



Service Costs for Persons with Developmental Disabilities Living in Residential and Community-Based Settings

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THE DEVELOPMENTAL DISABILITIES ADMINISTRATION (DDA) of the Washington State Department of Social and Health Services provides services to individuals with developmental disabilities who reside in a variety of settings. The services needed vary greatly across individuals,^{1,2} and prior investigations suggest that service costs vary widely across service settings.³ However, analyses to date have not examined possible cost differences among those with similarly assessed service needs who are living in different residential settings. Additionally, legislative and other actions in recent years have led to closures of Residential Habilitation Centers (RHC). DDA continues to explore the most effective and efficient approaches to serving clients in the least restrictive settings possible. This report expands prior work by presenting DSHS service costs for individuals in RHCs compared to those who have similar characteristics and assessed service needs and reside in Community Residential or Other Community-Based settings.

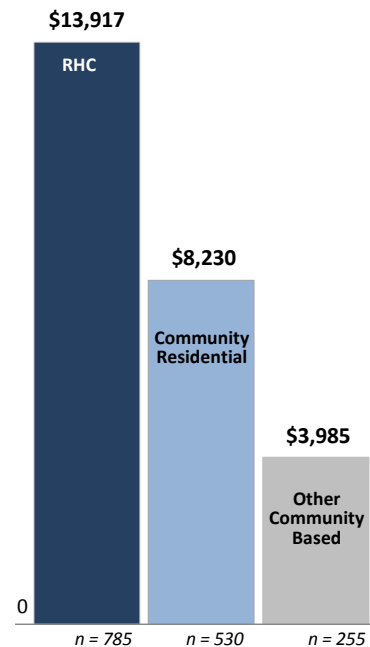
Cost Summary

DDA clients in Residential Habilitation Centers (RHC) were statistically matched to clients in community settings based on age and a comprehensive set of assessment items related to health, behavior problems and medical risk drawn from the DDA Case Management Information System (CMIS). The average monthly DSHS service costs incurred while in the applicable residential status are presented for DDA clients in the following three categories:

- Residential Habilitation Centers (RHC),
- Community Residential, and
- Other Community-Based settings.

The average monthly service costs of DDA clients in RHCs, even when adjusted for comparability, were almost twice the amount of those in Community Residential settings and more than three times that of clients residing in Other Community-Based settings. The main component of total cost for each group was: RHC costs (99 percent of RHC), residential program costs (89 percent of Community Residential), and personal care costs (63 percent of Other Community-Based).

DSHS Service Costs SFY 2010
Per Member Per Month (pmpm), for statistically matched groups



Service Costs for DDA Clients Reflect their Residential Settings

DDA Services. After matching clients in RHCs to a sample of those in the community based on age and assessed behavioral and medical support needs, we compiled DSHS service costs for State Fiscal Year (SFY) 2010 to compare costs for individuals in three settings: Residential Habilitation Centers, Community Residential, and Other Community-Based (see charts on next page). The distribution of costs was quite different between the three groups of individuals. For clients in RHCs, the majority of service costs were RHC costs (\$13,802 pmpm). For those in Community Residential, most costs were for residential programs (\$7,361 pmpm), and for individuals living in Other Community-Based settings, most costs were for personal care services (\$2,519 pmpm). Employment and Day Program costs were particularly high for those in Community Residential programs, with an average cost of \$442 pmpm. Community Residential and Other Community-Based clients had fairly similar monthly costs for Field Services (\$92 and \$89 pmpm, respectively) and Professional Services (\$51 and \$76 pmpm, respectively). Monthly RHC costs were proportionally reduced so that the dollars presented include only RHC operating costs.

Social and Health Services. Nearly all service costs, including medical, are included in the RHC program costs and cannot be allocated into more specific service use categories shown on the next page. Similarly, many of the costs for medical and for Aging and Adult Services are included under Residential Program costs for the Community Residential clients. As a result, costs tabulated for specific medical and Aging and Adult Services cannot be compared for clients in the three residential settings. DDA clients living in Other Community-Based settings averaged \$429 in medical expenses based on medical claims data and \$561 in Aging and Adult Services each month. Aging and Adult Services costs were comprised primarily of Private Duty Nursing and Adult Day Health for those in Other Community-Based settings, and Community Transitioning and Adult Day Health for those in Community Residential settings. Economic services such as Basic Food averaged \$59 pmpm for clients living in Community Residential settings and \$32 pmpm for those in Other Community-Based settings (\$32 pmpm); no comparable costs are available for those in RHCs. A small amount (\$3 to \$4 pmpm) was spent for vocational rehabilitation services for clients in each of the community settings.

