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August 2004

*DSHS Research and Data Analysis Division, 5.32fs*

## COMMUNITY INSTITUTIONAL COST COMPARISON EXAMPLE: RHC TO DDD COMMUNITY CARE

### PURPOSE

This fact sheet demonstrates a method for modeling and learning about the differences in costs that accrue throughout DSHS when clients are supported in community settings rather than in state institutions. The approach is to find the clients who move from institutional to community settings and examine the differences in their services and costs in care before and after moving from institution to community settings. In this paper, DDD Residential Habilitation Centers (RHCs) are defined as the institution, and the community is DDD community care.

### DATA AND SAMPLE

**Data:** The data source for this analysis is the DSHS Client Service Data Base (CSDB), maintained by the Research and Data Analysis Division of DSHS. This database collects records of services used by clients across DSHS and matches those records using combinations of name, birth date and social security number. Actual service costs (payments) are used when available. Costs for other client services are estimated using each person's number of service units (such as hours of counseling, days in residential care, or particular procedures) multiplied by an average cost for that type of service. Service costs are first available in CSDB for FY2001 and continue through FY2003.

**Sample:** The 63 RHC residents who died while in the RHC during the study period were excluded from the analysis. The 63 RHC residents under 18 years of age were also excluded. The remaining adult RHC clients were divided into two groups:

- **“Leavers”:** From February of 1999 through June of 2003, 69 clients moved from RHC to community support, mainly from Fircrest and Rainier Schools. Among those 69 clients, only 37 clients had six months of cost data recorded in the CSDB both before and after moving. Those 37 clients become the “Leavers” group in the findings below. These 37 clients included everyone who moved from RHC to community between October 2001 and November 2002.
- **“Stayers”:** From December of 2001 to December of 2002, 975 people over 18 lived in RHCs for the entire year (more than 24 days each month). These clients became the “Stayers”, and all of them were still living in RHCs at the end of December 2002.

## METHOD

**Analysis Method:** The analysis compares CSDB costs across the agency for both Leavers and Stayers, over time, before and after a base event. For Leavers, the base event is the day the client moved from the RHC if that day was somewhere between October 2001 and November 2002. For Stayers, the base event is the middle of the Stayers' year (and also the median month for the Leavers) -- May 2002.

Total costs are summed for both Leavers and Stayers across the agency, for each of six months before and after the base event. In addition, detailed monthly costs are shown by month and at the fourth month before and third month after the base event. (These particular time periods were used to ensure that the "before" and "after" months -- January and August -- for the Stayers are the same number of days).

### Method Advantages

- This method is based on real costs and costs estimated based on service usage for DSHS staff-provided services. Since DSHS funds most of the community services these clients use, this analysis represents most of the real costs to government for these clients.
- This method takes advantage of the Client Services Data Base (CSDB), and therefore costs little to assemble. And, the CSDB has some credibility. It is a well-developed and documented database.
- This method can be used in other situations where clients transition from one program to another.

### Method Limitations

- The cost summaries do not include differentiation in the DSHS cost by client need within the RHCs. Instead, each client receives the average daily rate for that RHC. (In fact, some clients in the RHC require more staffing capacity than others and hence cost more, but that fact is not recorded in CSDB). The community costs are more differentiated, since they are individualized.
- The summarized costs for the clients do not include some government costs that are not available for individuals (such as special needs transportation) or that are not included in the DSHS budget (subsidies for public housing).
- The cost summaries do not differentiate between fixed and variable costs of institutions. Therefore, the method could overestimate the average total cost per Stayer, when the RHCs are not operated at full capacity.
- Cost comparisons between Leavers and Stayers could not be conducted, since we did not have a consistent measure of problem "severity" or "acuity" of the support needs across all RHC clients that would have allowed us to control for the pre-existing differences between the two groups.

## FINDINGS

DSHS spent 30% less on these 37 Leavers in the community than was spent on average on the same clients while they were in the RHC.

- Three months after moving, Leavers were served in the community at a cost of \$9,127 per person month. Four months before moving, those same Leavers cost \$12,982 per person month.
- DSHS spent on average \$3,855 less per month directly on the Leavers in the community than they spent while the same people were in the RHCs.
- While in the institutions, four months prior to the base event, Leavers cost \$12,982 while Stayers cost only \$11,536. This difference is primarily because Leavers disproportionately came from Fircrest School, which has the highest per-capita cost among the RHCs. The Leavers were also disproportionately under-represented by Lakeland Village, which had the lowest per-capita cost.

