APPENDIX C

STATE OF NORTH DAKOTA
DEPARTMENT OF HUMAN SERVICES
DEVELOPMENTAL DISABILITIES DIVISION

DEVELOPMENTAL DISABILITIES REIMBURSEMENT STUDY

DELIVERABLE 8: FINAL REPORT

SUBMITTED BY:

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EXECUTIVE SUMMARY

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SECTION 1: INTRODUCTION TO THE STUDY

Burns & Associates, Inc. (B&A) and their subcontractor, Human Services Research Institute (HSRI) were contracted by the North Dakota Department of Human Services' Developmental Disabilities Division (DDD) to analyze the assessment tools and criteria used to identify individuals who are medically fragile and/or behaviorally challenged. Further, B&A was tasked to evaluate the adequacy and appropriateness of compensation for providers serving people with extraordinary behavioral and medical needs. The study was conducted pursuant to House Bill No. 1556 as follows:

> **BE IT ENACTED BY THE LEGISLATIVE ASSEMBLY OF NORTH DAKOTA:**
>
> **SECTION 1. STUDY - RATE STRUCTURE OF DEVELOPMENTAL**
>
> **DISABILITY PROVIDERS.** During the 2009-10 interim, the department of human services shall contract with an independent contractor to study the methodology and calculations for the ratesetting structure used by the department to reimburse public and private, licensed developmental disability ICF/MR and home and community-based services providers serving ICF/MR medically fragile and behaviorally challenged individuals who meet the definitions established by the Oregon scoring criteria used by the department to assess levels of medical and behavioral severity in children and other recognized scoring criteria used to score adult severity. The study must address reimbursement adequacy and equitability and fairness of reimbursement rates among such providers, the level of medical and supportive services required by providers to adequately serve individuals in those categories, the varying levels of medical and behavioral complexity of individuals requiring services by the providers, and any other analytical comparisons bearing upon issues of reimbursement adequacy, fairness, and equitability to such providers. In obtaining data and arriving at outcomes and recommendations, the study must include consultations with those providers furnishing services to such individuals. Before September 1, 2010, the department shall report the outcomes and recommendations of this study to the legislative council.

This report constitutes Deliverable 8, the Final Report of this project and provides a summary of the results of the entire project. In total, the study has eight deliverables:

Deliverable 1	Final Data Request	Complete
Deliverable 2	Three Day On-Site Visit and Materials	Complete
Deliverable 3	Evaluation of the Current Reimbursement, Appropriation, Assessment and Change Request System	Complete
Deliverable 4	Options for Assessment Scales, Resource Allocation Models, Other States Use of Scales, Options for Rate Adjustments Based on Changing Client Needs and Implementation Considerations	Complete

Deliverable 5	Preliminary Cost Estimates	Complete
Deliverable 6	Refined and Final Cost Estimates	Complete
Deliverable 7	Interim Final Report	Complete
Deliverable 8	**Final Report**	**This Report**

Public and Division comments were received on the Interim Final Report and they have been included in this Final Report, along with some modifications to the report based on that input (see Appendix 7.0).

Study Methodology

There were a number of data sources used throughout the project including:

- A detailed walk-through of the current system provided by DDD staff and all supporting documentation
- Three on-site meetings with the State, the project Advisory Committee (consisting of State agencies, providers of residential and family supports, advocates, and North Dakota DDD staff) and Program Managers that included structured agendas, presentations, handouts, and written input forms regarding current assessments and the reimbursement system
- Quantitative analysis of assessments, claims and payments/costs
- A survey of providers to obtain estimates of time and dollars associated with administration of the current assessments and the reimbursement system
- A survey of other states regarding assessment tools, their use and administrative cost
- A report from DDD on the administrative costs related to provider budgeting, rate-setting, audit, and reconciliation as well as administration and use of the Progress Assessment Review (PAR) and Oregon tools
- B&A's and HSRI's experience with rate-setting systems and assessments in other states

B&A also created a database for this project that links by consumer the available Oregon assessment and PAR data, claims payments made through North Dakota's Medicaid Management Information System, provider cost reports and completed audit results.

