-control study.** *Lancet* 2006, **368**:647-658.
23. Lightwood JM, Glantz SA: **Declines in acute myocardial infarction after smoke-free laws and individual risk attributable to secondhand smoke.** *Circulation* 2009, **120**:1373-1379.
24. Meyers DG, Neuberger JS, He J: **Cardiovascular effect of bans on smoking in public places: a systematic review and meta-analysis.** *J Am Coll Cardiol* 2009, **54**:1249-1255. Erratum appears in *J.Am.Coll.Cardiol.* 2009;54:1902
25. Sims M, Maxwell R, Bauld L, Gilmore A: **Short term impact of smoke-free legislation in England: retrospective analysis of hospital admissions for myocardial infarction.** *BMJ* 2010, **340**:c2161:
26. Thomas D, Séguret F, Cambou J-P, Tremblay M, Escolano S, Empana J-P, Jouven X: **Impact de l'interdiction de fumer dans les lieux publics sur les hospitalisations pour syndrome coronaire aigu en France: étude EVINCOR-PMSI, résultats préliminaires (Impact of smoking ban in public places on hospitalizations for acute**

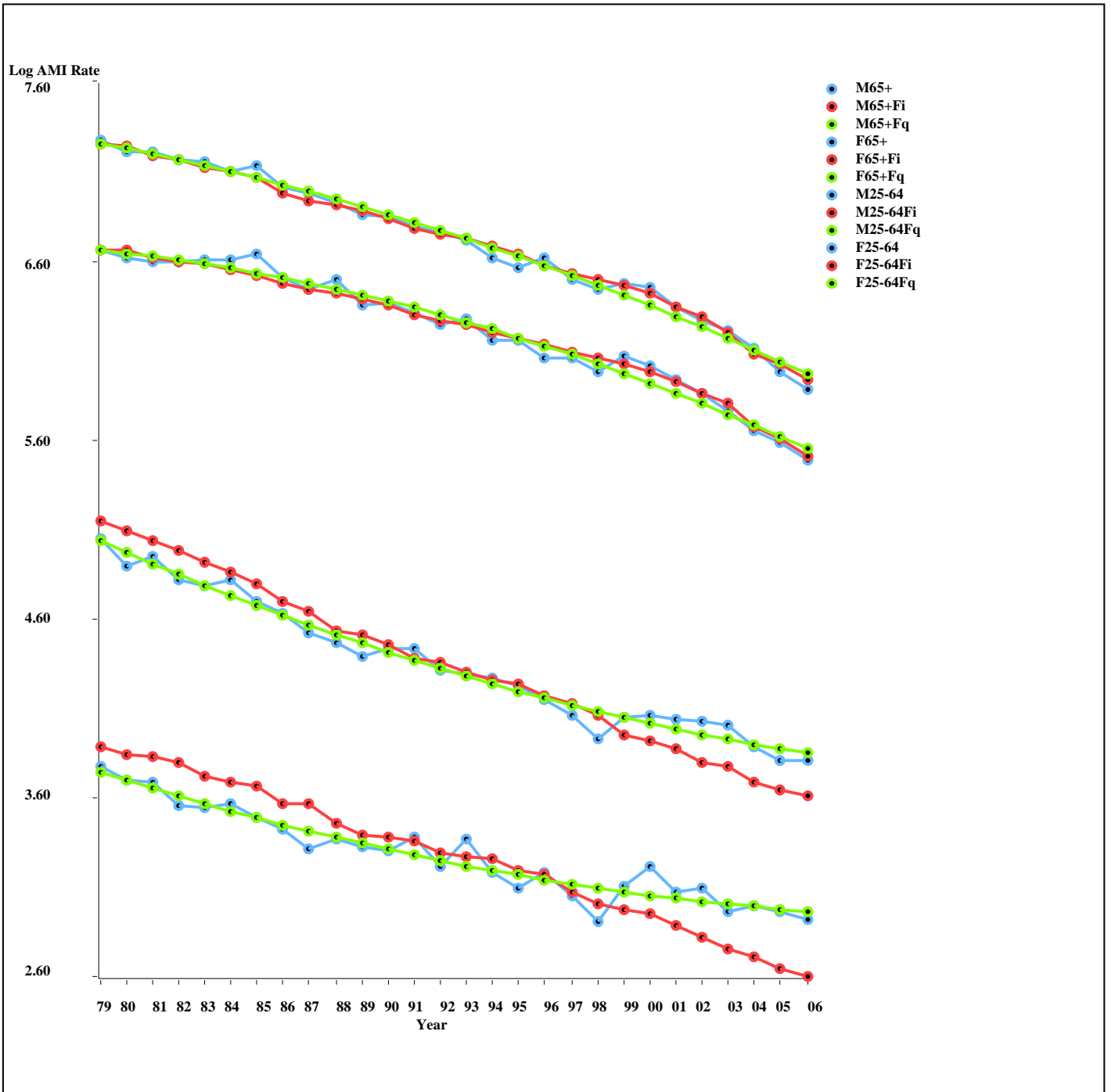
coronary syndrome in France: EVINCOR-PMSI Study preliminary results). *Bull Epidemiol Heb* 2010, **19-20**:221.

27. Barone-Adesi F, Gasparrini A, Vizzini L, Merletti F, Richiardi L: **Effects of Italian smoking regulation on rates of hospital admission for acute coronary events: a country-wide study.** *PLoS ONE* 2011, **6**:e17419.
28. Shetty KD, DeLeire T, White C, Bhattacharya J: *Changes in US hospitalization and mortality rates following smoking bans.* Cambridge, MA: National Bureau of Economic Research; 2009. Working paper 14790.
29. Shetty KD, DeLeire T, White C, Bhattacharya J: **Changes in U.S. hospitalization and mortality rates following smoking bans.** *Journal of Policy Analysis and Management* 2011, **30**:6-28.

Figure 1

Effect of smoking bans on acute myocardial infarction (AMI) rates
 Plots of log AMI rates from 1979 to 2006

State: Alabama, Year Ban: None



Plots are shown by gender (M,F) and by age (65+, 25-64)

For each combination of gender and age, the actual value of the log AMI rate is shown (blue), together with fitted values using Model 2C (+Fi) (red) and Model 3C (+Fq) (green)

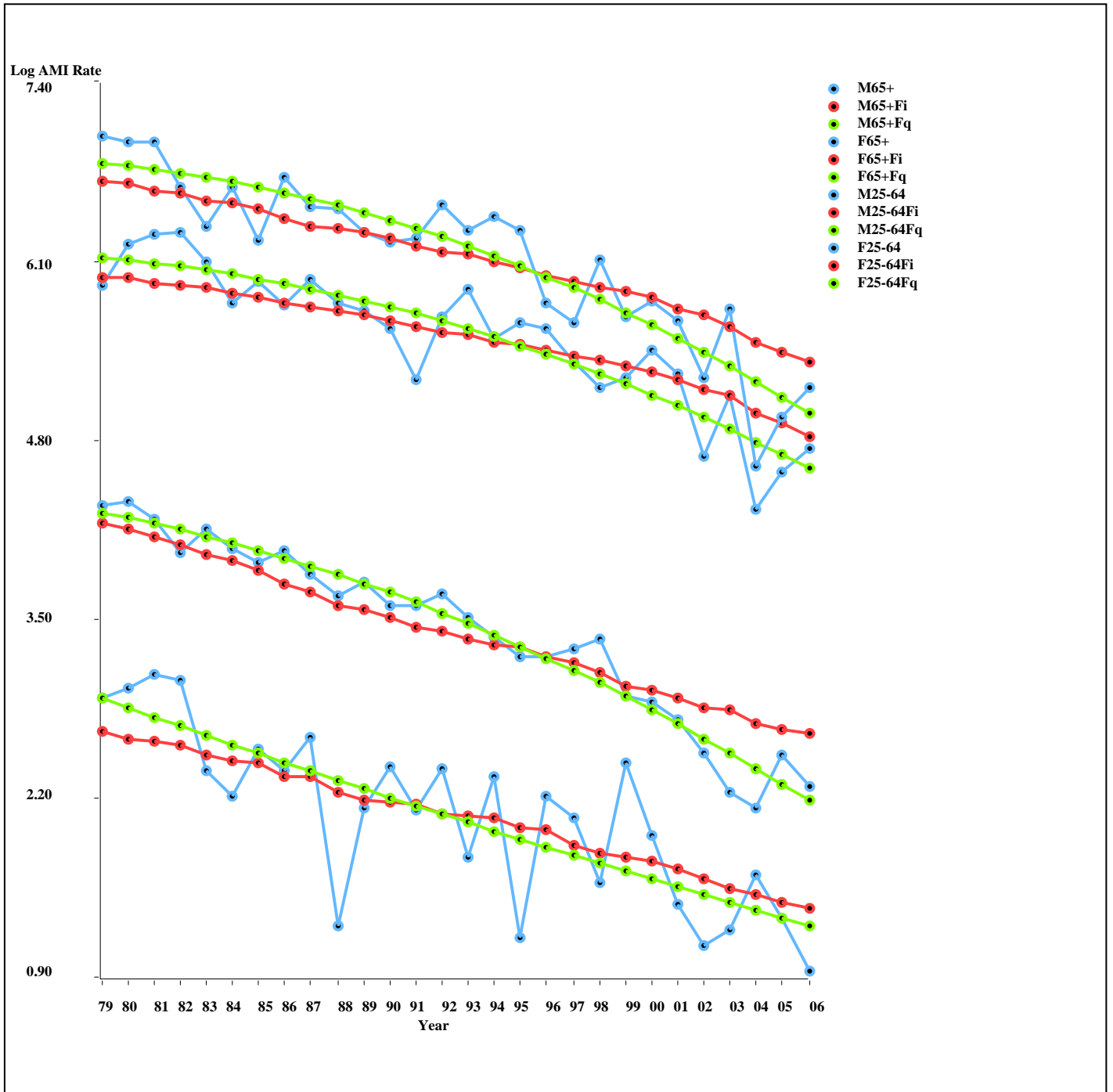
Both models are unweighted and allow for effects of ban specific to a state.

Model 2 allows for linear effects of year; Model 3 allows for quadratic effects.

Figure 2

Effect of smoking bans on acute myocardial infarction (AMI) rates
 Plots of log AMI rates from 1979 to 2006

State: Alaska, Year Ban: None



Plots are shown by gender (M,F) and by age (65+, 25-64)

For each combination of gender and age, the actual value of the log AMI rate is shown (blue), together with fitted values using Model 2C (+Fi) (red) and Model 3C (+Fq) (green)

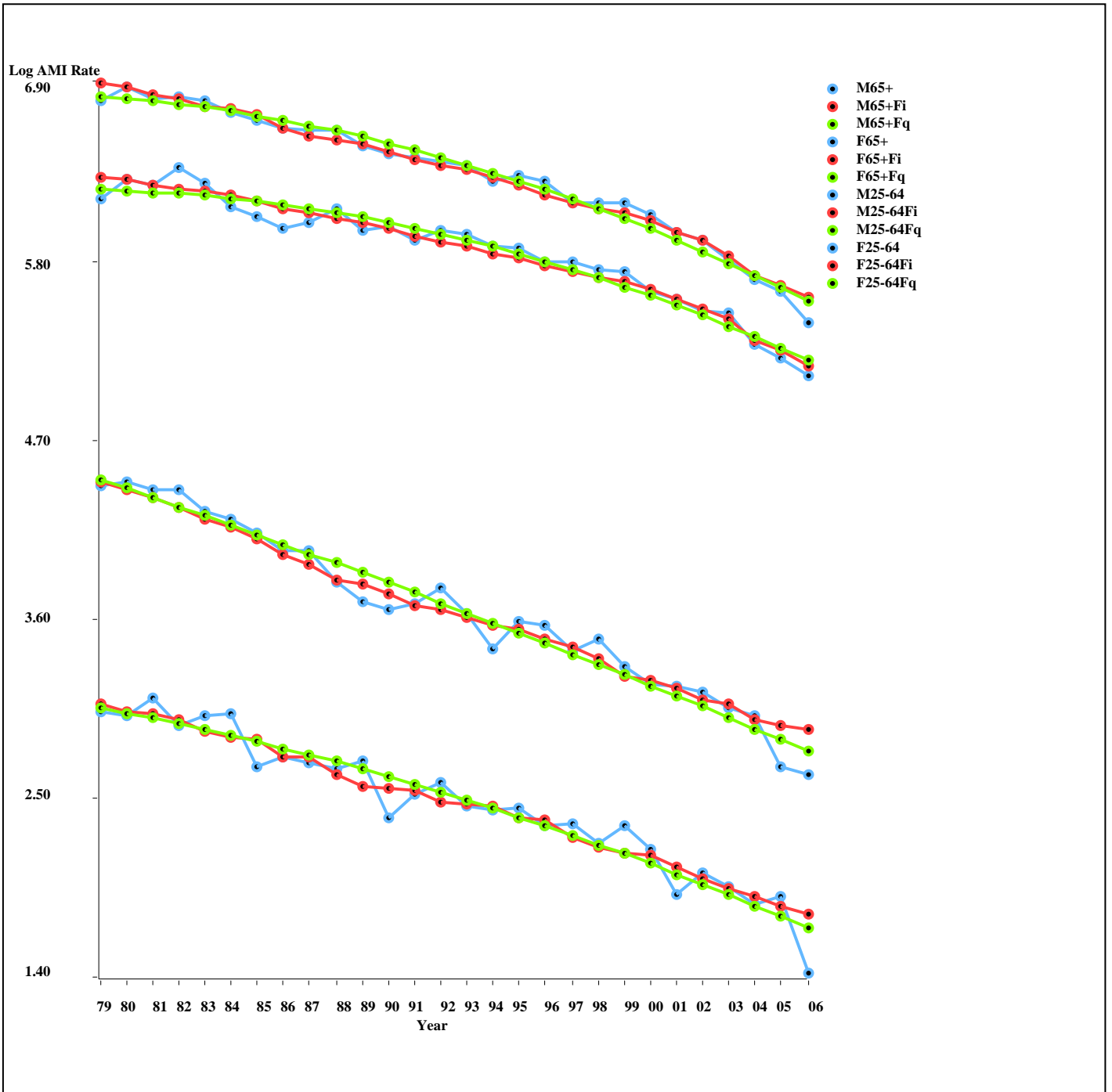
Both models are unweighted and allow for effects of ban specific to a state.

Model 2 allows for linear effects of year; Model 3 allows for quadratic effects.

Figure 3

Effect of smoking bans on acute myocardial infarction (AMI) rates
 Plots of log AMI rates from 1979 to 2006

State: Arizona, Year Ban: 2007

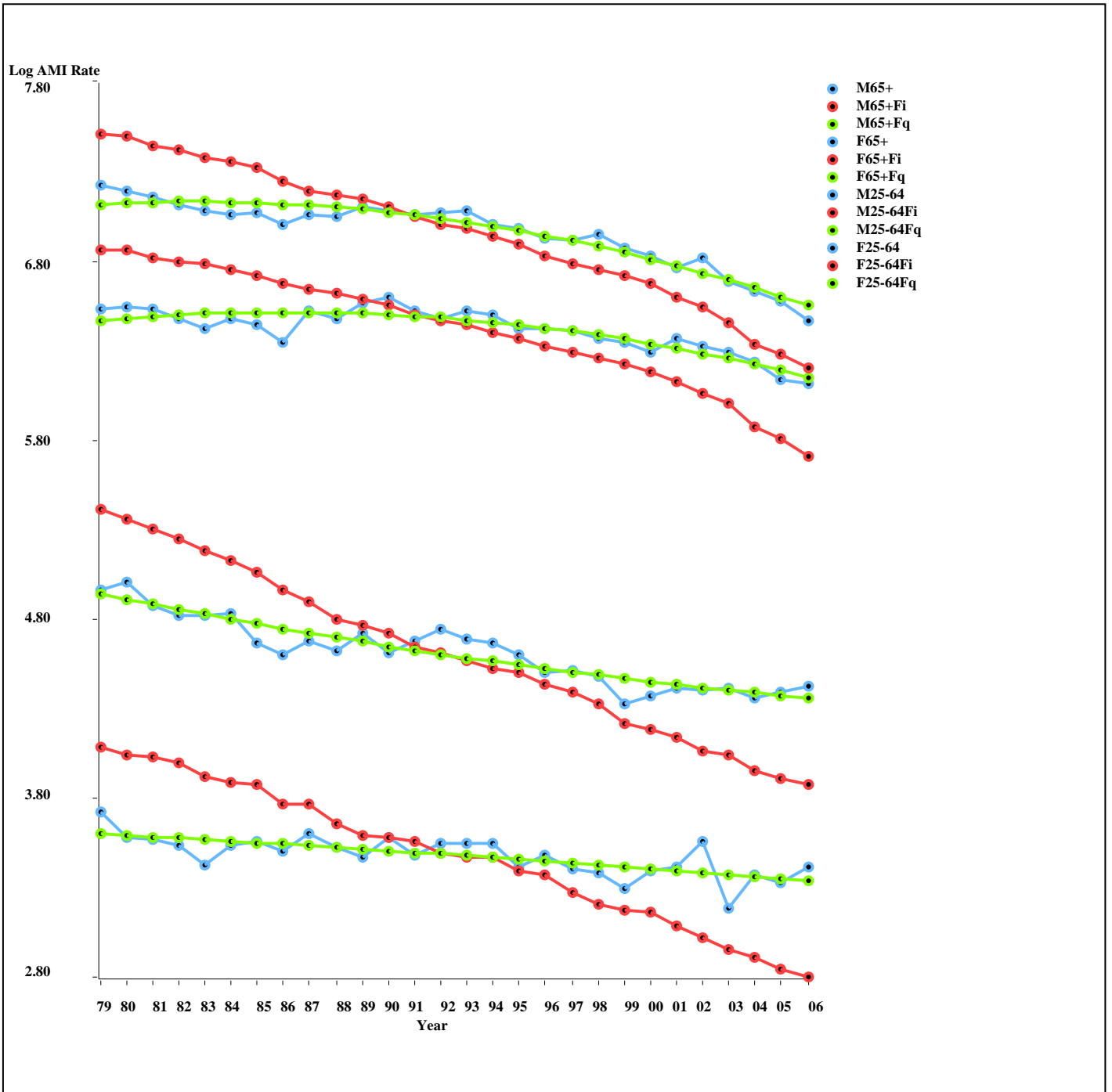


Plots are shown by gender (M,F) and by age (65+, 25-64)
 For each combination of gender and age, the actual value of the log AMI rate is shown (blue),
 together with fitted values using Model 2C (+Fi) (red) and Model 3C (+Fq) (green)
 Both models are unweighted and allow for effects of ban specific to a state.
 Model 2 allows for linear effects of year; Model 3 allows for quadratic effects.

Figure 4

Effect of smoking bans on acute myocardial infarction (AMI) rates
 Plots of log AMI rates from 1979 to 2006

State: Arkansas, Year Ban: None



Plots are shown by gender (M,F) and by age (65+, 25-64)

For each combination of gender and age, the actual value of the log AMI rate is shown (blue), together with fitted values using Model 2C (+Fi) (red) and Model 3C (+Fq) (green)

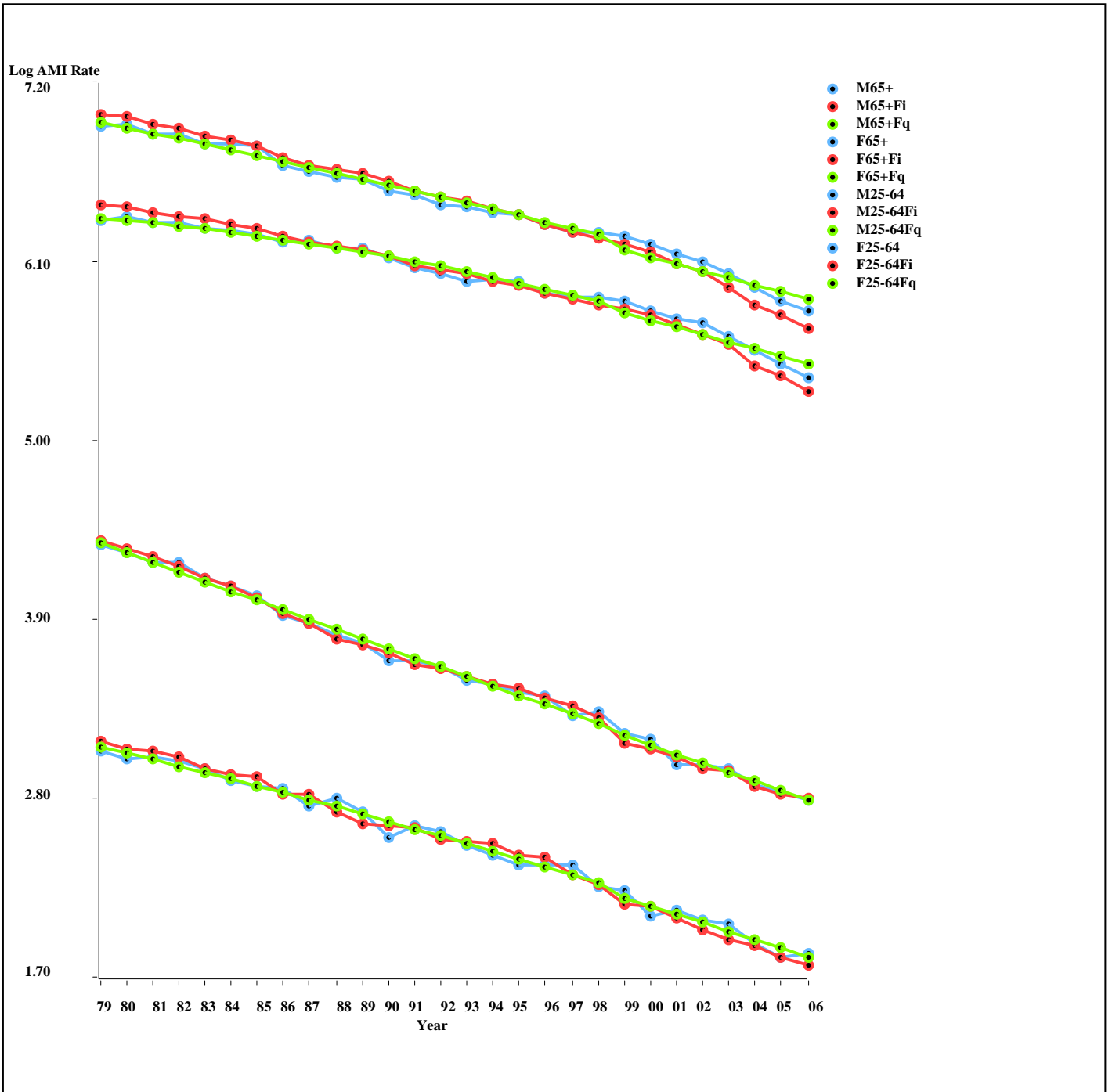
Both models are unweighted and allow for effects of ban specific to a state.

Model 2 allows for linear effects of year; Model 3 allows for quadratic effects.

Figure 5

Effect of smoking bans on acute myocardial infarction (AMI) rates
Plots of log AMI rates from 1979 to 2006

State: California, Year Ban: 1998



Plots are shown by gender (M,F) and by age (65+, 25-64)

For each combination of gender and age, the actual value of the log AMI rate is shown (blue), together with fitted values using Model 2C (+Fi) (red) and Model 3C (+Fq) (green)

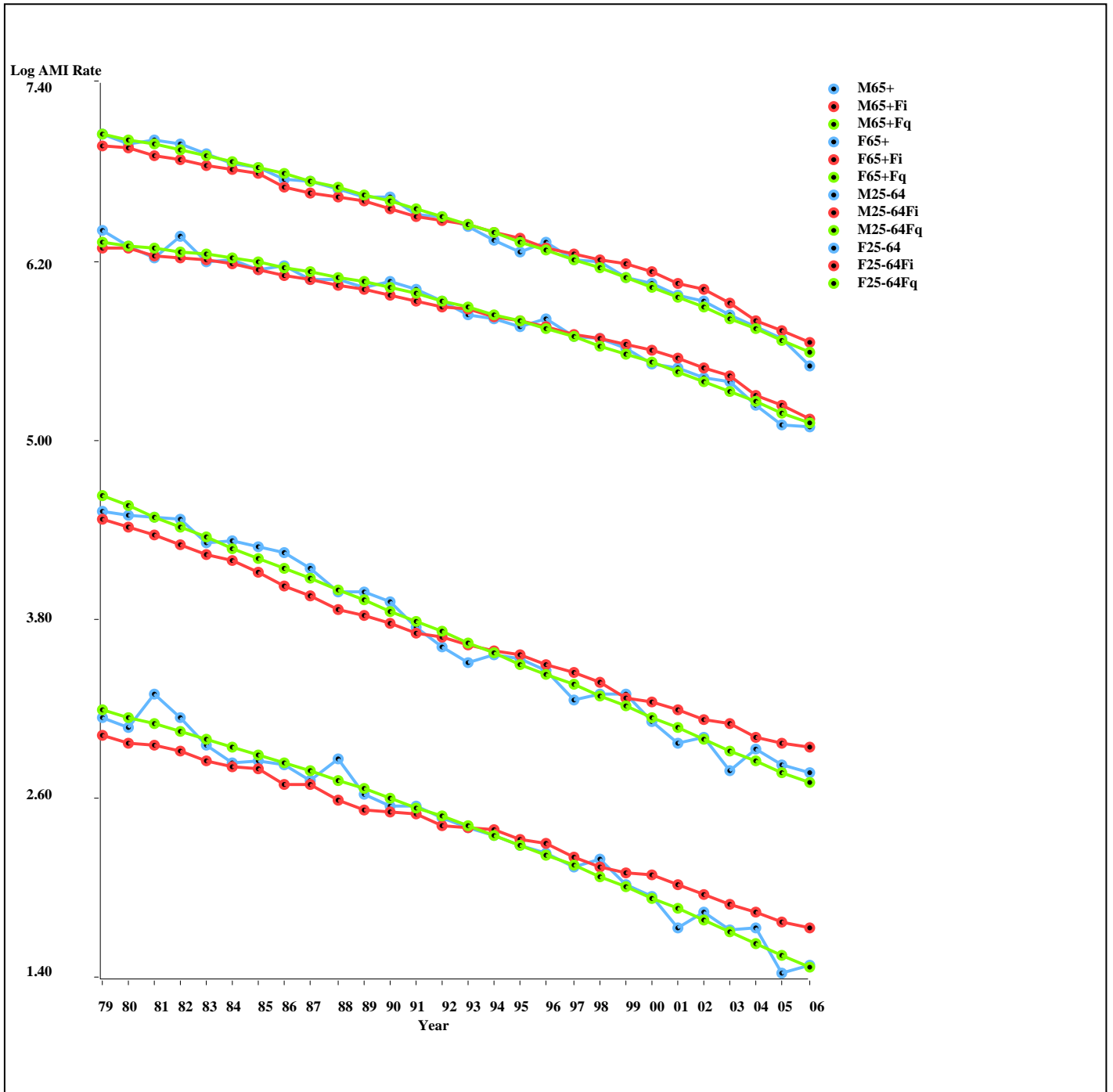
Both models are unweighted and allow for effects of ban specific to a state.

Model 2 allows for linear effects of year; Model 3 allows for quadratic effects.

