North Carolina State Health Plan
FOR TEACHERS AND STATE EMPLOYEES
A Division of the Department of State Treasurer

Board of Trustees' Meeting
Department of State Treasurer
Friday, November 22, 2013
9:00 a.m. – 3:00 p.m.

AGENDA

1.	Welcome	Janet Cowell, Chair
2.	Conflict of Interest Statement	Janet Cowell, Chair
3.	Review of September 27, 2013 Minutes ***(Requires Board Vote)***	Janet Cowell, Chair
4.	Review and Approve Revised Bylaws *(10 minutes)* ***(Requires Board Vote)***	Lotta Crabtree
5.	Wayne Memorial Hospital Update *(10 minutes)*	Caroline Smart Jack Kenley, BCBSNC
6.	2014 Benefits – Implementation Update *(60 minutes)*	
	A. Open Enrollment Update	Caroline Smart Mona Moon

Break *(10 minutes)*

7.	Requests for Benefit Changes	
	A. Autism Speaks *(15 minutes)*	Lorri Unumb Vice President, State Government Affairs
	B. North Carolina Chiropractic Association *(15 minutes)*	Dr. Joe Siragusa, D.C., M.Ed. Executive Director
	A. NC Retired Governmental Employee's Association *(15 minutes)*	Ed Regan Executive Director
	B. State Employees Association of North Carolina *(15 minutes)*	Ardis Watkins Director of Legislative Affairs

Lunch *(30 minutes)*

8. Financial Report *(30 minutes)* — Mark Collins
   A. September 2013 Financial Report
   B. Analysis of Paid Claims Report
   C. 1st Quarter Actuarial Forecast Update
   D. Actuarial Valuation of Retired Employees' Health Benefits

9. Strategic Planning *(60 minutes)* — Strategic Planning Workgroup

10. **Executive Session *(for Board members only)*** *(60 minutes)* — Janet Cowell, Chair
    Pursuant to: G.S.§143-318.11 and G.S. 132-1.2 — Mona Moon, Lotta Crabtree, Caroline Smart

    A. Medical Claims Audit Services RFP *(5B NCAC .0103)*
       i. Status of Negotiations with Bidders
       ii. Status of Recommendation to Award the Contract
    B. Lake Lawsuit (I. Beverly Lake et al. v. State Health Plan for Teachers and State Employees, et al.) *(G.S. §143.318.11(a)(3))*
    C. Consultation with Legal Counsel – Contract Issue *(G.S. §143.318.11(a)(3))*

11. Wrap-Up *(10 minutes)* — Janet Cowell, Chair

2014 Meeting Dates (subject to change):

January 30, 31
March 27, 28
May 29, 30
July 31, August 1
September 18, 19
November 20, 21

Board of Trustees
State Health Plan for Teachers and State Employees
Department of State Treasurer
November 22, 2013

The meeting of the Board of Trustees of the North Carolina State Health Plan for Teachers and State Employees was called to order at approximately 9:00 a.m. on Friday, November 22, 2013, at the State Health Plan, 4901 Glenwood Avenue, Suite 300, Raleigh, NC 27612.

Members Present:
Chair Janet Cowell
Art Pope
V. Kim Hargett
Noah Huffstetler (arrived at 10:00)
Charles Johnson
Bill Medlin
Vice-Chair Genell Moore
David Rubin
Warren Newton, MD

Members Absent:
Paul Cunningham, MD

State Health Plan Staff: Mona Moon, Lotta Crabtree, Mark Collins, Thomas Friedman, Beth Horner, Nidu Menon, Lorraine Munk, Derek Prentice, MD, Tracy Stephenson

Department of State Treasurer Staff: Andrew Holton, Melissa Waller, Joan Fontes, Joanne McDaniel, Tony Solari

Guests: Richard Lomax, Kyong Shina, Tom Gualtieri-Reed, Jessica Brower, Andy Howell, Mary O'Neill, John Thompson, Lacy Presnell, Charlotte Craver, Charla Katz, John Sparrow, Carla Whatley, Christa Klein, Jonathan Owens, Chuck Stone, David Vanderweide, Jack Kenley, Tom Bennett, Wadida Murib-Holmes, Steve Daly, Ed Regan, John Burress, Lorri Unumb, Ardis Watkins, Thomas Ayrd, Buck Lattimore, Joe Siragusa, Toni Davis, Jimmy Broughton

Welcome
Treasurer Janet Cowell, Chair, welcomed Board members, State Health Plan and Department of State Treasurer staff to the meeting.

Agenda Item - Conflict of Interest Statement
In compliance with the requirements of Chapter 138A-15(e) of the State Government Ethics Act, Chair Cowell read the "Conflict of Interest Statement" requesting members who have either an actual or perceived conflict of interest to identify the conflict and refrain from discussion and voting in those matters as appropriate. Dr. Newton disclosed his association with the North Carolina Area Health Education Centers (AHEC) program. Following his arrival, Mr. Huffstetler disclosed his association with several North Carolina medical providers and hospitals.

Agenda Item – Review of Minutes – September 27, 2013 (Attachment 1)
Presented by Janet Cowell, Chair

A change to the September 27, 2013, minutes was noted in the last sentence of paragraph 3 on page 10 under the Segal Dashboard report. The board will provide a regular review of priorities instead of once a year. Following a motion by Bill Medlin and seconded by Genell Moore, the Board voted unanimously to approve the amended minutes.

Agenda Item – Review and Approve Revised Bylaws (Attachment 2)
Presented by Lotta Crabtree, Interim Deputy Executive Administrator and Director of Contracting and Legal Compliance

The bylaws were revised to include the process of granting groups and individuals the opportunity to present proposed benefit changes. Changes to the policy and request form can be made if needed as the process evolves.

Following a motion by Warren Newton and seconded by Kim Hargett, the board voted unanimously to approve the revised bylaws.

Agenda Item – Wayne Memorial Hospital Update (Attachment 3)
Presented by Caroline Smart, Director of Health Plan Operations, and Jack Kenley, Blue Cross and Blue Shield of North Carolina

Mr. Kenley stated that Blue Cross and Blue Shield of North Carolina (BCBSNC) received a proposal from Wayne Memorial Hospital on November 13 and sent their best and final offer to the hospital on November 21. The deadline for a final agreement is December 2.

BCBSNC issued a press release regarding negotiations on October 28 and the Plan sent letters regarding continuity of care to members in the Goldsboro area on November 1. Approximately 4,400 members received care at Wayne Memorial in fiscal year 2012-13. Mr. Tony Solari, Director of Government Relations for the Department of State Treasurer, stated that discussions with legislators from that area and BCBSNC lobbyists have occurred on a regular basis throughout the negotiation process.

Agenda Item – 2014 Benefits – Implementation Update (Attachment 4)
Presented by Caroline Smart, Director of Health Plan Operations, and Mona Moon, Executive Administrator

<u>Open Enrollment Update</u>
Ms. Smart introduced Plan staff who conducted educational sessions on benefit changes for members around the state from July to October 2013. Medicare Primary outreach events were also conducted in Florida, South Carolina and Virginia. Approximately 19,000 miles were traveled and 12 webinars were offered. As a result of the premium incentives, over 200,000 health assessments were completed.

Approximately two-thirds of the Medicare Primary members who completed a survey indicated that they heard about open enrollment via email or online. The surveys also indicated that 75% agreed they had a better understanding of Plan options after attending an outreach event. Sixty-seven percent also

agreed/strongly agreed that they are pleased the Plan is offering more choices. The outbound call campaign, similar to a robo-call structure, didn't materialize due to the high call volume and insufficient vendor staffing.

The weekly Call Volume by Vendor report indicated a high abandonment rate at Benefitfocus in week one and continued to steadily increase throughout the open enrollment process with the exception of one week. BEACON, which has a very small call center, also experienced a high number of abandoned calls. The board expressed great concern with members not being able to reach someone to receive assistance. Ms. Smart stated that the Plan addressed the issue on numerous occasions with Benefitfocus, in particular. The Plan also undertook several member mailings due to the inability of the vendor to complete that task.

Enrollment numbers, to date, indicated that 395,355 active and non-Medicare retiree subscribers completed enrollment, with 9,131 choosing the Consumer-Directed Health Plan (CDHP) option and 190,042 choosing the 80/20 plan. Due to the complexity of the CDHP and the fact that it's a new option, the Plan will continue to educate and promote the CDHP.

Approximately 100,000 Medicare Primary retiree subsribers enrolled in one of the Medicare Advantage (MA) plans. Approximately 35,500 members chose Humana, 63,500 chose UnitedHealthcare and 32,700 elected to remain in the 70/30 plan. An updated membership report will be presented at the January meeting, but the official enrollment numbers will not be available until February.

Ms. Smart stated call activity is expected to increase over the next few weeks as member ID cards are mailed and inaccurate data is listed on the card. Several issues with the data file transfer between Benefitfocus and the vendors occurred and will need to be resolved as quickly as possible.

In answer to a question from a board member regarding adding additional MA vendors, Ms. Moon stated that it would be a part of the procurement process. The Plan has some flexibility to make changes but will review the MA data over the next three years.

Ms. Moon summarized by stating that the complexity in offering more choices was a challenge for both the Plan and members. The outreach events were successful but it was acknowledged that improvements can be made. Benefitfocus did not appear to be adequately staffed and there were concerns about how well they were trained to answer member inquires. The Plan will review those issues and potential solutions moving forward. Sending confirmation statements to members who enrolled telephonically is a high priority for the Plan. The integrity of the enrollment files is also very important and issues will be addressed over the next two months.

It was emphasized that member eligibility issues on either the medical or pharmacy side will be escalated and that members will not go without care or prescriptions. An updated membership report will be presented at the January meeting, but the official enrollment numbers may not be available until February.

Mr. Andy Howell, Chief Operation Officer for Benefitfocus, addressed the board and stated that the benefit options required a significant amount of software development and coding. He stated that Benefitfocus was pleased with the performance of the website from the beginning and the response time from users. He acknowledged their disappointment with the call volume results and stated that the changes and complexity, especially for Medicare retirees, contributed to the significant wait time for

members. Due to the high volume of calls, system surges occurred and calls were dropped. In response to a question from a board member regarding the ability to leave a message after a designated wait time, Mr. Howell stated that Benefitfocus was working to make that available. He also indicated that the current system does not have the capability of providing the approximate wait time to members at the beginning of the call and that the anticipated number of calls received was significantly higher than expected. Ms. Smart stated that the number of phone calls is unprecedented and that Plan staff returned calls to hundreds of members over the past few weeks.

Benefitfocus, Plan operations and BCBSNC have multiple teleconferences each day and will continue to do so, as needed.

Agenda Item – Requests for Benefit Changes (Attachment 5)

Autism Speaks
Presented by Lorri Unumb, Vice President, State Government Affairs

Autism Speaks would like the State Health Plan to consider coverage of autism spectrum disorders. Ms. Unumb provided background information on autism developmental disorders and the progression of applied behavior analysis (ABA) as the standard of care. ABA treatment teaches new skills and adaption to new environments and situations. The average child requires approximately 2 years of intensive therapy and further treatment depends on how well the child responds to ABA therapy.

The Centers for Disease Control and Prevention states that the prevalence for autism is nearly 1 in 88 children. Many providers and institutions are beginning to recommend intensive ABA therapy with the goal of autistic children leading a reasonably normal life. Forty-seven percent of children with autism who received early ABA therapy went into 1st grade as normal with no support. Without appropriate treatment, the estimated lifetime cost per child is approximately $3.2 million, which most people cannot afford. The estimated lifetime savings of providing appropriate treatment is approximately $1 million per child. Because of this, many states have moved or are moving toward insurance coverage of autism treatment.

North Carolina House Bill 498, Autism Health Insurance Coverage, passed the House during the 2013 Long Session and was referred by the Senate to the Insurance Committee at the end of the Session.

North Carolina Chiropractic Association
Presented by Dr. Joe Siragusa, D.C., M.Ed., Executive Director

The North Carolina Chiropractic Association requested the board to consider a reduction in copays for chiropractic visits equal to a primary care visit.

Included in Dr. Siragusa's presentation were technical reports that incorporated Plan claims data from 2000-2009 on headaches and complicated and uncomplicated low back pain and neck pain. He also presented average costs savings for each area comparing chiropractic vs. medical treatment. The medical treatment costs were higher in each area and the disparity is greater with complicated low back pain and uncomplicated neck pain. He stated that the current copay of $64 is a disincentive to seek chiropractic care as the first choice for certain problems. He also emphasized that he was not advocating that chiropractors be seen as primary care providers for other illnesses but would like to remove the financial barrier for members to choose chiropractic care.

In 2006 legislation for lower copays was passed by the N.C. General Assembly but was repealed a year later. During that year, costs to the Plan for selected conditions dropped significantly but rose after the repeal of the legislation. The typical course of chiropractic treatment is non-surgical, non-invasive and doesn't involve the use of prescription drugs.

N.C. Retired Governmental Employees' Association
Presented by Ed Regan, Executive Director

Mr. Ed Regan began by expressing appreciation to the board for expanding options for Medicare retirees in 2014. The N.C. Retired Governmental Employees' Association (NCRGEA) requested that the board consider the addition of a self-insured Medicare Supplement plan with Medicare Part D prescription drug plan equivalent to the EGWP plan offered by the Plan in 2012-13. This plan would provide members with good coverage at a lower employer cost than the 70/30 plan and produce savings for the state.

One of the board members requested clarification as to whether NCRGEA was asking the board to consider specific self-insured plans or one developed by the State Health Plan. Mr. Regan stated that they would welcome consideration of existing plans or a self-insured plan with reasonable rates.

State Employees Association of North Carolina
Presented by Ardis Watkins, Director of Legislative Affairs

On behalf of the State Employees Association of North Carolina (SEANC), Ms. Ardis Watkins presented several benefit changes for the board to consider. Treasurer Cowell requested that Ms. Watkins limit her presentation to items that pertain to benefit changes. Ms. Watkins expressed concern about how the Plan is viewed and that health benefits are not a gift. She stated that only one state spends less per member per month than the Plan and that cost shifting to employees has averaged approximately $1,300 per year. SEANC would like the board to consider re-establishing the premium free 80/20 option.

Ms. Watkins stated that SEANC had been notified that several items on their list for consideration did not fall under the definition of benefit changes and requested that the information should not be presented to the Board. She noted that SEANC strongly disagreed that those items do not meet the benefit change criteria. She stated that SEANC was formally requesting that they be allowed to present these items to the board at another meeting.

In response to a question from a board member regarding the current process for member benefit exceptions, Ms. Crabtree stated that active members go through their Health Benefit Representative and that retiree members are currently being handled by Plan staff.

Agenda Item – Financial Report (Attachment 6)
Presented by Mark Collins, Financial Analyst

September 2013 Financial Report
Plan revenue through September was $749.4 million, an increase of approximately $13 million over the certified budget amount. Total claims costs for the Plan were $23.1 million more than budgeted. Mr. Collins noted that the Plan continues to maintain a strong cash position despite higher than expected claims costs, with a cash balance of $732.8 million at the end of September, $22.5 million more than budgeted.

The per member per month (PMPM) net claims payments on the adjusted variance analysis were $8.53 over the certified budget amount, and administrative expenses were $2.01 less than budgeted. The net loss for the first three months of the short plan year was $28.80 PMPM, $6.37 more than the loss projected in the certified budget.

Through September, professional payments account for approximately 29% of claims expenditures and pharmacy 26%. Outpatient facility payments total 24% of claims expenditures.

Analysis of Paid Claims Report

In past meetings, the board expressed interest in comparing the actual vs. budgeted amount of the medical and pharmacy weekly paid claims on a PMPM basis. The report reviewed by Mr. Collins covered claims paid from July 2013 to October 2013. The medical claims pattern over the past year varied but has been much closer to the budgeted amounts in the first quarter of the current fiscal year, compared with last year when claims were often well below the budgeted amounts. Pharmacy payments in the current fiscal year have been higher than the budgeted amount. Several board members expressed concern about the cost of specialty drugs and would like to see future reports include a breakout of pharmacy expenditures. Ms. Moon noted that actual expenses could be split between specialty and non-specialty drug costs, but the budget and the Plan's actuarial projections do not separate specialty and non-specialty cost estimates.

The Plan and Member Shares of Paid Medical Claims page compares Plan costs to member copays, coinsurance and deductibles for medical expenses. Plan expenses slightly increased from the first quarter of FY 2011-12 to the first quarter of 2012-13, and increased more rapidly during the first quarter of 2013-14, due in part to the short plan year. The biggest decline in member cost share was in the deductible.

The first quarter Plan and member shares of paid pharmacy claim comparisons for FYs 2011-12, 2012-13 and 2013-14 demonstrated an increase in Plan costs from last fiscal year to the current fiscal year and decreasing member copays. Total pharmacy claims sharply increased in the current fiscal year, due in part to the EGWP accounting process. The Plan will continue to closely monitor pharmacy spending.

In summary, medical claims are slightly above the budgeted amount through the first quarter and pharmacy claims have been higher than budgeted in every month since February 2013. The Plan will review medical utilization in greater detail to determine if higher claims costs are the result of increased utilization.

1st Quarter Actuarial Forecast Update

Mr. Collins stated that the most recent forecast update did not significantly change from the previous forecast. The net income was close to what was projected, and the projected cash balance for December 31, 2013, was approximately $29 million over the budged amount. The forecast comparison of combined medical and pharmacy claims for the short plan year and FY 2013-14 were both close to the certified budget. One board member suggested that an increase in pharmacy utilization might lower medical costs due to a decrease in hospitalizations. Mr. Collins stated that it might be worth analyzing the data to determine if a correlation exists. Ms. Moon stated that the Plan wants to expand the financial presentations, including a quarterly utilization report.

The projected cash balances for the upcoming biennium were higher than anticipated in the certified budget, remaining approximately $30 million above the budgeted amount until the final six month period when the difference increases to $50 million. The forecasted premium increase for the 2015-17 Fiscal Biennium is slightly lower than originally anticipated.

Actuarial Valuation of Retired Employees' Health Benefits

Mr. Collins presented information on the financial reporting required by the Governmental Accounting Standards Board (GASB), specifically related to the State's liability associated with retiree health benefits. The presentation was based on a report by Segal to the State's Committee on Actuarial Valuation of Retired Employees' Health Benefits. The full report is available on the Board's website.

Mr. Collins reported that the unfunded liability dropped $6.5 billion from 2011 to 2012. The substantial drop was due to assumption and Plan changes that offset an increase in actuarial experience. The annual required contribution (ARC) of the retiree health benefits liability is determined by the amortization of the unfunded liability plus the liability of future benefits earned in the current year. The 2012 ARC and percent of payroll it represents were the lowest numbers seen in the last five years. The future benefits numbers include newly vested people in the Plan and not new staff coming in.

The benefit changes approved by the Board reduced the ARC by $331 million this past year. Treasurer Cowell stated that the unfunded liability in 2008 was one of the worst aspects of North Carolina's financial health and that the dramatic lowering of numbers in 2012 should be underscored. Ms. Moon thanked the Board for taking important steps to impact the unfunded liability.

Agenda Item – Strategic Planning

Presented by Strategic Planning Workgroup

Mr. Tom Gualtieri-Reed, Strategic Planning Facilitator, reported on his discussions with the board members, individually and as a group. He presented a number of questions and solicited the board's feedback.

Question 1: Member Experience – what do we want and need?

- Cost of coverage for dependents and spouse
- Member survey regarding care - if a member calls the provider's office, do they get an appointment? Do members with chronic disease appropriately take their medications? Do they take care of themselves?

Note: The survey taken this year could vary greatly from one taken next year given all the recent benefit changes

- Wellness initiatives are not seen as incentives by many members. The Plan needs to be affordable while still maintaining its fiduciary responsibility.
- Empower members to improve quality of life.
- Tools at the members' disposal need to be easy to use and well understood

Question 2: Value and Affordability

- Members can't invest and plan for the future when a large percentage of their salary goes toward health care

- The Plan cannot rely on the General Assembly to appropriate funds. The board is responsible for ensuring that members receive the best value. Improve transparency by making hospital charges and negotiated rates available to members.
- Determine successfulness in emphasizing and communicating the wellness aspect of the benefit options. Was the Consumer-Directed Health Plan information well communicated and understood by members? Knowing this will assist the board in strategizing next year.
- Board members agree with the comments on affordability but understand that fiduciary responsibility has to be maintained. Wellness initiatives shouldn't be seen as a burden and were designed to promote a healthy lifestyle. Ongoing education is critical for trust in the Plan and not just from a financial perspective.

Question 3: How is Plan perceived?

- If the Plan is perceived by members as an adversary, the reason needs to be determined. It may be that the Plan is perceived in this light due to the fact that more burden is put on the employees and less on the General Assembly for funding.
- The perception of the Plan is different depending on type of employee and place of employment.
- Determine the percent of members who feel Plan is perceived in a negative way through an employee survey.
- The belief is that an overwhelming number of employees cannot afford the Plan health benefit options.

Discussion: Determine the timeline for a survey and what to include. The Plan needs to ensure it has appropriate input from the board in order to design a comprehensive survey. A portion of future meetings could be used for further discussion on the survey development.

Question 4: What do we want and need to know about payment and reimbursement models for health services?

- Providers are being paid for volume rather than value. Consider different ways of reimbursement, i.e., bundled payments, patient-centered medical home, etc. The board would find it helpful for Plan staff to develop payment options for them to consider.
- The State is looking at Medicaid managed care, which could have impact on the health delivery system. Is capitated care a model the Plan could adopt?
- Provide the board with talking points to address how the Plan has continued to ask a lot from state employees.

The board discussed various areas to address in moving forward with the strategic plan development:

- Identify whether the full board is in agreement with moving in this direction. Do board members outside the strategic planning workgroup agree with this focus?
- Gather the information needed and determine the primary objectives for the strategic plan.
- Identify objectives and relate that information to the quality of care, affordability and provider engagement.
- Determine the perspective on the provider side and how they might better engage with the Plan.
- Determine ways in which the primary care provider/member relationship can be improved.
- Determine what the Plan can do to adequately support the strategic plan development.
- Expand the dashboard report and understand how everything works together.

Mr. Gualtieri-Reed will continue to work with Plan staff and the board on the development of the strategic plan and provide a preliminary report at the January board meeting.

Following a motion by Dr. Newton and seconded by Ms. Moore, the Board voted unanimously to move into executive session pursuant to G.S. 143-318.11 and G.S. 132.1.2.

Executive Session

Medical Claims Audit Services RFP (5B NCAC .0103)

A status on the medical claims audit services Request for Proposal (RFP) was provided. The procurement process was approved by the Division of Purchase and Contract (P&C) and the all bids were reviewed by the Plan and P&C. The recommendation to award the contract was presented to the board. Following a motion by Dr. Newton and seconded by Ms. Moore, the board voted unanimously to approve the recommended vendor. It was noted that approval by the Office of State Auditor is also required before the contract can be executed.

Lake Lawsuit (I. Beverly Lake et al. v. State Health Plan for Teachers and State Employees, et al.)
(G.S. *§143.318.11(a)(3))*
Presented by Lotta Crabtree, Interim Deputy Executive Administrator and Director of Contracting and Legal Compliance

The motion to dismiss the case was denied and mediation between the parties was scheduled. The Plan will continue to update the board on any developments in the case.

Consultation with Legal Counsel – Contract Issue (G.S. *§143.318.11(a)(3))*

Information on the enrollment process and issues with the enrollment vendor regarding meeting contractual requirements was discussed. The Plan presented a recommendation to address the issues. Following a motion by Mr. Huffstetler and seconded by Dr. Newton, the board voted unanimously to uphold the Plan's recommendation. The Plan will continue to update the board on the enrollment process.

Following a motion by Dr. Newton and seconded by Mr. Medlin, the Board voted unanimously to return to open session.

Agenda Item – Wrap Up

Following a motion by Ms. Hargett and seconded by Mr. Medlin, the board voted unanimously to adjourn the meeting at approximately 2:25 p.m.

Janet Cowell, Chair

BYLAWS OF

THE NORTH CAROLINA STATE HEALTH PLAN

BOARD OF TRUSTEES

Article I. Authority

The North Carolina State Health Plan Board of Trustees is established by N.C.G.S. §135-48.20 with powers and duties set forth in N.C.G.S. §135-48.22. Board members are required to carry out their duties and responsibilities as fiduciaries for the Plan pursuant to N.C.G.S. §135-48.2.

Article II. Membership

The State Health Plan Appropriations and Transfer Act of 2011, Session Law 2011-85, amended Article 3A of G.S. 135 to reconstitute the Plan's Board and to prescribe specific qualifications for membership. In a subsequent act later in the 2011 session, Session Law 2011-96, the General Assembly refined requirements for Board membership.

Section 1. **Composition:** The Board is comprised of 10 members as follows:

- The State Treasurer
- The Director of the Office of State Budget and Management
- A teacher
- A state employee
- A retired teacher
- A retired state employee
- An expert in actuarial science
- An expert in health economics
- An expert in health benefits and administration
- An expert in health law and policy

Section 2. **Ex Officio Members:** The State Treasurer and the Director of State Budget and Management serve as ex officio members of the Board. The State Treasurer has authority to vote only in the case of a tie. The Director of State Budget and Management is a nonvoting member of the Board.

Section 3. **Appointed Members:** There are eight appointed members of the Board. Two are appointed by the State Treasurer, two by the Governor, two by the General Assembly upon recommendation of the Speaker of the House of Representatives and two by the General

Assembly upon recommendation of the President Pro Tempore of the Senate. Appointments are for two year terms and members may serve up to three consecutive two-year terms.

Section 4. Appointments beginning January 1, 2012: The first term for those members appointed to the Board to fill the composition requirements for state employee, retired employee, retired teacher or teacher shall be for two and one half years. The first term for all other appointees shall be three and one half years.

Section 5. Removal: The appointing authority may remove any member appointed by that authority.

Section 6. Vacancies: Vacancies by those members appointed by the State Treasurer or the Governor shall be filled by the respective appointing authority. Members appointed by the General Assembly shall be filled in accordance with N.C.G.S. 120-122.

Article III. Organization

Section 1. Officers: Other than the Chairperson, officers may be elected by the Board from among its membership.

1. Chairperson. The State Treasurer shall serve as the Board Chairperson. Pursuant to N.C.G.S. §147-75, the Treasurer may delegate her duties as Chairperson to a designee. The delegated Chairperson will assume the same voting authority as the Treasurer.

The Chairperson has the following authority, duties, and responsibilities:

1. To call meetings as needed;

2. To appoint a Secretary who is not a member of the Board;

3. To appoint members to any and all such committees as necessary for the Board to perform its assigned duties;

4. Enforcing the governing rules of the Board as established by the bylaws;

5. Calling a motion to move the Board into closed session.

Section 2. Secretary: Unless otherwise appointed by the Treasurer, legal counsel to the State Health Plan shall be the Secretary.

The Secretary's duties include but are not limited to:

1. Maintaining a current list of Board Members;

2. Providing notice of meetings to the Board and the public;

3. Coordinating and disseminating information to the Board;

4. Maintaining official minutes and records of all proceedings from Board meetings;

5. Responding to public records requests;

6. Accepting service of process for the Board;

7. Ensuring Board compliance with the State Government Ethics Act;

8. Publishing an agenda or order of business as approved by the Treasurer prior to each meeting;

9. Facilitating the scheduling of each meeting;

10. Providing counsel on the appropriateness of moving to closed session and the required statutory authority for doing so when required by law;

11. Revising the bylaws as amended by the Board;

12. Performing any other duties as directed by the Chairperson.

Section 3. Executive Administrator: The Executive Administrator shall attend all Board meetings or send a suitable representative as selected by him or her. The Executive Administrator shall keep the Board well informed at all times of the activities and programs of the State Health Plan. The Executive Administrator shall provide all staffing and personnel necessary for the Board to properly carry out its functions and duties as well as any documents or information necessary for the proper conduct of the Board's duties and responsibilities to the Plan. The Executive Administrator in consultation with the Chairperson will develop the agenda for all meetings.

Section 4. Committees: The Board, by resolution of a majority of members, may designate and appoint one or more committees to serve in an advisory capacity to the Board. Such committee shall perform only those functions determined by the Board, and no such committee shall have the authority of the Board. Committee members shall be appointed by the Chairperson and shall serve at the pleasure of the Board. As determined by the Board, the Chairperson of a committee may either be designated by majority vote of the Board or selected by members of the committee.

The Executive Administrator of the State Health Plan shall designate Plan staff to serve at the pleasure of committees as requested by the committee or the Board.

Committees shall meet as decided by the Chairperson of the committee in consultation with the committee. Upon approval by the Chairperson of the committee, members of the committee may participate in meetings by means of telephone or video conference.

Article IV. Meetings

Section 1. Official Meetings: Official meetings are those meetings in which a majority of Board members gather for the purpose of participating in deliberations, or voting upon or otherwise transacting the public business within the jurisdiction, real or apparent, of the Board. Meetings will be held bi-monthly unless otherwise called or canceled by the Chairperson. The Board is required to meet at least quarterly. Meetings will be held at the State Health Plan offices unless otherwise designated by a majority vote of the entire Board.

Section 2. Annual Meeting to Review Requests for Changes to Benefits: One meeting per year will be used to review requests made by individuals or groups for changes in benefits under the State Health Plan.

Section 3. Emergency or Special Meetings: May be called by the State Treasurer or by the written request of any three Board members.

Section 4. Public Meetings: All official meetings shall be open to the public pursuant to N.C.G.S. §143-318.10 except for those parts of the meeting moved to closed session pursuant to N.C.G.S. §143-318.11.

Section 5. Closed Session: The Chairperson may make a motion to move to closed session only during an open public meeting. Closed session is permitted for the following reasons pursuant to N.C.G.S. §143-318.11:

1. To prevent the disclosure of information that is privileged or confidential pursuant to the law of this State or of the United States, or not considered a public record within the meaning of Chapter 132 of the General Statutes.

2. To prevent the premature disclosure of an honorary degree, scholarship, prize, or similar award.

3. To consult with an attorney employed or retained by the public body in order to preserve the attorney-client privilege between the attorney and the public body, which privilege is hereby acknowledged. General policy matters may not be discussed in a closed session and nothing herein shall be construed to permit a public body to close a meeting that otherwise would be open merely because an attorney employed or retained by the public body is a participant. The public body may consider and give instructions to an attorney concerning the handling or settlement of a claim, judicial action, mediation, arbitration, or administrative procedure. If the public body has approved or considered a settlement, other than a malpractice settlement by or on behalf of a hospital, in closed session, the terms of that settlement shall be reported to the public body and entered into its minutes as soon as possible within a reasonable time after the settlement is concluded.

4. To establish, or to instruct the public body's staff or negotiating agents concerning the position to be taken by or on behalf of the public body in negotiating (i) the price and other material terms of a contract or proposed contract for the acquisition of real property by purchase, option, exchange, or lease; or (ii) the amount of compensation and other material terms of an employment contract or proposed employment contract.

5. To consider the qualifications, competence, performance, character, fitness, conditions of appointment, or conditions of initial employment of an individual public officer or employee or prospective public officer or employee; or to hear or investigate a complaint, charge, or grievance by or against an individual public officer or employee. General personnel policy issues may not be considered in a closed session. A public body may not consider the qualifications, competence, performance, character, fitness, appointment, or removal of a member of the public body or another body and may not consider or fill a vacancy among its own membership except in an open meeting. Final action making an appointment or discharge or removal by a public body having final authority for the appointment or discharge or removal shall be taken in an open meeting.

6. To plan, conduct, or hear reports concerning investigations of alleged criminal misconduct.

Motions called pursuant to reason (1.) set forth above regarding the disclosure of information considered privileged or confidential, must state the name or citation of the law that renders the information to be discussed privileged or confidential. Motions called pursuant to reason (3.) set forth above regarding the handling or settlement of a legal claim shall identify the parties in each existing lawsuit concerning which the public body expects to receive advice during the closed session.

The motion by the Chairperson to move to closed session must cite at least one of the permissible reasons for the closed session as described above. The Secretary is responsible for providing the appropriate basis and statutory citation of law as required to the Chairperson as needed.

Only those persons authorized by law or invited by the Board may be present during closed session.

Section 6. Attendance: Board members shall attend at least 75 percent of all non-emergency meetings of the Board during the Board's calendar year. The Board may require the attendance of State Health Plan staff, Department of State Treasurer staff, consultants or contractors as necessary to provide information to the Board.

Section 7. Meeting by Telephone or Other Electronic Media: In limited circumstances and upon approval by the Chairperson, members of the Board may participate in meetings by means of telephone or video conference.

Section 8. Notice: The date, time and place for all Board meetings will be published on the State Health Plan's website when known but no later than two weeks prior to any meeting. If a preliminary agenda is created it shall be posted as soon as practicable in the same manner as the notice; however, the preliminary agenda will not limit the scope of the Board's meeting. If a preliminary agenda is not available, the notice shall include a general description of the nature and purpose of the meeting. Notice of Emergency or Special Meetings as set forth in Article III, Section 2 of these Bylaws, will be published at the same time notice is given to the Board.

Section 9. Public Comment: Time will be reserved at the end of each meeting for public comment upon request. Such time may be limited by the Chairperson.

Article V. OPERATION OF THE BOARD

Section 1. Actions of the Board: The Board shall act only as authorized by law and only by resolution at a duly called meeting of the Board. No individual members of the Board shall exercise individually any administrative authority with respect to the Board. No individual member of the Board shall make a statement of policy which purports to be that of the Board unless the Board shall have adopted such policy, but no one shall be prohibited from stating his or her personal opinions provided they are clearly identified as such.

Section 2. Authority of the Board: The Board shall have access to any documents or information that is necessary for the proper conduct of its fiduciary duties and responsibilities to the Plan, subject to confidentiality requirements set forth in state and federal law. G.S. 135-43.

The Board members do not have the authority to sign contracts, obligate the State Treasurer or the Plan, or spend any portion of the operating budget that has not been designated for Board purposes.

Section 3. Rules of Order: The rules contained in the most recent edition of Robert's Rules of Order shall govern in all cases to which they are applicable and in which they are not inconsistent with the bylaws of the Board.

Section 4. Agenda: The agenda for each meeting will be developed by the Executive Administrator in consultation with the Chairperson. The Secretary shall send a preliminary agenda to each member of the Board as soon as practicable in advance of any meeting of the Board. The final agenda as approved by the Chairperson will be provided at the Board meeting and shall govern the order of business for the meeting.

Section 5. Minutes: The Secretary shall prepare minutes of the proceedings of all Board meetings. A copy of the minutes of each meeting of the Board shall be transmitted to each Board member for review at least two weeks prior to approval at the succeeding meeting. The minutes shall not be considered official unless and until approved by the Board. Official minutes will be published to the State Health Plan's website as soon as practicable.

Section 6. Records: The Secretary for the Board shall maintain accurate records of its meetings, excluding executive session, setting forth the date, time, place, members present or absent, and action taken at each meeting. The official records of each meeting shall be published to the State Health Plan's website as soon as practicable unless otherwise prohibited by law.

Section 7. Quorom: A majority of the voting members of the Board shall constitute a quorum.

Section 8. Voting: Decisions of the Board shall be made by a majority voice vote of the Trustees present. Voting by secret ballot is not allowed.

A roll call vote shall be taken upon the request of any Board member. The names of the Board members shall be called and each member shall vote "yes" or "no" at such time unless he or she chooses to abstain.

Section 9. Appearance Before the Board: Individuals or groups who wish to appear before the Board shall make their request in writing to the Chairperson at least seven (7) days in advance of the next regularly scheduled meeting. The Chairperson, at his or her discretion, may approve the request and allot a reasonable time for presentation. The Chairperson shall limit presentations as necessary to maintain the timely conduct of business by the Board.

Section 10. Appearance Before the Board at Annual Meeting to Review Requests for Changes to Benefits: Individuals or groups that have submitted a *Request Form for Board of Trustee Consideration of a Change to SHP Benefits* who wish to appear before the Board of Trustees shall make their request, if not included on the form, in writing to the Chairperson at least two weeks before the annual meeting. The Chairperson, at his or her discretion, may approve the request and allot a reasonable time for presentation. The Chairperson shall limit the time for appearance as necessary to maintain the timely conduct of business by the Board.

Section 11. Compensation:

Non-state employee members: Members of the Board who are not employees eligible to enroll in the Plan ("non-employee members") will receive (1) one hundred dollars ($100.00) per day whenever the full Board of Trustees holds a public session, and (2) travel allowances when traveling to and from meetings of the Board of Trustees or administrative hearings. G.S. 135-48.20(l)

When participating in Plan business that is not part of a public session or administrative hearing, non-employee members will receive (1) fifteen dollars ($15.00) per day, (2) reimbursement of subsistence expenses, and (3) reimbursement of travel expenses. G.S. 135-48.20(l) and 138-5.

State employee members: Members of the Board who are employees eligible to enroll in the Plan ("employee members") shall receive travel and subsistence allowance in accordance with G.S. 138-6.

Section 12. Recusal from Participation: After a meeting has been called to order and the final agenda reviewed, the Secretary shall read to the Board the Conflict of Interest Statement. Any member with a conflict of interest or an appearance of a conflict of interest for any agenda item will identify him or herself and recuse themselves from participating in discussion or voting on that particular agenda item.

ARTICLE VI. AUTHORITY, DUTY, RESPONSIBILITIES AND CONDUCT OF THE BOARD

Section 1. Standard of Care: Board members shall carry out their duties and responsibilities as fiduciaries for the Plan. As fiduciaries, Board members are obligated to act in the best interest of the Plan.

Section 2. Conflict of interest: A conflict of interest arises when a Board member, or a member of his or her immediate family, may benefit from the actions taken by the Board. In such instances the Board member must disclose the conflict to the Board and recuse him or herself from participation in addressing or voting on the matter in which there is a conflict of interest or appearance of a conflict of interest unless participation is permitted by G.S. 138A-38.

Section 3. Responsibilities: The powers, duties and responsibilities of the Board are set forth in Article 3B of Chapter 135 of the North Carolina General Statutes.

Powers and Duties: Under G.S. 135-48.22, the Board shall have the following powers and duties:

1. Approve benefit programs, as provided in G.S. 135-48.30(2).
2. Approve premium rates, co-pays, deductibles, and coinsurance maximums for the Plan, as provided in G.S. 135-48.30(2).
3. Oversee administrative reviews and appeals, as provided in G.S. 135-48.24.
4. Approve contracts in excess of $500,000, as provided in G.S. 135-48.33(a).

5. Consult with and advise the State Treasurer as required by the Article and as requested by the State Treasurer.

6. Develop and maintain a strategic plan for Plan.

Other Responsibilities:

1. Assist in the evaluation of the Executive Administrator. As prescribed by G.S. 135-48.23, the State Treasurer shall consult with the Board before removing the Executive Administrator.

2. Report to the General Assembly. The Board shall report to the General Assembly as requested by the President Pro Tempore of the Senate and the Speaker of the House of Representatives. G.S. 135-48.27.

3. Consultation. As prescribed by Article 3B of G.S 135, the Board must provide consultation to the State Treasurer on the following matters: adoption and implementation of rules; adoption and implementation of utilization review and internal grievance procedures; establishment and implementation of medical procedures that require prior approval and as otherwise requested by the State Treasurer.

4. Delegation of powers. The Board will be required to carry those powers and duties delegated to it by the State Treasurer.

5. Guidelines. The Board in concert with the State Treasurer is required to examine the issue of moving to a calendar year, including the costs and mechanics of doing so; find savings through wellness programs, Medicare Advantage plans, alternative plan designs, or other resources and use those savings to offer a premium-free plan option no later than July 1, 2013; and strive to keep premiums low by finding savings through wellness programs, Medicare Advantage plans, alternative plan designs, or other resources.

Section 4. **Expectations:** Board members are expected to:

1. Be informed about the Plan's policies and practices;

2. Work constructively with other board members to review Plan activities and fulfill their statutory duties and responsibilities;

3. Interact professionally and appropriately with the State Treasurer, Executive Administrator, and the staff and outside service providers at all times;

4. Be prepared for all board meetings by reviewing agendas and supporting materials prior to the meeting;

5. Attend Board meetings, share expertise, and actively participate in discussions;

8. Discharge duties solely in the interest of the members and beneficiaries and for their exclusive benefit;

9. Incur only reasonable expenses in carrying out duties as Board members, consistent with the operating budget of the Board;

10. Maintain high ethical standards and avoid the appearance of impropriety;

11. Make requests of staff as well as consultants, contractors and other outside service providers only under the directive of the full Board.

12. Maintain confidentiality at all times related to matters discussed in Closed Session pursuant to N.C.G.S. §143-318.11 as well as information that meets the definition of "confidential information" under N.C.G.S 132-1.2.

Section 5. Orientation: Board members must complete an orientation program within sixty days of the date of their appointment. The State Health Plan staff, in conjunction with Department of State Treasurer's General Counsel, shall be responsible for conducting the orientation program.

Section 6. State Government Ethics Act: Board members are covered persons under the State Government Ethics Act, Article 1 of Chapter 138A of the North Carolina General Statutes. At all times Board members must abide by the Ethical Standards for Covered Persons set forth in Article 4 of G.S. 138A. In addition, as covered persons, Board members are required to file a statement of economic interest (SEI) with the State Ethics Commission prior to appointment and yearly thereafter. Board members must also complete ethics education within six months of appointment and a refresher course every two years.

Section 7. Annual Assessment: The Board will annually assess its performance to determine if it is functioning as effectively and efficiently as possible and to determine if it has met its responsibilities under the Charter. The Board will effectuate changes as appropriate in order to improve its performance.

Article VII. Amendments

Section 1. Amendment: These bylaws may be amended at any regular meeting of the Board by majority vote.

Section 2. Effective Date: Amendments shall go into effect immediately upon their adoptions unless the motion to adopt specifies a time for the amendment to go into effect.

It being the desire of the Board to meet its responsibilities to the State of North Carolina, and in the most efficient and conscientious manner possible to discharge its duties under the law, the North Carolina State Health Plan Board of Trustees does hereby adopt these amended bylaws this 22nd day of November, 2013, to be effective immediately.

Janet Cowell, Chairperson

November 1, 2013

«FirstName» «LastName»
«Address»
«City», «State» «Zip»

Dear Valued Member,

Please take a moment to read the following information as it affects your health care coverage.

Our records indicate that you have recently received care or are scheduled to receive care at Wayne Memorial Hospital. This letter is a notification that this hospital will no longer be in network with Blue Cross and Blue Shield of North Carolina's (BCBSNC's) «LOB» network as of December 5, 2013. If you need assistance, we would like to work with you to ensure a smooth transition to a participating hospital in BCBSNC's network.

How does this affect you?

Provider Services

- Providers affiliated with Wayne Memorial Hospital will remain in network with BCBSNC as they are today. The contract termination does not directly affect the network participation of these providers.

Emergency Services

- We always advise members to go to the nearest hospital in any emergency. Members can continue to use Wayne Memorial Hospital for emergency services without prior authorization and at in-network benefit levels.

Choosing a new facility

- If you have already chosen a new hospital for your care, then you do not need to do anything else.
- If you need assistance in choosing a new hospital, please contact BCBSNC's Customer Service Department at the number listed on your ID card or visit our website at www.bcbsnc.com, and search our database for an in-network hospital.
- If you do not choose an in-network hospital, services may not be covered or may be reimbursed by BCBSNC at the lower, out-of-network benefit level. Please refer to your member guide to confirm your specific benefits.

Continuity of Care

You may be eligible for **continuity of care**. Continuity of care is a process that allows you to continue receiving care from an out-of-network provider for an ongoing special condition at the in-network benefit level for a short time period; while your provider and BCBSNC help you transition to an in-network provider for your care. To be eligible for continuity of care, you must be actively treated by the out-of-network provider for your ongoing special condition, and your provider must agree to BCSBNC's requirements for continued care. An ongoing special condition means:

1. **An acute illness,** which is a condition that is serious enough to require medical care or treatment to avoid a reasonable possibility of death or permanent harm.
2. **A chronic illness or condition**, which is a disease or condition that is life-threatening, degenerative, or disabling, and requires medical care or treatment over a prolonged period of time.
3. **A terminal illness**, which is when an individual has a medical prognosis of a life expectancy of six months or less.
4. **Pregnancy,** which means the second and third trimester of pregnancy or completion of postpartum care.

BCBSNC must authorize services in advance for you to continue to receive in-network benefits for care from an out-of-network provider. **You have 45 days from the date of this letter to request continuity**

of care. Please contact BCBSNC's Customer Service Department to obtain a continuity of care request form, and return it to us at the fax number provided on the form. You will be contacted by a BCBSNC nurse to discuss your specific situation. If your continuity of care request is approved, you may continue to use Wayne Memorial Hospital through the timeframe specified on the authorization.

Please note that the in-network payments for hospital services approved for continuity of care for dates of service on or after December 5, 2013, will be paid directly to you, and you will be responsible for reimbursing Wayne Memorial Hospital.

Thank you for choosing us for your health plan needs. If you have any questions, please contact the customer service at the number listed on your BCBSNC ID card.

Sincerely,

Compliance Department
Care Management & Operations

Contact: Georgia Dees
Wayne Memorial Hospital
Director of Public Relations
(919) 731-6299

Darcie Dearth
BCBSNC
(919) 765-3005
(919) 622-1282 (cell)

For Immediate Release
October 28, 2013

WAYNE MEMORIAL HOSPITAL, BCBSNC TO RESUME NEGOTIATIONS

A meeting today between Wayne Memorial Hospital President and CEO Bill Paugh and Blue Cross and Blue Shield of North Carolina President and CEO Brad Wilson ended with an agreement that negotiations between the two parties will resume immediately.

"We both agreed it is in the best interest of the citizens of Wayne County for both sides to come back to the table to attempt to achieve a compromise," Paugh said. "We need to make the best use of everyone's time between now and the expiration of the current contract, and we are directing our teams back to the negotiating table to make that happen."

"Today's conversation was a good start," said Wilson. "While challenges remain, both sides agreed to work as hard as we can in the days ahead to reach an agreement that provides our customers access to quality, affordable health care."

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North Carolina State Health Plan
FOR TEACHERS AND STATE EMPLOYEES
A Division of the Department of State Treasurer

SHP Utilization of Wayne Memorial Hospital									
Claims incurred 07/01/2012 through 06/30/2013 and paid through 08/31/2013									
	Actives			Retirees			Totals		
	Members	Visits	Paid	Members	Visits	Paid	Members	Visits	Paid
Inpatient	267	356	$2,168,857	441	513	$745,062	708	869	$2,913,920
Outpatient Non-ER	1,574	2,930	$5,354,526	1,371	2,848	$1,321,821	2,945	5,778	$6,676,348
Outpatient ER	1,054	1,434	$2,305,622	741	1,063	$327,362	1,795	2,497	$2,632,984
Total	**2,434**	**4,720**	**$9,829,006**	**1,944**	**4,424**	**$2,394,246**	**4,378**	**9,144**	**$12,223,251**

Source: BCBSNC, September 5, 2013

NCHEALTH Smart

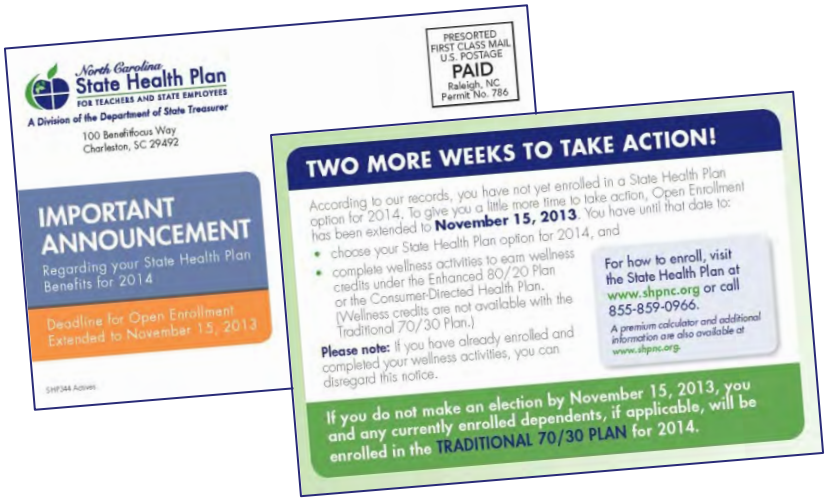
North Carolina
State Health Plan
FOR TEACHERS AND STATE EMPLOYEES

Open Enrollment Update

Board of Trustees Meeting

November 22, 2013

Last Direct Mail Campaign



Sent Oct. 21, 2013 to non-responders

- Active / Non-Medicare Primaries: **268,678**
- COBRA: **813**
- Humana: **52,973**
- United Healthcare: **54,628**

Total: 377,092

Summary of Outreach Events

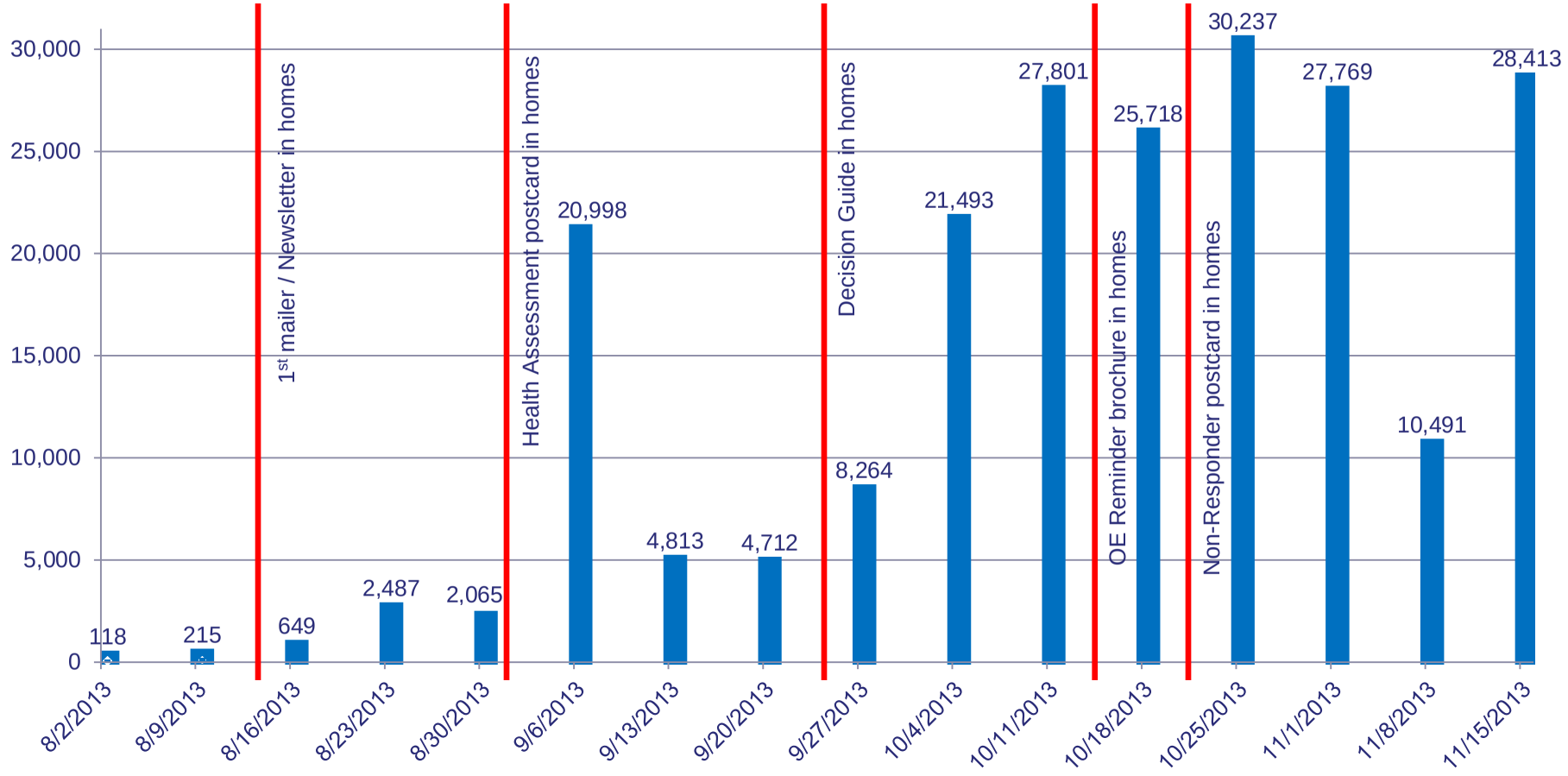
- Road Warrior Introduction
- From July – October, SHP staff traveled 18,920 miles for:
  - HBR Training
  - Information Sessions
  - Outreach Sessions
- 83 HBR training sessions were completed in 53 counties in 90 days, including 2 webinars.
- 38 Information Sessions and 12 webinars were completed in 22 counties for Active/Non-Medicare Retirees.
- 141 Medicare Primary Outreach Events were conducted in 54 counties including states of FL, SC, and VA.

