
Study Methodology

For the study of Medicaid Home and Community-Based Waiver programs, we reviewed literature and federal and state laws and rules. We interviewed staff from the Department of Human Services, waiver administrators and case managers from six counties, and representatives of several advocacy organizations. Beyond this, we conducted three major analyses. One was an analysis of data from the Department of Human Services on waiver caseloads and expenditures. A second was surveys of three separate groups – county waiver administrators, advocacy organizations, and provider associations. For the third, we visited counties and reviewed a stratified random sample of case files. The methodologies we followed for these three activities are described below.

DATA ANALYSES

Chapter 2 of the report presents results of our data analyses on Medicaid Waiver program spending and caseloads. This section of our methodology describes how we conducted the work, and it is divided by the different analyses in the chapter.

Trends in Expenditures and Number of Recipients

Expenditure and recipient trends were based on data used by the Department of Human Services in the November 2003 forecast. The expenditure data were based on Medicaid payments for services delivered during the fiscal year (because of lags in making payments, this differs from cash-basis expenditures—the amount of payments made during the fiscal year). Recipient counts were an average monthly number of recipients.

Comparisons With Inflation and Population Growth

To adjust for inflation, we used the price index for the state and local government component of the gross domestic product, published by the Bureau of Economic Analysis, U.S. Department of Commerce.

To adjust for population growth, we used the U.S. Census estimates for years between the 1990 and 2000 census, as adjusted to match the census counts for 1990 and 2000. For 2001 and 2002, we used estimates of the State Demographer. Most estimates were made as of July 1, although some estimates were made as of April 1. To make the estimates consistent, for some years we interpolated estimates to obtain estimates for July 1.

Individual Characteristics of MR/RC Waiver Recipients

To examine the characteristics of Mental Retardation or Related Conditions (MR/RC) Waiver recipients, we obtained data on all individuals who received MR/RC Waiver services during fiscal years 2001, 2002, and the first six months of fiscal year 2003. Most results for individual recipients presented in Chapter 2, including Table 2.2, were based on all recipients who received MR/RC Waiver services for at least 6 months (more than 180 days) during fiscal year 2002. Among the 15,258 MR/RC Waiver recipients who received any services during fiscal year 2002, 95 percent received services for more than 180 days, and 89 percent received services for all 365 days. Average spending per day figures in Chapter 2 include MR/RC Waiver expenditures plus home care expenditures (such as skilled nursing visits, which together with other types of home care expenditures were about 3 percent of MR/RC Waiver expenditures). Home care services are similar to certain waiver services except that they are eligible for regular Medicaid (referred to as Medical Assistance in Minnesota) funding. In its county allocations, the Department of Human Services combined allocations for home care services and waiver services together.

In analyzing costs, we used the following definitions and classifications.

Living arrangement: We classified recipients as living at 1) home (living with immediate or extended family, or living in own home), 2) family foster care, or 3) non-family foster care (with live-in staff or shift staff). We grouped recipients who had other living arrangements (about 0.7 percent of all recipients) with nonfamily foster care. Recipients who lived in more than one type of living arrangement during fiscal year 2002, comprising about 5 percent of MR/RC Waiver recipients, were not included in Table 2.2.

Age: We used recipients' ages as of June 30, 2002.

Diagnosis, Profiles, Medical Needs, Behavior Ratings: Recipients' diagnoses, profiles, medical needs, and physical behavior ratings were based on waiver recipients' last screening conducted during fiscal year 2002. If no screening was conducted in fiscal year 2002, we used the first screening in fiscal year 2003. If no screening was available for either fiscal year 2002 or 2003, we used the most recent screening prior to fiscal year 2002.

We used screening data to determine the profiles for all recipients, including those who were not officially assigned profiles by the department because they enrolled in the MR/RC Waiver program prior to the start of profiles in 1995. Unlike official profiles, which are based on the screening results at the time recipients enrolled, we determined profiles based on screening data for fiscal year 2002, or as close to 2002 as was available.

Time of enrollment: We identified the following as recipients who enrolled during open enrollment:

1. Recipients who first started the waiver program between March 23, 2001 and June 30, 2001 (5,275 individuals), or
2. Recipients who first enrolled in the MR/RC waiver program prior to February 2001, were not using the waiver program during February or March 2001, but re-enrolled in April, May, or June of 2001 (171 individuals).

