

New Hampshire Insurance Department

Report on the Impact of House Bill 790 – An Act Relative to Dependent Coverage for Health Insurance 2007 Session

December 15, 2008

Introduction

HB 790 passed during the 2007 legislative session and expands the definition of dependent young adults to those who are under 26 years of age for purposes of increasing access to health insurance coverage. The bill requires that the NH Insurance Department (NHID) prepare a report and “review the impact of the dependent coverage health insurance initiative on coverage as well as cost.”

Summary Findings

The NHID has access to the New Hampshire Comprehensive Health Care Information System (NHCHIS), a claims database of the commercially insured population in New Hampshire. This database allows the NHID to evaluate commercial insurance trends in NH, including the impact to the target population of this legislation.

Membership

Based on findings from the NHCHIS, between September 2007 and March 2008 an additional 1,524 males and 1,304 females, for a total of 2,827 people were insured who would not otherwise have been. These enrollment changes represent a statistically significant increase in covered members ($P < .05$).

Costs

The impact on costs is answered in two ways; individual and in aggregate. The NHID is only able to track costs experienced from the claims. Carriers may price insurance products in ways that do not allocate costs the same way as the NHID would measure costs from the claims.

There appears to be no additional impact on the per individual claims cost for this age group due to the expansion. This means that there has not been extra cost due to adverse selection from newly insured members. All of the following percentages include both insurance carrier and patient responsibilities.

- The average per member per month claims costs for females in this group increased by 5.1 percent and males 5.7 percent.
- Both of these increases are less than the 6.3 percent observed in aggregate across all age groups.

Claims costs are shared between the insurance carrier (and in turn the employer) and the patient. This is important, because assuming premiums reflect medical claims costs, then premiums will reflect only the portion the insurance carrier is responsible for. For all age groups, the patient portion of the claims costs increased faster than that of the carrier:

- 13.2 percent average increase for the patient, and 5.4 percent average for the carrier.
- In the target age group (19–25), the carrier responsibility increased by 3.8 percent for females and 5.8 percent for males.

- When males and females in the target population are averaged (4.1 percent, on a weighted average basis), the age group increase is less than the 5.4 percent experienced overall.

Based on the first seven months, the per member per month claims costs that are the responsibility of the insurance carrier are equal to:

- \$211.44 for females, and \$122.74 for males.

Using the previously provided membership increases, the additional costs which must be captured through premiums are equal to:

- $\$211.44 \times 1,304 \text{ members} = \$275,718 \text{ per month} = \3.3M per year
- $\$122.74 \times 1,524 \text{ members} = \$187,056 \text{ per month} = \2.2M per year
- Total increase = \$5.6M for the first year, based on claims costs and membership during the first seven months of implementation.

Methodology

The NHCHIS data include members living inside and outside of NH. The focus of the analysis is on NH residents, although in some instances an analysis on non-residents was performed for comparison purposes. The analyses consider cost and membership changes from various angles to determine if all of the findings support the same conclusion.

Seven months of data were used because the legislation became effective September 15, 2007 and the data in the NHCHIS are only complete through March of 2008 at the time this analysis was performed. Although costs are presented on an annualized basis, using only the first seven months the legislation was effective means the results of the analysis could be quite different once a complete year of data is available. We also assume that the membership and costs identified during the seven months are stable, when more likely there will be a trend over an extended period of time.

Enrollment and costs were analyzed on a monthly basis during the months of September through March during 2005/2006 (membership only), 2006/2007, and 2007/2008. The same seven months are selected from each period so that the most current membership numbers can be compared to those during the same time of year in prior years.

NH insurance laws apply to policies that are underwritten and not to self-insured accounts where the employer retains the risk for claims costs. At this time, the NHCHIS data do not directly allow the user to separately identify self-insured policies from those that are underwritten. Therefore, all analyses utilize claims and membership numbers which include self-insured policies. Although the legislation only applies to a portion of the data, the NHID understands some employers have chosen to expand the definition of dependent in their self-insured plans to incorporate the legislative change.

Membership

Membership is tracked monthly, but summarized on a “complete” basis. This means that a member who is covered for all seven months has a count of one, rather than seven. Alternatively, if the member is only covered for three months, that member represent less than half a member ($3/7=.43$). This allows for reporting an average number of people who are insured during the time frame reviewed.

