

**The University of Kansas
School of Social Welfare
Office of Aging and Long Term Care**

**The Diversion Study Update:
Community Tenure Status
of Diverted CARE
Assessment Customers
at 36 Months**

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Executive Summary

The Kansas Department on Aging (KDOA) and the Kansas Department of Social and Rehabilitation Services (SRS) contracted with the Office of Aging and Long Term Care (OALTC) at The University of Kansas School of Social Welfare to conduct *The Diversion Study Update (SFY2004)*. This report represents the continued tracking of 599 diverted customers from the original study population of the Diversion Study (SFY2002). The findings from an additional year of tracking community tenure, month 25 through 36, and the costs associated with state publicly funded services are presented in this report. The Executive Summary provides highlights from those findings.

This report builds on The Diversion Study (SFY2002) methodology which included tracking the original 599 diverted customers in order to identify their residential and service use status at three month intervals. Outcomes of diverted customers over time were: 1) residing in the community, 2) permanent nursing facility resident, or 3) deceased. In addition, KDOA provided service use and cost data regarding Medicaid-HCBS, State General Funded and Older American Act services used by diverted customers still residing in the community from month 25 through 36. Those findings are presented in detail in this report.

Overall Diversion Study Update Implications

➤ State Publicly Funded Services are Cost Effective

The average monthly state savings when State Publicly Funded Services (SPFS) are provided to diverted customers in our sample is \$596.40 for Medicaid Home and Community Based Services for the Frail Elderly (HCBS/FE) customers, \$759.62 for State General Fund (SGF) customers and \$924.00 for Older American Act (OAA) customers.

Diversion of CARE Assessment customers who use SPFS continues to be cost-effective when compared to the cost of nursing facility care (NF). The cost analysis was conducted using the actual SPFS cost data of diverted customers to determine the savings for diverted customers who used these services. The HCBS/FE services were used for an average of 15.6 months, SGF services were used for an average of 6 months and OAA services were used for an average of 7.6 months. For every month a diverted service customer in the sample remained in the community with SPFS, the state saved \$596.40 if Medicaid HCBS/FE and TCM services were provided, \$759.62 if SGF services were provided and \$924.00 if OAA services were provided.

➤ **Diverted Customers Continue to Have High Rates of Community Tenure**

After tracking diverted customers for 36 months, 33.1% (198) of the diverted customers continued to reside in the community. This finding is particularly noteworthy because 366 (61%) of the diverted customers had a short NF stay after the CARE Assessment, and had returned to the community by the 30-day CARE Assessment Follow-Up.

In addition to the high rate of community tenure of diverted customers, the number of living diverted customers residing in community settings compared to living diverted customers who are permanent NF residents is also high. Nearly two-thirds (198) of the living diverted customers resided in community settings 36 months after the CARE Assessment compared to the 100 (33.6%) living diverted customers who were permanent NF residents. Also, 192 (32.1%) diverted customers were residing in the community when they died and 109 (18.2%) were permanent NF residents at the time of their death.

Findings from The Community Tenure Study (SFY 2003) added to our understanding of how diverted customers and caregivers were able to remain in the community. Analysis of qualitative findings from interviews conducted with diverted customers and caregivers informed us that determination, knowledge of services and their ability to uniquely combine informal support and formal services were important factors in considering permanent NF admission.

As Table 2 displays, over 33% (198) of the diverted customers were still in the community 36 months after their CARE Assessment. In addition, only 17% (100) of diverted customers were residing in a NF at the 36th month, and over 50% (301) of the originally diverted group had died (109 + 192). Overall, only 209 (34.9%) of the diverted customers were permanently admitted to a NF by the 36th month of follow-up (100 + 109).

Conclusion

The findings from this third year of tracking diverted CARE Assessment customers indicated older adults who apply for nursing facility admission can be diverted for long periods of time. In the past, traditional thinking has been that older adults who enter a NF were unlikely to return home. Our data clearly show that older adults are using nursing facilities in a different manner and do in fact return to successful community living without becoming a permanent nursing facility resident. In addition, diversion of these CARE Assessment customers was a cost effective alternative to permanent nursing facility admission.

I. Introduction

A) Background

This report presents the results from the on-going tracking of diverted customers (N=599) originally identified for the Diversion Study (SFY 2002). The Diversion Study was unique because it tracked the community tenure and state publicly funded service (SPFS) utilization of older adults who had applied for nursing facility (NF) placement, received a CARE Assessment¹ and were diverted². Diverted customers have been tracked for 36 months following their CARE Assessment. In addition, the report provides an update of the actual utilization and costs of state publicly-funded in-home services (SPFS). The costs of services were compared to the cost of NF care to illustrate cost savings of diverting the customers from permanently entering a nursing facility³.

At the time the Diversion Study (SFY2002) was conceptualized and planned, the CARE Program tracked diverted customers up to 90 days after their diversion and policy makers were unsure how long diverted customers would remain in the community. The prevailing assumption was that since diverted customers had already applied for nursing facility admission through the CARE Program, diverted customers would not maintain community tenure for a long period. Unexpectedly, many diverted customers did remain in the community much longer than anticipated. The Diversion Study originally tracked diverted customers for 18 months.

The interest in diversion and community tenure has gone beyond state policy makers and researchers in Kansas. Other state-level and national researchers studying the impact of state policy on community-based services urged Kansas researchers and policy makers to continue tracking these diverted customers. Diverted customers were tracked for an additional six months and those findings were reported in the Community Tenure Study (SFY 2003). Again, unexpectedly, many diverted customers were maintaining community tenure for a long period of time. The community tenure findings from The Diversion Study and The Community Tenure Study are summarized in Table 1 below.

¹ The CARE Assessment gathers information about the person's potential need for specialized services, functional ability, available support systems, and recent problems and risks at the point they are applying for NF admission. It also provides the older adult with information regarding their LTC options. The CARE Program tracks diversion status of customers at the 30th and the 90th day.

² Diversion occurs when "individuals who have been assessed for potential nursing facility placement are residing in community settings with services or are living in board and care facilities when the 30 Day Follow-Up contact is made" (CARE Annual Report, December 30, 1998, page 5).

³ A diverted customer becomes a permanent nursing facility resident when they are in the nursing facility 100 out of 120 days or if they have four or more nursing facility admissions.

Table 1
Summary of Community Tenure Status of Diverted
Customers at 12, 18 and 24 Months (N = 599)

Time Interval After the CARE Assessment	In the Community	Permanent NF Resident	Died While Permanent NF Resident	Died While Living in Community
12 months	348 (58.1%)	120 (20.0%)	25 (4.2%)	106 (17.7%)
18 months	284 (47.4%)	128 (21.4%)	47 (7.8%)	140 (23.4%)
24 months	243 (40.6%)	127 (21.2%)	64 (10.7%)	165 (27.5%)

Table 1 illustrates that more than 58% (348) of diverted customers were in the community at 12 months and by the 18th month more than 47% (284) were still residing in the community. At 24 months, over 40% (243) of the diverted customers were still in the community. Not only were older adults remaining in the community for long periods of time, only 31.9% (191) diverted customers ever became permanent NF residents by the 24th month.

B) Purpose

The original 599 diverted customers were tracked for a third year in order to update community tenure status of diverted customers, to update the community-based service utilization and cost data and to conduct a cost analysis of SPFS costs compared to NF costs. This report, titled *The Diversion Study Update (SFY2004)* provides information on the diverted customers from the first month after the CARE Assessment to the 36th month after the CARE Assessment. *The Diversion Study Update* builds on the policy related question, methodology, and findings from The Diversion Study (SFY2002).

The goals for The Diversion Study Update were:

- 1.) Track diverted customers an additional 12 months for a total of 36 months. Tracking included community tenure status and state publicly funded community-based service utilization and costs.
- 2.) Complete a cost analysis using actual state publicly-funded community-based service costs for diverted customers and compare them to NF costs.