Website Activity

Activity	Dates	Number of Clicks
SHPNC.org	Aug. 1 – Nov. 15	630,184
First member video featuring Treasurer	Aug. 13 – Nov. 15	58,326
Second member video “Comparing Options”	Sep. 17 – Nov. 15	31,522
Third member video “All About the CDHP”	Oct. 15 – Nov. 15	12,393
Fourth member video “How to Enroll”	Oct. 21 – Nov. 15	5,742
Rate Calculator	Sep. 9 – Nov. 15	89,524

Total Weekly Health Assessments

Health Assessment Completions	Aug. – Nov. 15	216,243



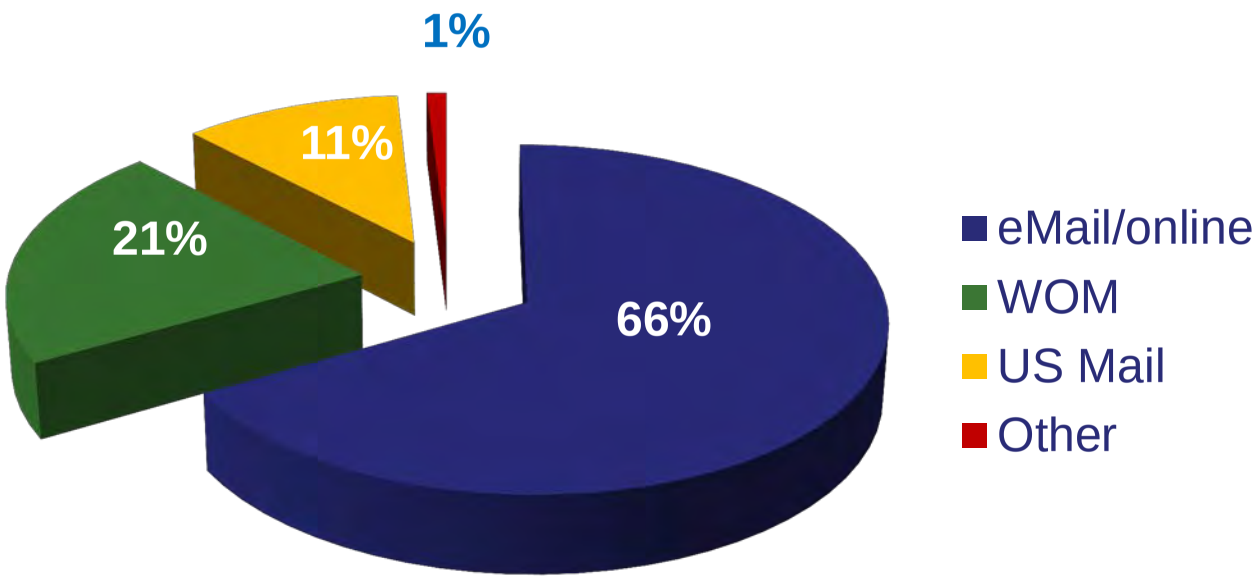
Information Session Tour

Active / Non-Medicare Primary Retirees

- More than 1,800 members attended sessions.
- 28% of attendees completed a survey.
- 71% responded they are satisfied to have more choices.
- 79% stated they are likely to enroll in the 80/20 or CDHP.
- 79% had a better understanding of the plan options after attending an Information Session.

Active / Non-Medicare Primary Retirees

- When asked "*How did you hear about Open Enrollment this year?*" two-thirds of those surveyed heard via eMail or online.



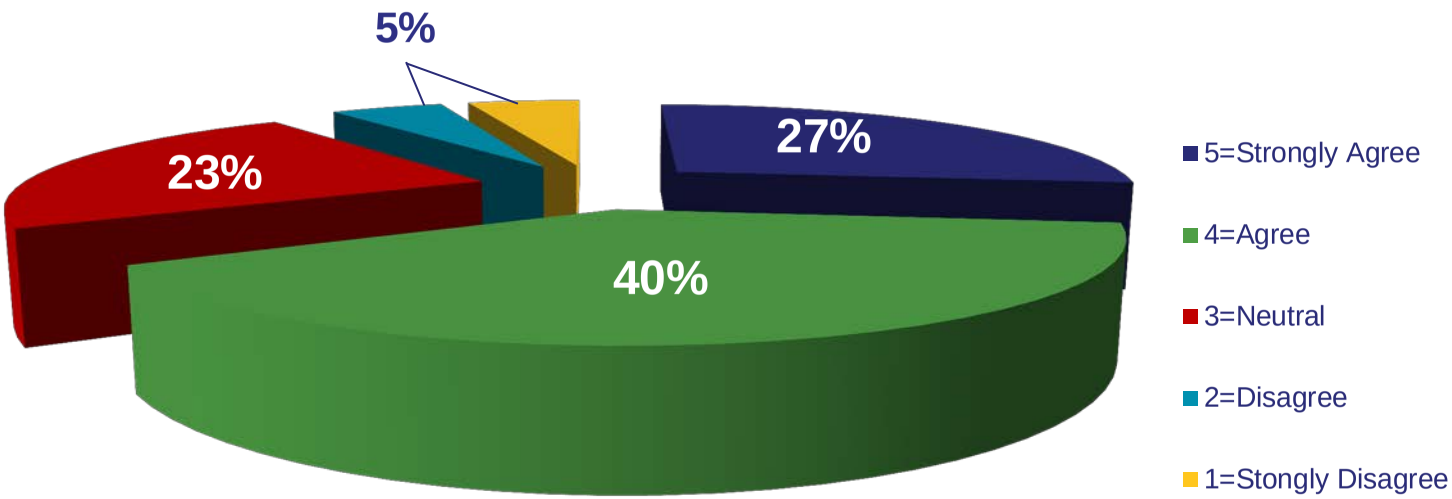
"Other" indicates posters and Information Sessions.

Medicare Primary Retiree Outreach

- Received 24,401 RSVPs.
- 25,518 individuals attended Outreach Events.
- 27% of attendees completed a survey.
- 67% agreed and strongly agreed that SHP is offering more choices, while 23% stayed neutral.
- 47% agreed or strongly agreed *"…the MAPDPs offer an opportunity to save money*," while 43% stayed neutral.
- 77% agreed and strongly agreed the presentation held their attention.
- 75% agreed and strongly agreed they had a better understanding of the plan options after attending an Outreach Event.

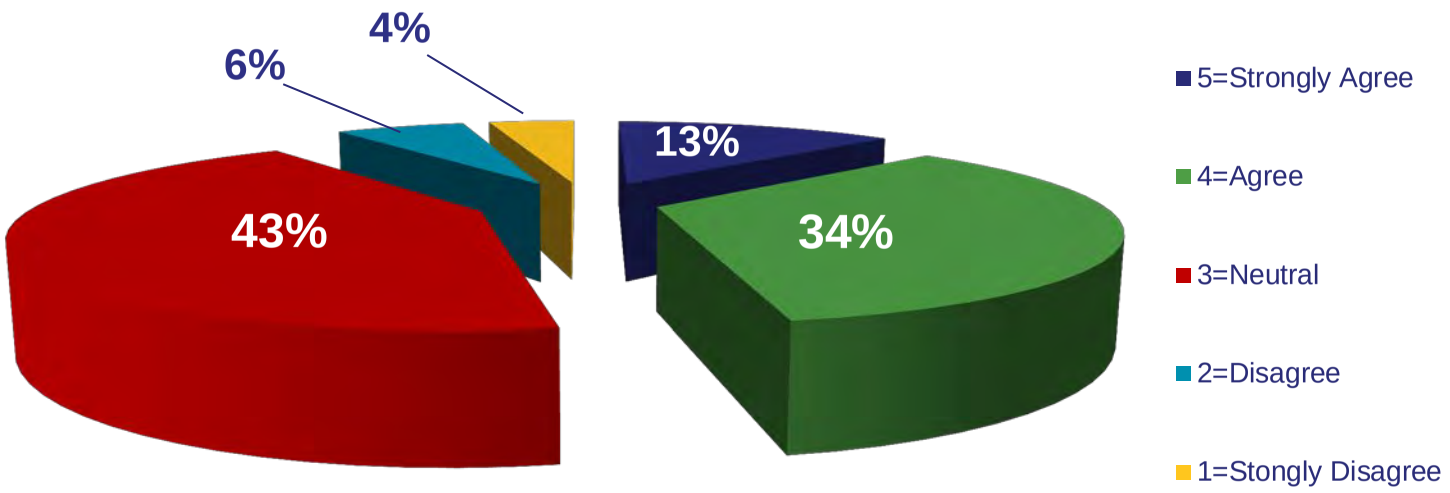
Medicare Primary Retiree Survey Responses

1) I am pleased the State Health Plan is offering ***more choices***.



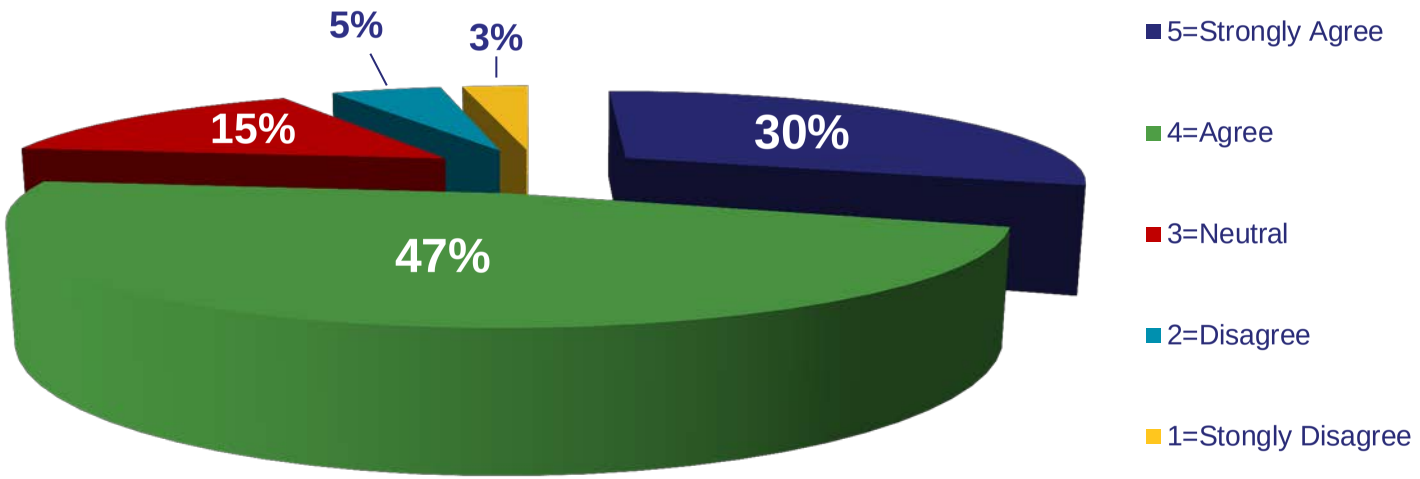
Medicare Primary Retiree Survey Responses *(con't)*

2) The Medicare Advantage Prescription Drug Plans offer an opportunity for my family to ***save money***.



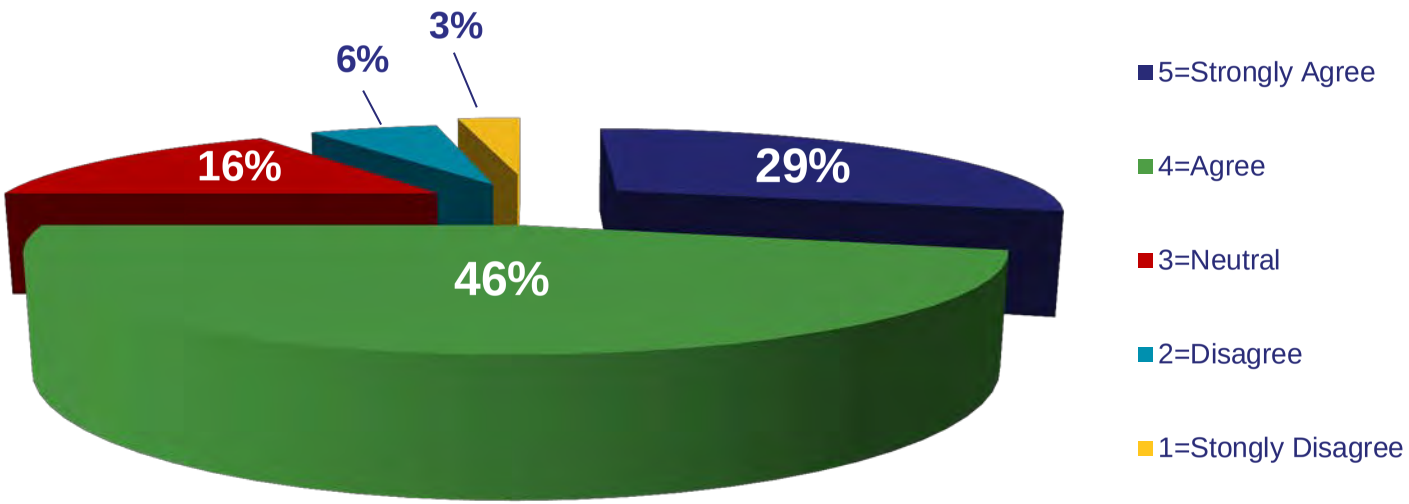
Medicare Primary Retiree Survey Responses *(con't)*

3) The presentation was interesting and ***held my attention***.



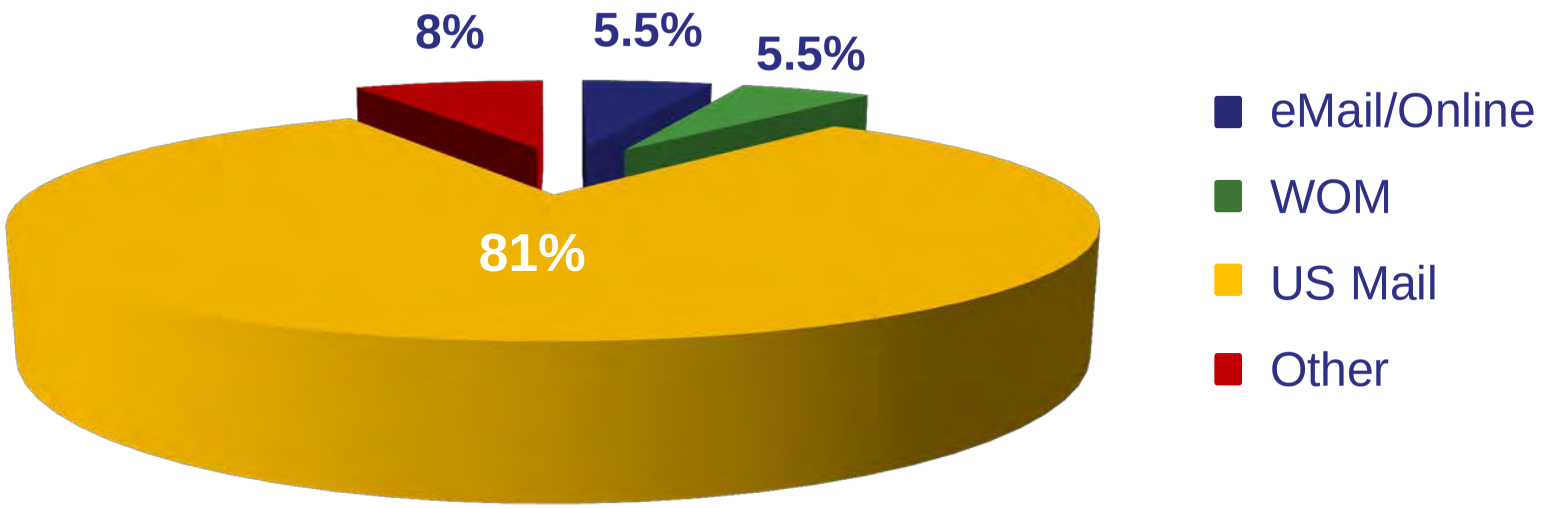
Medicare Primary Retiree Survey Responses *(con't)*

4) Now that I have attended this Outreach Session, I have a ***better understanding*** of the new options for 2014.



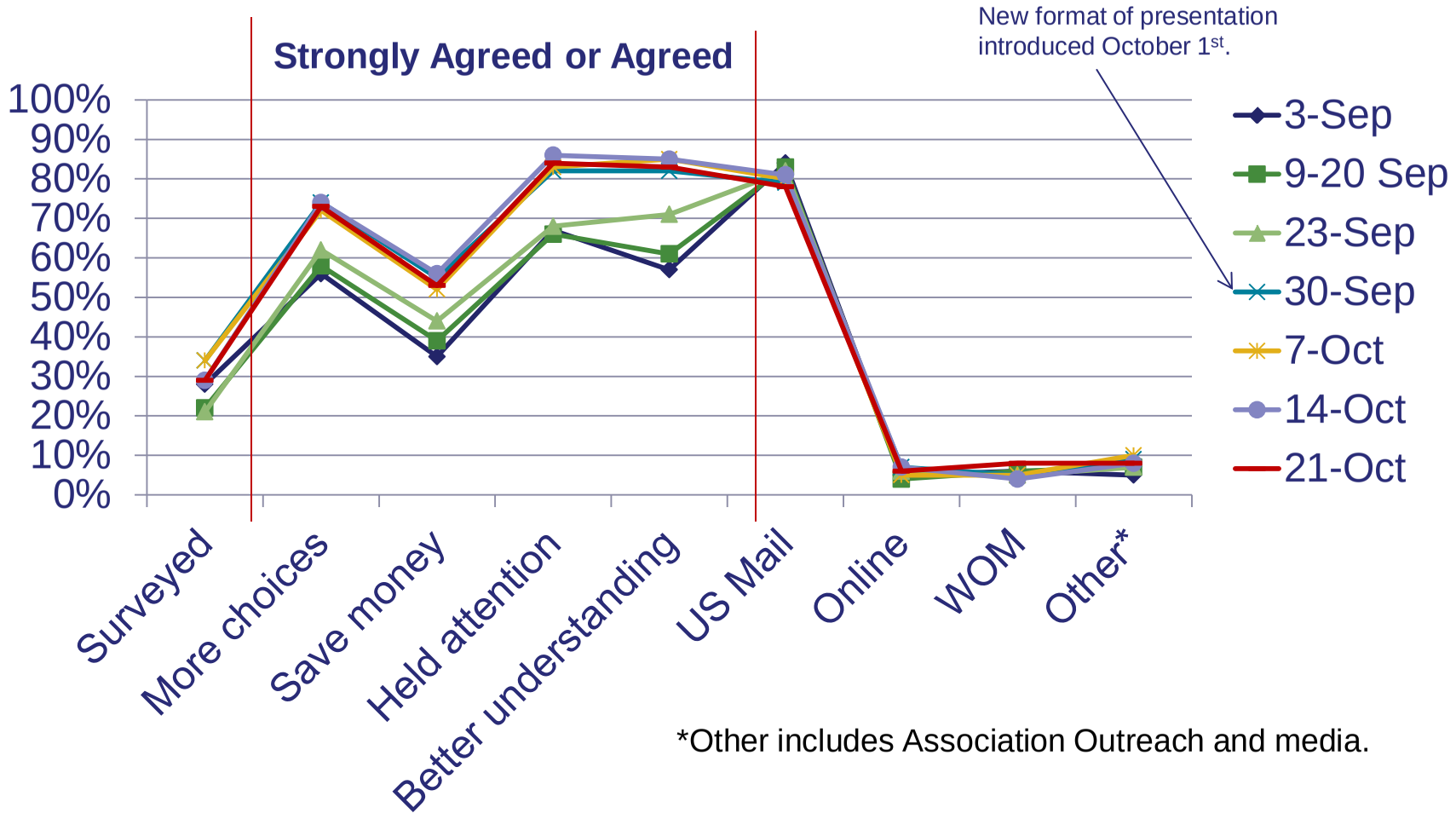
Medicare Primary Retiree Survey Responses *(con't)*

5) When asked "*How did you hear about Open Enrollment this year?*" 81% heard by US mail



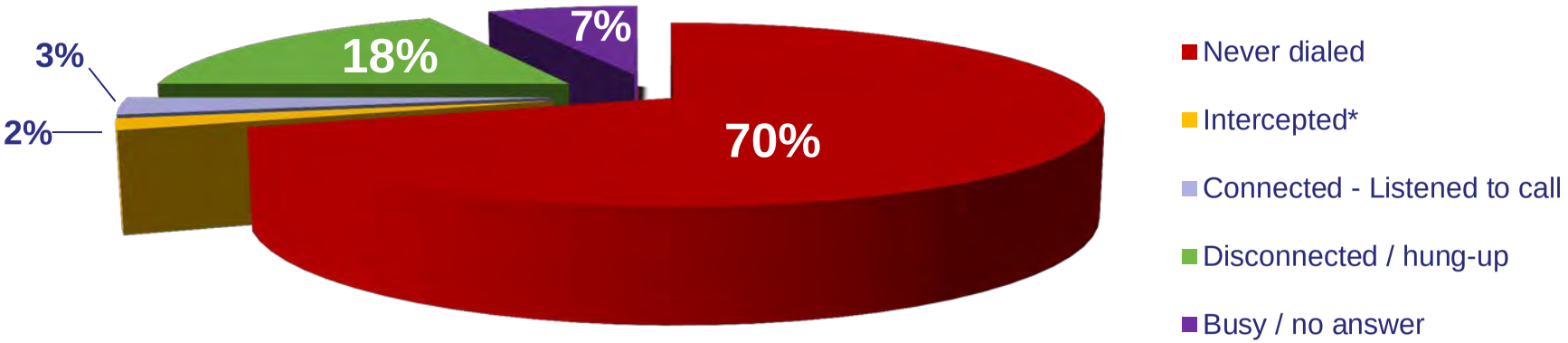
"Other" indicates media and Association Outreach efforts.

Medicare Primary Outreach: Week by Week



*Other includes Association Outreach and media.

Medicare Primary Retiree Outbound Call Campaign



**Intercepted indicates calls were picked up by facsimile machine or blocked.*

Please note: Due to high call volume and insufficient staffing from vendor, the outbound call campaign was not completed.

Weekly Call Volume by Vendor

Total Calls by Vendor:

Active Health:
56,336

BenefitFocus:
263,434

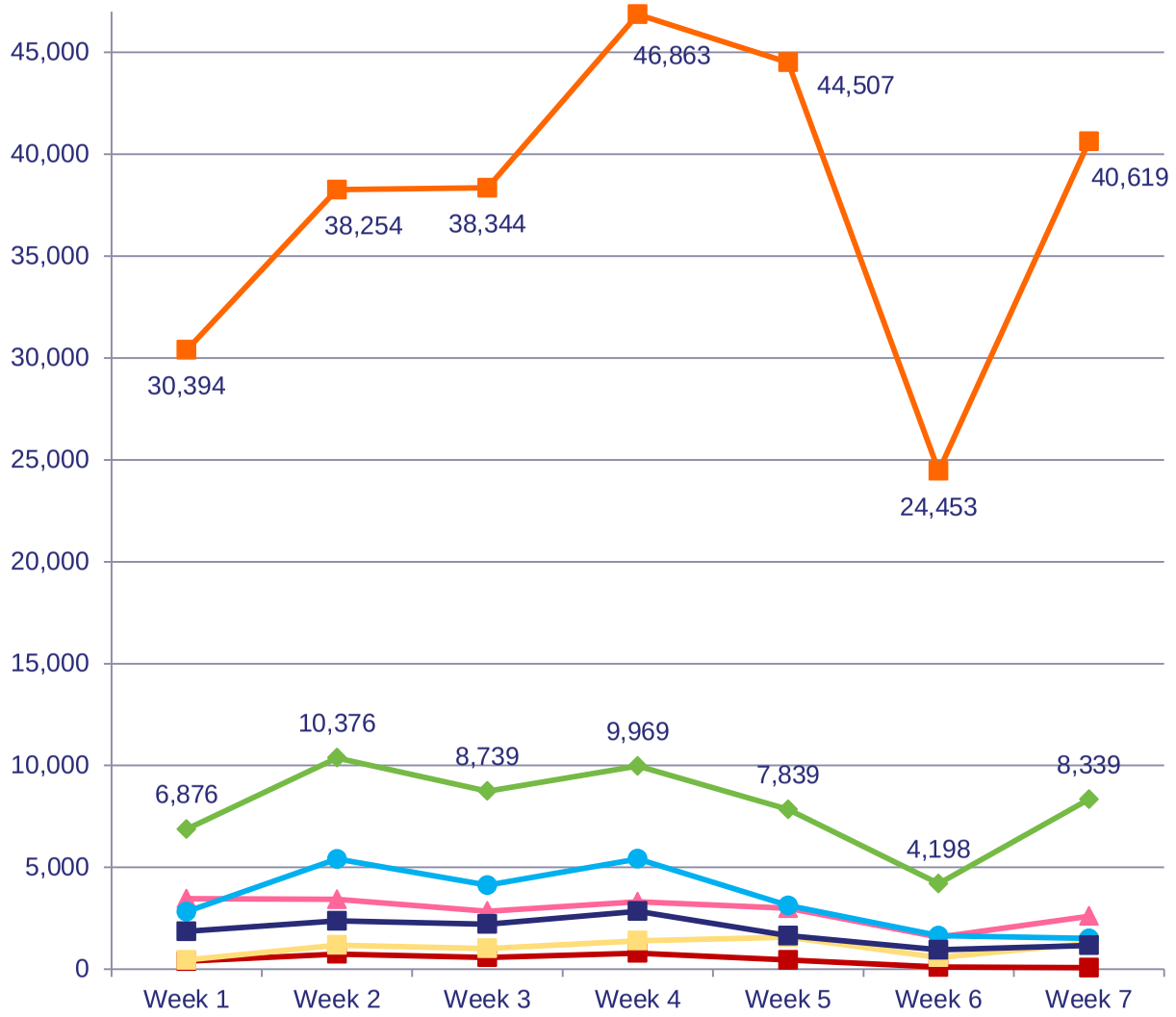
BEACON:
20,225

SHP:
3,146

BCBSNC:
7,487

UHC:
24,031

Humana
13,064



Grand Total Call Volume:
387,723

Weekly Call Volume Numbers by Vendor

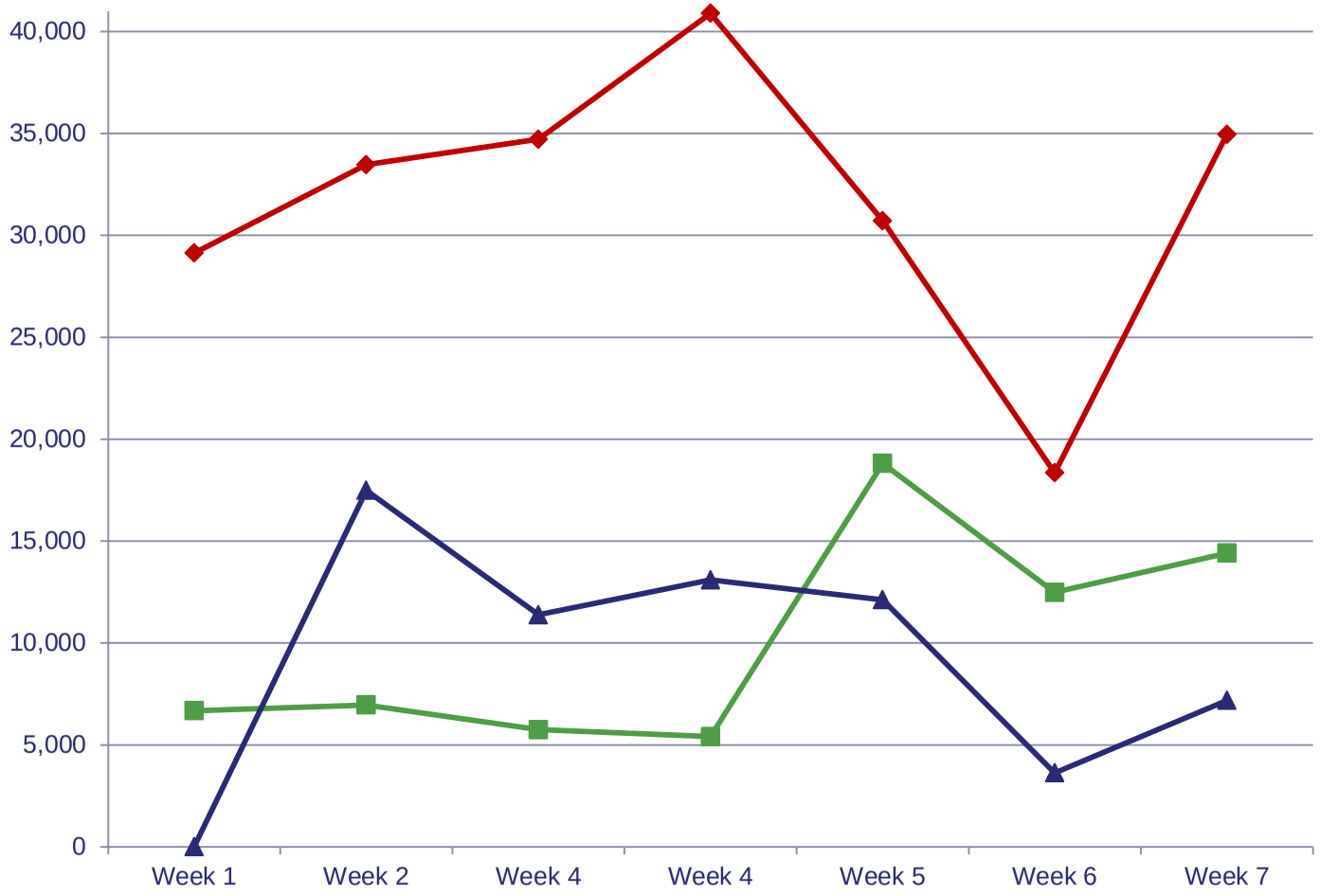
	Week 1			Week 2			Week 3			Week 4			Week 5			Week 6			Week 7		
Vendor	Received	Abandon	% Rate	Received	Abandon	% Rate	Received	Abandon	% Rate	Received	Abandon	% Rate	Received	Abandon	% Rate	Received	Abandon	% Rate	Received	Abandon	Ave. % Rate
Active Health	6,876	138	2%	10,376	330	3%	8,739	247	3%	9,969	331	3%	7,839	65	1%	4,198	21	1%	8,339	324	4%
Benefit Focus	30,394	6,796	22%	38,254	8,497	22%	38,344	10,370	27%	46,863	18,952	40%	44,507	10,721	24%	24,453	848	3%	40,619	12,402	31%
Beacon	3,458	1,187	34%	3,428	996	29%	2,845	807	28%	3,313	887	27%	2,992	469	16%	1,579	78	5%	2,610	776	30%
SHP	391	N/A	N/A	747	N/A	N/A	581	N/A	N/A	792	N/A	N/A	453	N/A	N/A	103	N/A	N/A	79	N/A	N/A
BCBSNC	454	15	3%	1,190	29	2%	1,020	11	1%	1,400	30	2%	1,569	36	2%	582	9	2%	1,272	23	2%
UHC	2,827	14	0%	5,409	37	1%	4,126	43	1%	5,418	68	1%	3,132	15	0%	1,610	9	1%	1,509	15	0%
Humana	1,857	94	5%	2,370	72	3%	2,214	73	3%	2,849	155	5%	1,651	77	5%	949	31	3%	1,174	74	6%
Totals	46,257	8,244	18%	61,774	9,961	16%	57,869	11,551	20%	70,604	20,423	29%	62,143	11,383	18%	33,474	996	3%	55,602	13,614	25%

Benefitfocus average call wait times were consistently over 5 minutes. They self reported average call waits of up to 17.43 minutes. Plan staff and members experienced call waits over an hour throughout the OE period.

Total Call Volume Numbers by Vendor

Vendor	Total Calls	Total Abandoned	Average Abandonment Rate
Active Health	56,336	1,456	3%
BenefitFocus	263,434	68,586	26%
BEACON	20,225	5,200	26%
SHP	3,146	N/A	N/A
BCBSNC	7,487	153	2%
UHC	24,031	201	1%
Humana	13,064	576	4%
Total	**387,723**	**76,172**	**20%**

Plan Elections: eEnroll, Telephonic and BEACON



Grand Total Enrollments:
528,100

Plan Elections
357,623

eEnroll:
222,233

Telephonic:
70,499

BEACON:
64,891

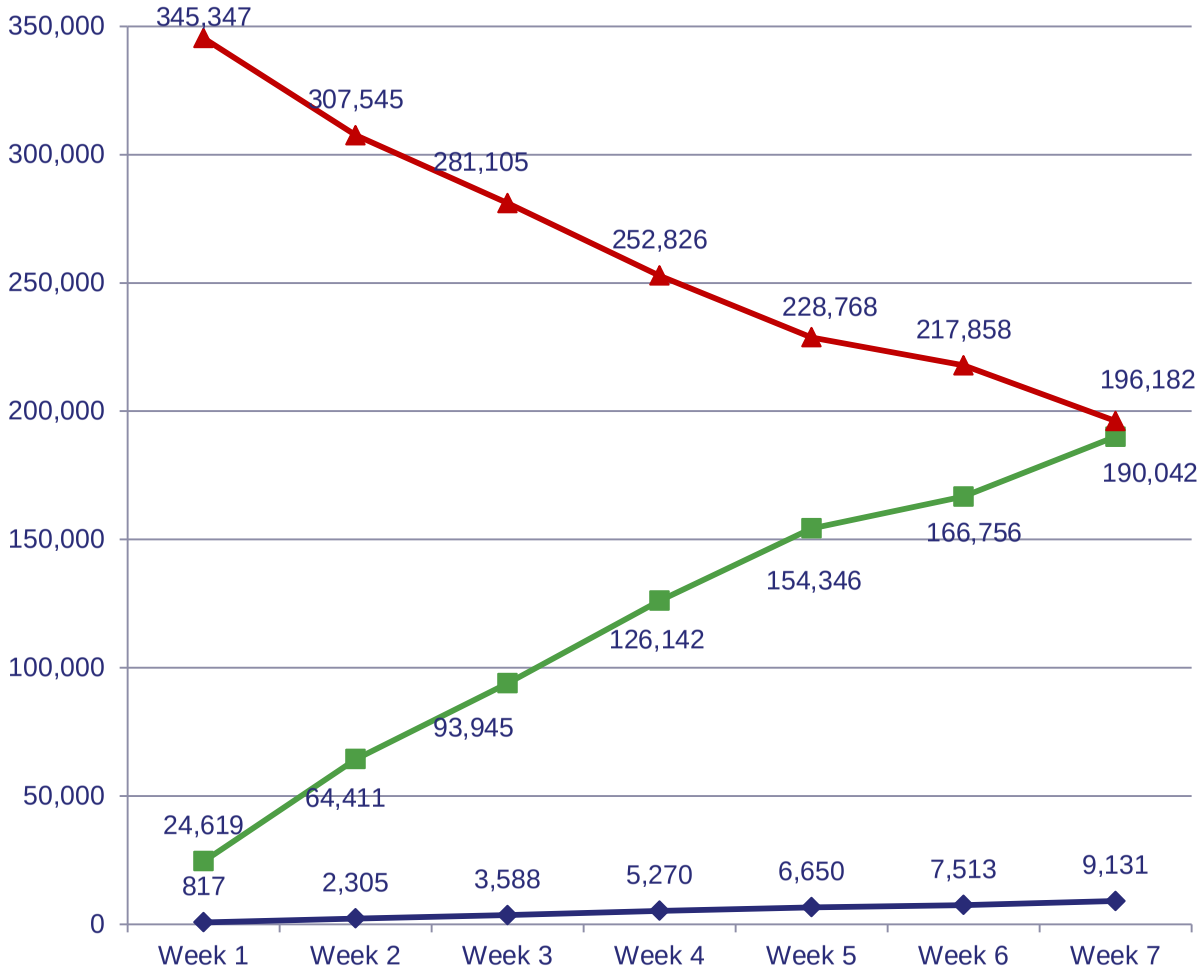
Plan Distribution: Active / Non-Medicare Retirees

Grand Total By Plan:

CDHP:
9,131

80/20:
190,042

70/30:
196,182



Total Actives & Non-Medicare Retirees:
395,355

Some of those enrolled in 70/30 may be MCR Primary.

Plan Distribution: Active / Non-Medicare Retirees

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Total
CDHP	817	2,305	3,588	5,270	6,650	7,513	9,131	**9,131**
Enhanced 80/20	24,619	64,411	93,945	126,142	154,346	166,756	190,042	**190,042**
Traditional 70/30*	345,347	307,545	281,105	252,826	228,768	217,858	196,182	**196,182**

Grand Total *Subscriber* Enrollments: 395,355

**At this point we do have breakdown of the Traditional 70/30 subscriber counts. Based on the daily enrollment statistics, it appears approximately 27,500 subscribers that were initially auto-enrolled in a MAPD plan have now enrolled in the Traditional 70/30. We will have better counts after the January bills are produced. Final numbers will not be available until the January enrollment reports are produced in February.*

Plan Distribution: Medicare Primary Retirees

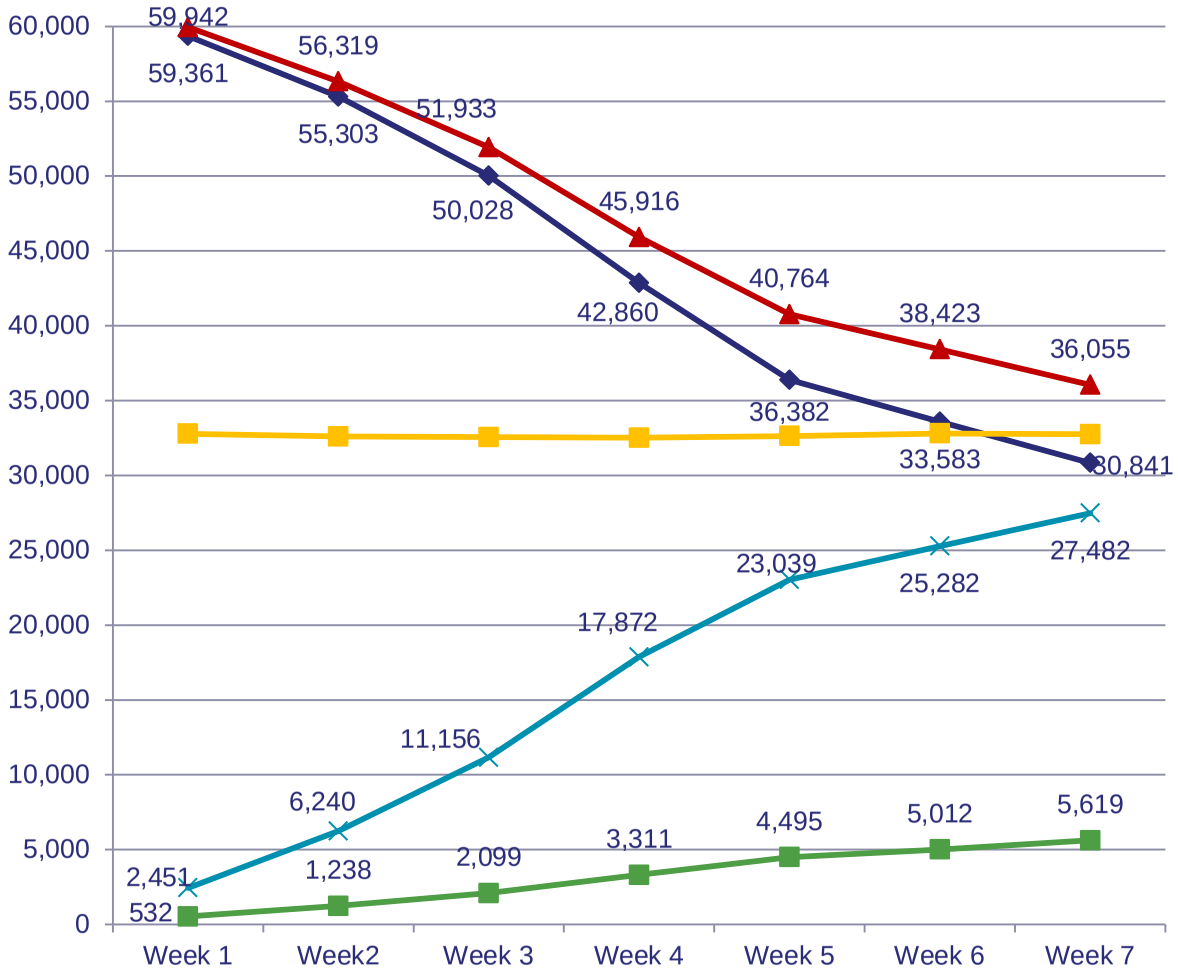
Grand Total By Plan:

Humana Base
30,841

Humana Enhanced
5,619

UHC Base
36,055

UHC Enhanced
27,482



Total MAPDP Retirees:
99,997

Total Waived:
32,748

Some of those waiving coverage may be Active / Non-Medicare Primary.

Plan Distribution: Medicare Primary Retirees

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Total
Humana Base	59,361	55,303	50,028	42,860	36,382	33,583	30,841	**30,841**
Humana Enhanced	532	1,238	2,099	3,311	4,495	5,012	5,619	**5,619**
UHC Base	59,942	56,319	51,933	45,916	40,764	38,423	36,055	**36,055**
UHC Enhanced	2,451	6,240	11,165	17,872	23,039	25,282	27,482	**27,482**
Waived	32,723	32,603	32,555	32,521	32,629	32,809	32,748	**32,748**

Grand Total *Subscriber* Medicare Advantage Enrollments: 99,997

Grand Total Waived: 32,748

Some of those waiving coverage may be Active / Non-Medicare Primary.

Open Enrollment – Next Steps

Confirmation Statements –

- To date, Benefitfocus has been unable to send any confirmation statements for Medicare Primary Retirees who enrolled telephonically. Their new target date is next week. Statements for Active and Non-Medicare Retirees were targeted to mail at the end of this week.

Enrollment Files –

- **BCBSNC** – The original plan called for sending open enrollment transactions to BCBSNC on a nightly basis. Because of testing delays, Open Enrollment transmissions to BCBSNC began this week and will continue daily through December 5.
- **Humana/UHC** – The Medicare Advantage files were sent to the carriers on schedule Monday, November 18. The return files from the carriers to Benefitfocus are still in test with a new target delivery date of November 26, 2013. The files will not be fully operational until later this month after Benefitfocus deploys additional code and fixes. Benefitfocus has developed a manual process to update the transactions until the automation is complete later this month.

ID Cards –

- Based on the current schedule, all members should have ID cards by January 1.

From: Beth Horner
Sent: Tuesday, November 12, 2013 12:03 PM
To: Lotta Crabtree (Lotta.Crabtree@nctreasurer.com); Mona Moon
Subject: FW: Request for Board of Trustees Consideration of a Change to SHP Benefits
Attachments: Change to SHP Benefits Request Form and Supporting Documentation.pdf

Follow Up Flag: Follow up
Flag Status: Flagged

Categories: BOT

FYI.

We can respond from the BOT inbox whenever a response is necessary.

From: Evans, Sheila [mailto:SHEvans@wcsr.com]
Sent: Tuesday, November 12, 2013 11:58 AM
To: SHPNC Board
Subject: Request for Board of Trustees Consideration of a Change to SHP Benefits

This email is being sent on behalf of James W.C. Broughton, Senior Government Relations Advisor, Womble Carlyle Sandridge & Rice, LLP.

APPENDIX A

Request Form for Board of Trustee Consideration of a Change to SHP Benefits

This form is to be used by individuals or groups that would like to propose new benefits coverage or request changes to benefits already covered by the State Health Plan. Please read the Procedure – Requests for Benefits Changes, SHP-PRO-7001-SHPfor more information regarding these types of requests.

Please submit completed forms by email to SHP.Board@nctreasurer.com or mail to NC State Health Plan Board of Trustees, 4901 Glenwood Avenue, Suite 300, Raleigh, NC 27612-3638.

Name of Requestor: James W.C. Broughton on behalf of Lorri Unumb, Autism Speaks

Contact Information (*phone, email, mailing address):* (919) 755-2137
jbroughton@wcsr.com; Post Office 831, Raleigh, NC 27602

Requested Change in Benefits Coverage: Addition of treatment for autism spectrum disorders

Reason for Request: Not included in current plan

Proposed Effective Date of Change: 1/1/15

Supporting Documentation (*Please provide documents to support your request; examples include research or studies regarding medical services, treatment or procedures, fiscal impact analyses if available, or petitions from members.*):

Would you like to speak with the Board of Trustees about this issue at a Board of Trustees meeting? Yes

The Board of Trustees reviews select requests annually at a regularly scheduled Board of Trustee meeting. For calendar year 2013, requests will be reviewed at the November meeting. For calendar year 2014, requests will be reviewed at the July meeting. Review of requests in no way obligates the State Treasurer to make changes to benefits.

GENERAL ASSEMBLY OF NORTH CAROLINA

Session 2013

Legislative Actuarial Note

HEALTH BENEFITS

BILL NUMBER: House Bill 498 (Fourth Edition)

SHORT TITLE: Autism Health Insurance Coverage.

SPONSOR(S):

SYSTEM OR PROGRAM AFFECTED: State Health Plan for Teachers and State Employees (Plan).

FUNDS AFFECTED: State General Fund, State Highway Fund, other State employer receipts; premium payments for dependents of active employees and retired employees of State agencies and universities, local public schools and local community colleges; premium payments for coverages selected by eligible former employees; premium payments for coverages selected by firefighters, rescue squad workers, members of the National Guard, and certain authorized local governments.

BILL SUMMARY: House Bill 498 (Fourth Edition) proposes to mandate coverage for the screening, diagnosis, and treatment of autism spectrum disorder by specified health benefit plans. The coverage must not be subject to any limits on the number of visits and coverage cannot be denied on the basis that the treatments are educational or habilitative. Coverage cannot be subject to out-of-pocket provisions less favorable than those applied to substantially all other medical services. However, coverage for behavioral health treatments may be subject to a maximum benefit of $36,000 per year (not indexed) and coverage is only required for patients age 23 or younger who were diagnosed prior to age 8.

The bill specifies that the mandate does not apply to qualified health plans as defined under the federal Affordable Care Act, regardless of whether they are offered on or off an exchange, to the extent that the benefits mandated exceed "essential health benefits".

Section 3 of the bill amends G.S. 135-48.51 to specify that the mandate applies to the State Health Plan. The Plan currently covers medical costs related to autism spectrum disorder, but does not cover behavioral therapies. The bill would require the Plan to cover behavioral therapies as well.

EFFECTIVE DATE: Section 3 of the bill becomes effective on January 1, 2014, so services provided on or after that date would be covered by the State Health Plan. Section 1 becomes effective on October 1, 2013 and applies to insurance contracts issued, renewed, or amended on or after that date.

ESTIMATED IMPACT ON STATE:

The Segal Company, the consulting actuary for the State Health Plan for Teachers and State Employees, estimates that the proposed bill's requirements will increase the Plan's paid claims costs by $1.1 million in FY 2013-14 and $3.3 million in FY 2014-15.

Hartman & Associates, the consulting actuary for the General Assembly's Fiscal Research Division, estimates that the proposed bill's requirements will increase the Plan's paid claims cost by $0.4 to $0.9 million in FY 2013-14 and $2.5 to $5.1 million in FY 2014-15. Hartman & Associates estimates that the long-term impact to the Plan after five or six years is $6.1 to $12.7 million per year.

Other Potential Impacts: The Centers for Medicare & Medicaid Services stated in Questions and Answers provided on April 29, 2013 that states will have to defray costs incurred in meeting state benefits mandates by all "qualified health plans", whether sold on an exchange or not. The bill currently exempts all qualified health plans, so the State would not have to defray any such costs based on our current interpretation of that guidance. However, federal guidance in this area is constantly evolving. If the federal government required states to defray all costs incurred in meeting state mandates beyond "essential health benefits", regardless of the type of plan, then the bill in its current form would have an unknown additional fiscal impact. The estimates above reflect only the impact on the State Health Plan.

ASSUMPTIONS AND METHODOLOGY: The actuarial analyses used by each respective consulting actuary are on file with the Fiscal Research Division. Copies of each respective consulting actuary's analysis, including assumptions, are also attached to the original copy of this Legislative Actuarial note.

Very little mature insured data exists for developing credible cost estimates for Applied Behavioral Analysis (ABA). Therefore, the consulting actuaries incorporated a variety of considerations into their estimates, including the following:

- Only a portion of those diagnosed with autism spectrum disorder will benefit from and take advantage of ABA.
- Many patients who start an ABA program will cease that program at some point due to entering school, the fact that most programs focus on younger children, or the large commitment required by patients and parents in most programs.
- A portion of costs would be paid by Plan members in the form of co-payments, deductibles, and co-insurance under current Plan rules.
- Claims are expected to take five or six years to reach a stable long-term level due to lags in accessing new benefits and the limited supply of ABA providers.
- Risk margins due to both general uncertainty about claims and a risk that affected employees will choose to add their children to the Plan if the Plan covers ABA while health plans offered on the federal exchange and employer plans exempt from State regulation do not.

The consulting actuaries also used a variety of data sources:

- Claims experience from health plans in other states during the first or second year that mandates applied in those states.
- Claims experience from Minnesota, where Blue Cross Blue Shield has provided coverage since 2001.
- Report from Oliver Wyman in March 2012 on long-term cost estimates for ABA.
- Discussions with ABA providers about typical rates and annual program hours.
- Benefit materials from one large self-insured employer that offers ABA benefits.
- Prevalence data from the Centers for Disease Control.
- Data from a pilot program in the South Carolina Department of Disabilities and Special Needs.
- Data from the Plan on the number of current members diagnosed with autism spectrum disorder by age, showing 619 members under age 21 with paid claims through March Fiscal Year 2013.

Summary Information and Data about the Plan

The Plan administers health benefit coverage for active employees from employing units of State agencies and departments, universities, local public schools, and local community colleges. Eligible retired employees of authorized employing units may also access health benefit coverage under the Plan. Eligible dependents of active and retired employees are authorized to participate in the Plan provided they meet

certain requirements. Employees and retired employees of selected local governments may also participate in the Plan under certain conditions. Members of fire, rescue squads, and the National Guard may also obtain coverage under the Plan provided they meet certain eligibility criteria.

The State finances the Plan on a self-funded basis and administers benefit coverage under a Preferred Provider Option (PPO) arrangement. The Plan's receipts are derived through premium contributions, investment earnings and other receipts. Premiums for health benefit coverage are paid by (1) employing agencies for active employees, (2) the Retiree Health Benefit Fund for retired employees, and (3) employees and retirees who participate in the Standard plan or who elect dependent coverage. Total requirements for the Plan are estimated to be $3.05 billion for FY 2013-14 and $3.30 billion for FY 2014-15. The Plan's PPO benefit design includes two alternative benefit levels listed below:

1) The "Basic" 70/30 plan that offers higher out-of pocket requirements in return for lower premiums from employees and retirees; and

2) The "Standard" 80/20 plan.

The Basic plan offers coverage to employees and retired employees on a noncontributory basis. The Standard plan offers coverage to employees and retired employees on a partially contributory basis. Coverage for dependents under both plans is offered on a fully contributory basis.

The following table provides a summary of most monthly premium rates for the Plan in FY 2012-13:

Coverage Type	PPO Basic		PPO Standard	
	Employee/ Retiree	Employer	Employee/ Retiree	Employer
Non-Medicare Active Employee/Retiree				
Employee	$0.00	$432.66	$22.76	$432.66
Employee + Child(ren)	$198.06	$432.66	$286.16	$432.66
Employee + Spouse	$510.32	$432.66	$629.64	$432.66
Employee + Family	$543.54	$432.66	$666.18	$432.66
Medicare Primary for Only Employee/Retiree				
Employee	$0.00	$336.25	$10.52	$336.25
Employee + Child(ren)	$198.06	$336.25	$273.92	$336.25
Employee + Spouse	$510.32	$336.25	$617.40	$336.25
Employee + Family	$543.54	$336.25	$653.94	$336.25

The employer share of premiums for retirees is paid from the Retiree Health Benefit Fund. During FY 2012-13, employers contribute 5.3% of active employee payroll into the Fund. Total contributions for the year are projected to be approximately $828 million.

Financial Condition

Current and Projected Results for 2011-13 Biennium – The following summarizes actual financial results for FY 2011-12 and projected financial results for FY 2012-13, based on financial experience through December, 2012. It reflects the adoption of an Employer Group Waiver Plan (EGWP) for Medicare-eligible retirees effective January 1, 2013.

	($ millions)	
	Actual	Projected

	FY 2011-12	FY 2012-13
Beginning Cash Balance	$269.9	$502.2
Receipts:		
Net Premium Collections	$2,749.9	$2,884.6
Early Retiree Reinsurance Program	$42.2	($0.6)
Medicare Part D / EGWP Subsidies	$57.6	$59.9
Investment Earnings	$3.0	$2.8
Total	$2,852.7	$2,946.8
Disbursements:		
Net Medical Claim Payment Expenses	$1,826.8	$1,899.2
Net Pharmacy Claim Payment Expenses	$628.0	$679.8
Administration and Claims-Processing Expenses	$165.5	$170.4
Total	$2,620.3	$2,749.4
Net Operating Income (Loss)	$232.4	$197.3

Financial Projection 2013-15 Biennium – The following summarizes a financial projection conducted by the Plan's consulting actuary, The Segal Company, for the 2013-15 biennium. The information is provided by fiscal year based on year-to-date financial experience (through December 2012) and other updated factors. The projection assumes an 8.5% annual claims growth trend, that benefit provisions remain the same, and that both employer and member-paid premiums are kept constant over the biennium.

	($ millions) Projected FY 2013-14	Projected FY 2014-15
Beginning Cash Balance	$699.6	$608.2
Receipts:		
Net Premium Collections	$2,877.7	$2,865.8
Early Retiree Reinsurance Program	$0.0	$0.0
Medicare Part D / EGWP Subsidies	$82.9	$102.5
Investment Earnings	$2.7	$2.0
Total	$2,963.3	$2,970.2
Disbursements:		
Net Medical Claim Payment Expenses	$2,118.3	$2,248.6
Net Pharmacy Claim Payment Expenses	$753.9	$824.8
Administration and Claims-Processing Expenses	$182.4	$223.9
Total	$3,054.7	$3,297.2
Net Operating Income (Loss)	($91.4)	($327.0)

Other Information

Additional assumptions include Medicare benefit "carve-outs," cost containment strategies including prior approval for certain medical services, utilization of the "Blue Options" provider network, case and disease management for selected medical conditions, mental health case management, coordination of benefits with

other payers, a prescription drug benefit manager with manufacturer rebates from formularies, fraud detection, and other authorized actions by the State Treasurer, Executive Administrator, and Board of Trustees to manage the Plan to maintain and improve the Plan's operation and financial condition where possible. Claim cost trends are expected to increase at a rate of 8.5% annually according to the Plan's consulting actuary. Investment earnings are based upon a 0.4% return on available cash balances. The active population is projected to decline by 1% per year, the COBRA population is projected to remain constant, and the retired population is projected to increase by 1% per year.