Figure 6

Effect of smoking bans on acute myocardial infarction (AMI) rates
Plots of log AMI rates from 1979 to 2006

State: Colorado, Year Ban: 2006



Plots are shown by gender (M,F) and by age (65+, 25-64)

For each combination of gender and age, the actual value of the log AMI rate is shown (blue), together with fitted values using Model 2C (+Fi) (red) and Model 3C (+Fq) (green)

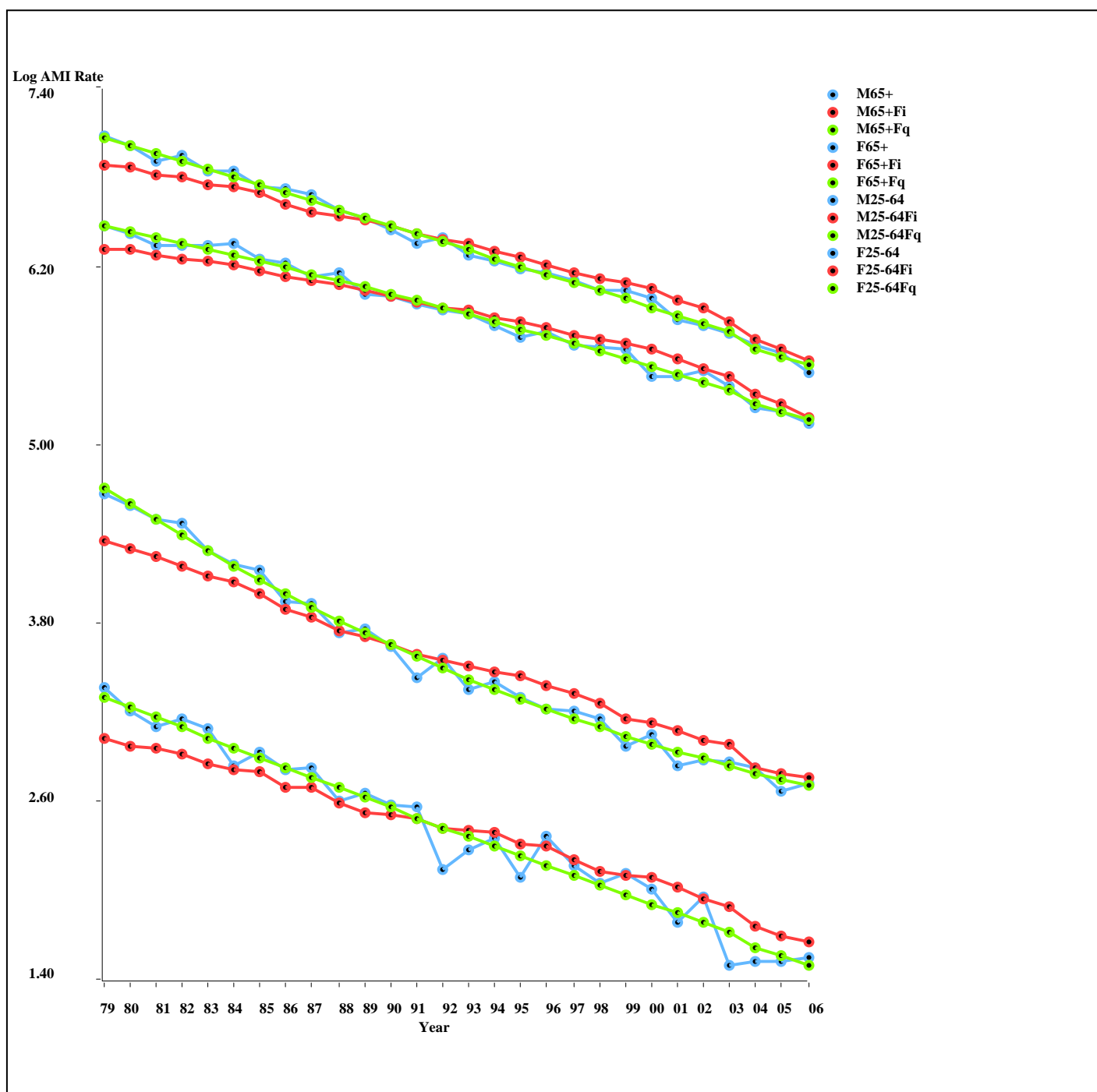
Both models are unweighted and allow for effects of ban specific to a state.

Model 2 allows for linear effects of year; Model 3 allows for quadratic effects.

Figure 7

Effect of smoking bans on acute myocardial infarction (AMI) rates
 Plots of log AMI rates from 1979 to 2006

State: Connecticut, Year Ban: 2003



Plots are shown by gender (M,F) and by age (65+, 25-64)

For each combination of gender and age, the actual value of the log AMI rate is shown (blue), together with fitted values using Model 2C (+Fi) (red) and Model 3C (+Fq) (green)

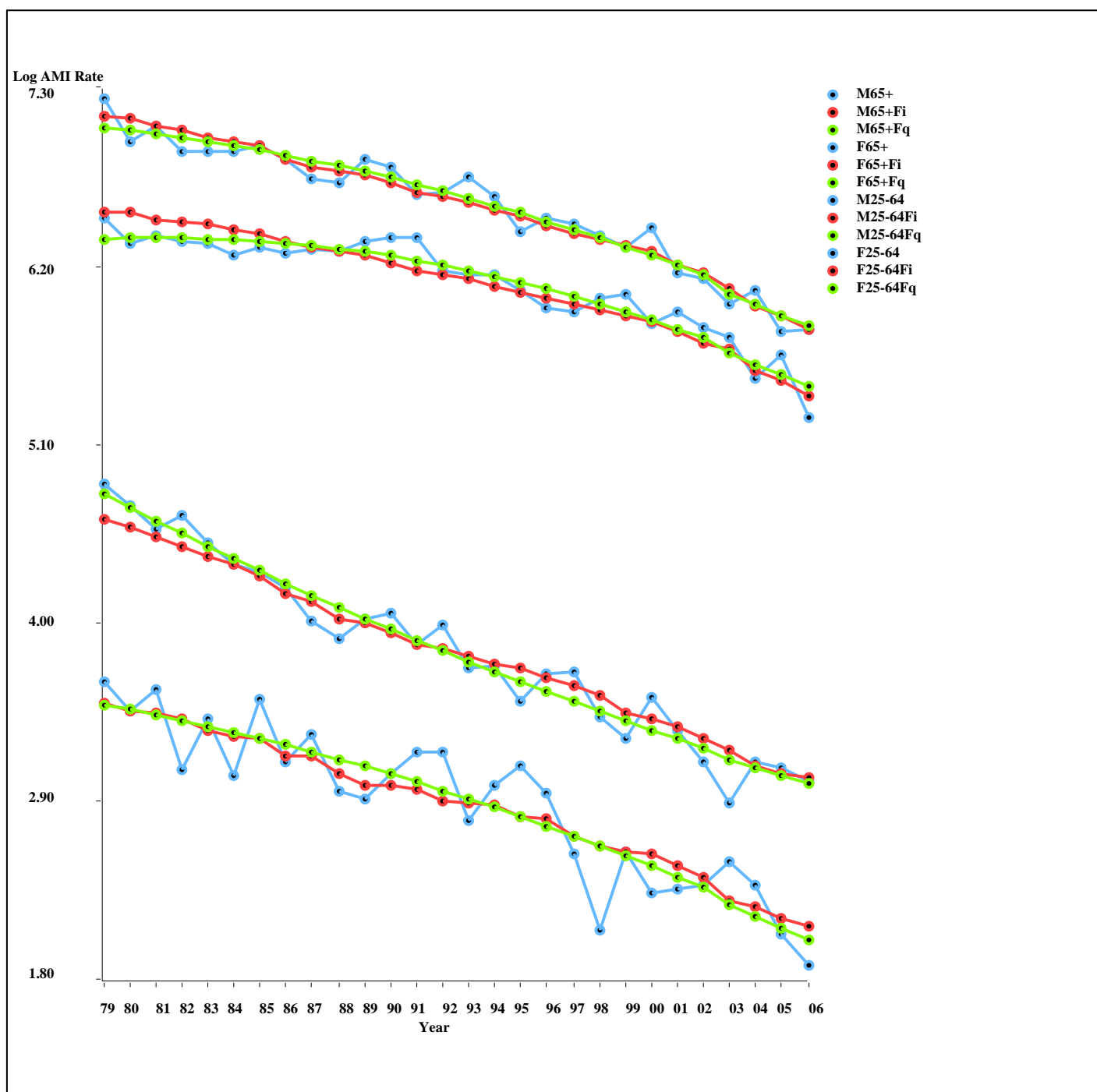
Both models are unweighted and allow for effects of ban specific to a state.

Model 2 allows for linear effects of year; Model 3 allows for quadratic effects.

Figure 8

Effect of smoking bans on acute myocardial infarction (AMI) rates
 Plots of log AMI rates from 1979 to 2006

State: Delaware, Year Ban: 2002



Plots are shown by gender (M,F) and by age (65+, 25-64)

For each combination of gender and age, the actual value of the log AMI rate is shown (blue), together with fitted values using Model 2C (+Fi) (red) and Model 3C (+Fq) (green)

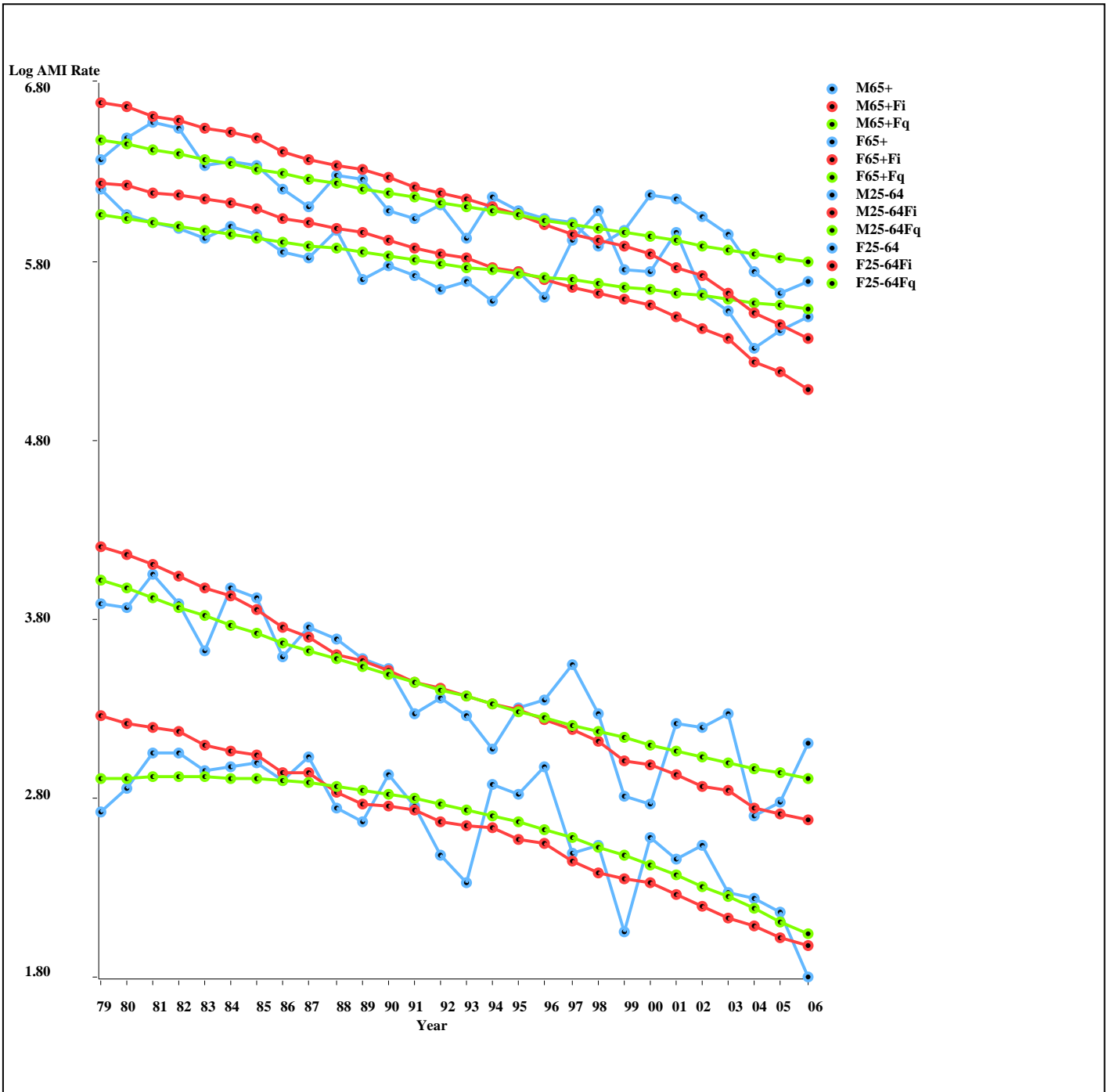
Both models are unweighted and allow for effects of ban specific to a state.

Model 2 allows for linear effects of year; Model 3 allows for quadratic effects.

Figure 9

Effect of smoking bans on acute myocardial infarction (AMI) rates
 Plots of log AMI rates from 1979 to 2006

State: District of Columbia, Year Ban: None



Plots are shown by gender (M,F) and by age (65+, 25-64)

For each combination of gender and age, the actual value of the log AMI rate is shown (blue), together with fitted values using Model 2C (+Fi) (red) and Model 3C (+Fq) (green)

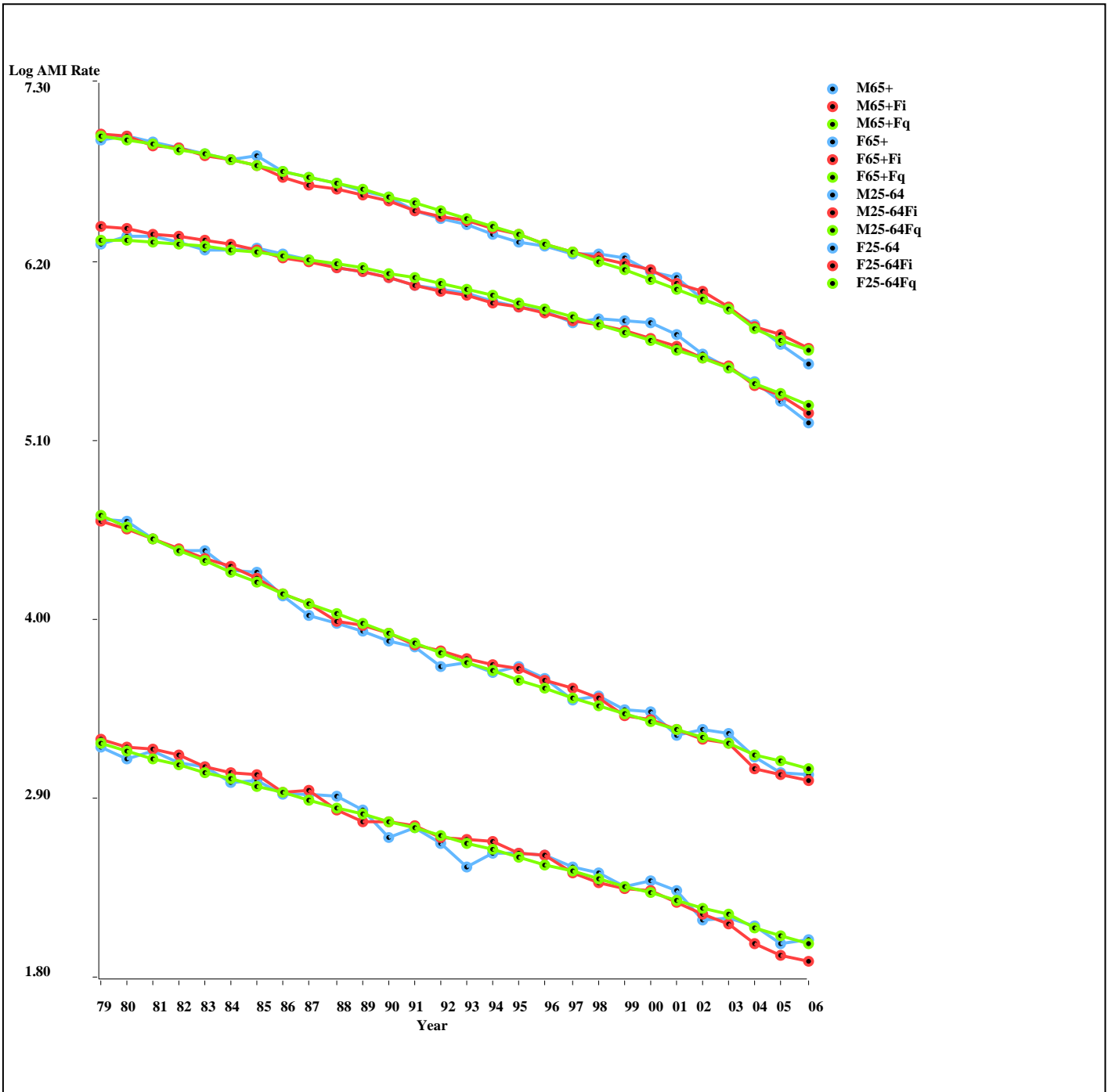
Both models are unweighted and allow for effects of ban specific to a state.

Model 2 allows for linear effects of year; Model 3 allows for quadratic effects.

Figure 10

Effect of smoking bans on acute myocardial infarction (AMI) rates
 Plots of log AMI rates from 1979 to 2006

State: Florida, Year Ban: 2003



Plots are shown by gender (M,F) and by age (65+, 25-64)

For each combination of gender and age, the actual value of the log AMI rate is shown (blue), together with fitted values using Model 2C (+Fi) (red) and Model 3C (+Fq) (green)

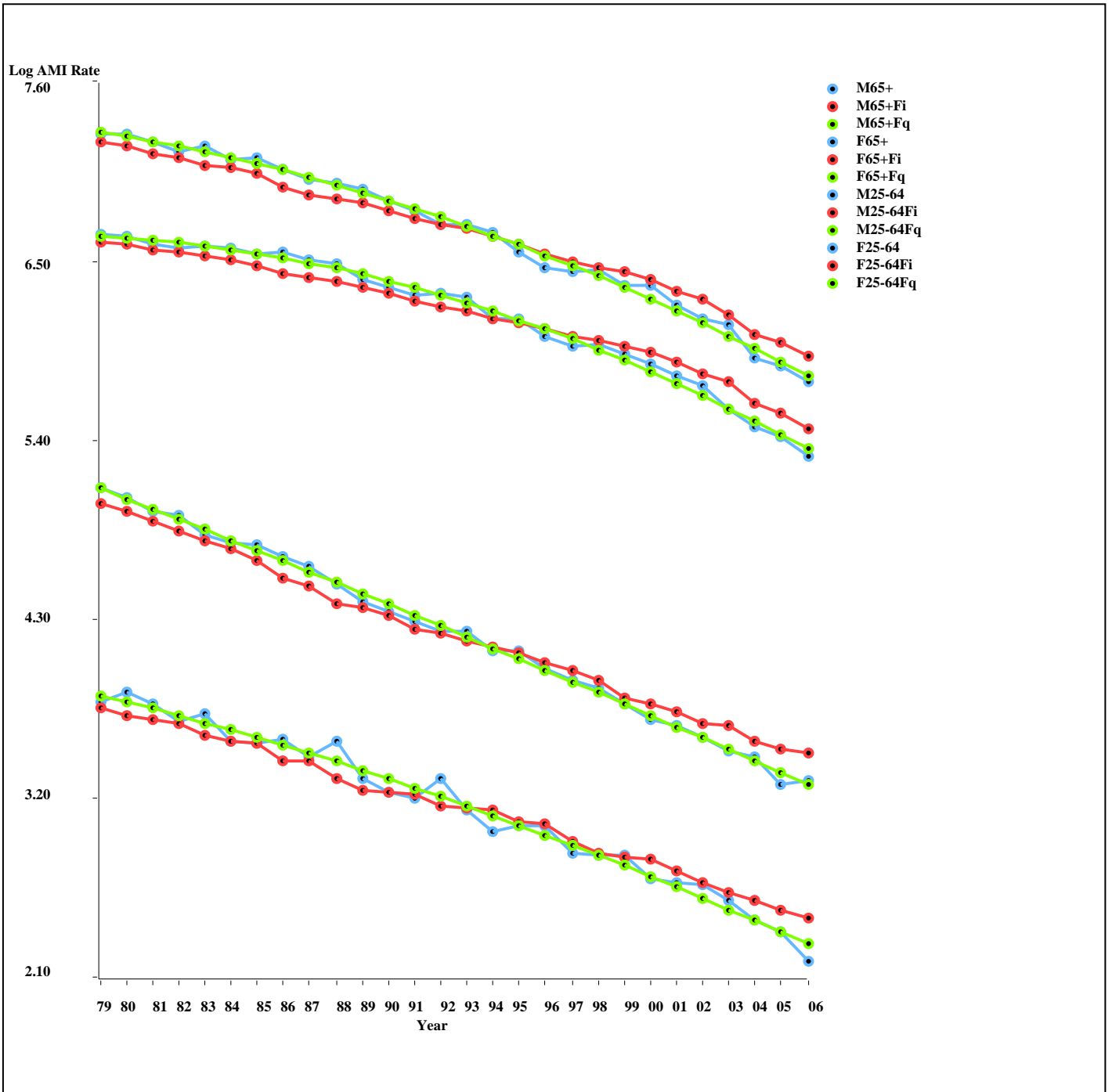
Both models are unweighted and allow for effects of ban specific to a state.

Model 2 allows for linear effects of year; Model 3 allows for quadratic effects.

Figure 11

Effect of smoking bans on acute myocardial infarction (AMI) rates
 Plots of log AMI rates from 1979 to 2006

State: Georgia, Year Ban: None



Plots are shown by gender (M,F) and by age (65+, 25-64)

For each combination of gender and age, the actual value of the log AMI rate is shown (blue), together with fitted values using Model 2C (+Fi) (red) and Model 3C (+Fq) (green)

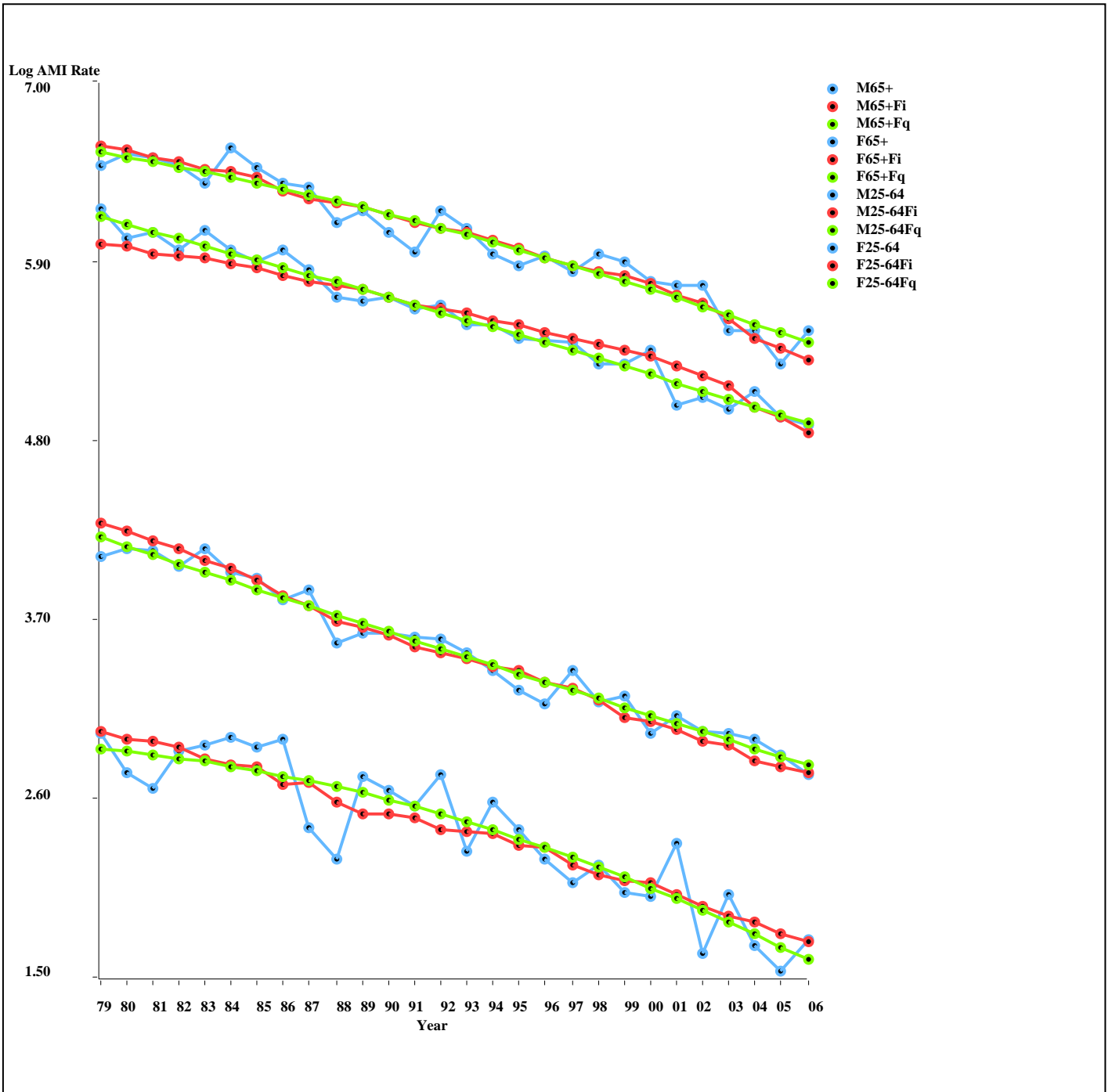
Both models are unweighted and allow for effects of ban specific to a state.

Model 2 allows for linear effects of year; Model 3 allows for quadratic effects.

Figure 12

Effect of smoking bans on acute myocardial infarction (AMI) rates
 Plots of log AMI rates from 1979 to 2006

State: Hawaii, Year Ban: 2006



Plots are shown by gender (M,F) and by age (65+, 25-64)

For each combination of gender and age, the actual value of the log AMI rate is shown (blue), together with fitted values using Model 2C (+Fi) (red) and Model 3C (+Fq) (green)

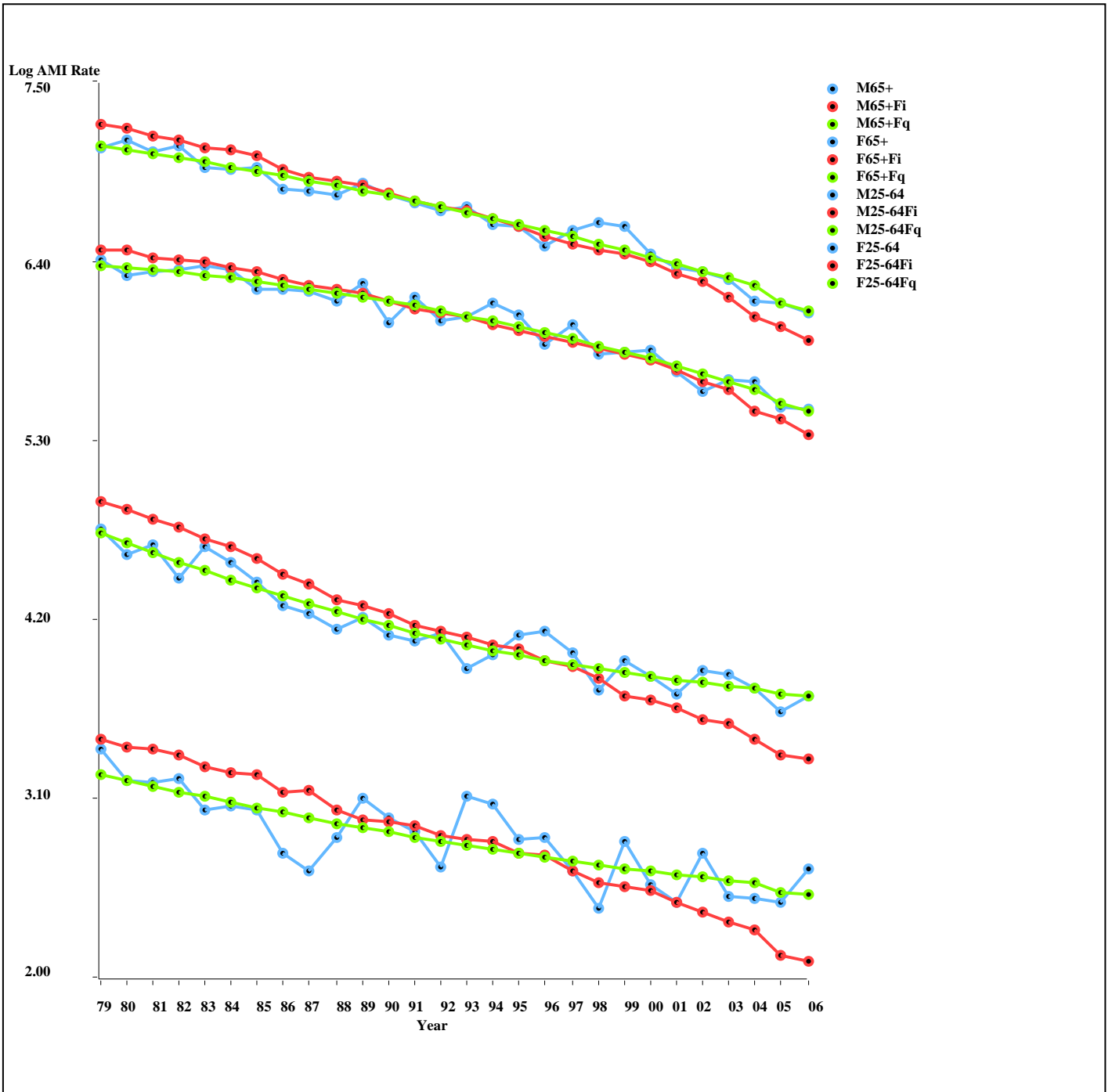
Both models are unweighted and allow for effects of ban specific to a state.