This Executive Summary is divided into eights sections as follows:

Section 1.0	Introduction to the Study

Section 2.0	An Overview of the Current System
Section 3.0	Findings Related to Assessment
Section 4.0	Findings Related to Reimbursement
Section 5.0	Options Identified for Adults and Children
Section 6.0	Structured Analysis of the Options – Consumer, Provider and State Perspectives
Section 7.0	Cost Estimates
Section 8.0	Summary and Conclusions

This Final Report is accompanied by seven Appendices which provide additional information regarding our evaluation of the current reimbursement system (Appendix 1.0), options for assessments and rate adjustments based on client need (Appendix 2.0), our estimates of the implementation costs of each option (Appendix 3.0), the Child Supports Intensity Scale (Appendix 4.0), the CALOCUS (Appendix 5.0), some sample prospective independent rate models (Appendix 6.0) and copies of public comments (Appendix 7.0).

SECTION 2: AN OVERVIEW OF THE CURRENT SYSTEM

The North Dakota Developmental Disabilities Division employs an assessment and reimbursement system today with three key elements:

- Assessments of client need including the Oregon Medical Scale, the Oregon Behavioral Scale and the Progress Assessment Review (PAR)

- A reimbursement system that is cost-based and includes interim rate-setting, cost reporting, cost settlement/reconciliation and audit processes

- Distribution of targeted appropriations for medically fragile and/or behaviorally challenged individuals

Assessments

North Dakota uses three assessment tools that each, to some extent, inform the rate-setting process. For the purposes of distributing targeted appropriations (also known as “bucket” payments) for the medically fragile and/or behaviorally challenged, North Dakota utilizes two Oregon based tools, Medical and Behavioral Scales, as directed by the Legislature. For more general purposes to guide resource allocation, DDD uses the Progress Assessment Review of which there is both an adult and child version. (For additional information, including copies of the tools and scoring criteria, see Appendix 1.0.)

Oregon Medical and Behavioral Scales

The Oregon Medical and Behavioral Scales were originally developed as tools to guide the deinstitutionalization process in that state and assess and track an individual's risk of community placement. The tool has been updated periodically by researchers. Neither tool is or was used by Oregon in reimbursing providers. Oregon uses the Supports Intensity Scale, prospective standardized rates, and a resource allocation model for its reimbursement system.

The Oregon tools do have a certain amount of clinical power but have never been groomed to be used as psychometric tools. We are unaware of any published reliability or validity studies. The tools do have a practical value for individual people to help protect their health and ensure that their individual plan of care has needed medical procedures in place. In Oregon (as we found in North Dakota) the behavioral component was not as useful as the medical scale.

The tool captures an individual's medical needs in eight categories:

- Overall Medical
- Skin/Physical Management
- GI/Feeding
- Respiratory
- Neurological
- Urinary/Kidney
- Metabolic
- Vascular

The Oregon Behavioral scale measures client needs in a range of areas including:

- Night supervision required due to behaviors
- Destruction to property
- Aggression
- Self-injurious behaviors
- Behavior modification needs
- Restraints
- Participation in activities
- Active participation in activities
- Sexualized behaviors
- Frequency and intensity of problem behaviors

Both Oregon tools are administered by providers in North Dakota with some review by DDD. The Oregon assessments have not been completed on all clients so it is not possible to get the full picture of how DDD's full client load scores on these tools. Providers completed the tool on those individuals who were likely to meet the criteria for bucket payments.

PAR

The PAR informs the budget process for interim rate-setting as well as Individualized Supported Living Arrangements (ISLA) programmatic and administrative costs. North Dakota imported the PAR from Colorado in the 1990s and since then has adapted the tool to the State and automated the assessment and its results. The PAR is a comprehensive tool that assesses both specialized needs in addition to activities of daily living and independent community-based activities, unlike the Oregon Medical and Behavioral assessments. PAR assessment dimensions address:

- Adaptive skills
- Behavioral issues
- Communication issues
- Cognitive issues
- Day services support
- Independent living
- Legal issues
- Medical
- Motor skills
- Psychiatric
- Residential support
- Social skills

Based on their PAR scores adults are grouped into one of five PAR Levels with the lowest levels representing those adults with the most support needs and higher levels representing those adults with the fewest support needs. State program managers complete the PAR with advice and consent of the individual and family. In addition to the adult PAR, there is a Child PAR.