Enrollment as of December 31, 2012

I. No. of Participants	Basic	Standard	Total	Percent of Total
Actives				
Employees	126,974	187,018	313,992	46.9%
Dependents	72,615	84,298	156,913	23.5%
Sub-total	199,589	271,316	470,905	70.4%
Retired				
Employees	29,014	145,419	174,433	26.1%
Dependents	5,602	13,160	18,762	2.8%
Sub-total	34,616	158,579	193,195	28.9%
Former Employees with Continuation Coverage				
Employees	555	911	1,466	0.2%
Dependents	254	338	592	0.1%
Sub-total	809	1,249	2,058	0.3%
Firefighters, Rescue Squad & National Guard				
Employees	3	5	8	0.0%
Dependents	3	1	4	0.0%
Sub-total	6	6	12	0.0%
Local Governments				
Employees	544	1,342	1,886	0.3%
Dependents	442	509	951	0.1%
Sub-total	986	1,851	2,837	0.4%
Total				
Employees	157,090	334,695	491,785	73.5%
Dependents	78,916	98,306	177,222	26.5%
Grand Total	**236,006**	**433,001**	**669,007**	**100%**
Percent of Total	**35.3%**	**64.7%**	**100.0%**	

II. Enrollment by Contract	Basic	Standard	Total
Employee Only	117,228	280,916	398,144
Employee Child(ren)	23,480	29,181	52,661
Employee Spouse	6,155	13,499	19,654
Employee Family	10,227	11,099	21,326
Total	**157,090**	**334,695**	**491,785**

Percent Enrollment by Contract	Basic	Standard	Total
Employee Only	74.6%	83.9%	81.0%
Employee Child(ren)	14.9%	8.7%	10.7%
Employee Spouse	3.9%	4.0%	4.0%
Employee Family	6.5%	3.3%	4.3%
Total	**100.0%**	**100.0%**	**100.0%**

III. Enrollment by Sex	Basic	Standard	Total
Female	137,067	281,337	418,404
Male	98,939	151,664	250,603
Total	**236,006**	**433,001**	**669,007**

Percent Enrollment by Sex	Basic	Standard	Total
Female	58.1%	65.0%	62.5%
Male	41.9%	35.0%	37.5%
Total	**100.0%**	**100.0%**	**100.0%**

IV. Enrollment by Age	Basic	Standard	Total
19 & Under	50,510	57,419	107,929
20 to 29	30,459	34,693	65,152
30 to 44	55,932	69,280	125,212
45 to 54	43,808	63,317	107,125
55 to 64	43,577	90,285	133,862
65 & Over	11,720	118,007	129,727
Total	**236,006**	**433,001**	**669,007**

Percent Enrollment by Age	Basic	Standard	Total
19 & Under	21.4%	13.3%	16.1%
20 to 29	12.9%	8.0%	9.7%
30 to 44	23.7%	16.0%	18.7%
45 to 54	18.6%	14.6%	16.0%
55 to 64	18.5%	20.9%	20.0%
65 & Over	5.0%	27.3%	19.4%
Total	**100.0%**	**100.0%**	**100.0%**

V. Retiree Enrollment by Category	Employee	Dependents	Total
Non-Medicare Eligible	53,656	11,878	65,534
Medicare Eligible	120,777	6,884	127,661
Total	**174,433**	**18,762**	193,195

Percent Enrollment by Category (Retiree)	Employee	Dependents	Total
Non-Medicare Eligible	30.8%	63.3%	33.9%
Medicare Eligible	69.2%	36.7%	66.1%
Total	**100.0%**	**100.0%**	100.0%

VI. Enrollment By Major Employer Groups	Employees	Dependents	Total
State Agencies	72,946	33,507	106,453
UNC System	50,104	30,627	80,731
Local Public Schools	172,563	83,045	255,608
Charter Schools	2,765	1,583	4,348
Local Community Colleges	15,614	8,151	23,765
Other			
Local Goverments	1,886	951	2,837
COBRA	1,466	592	2,058
Nat. Guard, Fire & Rescue	8	4	12
Sub-total	317,352	158,460	475,812
Retirement System	174,433	18,762	193,195
Total	**491,785**	**177,222**	**669,007**

Percent Enrollment by Major Employer Groups	Employees	Dependents	Total
State Agencies	14.8%	18.9%	15.9%
UNC System	10.2%	17.3%	12.1%
Local Public Schools	35.1%	46.9%	38.2%
Charter Schools	0.6%	0.9%	0.6%
Local Community Colleges	3.2%	4.6%	3.6%
Other			
Local Goverments	0.4%	0.5%	0.4%
COBRA	0.3%	0.3%	0.3%
Nat. Guard, Fire & Rescue	0.0%	0.0%	0.0%
Sub-total	64.5%	89.4%	71.1%
Retirement System	35.5%	10.6%	28.9%
Total	**100.0%**	**100.0%**	**100.0%**

SOURCES OF DATA:

The Segal Company; North Carolina State Health Plan; Financial Projections – Dec 2012; Trends – 8.5% Medical & Pharmacy; With Dental, MHSA and ACA Reinsurance Fee. March 12, 2013. Filename "NCSHP Q2 Update – Baseline Updated 031213 – V2.pdf"

-Actuarial Note, Hartman & Associates, House Bill 498, 4th Edition, "House Bill 498, 4th Edition: An Act to Require Health Benefit Plans, Including the State Health Plan for Teachers and State Employees, to Provide Coverage for Treatment of Autism Spectrum Disorders", May 23, 2013, original of which is on file in the General Assembly's Fiscal Research Division.

-Actuarial Note, The Segal Company, House Bill 498, 4th Edition, "House Bill 498 4th Edition Autism Health Insurance Coverage", May 28, 2013, original of which is on file with the State Health Plan for Teachers and State Employees and the General Assembly's Fiscal Research Division.

FISCAL RESEARCH DIVISION: (919) 733-4910

PREPARED BY: David Vanderweide

APPROVED BY:

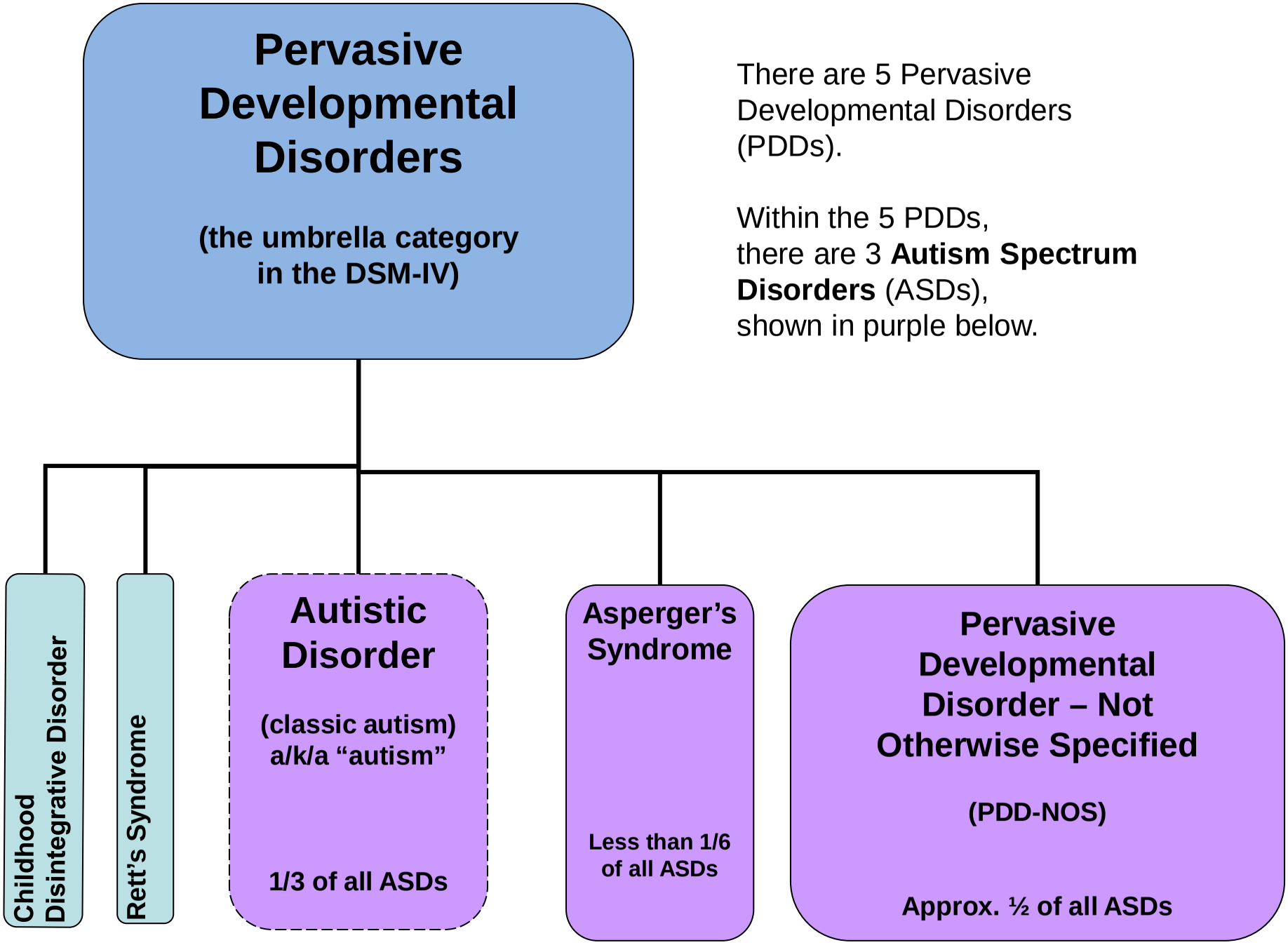
Mark Trogdon, Director
Fiscal Research Division

DATE: May 28, 2013

Signed Copy Located in the NCGA Principal Clerk's Offices

Autism Insurance in North Carolina

Lorri Unumb, Esq
Vice President
State Government Affairs
Autism Speaks


Pervasive Developmental Disorders
(the umbrella category in the DSM-IV)
There are 5 Pervasive Developmental Disorders (PDDs).
Within the 5 PDDs, there are 3 Autism Spectrum Disorders (ASDs), shown in purple below.
Childhood Disintegrative Disorder
Rett's Syndrome
Autistic Disorder
(classic autism) a/k/a "autism"
1/3 of all ASDs
Asperger's Syndrome
Less than 1/6 of all ASDs
Pervasive Developmental Disorder – Not Otherwise Specified
(PDD-NOS)
Approx. ½ of all ASDs

ABA is the Standard of Care

United States Surgeon General **(1999)**

*"**Thirty years of research** demonstrated the efficacy of applied behavioral methods in reducing inappropriate behavior and in increasing communication, learning, and appropriate social behavior."*

Centers for Medicare and Medicaid **(2011)**

*" ...**controlled trials have shown both the efficacy** of programs based in the principles of ABA and that certain individual characteristics (age, IQ, and functional impairments) are associated with positive outcomes."*

National Institute of Mental Health **(2011)**

*"One type of a **widely accepted treatment** is applied behavior analysis (ABA). The goals of ABA are to shape and reinforce new behaviors, such as learning to speak and play, and reduce undesirable ones."*

ABA is the Standard of Care

Centers for Disease Control and Prevention (2012)

*"A notable treatment approach for people with an ASD is called applied behavior analysis (ABA). ABA has become **widely accepted** among health care professionals..."*

NATIONAL INSTITUTE OF NEUROLOGICAL (2012)
DISORDERS AND STROKE

*"Therapies and behavioral interventions are designed to remedy specific symptoms and **can bring about substantial improvement**...Therapists use highly structured and intensive skill-oriented training sessions to help children develop social and language skills, such as Applied Behavioral Analysis"*

ABA is the Standard of Care

AMERICAN PSYCHOLOGICAL ASSOCIATION (2012)

"The field of applied behavior analysis has grown substantially in the past decade, enabling more children with autism and their families to obtain needed services. This growth appears to be related to an increase in the number of children diagnosed with an autism spectrum disorder and to the ***recognition of the effectiveness of behavior analytic services****."*

The U.S. Office of Personnel Management (2012)

"The OPM Benefit Review Panel recently evaluated the status of Applied Behavior Analysis (ABA) for children with autism. Previously, ABA was considered to be an educational intervention and not covered under the FEHB Program. The Panel concluded that there is now ***sufficient evidence to categorize ABA as medical therapy****. Accordingly, plans may propose benefit packages which include ABA."*

American Academy of Pediatrics

DEDICATED TO THE HEALTH OF ALL CHILDREN™

June 20, 2012

Testimony of
Vera F. Tait MD, FAAP

On behalf of the
American Academy of Pediatrics

Before the
Subcommittee on Personnel,
Senate Armed Services Committee

American Academy of Pediatrics • Department of Federal Affairs
601 13th Street NW, Suite 400 North • Washington, DC 20005
Tel: 800.336.5475 • E-mail: kids1st@aap.org

- "**An example of a demonstrated, effective treatment for ASD is Applied Behavior Analysis, or ABA**. ABA uses behavioral health principles to increase and maintain positive adaptive behavior and reduce negative behaviors or narrow the conditions under which they occur. ABA can teach new skills, and generalize them to new environments or situations. ABA focuses on the measurement and objective evaluation of observed behavior in the home, school, and community. "

Applied Behavior Analysis: Sample Therapy Structure

- Consultant
  - Highly educated and trained
  - Board certified
  - Evaluates, designs, trains

- Mid-level supervisor (lead therapist)
  - Highly educated and trained
  - Updates programming; trains; oversees

- Line therapists
  - Trained & supervised by above
  - Provide 40 hours per week of direct therapy, usually in 3-hour shifts

Applied Behavior Analysis:
Cost of a Sample Therapy Program

- Consultant
  - $100-$150/hour
  - 6 hours x $150 = $900/month
  - $900 x 12 months = **$10,800**

- Mid-level supervisor (lead therapist)
  - $30-$60/hour
  - 6 hours x $60 = $360/week
  - $360/week x 52 weeks = **$18,720**

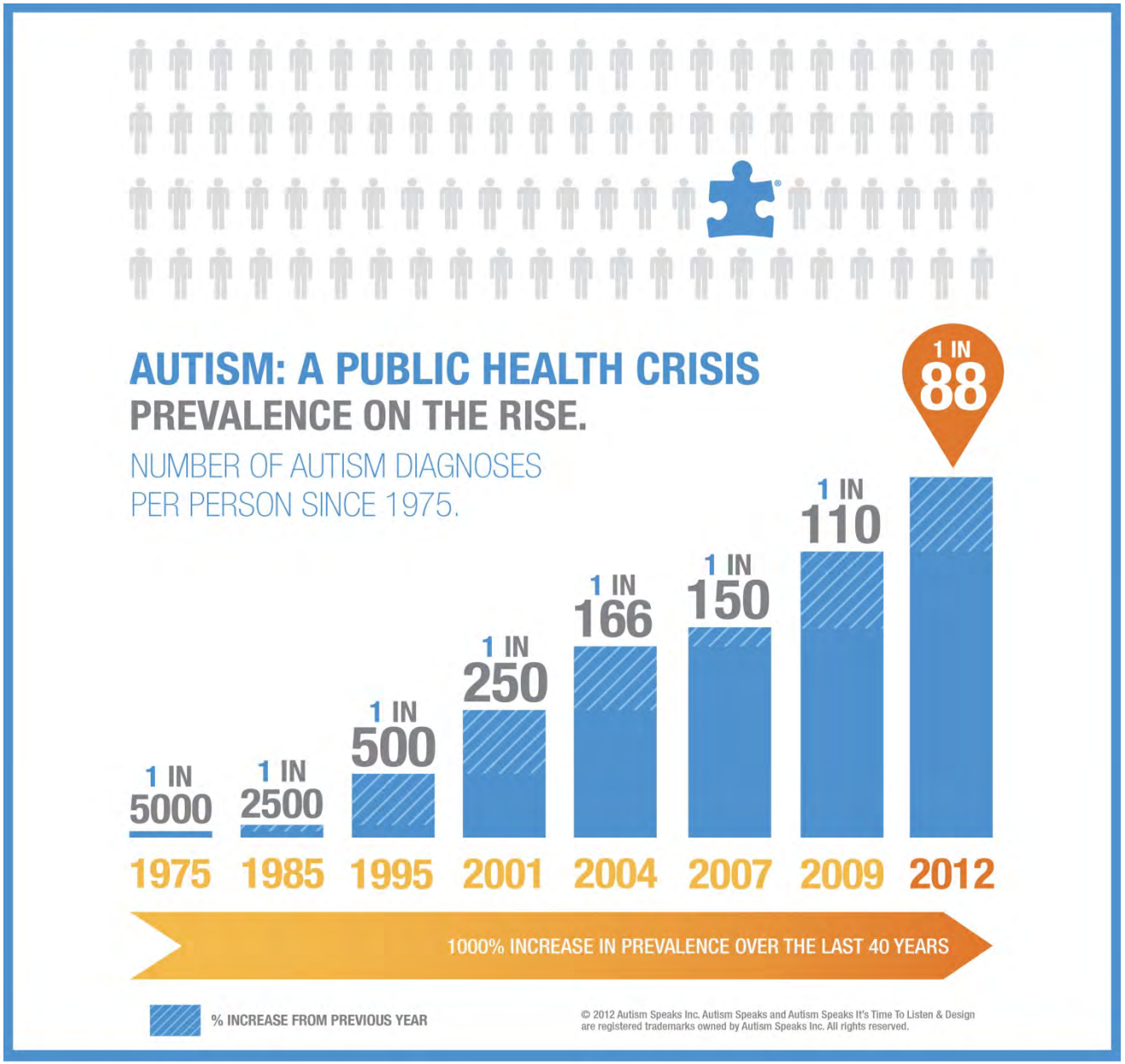
- Line therapists
  - $15 - $30/hour
  - 40 hours x $20 = $800/week
  - $800/week x 52 weeks = **$41,600**

- $10,800 + $18,720 + $41,600 = **$71,120**

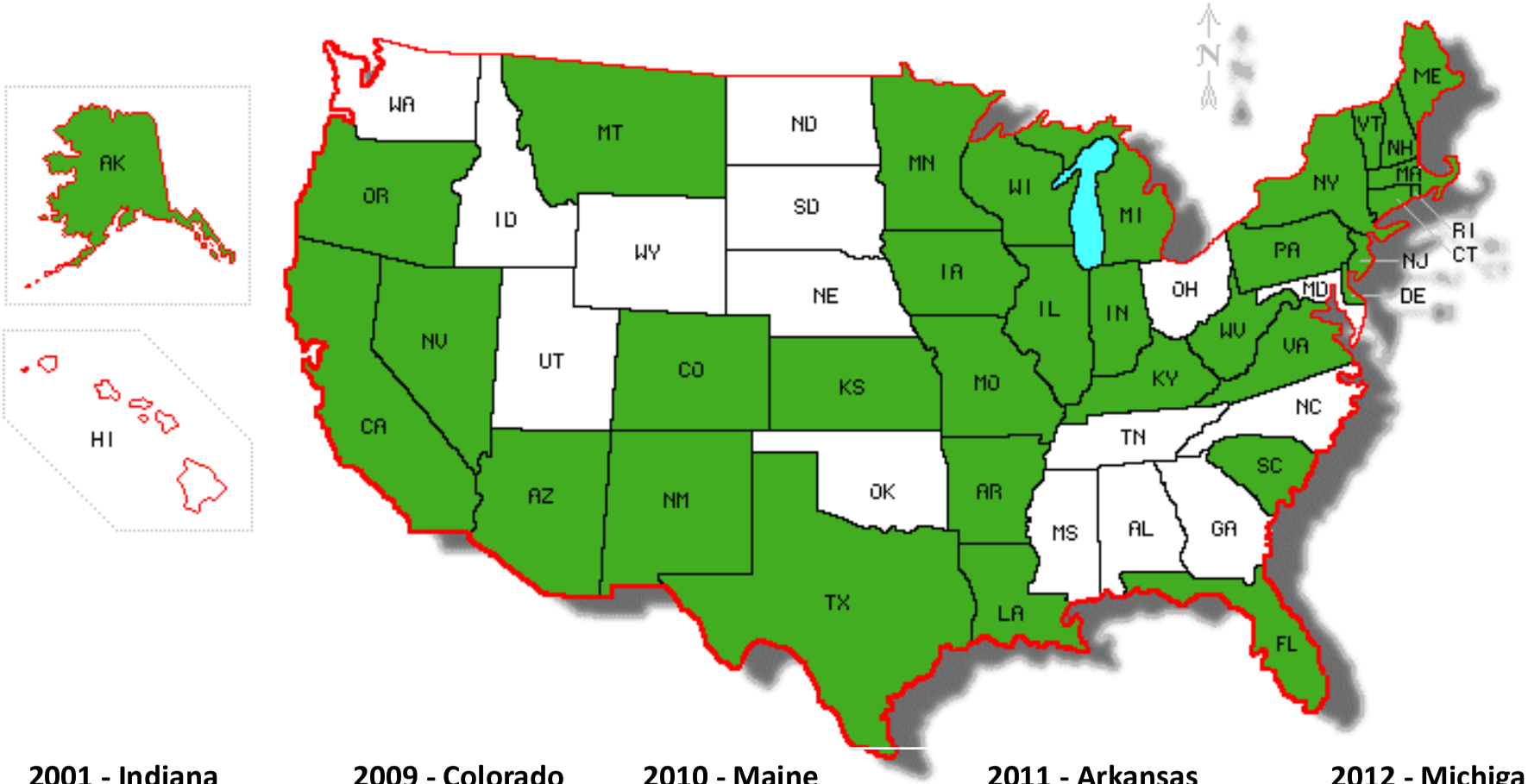
Cost Savings - *long term*

- **<u>Without</u> appropriate treatment**, the lifetime societal cost has been estimated to be **$3.2 million** <u>per child</u> with ASD (Ganz, 2007)
  - special education
  - adult services
  - decreased productivity

- State estimated lifetime cost **savings** of providing appropriate treatment are $1 million per child (Jacobsen et al, 1998)



States with Autism Insurance Reform



2001 - Indiana

2007 - South Carolina
2007 - Texas

2008 - Arizona
2008 - Florida
2008 - Louisiana
2008 - Pennsylvania
2008 - Illinois

2009 - Colorado

2009 - Nevada

2009 - Connecticut
2009 - Wisconsin

2009 - Montana

2010 - Maine

2010 - Kentucky
2010 - Kansas
2010 - Iowa
2010 - Vermont
2010 - Missouri
2010 - New Hampshire
2010 - Massachusetts

2011 - Arkansas
2011 - West Virginia
2011 - Virginia
2011 - Rhode Island
2011 - California
2011 - New York

2012 - Michigan
2012 - Alaska
2012 – Delaware

2013 – Minnesota
2013 - Oregon

South Carolina State Employee Plan

APS HEALTHCARE
Healthy Together

- Dates
  - Statute passed in 2007
  - Applicable to state health plan as of 1-1-09
- Population
  - State has 4.5 M
  - State health plan has 350-390,000 members
- Terms
  - $50,000 cap on ABA
  - To age 16

- Projected Cost

  Original: $18.9 million

  Revised: approx. $10 million
- Actual cost

  2010: **$2,042,392**

  PMPM - 44 cents

(228,048 employees/subscribers)

<u>Actual ABA</u> Related Claims Data for 2012

Missouri

- Implemented Jan 2011
- Terms
  - $40,000/yr (cap only applies to ABA)*
  - until age 18*

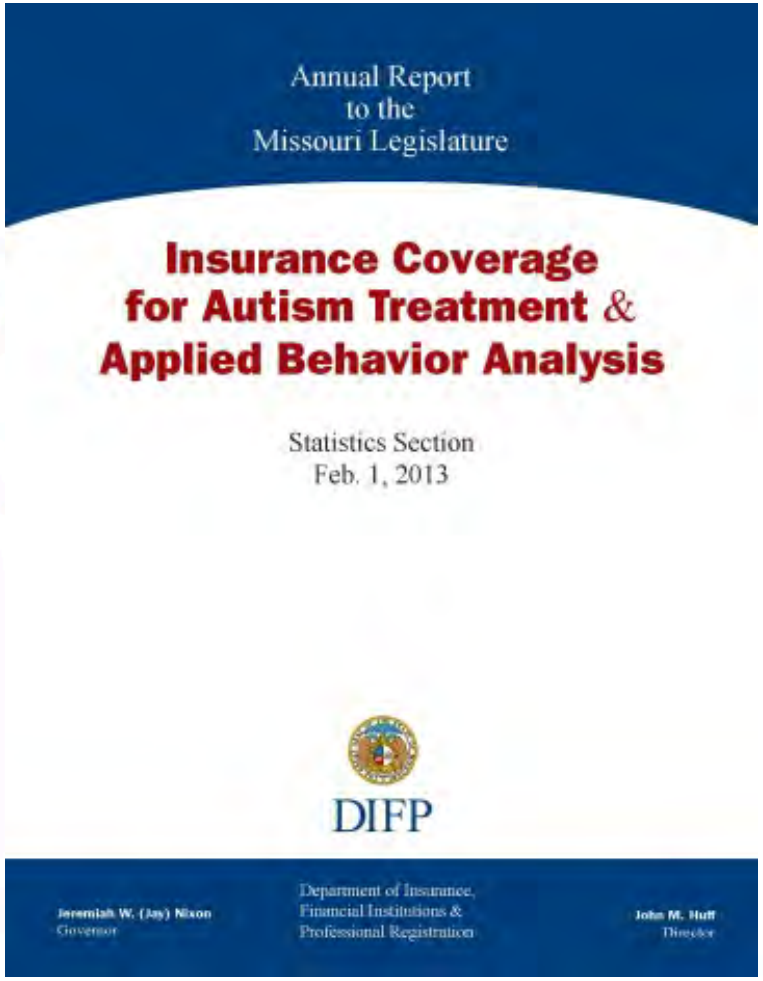
- Total ABA claims paid = $2,972,712
- Total covered lives = 1,149,845
- Unique claimants = 3,805
- PMPM ABA Related = ¢ 0.17

*

*Caps can be exceeded if deemed medically necessary

2012 DIFP ANN. REP., INSURANCE COVERAGE FOR AUTISM TREATMENT & BEHAVIOR ANALYSIS (Feb. 1, 2013).

Effect on Premiums



- Claims incurred for ABA treatment of ASD represent **0.07% of total claims**
- **"**While claims costs are expected to grow somewhat in the future, it seems very unlikely that costs for autism treatment will have an appreciable impact on insurance premiums."

The Cost of Autism Insurance Reform

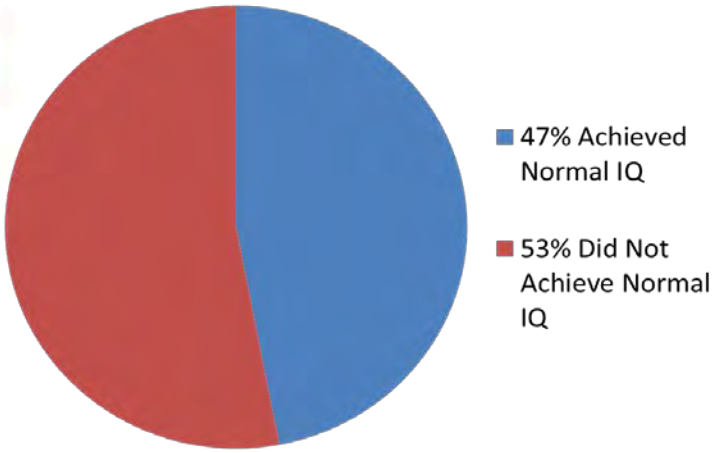
	Year of coverage	Number of covered lives	Total Claims Paid	PMPM cost
South Carolina	2	397,757	$2,042,394	$0.43
Illinois	2	170,790	$197,290	$0.10
Louisiana	2	149,477	$722,828	$0.40
Florida	2	386,203	$1,748,849	$0.38
Arizona	2	130,000	$388,662	$0.25
Missouri	2	1,429,153	$6,555,602	$0.38
Kansas	2	99,465	$309,216	$0.26
	Average second year cost			**$0.31**

References: Data collected by Autism Speaks from State agencies responsible for administering State Employee Health Benefits Programs (2011); Missouri Department of Insurance, Financial Institutions and Professional Registration (2012); and the Kansas Department of Health and Environment (2012)

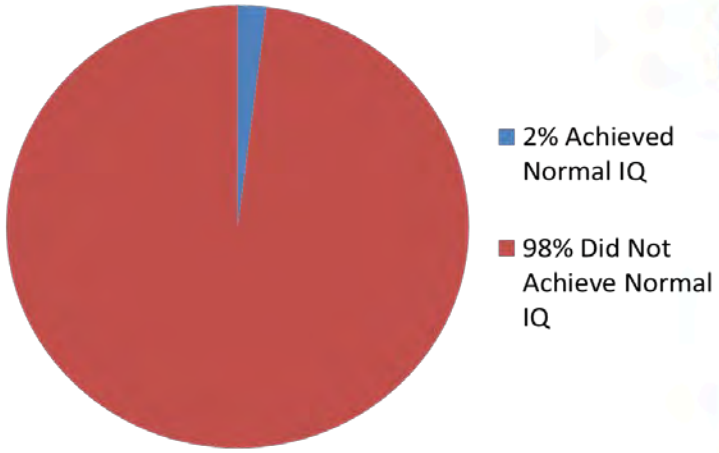
Savings to the State: Special Education

Outcome of 1987 UCLA Lovaas Study

ABA Group



Other Intervention (Control) Group



Outcome of 1987 UCLA Study

Educational Placements for Group That Received ABA

Savings to the State: Special Education

"A study published in a national journal found that Pennsylvania could save an average of $187,000 to $203,000 on each child who received three years of EIBI relative to one who received special education services until age 22. The Pennsylvania study also suggested that cost savings would likely continue to accrue after children exit the school system. The study found that the state could save from $656,000 to $1.1 million per child if expenditures up to age 55 are included.

Another study published in a national journal found that Texas could save an average of $208,500 in education costs for each student who received three years of EIBI relative to a student who received 18 years of special education from ages four to 22. Applied to the estimated 10,000 children with ASDs in Texas, it was estimated that the state could save almost $2.1 billion by implementing intensive treatment programs."

Source: 2009 Report of the Joint Legislative Audit and Review Commission to the Governor and General Assembly of Virginia (JLARC Report)

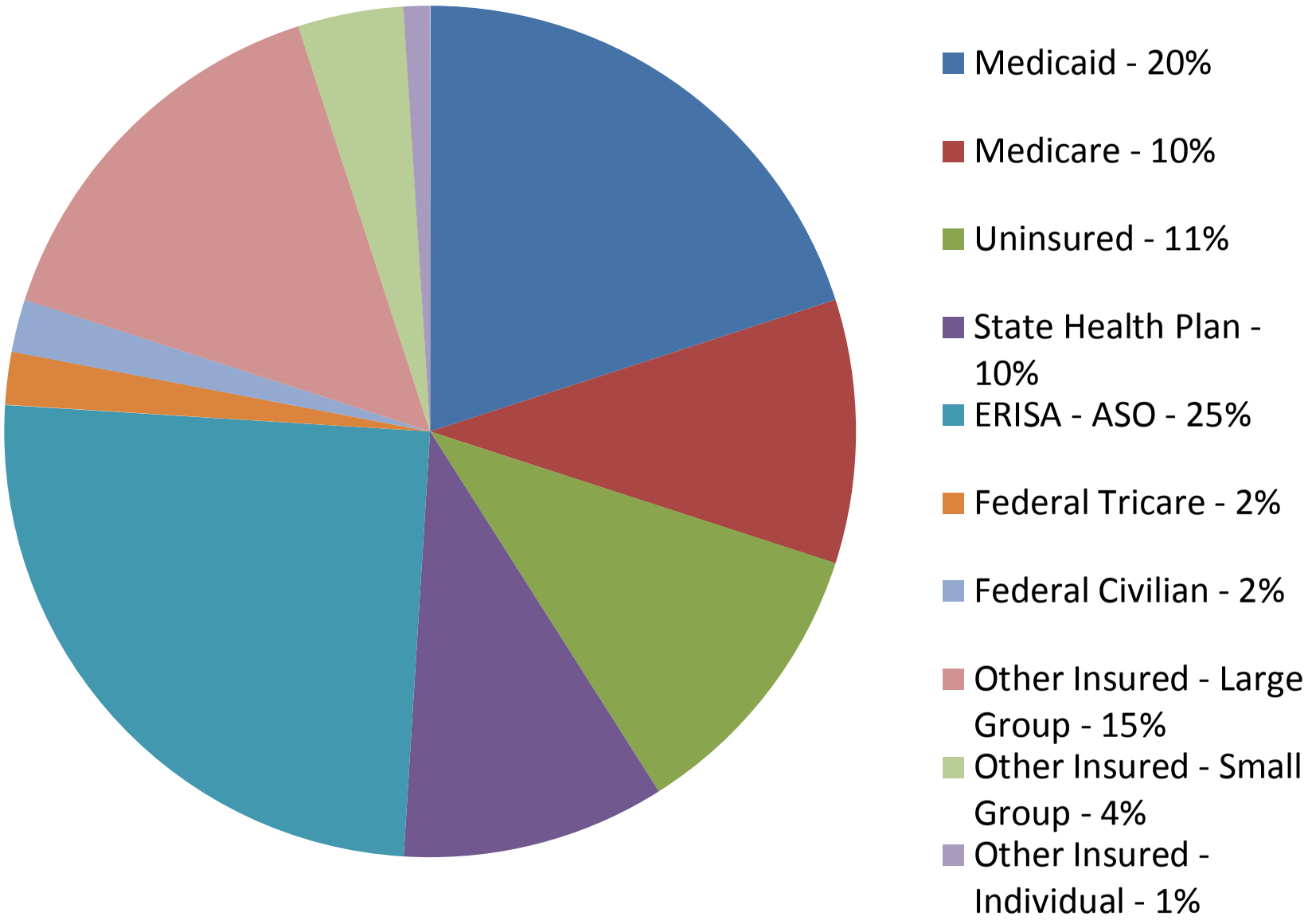
"Educational in Nature"?

- False choice
- What does "educational in nature" mean?
- *Schools provide?*
- *Schools would provide if adequate resources?*
  - No obligation under IDEA or state law to <u>treat</u> medical condition
    - Schools are required to accommodate the disabling condition, not remedy it.
- Is speech therapy "educational in nature"? AAP report.
- *Provided by school personnel?*
- Academic goals
- ASD is diagnosed by a doctor, not a principal
- Argument du jour
  - Rejected in 30 states
  - Rejected in federal court

"Educational in Nature"?

- *McHenry v. PacificSource Health Plans (D. Oregon, Jan. 5, 2010)*
- "While ABA therapy may have beneficial effects on an autistic child's social and academic skills, its defining characteristic is application of techniques to modify behavior in every area of an autistic child's life. In this regard, a sports analogy is instructive. While participation in sports can benefit a student's academic and social skills, no one would classify sports as academic or social skills training.
- Similarly, the incidental benefits in these areas resulting from ABA therapy, while real, do not dictate that it be classified as either academic or social skills training.
- . . . While aimed at improving social and academic functioning, it does this by specifically addressing behavioral deficits possessed by autistic children that interfere with every area of their life, not by educating kids on social norms or teaching study skills or other tools specific to academic success."

Sources of Health Care Coverage



Self-Funded "ERISA" Plans That Cover ABA

- Arnold & Porter
- Eli Lilly
- Ohio State University
- Global Foundries
- Blackbaud
- Lahey Clinic
- Indiana University
- Partners Healthcare
- Wells Fargo
- Capitol One
- White Castle
- Pacific Gas & Electric
- CH2MHill
- Stanford University
- University of Minnesota
- Progressive Group
- Greenville Hospital System
- Symantec
- DTE Energy
- Cerner
- State Street Financial
- Children's Mercy
- EMC
- Sisters of Mercy
- Princeton University
- Pinnacle Casinos
- Squire Sanders & Dempsey
- And many more . . .

Impact of 2008 Federal Mental Health Parity Law

- 2008 Wellstone-Domenici Act prohibits **treatment limitations** and **financial requirements** on "mental health benefits" if not on physical health benefits.

- Wellstone MHP law applies only to large group fully-funded and self-funded policies.

- Illinois, Iowa, Maine, Montana, New Hampshire, New Jersey explicitly and Connecticut, Florida, Kansas, Kentucky, Missouri implicitly include autism within their state definition of mental illness.
- All of these states except Florida have passed capped autism mandates since the passage of the Wellstone federal MHP law.

AUTISM AND MHP

- Nine states -- California, Illinois, Iowa, Maine, Massachusetts, Montana, New Hampshire, New Jersey and Virginia – explicitly list autism as a covered diagnosis in their MHP laws.

- Sixteen states -- Alabama, Arkansas, Connecticut, Florida, Georgia, Kansas, Kentucky, Minnesota, Mississippi, Missouri, Nebraska, New York, North Carolina, Rhode Island, Vermont and Washington -- include autism in their state MHP by reference to DSM.

- Seven states -- Colorado, Hawaii, Indiana, Louisiana, Oregon, Tennessee and Utah -- explicitly exclude autism in their MHP laws.

- Ten states -- Delaware, Idaho, Nevada, Ohio, Oklahoma, Pennsylvania, South Carolina, South Dakota, Texas and West Virginia -- list the mental illnesses covered and the list does not include autism.

- Seven states -- Alaska, Arizona, Maryland, Michigan, New Mexico, North Dakota and Wisconsin -- have MHP laws but the statutes are not clear as to whether autism would be classified as a mental health condition.

Provider Credentials
www.BACB.com

The Behavior Analyst Certification Board, Inc.® (BACB®) is a nonprofit corporation established as a result of credentialing needs identified by behavior analysts, state governments, and consumers of behavior analysis services.

The BACB's mission is to develop, promote, and implement a voluntary international certification program for behavior analyst practitioners. The BACB credentials Board Certified Behavior Analyst® BCBA®) and Board Certified Assistant Behavior Analyst® (BCaBA®).

NCCA ACCREDITED PROGRAM

Behavior Analyst Licensure Laws

ND has state "certification"

Impact of Federal Health Care Reform

States are “on the hook” for benefits they require of plans in their Exchange that exceed the benefits required by the PPACA (the “Essential Benefits”).

Applies only to plans offered through Exchanges as well as some small group and individual plans.

Starts in 2014.

Federal Health Care Reform: The Essential Benefits Package

(pre-amendment)

- Ambulatory patient services
- Emergency services
- Hospitalization
- Maternity and newborn care
- Mental health and substance use disorder services
- Prescription drugs
- Rehabilitative and habilitative services and devices
- Laboratory services
- Preventive and wellness services and chronic disease management
- Pediatric services, including oral and vision care

Federal Health Care Reform: Patient Protection & Affordable Care Act

Trying to get him to change "**Mental health and substance use disorder services**", one of ten covered services, to "**Mental health and substance use disorder services*, including behavioral health treatments***."

http://www.autismvotes.org/site/apps/nlnet/content2.aspx?c=frKNI3PCImE&b=3930723&ct=7522291

Federal Health Care Reform: The Essential Benefits Package

(as enacted)

- Ambulatory patient services
- Emergency services
- Hospitalization
- Maternity and newborn care
- Mental health and substance use disorder services, including behavioral health treatment
- Prescription drugs
- Rehabilitative and habilitative services and devices
- Laboratory services
- Preventive and wellness services and chronic disease management
- Pediatric services, including oral and vision care

State Autism Insurance Reform & Exchanges

State	Year Enacted	State Population	Annual Dollar Cap	Age Cap	State E'ees?	Small Group?
Indiana	2001	6,484,000	None	None	Yes	Yes
South Carolina	2007	4,625,000	$50K	16	Yes	No
Texas	2007	25,146,000	None thru 10; $36K after	None	Some	Yes
Arizona	2008	6,392,000	$50K: 0-8, $25K: 9-16	16/17	Yes	No
Louisiana	2008	4,533,000	$36K	<21	Yes	Yes*
Florida	2008	18,801,000	$36K ($200K lifetime)	<18	Yes	No
Pennsylvania	2008	12,702,000	$36K	<21	Yes	No
Illinois*	2008	12,831,000	$36K	<21	Yes	Yes
New Mexico*	2009	2,059,000	$36K ($200K lifetime)	19/22	Yes*	Yes
Montana	2009	989,000	$50K: 0-8, $20K: 9-18	18	Yes	Yes
Nevada	2009	2,701,000	$36K	18/22	Yes	Yes
Colorado	2009	5,029,000	$34K: 0-8, $12K: 9-19	<20	Yes	Yes
Connecticut*	2009	3,574,000	$50K: 0-8, $35K: 9-12; $25K: 13-14	<15	Yes	No
Wisconsin	2009	5,687,000	$50K for 4 yrs, $25K after	None	Yes	Yes
New Jersey*	2009	8,792,000	$36K	21	Yes	Yes

State Autism Insurance Reform & Exchanges

State	Year Enacted	State Population[1]	Annual Dollar Cap	Age Cap	State E'ees?	Small Group?
Maine	2010	1,328,000	$36K	<6	Yes	Yes
Kentucky	2010	4,339,000	$50K: 0-7, $1000/mo: 7-21	1-21	Yes	Yes
Kansas	2010	2,853,000	$36K: 0-7, $27K: 8-19	<19	Yes only	No
Iowa	2010	3,046,000	$36K	<21	Yes only	No
Vermont	2010	626,000	None	21	Yes	Yes
Missouri	2010	5,989,000	$40K	19	Yes	Yes
New Hampshire	2010	1,316,000	$36K: 0-12, $27K: 13-21	21	Yes	Yes
Massachusetts	2010	6,548,000	None	None	Yes	Yes
Arkansas	2011	2,916,000	$50K	<18	Yes	Yes
West Virginia	2011	1,853,000	$30K for 3 yrs; $24K up to 18	3-18	Yes	Yes*
Virginia	2011	8,001,000	$35K	2-6	Yes	No
Rhode Island	2011	1,053,000	$32K	15	Yes	No
New York	2011	19,378,000	$45K	None	Yes	Yes
California	2011	37,254,000	None	None	No	Yes

State Autism Insurance Reform & Exchanges

State	Year Enacted	State Population[1]	Annual Dollar Cap	Age Cap	State E'ees?	Small Group?
Michigan	2012	98,836,640	$50K if <7, $40K if 7-12, $30K if 13-18	18	Maybe	Yes
Alaska	2012	722,718	None	21	Yes	>20
Delaware	2012	907,135	$36,000	21	Yes	Yes
Minnesota	2013	5,303,925	None	18	Yes	No*
Oregon	2013	3,899,000	None (but ABA 25 hours per week)	No	Yes	Yes
D.C.	2013					

Plus Ohio due to executive action

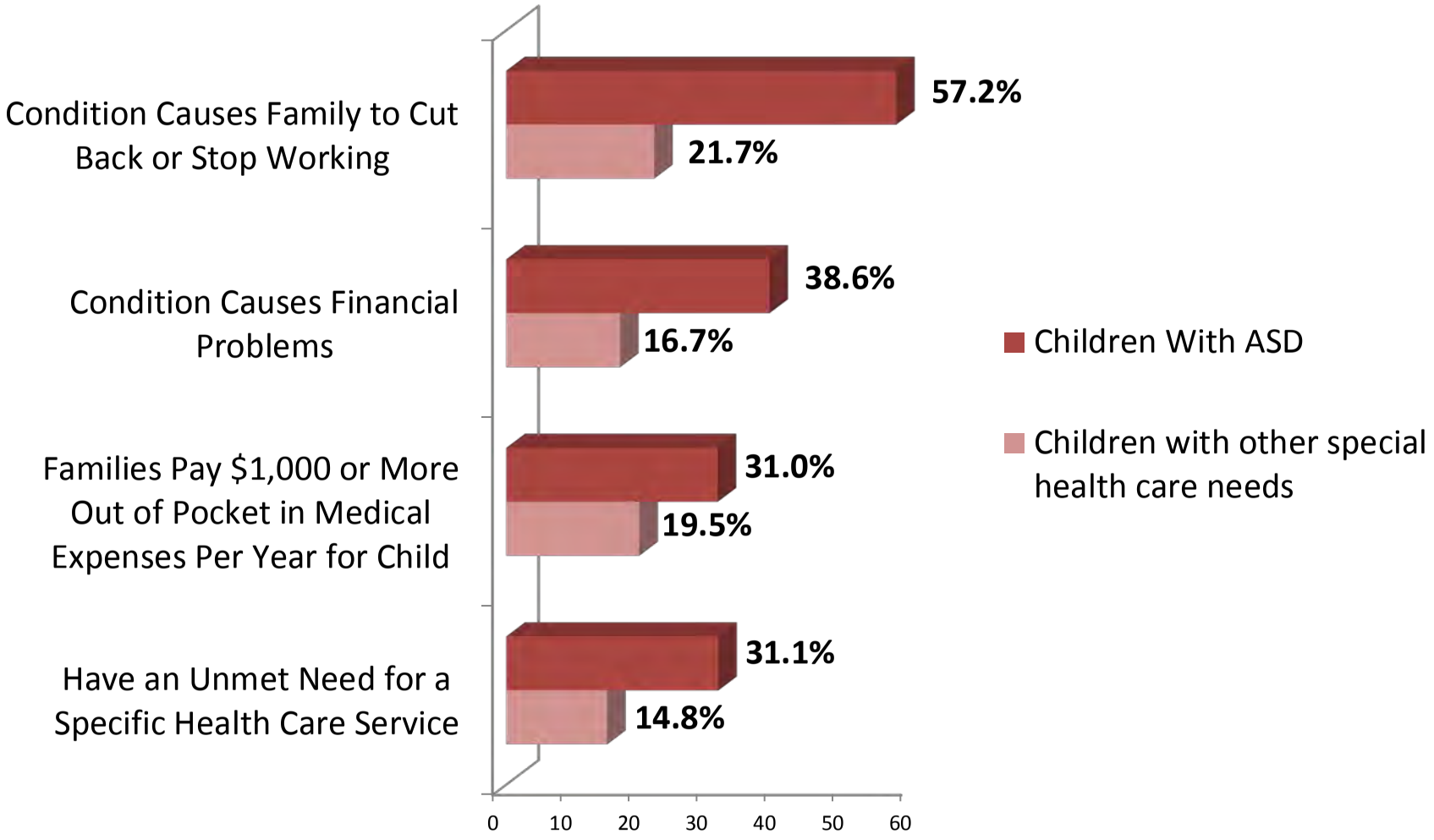
Why Our Job Is Not Done

- May 27, 2010 at 5:08pm
- Subject: thanks
- I just wanted to say thank you for accomplishing what many people would not have attempted. I live in Charleston, SC. My husbands insurance is self funded so we are having to give up custody of our autistic 2 year old to my parents because their insurance is better. ABA is really helping and there is nothing I wouldn't do for him. You are inspirational to me and a hero. God bless you.

"[N]o disability claims more parental time and energy than autism."

New York Times, 12/20/04

Why Single Out Autism?



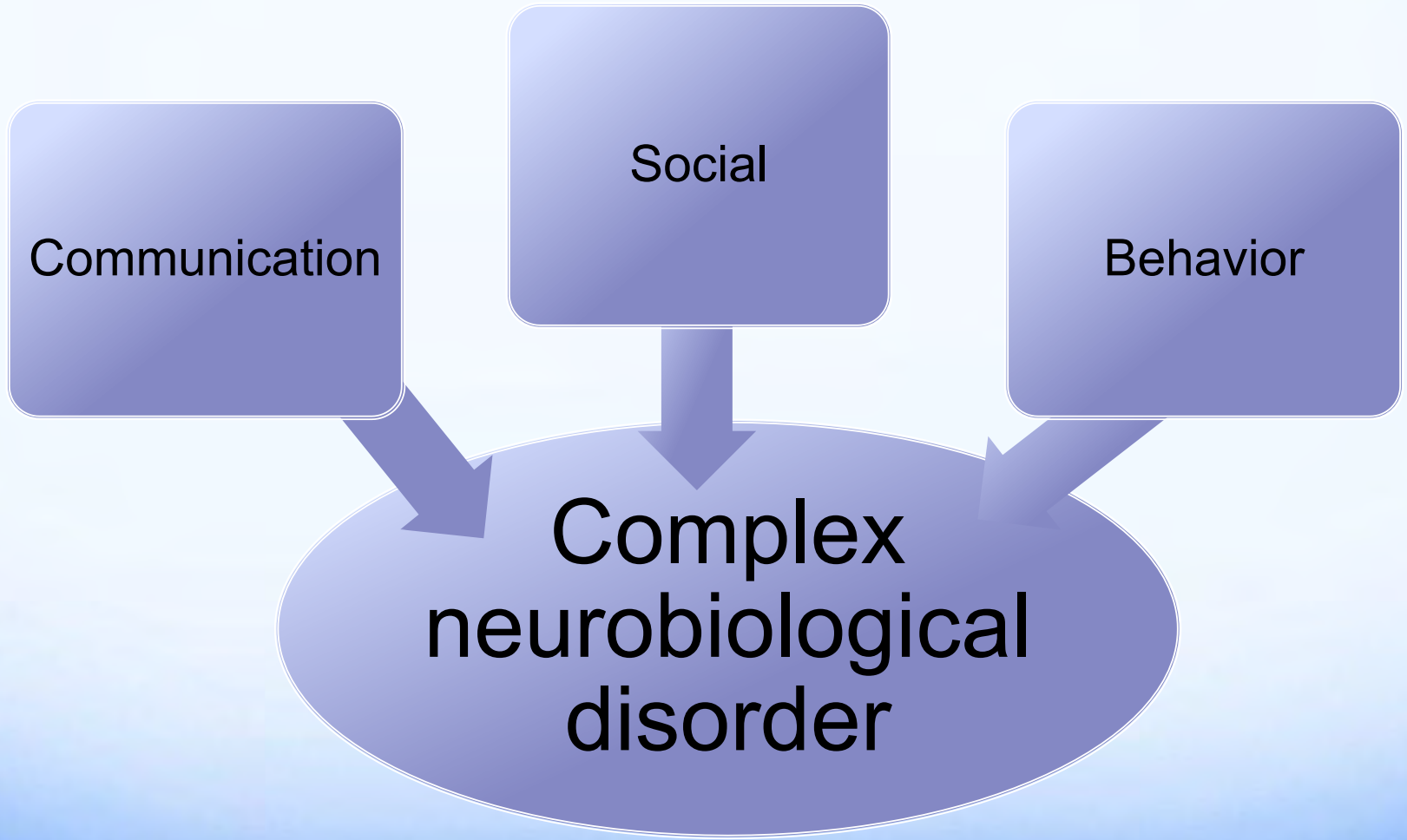
Applied Behavior Analysis Benefit For NC State Health Plan

Lorri Unumb, Esq.
Vice President
State Government Affairs
Autism Speaks

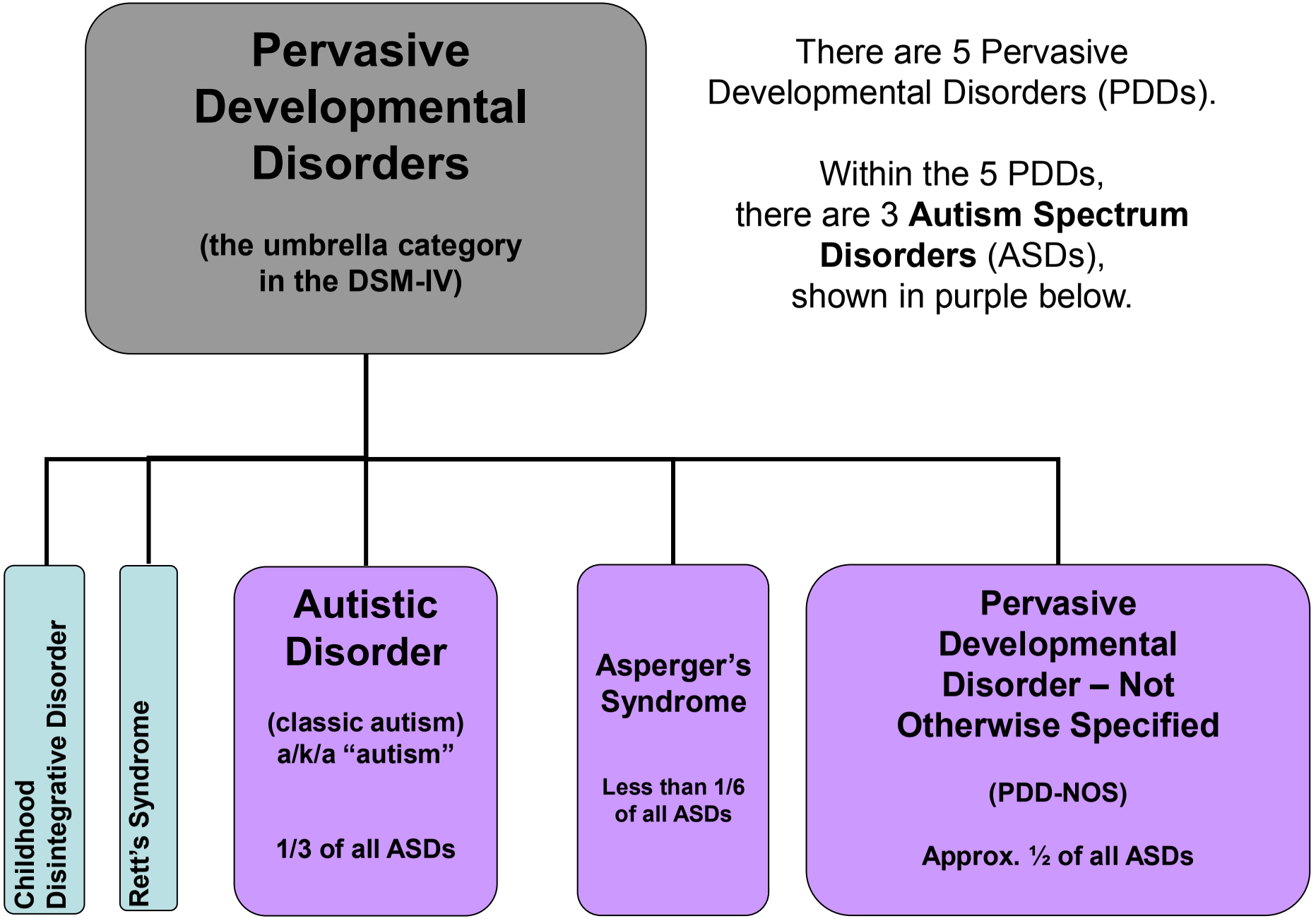
North Carolina State Health Plan
FOR TEACHERS AND STATE EMPLOYEES
A Division of the Department of State Treasurer

November 21, 2013

What is Autism?



Medical condition, brought on through no fault of family


Pervasive Developmental Disorders
(the umbrella category in the DSM-IV)
There are 5 Pervasive Developmental Disorders (PDDs).
Within the 5 PDDs, there are 3 Autism Spectrum Disorders (ASDs), shown in purple below.
Childhood Disintegrative Disorder
Rett's Syndrome
Autistic Disorder
(classic autism) a/k/a "autism"
1/3 of all ASDs
Asperger's Syndrome
Less than 1/6 of all ASDs
Pervasive Developmental Disorder – Not Otherwise Specified
(PDD-NOS)
Approx. ½ of all ASDs

Autism is Treatable

- Although there is no known cure for autism, it can be treated so that the symptoms are not disabling

  - A non-verbal child can gain the ability to communicate
  - A non-social child can gain interaction skills

- With treatment, children with autism are not cured but can overcome the disabling aspects of the condition.

