

# **2010 Long-Term Care Report**

## State of New Jersey

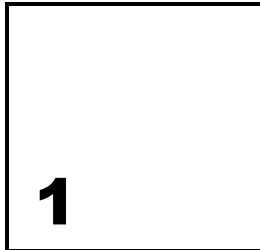
**MERCER**

## **Contents**

<b>1. Introduction .....</b>	<b>1</b>
<b>2. Rebalancing statistics.....</b>	<b>4</b>
<b>3. Conclusions.....</b>	<b>27</b>

**Appendix A: Mercer's actuarial model**

**Appendix B: Abbreviations and Acronyms**



## **Introduction**

Mercer Government Human Services Consulting (Mercer) has been engaged by the State of New Jersey (State) Department of Health and Senior Services (DHSS) to provide long-term care member and expenditure data and projections for the Division of Aging and Community Services (DACS). The data is derived from the budget rebalancing model that Mercer developed for DACS. The model utilizes current and past member, service utilization and expenditure information to forecast potential Medicaid long-term care spending over time.

Key findings include the following:

- Total expenditures have remained essentially unchanged for State Fiscal Year (SFY) 2009 (\$2.600 billion) and 2010 (\$2.594 billion) (Table IV), while enrollment in nursing facilities has decreased (Figure I) and home- and community-based services (HCBS), including Medical Day Care (MD), Personal Care Assistant (PCA) and Global Options for Long-Term Care Waiver (GO), have increased (Figure II, Figure III, Figure IV, Figure V and Table II).
- Overall, there was a decrease of slightly more than 2% in nursing facility member months from SFY 2009 to SFY 2010 (Figure I). GO waiver member enrollment increased almost 18% during the same time period and was the main driving force of the overall HCBS member month increase of 6.7% (Figure IV and Table II).
- Mercer uses per-member-per-month (PMPM) as a standardized measure of costs. PMPM shows the average monthly cost for a member in a given population. With the increasing proportion of members utilizing HCBS, the overall PMPM in the long-term care program is decreasing (Figure XII).
- In SFY 2010, although only 41% of long-term care members resided in nursing facilities (Figure V), nursing facility expenditures accounted for 70% of total long-term care expenditures (Figure XI). However, this is a reduction of 3% from SFY 2007 (Figure XI and Table IV).

- Six counties (Cape May, Hunterdon, Morris, Salem, Somerset and Warren) decreased their percentage of member months classified as nursing facility by 9% or more between 2007 and 2010. Four counties (Cumberland, Essex, Hudson and Passaic) saw their percentage of member months classified as nursing facility decrease by 4% or less between 2007 and 2010 (Map II).
- Counties have had varying results in shifting long-term care nursing facility expenditures. Comparing 2007 and 2010 data, the percentage of long-term care expenditures spent on nursing facilities decreased by 4% or more in eight counties (Atlantic, Camden, Hunterdon, Middlesex, Morris, Salem, Somerset and Warren) and changed by -1% to +1% in four counties (Cumberland, Essex, Passaic and Sussex) (Map IV).
- While the key factors identified above directly impact the overall costs, utilization of nursing facilities fell. It is clear from all the data shown in this report that the combination of enrollment and PMPM associated with nursing facilities make it by far the biggest driver of long-term care costs. As utilization of HCBS increases and nursing facility decreases, we should see a decrease in the overall PMPM of the long-term care population.

In researching other states, Mercer notes it is difficult to accurately compare one state to how other states are progressing in their long-term care rebalancing efforts. For example, there is no national standard on the criteria to meet an institutional level of care (medical eligibility). If a state has a higher standard on what is needed to meet the institutional level of care, they are likely to have more challenges in being able to transition nursing facility residents to the community. In addition, a state's traditional long-term care network can greatly influence how a state proceeds and progresses in its rebalancing efforts. Finally, cultural and demographic biases can skew individual state results and make comparisons difficult.

Therefore, we advise our state clients to keep their focus on the progress their state is making on rebalancing. For example:

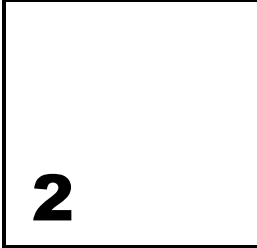
- Are fewer members living in nursing facilities today than one year ago?
- Are more long-term care members residing in the community and being afforded options in how they receive their HCBS?
- Are a higher proportion of long-term care funds going towards HCBS?

For New Jersey, our analysis supports that the State can answer these questions, "Yes." When comparing New Jersey to other states, we believe the State could be categorized as, "in the middle of the pack," with other states spending 20-40% of their long-term care dollars on HCBS (Map V).

Two initiatives, the development of the Aging and Disability Resource Connection (ADRC) programs and the consolidation of three HCBS waivers into a single waiver, implemented over the last two years, are critical to the State's efforts to rebalance long-term care spending. The ADRCs are expected to be operational in each county by January 2012. The maturation of the ADRC model and single waiver (GO) should result in an even greater reduction to nursing facility expenditures.

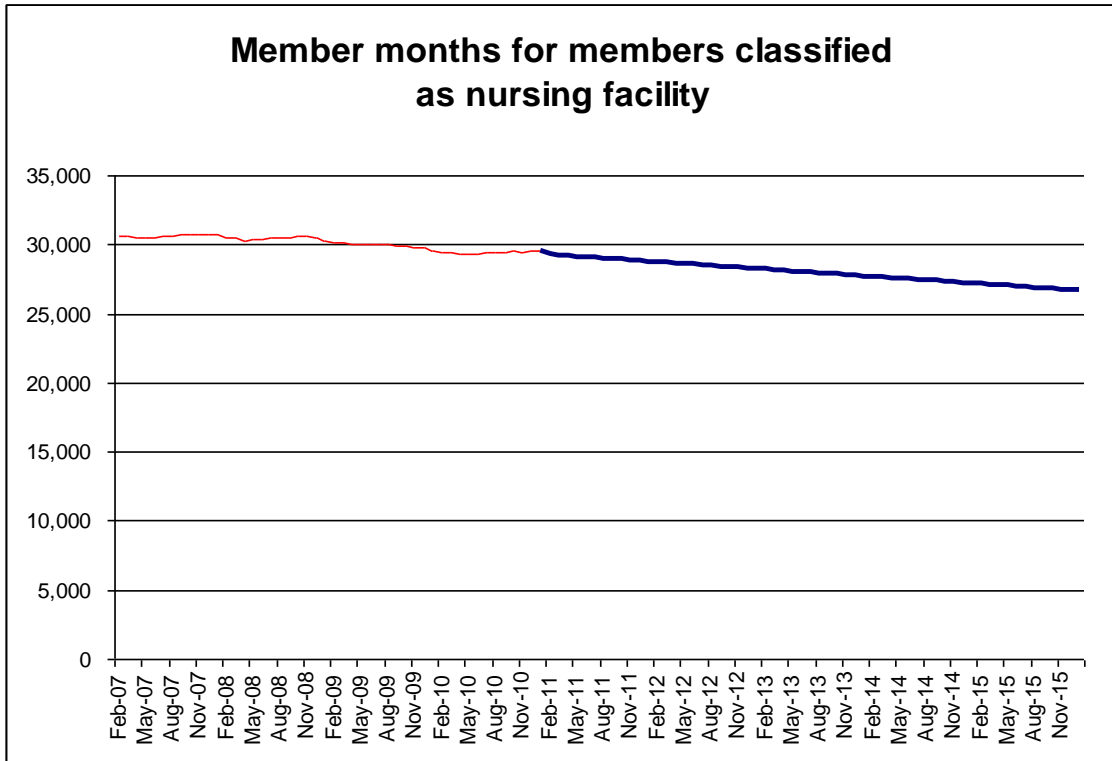
What follows are brief narratives and various tables and graphs that highlight key data demonstrating the progress in efforts to rebalance the State's long-term care system. Additionally, more detailed information about Mercer's actuarial model and the assumptions used in these projections is found in Appendix A.

Further, while the State is planning to move to a phase-in of managed long-term care, the model used for these calculations projects the future based on historical data and trends. Therefore, while managed long-term care would be expected to impact the utilization of long-term care services in the future, it is a factor that has not been accounted for in this version of the model.



## Rebalancing statistics

Figure I

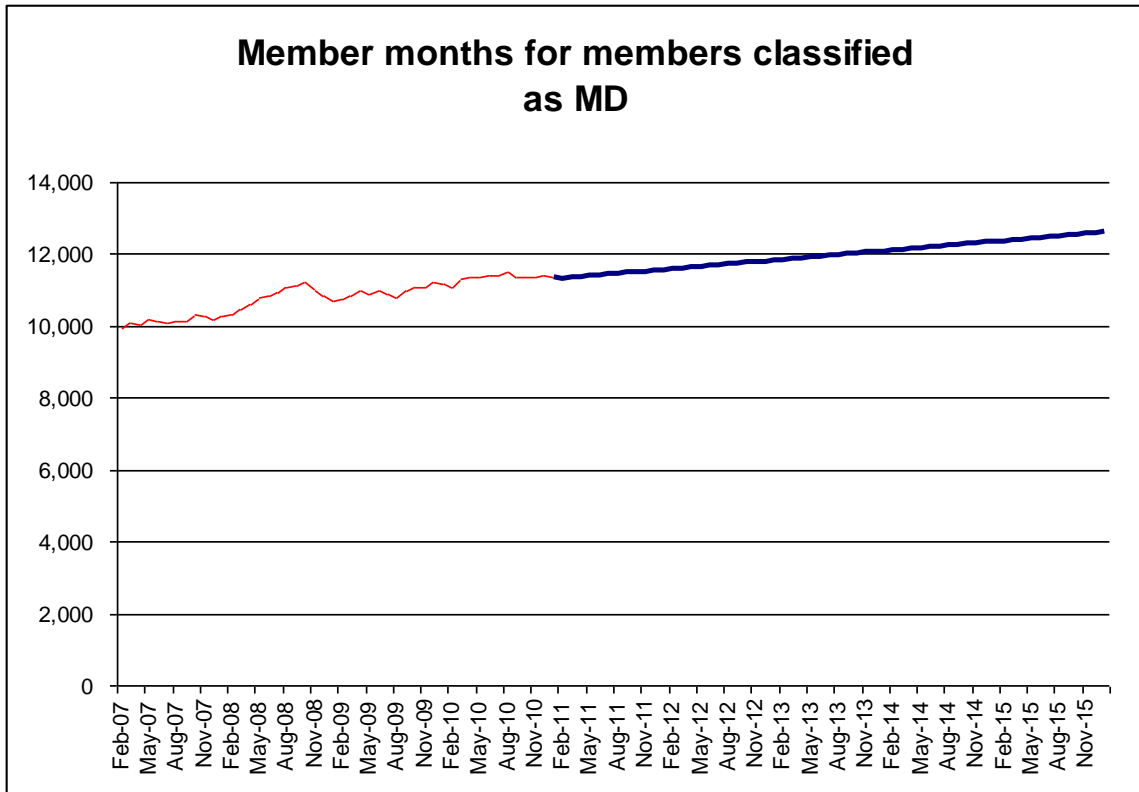


In the budget projection model, members are classified monthly and their member months are counted based on an algorithm with a very specific hierarchy. First, if the member is shown as part of a waiver program in the State's eligibility system during a month, he/she is categorized as a waiver member in that month. Next, if the member has a nursing facility service in the month, he/she is categorized as a nursing facility member for the month. Next, if the member has a MD service in the month, he/she is categorized as a MD member. Lastly, if the member has a PCA service in the month, he/she is

categorized as a PCA member. For more detail on the classification of members, please see Appendix A. Through conversations with DACS we have chosen to use this metric to track member migration. The State does not cleanly capture nursing home members because it is a state plan service and used by all Medicaid recipients. However, only a portion of all Medicaid members are those who we are seeking to rebalance (e.g., short-term rehabilitative stays).