The findings based on these two goals are presented in the next section. The Diversion Study Report (SFY 2002) and The Community Study Report (SFY 2003) provide additional background for The Diversion Study Update and are available on-line at: www.oaltc.ku.edu.

C) Data Sources

In order to track diverted customers and to identify services and actual costs for the services, several data sources were used. HIPPA guidelines were implemented to protect the identity of diverted customers and only aggregate data are summarized in this report. The agencies that provided the data and the specific data sources are listed below.

- 1.) Kansas Department on Aging provided service and cost information which was extracted from their KAMIS and MMIS data systems.
- 2.) Kansas Department of Health and Environment provided verification of death.
- 3.) The Center for Medicare and Medicaid Services provided MDS data in order to identify permanent NF admission information.

D) Additional Data

This report focuses on the community tenure outcomes of the diverted customers from our original sample (N=599). An appendix is included with this report that summarizes the differences between diverted and non-diverted CARE Assessment customers on several socio-demographic factors and physical and cognitive factors. The data in the appendix were originally reported in the Diversion Study (SFY2002). This information is provided as a reference for the reader of this report.

II. Community Tenure and Use of State Publicly Funded Services by Diverted Customers 36 Months after their CARE Assessment

The section on community tenure provides an update on the status and service use for the entire cohort (all four waves ⁴) of diverted customers (N=599 ⁵) from The Diversion Study (SFY 2002) tracked over a 36-month period. The diverted customers were tracked for 36 months beyond the CARE Assessment. This section reports on:

- 1) The community tenure status of diverted customers in 3 month intervals;**
- 2) The actual services used during the 36-month tracking period;**
- 3) A cost analysis of actual State Publicly Funded Services (SPFS) costs for diverted customers compared to NF costs.**

The community tenure of diverted customers was examined based on five policy-related questions.

- How many diverted customers have remained in the community 36 months after their CARE Assessment?
- How many diverted customers use State Publicly Funded Services?
- What State Publicly Funded Services are utilized and for how long?
- What are the actual costs of State Publicly Funded Services for the state?
- What are the actual cost savings for the state when State Publicly Funded Services are utilized by diverted customers?

This section on community tenure is organized to provide answers to the above policy-related questions and based on detailed data analysis and interpretation. First, there is a summary of the community tenure status of the diverted customers reported in 3-month intervals for a 36-month period. Next, SPFS use for the diverted customers reported in 3-month intervals for a 36-month period is reported and discussed. Finally, the section concludes with the cost-analysis of SPFS compared to NF costs.

A) Outcomes Following 36 Months of Tracking Diverted Customers

- **How many diverted customers have remained in the community 36 months after their CARE Assessment?**
 - **When the tracking of diverted customers ended 36 months after their CARE Assessment, 198 (33.1%) diverted customers were still in the community.**
 - **There were 209 (34.9%) diverted customers who became permanent NF residents or died subsequent to permanent NF admission.**

⁴ CARE Assessment data were analyzed for May 1999, March, April and August 2000. Each month represents one wave of data.

⁵ There were 600 cases of diverted customers; however there were only 599 unduplicated diverted customers.

- There were 192 (32.1%) diverted customers who died while residing in the community.
- After about the 15th month, diverted customers were more likely to lose community tenure due to death than permanent nursing facility placement.
- Almost twice as many diverted NF applicants (198) were still living in the community 36 months after their CARE assessment than were permanently living in a nursing facility (100).
- Of the diverted customers living at the 36 month after the CARE Assessment, 198 (66.4%) were residing in the community.

The Office of Aging and Long Term Care (OALTC) identified the community tenure status of diverted customers at three-month intervals after the CARE Assessment to determine who was still in the community, who had been admitted to a NF, and who had died while residing in the community. The results for each three-month interval up to 36 months of follow-up are presented in Table 2 below and in Chart 1.

Table 2
Community Tenure Status of Diverted Customers Tracked
for 36 Months, Reported in Three-Month Intervals (N = 599)

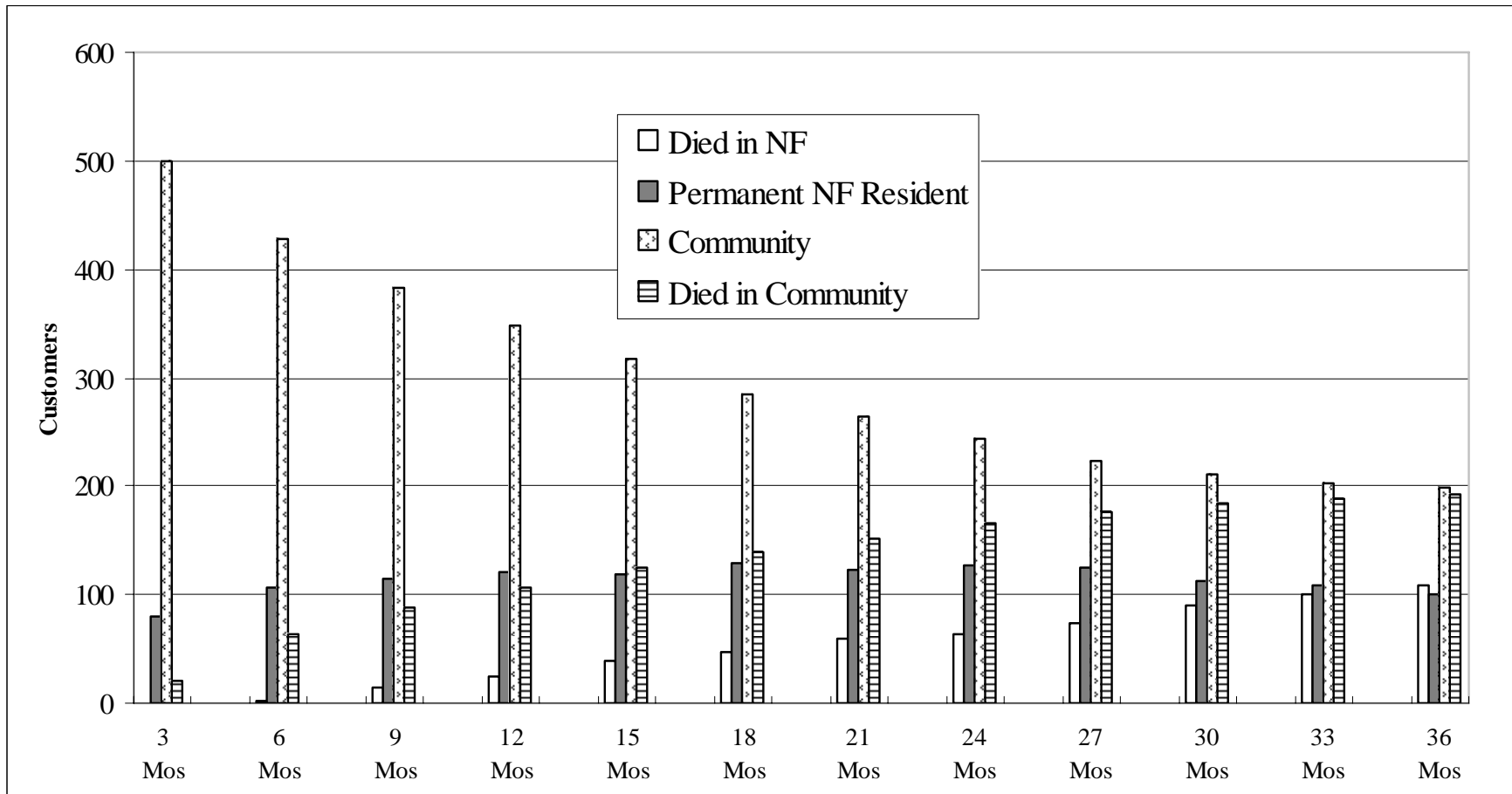
Time Interval After the CARE Assessment	In the Community	Permanent NF Resident	Died While Permanent NF Resident	Died While Living in Community
3 months	499 (83.3%)	80 (13.4%)	0	20 (3.3%)
6 months	427 (71.3%)	106 (17.7%)	2 (0.3%)	64 (10.7%)
9 months	382 (63.8%)	114 (19.0%)	14 (2.3%)	89 (14.9%)
12 months	348 (58.1%)	120 (20.0%)	25 (4.2%)	106 (17.7%)
15 months	317 (52.9%)	118 (19.7%)	39 (6.5%)	125 (20.9%)
18 months	284 (47.4%)	128 (21.4%)	47 (7.8%)	140 (23.4%)
21 months	265 (44.2%)	123 (20.5%)	59 (9.8%)	152 (25.4%)
24 months	243 (40.6%)	127 (21.2%)	64 (10.7%)	165 (27.5%)
27 months	224 (37.4%)	124 (20.9%)	73 (12.2%)	178 (29.5%)
30 months	210 (35.1%)	113 (18.9%)	91 (15.2%)	185 (30.9%)
33 months	202 (33.7%)	108 (18.0%)	100 (16.7%)	189 (31.6%)
36 months	198 (33.1%)	100 (16.7%)	109 (18.2%)	192 (32.1%)