Treatment

- Early diagnosis and treatment are critical to a positive outcome for individuals with an autism spectrum disorder (ASD)
- Treatment is prescribed by a licensed physician or licensed psychologist:
  - **Applied Behavior Analysis (ABA) Therapy**
  - Speech, Occupational and Physical Therapy
  - Psychological, Psychiatric, and Pharmaceutical Care

Applied Behavior Analysis (ABA)

- ABA is the most commonly prescribed **evidence-based** treatment for ASD
- Decades of research demonstrate the effectiveness of ABA therapy for autism
- Endorsed by **leading national health agencies**; pediatric, neurologic and psychological organizations
- Many insurers still deny coverage for ABA based on the assertion that ABA therapy is "experimental." *This assertion is simply not supported by science*

ABA is the Standard of Care

United States Surgeon General **(1999)**

*"**Thirty years of research** demonstrated the efficacy of applied behavioral methods in reducing inappropriate behavior and in increasing communication, learning, and appropriate social behavior."*

Centers for Medicare and Medicaid **(2011)**

*" ...**controlled trials have shown both the efficacy** of programs based in the principles of ABA and that certain individual characteristics (age, IQ, and functional impairments) are associated with positive outcomes."*

National Institute of Mental Health **(2011)**

*"One type of a **widely accepted treatment** is applied behavior analysis (ABA). The goals of ABA are to shape and reinforce new behaviors, such as learning to speak and play, and reduce undesirable ones."*

ABA is the Standard of Care

Centers for Disease Control and Prevention (2012)

*"A notable treatment approach for people with an ASD is called applied behavior analysis (ABA). ABA has become **widely accepted** among health care professionals..."*

NATIONAL INSTITUTE OF NEUROLOGICAL (2012) DISORDERS AND STROKE

*"Therapies and behavioral interventions are designed to remedy specific symptoms and **can bring about substantial improvement**...Therapists use highly structured and intensive skill-oriented training sessions to help children develop social and language skills, such as Applied Behavioral Analysis"*

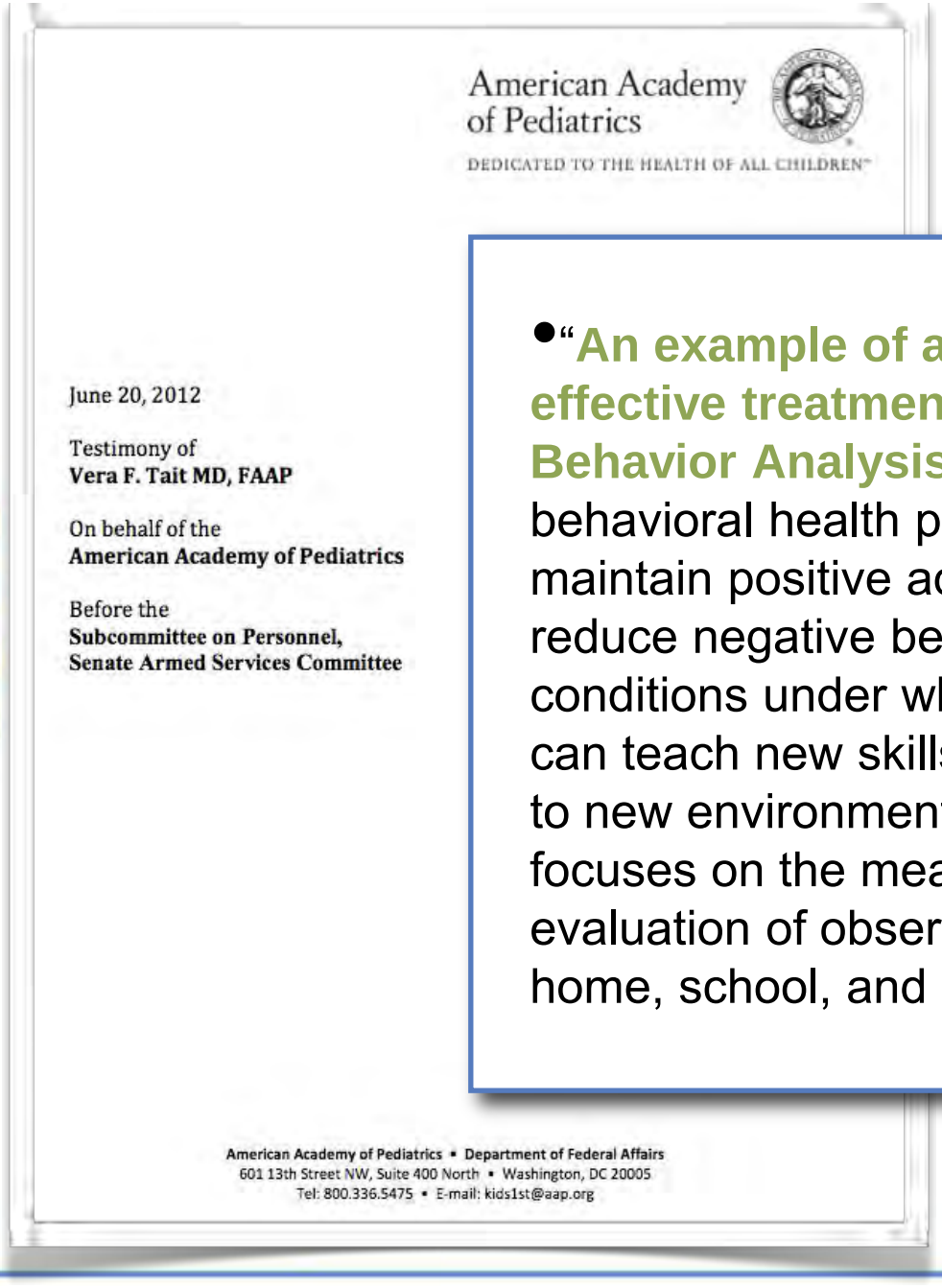
ABA is the Standard of Care

AMERICAN PSYCHOLOGICAL ASSOCIATION (2012)

"The field of applied behavior analysis has grown substantially in the past decade, enabling more children with autism and their families to obtain needed services. This growth appears to be related to an increase in the number of children diagnosed with an autism spectrum disorder and to the ***recognition of the effectiveness of behavior analytic services****."*

The U.S. Office of Personnel Management (2012)

"The OPM Benefit Review Panel recently evaluated the status of Applied Behavior Analysis (ABA) for children with autism. Previously, ABA was considered to be an educational intervention and not covered under the FEHB Program. The Panel concluded that there is now ***sufficient evidence to categorize ABA as medical therapy****. Accordingly, plans may propose benefit packages which include ABA."*


American Academy of Pediatrics

DEDICATED TO THE HEALTH OF ALL CHILDREN™

June 20, 2012

Testimony of
Vera F. Tait MD, FAAP

On behalf of the
American Academy of Pediatrics

Before the
Subcommittee on Personnel,
Senate Armed Services Committee

American Academy of Pediatrics • Department of Federal Affairs
601 13th Street NW, Suite 400 North • Washington, DC 20005
Tel: 800.336.5475 • E-mail: kids1st@aap.org

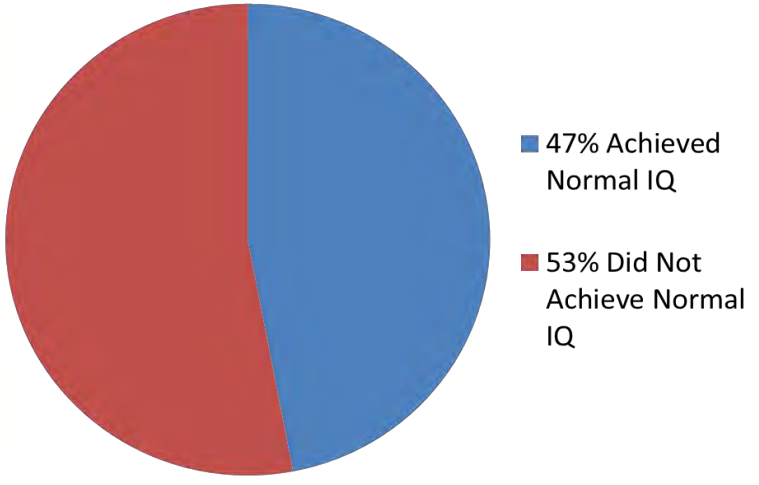
- "**An example of a demonstrated, effective treatment for ASD is Applied Behavior Analysis, or ABA.** ABA uses behavioral health principles to increase and maintain positive adaptive behavior and reduce negative behaviors or narrow the conditions under which they occur. ABA can teach new skills, and generalize them to new environments or situations. ABA focuses on the measurement and objective evaluation of observed behavior in the home, school, and community."

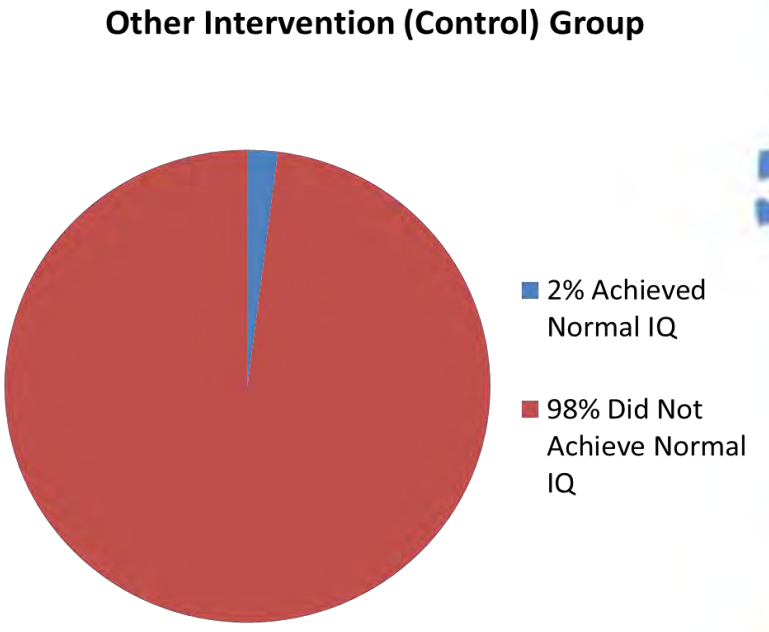
United States Department of Defense

Military insurance (TriCare) covers autism and specifically includes a benefit for Applied Behavior Analysis therapy.

Efficacy of ABA Therapy

Outcome of 1987 UCLA Lovaas Study





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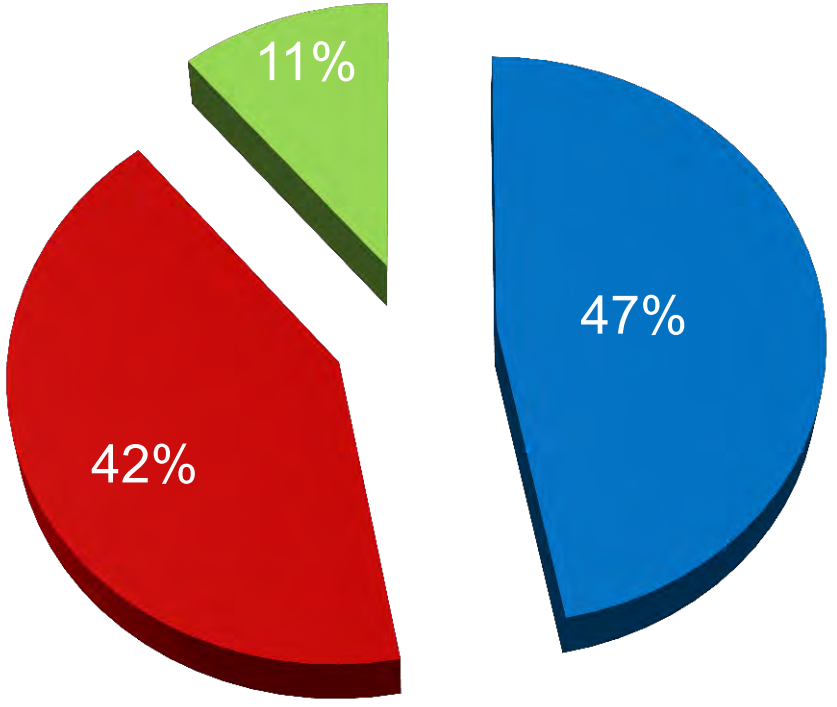


- **47% = Mainstreamed with No Support**
- 42% = Low-Intensity Special Education Placement (for language delay)
- 11% = High-Intensity Special Education Placement (for autism or intellectual disability)

Cost Savings - *long term*

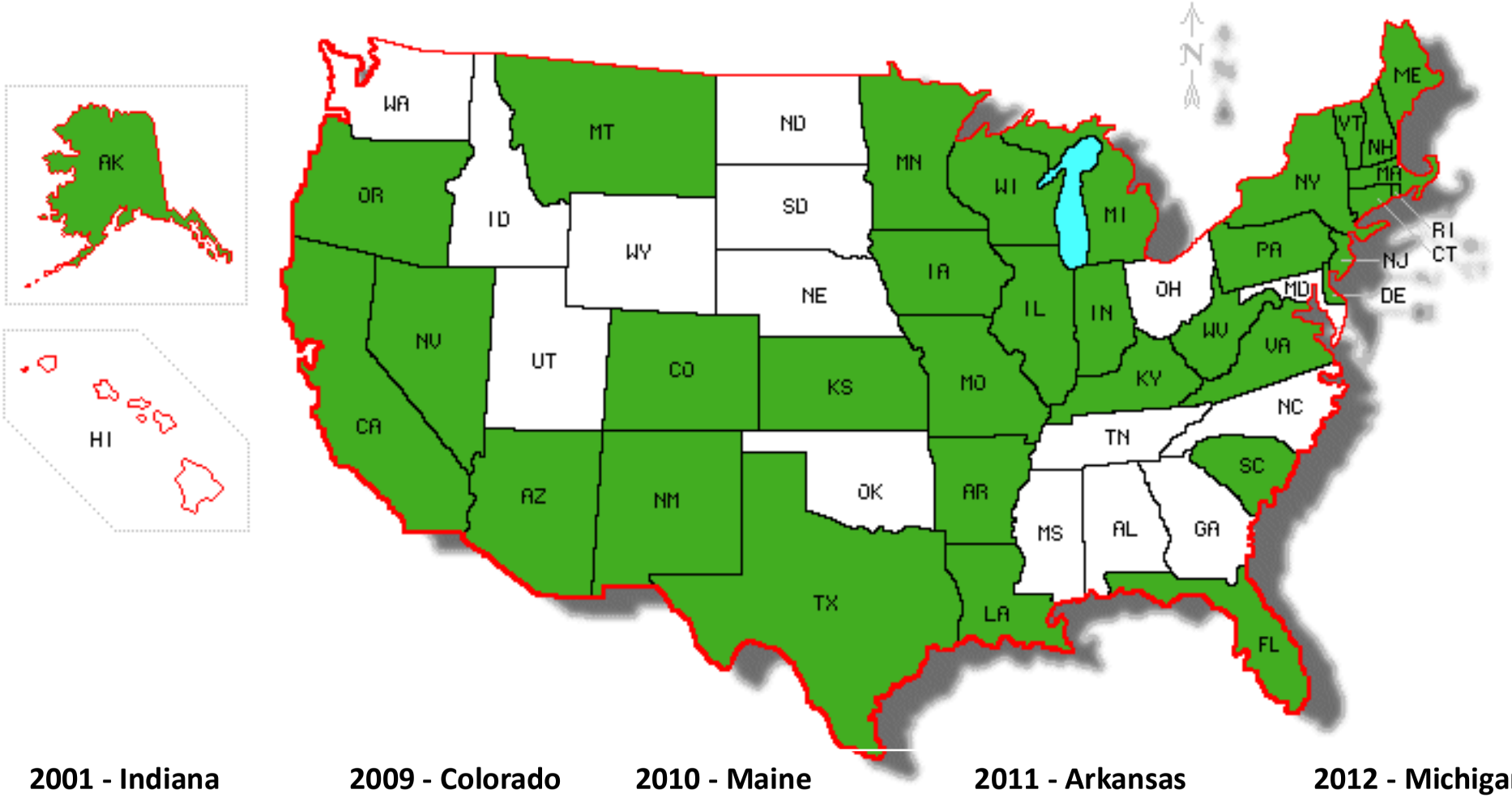
- **<u>Without</u> appropriate treatment**, the lifetime cost to the state has been estimated to be **$3.2 million** <u>per child</u> with ASD (Ganz, 2007)
  - special education
  - adult services
  - decreased productivity

- Estimated lifetime cost **savings** of providing appropriate treatment are $1 million per child (Jacobsen et al, 1998)

State Response

- Faced with these realities, states are moving to mandate insurance coverage for autism treatment.
- Indiana passed the first meaningful bill in 2001, the same year the Attorney General in Minnesota settled litigation with that state's major insurer (BCBS) to require coverage for autism, including coverage of Applied Behavior Analysis therapy.

States with Autism Insurance Reform



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Kentucky	2010	4,339,000	$50K: 0-7, $1000/mo: 7-21	1-21	Yes	Yes
Kansas	2010	2,853,000	$36K: 0-7, $27K: 8-19	<19	Yes only	No
Iowa	2010	3,046,000	$36K	<21	Yes only	No
Vermont	2010	626,000	None	21	Yes	Yes
Missouri	2010	5,989,000	$40K	19	Yes	Yes
New Hampshire	2010	1,316,000	$36K: 0-12, $27K: 13-21	21	Yes	Yes
Massachusetts	2010	6,548,000	None	None	Yes	Yes
Arkansas	2011	2,916,000	$50K	<18	Yes	Yes
West Virginia	2011	1,853,000	$30K for 3 yrs; $24K up to 18	3-18	Yes	Yes*
Virginia	2011	8,001,000	$35K	2-6	Yes	No
Rhode Island	2011	1,053,000	$32K	15	Yes	No
New York	2011	19,378,000	$45K	None	Yes	Yes
California	2011	37,254,000	None	None	No	Yes

State Autism Insurance Reform

State	Year Enacted	State Population[1]	Annual Dollar Cap	Age Cap	State E'ees?	Small Group?
Michigan	2012	98,836,640	$50K if <7, $40K if 7-12, $30K if 13-18	18	Maybe	Yes
Alaska	2012	722,718	None	21	Yes	>20
Delaware	2012	907,135	$36,000	21	Yes	Yes
Minnesota	2013	5,303,925	None	18	Yes	No*
Oregon	2013	3,899,000	None (but ABA 25 hours per week)	No	Yes	Yes
D.C.	2013					

Plus Ohio due to executive action

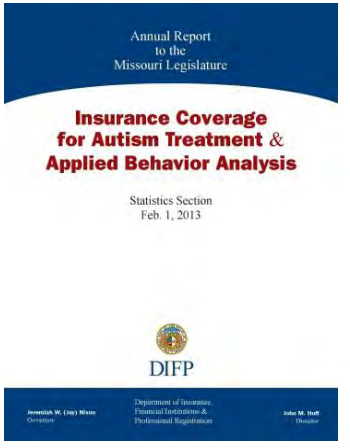
What is the cost of autism insurance reform?

Actual Autism Related Claims Data

Missouri

- Implemented Jan 2011
- Terms
  - $40,000/yr (cap only applies to ABA)*
  - until age 18*

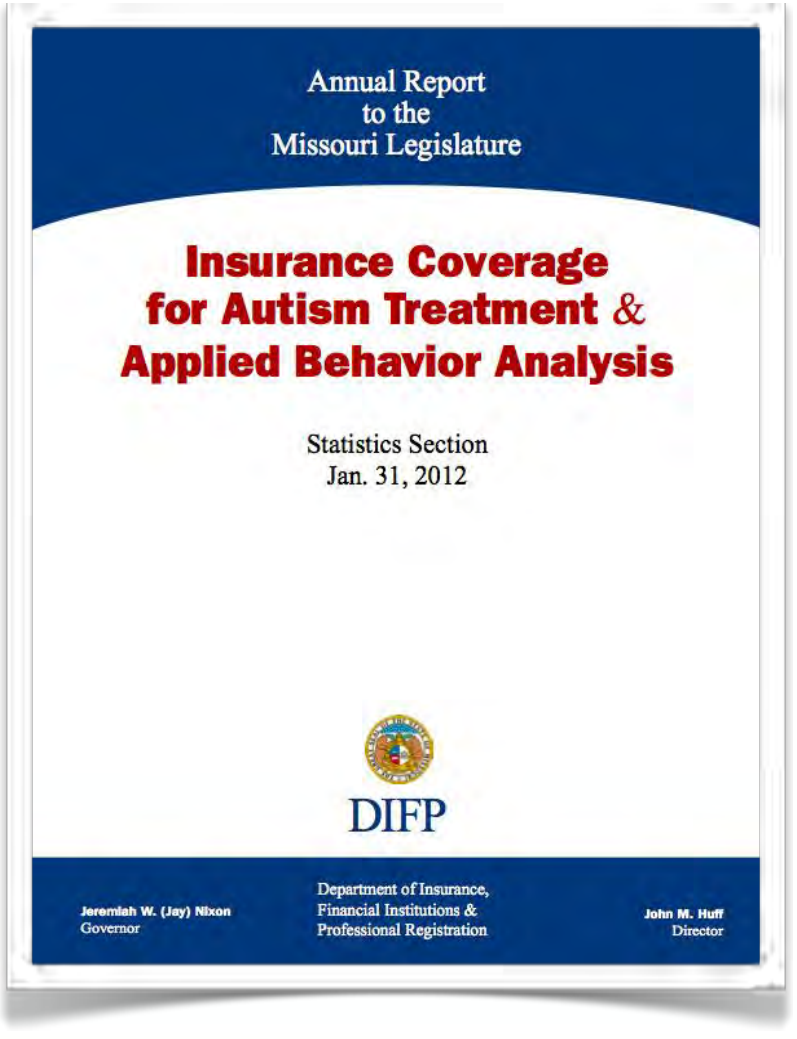
- Total claims paid = $6,550,602
- Total covered lives = 1,375,476
- Unique claimants = 2,508
- PMPM cost = .38 ¢



* Caps can be exceeded if deemed medically necessary

Source: 2012 DIFP ANN. REP., INSURANCE COVERAGE FOR AUTISM TREATMENT & BEHAVIOR ANALYSIS (Feb. 1, 2013).

Cost of ABA

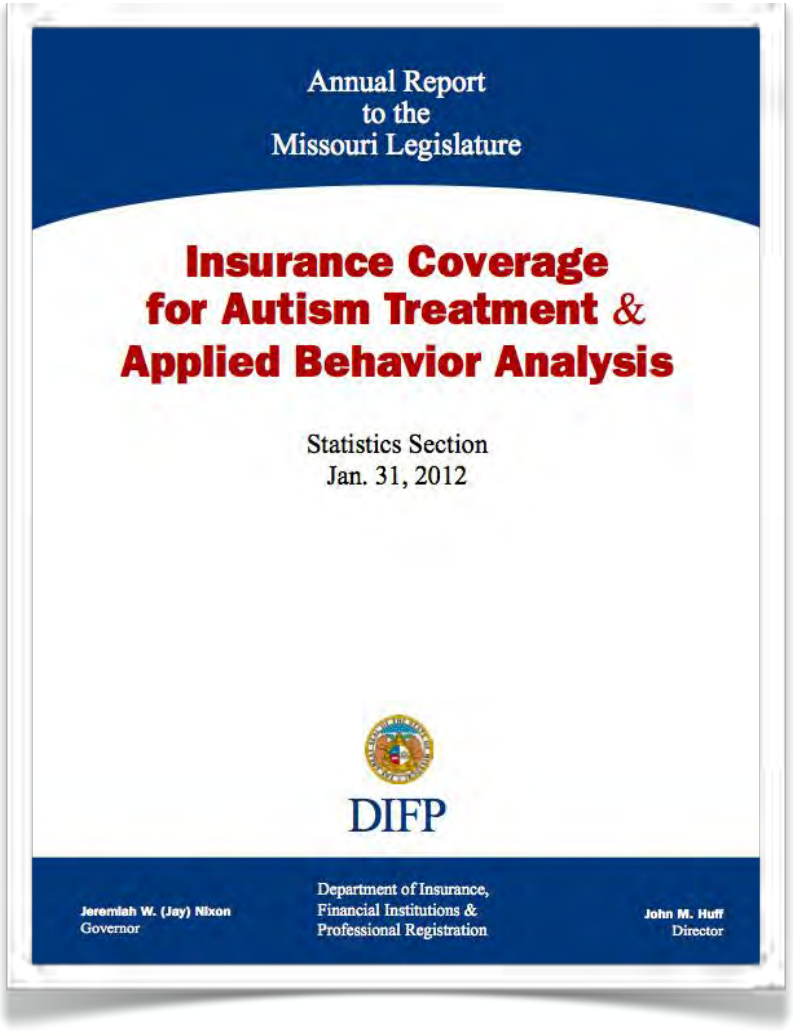


- Average monthly cost of ABA per individual with ASD = $101
- **$ 0.17 PMPM**
- 0.07% of total claims

"The costs associated with the autism and ABA coverage mandate has thus far been minimal, even as the mandate has led to dramatically expanded coverage and the delivery of medically beneficial services."

22

Effect on Premiums



- **Claims incurred for treatment of <u>ASD with ABA</u> represent 0.07% of total claims**
- "While claims costs are expected to grow somewhat in the future, it seems <u>very unlikely</u> that costs for autism treatment will have an appreciable impact on insurance premiums."

Average Second Year Cost of Autism Insurance Reform

	Year of coverage	Number of covered lives	Total Claims Paid	PMPM cost
South Carolina	2	397,757	$2,042,394	$0.43
Illinois	2	170,790	$197,290	$0.10
Louisiana	2	149,477	$722,828	$0.40
Florida	2	386,203	$1,748,849	$0.38
Arizona	2	130,000	$388,662	$0.25
Missouri	2	1,429,153	$6,555,602	$0.38
Kansas	2	99,465	$309,216	$0.26
	Average second year cost			**$0.31**

References: Data collected by Autism Speaks from State agencies responsible for administering State Employee Health Benefits Programs (2011); Missouri Department of Insurance, Financial Institutions and Professional Registration (2012); and the Kansas Department of Health and Environment (2012)

St. Charles Medical Center

- ABA - unlimited coverage through age 9
- ST, OT, PT - unlimited coverage

St. Charles HEALTH SYSTEM

- "The total cost of this benefit to our health plan? **Four cents** per member per month. Less than fifty cents per member per year to cover 7,000 people. **The benefit to our overall population health is immeasurable**."

- Jay Henry, **CEO, St. Charles Medical Center (Bend, OR)**

Why Employers Should Implement an Autism Benefit

- ✓ Improves employee productivity
- ✓ Removes barriers to recruiting the best possible talent
- ✓ Improves company public image in the community
- ✓ Fiscally responsible
- ✓ Life-changing for the affected child and their family

Without an autism benefit

- Because ABA therapy must be administered intensively (sometimes 40 hours per week), it is quite expensive.
- Parents are forced to pay out-of-pocket to provide their children ABA therapy, which typically lasts 3-4 years.
- Often financially devastating to families - ***most affected children go without or receive only a fraction of prescribed treatment***
- These children end up in costly special education programs and often become wards of the state.

Mercer National Survey of Employer-Sponsored Health Plans 2011

Autism Coverage

	ST, OT, PT	Intensive Behavioral Therapies	Autism is not Covered
Large Employers	62%	31%	22%
BY REGION			
West	59%	24%	25%
Midwest	64%	30%	16%
Northeast	62%	32%	26%
South	62%	34%	23%
BY INDUSTRY			
Manufacturing	54%	26%	27%
Wholesale/Retail	77%	22%	6%
Services	70%	33%	19%
Transport/Communication/Utility	63%	27%	28%
Health Care	61%	40%	29%
Financial Services	55%	26%	24%
Government	65%	34%	17%

Examples of Self-Funded Plans that Provide Coverage for Autism Treatment

- **Microsoft**
- Home Depot
- **Arnold & Porter**
- Cerner
- **Cisco**
- Eli Lilly
- Ohio State University
- Time Warner
- Blackbaud
- Lahey Clinic
- Partners Healthcare
- **Deloitte**
- White Castle
- Wells Fargo
- **salesforce.com**
- Yahoo
- University of Minnesota
- Progressive Group
- **Intel**
- DTE Energy
- Iron Mountain
- State Street Financial
- Children's Mercy
- **Capitol One**
- Lexington Medical Center
- Sisters of Mercy Health Systems
- Symantec
- Princeton University
- **Genentech**
- ***and many more . . .***

2013 Fortune 100 Best Companies to Work For

Litigation over ABA Coverage

McHenry v. PacificSource Health Plan, (D. Or. 2010)

"Based upon a thorough examination of the record,
this court concludes that
the weight of the evidence demonstrates that
ABA therapy is firmly supported
by decades of research and application
and is a well-established treatment modality
of autism and other PDDs.
It is not an experimental or investigational procedure."

Litigation over ABA Coverage

California Department of Insurance

"Insurance Commissioner Dave Jones announced today that he has reached favorable settlement agreements with two major health insurers, Health Net and Cigna, to guarantee coverage of behavioral therapy for autism, and to provide it to all insureds whenever medically necessary."

Litigation over ABA Coverage

Churchill v CIGNA, No. 10-6911 (E.D. Pa.)

"A federal judge in Philadelphia entered an order today granting class action status to a case filed by families against Cigna Insurance for allegedly denying claims for Applied Behavior Therapy (ABA), a technique that involves using modern behavioral learning theory to modify overt behaviors to treat autism. The ruling means the case will now be brought on behalf of all persons who filed a claim with CIGNA for ABA therapy for a child having autism spectrum disorder . . .

The Court … explained that class action status … was appropriate given CIGNA's national policy of denying ABA therapy on the ground that it is ***'experimental.'"***

Cost Savings - *short term*

Children who achieve a **higher level of functioning**:

- have lower overall health care costs
- do better in school
- need less assistance from their families

Improved employee productivity due to:

- improved mental health
- decreased absenteeism
- decreased work limitations

- "There are powerful economic and social arguments for providing this benefit. We know that **if families have coverage for their children they will be better employees**."

- Ron Ashworth, Board Chair, **Sisters of Mercy Health Systems**

Employee Retention

"It meant so much to them that Microsoft cared about their employees, cared about their children, cared about their welfare, that Microsoft, as a company, was willing to do this. It made them feel really proud of their company. **That's not the kind of company you leave.**" - Eric Brechner, **Microsoft** employee

(In an interview summarizing results of an employee survey relating to Microsoft's health benefits plan)

What Should an Autism Benefit Look Like?

1. Coverage should include
   - Applied Behavior Analysis (ABA) Therapy
   - Speech Therapy, Occupational Therapy, and Physical Therapy
   - Psychological, Psychiatric, and Pharmaceutical Care
   - Diagnosis and Assessments
   - No visit limits (other than restrictions prescribed by treating physician)

What Should an Autism Benefit Look Like?

2. No denials on the basis that treatment is
   - Habilitative in nature
   - Educational in nature
   - Experimental in nature

3. Applied Behavior Analysis coverage, treatment must be provided or supervised by
   - a behavior analyst who is certified by the Behavior Analyst Certification Board®, or
   - a licensed psychologist so long as the services performed are commensurate with the psychologist's formal university training and supervised experience

- **2013 Fortune 100 Best Companies to Work For** #42
- **2007 National Business Group on Health**
  - Behavioral Health Award Winner for their autism benefit
    - 2007 - Added autism benefit that included coverage for Applied Behavior Analysis ($30,000/year; $90,000/lifetime)
    - 2010 - Removed financial caps on coverage
    - Plan designates a key contact within each plan that would specifically focus on autism claims from Cisco employees.

- "[N]o disability claims more parental time and energy than autism."
  - **New York Times**, 12/20/04

Is This Your Company?

May 27, 2010 at 5:08pm

Subject: thanks

I just wanted to say thank you for accomplishing what many people would not have attempted. I live in Charleston, SC. My husbands insurance is self funded so we are having to give up custody of our autistic 2 year old to my parents because their insurance is better. ABA is really helping and there is nothing I wouldn't do for him. You are inspirational to me and a hero.

God bless you.

Contact Information

Autism Speaks
State Government Affairs

Lorri Unumb, Esq.
Vice President
lorri.unumb@autismspeaks.org

Judith Ursitti, CPA
Director
judith.ursitti@autismspeaks.org

Michael Wasmer, DVM, DACVIM
Associate Director
michael.wasmer@autismspeaks.org

About Autism Speaks

Autism Speaks is the world's leading autism science and advocacy organization, dedicated to funding research into the causes, prevention, treatments and a cure for autism; increasing awareness of autism spectrum disorders; and advocating for the needs of individuals with autism and their families.

Autism Votes is an Autism Speaks initiative; a comprehensive grassroots advocacy program, coordinating activist efforts in support of federal and state legislative initiatives.

For more information, please visit autismvotes.org and www.autismspeaks.org.

APS Healthcare

August 25, 2011

To Whom It May Concern:

APS Healthcare Inc. is the behavioral health third party administrator for the South Carolina Employee State Health Plan. APS has been asked by advocacy group “Autism Speaks” to summarize coverage and cost information for the State Health Plan Autism Spectrum Disorder benefit implemented on January 1, 2009. The South Carolina Employee Insurance Program has given APS permission to share the following details of the benefit:

Terms of coverage: • $50,000 annual maximum on ABA • To age 16	Covered Members	Enrolled in ASD Program	Cost of Benefit	Cost per Enrolled Member
2009	371,384	60*	$856,369	$14,273
2010	397,757	80	$2,042,394	$25,530
Jan. through June 2011	406,660	85	$1,015,078	$11,942

* Thirty of these children were enrolled in July 2009 as transfers from Medicaid as primary payor, and therefore the cost does not represent a normal full year of expense.

If there are questions on this data, please contact me.

Linda Smith
State of SC Account Executive
APS Healthcare
803-732-9037
lsmith@apshealthcare.com

ILLINOIS DEPARTMENT OF Healthcare and Family Services

Pat Quinn, Governor
Julie Hamos, Director

201 South Grand Avenue East
Springfield, Illinois 62763-0002

Telephone: (217) 782-1233
TTY: (800) 526-5812

October 18, 2011

Michael L. Wasmer, DVM Dipl ACVIM
Associate Director, State Government Affairs
Autism Speaks
1990 K Street, NW
Washington, DC 20006
Michael.wasmer@autismspeaks.org

Re: FOIA 11-1373

Dear Mr. Wasmer:

Thank you for writing to the Illinois Department of Healthcare and Family Services with your request for information pursuant to the Illinois Freedom of Information Act, 5 ILCS 140/1 et seq.

We received your request on October 12, 2011 for the following information:

"There are now 28 states that have enacted autism insurance reform laws. These laws have been in effect for at least 1 year in 16 states where we are trying to determine the cost impact to the State Employee Health Plans (SEHP).

Illinois implemented an autism insurance reform bill (SB 934) on December 12, 2008.

I was hoping that you could direct me to someone who may be able to help me collect some data on this issue. I have attached a template that clarifies the data that we are looking for. Illinois should have claims data for fiscal years 2009 and 2010."

The information you seek is attached.

Sincerely,

//S//

Kyong Lee
Freedom of Information Officer

KL:sb
Attachment

Illinois FOIA 11-1373 Response Data (10/17/2011)

		Claim data for Fiscal Year 2009			Claim data for Fiscal Year 2010		
ICD-9	**Description**	**Claimants**	**Charges**	**Paid**	**Claimants**	**Charges**	**Paid**
299.0	Autistic Disorder	1,621	$291,693.80	$145,814.41	2,025	$243,233.20	$117,618.90
299.8	Asperger's Disorder	752	$87,784.57	$37,803.68	1,162	$133,376.10	$64,139.28
299.9	Pervasive Developmental Disorder - NOS	47	$8,138.00	$4,065.82	127	$40,983.80	$15,531.59
Total		*2,420*	*$387,616.37*	*$187,683.91*	*3,314*	*$417,593.10*	*$197,289.77*

Total number of lives covered by the State Employees Self-Insured Health Plans

State members & dependents as of July 1st	171,979	170,790

Annual Report
to the
Missouri Legislature

Insurance Coverage for Autism Treatment & Applied Behavior Analysis

Statistics Section
Feb. 1, 2013

DIFP

Jeremiah W. (Jay) Nixon
Governor

Department of Insurance,
Financial Institutions &
Professional Registration

John M. Huff
Director

Executive Summary

This is the second annual report to the General Assembly related to insurance coverage for Autism Treatment and Applied Behavioral Analysis. The findings of the first annual report reflected the fact that 2011 was a transitional year during which much of the infrastructure necessary to deliver the mandated benefits was developed. As expected, data show that the benefits of the mandate were more fully realized in 2012, while the costs as a percent of overall health care costs remained negligible.

1. **Coverage.** During 2012, all insureds in the small and large group markets were covered for autism and the associated ABA mandate. A much lower proportion, less than one-third, received similar coverage in the individual market, including individually-underwritten association coverage. A few large providers of individual insurance coverage extended autism coverage to all of their insureds. However, Missouri statute only requires autism benefits as an optional coverage in the individual market, and most insurers do not provide it as a standard benefit. For those insurers that do not provide the coverage as a standard benefit, only a negligible number of insureds purchased the optional autism rider.

2. **Number impacted.** Over 2,508 individuals received treatment covered by insurance for an ASD at some point during 2012. This amounts to 1 in every 548 insureds, ranging from 1 / 2,765 in the individual market to 1 / 438 in the large group market. These figures are consistent with estimates in the scientific literature of treatment rates.[1]

3. **Licensure.** The first licenses for applied behavior analysis were issued in Missouri in December, 2010. Between 2011 and 2012 the number of individuals that held Missouri licenses as a behavior analyst grew by 44 percent. As of January 17, 2012, 161 individuals were licensed, and an additional 24 persons obtained assistant behavior analyst licenses.

4. **Claim payments.** Between 2011 and 2012, claim costs incurred for autism services increased from $4.3 million to $6.6 million, of which $3 million was directed to ABA services. These amounts represent 0.16 percent and 0.07 percent of total claims incurred, consistent with initial projections produced by the DIFP.[2] For each member month of autism coverage, total autism-related claims amounted to $0.38, while the cost of ABA treatment amounted $0.17.

---

[1] While the CDC estimates that the prevalence of autism is 1/88, autism presents with a high degree of variability. Not all such individuals will benefit from, or seek, treatment specifically targeted at the ASD.

[2] The DIFP estimated that the mandate would produce additional treatment costs of between 0.2 percent and 0.8 percent. The analytical assumptions associated with the lower-end of the estimate range appear to be validated by the claims data presented in this report.

5. **Average Monthly Cost of Treatment.** For each individual diagnosed with an ASD that received treatment at some point during 2012, the average monthly cost of treatment across all market segments was $222, of which $101 consisted of ABA therapies. The average, of course, includes individuals with minimal treatment as well as individuals whose treatments very likely cost significantly more.

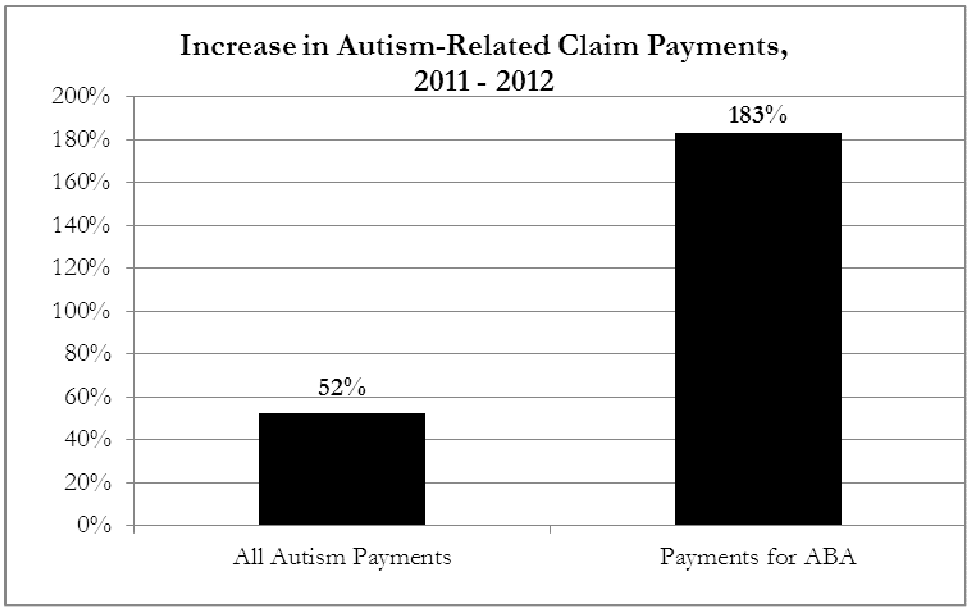
6. **Impact on premiums.** Given that treatment for autism represent less than 0.2% of overall claims costs, it is very unlikely that such costs will have an appreciable impact on insurance premiums. However, because the DIFP has no authority over health insurance rates and does not receive rate filings, a more exact assessment of the impact of the mandate on rates cannot be provided.

7. **Market Segments.** This study focuses upon the licensed insurance market (i.e. those entities over which the DIFP has regulatory jurisdiction). Many employers provide health insurance by "self-insuring," that is, by paying claims from their own funds. Such plans are governed under the federal Employee Retirement Income Security Act (ERISA), and states have little jurisdiction over private employers that choose to self-fund. The Missouri statute does extend the autism mandate to the Missouri Consolidated Health Care Plan (MCHCP), which covers most state employees, as well as all self-funded local governments and self-insured school districts.

The advocacy group Autism Speaks maintains a list of self-funded private employers that have chosen to voluntarily provide coverage autism and ABA therapy to their employees. Among this group are many of the most recognizable "high-tech" companies, including Microsoft, Intel, Adobe, Cisco, IBM, Apple, Yahoo and E-Bay. From the healthcare field are the Mayo Clinic and Abbott Laboratories. Additional companies come from a variety of sectors, from Home Depot to Wells Fargo. Because the DIFP lacks jurisdiction over private self-funded employers, the number of Missourians receiving autism benefits under private self-funded plans is unknown.

Autism Speaks created a "Tool Kit" for employees of self-funded plans to approach their employers about adding benefits to their company health plan. The Self-Funded Employer Tool Kit can be found at: http://www.autismspeaks.org/sites/default/files/docs/gr/erisa_tool_kit_9.12_0.pdf

Compared to 2011, claim costs incurred for autism-related treatments increased by 52%, from $4.3 million to $6.6 million. Most of the increase resulted from more intensive utilization of ABA therapies. Claim payments for ABA increased by 183% during the same period.



Another method of expressing the costs of the mandate is the ratio of autism-related treatment costs to the total member months during which autism coverage was in effect. The resulting figure should afford a general indication of how monthly premiums might be expected to increase due to extending coverage for autism treatment. Across all market segments, the average autism-related claim costs for each month of autism coverage was $0.38, and $0.17 for the costs of ABA treatments.

Claim Costs for Autism Per Member Per Month for Policies with Autism Coverage

Market Segment	Member Months of Policies With Autism Coverage	All Autism Related Claims	ABA Claims	All Autism-Related Claims, PMPM	ABA-Related Claims, PMPM
Individual	945,177	$150,616	$18,538	$0.16	$0.02
Small Group	5,147,244	$1,524,570	$732,951	$0.30	$0.14
Large Group	11,057,424	$4,875,416	$2,221,223	$0.44	$0.20
Total	**17,149,845**	**$6,550,602**	**$2,972,712**	**$0.38**	**$0.17**

Landon State Office Building
900 S.W. Jackson, Room 504
Topeka, KS 66612

Steven J. Anderson, CPA, MBA, Director

Kansas
Division of the Budget

phone: 785-296-2436
fax: 785-296-0231
steve.anderson@budget.ks.gov

Sam Brownback, Governor

March 5, 2012

The Honorable Clark Shultz, Chairperson
House Committee on Insurance
Statehouse, Room 166-W
Topeka, Kansas 66612

Dear Representative Shultz:

SUBJECT: Fiscal Note for HB 2764 by House Committee on Federal and State Affairs

In accordance with KSA 75-3715a, the following fiscal note concerning HB 2764 is respectfully submitted to your committee.

HB 2764 would require that any individual or group health insurance policy, plan, contract, fraternal benefit society or health maintenance organization that provides coverage for accident and health services on or after July 1, 2012 to provide coverage for the treatment and diagnosis of autism spectrum disorders (ASD) for individuals less than 19 years of age. Insurers could limit the coverage to a maximum of $36,000 per year for individuals less than seven years old and $27,000 per year for individuals between seven and 19 years old. Reimbursement for services would be allowed only to providers who are licensed, trained and qualified to provide such services or by an autism specialist or intensive individual services provider, as defined by the Department of Social and Rehabilitation Services (SRS) autism waiver.

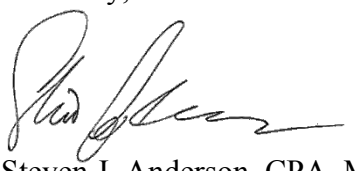
HB 2764 would allow insurers to deny any claim for services based upon medical necessity or a determination that the covered individual has reached maximum medical improvement for his or her autism disorder. The bill would prohibit an insurer from terminating coverage or refusing to deliver, issue or renew coverage to an individual solely because the individual has been diagnosed with or has received treatment for an autism spectrum disorder.

Estimated State Fiscal Effect				
	FY 2012 SGF	FY 2012 All Funds	FY 2013 SGF	FY 2013 All Funds
Revenue	--	--	--	--
Expenditure	--	--	--	$259,184
FTE Pos.	--	--	--	--

The State Employee Health Plan (SEHP) is already piloting this coverage for ASD. Coverage began on January 1, 2011. HB 2764 would make this a permanent benefit instead of a pilot benefit for the SEHP. The Centers for Disease Control and Prevention (CDC) estimates the prevalence on average of one in 110 children being diagnosed with ASD. Under the pilot program during plan year 2011, 126 members received services for ASD. There were 23,087 children under age 19 in the SEHP, which would indicate an ASD prevalence factor of 0.55 percent. The plan expects that utilization of this benefit would increase over time as patients and providers become more familiar with the coverage. This would be consistent with any new mandated benefit and is not specific to ASD. The plan estimates increased utilization based on the prevalence rate of the CDC. Using the actual dollars spent in plan year 2011, the plan estimates additional expenditures of $259,184 in FY 2013.

Outside of the state budget, the fiscal effect of HB 2764 would be for health insurers and the insured. This mandated coverage would cause an increase in expenditures for plans that currently do not offer the coverage. Insurers could increase premiums to fund the additional expenditures. This increased cost of insurance would affect employers that provide health insurance for employees and individuals who pay for a part or all of their insurance. Conversely, individuals who currently receive services for ASD that are not paid for by their health care plan would realize personal savings from the additional coverage.

Sincerely,



Steven J. Anderson, CPA, MBA
Director of the Budget

cc: Aaron Dunkel, KDHE
Jackie Aubert, SRS
Zac Anshutz, Insurance

KANSAS STATE EMPLOYEES HEALTH CARE COMMISSION

Report on Insurance Coverage for Autism Spectrum Disorder Pilot

Required by 2010
Senate Substitute for House Bill no. 2160

EXECUTIVE SUMMARY

Senate Substitute for House Bill number 2160 required the State Employee Health Plan (SEHP) to provide coverage for services for the diagnosis and treatment of Autism Spectrum Disorder (ASD) for members under the age of nineteen (19) beginning January 1, 2011. Modification of the SEHP was necessary to include the coverage. The coverage was added beginning January 1, 2011, to all three health plans offered to members of the SEHP. The bill requires the SEHP to provide this report to the legislature outlining the impact on the SEHP related to the coverage of Autism Spectrum Disorder (ASD).

During Plan Year 2011, the SEHP had 126 members who received services for ASD. This amounts to a prevalence rate of 1 in every 800 members. This prevalence rate is significantly lower than the prevalence rates sited by the Centers for Disease Control and Prevention (CDC) for ASD in the U.S. population.

For claims incurred and processed for services received during Plan Year 2011 with a diagnosis of ASD, the total allowed amount was $214,656 for all services. This figure includes $92,394 for Applied Behavioral Analysis (ABA) services. The average monthly treatment cost for each eligible member receiving ASD treatment was $141 for all services, of which $61 was for ABA services.

Due to the plan requirement that a treatment plan be developed and approved by the health plan, the number of services during the first quarter of 2011 may be lower. In addition, as members and providers become more aware of the services eligible for coverage provided under the autism coverage mandate, it is expected that more claims will be experienced by the plan in future years.

Conference Report on the Continuation, Capital, and Expansion Budget	FY 13-14		FY 14
16 NC GEAR Establishes a statewide reserve in the Office of State Budget and Management for the NC Government Efficiency and Reform (NC GEAR) project.	$2,000,000	NR	$2,000,0
17 Reserve for Pending Legislation Creates a reserve to fund the following House bills should they be enacted into law: -HB 473 - Department of Insurance to regulate captive insurance companies. -HB 675 - General Fund portion (80%) of the total impact on the State Health Plan from changes in the Pharmacy Laws. -HB 498 - General Fund portion (80%) of the total impact on the State Health Plan from changes in autism health insurance coverage. -HB 269 - State Education Assistance Authority and the Department of Public Instruction to implement the bill. -HB 392 - Department of Health and Human Services to implement the bill.	$4,000,000	R	$4,500,0
18 Reserve for Voter Information Verification Act Provides funds for the implementation of the Voter Information Verification Act (VIVA). Funds may be used for outreach and operations by the State Board of Elections, reimbursement for issuance of state-issued identification cards by Division of Motor Vehicles, reimbursement for the State Registrar for the provision of free vital records certificates, and for reimbursement to county governments.	$1,000,000	R	$1,000,000
	$1,417,515	R	$1,417,515

From: SHPNC Board
Sent: Tuesday, November 12, 2013 7:47 AM
To: Beth Horner
Subject: FW: NC Chiropractic Assoc.
Attachments: shpnc.org_library_pdf_consideration-change-to-benefits.pdf

Hi Beth,

This came into the BOT box…

From: Dr. Joe Siragusa [mailto:drjoe@ncchiro.org]
Sent: Monday, November 11, 2013 8:06 PM
To: SHPNC Board
Cc: Buck Lattimore
Subject: NC Chiropractic Assoc.

Hello SHP Treasurers Office,

Please see attached request to make a presentation to the SHP trustees in order to request lower co-pays for chiropractic care.

We have made our presentation to Treasurer Cowell and have been anxious to make this presentation to the rest of the board.

Please let me know if you need anything else from us.

Serving,

Dr. Joe Siragusa
Executive Director
NC Chiropractic Association
3200 Blue Ridge Rd. #216
Raleigh, NC 27612
919-832-0611 ext. 104
www.ncchiro.org

"Unity is our Strength - Unity is our Mission"

APPENDIX A

Request Form for Board of Trustee Consideration of a Change to SHP Benefits

This form is to be used by individuals or groups that would like to propose new benefits coverage or request changes to benefits already covered by the State Health Plan. Please read the Procedure – Requests for Benefits Changes, SHP-PRO-7001-SHPfor more information regarding these types of requests.

Please submit completed forms by email to SHP.Board@nctreasurer.com or mail to NC State Health Plan Board of Trustees, 4901 Glenwood Avenue, Suite 300, Raleigh, NC 27612-3638.

Name of Requestor: Dr. Joe Siragusa

Contact Information (*phone, email, mailing address):*

919-832-0611 ext. 104; drjoe@ncchiro.org; 3200 Blue Ridge Rd. #216 Raligh, NC 27612

Requested Change in Benefits Coverage: Reduced co-pays for chiropractic beneift

Reason for Request: We'd like to present the results of research on SHP/ cost-savings to plan

Proposed Effective Date of Change: Jan. 1 or July 1, 2014

Supporting Documentation (*Please provide documents to support your request; examples include research or studies regarding medical services, treatment or procedures, fiscal impact analyses if available, or petitions from members.*):

Would you like to speak with the Board of Trustees about this issue at a Board of Trustees meeting? Yes. We'd like to present the research summary.

The Board of Trustees reviews select requests annually at a regularly scheduled Board of Trustee meeting. For calendar year 2013, requests will be reviewed at the November meeting. For calendar year 2014, requests will be reviewed at the July meeting. Review of requests in no way obligates the State Treasurer to make changes to benefits.

Technical Report

Comparison of the Management Costs for Headache Among Different Provider Types: Doctors of Chiropractic, Medical Doctors, and Physical Therapists

The North Carolina State Health Plan for Teachers and State Employees, 2000-2009

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September 18, 2013

Introduction and Methods

This technical report of North Carolina medical claims data analysis focuses on patients with headache diagnoses reported during years 2000-2009. Each reporting year represents a benefit year starting in July and ending in June. This was done to use the same benefits in a fiscal year. The initial data extraction for this study included the claims for 664,000 covered lives comprising 62% female and 37% male patients. For headache, 910,778 claims met the inclusion criteria. Medicare and non-North Carolina residents were excluded.

This report is the third installment in an analysis of some of the most common musculoskeletal conditions seen by health care providers. These conditions include complicated and uncomplicated low back pain (covered in the first report), complicated and uncomplicated neck pain (covered in the second report), and headache (covered in this report). Following this report, each technical report will then be revised for a series of peer-reviewed article publications.

Contained within these reports are analyses of patients' "risk scores" among providers for the years 2006-2009. Risk scores reflect the measure of risk of expected health care cost and utilization relative to that of the overall population. For example, a score of 1.00 indicates risk comparable to that of the population used in developing the risk groups, whereas a score of 2.00 indicates 100% greater risk than the average for the population. Risk also reflects the potential difficulty of managing a particular case. For headache, the mean risk score over the 4-year period was 1.76 for MD only care and 1.75 for DC only care (the more stable medians were 1.19 and 1.25, respectively), indicating essentially equivalent risks.

Following the analysis of the risk scores, risk-adjusted average (mean) charges were calculated to take into account patient-specific factors that may affect utilization and charges (i.e., increase the risk of higher health-care use and greater charges). These factors were age, sex, primary diagnosis, comorbidities and use of prescription drugs. We calculated risk-adjusted average charges for patients in the middle quintile of risk (patients with risk scores between the 40^{th} and 60^{th} percentiles). This range is significant because it reflects patients at "average" risk in the population and yields an "apples to apples" comparison of provider's allowable charges. The risk-adjusted average allowable charge findings for headache are significantly different than the charge findings that did not take into account these factors.