The nature of the NHCHIS does not include data on all commercially insured members living in NH. Data are collected based on policyholder location. Due to corporate structures as well as reporting variations among carriers, the total membership in the database may change even though actual insurance coverage levels remain constant. In order to account for fluctuations in membership reporting, members are compared in a target age group to membership overall, members in the 13 – 18 and the 26 – 31 age categories, and stratified by gender. These age groups were used as “control groups” to determine what would have happened to membership in the target age group if HB 790 had not existed. Although there are obvious differences between the target age group and the “control groups” that reduce the effectiveness of having a control group, these comparison age categories represent the populations closest in age and most likely to reflect similar membership changes due to the nature of the NHCHIS database.

Using the control groups, an expected number of insured members were calculated for the male and female categories within the target age group. The expected number of insured members was derived by averaging the percentage change in the target age group between the 2005/2006 and the 2006/2007 reporting periods and comparing that to the change for the control groups during the same time periods. The same calculation was performed for the 2006/2007 vs. 2007/2008 reporting periods. The ratio of changes between the target age group and the average of the other two age groups is assumed to have remained constant if the legislation had not been created. However, the decrease seen in the target age group during the 2007/2007 period was lower than in the control groups, and that may not have continued without the legislation. Therefore, we believe the final calculation may be a conservative estimate of the change overall.

A paired t-test was performed to compare monthly membership totals and measure the change over time. Each of the seven months including September through March between the 2006/2007 period and the 2007/2008 were matched in a typical “pre vs. post” fashion. The paired t-test was performed separately by gender and age group for the 13-18, 19-25, and 26-31 year age groups.

The proportion of membership within each age/gender category was also reviewed. This approach addresses changes in the overall membership and allows the analysis to show whether additional people were insured based on changes to the proportion of people covered under the target group. The limitation with this approach is that the proportion of the total enrollees covered under the target category could be influenced by a substantial change in other age categories.

Cost

Costs were measured by calculating the per member per month average claims experience and include prescription drug costs. Costs were tracked separately by age group and gender and calculated based on total claims costs, insurance carrier costs, and patient costs. Employee and employer contributions to premiums are not collected in the claims data and not considered in this analysis.

Only members with evidence of medical and pharmacy coverage were included.

Member claims cost changes are more difficult to measure than membership changes due to a variety of factors that influence costs, and the availability of tools to assist in the process. Some of these factors include variation in provider reimbursement contracts, the geographic distribution of membership, employer type and group size, health insurance plan type (HMO vs. Indemnity, or HDHP vs. minimal cost sharing), and health status of insured members. Most of these factors are not directly available from the claims data. Our analysis assumes all factors except health status remain constant within the target population and assumes that a major shift in average costs would be due to a substantial change in average health status.

Claims cost changes were analyzed by age and gender categories, and the target population was compared to the overall average. Overall average costs are the best general measure of what is happening within the insured population.

A paired t-test for significant changes in cost was not performed because the average per member per month costs do not have a normal distribution among members and a normal distribution is required to compare averages for true differences.

Detailed Findings

Membership

The number of covered members decreased between each of the reporting periods by 1.9 percent between 2005/06 and 2006/07 and 4.3 percent between 2006/07 and 2007/08. All of the drops within age groups are considered statistically significant at the $P < .05$ level. The following table shows the relative changes when the number of member months are summarized for each period, using only members residing in NH.

Overall and Target Group

Reporting Period	Total Membership	Change from Prior Year	Male 19-25	Change from Prior Year	Female 19-25	Change from Prior Year
2005/2006	530,806	NA	21,828	NA	23,047	NA
2006/2007	520,865	-1.9%	21,581	-1.1%	22,808	-1.0%
2007/2008	498,631	-4.3%	22,521	4.4%	23,486	3.0%

“Control Groups”

Reporting Period	Male 13-18	Change from Prior Year	Female 13-18	Change from Prior Year	Male 26-31	Change from Prior Year	Female 26-31	Change from Prior Year
2005/2006	27,835	NA	26,764	NA	17,035	NA	18,890	NA
2006/2007	27,302	-1.9%	26,158	-2.3%	16,644	-2.3%	18,667	-1.2%
2007/2008	25,853	-5.3%	24,650	-5.8%	15,853	-4.8%	18,038	-3.4%

The following tables illustrate how the expected numbers of New Hampshire members in the target age groups were calculated.

