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# Transfer Rates Between Long Term Care Claim Settings

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## SECTION 1. EXECUTIVE SUMMARY

Milliman, Inc. was engaged by the Society of Actuaries (SOA) and the ILTCI Conference Association (ILTCI) to prepare an analysis of experience transition rates between Long Term Care (LTC) claim settings over the course of a claim. This engagement was a result of a request for proposals (RFP) published by the SOA's Long Term Care Section and ILTCI's Research Studies Council for a series of research objectives to result in information, data or tools useful to managing LTC business. This report presents an analysis of Research Objective #4 from that RFP:

*"A study that models or develops experience transition rates between claim stages with the ultimate goal of improving management information"*

This study was done using a subset of data from the Milliman Long Term Care Database, which contains LTC insured claims data from several leading LTC insurance companies. Only policies with coverage in both facility and home care settings were used and the data was adjusted to create consistency in the definition of policy benefits, LTC services and incurred dates between carriers and product generations, as appropriate. This subset of claims included about 63,000 claims totaling about \$2 billion in claims payments.

Section 2 provides a summary of results from our analysis, which focuses on two primary components of transition between care settings:

- 1) Overall frequency of transfers between care settings (e.g. facility to home health and home health to facility) while on claim, and
- 2) The rate of transfer between care settings by claim duration.

For purposes of this study, facility care includes care received in both nursing home and assisted living facilities. As part of our analysis, we reviewed available data regarding care in assisted living facilities relative to other care settings. However, we found that the availability of reliable and credible data was insufficient to provide meaningful frequency and transfer rates for assisted living facilities.

Less than 1% of LTC claims had more than two transfers between care settings, so our analysis focuses on the frequency and rate of transfer for only the first and second transfers in a care setting during the life of a claim. In addition to aggregate results, our analysis includes consideration for potential variation in frequency of care setting transfers by key demographics and policy benefit characteristics, to the extent that credible data was available.

Results indicate that transfers between care settings are frequent enough to be a consideration in managing a LTC block of business. In particular, the results show clear differences in transfers depending on whether the initial site of care is home health (HHC) or facility care. In addition, the data suggests that policy benefit structures, and insured demographics have an impact on policyholder behavior in transferring care sites, relative to aggregate levels.

Section 3 of this report provides a description of the methodology and data used in our analysis.

This report is intended for the benefit of the Society of Actuaries and the ILTCI Conference Association. Although we understand that this report will be made widely available to third parties, Milliman does not assume any duty or liability to such third parties with its work. In particular, the results in this report are technical in nature and are dependent upon specific assumptions and methods. No party should rely upon these results without a thorough understanding of those assumptions and methods. Such an understanding may require consultation with qualified professionals. This report should be distributed and reviewed only in its entirety.

In performing this analysis, we have relied on data and other information provided to us by the carriers who contributed to the Milliman Long Term Care Database. We have not audited or verified this data, although we have reviewed the data for reasonableness and consistency and have not found any material defects. If the underlying data or information is inaccurate or incomplete, the results of this analysis may likewise be inaccurate or incomplete.

This analysis presents the experience of various LTC carriers, which may not be indicative of the experience of other carriers. Readers must carefully consider the extent to which the results in this report reflect their own actual or expected experience.

## SECTION 2. SUMMARY OF RESULTS

This section provides a summary of results from our analysis, which focuses on two primary components of transition between care settings:

- 1) Overall frequency of transfers between care settings (e.g. facility to home health and home health to facility) while on claim, and
- 2) The rate of transfer between care settings by claim duration.

In addition to looking at frequencies and transfer rates for Long Term Care (LTC) in aggregate, we also considered how factors such as policy benefit structures and insured demographics might influence policyholder behavior in transferring between care settings.

Less than 1% of LTC claims had more than two transfers between care settings, so our analysis focuses on the frequency and rate of transfer for only the first and second transfers between care settings during the life of a claim. The availability of credible data for transfers beyond the second transfer is too small to provide reliable and useful information.

### *Overall Frequency of Transfer between Care Settings*

The first component considered was the overall frequency of transfer from one claim setting to the next (i.e. the percentage of claims that had a transfer at any time during their claim). For purposes of this analysis, a transfer is defined as a change in care setting lasting longer than 31 calendar days. Consequently, a two week stay in a nursing home to relieve a home health care worker would not be counted as a transfer. That individual would still be considered to be receiving care in a HHC claim setting.

Table 1 provides the frequency of the first and second transfers between LTC claim settings, as a percent of claims, in aggregate and by the care setting at claim onset. The frequency of a second transfer is expressed as a percentage of claims that have had a first transfer.

TABLE 1 FREQUENCY OF TRANSFER ON LTC CLAIM	
Care Setting	Frequency
<i>All Providers</i>	
1 <sup>st</sup> Transfer	11.4%
2 <sup>nd</sup> Transfer	22.8%
<i>HHC at Claim Onset</i>	
1 <sup>st</sup> Transfer: HHC to Facility	20.0%
2 <sup>nd</sup> Transfer: Facility to HHC	16.4%
<i>Facility* at Claim Onset</i>	
1 <sup>st</sup> Transfer: Facility to HHC	8.6%
2 <sup>nd</sup> Transfer: HHC to Facility	35.6%

\* Facility includes both Nursing Home and Assisted Living Facility Care.

Aggregate results indicate a clear distinction in transfer frequencies between claims that begin in HHC as compared to those that begin in a facility. Intuitively, this makes sense given the possibility that the severity of an individual's condition or personal circumstances are such the other site of care becomes a more viable option.