Model 2 allows for linear effects of year; Model 3 allows for quadratic effects.

Figure 13

Effect of smoking bans on acute myocardial infarction (AMI) rates
 Plots of log AMI rates from 1979 to 2006

State: Idaho, Year Ban: 2004



Plots are shown by gender (M,F) and by age (65+, 25-64)

For each combination of gender and age, the actual value of the log AMI rate is shown (blue), together with fitted values using Model 2C (+Fi) (red) and Model 3C (+Fq) (green)

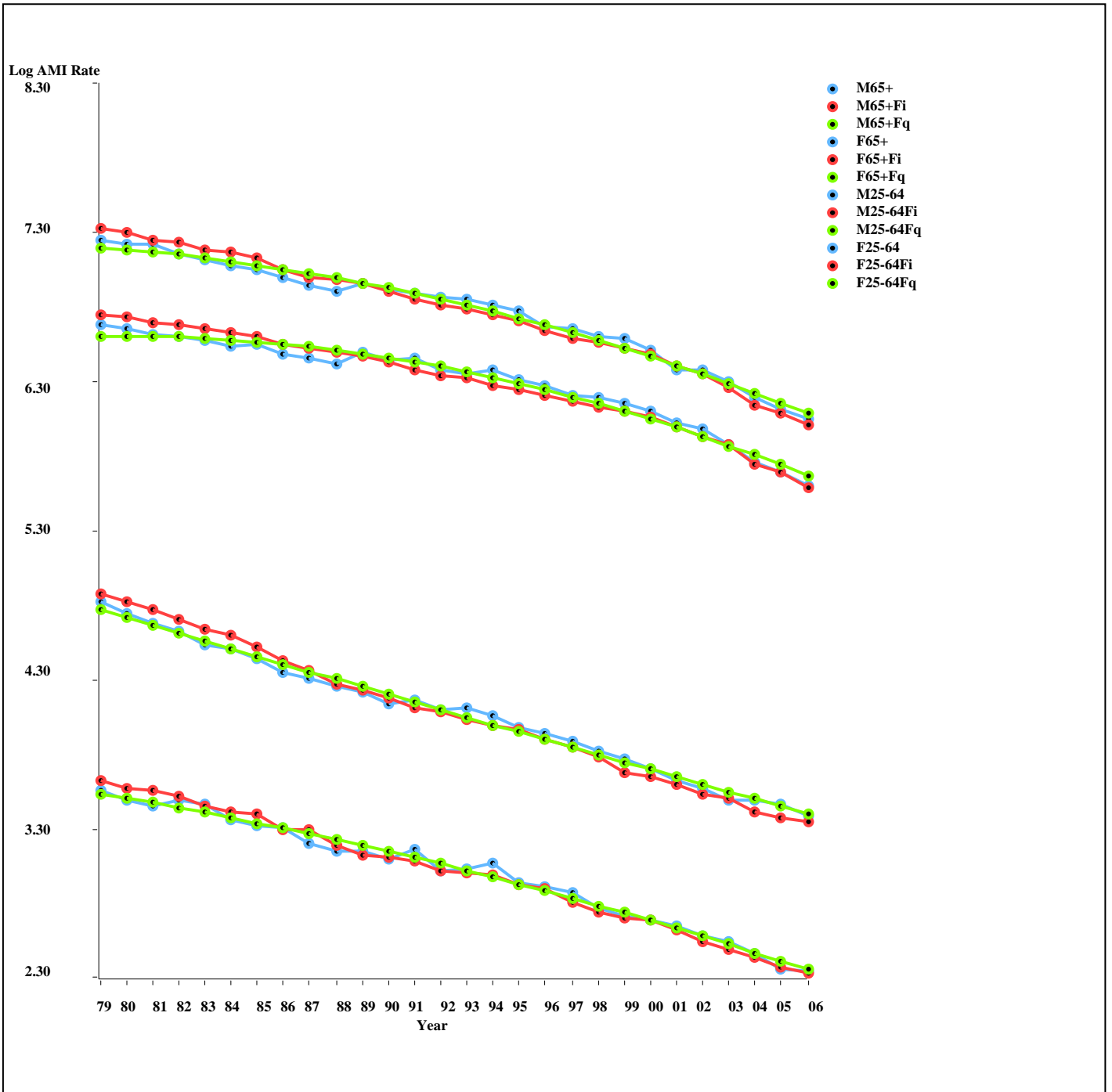
Both models are unweighted and allow for effects of ban specific to a state.

Model 2 allows for linear effects of year; Model 3 allows for quadratic effects.

Figure 14

Effect of smoking bans on acute myocardial infarction (AMI) rates
 Plots of log AMI rates from 1979 to 2006

State: Illinois, Year Ban: 2008



Plots are shown by gender (M,F) and by age (65+, 25-64)

For each combination of gender and age, the actual value of the log AMI rate is shown (blue), together with fitted values using Model 2C (+Fi) (red) and Model 3C (+Fq) (green)

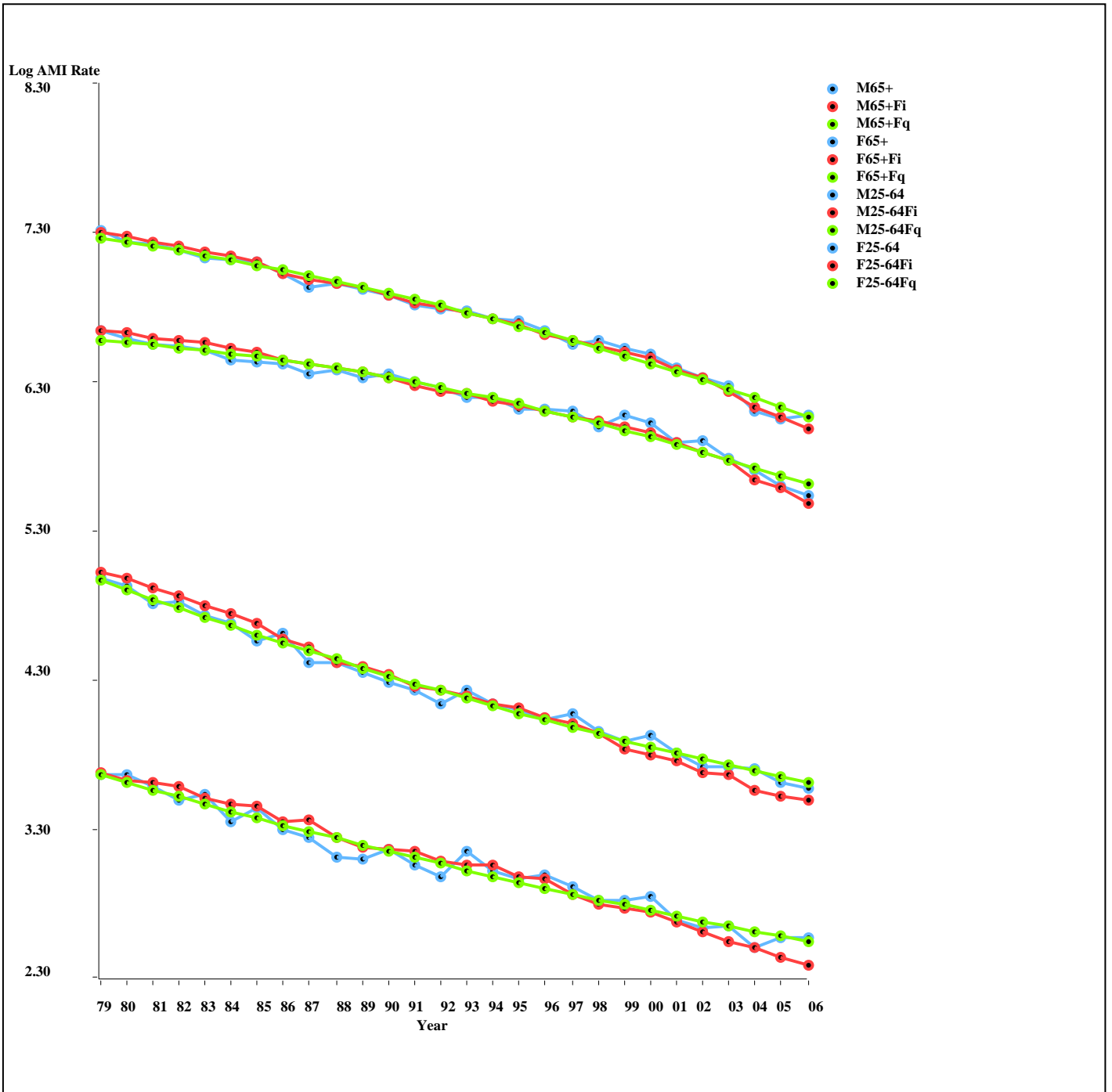
Both models are unweighted and allow for effects of ban specific to a state.

Model 2 allows for linear effects of year; Model 3 allows for quadratic effects.

Figure 15

Effect of smoking bans on acute myocardial infarction (AMI) rates
 Plots of log AMI rates from 1979 to 2006

State: Indiana, Year Ban: None



Plots are shown by gender (M,F) and by age (65+, 25-64)

For each combination of gender and age, the actual value of the log AMI rate is shown (blue), together with fitted values using Model 2C (+Fi) (red) and Model 3C (+Fq) (green)

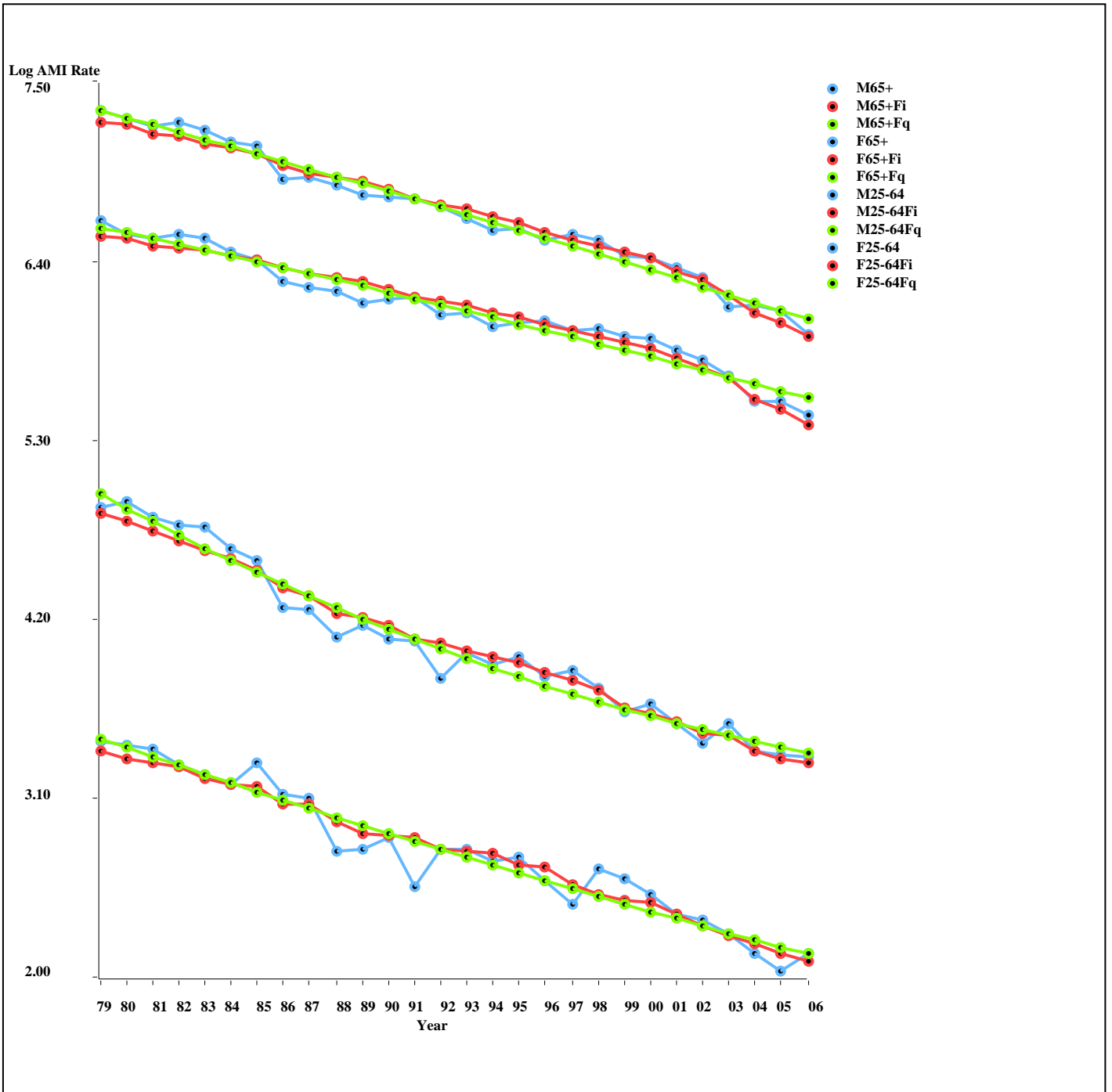
Both models are unweighted and allow for effects of ban specific to a state.

Model 2 allows for linear effects of year; Model 3 allows for quadratic effects.

Figure 16

Effect of smoking bans on acute myocardial infarction (AMI) rates
Plots of log AMI rates from 1979 to 2006

State: Iowa, Year Ban: 2008



Plots are shown by gender (M,F) and by age (65+, 25-64)

For each combination of gender and age, the actual value of the log AMI rate is shown (blue), together with fitted values using Model 2C (+Fi) (red) and Model 3C (+Fq) (green)

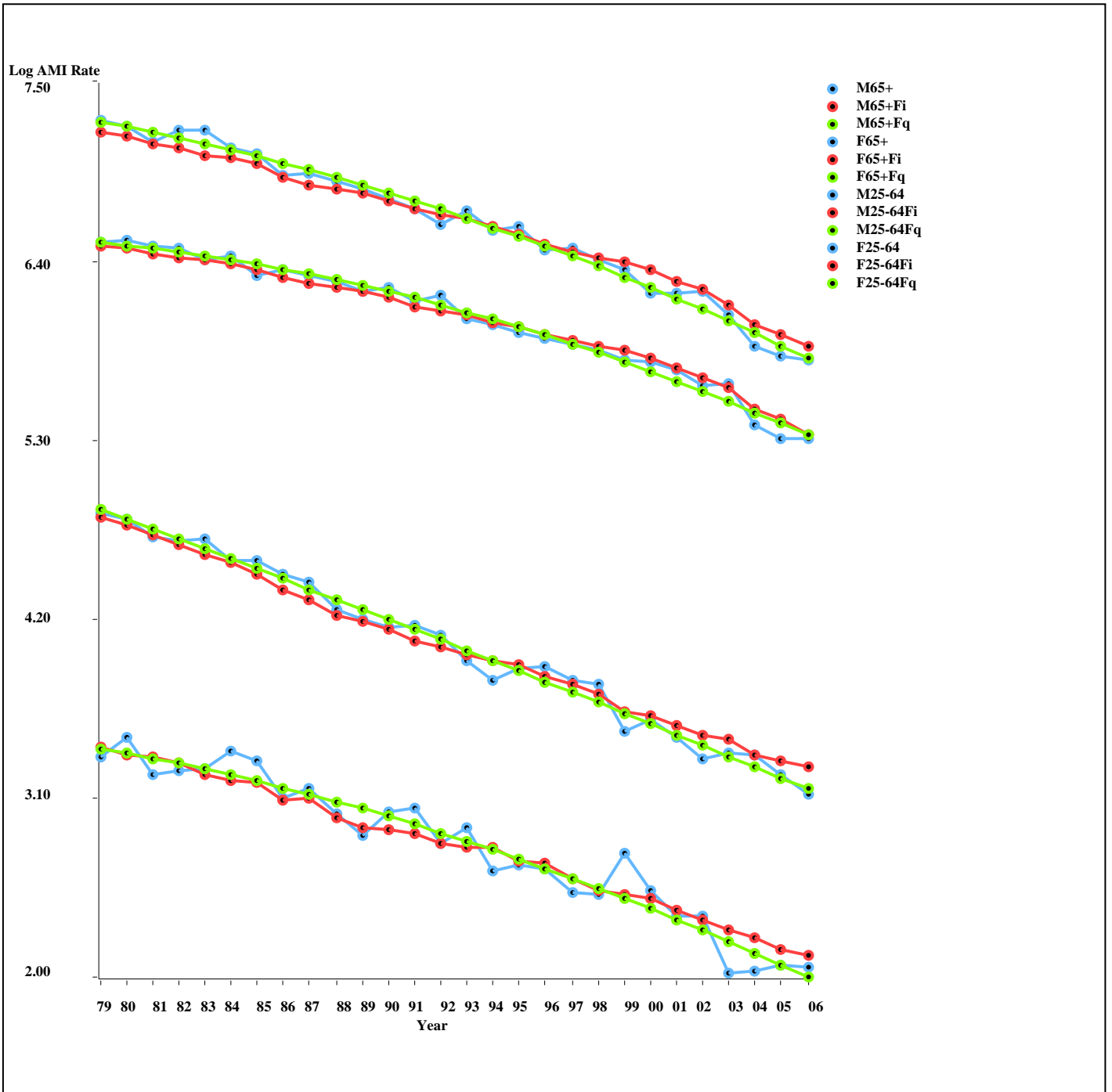
Both models are unweighted and allow for effects of ban specific to a state.

Model 2 allows for linear effects of year; Model 3 allows for quadratic effects.

Figure 17

Effect of smoking bans on acute myocardial infarction (AMI) rates
 Plots of log AMI rates from 1979 to 2006

State: Kansas, Year Ban: None



Plots are shown by gender (M,F) and by age (65+, 25-64)

For each combination of gender and age, the actual value of the log AMI rate is shown (blue), together with fitted values using Model 2C (+Fi) (red) and Model 3C (+Fq) (green)

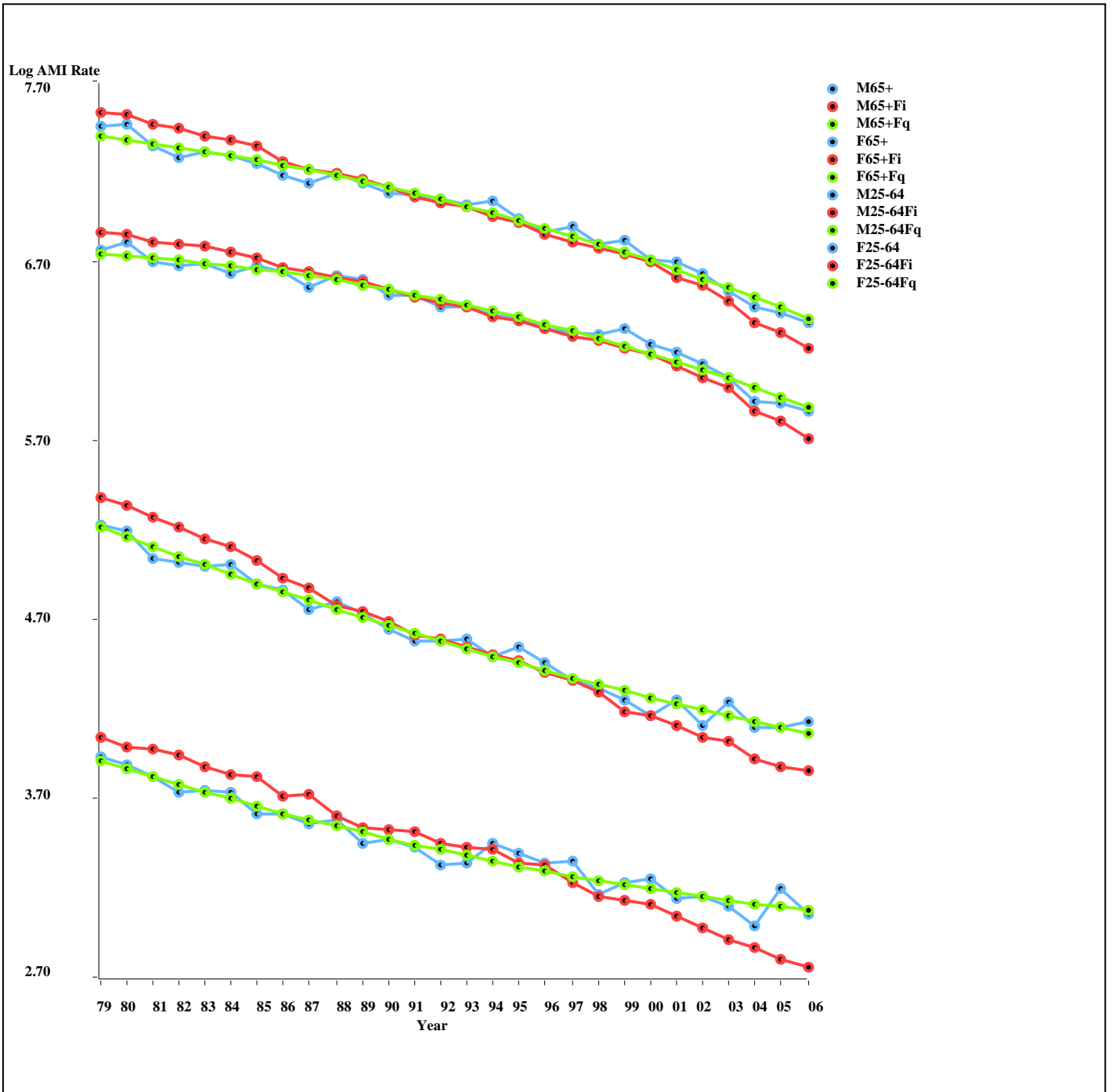
Both models are unweighted and allow for effects of ban specific to a state.

Model 2 allows for linear effects of year; Model 3 allows for quadratic effects.

Figure 18

Effect of smoking bans on acute myocardial infarction (AMI) rates
 Plots of log AMI rates from 1979 to 2006

State: Kentucky, Year Ban: None

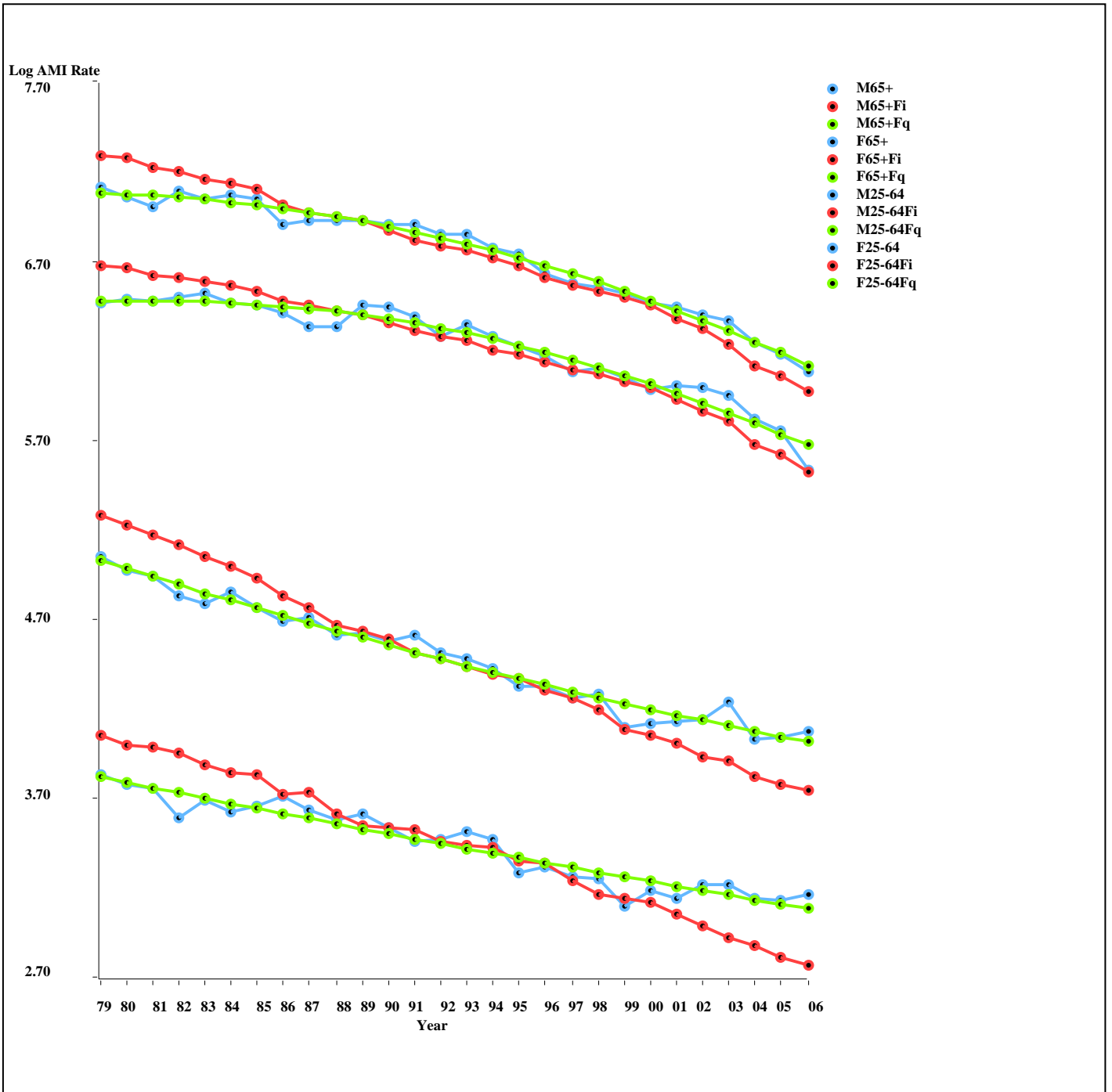


Plots are shown by gender (M,F) and by age (65+, 25-64)
 For each combination of gender and age, the actual value of the log AMI rate is shown (blue),
 together with fitted values using Model 2C (+Fi) (red) and Model 3C (+Fq) (green)
 Both models are unweighted and allow for effects of ban specific to a state.
 Model 2 allows for linear effects of year; Model 3 allows for quadratic effects.