Background

Chiropractic doctors have been long associated with treatment of back and neck complaints, but what is less well-known is that a substantial number of individuals seek out chiropractors for care of headaches, due to the significant influence that cervical spine conditions have upon these presentations.

Diagnoses

Patients with headache have primary diagnoses falling in the following ICD-9 categories: Tension headache (307.81), Cluster headache syndrome unspecified (339.00), Episodic cluster headache (339.01), Chronic cluster headache (339.02), Episodic paroxysmal hemicrania (339.03), Chronic paroxysmal hemicrania (339.04), Tension type headache, unspecified (339.10), Episodic tension type headache (339.11), Chronic tension type headache (339.12), Post-traumatic headache, unspecified (339.20), Acute post-traumatic headache (339.21), Chronic post-traumatic headache (339.22), Drug induced headache, not elsewhere classified (339.3), New daily

persistent headache (339.42), Primary thunderclap headache (339.43), Other complicated headache syndrome (339.44), Primary exertional headache (339.84), Primary stabbing headache (339.85), Other headache syndromes (339.89), Migraine with aura, without mention of intractable migraine w/o mention of status migrainosus (346.00), Migraine with aura, with intractable migraine, so stated, without mention of status migrainosus (346.01), Migraine with aura, without mention of intractable migraine with status migrainosus (346.02), Migraine with aura, with intractable migraine, so stated, with status migrainosus (346.03), Migraine without aura, without mention of intractable migraine w/o mention of status migrainosus (346.10), Migraine without aura, with intractable migraine, so stated, without mention of status migrainosus (346.11), Migraine without aura, without mention of intractable migraine with status migrainosus (346.12), Migraine without aura, with intractable migraine, so stated, with status migrainosus (346.13), Variants of migraine, nec (not elsewhere classified), w/o mention of intractable migraine w/o mention of status migrainosus (346.20), Variants of migraine, nec, with intractable migraine, so stated, w/o mention of status migrainosus (346.21), Variants of migraine, nec, without mention of intractable migraine with status migrainosus (346.22), Variants of migraine, nec, with intractable migraine, so stated, with status migrainosus (346.23), Hemiplegic migraine, without mention of intractable migraine w/o mention of status migrainosus (346.30), Hemiplegic migraine, with intractable migraine, so stated, without mention of status migrainosus (346.31), Hemiplegic migraine, without mention of intractable migraine with status migrainosus (346.32), Hemiplegic migraine, with intractable migraine, so stated, with status migrainosus (346.33), Chronic migraine w/o aura, w/o mention of intractable migraine w/o mention of status migrainosus (346.70), Chronic migraine w/o aura, with intractable migraine, so stated, w/o mention of status migrainosus (346.71), Chronic migraine without aura, without mention of intractable migraine with status migrainosus (346.72), Chronic migraine without aura, with intractable migraine, so stated, with status migrainosus (346.73), Other forms of migraine, w/o mention of intractable migraine w/o mention of status migrainosus (346.80), Other forms of migraine, with intractable migraine, so stated, w/o mention of status migrainosus (346.81), Other forms of migraine, without mention of intractable migraine with status migrainosus (346.82), Other forms of migraine, with intractable migraine, so stated, with status migrainosus (346.83), Migraine, unspecified, without mention of intractable migraine w/o mention of status migrainosus (346.90), Migraine, unspecified, with intractable migraine, so stated, without mention of status migrainosus (346.91), Migraine, unspecified, without mention of intractable migraine with status migrainosus (346.92), Migraine, unspecified, with intractable migraine, so stated, with status migrainosus (346.93), Nonallopathic lesions, head region (739.0), and Headache (784.0).

Health-care providers

The provider type for headache can be classified into four types: DC, MD, PT, and referral (RE or ref), with each of them defined as DC=Chiropractic; MD=Medical Doctors and Doctors of Osteopathy in General Practice, Internal Medicine, Neurology, Neurosurgery, Obstetrics, Obstetrics-Gynecology, Orthopedic Surgery, Osteopathy, Pediatrics, Physical Medicine Rehab, General Surgery, Family Practice, or Geriatric Medicine; Nurse Practitioner; Podiatry; Public Health; University/College Infirmary; Urgent Care; VA/Military Hospital-Professional Staff; PT=Physical Therapy; and referral=hospitalization, surgery, emergency medicine, diagnostic radiology, durable medical equipment, laboratory, pharmacy, and other specialty referral services and providers.

Claim types

For each fiscal year, drug claim data are combined with the medical claim data based on each patient's unique ID. There are five major claim types based on the service provided to each patient: "Office Visit", "MRI_CT", "DX_RAD", "Physical Therapy", and "Surgical". The five major claim types are defined as follows:

Office Visit: the place of service provided is in office (place of service [POS] code 11).

MRI_CT: If the service type is associated with advanced imaging that was ordered for the patient, such as a CT scan, magnetic resonance imaging (MRI), computerized axial tomography or similar services, then the claim type is MRI_CT.

DX_RAD: If the service type is associated with testing that was ordered for the patient such as diagnostic x-ray imaging or similar services, then the claim type is DX_RAD.

Physical Therapy: the provider specialty is physical therapist or the service code is consistent with physical therapy (e.g., codes 0420-0429). Physical therapy procedures such as electrical stimulation [97014] and ultrasound [97035] that may be used by PTs, DCs, or MDs are not ascribed to this claim category if performed by a DC or MD.

Surgical: surgical services and ancillary services provided by a neurosurgeon, orthopedic surgeon, or general surgeon for patients diagnosed with one or more of the headache diagnoses listed above.

Patterns of care

Based on the utilization of providers, patients were classified into 15 care patterns:

1.	MD_only:	Patients who only use MD service
2.	DC_only:	Patients who only use Chiropractic service
3.	PT_only:	Patients who only use Physical Therapy
4.	RE_only:	Patients who only use referred provider or service
5.	MD_DC:	Patients who use both MD and Chiropractic service
6.	MD_PT:	Patients who use both MD and Physical Therapy (PT) care
7.	MD_RE:	Patients who use both MD and referred provider or service
8.	PT_DC:	Patients who use both PT and Chiropractic (DC) care
9.	DC_RE:	Patients who use both DC and referred provider or service
10.	PT_RE:	Patients who use both PT and referred provider or service
11.	MD_DC_PT:	Patients who use MD, DC, and PT care
12.	MD_DC_RE:	Patients who use MD, DC, and referred provider or service
13.	RE_DC_PT:	Patients who use DC, PT, and referred provider or service
14.	MD_PT_RE:	Patients who use MD, PT, and referred provider or service
15.	MD_DC_PT_RE:	Patients who use all four provider types

Among these 15 care patterns, the PT only care pattern was not included in tables due to small sample size. Any negative medical or pharmaceutical charges (allowed amount, member liability, and paid amount) were excluded from the analysis. Note: Episodes of care were not used. Episodes of care would have required arbitrary definitions of (a) episode length, (b) time lapse between visits, and (c) time to recurrence (e.g., reoccur in 1 week, 1 month or 1 year) that have not been validated.

Statistical analysis

SAS 9.3 (Cary, NC) was used for data management and statistical analyses. The demographic variables analyzed are age and gender. Age is calculated from the patient's birth date as of January 1st of the reporting year. The summary statistics for age were calculated for each care pattern using the *proc means* procedure in SAS. The frequency distributions of gender and age group (>=18 years old or < 18 years old) were calculated by the *proc freq* procedure in SAS. *Proc means* and *proc freq* are the primary procedures in SAS for computing descriptive statistics.

The number of claims for each care pattern was identified by the *proc freq* procedure. The number of claims in each provider group for each care pattern was found by the cross tabulation of care pattern and provider type. Within each of those five claim types, the care pattern and provider type were cross-tabulated to identify the number of claims in each provider group for each care pattern by the *proc freq* procedure.

The total and per claim medical, pharmaceutical, and combined expenses were summarized for each patient using the *proc means* procedure. The patient-based and claim-based mean and median of medical, pharmaceutical, and combined medical and pharmaceutical expenses were then summarized for each care pattern by the *proc means* procedure. Pharmaceutical data included only categories for skeletal muscle relaxants, analgesics, antipyretics and anti-inflammatory agents. Pharmacy data were included only on patients that met the diagnostic inclusion criteria.

Scores reflecting risk of expected health care cost and utilization relative to that of the overall population were available in years 2006-2009. General linear models were used to fit log10 transformed total allowed charges per patient with risk scores within 40-60 percentiles to examine pairwise differences across eight patterns of care after adjusting for between-pattern differences in risk scores within the 40-60 percentile patient group. Linear orthogonal contrasts (ratios) were used to compare differences in charges between DC-related care patterns (DC only, MD-DC care, DC plus referral care, and MD-DC plus referral care) and MD-PT-related care patterns (MD only, MD-PT care, MD plus referral care, and MD-PT plus referral care). Log10 transformation of total allowed charges per patient were used due to the highly positive skew of these costs. Residual diagnostics were conducted and the normality assumptions of residuals were satisfied.

Results

Utilization and charges by pattern of care for each year are reported in diagnosis and year-specific Tables 1 through 4. Table 5 for each year shows age and gender distributions (by care pattern) of patients with at least one claim in that year. Approximately eighty percent of patients are female. Patients are about 40 years old, on average. Although patterns of care vary somewhat by age and gender, there are no consistent or significant differences by provider type.

Year-specific table contents

Table 1: Utilization and charges, by patient (n=) and claim (n=).

Table 2: Overall (medical + pharmaceutical) mean and median charges ($) according to pattern of care, by patient and claim.

Table 3: Charges ($) per patient and claim, by care pattern and claim type.

Table 4: Overall medical and pharmaceutical charges ($) per patient and claim, by care pattern and claim type.

Table 5: Age and gender distributions for patients (n=).

Headache results

Results summary: Mean numbers of claims, charges per claim, and mean overall allowed charges per patient were used to analyze costs. The majority of patients and claims fell in the MD only or MD plus referral patterns, representing 70% of patients and 65% of claims in 2009. Chiropractic patterns represented less than 10% of patients and total allowed charges (but a larger proportion of claims in any given year due to the larger number of DC claims per patient). Specialty referral services and providers, including emergency care and hospitalization, accounted for about 20% of all headache patients and total allowed charges. Pharmaceutical charges accounted for more than a third of total allowed charges for all care patterns combined.

Average numbers of claims per patient are generally higher for care patterns that included chiropractic compared with patterns involving medical care; however, charges per medical claim were much greater on average than charges per chiropractic claim. For all years, care patterns involving referral services in combination with medical or chiropractic care resulted in appreciably greater average charges per patient than care patterns without referrals. In general, care patterns with MDs and referrals resulted in greater average charges per patient than care patterns with non-referral provider types such as DC and PT providers. When looking at average overall allowed charges (which differs from individual claim charges) for care patterns with at least 50 patients, MD-only care, DC-only care, and MD-DC care are consistently the three least expensive patterns of care for headache (mean [median] total allowed charges in 2009 of $1232 [$180], $1737 [$284], and $1522 [$166], respectively). In all years 2000-2009, patterns of care *without calculation of risk adjusted averages* that included MDs alone incurred fewer charges than care patterns that included DCs alone.

Medical care with physical therapy is generally more expensive than medical care with chiropractic when care does not involve referral providers. Without referral providers or services, medical care with physical therapy was on average $30 more expensive than medical care with chiropractic in 2009. Although mean total allowed charges were greater for MD-DC care in four of the 10 years, median charges were equal to or less than those for MD-PT care in all 10 years. With referral providers, medical care with physical therapy was generally less expensive than medical care with chiropractic throughout the decade.

Mean difference in total allowed charges for medical care with physical therapy vs. medical care with chiropractic care for headache, by referral status and year.

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
No ref	+$316	+$960	+$44	-$26	+$257	+$1886	-$74	-$471	-$360	+$30
W/ref	-$195	-$2028	+$16	+$802	-$248	+$258	-$1210	-$1035	-$95	-$1097

The total allowed charges of medical care with referrals are substantially larger on average than the total allowed charges of chiropractic care with referrals, i.e., MD referrals to other providers and services are much more costly than DC referrals to other providers and services. For example in 2009, compared with DC care with referrals, MD care with referrals resulted in an average of $1737 greater total charges (MD referrals added

$1876 to total charges, on average, vs. $139 for DC referrals). However, medical care with DC care plus referrals was on average $1127 more expensive than medical care with PT care plus referrals in 2009 (MD-PT referrals added $1606 to total charges, on average, vs. $2733 for MD-DC referrals). MD-DC referrals were less costly than MD-PT referrals in only two of the 10 years (2003 and 2008).

Mean difference in total allowed charges for (a) medical care with referrals vs. chiropractic care with referrals and (b) medical care with PT plus referrals vs. medical care with DC plus referrals for headache, by year.

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
(a)	+$1203	+$2032	+$1691	+$2260	+$2340	+$1936	+$1746	+$1761	+$1851	+$1737
(b)	-$511	-$2988	-$28	+$828	-$505	-$1628	-$1136	-$564	+$265	-$1127

Trends: The number of patients with at least one claim for headache as a primary diagnosis increased from 9587 in 2000 to 22,780 in 2009 (138% increase). Total claims increased from 50,781 in 2000 to 118,992 in 2009 (134% increase). Total allowed charges for the year tripled from $15,187,791 in 2000 to $46,446,882 in 2009 (206% increase). Total charges almost tripled from 2000 through 2005, and then declined in 2006 and 2007 before rising again in 2008 and 2009. Of historical note: on October 1, 2006, a legislative mandate was implemented for the State of North Carolina Employees Health Plan. The mandate required that insurance copays for primary care and chiropractic care be equal. Up until that point, chiropractic copays were equal to higher specialist levels. This mandate was reversed effective October 1, 2007 and chiropractic copays were returned to the higher specialist levels.

Average total charges for all care patterns combined increased from $1612 in 2000 to $2527 in 2005 (57% increase), and declined thereafter, to $2370 in 2006 and $2062 in 2009. Over the decade, average total allowed charges for headache increased by 28%.

Sum and mean of total allowed charges for all care patterns combined for headache, by year.

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Sum	$15.2M	$27.0M	$30.7M	$33.0M	$37.6M	$44.5M	$41.9M	$40.7M	$43.6M	$46.4M
Mean	$1612	$2014	$1942	$2102	$2290	$2527	$2370	$2084	$2074	$2062

Numbers of patients and claims in most care patterns increased over the 10-year period; however, gains were greatest among care patterns involving MDs, PTs, and referral providers or services. Numbers of patients in DC-care patterns increased the least amount. Numbers of patients in care patterns with MDs (with or without referral to PT or other providers but without DC care) increased from 6116 in 2000 to 16,006 in 2009, a gain of 9890 patients (162% increase), whereas numbers of patients in care patterns with DCs (with or without MDs or referral care but without PT care) increased from 1092 in 2000 to 1393 in 2009, a gain of 301 patients (28% increase). Concomitant medical claims increased from 30,481 in 2000 to 80,562 in 2009, a gain of 50,081 claims (164% increase), whereas concomitant chiropractic claims increased from 11,163 in 2000 to 16,068, a gain of 4905 claims (44% increase).

Numbers of patients in care patterns with PTs increased from 219 in 2000 to 673 in 2009, a gain of 454 patients (207% increase); numbers of claims in patterns of care with PTs increased from 2507 in 2000 to 5284 in 2009 (2777 gain; 111% increase).

In office allowed and other charges per patient generally increased for most care patterns through 2005, then declined or leveled off between 2006 and 2009. Total allowed charges per patient generally increased through 2005 and decreased thereafter (though specific care patterns showed gains in 2008 and/or 2009, e.g., (a) MD only and (b) MD-DC and MD-PT with and without referrals). Comparing total allowed charges for headache in 2000 and 2009, care patterns with at least 50 patients showing significant increases in means are DC only [from $1213 to $1737], MD-DC plus referral care [from $2734 to $$4255], MD-PT plus referral care [from $2539 to $3158], MD plus referral care [from $2606 to $3108], MD only care [from $850 to $1232], and referral only care [from $1561 to $2031]. From 2000 to 2009, mean total allowed charges for MD-DC care increased slightly from $1408 to $1522, whereas mean total allowed charges for MD-PT care decreased slightly [from $1724 in 2000 to $1522 in 2009].

Discussion and Conclusions

Mean and median per-patient and per-claim charges associated with headache varied significantly by pattern of care during the 2000-2009 decade. In general, patterns of care involving multiple providers and referral care incurred the largest charges, while patterns of care involving single or non-referral providers incurred the least charges. Mean charges per patient and per claim are substantially higher than median charges for all care patterns, indicating the presence of extremely high-cost cases among the care patterns. Numbers of claims per patient are much higher when chiropractic care is involved; however, mean and median charges per chiropractic claim are appreciably less than mean and median charges per medical claim. Mean charges per physical therapy claim are higher than mean charges per chiropractic claim; however, numbers of physical therapy claims per patient are on average fewer than numbers of chiropractic claims per patient.

Utilization increased for all care patterns over the decade; however, utilization increased most dramatically for care involving MDs, PTs, and referral providers or services. DC care showed the least gains in patients and claims over the decade. Charges increased considerably on average from 2000 to mid-decade and decreased in each subsequent year. Policy changes that took place between 2005 and 2007 may have affected utilization and charges.

As mentioned earlier in this report, for several years (2006-2009) risk scores were available for analysis. The scores reflect measure of risk of expected health care cost and utilization relative to that of the overall population and when utilized, allow for a more accurate comparison of provider cost of care. For example, a score of 1.00 indicates risk comparable to that of the population used in developing the risk groups, whereas a score of 2.00 indicates 100% greater risk than the average for the population. The risk score tables are included in the table section of this report (see Appendix pages 269-270).

The risk score data reveal patterns of care with MDs generally have similar risk scores as patterns of care with DCs. For example, for headache, the mean risk score over the 4-year period was 1.76 for MD only care and 1.75 for DC only care (the more stable medians were 1.19 and 1.25, respectively), indicating essentially equivalent risks. Comparing MDs with referral care and DCs with referral care, the 4-year mean difference is about 5% (2.21 for MDs and 2.11 for DCs). The more stable median risks are actually greater for DC care (1.46 for MD care, 1.56 for DC care [7% greater risk in the DC group]).

Headache cases involving both medical and chiropractic care had fairly similar risk scores as cases with medical and physical therapy care over the 2006-2009 period (without additional referrals: means 2.22 vs. 2.10; medians 1.74 vs. 1.62; with additional referrals: means 2.58 vs. 2.99; medians 2.02 vs. 2.06).

Risk-adjusted mean charges are significantly greater for MD only vs. DC only care and MD-PT vs. MD-DC care in all years (2006-2009) except for MD-PT vs. MD-DC care in 2007 (p=0.3694) and 2009 (p=0.7325). Ratios range from 0.21 to 0.90 (i.e., among headache patients with risk scores between the 40th and 60th percentiles, total allowed charges are on average 10-79% less for DC patients). Risk-adjusted mean charges for DC plus referral care and MD plus referral care are statistically similar except in 2009 (ratio 1.93, p=0.0104). Risk-adjusted mean charges for MD-DC plus referral care and MD-PT plus referral care are also statistically similar except in 2007 (ratio 0.34, p=0.0276).

Risk-adjusted mean total allowed charges by pattern of care and year among patients with headache as a primary diagnosis and with risk scores between the 40th and 60th percentiles.

	2006 (n=1815)	2007 (n=2490)	2008 (n=2906)	2009 (n=3252)
DC only	$191.22	$263.03	$586.57	$594.15
MD only	$454.22	$1246.20	$1791.73	$2097.38
MD+DC	$249.27	$454.99	$615.08	$1807.57
MD+PT	$903.14	$705.09	$1700.07	$2013.43
DC+referral	$633.58	$1299.20	$1505.95	$3770.40
MD+referral	$550.54	$987.08	$1692.51	$1956.04
MD+DC+referral	$440.20	$516.59	$861.91	$1860.49
MD+PT+referral	$411.38	$1541.59	$1361.03	$1592.62

Overall, for headache in 2009, care patterns with MDs (with or without referral to PT or other providers but without DC care) incurred average total per patient charges of $2026; and care patterns with DCs (with or without MDs or referral care but without PT care) incurred average total per patient charges of $2383. Therefore, MD care for headache in 2009 was on average $357 (or 15%) less expensive than DC care. However, *overall* total per patient charges do not reflect the risk-adjusted averages that yield an "apples to apples" comparison of provider's allowable charges, and are significantly different than the risk-adjusted averages.

Although charges per claim were less, on average, for DC-associated claims, patients in DC care patterns had many more claims, on average, than patients in MD care patterns. Not surprisingly, pharmaceutical charges account for a greater proportion of total charges associated with medical care. On average over the decade, the combination of medical and chiropractic care (without additional referral care) incurred $256 fewer total charges per patient than the combination of medical care with physical therapy (without additional referral care); however, with additional referral care, the combination of medical and chiropractic care incurred $483 greater total charges per patient than the combination of medical and physical therapy care. Referrals associated with medical care over the decade were much more expensive than referrals associated with chiropractic care (MD vs. DC referrals: $1856 greater total charges for patient), but referrals associated with MD-DC care were more expensive, on average, than referrals associated with MD-PT care ($739 greater total charges per patient).

Acknowledgements

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Appendix

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Addendum

This study is an analysis of 664,000 covered lives generating 910,778 claims meeting the inclusion criteria over a 10-year period. Mean numbers of claims, mean charges per claim, and mean overall allowed charges per patient were used to analyze costs. The patients were tracked over 15 different care patterns with 49 potential primary diagnoses for headache. This was done to determine the cost of: office visits, advanced imaging, diagnostic x-ray, pharmaceutical prescription, physical therapy, in and out-patient facilities and surgical interventions. These patterns included doctors of chiropractic, physical therapists and medical doctors. The medical doctor category included 15 different specialties.

These methods are reviewed here because the complex design required to track multiple data points through multiple provider patterns, specialties and interventions may confuse the reader. Although stratification and analysis of all data points was needed to describe the totality of utilization and charges, limiting the analysis to patients at similar risk reduces "statistical static" (between-pattern heterogeneity) that can complicate data interpretation. Risk is the potential for higher health-care use and greater charges based upon age, sex, primary diagnosis, comorbidities and use of prescription drugs. Since the average risk score was 1.76 for MD only care and 1.75 for DC only care (the more stable medians were 1.19 and 1.25, respectively), the risks were found to be essentially equivalent for the years that risk scores were available (2006-2009).

With that point established, the risk-adjusted mean charges are significantly greater for medical management with or without physical therapy or specialist referral than chiropractic care (see table in Discussion and Conclusions section). With risk scores that fell between the 40th and 60th percentiles and represented an "apples to apples" comparison, the total allowed charges are on average 10-79% less for DC only patients.

The 2000-2009, data base included an important finding on trends as well. On October 1, 2006, a legislative mandate was implemented for the State of North Carolina Employees Health Plan. The mandate required that insurance copays for primary medical care and chiropractic care be equal. Up until that point, chiropractic copays were equal to higher specialist levels. This mandate was repealed on October 1, 2007, and chiropractic copays were returned to the higher specialist levels. This event created a year-long opportunity to study charges when access to chiropractic care increased due to significantly lower copays.

Before reviewing the impact of the period of the legislative mandate, it should be noted that total allowed charges had tripled from $15.2 million in 2000 to $46.4 million in 2009 (206% increase). With reference to the effect of the legislative mandate: total allowed charges almost tripled from 2000 ($15.2 million) through 2005, (44.5 million) and then declined in 2006 (41.9 million) and 2007 (40.7 million) before rising again in 2008 (43.6 million and 2009 (46.4 million). The decreased total allowed charges which occurred during the North Carolina legislative mandate of October 1, 2006 through October 1, 2007, were reflected in the preceding low back pain and neck pain analysis of the State of North Carolina Employees Health Plan as well.

Over the 4 years during which risk scores are available and risk-adjusted mean charges could be calculated (2006-2009), chiropractic charges range from a low of 10% to a high of 79% less than charges for medical care or medical care with physical therapy for headache patients in the middle quintile of risk. Additionally, increased access to chiropractic care via removal of higher copay barriers was accompanied by lower total allowed charges in a magnitude of millions of dollars.

Technical Report

Comparison of the Management Costs for Complicated and Uncomplicated Low Back Pain Among Different Provider Types: Doctors of Chiropractic, Medical Doctors, and Physical Therapists

The North Carolina State Health Plan for Teachers and State Employees, 2000-2009

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December 16, 2011

Introduction and Methods

This technical report of North Carolina medical claims data analysis focuses on patients with uncomplicated low back pain (ULBP) and patients with complicated low back pain (CLBP) diagnoses reported during years 2000-2009. Each reporting year represents a benefit year starting in July and ending in June. This was done to use the same benefits in a fiscal year. The initial data extraction for this study included the claims for 664,000 covered lives comprising 62% female and 37% male patients. For uncomplicated low back pain, 2,075,866 claims met the inclusion criteria; for complicated low back pain, 1,083,496 claims met the inclusion criteria. Medicare and non-North Carolina residents were excluded.

This report is the first installment in an analysis of some of the most common musculoskeletal conditions seen by health care providers. These conditions include complicated and uncomplicated low back pain, complicated and uncomplicated neck pain and headaches. Following this report, complicated and uncomplicated neck pain and headache will be analyzed and this report will be revised and expanded to include these conditions.

Diagnoses

Patients with uncomplicated low back pain have primary diagnoses falling in the following ICD-9 categories: Lumbago (724.2), lumbar spondylosis (721.3), sprain/strain (847.2), facet syndrome (724.8), muscle spasm (728.85), spondylolisthesis (756.12), facet joint fixation (718.48), and facet joint swelling (719.08).

If a patient's primary diagnosis falls in the categories of degeneration of intervertebral disc (722.52), lumbar stenosis (724.02), compression of spinal nerve root (724.9), disorder of intervertebral disc with myelopathy (722.73), lumbar spondylosis with myelopathy (721.42), neuritis or radiculitis (724.4), numbness or tingling (782), sciatica (724.3), then this patient belongs to the complicated low back pain group.

Health-care providers

The provider type for both uncomplicated and complicated low back pain can be classified into four types: DC, MD, PT, and referral (ref), with each of them defined as DC=Chiropractic; MD=Medical Doctors and Doctors of Osteopathy in General Practice, Internal Medicine, Neurology, Neurosurgery, Obstetrics, Obstetrics-Gynecology, Orthopedic Surgery, Osteopathy, Pediatrics, Physical Medicine Rehab, General Surgery, Family Practice, or Geriatric Medicine; Nurse Practitioner; Podiatry; Public Health; University/College Infirmary; Urgent Care; VA/Military Hospital-Professional Staff; PT=Physical Therapy; and referral=hospitalization, surgery, emergency medicine, diagnostic radiology, durable medical equipment, laboratory, pharmacy, and other specialty referral services and providers.

Claim types

For each fiscal year, the drug claim data is combined with the medical claim data based on each patient's unique ID. There are five major claim types based on the service provided to each patient: "Office Visit", "MRI_CT", "DX_RAD", "Physical Therapy", and "Surgical". The five major claim types are defined as follows:

Office Visit: the place of service provided is in office.

MRI_CT: If the service type belongs to CAT scan, magnetic resonance imaging, computerized axial tomography or similar services, then the claim type is MRI_CT.

DX_RAD: If the service type belongs to diagnostic X-ray, arthrography, radiologic examination, or similar services, then the claim type is DX_RAD.

Physical Therapy: the provider specialty is physical therapy or the service type belongs to physical therapy.

Surgical: surgical services and ancillary services provided by a neurosurgeon, orthopedic surgeon, or general surgeon for patients diagnosed with one or more of the uncomplicated or complicated low back pain diagnoses listed above.

Patterns of care

Based on the utilization of providers, patients were classified into 15 care patterns:

1. MD_only: Patients who only use MD service
2. DC_only: Patients who only use Chiropractic service
3. PT_only: Patients who only use Physical Therapy
4. RE_only: Patients who only use referred provider
5. MD_DC: Patients who use both MD and Chiropractic service
6. MD_PT: Patients who use both MD and Physical Therapy
7. MD_RE: Patients who use both MD and referred provider
8. PT_DC: Patients who use both Physical Therapy and Chiropractic
9. DC_RE: Patients who use both Chiropractic and referred provider
10. PT_RE: Patients who use both Physical Therapy and referred provider
11. MD_DC_PT: Patients who use MD, Chiropractic, and Physical Therapy
12. MD_DC_RE: Patients who use MD, Chiropractic, and referred provider
13. RE_DC_PT: Patients who use Chiropractic, Physical Therapy, and referred provider
14. MD_PT_RE: Patients who use MD, Physical Therapy, and referred provider
15. MD_DC_PT_RE: Patients who use all four providers

Among these 15 care patterns, the PT_only and RE_DC_PT care patterns were not included in tables due to small sample size. Any negative medical or pharmaceutical charges (allowed amount, member liability, and paid amount) were excluded from the analysis. Note: Episodes of care were not used. Episodes of care would have required arbitrary definitions of (a) episode length, (b) time lapse between visits, and (c) time to recurrence.(e.g., reoccur in 1 week, 1 month or 1 year) that have not been validated.

Statistical analysis

SAS 9.2 (Cary, NC) was used for data management and statistical analyses. The demographic variables analyzed are age and gender. Age is calculated as from the patient's birth date as of January 1st of the reporting

year. The summary statistics for age were calculated for each care pattern using the proc means procedure in SAS. The frequency distributions of gender and age group (>=18 or < 18) were calculated by the proc freq procedure in SAS. Proc means and proc freq are the primary procedures in SAS for computing descriptive statistics.

The number of claims for each care pattern was identified by the proc freq procedure in SAS. The number of claims in each provider group for each care pattern was found by the cross tabulation of care pattern and provider type. Within each of those five claim types, the care pattern and provider type were cross-tabulated to identify the number of claims in each provider group for each care pattern by the proc freq procedure in SAS 9.2.

The total and per claim medical, pharmaceutical, and combined expenses were summarized for each patient using the proc means procedure in SAS 9.2. The patient-based and claim-based mean and median of medical, pharmaceutical, and combined medical and pharmaceutical expenses were then summarized for each care pattern by the proc means procedure in SAS 9.2. Pharmaceutical data included only categories for skeletal muscle relaxants, analgesics, antipyretics and anti-inflammatory agents. Pharmacy data were included only on patients that met the diagnostic inclusion criteria.

Results

Utilization and charges by pattern of care for each year are reported in diagnosis- and year-specific Tables 1 through 4. Table 5 for each year shows age and gender distributions (by care pattern) of patients with at least one claim in that year. Approximately two-thirds of patients in both groups of low back pain (uncomplicated and complicated) are female. Complicated low back pain patients are three to four years older, on average, than uncomplicated low back pain patients. Although patterns of care vary somewhat by age and gender, there are no consistent or significant differences by provider type.

Year-to-year utilization and charges by care pattern are shown in Trend tables 1 through 10 and in the year-to-year trend graphs.

Year-specific table contents

Table 1: Utilization and charges, by patient (n=) and claim (n=).

Table 2: Overall (medical + pharmaceutical) mean and median charges ($) according to pattern of care, by patient and claim.

Table 3: Charges ($) per patient and claim, by care pattern and claim type.

Table 4: Overall medical and pharmaceutical charges ($) per patient and claim, by care pattern and claim type.

Table 5: Age and gender distributions for patients (n=).

Trend table contents

Table 1: Number of patients / number of claims.

Table 2: Mean (median) allowed charges per patient / mean (median) allowed charges per claim.

Table 3: Mean allowed charges for in office claims per patient / mean allowed charges for in office claims per claim.

Table 4: Mean allowed charges for MRI_CT claims per patient / mean allowed charges for MRI_CT claims per claim.

Table 5: Mean allowed charges for DX_RAD claims per patient / mean allowed charges for DX_RAD claims per claim.

Table 6: Mean allowed charges for PT_THE claims per patient / mean allowed charges for PT_THE claims per claim.

Table 7: Mean allowed charges for surgical claims per patient / mean allowed charges for surgical claims per claim.

Table 8: Mean (median) allowed overall medical charges per patient / mean (median) allowed overall medical charges per claim.

Table 9: Mean (median) allowed overall pharmaceutical charges per patient / mean (median) allowed overall pharmaceutical charges per claim.

Table 10: Mean (median) allowed overall medical + pharmaceutical charges per patient / mean (median) allowed overall medical + pharmaceutical charges per claim.

Year-to-year trend graphs

Year-to-year trends in utilization and charges for each care pattern are illustrated in the attached line graphs for each type of low back pain.

Uncomplicated low back pain

Results summary: Reference points of average numbers of claims, average charges per claim and average overall allowed charges per patient were used to analyze costs. Average numbers of claims per patient are two to three times greater for care patterns that included chiropractic compared with patterns involving medical care (e.g., 15.7 vs. 5.3 in 2000; 16.5 vs. 6.3 in 2009); however, charges per medical claim were twice to three times greater on average than chiropractic claims. For all years, care patterns involving multiple types of providers resulted in significantly greater average charges per patient than care patterns involving single providers. In general, care patterns with MDs and referrals resulted in greater average charges per patient than care patterns with non-referral provider types such as DC and PT providers. Charges are generally greatest when referrals are involved. When looking at average overall allowed charges (which differs from individual claim charges), MD-only care, DC-only care, and MD-DC care are consistently the three least expensive patterns of care for uncomplicated low back pain (mean [median] total allowed charges in 2009 of $978 [$182], $1165 [$277], and $1667 [$300], respectively).

Medical care with physical therapy is more expensive than medical care with chiropractic whether or not care includes referral providers. Without referral providers involved, medical care with physical therapy was on average more expensive than medical care with chiropractic. With referral providers, medical care with

physical therapy was on average $561 (in 2000) to $2508 (in 2008) more expensive than medical care with chiropractic.

Mean difference in total allowed charges for medical care with physical therapy vs. medical care with chiropractic care for uncomplicated low back pain, by referral status and year.

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
No ref	+$373	+$423	+$361	+$706	+$723	+$762	+$477	+$269	+$254	+$303
W/ref	+$561	+$1105	+$1659	+$2028	+$1681	+$1639	+$1763	+$1746	+$2508	+$1308

Trends: Number of patients with at least one claim for uncomplicated low back pain increased from 13,534 in 2000 to 31,964 in 2009 (136% increase). Total claims increased from 110,134 in 2000 to 263,112 in 2009 (139% increase). Total allowed charges for the year increased from $20,232,558 in 2000 to $69,317,553 in 2009. Total charges increased almost threefold (2.95) from 2000 to 2006, then declined slightly between 2006 and 2007 (from $59,575,853 to $59,095,693) before escalating by 17% from 2007 to 2009. Of historical note; on October 1, 2006, a legislative mandate was implemented for the State of North Carolina Employees Health Plan. The mandate required that insurance copays for primary care and chiropractic care be equal. Up until that point, chiropractic copays were equal to higher specialist levels. This mandate was reversed effective October 1, 2007 and chiropractic copays were returned to the higher specialist levels.

Average total charges for all care patterns combined increased from $1495 in 2000 to $2396 in 2006 (60% increase), and declined to $2096 in 2007 (12.5% decrease) before climbing up to $2220 in 2008 and $2169 in 2009. Over the decade, average total allowed charges for uncomplicated low back pain increased by 45%.

Sum and mean of total allowed charges for all care patterns combined for uncomplicated low back pain, by year.

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Sum	$20.2M	$34.1M	$41.0M	$47.2M	$54.3M	$58.7M	$59.6M	$59.1M	$66.4M	$69.3M
Mean	$1495	$1792	$1876	$2116	$2363	$2394	$2396	$2096	$2220	$2169

Numbers of patients and claims in all care patterns increased over the 10-year period; however, gains were greatest among care patterns involving MDs, PTs, and referrals. Numbers of patients in DC-care patterns increased the least amount. Numbers of patients in care patterns with MDs (with or without referral to PT or other providers but without DC care) increased from 7,375 in 2000 to 21,044 in 2009, a gain of 13,669 patients (185% increase), whereas numbers of patients in care patterns with DCs (with or without MDs or referral care but without PT care) increased from 3,390 in 2000 to 5,055 in 2009, a gain of 1665 patients (49% increase). Concomitant medical claims increased from 38,712 in 2000 to 133,435 in 2009, a gain of 94,723 claims (245% increase), whereas concomitant chiropractic claims increased from 53,119 in 2000 to 83,565, a gain of 30,446 (57% increase).

In office allowed and other charges per patient generally increased for most care patterns up to 2006, then declined between 2006 and 2009. With the exception of MD-only care, total allowed charges per patient generally increased up to 2006 and decreased thereafter. Comparing total allowed charges for uncomplicated low back pain in 2000 and 2009, care patterns showing significant increases in means are DC_RE [from $2081 to $2424], MD_DC_PT_RE [from $4053 to $6292], MD_DC_RE [from $2823 to $3807], MD_RE_PT [from

$3384 to $5115], MD_RE [from $2167 to $3152], MD_only [from $608 to $978], PT_RE [from $3272 to $4033], and RE_only [from $1398 to $2314]. DC_only mean charges did not increase or decrease, but remained stable. Total allowed charges did not decline significantly for any care pattern.

Complicated low back pain

Results summary: Patterns of care involving chiropractic had on average double to triple the number of claims per patient compared to that of medical care (e.g., 19.9 vs. 5.8 in 2000; 20.4 vs. 7.9 in 2009); however, chiropractic claims were on average one-third to one-half the cost of medical claims. For all years, care patterns involving multiple types of providers resulted in greater average charges than care patterns involving single providers. In general, care patterns with MDs resulted in greater average charges than care patterns with non-referral provider types. As with uncomplicated low back pain, charges are generally greatest when referrals are involved, and DC-only care and MD-only care are consistently the least expensive patterns of care (mean [median] total allowed charges in 2009 of $1394 [$324] and $1498 [$250], respectively).

Medical care with physical therapy is generally less expensive than medical care with chiropractic when care does not include referral providers (mean total allowed charges in 2009 of $1888 vs. $2642); however, when referral care is involved, the combination of medical and chiropractic care is generally less expensive than the combination of medical and physical therapy care. Without referral providers involved, medical care with physical therapy was on average $494 (in 2004) to $1567 (in 2006) less expensive than medical care with chiropractic. With referral providers, medical care with physical therapy was on average $1270 (in 2009) to $3038 (in 2004) more expensive than medical care with chiropractic.

Mean difference in total allowed charges for medical care with physical therapy vs. medical care with chiropractic care for complicated low back pain, by referral status and year.

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
No ref	-$1032	-$982	-$627	-$564	-$494	-$1199	-$1567	-$928	-$1504	-$754
W/ref	+$1592	+$1453	+$2183	+$2544	+$3038	+$1810	+$2044	+$1450	+$1463	+$1270

Trends: Number of patients with at least one claim for complicated low back pain increased from 5,097 in 2000 to 14,139 in 2009 (177% increase). Total claims increased from 53,705 in 2000 to 151,012 in 2009 (181% increase). Total allowed charges increased from $15,940,924 in 2000 to $60,872,188 in 2009. There was a threefold increase in total charges from 2000 to 2006 ($47,464,445) and a slight decline to $46,469,859 in 2007. Total charges rose sharply in the last two years, however, to $52,199,992 in 2008 and $60,872,188 in 2009 (31% increase from 2007 to 2009). Average total charges for all care patterns combined increased from $3128 in 2000 to $4465 in 2006 (43% increase), and declined to $3768 in 2007 before escalating to $3977 in 2008 and $4305 in 2009. Over the decade, average total allowed charges for complicated low back pain increased by 38%.

Sum and mean of total allowed charges for all care patterns combined for complicated low back pain, by year.

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Sum	$15.9M	$26.2M	$29.2M	$33.4M	$42.6M	$43.8M	$47.4M	$46.5M	$52.2M	$60.9M
Mean	$3128	$3752	$3524	$3988	$4680	$4359	$4465	$3768	$3977	$4305

As with uncomplicated low back pain, numbers of patients and claims in all care patterns increased over the 10-year period; however, gains were greatest among care patterns involving MDs, PTs, and referrals. Numbers of patients in DC-care patterns increased the least amount. Numbers of patients in care patterns with MDs (with or without referral to PT or other providers but without DC care) increased from 2798 in 2000 to 9122 in 2009, a gain of 6,324 patients (226% increase), whereas numbers of patients in care patterns with DCs (with or without MDs or referral care but without PT care) increased from 1427 in 2000 to 2540 in 2009, a gain of 1113 patients (78% increase). Concomitant medical claims increased from 16,315 in 2000 to 71,702 in 2009, a gain of 55,387 claims (339% increase), whereas concomitant chiropractic claims increased from 28,468 in 2000 to 51,778, a gain of 23,310 (82% increase).

On average, in office allowed and other non-pharmaceutical charges per patient increased from 2000 to 2006, and then declined thereafter for most patterns of care. Pharmaceutical charges tended to increase, on average, over the 10-year reporting period. Total allowed charges associated with MD-only care or MD care with referrals tended to increase, on average, whereas charges associated with other care patterns decreased over time. Comparing total allowed charges for complicated low back pain in 2000 and 2009, care patterns showing significant increases in means are MD_DC_PT_RE [from $4293 to $10,201], MD_DC_PT [from $1449 to $2281], MD_DC_RE [from $4678 to $6455], MD_RE_PT [from $6270 to $7725], MD_RE [from $5125 to $6224], MD_only [from $907 to $1498], and RE_only [from $2443 to $3913]; total allowed charges decreased significantly in the PT_DC care pattern [from $7348 to $3404]. DC_only mean charges did not increase or decrease, but remained stable.

Discussion and Conclusions

Utilization (numbers of patients and claims) are greater for uncomplicated low back pain; however, charges are substantially greater for care of complicated low back pain. Mean and median per-patient and per-claim charges associated with both uncomplicated and complicated low back pain varied significantly by pattern of care during the 2000-2009 decade. In general, patterns of care involving multiple providers and referrals incurred the largest charges, while patterns of care involving single or non-referral providers incurred the least charges. Mean charges are substantially higher than median charges for all care patterns, indicating the presence of extremely high-cost cases among the care patterns. Numbers of claims per patient are higher when chiropractic care is involved; however, mean charges per chiropractic claim are significantly less than mean charges per medical claim. Mean charges per physical therapy claim are higher than mean charges per chiropractic claim; however, numbers of physical therapy claims per patient are on average fewer than numbers of chiropractic claims per patient.

Utilization increased for all care patterns over the decade; however, utilization increased most dramatically for care involving MDs, PTs, and referral providers. DC care showed the least gains in patients and claims over the decade. In fact, numbers of claims involving DC care were greater than numbers of claims involving MD care in 2000 (53,119 vs. 38,712 for ULBP; 28,468 vs. 16,315 for CLBP) but not in 2009 (83,565 vs. 133,435 for ULBP; 51,778 vs. 71,702 for CLBP). Charges increased considerably on average for both uncomplicated and complicated low back pain from 2000 to mid-decade and decreased or stabilized, then increased again in 2008 and 2009. This opens the question of the possible impact of policy changes taking place between 2005 and 2007. Complicated low back pain resulted in greater charges than uncomplicated low back pain for all care patterns except for patterns involving PTs, MDs, and DCs together.

For several years, 2006-2009, risk scores were available for analysis. The scores reflect measure of risk of expected health care cost and utilization relative to that of the overall population. For example, a score of 1.00 indicates risk comparable to that of the population used in developing the risk groups, whereas a score of

2.00 indicates 100% greater risk than the average for the population. The risk score tables are included in the table section of this report (see Appendix pages 501-502).

The risk score data revealed: patterns of care with MDs generally have higher risk scores than patterns of care with DCs, but the scores do not appear highly divergent from each other. For example, looking at the uncomplicated low back pain, 2009 medians (which are more stable estimates because of outliers that skew the means), MD only care has a median of 1.25 vs. 1.14 for DC only care (about a 10% difference). Comparing MDs and DCs with and without referral, the difference is about 16%. As expected, the risk scores for complicated low back pain are higher than for uncomplicated low back pain, but the MD vs. DC differences are largely similar and in the same direction, e.g., MD only vs. DC only in 2009 (11% greater median risk for MD only cases), MD with referral vs. DC with referral (9% greater median risk for MD cases).

The question is, are 10-20% differences in risk (or 0.10-0.20 absolute differences) of expected health care cost and utilization clinically important? Using an analogy with blood pressure, a treatment that results in a systolic blood pressure reduction from 140 mmHg to 120 mmHg would be considered important (clinically significant) in comparison to another treatment that results in a reduction from 140 mmHg to 135 mmHg. In contrast, treatments that result in blood pressure reductions of 2 vs. 4 points would probably not be considered clinically meaningful. Though we would like to know if the differences in risk scores between the different patterns are clinically meaningful or not, we are unable to answer that question.

Overall, for uncomplicated low back pain in 2009, care patterns with MDs (with or without referral to PT or other providers but without DC care) incurred average total per patient charges of $2212.36; and care patterns with DCs (with or without MDs or referral care but without PT care) incurred average total per patient charges of $1363.01. Therefore, MD care for uncomplicated low back pain in 2009 was on average $849.35 (or 62.3%) more expensive than DC care. Although pharmaceutical charges account for about one-third of total charges, physical therapy charges are responsible for much of the difference in charges between MD and DC care for uncomplicated low back pain. On average over the decade, the combination of medical and chiropractic care (without additional referral care) incurred $465 fewer total charges per patient than the combination of medical care with physical therapy (without additional referral care). The combination of medical and chiropractic care with additional referral care incurred $1600 fewer total charges per patient than the combination of medical and physical therapy care with additional referral care.

Overall, for complicated low back pain in 2009, care patterns with MDs (with or without referral to PT or other providers but without DC care) incurred average total per patient charges of $4909.10; and care patterns with DCs (with or without MDs or referral care but without PT care) incurred average total per patient charges of $1745.80. Therefore, MD care for complicated low back pain in 2009 was on average $3163.30 (or 181.2%) more expensive than DC care. Surgery, advanced imaging, and physical therapy charges are the main drivers of the difference in charges between MD and DC care for complicated low back pain. On average over the decade, the combination of medical and chiropractic care (without additional referral care) incurred $965 greater total charges per patient than the combination of medical care with physical therapy (without additional referral care). The combination of medical and chiropractic care with additional referral care incurred $1885 fewer total charges per patient than the combination of medical and physical therapy care with additional referral care.

This study was made possible with the assistance of the North Carolina General Assembly, by a grant from NCMIC Research Foundation, with the technical assistance of Ms. Patricia Rowe, Clinical Health Care Analyst, North Carolina State Employees Health Plan, Blue Cross/Blue Shield North Carolina, and Dr. Dongmei Li, Assistant Professor of Biostatistics, University of Hawaii, Mānoa.

Appendix

Table of Contents

Technical Report

Comparison of the Management Costs for Complicated and Uncomplicated Neck Pain Among Different Provider Types: Doctors of Chiropractic, Medical Doctors, and Physical Therapists

The North Carolina State Health Plan for Teachers and State Employees, 2000-2009

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November 27, 2012

Introduction and Methods

This technical report of North Carolina medical claims data analysis focuses on patients with uncomplicated neck pain (UNP) and patients with complicated neck pain (CNP) diagnoses reported during years 2000-2009. Each reporting year represents a benefit year starting in July and ending in June. This was done to use the same benefits in a fiscal year. The initial data extraction for this study included the claims for 664,000 covered lives comprising 62% female and 37% male patients. For uncomplicated neck pain, 2,795,046 claims met the inclusion criteria; for complicated neck pain, 529,318 claims met the inclusion criteria. Medicare and non-North Carolina residents were excluded.

This report is the second installment in an analysis of some of the most common musculoskeletal conditions seen by health care providers. These conditions include complicated and uncomplicated low back pain (covered in the first report), complicated and uncomplicated neck pain (covered in this report), and headaches (covered in the third report, forthcoming). Following this report, headache will be analyzed and each technical report will then be revised and expanded to include all of these conditions.

Diagnoses

Patients with uncomplicated neck pain have primary diagnoses falling in the following ICD-9 categories: Cervical spondylosis w/o myelopathy (721.0), degeneration of cervical intervertebral disc (722.4), postlaminectomy syndrome, cervical region (722.81), other and unspecified disc disorder, cervical region (722.91), cervicalgia (723.1), cervicobrachial syndrome (diffuse) (723.3), torticollis, unspecified (723.5), ossification of posterior longitudinal ligament in cervical region (723.7), other syndromes affecting cervical region (723.8), unspecified musculoskeletal disorders and symptoms referable to neck (723.9), nonallopathic lesions, cervical region (739.1), and sprain of neck (847.0).

If a patient's primary diagnosis falls in the categories of cervical root lesions, not elsewhere classified (353.2), cervical spondylosis with myelopathy (721.1), displacement of cervical intervertebral disc without myelopathy (722.0), intervertebral disc disorder with myelopathy, cervical region (722.71), spinal stenosis in cervical region (723.0), brachial neuritis or radiculitis NOS (723.4), panniculitis specified as affecting neck (723.6), injury to cervical nerve root (953.0), or injury to brachial plexus (953.4), then this patient belongs to the complicated neck pain group.

Health-care providers

The provider type for both uncomplicated and complicated neck pain can be classified into four types: DC, MD, PT, and referral (RE or ref), with each of them defined as DC=Chiropractic; MD=Medical Doctors and Doctors of Osteopathy in General Practice, Internal Medicine, Neurology, Neurosurgery, Obstetrics, Obstetrics-Gynecology, Orthopedic Surgery, Osteopathy, Pediatrics, Physical Medicine Rehab, General Surgery, Family Practice, or Geriatric Medicine; Nurse Practitioner; Podiatry; Public Health; University/College Infirmary; Urgent Care; VA/Military Hospital-Professional Staff; PT=Physical Therapy; and referral=hospitalization, surgery, emergency medicine, diagnostic radiology, durable medical equipment, laboratory, pharmacy, and other specialty referral services and providers.

Claim types

For each fiscal year, drug claim data are combined with the medical claim data based on each patient's unique ID. There are five major claim types based on the service provided to each patient: "Office Visit", "MRI_CT", "DX_RAD", "Physical Therapy", and "Surgical". The five major claim types are defined as follows:

Office Visit: the place of service provided is in office.

MRI_CT: If the service type belongs to CAT scan, magnetic resonance imaging, computerized axial tomography or similar services, then the claim type is MRI_CT.

DX_RAD: If the service type belongs to diagnostic X-ray, arthrography, radiologic examination, or similar services, then the claim type is DX_RAD.

Physical Therapy: the provider specialty is physical therapy or the service type belongs to physical therapy.

Surgical: surgical services and ancillary services provided by a neurosurgeon, orthopedic surgeon, or general surgeon for patients diagnosed with one or more of the uncomplicated or complicated neck pain diagnoses listed above.

Patterns of care

Based on the utilization of providers, patients were classified into 15 care patterns:

1. MD_only: Patients who only use MD service
2. DC_only: Patients who only use Chiropractic service
3. PT_only: Patients who only use Physical Therapy
4. RE_only: Patients who only use referred provider or service
5. MD_DC: Patients who use both MD and Chiropractic service
6. MD_PT: Patients who use both MD and Physical Therapy
7. MD_RE: Patients who use both MD and referred provider or service
8. PT_DC: Patients who use both Physical Therapy and Chiropractic
9. DC_RE: Patients who use both Chiropractic and referred provider or service
10. PT_RE: Patients who use both Physical Therapy and referred provider or service
11. MD_DC_PT: Patients who use MD, Chiropractic, and Physical Therapy
12. MD_DC_RE: Patients who use MD, Chiropractic, and referred provider or service
13. RE_DC_PT: Patients who use Chiropractic, Physical Therapy, and referred provider or service

14. MD_PT_RE: Patients who use MD, Physical Therapy, and referred provider or service

15. MD_DC_PT_RE: Patients who use all four provider types

Among these 15 care patterns, the PT_only care pattern was not included in tables due to small sample size. Any negative medical or pharmaceutical charges (allowed amount, member liability, and paid amount) were excluded from the analysis. Note: Episodes of care were not used. Episodes of care would have required arbitrary definitions of (a) episode length, (b) time lapse between visits, and (c) time to recurrence.(e.g., reoccur in 1 week, 1 month or 1 year) that have not been validated.

Statistical analysis

SAS 9.2 (Cary, NC) was used for data management and statistical analyses. The demographic variables analyzed are age and gender. Age is calculated from the patient's birth date as of January 1st of the reporting year. The summary statistics for age were calculated for each care pattern using the *proc means* procedure in SAS. The frequency distributions of gender and age group (>=18 years old or < 18 years old) were calculated by the *proc freq* procedure in SAS. *Proc means* and *proc freq* are the primary procedures in SAS for computing descriptive statistics.

The number of claims for each care pattern was identified by the *proc freq* procedure. The number of claims in each provider group for each care pattern was found by the cross tabulation of care pattern and provider type. Within each of those five claim types, the care pattern and provider type were cross-tabulated to identify the number of claims in each provider group for each care pattern by the *proc freq* procedure.

The total and per claim medical, pharmaceutical, and combined expenses were summarized for each patient using the *proc means* procedure. The patient-based and claim-based mean and median of medical, pharmaceutical, and combined medical and pharmaceutical expenses were then summarized for each care pattern by the proc means procedure. Pharmaceutical data included only categories for skeletal muscle relaxants, analgesics, antipyretics and anti-inflammatory agents. Pharmacy data were included only on patients that met the diagnostic inclusion criteria.

Results

Utilization and charges by pattern of care for each year are reported in diagnosis- and year-specific Tables 1 through 4. Table 5 for each year shows age and gender distributions (by care pattern) of patients with at least one claim in that year. Approximately seventy percent of patients in both groups of neck pain (uncomplicated and complicated) are female. Complicated neck pain patients are five to six years older, on average, than uncomplicated neck pain patients. Although patterns of care vary somewhat by age and gender, there are no consistent or significant differences by provider type.

Year-specific table contents

Table 1: Utilization and charges, by patient (n=) and claim (n=).

Table 2: Overall (medical + pharmaceutical) mean and median charges ($) according to pattern of care, by patient and claim.

Table 3: Charges ($) per patient and claim, by care pattern and claim type.

Table 4: Overall medical and pharmaceutical charges ($) per patient and claim, by care pattern and claim type.

