The Lewin Group®

HEALTH CARE AND HUMAN SERVICES POLICY, RESEARCH, AND CONSULTING—**WITH REAL-WORLD PERSPECTIVE.**

# An Independent Evaluation of Rhode Island's Global Waiver

*Prepared by:* **The Lewin Group**

***Date:*** December 6, 2011

# Table of Contents

**Executive Summary** ... 1
**Introduction** ... 4
**I Analysis of the Rhode Island Long Term Care Services and Supports System Transformation** ... 7
Environmental Scan Findings ... 12
**II Analysis of Long Term Care Expenditures** ... 19
Identification of Institutional LTC Services ... 19
Home and Community Based LTC Services ... 22
Total LTC Utilization ... 27
Actuarial Analysis ... 28
**III Care Management Effectiveness Analysis** ... 30
Adults with Disabilities Analysis ... 31
Analysis of Children with Special Health Care Needs ... 32
Fiscal Impact of Care Management Initiatives ... 34
**IV Measuring improvements in member utilization of appropriate services** ... 36
Appropriate Utilization of Long Term Care Services ... 36
Long Term Care Rate Setting Initiatives ... 36
Improved Care Management ... 37
Appropriate Utilization for Members with Chronic Conditions ... 38
Conclusion ... 40

# Table of Exhibits

Exhibit 1. Intersection between RCSTG and Global Waiver Goals and Objectives ............ 4
Exhibit 2. NESCSO Evaluation Questions and The Lewin Group Analytical Framework ..... 5
Exhibit 3. Environmental Scan ........................................................................ 7
Exhibit 4. Global Waiver Goals and Supporting Activities........................................ 8
Exhibit 5. Progress Timeline of Global Waiver and RCSTG....................................... 9
Exhibit 7. A Snapshot of Findings from the Brown University Center for Gerontology and Health Care Research ........................................................................ 14
Chart 1. Total Nursing Home Expenditures by Month of Service ................................ 20
Chart 2. Total Nursing Home Days by Month of Service........................................... 20
Chart 3. Unique Nursing Home Residents by Month of Service .................................. 21
Chart 4. Average Cost per Nursing Home Day by Month of Service ............................. 21
Chart 5. Number of Unique User of HCBS Services, SFY08-SFY10 (General Medicaid) ..... 23
Chart 6. Monthly Expenditures for HCBS Services, SFY08- SFY10 .............................. 24
Chart 7. Unique Users HCBS Services SFY08 - SFY10............................................... 25
Chart 8. Monthly Expenditures HCBS Services SFY08 - SFY10 .................................. 25
Chart 9. Personal Care Users SFY08 - SFY10........................................................ 26
Chart 10. Monthly Personal Care Expenditures SFY08 - SFY10................................. 26
Table 1. HCBS and Nursing Home Users and Expenditures ....................................... 27
Table 2. Comparison of Inflation Rates............................................................... 28
Table 3 Enrollment and Risk Score Trends for Disabled Adults.................................. 31
Table 4 Average Cost PMPM and Risk Scores for Disabled Adults ............................... 32
Table 5 Enrollment and Risk Score Trends for CSHCN............................................. 33
Table 6 Average Cost PMPM and Risk Scores for CSHCN .......................................... 33
Table 7 Fiscal Impact of RIte Care and Rhody Health Partner Programs ...................... 34
Table 8 Service Utilization by Cohort Transitioning from FFS to Care Management ........ 37
Table 9 Change in Cohort Utilization from SFY09 to SFY10...................................... 37
Table 10 Prevalence Rates for Disabled Members by Age Category ............................ 38
Table 11 Service Utilization by CSHCN with Chronic Conditions ................................ 39
Table 12 Service Utilization by Disabled Adults with Chronic Conditions ..................... 40

# Executive Summary

The Lewin Group, in collaboration with the New England States Consortium Systems Organization (NESCSO) and the Rhode Island Office of Health and Human Services has conducted an evaluation of the impact of the Rhode Island Global Consumer Choice Compact Waiver (Global Waiver). The purpose of the evaluation was to conduct an independent assessment of the impact of the Global Waiver on Rhode Island's Medicaid expenditures. The evaluation focused on the following areas:

- Have Global Waiver and budget initiatives that changed Rhode Island's Medicaid long-term care processes, procedures and provider payments affected enrollment, utilization, and cost of services and supports provided to elders and adults with disabilities in home and community based vs. institutional settings?
- Have Global Waiver budget initiatives designed to reduce cost through care management by providing each member with a medical home affected Medicaid expenditures and improved health outcomes, particularly for those beneficiaries with disabilities?
- Have the Global Waiver initiatives facilitated the state's efforts to ensure that every Medicaid beneficiary has ***"the right services, at the right time, in the right- setting***" ?

### Long Term Care Cost and Utilization

The Global Waiver advanced Rhode Island's strategic plan to rebalance the long term care services and supports system initiated through Rhode Island's Real Choice Systems Transformation Grant which began in 2006. The following initiatives were included in the Global Waiver to help to rebalance the long term care system;

- Changes to the clinical level of care policy and process including development of a preventive level of care
- Initial steps to address the needs of high cost utilizers
- Nursing Home Diversion and Transition Projects
- Promoting the availability of community based services as an alternative to Nursing Home Placement
- Removing delegated authority from hospital discharge planners
- Improving access to shared living arrangements

To evaluate the impact of the Global Waiver on re-balancing the long term care system, Medicaid claims data for long term care services for state fiscal years (SFY) 2008 through 2010 were evaluated. This analysis of LTC expenditures found that the Global Waiver was successful in re-balancing the long term care system resulting in the utilization of more appropriate LTC services. During the study period the average number of nursing home users fell by 3.0 percent from SFY08 to SFY10. During this same period the average number of home and community base services users rose by 9.5 percent. These Global Waiver strategies clearly helped the state to re-balance the delivery of LTC services, resulting in savings of $35.7 million during the three year study period according to our estimates.

### Long Term Care Rate Setting Initiatives

During the study period the state also took several rate actions to reduce the rate of growth in nursing home payment rates and to ensure that the rate setting process accounted for the acuity of members receiving services in a nursing home. The state implemented two key budget initiatives to help reduce the rate of growth in nursing home rates;

- Implementation of nursing facility acuity adjuster
- Nursing facility rate cuts for direct labor costs

The average cost per day in a nursing home rose by an average of 1.1 percent during the study period, while the acuity of the enrolled population rose by more than 5 percent. The increase experienced in the average cost per day was consistent with the inflation rate during this period. The increase in the acuity of the enrolled population was the result of the Global Waiver nursing home diversion and transition initiatives. These rate initiatives resulted in savings of $15 million according to our estimates during SFY10.

### Improved Care Management

The Global Waiver mandatorily enrolled Children with Special Health Care Needs (CSHCN) and adults with disabilities in care management programs during SFY10 to ensure that every member has a medical home. Adults with disabilities were mandatorily enrolled in the Rhody Health Partners and Connect Care Choice programs. CSHCN were mandatorily enrolled in RIte Care managed care plans. Analyses of total expenditures for members in these programs in comparison to members in unmanaged fee for service found that these care management programs were clearly cost effective. An analysis of the utilization of medical care services by members enrolled in care management programs found evidence of lower emergency room utilization and improved access to physician services. These programs resulted in savings in excess of $5 million during SFY10, based upon our most conservative estimate.

### The right services, at the right time, in the right- setting

To evaluate the impact of care management programs on improving access to primary care services and redirecting utilization toward more cost effective treatment, the utilization of health care services was evaluated for a cohort of CSHCN and adults with disabilities that transitioned from unmanaged FFS in SFY09 to a care management program in SFY10. The utilization of inpatient care, emergency room visits and physician visits for members in the cohort was computed in each year using claims and encounter data. All three groups experienced a decrease in the number of emergency room visits from SFY09 to SFY10 and an accompanying increase in the number of physician visits during SFY10. An additional analysis was conducted of the utilization of physician and emergency room services for CSHCN and adults with disabilities that had asthma, diabetes, cardiac conditions and mental health disorders. This analysis also found evidence of lower emergency room utilization and improved access to physician services. Both of these findings supports the goal of the Global Waiver to improve access to primary care services and substitute less expensive health care services.

These findings further reflect that the Global Waiver successfully re-balanced the long term care system clearly supporting the state's goal that Medicaid members in Rhode Island receive the right services, at the right time, in the right setting.

In summary, the Global Waiver and budget initiatives introduced by the state have been highly effective in controlling Medicaid costs in Rhode Island and improving members' access to more appropriate services. Continuing the current waiver initiatives along with the implementation of new initiatives planned for future years will result in additional savings for the state and improved care management for Medicaid members.

## Introduction

On January 16, 2009 the Centers for Medicare and Medicaid Services approved the Rhode Island Global Consumer Choice Compact Waiver (Global Waiver) under the authority of Section 1115 (a) of the Social Security Act. This approval advanced the Rhode Island strategic plan to rebalance the long term services and supports system initiated through Rhode Island's longstanding participation in the Real Choice Systems Transformation Grant (RCSTG) which began in 2006. The RCSTG paved the way for system transformation in Rhode Island by establishing strategic direction to improve access to long term services and supports, enhance and ensure quality, and create the foundation for a system that is efficient and effective in managing the funding and promotion of community living options. The Global Waiver is built on the foundation of the RCSTG and is much broader in scope than long term services and supports system transformation. The Global Waiver advances those goals established through the RCSTG. ***Exhibit 1*** reflects the intersection between the goals and objectives of the RCSTG and the Global Waiver.

### Exhibit 1. Intersection between RCSTG and Global Waiver Goals and Objectives

| Real Choice Systems Transformation Grant | Global Consumer Choice Compact Waiver |
|---|---|
| ▶ To conduct extensive evaluation of the particular needs and experiences of persons in community and institutionalized settings<br>▶ To standardize and centralize clinical and financial long term care eligibility processes<br>▶ To establish materials to support informed choices across the service spectrum<br>▶ To provide training to discharge planners and community groups<br>▶ To identify quality indicator measures to be tracked across adult systems<br>▶ To develop an in-depth resource map<br>▶ To develop and collect representative community-based cost reports to establish baseline rates that are more balanced with institutional rates<br>▶ To identify and implement key priorities for applying institutional savings to the community-based service sector<br>▶ To initiate and document stakeholder input | ▶ To rebalance the publicly-funded long-term care system in order to increase access to home and community-based services and supports to decrease reliance on inappropriate institutional stays<br>▶ To ensure that all Medicaid beneficiaries have access to a medical home<br>▶ To implement payment and purchasing strategies that align with the Waiver's programmatic goals and ensure a sustainable, cost-effective program<br>▶ To ensure that Medicaid remains accessible and comprehensive system of coordinated care that focuses on independence and choice<br>▶ To maximize all available resources<br>▶ To promote accountability and transparency<br>▶ To encourage and reward health outcomes<br>▶ To advance efficiencies through interdepartmental cooperation |

The broad scope of the Global Waiver actually began with a consensus that the Rhode Island Medicaid program was in need of systemic reform. The need to reform existed not only to manage Medicaid expenditure growth, but also to improve the program's performance reflected in a series of findings (e.g. overreliance on expensive institutional settings, outdated payment and purchasing strategies, and inefficient and ineffective care management approaches) between 2005 and 2007 by the Rhode Island Executive Office of Health and Human Services and the Rhode Island Public Expenditure Council. Many of the Rhode Island reforms contained in the Global Waiver are more about person-centered and high quality care than

about controlling expenditures. In fact, the Global Waiver is not a block grant meant to control costs, but a demonstration aimed to improve health care quality built on the core foundation of shared state and federal costs. Rhode Island can only draw down federal funds for services in which the state expended its match portion up to an aggregate budget cap of $12.1 billion over the five year demonstration. Rhode Island general revenue constraints likely will prevent growth up to the cap in any given year of the demonstration. The Global Waiver, and its connection to the RCSTG, provides a framework for system change. Given that Rhode Island is only in year 3 of the demonstration, the full impact is likely not yet evident. While it is possible to reflect on the positive fiscal impact of the "Costs Not Otherwise Matchable (CNOM)" provision of the Global Waiver and its ability to provide care to beneficiaries at risk, it is more difficult to reflect on additional fiscal impacts given the recession and the resultant enhanced matching funds Rhode Island received through the federal American Recovery and Reinvestment Act (ARRA) of 2009. ARRA limited state shortfalls, but the maintenance of effort requirements prevented changes afforded within the approved Global Waiver. Therefore, only preliminary findings reflecting potential trends and milestones attained through the first two years of implementation are possible. To that end, in early June 2011 the New England States Consortium Systems Organization (NESCSO) released a Letter of Interest requesting an expedited, independent evaluation of the component areas of the Rhode Island Consumer Choice Compact Waiver (Global Waiver) that intersect with or advance long-term care system rebalancing goals established in Rhode Island's Real Choices System Transformation Grant (RCSTG). The Lewin Group submitted a technical approach to NESCSO on June 20, 2011 which included recommended analyses to answer the three evaluation questions outlined within the Letter of Interest (see ***Exhibit 2***).