Size of County: We divided counties into three groups according to their size.

1. *Large*: Seven counties in the Twin Cities metropolitan area (Hennepin, Ramsey, Dakota, Anoka, Washington, Carver, and Scott) plus three other large counties (St. Louis, Olmsted, and Stearns);
2. *Medium*: The remaining 12 counties with population over 40,000 in 2000; and
3. *Small*: 65 counties with population under 40,000 in 2000

Changes in Provider Reimbursement Rates

We calculated statewide average reimbursement rates for each MR/RC Waiver service represented by a reimbursement code set by the Department of Human Services. Many types of services have multiple codes, one for each unit measure (such as 30 minutes of in-home respite care). We grouped service codes into broader categories. For example, respite care includes respite care in home and out-of-home, each of which has two unit codes. We calculated the average rate for each service code as statewide expenditures for the code divided by the units provided. We calculated the rate of change between fiscal years 1995 and 2002 for each service code and then computed the average rate of change for broad categories by weighting each service code by the amount of expenditures in fiscal year 2002. We did not report results for some service types because the data did not appear to be coded the same way from year to year. Unlike other services for which we used eight years of data, for supported living services, we reported results only for fiscal years 1995 through 2001 because fiscal year 2002 rates were not comparable to rates from previous years.

Variation in County Spending

To determine average daily spending per recipient by county, we obtained from the department aggregate data by county on MR/RC Waiver expenditures and waiver days during fiscal year 2002. We compared each county's average daily spending per recipient to the average for its peer group of counties (we used three peer groups based on county size as described above). To find out how much of any difference between a county and its peer group was explained by recipient characteristics, we used the department's data on individual recipients for five characteristics—1) profile, 2) diagnosis, 3) living arrangement, 4) time of enrollment, and 5) size of county. First, we determined the “expected” spending level for each recipient based on average spending for recipients with similar characteristics. Next we averaged individual expected spending levels to calculate a county's expected spending. We used a county's expected spending to determine how much of the difference between a county's actual spending and its peer average spending was explained by the five individual characteristics noted above. For example, if a county's actual spending exceeded its peer average by \$20 per day, and its expected spending exceeded the peer average by \$12 per day, then the expected spending explained about 60 percent of the difference between actual spending and the peer average spending.

Waiver and Institutional Spending

Cost comparisons between waiver programs and institutional care (based on current average cost for each group of recipients) are rough estimates since they are not adjusted for any differences in characteristics between waiver recipients and people living in institutions. For example, children make up a higher percentage of enrollment in the MR/RC Waiver program than in

institutional care. This may distort the cost differences because children are more likely to live at home and have lower expenses. On the other hand, current cost comparisons do not reflect the higher costs associated with treating people in regional treatment centers because these centers were closed in 1998. Many long-term waiver recipients came from regional treatment centers.

To estimate the cost savings due to declining institutional caseloads between fiscal years 1991 and 2003, we multiplied the fiscal year 2003 average annual expenditures for institutional care by the decline in institutional caseload. For the institutional expenditures, we included expenditures for day training and habilitation received by people in institutions, because this type of spending is included in the MR/RC Waiver program expenditures.

To estimate the increased cost due to expanding MR/RC enrollment between fiscal years 1991 and 2003, we added 1) the number of people who enrolled during open enrollment times the average annual cost for these recipients during fiscal year 2003 and 2) the remaining increase in enrollment (excluding open enrollment) times the average annual cost for fiscal year 2003 for recipients who did not enroll during open enrollment. We estimated annual costs for fiscal year 2003 by doubling actual expenditures during the first six months of fiscal year 2003. (More recent statewide spending data indicate that actual spending during fiscal year 2003 was about twice as much as spending for the first six months of the fiscal year.).

SURVEYS

We conducted three surveys during the study of Medicaid Home and Community-Based Waiver programs, and the methodology for each follows.

Survey of County Waiver Administrators

We surveyed county administrators of the MR/RC Waiver program to assess how counties administer the program, including setting rates for services, managing MR/RC Waiver allocations, and providing Consumer-Directed Community Supports.