As Table 2 displays, over 33% (198) of the diverted customers were still in the community 36 months after their CARE Assessment. In addition, only 17% (100) of diverted customers were residing in a NF at the 36th month, and over 50% (301) of the originally diverted group had died (109 + 192). Overall, only 209 (34.9%) of the diverted customers had been permanently admitted to a NF by the 36th month of follow-up (100 + 109). This finding is particularly noteworthy in light of the finding that 366 (61%) of the diverted customers had a short NF stay after the CARE Assessment, and had returned to the community by the 30-day CARE Assessment Follow-Up. In the past, traditional thinking has been that older adults who enter a NF were unlikely to return home. Our data clearly show that older adults are using nursing facilities in a different manner and do in fact return to successful community living without becoming a permanent nursing facility resident.

From the ninth month through the 27th month after the CARE Assessment, the proportion of permanent NF residents in the study remained at approximately 20%. New admissions were being balanced by deaths of previously diverted customers who had been admitted and subsequently died in a NF. These findings are consistent with other research findings regarding death following a NF admission. NF admission and death are both correlated with functional impairment and age (Miller and Weissert, 2000). From the 30th month to the 36th month after the CARE Assessment, the proportion of permanent NF residents decreased to 16.7% (100). By the 36th month after the CARE Assessment, about 35% (209) of the diverted customers had become permanent nursing facility residents.

As follow-up has progressed, an increasing number of diverted customers have died in the community. The rate of death of diverted customers residing in the community increased incrementally by approximately three percentage points every three months from the 9th month to the 24th month. Beginning with the 27th month and through the 36th month, the rate of deaths continued to rise, but at a slower rate. By the 36th month after the CARE Assessment, 32% (192) of diverted customers had died while residing in the community or died after a short stay (less than 100 days) in the NF. This information is also graphically displayed in Chart 1 below.

Chart 1
Community Tenure Status of Diverted Customers Tracked for 36 Months,
Reported in 3-Month Intervals After the CARE Assessment (N = 599)



As Chart 1 shows, the number of diverted customers living in the community continued to decline, however by the 36th month 33% (198) diverted customers still resided in the community. In addition, the proportion of diverted older adults who were current permanent NF residents stayed relatively constant (20%) from the 9th month following the CARE Assessment through the 27th month and then began to decrease to 16.7% (100) by the 36th month. The number of permanent NF residents who died continued to rise and by the 36th month it exceeded the number of permanent NF residents still living. At the same time, diverted customers were more likely to lose community tenure due to death in the community as opposed to permanent nursing facility placement. The number of diverted customers who died while living in the community was 32% (192) by the 36th month after the CARE Assessment. Overall, 50.3% (301) diverted customers were dead by the 36th month.

The following table displays the community tenure status of living diverted customers at 3-month intervals after the CARE Assessment.

Table 3
Community Tenure Status of Living Diverted Customers
Tracked for 36 Months, Reported in 3-Month Intervals (N=599)

Time Interval After the CARE Assessment	In the Community	Permanent NF Resident	Living Diverted Customers
3 months	499 (86.2%)	80 (13.8%)	579
6 months	427 (80.1%)	106 (19.9%)	533
9 months	382 (77.0%)	114 (23.0%)	496
12 months	348 (74.4%)	120 (25.6%)	468
15 months	317 (72.9%)	118 (27.1%)	435
18 months	284 (68.9%)	128 (31.8%)	412
21 months	265 (68.3%)	123 (31.7%)	388
24 months	243 (65.7%)	127 (34.3%)	370
27 months	224 (64.2%)	125 (35.8%)	349
30 months	210 (65.0%)	113 (35.0%)	323
33 months	202 (65.2%)	108 (34.8%)	310
36 months	198 (66.4%)	100 (33.6%)	298

Table 3 shows that by the time tracking ended after 36 months nearly half (298) of the diverted sample (599) was still alive. Almost twice as many diverted NF applicants (198) were still living in the community 36 months after their assessment than were permanently living in a NF (100).

Throughout the 36 months of tracking, at least 64%, or two-thirds, of the living diverted customers were residing in the community and no more than 36% were permanently residing in the nursing facility at any time. This finding is remarkable considering that all of the diverted customers had in fact applied for nursing facility placement and more than 60% had a short NF stay following their CARE Assessment. The data show that if a diverted customer gets through the first 6 months following the CARE Assessment, they are likely to stay in the community.

In a separate analysis we looked at county-level data to identify any regional patterns in the loss of community tenure by the 36th month. We did not identify any regional or county-level patterns to explain loss of community tenure.

As part of the community tenure analysis, we tracked and analyzed the state publicly funded services being received by diverted customers at 3-month intervals during their community tenure through 36 months after their CARE Assessment. The following service funding sources are displayed in Table 4: Medicaid HCBS/FE and Targeted Case Management (TCM);⁶ State General Fund (SGF) services (which would include Senior Care Act services) and/or Older Americans Act (OAA) services. Service customers could begin and discontinue services at any time after the CARE Assessment. Please note that “Other Services” includes Medicare Home Health services, medical insurance, veterans’ benefits and/or private pay services. The information in each column for the funding source is mutually exclusive.

⁶ In this report, Case Management funded as a Medicaid Administrative cost (MedAdmin) is included in TCM. All HCBS/FE customers receive TCM.

Table 4
Community Tenure Status of Living Diverted Customers
at Three Month Intervals and by Funding Source ^a (N=599)

Time Interval After the CARE Assessment	Medicaid HCBS/FE & TCM ^b	SGF and/or OAA	Other or No Services	Number of Diverted Customers in the Community
3 months	84 (16.8%)	73 (14.6%)	342 (68.5%)	499
6 months	70 (16.4%)	46 (10.8%)	311 (72.8%)	427
9 months	68 (17.8%)	41 (10.7%)	273 (71.5%)	382
12 months	41 (11.8%)	42 (12.1%)	265 (76.1%)	348
15 months	38 (12.0%)	37 (11.7%)	241 (76.3%)	316
18 months	32 (11.3%)	36 (12.7%)	216 (76.1%)	284
21 months	31 (11.7%)	20 (7.5%)	214 (80.8%)	265
24 months	28 (11.5%)	23 (9.5%)	192 (79.0%)	243
27 months	28 (12.5%)	15 (6.7%)	181 (80.8%)	224
30 months	26 (12.4%)	16 (7.6%)	168 (80.0%)	210
33 months	26 (12.9%)	13 (6.4%)	163 (80.7%)	202
36 months	23 (11.6%)	11 (5.6%)	164 (82.8%)	198

^a All categories are mutually exclusive.

^b Diverted customers who received both Medicaid HCBS/FE and SGF and/or OAA were categorized as Medicaid HCBS/FE customers.