### Exhibit 2. NESCSO Evaluation Questions and The Lewin Group Analytical Framework

| NESCSO Evaluation Questions | The Lewin Group Analytical Framework |
|---|---|
| 1. Have initiatives changing Medicaid long-term care processes, procedures and provider payments affected enrollment, utilization, and cost of services and supports provided to elders and adults with disabilities in home and community based versus institutional settings? | To evaluate the impact of initiatives designed to impact the delivery of long term care services, Lewin evaluated 1 year of Medicaid claims data prior to the implementation of the initiatives and the Medicaid claims data for the period of time following implementation.<br>To understand the acuity of the population being treated in institutional and community settings The Lewin Group ran the claims data through the Episode Treatment Group (ETG), Episode Risk Group (ERG) and Pharmacy Risk Group (PRG) risk adjustment groupers. The risk scores and disease markers generated by these groupers helped us to evaluate if the acuity of members being cared for in the community have increased as a result of Rhode Island's long term care initiatives.<br>Finally, to understand institutional and community settings pre- and post- implementation, The Lewin Group conducted an analysis of the cost and utilization of services. See Section I for findings. |

| NESCSO Evaluation Questions | The Lewin Group Analytical Framework |
|---|---|
| 2. Have budget initiatives designed to reduce cost through care management affected health outcomes, particularly for those beneficiaries at risk for long-term care? | To evaluate the impact of care management efforts on health outcomes, The Lewin Group conducted an analysis of Medicaid claims pre- and post- implementation of the care management program in Rhode Island. Lewin again used the ETG, ERG, and PRG groupers to evaluate the risk scores and disease conditions of members in the care management program. The utilization of emergency room, inpatient hospital, physician, and pharmacy services were evaluated for members in care management. Their utilization was compared to utilization in the pre- implementation period, and to the utilization of members in the post-implementation period that are not in care management. In conducting this evaluation, the risk scores were used to classify members into healthy, low, medium, high and very high acuity groups. Utilization within each of these groups was then contrasted between the care managed population and the non-case managed population and time periods. See Section II for findings. |
| 3. Have there been any factors that facilitated or impeded the state's efforts to ensure that every Medicaid beneficiary has "the right services, at the right time, in the right setting"? | To determine if Medicaid beneficiaries are getting "the right services, at the right time, in the right setting", Lewin augmented the results in the previous two analyses by examining the use of Medicaid services in Rhode Island pre- and post- implementation of the key policy initiatives. Lewin also examined the use of expensive Medicaid services including inpatient hospital, nursing home services and emergency room care looking for any reductions in the post implementation period after controlling for changes in the acuity of the population. Lewin then evaluated if the state was able to encourage the utilization of less expensive services by evaluating the utilization of home care, physician office services and clinic services in the post implementation period. See Section III for findings. |

The Lewin Group performed analyses to evaluate the cumulative impact of the RCSTG and the Global Waiver. Findings are summarized within the sections enumerated below with detail contained in the appendices to this report.

I. Analysis of the Rhode Island Long Term Services and Supports System Transformation

II. Analysis of Long Term Care Expenditures

III. Care Management Effectiveness Analysis

IV. Measuring improvements in member utilization of appropriate services

# I Analysis of the Rhode Island Long Term Care Services and Supports System Transformation

The Lewin Group reviewed multiple reports and conducted analyses (see ***Exhibit 2***) to determine the impact of long term care transformation on expenditures, acuity across institutional and community based care, outreach, and overall quality. This section of the report provides the foundation to the evaluation of the long term services and supports component areas of the Rhode Island Global Waiver (sub-section a) and provides the results of Lewin analyses (sub-section b) related to question 1 as reflected in ***Exhibit 2***.

To understand the impact of Global Waiver on long term services and supports, Lewin first conducted an environmental scan (***Exhibit 3***) of available reports necessary to understand the purpose and current progress of Rhode Island transformation. System transformation is an evolutionary process; while milestones of advancement are evident, transformation continues. Evaluation of such a transformation can only be conducted within the context of progress to date. In fact, Rhode Island, like many states, entered recession and experienced budget shortfalls impeding the ability to fully implement the re-balancing provisions available within the Global Waiver (e.g. increasing disregards for persons in home and community based services).

**Exhibit 3. Environmental Scan**

| Narrative Reports | Analytical Files and Reports |
|---|---|
| Reports to the Centers for Medicare and Medicaid Services: Rhode Island Global Consumer Choice Compact 1115 Waiver Demonstration- Quarterly Progress Reports<br>▪ *July 1, 2009- September 30, 2009,*<br>▪ *October 1, 2009 - December 31,2009*<br>▪ *January 1, 2010- March 31, 2010**<br>▪ *July 1, 2010- September 30, 2010,*<br>▪ *October 1, 2010- December 31, 2010*<br>Report to the Rhode Island General Assembly Senate Committee on Health and Human Services *(April 1, 2010- June 30, 2010)*<br>Evaluation Plan Template Rhode Island's Grantee-Specific Evaluation<br>Rhode Island Real Choices System Transformation Grant: Midpoint Evaluation Report, *October 12, 2010*<br>"Home Based Therapeutic Services (HBTS) fact sheet", Rhode Island Department of Human Services, November 2011<br>*Connect Care Choice Briefing, May 25, 2011*<br>*Connect Care Choice Program Overview*<br>*Connect Care Choice Nurse Care Manager*<br>*Connect Care Choice Program: Nurse Case Manager Role and Responsibilities*<br>*Connect Care Choice: Physician Participation Guidelines*<br>*Connect Care Choice: Physician Fact Sheet* | "Changes in the Characteristics of Rhode Island Medicaid Population in Nursing Homes 2008-2010", provided by The Center for Gerontology and Health Care Research, Brown University<br>Omar Level of Care Counts as of April 12, 2011<br>Long Term Care Results Provided by Rhode Island<br>Budget Initiative NHT 6-10<br>May 2011 Reports<br>NCM Monthly Interventions- June 2011 Report |

***Exhibit 4*** summarizes the goals and activities of Rhode Island's Long Term Services and Supports System Transformation.

### Exhibit 4. Global Waiver Goals and Supporting Activities

| Objectives | Supporting Activities |
|---|---|
| To rebalance the publicly-funded long-term care system in order to increase access to home and community-based services and supports to decrease reliance on inappropriate institutional stays | Ensure appropriate utilization of institutional services and facilitate access to community-based services and supports<br>1.1 Change the clinical level of care determination process for eligibility for Medicaid funded long term care from institutional to needs based<br>1.2 Remove delegated authority from hospital discharge planners and implement ongoing discharge planner education initiative<br>1.3 Design and implement a Nursing Home Diversion project to identify individuals that could be discharged from the hospital into a community-based setting<br>1.4 Design and implement a Nursing Home Transition project to identify individuals that could be transitioned from the nursing home to the community-based care setting.<br>Expand access to community-based services and supports<br>2.1 Develop a Preventative Level of Care<br>2.2 Expand access to Shared Living to the Elderly and Adults with Physical Disabilities<br>2.3 Expand Access to Home Health Care<br>2.4 Expand Access to Assisted Living<br>2.5 Expand Access to Adult Day Services<br>Improve coordination of all publicly funded long term care services and supports<br>3.1 Develop an Assessment and Coordination Organization that includes all agencies under the Executive Office of Health and Human Services<br>3.2 Address needs of high-cost utilizers<br>3.3 Revise Sherlock Plan |
| To ensure that all Medicaid beneficiaries have access to a medical home | 1. Implement Mandatory Enrollment into Medicaid Managed Care<br>2. Promote Adoption of Medical Home Standards<br>3. Promote Adoption of Electronic Health Record<br>4. Promote Adoption of Managed Long Term Care |

| Objectives | Supporting Activities |
|---|---|
| To implement payment and purchasing strategies that align with the Waiver's programmatic goals and ensure a sustainable, cost-effective program | Implement competitive selective contracting procurement methodologies to assure the State obtains the highest value and quality of services for its beneficiaries at the best price<br>1.1 Durable Medical Equipment Prosthetics, Orthotics and Supplies (DMEPOS) Selective Contracting RFP<br>1.2 Shared Living Selective Contracting RFP<br>1.3 Medicaid Managed Care Services RFP<br>Develop and implement procurement strategies that are based on acuity level and needs of beneficiaries<br>2.1 Nursing Facility Acuity Payment<br>2.2 Hospital Outpatient and Inpatient Payment Methodology<br>2.3 Home Health Enhancements |

## Exhibit 5. Progress Timeline of Global Waiver and RCSTG

| Activities | Title | | | | Title | | | |
|---|---|---|---|---|---|---|---|---|
| | 2009 Qtr 1 | 2009 Qtr 2 | 2009 Qtr 3 | 2009 Qtr 4 | 2010 Qtr 1 | 2010 Qtr 2 | 2010 Qtr 3 | 2010 Qtr 4 |
| Clinical Level of Care: Institutional to Needs Based | → | ◆ | | | | | | |
| Remove delegated authority from hospital discharge planners and implement ongoing discharge planner education initiative | → | → | → | → | ◆ | | | |
| Design and implement a Nursing Home Diversion project to identify individuals that could be discharged from the hospital into a community-based setting. | → | → | → | → | ◆ | | | |
| Design and implement a Nursing Home Transition project to identify individuals that could be transitioned from the nursing home to the community-based care setting. | → | → | ◆ | | | | | |
| Develop a Preventive Level of Care | Phase 1 → | → | ◆ | Phase 2 → | → | ◆ | | |
| Expand access to Shared Living to the Elderly and Adults with Physical Disabilities | → | → | → | → | → | → | ◆ | |
| Expand Access to Home Health Care | → | → | → | → | → | → | ◆ | |
| Expand Access to Assisted Living | Still in development, however rate increases did go into effect in Q3 2010 | | | | | | | |
| Expand Access to Adult Day Services | Still in development | | | | | | | |

| Activities | Title | | | | Title | | | |
|---|---|---|---|---|---|---|---|---|
| | 2009 Qtr 1 | 2009 Qtr 2 | 2009 Qtr 3 | 2009 Qtr 4 | 2010 Qtr 1 | 2010 Qtr 2 | 2010 Qtr 3 | 2010 Qtr 4 |
| Develop an Assessment and Coordination Organization that includes all agencies under the Executive Office of Health and Human Services | Still in development | | | | | | | |
| Address needs of high-cost utilizers | → | → | → | → | → | → | ◆ | |
| Revise Sherlock Plan | Still in development | | | | | | | |
| Implement Mandatory Enrollment into Medicaid Managed Care | → | → | → | ◆ | | | | |
| Promote Adoption of Medical Home Standards | Still in development | | | | | | | |
| Promote Adoption of Electronic Health Record | → | → | → | → | → | → | ◆ | |
| Promote Adoption of Managed Long Term | Still in Development | | | | | | | |
| Durable Medical Equipment Prosthetics, Orthotics and Supplies (DMEPOS) Selective Contracting RFP | Not implemented | | | | | | | |
| Shared Living Selective Contracting RFP | → | → | → | → | → | ◆ | | |
| Medicaid Managed Care Services RFP | → | → | → | → | → | → | ◆ | |
| Nursing Facility Acuity Payment | → | → | → | → | → | ◆ | | |
| Hospital Outpatient and Inpatient Payment Methodology | → | → | → | → | → | ◆ | | |
| Home Health Enhancements | Still in Development | | | | | | | |

| Key | → Development Period | Activity Implemented ◆ |
|---|---|---|

Note: The above reflects a high level timeline with implementation noted during the quarter in which the majority of steps are in place.

Like many states, Rhode Island was faced with the need to contain costs during the economic recession. Rhode Island developed cost containment initiatives equaling an estimated $55,233,507 in state fund savings. While preserving and maintaining the Medicaid program is a critical component of the Global Waiver, the Global Waiver had far more reaching goals to transform the Medicaid system. The cost containment initiatives undertaken by Rhode Island during State Fiscal Years (SFY) 2009 and 2010 were not solely driven by the Global Waiver. Rhode Island took an array of budget and program management improvement actions. Exhibit

6 reflects the cost containment initiatives and estimated state fund savings associated with actions taken by Rhode Island administratively and/or through additional CMS approval.

### Exhibit 6. Rhode Island Cost Containment Initiatives

| Program Management Provisions requiring State Agency and/or Legislative Action | Provisions requiring additional CMS Approval | Global Waiver Provisions Approved by CMS in January 2009 |
|---|---|---|
| **Long Term Care Rebalancing** | | |
| • Nursing Home Case Review (SFY09)<br>• Nursing Facility Rate Cut (SFY09)<br>• Nursing Facility - No COLA (SFY12) | • Money Follows the Person (SFY12) | • Nursing Facility Diversion/Transition (SFY10)<br>• Implementation of Nursing Facility Acuity Adjuster (SFY10 and SFY11) |
| **Managed Care** | | |
| • Administration Reduction MCO and PCCM (SFY09 and SFY10)<br>• High Cost Case Review (SFY09 and SFY10)<br>• Increase Children's Health Account (SFY12) | • Generic Rx (SFY09)<br>• Change in Children's Intensive Services Delivery System (SFY09) | • Mandatory Enrollment in Managed Care for Children with Special Needs, Elders, and Persons with Disabilities (SFY10)<br>• MCO Re-Procurement (SFY11) |
| **Smart Purchasing & Payments** | | |
| • Reduction of Non-Emergency Transportation Rates (SFY12)<br>• Redesign Transportation Purchasing and Management (SFY12)<br>• Program Integrity (e.g. fraud, Collections) (SFY11 and SFY12)<br>• Enhanced Recoveries - Estate and TPL (SFY11 and SFY12) | • Rate Cuts - NICU, HTBS, Hospice to name a few (SFY09 and SFY 12)<br>• Hospital Rate Reform - APR, DRG Inpatient and Out of State Reduction (SFY10) | • Selective Contracting - Shared Living (SFY11)<br>• Redesign of Home Health Services payment (SFY12)<br>• Elimination of Co-Share payments Rite Share (SFY12)<br>• Re-Procurement of MCO plans, Selective Contracting Hospitals Outpatient (SFY12) |
| **Benefit Redesign** | | |
| | • CEDARR Service Redesign (SFY11) | • Redesign Habilitation Program (SFY11)<br>• Redesign Personal Choice Program (SFY11 and SFY12)<br>• Add Pain Management Benefit (SFY12) |
| **Estimated Savings (State Funds)** | | |
| $22,892,894 | $9,396,325 | $22,944,288 |

Note: The list of initiatives contained in this exhibit does not include initiatives targeted directly at populations outside the scope of the Real Choice System Transformation Grant (e.g. any initiatives for rebalancing funded by Medicaid pursued by the Department of Children, Youth and Families and the Department of Behavioral Healthcare, Developmental Disabilities, and Hospitals (BHDDH)). However, mandatory managed care for adults and persons with disabilities does include persons served by BHDDH.