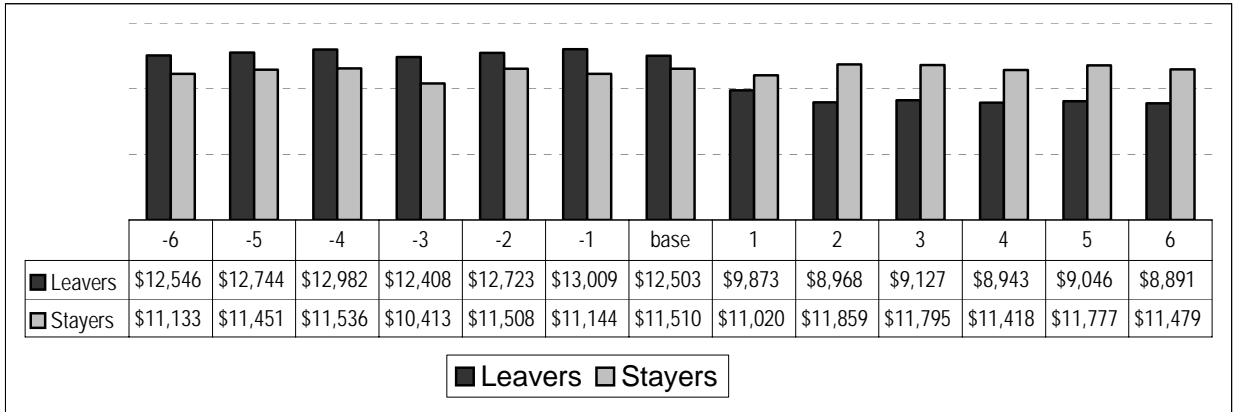
**Table 1: Clients and Costs by Service at 4<sup>th</sup> Month Before and 3<sup>rd</sup> Month After Base Event**

Service	Number Clients				Total Dollars				Cost per Client			
	Leavers		Stayers		Leavers		Stayers		Leavers		Stayers	
	Before	After	Before	After	Before	After	Before	After	Before	After	Before	After
<b>DSHS TOTAL COSTS</b>	37	37	975	975	\$480,345	\$337,698	\$11,247,665	\$11,500,561	\$12,982	\$9,127	\$11,536	\$11,795
<b>Aging &amp; Adult Services</b>												
AASA Misc.		1				380				380		
<b>Division of Developmental Disabilities</b>												
Assessments and Case Mgt	37	37	5	5	\$2,639	\$2,552	\$403	\$422	\$71	\$69	\$81	\$84
Community Residential	1	36	1		\$800	\$293,728	\$4,101		\$800	\$8,159	\$4,101	
Country Contracted		23	4	3		\$12,997	\$854			\$565	\$854	
Professional Support		14	1			\$3,296	\$442			\$235	\$442	
RHC	37		975	975	\$464,441		\$10,982,241	\$11,317,816	\$12,552		\$11,264	\$11,608
Voluntary Placement			1	1			\$171	\$228			\$171	\$228
<b>Division of Vocational Rehabilitation</b>												
VR Case Management		1	1	2		\$83	\$109	\$176		\$83	\$109	\$88
<b>Economic Services Administration</b>												
SSI State Supp, CPI, Add Req	5	11	209	194	\$58	\$209	\$2,683	\$2,494	\$12	\$19	\$13	\$13
Basic Food Program		14				\$1,273				\$91		
<b>Medical Assistance Administration</b>												
Dental Services MMIS Paid	2	4	2	6	\$425	\$972	\$876	\$916	\$212	\$243	\$438	\$153
Hospital Inpatient-MMIS		1	7	7		\$812	\$30,611	\$18,274		\$812	\$4,373	\$2,611
Hospital Outpatient-MMIS	1	11	85	68	\$44	\$2,646	\$15,446	\$11,798	\$44	\$241	\$182	\$173
Physician Services – MMIS	4	13	150	107	\$188	\$960	\$10,914	\$7,051	\$47	\$74	\$73	\$66
Prescription Drugs – MMIS	3	34	53	58	\$521	\$13,828	\$36,721	\$24,864	\$174	\$407	\$693	\$429
Other Medical	9	24	481	395	\$11,228	\$3,940	\$148,955	\$116,275	\$1,248	\$164	\$310	\$294
<b>Mental Health Division</b>												
Community Services		1	1	1		\$22	\$606	\$247		\$22	\$606	\$247
Eastern & Western State			1				\$12,532				\$12,532	
<b>Federal SSI **</b>	11	17	306	296	\$330	\$5,575	\$42,250	\$39,813	\$30	\$327	\$138	\$134

\*\* Dollars for Federal SSI while the clients are in the RHCs include only the small amount (about \$30) that is paid directly to the client for personal spending. After a client leaves the RHC for the community setting, however, the entire SSI payment leaves the Division of Developmental Disabilities (where it is used as client participation in the room and board provided at the RHCs) and goes directly to the client, their family, or their payee, to be used for the client's community-based living expenses, so the per-client SSI amount goes up.