Table 5: Age and gender distributions for patients (n=).

Uncomplicated neck pain

Results summary: Mean numbers of claims, charges per claim, and mean overall allowed charges per patient were used to analyze costs. Average numbers of claims per patient are generally higher for care patterns that included chiropractic compared with patterns involving medical care; however, charges per medical claim were much greater on average than chiropractic claims. For all years, care patterns involving multiple types of providers resulted in appreciably greater average charges per patient than care patterns involving single providers. In general, care patterns with MDs and referrals resulted in greater average charges per patient than care patterns with non-referral provider types such as DC and PT providers. When looking at average overall allowed charges (which differs from individual claim charges), MD-only care, DC-only care, and referral-only care are consistently the three least expensive patterns of care for uncomplicated neck pain (mean [median] total allowed charges in 2009 of $1118 [$192], $1407 [$291], and $2202 [$394], respectively).

Medical care with physical therapy is much more expensive than medical care with chiropractic when care involves referral providers. Without referral providers or services, medical care with physical therapy was on average just $28 more expensive than medical care with chiropractic in 2009. However, with referral providers, medical care with physical therapy was on average $1048 (in 2000) to $2473 (in 2009) more expensive than medical care with chiropractic.

Mean difference in total allowed charges for medical care with physical therapy vs. medical care with chiropractic care for uncomplicated neck pain, by referral status and year.

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
No ref	-$204	-$358	-$668	-$283	-$809	-$261	-$1031	-$705	-$217	+$28
W/ref	+$1048	-$48	+$1555	+$1238	+$347	+$1039	+$1420	+$1331	+$2333	+$2473

The total allowed charges of medical care with referrals are substantially larger on average than the total allowed charges of chiropractic care with referrals, i.e., MD referrals to other providers and services are much more costly than DC referrals to other providers and services. For example in 2009, compared with DC care with referrals, MD care with referrals resulted in an average of $1140 greater total charges (MD referrals added $2440 to total charges, on average, vs. $1300 for DC referrals). Medical care with DC care plus referrals was on average $2445 less expensive than medical care with PT care plus referrals in 2009 (MD-PT referrals added $4311 to total charges, on average, vs. $1866 for MD-DC referrals).

Mean difference in total allowed charges for (a) medical care with referrals vs. chiropractic care with referrals and (b) medical care with PT plus referrals vs. medical care with DC plus referrals for uncomplicated neck pain, by year.

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
(a)	+$555	+$414	+$953	+$1522	+$1541	+$1628	+$2074	+$901	+$989	+$1140
(b)	+$1252	+$310	+$2223	+$1521	+$1156	+$1300	+$2451	+$2036	+$2550	+$2445

Trends: Number of patients with at least one claim for uncomplicated neck pain increased from 11,383 in 2000 to 20,492 in 2009 (80% increase). Total claims increased from 168,632 in 2000 to 195,757 in 2009 (16% increase). Total allowed charges for the year more than doubled from $23,323,308 in 2000 to $53,039,049 in 2009 (127% increase). Total charges tripled from 2000 to 2006, then declined between 2006 and 2009 (from $70.8 to $53.0 million). Of historical note; on October 1, 2006, a legislative mandate was implemented for the State of North Carolina Employees Health Plan. The mandate required that insurance copays for primary care and chiropractic care be equal. Up until that point, chiropractic copays were equal to higher specialist levels. This mandate was reversed effective October 1, 2007 and chiropractic copays were returned to the higher specialist levels.

Average total charges for all care patterns combined increased from $2094 in 2000 to $3280 in 2006 (57% increase), and declined to $2575 in 2007 (21.5% decrease) before climbing up to $2733 in 2008 and $2642 in 2009. Over the decade, average total allowed charges for uncomplicated neck pain increased by 26%.

Sum and mean of total allowed charges for all care patterns combined for uncomplicated neck pain, by year.

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Sum	$23.3M	$37.3M	$45.7M	$52.2M	$59.7M	$69.0M	$70.8M	$56.4M	$57.3M	$53.0M
Mean	$2094	$2374	$2462	$2776	$3014	$3225	$3280	$2575	$2733	$2642

Numbers of patients and claims in most care patterns increased over the 10-year period; however, gains were greatest among care patterns involving MDs, PTs, and referral providers or services. Numbers of patients in DC-care patterns increased the least amount or decreased. Numbers of patients in care patterns with MDs (with or without referral to PT or other providers but without DC care) increased from 4,125 in 2000 to 11,772 in 2009, a gain of 7,647 patients (185% increase), whereas numbers of patients in care patterns with DCs (with or without MDs or referral care but without PT care) decreased from 5331 in 2000 to 4472 in 2009, a loss of 859 patients (16% decrease). Concomitant medical claims increased from 29,128 in 2000 to 84,224 in 2009, a gain of 55,096 claims (189% increase), whereas concomitant chiropractic claims decreased from 123,160 in 2000 to 80,829, a loss of 42,331 claims (34% decrease). Numbers of patients in care patterns with PTs increased from 810 in 2000 to 2193 in 2009, a gain of 1383 patients (171% increase); numbers of claims in patterns of care with PTs increased from 19,830 in 2000 to 40,644 in 2009 (20,814 gain; 105% increase).

In office allowed and other charges per patient generally increased for most care patterns up to 2006, then declined between 2006 and 2009. With the exception of MD-only care, total allowed charges per patient generally increased up to 2006 and decreased thereafter. Comparing total allowed charges for uncomplicated neck pain in 2000 and 2009, care patterns showing significant increases in means are MD_DC_PT_RE [from

$6847 to $7478], MD_RE_PT [from $5374 to $6598], MD_RE [from $2717 to $3558], MD_only [from $762 to $1118], PT_RE [from $4394 to $6285], RE_only [from $1265 to $2202], RE_DC_PT [from $3779 to $4660], and MD_DC_PT [from $3230 to $3979]. Mean total allowed charges for MD_PT care and the other care patterns that include DCs decreased from 2000 to 2009 [MD_PT: $2672 to $2287; MD_DC: $2876 to $2259; DC_only: $1566 to $1407].

Complicated neck pain

Results summary: Patterns of care involving chiropractic had on average three- to fourfold higher numbers of claims per patient compared to that of medical care; however, chiropractic claims were on average 60-80% less costly than medical claims. For all years, care patterns involving multiple types of providers resulted in greater average charges than care patterns involving single providers. In general, care patterns with MDs resulted in greater average charges than care patterns with non-referral provider types. As with uncomplicated neck pain, charges are generally greatest when referral providers or services are involved. MD-only care is consistently the least expensive pattern of care (mean [median] total allowed charges in 2009 of $1318 [$224].

When care does not include referral providers or services, throughout most of the decade medical care with physical therapy was generally less expensive than medical care with chiropractic; however, when referral care is involved, the combination of medical and chiropractic care is much less expensive than the combination of medical and physical therapy care. With referral providers, medical care with physical therapy was on average $2255 (in 2000) to $4119 (in 2009) more expensive than medical care with chiropractic.

Mean difference in total allowed charges for medical care with physical therapy vs. medical care with chiropractic care for complicated neck pain, by referral status and year.

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
No ref	-$1542	-$21	-$783	-$896	-$1584	-$1700	-$1806	-$2539	-$845	+$127
W/ref	+$2255	+$1222	+$2123	+$1687	-$478	-$232	+$5191	+$2270	+$1315	+$4119

As with uncomplicated neck pain, total allowed charges of medical care with referrals for complicated neck pain are substantially larger on average than the total allowed charges of chiropractic care with referrals. Compared to DC care with referrals in 2009, MD care with referrals resulted in an average of $6116 greater total charges (MD referrals added $8033 to total charges, on average, vs. $1917 for DC referrals). Medical care with DC care plus referrals for complicated neck pain in 2009 was on average $3992 less expensive than medical care with PT care plus referrals (MD-PT referrals added $8461 to total charges, on average, vs. $4469 for MD-DC referrals).

Mean difference in total allowed charges for (a) medical care with referrals vs. chiropractic care with referrals and (b) medical care with PT plus referrals vs. medical care with DC plus referrals for complicated neck pain, by year.

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
(a)	+$6578	+$5635	+$4966	+$5538	+$6007	+$7788	+$6803	+$5705	+$7997	+$6116
(b)	+$3797	+$1243	+$2906	+$2583	+$1106	+$1468	+$6997	+$4809	+$2160	+$3992

Trends: Number of patients with at least one claim for complicated neck pain increased from 2,431 in 2000 to 5,345 in 2009 (120% increase). Total claims increased from 28,076 in 2000 to 62,064 in 2009 (121% increase). Total allowed charges more than tripled from $10,966,365 in 2000 to $33,040,953 in 2009 (201% increase). There was an almost 3-fold increase in total charges from 2000 to 2005 ($31.2 million) and a decline to $28.6 million in 2006 and $25.7 million in 2007. Total charges rose in the last two years, however, to $31.3 million in 2008 and $33,040,953 in 2009 (28.4% increase from 2007 to 2009). Average total charges for all care patterns combined increased from $4562 in 2000 to $6948 in 2005 (52% increase), and declined to $6194 in 2006 and $5337 in 2007 before escalating to $6184 in 2008 and $6242 in 2009. Over the decade, average total allowed charges for complicated neck pain increased by 37%.

Sum and mean of total allowed charges for all care patterns combined for complicated neck pain, by year.

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Sum	$11.0M	$17.8M	$20.5M	$22.5M	$26.0M	$31.2M	$28.6M	$25.7M	$31.3M	$33.0M
Mean	$4562	$5194	$5115	$5581	$6193	$6948	$6194	$5337	$6184	$6242

As with uncomplicated neck pain, numbers of patients and claims in most care patterns increased over the 10-year period; however, gains were greatest among care patterns involving MDs, PTs, and referral providers or services. Numbers of patients in DC-care patterns increased the least amount. Numbers of patients in care patterns with MDs (with or without referral to PT or other providers but without DC care) increased from 1309 in 2000 to 3382 in 2009, a gain of 2,073 patients (158% increase), whereas numbers of patients in care patterns with DCs (with or without MDs or referral care but without PT care) increased from 892 in 2000 to 1360 in 2009, a gain of 468 patients (52% increase). Concomitant medical claims increased from 9,608 in 2000 to 28,479 in 2009, a gain of 26,908 claims (196% increase), whereas concomitant chiropractic claims increased from 16,433 in 2000 to 27,532, a gain of 11,099 patients (68% increase). Numbers of patients in care patterns with PTs increased from 299 in 2000 to 840 in 2009, a gain of 541 patients (181% increase); numbers of claims in patterns of care with PTs increased from 4331 in 2000 to 11,729 in 2009 (7,398 gain; 171% increase).

On average, in office allowed and other non-pharmaceutical charges per patient increased from 2000 to 2006, and then declined thereafter for most patterns of care. Pharmaceutical charges tended to increase, on average, over the 10-year reporting period. Total allowed charges associated with MD-only care or MD care with referrals tended to increase, on average, whereas charges associated with other care patterns decreased over time. Comparing total allowed charges for complicated neck pain in 2000 and 2009, care patterns showing significant increases in means are MD_DC_PT_RE [from $8253 to $9913], MD_DC_PT [from $1152 to $7947], MD_RE_PT [from $8217 to $10,533], MD_RE [from $7513 to $9351], MD_only [from $1118 to $1318], MD_DC_RE [from $5962 to $6414], MD_PT [from $1504 to $2072], DC_RE [from 41410 to $3485], PT_RE [from $1966 to $2570], and RE_only [from $2381 to $3410]; total allowed charges decreased significantly in the MD_DC [from $3046 to $1945] and PT_DC [from $3632 to $1406] care patterns. DC_only mean charges did not increase or decrease, but remained stable [$1593 in 2000; $1568 in 2009].

Discussion and Conclusions

Utilization (numbers of patients and claims) are greater for uncomplicated neck pain; however, charges are substantially greater for care of complicated neck pain. Mean and median per-patient and per-claim charges associated with both uncomplicated and complicated neck pain varied significantly by pattern of care during the 2000-2009 decade. In general, patterns of care involving multiple providers and referral providers and services incurred the largest charges, while patterns of care involving single or non-referral providers incurred the least charges. Mean charges are substantially higher than median charges for all care patterns, indicating the presence of extremely high-cost cases among the care patterns. Numbers of claims per patient are higher when chiropractic care is involved; however, mean charges per chiropractic claim are significantly less than mean charges per medical claim. Mean charges per physical therapy claim are higher than mean charges per chiropractic claim; however, numbers of physical therapy claims per patient are on average fewer than numbers of chiropractic claims per patient.

Utilization increased for all care patterns over the decade; however, utilization increased most dramatically for care involving MDs, PTs, and referral providers or services. DC care showed the least gains in patients and claims over the decade. Charges increased considerably on average for both uncomplicated and complicated neck pain from 2000 to mid-decade and decreased or stabilized, then increased again in 2008 and 2009. This opens the question of the possible impact of policy changes taking place between 2005 and 2007. Over the decade, complicated neck pain resulted in greater charges than uncomplicated neck pain for the vast majority of care patterns.

For several years, 2006-2009, risk scores were available for analysis. The scores reflect measure of risk of expected health care cost and utilization relative to that of the overall population. For example, a score of 1.00 indicates risk comparable to that of the population used in developing the risk groups, whereas a score of 2.00 indicates 100% greater risk than the average for the population. The risk score tables are included in the table section of this report (see Appendix pages 501-502).

The risk score data reveal patterns of care with MDs generally have somewhat higher risk scores than patterns of care with DCs. For example, for uncomplicated neck pain, the mean risk score over the 4-year period was 1.77 for MD only care and 1.67 for DC only care (the more stable medians were 1.16 and 1.17, respectively, indicating essentially equivalent risks). Comparing MDs with referral care and DCs with referral care, the 4-year mean difference is about 10% (2.30 for MDs and 2.09 for DCs). The median risks are even more similar (1.60 for MD care, 1.51 for DC care [6% greater risk]). The risk scores for complicated neck pain are on average higher than for uncomplicated neck pain; however, the MD vs. DC differences are largely similar and in the same direction, e.g., MD only vs. DC only care over the 4-year period (16% greater mean risk for MD only cases: 2.22 vs. 1.92; medians 1.61 vs. 1.47 [10% greater risk]). MD with referral cases of complicated neck pain had on average 25% greater mean risk than DC cases with referrals (2.70 vs. 2.16); medians 1.97 vs. 1.64 (20% greater risk).

Uncomplicated neck pain cases involving both medical and chiropractic care had similar risk scores as cases with medical and physical therapy care over the 2006-2009 period (without additional referrals: means 2.05 vs. 2.04; medians 1.53 vs. 1.46; with additional referrals: means 2.47 vs. 2.35; medians 1.90 vs. 1.66). Complicated neck pain cases with both MD and DC claims also had largely similar risk scores as MD cases with PT claims (without additional referrals: means 2.42 vs. 2.47; medians 1.97 vs. 1.76; with additional referrals: means 2.43 vs. 2.70; medians 1.85 vs. 1.95).

Overall, for uncomplicated neck pain in 2009, care patterns with MDs (with or without referral to PT or other providers but without DC care) incurred average total per patient charges of $2904; and care patterns with DCs (with or without MDs or referral care but without PT care) incurred average total per patient charges of

$1971. Therefore, MD care for uncomplicated neck pain in 2009 was on average $933 (or 47.3%) more expensive than DC care. Although pharmaceutical charges account for about one-third of total charges, physical therapy charges are responsible for much of the difference in charges between MD and DC care for uncomplicated low back pain. On average over the decade, the combination of medical and chiropractic care (without additional referral care) incurred $450 greater total charges per patient than the combination of medical care with physical therapy (without additional referral care); however, with additional referral care, the combination of medical and chiropractic care incurred $1274 fewer total charges per patient than the combination of medical and physical therapy care. Referrals associated with medical care over the decade were also much more expensive than referrals associated with chiropractic care (MD vs. DC referrals: $1172 greater total charges for patient; MD-PT vs. MD-DC referrals: $1724 greater total charges per patient).

Overall, for complicated neck pain in 2009, care patterns with MDs (with or without referral to PT or other providers but without DC care) incurred average total per patient charges of $7984; and care patterns with DCs (with or without MDs or referral care but without PT care) incurred average total per patient charges of $2686. Therefore, MD care for complicated neck pain in 2009 was on average $5298 (or 197%) more expensive than DC care. Surgery, advanced imaging, and physical therapy charges are the main drivers of the difference in charges between MD and DC care for complicated neck pain. On average over the decade, the combination of medical and chiropractic care (without additional referral care) incurred $1159 greater total charges per patient than the combination of medical care with physical therapy (without additional referral care). The combination of medical and chiropractic care with additional referral care incurred $1947 fewer total charges per patient than the combination of medical and physical therapy care with additional referral care. As with uncomplicated neck pain, referrals associated with medical care over the decade were also much more expensive than referrals associated with chiropractic care (MD vs. DC referrals: $6313 greater total charges for patient; MD-PT vs. MD-DC referrals: $3106 greater total charges per patient).

This study was made possible with the assistance of the North Carolina General Assembly, by grants from NCMIC Research Foundation and Health Networks Solutions, Inc., and with the technical assistance of Ms. Patricia Rowe, Clinical Health Care Analyst, North Carolina State Employees Health Plan, Blue Cross/Blue Shield North Carolina, and Dr. Dongmei Li, Assistant Professor of Biostatistics, University of Hawaii, Mānoa.

Appendix

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NC CHIROPRACTIC ASSOCIATION

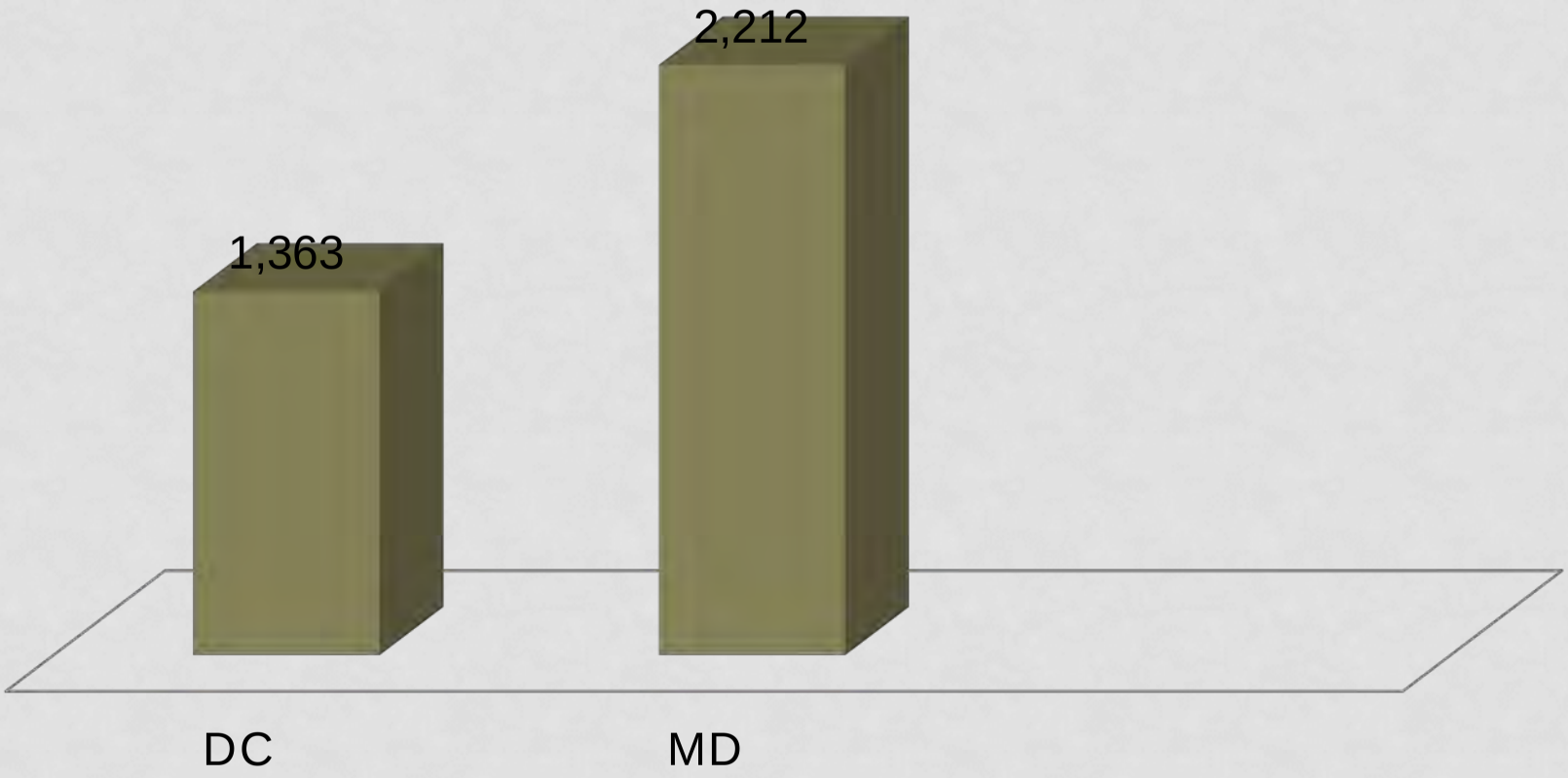
LOWER CHIROPRACTIC CO-PAYS WILL RESULT IN SAVINGS TO THE STATE HEALTH PLAN

Dr. Joe Siragusa – Executive Director
www.ncchiro.org drjoe@ncchiro.org 919-832-0611 ext. 104

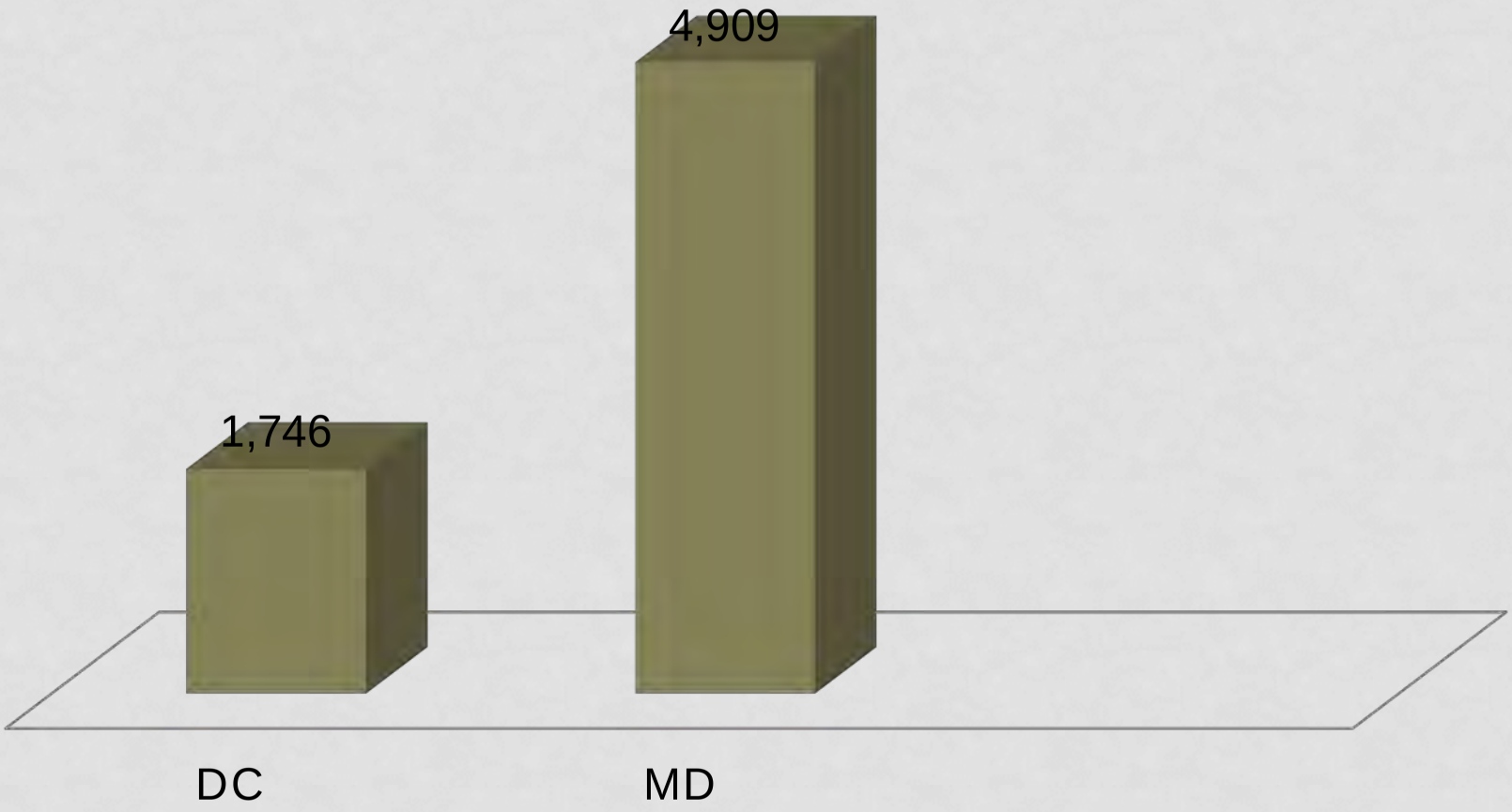
OVER 7 MILLION CLAIMS CAN'T BE WRONG!

- Study was authorized by the NC General Assembly in 2009.
- Conducted with the assistance of the SHP Executive Administrator, Senior Health Care Analyst and the cooperation BCBS of NC.
- Retrospective closed claim analysis of the costs of treating neck pain, low back pain and headache in patients insured by the State Employees Health Plan (SHP) in NC from 2000-2009.
- Research was conducted by epidemiologists at the University of Hawaii and funded by grants (Not the NCCA). Principal Investigator Dr. Shawn Phelan.

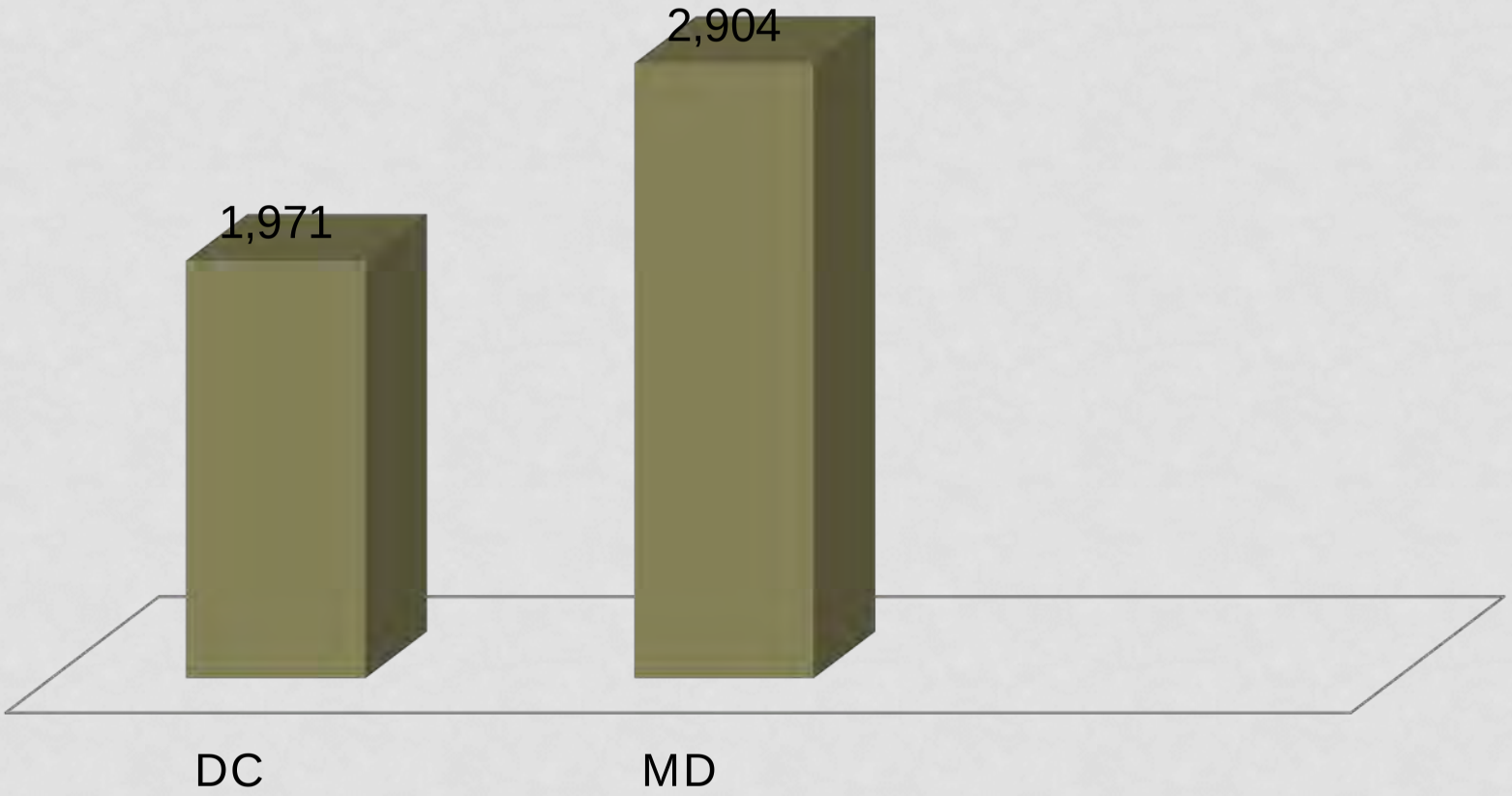
AVERAGE TOTAL *PER PATIENT* SHP CHARGES: 2009 UNCOMPLICATED LOW BACK PAIN



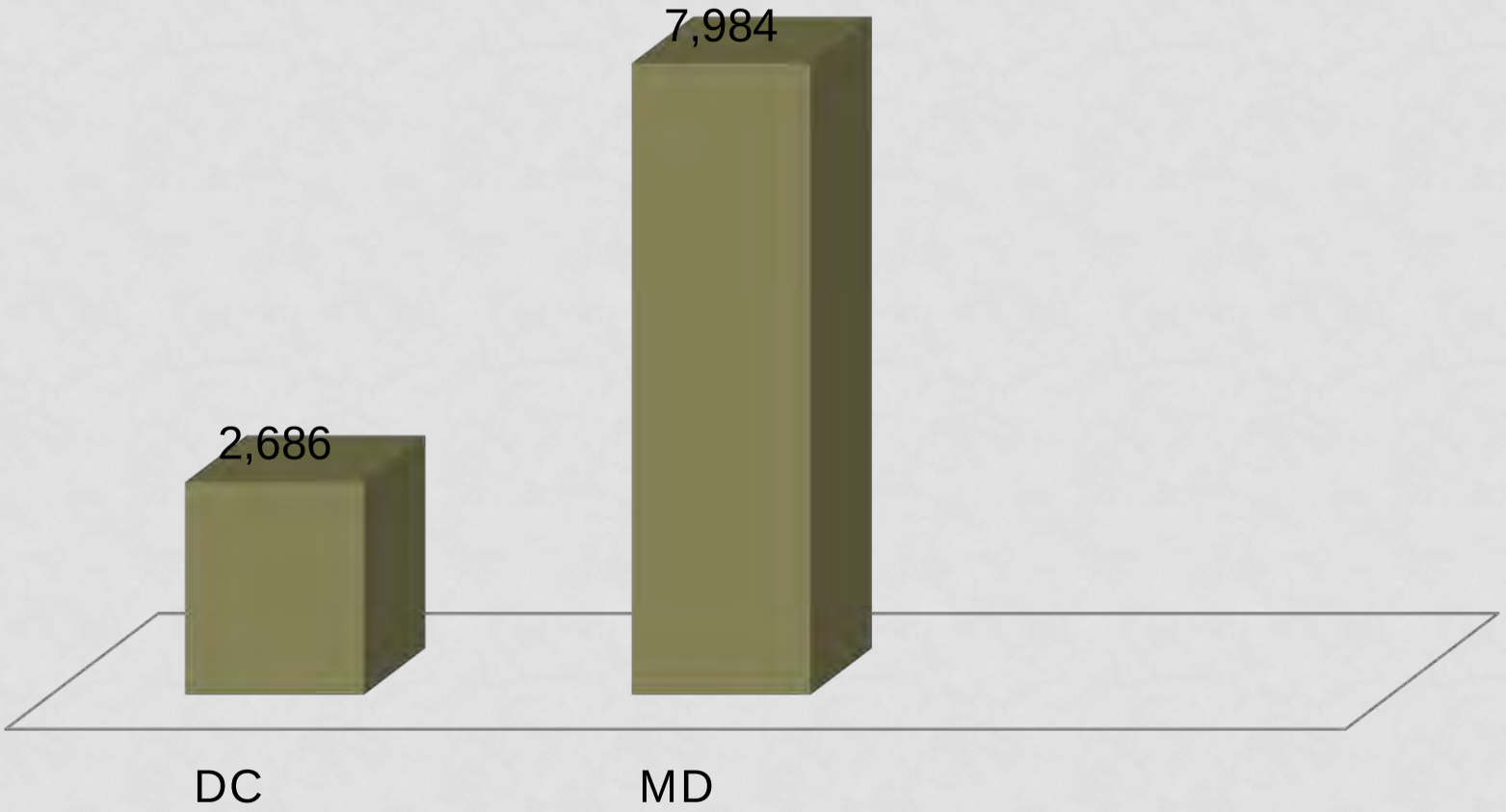
AVERAGE TOTAL *PER PATIENT* SHP CHARGES: 2009 COMPLICATED LOW BACK PAIN



AVERAGE TOTAL *PER PATIENT* SHP CHARGES: 2009 UNCOMPLICATED NECK PAIN



AVERAGE TOTAL *PER PATIENT* SHP CHARGES: 2009 COMPLICATED NECK PAIN



RISK-ADJUSTED AVERAGE TOTAL ALLOWED CHARGES FOR HEADACHE: 2009

WHAT DOES THE SHP INCENTIVIZE ?

70/30 Plan

MD Primary Care $35 (plus prescriptions)

DC Primary Care $64

Co-pay difference for an 8 visit DC treatment plan = $232

80/20 Plan

MD Primary Care $30 (plus prescriptions)

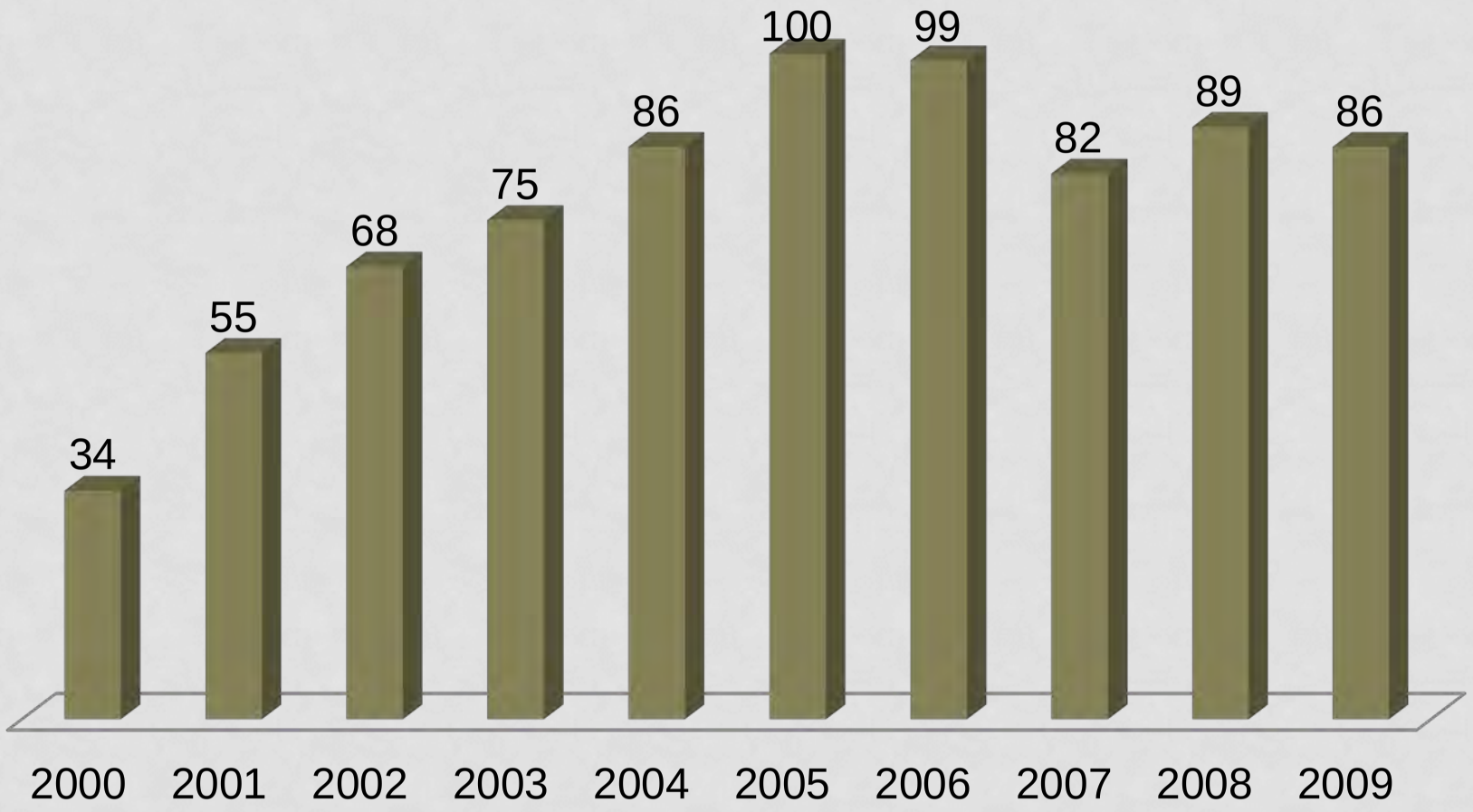
DC Primary Care $52

Co-pay difference for an 8 visit DC treatment plan = $176

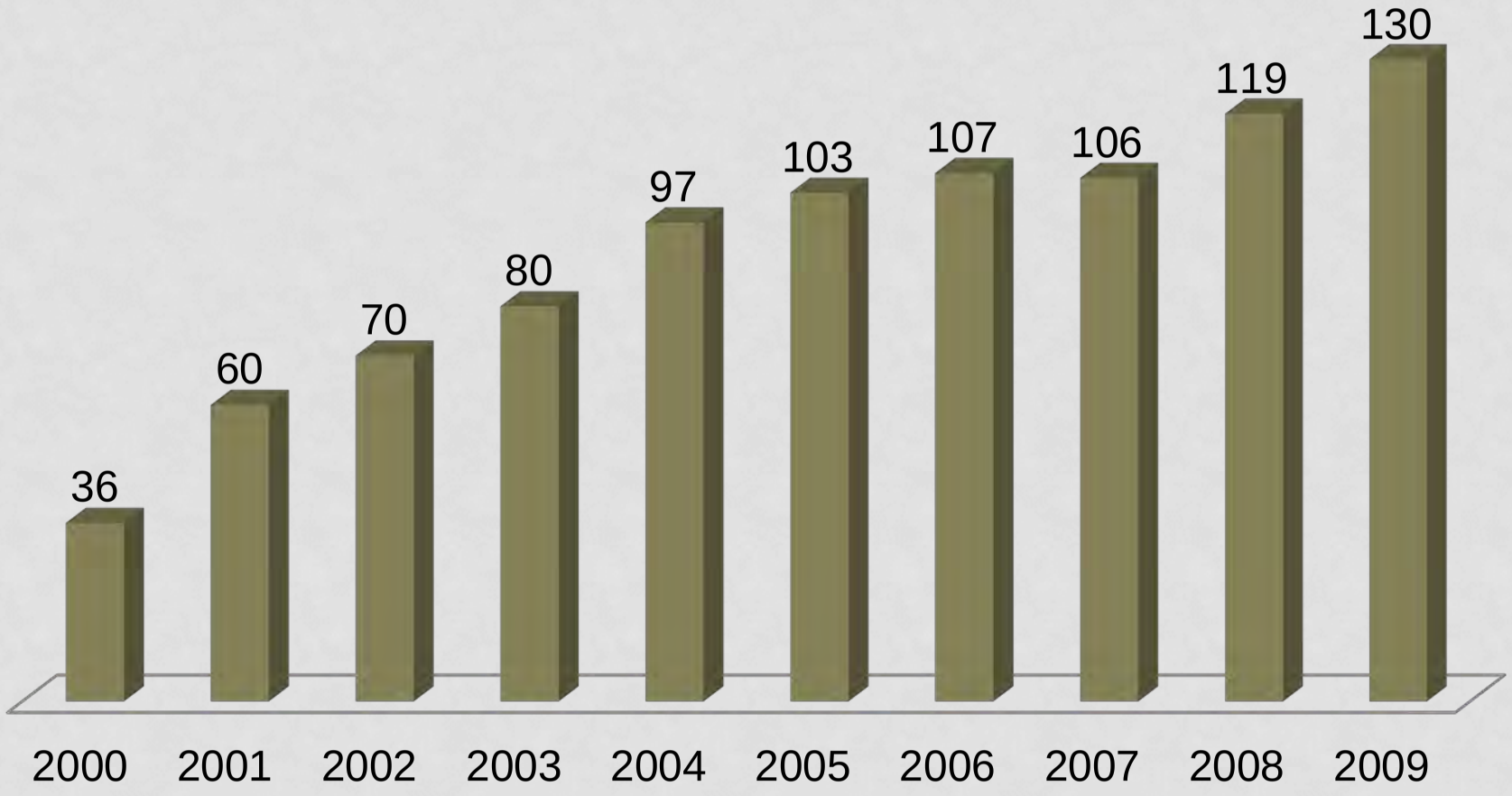
WHY WILL LOWER CO-PAYS SAVE THE SHP MILLIONS OF DOLLARS?

- We can compare the cost trends from 2000-2009 with ONE YEAR of lower chiropractic co-pays.
- In 2006 the general assembly passed legislation to equalize chiropractic co-pays with primary care co-pays.
- Approximately, one year later that legislation was repealed (for political reasons).
- During that one year, costs to the SHP for the selected conditions DROPPED by millions of dollars but rose again after repeal.

TOTAL SHP CHARGES: 2000-2009 FOR NECK PAIN (MILLIONS)



TOTAL SHP CHARGES: 2000-2009 FOR LOW BACK PAIN (MILLIONS)



WHY SHOULD SHP CHIROPRACTIC CO-PAYS BE LOWERED?

- Chiropractic Care for low back pain, neck pain, and headache is safe, non-drug, non-surgery care for State Health Plan insureds, provided by Doctors of Chiropractic who are licensed by the state of NC.
- Chiropractic Care is cost-effective compared to standard medical care for selected conditions and can save the patient money.
- Chiropractic care, when properly incentivized by lower co-pays can potentially save the SHP millions of dollars.

From: Beth Horner
Sent: Thursday, November 14, 2013 2:04 PM
To: Mona Moon; Lotta Crabtree (Lotta.Crabtree@nctreasurer.com)
Cc: Lorraine Munk (Lorraine.Munk@nctreasurer.com)
Subject: FW: Request-Consideration of Changes to State Health Plan
Attachments: consideration-change-to-benefits.pdf; Proposal to the Board of Trustees-SHP Nov. 2013.docx

Follow Up Flag: Follow up
Flag Status: Flagged

Categories: BOT

Another request….

From: Edmund Regan [mailto:eddie@ncrgea.com]
Sent: Thursday, November 14, 2013 1:55 PM
To: SHPNC Board
Cc: Lorraine Munk
Subject: Request-Consideration of Changes to State Health Plan

Members of the SHP Board of Trustees:
Please find attached our form requesting an opportunity to present a proposed change to the State Health Plan. We also have included additional background in support of our request.

Please contact me if you have questions. Thank you for your consideration.

Ed Regan
Executive Director
North Carolina Retired Governmental Employees' Association

Phone: 919-834-4652 or 1-800-356-1190

DST Reference:	**SHP-PRO-7001-SHP**
Title:	**Procedure - Requests for Benefit Changes**
Cross Reference:	**n/a**
Chapter:	**State Health Plan Board of Trustees**
Current Effective Date:	**November 6, 2013**
Revision History:	
Original Effective Date:	**November 6, 2013**

Applies to: **NC Department of State Treasurer – SHP Division**

Keywords: Board of Trustees, benefits, coverage, presentation, meeting, changes

Purpose

The purpose of this procedure is to provide a process for the public to communicate with the State Health Plan Board of Trustees regarding requests for changes to member benefits coverage. This procedure is specifically targeted towards groups or individuals that may represent the interest of certain segments of State Health Plan membership as it relates to their health and health care.

Related Statutes, Rules, and Policies

The By-Laws for the North Carolina State Health Plan Board of Trustees provide that one meeting per year will be used to review requests made by individuals or groups for changes in benefits under the State Health Plan.

Procedure

In fulfilling its mission to improve the health and health care of North Carolina teachers, state employees, retirees, and their dependents, this procedure establishes a forum for individuals or groups to propose changes in benefits coverage to the State Health Plan Board of Trustees. The Board of Trustees will designate one meeting per calendar year to review requests for changes in benefits coverage that are submitted by the public in accordance with this procedure.

Implementation

- Individuals or groups wishing to request changes to benefits must complete a "*Request Form for Board of Trustee Consideration of a Change to SHP Benefits."* The required form is attached to this procedure as Appendix A.
- Request forms should be submitted by email to SHP.Board@nctreasurer.com or mailed to: NC State Health Plan Board of Trustees, 4901 Glenwood Avenue, Suite 300, Raleigh, NC 27612-3638.
- The Board of Trustees will designate one meeting each calendar year to review requests. Not all requests may be reviewed at the meeting; whether or not a request will be reviewed at the designated meeting is at the discretion of the State Treasurer.
- Requestors will be allowed to present or address the Board of Trustees at the discretion of the State Treasurer.
- If the requestor will be allowed to address the Board of Trustees regarding the request, notice of the time and place of the meeting will be provided to the requestor at least one week before the designated Board of Trustees meeting.
- Requests submitted to the Board of Trustees for consideration in no way obligates the State Treasurer to allow the requestor to address the Board of Trustees or make changes to benefits.

Revision History

Version/Revision	Date Approved	Description of Changes
V1.0	11/6/13	Initial Procedure

*For questions or clarification on any of the information contained in this policy, please contact the procedure owner or designated contact point: **(Lotta.Crabtree@nctreasurer.com)**. For general questions about department-wide policies and procedures, contact the DST Policy Coordinator: **Sandra.Johnson@nctreasurer.com**.*

APPENDIX A

Request Form for Board of Trustee Consideration of a Change to SHP Benefits

This form is to be used by individuals or groups that would like to propose new benefits coverage or request changes to benefits already covered by the State Health Plan. Please read the Procedure – Requests for Benefits Changes, SHP-PRO-7001-SHPfor more information regarding these types of requests.

Please submit completed forms by email to SHP.Board@nctreasurer.com or mail to NC State Health Plan Board of Trustees, 4901 Glenwood Avenue, Suite 300, Raleigh, NC 27612-3638.

Name of Requestor: Edmund P. Regan

Contact Information (*phone, email, mailing address):* (919) 834-4652
eddie@ncrgea.com, P.O. Box 10561, Raleigh, NC 27605-0561

Requested Change in Benefits Coverage: Addition of Medicare Supplement w/ EGWP Drugs

Reason for Request: Provide Medicare primary members with another cost-effective option

Proposed Effective Date of Change: January 1, 2015

Supporting Documentation (*Please provide documents to support your request; examples include research or studies regarding medical services, treatment or procedures, fiscal impact analyses if available, or petitions from members.*):

Would you like to speak with the Board of Trustees about this issue at a Board of Trustees meeting? Yes. If possible, I would like to speak at the November 22 meeting.

The Board of Trustees reviews select requests annually at a regularly scheduled Board of Trustee meeting. For calendar year 2013, requests will be reviewed at the November meeting. For calendar year 2014, requests will be reviewed at the July meeting. Review of requests in no way obligates the State Treasurer to make changes to benefits.

Proposal to the Board of Trustees of the State Health Plan
Presented By the N C Retired Governmental Employees' Association
November, 2013

Introduction

The Board of Trustees of the State Health Plan took a bold step this year by expanding the coverage options available to retired state employees and teachers to include two different Medicare Advantage plans. The aim of this change was to reduce cost for the Plan while providing members with equal or better coverage.

In the course of the open enrollment for 2014, the North Carolina Retired Governmental Employees' Association received many inquiries from members who urged our organization to support additional options for Medicare primary retirees. Specifically, members expressed a strong interest in having the State Health Plan offer some form of group Medicare Supplement combined with a Medicare prescription drug plan in 2015.

Proposal

The North Carolina Retired Governmental Employees' Association (NCRGEA) formally requests that the Board of Trustees of the State Health Plan examine the feasibility of providing a self insured group Medicare Supplement Plan in conjunction with a Medicare Part D prescription drug plan equivalent to the EGWP plan that was offered to Medicare eligible retirees by the State Health Plan during the 2012-13 Plan year. NCRGEA believes that this additional coverage option would provide members with good coverage at a lower employer cost than the Traditional 70/30 PPO.

It appears that a significant number of Medicare primary members have remained with the Traditional 70/30 PPO for 2014 because they were concerned about the long-term stability of Medicare Advantage Plans in general. The introduction of a strong Medicare Supplement paired with the EGWP Medicare Part D prescription benefit as an option for retirees likely would attract members who stayed with the Traditional 70/30 PPO in 2014 and produce some savings for the state.

Financial Feasibilty

The state's employer contribution for the Traditional 70/30 PPO in 2014 has been set at $348.25 per member per month. Final figures are not yet available on the per member per month cost to the State Health Plan for the EGWP Part D prescription drug benefit during the 2013 plan year. Likewise, we do not have an estimate of how much a self insured group

Medicare Supplement would cost in terms of a monthly per member contribution by the state. However, there are figures available that suggest a study by the staff of the State Health Plan is worthy of consideration. The actual state expenditures in the first three quarters of 2013 for the EGWP Part D prescription drug benefits averaged $151.41*. Although we cannot estimate the employer cost of offering a self insured group Medicare Supplement, the current median monthly premium for individual Medicare F Plan Supplements being offered by insurance companies during 2013 in North Carolina is roughly $177.00**. A self insured group supplement offered by the State Health Plan likely would require a lower monthly employer contribution. Nevertheless, even using the median for individual Medicare Supplements, the combined employer cost of the proposed coverage option would be $328.41 per member per month as compared to the $348.25 contributed by the state for retirees who remain on the Traditional 70/30 PPO.

Notes

*****The nine-month employer cost of $151.41 per member per month is contained in a report: Cash Flow for the SHP Employer Group Waiver Program (EGWP) Prescription Drug Benefit, prepared by the North Carolina State Health Plan for Teachers and State Employees (SHP), October 2013.

**The median average monthly premium of $177 was calculated from data on premiums charged by 36 insurance companies that offer Medicare Plan F Supplements in North Carolina as reported in the most recent SHIIP Medicare Supplement Comparison Guide issued by the NC Department of Insurance, Seniors' Health Insurance Information Program. The calculation is based on premiums charged to 70 year old males for an Plan F Supplement.

From:	Chuck Stone
To:	SHPNC Board
Cc:	Ardis Watkins; Lorraine Munk; Mona Moon; Legislative
Subject:	State Health Plan Benefit Change Requests from SEANC
Date:	Friday, November 15, 2013 11:51:50 AM
Attachments:	SHP Benefit Change Request-SEANC 2013.pdf SHP Benefit Change Request-SEANC 2013.doc Ethics--Service Provider Political Disclosure Policy.docx
Importance:	High

Pursuant to SHP-PRO-7001-SHP, the State Employees Association of North Carolina is requesting to address the State Health Plan Board of Trustees regarding the attached recommendations for benefit changes. The third attachment, "Ethics—Service Provider Political Disclosure Policy," relates to benefit change suggestion 5. Thank you for this opportunity.

Request Form for Board of Trustees Consideration of a Change to SHP Benefits

Name of Requestor: State Employees Association of North Carolina (SEANC)

Contact Information: Ardis Watkins, Director of Legislative Affairs
Office: (919) 833-6436 Cell: (919) 210-6984
E-Mail: awatkins@seanc.org
Mailing Address: SEANC, SEIU Local 2008
PO Drawer 27727
Raleigh, NC 27611

Requested Change in Benefits Coverage (SEANC 1): Link Hospital reimbursement rates to a percentage of Medicare rates, such as 110% of Medicare rates.

Reason for Request:

1. Potential to save $300-$400 million per year in Plan expenses
2. Center for Medicare Services estimates that efficient, well-run hospitals can make a modest profit off Medicare reimbursement rates.
3. SEGAL Report to Board of Trustees, 5/28/13 found State Health Plan payments to hospitals for medical treatment, especially outpatient care exceed the norm.
4. Data extrapolated from a 2/12/2010 News and Observer article on the State Health Plan and hospital reimbursement rates indicated that the State Health Plan paid an average of 256% of Medicare rates to selected hospitals.
5. Department of Corrections reduced inmate hospital medical expenses by 40+% by linking reimbursement rates to Medicaid. Medicaid rates are lower than Medicare rates.
6. As a major purchaser of health care services, the State Health Plan should qualify for discounted rates, thus reducing Plan costs to the members and taxpayers.

Effective Date: July 1, 2014

Requested Change in Benefits Coverage (SEANC 2): Reestablish a premium free health care benefit equivalent to the current PPO 80/20 and eliminate Wellness Premium Surcharges for the new PPO 80/20. Request General Assembly provide funding for positive cash incentives of $50 for designating a Primary Care Physician and $50 for Completion of a Health Assessment.

Reason for Request:

1. Benefit reductions, premium increases and other changes to the State Health Plan since 2008 cost-shifted an average of $1,300 annually to every active employee/early retiree and $1,000 annually to every Medicare retiree. (General Assembly Fiscal Notes)
2. State Employees have only had a 1.2% pay increase in the past 5 years.
3. While many health insurance plans have begun imposing premium surcharges for smoking, the use of premium surcharges for designation of a Primary Care Physician and

Completion of Health Assessments is not routine. Some other health insurance plans provide cash incentives for the Primary Care Physician and Health Assessment.

Effective Date: July 1, 2014

Requested Change in Benefits Coverage (SEANC 3): Reduce generic drug copays to a maximum of $10 per script.