Figure 19

Effect of smoking bans on acute myocardial infarction (AMI) rates
 Plots of log AMI rates from 1979 to 2006

State: Louisiana, Year Ban: 2007

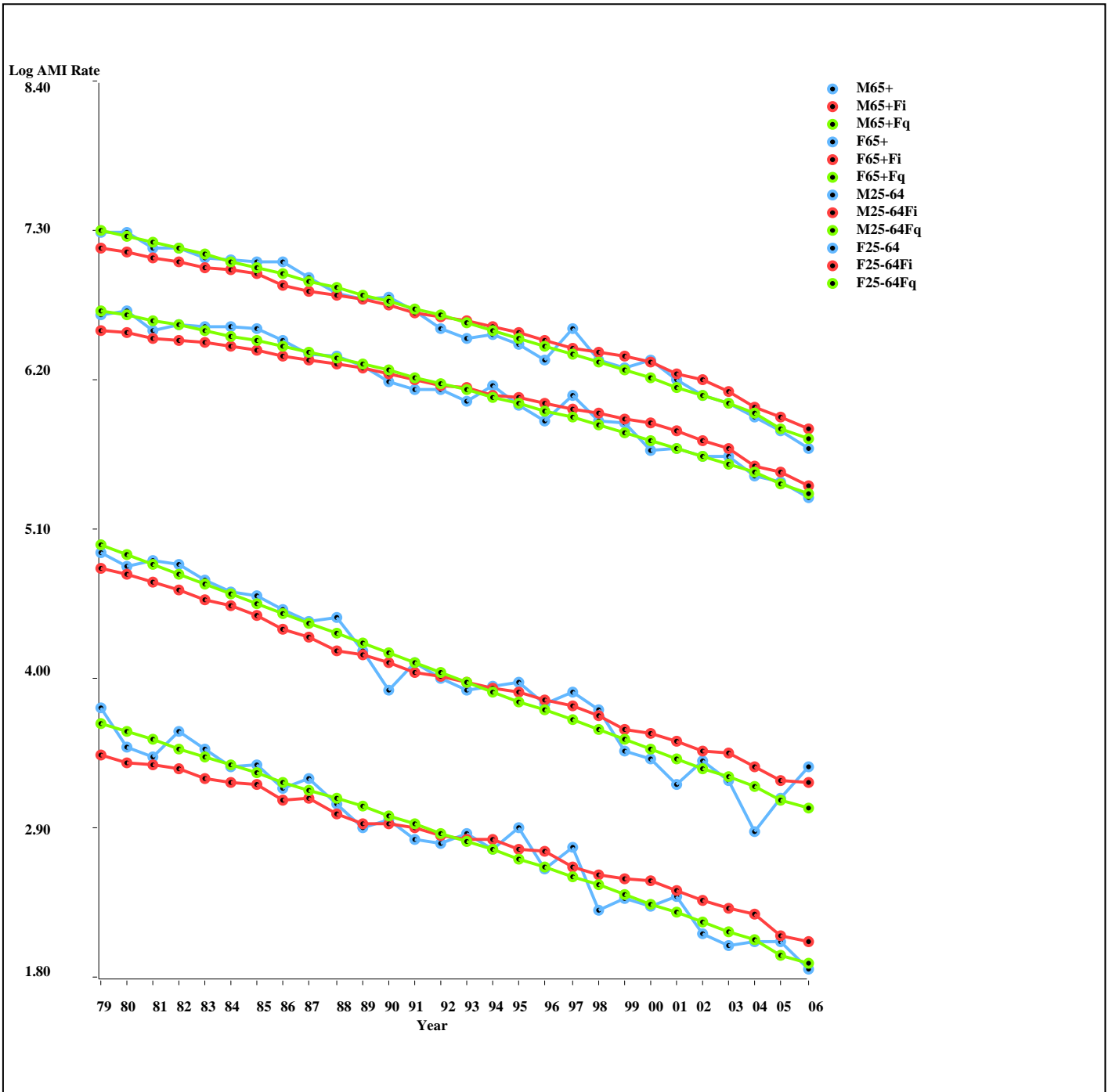


Plots are shown by gender (M,F) and by age (65+, 25-64)
 For each combination of gender and age, the actual value of the log AMI rate is shown (blue),
 together with fitted values using Model 2C (+Fi) (red) and Model 3C (+Fq) (green)
 Both models are unweighted and allow for effects of ban specific to a state.
 Model 2 allows for linear effects of year; Model 3 allows for quadratic effects.

Figure 20

Effect of smoking bans on acute myocardial infarction (AMI) rates
 Plots of log AMI rates from 1979 to 2006

State: Maine, Year Ban: 2004



Plots are shown by gender (M,F) and by age (65+, 25-64)

For each combination of gender and age, the actual value of the log AMI rate is shown (blue), together with fitted values using Model 2C (+Fi) (red) and Model 3C (+Fq) (green)

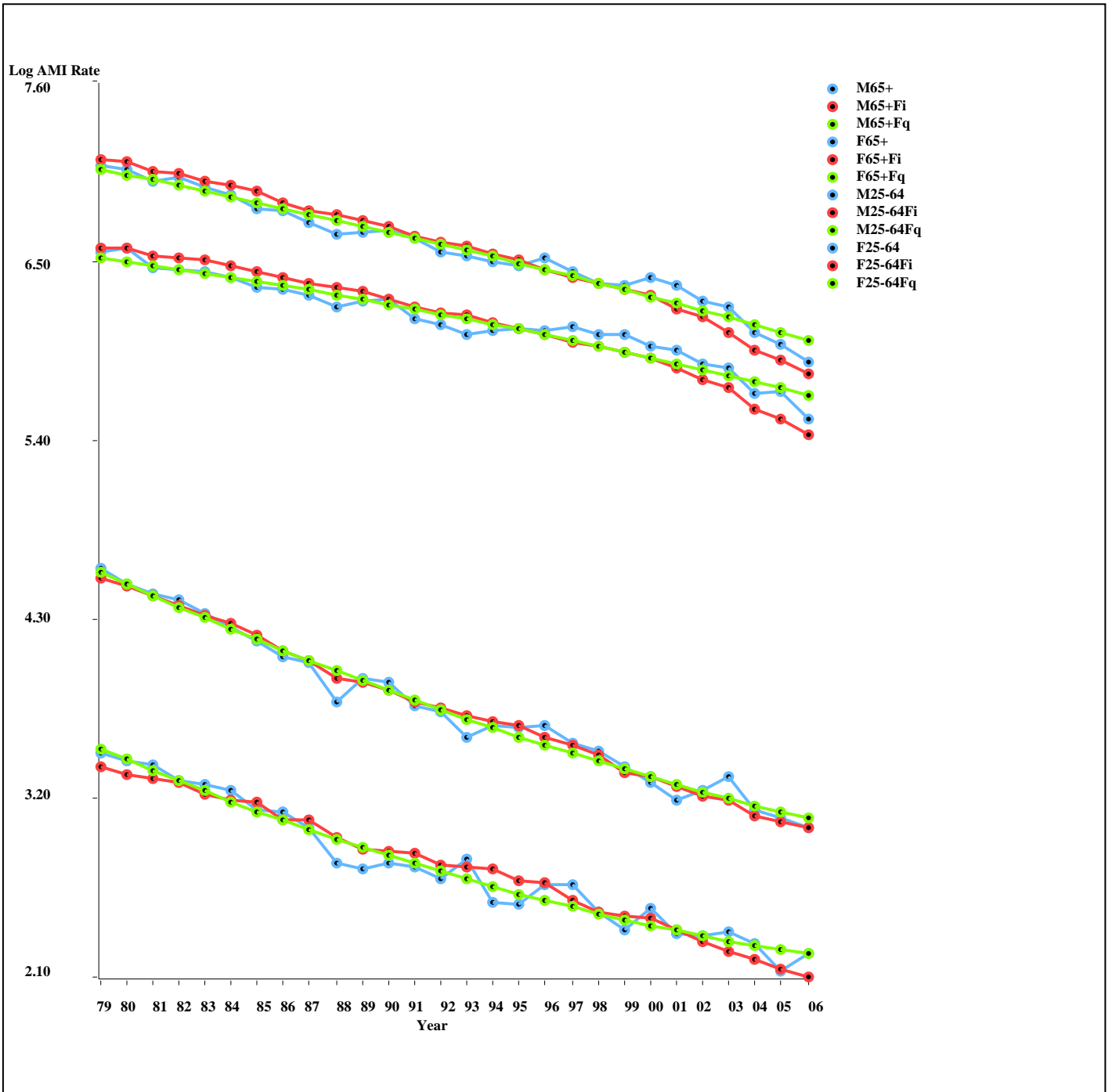
Both models are unweighted and allow for effects of ban specific to a state.

Model 2 allows for linear effects of year; Model 3 allows for quadratic effects.

Figure 21

Effect of smoking bans on acute myocardial infarction (AMI) rates
Plots of log AMI rates from 1979 to 2006

State: Maryland, Year Ban: 2008



Plots are shown by gender (M,F) and by age (65+, 25-64)

For each combination of gender and age, the actual value of the log AMI rate is shown (blue), together with fitted values using Model 2C (+Fi) (red) and Model 3C (+Fq) (green)

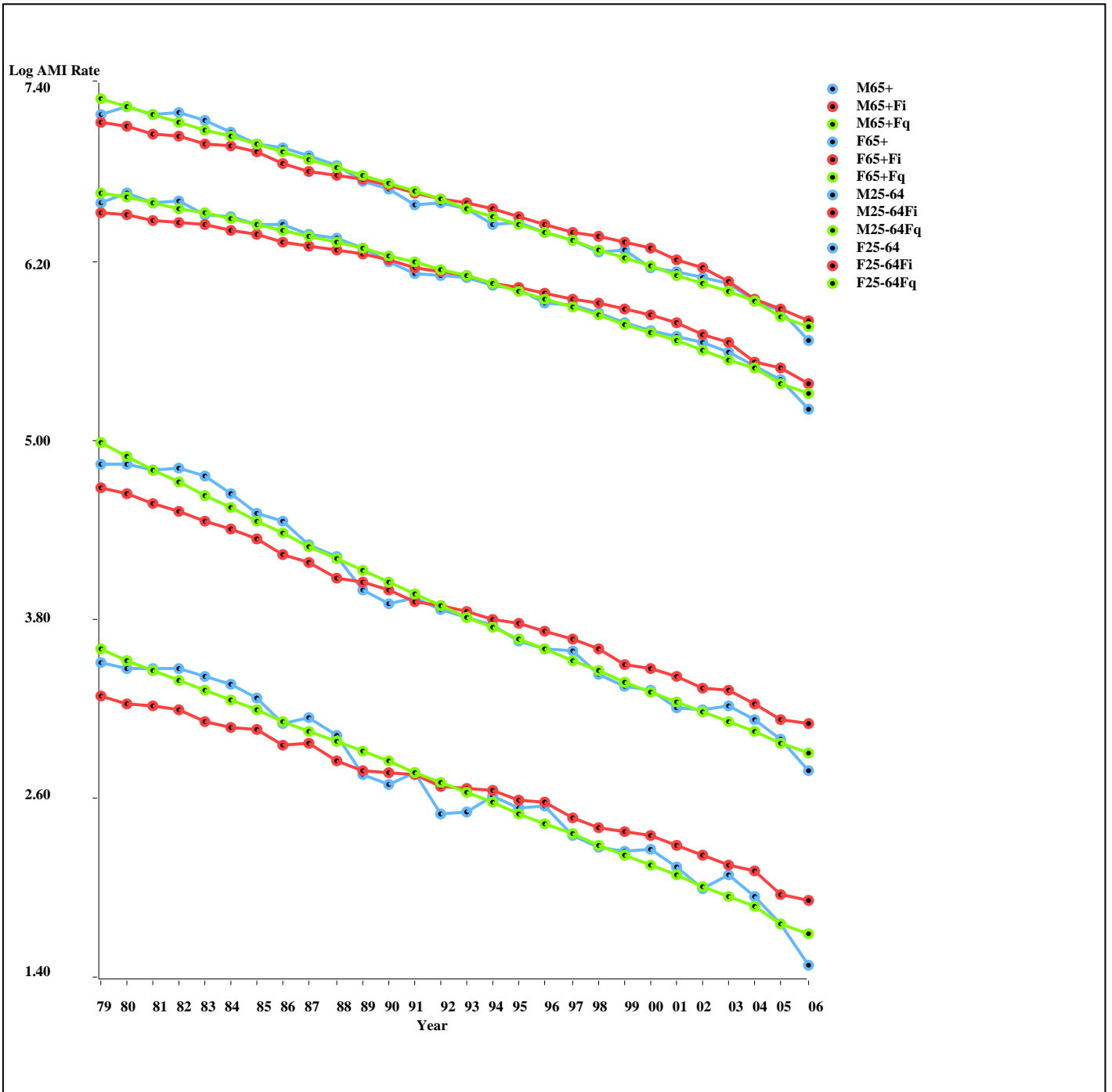
Both models are unweighted and allow for effects of ban specific to a state.

Model 2 allows for linear effects of year; Model 3 allows for quadratic effects.

Figure 22

Effect of smoking bans on acute myocardial infarction (AMI) rates
 Plots of log AMI rates from 1979 to 2006

State: Massachusetts, Year Ban: 2004



Plots are shown by gender (M,F) and by age (65+, 25-64)

For each combination of gender and age, the actual value of the log AMI rate is shown (blue), together with fitted values using Model 2C (+Fi) (red) and Model 3C (+Fq) (green)

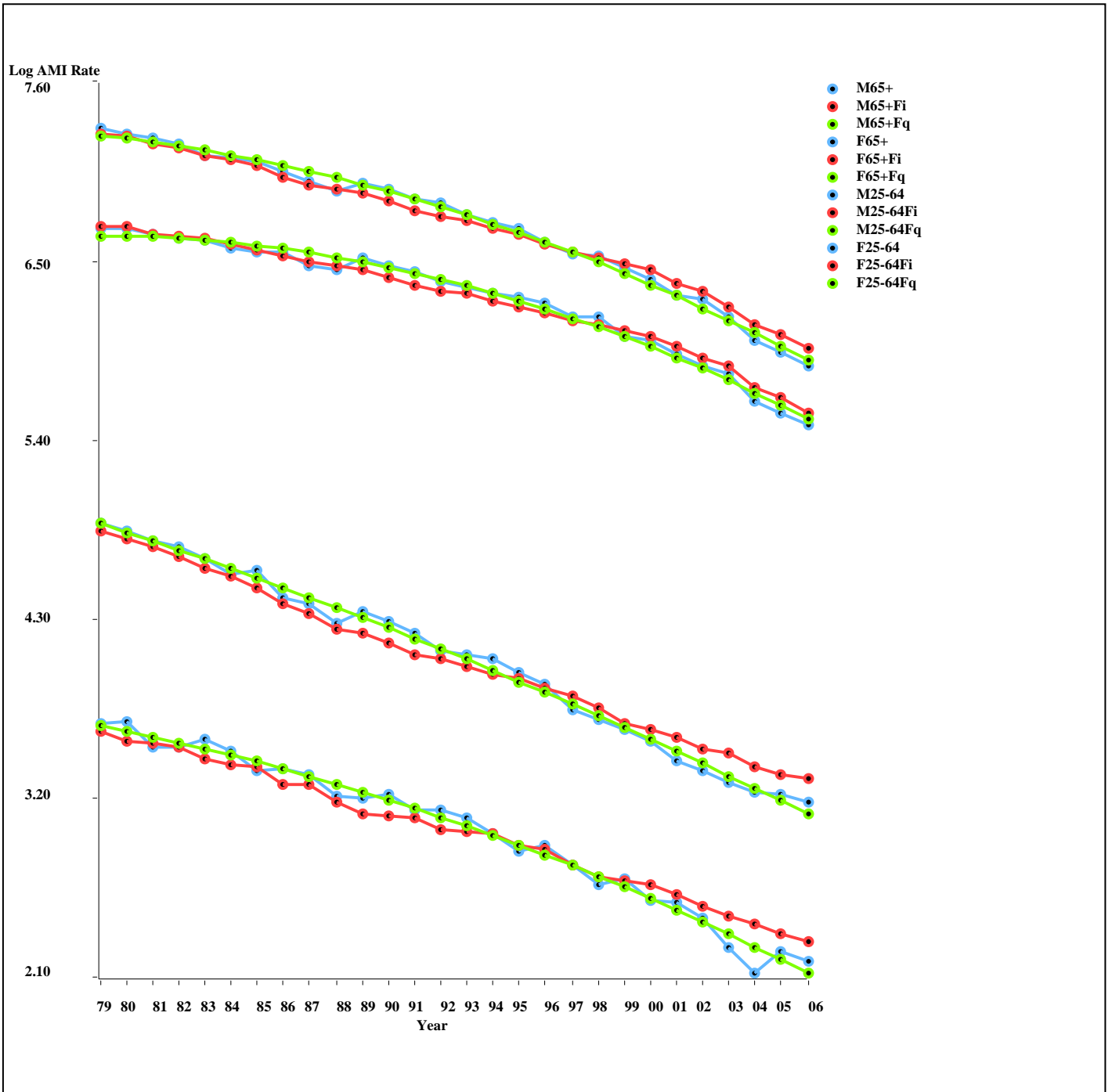
Both models are unweighted and allow for effects of ban specific to a state.

Model 2 allows for linear effects of year; Model 3 allows for quadratic effects.

Figure 23

Effect of smoking bans on acute myocardial infarction (AMI) rates
 Plots of log AMI rates from 1979 to 2006

State: Michigan, Year Ban: None



Plots are shown by gender (M,F) and by age (65+, 25-64)

For each combination of gender and age, the actual value of the log AMI rate is shown (blue), together with fitted values using Model 2C (+Fi) (red) and Model 3C (+Fq) (green)

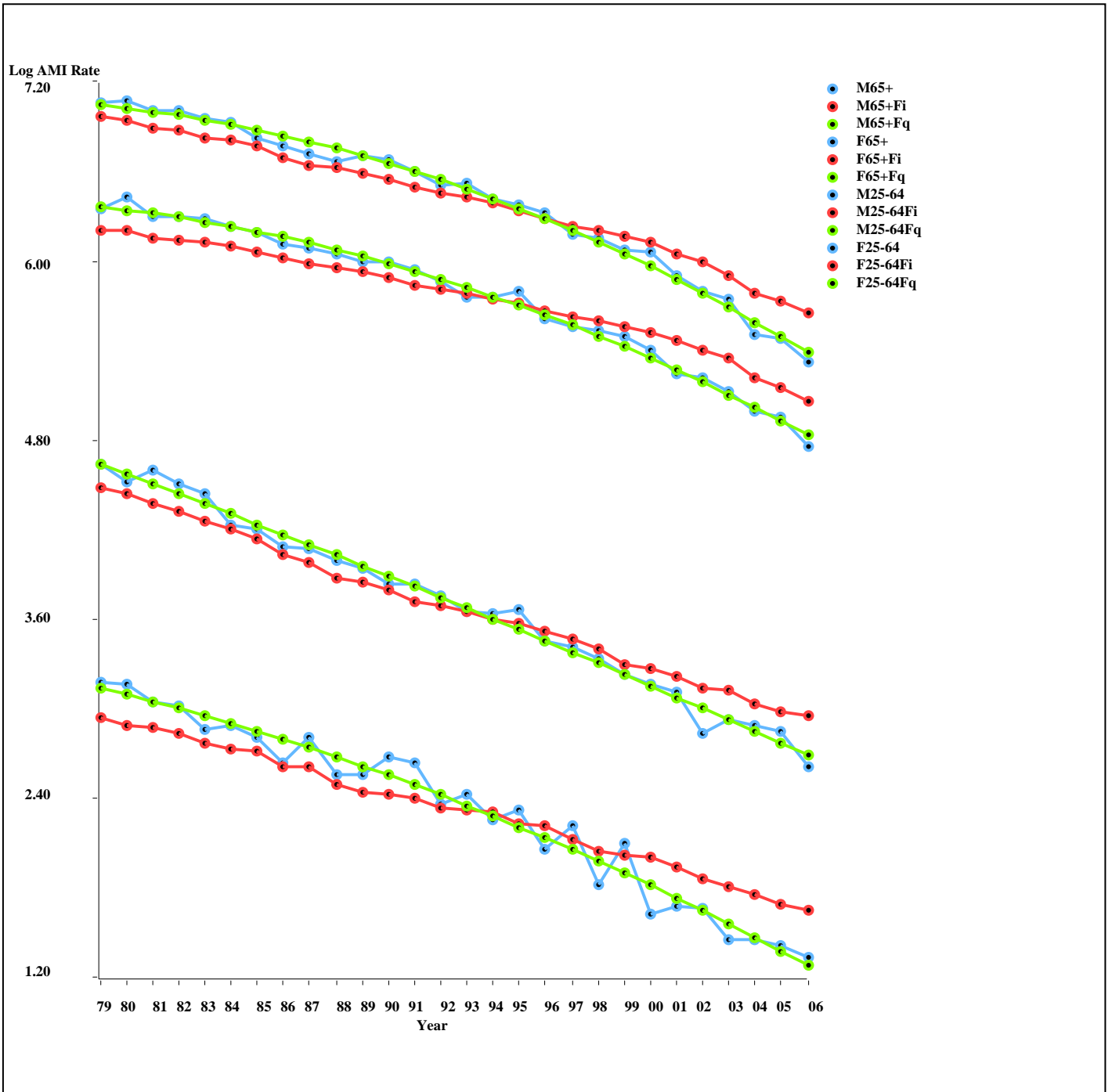
Both models are unweighted and allow for effects of ban specific to a state.

Model 2 allows for linear effects of year; Model 3 allows for quadratic effects.

Figure 24

Effect of smoking bans on acute myocardial infarction (AMI) rates
 Plots of log AMI rates from 1979 to 2006

State: Minnesota, Year Ban: 2007



Plots are shown by gender (M,F) and by age (65+, 25-64)

For each combination of gender and age, the actual value of the log AMI rate is shown (blue), together with fitted values using Model 2C (+Fi) (red) and Model 3C (+Fq) (green)

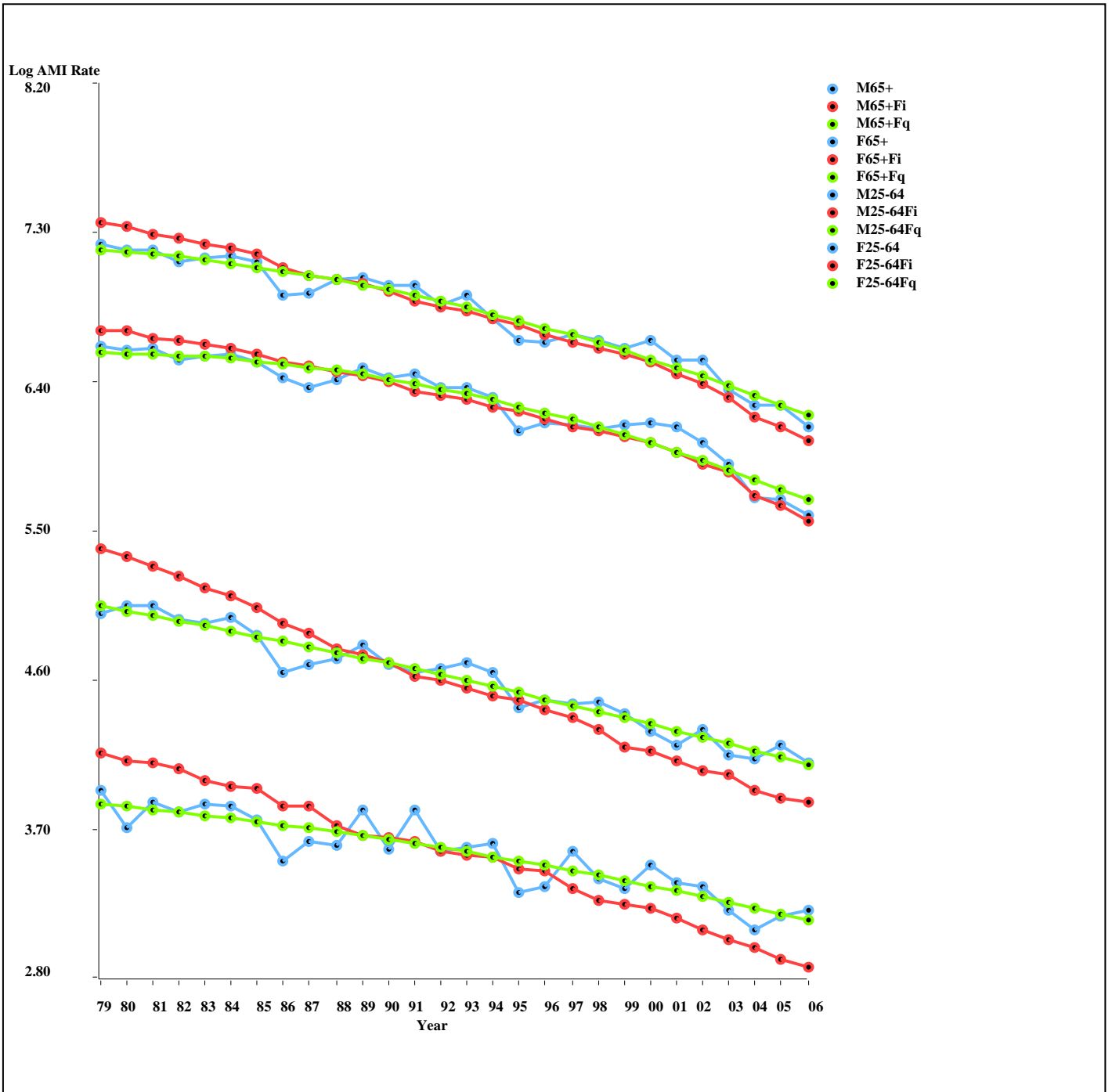
Both models are unweighted and allow for effects of ban specific to a state.

Model 2 allows for linear effects of year; Model 3 allows for quadratic effects.