Figure I is reflective of movement in the population served by nursing facilities. The data suggests a strong effect of rebalancing on the long-term care population. While some clients are being transitioned into the community, others are simply having their eventual entrance into a facility delayed. From a system cost perspective, these are both positive outcomes. Overall, there was a decrease of slightly more than 2% in the member months classified into nursing facilities in the model from SFY 2009 to SFY 2010. As will be shown later in the report, this decrease results in the State spending less money than otherwise would have been spent.

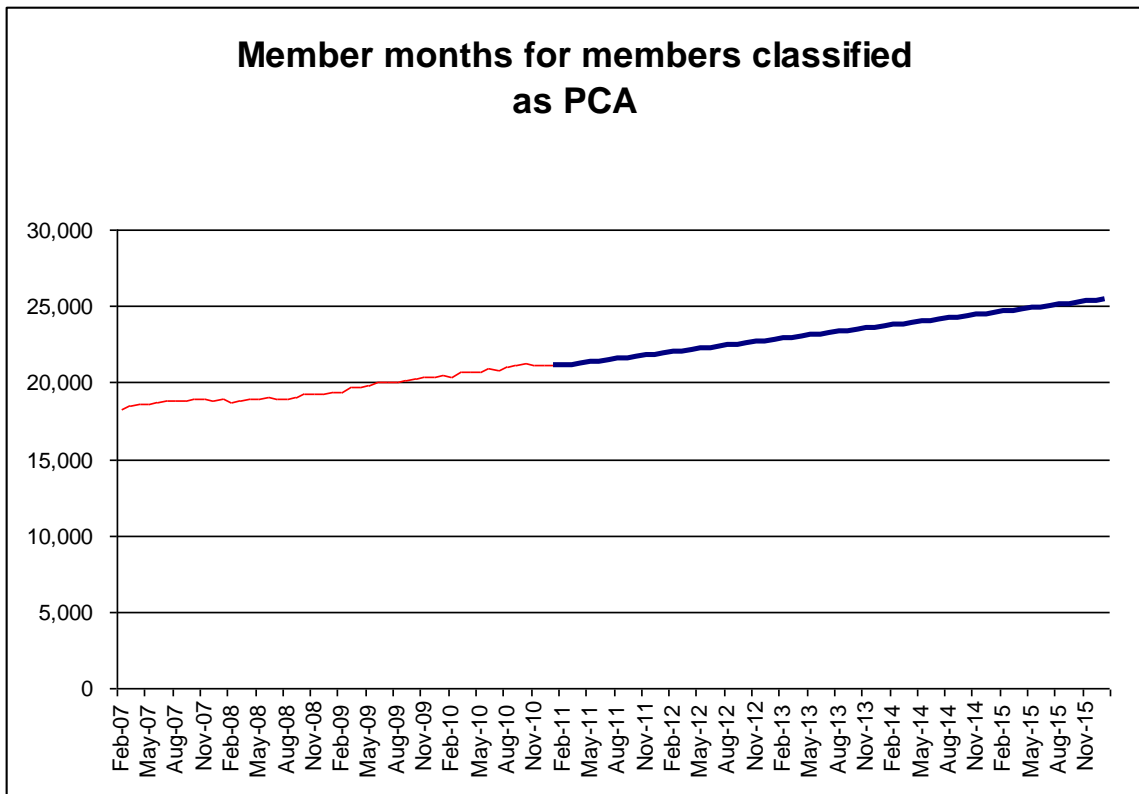
**Figure II**



Similar to Figure I above, Figure II shows the member month data for members classified as MD. The data shows that the number of members receiving MD services is increasing, exhibiting growth of approximately 2% from SFY 2009 to SFY 2010. This is further evidence that the State is diverting members from nursing facilities into the more cost-effective HCBS.



**Figure III**



Member month data for members classified as PCA is shown in Figure III. The number of members receiving PCA services has grown over 5% from SFY 2009 to SFY 2010. As is true with other HCBS, PCA is a less expensive service than a nursing facility, so growth in this service is a positive development when compared to a potential nursing facility admission.

**Figure IV**

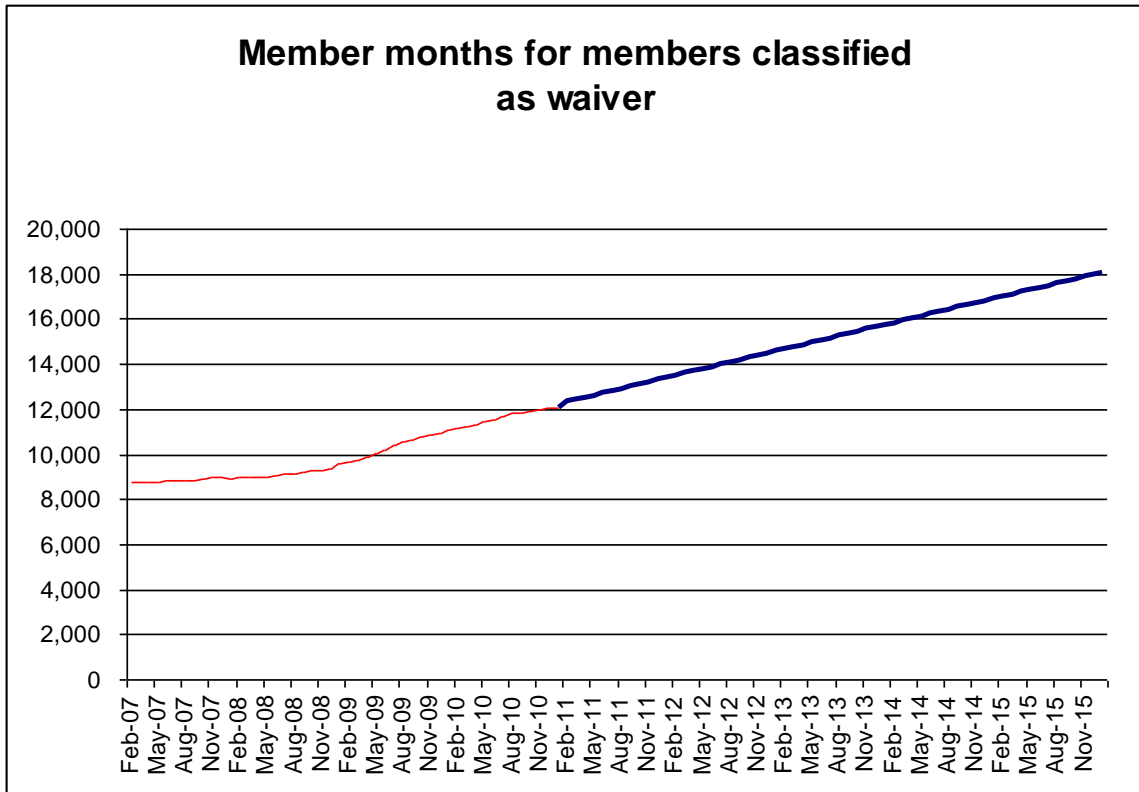


Figure IV shows the member months classified as waiver based on a member having a waiver eligibility code in the State's eligibility system. For this report, we have grouped four waivers together. These waivers include the GO Waiver, the Community Resources for People with Disabilities (CRPD) Waiver, the Traumatic Brain Injury (TBI) Waiver, and the AIDS Community Care Alternatives Program (ACCAP) Waiver. GO is the dominant program among these four distinct waiver programs, accounting for about 92% of the member months in this category.

There has been a strong effort on the part of the State to provide waiver services to the new long-term care members. While all HCBS services have seen growth (as exhibited in the previous pages and Table I below), the waiver programs have shown continued and substantial growth since their inception. From SFY 2009 to SFY 2010, the waiver membership grew by over 15%. As the data in Table II below indicates, there was a lower but still significant growth of 6.7% when all HCBS related member months are combined.

The GO budget has thus far supported the increase in waiver members and the model is currently constructed to take recent enrollment changes into account without regard for factors such as enrollment caps. As the State moves forward with a comprehensive waiver, the basis for these projections may undergo significant change.

