

Colorado Department of Health Care Policy and Financing Consumer Directed Care Evaluation

Cost Analysis Change Report (4.13.2.1)

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Introduction

This report provides findings from the Cost Change Analysis component of the larger Consumer Directed Care (CDC) evaluation that we (TriWest Group) are conducting for the Colorado Department of Health Care Policy and Financing (Department).

This report contains three sections:

1. Agency based care costs for waiver services and Department identified state plan benefits six months before and after client change to CDASS or IHSS:
 - a. Health Maintenance (IHSS only)
 - b. Homemaker Services
 - c. Personal Care (including Relative Personal Care)
 - d. LTHH (Home Health and Skilled Nursing-Certified Nursing Assistant)
2. Hospitalization and institutional based care costs six months before and after client change to CDASS or IHSS.
 - a. Emergency Room costs
 - b. Hospital Inpatient costs
 - c. Nursing Facility costs
3. Analysis regarding these costs and trends of expenditures (listed in #1 and #2 above).
4. Analysis regarding cost trends for these expenditures for clients who do not utilize CDASS or IHSS.

Claims Data

We received Medicaid claims for all individuals (not a random sample) that fit into any of the 12 groups that were selected for the overall participant directed care study. Details of these groups can be found in the Survey Methodology and Instrument report. Claims data contained all Medicaid claims for any individual falling into one (or more) of the study groups during the 2017 calendar year. All Medicaid claims from 2013-2017 were included in the analyses.

This comparative analysis includes individuals who switched from traditional agency based care to either CDASS or IHSS between 2015 and the first half of 2017. A time span in the middle of the entire time frame was chosen to ensure large enough sample sizes and a 6 month window of available data before and after the change. Later time periods were selected to control for natural changes spanning over time.

Average costs per day per client were calculated by adding all costs for a single client within the 6 month pre or post time frame, then divided by the number of days during which services

were being received. This was then averaged across all clients.

The average cost per day per client is presented for clients in the 6 months prior to participation in either CDASS or IHSS. Client “enrollment” in either CDASS or IHSS service delivery is defined as the first date the individual received services during the five year time frame for which data was made available for this report.

As shown in the table below, there were some changes in costs for both CDASS and IHSS participants. However, when interpreting these changes it is important to note that some service types were not available to an individual, depending on service delivery enrollment during either the pre-post time period. For example, CDASS clients are not eligible for Long Term Home Health (LTHH). The table shows NA for costs for that service type for CDASS clients.

Medicaid Paid Costs for” Home” Services - Change Pre and Post CDASS Enrollment, by Waiver Type

Pre-Post CDASS or IHSS Participation	Average Medicaid Paid Cost per Client per Day			
	6 Months Pre CDASS or IHSS Enrollment		6 Months Post CDASS or IHSS Enrollment	
	Number (Percent) Receiving Services	Average Cost Per Day 6 months Pre CDASS or IHSS	Number (Percent) Receiving Services	Average Cost Per Day 6 months Post CDASS or IHSS Enrollment
Consumer Direct Attendant Support Services (CDASS) (n=363)				
All (Home) Services ¹ (n=363)	363 (100%)	\$36	363 (100%)	\$86
Long Term Home Health (n=111)	111 (31%)	\$83	NA ²	NA
In Home Support Services (IHSS) (n=871)				
Health Maintenance	NA	NA	744 (85%)	\$96
Homemaker	296 (34%)	\$64	250 (29%)	\$52
Personal Care	769 (88%)	\$50	485 (56%)	\$45
Relative Personal Care	664 (48%)	\$31	420 (48%)	\$49

¹ Claims for CDASS participants are not broken out by specific service types, since participants are given a single allocation to manage at their discretion. “Home” services include homemaker, health maintenance, and personal care.