Figure 25

Effect of smoking bans on acute myocardial infarction (AMI) rates
Plots of log AMI rates from 1979 to 2006

State: Mississippi, Year Ban: None



Plots are shown by gender (M,F) and by age (65+, 25-64)

For each combination of gender and age, the actual value of the log AMI rate is shown (blue), together with fitted values using Model 2C (+Fi) (red) and Model 3C (+Fq) (green)

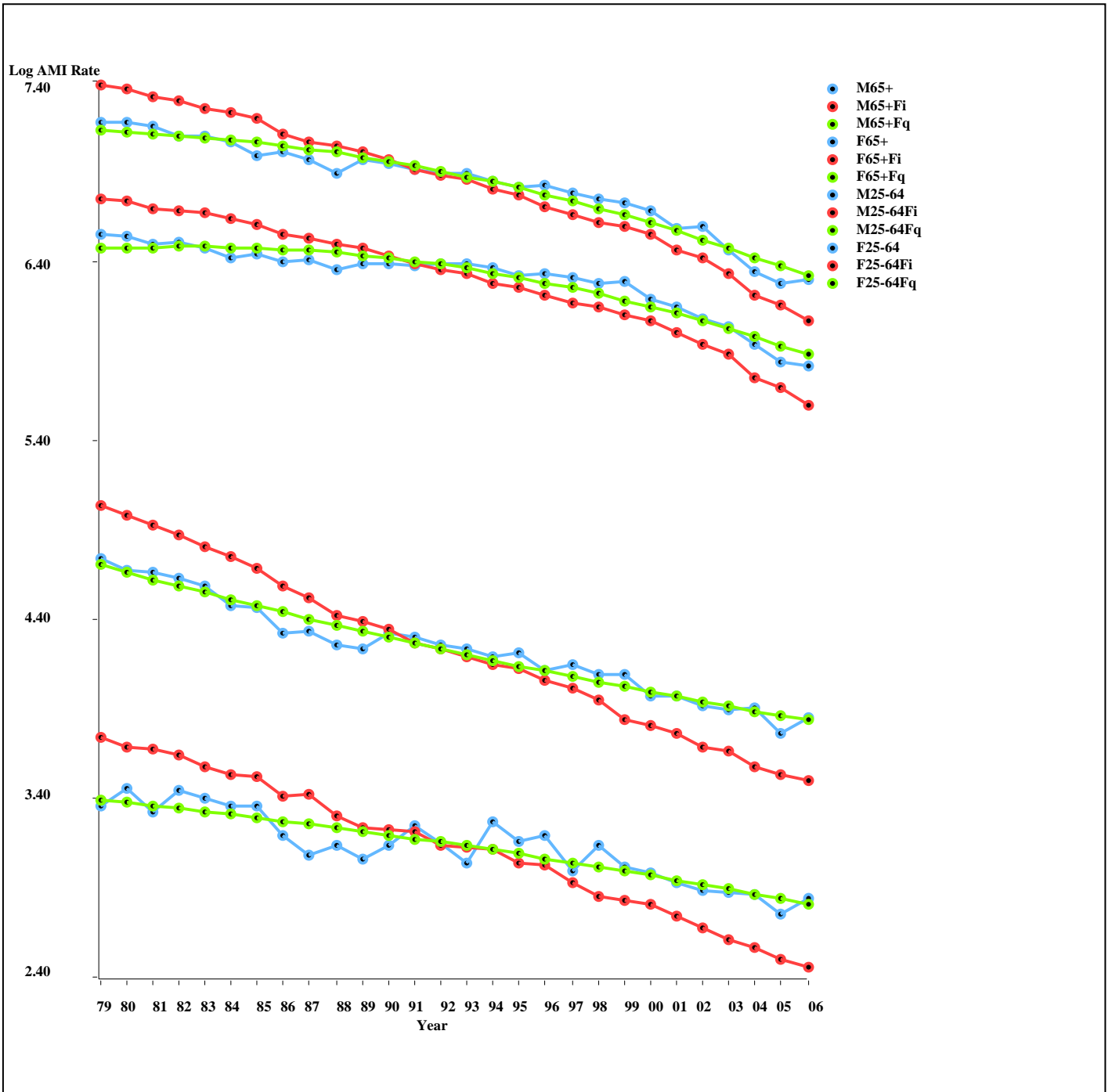
Both models are unweighted and allow for effects of ban specific to a state.

Model 2 allows for linear effects of year; Model 3 allows for quadratic effects.

Figure 26

Effect of smoking bans on acute myocardial infarction (AMI) rates
 Plots of log AMI rates from 1979 to 2006

State: Missouri, Year Ban: None

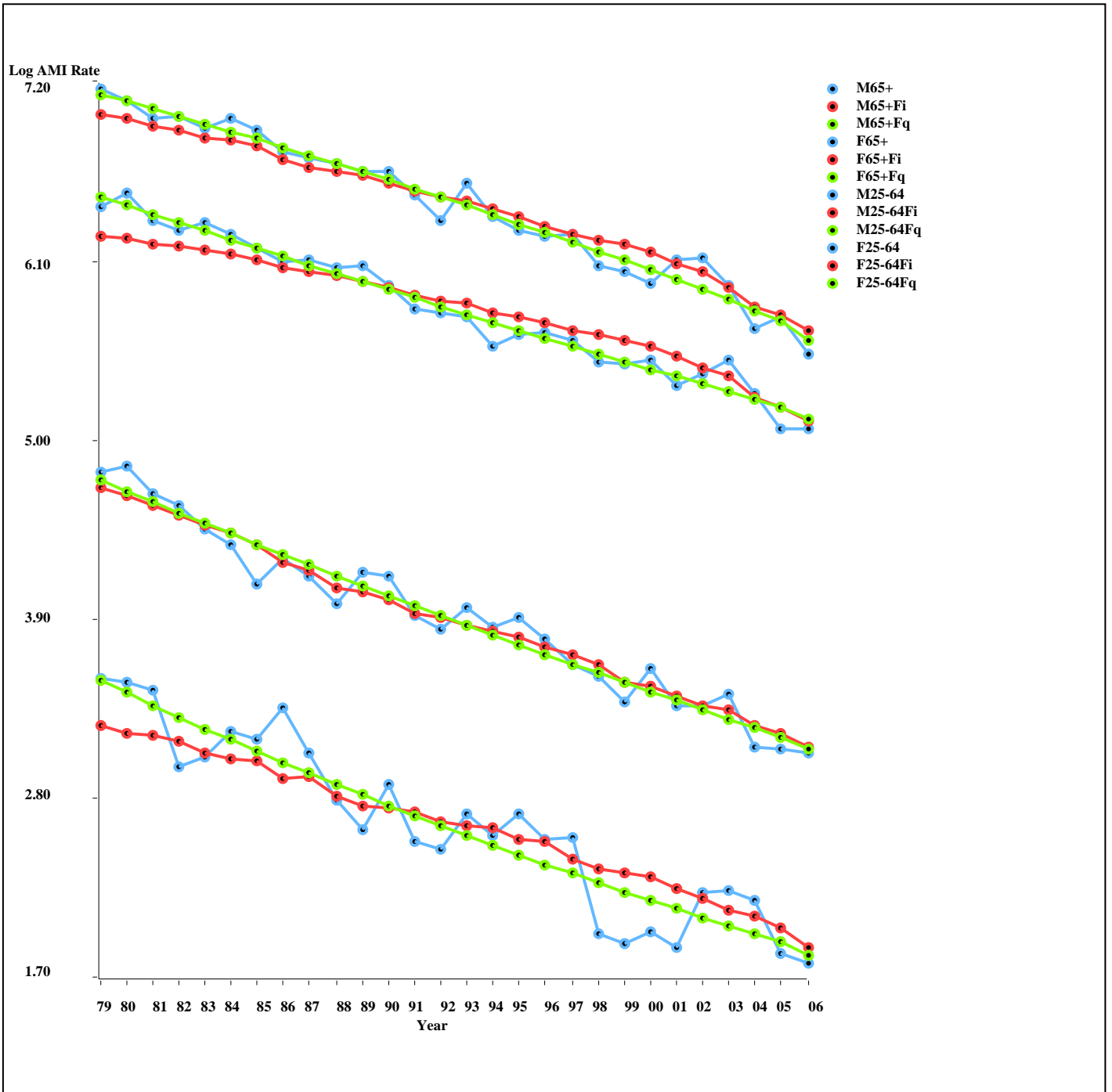


Plots are shown by gender (M,F) and by age (65+, 25-64)
 For each combination of gender and age, the actual value of the log AMI rate is shown (blue),
 together with fitted values using Model 2C (+Fi) (red) and Model 3C (+Fq) (green)
 Both models are unweighted and allow for effects of ban specific to a state.
 Model 2 allows for linear effects of year; Model 3 allows for quadratic effects.

Figure 27

Effect of smoking bans on acute myocardial infarction (AMI) rates
 Plots of log AMI rates from 1979 to 2006

State: Montana, Year Ban: 2005



Plots are shown by gender (M,F) and by age (65+, 25-64)

For each combination of gender and age, the actual value of the log AMI rate is shown (blue), together with fitted values using Model 2C (+Fi) (red) and Model 3C (+Fq) (green)

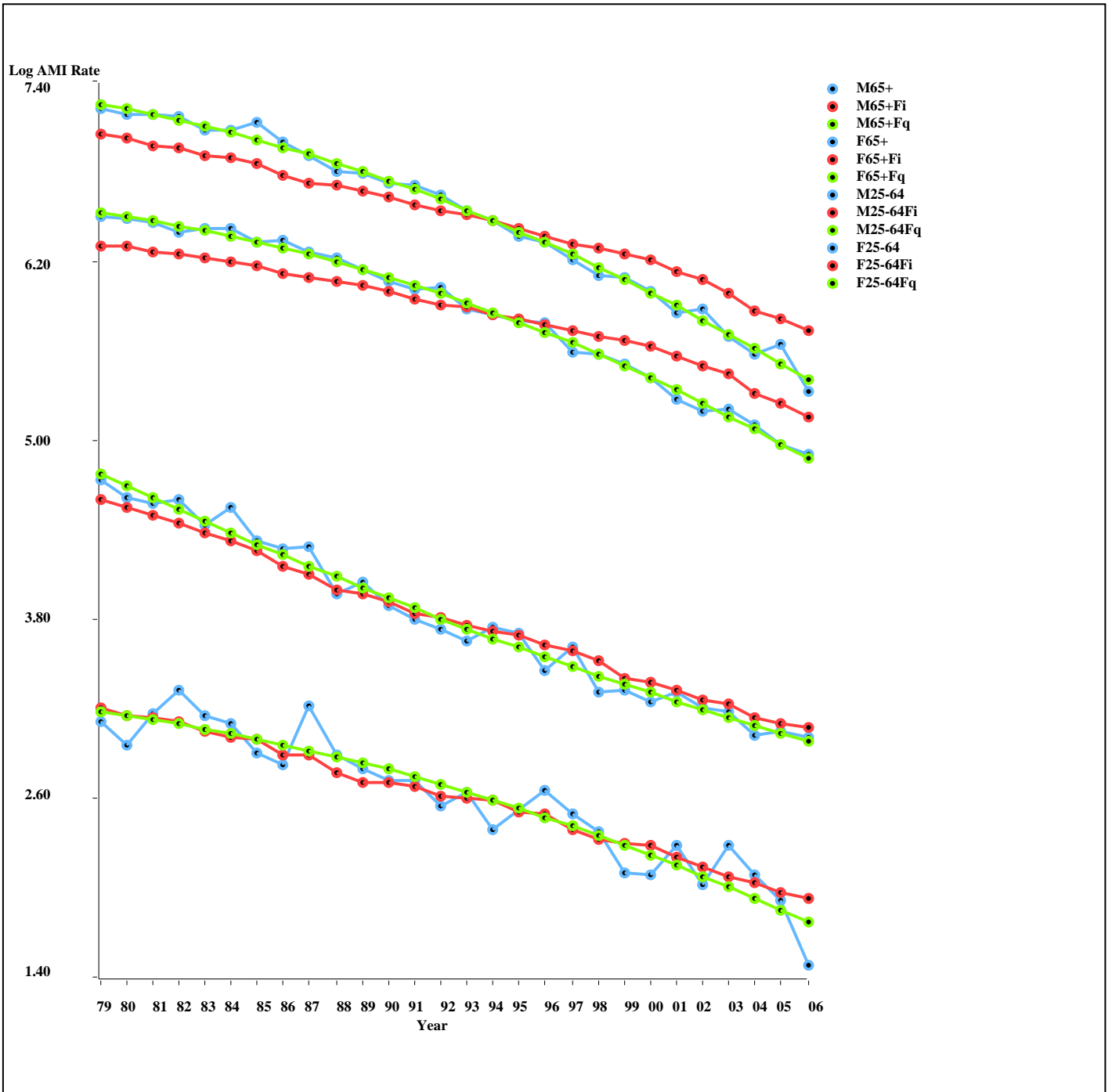
Both models are unweighted and allow for effects of ban specific to a state.

Model 2 allows for linear effects of year; Model 3 allows for quadratic effects.

Figure 28

Effect of smoking bans on acute myocardial infarction (AMI) rates
Plots of log AMI rates from 1979 to 2006

State: Nebraska, Year Ban: 2009



Plots are shown by gender (M,F) and by age (65+, 25-64)

For each combination of gender and age, the actual value of the log AMI rate is shown (blue), together with fitted values using Model 2C (+Fi) (red) and Model 3C (+Fq) (green)

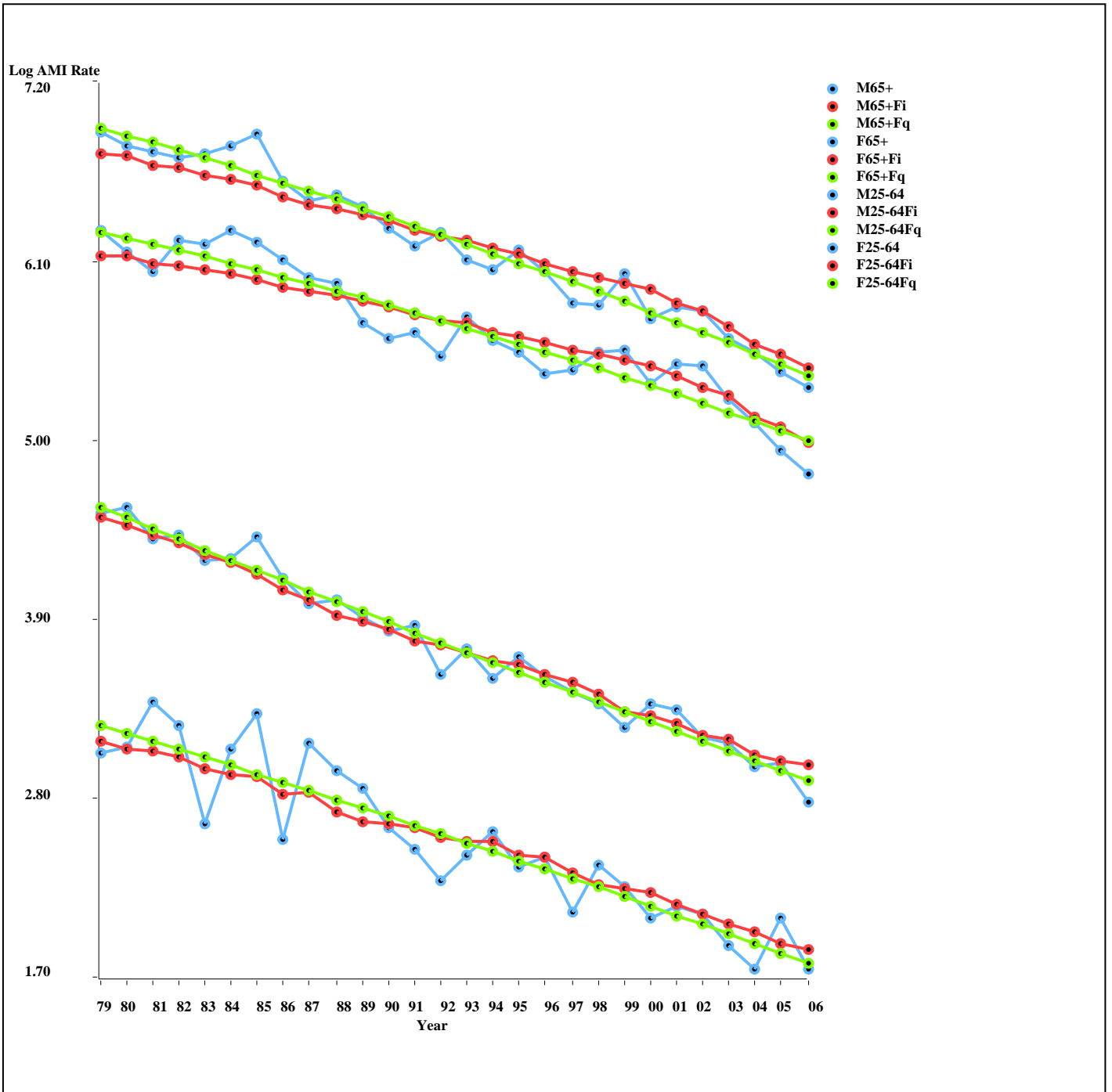
Both models are unweighted and allow for effects of ban specific to a state.

Model 2 allows for linear effects of year; Model 3 allows for quadratic effects.

Figure 29

Effect of smoking bans on acute myocardial infarction (AMI) rates
 Plots of log AMI rates from 1979 to 2006

State: Nevada, Year Ban: 2006



Plots are shown by gender (M,F) and by age (65+, 25-64)

For each combination of gender and age, the actual value of the log AMI rate is shown (blue), together with fitted values using Model 2C (+Fi) (red) and Model 3C (+Fq) (green)

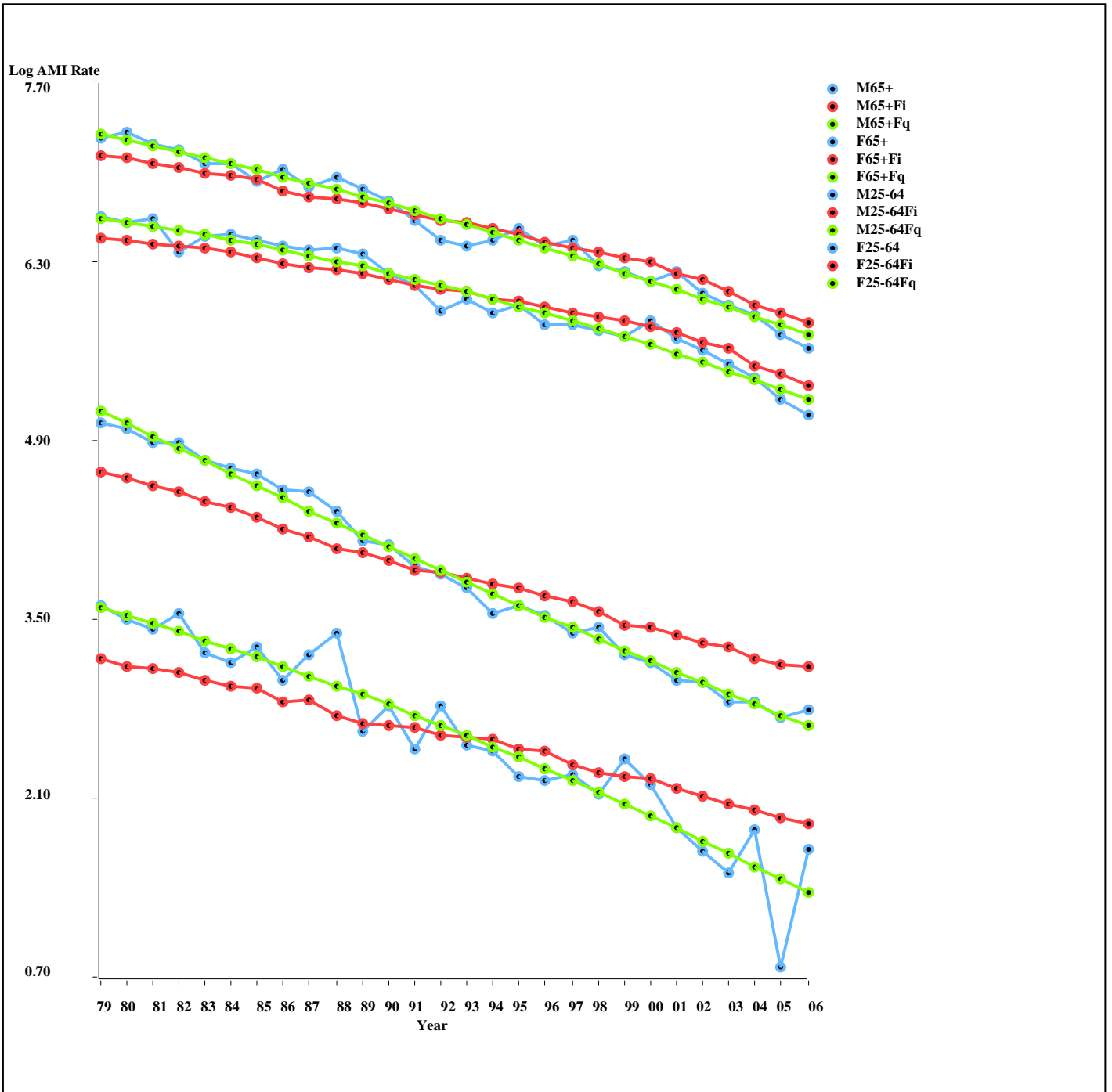
Both models are unweighted and allow for effects of ban specific to a state.

Model 2 allows for linear effects of year; Model 3 allows for quadratic effects.

Figure 30

Effect of smoking bans on acute myocardial infarction (AMI) rates
 Plots of log AMI rates from 1979 to 2006

State: New Hampshire, Year Ban: 2007



Plots are shown by gender (M,F) and by age (65+, 25-64)

For each combination of gender and age, the actual value of the log AMI rate is shown (blue), together with fitted values using Model 2C (+Fi) (red) and Model 3C (+Fq) (green)

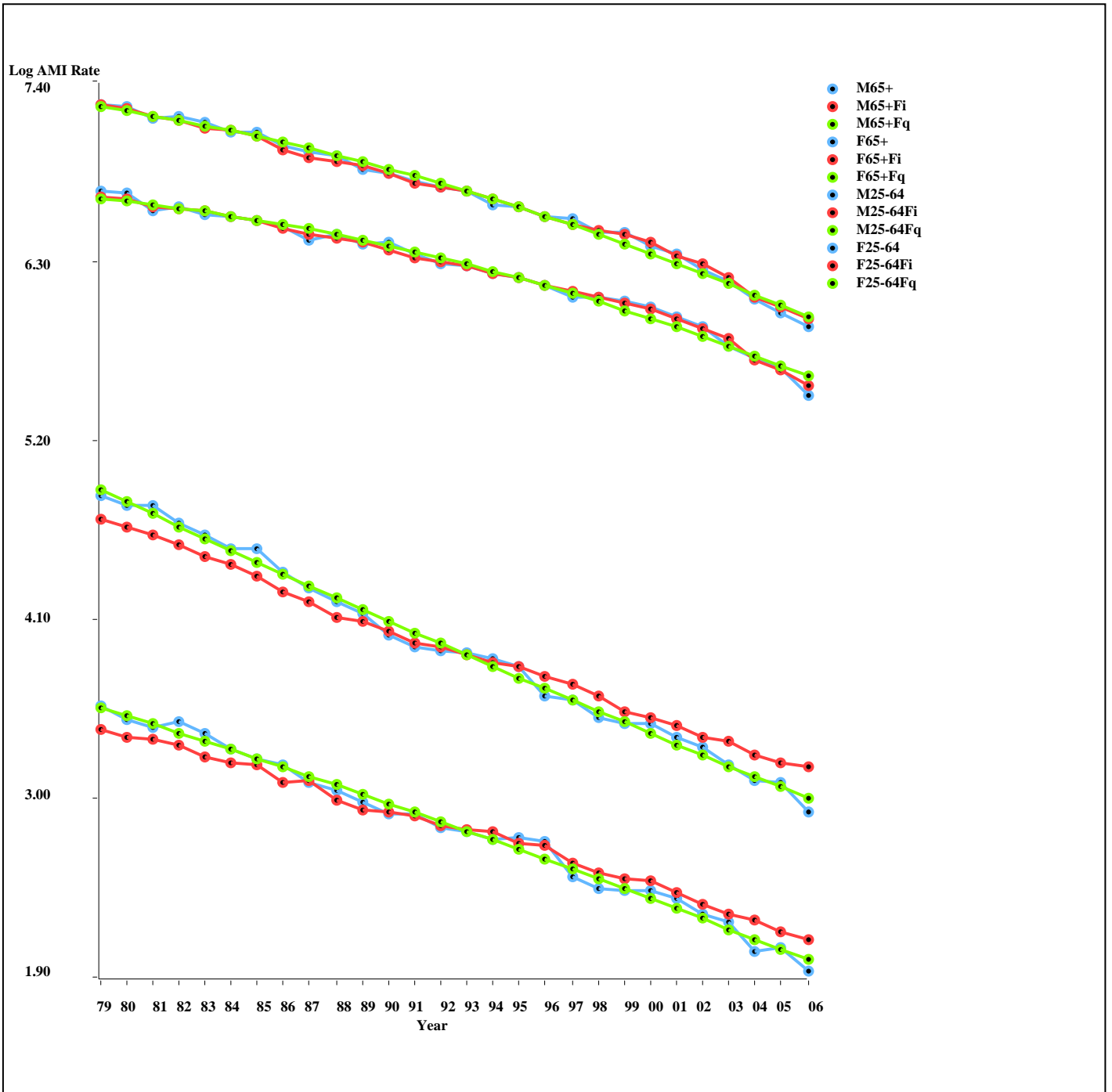
Both models are unweighted and allow for effects of ban specific to a state.

Model 2 allows for linear effects of year; Model 3 allows for quadratic effects.

Figure 31

Effect of smoking bans on acute myocardial infarction (AMI) rates
 Plots of log AMI rates from 1979 to 2006

State: New Jersey, Year Ban: 2006



Plots are shown by gender (M,F) and by age (65+, 25-64)

For each combination of gender and age, the actual value of the log AMI rate is shown (blue), together with fitted values using Model 2C (+Fi) (red) and Model 3C (+Fq) (green)

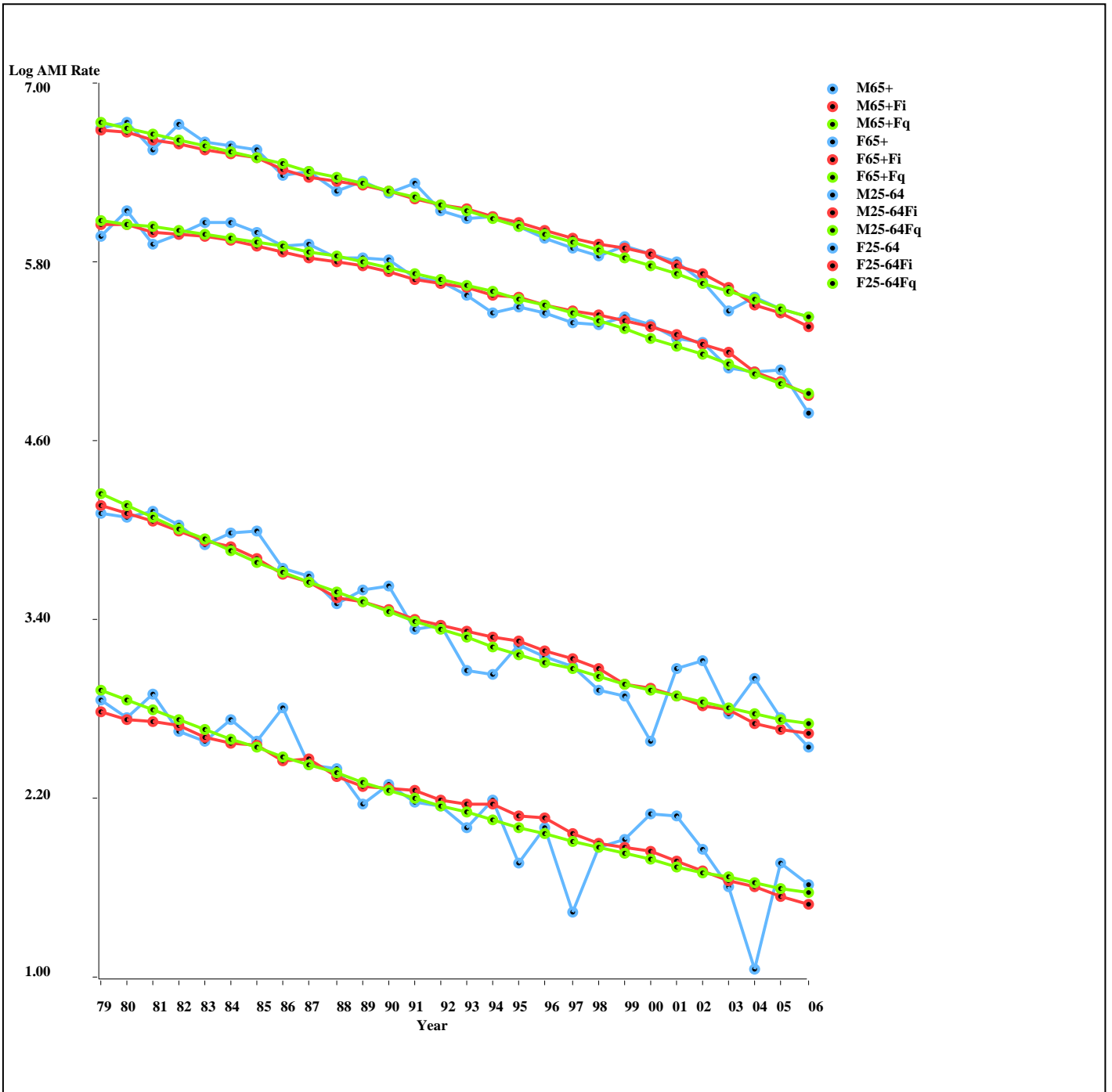
Both models are unweighted and allow for effects of ban specific to a state.