**Table I**  
**GO Waiver recipients by county, 2007 – 2010**

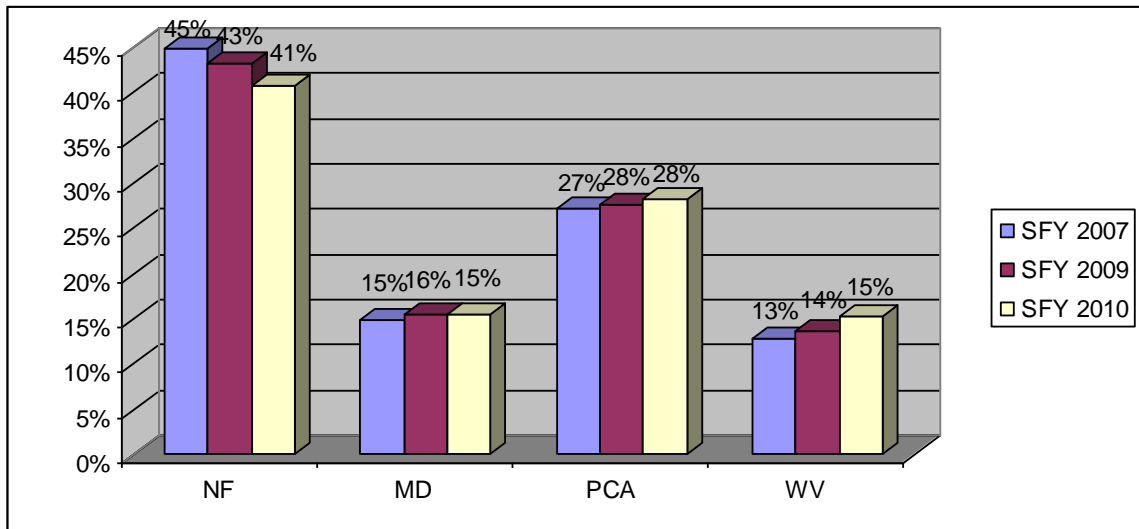
<b>County</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>Change in recipients – 2007 to 2010</b>	<b>Percentage change – 2007 to 2010</b>
Atlantic	625	648	656	769	144	19%
Bergen	641	690	686	797	156	20%
Burlington	471	536	531	688	217	32%
Camden	918	973	940	1,112	194	17%
Cape May	283	297	300	357	74	21%
Cumberland	452	444	423	442	(10)*	-2%
Essex	561	567	551	604	43	7%
Gloucester	467	485	473	600	133	22%
Hudson	826	823	846	1,094	268	24%
Hunterdon	68	89	85	116	48	41%
Mercer	458	468	432	498	40	8%
Middlesex	657	685	701	816	159	19%
Monmouth	1,140	1,141	1,106	1,255	115	9%
Morris	366	401	414	555	189	34%
Ocean	995	1,077	1,033	1,273	278	22%
Passaic	539	585	564	691	152	22%
Salem	134	133	125	170	36	21%
Somerset	311	334	348	419	108	26%
Sussex	105	104	117	150	45	30%
Union	612	620	636	766	154	20%
Warren	160	224	290	401	241	60%
<b>Total</b>	<b>10,789</b>	<b>11,324</b>	<b>11,257</b>	<b>13,573</b>	<b>2,784</b>	<b>21%</b>

Table I shows the count of people, by county, served through the GO Waiver in each calendar year since 2007. It is clear that the GO Waiver is expanding throughout the State. By providing less-costly HCBS to its members, the GO Waiver helps to keep the cost of the State's overall long-term care program down. The growth in this program is one of the major drivers of the State's recent success in rebalancing the long-term care program.

\*Decrease due to an Adult Foster Care provider agency withdrawing from Medicaid. All GO participants were relocated to assisted living facilities adjacent to Cumberland County.

**Figure V**

**Percentage of long-term care member classification by SFY**



**Table II**

**Long-term care classification by SFY**

Service	SFY 2007	SFY 2009	SFY 2010
Nursing Facility	369,213	363,966	355,877
Medical Day Care	121,080	131,316	133,732
Personal Care Assistant	220,595	232,756	245,145
Waiver Services	104,448	114,567	132,069
Total	815,336	842,605	866,823

In SFY 2007, 45% of member months for clients receiving long-term care services were classified as nursing facility based on the model's algorithm, while 13% were classified as long-term care waiver. In SFY 2009, however, the percentage of members classified as nursing facility had decreased to 43%, while the percentage of members classified as waiver had increased to 14%. This continued into SFY 2010, as the percentage of members classified as nursing facility had decreased even further to 41%, while the percentage of members classified as waiver had continued to increase to 15%.

This trend is indicative of more clients being directed to and opting for home- and community-based settings for their care. As discussed earlier, the nursing facility, MD and PCA populations are determined based on claim activity. As a result, the SFY 2010 numbers may change as more claims come in. This data includes claims paid through January 2011.

**Table III**

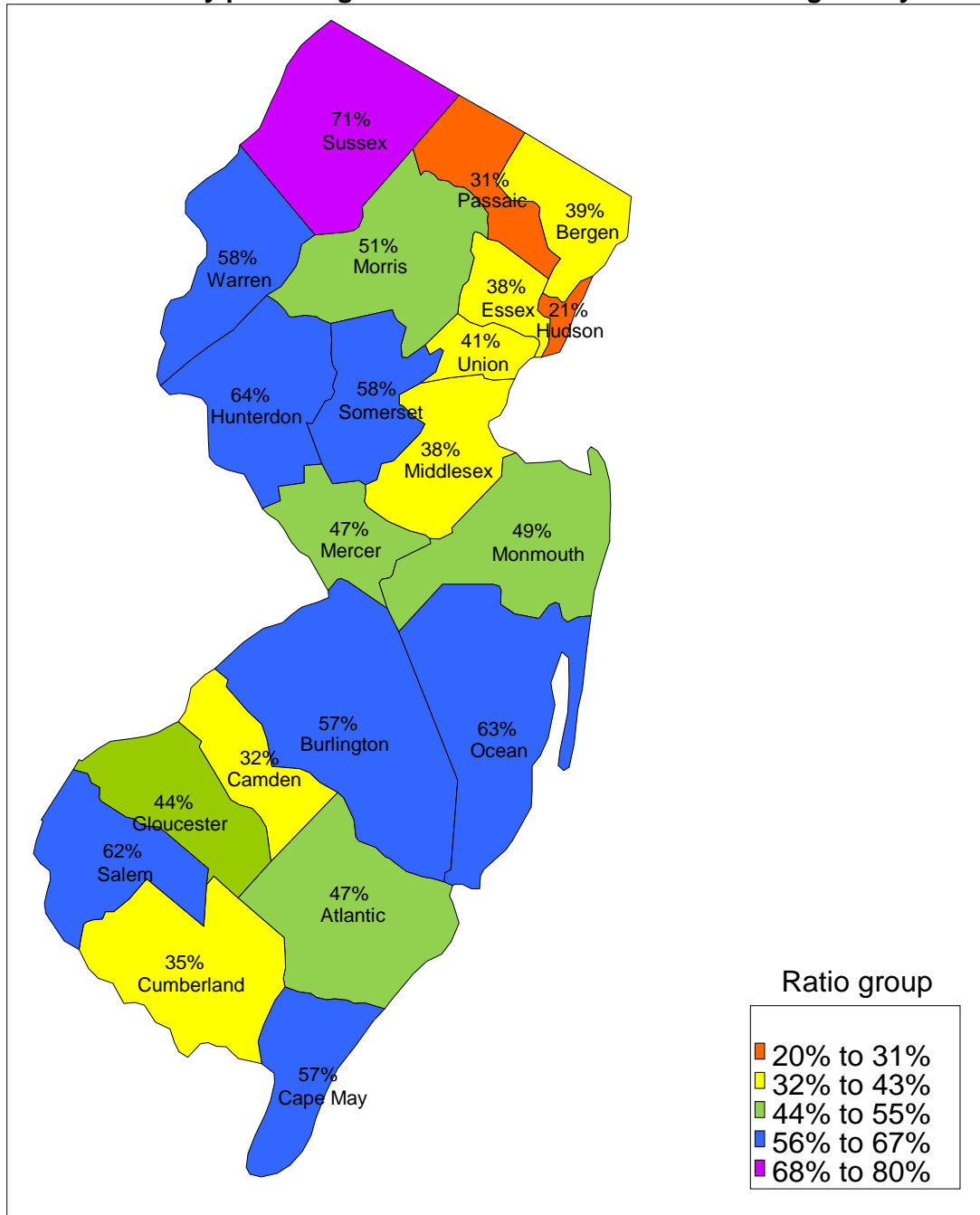
**Percentage of long-term care members classified as nursing facility by county and calendar year**

<b>County</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>Percentage change – 2007 to 2010</b>
Atlantic	55%	53%	50%	47%	-8%
Bergen	45%	44%	42%	39%	-6%
Burlington	65%	63%	61%	57%	-8%
Camden	40%	38%	35%	32%	-8%
Cape May	66%	66%	62%	57%	-9%
Cumberland	38%	38%	37%	35%	-4%
Essex	39%	39%	38%	38%	-1%
Gloucester	49%	50%	48%	44%	-5%
Hudson	23%	23%	22%	21%	-2%
Hunterdon	77%	74%	69%	64%	-13%
Mercer	52%	50%	49%	47%	-5%
Middlesex	45%	45%	42%	38%	-7%
Monmouth	55%	55%	52%	49%	-6%
Morris	60%	57%	55%	51%	-9%
Ocean	70%	70%	67%	63%	-8%
Passaic	35%	34%	33%	31%	-4%
Salem	71%	71%	69%	62%	-9%
Somerset	68%	65%	61%	58%	-10%
Sussex	78%	79%	74%	71%	-7%
Union	45%	45%	43%	41%	-5%
Warren	73%	67%	62%	58%	-15%
Total	45%	44%	43%	40%	-5%

Table III shows the percentage of the long-term care members that have been classified as nursing facility through the algorithm in the budget projection model. Since the first categorization in the algorithm is into the waiver category, the rise of members receiving waiver services has a direct impact on the number of members classified into the nursing facility group. However, it is clear that there have been significant gains in members receiving waiver services, which means that the public emphasis on HCBS is being translated into actual results across the State.