Given an initial transfer in LTC care setting, the likelihood that the claimant will transfer back to the original care setting during the course of the claim varies depending on the original care site. For those that begin in HHC and transfer to a facility, about 16% of those that remain on claim will return to a HHC setting. However, individuals that begin care in a facility setting are much more likely to return to a facility after transferring to HHC. While less than 10% of LTC claims beginning in facility care transfer to HHC, over one-third of those claimants have historically returned to facility care during the remainder of the claim.

The next step of our analysis was to review how factors such as policy benefit structures and insured demographics may impact policyholder behavior in transferring between care settings. Table 2 provides frequencies for the first transfer in LTC care setting, broken down by the various factors we reviewed.

<b>TABLE 2 FREQUENCY OF FIRST TRANSFER ON LTC CLAIM</b>			
	<b>All Providers</b>	<b>HHC to Facility*</b>	<b>Facility* to HHC</b>
<b>Aggregate</b>	11.4%	20.0%	8.6%
<b>Gender</b>			
Female	11.3%	19.5%	8.6%
Male	12.7%	20.1%	8.4%
<b>Marital Status**</b>			
Married	13.9%	17.7%	10.6%
Single	10.9%	20.3%	7.5%
<b>Attained Age</b>			
< 70	10.4%	9.7%	13.6%
70 to 74	12.5%	18.0%	10.6%
75 to 79	12.2%	19.7%	8.6%
80 to 84	12.3%	23.9%	7.4%
85 +	12.8%	26.1%	6.4%
<b>Daily Benefit***</b>			
\$80 or Less	10.0%	21.9%	5.7%
\$81 to \$120	13.6%	19.7%	10.6%
\$121 or More	14.4%	14.9%	14.7%
<b>Benefit Trigger</b>			
ADLs	14.8%	22.2%	10.6%
Medical Necessity	9.4%	18.8%	7.3%
<b>Incurral Era</b>			
1999 and Prior	11.5%	22.1%	7.6%
2000 and Later	12.3%	19.2%	9.1%

<b>TABLE 2 FREQUENCY OF FIRST TRANSFER ON LTC CLAIM</b>			
	<b>All Providers</b>	<b>HHC to Facility*</b>	<b>Facility* to HHC</b>
<b><i>Elimination Period (Days)</i></b>			
< 15	10.7%	19.1%	7.9%
20 to 60	11.9%	20.8%	9.0%
90 +	17.2%	25.3%	13.1%
<b><i>Benefit Period (Years)</i></b>			
2 or less	10.9%	17.6%	8.5%
2.1 – 3	12.3%	19.6%	7.6%
3.1 – 4	12.8%	22.3%	8.4%
4.1 – 14	13.3%	17.2%	10.2%
15 +	13.6%	16.2%	12.4%
<b><i>Region (U.S.)</i></b>			
Northeast	13.0%	18.6%	8.4%
Midwest	11.4%	26.3%	6.4%
West	13.1%	20.0%	10.0%
South	12.0%	17.4%	9.5%

\* Facility includes both Nursing Home and Assisted Living Facility Care.

\*\* Marital Status of "Married" is defined as the presence of a "spousal discount".

\*\*\* Daily benefit is defined as the nursing home daily benefit of the policy.

Note: Frequencies for each segment are calculated based on credibility by carrier as described in the methodology section.

The following offers some observations from these results:

- Gender does not appear to have a discernable impact on the frequency of transfer.
- Married insureds (i.e. insureds with a spousal discount) have somewhat fewer transfers to a facility after starting in HHC and greater frequency of transfer to HHC from a facility, than single insureds. One possible explanation for this may be the increased availability of a spouse to assist and support home health workers for a longer period of time, and an increased desire to stay home with their spouse. A single insured may be reliant on other family members or home health workers with less "staying power", resulting in more transfers to a facility and fewer transfers from a facility.
- Younger insureds have fewer transfers to a facility from a claim starting in HHC and greater frequency of transfer to HHC from a facility. The pattern is opposite for older insureds, who have greater frequency of transfer into a facility from HHC and fewer frequencies from HHC to a facility. One possible explanation for this is that younger claimants are more likely to improve over time and require care in a less intense care setting, whereas older claimants are less likely to improve and require a more intense care setting.
- It appears that, in general, individuals with larger daily benefit amounts have fewer transfers to a facility after starting in HHC, and greater frequency of transfer to HHC



from a facility. Initially, this seems counterintuitive since one might expect individuals with less daily benefit to opt for HHC, which is generally less expensive. However, a review of age demographics by daily benefit amount indicates that older claimants tend to have smaller daily benefits. We anticipate this is more likely driving these results. Appendix A-5 provides the distribution of daily benefit amounts by attained age.

- LTC claims for policies with ADL and cognitive impairment benefit triggers have greater frequency of transfers than those with medically necessary triggers.
- Claims incurred in 2000 and later have a slightly higher frequency of transfer into HHC from a facility and slightly lower frequency of transfer out of HHC into a facility, relative to claims incurred 1999 and prior. This may be indicative of more recent trends in policy benefit design, case management techniques and demographic mix.
- The data shows higher frequency of transfer for 90 day or longer elimination periods relative to the shorter ones, irrespective of initial care setting. Note that our analysis does not distinguish between care setting transfers that occur either during or after the elimination period is met, so we cannot comment on the impact this may have on results.
- Longer benefit periods tend to have a higher frequency of transfer, in aggregate, than shorter benefit periods. One possible explanation is that insureds with longer benefit periods have more opportunity to transfer since they can be on claim for a longer period of time. It does not appear that the initial care setting impacts this pattern.
- The Midwest appears to have a greater tendency to transfer into a facility from HHC and stay in a facility without transferring to HHC compared to other regions. One possible explanation is the relative availability of facility and HHC in the Midwest. Alternatively, this could be a correlation with other demographic and policy benefit factors.