Table 4 illustrates that 157 (31.4%) diverted customers received some type of SPFS three months after their CARE Assessment. Of the diverted customers still in the community 24 months after the CARE Assessment, 51 (21.0%) were receiving some type of SPFS. By the 36th month after the CARE Assessment, 34 (17.2%) of the diverted customers received HCBS/FE or SGF and/or OAA services.

Table 4 also illustrates how the number of Medicaid HCBS/FE customers falls slightly below the number of SGF and/or OAA customers at the 12th and the 18th months. Then from the 21st through the 36th month, the number of HCBS/FE customers is greater than the number of SGF and/or OAA customers. Chart 2 graphically illustrates the funding sources of services received by diverted customers in three-month intervals.

Chart 2
Community Tenure Status of Diverted Customers at
Three Month Intervals by Funding Source (N = 599)

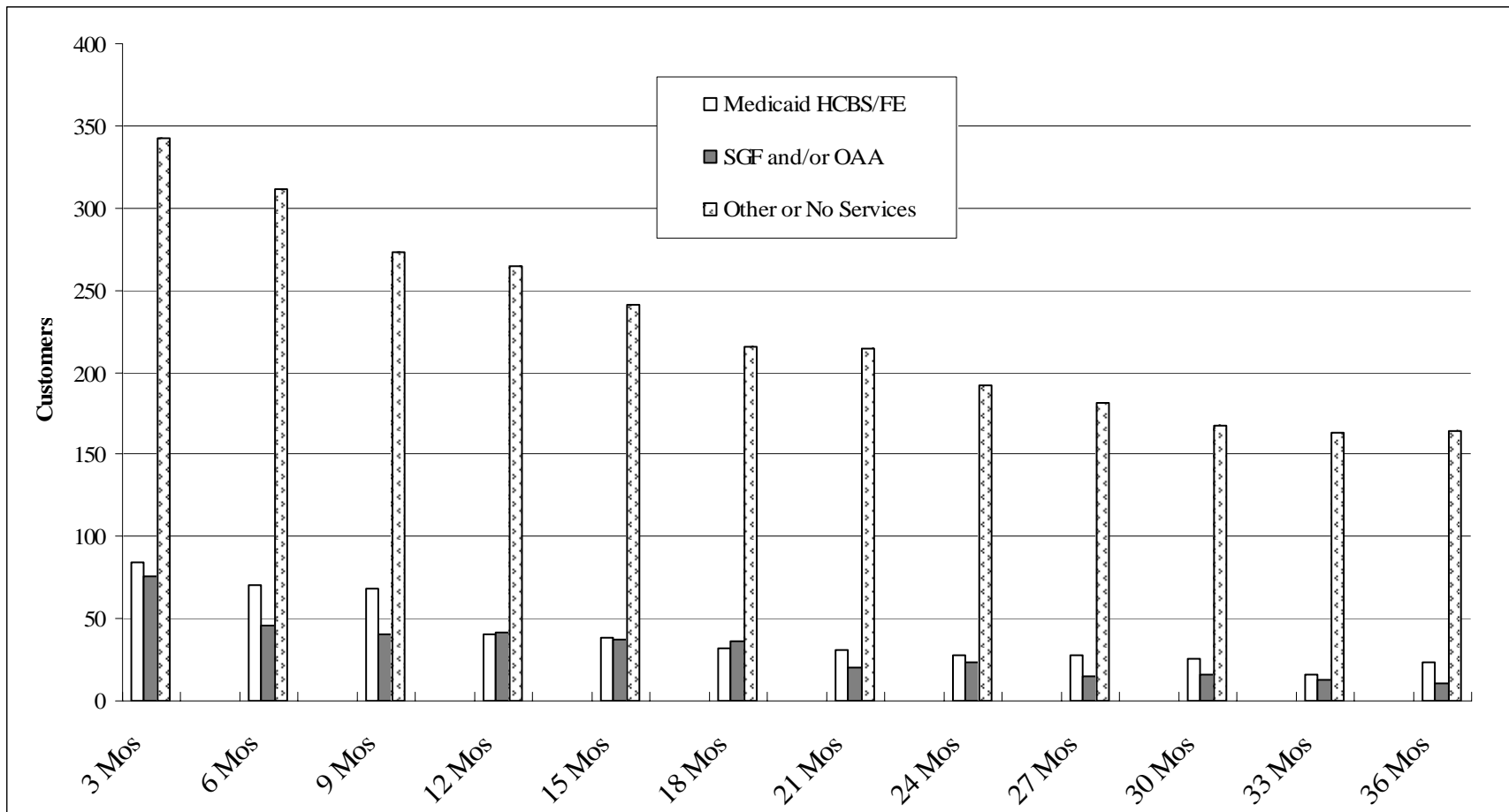


Chart 2 illustrates how the number of diverted customers receiving Medicaid HCBS/FE and SGF and/or OAA services decreased from 157 to 34 over 36 months. The chart also shows that, in general, diverted customers receive services from the major public long-term care funding sources shortly after their diversion but do not continue to receive these services throughout the 36 months. In other words, their need for these services is limited and once they receive them and their condition stabilizes they are able to remain in the community. From the 27th to the 36th month, the percent of diverted customers using SPFS declined but only to 17.2% (34).

In the next section, a description of the services received by diverted customers and a cost analysis based on actual service costs are presented.

B) State Publicly Funded Service Utilization Patterns, Costs and Savings

The costs associated with the use of State Publicly Funded Services (SPFS) and the savings accrued by the state are provided next. As noted earlier, of the 599 older adults who were diverted, 34.4% received State Publicly Funded Services by the third month after their CARE Assessment (Table 4). Over 33% (198) of the diverted older were still in the community at the 36th month. One of the purposes of this project was to identify services and analyze related state costs and savings in order to assist policy makers in developing effective state policies and practices. This section examines actual service use by diverted customers and costs of SPFS during the 36-month period following the CARE Assessment. This analysis is placed within the context of key policy questions.

- **What State Publicly Funded Services are used by diverted customers and for how long?**
 - **One hundred and five (17.5%) diverted customers used State General Fund Services (SGF) and one hundred and twelve (18.7%) diverted customers used Older American's Act services (OAA) while in the community at some time during the 36 months they were tracked. Fifty-one customers received both services.**
 - **Ninety-eight diverted customers (16.4%) used Medicaid Home and Community Based Services for the Frail Elderly (HCBS/FE) and Targeted Case Management (TCM) services while in the community at some time during these 36 months.**
 - **Fifty-four diverted customers (9.0%) who received Medicaid HCBS/FE services also received SGF and/or OAA during the 36 months examined.**

Table 5, below, displays the most frequently used services by diverted customers in terms of the average total units received, the average total length of service use, and the average total cost of services received.

Table 5
Most Frequently Used SPFS Services by Diverted Customers Over the 36-Month
Period Following the CARE Assessment Reported as Average Total Units of
Use, Average Total Months Received & Average Total Cost per Customer (N = 599)

	Number	Average Total Units Per Customer ^b	Average Total Months Services Received Per Customer	Average Total Cost of Service Per Customer
SGF^a (n=105)				
Assessment	74	17.0	1.7	\$170.19
Case Management	41	18.9	3.9	\$196.30
Homemaker	28	114.5	10.6	\$1,589.45
Home Delivered Meals	27	113.4	5.8	\$442.24
Attendant Care	19	88.7	9.2	\$1,247.06
Congregate Meals	1	12.0	3.0	\$40.02
OAA^a (n=112)				
Home Delivered Meals	72	157.7	7.5	\$624.24
Congregate Meals	33	68.0	6.6	\$282.00
Case Management	10	23.3	3.1	\$260.30
Assessment	8	4.8	1.1	\$49.39
Attendant Care	5	52.3	7.6	\$465.54
Homemaker	3	94.3	12.3	\$1,117.50
Medicaid HCBS/FE^c (n=98)^d				
Targeted Case Management	97	124.9	12.7	\$499.39
Health Care Attendant II	81	916.2	14.7	\$5,096.41
Personal Emergency Service	46	14.7	14.7	\$143.22
Wellness Monitoring	34	4.0	4.0	\$58.76
Health Care Attendant I	26	181.6	9.7	\$919.83

^a SGF and/or OAA services (e.g., ASMT, AASMT and IAASMT), case management services (e.g., CMGT, CMGTS and CMGTJ), and congregate meals (e.g., CMEL and CMELH) are presented as composite indicators of their service type. These services are based on the KDOA taxonomy.