**Map I**

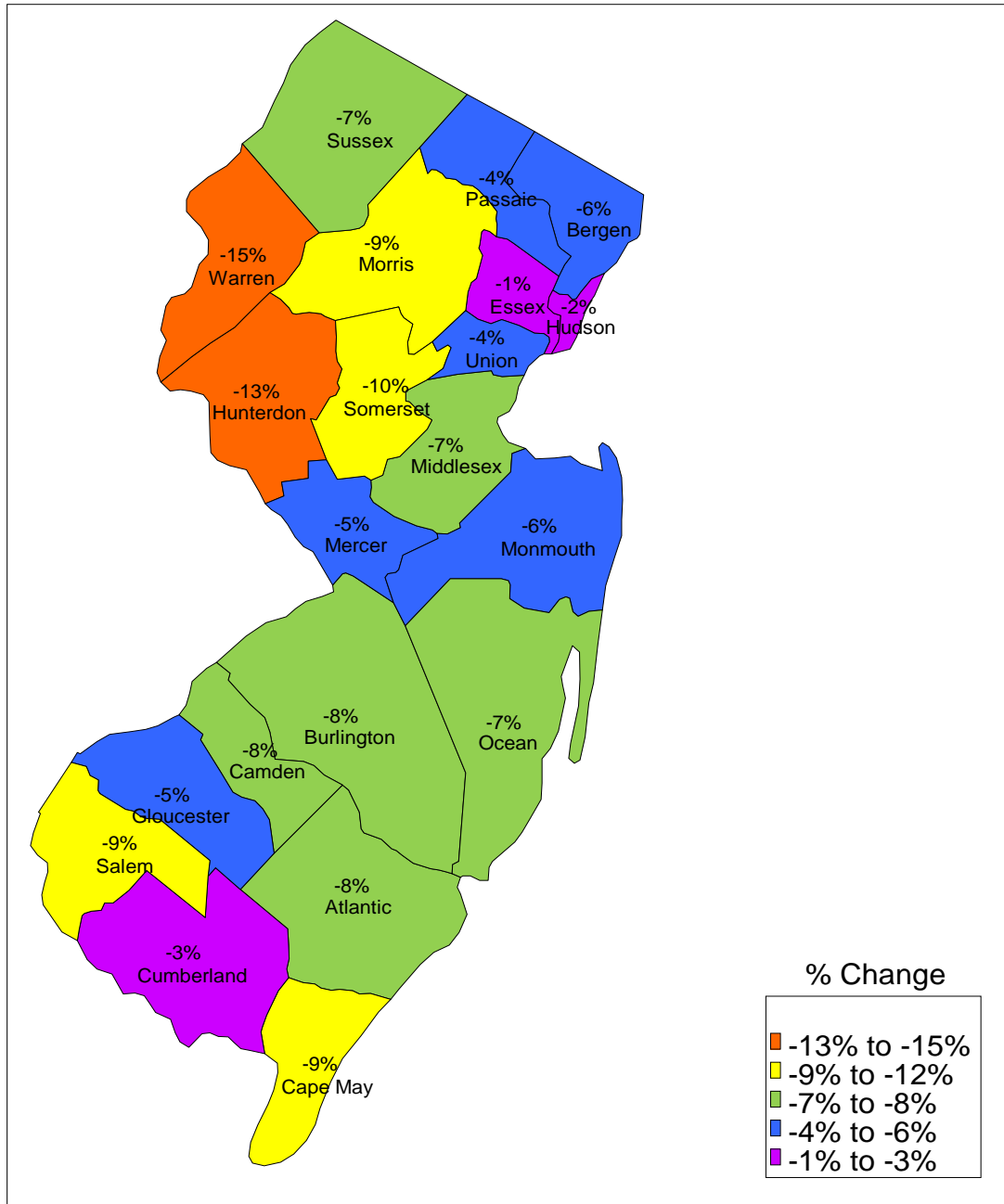
**2010 New Jersey percentage of member classification in nursing facility**



Map I shows the percentage of members classified as nursing facility residents in the model in 2010, by county. There is a wide range of percentages represented at the county level, from a low of 21% in Hudson County to a high of 71% in Sussex County. These percentages are driven by a wide range of factors, such as the adequacy of the HCBS network.

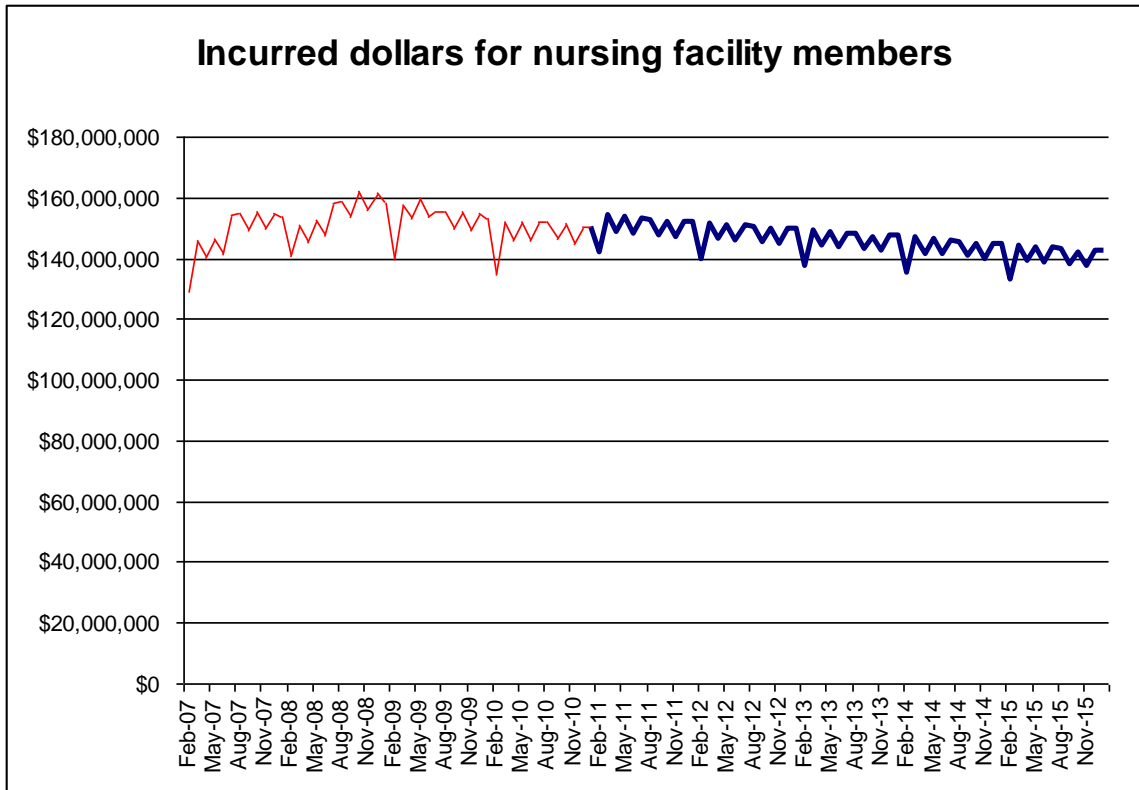
**Map II**

**Change in New Jersey percentage of member classification in nursing facility, 2007 – 2010**



Map II shows the change in percentage of nursing facility-classified members between 2007 and 2010. It is readily apparent that movement has been significant. In fact, more counties have shown a decrease greater than 6% than have shown a decrease of 6% or less. In addition, every county has shown some decrease in the percentage of member months classified into nursing facility. There is strong evidence all across the State that rebalancing is having a material impact in the services utilized by the long-term care population.

**Figure VI**

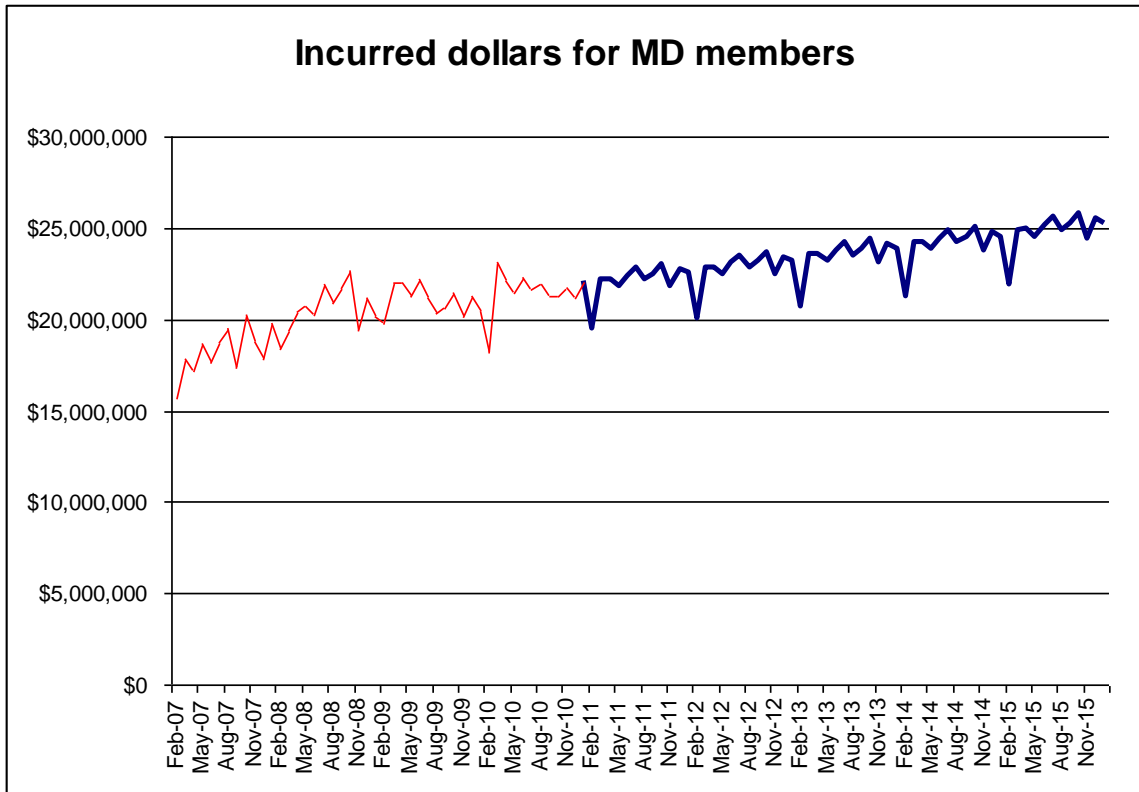


In SFY 2010, approximately \$2.6 billion was spent on Medicaid long-term care services, with \$1.8 billion of that figure spent on members classified as nursing facility. While the total long-term care spend in SFY 2010 was similar to that of SFY 2009, there was a decrease in spending on these members of almost \$70 million (approximately 3.6%). This decrease is projected to continue into the future and exhibits a decreasing reliance on nursing facilities to care for this population. Note that these projections are driven by a combination of projected enrollment, PMPMs for the different service categories, and mix of services utilized.

Additionally, this model excludes data from Intermediate Care Facilities for the Mentally Retarded.