Table 3 provides results for the frequency of the second transfer in LTC care setting during the life of a claim. Similar to Table 2, results are provided in aggregate and for key policy benefit and demographic characteristics. Note that the “initial” care setting in this table reflects the care setting after the first transfer, not the care setting at claim onset. For some policy benefit and demographic factors, the availability of credible data was limited and the results are not included in Table 3 (denoted “NC”).

<b>TABLE 3</b>			
<b>FREQUENCY OF SECOND TRANSFER ON LTC CLAIM</b>			
	<b>All Providers</b>	<b>HHC to Facility*</b>	<b>Facility* to HHC</b>
<b>Aggregate</b>	22.8%	35.6%	16.4%
<b>Gender</b>			
Female	23.3%	37.2%	16.6%
Male	23.9%	36.8%	15.2%
<b>Marital Status**</b>			
Married	20.4%	32.6%	13.9%
Single	24.6%	38.6%	17.7%

<b>TABLE 3 FREQUENCY OF SECOND TRANSFER ON LTC CLAIM</b>			
	<b>All Providers</b>	<b>HHC to Facility*</b>	<b>Facility* to HHC</b>
<b>Attained Age</b>			
< 70	19.9%	NC	19.1%
70 to 74	22.1%	29.2%	15.8%
75 to 79	23.5%	36.2%	14.2%
80 to 84	25.1%	42.0%	14.1%
85 +	26.0%	47.4%	16.1%
<b>Daily Benefit***</b>			
\$80 or Less	24.8%	39.1%	17.4%
\$81 to \$120	23.2%	37.1%	14.4%
\$121 or More	21.8%	36.8%	17.1%
<b>Benefit Trigger</b>			
ADLs	23.6%	36.1%	14.7%
Medical Necessity	27.2%	41.5%	18.5%
<b>Incurral Era</b>			
1999 and Prior	24.5%	37.9%	17.0%
2000 and Later	22.5%	36.0%	17.3%
<b>Elimination Period (Days)</b>			
< 15	23.1%	39.3%	16.1%
20 to 60	23.4%	32.7%	14.6%
90 +	28.5%	41.6%	17.6%
<b>Benefit Period (Years)</b>			
2 or less	26.2%	39.8%	NC
2.1 – 3	23.1%	37.5%	15.6%
3.1 – 4	26.6%	41.3%	21.6%
4.1 – 14	22.7%	37.9%	15.1%
15 +	24.5%	NC	17.7%
<b>Region (U.S)</b>			
Northeast	21.1%	NC	NC
Midwest	27.1%	42.4%	NC
West	24.3%	34.3%	15.7%
South	23.9%	36.9%	15.5%

\* Facility includes both Nursing Home and Assisted Living Facility Care.

\*\* Marital Status of "Married" is defined as the presence of a "spousal discount".

\*\*\* Daily benefit is defined as the nursing home daily benefit of the policy.

Note: Frequencies for each segment are calculated based on credibility by carrier as described in the methodology section.

The results shown in Table 3 indicate that the frequency of a second transfer in LTC care setting is noticeably greater than the first transfer. This is particularly true for individuals that started their LTC claim in a facility and with the second transfer are returning to a facility. However, unlike the first transfer, it does not appear that various policy benefit and demographic characteristics have as much predictive value.

**Rate of Transfer between Care Settings**

In addition to the overall frequency of transfer in LTC claim setting, our analysis considered the rate of transfer, by claim duration, from one care setting to the other. Results are shown by claim month and annually for the first 12 months, and on an annual basis thereafter. Similar to the overall frequency analysis, we reviewed the rate of transfer for the first and second transfers while on claim separately.

Table 4 provides the rate of transfer, by claim duration, for the first transfer between care settings in aggregate and by initial care setting. Claim durations with insufficient data for credible results are noted as "NC".

<b>TABLE 4 RATE OF FIRST TRANSFER ON LTC CLAIM</b>				
<b>Claim Duration</b>		<b>Multiple Decrement Transfer Rate</b>		
		<b>All Providers</b>	<b>HHC to Facility*</b>	<b>Facility* to HHC</b>
<b>Monthly</b>	<b>1</b>	2.6%	2.6%	2.7%
	<b>2</b>	2.0%	2.7%	1.8%
	<b>3</b>	1.8%	2.6%	1.3%
	<b>4</b>	1.8%	2.7%	1.4%
	<b>5</b>	1.3%	2.0%	1.0%
	<b>6</b>	1.1%	2.2%	0.7%
	<b>7</b>	1.0%	1.9%	0.5%
	<b>8</b>	0.8%	1.8%	NC
	<b>9</b>	0.8%	1.8%	0.4%
	<b>10</b>	0.8%	1.8%	NC
	<b>11</b>	0.7%	1.9%	NC
	<b>12</b>	0.8%	1.9%	NC
<b>Annual</b>	<b>1</b>	9.3%	13.3%	8.0%
	<b>2</b>	5.2%	14.4%	1.8%
	<b>3</b>	3.7%	11.4%	1.3%
	<b>4</b>	3.7%	9.3%	NC
	<b>5</b>	3.3%	NC	NC
	<b>6+**</b>	NC	NC	NC

\* Facility includes both Nursing Home and Assisted Living Facility Care.