Reason for Request:

1. The current generic drug copay of $12 is near the maximum of the scale and not competitive with large employer prescription drug copays for generics.
2. A lower generic drug copay would increase medication adherence and reduce more costly medical care.
3. While state law requires pharmacies to charge State Health Plan members the lesser of the current generic copay, or the price charged to the general public, anecdotal evidence suggests that many pharmacies evade this provision by requiring a pharmacy prescription drug card to qualify for lower generic copays (such as $4 for a one month supply) or automatically defaulting to the $12 generic copay.
4. Save money for State Health Plan members.

Effective Date: July 1, 2014

Requested Change in Benefits Coverage (SEANC 4): Eliminate payment for hospital "never events" where hospital errors result in additional expense to the State Health Plan and members.

Reason for Request:

1. The Center for Medicare/Medicaid Services (CMS) and many major insurance companies have this policy in place.
2. The State Health Plan and its members should not pay additional fees arising from hospital errors.
3. Save money for the State Health Plan and State Health Plan members.

Effective Date: July 1, 2014

Requested Change in Benefits Coverage (SEANC 5): Strengthen State Health Plan Ethics by seeking legislation or adopting a policy requiring political disclosure by service providers.

Reason for Request:

1. The State Health Plan Board of Trustees is subject to strong ethical standards, and similar standards should apply to contract vendors.

2. The State Health Plan Board of Trustees cannot adequately protect the fiduciary interests of State Health Plan members and the State without disclosure of political contributions and support which might undermine the stated mission of the State Health Plan.
3. Document Attached

Effective Date: July 1, 2014

Requested Change in Benefits Coverage (SEANC 6): Provide or study the option of a Medicare Supplement Policy or cash benefit for Medicare Retirees with automatic adjustments for health care inflation, age and adverse risk. Alternately, provide a PPO 80/20 Option for Medicare Retirees wishing to maintain Traditional Medicare.

Reason for Request:

1. Many retirees have requested this as an option.
2. Development of a Medicare Supplement option must avoid adverse impact on other State Health Plan options for retirees.

Effective Date: July 1, 2014

Requested Change in Benefits Coverage (SEANC 7): Correlate the State Health Plan Medicare Retiree enrollment with federal Medicare enrollment periods.

Reason for Request:

1. Eliminate confusion by State Health Plan Medicare Retirees
2. Ensure Medicare Retirees have an opportunity to compare health insurance options

Effective Date: No later than November 1, 2014

Requested Change in Benefits Coverage (SEANC 8): Provide annual publication and notice to State Health Plan members of ratings on health insurance products offered by the State Health Plan such as the Affordable Care Act Star Rating System for Active Employees, the Medicare Health Outcomes Survey Ratings (Medicare Retirees), HEDIS and similar ratings such as the Committee on Medical Quality Assurance (CMQA).

Reason for Request:

1. Ensure that State Health Plan members, legislators and citizens are informed as to the quality of products offered through the State Health Plan.
2. Ensure Accountability
3. Provide for informed consumers in selection of State Health Plan options.

Effective Date: As soon as possible, but no later than the earliest reporting period in 2015 for State Health Plan calendar year 2014.

Requested Change in Benefits Coverage (SEANC 9): Provide a combined medical and pharmaceutical maximum out-of-pocket limit not to exceed $5,000 annually per covered member for the PPO options.

Reason for Request:

1. Allows State Health Plan members to budget better for medical expenses.
2. Limits financial liability of State Health Plan members for out-of-pocket expenses which is essential given the lack of pay raises and low salaries.
3. Allows State Health Plan members to focus on job responsibilities rather than medical bills.

Effective Date: July 1, 2014

Requested Change in Benefits Coverage (SEANC 10): Establish a Member Self-Audit Rewards program to reimburse State Health Plan members for finding billing errors and overcharges with a minimum reward of 10% and a cap not to exceed $7,500.

Reason for Request:

1. Official audits routinely sample only a small percentage of claims filed and paid, thus leaving many errors undetected.
2. Provides a positive incentive for State Health Plan members to become knowledgeable and informed of health costs and detect billing errors and potential fraud.
3. Saves the State Health Plan money.
4. Increases accountability in the State Health Plan

Effective Date: July 1, 2014

Requested Change in Benefits Coverage (SEANC 11): Support HB 498 adopted by the 2013 Session of the North Carolina House which would provide limited health insurance coverage for Autism Spectrum Disorder.

Reason for Request:

1. Surrounding states including Virginia and South Carolina have adopted this legislation putting North Carolina at a competitive disadvantage in the next round of military base closures and potentially adversely impacting 10% of North Carolina's economy.
2. Early intervention and treatment of Autism Spectrum Disorder benefits both dependents of State Health Plan members under age 22, but can be offset by reduced adult institutional care and public education costs.

3. Actuarial costs have been estimated by General Assembly Fiscal Research staff at $2.5 million in year one and increasing to $12-$14 million per year when fully funded, though costs in states with this benefit have averaged less than one half of one percent of all claims.

Effective Date: July 1, 2014

Requested Change in Benefits Coverage (SEANC 12): Reimburse State Health Plan members for overdraft fees and bad check charges arising from enrollment/bank draft/payroll errors by the State Health Plan or its vendors.

Reason for Request:

1. A Medicare retiree who enrolled a dependent spouse in the State Health Plan with an effective date of 1/1/14 found the deduction of approximately $400 was implemented from the October retirement check.
2. Since most state employees must live month to month, an error in this amount would lead to overdraft and bad check charges for many State Health Plan members through no fault of their own.
3. Responsible parties should be accountable for their errors and make appropriate restitution.

Effective Date: January 1, 2014

Requested Change in Benefits Coverage (SEANC 13): Seek support for federal regulatory or Congressional action to the Affordable Care Act which would enable dependents of State Health Plan members to qualify for tax credits and premium subsidies in the Health Benefit Exchanges. Alternatively, seek funding from the State for an equivalent premium subsidy in the State Health Plan for dependent coverage.

Reason for Request:

1. An IRS ruling on the Affordable Care Act defined "affordability" for health insurance based solely on the cost of employee only premiums not exceeding 9.5% of Adjusted Gross Income.
2. Under the IRS ruling, health insurance premiums for employee only coverage under the State Health Plan are affordable, but an estimated 2/3 of state employees cannot afford $8,000 for family premiums.
3. The current ruling on affordability thereby denies dependent family members from qualifying for tax credits and premium subsidies under the Affordable Care Act. It also adversely impacts many other North Carolinians whose employers pay a significant portion of the employee coverage, but little, if anything, toward dependent premiums.

Effective Date: January 1, 2014

North Carolina
State Health Plan
FOR TEACHERS AND STATE EMPLOYEES

September 2013 Financial Report

Board of Trustees Meeting

November 22, 2013

A Division of the Department of State Treasurer

Financial Results: Actual v. Budgeted
Year to Date September 2013

Short Plan Year July-December 2013	Actual thru Sep 2013	Certified Budget (per Segal 8-19-13)	Variance Over/(Under) Budget
Beginning Cash Balance	$783.5 m	$755.8 m	$27.7 m
Plan Revenue	$749.4 m	$736.1 m	$13.3 m
Net Claims Payments	$759.0 m	$735.9 m	$23.1 m
Net Administrative Expenses	$41.1 m	$45.7 m	($4.6 m)
Total Plan Expenses	$800.1 m	$781.6 m	$18.5 m
Net Income/(Loss)	($50.7 m)	($45.5 m)	($5.2 m)
Ending Cash Balance	$732.8 m	$710.3 m	$22.5 m

Adjusted Variance Report
Year to Date September 2013

Short Plan Year July-December 2013	Actual thru Sep 2013, As Adjusted	Certified Budget (per Segal 8-19-13)	Variance Over/(Under) Budget
Beginning Cash Balance	$783.5 m	$755.8 m	$27.7 m
Plan Revenue *	$737.8 m	$736.1 m	$1.7 m
Net Claims Payments †	$753.6 m	$735.9 m	$17.7 m
Net Administrative Expenses ^	$41.7 m	$45.7 m	($4.0 m)
Total Plan Expenses	$795.3 m	$781.6 m	$13.7 m
Net Income/(Loss)	($57.5 m)	($45.5 m)	($12.0 m)
Ending Cash Balance	$726.0 m	$710.3 m	$15.7 m

* Adjusted for timing issues and to exclude nonbudgeted revenues.
† Adjusted for timing issues.
^ Includes administrative expenses that were pending at the end of the month.

Financial Results Actual v. Budgeted
Year to Date September 2013

Per Member Per Month (PMPM) Analysis

Short Plan Year July-December 2013	Actual thru Sep 2013	Certified Budget (per Segal 8-19-13)	Variance Over/(Under) Budget
Plan Revenue	$373.49	$367.55	$5.94
Net Claims Payments	$378.42	$367.19	$11.23
Net Administrative Expenses	$20.47	$22.79	($2.32)
Total Plan Expenses	$398.89	$389.98	$8.91
Net Income/(Loss)	($25.40)	($22.43)	($2.97)

Comparing actual results to the budget projection on a PMPM basis helps correct for changes in membership that occurred during the year.

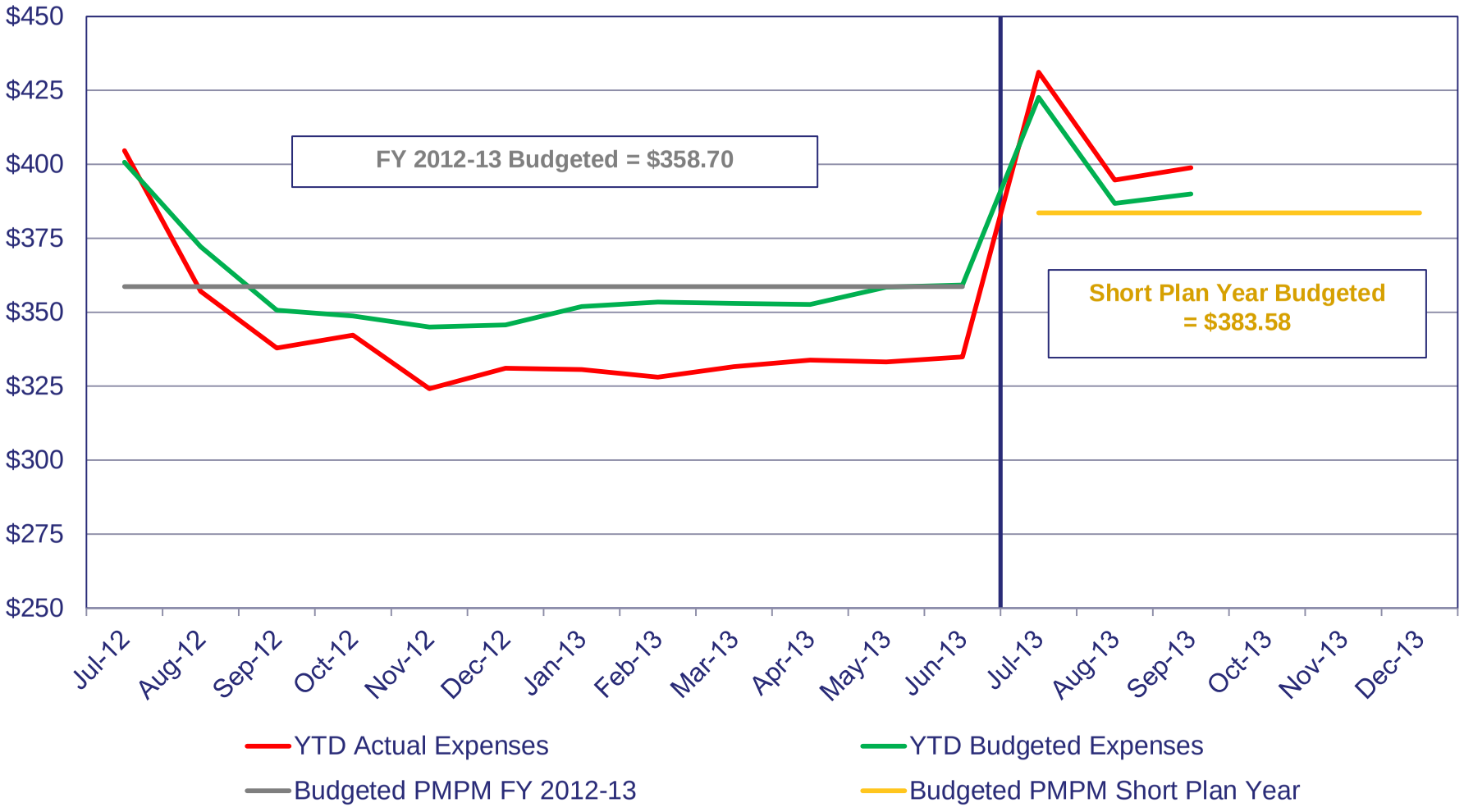
Adjusted Variance Report
Year to Date September 2013

Per Member Per Month (PMPM) Analysis

Short Plan Year July-December 2013	Actual thru Sep 2013, as Adjusted	Certified Budget (per Segal 8-19-13)	Variance Over/(Under) Budget
Plan Revenue *	$367.70	$367.55	$0.15
Net Claims Payments †	$375.72	$367.19	$8.53
Net Administrative Expenses ^	$20.78	$22.79	($2.01)
Total Plan Expenses	$396.50	$389.98	$6.52
Net Income/(Loss)	($28.80)	($22.43)	($6.37)

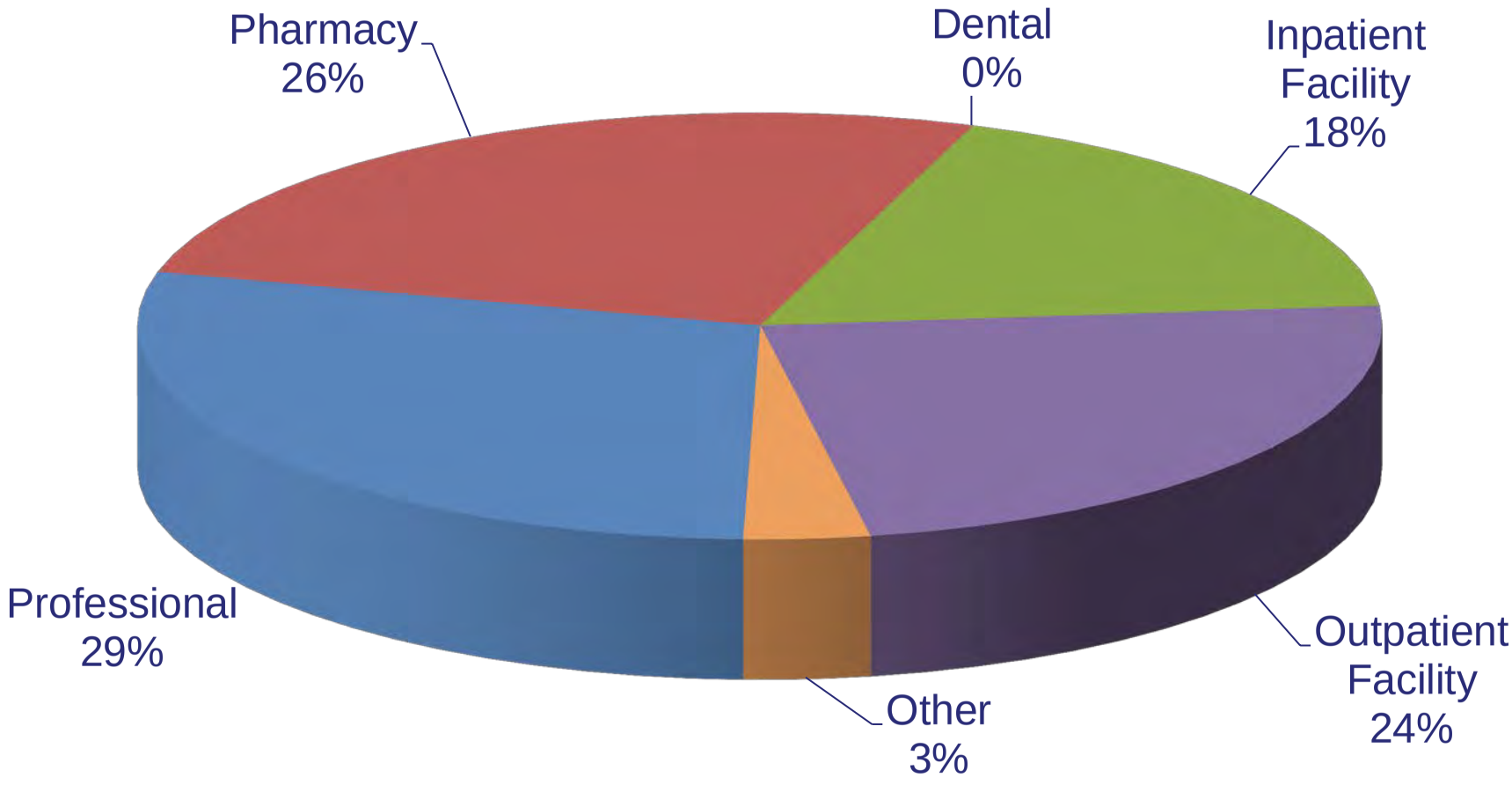
* Adjusted for timing issues and to exclude nonbudgeted revenues.
† Adjusted for timing issues.
^ Includes administrative expenses that were pending at the end of the month.

Year to Date Expenditure Trend
Per Member Per Month



Allocation of Claims Expenditures

Includes Medical, Blue Card & Pharmacy Payments



Source: BCBSNC Summary of Billed Charges, year to date through September 2013

North Carolina State Health Plan for Teachers and State Employees
Summary of Operations (Cash Basis)
Consolidated Report, Actual vs. Certified Budget
For the Month Ended September 2013
Short Plan Year (July - December 2013)

		A	B	C	D	E	F	G	H
		Actual September 2013	Certified Budget September 2013	Monthly Variance Over/(Under) Certified Budget	Actual Short Plan Year To Date	Certified Budget Short Plan Year to Date	Short Plan Year to Date Variance Over/(Under) Certified Budget	Short Plan Year Certified Budget (Jul - Dec 2013)	Short Plan Year to Date Variance Over/(Under) Certified Budget
1	**Plan Revenue:**								
2									
3	Member Premiums	$ 208,817,225	$ 240,055,343	$ (31,238,118)	$ 731,105,957	$ 720,420,712	$ 10,685,245	$ 1,440,079,372	$ (708,973,415)
4	Premium Refunds/Retroactive Disenrollments	(225,532)	(120,236)	(105,296)	(251,461)	(360,834)	109,373	(721,290)	469,829
5	Medicare Part D (RDS) Subsidy	307,743	364,862	(57,119)	1,510,296	1,277,453	232,843	2,784,744	(1,274,448)
6	Medicare PDP (EGWP + Wrap) Subsidy	4,094,352	4,190,180	(95,828)	16,106,284	14,046,619	2,059,665	32,347,301	(16,241,017)
7	Federal Early Retiree Reinsurance Program (ERRP)	-	-	-	-	-	-	-	-
8	**Net Premium & Other Contributions**	212,993,788	244,490,149	(31,496,361)	748,471,076	735,383,950	13,087,126	1,474,490,127	(726,019,051)
9									
10	Investment Earnings	303,960	239,370	64,590	858,605	725,262	133,343	1,448,002	(589,397)
11	Miscellaneous Revenue	54,972	-	54,972	54,972	-	54,972	-	54,972
12	**Other Revenue**	358,932	239,370	119,562	913,577	725,262	188,315	1,448,002	(534,425)
13									
14	**Total Plan Revenue (excludes internal transfers)**	213,352,720	244,729,519	(31,376,799)	749,384,653	736,109,212	13,275,441	1,475,938,129	(726,553,476)
15									
16	**Plan Expenses:**								
17									
18	Medical Claim Payments	193,560,030	189,525,431	4,034,599	545,279,555	538,713,745	6,565,810	1,043,999,297	(498,719,742)
19	Medical Claim Refunds/Recoveries	(1,494,252)	(2,038,882)	544,630	(5,764,072)	(6,135,864)	371,792	(12,060,684)	6,296,612
20	**Net Medical Claims**	192,065,778	187,486,549	4,579,229	539,515,483	532,577,881	6,937,602	1,031,938,613	(492,423,130)
21									
22	Pharmacy Claim Payments	65,501,226	61,126,348	4,374,878	226,538,700	213,574,418	12,964,282	434,048,440	(207,509,740)
23	Pharmacy Claim Rebates	-	814,806	(814,806)	(6,882,250)	(10,242,022)	3,359,772	(20,572,861)	13,690,611
24	Pharmacy Claim Refunds/Recoveries	(9,866)	-	(9,866)	(144,644)	-	(144,644)	-	(144,644)
25	**Net Pharmacy Claims**	65,491,360	61,941,154	3,550,206	219,511,806	203,332,396	16,179,410	413,475,579	(193,963,773)
26									
27	**Net Claim Payments**	257,557,138	249,427,703	8,129,435	759,027,289	735,910,277	23,117,012	1,445,414,192	(686,386,903)
28									
29	**Net Administrative Expenses**	14,443,126	15,218,468	(775,342)	41,046,132	45,668,038	(4,621,906)	91,298,298	(50,252,166)
30									
31	**Total Plan Expenses (excludes internal transfers)**	272,000,264	264,646,171	7,354,093	800,073,421	781,578,315	18,495,106	1,536,712,490	(736,639,069)
32									
33	Plan Income/(Loss)	(58,647,544)	(19,916,652)	(38,730,892)	(50,688,768)	(45,469,103)	(5,219,665)	(60,774,361)	10,085,593
34									
35	**Cash Availability:**								
36									
37	Beginning Cash Balance/(Deficit)	791,446,724	730,197,043	61,249,681	783,487,948	755,749,494	27,738,454	755,749,494	27,738,454
38	**Ending Cash Balance/(Deficit)**	732,799,180	710,280,391	22,518,789	732,799,180	710,280,391	22,518,789	694,975,133	37,824,047
39									
40	Target Stabilization Reserve @ 12/31/13	219,485,780	219,485,780	-	219,485,780	219,485,780	-	219,485,780	-
41									
42	**Cash Balance Over/(Under) Reserve Target**	$ 513,313,400	$ 490,794,611	$ 22,518,789	$ 513,313,400	$ 490,794,611	$ 22,518,789	$ 475,489,353	$ 37,824,047

Comments:
a. Premium receivables totaled $ 2,998,364.66 as of September 30, 2013.
b. The average weekly medical claims cost net of claims refunds was $38,413,155.60 for the five scheduled weekly claim cycles.
c. Total pharmacy claims, before rebates and refunds, included two bi-weekly invoice cycles averaging $32,750,613.00 per cycle.
d. The target stabilization reserve is 8% of the projected net claims for Calendar Year 2013.
e. Minor differences compared to other reports are due to rounding.

North Carolina State Health Plan for Teachers and State Employees
Summary of Operations (Cash Basis)
Consolidated Report, Actual vs. Certified Budget
For the Month Ended September 2013
Fiscal Year 2013- 2014

		A	B	C	D	E	F	G	H
		Actual September 2013	Certified Budget September 2013	Monthly Variance Over/(Under) Certified Budget	Actual Year to Date FY 2013-14	Certified Budget Year to Date FY 2013-14	Year to Date Variance Over/(Under) Certified Budget	Annual Certified Budget FY 2013-14	Year to Date Variance Over/(Under) Annual Certified Budget
1	**Plan Revenue:**								
2									
3	Member Premiums	$ 208,817,225	$ 240,055,343	$ (31,238,118)	$ 731,105,957	$ 720,420,712	$ 10,685,245	$ 2,902,567,015	$ (2,171,461,058)
4	Premium Refunds/Retroactive Disenrollments	(225,532)	(120,236)	(105,296)	(251,461)	(360,834)	109,373	(1,466,766)	1,215,305
5	Medicare Part D (RDS) Subsidy	307,743	364,862	(57,119)	1,510,296	1,277,453	232,843	6,218,762	(4,708,466)
6	Medicare PDP (EGWP + Wrap) Subsidy	4,094,352	4,190,180	(95,828)	16,106,284	14,046,619	2,059,665	50,346,402	(34,240,118)
7	Federal Early Retiree Reinsurance Program (ERRP)	-	-	-	-	-	-	-	-
8	**Net Premium & Other Contributions**	**212,993,788**	**244,490,149**	**(31,496,361)**	**748,471,076**	**735,383,950**	**13,087,126**	**2,957,665,413**	**(2,209,194,337)**
9									
10	Investment Earnings	303,960	239,370	64,590	858,605	725,262	133,343	2,868,131	(2,009,526)
11	Miscellaneous Revenue	54,972	-	54,972	54,972	-	54,972	-	54,972
12	**Other Revenue**	**358,932**	**239,370**	**119,562**	**913,577**	**725,262**	**188,315**	**2,868,131**	**(1,954,554)**
13									
14	**Total Plan Revenue (excludes internal transfers)**	**213,352,720**	**244,729,519**	**(31,376,799)**	**749,384,653**	**736,109,212**	**13,275,441**	**2,960,533,544**	**(2,211,148,891)**
15									
16	**Plan Expenses:**								
17									
18	Medical Claim Payments	193,560,030	189,525,431	4,034,599	545,279,555	538,713,745	6,565,810	2,107,493,114	(1,562,213,559)
19	Medical Claim Refunds/Recoveries	(1,494,252)	(2,038,882)	544,630	(5,764,072)	(6,135,864)	371,792	(24,643,884)	18,879,812
20	**Net Medical Claims**	**192,065,778**	**187,486,549**	**4,579,229**	**539,515,483**	**532,577,881**	**6,937,602**	**2,082,849,230**	**(1,543,333,747)**
21									
22	Pharmacy Claim Payments	65,501,226	61,126,348	4,374,878	226,538,700	213,574,418	12,964,282	699,653,578	(473,114,878)
23	Pharmacy Claim Rebates	-	814,806	(814,806)	(6,882,250)	(10,242,022)	3,359,772	(52,353,361)	45,471,111
24	Pharmacy Claim Refunds/Recoveries	(9,866)	-	(9,866)	(144,644)	-	(144,644)	-	(144,644)
25	**Net Pharmacy Claims**	**65,491,360**	**61,941,154**	**3,550,206**	**219,511,806**	**203,332,396**	**16,179,410**	**647,300,217**	**(427,788,411)**
26									
27	**Net Claim Payments**	**257,557,138**	**249,427,703**	**8,129,435**	**759,027,289**	**735,910,277**	**23,117,012**	**2,730,149,447**	**(1,971,122,158)**
28									
29	**Medicare Advantage Premiums**	-	-	-	-	-	-	**86,864,744**	**(86,864,744)**
30									
31	**Net Administrative Expenses**	**14,443,126**	**15,218,468**	**(775,342)**	**41,046,132**	**45,668,038**	**(4,621,906)**	**182,446,628**	**(141,400,496)**
32									
33	**Total Plan Expenses (excludes internal transfers)**	**272,000,264**	**264,646,171**	**7,354,093**	**800,073,421**	**781,578,315**	**18,495,106**	**2,999,460,819**	**(2,199,387,398)**
34									
35	**Plan Income/(Loss)**	**(58,647,544)**	**(19,916,652)**	**(38,730,892)**	**(50,688,768)**	**(45,469,103)**	**(5,219,665)**	**(38,927,275)**	**(11,761,493)**
36									
37	**Cash Availability:**								
38									
39	Beginning Cash Balance/(Deficit)	791,446,724	730,197,043	61,249,681	783,487,948	755,749,494	27,738,454	755,749,494	27,738,454
40	**Ending Cash Balance/(Deficit)**	**732,799,180**	**710,280,391**	**22,518,789**	**732,799,180**	**710,280,391**	**22,518,789**	**716,822,219**	**15,976,961**
41									
42	Target Stabilization Reserve @ 6/30/14	239,446,206	239,446,206	-	239,446,206	239,446,206	-	239,446,206	-
43									
44	**Cash Balance Over/(Under) Reserve Target**	**$ 493,352,974**	**$ 470,834,185**	**$ 22,518,789**	**$ 493,352,974**	**$ 470,834,185**	**$ 22,518,789**	**$ 477,376,013**	**$ 15,976,961**

Comments:
a. Premium receivables totaled $ 2,998,364.66 as of September 30, 2013.
b. The average weekly medical claims cost net of claims refunds was $38,413,155.60 for the five scheduled weekly claim cycles.
c. Total pharmacy claims, before rebates and refunds, included two bi-weekly invoice cycles averaging $32,750,613.00 per cycle.
d. The target stabilization reserve is 8.5% of the projected net claims for Fiscal Year 2013-14.
e. Minor differences compared to other reports are due to rounding.

North Carolina State Health Plan for Teachers and State Employees
Summary of Operations (Cash Basis)
Current Year Actual vs. Prior Year Actual
For the Month Ended September 2013
Fiscal Year 2013-2014

		A	B	C	D	E	F	G
		Current Year Actual September 2013	Prior Year Actual September 2012	Current Year to Date Actual FY 2013-14 thru September	Prior Year to Date Actual FY 2012-13 thru September	Current Year Certified Annual Budget FY 2013-14	Prior Year Annual Budget FY 2012-13	Prior Year Actual Results FY 2012-13
1	**Plan Revenue:**							
2								
3	Member Premiums	$ 208,817,225	$ 235,740,702	$ 731,105,957	$ 704,972,730	$ 2,902,567,015	$ 2,872,808,844	$ 2,895,366,140
4	Premium Refunds/Retroactive Disenrollments	(225,532)	(41,714)	(251,461)	(141,356)	(1,466,766)	(1,437,243)	(487,819)
5	Medicare Part D (RDS) Subsidy	307,743	2,036,789	1,510,296	9,388,778	6,218,762	39,519,892	38,056,016
6	Medicare PDP (EGWP + Wrap) Subsidy	4,094,352	-	16,106,284	-	50,346,402	19,759,856	24,435,483
7	Federal Early Retiree Reinsurance Program (ERRP)	-	(558,219)	-	(558,219)	-	-	(558,219)
8	**Net Premium & Other Contributions**	212,993,788	237,177,558	748,471,076	713,661,933	2,957,665,413	2,930,651,349	2,956,811,601
9								
10	Investment Earnings	303,960	232,656	858,605	714,163	2,868,131	5,658,262	3,117,666
11	Miscellaneous Revenue	54,972	8,159	54,972	8,159	-	-	119,047
12	**Other Revenue**	358,932	240,815	913,577	722,322	2,868,131	5,658,262	3,236,713
13								
14	**Total Plan Revenue (excludes internal transfers)**	213,352,720	237,418,373	749,384,653	714,384,255	2,960,533,544	2,936,309,611	2,960,048,314
15								
16	**Plan Expenses:**							
17								
18	Medical Claim Payments	193,560,030	131,364,126	545,279,555	457,541,876	2,107,493,114	2,003,583,417	1,858,096,405
19	Medical Claim Refunds/Recoveries	(1,494,252)	(2,013,271)	(5,764,072)	(6,336,344)	(24,643,884)	(31,216,928)	(23,467,914)
20	**Net Medical Claims**	192,065,778	129,350,855	539,515,483	451,205,532	2,082,849,230	1,972,366,489	1,834,628,491
21								
22	Pharmacy Claim Payments	65,501,226	54,392,121	226,538,700	192,421,694	699,653,578	743,853,418	755,896,440
23	Pharmacy Claim Rebates	-	-	(6,882,250)	(12,543,432)	(52,353,361)	(53,173,873)	(69,641,941)
24	Pharmacy Claim Refunds/Recoveries	(9,866)	(17,994)	(144,644)	(35,420)	-	-	(3,476,790)
25	**Net Pharmacy Claims**	65,491,360	54,374,127	219,511,806	179,842,842	647,300,217	690,679,545	682,777,709
26								
27	**Net Claim Payments**	257,557,138	183,724,982	759,027,289	631,048,374	2,730,149,447	2,663,046,034	2,517,406,200
28								
29	**Medicare Advantage Premiums**	-	-	-	-	86,864,744	-	-
30								
31	**Net Administrative Expenses**	14,443,126	14,164,933	41,046,132	41,022,629	182,446,628	189,387,392	161,401,639
32								
33	**Total Plan Expenses (excludes internal transfers)**	272,000,264	197,889,915	800,073,421	672,071,003	2,999,460,819	2,852,433,426	2,678,807,839
34								
35	Plan Income/(Loss)	(58,647,544)	39,528,458	(50,688,768)	42,313,252	(38,927,275)	83,876,185	281,240,475
36								
37	**Cash Availability:**							
38								
39	Beginning Cash Balance/(Deficit)	791,446,724	505,032,265	783,487,948	502,247,471	755,749,494	502,247,475	502,247,471
40	**Ending Cash Balance/(Deficit)**	732,799,180	544,560,723	732,799,180	544,560,723	716,822,219	586,123,660	783,487,946
41								
42	Target Stabilization Reserve @ 6/30/14	239,446,206	199,728,453	239,446,206	199,728,453	239,446,206	199,728,453	188,805,465
43								
44	**Cash Balance Over/(Under) Reserve Target**	$ 493,352,974	$ 344,832,270	$ 493,352,974	$ 344,832,270	$ 477,376,013	$ 386,395,207	$ 594,682,481

Comments:
a. Minor differences compared to other reports are due to rounding

North Carolina State Health Plan for Teachers and State Employees
Summary of Operations (Cash Basis, as adjusted)

Consolidated Report, Actual vs. Budgeted
For the Month Ended September 2013
Short Plan Year (July-December 2013)

		A	B	C	D	E	F
		Actual Year to Date Short Plan Year thru September	Adjustments for Timing, Unusual & Onetime Events	*Adjusted Actual Year to Date*	Certified Budget Year to Date Short Plan Year thru September	*Year to Date Adjusted Variance Over/(Under) Budget*	Adjusted Variance as Percentage of Budget
1	**Plan Revenue:**						
2							
3	Member Premiums (Notes 1 and 2)	$ 731,105,957	$ (11,564,443)	$ 719,541,514	$ 720,420,712	$ (879,198)	-0.12%
4	Premium Refunds/Retroactive Disenrollments	(251,461)		(251,461)	(360,834)	109,373	-30.31%
5	Medicare Part D (RDS) Subsidy	1,510,296		1,510,296	1,277,453	232,843	18.23%
6	Medicare PDP (EGWP + Wrap) Subsidy	16,106,284		16,106,284	14,046,619	2,059,665	14.66%
7	Federal Early Retiree Reinsurance Program (ERRP)	-		-	-	-	
8	**Net Premium & Other Contributions**	**748,471,076**	**(11,564,443)**	**736,906,633**	**735,383,950**	**1,522,683**	**0.21%**
9							
10	**Other Revenue (Note 3)**	**913,577**	**(54,973)**	**858,604**	**725,262**	**133,342**	**18.39%**
11							
12	**Total Plan Revenue (excludes internal transfers)**	**749,384,653**	**(11,619,415)**	**737,765,238**	**736,109,212**	**1,656,026**	**0.22%**
13							
14	**Plan Expenses:**						
15							
16	Net Medical Claims	539,515,483		539,515,483	532,577,881	6,937,602	1.30%
17	Net Pharmacy Claims (Note 4)	219,511,806	(5,419,579)	214,092,227	203,332,396	10,759,831	5.29%
18	**Net Claim Payments**	**759,027,289**	**(5,419,579)**	**753,607,710**	**735,910,277**	**17,697,433**	**2.40%**
19							
20	**Net Administrative Expenses (Note 5)**	**41,046,132**	**625,518**	**41,671,650**	**45,668,038**	**(3,996,388)**	**-8.75%**
21							
22	**Total Plan Expenses (excludes internal transfers)**	**800,073,421**	**(4,794,061)**	**795,279,360**	**781,578,315**	**13,701,045**	**1.75%**
23							
24	**Plan Income/(Loss)**	**(50,688,768)**	**(6,825,354)**	**(57,514,122)**	**(45,469,103)**	**(12,045,019)**	**26.49%**
25							
26	**Cash Availability:**						
27							
28	Beginning Cash Balance/(Deficit)	783,487,948		783,487,948	755,749,494	27,738,454	3.67%
29	**Ending Cash Balance/(Deficit)**	**732,799,180**	**(6,825,354)**	**725,973,826**	**710,280,391**	**15,693,435**	**2.21%**
30							
31	Target Stabilization Reserve @ 6/30/14	219,485,780		219,485,780	219,485,780	-	
32							
33	**Cash Balance Over/(Under) Reserve Target**	**$ 513,313,400**	**$ (6,825,354)**	**$ 506,488,046**	**$ 490,794,611**	**$ 15,693,435**	**3.20%**

Adjustment Notes:
1. Member premiums adjusted to include $10.3 million in prepaid July premiums received in June 2013.
2. Member premiums adjusted to exclude $21.9 million in prepaid October premiums received in September 2013.
3. Adjusted other revenue to exclude unbudgeted reimbursement of prior year expenditures.
4. Pharmacy claims adjusted to include an EGWP rebate budgeted for July that will not be received until October.
5. Administrative expenses adjusted to include estimated fees due to Benefitfocus for July and August that are pending review and payment.

North Carolina
State Health Plan
FOR TEACHERS AND STATE EMPLOYEES

Analysis of Paid Claims Report:
Fiscal Year 2013-14 1st Quarter

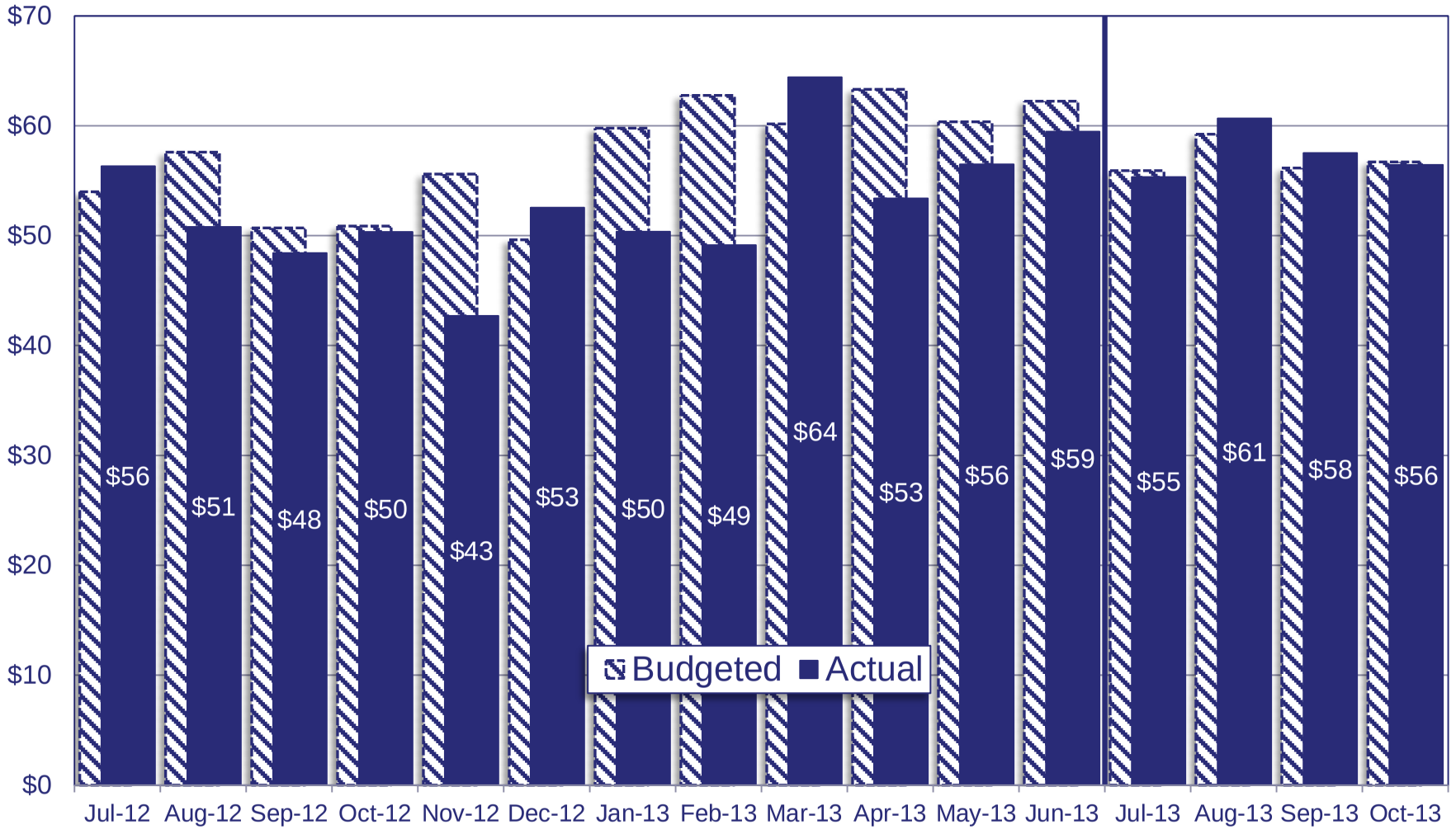
Board of Trustees Meeting

November 22, 2013

Presentation Outline

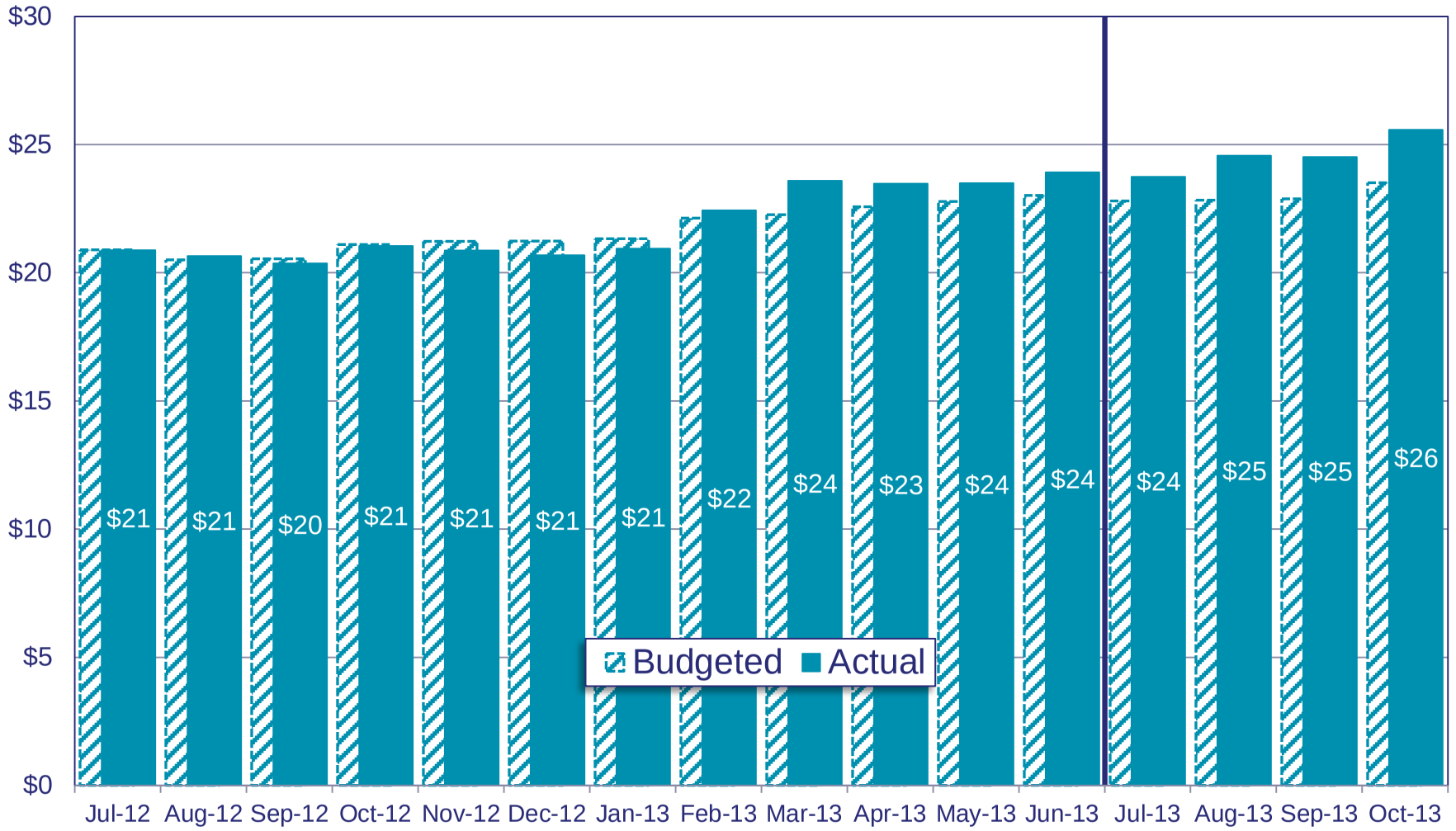
- Actual v. Budgeted Claims: Average Per Member Per Week, by Month
  - Medical
  - Pharmacy
- Member Cost-Sharing
  - Medical Costs
  - Pharmacy Costs
- Summary

Average Per Member Per Week Paid Medical Claims Actual v. Budgeted



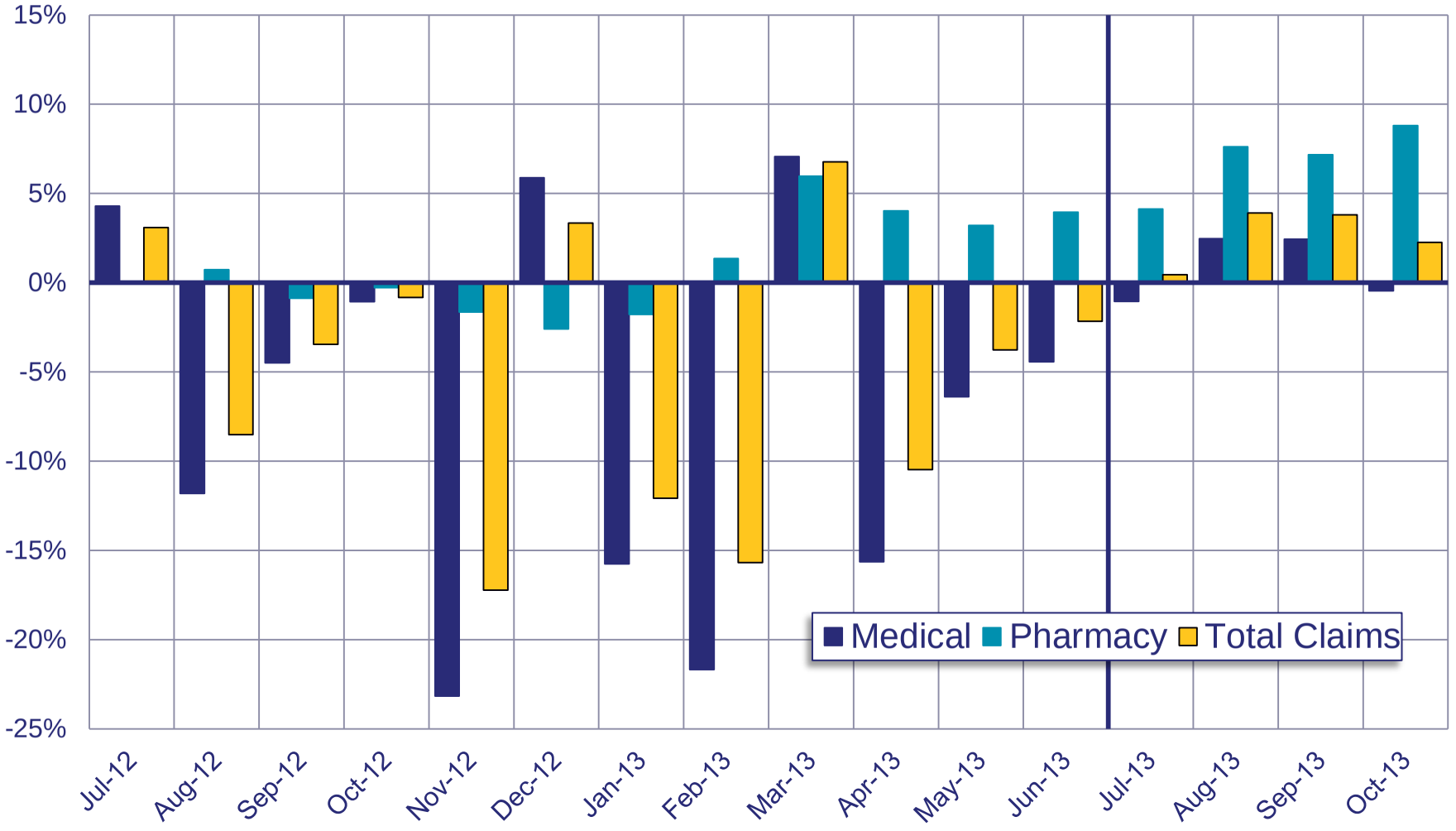
October 2013 is an estimate based on available information.

Average Per Member Per Week Paid Pharmacy Claims Actual v. Budgeted



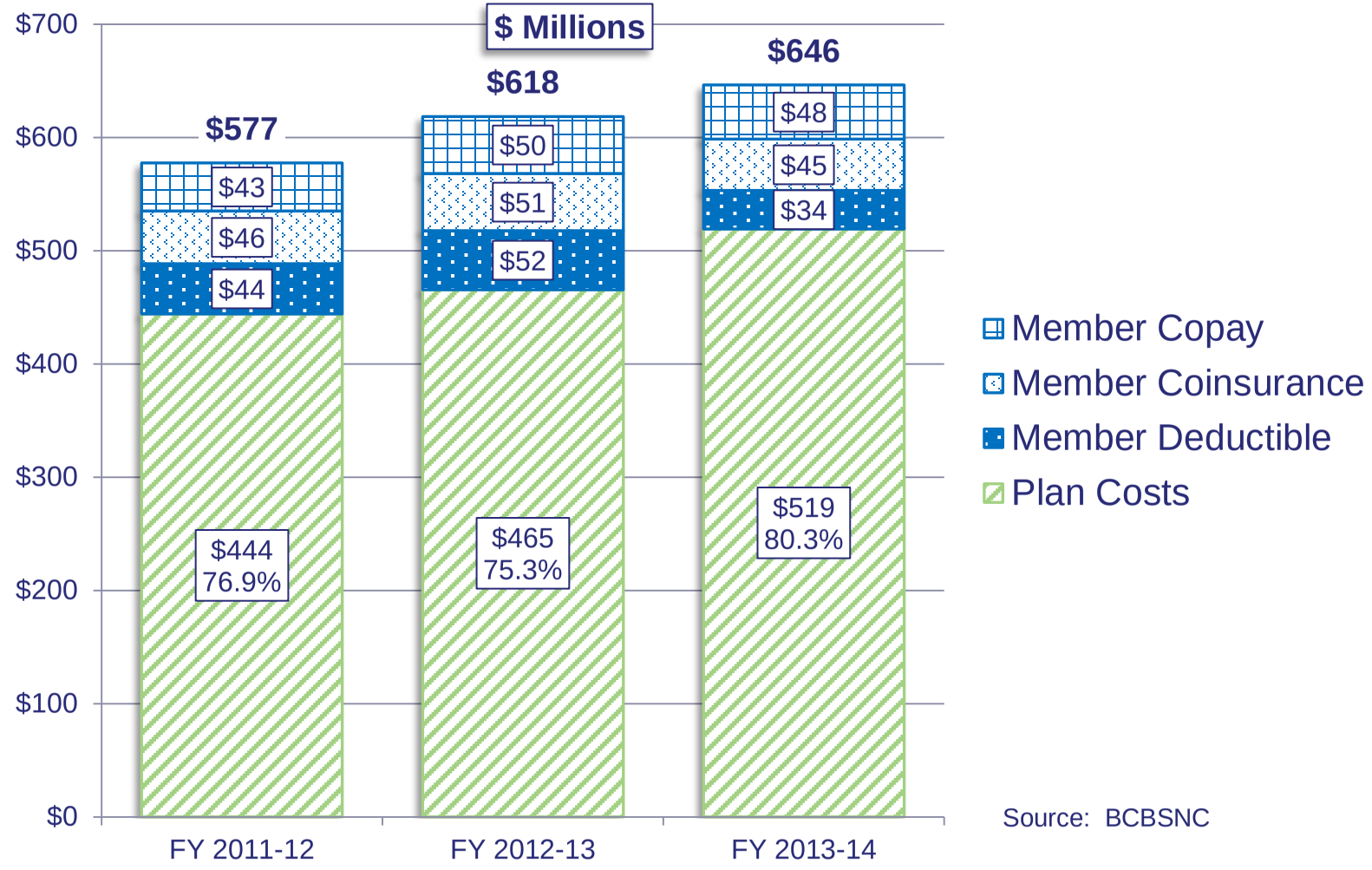
October 2013 is an estimate based on available information.