Model 2 allows for linear effects of year; Model 3 allows for quadratic effects.

Figure 32

Effect of smoking bans on acute myocardial infarction (AMI) rates
 Plots of log AMI rates from 1979 to 2006

State: New Mexico, Year Ban: 2007



Plots are shown by gender (M,F) and by age (65+, 25-64)

For each combination of gender and age, the actual value of the log AMI rate is shown (blue), together with fitted values using Model 2C (+Fi) (red) and Model 3C (+Fq) (green)

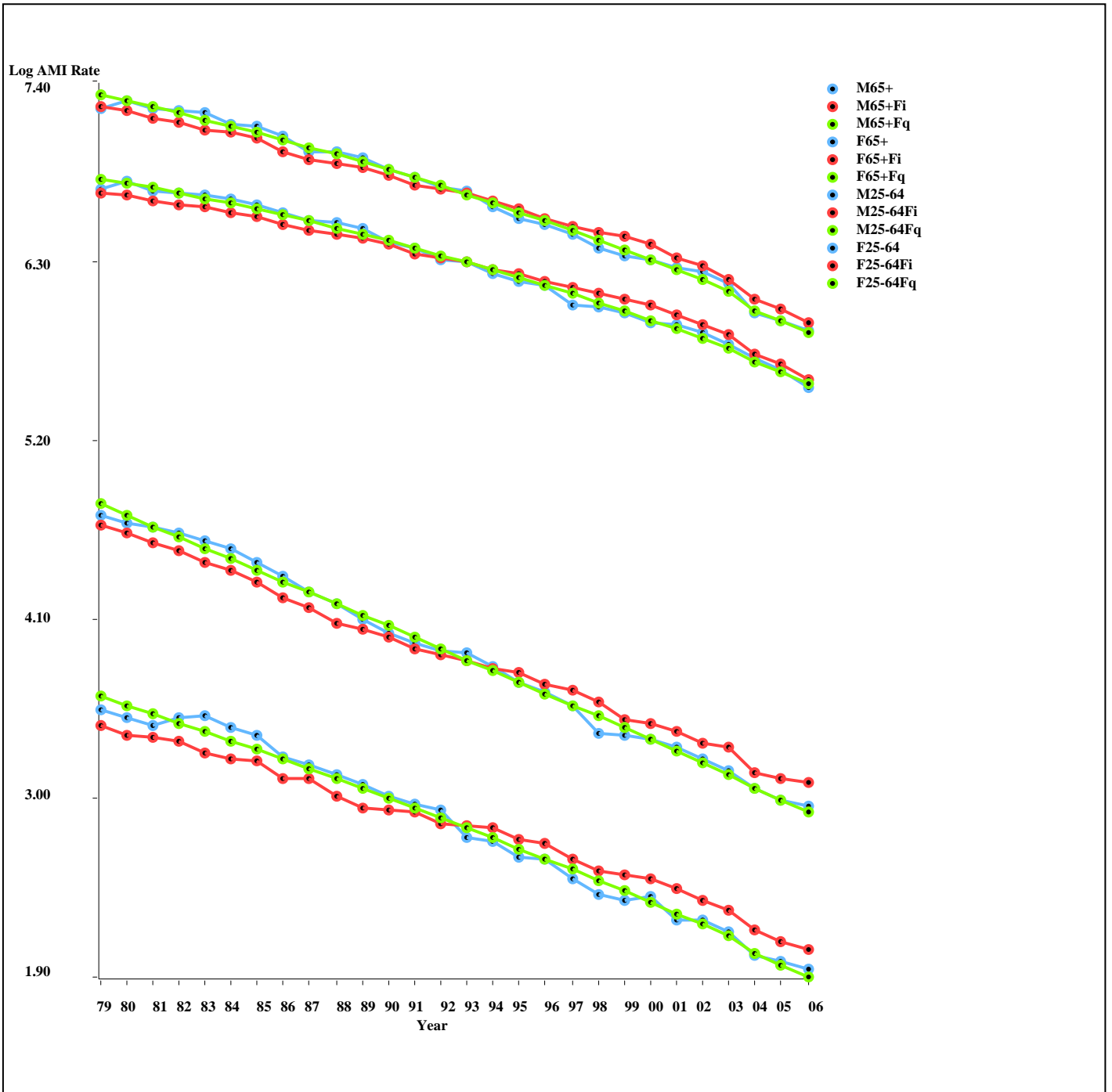
Both models are unweighted and allow for effects of ban specific to a state.

Model 2 allows for linear effects of year; Model 3 allows for quadratic effects.

Figure 33

Effect of smoking bans on acute myocardial infarction (AMI) rates
 Plots of log AMI rates from 1979 to 2006

State: New York, Year Ban: 2003



Plots are shown by gender (M,F) and by age (65+, 25-64)

For each combination of gender and age, the actual value of the log AMI rate is shown (blue), together with fitted values using Model 2C (+Fi) (red) and Model 3C (+Fq) (green)

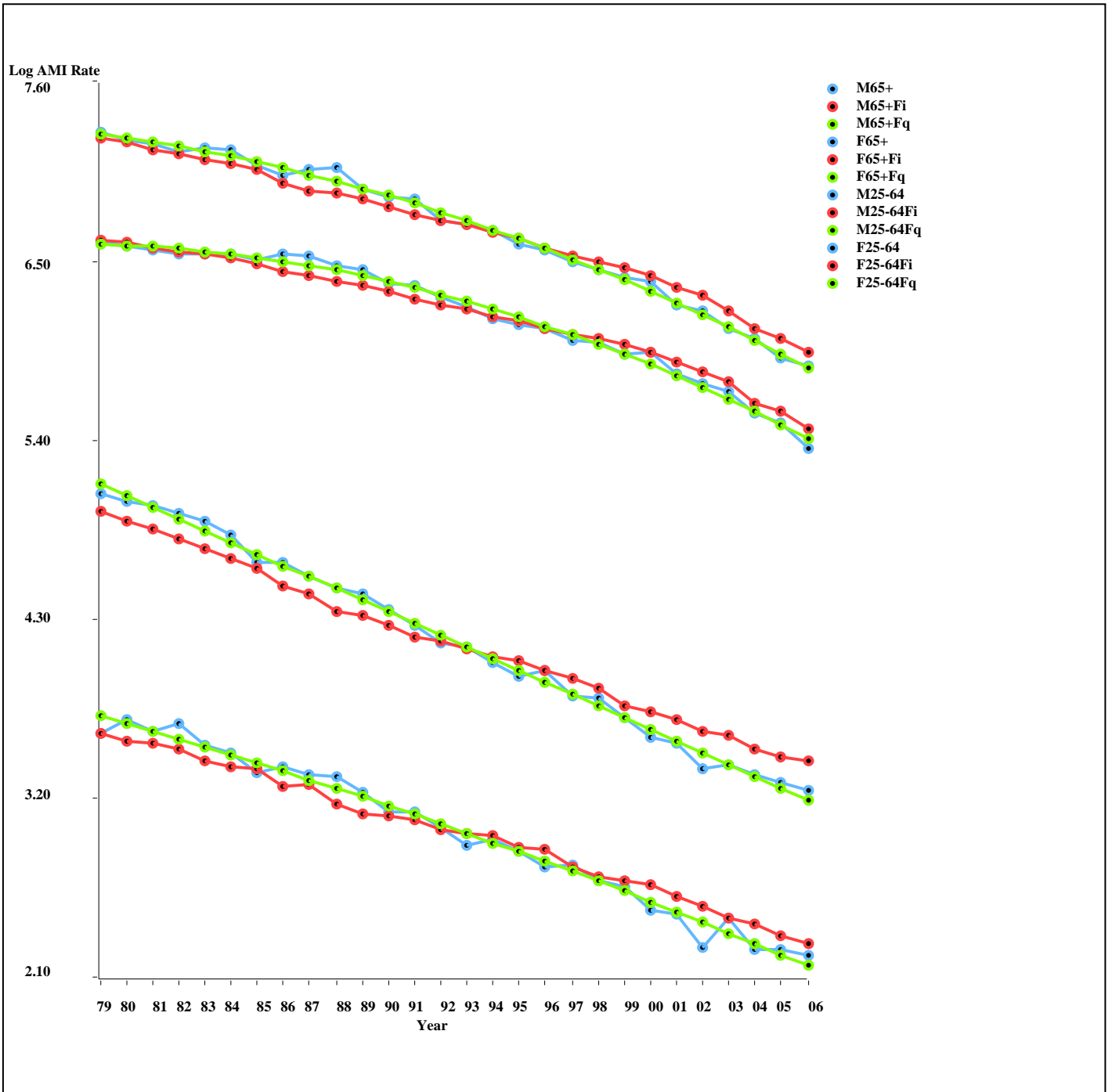
Both models are unweighted and allow for effects of ban specific to a state.

Model 2 allows for linear effects of year; Model 3 allows for quadratic effects.

Figure 34

Effect of smoking bans on acute myocardial infarction (AMI) rates
 Plots of log AMI rates from 1979 to 2006

State: North Carolina, Year Ban: None



Plots are shown by gender (M,F) and by age (65+, 25-64)

For each combination of gender and age, the actual value of the log AMI rate is shown (blue), together with fitted values using Model 2C (+Fi) (red) and Model 3C (+Fq) (green)

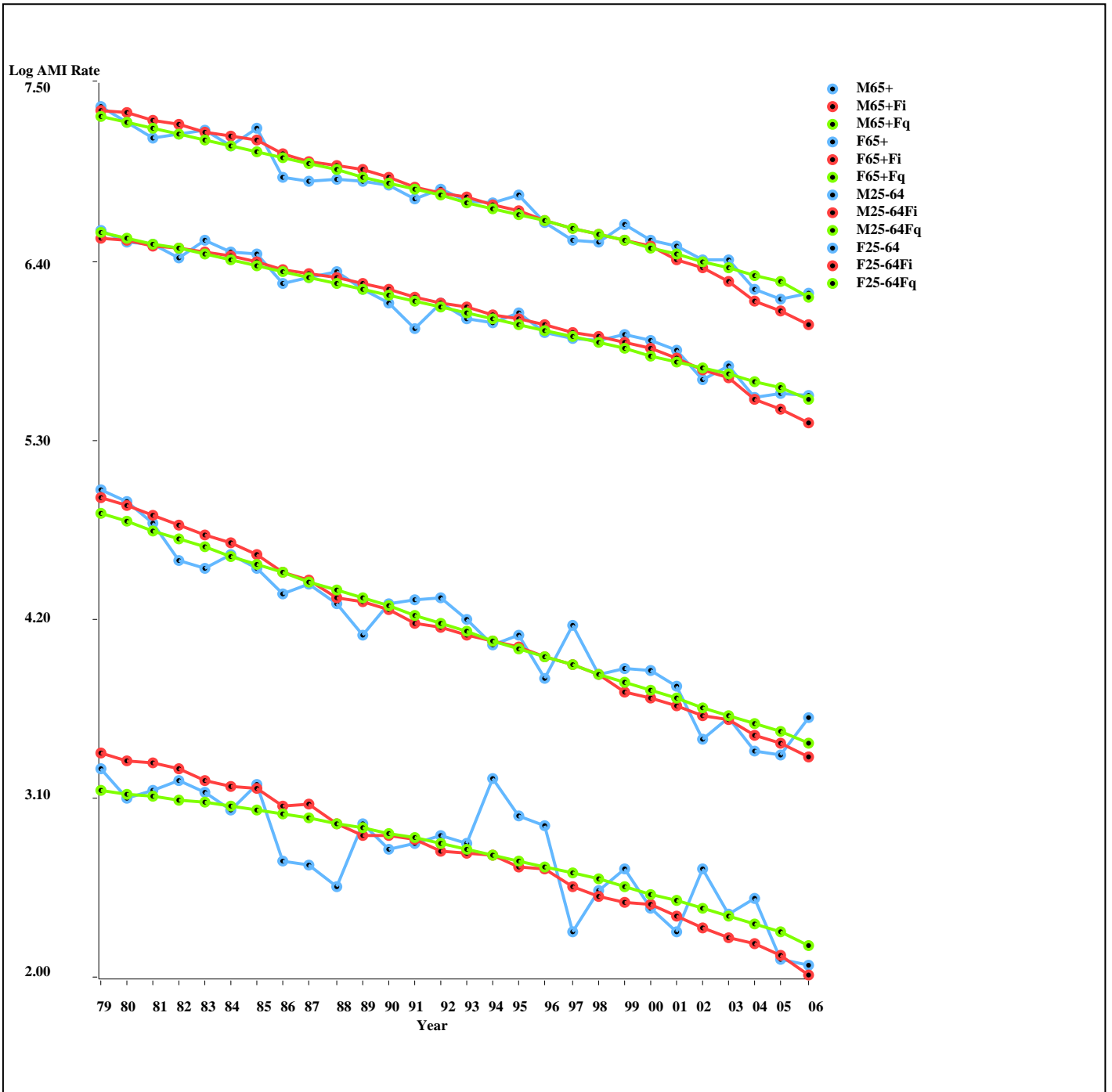
Both models are unweighted and allow for effects of ban specific to a state.

Model 2 allows for linear effects of year; Model 3 allows for quadratic effects.

Figure 35

Effect of smoking bans on acute myocardial infarction (AMI) rates
 Plots of log AMI rates from 1979 to 2006

State: North Dakota, Year Ban: 2005



Plots are shown by gender (M,F) and by age (65+, 25-64)

For each combination of gender and age, the actual value of the log AMI rate is shown (blue), together with fitted values using Model 2C (+Fi) (red) and Model 3C (+Fq) (green)

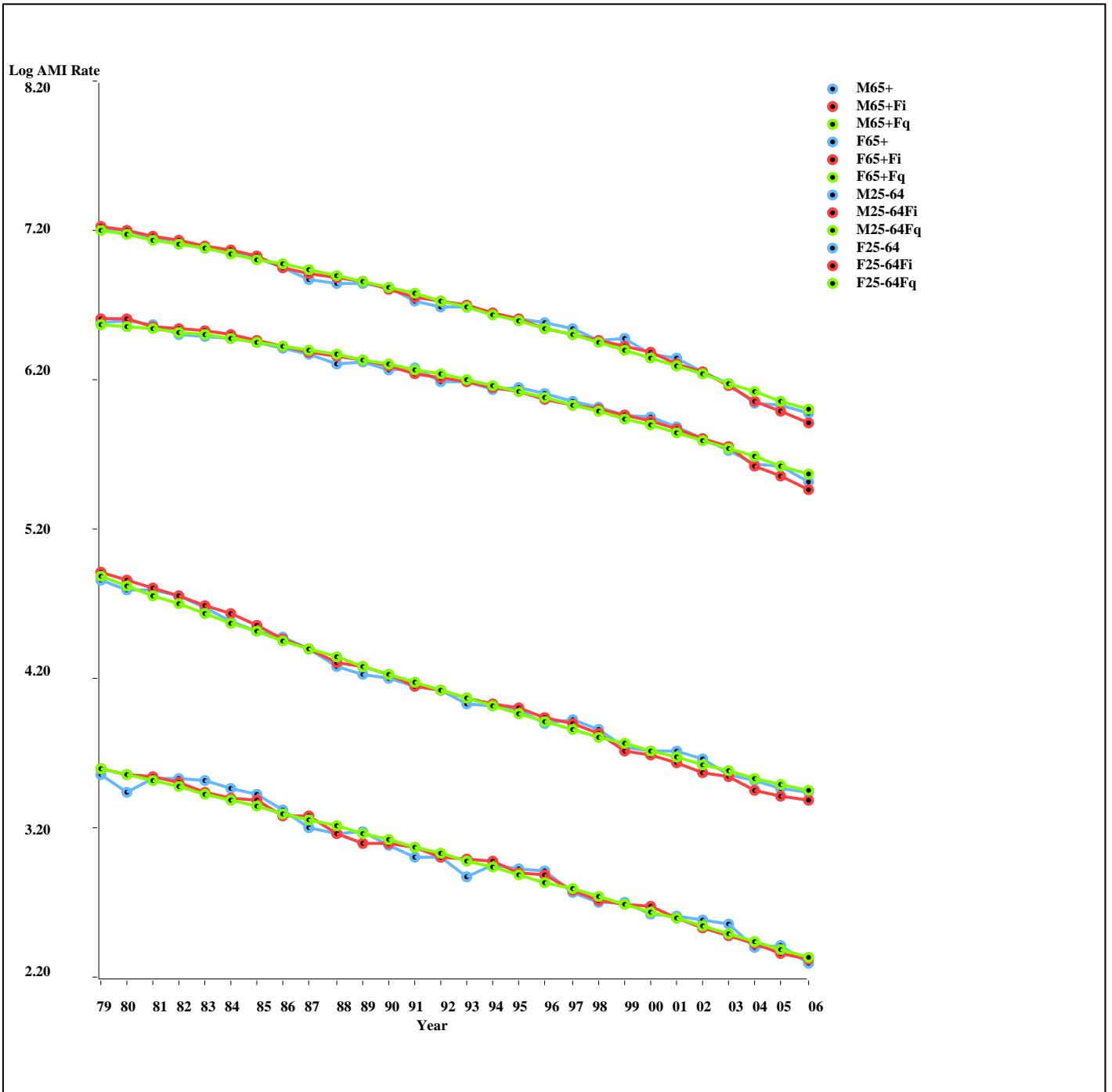
Both models are unweighted and allow for effects of ban specific to a state.

Model 2 allows for linear effects of year; Model 3 allows for quadratic effects.

Figure 36

Effect of smoking bans on acute myocardial infarction (AMI) rates
 Plots of log AMI rates from 1979 to 2006

State: Ohio, Year Ban: 2006



Plots are shown by gender (M,F) and by age (65+, 25-64)

For each combination of gender and age, the actual value of the log AMI rate is shown (blue), together with fitted values using Model 2C (+Fi) (red) and Model 3C (+Fq) (green)

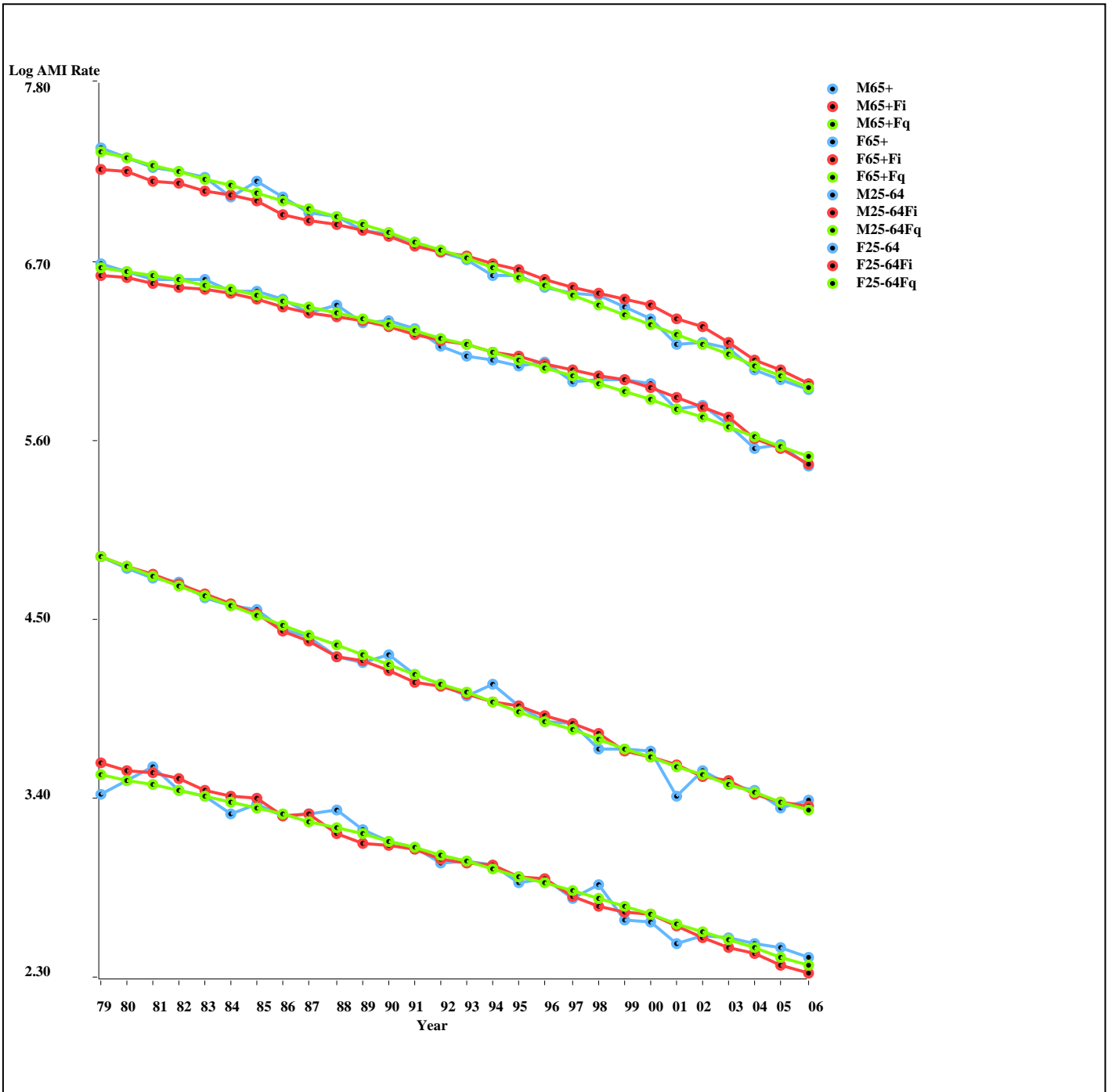
Both models are unweighted and allow for effects of ban specific to a state.

Model 2 allows for linear effects of year; Model 3 allows for quadratic effects.

Figure 37

Effect of smoking bans on acute myocardial infarction (AMI) rates
 Plots of log AMI rates from 1979 to 2006

State: Oklahoma, Year Ban: None



Plots are shown by gender (M,F) and by age (65+, 25-64)

For each combination of gender and age, the actual value of the log AMI rate is shown (blue), together with fitted values using Model 2C (+Fi) (red) and Model 3C (+Fq) (green)

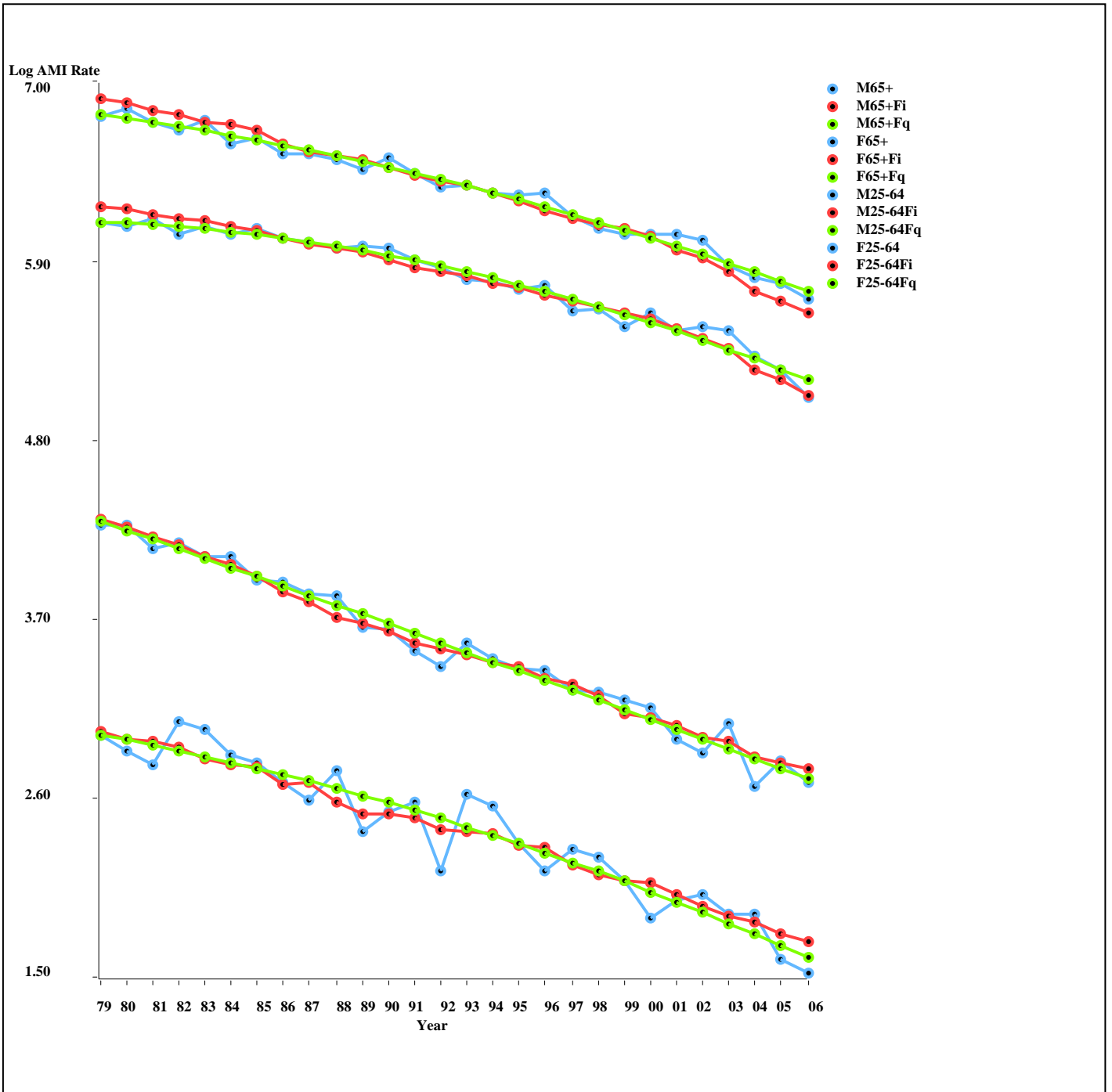
Both models are unweighted and allow for effects of ban specific to a state.

Model 2 allows for linear effects of year; Model 3 allows for quadratic effects.