The Child PAR is not used to obtain a PAR Level or HCBS Indicator. The Child PAR is used to compare the child's functioning in 18 foundation areas to same-aged peers, required as a condition of the Early Intervention Part C Annual Performance Report.

Reimbursement System

The reimbursement system in North Dakota for services and supports to individuals with developmental disabilities is a retrospective, cost-based reimbursement system. The State makes payments in the current year based on an interim rate-setting process that is driven by submittal of a budget by providers. Final payments are cost settled after an audit.

When they were popular in the past, cost-based reimbursement systems had certain common features (with unique applications):

- A cost report format that is uniformly and consistently completed by each provider
- A sanction and/or penalty for failure to submit cost reports in a timely manner
- A desk review and/or audit process to verify submitted data
- State staff or contracted accounting firms assigned to the audit function

- Detailed definitions of and limits on allowable costs
- Interim payments to providers.

North Dakota has a formal “green sheet” target number or budget limitation that controls both interim rates and cost settlement. Providers do make requests for budget exceptions and enhancements based on the special needs of their clients. Currently, over 50% of clients are budgeted and processed as exceptions.

Interim rates are established based on the assumption that providers have 95% occupancy. If a provider experiences higher occupancy they will owe DDD at the time of cost settlement and if they experience less than 95%, they may have to “eat” the loss. However, that can be avoided if actual costs as a percentage of budget costs do not exceed the actual rate of occupancy.

Individualized Support Living Arrangement (ISLA)

North Dakota also has the Individualized Support Living Arrangement (ISLA) program under which interim reimbursement is determined by person rather than by service. Under ISLA hours are assigned by client as informed by the PAR and negotiated with the provider. The authorization of hours is determined person by person. The amount authorized under the system is not typically known by the consumer.

While the interim amounts under ISLA are determined by person, the ISLA program is cost-settled program wide not by client.

Audit

Cost reports submitted by providers are transferred to the audit function within the Department of Human Services after desk review by DDD staff. All providers are allowed a three month window with the potential of a one month extension for submittal of the cost report. North Dakota is ahead of many states in that there is an established cost reporting structure for agencies that provide services in ICF-MRs and home and community based services.

In 2010, audits for state fiscal year 2008 were conducted. In general, provider audits are conducted two years subsequent to the year for which they are used to reconcile interim rates. Audits of providers are very comprehensive, addressing:

- Reconciliation of units of service
- Appropriate classification of cost
- Accuracy of real property expense
- Consideration of salary schedules
- Rural Development Rental rates (USDA)

Medically Fragile/Behaviorally Challenged

The Legislature began recognition of medically fragile children in the 2005/2007 biennium. Since that time, targeted appropriations have been authorized for six categories of adults and children who are medically fragile and/or behaviorally challenged. Table 2.1 presents the appropriated amounts and the targeted populations. Distribution of dollars for each bucket is straightforward. In general it is the number of people meeting established criteria as the denominator for available dollars. Individuals with more needs within a category do not receive a higher weighted dollar figure. Payments today are made on a quarterly basis outside of the Medicaid Management Information System claims processing function.

Table 2.1 Targeted Appropriations

	Bucket 1	**Bucket 2**	**Bucket 3**	**Bucket 4**	**Bucket 5**	**Bucket 6**
Name	**Children's Intense Medical Needs**	**Children's ICF/MR Challenging Behavior Needs**	**Anne Carlsen Center – Severely High Medical Needs**	**Intense Medical Needs – Family Homes**	**Intense Medical Needs - Adult Residential**	**Critical Needs – Medically Fragile and Behavioral Challenging**
Effective Date	2005/2007 Biennium	2007/2009 Biennium	2007/2009 Biennium	2009/2011 Biennium	2009/2011 Biennium	2009/2011 Biennium
Dollar Amount (2009/2011 Biennium)	$663,167	$606,219	$909,329	$644,330	$805,412	$4.2 million
Age Limit	<21	<21	<21	All ages	≥21	All ages
Assessment Used	Oregon Medical	Oregon Behavioral	Oregon Medical	Oregon Medical	Oregon Medical	Oregon Medical and Behavioral
Score	16 or greater	50 or greater	40 or greater	16 or greater	16 or greater	13 or greater medical or 50 or greater behavioral
Provider Target	ICF/MR	ICF/MR	Only Anne Carlsen Center – Acute care	In-Home supports/ SDS-Family Support providers	Group home and ICF/MRs	All level providers if serving identified individuals
Number of Individuals Who Met the Criteria 2009/2011	21	49	6	20	41	501