\*\* Claim years 6-10 were each considered separately for this analysis. The data was not combined to calculate a rate for years 6 and later.

The results indicate that transfer rates for the first transfer in care setting tend to be higher in the early claim durations. However, the pattern varies somewhat depending on the initial care setting. Claims that begin care in HHC appear to have a more consistent pattern of transfer into a facility over the life of the claim relative to those that begin care in a facility. One possible explanation is that facility claimants are more likely to have severe disabilities or personal circumstances that make a transfer to HHC less likely if they have been unable to transfer during the first year of their disability.

Table 5 provides annual transfer rates for the second transfer in LTC care setting during a claim. We found that monthly transfer rates were generally not credible; therefore, they are excluded from this table. Appendix A provides monthly results for those durations that are credible for those interested.

TABLE 5 RATE OF SECOND TRANSFER ON LTC CLAIM				
Claim Duration		Multiple Decrement Transfer Rate		
		All Providers	HHC to Facility*	Facility to HHC
Annual	1	17.9%	29.1%	13.9%
	2	6.7%	15.4%	NC
	3	9.0%	NC	NC
	4+**	NC	NC	NC

\* Facility includes both Nursing Home and Assisted Living Facility Care.

\*\* Claim years 4-10 were each considered separately for this analysis. The data was not combined to calculate a rate for years 4 and later.

### Conclusions and Applicability of Results

Our analysis shows that a significant number of LTC claims transfer between claim settings and that some policy benefit and demographic characteristics show discernable differences in the frequency of transfer between care settings. The data clearly indicates that the initial care setting is a driving factor of the frequency in which transfers take place. Claims that begin in a facility setting are less likely to experience a transfer to HHC, but if that first transfer happens, the claim is more likely to transfer back to facility care later in the claim. It is more likely that insureds beginning in HHC have changes in their circumstances that result in a transfer to facility care. However, more of those transfers have a likelihood of staying in a facility thereafter.

In general, it appears that policy benefits and insured demographics have a discernable impact on a policyholder's behavior in transferring between care settings. Certain cohorts, such as claimants who are married, younger, or have higher daily benefit amounts, have more frequent transfers from facility care into HHC and fewer transfers from HHC into a facility. Of those characteristics that we reviewed, gender does not appear to have any discernable pattern. The extent to which some patterns were indicative of correlations between characteristics was not reviewed as part of this study.

The frequencies and patterns of transfers in care setting have the potential for being a valuable component of managing a Long Term Care block of business. The following outlines some potential uses that carriers may find for this information:

- Disabled Life Reserve Calculations - refined expected continuance and care paths
- Expected Morbidity and Pricing Models – refined expected care paths and costs
- Claim Examinations – benchmarking data for case management

While the results give some insight into the patterns that several leading LTC carriers have experienced, there was significant variance among the different carriers and readers must carefully consider the extent to which the results in this report may reflect their own actual or expected experience.

## SECTION 3. METHODOLOGY AND DATA

This section of the report outlines the methodology and data used to perform our analysis.

### *Data Sources and Definitions*

This study was done using a subset of data from the Milliman Long Term Care Database, which contains LTC insured claims data from several leading LTC insurance companies. Only policies with coverage in both facility and home care settings were used and the data was adjusted to create consistency in the definition of policy benefits, LTC services and incurred dates between carriers and product generations, as appropriate. This subset of claims included about 63,000 claims totaling about \$2 billion in claim payments. Approximately 78% of these claims are closed at the end of the observation period.

The following outlines data definitions and adjustments used for purposes of this study:

- The definition of “incurred date” varies across carriers and policy generations (e.g. the date of disability, first service date, first service date after the elimination period is met, etc.). For purposes of this study, we adjusted the data to reflect a definition of “incurred date” as the first date LTC services were provided.
- LTC claims in assisted living facilities (ALF) are not always tracked by carriers and, when tracked, are not always coded with consistency. This resulted in a lack of credible and reliable data to separate transfers to and from ALF for this analysis. Therefore, all claim payments coded as “assisted living facility” are defined as “facility” for purposes of this study.
- For purposes of this study, a “transfer” is defined as a change in care setting lasting longer than 31 calendar days. This timeframe was based on the following factors:
  - 1) Transfers in care with shorter time periods are often temporary and therefore should not be considered a true transfer in care setting.
  - 2) This definition of a transfer assured that inadvertent coding errors for a care setting change would not be counted as a transfer.
  - 3) Shorter and longer transfer time periods were considered (7 days, 14 days, 60 days); however, it was concluded that because claims are generally processed on a monthly basis that a 31 day transfer definition was consistent with this cycle and would reduce the chances for inadvertent coding errors.
- The claims data includes information on LTC services received and care settings during the elimination period (EP). To reduce the complexity of the analysis and create greater consistency between carriers and policy generations that have different policy definitions for the EP, we included all transfers from the incurred date (i.e. first date of service, as defined above). We did not adjust the data to reflect only transfers after the EP was met.

- Less than 1% of LTC claims had more than two transfers between care settings, so our analysis focuses on the frequency and rate of transfer for only the first and second transfers in a care setting during the life of a claim. The availability of credible data for transfers beyond the second transfer is too small to provide reliable and useful information.
- The study is based on experience for policies (or combinations of policies and riders) that offered comprehensive LTC coverage (i.e. both Facility and HHC benefits). Facility only and Home Care only policies were excluded.