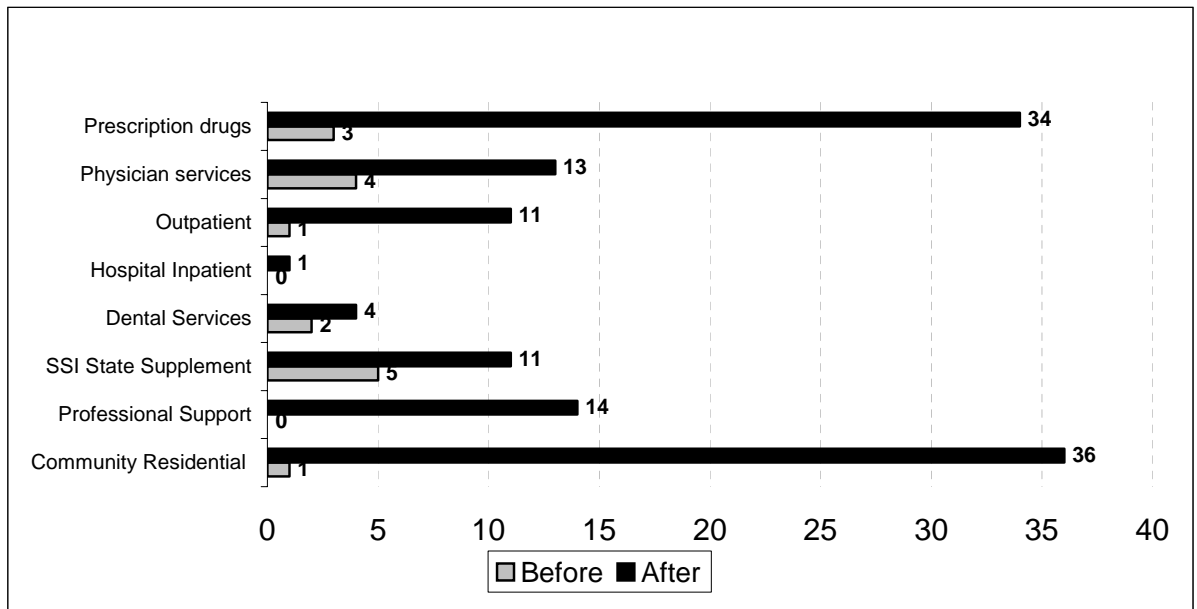
For Leavers, the monthly cost differences after leaving the RHC were stable from the second month onwards, as Table 2 below shows.

**Table 2: Average DSHS Dollars Directly Expended on DDD Clients, by Month, for RHC Leavers and RHC Stayers**



Leaver service patterns across DSHS changed after the clients moved to the community. Figure 3 below summarizes the major changes in Leaver service patterns, three months before and three months after the move to community care.

**Figure 3: Change in Number of Clients Receiving DSHS Services Four Months Before and Three Months After Leaving RHCs (n=37)**



## GOVERNMENT COSTS NOT INCLUDED IN THE MODEL

There are some government costs which have not been captured in this model, either because they are not available at a per-client level or because they are only available locally. Collecting the local data would be expensive and cumbersome. It is both a manual and local process, and would require project funding.

Institutional capitol costs are not captured in this model. Community costs not captured include:

- Local transportation (only available by client at the local provider level)
- Medicaid transportation (not reported to MAA on a per-client level)
- Housing subsidies (amount of subsidy varies by building and client type)

## DISCUSSION

Table 1 shows that it has been less expensive across DSHS to serve these 37 clients in the community than to serve them in the RHCs.

This analysis, however, is quite preliminary. It may suggest that cost offsets could accrue to state government if enough people are able to leave institutions for community care. However, it does not prove these cost offsets will accrue. Why not?

- The RHC cost presented here include both fixed and variable costs of operating institutions. No cost offset could accrue until institutional costs were actually reduced (through closing cottages or whole institutions).
- Not all costs to state and local government are included in this model. Those costs would probably not change the differences much – but they might.
- This analysis is based on a very small sample. It includes all 37 clients who left RHCs during the months (October 2001 through November 2002) that facilitated using a pre-assembled database to generate six months of cost data across DSHS before and after leaving. RDA will add a new cohort of clients to the analysis this summer, once the cost data are completed.
- Leavers are not representative of the total population of RHCs. Leavers are a self-selected group – they and their families chose to leave. They may also have different levels of “functionality” than Stayers; or they may be more or less medically fragile.
- Because Leavers may be different than Stayers, this analysis does not address comparisons between Leaver and Stayer costs. Instead, it compares Leavers with themselves, before they left.

In other DSHS intensive residential care situations, existing data and payment mechanisms might permit using similar data to model cost-offsets between Leavers and Stayers. This would occur when service is based on a contracted per-person rate, and when standard measures of functional disability were present for both Leavers and Stayers and could be used as controls in the analysis.