

**NORTH CAROLINA GENERAL ASSEMBLY
LEGISLATIVE ACTUARIAL NOTE**

BILL NUMBER: House Bill 868

SHORT TITLE: State Employee TMJ Appliance Benefits.

SPONSOR(S): Rep. William Wainwright

SYSTEM OR PROGRAM AFFECTED: Teachers' and State Employees' Comprehensive Major Medical Plan.

FUNDS AFFECTED: State General Fund, State Highway Fund, Other State Employer Receipts, Premium Payments for Dependents by Active and Retired Teachers and State Employees, and Premium Payments for Coverages Selected by Eligible Former Teachers and State Employees.

BILL SUMMARY: The bill covers temporomandibular joint (TMJ) dysfunction appliance therapy under the Plan's indemnity program regardless of whether or not the cause was from accidental means. The indemnity program's current coverage for TMJ appliances is limited to cases in which the cause of the dysfunction was solely from accidental means. The Plan's indemnity program also covers office visits and diagnostic tests to establish a diagnosis of TMJ dysfunction in addition to surgical correction of the extremely serious cases of TMJ dysfunction.

EFFECTIVE DATE: January 1, 1996.

ESTIMATED IMPACT ON STATE: Based upon information supplied by the Teachers' and State Employees' Comprehensive Major Medical Plan, the consulting actuary for the Plan, Aon Consulting, estimates that the indemnity program's coverage for TMJ appliances from all causes will increase the program's claim costs by \$105,000 for 1997-98 and by \$42,000 for 1998-99. The consulting actuary for the General Assembly's Fiscal Research Division, Dilts, Umstead & Dunn, estimates the additional cost to the indemnity program from covering TMJ appliance therapy regardless of the cause of the dysfunction to be \$304,000 for 1997-98 and \$146,000 for 1998-99. The cost projections from the Fiscal Research Division's consulting actuary include allowances based upon information from the American Dental Association that some 10 million Americans suffer from temporomandibular disorders, or about 4% of the total population. However, the American Dental Association says that the disorder mainly affects females between the ages of 20 and 40, of which there are 12,500 in the Plan's indemnity program. With increased stress in everyday lifestyles, the incidents of TMJ disorders and splint therapies are expected to multiply significantly

Using a combined estimate from the two actuarial projections results in a cost of \$205,000 for 1997-98 and \$94,000 for 1998-99. Further using this combined projection, additional costs to the indemnity program for outlying years are expected to be \$102,000 for 1999-2000, \$110,000 for 2000-01, and \$119,000 for 2001-02.

ASSUMPTIONS AND METHODOLOGY: The Comprehensive Major Medical Plan for Teachers and State Employees is divided into two programs. From October, 1982, through June, 1986, the Plan had only a self-funded indemnity type of program which covered all employees, retired employees, eligible dependents of employees and retired employees, and eligible former employees and their eligible dependents authorized to continue coverage past a termination of employment other than for retirement or disability purposes. A prepaid program of coverage by health maintenance organizations (HMOs) was offered in July, 1986, as an alternative to the Plan's self-insured indemnity program. The benefits of the self-insured indemnity type of program are spelled out in Part 3 of Article 3 of Chapter 135 of the North Carolina General Statutes (i.e., \$250 annual deductible, 20% coinsurance up to \$1,000 annually, etc. paid by the program's members). HMOs are required to offer benefits that are comparable to those provided by the self-insured indemnity program. Employer-paid non-contributory premiums are only authorized for the indemnity program's coverage for employees and retired employees. Whenever employees and office holders first employed or taking office on and after October 1, 1995 become eligible for health benefits as retired employees, the amount of premium paid by the State for individual coverage will be based upon the retiree's amount of retirement service credit at the time of retirement. Only retired employees with 20 or more years of service credit at retirement will be eligible for non-contributory health benefit premiums. Retirees with 10 or more years of service credit at retirement will be eligible for 50% partially contributory health benefit premiums. Retired employees with 5 or more year of service credit at retirement will be eligible to continue their health benefits on a fully contributory basis. All other types of premium in the indemnity program are fully contributory. Premiums paid by employers to HMOs are limited to like amounts paid to the indemnity program with employees and retired employees paying any HMO amounts above the indemnity program's non-contributory rates. Both types of coverage continue to be available in the Plan with twelve HMOs currently covering about 25% of the Plan's total population in about 85 of the State's 100 counties. The Plan's employees and retired employees select the type of program that they wish for themselves and their dependents during the months of August and September of each year for coverage beginning in October. The demographics of the Plan as of December 31, 1996, include:

	<u>Self-Insured Indemnity Program</u>	<u>Alternative HMOs</u>	<u>Plan Total</u>
<u>Number of Participants</u>			
Active Employees	186,400	70,400	256,800
Active Employee Dependents	104,700	51,800	156,500
Retired Employees	84,400	5,400	89,800
Retired Employee Dependents	14,400	1,200	15,600
Former Employees & Dependents with Continued Coverage	2,700	800	3,500
Total Enrollments	392,600	129,600	522,200
<u>Number of Contracts</u>			
Employee Only	206,300	51,800	258,100
Employee & Child(ren)	29,900	14,500	44,400
Employee & Family	36,600	10,100	46,700
Total Contracts	272,800	76,400	349,200
<u>Percentage of Enrollment by Age</u>			
29 & Under	27.3%	44.7%	31.6%

30-44	21.6	28.0	23.2
45-54	20.0	17.8	19.5
55-64	13.8	7.1	12.1
65 & Over	17.3	2.4	13.6

Percentage of Enrollment by Sex

Male	39.8%	40.0%	39.8%
Female	60.2	60.0	60.2

Assumptions for the Self-Insured Indemnity Program: For the fiscal year beginning July 1, 1996, the self-insured program started its operations with a beginning cash balance of \$368.3 million. Receipts for the year are estimated to be \$580 million from premium collections, \$25 million from investment earnings, and \$12 million in risk adjustment and administrative fees from HMOs, for a total of \$617 million in receipts for the year. Disbursements from the self-insured program are expected to be \$595 million in claim payments and \$18 million in administration and claims processing expenses for a total of \$613 million for the year beginning July 1, 1996. For the fiscal year beginning July 1, 1997, the self-insured indemnity program is expected to have an operating cash balance of over \$372 million with a net operating loss of \$54 million for the 1997-98 fiscal year. For the fiscal year beginning July 1, 1998, the self-insured indemnity program is expected to have an operating cash balance of \$318 million with a net operating loss of \$118 million for the 1998-99 fiscal year. The estimated cash balance for the self-insured indemnity program is expected to be \$200 million at the end of the 1997-99 biennium. The self-insured indemnity program is consequently assumed to be able to carry out its operations without any increases in its current premium rates or a reduction in existing benefits until the 1999-2000 fiscal year. This assumption is predicated upon the fact that the program's cost containment strategies (hospital DRG reimbursements, pre-admission hospital testing, pre-admission hospital inpatient certification with length-of-stay approval, hospital bill audits, required second surgical opinions, mental health case management, coordination of benefits with other payers, Medicare benefit "carve-outs", cost reduction contracts with participating physicians and other providers, prescription drug manufacturer rebates from voluntary formularies, and fraud detection) are maintained and improved where possible. Current non-contributory premium rates are \$110.08 monthly for employees whose primary payer of health benefits is Medicare and \$144.60 per month for employees whose primary payer of health benefits is not Medicare. Fully contributory premium amounts for employee and child(ren) contracts are \$68.50 monthly for children whose primary payer of health benefits is Medicare and \$90.12 monthly for other covered children, and \$164.30 per month for family contracts whose dependents have Medicare as the primary payer of health benefits and \$216.18 per month for other family contract dependents. Claim cost trends are expected to increase 8-10% annually. Total enrollment in the program is expected to decrease about one percent (1.0%) annually due to competition from alternative HMOs. The number of enrolled active employees is expected to show a 1-2% loss annually, whereas the growth in the number of retired employees is assumed to be 4% per year. The program is expected to lose about 3-4% of its number of active employee dependents each year, whereas the number of enrolled retiree dependents is assumed to show no appreciable change from year to year. Investment earnings are based upon a 6% monthly return on available cash balances. The self-insured indemnity program maintains a claim stabilization reserve for claim cost fluctuations

equal to 7.5% of annual claim payments without reserving additional funds for incurred but unreported claims.

Assumptions for the Self-Insured Indemnity Program's Temporomandibular Joint (TMJ) Cases: Over the last three calendar years, the Plan's indemnity program has only paid an average of \$6,520 annually for TMJ appliance therapy resulting solely from accidental means. However, data from the program's claims processor, Blue Cross & Blue Shield of North Carolina, from its own line of business which covers TMJ appliance therapy from non-accidental means indicates that the program could expect annual costs approaching \$50,000 for the additional TMJ appliance therapy. TMJ appliance splints cost approximately \$500.

SOURCES OF DATA:

-Actuarial Note, Dilts, Umstead & Dunn, House Bill 868, April 28, 1997, original of which is on file in the General Assembly's Fiscal Research Division.

-Actuarial Note, Aon Consulting, House Bill 868, April 24, 1997, original of which is on file with the Comprehensive Major Medical Plan for Teachers and State Employees and the General Assembly's Fiscal Research Division.

TECHNICAL CONSIDERATIONS: None.

FISCAL RESEARCH DIVISION

733-4910

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DATE: April 30, 1997.



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