2005/06 – 2006/07 Change

	13 – 18 Age Group	26 – 31 Age Group	Overall Percent Change
Male Membership Change	-1.9%	-2.3%	-2.1%
Target Male Population 19-25			-1.1%
Male Target Percent Change as a Percentage of Average Control Group Change			53.8%
Female Membership Change	-2.3%	-1.2%	-2.1%
Target Female Population 19-25			-1.0%
Female Target Percent Change as a Percentage of Control Group Change			60.1%

2006/07 – 2007/08 Observed and Expected

	13 – 18 Age Group	26 – 31 Age Group	Overall Percent Change
Male Membership Change	-5.3%	-4.8%	-5.0%
Male Target as a Percentage of Control Groups Average from Prior Year			53.8%
Expected Male Target Population Change			-2.7%
Actual Male Target Population Change			+4.4%
Female Membership Change	-5.8%	-3.4%	-4.6%
Expected Female Target as a Percentage of Control Groups Average from Prior Year			60.1%
Expected Female Target Population Change			-2.7%
Actual Female Target Population Change			+3.0%

These percentages were used to calculate the actual difference in the number of members enrolled. By matching the number of observed covered members with the expected number of members we derive the number of newly insured members.

Population	Observed Number of Members	Expected Number of Members	Difference between Observed and Expected Members
Target Male	22,521	20,997	1,524
Target Female	23,486	22,182	1,304
Totals	46,007	43,179	2,827

Upon reviewing the proportion of New Hampshire members within the target category and comparing across years, we see supporting evidence of the impact of the legislation. Percentages in the target groups remain stable in the 2005/06 and 2006/07 time periods, but increase in the 2007/08 time frame.

New Hampshire Resident Percentages in Target Age Group

Time Period	Percent of Total Membership in the Male 19 – 25 Year Age Group	Percent of Total Membership in the Female 19 – 25 Year Age Group
2005/06	4.11%	4.34%
2006/07	4.14%	4.38%
2007/08	4.52%	4.71%

The legislation applies to New Hampshire residents, but the NHCHIS data show there has been a change with members residing out of state as well. We were able to make the same comparison using members who do not live in NH but are covered under New Hampshire policies, and we see a similar pattern. This increase suggests that either the dependent expansion has been implemented by carriers for non-residents as well as residents, or that something other than HB 790 has created an increase in insured members within this age group.

Non-New Hampshire Resident Percentages in Target Age Group

Time Period	Percent of Non-NH Total Membership in the Male 19 – 25 Year Age Group	Percent of Non-NH Total Membership in the Female 19 – 25 Year Age Group
2005/06	3.39%	3.52%
2006/07	3.29%	3.55%
2007/08	3.63%	3.85%

Limitations

In performing this analysis, the NHID assumes there is a causal relationship between HB790 and the observed changes in commercial insurance membership.

Claims costs are calculated and these are the costs that must be covered through premiums paid to insurance carriers. The actual pricing of premiums depends on a number of factors, including administrative costs, taxes, underwriting practices, individual and family premium tiering, and the other components that may be specific to a health insurance carrier.

Due to the timing of this report and available data, the NHID is also assuming the findings are can be extrapolated to the membership activity and costs over the period of a year. The only way to verify whether this is the case is to repeat the analysis when more data are available.

As self-insured and fully-insured data are not separately identifiable in the NHCHIS, our findings may understate the impact to fully-insured policies, and overstate the impact to self-insured policies. Approximately sixty percent of members in New Hampshire are covered under fully-insured policies, and forty percent of members in the analysis are covered by self-insured policies that the legislation does not apply to (see NHID Supplemental Report 2007). The process of combining all members in the analysis may dilute the impact overall of the legislative change to fully-insured policies.

Recommendations

HB 790 was enacted to bring incremental change to the insurance marketplace without disrupting systems that are already in place. To that extent, there is evidence that the legislation was successful at expanding coverage for an age group that is typically uninsured at higher levels than other age groups. The uninsured population is poorly understood in New Hampshire, and this report serves as one resource to measure the impact of a legislative change such as HB 790.

The NHID recommends that the New Hampshire legislature continue to explore opportunities to expand coverage in an incremental fashion while keeping a close watch on the impact to costs and the increasing financial responsibilities of the member.

The NHID also recommends further work to evaluate the impact of future and current insurance reform, and the benefit to New Hampshire residents.