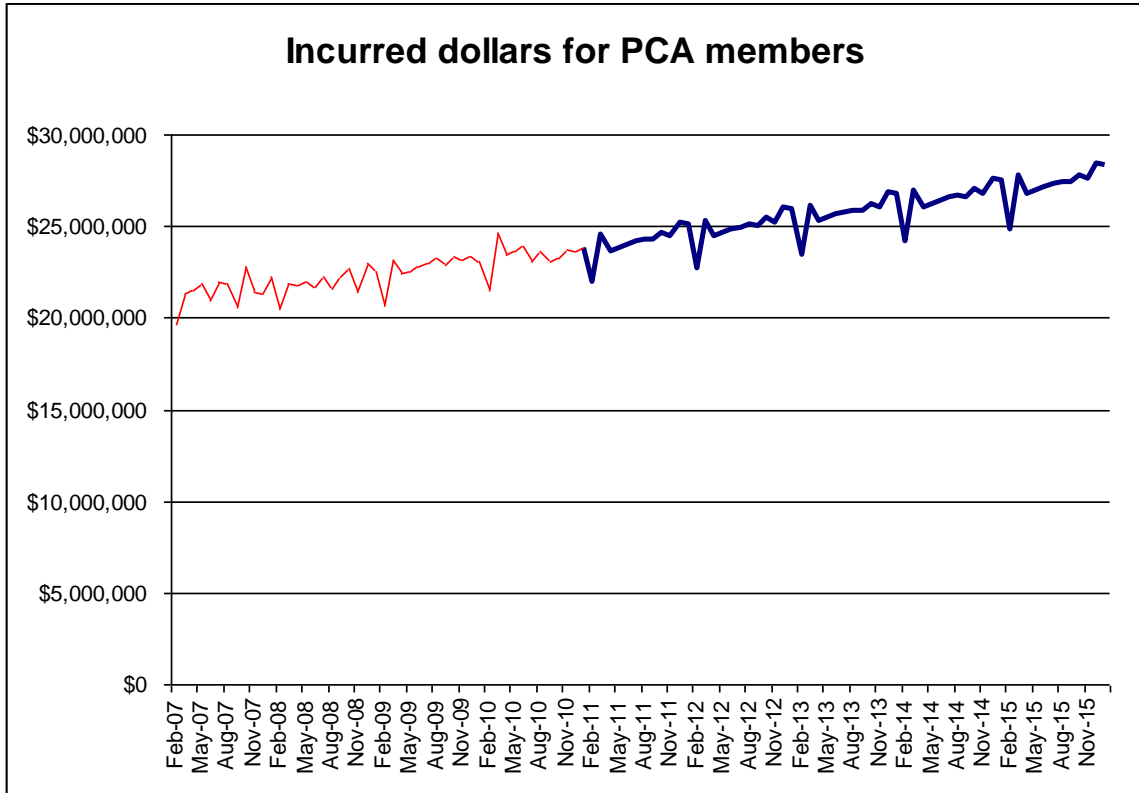


**Figure VII**



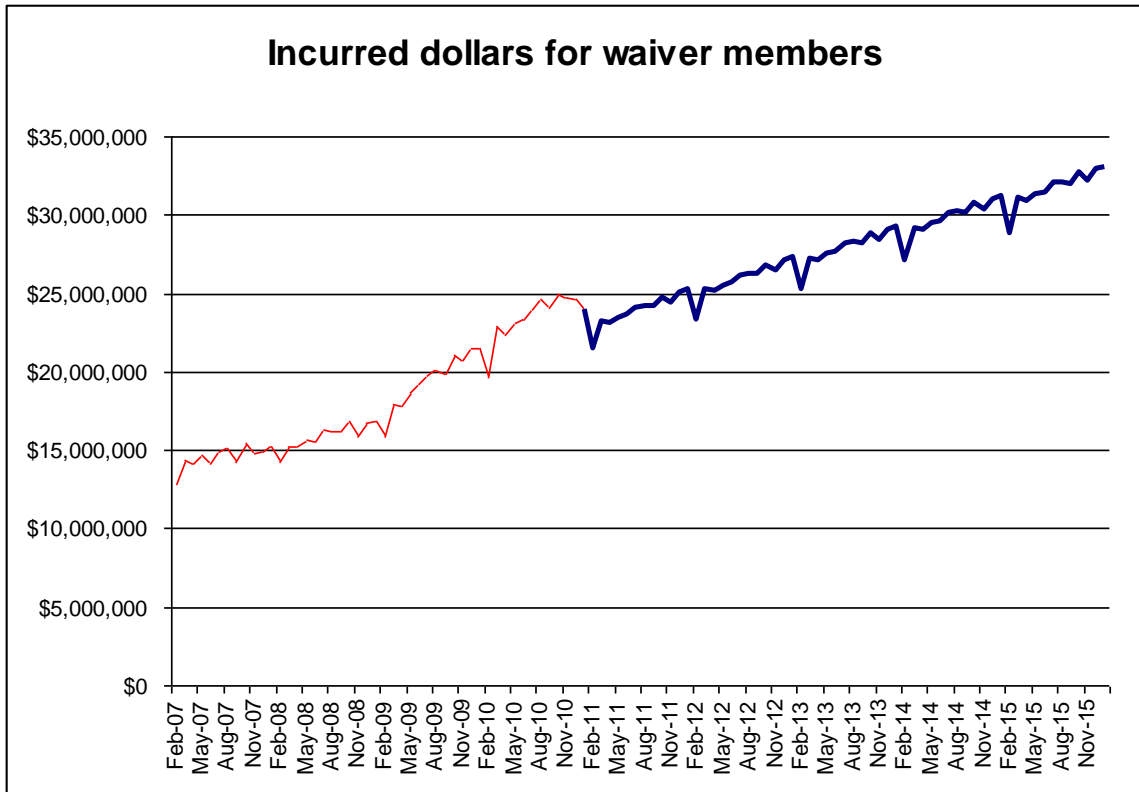
Spending on MD members has shown much growth over the past several years. The State spent around \$250 million on these members in SFY 2010. While actually a slight decrease from SFY 2009 (about 1%), the data over the previous several years suggests that spending for these members will grow in the years ahead.

Figure VIII



Spending on services for PCA members continues to grow as well. The State spent almost \$280 million on these members in SFY 2010, which was an increase of about 4.4% over SFY 2009. The trends suggest that this pattern will continue into the future.

**Figure IX**



Of the \$2.6 billion long-term care budget in SFY 2010, there was about \$256 million spent on waiver members, which includes the GO Waiver implemented as a result of the Independence, Dignity and Choice in Long-Term Care Act (the Act). This is an increase of almost 25% from the approximately \$205 million spent on these members in SFY 2009. Spending on these members continues to increase rapidly and is projected to continue to do so going forward.

The bulk of the spending for these waiver members is for waiver services, made up of both DACS waiver services and Division of Disability Services (DDS) waiver services. The majority of spending, almost 80%, is for DACS waiver services.

**Figure X**

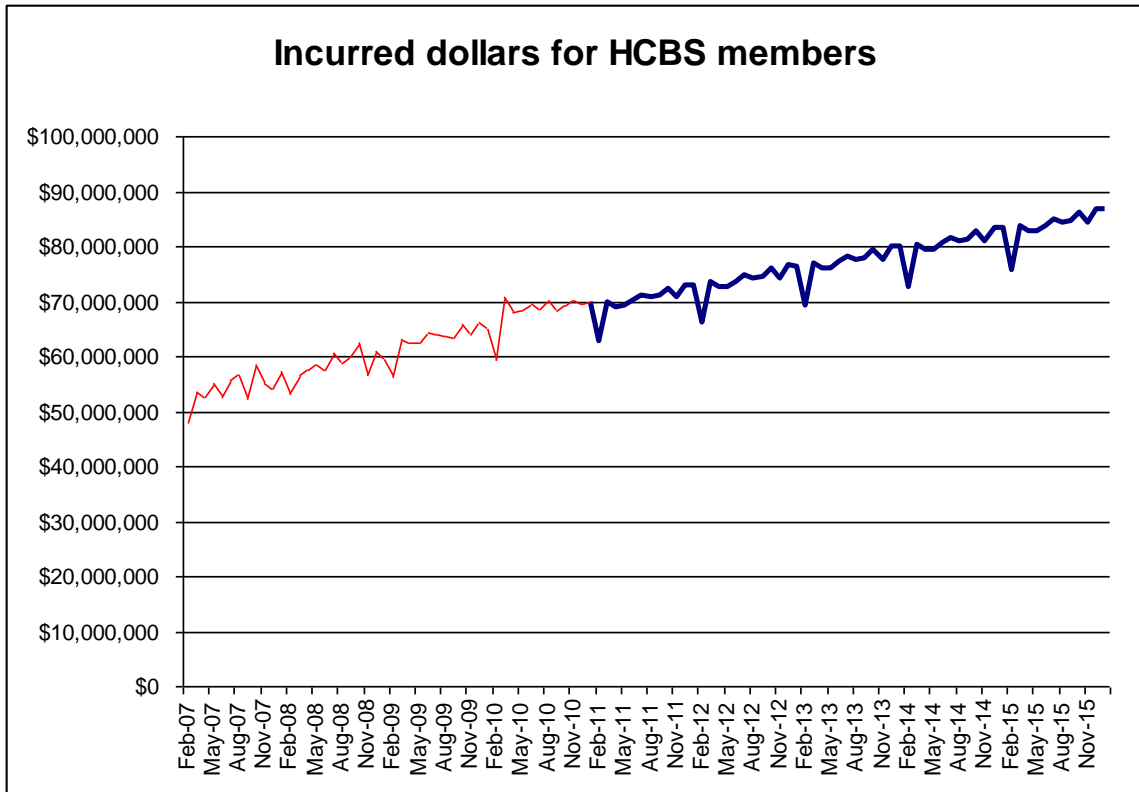
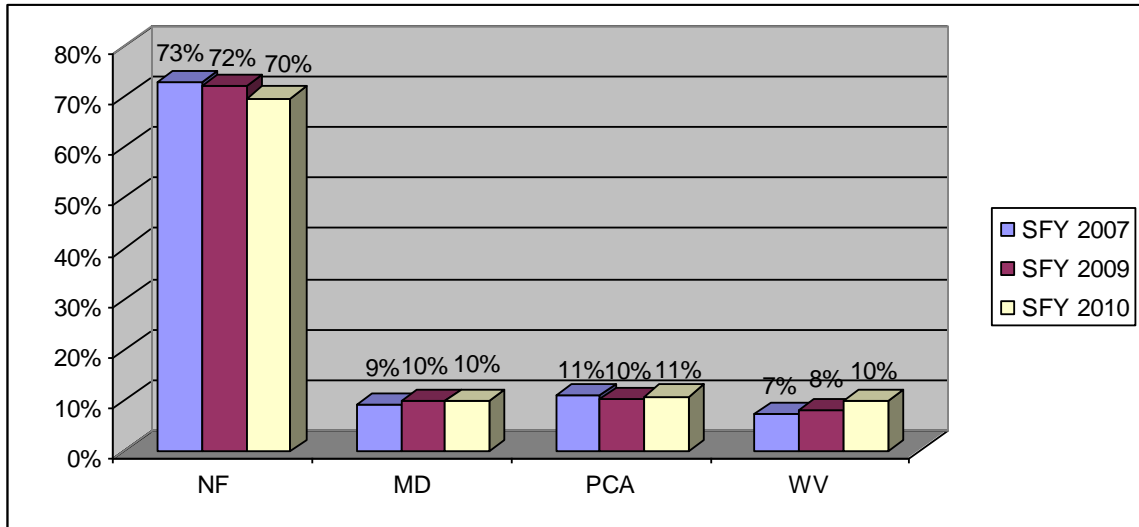


Figure X is a combination of Figure VII, Figure VIII and Figure IX. As the overarching concern with rebalancing is the overall shift between nursing facilities and HCBS, it is useful to examine the overall spending trends for HCBS members. It is clear that despite shifts and varying changes among the three distinct HCBS, the overall picture over the past several years, and projected into the future, is one of relatively smooth and continued growth.