To develop survey questions and possible responses, we interviewed administrators in six counties of different geographic location and size, and we reviewed a variety of background materials. In mid-September, administrators in four counties, two in the metropolitan area and two in outstate Minnesota, tested the questionnaire, and we finalized the questionnaire reflecting their comments. In addition to the paper questionnaire, we created an online database with items identical to those in the printed questionnaire to allow county staff to respond using the Internet.

We used names and addresses of MR/RC Waiver administrators identified by the Department of Human Services for 84 counties or county consortia. On September 30, 2003, we mailed each administrator a cover letter describing the study, a copy of the questionnaire, background information about our office, a postage-paid return envelope, and directions describing the option to submit survey responses online. Waiver administrators received a password that allowed them to access the database via the Internet and enter their responses through a secure Web site. We asked counties to respond by October 16, 2003.

On October 20, 2003, we e-mailed or called waiver administrators in all counties that had not yet returned survey responses by facsimile transmission, mail, or online submission. We continued

to follow up with counties for several more weeks and eventually received responses from all but one of the 84 counties and consortia for a 99 percent response rate. Only Lake of the Woods County did not submit responses to the questionnaire. We received 48 responses online, 14 responses by facsimile transmission, and 21 responses by mail.

We entered responses from the mailed and faxed questionnaires into an Access database and then combined those responses with the responses submitted online. We checked data for inconsistent responses and, as necessary, called or e-mailed county administrators requesting clarification. To the extent necessary, we modified questionnaire responses to reflect information collected during the follow-up phone calls.

Aggregate [responses to the county survey questions](#) are available.

Survey of Advocacy Organizations

We surveyed organizations that advocate on behalf of MR/RC Waiver program recipients to gather information and insights into the organizations' experiences with the MR/RC Waiver program. The questionnaire focused on opinions in the areas of case management, Consumer-Directed Community Supports, how well the waiver program meets its objectives, the waiver services and eligibility appeals process, and the effects of "rebasing" waiver funding.

After developing a list of survey questions and response items, we tested the questionnaire with representatives of two advocate organizations. We modified the questionnaire based on the feedback before finalizing the survey instrument.

Based on a comprehensive Internet search of relevant Web sites and related links, we compiled a list of advocacy organizations. We supplemented the list with suggestions from the Governor's Council on Developmental Disabilities. On October 1, 2003, we mailed to 17 advocacy organizations a cover letter describing the study, a copy of the questionnaire, background information about our office, and a postage-paid return envelope. We asked organizations to respond by October 16, 2003.

About three weeks after the initial mailing, we sent a second letter to organizations that had not yet returned survey responses; we also e-mailed several organizations encouraging them to respond. We eventually received responses from 14 separate advocacy organizations for a response rate of 82 percent. One respondent reported that the organization worked very little with MR/RC Waiver recipients, and, therefore, we excluded that questionnaire from the analysis.

One advocacy organization distributed copies of the questionnaire to offices in its multiple locations in the state, and then returned six separate questionnaires. From these six questionnaires we took the modal response value for each item and created one aggregate response to represent the organization in our analysis and give it proper weighting relative to other organizations. We conducted a separate analysis of each of the six individual questionnaires, but the results showed little difference from the aggregated analyses on which our results are based.

Aggregate [responses to advocacy organizations' questions](#) are available.

Survey of Provider Associations

We surveyed associations of providers that serve recipients of the MR/RC Waiver program. The intent was to gather information and insights into how the MR/RC waiver program is currently operating, including its management and costs; how well the waiver program meets its objectives; the role of Consumer-Directed Community Supports; and the effects of “rebasement” waiver funding.

After developing a list of survey questions and response items, we asked representatives of two provider associations to test the questionnaire. We revised the questionnaire with feedback from the testers.

Based on a comprehensive Internet search of relevant Web sites and related links, we compiled a list of provider associations. On October 10, 2003, we mailed to eight provider associations a cover letter describing the study, a copy of the questionnaire, background information about our office, and a postage-paid return envelope. We asked the associations to respond by October 28, 2003.

About three weeks after the initial mailing, we sent a second letter to associations that had not yet returned survey responses. We eventually received responses from all eight of the associations.