To further complicate the question of savings attributable to the Global Waiver, the passage of the Affordable Care Act (ACA) as well as maintenance of effort requirements within the ARRA, had a profound impact on the flexibility Rhode Island anticipated through implementation of Global Waiver activities. Rhode Island negotiated expedited and streamlined change processes in exchange for operation under the aggregate cap; however the flexibility sought did not

always materialize. For example, the Special Terms and Conditions for the Global Waiver authorized Rhode Island to charge premiums of up to 5 percent for certain RIte Care families; however CMS prohibited Rhode Island from using this authority citing the ARRA and ACA maintenance of effort requirements. The authorization to charge premiums is considered a category II change and should not require any renegotiation under category III, yet Rhode Island was still prohibited from exercising its authority. In fact, Rhode Island sought the Global Waiver in part to streamline processes, reduce state administrative burden and create efficiencies yet the amount of administrative time and effort to pursue category II is lengthier than initially envisioned.

## Environmental Scan Findings

The environmental scan seeks to answer the three questions outlined in ***Exhibit 2*** through a review of existing Rhode Island reports as listed in ***Exhibit 3.*** It is clear that system transformation is underway, yet it is also clear that the impact of system change is not yet fully realized. Therefore, the evaluation of transformation can only be conducted within the context of progress to date.

The three goals (***Exhibit 4***) of the Global Waiver all address three key factors that lead to improved care for Medicaid beneficiaries as well as improved cost and efficiency. Although the three goals seem very different, many of the activities that the state implemented under the Global Waiver address more than one of the goals listed below. Lewin analyzed the impact of activities associated with the three goals and have reflected our findings in accordance with the quarter in which the activities were implemented.

**Quarter 3 2009 Accomplishments**

- Needs-based criteria was established to access nursing homes and community services
- Implemented Nursing Home Transition Project
- Developed Preventive Level of Care for Phase 1 (minor environmental modifications, Homemaker, CNA) with Phase 2 in Quarter 2 2010
- Began development of an Assessment and Coordination Organization

### *Quarter 3-July through September 2009*

One of the initial steps taken by Rhode Island following implementation of the Global Waiver in July 2009 was the creation of the Assessment and Coordination Organization (ACO). The ACO is a set of coordinated process for determining LTC clinical and financial eligibility, establishing and mentoring services plans and providing care and case management. The goal of the ACO is not only to standardize and streamline procedures where feasible across LTC populations, but also to provide a foundation for integrating service finance and delivery systems. Over the last two years, efforts in this area included implementation of new assessment tools, more consistent case management processes, home modifications and transition cost policies, inventory of current assessment and care planning tools, finalized process flowcharts and performance metrics, identified and implemented best practice changes (e.g. researched clinical and functional assessment tools, created Office of Community Programs), and developed education and training tools (e.g. application of level of care criteria, revised and implemented information and referral strategy, developed and implemented case management practices and tools). Evidence from numerous reports and milestone documents reflect that the ACO

continues to build on lessons learned and established innovative practices to move toward the goal of a balanced delivery system. However, opportunity remains to further improve coordination by focusing on behavioral health, developmental disabilities (DD) as well as hospitals in the service delivery system. Most of the work to date has focused on improved administrative efficiencies for frail elders and adults with physical disabilities. Work is still needed to continue coordination efforts between programs and across agencies (DHS Long Term Care Office, Medicaid Office of Institutional and Community Supports and Services and Division of Elderly Affairs programs).

The Global Waiver provided the framework for a level of care system change from an institutional to a tiered needs based model. Level of care is a tool to manage utilization and is therefore a critical component to helping a beneficiary to receive "the right services at the right time in the right setting". Rhode Island developed a tiered level of care structure that assigns a need category from "highest" to "high" to "preventive". The new level of care standard is based on a person's individual needs. This needs based care developed by members and providers in the Rhode Island community, hones in on helping beneficiaries get the appropriate care to meet health care needs. Beneficiaries meeting the "highest" level of care category are able to access nursing home or community living whereas beneficiaries meeting the "high" level of care category are able to access only community living. To allow for "the right services at the right time in the right setting", Rhode Island developed an innovative approach to the provision of preventive services to delay the need for more costly community or institutional services. Beneficiaries who are categorically eligible for Medicaid and who meet the "preventive" level of care criteria (and not the "highest" or "high") have access to limited (6 hours per week for one eligible individual and 10 hours per week for 2 or more eligible individuals in the same household) certified nurse aide and homemaker services as well as limited minor home modifications.

As of April 12, 2011 (Source: OMAR Level of Care Counts), Rhode Island reported that 8,618 (70.3 percent) beneficiaries met the "highest" category, 2,901 (23.7 percent) met the "high" category, and 681 (5.6 percent) met the "preventive" category. Data is limited to determine what level of care the beneficiary would have had if not for the new levels of "highest", "high" and "preventive". In order to best determine the impact of level of care changes, a review of change in cognitive status and ADL (Activities of Daily Living) impairment pre and post system change does provide some insight. A study by Brown University's Center for Gerontology and Health Care Research (Source: Prepared for the Evaluation of the RI Medicaid Program's Real Choice System Transformation Project by Susan M. Allen, PhD, Pedro Gozalo, PhD &Bernard A. Steinman, PhD, June 30, 2011) reviewed the Rhode Island Minimum Data Set Nursing Home Assessment at two points in time, 2008 and 2010. The study found a 10 percent decrease in the proportion of admissions remaining beyond 90 days. Given that only the "highest" level of care can access nursing home services, the findings reflect that the level of care criteria may have resulted in a diversion of "lower need" people into community settings and "higher need" to nursing homes or community settings consistent with the goal to fund the right services at the right time in the right settings. However, the study also reflects the need for additional effort for persons who enter nursing homes under the "highest" level of care then improve to "high" or "low preventive care" at a later date. ***Exhibit*** 7 reflects a snapshot of the Brown University Findings.

## Exhibit 7. A Snapshot of Findings from the Brown University Center for Gerontology and Health Care Research

**Change in Characteristics of Rhode Island Medicaid Population in Nursing Homes, 2008 - 2010**

***Data***

- Between 2008 and 2010, findings reflected a 10% decrease in the proportion of new admissions with a 90 day or longer stay. Even more interesting is the decrease for persons who are admitted for post-acute care (12% decrease) compared to those who are admitted from community settings (8% decrease).
- Although there is little change in cognitive status for persons admitted from 2008 to 2010, there is an increase in the percentage of persons admitted in 2010 with an extensive need for help with activities of daily living (ADL). Additionally, the severity of ADL impairment is more common for persons admitted from community settings when compared to persons admitted for post-acute care.
- Persons with stays less than 90 days admitted from community settings (using MDS data as a proxy for care needs) who may not meet the "highest" or "high" criteria decreased from 5.1% in 2008 to 2.5% in 2010. Likewise, persons with a length of stay greater than 90 days decreased from 10.9% in 2008 to 6.1% in 2010.

***Findings***

- Results reflect the impact of rebalancing efforts on nursing home admissions.
- Results likely reflect the impact of the universal screening tool and triage efforts on the increase in ADL impairment and decrease in the number of persons admitted with "low care" needs. Additionally, the tools developed likely are responsible for the diversion of persons prior to admission and transition preventing long term stays beyond 90 days. The study indicates the need for further triage efforts for persons whose needs change to "low care" post-admission.
- Results may indicate the need for sufficient care management in community settings for persons with cognitive impairment who may not need ADL assistance, but do need supervision.

To address the need to provide support to persons entering nursing homes under the "highest" level of care who then improve to "high" or "preventive" level of care, Rhode Island implemented the Nursing Home Transition Project in Quarter 3, 2009. Looking at more recent data from July 2010 to May 2011, Rhode Island transitioned 95 persons from nursing homes with the majority (n=75) returning to community homes with core services and 14 returning to an assisted living setting. Rhode Island assumes an average savings of $3,510 per member per month for persons returning from nursing homes to assisted living, $3,060 per member per month for persons returning to community living with core services and $4,560 per member per month for persons returning to community living without services. It is clear that the combination of changes in level of care and implementation of the transition program has an impact on cost savings. Rhode Island is a recent recipient of the Money Follows the Person Rebalancing Demonstration Grant which provides additional support to transition efforts likely to result in even greater savings over time as well as quality care in community settings.

The new level of care standard also helps address the second goal of the Global Waiver: *To ensure that all Medicaid beneficiaries have access to a medical home.* Many of the activities identified in *Rhode Island Global Consumer Choice Compact 1115 Waiver Demonstration Quarterly Progress Reports* prepared for the Centers for Medicaid and Medicare Services and the *Report to the Rhode Island General Assembly Senate Committee on Health and Human Services* show how Medicaid beneficiaries have access to a medical home and how that access is based upon their initial level of care assessment. Medicaid beneficiaries who meet preventive care requirements (person has a chronic illness or disability and needs supervision needs assistance with at least two Activities of Daily Living (ADLs) such as bathing or eating or needs extensive assistance with three Instrumental Activities of Daily Living -IADLs) have access to homemaker services as well as minor environmental modifications.

### *Quarter 1 – January through March 2010*

Building upon the work that started in July 2009, the activities implemented in Quarter 1 2010 reflect a continuation of critical system change facilitating the effort to ensure that every beneficiary has the "right services at the right time in the right setting". Consistent with the goal to assist persons in nursing homes to return to community living through the Nursing Home Transition Program, Rhode Island also developed a robust Nursing Home Diversion Project. Data is tracked monthly across persons diverted to Connect Care Choice and persons with a "high" level of care. Between July 2010 and May 2011, Rhode Island diverted 480 persons with a "high" level of care and 84 persons through Connect Care Choice. Further data from Rhode Island reflects a potential savings of $3,060 per person diverted from nursing home care. Applying the potential savings per person to the number diverted in the 11 month period, up to $1,725,840 in savings is realized as a result of the Nursing Home Diversion Project. However, it should be noted that the savings realized do not include diversions resulting from Managed Care activity through Rhode Health Partners. Including Managed Care within the tracking and analysis may prove beneficial in the monitoring of future diversions and its' impact to fiscal savings and health quality.

**Quarter 1 2010 Accomplishments**

- Removed Delegated Authority from Hospital Discharge Planners
- Implemented Ongoing Discharge Planner Education
- Implemented Nursing Home Diversion Project

In coordination with the Nursing Home Diversion Project development, Rhode Island made substantial changes to the role of hospital discharge planners and developed educational resources and tools to improve the connection of persons in need of assistance following an acute care episode with community living options. Prior to the Global Waiver, hospital discharge planners had the authority to determine level of care. Rhode Island removed this authority and worked with hospitals to develop a streamlined process with level of care determined by Medicaid. The data resulting from the diversion project appears to reflect progress as a result of changes to hospital discharge processes and implementation of diversion strategies.

### Quarter 3 - July through September 2010

> **Quarter 3 2010 Accomplishments**
>
> - Expanded access to shared living to the elderly and adults with physical disabilities (2 Vendors selected in Quarter 1 2010)
> - Expanded access to home health care
> - Addressed the needs of high-cost utilizers
> - Implemented Medicaid Managed Care Services including adoption of electronic health records within contracts in Quarter 4 2010

The opportunity for shared living for the elderly and adults with physical disabilities adds an innovative dimension to the community living continuum in Rhode Island. Prior to the Global Waiver, only persons with developmental disabilities enrolled on a home community based waiver had opportunity for shared living. The expansion of shared living to other people is consumer–directed and requires the contractor (awarded to two vendors in early 2010) to develop mechanisms to assure health and safety within host homes and with caregivers through shared living service and safety planning, education and monitoring. Rhode Island Medicaid developed shared living standards, training materials and a readiness review protocol to assure that host homes/caregivers meet the health and safety needs of persons seeking shared living arrangements. Data from July 2010 to May 2011 reflects that 44 persons (excluding participants in the BHDDH Shared Living Program) have taken advantage of the opportunity. Quality and satisfaction with the shared living expansion is still yet unclear, however quality of life outcomes are part of the Real Choice Systems Transformation Project which is likely to include data from persons accessing shared living.

Rhode Island required Medicaid beneficiaries to enroll in a Managed Care Option in order to ensure a medical home for each member. Rhody Health Partners and RIte Care use managed care organizations to deliver services and Connect Care Choice is a fee-for-service based primary care case management model. Effective July 1, 2009, Medicaid beneficiaries over 21 residing in the community (i.e., not in a nursing home or Eleanor Slater Hospital) who do not have other comprehensive health coverage were required to enroll in managed care (either Rhody Health Partners, a fully capitated plan, or Connect Care Choice, a PCCM option.)