### Methodology

Frequency of transfer and rate of transfer are equal to the number of transfers divided by an exposure measure. The data includes both claims that remain open at the end of the observation period and claims that closed during the observation period.

The calculation of the frequency of transfer is based on exposure defined as the number of claims in the observation period, either open or closed. For the second transfer, exposure is based on the number of claims that had already had one transfer in care setting.

The exposure definition used in the rate of transfer calculation is determined consistent with standard actuarial techniques, with a full period of exposure for claims that closed or transferred and partial exposure for open claims that did not transfer during the applicable time period. The minimum exposure period for a given claim is one month, given limitations of the data to calculate partial months of exposure.

In our analysis, transfers are included as a decrement, along with other possible forces (e.g. death, recovery, benefit expiry), which impacts the calculated rates of transfer. Therefore, the resulting transfer rate is considered a multiple decrement rate. The following formula provides the relationship between the probability of each decrement and the total probability of all decrements combined, assuming four possible decrements: transfer, death, recovery, and benefit expiry.

$$tq_x^{(Total)} = tq_x^{(Transfer)} + tq_x^{(Death)} + tq_x^{(Recovery)} + tq_x^{(Benefit Expiry)}$$

The probability of remaining on claim is then:

$$tp_x^{(Total)} = 1 - tq_x^{(Total)}$$

In order to remove the potential for carrier bias due to greater exposures and differences in various demographic or product characteristic mix, we developed transfer rates for each carrier included in the data and then calculated a weighted average of the carrier-specific transfer rates. The weighting for each company was determined based on the credibility measure of data for that company. Companies that were fully credible received equal weights regardless of total exposure.

Credibility measures for overall frequencies of transfer and rate of transfer by claim duration were calculated by using classical credibility techniques, assuming that the number of transfers follows a Poisson distribution. The credibility measure for full credibility was determined such that the number of transfers was within 10% of the expected number of transfers 90% of the time (i.e. a 90% confidence interval).

The following outlines the calculations used to calculate the credibility measure:

- Credibility Measure =  $(n \div n_f)^{1/2}$ , where

n = actual number of transfers

$n_f$  = number of transfers for full credibility

$$n_f = (y \div k)^2$$

y = the coefficient from the standard normal distribution for a 90% confidence interval  
=  $\Phi^{-1}[(1 + P) \div 2]$ , where P is the probability of the interval, or 90%.

k = the maximum acceptable fluctuation (i.e. 10%)

Approximately 271 ( $[1.645 \div 10\%]^2$ ) transfers were needed for a frequency or durational rate of transfer (at the aggregate or cell level) to be considered fully credible. Note that this measure of credibility is consistent with that using the Longley-Cook credibility tables and a maximum departure from the expected count of +/- 10% with the probability of the observed count falling within the acceptable range of 90%.

In addition, we considered the number of companies with reasonably credible data to include in the weighted average, in order to reduce any company bias in the results. Results for a given frequency or durational transfer rate calculation were considered credible if at least 3 carriers with credibility of at least 20% were included in the weighted average.

Appendix A provides additional detail on exposures and the credibility of results. The results presented in the report are raw data values and have not been adjusted by any smoothing technique.