**Figure XI**

**Percentage of long-term care spending by member classification and SFY**



**Table IV**

**Long-term care spending by member classification and SFY (in millions)**

Service	SFY 2007	SFY 2009*	SFY 2010*
Nursing Facility	\$1,733	\$1,872	\$1,805
Medical Day Care	\$209	\$255	\$253
Personal Care Assistant	\$256	\$268	\$279
Waiver Services	\$162	\$205	\$257
Total	\$2,360	\$2,600	\$2,594

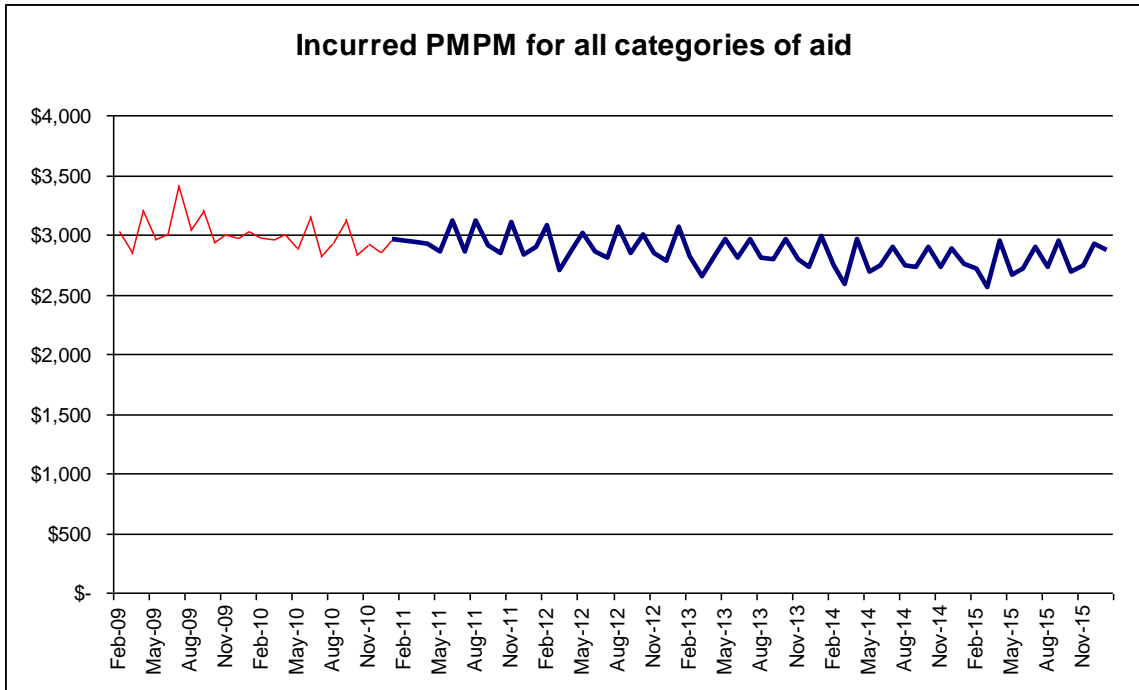
\*Note that there was no rebasing of the nursing facility rates in SFY 2009 or SFY 2010

One way to measure the effectiveness of the State's rebalancing efforts to date is to evaluate the percentage of total spend among the different long-term care services. If rebalancing efforts are working, then the percentage of nursing facility spending should decrease over time with a corresponding increase in HCBS spending (including waiver, PCA and MD). Based on the date of implementation of the Act, data from SFY 2007 was used as the baseline while data from SFY 2009 and SFY 2010 was used to measure change.

In SFY 2007, nursing facility expenditures represented 73% of Medicaid long-term care spending, while waiver expenditures, including DACS and DDS, represented only 7% of spending. In SFY 2009, nursing facility expenditures decreased to 72% of Medicaid long-term care spending, while waiver expenditures increased to 8% of spending, indicating a slight statewide shift. This shift continued into SFY 2010, as we see nursing facility expenditures fall to 70% while waiver expenditures continued to grow to 10% of Medicaid long-term care spending.

One item that may have influenced the slow (or negative) growth of nursing facilities is that there was no rebasing done for the nursing facility rates in SFY 2009 or SFY 2010. Additionally, in SFY 2010 inflation was not applied to the nursing facility rates. While these factors directly impact the overall costs, utilization of nursing facilities also fell. The change in utilization is the main driver of the cost decrease.

**Figure XII**



**Table V**  
SFY 2010 PMPMs by long-term care service and SFY

Service	Service-specific PMPM	Total PMPM
Nursing Facility	\$5,304	\$2,178
Medical Day Care	\$1,529	\$236
Personal Care Assistant	\$1,434	\$406
Waiver Services	\$1,499	\$228
Total	\$3,048	\$3,048

As an illustrative example, in Table V the service-specific PMPM is calculated as the incurred nursing facility cost divided by member months in the hierarchical nursing facility category of aid in SFY 2010. The total PMPM on the nursing facility line is calculated as the incurred nursing facility cost divided by all long-term care member months in SFY 2010. The figures show that the various HCBS are less costly than nursing facility services on a monthly basis. While nursing facilities cost around \$5,300 PMPM, the costs for the three distinct HCBS groups are closer to \$1,500 PMPM.

Additionally, the table also indicates the influence of the membership, as it shows how the total PMPM cost is made up of the different service pieces. It is clear that the combination of enrollment and PMPM cost associated with nursing facilities makes it, by far, the most significant driver of long-term care costs. As utilization of HCBS increase, we should see a decrease in the overall PMPM of the long-term care population. Indeed, this phenomenon is already being seen in the data, as shown in Figure XII.

**Table VI**

**Percentage of long-term care spending on nursing facilities by county and calendar year**

<b>County</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>Percentage change – 2007 to 2010</b>
Atlantic	77%	75%	73%	73%	-4%
Bergen	73%	73%	72%	70%	-3%
Burlington	83%	83%	82%	81%	-2%
Camden	69%	67%	66%	64%	-5%
Cape May	86%	87%	85%	84%	-2%
Cumberland	69%	70%	69%	68%	-1%
Essex	70%	70%	71%	71%	1%
Gloucester	76%	77%	75%	73%	-3%
Hudson	55%	54%	55%	53%	-1%
Hunterdon	93%	91%	88%	87%	-6%
Mercer	75%	73%	72%	72%	-3%
Middlesex	74%	74%	72%	70%	-5%
Monmouth	80%	80%	79%	77%	-2%
Morris	81%	80%	79%	77%	-4%
Ocean	88%	88%	87%	86%	-2%
Passaic	67%	66%	67%	66%	-1%
Salem	90%	89%	88%	86%	-3%
Somerset	85%	84%	82%	80%	-5%
Sussex	90%	90%	89%	89%	-1%
Union	74%	74%	74%	72%	-2%
Warren	90%	88%	86%	84%	-6%
Total	74%	73%	73%	71%	-2%

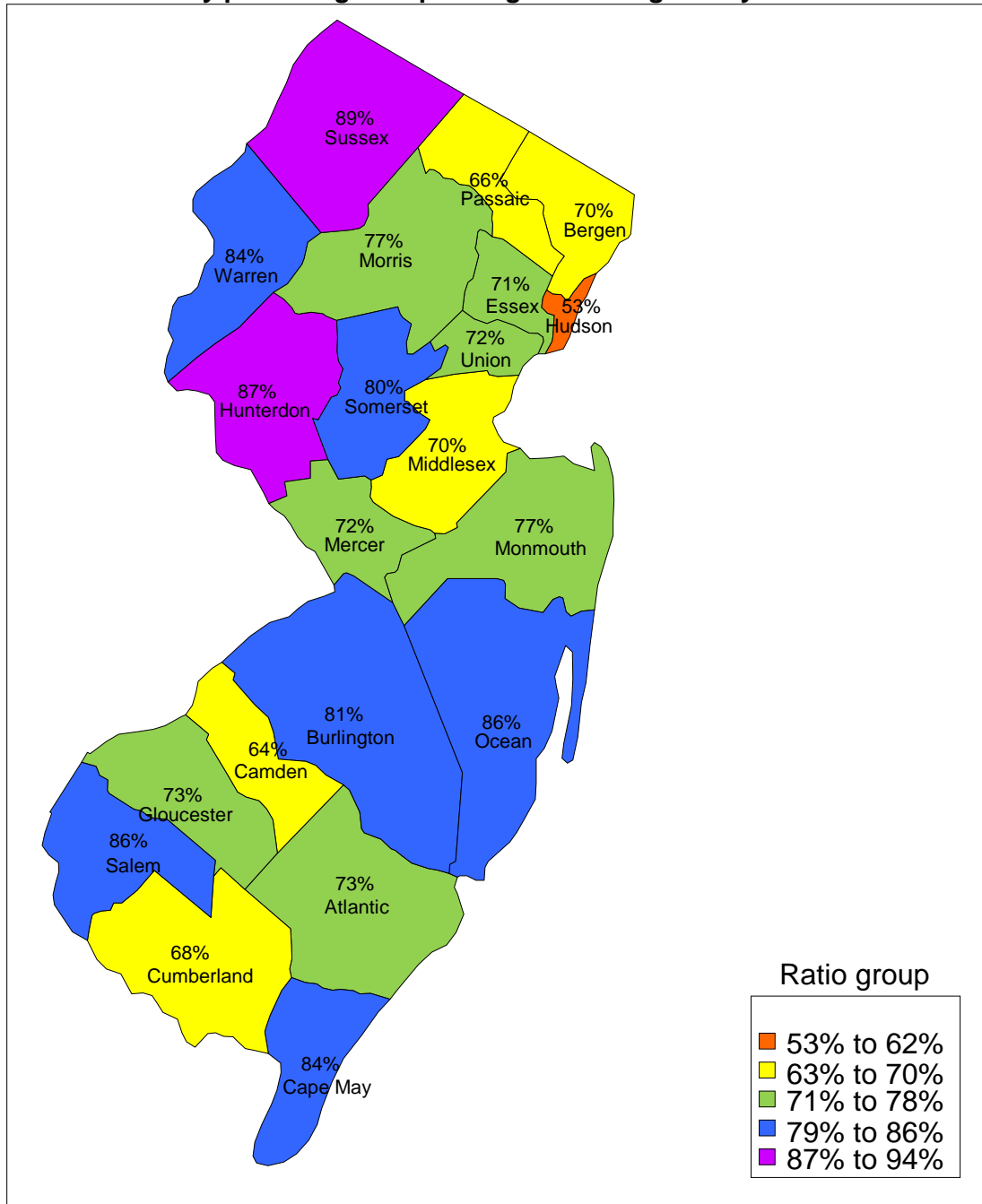
The most complete data available is for the two pilot counties, Atlantic and Warren. These were the first counties to implement ADRC and GO following the passage of the Act. These two counties showed marked improvement in HCBS penetration, which helped to drive the statewide change discussed earlier. Further, as evidenced in Table VI above, the percentage of spending on nursing facilities has fallen in every county but one (Essex).