Mandatory enrollment was phased in over two months and by December 2009 mandatory enrollment was completed. In Quarter 2, 2010 Rhode Island released a letter of intent requesting a re-procurement for Medicaid Managed Care Services, including Rhody Health Partners program and RIte Care. The initiative identified a possible $43 million savings. In Quarter 3 2010, Rhode Island selected the vendors offering the best care options at the best price in hopes of moving toward the three goals of the Global Consumer Waiver.

In order to divert and transition persons into the right services at the right time in the right setting, the community continuum of care is essential. Home health is a key component in the continuum. Rhode Island expanded access to home health services. In Quarter 3 2009, new criteria were established for home health agencies including expanded monitoring provisions (e.g. utilization of skilled nursing visits and billing Medicare for dual eligible persons, adherence to Medicaid participation standards, and persons in need of services meeting a

preventive level of care) and revised marketing and education tools. By Quarter 3 2010, dialogue with home health care agencies focused on reimbursement strategies employing possible shift differentials and acuity based rates. A potential funding source (LTC Service and Finance Reform Savings also known as Perry Sullivan funding) was designated, however reimbursement methodologies are not yet implemented as of the time of this report. However, it should be noted that Perry Sullivan funds were reinvested into the system in the form of rate increases consistent with legislation at R.I.G.L., Section 40-8.9.9 (for adult day care, home health, pace, and personal care in assisted living settings) even though rate reform for homemaker, personal care (home health aide) and adult day care R.I.G.L., Section 40-8.9.9 is not yet developed.

Several milestones are reached to more efficiently and effectively provide services and supports to persons with high need. Rhode Island initiated changes to better manage the services and supports of persons at the high end of utilization by first forming a High Cost Case Review Working Group. This step is important to understanding the root causes to cost. Predictive modeling, specialized vent units, providing case management under Connect Care and Rhody Health Partners, and targeted interventions were employed to improve coordination and manage care. The targeted approaches include interventions for persons enrolled in managed care and the pharmacy benefit. Rhode Island continues to build on lessons learned and opportunities available as evidenced by the exploration of innovative practices through the Affordable Care Act such as the Money Follows the Person Rebalancing Demonstration (awarded in February 2011) and health homes as well as opportunities through the Centers for Medicare and Medicaid Services State Demonstrations to Integrate Care for Dual Eligibles.

### Not Yet Implemented

Expansion of assisted living and adult day service are also critical to the community living continuum. Rhode Island did increase assisted living per diem rates by $5.84, an approximate 16 percent increase. Due to fiscal constraints (authority, but no funds to implement), changes to adult day services are still in development. Rhode Island is continuing to explore acuity based reimbursement as well as national models to identify value based purchasing strategies.

The Sherlock Plan is Rhode Island's Medicaid Buy-In Program for adults with disabilities. Various strategies were explored due to the low utilization of the program. Strategies include assessment tools with an employment module, opportunities available through the Affordable Care Act, intersection between Medicaid and the Ticket to Work initiative, and potential eligibility changes to increase participation. The Sherlock Plan legislation recently passed in the last session and a public hearing was held on proposed changes to the program. Rhode Island is now in the process of implementing this new legislation.

During Quarter 3 2009, Rhode Island drafted and released a Request for Proposal. The RFP was targeted at Durable Medical Equipment Prosthetics, Orthotics, and Supplies (DMEPOS) Selective Contracting. In order for Rhode Island to remain a "Smart Purchaser" the state needs to continue to purchase the services of the best contracts at the best price for the value provided. The state relies on a competitive market process to assure that the State obtains the best value and quality of services for its beneficiaries. The RFP was released in Quarter 3 of 2009, and in Quarter 4 of 2009, interested parties bidding on the contract attended the November Bidders

Conference. However, ultimately the bids received did not achieve the goals of value and quality. Therefore, no contracts were awarded and DMEPOS continues delivery under an "any willing provider" system.

In summary, Rhode Island is making progress toward providing "the right services at the right time in the right setting" and is implementing innovative practices likely of interest to many states embarking on system change and more importantly on the integration of long term services and supports. Rhode Island is also moving towards ensuring that "all Medicaid beneficiaries have access to a medical home." It is clear that Rhode Island has worked very hard to transform the system to one of accessibility, cost efficiency and person-centered quality of care. The Real Choice System Transformation Grant created a culture of system change that has helped Rhode Island to capitalize on the positive impact of continued system transformation through the Global Waiver. The long term services and supports system in Rhode Island is in a cycle of continuous system change. Rhode Island has a plan and has modified the plan in accordance with what is learned, positive and negative. It is clear that the Global Waiver and its companion RCSTG provide a foundation for current and future change.

# II Analysis of Long Term Care Expenditures

One of the evaluation tasks was to assess Rhode Island's Medicaid claims experience and develop estimates of the impact of Rhode Island's Global Waiver (GW) initiatives on the state's Medicaid expenditures. This section describes the approach that was taken to evaluate the state's spending for long term care (LTC) services. To evaluate LTC spending claims data from State Fiscal Year 2008 (SFY08) through State Fiscal Year 2010 (SFY10), a count of members receiving long term care services was generated and total long term care spending for each month during this 3 year time period was computed. This task consisted of two components; evaluating the utilization of institutional LTC services and home and community based LTC services.

## Identification of Institutional LTC Services

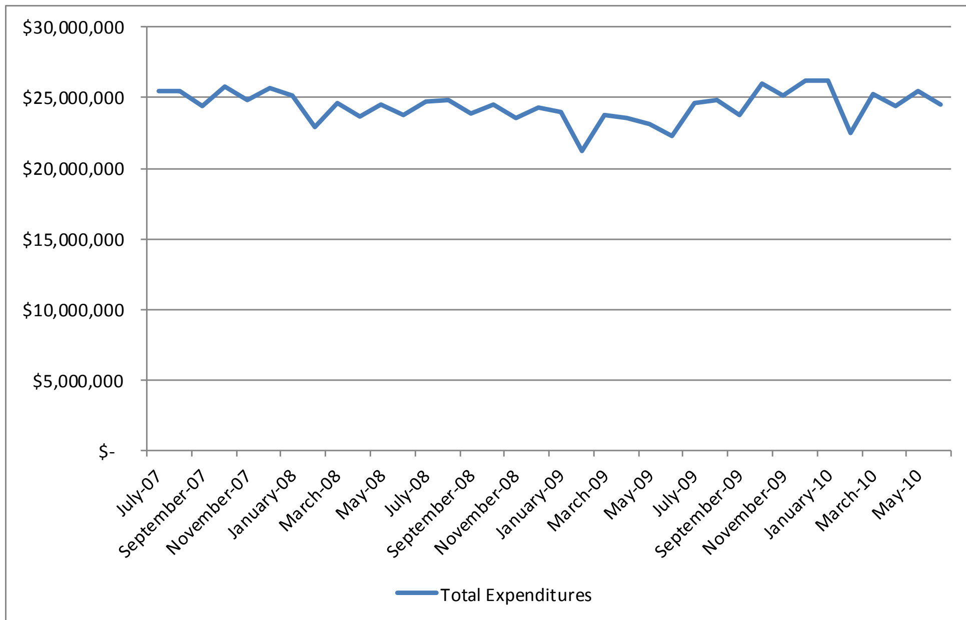
To compute the utilization of LTC services during the evaluation period, the Lewin Group utilized claims contained in the Nursing Home claim file provided by the state's MMIS fiscal agent. The final disposition of a claim was used to measure utilization by eliminating claims that were subsequently adjusted or voided. Only claims with a claim status code of paid and a claim type code of regular claim or final claim were included in the analysis.

To evaluate trends in the utilization of services each claim was assigned to a month of service using the 'from' date of service on the claim. To measure service utilization the 'from' and 'to' dates of service on the claim were used to compute the total number of patient days on a claim. An analysis of the frequency distribution of patient days found that all claims had 31 or fewer patient days. All of the days and dollars on the claim were then assigned to the 'from' month of service.

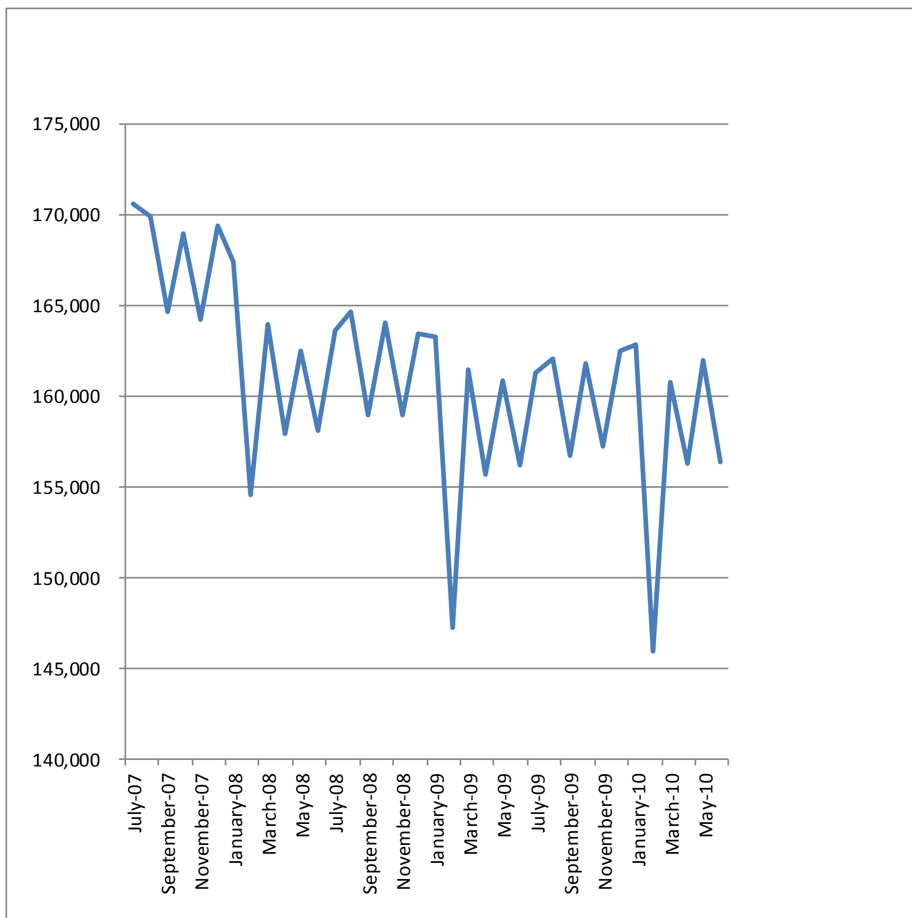
To focus our analysis on the impact of the GW, the Lewin Group assigned each nursing home claim to a nursing home classification category, so that LTC services that were not impacted by the GW could be excluded from the analysis. After discussions with state staff and evaluation of the claims included on the nursing home claim file, nursing home claims were assigned to five categories; Eleanor Slater Hospital, Group Home, Department of Behavioral Healthcare, Developmental Disabilities, and Hospitals (BHDDH) services, Medicare CoPay and Nursing Home services. The analysis of the impact of the GW then focused on the Nursing Home category which was the focus of the GW initiatives.

After applying the claim restrictions, month of service and nursing home classification logic, monthly summaries were generated for the number of members receiving services and the cost of these services for each month of service in the Nursing Home category. The observed trends in the number of members receiving services and Medicaid expenditures by nursing home classification are provided in Charts 1 through 4.

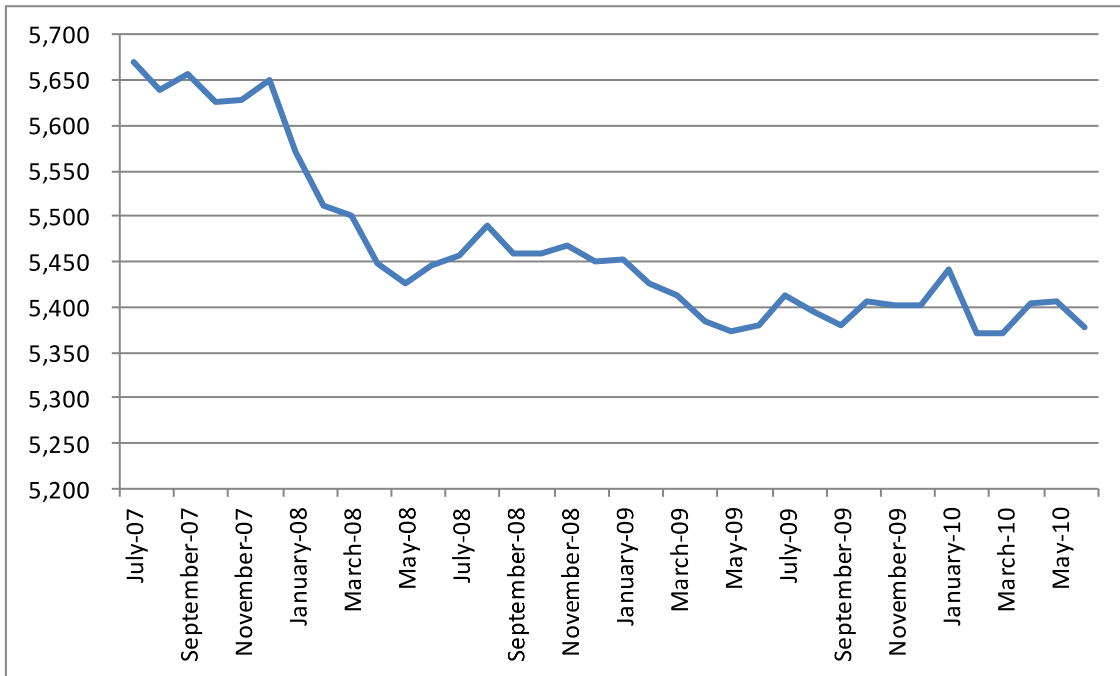
## Chart 1. Total Nursing Home Expenditures by Month of Service