**Appendix A-1**  
**Detailed Summary of Results**  
**Frequency of the First Transfer in LTC Claim Setting**

All Providers				Home Health to Facility				Facility to Home Health			
Variable	Frequency	Exposure	Credibility	Variable	Frequency	Exposure	Credibility	Variable	Frequency	Exposure	Credibility
<b>Aggregate</b>	11.4%	63,313	100.0%	<b>Aggregate</b>	20.0%	26,550	100.0%	<b>Aggregate</b>	8.6%	36,763	100.0%
<b>Provider</b>				<b>Provider</b>				<b>Provider</b>			
Home Health	20.0%	26,550	100.0%	Home Health	20.0%	26,550	100.0%	Home Health	n/a	n/a	n/a
Facility*	8.6%	36,763	100.0%	Facility*	n/a	n/a	n/a	Facility*	8.6%	36,763	100.0%
<b>Gender</b>				<b>Gender</b>				<b>Gender</b>			
Female	11.3%	42,240	100.0%	Female	19.5%	17,714	100.0%	Female	8.6%	24,526	100.0%
Male	12.7%	21,073	100.0%	Male	20.1%	8,836	100.0%	Male	8.4%	12,237	100.0%
<b>Marital Status**</b>				<b>Marital Status**</b>				<b>Marital Status**</b>			
Married	13.9%	22,993	100.0%	Married	17.7%	11,252	100.0%	Married	10.6%	11,741	100.0%
Single	10.9%	40,320	100.0%	Single	20.3%	15,298	100.0%	Single	7.5%	25,022	100.0%
<b>Attained Age</b>				<b>Attained Age</b>				<b>Attained Age</b>			
< 70	10.4%	7,642	100.0%	< 70	9.7%	4,939	100.0%	< 70	13.6%	2,703	100.0%
70 to 74	12.5%	10,588	100.0%	70 to 74	18.0%	5,143	100.0%	70 to 74	10.6%	5,445	100.0%
75 to 79	12.2%	16,139	100.0%	75 to 79	19.7%	6,598	100.0%	75 to 79	8.6%	9,541	100.0%
80 to 84	12.3%	16,569	100.0%	80 to 84	23.9%	5,982	100.0%	80 to 84	7.4%	10,587	100.0%
85 +	12.8%	12,375	100.0%	85 +	26.1%	3,888	100.0%	85 +	6.4%	8,487	100.0%
<b>Daily Benefit***</b>				<b>Daily Benefit***</b>				<b>Daily Benefit***</b>			
\$80 or Less	10.0%	32,283	100.0%	\$80 or Less	21.9%	9,161	100.0%	\$80 or Less	5.7%	23,122	100.0%
\$81 to \$120	13.6%	23,475	100.0%	\$81 to \$120	19.7%	12,544	100.0%	\$81 to \$120	10.6%	10,931	100.0%
\$121 or More	14.4%	7,555	100.0%	\$121 or More	14.9%	4,845	100.0%	\$121 or More	14.7%	2,710	100.0%
<b>Benefit Trigger</b>				<b>Benefit Trigger</b>				<b>Benefit Trigger</b>			
ADLs	14.8%	26,504	100.0%	ADLs	22.2%	11,664	100.0%	ADLs	10.6%	14,840	100.0%
Medical Necessity	9.4%	36,809	100.0%	Medical Necessity	18.8%	14,886	100.0%	Medical Necessity	7.3%	21,923	100.0%
<b>Incurral Era</b>				<b>Incurral Era</b>				<b>Incurral Era</b>			
1999 and Prior	11.5%	21,041	100.0%	1999 and Prior	22.1%	6,238	100.0%	1999 and Prior	7.6%	14,803	100.0%
2000 and Later	12.3%	42,272	100.0%	2000 and Later	19.2%	20,312	100.0%	2000 and Later	9.1%	21,960	100.0%
<b>Elimination Period (Days)</b>				<b>Elimination Period (Days)</b>				<b>Elimination Period (Days)</b>			
< 15	10.7%	38,677	100.0%	< 15	19.1%	18,868	100.0%	< 15	7.9%	19,809	100.0%
20 to 60	11.9%	14,322	100.0%	20 to 60	20.8%	3,579	100.0%	20 to 60	9.0%	10,743	100.0%
90 or More	17.2%	10,314	100.0%	90 or More	25.3%	4,103	100.0%	90 or More	13.1%	6,211	100.0%
<b>Benefit Period (Years)</b>				<b>Benefit Period (Years)</b>				<b>Benefit Period (Years)</b>			
2 or less	10.9%	16,710	100.0%	2 or less	17.6%	5,493	100.0%	2 or less	8.5%	11,217	100.0%
2.1 to 3	12.3%	19,057	100.0%	2.1 to 3	19.6%	7,574	100.0%	2.1 to 3	7.6%	11,483	100.0%
3.1 to 4	12.8%	11,151	100.0%	3.1 to 4	22.3%	4,400	100.0%	3.1 to 4	8.4%	6,751	100.0%
4.1 to 14	13.3%	6,943	100.0%	4.1 to 14	17.2%	3,667	100.0%	4.1 to 14	10.2%	3,276	100.0%
15 +	13.6%	9,452	100.0%	15 +	16.2%	5,416	100.0%	15 +	12.4%	4,036	100.0%
<b>Region</b>				<b>Region</b>				<b>Region</b>			
Northeast	13.0%	11,968	100.0%	Northeast	18.6%	5,041	100.0%	Northeast	8.4%	6,927	100.0%
Midwest	11.4%	15,582	100.0%	Midwest	26.3%	3,974	100.0%	Midwest	6.4%	11,608	100.0%
West	13.1%	11,854	100.0%	West	20.0%	5,752	100.0%	West	10.0%	6,102	100.0%
South	12.0%	23,909	100.0%	South	17.4%	11,783	100.0%	South	9.5%	12,126	100.0%

\* Facility includes both Nursing Home and Assisted Living Facility Care.

\*\* Marital Status of "Married" is defined as the presence of a "spousal discount".

\*\*\* Daily benefit is defined as the nursing home daily benefit of the policy.

Note: Frequencies for each segment are calculated based on credibility by carrier as described in the methodology section.

Appendix A-2  
Detailed Summary of Results  
Frequency of the Second Transfer in LTC Claim Setting