^b All units represent one-hour increments except for ASMT. One unit of ASMT is equivalent to fifteen minutes.

^c Medicaid HCBS/FE services have been calculated at 40% of the actual cost to account for 60% matching funds.

^d All HCBS/FE customers receive TCM. One customer received MedAdmin at the end of the tracking period and had not gone onto TCM.

Of the SGF and OAA services diverted customers used, Assessment and Home Delivered Meals were used by the greatest number of diverted customers, followed by Case Management, and Congregate Meals. Homemaker services were used, on average, longer than other SGF or OAA services.

Of the Medicaid HCBS/FE and TCM services, TCM and Health Care Attendant II were used by the greatest number of diverted customers. The Medicaid HCBS/FE and TCM services used the longest were Health Care Attendant II and Personal Emergency Service.

Table 6 below displays the community tenure status of diverted customers at the 36th month based on whether or not the diverted customer received SPFS at any time during the 36 month tracking period.

Table 6
Community Tenure Status of Diverted Customers
at the 36th Month, by SPFS Utilization (N=599)

Diverted Customer Received SPFS at Anytime During the 36 Months (Number; Percent)	In the Community	Permanent NF Resident	Died While Permanent NF Resident	Died While Living in Community
Yes (209; 34.9%)	82 (39.2%)	36 (17.2%)	36 (17.2%)	55 (26.3%)
No (390; 65.1%)	116 (29.7%)	64 (16.4%)	73 (18.7%)	137 (35.1%)

Table 6 illustrates that 209 (35%) of the 599 diverted customers received SPFS at some time during the 36 months of tracking. Although 82 diverted customers who received SPFS at some point during the 36 months continued to reside in the community at the 36th month, only 34 of these 82 diverted customers were also receiving SPFS at the 36th month (Refer to Table 4 on page 10). These data further illustrate the fact that diverted customers do not remain on SPFS indefinitely, but used SPFS during times of long term care needs, such as when they applied for NF admission following a hospitalization. The findings in Table 6 suggest that diverted customers who use community based services may avoid NF admission and therefore reduce long term care costs for the state.

Next, OALTC completed a cost analysis of the cost of SPFS used by diverted customers compared to the cost of nursing facility (NF) care had these diverted customers entered the NF permanently instead of remaining in the community. The first cost analysis presented is for the cost of SGF and OAA services used by diverted customers compared to the cost of NF. In order to complete the calculation of actual service costs for the 36 month period following the CARE Assessment, actual SGF and OAA service cost data for the four waves of diverted customers were analyzed.

- **What are the cost savings for the state when SGF and OAA services are received by diverted customers in lieu of NF care?**
 - **For every month that an older adult was diverted from NF care and able to remain in a community setting with community-based services, the state saved \$759.62 if SGF services were provided.**

- **For every month that an older adult was diverted from NF care and able to remain in a community setting with community-based services, the state saved \$924.00 if OAA services were provided.**

The next segment of this report details the basis for the cost calculations. Table 7 provides the total average and monthly average service costs for SGF and OAA services.

Table 7
Average SGF and OAA Service Use by Diverted Customers ^a
Over the 36-Months Following the CARE Assessment (N=599)

SGF Services ^b (n=105 customers)	Average
Avg. Total Number of Services Used (Range/SD, 1.00-6.00/1.38)	2.56
Avg. Total Months of Service Use (Range/SD, 1.00-25.00/6.90)	5.95
Avg. Total Cost of Service Use (Range/SD, \$15.75-9,008.75/\$1,748.46)	\$978.04
Average Monthly Cost	\$164.38
OAA Services ^c (n=112 customers)	Average
Avg. Total Number of Services Used (Range/SD, 1.00-5.00/0.87)	1.45
Avg. Total Months of Service Use (Range/SD, 1.00-28.00/6.94)	7.56
Avg. Total Cost of Service Use (Range/SD, \$4.72-4,353.18/\$780.33)	\$585.50
Average Monthly Cost	\$77.45

^a There were 52 diverted customers who received both SGF and OAA services. The number of customers in each funding category is not mutually exclusive.

^b The state share of SGF is 100%.

^c The state share in the cost of OAA services is minimal.

- The average number of SGF services used by diverted customers was 2.56. Diverted customers' average service use was 5.95 months and cost \$978.04 over the 36 months of tracking. The average monthly cost of these services was \$164.38.
- The average number of OAA services by diverted customers was 1.45. Diverted customers' service use was 7.56 months and cost \$585.50 over the 36 months of tracking. The average monthly cost of these services was \$77.45.

Table 8 below details the actual state cost savings for State General Fund and Older American Act Programs for diverted customers tracked over 36 months. The following methodology was used to calculate the savings reported in Table 8. The average monthly cost of NF care is \$2,310.00.⁷

- The average monthly state share of services (Column A) was derived by totaling service costs and dividing by the average number of months diverted customers received services. The state share of SGF services was calculated at 100% and the state share of OAA services was calculated at 0% because the state does not share in the cost many of these services.

⁷ This SFY 2002 NF cost information was provided by KDOA. The SFY 2002 NF cost information was used for the cost analysis of NF compared to SPFS. SFY 2003 and 2004 NF costs may be slightly higher, and cost savings would be greater.

- In calculating the average monthly state share of NF cost (Column B), the NF cost is calculated at 40% of the statewide monthly average of \$2,310.00 since the state receives 60% federal matching funds.
- The average monthly savings (Column C) was calculated by subtracting the average monthly state share of NF costs (Column B) from the average monthly state share of services (Column A).

Table 8
Actual State Cost Savings for State General Fund and Older American Act Programs Based on Diverted Customer’s Use over 36 Months of Tracking (N=599)

Funding Source for Services	(A) The Average Monthly State Share of Services	(B) The Average Monthly State Share of NF Costs	(C) Average Monthly Savings (Column B less Column A)
HCBS	\$164.38	\$924	\$759.62
OAA	\$0.00	\$924	\$924.00

Based on the actual service utilization of the diverted customers in our sample, for every month that an older adult is diverted from NF care and is able to remain in a community setting with State General Fund or Older American Act Services, the state saves \$759.62 and \$924.00 respectively.

The second cost analysis is presented for Medicaid HCBS/FE diverted customers.

- **What are the actual cost savings for the state when Medicaid HCBS/FE services and TCM are received by diverted customers in lieu of NF care?**
 - **For every month that an older adult in our sample was diverted from NF care and was able to remain in a community setting with Medicaid HCBS/FE services the state saved \$596.40 if Medicaid HCBS/FE and TCM services were provided.**

The next segment of this report details the basis for the cost calculations. Table 9 provides the total average and monthly average service costs for Medicaid HCBS/FE services, including TCM.

Table 9
Average Medicaid HCBS/FE Use by Diverted Customers
Over the 36-month Period Following the CARE Assessment (N=599)

Medicaid HCBS/FE Services (n=98 customers)	Average
Total Number of Services Used (Range/SD, 1.00-7.00/1.26)	3.18
Total Months of Service Use (Range/SD, 1.00-36.00/12.31)	15.62
Total Cost of Service Use ^a (Range/SD, \$130.00-63,901.45/\$13,849.16)	\$12,792.58
Average Monthly Cost ^a	\$818.99

^a The total cost of service use and average monthly cost are reported at 100% of cost before the 40% state share has been computed.