Figure 38

Effect of smoking bans on acute myocardial infarction (AMI) rates
Plots of log AMI rates from 1979 to 2006

State: Oregon, Year Ban: 2009



Plots are shown by gender (M,F) and by age (65+, 25-64)

For each combination of gender and age, the actual value of the log AMI rate is shown (blue), together with fitted values using Model 2C (+Fi) (red) and Model 3C (+Fq) (green)

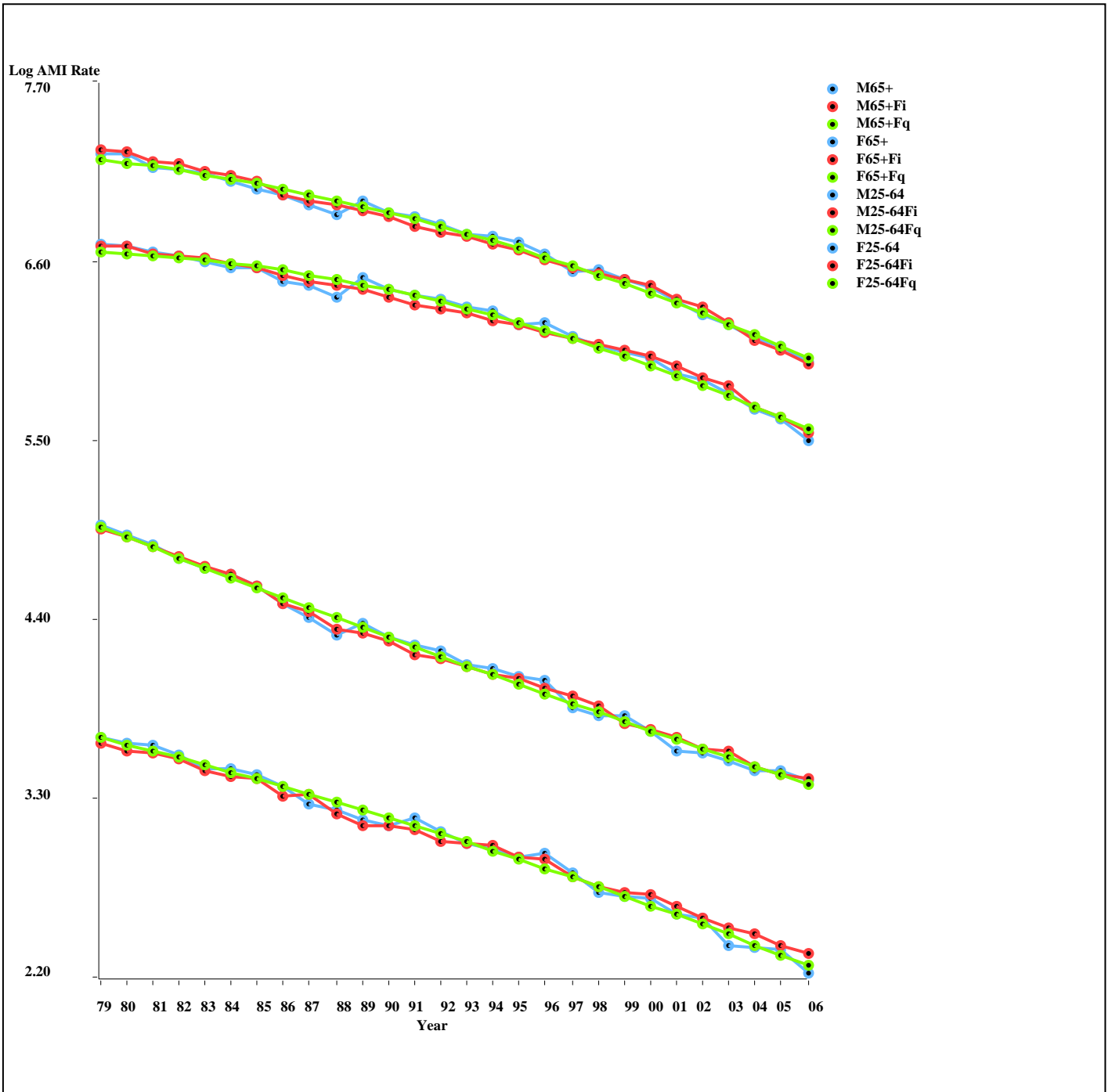
Both models are unweighted and allow for effects of ban specific to a state.

Model 2 allows for linear effects of year; Model 3 allows for quadratic effects.

Figure 39

Effect of smoking bans on acute myocardial infarction (AMI) rates
Plots of log AMI rates from 1979 to 2006

State: Pennsylvania, Year Ban: 2008



Plots are shown by gender (M,F) and by age (65+, 25-64)

For each combination of gender and age, the actual value of the log AMI rate is shown (blue), together with fitted values using Model 2C (+Fi) (red) and Model 3C (+Fq) (green)

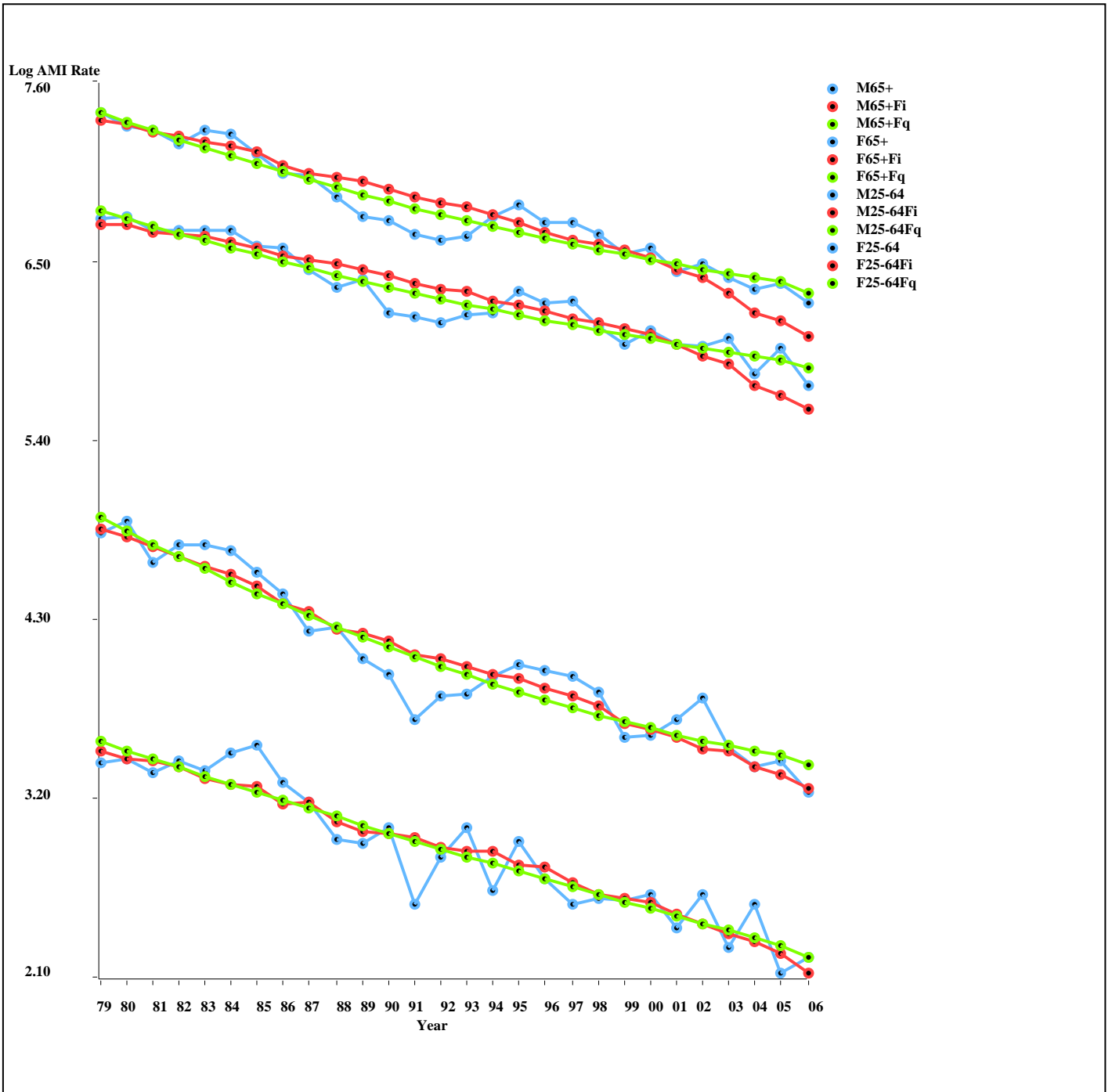
Both models are unweighted and allow for effects of ban specific to a state.

Model 2 allows for linear effects of year; Model 3 allows for quadratic effects.

Figure 40

Effect of smoking bans on acute myocardial infarction (AMI) rates
 Plots of log AMI rates from 1979 to 2006

State: Rhode Island, Year Ban: 2005



Plots are shown by gender (M,F) and by age (65+, 25-64)

For each combination of gender and age, the actual value of the log AMI rate is shown (blue), together with fitted values using Model 2C (+Fi) (red) and Model 3C (+Fq) (green)

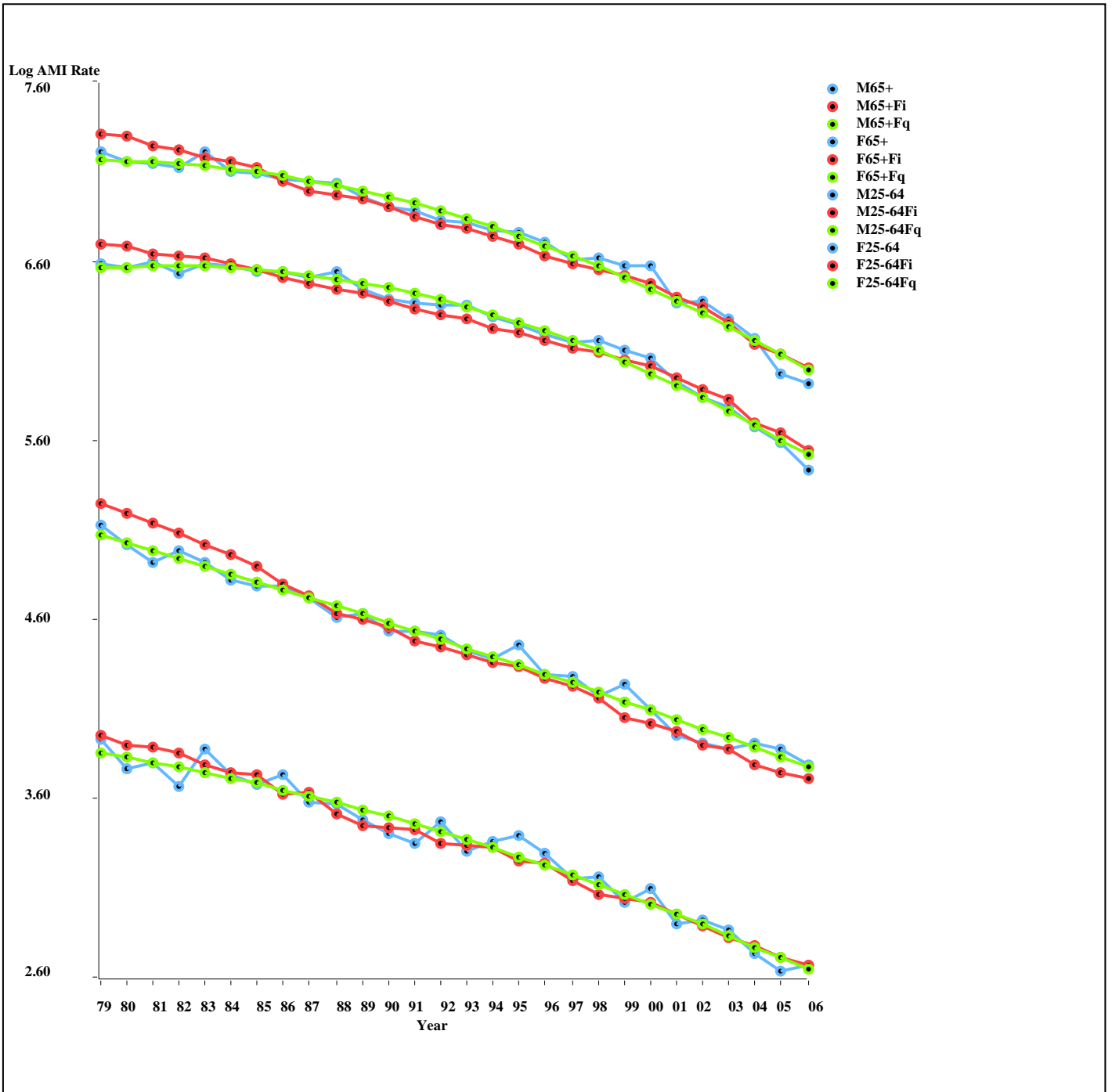
Both models are unweighted and allow for effects of ban specific to a state.

Model 2 allows for linear effects of year; Model 3 allows for quadratic effects.

Figure 41

Effect of smoking bans on acute myocardial infarction (AMI) rates
 Plots of log AMI rates from 1979 to 2006

State: South Carolina, Year Ban: None



Plots are shown by gender (M,F) and by age (65+, 25-64)

For each combination of gender and age, the actual value of the log AMI rate is shown (blue), together with fitted values using Model 2C (+Fi) (red) and Model 3C (+Fq) (green)

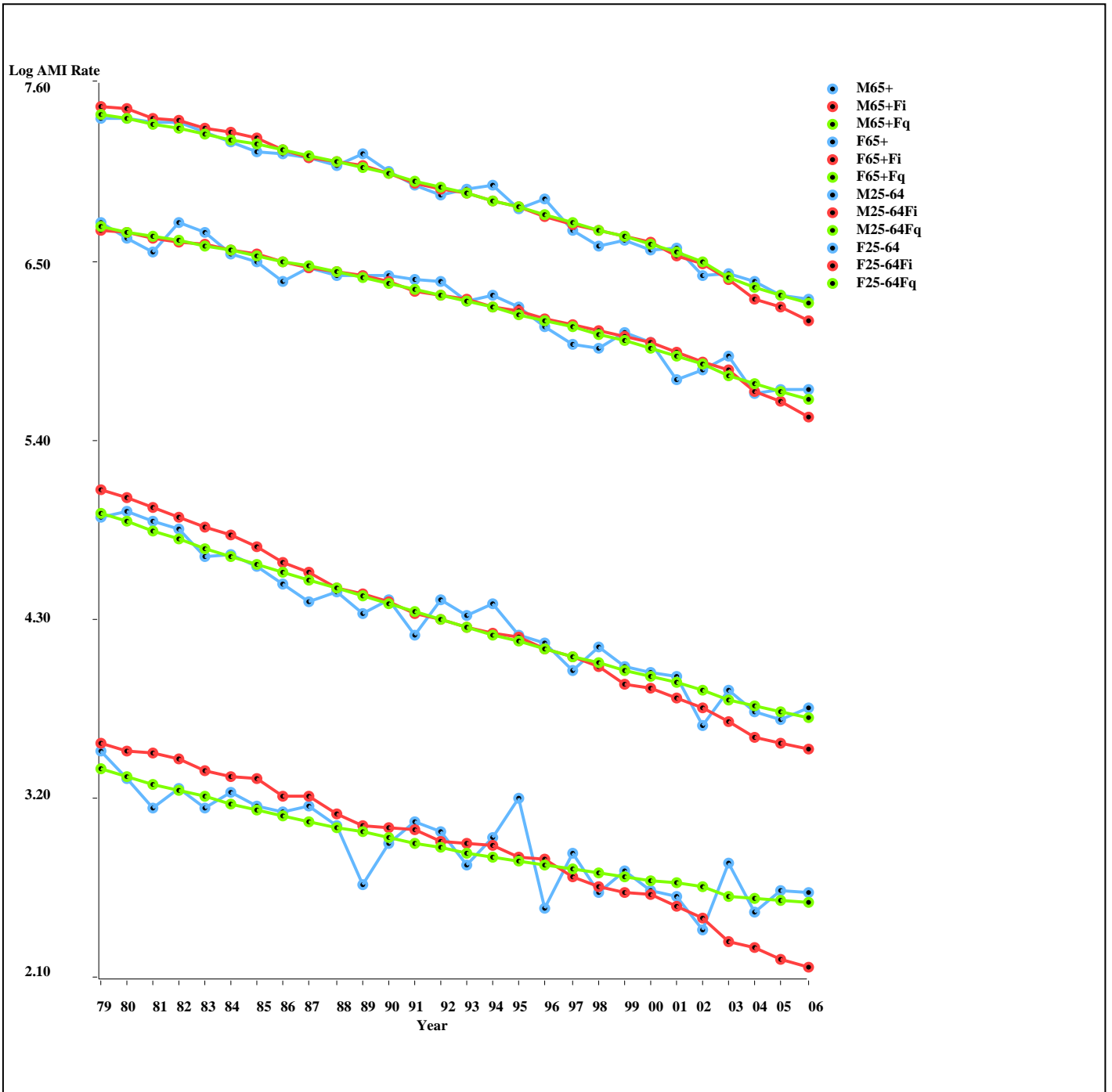
Both models are unweighted and allow for effects of ban specific to a state.

Model 2 allows for linear effects of year; Model 3 allows for quadratic effects.

Figure 42

Effect of smoking bans on acute myocardial infarction (AMI) rates
 Plots of log AMI rates from 1979 to 2006

State: South Dakota, Year Ban: 2002

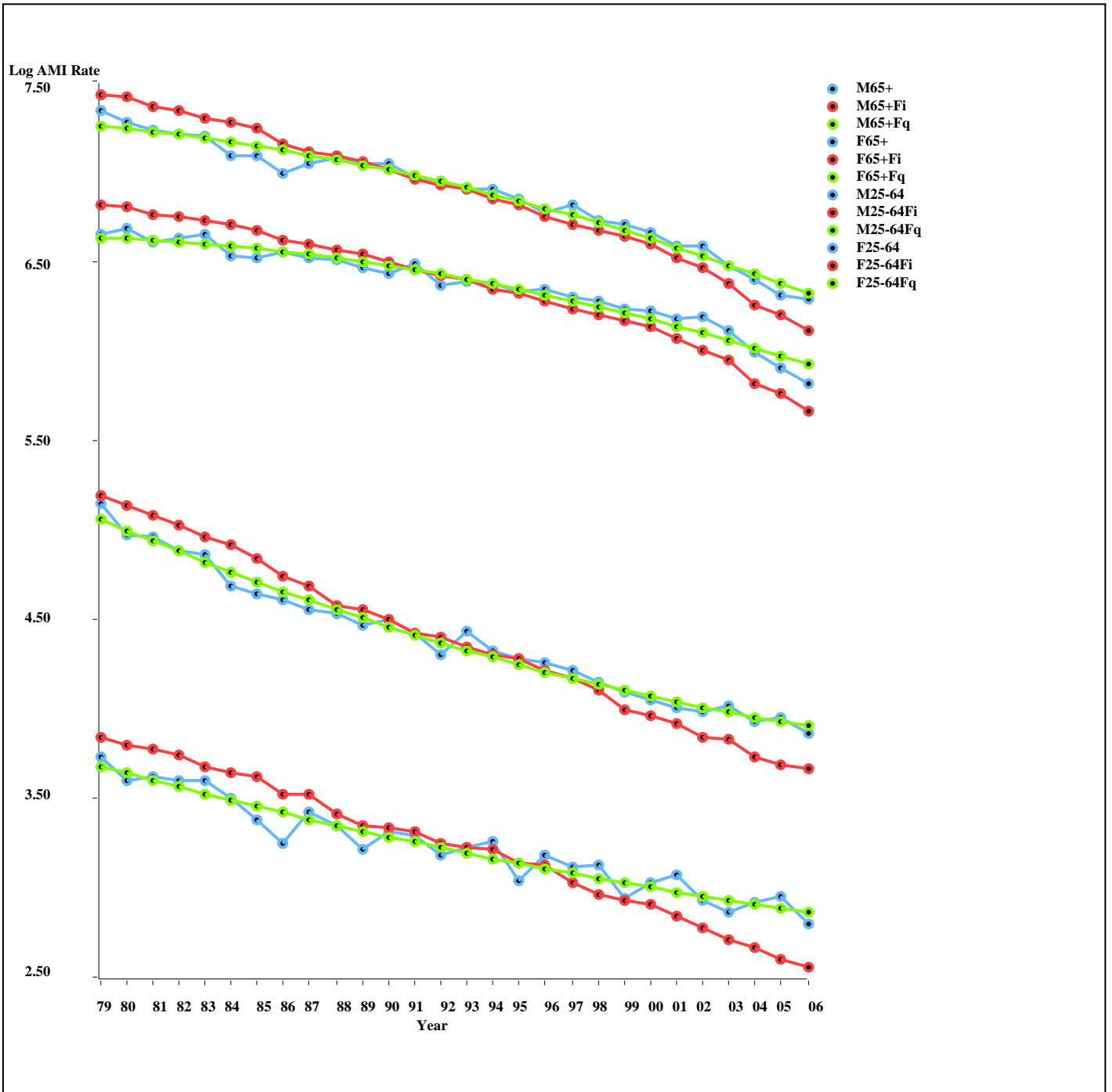


Plots are shown by gender (M,F) and by age (65+, 25-64)
 For each combination of gender and age, the actual value of the log AMI rate is shown (blue),
 together with fitted values using Model 2C (+Fi) (red) and Model 3C (+Fq) (green)
 Both models are unweighted and allow for effects of ban specific to a state.
 Model 2 allows for linear effects of year; Model 3 allows for quadratic effects.

Figure 43

Effect of smoking bans on acute myocardial infarction (AMI) rates
Plots of log AMI rates from 1979 to 2006

State: Tennessee, Year Ban: None



Plots are shown by gender (M,F) and by age (65+, 25-64)

For each combination of gender and age, the actual value of the log AMI rate is shown (blue), together with fitted values using Model 2C (+Fi) (red) and Model 3C (+Fq) (green)

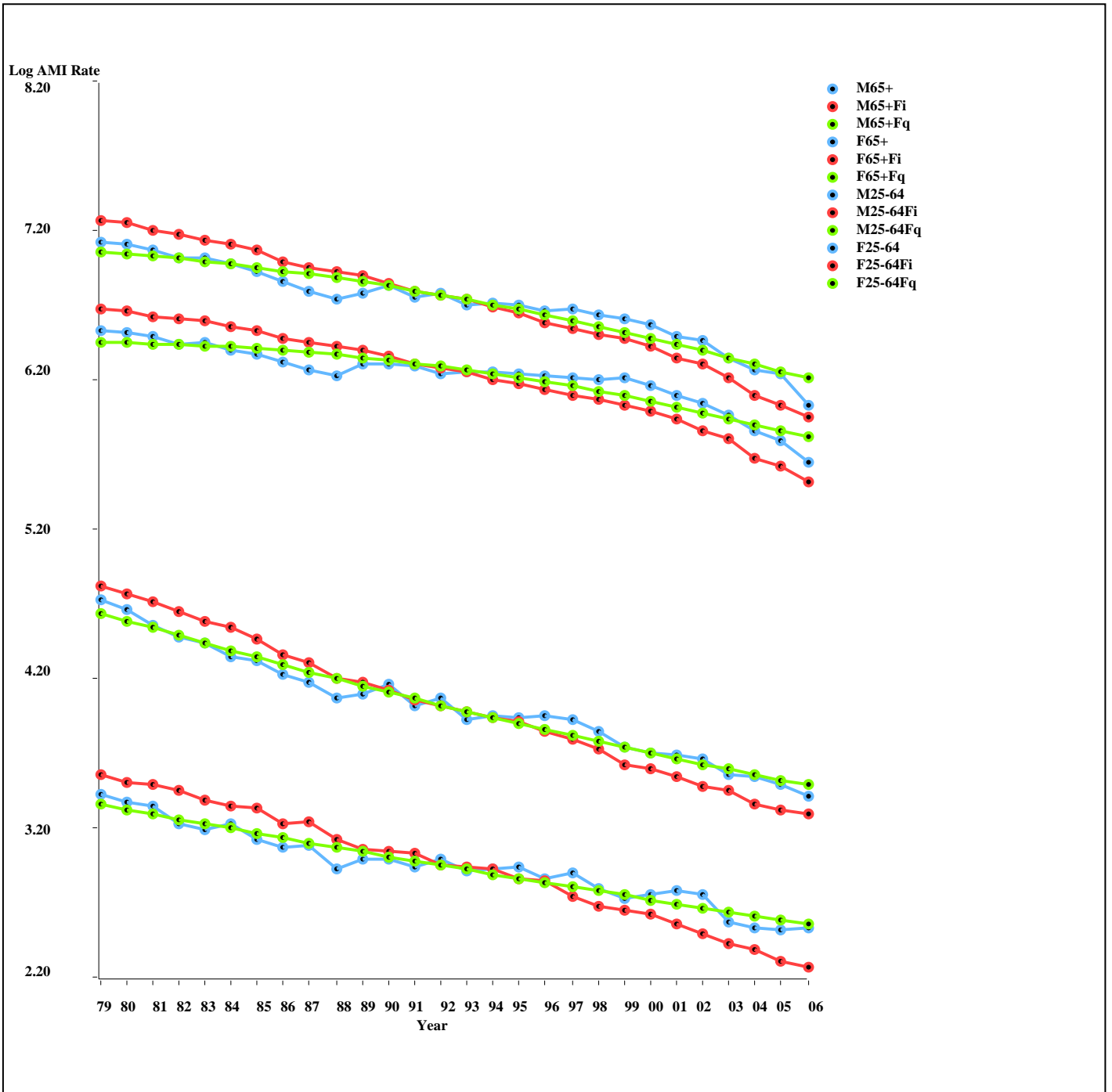
Both models are unweighted and allow for effects of ban specific to a state.

Model 2 allows for linear effects of year; Model 3 allows for quadratic effects.

Figure 44

Effect of smoking bans on acute myocardial infarction (AMI) rates
 Plots of log AMI rates from 1979 to 2006

State: Texas, Year Ban: None



Plots are shown by gender (M,F) and by age (65+, 25-64)

For each combination of gender and age, the actual value of the log AMI rate is shown (blue), together with fitted values using Model 2C (+Fi) (red) and Model 3C (+Fq) (green)

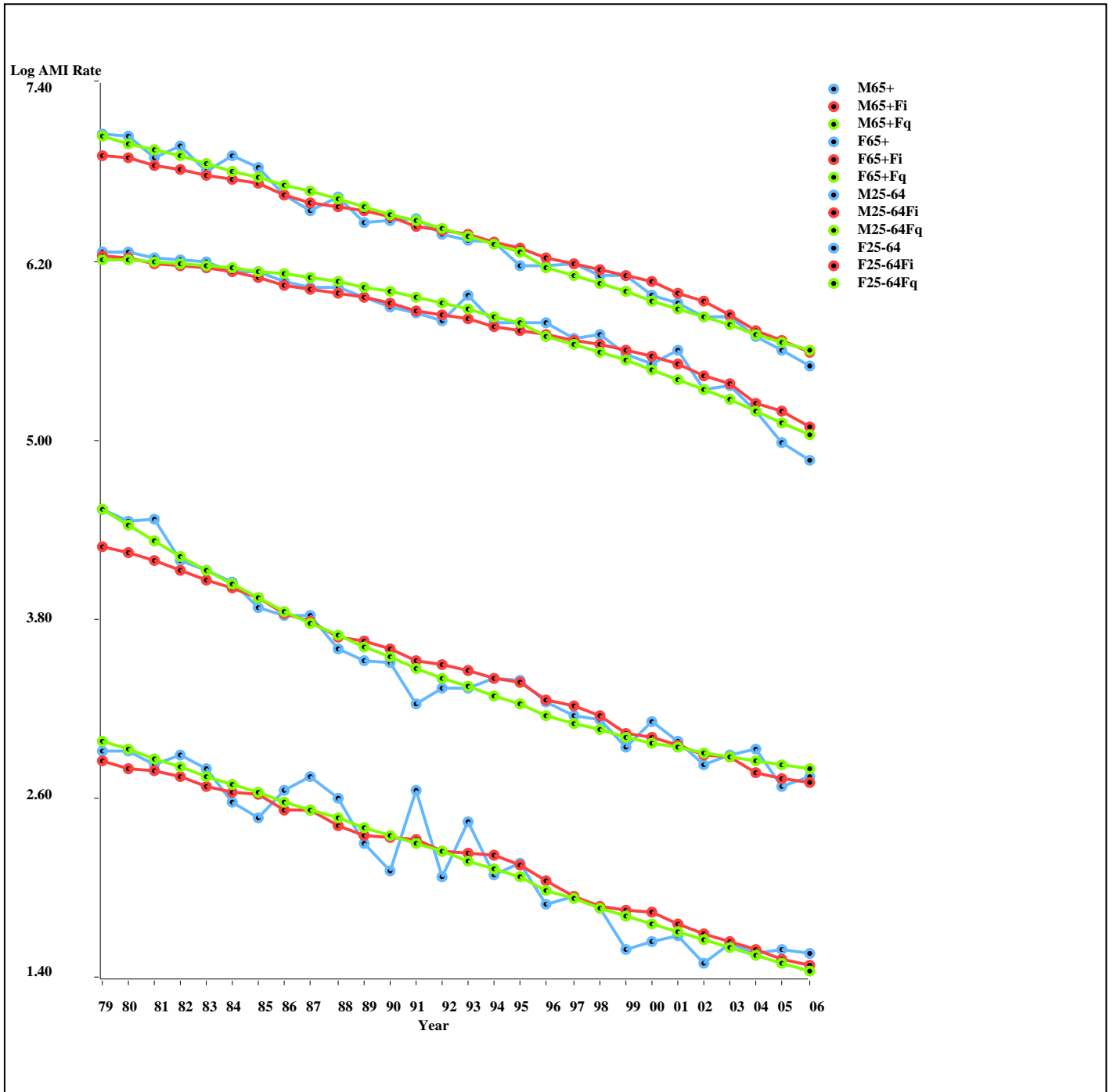
Both models are unweighted and allow for effects of ban specific to a state.