All Providers				Home Health to Facility				Facility to Home Health			
Variable	Frequency	Exposure	Credibility	Variable	Frequency	Exposure	Credibility	Variable	Frequency	Exposure	Credibility
<b>Aggregate</b>	22.8%	7,382	100.0%	<b>Aggregate</b>	35.6%	2,579	100.0%	<b>Aggregate</b>	16.4%	4,803	100.0%
<b>Provider</b>				<b>Provider</b>				<b>Provider</b>			
Home Health	35.6%	2,579	100.0%	Home Health	35.6%	2,579	100.0%	Home Health	n/a	n/a	n/a
Facility*	16.4%	4,803	100.0%	Facility*	n/a	n/a	n/a	Facility*	16.4%	4,803	100.0%
<b>Gender</b>				<b>Gender</b>				<b>Gender</b>			
Female	23.3%	4,771	100.0%	Female	37.2%	1,679	100.0%	Female	16.6%	3,092	100.0%
Male	23.9%	2,611	100.0%	Male	36.8%	900	100.0%	Male	15.2%	1,711	95.9%
<b>Marital Status**</b>				<b>Marital Status**</b>				<b>Marital Status**</b>			
Married	20.4%	3,013	100.0%	Married	32.6%	984	100.0%	Married	13.9%	2,029	98.5%
Single	24.6%	4,369	100.0%	Single	38.6%	1,595	100.0%	Single	17.7%	2,774	100.0%
<b>Attained Age</b>				<b>Attained Age</b>				<b>Attained Age</b>			
< 70	19.9%	731	73.9%	< 70	NC	287	48.6%	< 70	19.1%	444	55.7%
70 to 74	22.1%	1,239	97.2%	70 to 74	29.2%	453	70.1%	70 to 74	15.8%	786	67.4%
75 to 79	23.5%	1,934	100.0%	75 to 79	36.2%	698	96.6%	75 to 79	14.2%	1,236	79.9%
80 to 84	25.1%	2,026	100.0%	80 to 84	42.0%	700	100.0%	80 to 84	14.1%	1,326	81.7%
85 +	26.0%	1,452	100.0%	85 +	47.4%	441	88.9%	85 +	16.1%	1,011	74.1%
<b>Daily Benefit***</b>				<b>Daily Benefit***</b>				<b>Daily Benefit***</b>			
\$80 or Less	24.8%	3,189	100.0%	\$80 or Less	39.1%	1,170	100.0%	\$80 or Less	17.4%	2,019	100.0%
\$81 to \$120	23.2%	3,143	100.0%	\$81 to \$120	37.1%	1,066	100.0%	\$81 to \$120	14.4%	2,077	100.0%
\$121 or More	21.8%	1,050	88.4%	\$121 or More	36.8%	343	62.2%	\$121 or More	17.1%	707	62.8%
<b>Benefit Trigger</b>				<b>Benefit Trigger</b>				<b>Benefit Trigger</b>			
ADLs	23.6%	3,690	100.0%	ADLs	36.1%	1,159	100.0%	ADLs	14.7%	2,531	100.0%
Medical Necessity	27.2%	3,692	100.0%	Medical Necessity	41.5%	1,420	100.0%	Medical Necessity	18.5%	2,272	100.0%
<b>Incurral Era</b>				<b>Incurral Era</b>				<b>Incurral Era</b>			
1999 and Prior	24.5%	1,940	100.0%	1999 and Prior	37.9%	671	94.9%	1999 and Prior	17.0%	1,269	80.8%
2000 and Later	22.5%	5,442	100.0%	2000 and Later	36.0%	1,908	100.0%	2000 and Later	17.3%	3,534	100.0%
<b>Elimination Period (Days)</b>				<b>Elimination Period (Days)</b>				<b>Elimination Period (Days)</b>			
< 15	23.1%	4,485	100.0%	< 15	39.3%	1,380	100.0%	< 15	16.1%	3,105	100.0%
20 to 60	23.4%	1,211	100.0%	20 to 60	32.7%	556	81.5%	20 to 60	14.6%	655	57.9%
90 or More	28.5%	1,686	100.0%	90 or More	41.6%	643	97.2%	90 or More	17.6%	1,043	83.1%
<b>Benefit Period (Years)</b>				<b>Benefit Period (Years)</b>				<b>Benefit Period (Years)</b>			
2 or less	26.2%	1,506	100.0%	2 or less	39.8%	638	90.7%	2 or less	NC	868	66.5%
2.1 to 3	23.1%	2,283	100.0%	2.1 to 3	37.5%	736	100.0%	2.1 to 3	15.6%	1,547	92.1%
3.1 to 4	26.6%	1,423	100.0%	3.1 to 4	41.3%	465	83.3%	3.1 to 4	21.6%	958	67.4%
4.1 to 14	22.7%	890	82.0%	4.1 to 14	37.9%	281	58.3%	4.1 to 14	15.1%	609	57.6%
15 +	24.5%	1,280	100.0%	15 +	NC	459	80.4%	15 +	17.7%	821	73.7%
<b>Region</b>				<b>Region</b>				<b>Region</b>			
Northeast	21.1%	1,411	100.0%	Northeast	NC	485	80.6%	Northeast	NC	926	66.0%
Midwest	27.1%	1,659	100.0%	Midwest	42.4%	648	100.0%	Midwest	NC	1,011	77.1%
West	24.3%	1,497	100.0%	West	34.3%	490	76.8%	West	15.7%	1,007	73.1%
South	23.9%	2,815	100.0%	South	36.9%	956	100.0%	South	15.5%	1,859	100.0%

\* Facility includes both Nursing Home and Assisted Living Facility Care.

\*\* Marital Status of "Married" is defined as the presence of a "spousal discount".

\*\*\* Daily benefit is defined as the nursing home daily benefit of the policy.

Note: Frequencies for each segment are calculated based on credibility by carrier as described in the methodology section.