More information about the county-level spending figures and the changes between 2007 and 2010 are shown and discussed in the pages that follow.



**Map III**

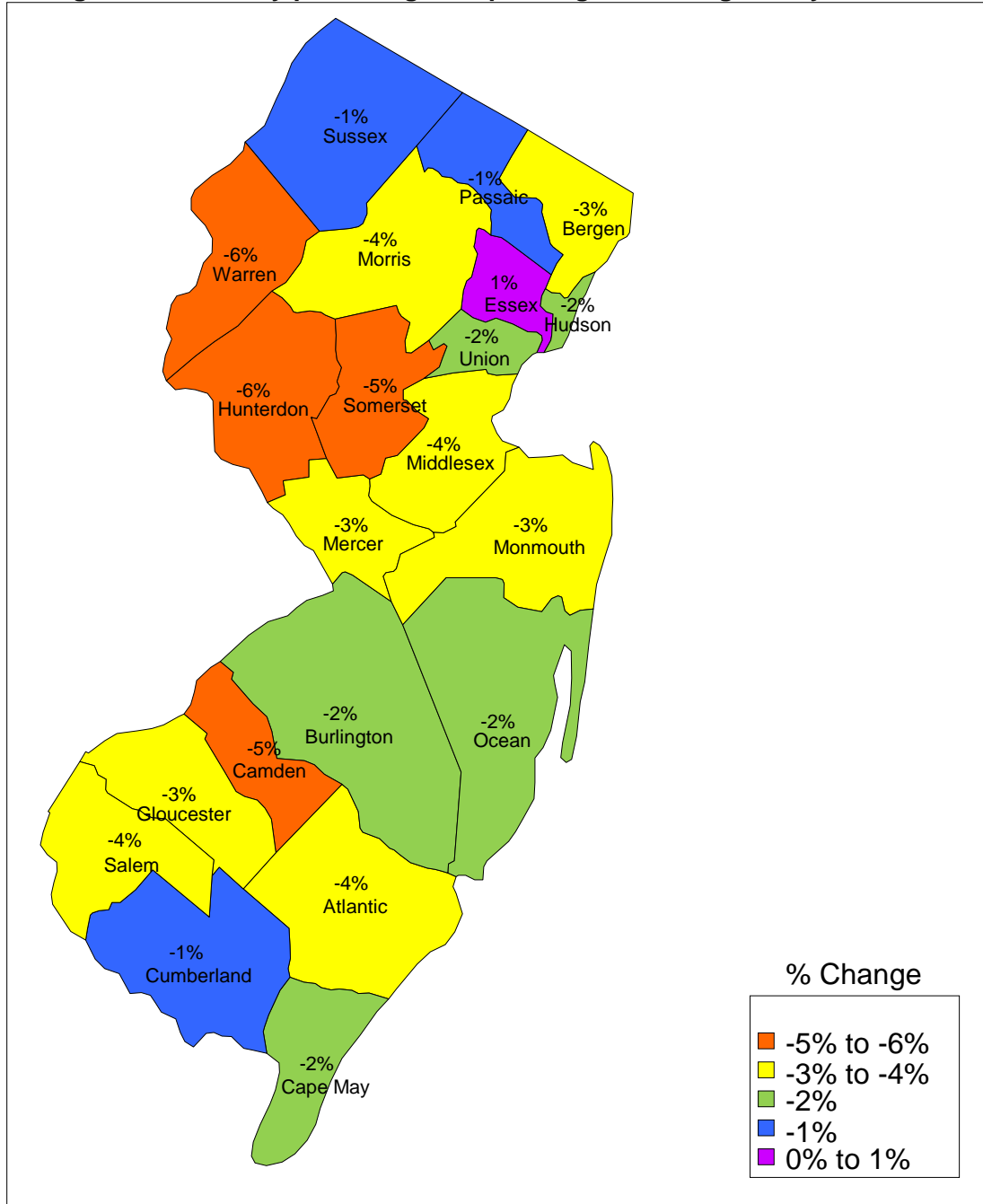
**2010 New Jersey percentage of spending on nursing facility**



The percentage of long-term care spending in nursing facilities in 2010 is shown in Map III. This exhibit shows that the percentage of long-term care spending in nursing facilities varied greatly in 2010 by county, from a low of 53% to a high of 89%. Similar to the earlier data regarding member classification, these percentages are driven by a wide range of factors, including nursing facility rates.

**Map IV**

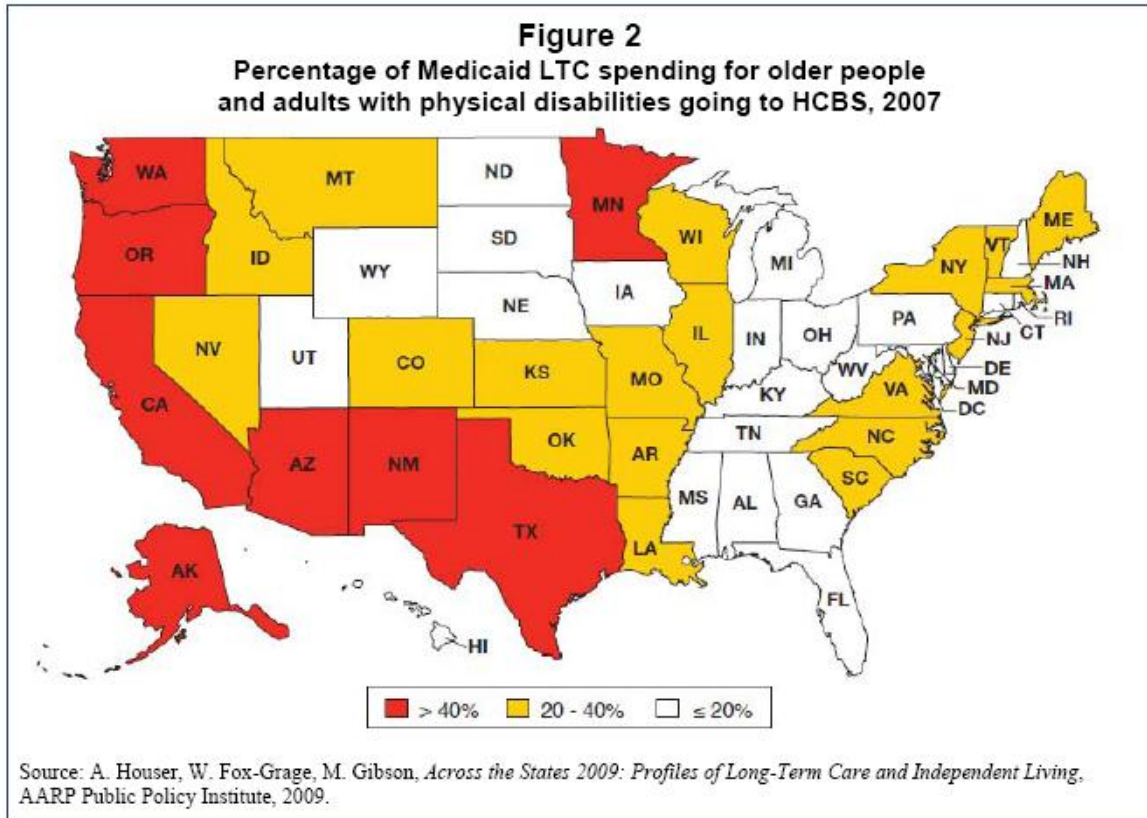
**Change in New Jersey percentage of spending on nursing facility, 2007 – 2010**



Map IV displays the change in percentage of long-term care spending on nursing facilities from 2007 to 2010. It is very clear in this graphic that there has been significant rebalancing progress made in the majority of counties in the State. In fact, there is only one county that's seen a growth in nursing facility percentage (Essex) and only three counties showed a decrease of as low as 1%. The majority of counties are in the 3-6% range for a decrease, meaning the improvement has been both significant and displayed quickly.

It is important to note the relationship between the changes in spending and enrollment. From the data it is easy to conclude that the percentage of members classified into nursing facilities is changing faster than the percentage of spending on nursing facilities. This is the result of several factors, including changes in nursing facility rates between 2007 and 2010.

Map V



This AARP Public Policy Institute map from 2009 indicates that the State's HCBS expenditures are "in the middle of the pack" (20-40% range) when compared to other states.

**3**

## **Conclusions**

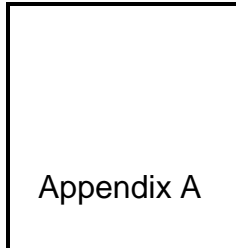
From a statewide perspective, the State is making progress in its efforts to rebalance its long-term care system. As indicated by the county-specific data, some counties have not seen much of a shift in the proportion of Medicaid long-term care expenditures for nursing facility services. This means that there is a greater potential for some counties to make significant strides in reducing the proportion of expenditures for nursing facility services. However, this does not mean that more progress cannot be made in counties that are already showing good progress in shifting a higher proportion of expenditures to home services.

The State is in the early stages of rebalancing its long-term care system so every county, regardless of where they are at with their rebalancing, has a tremendous upside to make the shift to having more people residing outside of institutional settings. The State should consider what additional efforts can be implemented to affect an even greater shift in nursing facility expenditures to home-based services. The following strategies should be given consideration:

- Conduct focus groups with key stakeholders from the counties that have demonstrated the greatest shift in reducing the proportion of nursing facility expenditures to determine why they have been successful. Share these successes with all counties and key stakeholders.
- Request that counties and key stakeholders submit one page operational “best practice” summaries of initiatives and processes that have been successful in transitioning nursing facility residents to the community and diverting admissions to nursing facilities.
- In a similar manner to the above “best practices,” request that counties and stakeholders identify “leaders” who have contributed substantially to rebalancing the long-term care system. Have those individuals share their stories through webinars, conferences or small group learning sessions.
- Analyze the HCBS networks by county to determine where there might be insufficient capacity (e.g., proportion of authorized HCBS not being provided, shortage of direct care workers, or affordable and accessible housing) to accommodate nursing facility residents that want to transition to the community and non-institutionalized individuals

that do not want to reside in a nursing facility. Based on those findings, implement initiatives to develop capacity.