SECTION 3: FINDINGS RELATED TO ASSESSMENT

The study resulted in a series of key findings related to the assessments currently used by North Dakota and assessments used by other states. The findings related to the Oregon Medical and Behavioral Scales, the PAR, and assessments used by other states are reviewed in this section. Appendices 1.0 and 2.0 review the detailed study methodology and results. Key findings are:

Oregon Medical and Behavioral Scales

- The majority of service providers called the reliability and validity of Oregon Medical and Behavioral scores questionable as a result of variability in conducting the assessment across providers and the lack of training providers received before the Oregon Scales were used

- The majority of service providers did not find that the Oregon Behavioral Scale correctly identified individuals with behavioral challenges but most found that the Oregon Medical Scale did accomplish its objective

- The statistical analysis revealed that the Oregon Scales do an adequate job identifying individuals who are medically fragile but are inadequate in identification of individuals with behavioral challenges

- The Oregon Medical Scale performs better with children (under 21 years of age) than for adults

- Research, CMS, and the experience of B&A and HSRI suggest that the assessment must be independent of the beneficiary of the results of the assessment, in North Dakota's case the provider, unless there is a comprehensive system for auditing or verification of the results. The Oregon Medical and Behavioral Scales are not conducted by an independent entity and are not verified or audited.

PAR

- Service providers felt excluded from the PAR and were concerned with the tool's reliability and validity across regions and the training Program Managers received regarding consistency in conducting the PAR

- In general, Program Managers who perform the PAR and serve as case managers within the North Dakota system for individuals with intellectual disabilities felt that the PAR is a valid tool for measuring most clients' needs, but noted that the tool does not effectively assess every population. Most notably, they do not believe that it is an effective gauge for children

- Statistical analysis revealed that scores on the Oregon Medical and Behavioral Scales were significantly correlated with PAR items and summary scores suggesting that the assessments are duplicative.

Other State Assessment Tools

- The predominate tool used by other states is the Supports Intensity Scale with or without state-specific supplemental questions.

Oregon Medical and Behavioral Scales

B&A obtained feedback from providers in Advisory Committee discussions, written survey comments and email, and conducted a series of statistical analyses to evaluate the Oregon Medical and Behavioral scales. Our feedback came from providers representing more than 1,600 consumers and providing a range of services including day supports, intermediate care facilities for the mentally retarded (ICF/ MR), group homes, in-home supports and Individualized Supported Living. Overall, providers appear to be accepting of a tool to determine whether a client is medically fragile or has significant behavioral needs, but they have concerns with the current Oregon tools. Addressing these issues would require either overhauling the current assessment tools or identifying and implementing new instruments.

Providers were asked how they believed the Oregon Medical and Behavioral Assessments are working and whether the tools are reliable and valid. Several positive evaluations of the tools were received. However, most of the feedback was critical regarding the variability of assessments, fostered to a significant degree by the lack of training on how to administer the assessment and the timeframe in which assessments had to be conducted.

The majority of comments suggested that the Oregon Behavioral Scale does not adequately capture the behavioral needs of certain clients. These providers expressed that the tool only captures behavior at the time the instrument is used, but positive behavior at that time may be a result of the more intensive supports that an individual is already receiving. In other words, an individual may be assessed as having high support needs due to behavioral issues and the provider will receive additional funding to provide that support. If the same client is later reassessed and those supports are effectively managing the individual’s behavior the client will receive an improved behavioral health score, which would strip the funding the provider receives to deliver the more intensive supports.

Specific suggestions for improving the Oregon assessments from providers included:

- Considering age equivalent scores
- Considering professional expertise
- Considering past behavior when conducting the behavioral assessment
- Updating the medical assessment with new procedures
- Ensuring that the medical assessment does not focus only on procedures, but also considers ongoing needs (e.g. insulin shots)
- Accurately reflecting nursing time.