**Appendix A-3**  
**Detailed Summary of Results**  
**Rate of First Transfer on LTC Claim**

All Providers					Home Health to Facility					Facility to Home Health				
Claim Duration		Multiple Decrement Transfer Rate	Exposure	Credibility	Claim Duration		Multiple Decrement Transfer Rate	Exposure	Credibility	Claim Duration		Multiple Decrement Transfer Rate	Exposure	Credibility
Monthly	1	2.6%	62,747	100.0%	Monthly	1	2.6%	26,245	100.0%	Monthly	1	2.7%	36,502	100.0%
	2	2.0%	52,250	100.0%		2	2.7%	20,505	100.0%		2	1.8%	31,745	100.0%
	3	1.8%	45,421	100.0%		3	2.6%	16,876	100.0%		3	1.3%	28,545	100.0%
	4	1.8%	41,271	100.0%		4	2.7%	14,753	100.0%		4	1.4%	26,518	100.0%
	5	1.3%	38,011	100.0%		5	2.0%	13,144	97.2%		5	1.0%	24,867	81.3%
	6	1.1%	35,471	100.0%		6	2.2%	11,951	94.7%		6	0.7%	23,520	66.8%
	7	1.0%	33,286	100.0%		7	1.9%	10,915	84.0%		7	0.5%	22,371	59.2%
	8	0.8%	31,482	93.9%		8	1.8%	10,048	79.4%		8	NC	21,434	50.1%
	9	0.8%	29,952	91.1%		9	1.8%	9,335	76.6%		9	0.4%	20,617	49.4%
	10	0.8%	28,531	83.5%		10	1.8%	8,699	73.9%		10	NC	19,832	38.9%
	11	0.7%	27,184	81.3%		11	1.9%	8,100	72.6%		11	NC	19,084	36.4%
	12	0.8%	25,961	76.6%		12	1.9%	7,569	70.8%		12	NC	18,392	29.1%
Annual	1	9.3%	60,893	100.0%	Annual	1	13.3%	25,406	100.0%	Annual	1	8.0%	35,487	100.0%
	2	5.2%	23,052	100.0%		2	14.4%	6,482	100.0%		2	1.8%	16,570	86.3%
	3	3.7%	12,956	100.0%		3	11.4%	3,045	100.0%		3	1.3%	9,911	58.3%
	4	3.7%	5,804	78.7%		4	9.3%	1,349	65.7%		4	NC	4,456	43.4%
	5	3.3%	2,148	45.1%		5	NC	574	37.0%		5	NC	1,574	25.8%
	6	NC	798	33.8%		6	NC	273	30.4%		6	NC	525	14.9%
	7	NC	388	24.3%		7	NC	140	21.9%		7	NC	248	10.5%
	8	NC	213	21.9%		8	NC	73	19.2%		8	NC	140	10.5%
	9	NC	125	12.1%		9	NC	36	10.5%		9	NC	89	6.1%
	10	NC	70	8.6%		10	NC	20	8.6%		10	NC	50	0.0%

\*NC = Not Credible for rates that do not have at least 3 companies that are at least 20% credible

**Appendix A-4**  
**Detailed Summary of Results**  
**Rate of Second Transfer on LTC Claim**

All Providers					Home Health to Facility					Facility to Home Health				
Claim Duration		Multiple Decrement Transfer Rate	Exposure	Credibility	Claim Duration		Multiple Decrement Transfer Rate	Exposure	Credibility	Claim Duration		Multiple Decrement Transfer Rate	Exposure	Credibility
Monthly	1	NC	7,382	0.0%	Monthly	1	NC	2,579	0.0%	Monthly	1	NC	4,803	0.0%
	2	5.3%	7,269	100.0%		2	8.3%	2,531	80.1%		2	4.4%	4,738	78.7%
	3	4.3%	6,364	95.1%		3	NC	2,079	68.5%		3	NC	4,285	66.0%
	4	4.2%	5,751	87.8%		4	NC	1,825	66.3%		4	2.5%	3,926	57.6%
	5	3.1%	5,210	69.0%		5	NC	1,582	53.6%		5	NC	3,628	43.4%
	6	NC	4,819	65.7%		6	NC	1,416	50.1%		6	NC	3,403	42.5%
	7	2.4%	4,469	56.3%		7	NC	1,273	45.1%		7	NC	3,196	33.8%
	8	NC	4,155	51.9%		8	NC	1,147	40.3%		8	NC	3,008	32.7%
	9	NC	3,911	47.4%		9	NC	1,059	37.4%		9	NC	2,852	29.1%
	10	1.5%	3,647	42.5%		10	NC	970	33.8%		10	NC	2,677	25.8%
	11	NC	3,429	37.0%		11	NC	903	28.5%		11	NC	2,526	23.5%
	12	NC	3,246	25.0%		12	NC	848	21.0%		12	NC	2,398	13.6%
Annual	1	17.9%	6,893	100.0%	Annual	1	29.1%	2,430	100.0%	Annual	1	13.9%	4,464	100.0%
	2	6.7%	2,804	76.4%		2	15.4%	731	59.5%		2	NC	2,072	47.8%
	3	9.0%	1,473	54.3%		3	NC	375	41.2%		3	NC	1,098	35.4%
	4	NC	632	35.4%		4	NC	172	30.4%		4	NC	460	18.2%
	5	NC	241	24.3%		5	NC	75	21.0%		5	NC	166	12.1%
	6	NC	89	12.1%		6	NC	29	10.5%		6	NC	60	6.1%
	7	NC	49	12.1%		7	NC	18	10.5%		7	NC	31	6.1%
	8	NC	27	12.1%		8	NC	11	12.1%		8	NC	16	0.0%
	9	NC	11	6.1%		9	NC	4	6.1%		9	NC	7	0.0%
	10	NC	6	6.1%		10	NC	1	0.0%		10	NC	5	6.1%

\*NC = Not Credible for rates that do not have at least 3 companies that are at least 20% credible

**Appendix A-5**  
**Detailed Summary of Results**  
**Distribution of Daily Benefit Amount by Age**

<b>Distribution of Daily Benefit Amount by Age</b>			
<b>Attained Age</b>	<b>\$80 or Less</b>	<b>\$81 to \$120</b>	<b>\$121 or More</b>
< 70	7.0%	14.9%	26.7%
70 to 74	14.3%	20.0%	20.9%
75 to 79	24.9%	27.2%	24.7%
80 to 84	29.4%	23.7%	17.6%
85 +	24.4%	14.1%	10.0%
Total	100.0%	100.0%	100%