Conclusions

This report presents cost information for DDA clients living in RHCs and for a sample of DDA clients living in the community selected using statistical matching to maximize their comparability to the RHC clients based on age and medical and behavioral acuity levels. The Community-Based clients were divided into two groups based on living arrangements—the Community Residential group and the Other Community-Based Group (see “Residence Types” in the Technical Notes for further detail).

The statistical matching process allowed us to control for client characteristics such as behavioral problems, chronic medical risk, and age, which are often considered important drivers of social and health service costs. We found marked differences in total costs for RHC clients compared to those in the comparison groups. Using administrative data on service costs, we found that total state costs for clients residing in RHCs were nearly twice as high as the costs for clients in the Community Residential group and over three times as high as the costs for those in Other Community-Based settings. Therefore, it is nearly twice as expensive for DSHS to serve an individual with developmental disabilities in an RHC institution as it is to serve an individual with similar problems, health issues and basic characteristics in a community setting. Since medical care and social services are provided to RHC clients as part of their institutional care, the costs for separate services are not reflected in the administrative data used to pay for these costs. Therefore, we cannot compare costs between the RHC clients and their Community-Based counterparts for detailed social and health services.

The main limitations to these findings are related to available sources of data. The primary data sources available for analysis were administrative data from DSHS services, Medicaid payment claims and DDA assessments.

DSHS Service Cost Detail by Residence Type

RESIDENTIAL HABILITATION CENTER | Total Average Per Member Per Month = \$13,917

Cost Components, SFY 2010

DSHS Division of Developmental Disabilities

Residential Habilitation Center		\$13,802
Residential Programs (includes SOLA)	\$0	
Professional Services	\$0	
Personal Care Services	\$0	
Employment and Day Programs	\$0	
Other Community Services	\$0	
Individual and Family Services	\$0	

RHC clients live in:

- DDD Residential Habilitation Centers (n=785)

Other Service Areas (DSHS, Health Care Authority)

Medical (Health Care Authority)	\$115
Aging and Adult Services Total	\$0
Economic Services (Basic Food)	\$0
Vocational Rehabilitation	\$0

COMMUNITY RESIDENTIAL | Total Average Per Member Per Month = \$8,230

Cost Components, SFY 2010

DSHS Division of Developmental Disabilities

Residential Programs (includes SOLA)		\$7,361
Employment and Day Programs	\$442	
Field Services*	\$92	
Professional Services	\$51	
Other Community Services	\$9	
Personal Care Services	\$6	
Residential Habilitation Center	\$16	
Individual and Family Services	\$0	

Community Residential clients live in:

- Own Home (Supported Living, n=436)
- Group Home DDA (n=71)
- State Operated Living Alternatives (SOLA, n=18)
- Own Home (Companion Home, n=2)
- Adult Family Home (n=1)
- Own Home (Alternative Living; n=1)
- Adult Residential Care (ARC, n=1)

Other Service Areas (DSHS, Health Care Authority)

Medical (Health Care Authority)	\$168
Economic Services (Basic Food)	\$59
Aging and Adult Services Total	\$22
Vocational Rehabilitation	\$4

OTHER COMMUNITY-BASED | Total Average Per Member Per Month = \$3,985

Cost Components, SFY 2010*

DSHS Division of Developmental Disabilities

Personal Care Services		\$2,519
Other Community Services	\$141	
Employment and Day Programs	\$114	
Field Services*	\$89	
Professional Services	\$76	
Individual and Family Services	\$21	
Residential Habilitation Center	\$0	
Residential Programs (includes SOLA)	\$0	

Other Community-Based clients live in:

- Parents' Home (n=169)
- Relatives' Home (n=45)
- Own Home (n=41)

Other Service Areas (DSHS, Health Care Authority)

Medical (Health Care Authority)	\$429
Aging and Adult Services Total	\$561
Economic Services (Basic Food)	\$32
Vocational Rehabilitation	\$3

* Field services may be slightly underestimated in costs reflected for clients in community settings due to the Client Service Database's (CSDB) allocation of costs across all DDD clients.