Model 2 allows for linear effects of year; Model 3 allows for quadratic effects.

Figure 45

Effect of smoking bans on acute myocardial infarction (AMI) rates
 Plots of log AMI rates from 1979 to 2006

State: Utah, Year Ban: 1995



Plots are shown by gender (M,F) and by age (65+, 25-64)

For each combination of gender and age, the actual value of the log AMI rate is shown (blue), together with fitted values using Model 2C (+Fi) (red) and Model 3C (+Fq) (green)

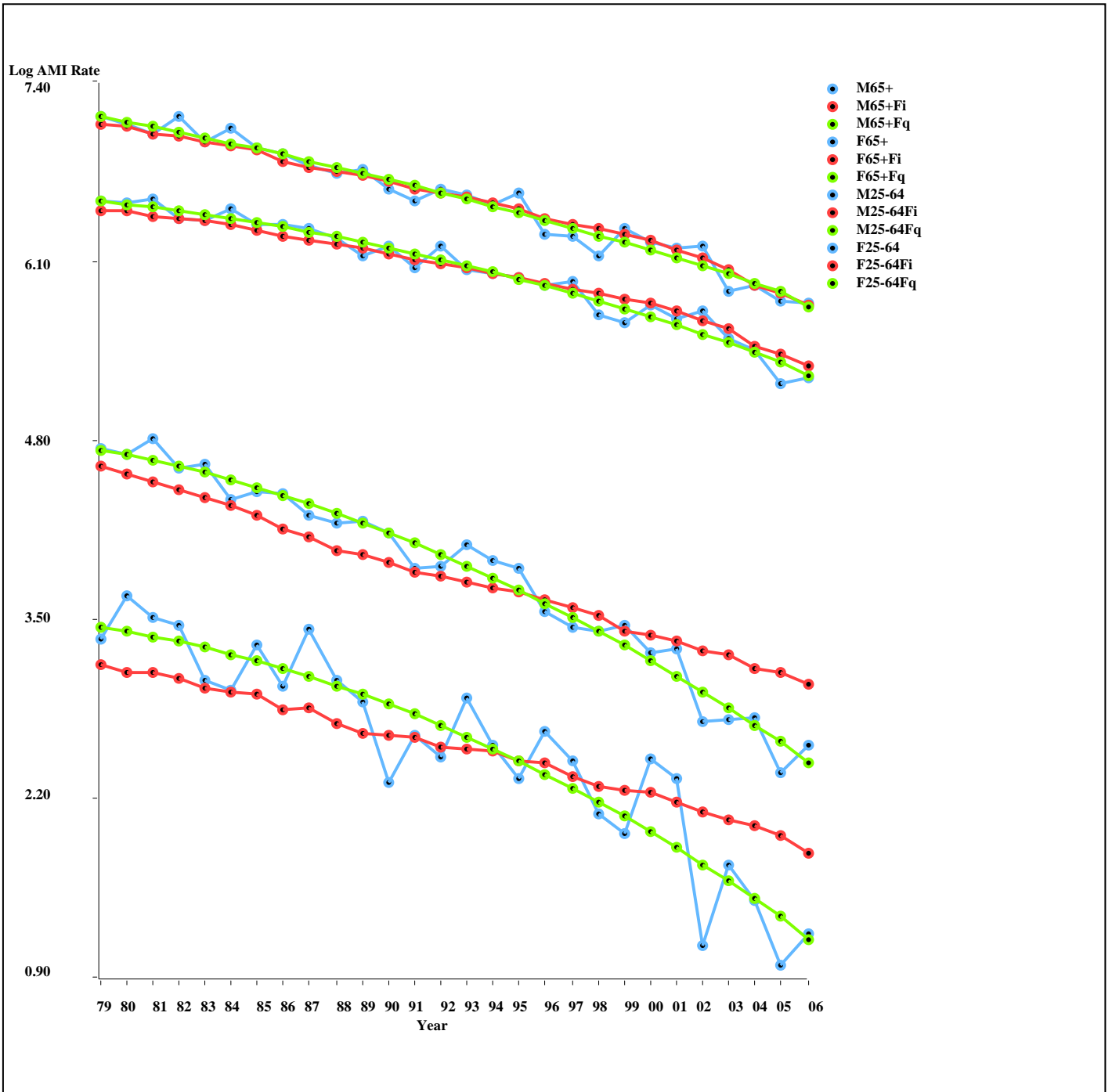
Both models are unweighted and allow for effects of ban specific to a state.

Model 2 allows for linear effects of year; Model 3 allows for quadratic effects.

Figure 46

Effect of smoking bans on acute myocardial infarction (AMI) rates
 Plots of log AMI rates from 1979 to 2006

State: Vermont, Year Ban: 2005



Plots are shown by gender (M,F) and by age (65+, 25-64)

For each combination of gender and age, the actual value of the log AMI rate is shown (blue), together with fitted values using Model 2C (+Fi) (red) and Model 3C (+Fq) (green)

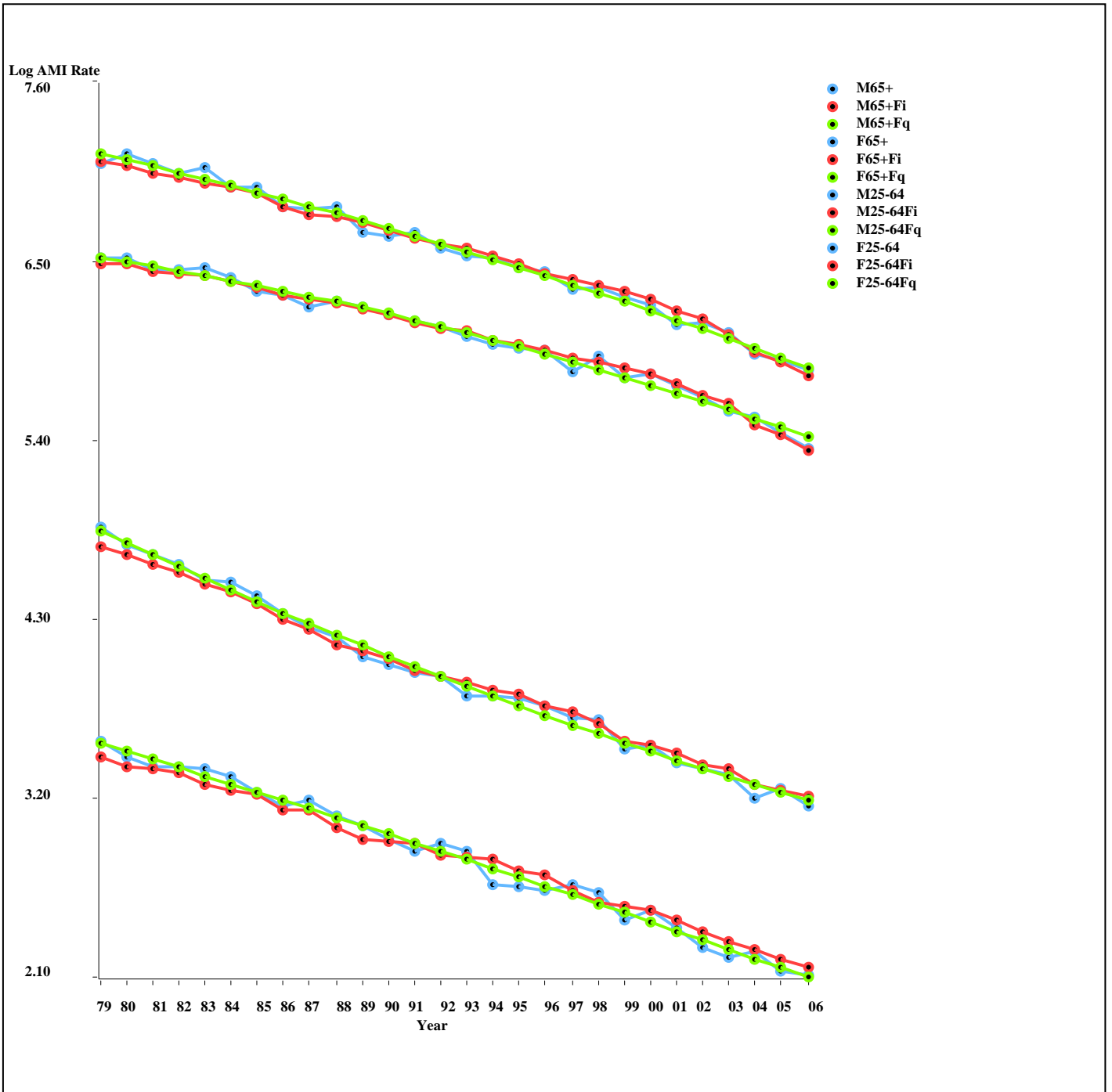
Both models are unweighted and allow for effects of ban specific to a state.

Model 2 allows for linear effects of year; Model 3 allows for quadratic effects.

Figure 47

Effect of smoking bans on acute myocardial infarction (AMI) rates
Plots of log AMI rates from 1979 to 2006

State: Virginia, Year Ban: None



Plots are shown by gender (M,F) and by age (65+, 25-64)

For each combination of gender and age, the actual value of the log AMI rate is shown (blue), together with fitted values using Model 2C (+Fi) (red) and Model 3C (+Fq) (green)

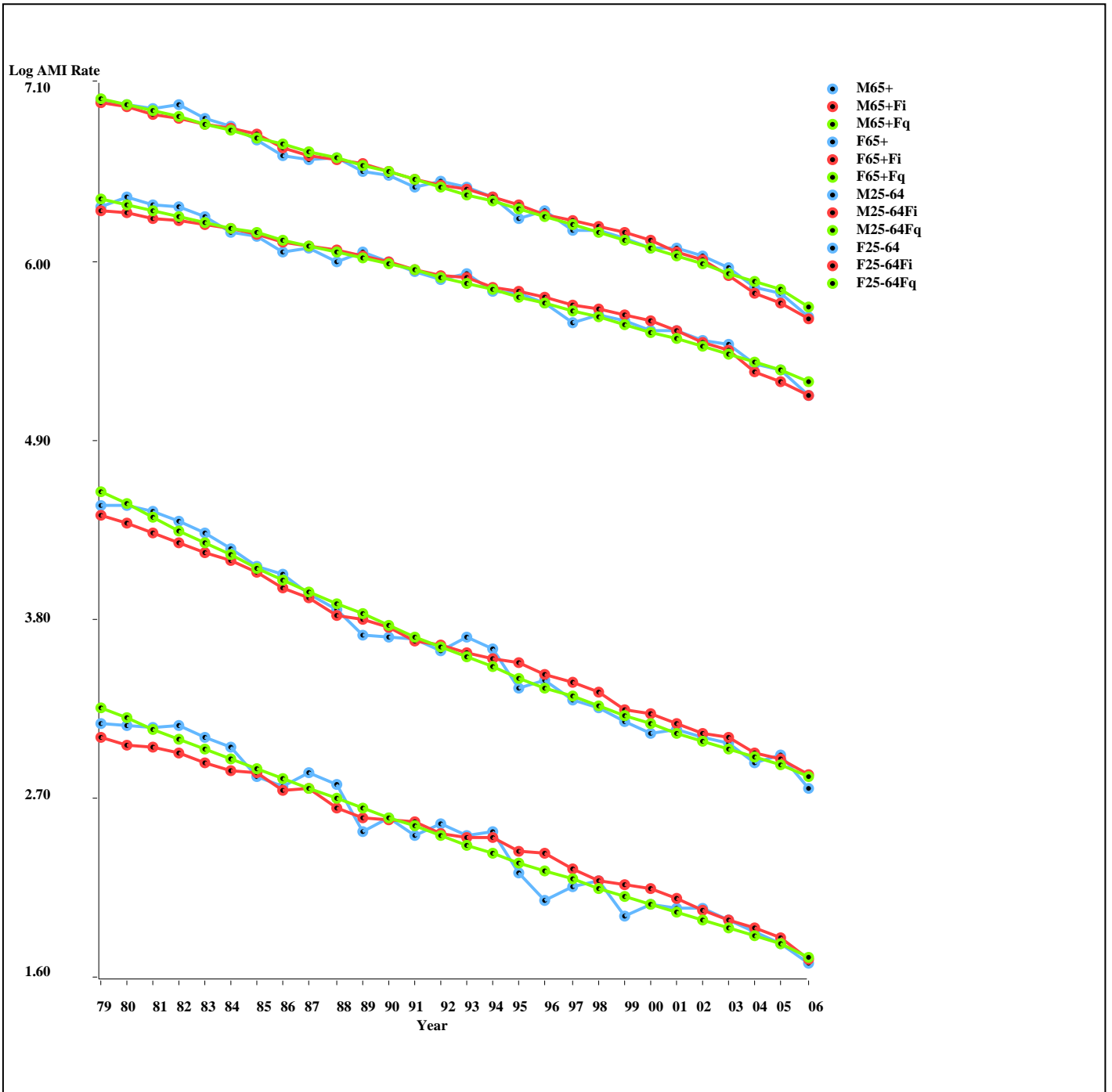
Both models are unweighted and allow for effects of ban specific to a state.

Model 2 allows for linear effects of year; Model 3 allows for quadratic effects.

Figure 48

Effect of smoking bans on acute myocardial infarction (AMI) rates
Plots of log AMI rates from 1979 to 2006

State: Washington, Year Ban: 2005



Plots are shown by gender (M,F) and by age (65+, 25-64)

For each combination of gender and age, the actual value of the log AMI rate is shown (blue), together with fitted values using Model 2C (+Fi) (red) and Model 3C (+Fq) (green)

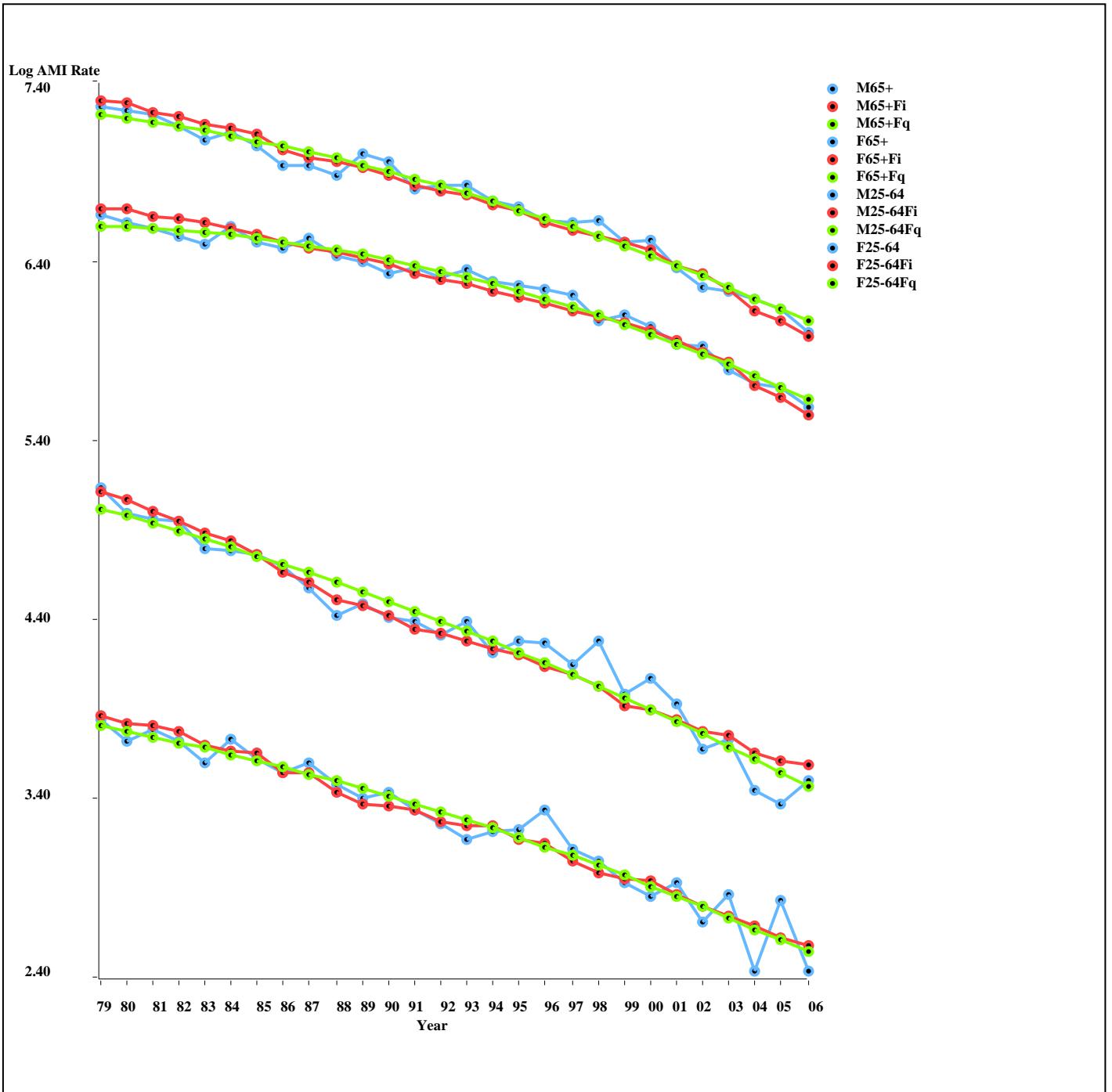
Both models are unweighted and allow for effects of ban specific to a state.

Model 2 allows for linear effects of year; Model 3 allows for quadratic effects.

Figure 49

Effect of smoking bans on acute myocardial infarction (AMI) rates
Plots of log AMI rates from 1979 to 2006

State: West Virginia, Year Ban: None



Plots are shown by gender (M,F) and by age (65+, 25-64)

For each combination of gender and age, the actual value of the log AMI rate is shown (blue), together with fitted values using Model 2C (+Fi) (red) and Model 3C (+Fq) (green)

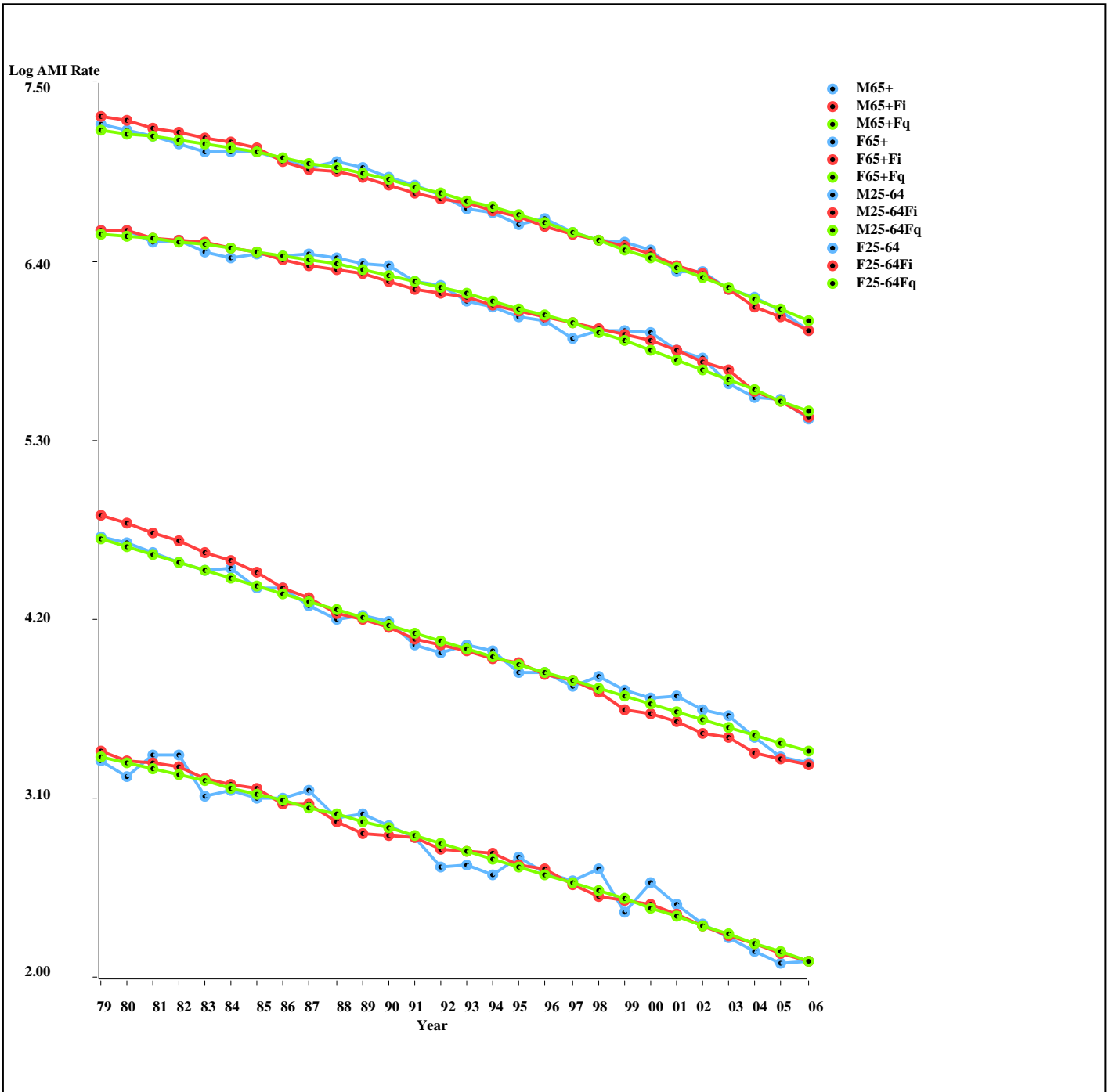
Both models are unweighted and allow for effects of ban specific to a state.

Model 2 allows for linear effects of year; Model 3 allows for quadratic effects.

Figure 50

Effect of smoking bans on acute myocardial infarction (AMI) rates
 Plots of log AMI rates from 1979 to 2006

State: Wisconsin, Year Ban: None



Plots are shown by gender (M,F) and by age (65+, 25-64)

For each combination of gender and age, the actual value of the log AMI rate is shown (blue), together with fitted values using Model 2C (+Fi) (red) and Model 3C (+Fq) (green)

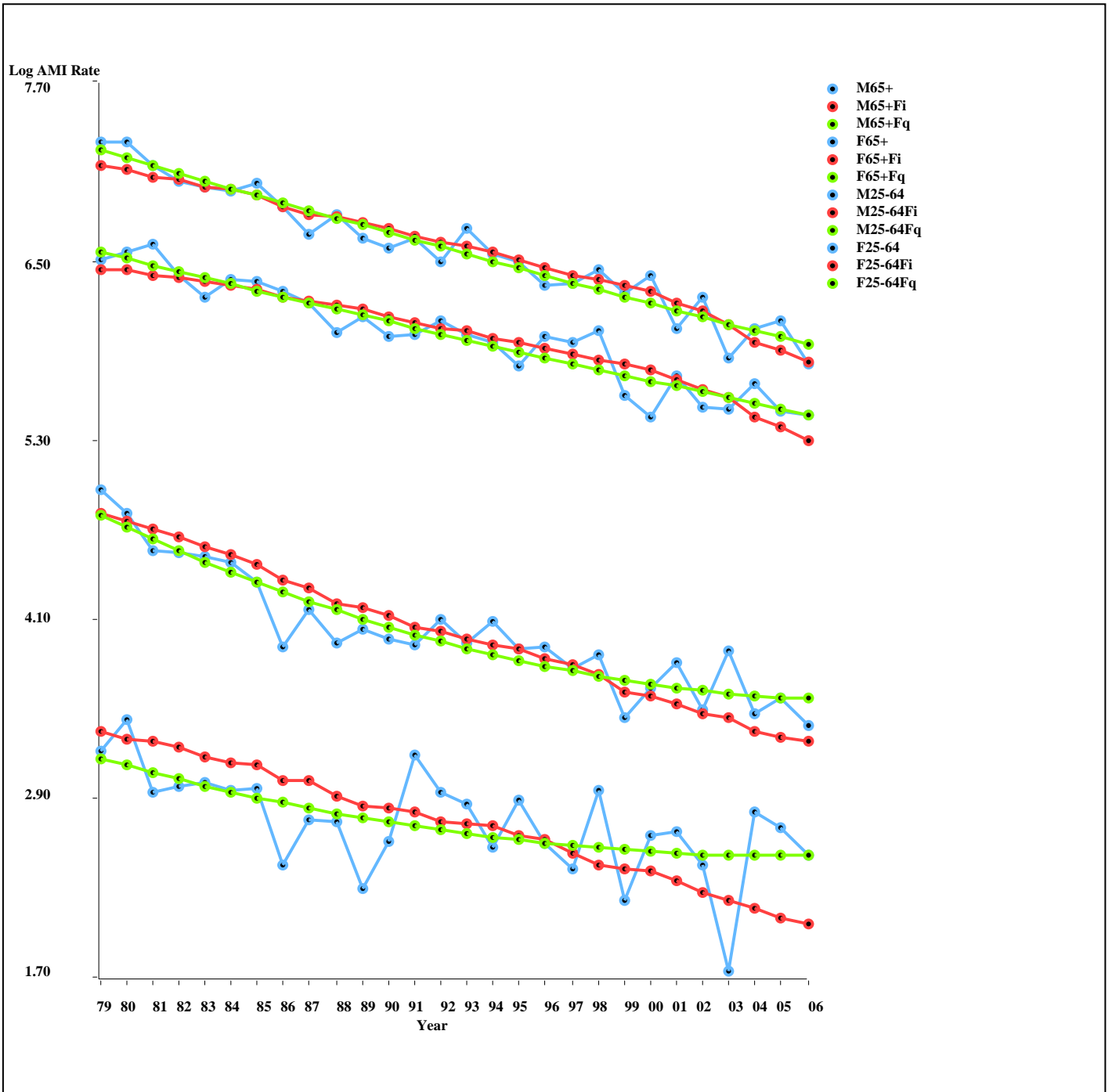
Both models are unweighted and allow for effects of ban specific to a state.

Model 2 allows for linear effects of year; Model 3 allows for quadratic effects.

Figure 51

Effect of smoking bans on acute myocardial infarction (AMI) rates
 Plots of log AMI rates from 1979 to 2006

State: Wyoming, Year Ban: None



Plots are shown by gender (M,F) and by age (65+, 25-64)
 For each combination of gender and age, the actual value of the log AMI rate is shown (blue),
 together with fitted values using Model 2C (+Fi) (red) and Model 3C (+Fq) (green)
 Both models are unweighted and allow for effects of ban specific to a state.
 Model 2 allows for linear effects of year; Model 3 allows for quadratic effects.