- The average number of Medicaid HCBS/FE and TCM services used by diverted customers was 3.18 services over 15.62 months and cost \$12,792.58 over the 36 months of tracking. The average monthly cost of these services was \$818.99.
- Comparing the Medicaid HCBS/FE and TCM service use by diverted customers at the 24th month to the 36th month, the total number of services increased from 3.13 to 3.18, and the total months of service use increased from 12.35 to 15.62.

OALTC staff conducted a cost analysis using actual Medicaid HCBS/FE and TCM service data and NF cost data. The average monthly cost of NF care is \$2,310.00.⁸ It is assumed that diverted customers in this sample would have likely qualified for Medicaid upon entry to a NF based on their eligibility for Medicaid HCBS/FE. The following information was used to derive the results presented below in Table 10.

- The average monthly state share of services (Column A) was derived by totaling service costs and dividing by the average number of months diverted customers received services. Medicaid HCBS/FE and TCM were figured at 40% of costs since the state receives 60% federal matching funds.
- In calculating the average monthly state share of NF cost (Column B), OALTC assumed that diverted customers who received Medicaid HCBS/FE services would have likely qualified for Medicaid upon entering a NF. Thus, the NF cost is calculated at 40% of the statewide monthly average of \$2,310.00 since the state receives 60% federal matching funds.
- The average monthly savings (Column C) was calculated by subtracting the average monthly state share of NF costs (column B) from the average monthly state share of Medicaid HCBS/FE services (Column A).

⁸ This SFY 2002 NF cost information was provided by KDOA. The SFY 2002 NF cost information was used for the cost analysis of NF compared to SPFS. SFY 2003 and 2004 NF costs may be slightly higher and then cost savings would be greater.

Table 10
Actual State Cost Savings for Medicaid HCBS/FE Programs Based on
Diverted Customer's use over 36 Months of Tracking (N=599)

(A) The Average Monthly State Share of HCBS Services	(B) The Average Monthly State Share of NF Costs	(C) Avg. Monthly Savings (Column B less Column A)
\$327.60	\$924.00	\$596.40

Based on the actual service utilization of the diverted customers in our sample, for every month that an older adult is diverted from NF care and is able to remain in a community setting with Medicaid HCBS/FE and TCM services, the state saves \$596.40.

In summary, savings to the state when diverted customers use community-based services in lieu of NF placement are:

- **For every month that an older adult was diverted from NF care and able to remain in a community setting with community-based services, the state saved \$759.62 if SGF services were provided.**
- **For every month that an older adult was diverted from NF care and able to remain in a community setting with community-based services, the state saved \$924.00 if OAA services were provided.**
- **For every month that an older adult in our sample was diverted from NF care and was able to remain in a community setting with Medicaid HCBS/FE services the state saved \$596.40 if Medicaid HCBS/FE and TCM services were provided.**

In the next section, implications are offered and discussed based on the findings presented in this report. The section ends with a summary of the next steps.

C) Implications

This section provides a summary of key policy findings and implications for policy makers. These findings and implications are based on quantitative data collection and analyses.

➤ **State Publicly Funded Services (SPFS) Are Cost Effective**

The average monthly state savings gained by providing SPFS for diverted older adults in our sample were \$596.40 for HCBS/FE customers, \$759.62 for SGF customers and \$924.00 for OAA customers.

Diverted customers' use of SPFS in lieu of a NF admission continues to be cost effective. Most diverted customers use SPFS for a limited time and were able to successfully maintain community tenure. The Medicaid HCBS/FE and TCM services were used for an average of approximately 15.6 months, the SGF services were used for an average of approximately 6 months and the OAA services were used on average for slightly over 7.6 month. For every month a diverted service customer in the sample remained in the community with SPFS, the state saved \$596.40 if Medicaid HCBS/FE and TCM services were provided, \$759.62 if SGF services were provided and \$924.00 if OAA services were provided. The cost benefit analysis was conducted with actual SPFS cost data for diverted customers for 36 months.

There were 209 (35%) diverted customers who used SPFS at any time during the 36 months of tracking. Only 34 diverted customers continued to receive SPFS at the time tracking ended at 36 months after the CARE Assessment (Refer to Table 4).

These findings illustrate that diverted customers do not use SPFS indefinitely. Diverted customers used SPFS at times when they had long term care needs, such as following a hospitalization. As learned in the Diversion Study (SFY2002), approximately 60% of diverted customers had a short (less than 30 day) NF admission possibly following a hospitalization. Once diverted customers returned home from the hospital or NF, they used SPFS in combination with informal support. The availability of SPFS permits older adults the flexibility to use services at times of long term care need and potentially avoid costly and permanent NF admission.

➤ **Diverted Customers Continue to Have High Rates of Community Tenure**

After 36 months of follow-up, 33.1% (n=198) of the diverted customers remained in the community.

These findings are even more remarkable when the number of living diverted customers residing in community settings is compared to living diverted customers who are permanent NF residents. There are 198 (66.4%) or nearly two-thirds of the living diverted customers residing in community settings 36 months after the CARE Assessment compared to the 100 (33.6%) living diverted customers who are permanent NF residents. Also, 192 (32.1%) diverted customers were residing in the community when they died and 109 (18.2%) were permanent NF residents at the time of their death. Our understanding of how diverted customers and caregivers were able to remain in the community was enhanced by the qualitative findings from interviews conducted for The Community Tenure Study (SFY 2003). Diverted customers and caregivers told us that determination, knowledge of services and their ability to uniquely combine informal support and formal services were important factors in considering permanent NF admission.

As noted in the introduction, state policy makers and researchers in long term care would have expected diverted CARE Assessment customers to permanently enter the NF within a short period of time following their original application for NF. Instead, over 33% (198) of the diverted customers remain in the community 36 months after their CARE Assessment. The third year of tracking illustrates how large numbers of diverted customers remain in the community for long periods of time.

D) Conclusion

Findings from this longitudinal study are garnering national attention because OALTC researchers have tracked community tenure over three years for a cohort of older adults who were at the nursing facility door. After three years, over 65% of the diverted customers continue to remain in the community or have died while residing in the community. This finding is contrary to the widely held belief that publicly-funded home and community based services just delay the NF admission of older adults with long term care needs where they will ultimately receive more expensive publicly-funded care.

The research findings presented in this report strongly suggest that assertive diversion efforts combined with thorough education about how to access home and community based services does not ultimately increase overall public cost for older adults who apply for NF care. Rather, many of these older adults will remain in the community until their death at an overall savings to the state. Furthermore, the widely held preference of older adults with long term care needs to remain in the community will be honored and many will continue to contribute to their communities both economically and socially for more than three additional years.

E) Next Steps

The number of diverted customers still residing in the community is of interest to policy makers and OALTC researchers will continue to track diverted customers for 48 months and report on their community tenure status. The fourth-year report will synthesize information and findings about diverted customers gathered over the four years of tracking in order to discuss in greater detail who can stay in the community for long periods of time.

In addition, OALTC researchers are conducting an expanded analysis of Medicaid services that builds on the methodology from the Diversion Study (SFY2002). The expanded analysis of Medicaid Services study includes diagnostic information that will increase our knowledge about older adults who reside in the community for long periods of time following their application for NF.

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Appendix

The information provided in this appendix is a summary of findings from the *Longitudinal Study of Customers Diverted through the CARE Program: Summary of Key Policy Findings (SFY2002)*. Also referred to as *The Diversion Study*, this study compared older adults who were admitted to nursing facilities to older adults who were diverted as of the 30th day after the CARE Assessment. The purpose was to identify similarities and significant differences between the diverted and non-diverted groups of customers. Diverted and non-diverted customers were compared on demographics, levels of functioning, problems and risks, potential payor status and legal representation. Those findings are presented in the tables below.

Among the diverted and non-diverted groups, Table 1 displays the distribution of age, gender, urban/rural, and whether the person lived alone.