RESIDENCE TYPES

Residence type was determined for those in Community Residential and Other Community-Based settings as the residence at the time of assessment. For the two Community-Based groups, residence type was defined based on client residence type codes recorded in CMIS. For the RHC group, residence was established as RHC based on the list provided by DDA. All clients had Residential Support Levels of 5 or 6.

RHC – group included clients residing in an RHC at the time of assessment, including current and recent long-term residents with completed assessments, from list provided by DDA. Individuals residing in private Intermediate Care Facilities for Individuals with Intellectual Disabilities (ICF/IID) were not included.

Community Residential - group included clients residing in Community Residential settings at the time of assessment as recorded in CMIS. For inclusion in this group, current community residence was required for a minimum of a 365-day continuous span with no long-term RHC stay following the date of assessment (>29 days). Community Residential clients also had to have at least one month of service recorded in one of the following RDA Client Services Database residential categories most typically recorded for DDA clients: SOLA, Child Staffed Residential, Supported Living, Group Home, and Companion Home.

Other Community-Based – group included clients who were residing in the community, but not in Community Residential settings, at the time of assessment, with a minimum of a 365-day continuous span as recorded in CMIS. For inclusion in this group, clients could have no long-term RHC stay following their date of assessment (>29 days), and had to have at least one month of service recorded in a service category other than Field Services in the RDA Client Services Database.

MATCHING

In order to compare RHC resident costs with service costs for individuals with similar characteristics living in the community, we used a statistical matching process involving three steps: 1) a statistical model was estimated predicting RHC group membership based on characteristics in the following table, 2) the weights from that model were used to calculate a propensity score for each RHC client and each individual in the comparison group sampling frame, and 3) each RHC client was matched to the individual in the sampling frame with the closest propensity score.

Matching variables were drawn from a comprehensive set of assessment items and other client characteristics recorded in the Case Management Information System (CMIS) and analyzed for clients who had assessments completed by DDA during SFY 2008 through September 30, 2010. Assessment items are described in more detail in a prior RDA report.² Medical risk is defined using CDPS based on codes available in CMIS.⁴ Once the Community-Based comparison group was selected, it was subdivided into two groups based on codes in CMIS pertaining to place of residence at the time of assessment.

COSTS

Costs are constructed for SFY 2010 from the Client Services Database (<http://clientdata.rda.dshs.wa.gov/>) and include services provided while in the residential setting of focus. For example, if the individual was in a Community Residential for 10 months, then the services costs incurred are only included for those 10 months. Service dollars are reported for all DDA clients using an average per member per month (pmpm) approach. Monthly RHC costs were proportionally reduced by 11.5 percent so that the dollars presented include only RHC operating costs. Costs recovered by facilities in the form of IMR/Tax and Resident Participation or Medicare Part D are not included.

DDA CLIENT CHARACTERISTICS AFTER PROPENSITY-SCORE MATCHING

Percent or Average

CHARACTERISTICS	RHC n = 785	Community* n = 785
Age 45 or Older	80%	78%
Safety Issues Severe and Frequent	39%	36%
Problem Behavior: Assault or Injury	11%	9%
Problem Behavior: Obsessive Repetitive Behavior	10%	11%
Problem Behavior: Self-injury	15%	12%
Problem Behavior: Tantrums Outbursts	8%	10%
High Behavior Support Needs	41%	37%
High Mobility Acuity	27%	24%
Community Living Activities	10.16	10.12
Lifelong Learning Activities	11.10	11.00
Employment Activities	10.28	10.16
Social Activities	10.66	10.57
Antianxiety Medications	6%	8%
Antidepressant Medications	3%	4%
Exceptional Behavioral Support Needed in >1 Category	57%	56%
Medical Risk (CDPS Risk Score, CMIS Only)	1.26	1.20
Individual Habilitation Hours (Pred D)	40.24	40.07
Number of Months Eligible for Disability or Related Medicaid	11.91	11.91
Number of Months Eligible for Family or Children’s Medicaid	0.02	0.01
Number of Months Dually Eligible for Medicaid/Medicare	10.55	10.42

* In the matched sample, 530 are Community Residential clients, and 255 are other community clients. Clients had Residential Support Levels of 5 or 6.

REFERENCES

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4. Kronick R, Gilmer T, Dreyfus T, Lee L. Improving health-based payment for Medicaid beneficiaries: CDPS. *Health Care Financ Rev*. Spring 2000;21(3):29-64.



Copies of this report may be obtained from the
Research and Data Analysis Division: <http://www.dshs.wa.gov/rda/>.