The State is on the right path to reach its goal of rebalancing the long-term care system. Progress is being made even though the State is in the early stages of its rebalancing efforts. Opportunities to increase the pace to reach the rebalancing goals should be identified and strategically implemented.



## **Mercer's actuarial model**

### **Completion of claims – The estimation of each month's incurred claims from those paid to date**

In our analyses of claims, Mercer looks at the service date, rather than the paid date of the claim. Reasons for this include the following:

- Policy changes go into effect on a service date basis. These include changes in who is considered a covered recipient, changes in the services that are eligible for payment, and changes to reimbursement rates for providers.
- The timing of payments can be affected by disruptions in the flow of claims from providers to the State's fiscal agent, administrative delays at the fiscal agent and timing delays in implementation of policy changes.

The incurred date of a covered service is the date when all conditions have been satisfied that will ultimately result in the service being paid. These include the person receiving the service being eligible to receive that service on the date the service was rendered, and the provider being approved to render the service. For the vast majority of services, the date the service was rendered is the incurred date. For nursing facility services, each day in the facility is considered its own service date, with all services for the month typically batched for claim processing. This is different from an acute hospital stay, for which an entire stay of one or more days is assigned an incurred date of the admission date.

While administrative requirements result in very few claims being paid in the month of service, the majority of claims are paid by the month after the service was rendered. Additional months of payments result in more and more of the incurred claims for the month being paid, so that after a year almost no payments or adjustments to payments remain outstanding. Mercer's model uses the actuarial technique known as the development method to estimate each month's incurred claims from the claims paid-to-date and the pattern of claim payments in the data. In the model are the results for using the claim payment lag pattern from the most recent 6, 9 and 12 months. Since

claim payments are made weekly, lag patterns usually have 26, 39 and 52 weeks of claim payments, respectively. In addition, we also look at a method that uses the completion pattern of the most recent 12 months, but excludes the highest and lowest completion ratios at each lag duration (months since incurral) from the calculation of the average completion ratio for that duration. This "10 of 12" method is used to remove the effect of possible payment pattern outliers. Such outliers can include mass adjustments for payment rate changes that are applied to claims that have already been processed. The "10 of 12" method is the one used in the current model.

The estimation of incurred claims by month incurred from claims paid-to-date is the same actuarial process by which health insurers estimate their incurred claims so that they can determine the amount of funds they need to accrue for claims incurred but unpaid, but with one important difference – margins. Typically an insurer will make a best estimate of its incurred but unpaid claim liability and then add an explicit margin to the amount it accrues. This margin is for fiscal conservatism; it increases the likelihood that the amount of claims that will ultimately be paid will not be greater than the amount accrued. For the DACS rebalancing model, Mercer's estimate of incurred claims is a best estimate (taken from among the various lag pattern methods previously described) without an explicit margin that would tend to overstate incurred claims and thereby confound the model's measurement of the degree of rebalancing.

## **Observed trends and projections to future periods**

Because the claim submission and payment pattern results in so few claims being paid in the same month in which they are incurred, estimates of claims incurred in the most recent month of paid data are estimated based on past levels of incurred claims, with adjustments to recognize changes in the covered population and changes in utilization rates and reimbursement rates over time. The model provides several measures of annual observed trend for utilization and PMPM by category of service – the 1-month period compared to the same month a year ago, as well as 3-month, 9-month and 12-month periods compared to the same period a year ago. The shorter periods react quicker to a change in trend, but they are more subject to random and seasonal statistical fluctuation. The longer periods are less subject to random and seasonal statistical fluctuation, but they react more slowly to a change in trend. The user of the model reviews the results of all of the trend measures and makes a judgment as to which to use in the estimation of the most recent month of incurred claims.

Projection of future costs per eligible person starts with seasonally-adjusted incurred claims PMPM. The user of the model has the capability to select the beginning and the end points of the data to be used in the linear regression used in the projection. This allows the user to avoid a base period that includes a bend point where something changed in the data so that prior cost patterns would not be expected to serve as a good basis for projection.



## **Re-introduction of seasonality to projected future costs**

Because the base data used to project future costs has been adjusted to remove seasonal influences, the initial projected costs are devoid of seasonality. While such results would be reasonable in the aggregate for an annual period, they would not reflect the clearly seasonal pattern of claim incurral that is evident in the incurred claim data. Accordingly, the final projected result includes a re-introduction of the seasonal effect on incurred claims. For example, nursing facility claims clearly show the seasonal pattern of the number of days in each the month, with February at 28 or 29 days being noticeably lower than the other months, for which the 30- or 31-day length is also apparent.

## **Assumptions utilized in the current version of the model**

Projections of future costs are modeled by separate projections of the number of persons eligible for various types of services, and projections of the monthly costs of those services. The projected total future cost is the product of the projected number of persons eligible, month by month, for the various services and the monthly cost of those services. Both the number of persons eligible and the monthly cost of services are projected to change over time, as described below.

### ***Eligibility trends***

In the budget model, eligibility is tracked by member months (a month of coverage for an eligible member), by a category of aid defined by a hierarchy. Each eligible member is assigned to exactly one eligibility category of aid in the hierarchy. First on the hierarchy are the four waiver programs – GO, CRPD, TBI and ACCAP. Persons can be covered under no more than one waiver for a given month, so there is no need, within the hierarchy, to distinguish between the various waivers. A member's inclusion in a waiver category of aid is based on information received from the State's eligibility database. Second in the hierarchy are the persons who used at least one nursing facility service during the month (but who were not enrolled in a waiver program). Third in the hierarchy are the persons who used at least one medical day care service during the month (but who were not enrolled in a waiver program and did not use a nursing facility service during the month). Fourth in the hierarchy are the persons who used at least one personal care assistant service during the month (but who were not enrolled in a waiver program and did not use a nursing facility service or a medical day care during the month). Mercer's actuarial model considers only those persons who meet the definitions in the hierarchy. Persons who, in a given month, are not enrolled in one of the listed waivers or don't use a nursing facility service, medical day care service, or a personal care assistant service are not considered in the model.

The trend rates shown below are the annual rates of increase (or decrease) used in the model to project the size of the eligibility groups to future periods. Each of the categories of aid is projected separately. These trend rates are based on observed recent changes in eligibility by the hierarchical categories of aid.

<b>Category of aid (in hierarchy order*)</b>	<b>Approximate annual trend</b>
1. Waivers	
GO Waiver	8 to 11%
CRPD Waiver	1%
TBI Waiver	0%
ACCAP Waiver	-62 to -18%
2. Nursing Facility	-2 to -1%
3. Medical Day Care	1 to 3%
4. Personal Care Assistant	2 to 4%

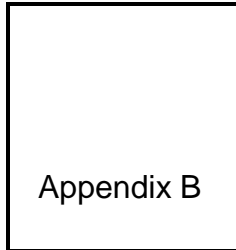
*\*Based on the model hierarchy*

### ***PMPM trends***

The cost PMPM is the cost of the category of service divided by the enrollment in the eligibility category of aid. For example, the nursing facility cost PMPM is the cost of all nursing facility services for the period, divided by the member months from the nursing facility hierarchical category of aid in the same period. This may include a small amount of nursing facility claims for members classified in other hierarchical categories of aid.

The trend rates shown below are the annual rates of increase (or decrease) used in the model to project the PMPM cost by category of service. These trend rates are based on observed recent changes in PMPM cost by category of service.

<b>Category of service</b>	<b>Approximate annual trend</b>
DACS Waiver (GO)	-1%
DDS Waiver (CRPD, TBI and ACCAP combined)	6 to 8%
Nursing Facility	0%
Medical Day Care	1%
Personal Care Assistant	-1%



## Abbreviations and Acronyms

Activities of Daily Living	ADLs
Administration on Aging	AoA
Adult Day Health Services	ADHS
Adult Family Care	AFC
Aid to Families with Dependent Children	AFDC
AIDS Community Care Alternatives Program	ACCAP
Aging and Disability Resource Connection	ADRC
Alternate/Comprehensive Personal Care Homes	CPCH
Assisted Living	AL
Caregiver Assistance Program	CAP
Centers for Medicare & Medicaid Services	CMS
Certified Nurse Aide	CNA
Community Care Program for the Elderly and Disabled	CCPED
Community Resources for People with Disabilities	CRPD
DACS Category of Aid	DCOA
Deficit Reduction Act of 2005	DRA
Department of Health and Senior Services	DHSS
Department of Labor and Workforce Development	LWD
Department of Human Services	DHS
Division of Aging and Community Services	DACS
Division of Disability Services	DDS
Division of Developmental Disabilities	DDD
Enhanced Community Options	ECO
Division of Medical Assistance and Health Services	DMAHS
Federal Financial Participation	FFP
Federal Medical Assistance Percentage	FMAP
Global Options for Long-Term Care	GO for LTC
Home and community-based services	HCBS
Home Health Aide	HHA
Information & Assistance	I&A
Independence, Dignity and Choice in Long-Term Care Act	Act
Information Technology	IT

Instrumental Activities of Daily Living	IADLs
Inter-Disciplinary Team	IDT
Jersey Assistance for Community Caregiving	JACC
Long-Term Care	LTC
Living Independently for Elders	LIFE
Low Income Subsidy	LIS
Medical Day Care	MD
Medicaid Eligibility Fast Track Determination	Fast Track
Medicaid Long-Term Care Funding Advisory Council	Council
Medicaid Management Information System	MMIS
Medically Needy Income Level	MNIL
Mercer Government Human Services Consulting	Mercer
Money Follows the Person	MFP
New Freedom Initiatives	NFI
Nursing Facility	NF
Nursing Facility Level of Care	NF-LOC
Office of Community Choice Options	OCCO
Office of Information Technology	OIT
Office of Management and Budget	OMB
Personal Care Attendant	PCA
Programs of All Inclusive Care for the Elderly	PACE
Quality Review Committee	QRC
Quality Management Panel	QMP
Social Assistance Management Systems	SAMS
Senior Benefits Utilization & Management	SBUM
State Fiscal Year	SFY
Systems Transformation Grant	STG
Traumatic Brain Injury	TBI
Waiver	WV

# MERCER

Mercer (US) Inc.  
2325 East Camelback Road, Suite 600  
Phoenix, AZ 85016  
+1 602 522 6500

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