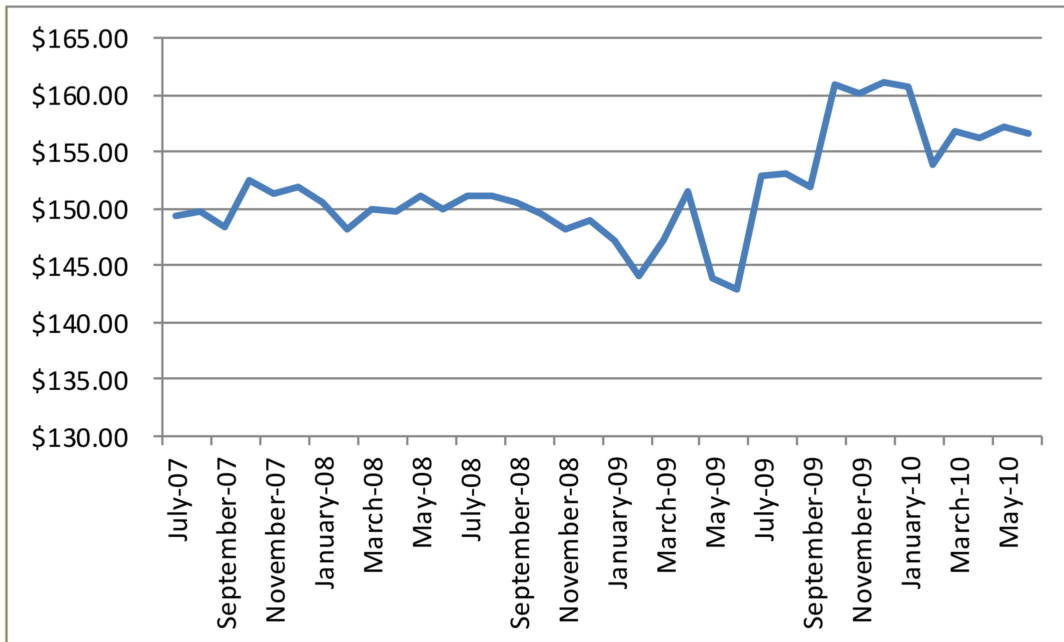

## Chart 2. Total Nursing Home Days by Month of Service



### Chart 3. Unique Nursing Home Residents by Month of Service




### Chart 4. Average Cost per Nursing Home Day by Month of Service




The utilization of institutional LTC services decreased during the evaluation period. The number of individuals receiving LTC services in an institutional setting decreased by 6.2 percent, from 7,423 in July 2007 to 6,966 in June 2010. Accordingly, overall expenditures for institutional LTC services decreased by 10.4 percent. The average amount paid per claim also decreased but only by 4.6 percent, from approximately $6,268 in July 2007 to $5,982 in June 2010.

Focusing on those institutional LTC services provided in Nursing Homes that were the target of the GW initiatives, expenditures increased by less than 1percent from SFY08) to SFY10). This increase was largely attributable to increases in the average cost per day from an average of $148.03 in SFY08 to $156.80 in SFY10, an increase of 4.4.

The number of members utilizing Nursing Home services declined gradually over the 3 year evaluation period. The average monthly number of members receiving Nursing Home services decreased by 3 percent from SFY08 to SFY10 from 5,565 to 5,398 members. The Lewin evaluation of the claims data was consistent with previous studies finding that the GW initiatives were successful in reducing the number of Nursing Home residents resulting in almost negligible growth in nursing home costs over this 3 year period.

## Home and Community Based LTC Services

To evaluate the utilization of home and community based LTC services, the Lewin Group utilized claims contained in the professional and institutional claims files provided by the state's fiscal agent. The final disposition of a claim was used to measure utilization by eliminating claims that were subsequently adjusted or voided. Only claims with a claim status code of paid and a claim type code of regular claim or final claim were included in the analysis.

To evaluate trends in the utilization of services each claim was assigned to a month of service using the 'from' date of service on the claim. The 'from' and 'to' dates of service on the claim were used to compute the total number of days of care billed on a claim. An analysis of the frequency distribution of the days of care found that almost all claims contained 31 or fewer days of care. Each claim was then assigned to 1 month of service based upon the 'from' date of service.

To focus our analysis on those services impacted by the GW, The Lewin Group assigned each HCBS claim to one of eight HCBS classification categories. These categories distinguished between direct care services and in home support services. Claims were assigned to the HCBS classification categories based upon the procedure codes reported on a claim. The HCBS classification categories that were utilized and the procedure codes that were used to assign claims to each category were as follows;

- Adult Day Care
- Assisted Living Care
- Home Health Aides
- Personal Care Services
- Assistive Devices, Home Modifications
- Emergency Response Systems
- Home Delivered Meals
- BHDDH Waiver Services

After each claim was assigned to an HCBS category, members receiving HCBS were also assigned to a recipient classification category. This assignment was performed to identify those

members that received HCBS services but were not impacted by the GW initiatives and those members in waivers where HCBS expenditures were not available for the entire three year study period. The member classification categories that were utilized and the logic that was employed to assign members to each category were as follows;

- DEA Members – Members with an aid category code of D1 or D2, or members with waiver category code of 2 or 13 on the eligibility file for the month of service
- BHDDH Members – Members that received an BHDDH waiver service during the month of service, or were identified as being enrolled in the BHDDH waiver on the eligibility file for the month of service
- Self-Directed Care Waiver – Members in the Self-Directed care waiver were identified with a waiver category code of 4 on the eligibility file for the month of service.
- HCBS Study Population – All members not classified in the previous member classification categories were included in the HCBS study population. This included Medicaid members in the all of the remaining HCBS waiver programs operated by the state excluding the programs mentioned above.

After assigning each member and claim to the HCBS and member classification categories and month of service, counts of unique members and total Medicaid expenditures were created for each month of service. Observed trends in the number of members receiving any direct care service or in home support service and the expenditures for these services for the general Medicaid member category are provided in charts 5 and 6 for the HCBS Study Population.

**Chart 5. Number of Unique User of HCBS Services, SFY08-SFY10 (General Medicaid)**

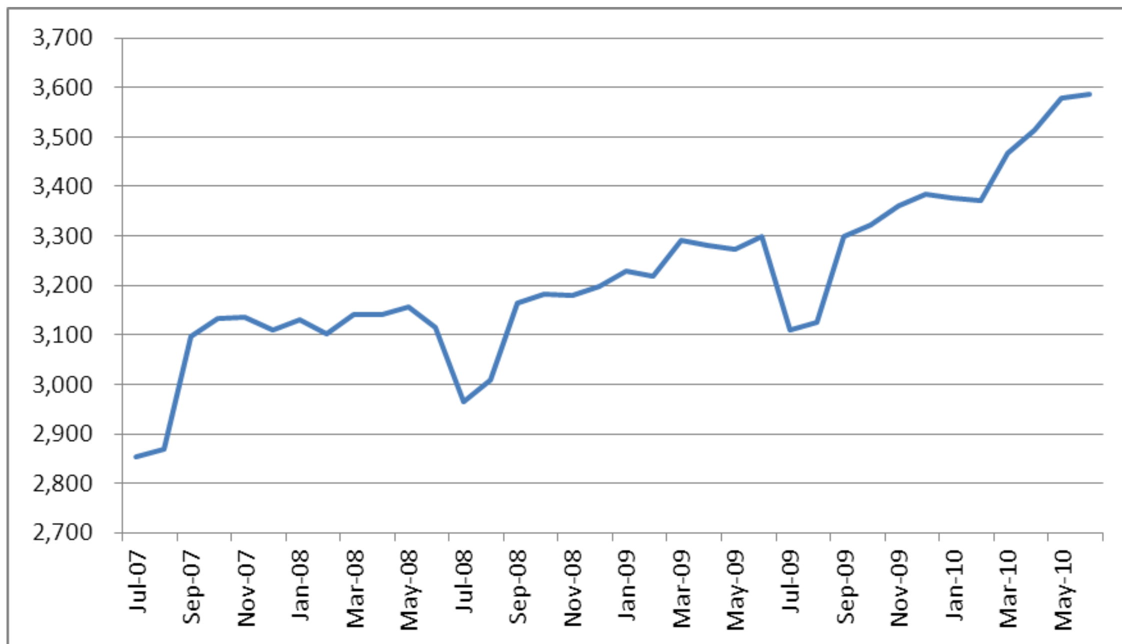
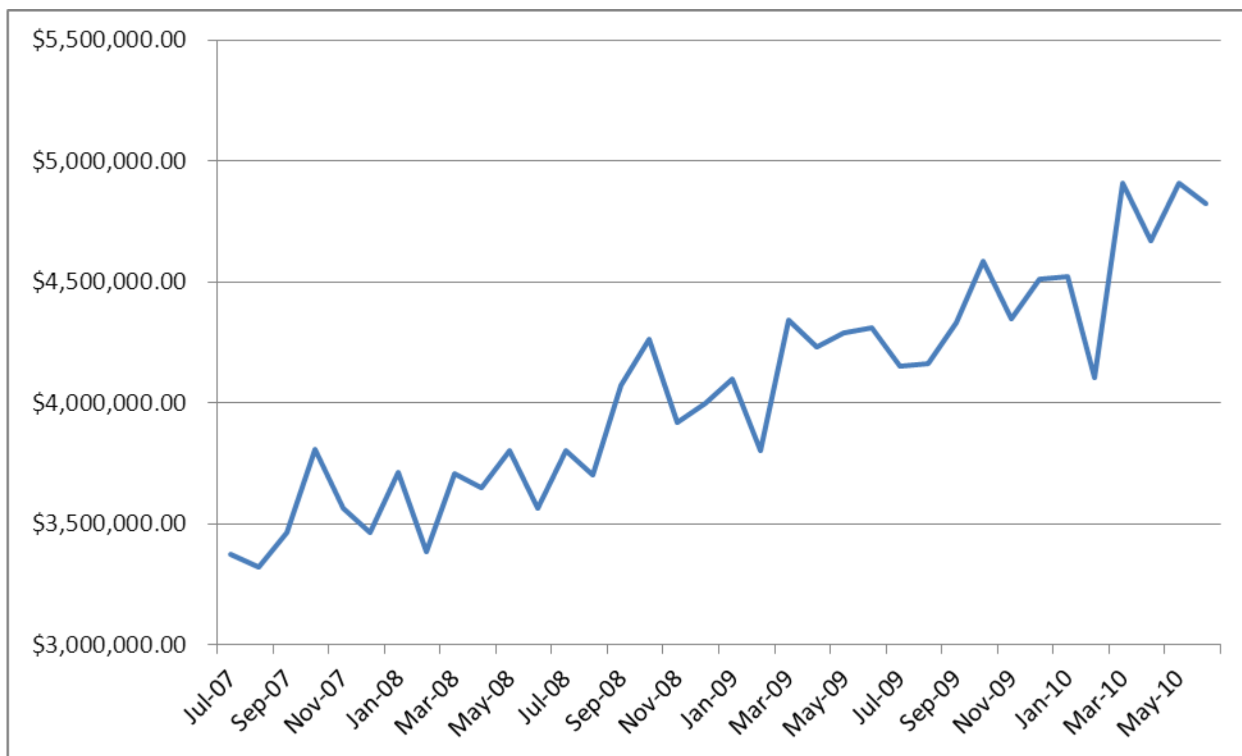


**Chart 6. Monthly Expenditures for HCBS Services, SFY08- SFY10**




The majority of the HCBS expenditures incurred by the state were accounted for by four categories of service; Assisted Living, Adult Day Care, Home Health Care and Personal Care Services. The Personal Care Services category accounted for the majority of expenditures and users of HCBS services.

Counts of members receiving Assisted Living, Adult Day Care and Home Health Care are provided in Chart 7 for the HCBS Study Population. Monthly expenditures for these programs are provided in Chart 8.