Table 1
Distribution of Diverted and Non-Diverted Customers on Four Predisposing Factors:
Age, Gender, Urban/Rural and Lives Alone (N=2,882)

Predisposing Factors	Diverted (N=600)		Non-diverted (N=2,282)	
	Number	(%)	Number	(%)
Age (years) ^a				
Under 65	9	1.5%	41	1.8%
65 to 74	85	14.2%	271	11.9%
75 to 84	216	36.0%	879	38.6%
85 & older	290	48.3%	1,089	47.8%
Gender ^a				
Male	190	31.7%	766	33.6%
Female	410	68.3%	1,512	66.4%
Urban/Rural Classification ^a				
Urban Counties:				
Central county with 1,000,000 in population or more	76	12.8%	314	14.1%
Fringe county with 1,000,000 in population or more	5	0.8%	51	2.3%
County with 250,000 to 1,000,000 in population	103	17.3%	480	21.6%
County with fewer than 250,000 in population	55	9.2%	156	7.0%
Rural Counties:				
<i>Adjacent to a urban area</i>				
With urban population of 20,000 or more	55	9.2%	181	8.1%
With urban population of 2,500-19,999	44	7.4%	161	7.2%
Completely rural or less than 2,500 urban population	10	1.7%	13	0.6%
<i>NOT adjacent to an urban area</i>				
With urban population of 20,000 or more	64	10.7%	199	9.0%
With urban population of 2,500-19,999	115	19.3%	426	19.2%
Completely rural or less than 2,500 urban population	69	11.6%	241	10.8%
Lives alone ^a				
Yes	299	49.8%	975	42.7%
No	300	50.0%	1,303	57.1%

^aThese do not total the “N” because of missing values.

Table 1 shows that age was similarly distributed for both groups. Approximately 85% of all customers, diverted and non-diverted, were age 75 and older. Diverted and non-diverted customers were similarly distributed in terms of age with those age 85 and older making up the largest segment. Diverted and non-diverted customers were similarly distributed in terms of gender; two-thirds of both groups were female.

The diverted and non-diverted customers were also similarly distributed over the ten urban/rural levels of the county classification system. The two county designations with the largest percent

of the sample were customers from urban counties of 250,000 to 1,000,000 (17.3% of the diverted and 21.6% of the non-diverted) and rural counties of 2,500 to 19,999 (19%) followed by urban areas of 1,000,000 or larger (12.8% to 14.1%). Among diverted customers, approximately half lived alone and half with others. A larger proportion of diverted customers lived alone compared to non-diverted customers (49.8% and 42.7% respectively).

Table 2 displays the distribution of diverted and non-diverted customers on support availability, location of CARE Assessment, three potential payment sources for support services, and three financial and legal characteristics.

Table 2
Distribution of Diverted and Non-Diverted Customers on Enabling Factors:
Support Availability, Location of CARE Assessment, and Financial & Legal Status
(N=2,882)

Enabling Factors	Diverted (N=600)		Non-diverted (N=2,282)	
	Number	Percent	Number	Percent
Support Availability ^a				
Full time	201	33.7%	803	35.2%
Part time- routine	139	23.3%	480	21.1%
Part time- intermittent	150	25.1%	516	22.6%
Not available	107	17.9%	481	21.1%
Location of CARE Assessment ^a				
Home	155	28.5%	503	23.7%
Nursing Facility	66	12.1%	300	14.1%
Hospital	323	59.4%	1,320	62.2%
Financial & legal variables				
<i>Potential pay status</i>				
Self-pay				
Yes	394	65.7%	1,381	60.5%
No	206	34.3%	901	39.5%
Medicaid				
Yes	106	17.7%	530	23.2%
No	494	82.3%	1,752	76.8%
Medicare				
Yes	532	88.7%	1,986	87.0%
No	68	11.3%	296	13.0%
<i>Legal & financial representative</i>				
Self				
Yes	309	51.5%	895	39.2%
No	291	48.5%	1,387	60.8%
Son/daughter/other relative				
Yes	317	52.8%	1,395	61.1%
No	283	47.2%	887	38.9%
Durable Power of Attorney				
Yes	169	28.2%	737	32.3%
No	431	71.8%	1,545	67.7%

^a These do not total the "N" due to missing values.

Table 2 reports that one-third of diverted and non-diverted customers had full-time support available. Support availability was similarly distributed for both diverted and non-diverted customers. Location of the CARE Assessment was also similarly distributed between the

diverted and non-diverted customers. A larger proportion of CARE Assessments, approximately 60% for both groups, was conducted while the customer was in the hospital.

Three potential sources of payment for support services were examined, showing approximately two-thirds (65.7% for diverted and 60.5% for non-diverted) of both groups with self-pay as the potential source of payment. Also, less than 25% indicated Medicaid as a potential payor source, and over 85% indicated Medicare. It is noteworthy that a slightly higher proportion of non-diverted customers indicated Medicaid as a potential payment source (23.2% compared to 17.7%).

Diverted customers were more likely to have been responsible for their own legal and financial affairs than non-diverted customers. Non-diverted customers were more likely to have a son or daughter responsible for legal and financial affairs. This suggests that managing one’s own legal and financial affairs is indicative of individuals who function more independently and are able to remain in their own home.

Tables 3 through 6 compare the frequency distribution of the diverted and non-diverted groups on characteristics of activities of daily living (ADL), instrumental activities of daily living (IADL), bladder incontinence, memory/recall capacity, and problems and risks. Table 3 reports the comparison of six specific ADLs for diverted and non-diverted customers.

Table 3
Distribution of Diverted and Non-Diverted
Customers on Need Factors: ADLs (N=2,882)

Diverted (N=600)				
ADL	Independent	Supervision Needed	Physical Assistance Needed	Unable to Perform
Bathing	7.2%	11.7%	72.0%	9.2%
Dressing	17.3%	17.0%	58.8%	6.8%
Toileting	24.8%	18.0%	50.5%	6.7%
Transfer	23.2%	21.7%	47.8%	7.3%
Walking, mobility	17.3%	25.3%	51.0%	6.3%
Eating	58.7%	24.7%	14.8%	1.8%
Non-Diverted (N=2,282)				
ADL	Independent	Supervision Needed	Physical Assistance Needed	Unable to Perform
Bathing	3.1%	11.3%	69.8%	15.8%
Dressing	9.6%	15.7%	61.5%	13.2%
Toileting	17.8%	14.8%	56.7%	10.7%
Transfer	16.6%	18.1%	55.1%	10.2%
Walking, mobility	13.5%	21.0%	51.6%	13.8%
Eating	44.1%	31.4%	20.5%	4.0%

Table 3 shows that overall, diverted customers were more independent in ADL function compared to non-diverted customers. This is illustrated also by the fact that more non-diverted customers were unable to perform ADLs.

Table 4 reports the comparison of seven specific IADLs for diverted and non-diverted customers.

Table 4
Distribution of Diverted and Non-Diverted
Customers on Need Factors: IADLs (N=2,882)

Diverted (N=600)				
IADL	Independent	Supervision Needed	Physical Assistance Needed	Unable to Perform
Meal preparation	3.7%	3.2%	31.2%	62.0%
Shopping	1.8%	2.8%	30.7%	64.7%
Money management	18.5%	11.5%	27.9%	42.1%
Transportation	4.0%	9.7%	54.3%	32.0%
Telephone	50.4%	20.5%	16.9%	12.2%
Laundry/housekeeping	2.7%	2.3%	26.3%	68.7%
Medication management	13.2%	16.0%	37.8%	33.0%

Non-Diverted (N=2,282)				
IADL	Independent	Supervision Needed	Physical Assistance Needed	Unable to Perform
Meal preparation	1.6%	3.0%	24.2%	71.2%
Shopping	1.0%	2.5%	23.5%	73.1%
Money management	9.0%	10.6%	28.9%	51.5%
Transportation	1.6%	8.1%	55.2%	35.0%
Telephone	32.9%	21.8%	27.1%	18.1%
Laundry/housekeeping	1.3%	1.7%	22.2%	74.9%
Medication management	4.6%	13.6%	38.0%	43.9%

Table 4 shows that overall, diverted customers were more independent in IADL function compared to non-diverted customers. This is illustrated also by the fact that more non-diverted customers were unable to perform IADLs. It is noteworthy to point out that both diverted and non-diverted customers were more impaired in their ability to do shopping and laundry/housekeeping, and meal preparation than other IADLs.