² LTHH services are not available in the CDASS service delivery option. These are provided as “health maintenance” services for CDASS clients

	Average Medicaid Paid Cost per Client per Day			
Pre-Post CDASS or IHSS Participation	6 Months Pre CDASS or IHSS Enrollment		6 Months Post CDASS or IHSS Enrollment	
Group	Number (Percent) Receiving Services	Average Cost Per Day 6 months Pre CDASS or IHSS	Number (Percent) Receiving Services	Average Cost Per Day 6 months Post CDASS or IHSS Enrollment
Long Term Home Health (n=268; n=78) ³	268 (76%)	\$73	78 (9%)	\$80

For CDASS clients, costs before program enrollment involved the cost of both “home” services (homemaker and personal care services) at \$36 per client per day and for some CDASS clients an addition Long Term Home Health cost of \$83 per day. Once individuals enroll in CDASS, they are no longer eligible for Long Term Home Health services and instead receive health maintenance services that are aggregated with homemaker and personal care services for an average cost per day per client of \$83.

So for CDASS clients not receiving LTHH services, costs did go up because post-CDASS cost include health maintenance services not accounted for in the pre-analysis. Although, it is possible that these CDASS clients received other home medical services not accounted for here. For about one-third of CDASS clients who previously participated in LTHH services, costs declined significantly.

For IHSS clients, there were declines in costs for personal care and homemaker services, but increases for relative personal care and for health maintenances. It is worth noting again, however, that the increase in cost is due to a higher average cost for health maintenance services over the long term home health services (LTHH) received prior to enrolling in the IHSS service delivery option. However, as illustrated in the table on the following page, when comparing these costs specifically to skilled nursing costs (skilled nursing is one type of service offered under LTHH), these are comparable to IHSS costs.

³ There were 268 IHSS participants who had LTHH services in the 6 months before switching to IHSS from agency based services. There were 78 with LTHH services in the 6 month period after switching.

Comparison Group Cost Trends Agency Based Services

	Average Cost Per Client per Day			
	2014	2015	2016	2017
Agency Based Services				
Homemaker	\$25	\$34	\$33	\$29
Personal Care	\$45	\$58	\$53	\$57
Relative Personal Care	\$23	\$24	\$25	\$25
Home Health (LTHH)	\$69	\$61	\$69	\$74
Skilled Nursing (LTHH)	\$95	\$105	\$105	\$105

As was the case with previous ER and inpatient analysis these costs are reported as the number of service delivery option participants receiving any service. We also report the average cost per individual per person with a Medicaid paid claim.

ER, inpatient, and Facility Costs by Program Type

Pre-Post Cost Changes	Average Medicaid Paid Cost per Client per Day			
	Pre CDASS or IHSS		Post CDASS or IHSS	
Group	N (Percent) with Any Claim in 6 Months Pre Program	Average Annual Cost to Medicaid per Person with a Medicaid Paid Claim	N (Percent) with Any Claim in 6 Months Post Program	Average Annual Cost to Medicaid per Person with a Medicaid Paid Claim
Consumer Direct Attendant Support Services (CDASS) (n=363)				
Emergency Room	128 (35%)	\$426	133 (36%)	\$338
Inpatient Hospital	71 (20%)	\$449	64 (18%)	\$330
Nursing Facility	18 (5%)	\$249	16 (4%)	\$232
In Home Support Services (IHSS) (n=871)				
Emergency Room	375 (43%)	\$250	296 (34%)	\$434
Inpatient Hospital	200 (23%)	\$86	179 (21%)	\$83
Nursing Facility	34 (4%)	\$259	29 (3%)	\$223

As illustrated in the table above, the percentage of CDASS participants with an emergency room visit, stayed stable, increasing by only one percent between the pre and post time periods. However, average costs per visit did decrease significantly. Inpatient hospital claims and nursing

facility claims were also down slightly in the 6 months following enrollment, compared to the 6 months prior.

For IHSS participants, there was a sharp decline in the percent with an ER visit after program enrollment, but the average cost per claim increased over the same period. Like CDASS, IHSS participants saw slight decreases in the percent with an inpatient hospital or nursing facility claim after program enrollment.

Comparison Group Cost Trends: ER and Inpatient Facilities⁴

	Average Cost Per Client per Day			
	2014	2015	2016	2017
Facility Services (Average Medicaid Paid Annual Cost Per Person with Paid Claim)				
Emergency Room	\$285	\$537	\$523	\$406
Inpatient Hospital	\$294	\$345	\$344	\$600

Trends for the same time period show costs for comparison group clients that are both increasing, and higher overall in later years than for CDASS and IHSS clients.

⁴ There are too few nursing facility claims in the CDASS and IHSS groups to reliably compare to trends in the comparison groups.