**Chart 7. Unique Users HCBS Services SFY08 - SFY10**

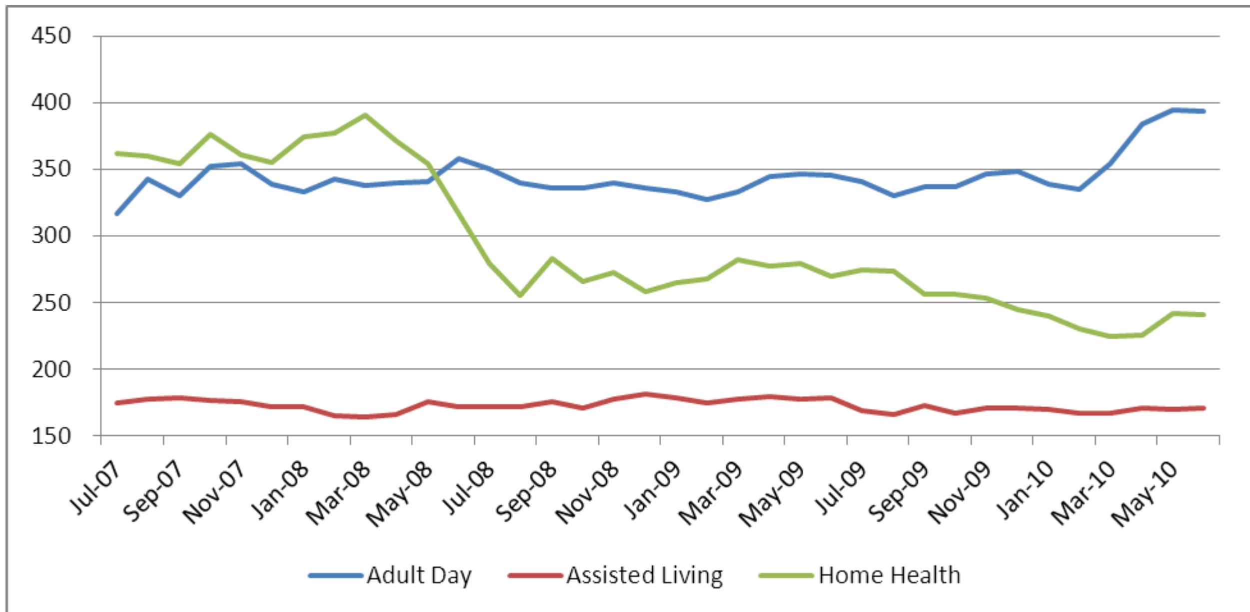
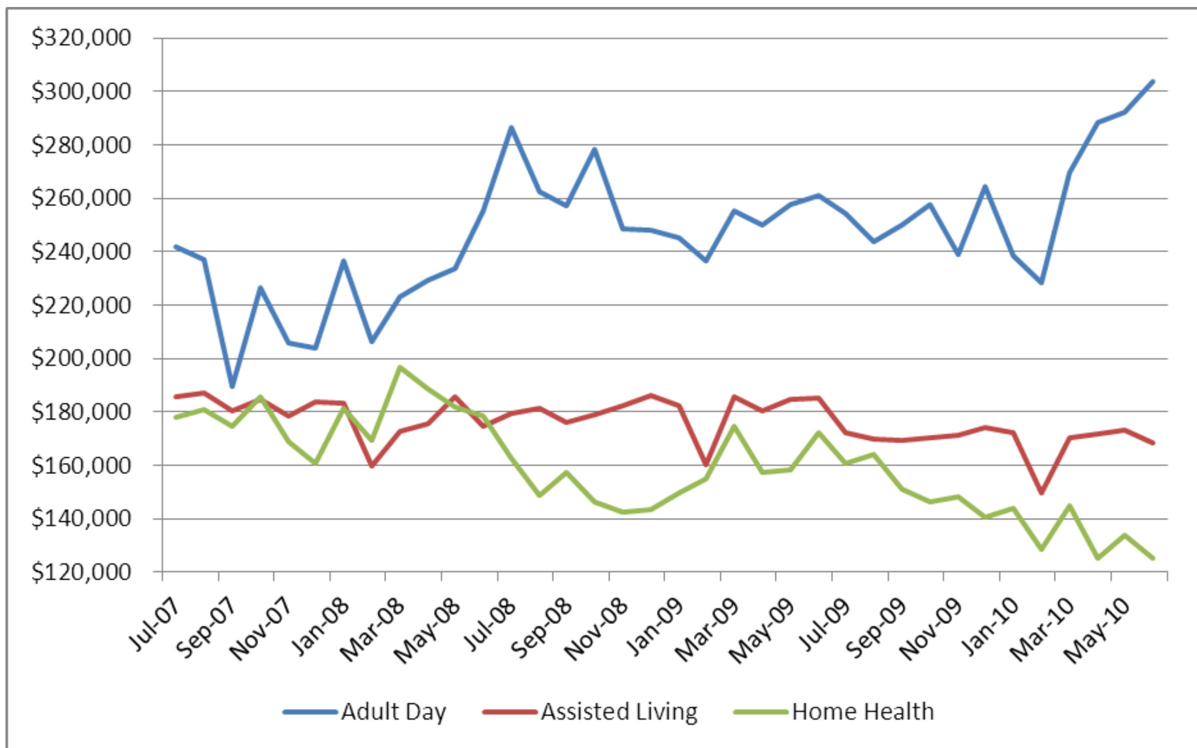



**Chart 8. Monthly Expenditures HCBS Services SFY08 - SFY10**




Monthly counts of the number of members receiving Personal Care Services for the HCBS Study Population are provided in Chart 9, monthly expenditures are provided in Chart 10. The majority of the growth in HCBS services was driven by increases in Personal Care Services utilization.

**Chart 9. Personal Care Users SFY08 - SFY10**

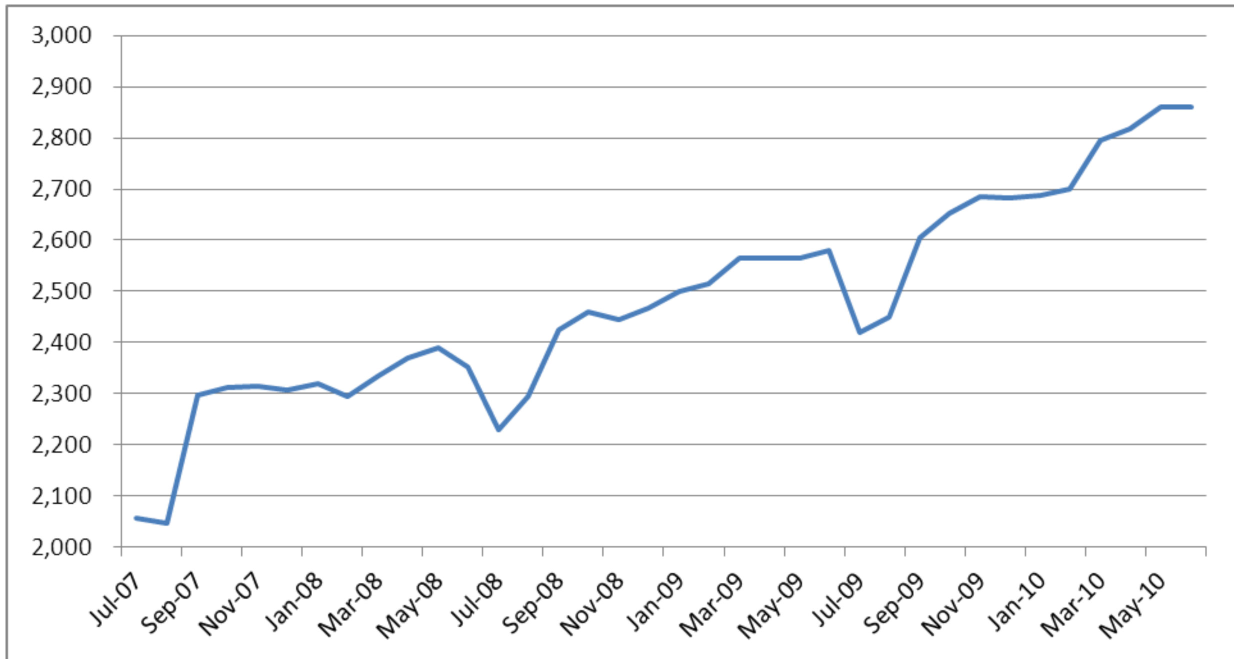
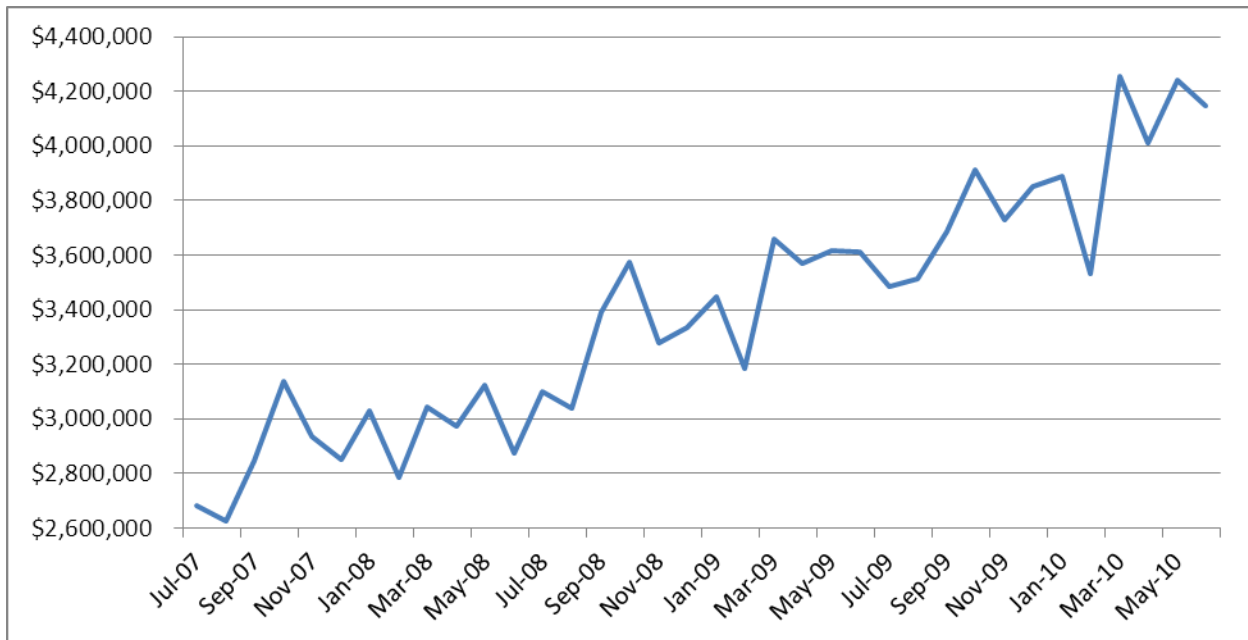



**Chart 10. Monthly Personal Care Expenditures SFY08 - SFY10**




The number of unique users of HCBS services in the Study Population increased by 25.79 percent, an increase of more than 730 unique users per month since July 2007. Overall expenditures for these services increased by 43.1 percent over the course of the evaluation period; the total monthly expenditures increased from $3.4 million to $4.8 million from July 2007 to June 2010. Approximately 99.5 percent of the $2.3 million increase was due to the increase in direct care services. The number of unique users of personal care services, already the most widely used service in the Study Population, increased 39.0 percent, from 2,058 in July

2007 to 2,860 in June 2010. The total expenditures for personal care services increased by approximately 54.6 percent during the evaluation period from $2.6 million dollars in July 2007 to $4.1 million in June 2010. Utilization of adult day care services increased 25.6 percent to more than $303,000. There were 393 unique individuals in the Study Population using adult day care services at the end of the period, up from 317 in July 2007. Assisted living and home health services utilization decreased 9.4 and 29.8 percent, respectively; both services account for less than $300,000 in monthly expenditures in June 2010 for the Study Population.

## Total LTC Utilization

The results of the institutional LTC and HCBS utilization analyses were combined to evaluate the overall trend in LTC expenditures in the state. This analysis was limited to the Nursing Home and HCBS Study population to focus on those groups targeted by the state's waiver initiatives and those populations with complete data available for the entire three year period. Data issues for the DEA and Self-Directed care populations prevented these populations from being included in the analysis. During the three year study period the utilization of HCBS services showed a steady increase in both the number of members receiving services and the total cost for these services. This was offset by an approximate 3 percent decline in the number of members receiving nursing home services with less than a 1 percent increase in nursing home expenditures from FY08 to FY09. The average number of people receiving HCBS and nursing home services and total expenditures by fiscal year is provided in Table 1

### Table 1. HCBS and Nursing Home Users and Expenditures

| Fiscal Year | Avg HCBS Users | Total HCBS Dollars | Avg. NH Users | Total NH Dollars | Avg LTC Users | Total LTC Dollars |
|---|---|---|---|---|---|---|
| *SFY08* | 3,082 | $42.8m | 5,565 | $296m | 8,646 | $339m |
| *SFY09* | 3,191 | $48.8m | 5,434 | $284m | 8,626 | $332m |
| *SFY10* | 3,375 | $54.0m | 5,398 | $299m | 8,772 | $353m |
| *SFY08 to SFY10* | +9.5% | +45.1% | -3.0% | +0.8% | +1.5% | +4.1% |

The utilization trends in Table 2 show a shift in LTC services from the institutional setting to community settings. Despite an increase of 1.5 percent in the number of people seeking LTC services, the state was able to limit LTC spending to a 4.1 percent over the three year period, an annual rate of increase of 2.0 percent. This represented an increase of 2.6 percent in the average cost per month of providing LTC services to RI Medicaid recipients over the three year period, an average annual increase of 1.3 percent.

The GW introduced a series of initiatives to control LTC expenditures. One of the GW strategies was to reduce the number of Medicaid members receiving services in an institutional setting with a shift to care in a community setting. These initiatives focused on relocating

current NH residents with lower needs into a community setting and diverting new members seeking LTC services into the community.

To evaluate the impact of the GW on diverting members from nursing homes to HCBS services, the Lewin Group examined trends in the number of members receiving services in each setting. Prior studies were able to evaluate the savings from nursing home diversion efforts using data for individual members that were diverted from the nursing home to an HCBS setting. The Lewin Group did not have access to this data so in order to evaluate the impact of the GW on the diversion of members from the NH setting to the community setting, the percentage of LTC recipients receiving care in each setting was computed over the three year period. The impact of the GW NH diversion activities was then computed by comparing RI's actual LTC costs with what their costs would have been if the percentage of members receiving LTC services in a nursing home had not changed over the study period.