One provider association returned individual questionnaires from five of its providers, in addition to the association’s own questionnaire. For our analysis we used the association’s responses, to give the association proper weighting relative to other associations. We conducted separate analyses of the five additional questionnaires from the individual providers, but the results showed little difference from the association’s responses on which our results are based.

Aggregate [responses to the provider associations’ questionnaires](#) are available.

REVIEWS OF CASE FILES

To evaluate the use of Consumer-Directed Community Supports and how well counties complied with certain state rules, we reviewed a stratified, random sample of MR/RC Waiver recipients’ case files. Most of the results of the file reviews are presented in Chapter 3 of the report. In selecting counties as case studies, we focused on those that had cases with Consumer-Directed Community Supports in fiscal year 2003.

We selected 12 of the 19 counties with five or more Consumer-Directed cases in the first half of fiscal year 2003; this included the 6 counties with the largest numbers of Consumer-Directed caseloads. The 12 counties we selected were: Blue Earth, Crow Wing, Dakota, Hennepin, Mower, Olmsted, Ramsey, Saint Louis, Scott, Steele, Todd, and Washington. Using data on individual MR/RC Waiver recipients from the Department of Human Services, we divided cases between those with Consumer-Directed spending in fiscal year 2002 and those exclusively with traditional MR/RC Waiver services spending. We randomly selected cases from those two groups of cases in each county. We over-sampled the number of cases with Consumer-Directed spending to ensure that we had enough cases to analyze Consumer-Directed spending. We reviewed a higher number of cases in counties with larger caseloads than in counties with relatively small caseloads. At the same time, the number of cases we reviewed in small-caseload

counties was a larger proportion of those counties' total caseload than in the large-caseload counties.

Overall, about 63 percent of the final sample of 267 cases we reviewed were for persons using Consumer-Directed services and 37 percent were for persons using traditional MR/RC Waiver services. Our sample was representative of the 12 counties, which accounted for 94 percent of the 3,074 MR/RC Waiver recipients using Consumer-Directed services in the first half of fiscal year 2003, but it was not representative of the state as a whole.

In October 2003, we arranged visits with each of the 12 counties to review the cases. Typically, we gave counties two or three days advance notice of our review. Because a few counties store case files off site and needed time to collect them, we extended the time between our notice and our arrival in these counties by several days.

We used a structured format to collect data from the case files. Although many of the cases were of persons who had been receiving MR/RC Waiver services for a number of years, we focused our review on the last five years' worth of activities. Part of the analysis was checking for the existence of recipients' individual service plans. We looked through 215 files for these plans and then checked the plans' content for long- and short-term goals, which state rules require. When individual service plans (or equivalent documents, such as individualized education plans typically produced by school districts) were not in the files, we verified with county personnel whether the plans were actually missing or were instead available in some other location or stored electronically. In one county, some early files were stored electronically but they were not available because computer system changes rendered them irretrievable.

For 184 of the cases, we also collected information on case managers' work and counted the number of contacts case managers had over the preceding 12 months. We included contacts with anyone involved in the case – waiver recipients themselves, their family members, service providers, special education teachers, social workers, and others. Beyond those contacts (which may have been either telephone calls, written correspondence, or face-to-face meetings), most case managers also had contacts with other county staff regarding issues relevant to their cases. In some counties, we retrieved data on case manager contacts from computerized database systems the counties used to record such activities.

For 175 cases, another part of our data collection was on Consumer-Directed Community Supports. In most counties, files for Consumer-Directed recipients contained an addendum or other planning document that outlined the Consumer-Directed services. We collected information on the type and quantity of such services, as well as their costs. To the extent possible, we determined whether the provider was a family member, friend, or traditional Medicaid service provider. We also noted items that were unusual in terms of either 1) extraordinarily high amounts or 2) types of services and products that few if any other Consumer-Directed recipients purchased. The purpose was to then verify whether the Consumer-Directed services were related to recipients' needs as stated in their individual service plans.

In Chapter 3 of the report, we present several estimates based on the analysis of case files. To show the precision of our estimates, we calculated confidence intervals, which determine the range of values within which we would expect the actual value to fall. With repeated sampling, we would expect the actual value to fall within the confidence interval for 95 percent of the sample. To determine the confidence interval for each estimate, we used a statistical software package called STATA, which was designed for complex samples.