Paid Claims by Month: Average Per Member Per Week Percent Over/Under Budgeted Amounts



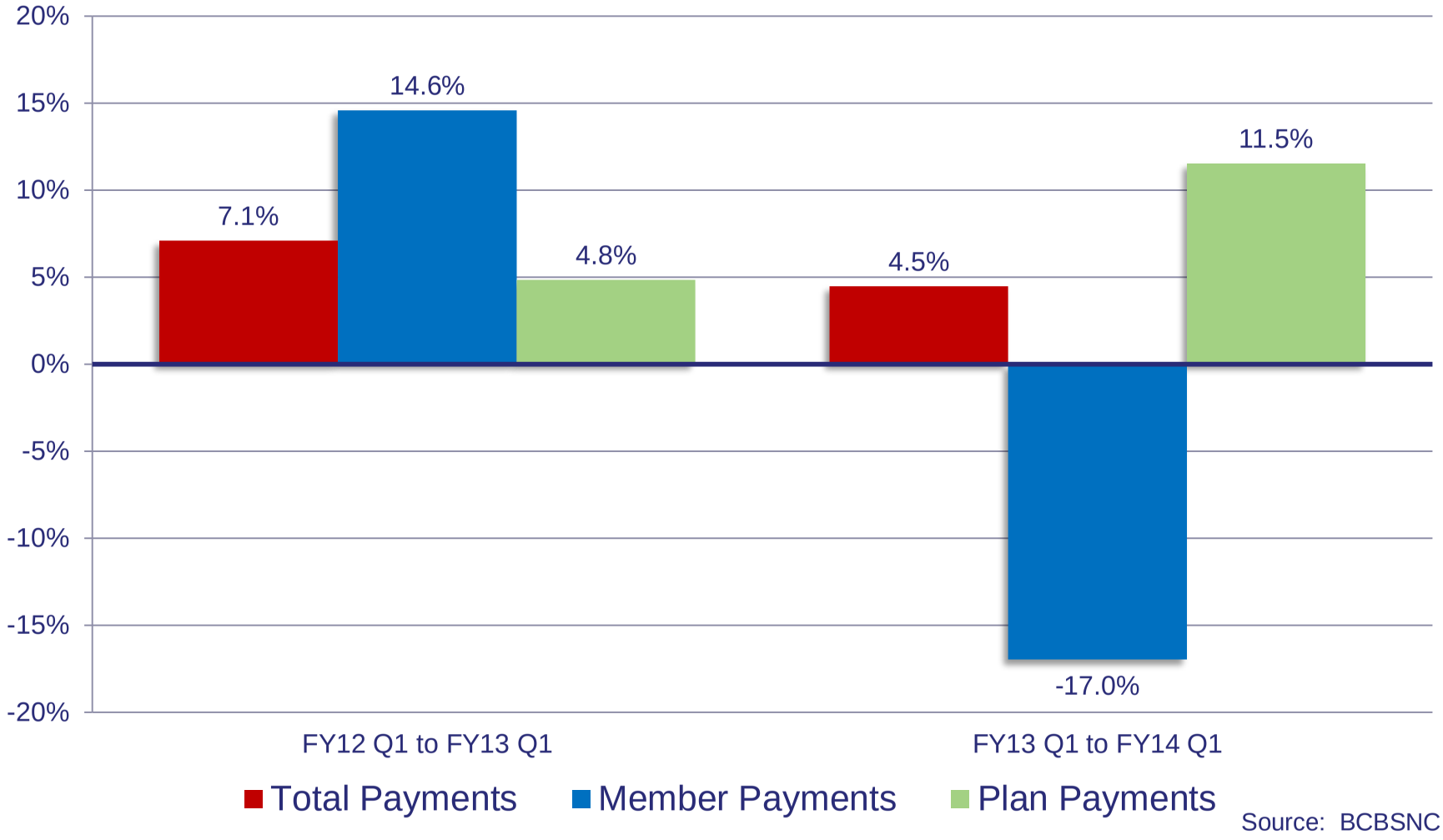
October 2013 is an estimate based on available information.

Plan and Member Shares of Paid Medical Claims Quarter 1 Comparisons (Jul – Sep 2011, 2012, and 2013)



Excludes Blue Card claims (i.e., out-of-state claims).

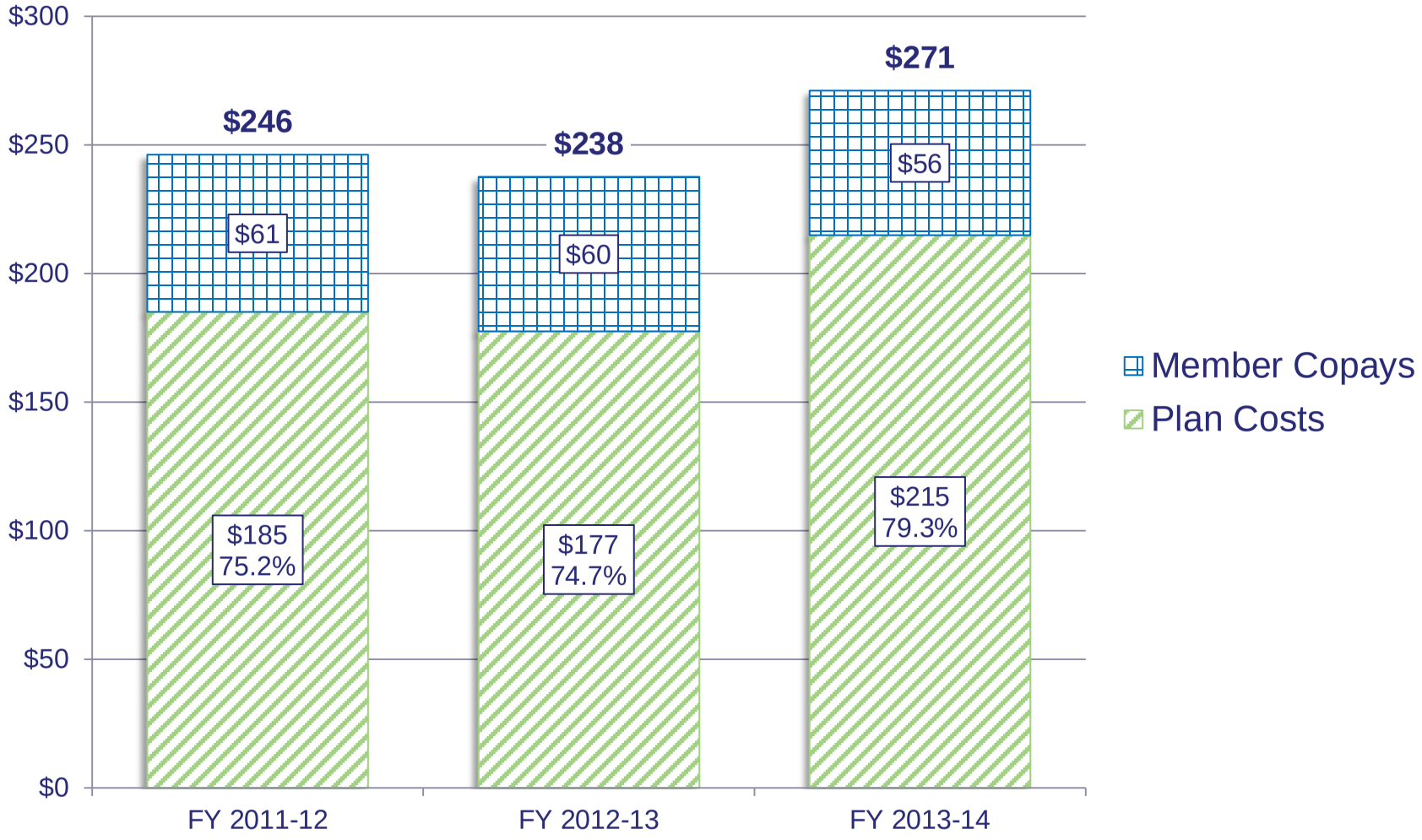
Change in Total Paid Medical Claims from Prior Year



Source: BCBSNC

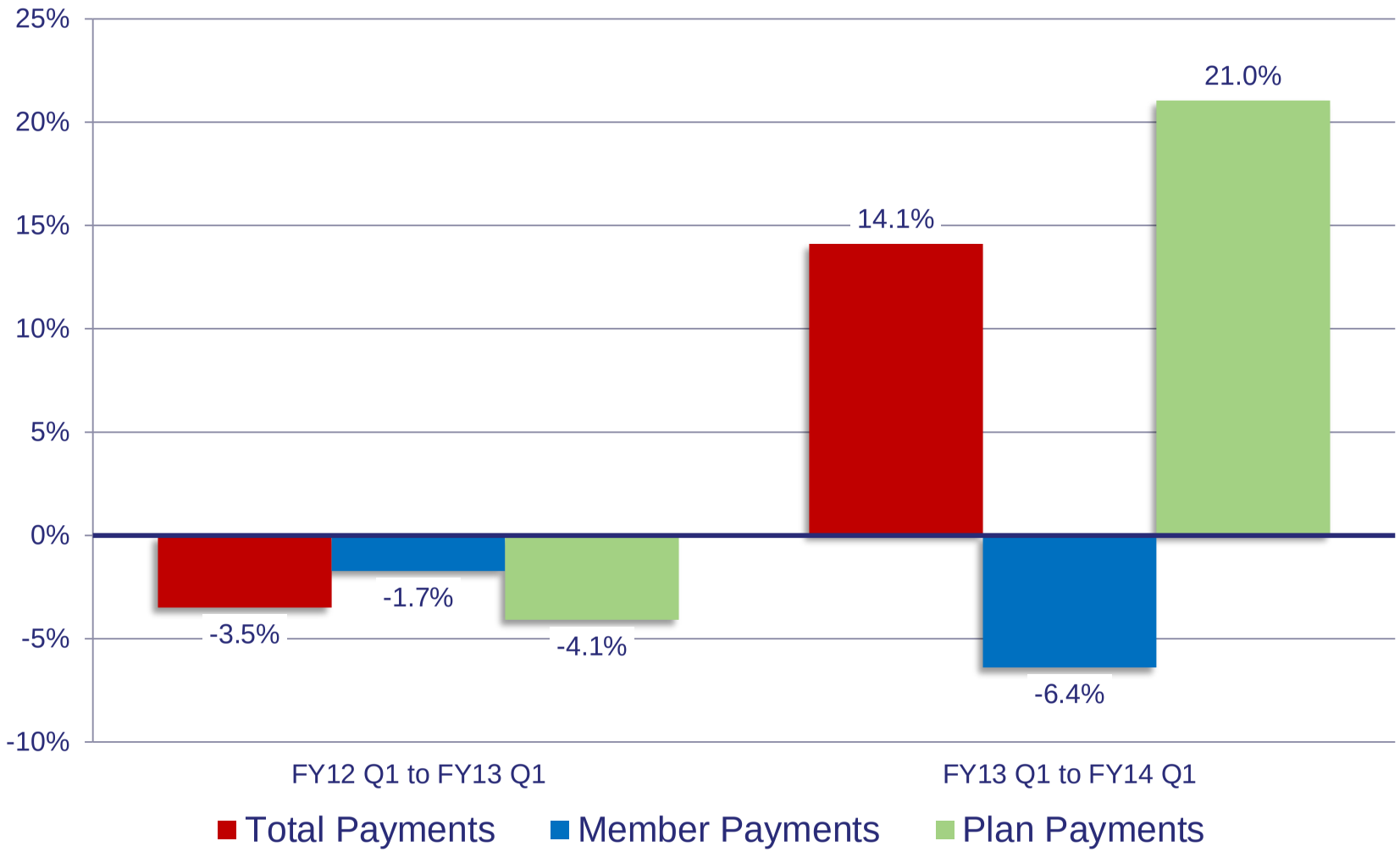
Excludes Blue Card claims (i.e., out-of-state claims). Total Payments excludes Medicare coordination of benefits payments.

Plan and Member Shares of Paid Pharmacy Claims Quarter 1 Comparisons (Jul – Sep 2011, 2012, and 2013)



Source: Express-Scripts

Change in Total Paid Pharmacy Claims from Prior Year



Source: Express-Scripts

Summary

- Medical claims were consistently below budgeted amounts in FY 2012-13, but have been at or slightly above budgeted amounts through the first quarter of FY 2013-14
- Pharmacy claims have exceeded budgeted amounts in every month since February
- Member cost-sharing for medical claims is down sharply from the same quarter last year
  - The drop in member cost-sharing is likely related to the short plan year
- Total spending for pharmacy is up from the same quarter last year even as member costs have declined slightly
  - The increase in pharmacy spending and decrease in the member cost-sharing percentage seems to coincide with EGWP implementation
- Two temporary factors – EGWP and the short plan year – may be impacting current trends. More experience is needed before forming conclusions about long-term trends

North Carolina
State Health Plan
FOR TEACHERS AND STATE EMPLOYEES

1st Quarter Actuarial Forecast Update

Board of Trustees Meeting

November 22, 2013

Forecast prepared by The Segal Company
Final version dated 11-14-13

Presentation Overview

- Forecast update schedule
- Updated assumptions: Certified Budget vs. 1st Quarter Projection
- Updated forecast for Short Plan Year (July – December 2013)
- Summary graphs
- Summary and Outlook for 2015-2017 Fiscal Biennium

Actuarial Forecast Update Schedule

- The Plan's actuary updates the forecast at the end of each fiscal year and at least quarterly
- Updates take into account more recent information:
  - Actual financial results and cash balance
  - Membership data, including impact of enrollment changes
  - Claims experience
  - Changes in anticipated costs or revenues

Forecast Assumptions Maintained in the Update
Certified Budget vs. 1st Quarter Update

- Overall trend assumption of 8.5%
- Membership trends
  - 1% annual decrease in actives
  - 1% annual increase in retirees
- Short Plan Year from July - December
- New benefit design effective January 1, 2014
- 2014 revenues reflect 3.57% across the board premium increases effective January 1, 2014 as authorized by the General Assembly and adopted by the Board
- 2015 revenues reflect 2.14% across the board premium increases effective January 1, 2015 as authorized by the General Assembly

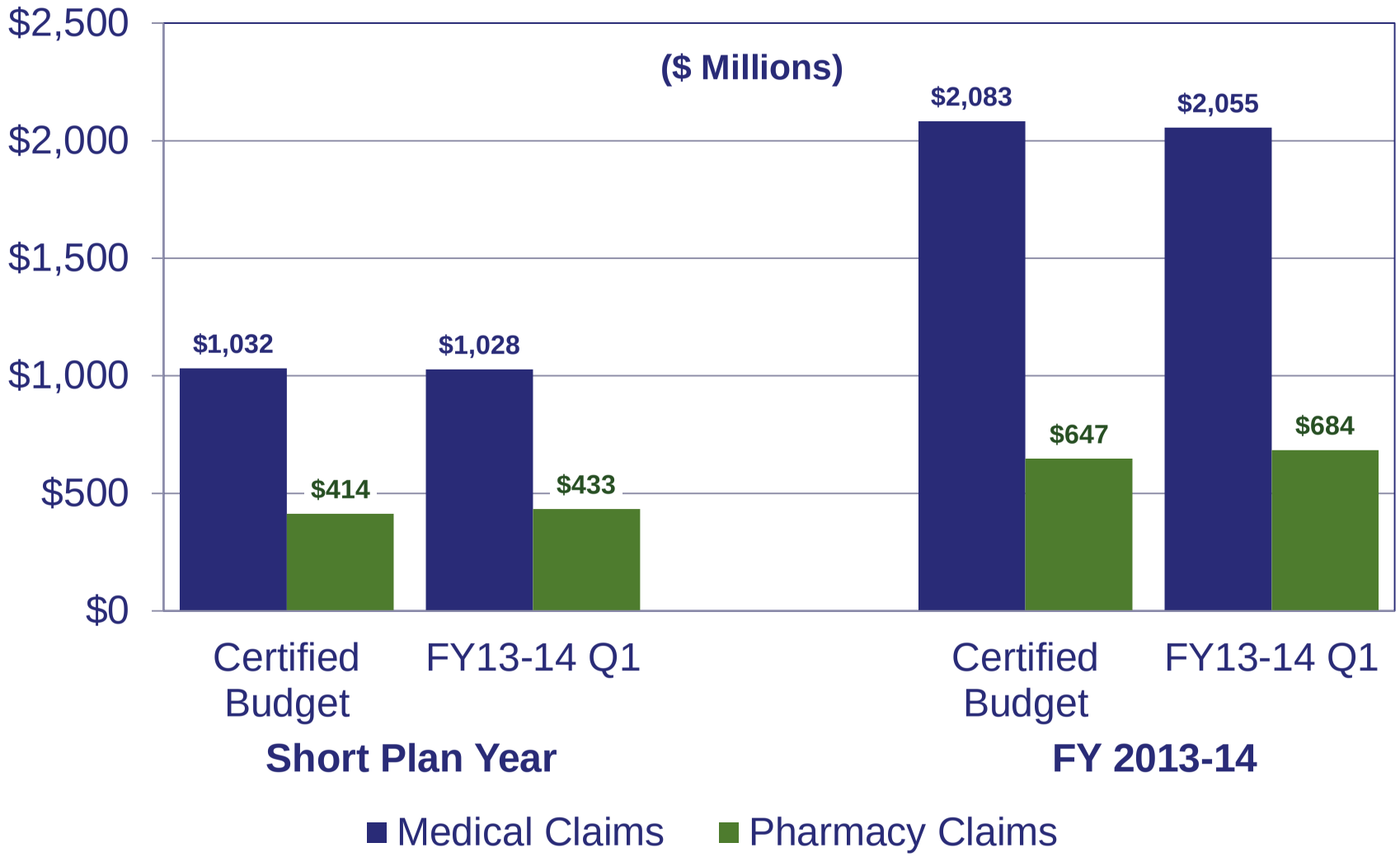
Forecast Assumptions Changed/Revised in the Update Certified Budget vs. 1st Quarter Update

- Membership based on actual September 2013 counts (instead of March 2013)
- Anticipated claims expenditures based on actual experience through September 2013 (instead of through March 2013)
- Baseline pharmacy claims amount increased to reflect experience from the last six months (rather than the last 12 months) due to increasing pharmacy trends
- Changes to “Essential Health Benefits” approved at September Board meeting are incorporated
- Repayment to CMS of $5.7 million in Retiree Drug Subsidy revenue is included
- Timing and amounts of pharmacy rebates have been adjusted
- Timing of EGWP catastrophic subsidy revenue was moved from November 2014 to January 2015

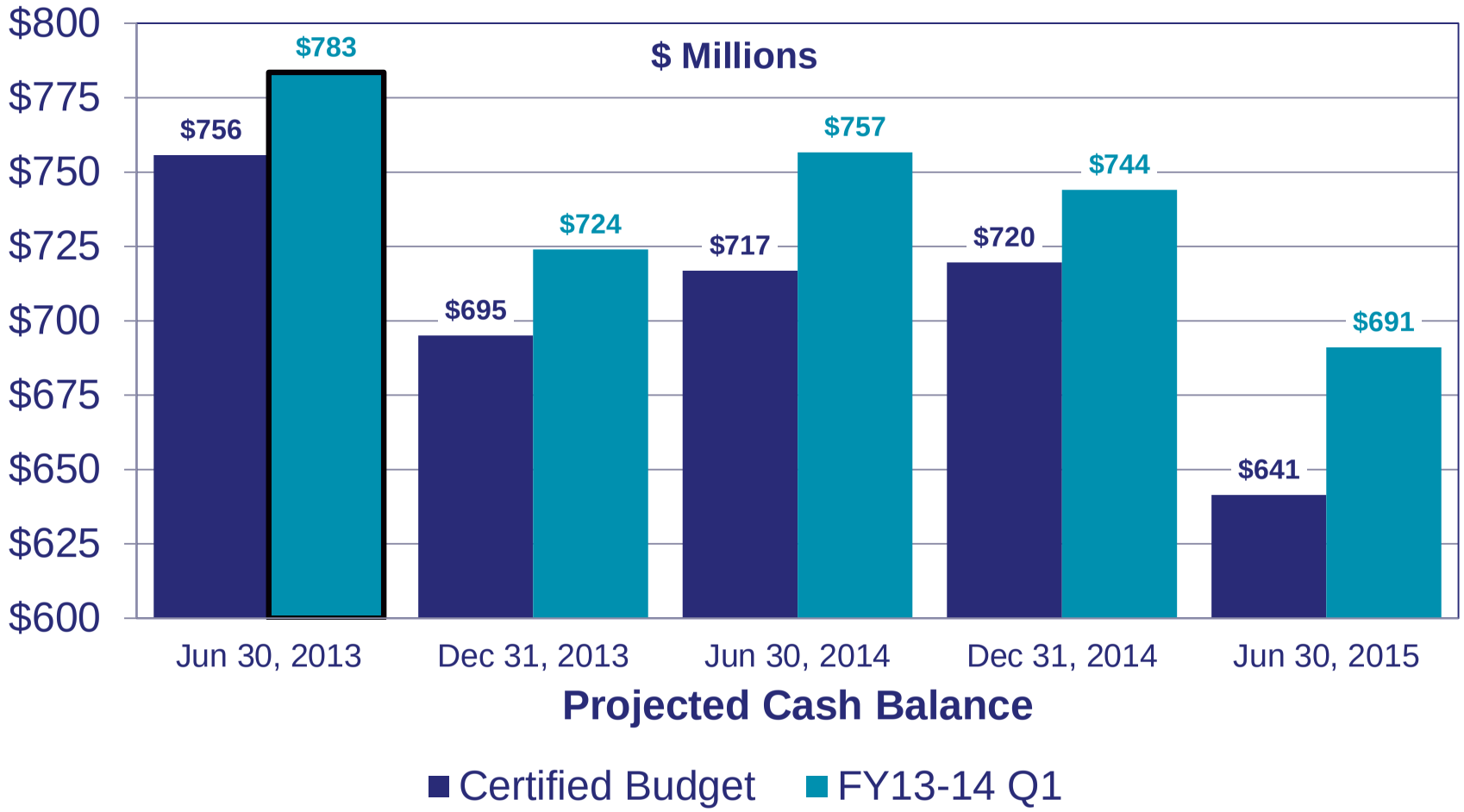
Comparison of Models for Short Plan Year Certified Budget vs. 1st Quarter Update

Short Plan Year July – December 2013	1st Quarter Update (per Segal 11-14-13)	Certified Budget (per Segal 8-19-13)	Difference: Increase/ (Decrease) From Budget
Beginning Cash Balance	$783.5 m	$755.8 m	$27.7 m
Plan Revenue	$1.487 b	$1.476 b	$11.4 m
Net Claims Payments	$1.460 b	$1.445 b	$14.9 m
Net Admin. Expenses	$86.7 m	$91.3 m	($4.6 m)
Total Plan Expenses	$1.547 b	$1.537 b	$10.3 m
Net Income/(Loss)	($59.6 m)	($60.8 m)	$1.2 m
Ending Cash Balance	$723.9 m	$695.0 m	$28.9 m
FB 2015-17 Premium Increase	7.72%	8.22%	(0.50%)

Forecast Comparisons:
Short Plan Year and Fiscal Year 2013-14



Forecast Comparisons: Ending Cash Balances



Summary/FB 2015-17 Outlook

- Current Fiscal Biennium (2013-2015)
  - Relative to the Certified Budget, the 1st Quarter Update projects lower medical claims costs and higher pharmacy claims costs for the biennium
  - $691.1 million cash balance at the end of the biennium:
    - $49.7 million higher than the Certified Budget (due in part to a higher starting balance)
    - Exceeds the 9.0% target reserve amount by $435.4 million
    - Equates to approximately 11 weeks of FY 2015-16 projected operating expenses
- Assuming no changes in benefits beyond the Board's current design, the 1st Quarter Update projects a 7.72% premium increase for January 1 of each year of the 2015-17 biennium. This is lower than the Certified Budget projection (8.22%)

Certified Budget
(Segal 8-19-13)

North Carolina State Health Plan
Financial Projections - Mar 2013
Trends - 8.5% Medical & Pharmacy
Board Approved Wellness Incentives - Active 70/30 Unchanged thru 2015 only, Retirees 70/30 Unchanged
With MA & PDP
Incentives start at $15/$15/$20 and increase to $25/$25/$40 in Calendar 2016, $10 Standard Premium Credit
Certified Budget

	2011 - 2013 Biennium		2013 - 2015 Biennium				2015 - 2017 Biennium				
	Actual FY 2012	Projection FY 2013	Projection Short Plan Year Jul-Dec 2013	Projection Calendar 2014 Jan-June	Projection Calendar 2014 July-Dec	Projection Calendar 2015 Jan-Jun	Projection Calendar 2015 Jul-Dec	Projection Calendar 2016 Jan-June	Projection Calendar 2016 July-Dec	Projection Calendar 2017 Jan-Jun	Projection Calendar 2017 Jul-Dec
PLAN INCOME:											
Net Contribution Income	2,750,368,851	2,895,761,603	1,442,578,008	1,490,952,575	1,487,864,429	1,516,588,534	1,513,510,299	1,634,606,643	1,631,357,328	1,761,956,879	1,758,528,795
EGWP/PDP Spouse Premium Reduction		(1,244,665)	(2,498,637)	(14,615,034)	(14,687,927)	(14,761,184)	(14,834,807)	(14,908,798)	(14,983,155)	(15,057,884)	(15,132,986)
MA Spouse Premium Reduction				(5,898,039)	(5,927,456)	(5,957,019)	(5,986,730)	(6,016,589)	(6,046,598)	(6,076,755)	(6,107,063)
MA Buy-up Premium				10,940,979	10,995,548	15,140,644	15,216,158	19,774,355	19,872,981	24,884,033	25,008,144
Health care Reform ERRP	42,163,391	(558,219)	-	-	-	-	-	-	-	-	-
Retro Disenrollments	(451,496)	(714,727)	(721,289)	(745,476)	(743,932)	(758,294)	(756,755)	(817,303)	(815,679)	(880,978)	(879,264)
Premium Incentive			-	(15,363,911)	(15,332,089)	(14,299,813)	(14,287,662)	18,347,595	18,311,123	18,164,492	18,129,151
CDHP Premium Reduction			-	(3,528,927)	(3,521,618)	(4,751,766)	(4,747,728)	(5,957,822)	(5,945,979)	(7,139,050)	(7,125,160)
Medicare Part D	57,583,602	36,936,224	2,784,744	3,434,018	2,910,058	3,588,549	3,041,010	3,750,033	3,177,856	3,918,785	3,320,859
EGWP+Wrap											
Direct Subsidy	-	25,008,159	25,151,533	-	-	-	-	-	-	-	-
Coverage Gap Subsidy	-	-	7,195,769	17,999,102	-	-	-	-	-	-	-
Catastrophic Subsidy	-	-	-	-	13,047,904	-	-	-	-	-	-
Total	-	25,008,159	32,347,302	17,999,102	13,047,904	-	-	-	-	-	-
Appropriations from State Reserve				-							
Investment Earnings	3,015,815	3,063,553	1,448,002	1,420,130	1,471,875	1,364,138	1,187,237	977,122	864,507	734,935	644,071
Total Plan Income	2,852,680,163	2,958,251,928	1,475,938,129	1,484,595,416	1,476,076,792	1,496,153,788	1,492,341,023	1,649,755,238	1,645,792,386	1,780,504,456	1,776,386,545
PLAN EXPENSE:											
Medical Claims Payment	1,849,410,105	1,882,949,142	997,508,625	1,111,574,513	1,036,956,734	1,201,076,486	1,130,686,863	1,298,249,706	1,217,598,950	1,400,256,154	1,312,797,082
Claim Refunds	(22,634,615)	(23,855,443)	(12,060,684)	(12,583,200)	(12,885,851)	(13,596,192)	(14,362,157)	(14,789,230)	(15,257,502)	(15,736,111)	(16,451,838)
Dental & MHSA Enhancement			1,965,794	3,370,442	3,144,191	3,641,824	3,428,393	3,936,466	3,691,922	4,245,763	3,980,576
Medicare Advantage Claims Reduction				(51,495,701)	(60,190,041)	(65,631,913)	(65,959,257)	(71,922,732)	(72,281,451)	(78,816,526)	(79,209,628)
Calendar Year Adjustments		-	44,524,878	(4,229,258)	14,039,329	(14,419,571)	18,622,423	(17,792,129)	20,205,328	(19,304,460)	21,922,781
Preventative at 100% in Standard Plan				9,805,123	13,733,526	15,553,431	15,012,324	16,765,870	16,153,784	18,067,218	17,400,803
Premium Incentive				(7,995,527)	(11,972,541)	(11,462,987)	(11,446,086)	(12,527,363)	(12,502,373)	(19,984,282)	(19,945,259)
CDHP Claims Reduction				(2,705,932)	(4,051,876)	(5,771,199)	(5,762,690)	(8,941,127)	(8,923,291)	(12,953,021)	(12,927,728)
Limited Network Savings				310,434	464,845	390,200	389,624	602,750	601,547	576,589	575,463
PCP Copay Waiver				4,407,787	6,600,242	(367,417)	(366,875)	(4,086,355)	(4,078,203)	(17,078,970)	(17,045,620)
Mental Health Enhancements				451,938	608,120	704,185	662,915	765,427	717,877	830,633	778,752
Net Medical Claims	1,826,775,490	1,859,093,698	1,031,938,612	1,050,910,619	986,446,678	1,110,116,847	1,070,905,478	1,190,261,283	1,145,926,587	1,260,102,988	1,211,875,383
Medicare Advantage Premiums			-	86,864,745	87,297,988	108,861,089	109,404,040	133,102,486	133,766,343	159,805,493	160,602,532
Pharmacy Claims Payment	721,163,013	749,090,373	426,782,431	389,095,527	461,133,212	420,430,469	498,290,216	492,888,065	499,857,994	532,671,371	540,226,350
Rebates	(93,130,160)	(72,024,902)	(22,208,556)	(32,607,518)	(23,014,123)	(26,428,528)	(23,850,891)	(27,281,378)	(24,724,242)	(28,163,286)	(25,623,274)
Calendar Year Adjustments			6,211,534	(9,511,046)	11,406,548	(10,470,311)	12,325,781	(12,201,284)	12,627,650	(13,186,116)	13,647,560
Net Pharmacy Claims	628,032,853	677,065,471	410,785,408	346,976,963	449,525,637	383,531,630	486,765,106	453,405,403	487,761,402	491,321,968	528,250,635
MA-PDP Claims Reduction			-	(114,577,245)	(139,255,710)	(151,846,028)	(152,603,370)	(166,400,470)	(167,230,403)	(182,349,955)	(183,259,437)
EGWP+Wrap Reduction in Rebates		808,689	1,635,695	827,018	-	-	-	-	-	-	-
EGWP+Wrap Claim Increase		222,762	462,707	-	-	-	-	-	-	-	-
Expand Coverage of Diabetic Test Strips		-	591,768	686,454	813,546	741,737	879,099	869,568	881,865	939,755	953,084
HB 675 - Pharmacy Audit Changes				100,000	104,617	95,383	113,047	111,821	113,403	120,847	122,561
Specialty Pharmacy Tier				(188,553)	(265,758)	(258,101)	(305,899)	(321,725)	(326,275)	(370,373)	(375,627)
Total Pharmacy Claims	628,032,853	678,096,922	413,475,579	233,824,638	310,922,331	232,264,620	334,847,993	287,664,597	321,199,992	309,662,242	345,691,217
Total Claims	2,454,808,343	2,537,190,620	1,445,414,191	1,371,600,002	1,384,666,997	1,451,242,555	1,515,157,501	1,611,028,367	1,600,892,923	1,729,570,723	1,718,169,132
Administrative Costs	165,480,561	164,665,404	85,504,284	91,148,330	88,666,681	88,484,867	91,324,774	91,141,320	93,688,951	93,504,688	96,122,447
ACA Reinsurance Fee				-	-	34,632,846	-	21,039,454	-	14,201,632	-
Extra EGWP+Wrap Administration	-	2,893,881	5,794,014	-	-	-	-	-	-	-	-
Total Plan Expense	2,620,288,904	2,704,749,905	1,536,712,490	1,462,748,331	1,473,333,678	1,574,360,269	1,606,482,275	1,723,209,141	1,694,581,874	1,837,277,042	1,814,291,579
Plan Income (Loss)	232,391,259	253,502,023	(60,774,360)	21,847,084	2,743,114	(78,206,481)	(114,141,252)	(73,453,903)	(48,789,488)	(56,772,586)	(37,905,034)
Beginning Cash Balance (Deficit)	269,856,212	502,247,471	755,749,494	694,975,134	716,822,218	719,565,332	641,358,851	527,217,599	453,763,696	404,974,207	348,201,621
Ending Cash Balance (Deficit)	502,247,471	755,749,494	694,975,134	716,822,218	719,565,332	641,358,851	527,217,599	453,763,696	404,974,207	348,201,621	310,296,587
Target Stabilization Reserve	184,110,626	202,975,250	219,485,780	239,446,206	234,282,695	256,231,860	266,976,005	281,356,728	289,072,916	299,741,728	310,296,587
	7.5%	8.0%	8.0%	8.5%	8.5%	9.0%	9.0%	9.0%	9.0%	9.0%	9.0%
	7/1 Increase	7/1 Increase		1/1 Increase		1/1 Increase		1/1 Increase		1/1 Increase	
Premium Increase:	5.3%	5.3%		3.57%		2.14%		8.22%		8.22%	

FY 2013-14 Q1 Update
(Segal 11-14-13)

SEGAL

North Carolina State Health Plan
Financial Projections - Sep 2013
Trends - 8.5% Medical & Pharmacy
Board Approved Wellness Incentives - Active 70/30 Unchanged thru 2015 only, Retirees 70/30 Unchanged
With MA & PDP, With Essential Health Benefits & MH Parity
Incentives start at $15/$15/$20 and increase to $25/$25/$40 in Calendar 2016, $10 Standard Premium Credit

	2012 - 2013 Biennium		2014 - 2015 Biennium				2016 - 2017 Biennium				
	Actual FY 2012	Actual FY 2013	Projection Short Plan Year Jul-Dec 2013	Projection Calendar 2014 Jan-June	Projection Calendar 2014 July-Dec	Projection Calendar 2015 Jan-Jun	Projection Calendar 2015 Jul-Dec	Projection Calendar 2016 Jan-June	Projection Calendar 2016 July-Dec	Projection Calendar 2017 Jan-Jun	Projection Calendar 2017 Jul-Dec
PLAN INCOME:											
Net Contribution Income	2,750,368,851	2,895,366,140	1,454,995,731	1,497,179,531	1,494,163,089	1,523,095,383	1,520,090,707	1,634,253,292	1,631,098,518	1,753,672,738	1,750,362,250
EGWP/PDP Spouse Premium Reduction		-	(1,231,103)	(14,552,685)	(14,625,268)	(14,698,212)	(14,771,520)	(14,845,194)	(14,919,235)	(14,993,646)	(15,068,428)
MA Spouse Premium Reduction				(5,856,638)	(5,885,849)	(5,915,205)	(5,944,707)	(5,974,357)	(6,004,154)	(6,034,100)	(6,064,196)
MA Buy-up Premium				11,144,450	11,200,034	15,391,702	15,468,469	20,077,844	20,177,983	25,245,260	25,371,173
Health care Reform ERRP	42,163,391	(558,219)	-	-	-	-	-	-	-	-	-
Retro Disenrollments	(451,496)	(487,819)	(613,406)	(748,590)	(747,082)	(761,548)	(760,045)	(817,127)	(815,549)	(876,836)	(875,181)
Premium Incentive			-	(15,132,835)	(15,102,346)	(14,099,776)	(14,071,961)	18,234,558	18,199,358	18,052,395	18,018,317
CDHP Premium Reduction			-	(3,486,444)	(3,479,420)	(4,693,593)	(4,684,333)	(5,878,790)	(5,867,442)	(7,042,406)	(7,029,111)
Medicare Part D	57,583,602	38,056,016	(2,045,274)	3,280,324	2,779,814	3,427,938	2,904,906	3,582,196	3,035,627	3,743,394	3,172,230
EGWP+Wrap											
Direct Subsidy	-	24,435,483	25,741,422	-	-	-	-	-	-	-	-
Coverage Gap Subsidy	-	-	8,953,844	18,169,771	-	-	-	-	-	-	-
Catastrophic Subsidy	-	-	-	-	-	13,171,626	-	-	-	-	-
Total	-	24,435,483	34,695,267	18,169,771	-	13,171,626	-	-	-	-	-
Appropriations from State Reserve				-							
Investment Earnings	3,015,815	3,236,713	1,663,868	1,489,193	1,545,098	1,447,760	1,284,123	1,065,908	939,801	788,054	665,776
Total Plan Income	2,852,680,163	2,960,048,314	1,487,465,082	1,491,486,077	1,469,848,073	1,516,366,077	1,499,515,639	1,649,698,330	1,645,844,906	1,772,554,853	1,768,552,830
PLAN EXPENSE:											
Medical Claims Payment	1,849,410,105	1,858,096,405	1,004,924,154	1,087,845,343	1,014,877,297	1,175,569,905	1,106,736,822	1,270,823,703	1,191,944,159	1,370,832,602	1,285,284,566
Claim Refunds	(22,634,615)	(23,467,914)	(11,861,694)	(12,309,995)	(12,611,230)	(13,307,208)	(13,868,798)	(14,476,540)	(14,935,747)	(15,405,170)	(16,106,749)
Dental & MHSA Enhancement			1,424,066	3,370,351	3,144,282	3,642,138	3,428,880	3,937,253	3,692,869	4,247,099	3,982,055
Medicare Advantage Claims Reduction				(51,959,107)	(60,778,121)	(66,273,163)	(66,603,704)	(72,625,445)	(72,987,669)	(79,586,594)	(79,983,537)
Calendar Year Adjustments		-	33,053,694	(4,229,258)	14,039,329	(14,419,571)	18,622,423	(17,792,129)	20,205,328	(19,304,460)	21,922,781
Preventative at 100% in Standard Plan				9,572,332	13,420,058	15,191,448	14,674,949	16,376,496	15,789,284	17,649,201	17,009,684
Premium Incentive				(7,929,050)	(11,873,557)	(11,380,262)	(11,357,731)	(12,581,387)	(12,557,011)	(19,995,303)	(19,957,415)
CDHP Claims Reduction				(2,637,947)	(3,950,260)	(5,647,915)	(5,636,733)	(8,766,694)	(8,749,709)	(12,719,839)	(12,695,736)
Limited Network Savings				304,325	455,720	382,506	381,748	595,478	594,324	569,136	568,057
PCP Copay Waiver				4,337,145	6,494,768	(398,650)	(397,860)	(4,021,959)	(4,014,166)	(16,995,135)	(16,962,932)
Essential Health Benefits/MH Parity				1,411,202	1,898,981	2,198,838	2,070,089	2,390,068	2,241,718	2,593,674	2,431,814
Net Medical Claims	1,826,775,490	1,834,628,491	1,027,540,221	1,027,775,341	965,117,266	1,085,558,067	1,048,050,085	1,163,858,843	1,121,223,380	1,231,885,210	1,185,492,589
Medicare Advantage Premiums			-	88,480,183	88,921,483	110,744,961	111,297,308	135,281,658	135,956,384	162,309,415	163,118,944
Pharmacy Claims Payment	721,163,013	752,419,650	456,411,374	414,627,765	491,418,537	448,066,598	531,072,633	525,343,967	532,801,144	567,808,369	575,892,516
Rebates	(93,130,160)	(69,641,941)	(29,386,434)	(37,921,448)	(23,335,020)	(33,756,553)	(24,186,211)	(27,624,160)	(25,074,597)	(28,521,582)	(25,989,500)
Calendar Year Adjustments			4,259,545	(10,817,063)	12,155,834	(11,158,568)	13,136,856	(13,004,731)	13,460,008	(14,055,935)	14,548,727
Net Pharmacy Claims	628,032,853	682,777,709	431,284,485	365,889,254	480,239,351	403,151,475	520,023,278	484,715,076	521,186,555	525,230,852	564,451,743
MA-PDP Claims Reduction			-	(116,068,145)	(141,087,642)	(153,843,588)	(154,610,992)	(168,589,496)	(169,430,346)	(184,748,799)	(185,670,245)
EGWP+Wrap Reduction in Rebates		-	834,594	842,398	-	-	-	-	-	-	-
EGWP+Wrap Claim Increase		-	238,622	-	-	-	-	-	-	-	-
Expand Coverage of Diabetic Test Strips		-	380,804	686,435	813,565	741,794	879,214	869,730	882,076	940,032	953,416
HB 675 - Pharmacy Audit Changes				100,000	104,614	95,386	113,056	111,837	113,424	120,876	122,597
Specialty Pharmacy Tier				(188,549)	(265,765)	(258,094)	(305,906)	(321,717)	(326,283)	(370,363)	(375,637)
Total Pharmacy Claims	628,032,853	682,777,709	432,738,506	251,261,393	339,804,124	249,886,974	366,098,750	316,785,430	352,425,425	341,172,598	379,481,875
Total Claims	2,454,808,343	2,517,406,200	1,460,278,726	1,367,516,917	1,393,842,873	1,446,190,002	1,525,446,144	1,615,925,931	1,609,605,189	1,735,367,224	1,728,093,407
Administrative Costs	165,480,561	161,401,639	83,826,787	91,261,895	88,664,163	88,487,385	91,322,160	91,143,934	93,697,029	93,518,151	96,141,860
ACA Reinsurance Fee				-	-	34,632,846	-	21,039,454	-	14,201,632	-
Extra EGWP+Wrap Administration	-	-	2,904,645	-	-	-	-	-	-	-	-
Total Plan Expense	2,620,288,904	2,678,807,839	1,547,010,159	1,458,778,811	1,482,507,036	1,569,310,234	1,616,768,304	1,728,109,320	1,703,302,218	1,843,087,006	1,824,235,268
Plan Income (Loss)	232,391,259	281,240,475	(59,545,076)	32,707,266	(12,658,963)	(52,944,157)	(117,252,665)	(78,410,990)	(57,457,313)	(70,532,153)	(55,682,438)
Beginning Cash Balance (Deficit)	269,856,212	502,247,471	783,487,946	723,942,870	756,650,136	743,991,173	691,047,016	573,794,351	495,383,360	437,926,048	367,393,895
Ending Cash Balance (Deficit)	502,247,471	783,487,946	723,942,870	756,650,136	743,991,173	691,047,016	573,794,351	495,383,360	437,926,048	367,393,895	311,711,457
Target Stabilization Reserve	184,110,626	201,392,496	116,822,298	240,362,630	234,715,582	255,602,959	267,447,253	282,723,487	290,297,801	301,047,517	311,711,457
	7.5%	8.0%	8.0%	8.5%	8.5%	9.0%	9.0%	9.0%	9.0%	9.0%	9.0%
Premium Increase:	7/1 Increase 5.3%	7/1 Increase 5.3%		1/1 Increase 3.57%		1/1 Increase 2.14%		1/1 Increase 7.72%		1/1 Increase 7.72%	

North Carolina
State Health Plan
FOR TEACHERS AND STATE EMPLOYEES

Actuarial Valuation of Retired Employees' Health Benefits

Board of Trustees Meeting

November 22, 2013

Based on report prepared by
The Segal Company
for
The Committee on Actuarial Valuation of Retired Employees' Health Benefits

Presentation Overview

- Background
- Committee on Actuarial Valuation of Retired Employees' Health Benefits
- Valuation Process
- Results

Background

- The Governmental Accounting Standards Board (GASB) sets accounting standards for public and governmental entities to provide uniformity in financial reporting

- GASB statements 43 and 45 require governmental entities to disclose information on liabilities associated with “Other Postemployment Benefits” (OPEB), notably retiree health benefits

- Objective: To report in today’s dollars the State’s liability associated with retiree health benefits

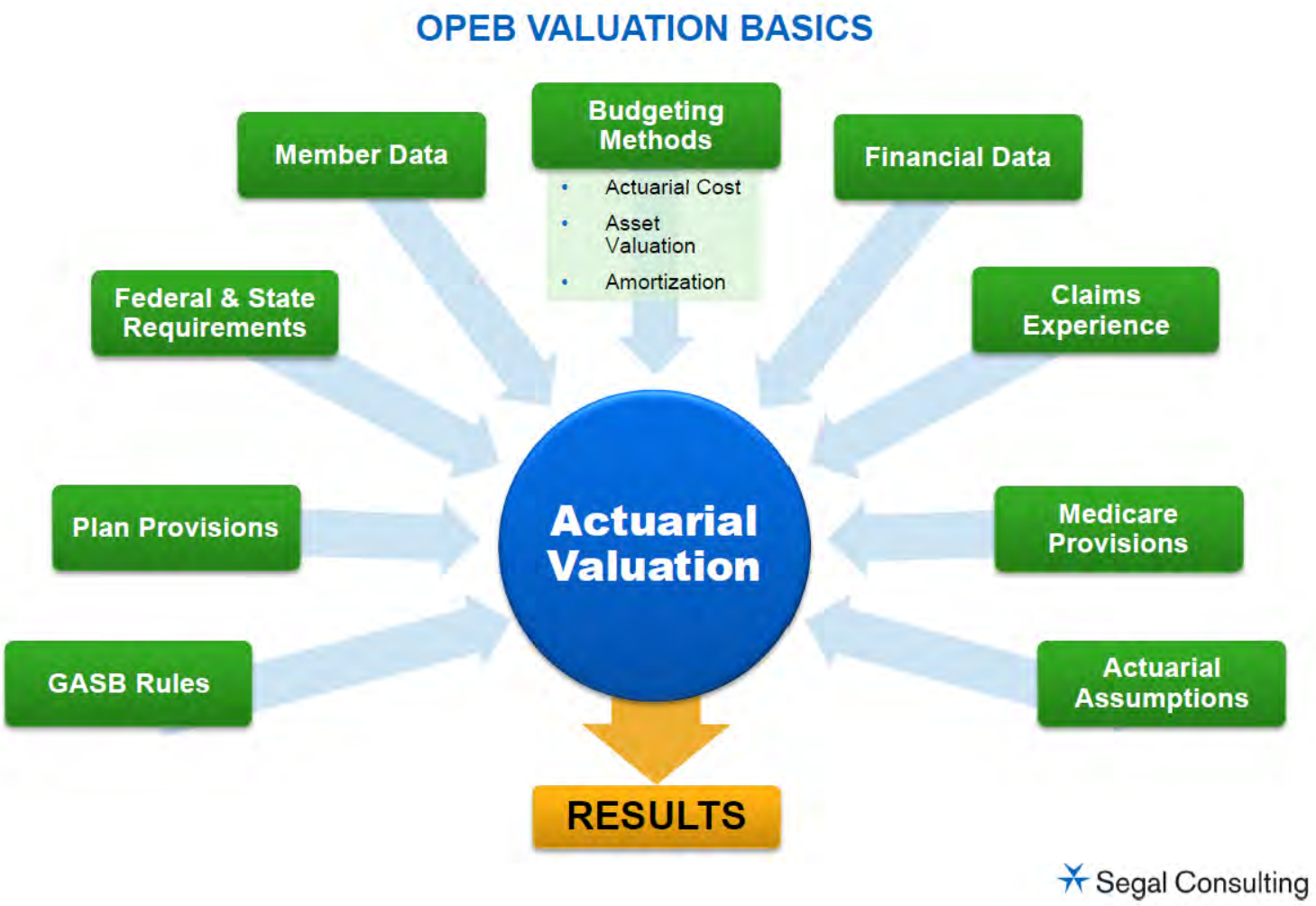
The Committee on Actuarial Valuation of Retired Employees' Health Benefits

- The Committee was established to conduct the annual OPEB valuation

- Committee consists of:
  - State Budget Officer (as Chair)
  - State Auditor
  - State Controller
  - State Treasurer
  - Executive Administrator of the State Health Plan

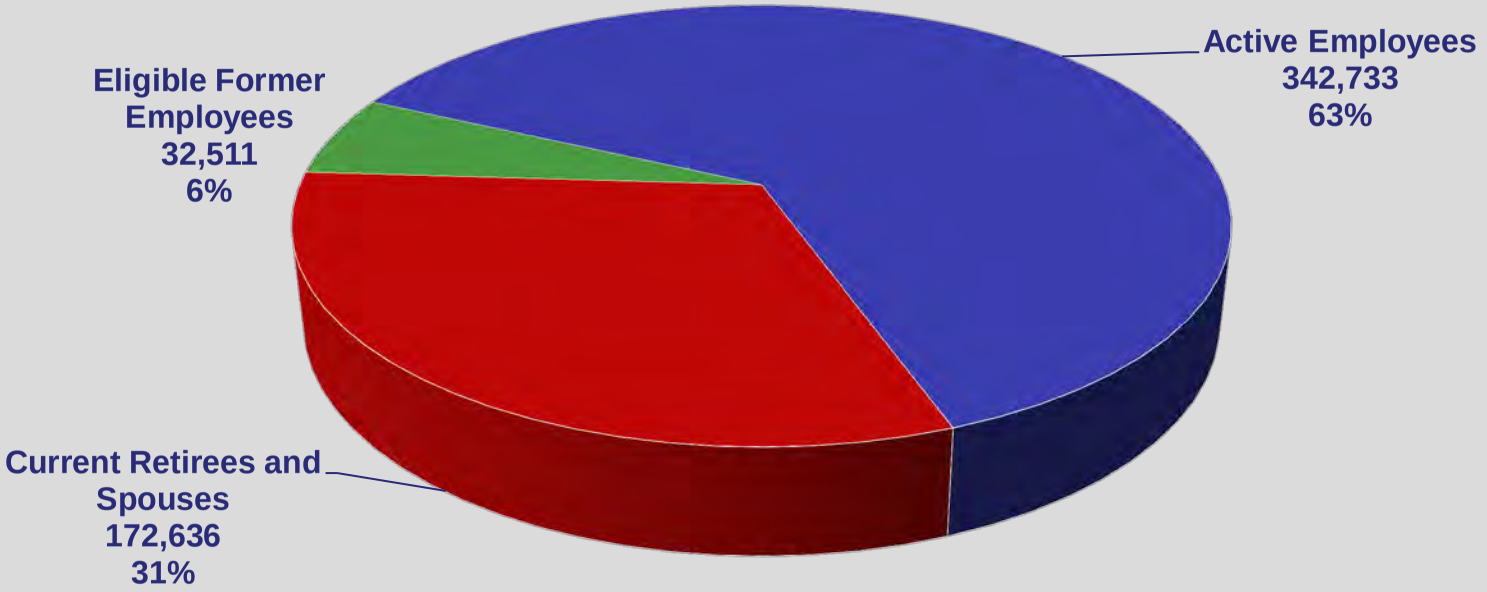
- Committee's responsibilities:
  - Select actuary (can choose the Plan's actuary or Retirement's actuary)
  - Collect data
  - Review actuarial assumptions to be used in the valuation
  - Report results

Valuation Process



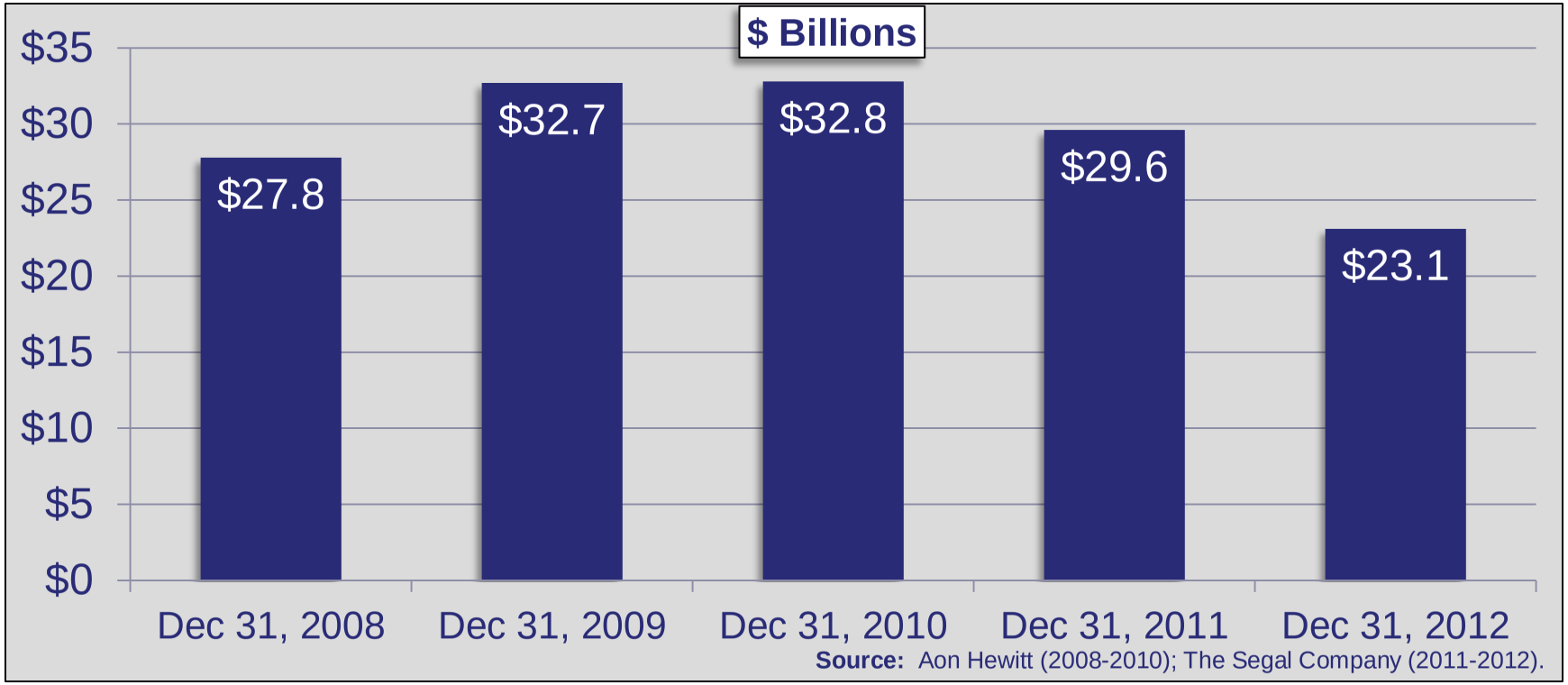
Valuation Census

- As of December 31, 2012, there were 547,880 employees and retirees eligible for retiree health benefits



Source: *Actuarial Valuation and Review of Other Postemployment Benefits (OPEB) as of December 31, 2012*; The Segal Company.

Results: Unfunded Actuarial Accrued Liability (UAAL)



- UAAL declined $6.5 billion from 2011 to 2012
- 2012 UAAL was $8.3 billion less than projected last year due to:
  - Assumption changes ($4.8 billion decrease)
  - Plan changes ($4.6 billion decrease)
  - Offset by a $1.1 billion increase in actuarial experience (demographics, investment performance, contributions)

Results: Annual Required Contribution (ARC)

- ARC = Amortization of unfunded liability + normal costs
  - If the State were to amortize the UAAL over a 30-year period, the annual payment would be $854 million
  - Liability associated with future benefits earned in the current (valuation) year is the “normal cost.” Normal cost for 2012 is $1.167 billion.

	Dec 31, 2008	Dec 31, 2009	Dec 31, 2010	Dec 31, 2011	Dec 31, 2012
Amortization of Unfunded Liability	$1.0 b	$1.2 b	$1.2 b	$1.1 b	$0.8 b
Normal Cost	$1.7 b	$1.8 b	1.7 b	$1.4 b	$1.2 b
ARC	**$2.7 b**	**$3.0 b**	**$2.9 b**	**$2.5 b**	**$2.0 b**
As % of Payroll	17.5%	19.9%	19.3%	16.7%	13.5%

Results: Actuarial Gain/(Loss) on ARC

Description	Amount
Expected ARC	**$2.548 b**
Experience Loss	$225.0 m
Assumption Changes	($421.2 m)
Plan Changes	($331.0 m)
Total Change	($527.2 m)
2012 Actual ARC	**$2.021 b**

Source: The Segal Company

Board of Trustees/State Health Plan impact:

- Implementation of CDHP and MA-PDP in 2014 reduce the ARC by $331 million
- Positive claims experience contributes to the $421 million "assumption changes" reduction