During the first month of the study period, 66.5 percent of the members receiving LTC services received their care in a nursing home. By the end of the study period, this percentage had dropped to 60.0 percent. To evaluate the fiscal benefit of this diversion, estimated LTC costs were computed assuming that the percentage of members receiving care in a nursing home setting stayed at 66.5 percent throughout the study period. The number of members in each setting was then multiplied by the observed average cost of care in each setting for each month of service. This estimated LTC cost was then compared to actual LTC costs to compute the fiscal benefit of NH diversions over the study period. This methodology resulted in an estimated LTC cost to the state of $1,061 million over the study period. In comparison to the state's actual LTC costs of $1,025 million, it is estimated that the state saved $35.7 million by reducing the percentage of LTC services that were provided in nursing homes. Approximately 48 percent of this benefit was realized during SFY 2010 with an estimated savings of $17.1 million.

## Actuarial Analysis

The cost of caring for members receiving LTC services during the study period rose gradually as a result of the state's efforts to divert members from institutional to community settings. The state also implemented several budget actions to control the growth in nursing home rates. The average cost per nursing home day for each of the three fiscal years during the study period is provided in Table 2.

### Table 2. Comparison of Inflation Rates

| Fiscal Year | Nursing Home Average $ Per Day | Annual Trend | CPI Medical Cost | PPI Nursing Facilities |
|---|---|---|---|---|
| SFY08 | $ 150.25 | | | |
| SFY09 | $148.03 | 0.993 | 1.015 | 1.013 |
| SFY10 | $156.80 | 1.029 | 1.017 | 1.012 |
| 2 Year Average | | 1.011 | 1.016 | 1.012 |
| Difference | | | 0.005 | 0.001 |

Nursing home rates in Rhode Island rose at essentially the same rate as the medical cost component of the Consumer Price Index (CPI) and the nursing facilities Producer Price Index (PPI). During this same period, the nursing home diversion and transition initiatives implemented by the state resulted in significant increases in the acuity of the population that remained in the nursing home. A study conducted by Brown University of the characteristics of the Rhode Island Medicaid nursing home population evaluated the change in acuity. The Brown study found that in 2010 the nursing home population required more assistance with Activities of Daily Living (ADLs) than they did in 2008. For long stay nursing home residents, the number of ADLs requiring extensive or total assistance rose from 3.8 ADLs in 2008 to 4.0 ADLs in 2010, an increase of 5.3 percent. For members newly admitted to nursing homes, the average number of ADLs requiring extensive or total assistance rose from 3.6 ADLs in 2008 to 4.0 in 2010 an increase of 11.1 percent.

Using the mean number of ADLs requiring extensive or total assistance as a measure of acuity, nursing home residents were approximately 5 percent sicker in 2010 than they were in 2008. This increase in acuity did not lead to nursing home rate increases that exceeded the inflation rate resulting in a savings for the state. If the rate increases had kept pace with the increase in the acuity of the population, assuming a conservative 5 percent increase in acuity, nursing home costs would have been approximately $15 million higher in FY10.

The state's nursing home diversion and rate initiatives undertaken through the GW and state budget actions resulted in savings in excess of $32 million in LTC expenditures during SFY 2010 based upon the analysis conducted by the Lewin Group. This finding is consistent with the fiscal impacts developed by the state in their evaluation of the GW initiatives. The Lewin Group's evaluation of the Medicaid LTC data for RI found that the GW and budget initiatives implemented by the state were successful in reducing LTC expenditures.

## III Care Management Effectiveness Analysis

Another GW strategy that the state implemented was to improve care management oversight to reduce the utilization of unnecessary medical care services by Medicaid recipients by providing all program participants with a medical home. This was accomplished by enrolling Medicaid members in managed care programs and case management programs. These efforts began in 1994 with the implementation of the state's Section 1115 RIte Care managed care waiver. This waiver mandatorily enrolled the state's TANF members into RIte Care managed care plans. By SFY10 the state had expanded its mandatory managed care enrollment initiatives to mandatorily enroll children with special health care needs (CSHCN) and people with disabilities into care management programs.

To evaluate the effectiveness of these programs in managing the utilization of medical care services, the Lewin Group compared the cost and utilization of members in managed care and case management programs with the utilization of unmanaged members in the fee for service (FFS) program. Since the mandatory enrollment of the TANF population began in 1994, during the study period there were not enough TANF members in the FFS population to make a credible comparison with the managed care population. Credible comparisons can be made for the disabled population since a sufficient number of members remained in the FFS program and were enrolled in managed care or case management programs during the study period. Cost and utilization comparisons between the FFS and care managed populations were computed for SFY09 and SFY10.

To conduct the cost and utilization comparisons the eligibility files were evaluated for each year and a member was assigned to an eligibility category based upon their last month of eligibility during each SFY. This methodology assured that a member was only included in one of the eligibility categories, and their eligibility category assignment was based upon the most recent eligibility information available.

Members were also assigned to a care management category based upon their enrollment in managed care and case management programs during the year. Since members could participate in multiple programs during the year hierarchal assignment logic was used to assign members to a unique care management program. This logic identified members that were enrolled in long term care institutions and BHDDH waiver programs in the first step and excluded them from the analysis. Members with 6 or more months of HMO enrollment during the year were assigned to the HMO care management category. This process was repeated for members with 6 or more months of enrollment in the Rhody Health Partners, Connect Care Choice and Rite Share care management programs. Remaining members with 6 or more months of enrollment in the FFS program were assigned to the unmanaged FFS program. Finally the remaining members that had partial enrollment in 2 or more programs during the year were assigned to an Other category and excluded from the analysis.

In order to control for potential differences in the acuity of members in the FFS setting versus care management setting, the claims and encounter data for each member were processed through the Episode Risk Group (ERG) risk adjustment system. The ERG system evaluates the diagnoses, procedure, revenue and NDC codes reported on health care claims and use that information to identify up to 189 disease conditions for each member. Each disease condition is assigned a risk score weight based upon the impact of that medical condition on future health

care costs. These weights are then summed for each disease condition that is identified for a member to compute their total risk score. Members with risk scores above 1 are expected to have above average health care costs in the next year, members with scores below 1 are projected to have lower than average costs.

The ERG risk scores were averaged for members assigned to each eligibility and care management category to evaluate the acuity of the members in each category. To ensure that the risk scores accurately represented the acuity of the members assigned to each category, this analysis only included members with 6 or more months of eligibility during each FY. The use of a 6 month minimum eligibility period to limit the population included in the risk score analysis ensures that the members had a sufficient period of time to seek medical treatment for their chronic conditions and that their risk score is an accurate measure of their health status.

## Adults with Disabilities Analysis

Adults with disabilities, excluding those in the program for persons with developmental disabilities, were enrolled in two care management programs during SFY09 and SFY10 to reduce their health care utilization. The Rhody Health Partners (RHP) program is a managed care program for Adults with Disabilities with two managed care companies participating in the program. The Connect Care Choice (CCC) program is a case management program that offers improved access to primary care, case management and links members to support services in the community. A large number of adults with disabilities adults were enrolled in both programs during SFY09 and SFY10. The number of enrollees and the risk scores for the members enrolled in each program are provided in Table 3.

**Table 3 Enrollment and Risk Score Trends for Adults with Disabilities**

| Care Management Program | SFY09 Enrollment | SFY09 Average Risk Score | SFY10 Enrollment | SFY10 Average Risk Score | Enrollment Change | Risk Score Change |
|---|---|---|---|---|---|---|
| Connect Care Choice | 1,264 | 4.38 | 1,492 | 4.47 | 228 | +.09 |
| Rhody HP | 8,133 | 3.41 | 10,334 | 3.49 | 2,201 | +.08 |
| FFS | 2,924 | 3.88 | 1,703 | 3.07 | -1,221 | -.81 |

Enrollment in both the RHP and CCC programs grew from SFY09 to SFY10 with an accompanying decrease in the number of adults with disabilities in unmanaged FFS. The risk scores of the members enrolled in both programs also increased from SFY09 to SFY10, while the risk scores of the members that remained in unmanaged FFS reflect a significant decline. In both fiscal years the CCC program had the highest risk members. Members in the RHP program had the lowest risk in SFY09, but with the addition of new members from the unmanaged FFS program during SFY10, the RHP risk scores exceeded the scores for the members that remained in FFS. These differences in risk scores and differing trends in risk scores makes it essential to account for the acuity of the members in each program to make valid comparisons of the effectiveness of each program.

In order to evaluate the cost effectiveness of the care management programs, the average health care costs for members in each program was compared to the average cost for members in unmanaged FFS. For the CCC and unmanaged FFS programs, the total cost was calculated for each member using claims data. Since the RHP plans are paid a capitation rate, the total cost was calculated for each member using the capitation payments made by the state. These total costs were then combined with a member's eligible months to compute a weighted average per member per month (PMPM) cost for each program and fiscal year. The results of the cost analysis are provided in Table 4.

**Table 4 Average Cost PMPM and Risk Scores for Adults with Disabilities**

| Care Management Program | SFY09 Average Cost | SFY09 Average Risk Score | SFY09 Risk Neutral Cost | SFY10 Average Cost | SFY10 Average Risk Score | SFY10 Risk Neutral Cost |
|---|---|---|---|---|---|---|
| Connect Care Choice | $1,790.32 | 4.38 | $408.32 | $2,004.78 | 4.47 | $448.21 |
| Rhody HP * | $981.35 | 3.41 | $287.49 | $1,052.70 | 3.49 | $301.62 |
| FFS | $1,652.50 | 3.88 | $425.90 | $1,182.83 | 3.07 | $384.85 |

*This is the average Rhody HP rate for each fiscal year and does not include the FFS cost for services excluded from the benefit package. FFS costs for adults with disabilities averaged approximately $150 PMPM during SFY09 and SFY10.

The average cost PMPM was the highest for members in the CCC program in both fiscal years. These members also had the highest risk scores in each year. In comparison to unmanaged FFS, the average PMPM was 8.3 percent higher for CCC members than FFS members in SFY09, but their risk scores were also 13.0 percent higher. Factoring in the differences in acuity, the CCC program was actually more cost effective than the FFS program in SFY09. In SFY10, the PMPM cost for the CCC program was 69.5 percent higher than the FFS program, risk scores were 45.5 percent higher, so the differences in cost exceeded the difference in risk. In SFY10, the CCC program was less cost effective than the FFS program.

The average rate PMPM for the RHP was 41.2 percent lower than the PMPM cost for the FFS program in SFY09, the average risk score was 12.0 percent lower. Factoring in acuity the RHP program was significantly more cost effective than the FFS program in SFY09. In SFY10, the average RHP rate was 11.2 percent lower than the average FFS PMPM, while the average RHP risk score was 13.3 percent higher. Factoring in acuity the RHP program was again found to be more cost effective than the FFS program in SFY10.

## Analysis of Children with Special Health Care Needs

CSHCN were enrolled in RIte Care Manage Care Organization (RC) during SFY09 and SFY10 to more effectively manage their health care needs. Children that were enrolled in the RC plans included children that were eligible under the following coverage groups: SSI, Adoptive Subsidy, Foster Care and Katie Beckett children without another form of health care coverage. Prior to SFY09 only Neighborhood Health Plan of Rhode Island enrolled CSHCN in their plan. Beginning in SFY09 United Health Care Plan of New England also began to enroll CSHCN in their plan. CSHCN that were not enrolled in an RC plan remained in unmanaged FFS. The

number of children and the risk scores for the children enrolled in each program are provided in Table 5.

### Table 5 Enrollment and Risk Score Trends for CSHCN

| Care Management Program | SFY09 Enrollment | SFY09 Average Risk Score | SFY10 Enrollment | SFY10 Average Risk Score | Enrollment Change | Risk Score Change |
|---|---|---|---|---|---|---|
| Fee For Service | 1,853 | 1.28 | 1,612 | 1.32 | (241) | 0.04 |
| RIte Care HMO | 5,089 | 1.51 | 5,382 | 1.52 | 293 | 0.01 |

Enrollment in RC plans grew from SFY09 to SFY10 with an accompanying decrease in the number of CSHCN in unmanaged FFS. The risk scores of the members enrolled in both programs showed a slight increase from SFY09 to SFY10. In both fiscal years children enrolled in the RC program had the highest risk scores.

To evaluate the cost effectiveness of the RC programs, the average health care costs for members enrolled in the RC program was compared to the average cost for members in unmanaged FFS. For the unmanaged FFS programs, the total cost was calculated for each member using claims data. Since the RC plans are paid a capitation rate, the total cost was calculated for each member using the capitation payments made by the state. These total costs were then combined with a member's eligible months to compute a weighted average per member per month (PMPM) cost for each program and fiscal year. The results of the cost analysis are provided in Table 6.

### Table 6 Average Cost PMPM and Risk Scores for CSHCN

| Care Management Program | SFY09 Average Cost | SFY09 Average Risk Score | SFY09 Risk Neutral Cost | SFY10 Average Cost | SFY10 Average Risk Score | SFY10 Risk Neutral Cost |
|---|---|---|---|---|---|---|
| Fee For Service | $1,445.19 | 1.28 | $1,130.67 | $1,441.77 | 1.32 | $1,092.87 |
| RIte Care HMO* | $803.71 | 1.51 | $532.76 | $848.44 | 1.52 | $559.25 |

*This is the average RIte Care rate for each fiscal year and does not include the FFS cost for services excluded from the benefit package. FFS costs for CSHCN average approximately $400 PMPM during SFY09 and SFY10.

The average cost PMPM was the highest for children in unmanaged FFS in both fiscal years. These children also had the lowest risk scores in each year. In comparison to unmanaged FFS, the average rate for children in RC plans was 44.33 percent lower in SFY09 and 41.2 percent lower in SFY10. Risk scores for children in RC plans were 18.0 percent higher than children in unmanaged FFS in SFY09 and 15.0 percent higher in SFY10. In spite of their higher acuity, the average rate paid to RC plans in each fiscal year was lower than the cost for CSHCN in unmanaged FFS.