Table 5 displays the comparison of diverted and non-diverted customers on memory/recall and bladder incontinence. The memory/recall variable measures the number of problems that exist in this area. The categories are short-term memory, long term memory, memory/recall and decision-making. A score of "0" means no problems exist in a category; a score of 1 means a problem exists. Then the scores are totaled to determine the level of the memory/recall problem.

Table 5
Distribution of Diverted and Non-Diverted Customers on Need Factors:
Memory/Recall and Continence (N=2,882)

Functional Problem	Diverted (N=600)		Non-diverted (N=2,282)	
	Number	Percent	Number	Percent
Memory/Recall Problems Frequency ^a				
0	209	34.8%	463	20.3%
1	79	13.2%	312	13.7%
2	79	13.2%	315	13.8%
3	90	15.0%	409	18.0%
4	143	23.8%	779	34.2%
Continence (bladder) ^a				
Continent	245	40.9%	713	31.3%
Usually Continent	123	20.5%	417	18.3%
Occasionally Incontinent	109	18.2%	454	19.9%
Frequently Incontinent	62	10.4%	335	14.7%
Incontinent	60	10.0%	362	15.9%

^aThese do not total the “N” due to missing values.

Table 5 shows that diverted customers are more likely to have no problems in memory/recall and non-diverted customers are more likely to have problems in all memory/recall areas. Diverted customers were less likely to have problems with incontinence compared to non-diverted customers.

Table 6 displays the distribution of problems and risk variable impairments among the diverted and non-diverted customers.

Table 6
Distribution of Diverted and Non-Diverted Groups on Need Factors:
Problems and Risk Variables (N=2,882)

Problem/Risk Present	Diverted (N=600)		Non-diverted (N=2,282)	
	Number	Percent	Number	Percent
Problems/risks				
Falls, unsteadiness ^a	532	88.7%	2,026	88.8%
Impaired vision ^a	282	47.0%	1,087	47.7%
Impaired hearing ^a	230	38.3%	822	36.0%
Wandering ^a	80	13.3%	368	16.1%
Socially inappropriate ^a	74	12.3%	299	13.1%
Self-neglect ^a	96	16.0%	431	18.9%
Abuse, Neglect, Exploitation ^a	51	8.5%	148	6.5%

^aThese do not total the “N” due to missing values.

Table 6 shows that the presence of problems and risks are similarly distributed among the diverted and non-diverted customers. The proportion of problems experienced by both groups varies by problem. For example, abuse, neglect, or exploitation is a relatively low frequency problem compared to wandering. The highest frequency problem is falls and unsteadiness, followed by impaired vision and hearing. These three types of problems are more physical in nature, whereas wandering, social inappropriateness and self-neglect may stem from cognitive or mental deficits.

The bivariate results in Tables 1-6 provide a description of the diverted and non-diverted customers in relation to predisposing, enabling, and need factor data gathered by the CARE Assessment. Next, the mean Long-Term Care Threshold Score (LTC score) for diverted customers is compared to the mean LTC score of non-diverted customers and analyzed for significant differences.

Comparisons in Table 7 of the diverted and non-diverted groups in terms of the LTC score and subscale scores showed small, but statistically significant differences. The mean LTC score of the non-diverted group was found to be higher by an average of 8.20 points. The *p* value of .01 for interpretation was used in the report. For example, a *p* value less than .01 indicates that there is less than 1 chance in 100 that these findings are due to random variation. The consistent pattern of group differences across subscale LTC scores indicates that the difference between the diverted and non-diverted groups on the LTC score was not due to a single subscale component.

Table 7
Mean Differences in Long-Term Care Threshold Scores (N=2,882)

	Mean Score Diverted (N=600)	Mean Score Non-diverted (N=2,282)	Significance Level
LTC Threshold Score	65.80	74.00	.000
ADL	19.46	22.35	.000
IADL	34.40	38.06	.000
Risk factors	11.98	13.65	.000

The LTC score is a composite score based on ADLs, IADLs, memory/recall, continence, falls, support availability, and abuse, neglect, and exploitation. The composite LTC score permits a global assessment of the functional status of the older adult seeking NF care and can be used to evaluate their appropriateness for this level of care. The LTC scores ranged from a low of 3 to a high of 125 for both groups and a low LTC score indicates the older adult is less impaired. *The difference in the mean LTC Threshold Score between diverted (68.5) and non-diverted (74.0) customers was statistically significant.* However, the expectation was that there would be a larger difference between diverted and non-diverted customers in the LTC scores. This prompted some additional analysis.

Chart 1 displays the LTC score for diverted customers compared to non-diverted customers in 10 point increments. This provides a visual representation that permits examination of the LTC scores comparing both groups simultaneously.

**Chart 1:
Comparison of LTC Threshold Scores
of Diverted (N=596) and Non-diverted (N=2,258) Customers**

These do not total the “N of 2282” because of missing values.

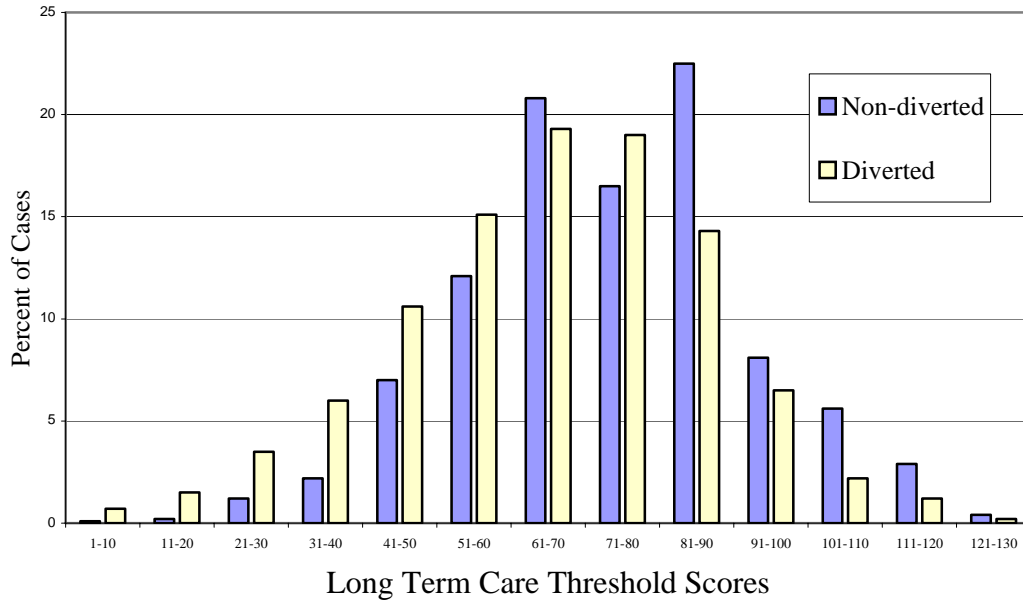


Chart 1 illustrates how the LTC scores were distributed for both diverted and non-diverted customers. *The most important finding from this analysis is that some non-diverted customers with low LTC scores entered NFs and some diverted customers with high LTC scores were able to remain in the community.* As Chart 1 illustrates, diverted and non-diverted customers were surprisingly similar in their distribution of the LTC score. The analysis of LTC scores indicates that the difference between the diverted and non-diverted customers’ LTC scores was statistically significant; however, the difference was fairly small. As previously mentioned, the expectation would be a larger difference in LTC scores between diverted and non-diverted customers.