## Fiscal Impact of Care Management Initiatives

To determine the fiscal impact of the GW initiative, the average cost for members in care management programs needs to be compared to the average cost for members in the unmanaged FFS programs. The results presented in Table 4 and Table 6 found that the average cost for disabled enrollees in the RHP and RC managed care programs was lower than the average cost for members in unmanaged care. The average cost for members in the CCC case management program was comparable to unmanaged FFS. The ERG risk scores analysis for disabled members with 6 or months of eligibility found differences in the health status between members enrolled in the care management programs and unmanaged FFS.

To assess the fiscal impact of these programs the cost analysis must account for differences in the acuity of the members enrolled in the programs and differences in the medical care services covered by the programs. The RHP and RC managed care programs cover the majority of medical services, but enrollees in these programs access some health care services through the FFS program. The average costs for the CCC and unmanaged FFS program include all of the health care services utilized by these enrollees.

One methodology for determining the fiscal impact of the care management programs is to evaluate the data book and rate setting methodology utilized by the state to develop the RHP and RC rates. The rate setting methodology will compute the average cost for the covered services for the population eligible to enroll in the program. Actuarial assumptions are included in the process to account for the impact that the managed care organizations will have on reducing the utilization of medically unnecessary health care services and substituting more cost effective services. Depending upon the level of savings built into the actuarial assumptions, the state can establish managed care rates that are usually between 2 percent – 10 percent lower than the prior FFS experience of the eligible population. Assuming a conservative savings assumption of 2 percent - 5 percent the fiscal benefit to the state is estimated between $4.5 million and $11.9 million. The fiscal benefit by program is provided in Table 7.

### Table 7 Fiscal Impact of RIte Care and Rhody Health Partner Programs

| Managed Care Program | Savings Assumption | SFY09 Impact | SFY10 Impact |
|---|---|---|---|
| RIte Care HMO | 2% | $1,600,090 | $1,829,474 |
| Rhody HP | 2% | $2,136,654 | $2,943,728 |
| | Total | $3,736,744 | $4,773,202 |
| RIte Care HMO | 5% | $4,000,225 | $4,573,686 |
| Rhody HP | 5% | $5,341,635 | $7,359,320 |
| | Total | $9,341,861 | $11,933,006 |

A second methodology for computing the fiscal impact of the programs is to compute the total cost for RHP and RC members including both their capitation rates and FFS costs and compare that total to the unmanaged FFS total. This comparison also needs to account for differences in

the acuity of the population and the unmanaged FFS population should also be adjusted to exclude the cost experience for members that are not eligible to enroll in the managed care programs. FFS costs for children enrolled in the RC program averaged approximately $450 during SFY09 and SFY10. FFS costs for adults enrolled in the RHP program averaged approximately $150 during SFY09 and SFY10. Including these FFS costs and adjusting for differences in the acuity in the populations, the total cost for the RHP and RC populations was approximately 9 percent lower for RHP and more than 40 percent lower for RC children. The limitation with this approach is that the FFS population was not adjusted to reflect the population eligible to enroll in the managed care programs. However, the savings estimates calculated using this methodology seems more than sufficient to justify the savings estimates in Table 7.

# IV Measuring improvements in member utilization of appropriate services

One of the goals of the GW was to improve member access to primary care and community based services and to substitute less expensive medical care services for more expensive services. Improved access to primary care should result in better case management and reduce the utilization of emergency room services and hospital admissions for members enrolled in care management program. The GW also employed strategies to re-direct the utilization of long term care services towards more cost effective community based services. The success of these two programs was documented in Sections II and III.

## Appropriate Utilization of Long Term Care Services

The analysis of LTC expenditures in Section II clearly documented the success of the GW in utilizing more appropriate LTC services. During the study period the average number of NH users fell by 3.0 percent from SFY08 to SFY10. The average number of HCBS users rose by 9.5 percent. These results can largely be attributed to the following GW initiatives;

- Changes to the clinical level of care policy and process including development of a preventive level of care
- Beginning to address the needs of high cost utilizers
- Nursing Home Diversion and Transition Projects
- Promoting the availability of community based services as an alternative to Nursing Home Placement
- Removing delegated authority from hospital discharge planners
- Improving access to shared living arrangements

These strategies clearly helped the state to re-balance the delivery of LTC services in the state resulting in savings of $35.7 million during the three year study period according to our estimates.

## Long Term Care Rate Setting Initiatives

During the study period the state also took several rate actions to reduce the rate of growth in nursing home payment rates and to ensure that the rate setting process accounted for the acuity of members enrolled in a nursing home. The average cost per day in a nursing home rose by an average of 1.1 percent during the study period, while the acuity of the enrolled population rose by more than 5 percent. These results can be attributed to the following budget initiatives implemented by the state;

- Implementation of nursing facility acuity adjuster
- Nursing facility rate cuts for direct labor costs

These actions helped the state to reduce the rate of growth in nursing home rates resulting in savings of $15 million according to our estimates in SFY10.

## Improved Care Management

The GW mandatorily enrolled CSHCN and adults in care management programs during SFY10. Disabled adults were mandatorily enrolled in the RHP and CCC programs. CSHCN were mandatorily enrolled in RC managed care plans. The analysis of expenditures for members in these programs in comparison to members in unmanaged FFS in Section III found that these programs were clearly cost effective.

To evaluate the impact of these programs on improving access to primary care services and redirecting utilization towards more cost effective treatment a cohort analysis was done to evaluate how the utilization of health care services changed when members were enrolled in care management programs. The cohort analysis identified disabled individuals who had 6 or months of eligibility in both SFY09 and SFY10. In SFY09 members were selected that were enrolled in the FFS. In SFY10 members were selected that were enrolled in the RC or RHP managed care plan, or the CCC care management plan. Their utilization of inpatient care, emergency room visits and physician visits was then compiled in each year using claims and encounter data. In SFY10 only members that were enrolled in a RC or RHP plan during their entire period of eligibility were included in the comparison. Their utilization in each SFY is provided in Table 8.

**Table 8 Service Utilization by Cohort Transitioning from FFS to Care Management**

| Eligiblity Group | Managed Care Program | Cohort Size | 2009 | | | 2010 | | |
|---|---|---|---|---|---|---|---|---|
| | | | Inpatient Admits | ER Visits | Physician Visits | Inpatient Admits | ER Visits | Physician Visits |
| CSHCN | RIte Care | 57 | 26 | 40 | 457 | 24 | 26 | 1,010 |
| Adults with Disabilities | Connect Care Choice | 324 | 253 | 1,208 | 2,293 | 299 | 1010 | 2,356 |
| Adults with Disabilities | Rhody HP | 200 | 99 | 278 | 1,203 | 135 | 182 | 1,661 |

The change in the utilization of services by the cohort from SFY09 to SFY10 is provided in Table 9.

**Table 9 Change in Cohort Utilization from SFY09 to SFY10**

| Eligibility Group | Managed Care Program | Cohort Size | Change Inpatient Visits | Change ER Visits | Change Physician Visits |
|---|---|---|---|---|---|
| CSHCN | RIte Care | 57 | (2) | (14) | 553 |
| Adults with Disabilities | Connect Care Choice | 324 | 46 | (198) | 63 |
| Adults with Disabilities | Rhody HP | 200 | 36 | (96) | 458 |

For all three eligibility groups that were included in the cohort the change in their utilization patterns were similar. All three groups experienced a decrease in the number of emergency room visits from SFY09 to SFY10 and an accompanying increase in the number of physician

visits during SFY10. This trend supports the goal of the GW to improve access to primary care services and substitute less expensive health care services.

## Appropriate Utilization for Members with Chronic Conditions

By mandatorily enrolling CSHCN and adults in care management programs under the GW the state hoped to improve access for members with chronic conditions to physician services. To determine if the GW resulted in improved access the disease groups that are created by the ERG grouper were used to identify members with chronic conditions. In evaluating the prevalence of chronic conditions in the disabled population based upon the ERG results, four chronic conditions were selected for evaluation. These chronic conditions represented disease conditions that are typically targeted for care management programs and had sufficient prevalence rates in the disabled populations. The selected conditions were; asthma, diabetes, cardiac disorders and mental health and substance abuse disorders.

In assigning members constructing these four chronic conditions any ERG disease group that identified a specific disease condition related to these chronic conditions was included. For instance the ERG grouper includes 4 disease categories for Asthma and Chronic Obstructive Pulmonary disorders with different levels of severity. All four of these disease groups were used in identifying members with Asthma. Similarly the cardiac group includes disease conditions ranging from hypertension to congestive heart failure. The prevalence rates for the four chronic conditions by age category are provided in Table 10 for all disabled Medicaid members regardless of their enrollment status.

**Table 10 Prevalence Rates for Disabled Members by Age Category**

| Age Category | Member Count | Asthma Prevalance Rate | Mental Health Prevalance Rate | Cardiac Prevalance Rate | Diabetes Prevalance Rate |
|---|---|---|---|---|---|
| CSHCN | 7,550 | 22.5% | 42.5% | 8.6% | 5.3% |
| Adults with Disabilities | 14,715 | 27.9% | 53.6% | 43.4% | 34.8% |

The utilization of members that were identified with one of the four chronic conditions was than compared for the three care management programs and the unmanaged fee for service program. Each disease condition was evaluated separately, and some members had multiple disease conditions identified. So the utilization of a member with both asthma and diabetes would be included in each analysis. To determine if access to physician services had improved and resulted in a reduction in the use of more expensive services, utilization rates were compared for both physician and emergency room (ER) visits. Separate utilization rates were evaluated for children enrolled in the RC program versus children in unmanaged fee for service, and adults in the RHP and CCC programs versus adults in unmanaged fee for service. The analyses only included members with six or more months of eligibility during SFY10 to ensure that members had a sufficient period of time to seek treatment for their chronic

conditions. The results of the comparison for children are provided in Table 11, adults in Table 12.

### Table 11 Service Utilization by CSHCN with Chronic Conditions

| Disease Condition | Care Management Status | Member Count | ER Utilization Per 1,000 Per Year | Physician Utilization Per 1,000 Per Year |
|---|---|---|---|---|
| Cardiac | Fee For Service | 170 | 496 | 13,976 |
| Cardiac | RIte Care | 371 | 610 | 18,715 |
| Asthma | Fee For Service | 287 | 619 | 14,110 |
| Asthma | RIte Care | 1,206 | 655 | 12,897 |
| Diabetes | Fee For Service | 75 | 735 | 12,653 |
| Diabetes | RIte Care | 274 | 783 | 24,893 |
| Mental Health | Fee For Service | 502 | 597 | 17,280 |
| Mental Health | RIte Care | 2,307 | 581 | 13,903 |

To compare the utilization of ER and physician services by CSHCN, utilization rates was computed for the number of visits that a 1,000 children that were fully eligible for a year would have used. This statistic controls for differences in the size of the population in the RC and unmanaged care FFS program with chronic conditions. The utilization of ER services was comparable between the RC and FFS programs. Children with mental health disorders had slightly lower utilization rates in the RC program, children with Diabetes and Asthma had slightly higher utilization rates in the RC program. Children with cardiac conditions had higher ER utilization under the RC program. Utilization of physician services was noticeably higher in the RC program for children with cardiac disorders and diabetes. Children with asthma and mental health disorders had slightly lower physician utilization under RC, but were still had an average of one physician visit per month. These findings suggest that under the RC program children had either improved access to physician services, or access that was comparable to children in the unmanaged FFS program.

### Table 12 Service Utilization by Adults with Disabilities with Chronic Conditions

| Disease Condition | Care Management Status | Member Count | ER Utilization Per 1,000 Per Year | Physician Utilization Per 1,000 Per Year |
|---|---|---|---|---|
| Cardiac | Connect Care Choice | 581 | 3,131 | 10,194 |
| Cardiac | Fee For Service | 570 | 2,108 | 6,703 |
| Cardiac | Rhody HP | 3,313 | 1,354 | 11,133 |
| Asthma | Connect Care Choice | 389 | 4,050 | 11,079 |
| Asthma | Fee For Service | 271 | 2,804 | 7,916 |
| Asthma | Rhody HP | 2,227 | 1,650 | 12,210 |
| Diabetes | Connect Care Choice | 545 | 3,129 | 10,418 |
| Diabetes | Fee For Service | 408 | 2,197 | 7,192 |
| Diabetes | Rhody HP | 2,601 | 1,339 | 11,961 |
| Psych | Connect Care Choice | 635 | 3,510 | 9,272 |
| Psych | Fee For Service | 720 | 2,359 | 5,567 |
| Psych | Rhody HP | 3,586 | 1,755 | 10,063 |

An evaluation of the utilization of ER and physician services by disabled adults found that for all four chronic conditions RHP members had lower ER utilization and higher physician utilization than members in unmanaged FFS. Members enrolled in the CCC program also had better access to physician services, but for all four disease categories their ER utilization was higher than the utilization of members in unmanaged FFS. This finding may be attributable to the fact that members in the CCC program had the highest risk scores among the disabled adults. This evaluation found that the CCC and RHP program clearly provided improved access to physician services.

## Conclusion

The GW initiatives and budget actions taken by Rhode Island had a positive impact on controlling Medicaid expenditures. The actions taken to re-balance the LTC system appear to have generated significant savings according to our estimates. The mandatory enrollment of disabled members in care management program reduced expenditures for this population while at the same time generally resulting in improved access to physician services. Continuing the GW initiatives already undertaken by the state and implementing the additional initiatives included in the GW will result in significant savings for the Rhode Island Medicaid program in future years.