In addition to feedback from providers and other stakeholders, B&A conducted a series of statistical analyses that linked assessment data to provider cost per day and costs in total. The Oregon Medical and Behavioral scales were not predictive of provider costs. The Oregon Medical did well with children and performed adequately with adults but the Oregon Behavioral scale results were disappointing.

PAR

Providers were asked the same questions for the PAR as for the Oregon tools. Fewer providers had positive remarks but there was much less commonality in the feedback received than compared to the Oregon tools. There were two comments that each appeared in a majority of the responses. Providers noted that they were not involved in the PAR process and, as with the Oregon tool, the implementation of the tool may vary significantly amongst users.

When asked for a list of changes that they would make to the current assessments, providers indicated that they should be involved in the PAR process and that the assessment be updated when conditions change. Providers also recommended that training be instituted to ensure consistency amongst evaluators.

In addition to the issue of variation between assessors, responses included concerns with differences across regions that impact the reliability of the tool. Finally, specific criticisms included that the Program Managers sometime complete the assessment using information provided by families without sufficient time and effort to derive an accurate score, that the tool is too general, and that it is done too infrequently and not when changes in life circumstances occur.

Based on these responses, it is apparent that providers are not confident in the administration of the PAR which is in contrast to the more positive responses from the B&A interviews with Program Managers. Though some of this skepticism relates to the tool itself, much of the discomfort is due to perceived shortcomings in the training and reliability testing for the administration of the assessment and in oversight.

Several principles for any new assessment were articulated. Providers stated that the assessment should result in clients with high medical or behavioral needs receiving the necessary staffing and equipment for support; however, the scores should not be used by agencies to determine whether an individual is eligible for admission. The responses stated that an assessment should be objective and accurate, fair and equitable, predictive of cost (staff time), and user friendly. Several providers also noted that it should be flexible enough to measure the changing needs of individuals between the current annual assessments. Suggested criteria also included allowing opportunities for input into any changes as well as the sharing of preliminary results with providers, providing training to ensure accuracy and consistency, implementing a control system to increase accountability, removing politics from the process, and field testing.

Though generally supportive of the PAR, the Program Managers did note a number of deficiencies in the tool and its application including differences in interpretations of questions, the lack of oversight and the failure to capture autism spectrum disorders, addiction or developmental disabilities other than mental retardation.

Statistical analyses revealed a high degree of correlation between scores on the PAR and the Oregon assessments suggesting that the assessments are duplicative.

Other States' Assessment Tools

Table 3.1 on the following page presents the assessment tools used by other states. The most frequently utilized tools today are the Supports Intensity Scale (SIS) and the much older Inventory of Client and Agency Planning (ICAP). The SIS is considered the state-of-the-art tool by states and is also used by two Canadian provinces and several European countries. Use of the SIS does vary – some use it to test existing tools, some use it as their core assessment for eligibility for developmental disability services or to determine institutional level of care and some use it as the basis for resource allocation based on assessed need as discussed in Section 4.

Table 3.1 Assessment Tools Used by Other States

State	General Assessment Tool	Medical Assessment	Behavioral Assessment
Arizona	Preadmission Screening and ICAP	Risk Assessment Tool (RAT)	RAT
California	Client Development Evaluation Report Revised (CderR)	CderR	CderR
Colorado	Supposts Intensity Scale (SIS)	SIS	SIS
Connecticut	Conneticut Level of Need (CON)	Conneticut Level of Need	Conneticut Level of Need
District of Columbia	Conneticut Level of Need	Conneticut Level of Need	Conneticut Level of Need
Florida	Questionnaire for Situational Assessment (QSI)/Using SIS to Validate	QSI	QSI
Georgia	SIS	SIS	SIS
Hawaii	Inventory of Client and Agency Planning (ICAP)		
Illinois	Looking at SIS		
Indiana	ICAP	ICAP	ICAP
Kansas	Developmental Disabilities Profile (DDP) Considering SIS	DDP	DDP
Louisiana	SIS	SIS LA Plus	SIS LA Plus
Maine	Exploring SIS		
Maryland	SIS	SIS	SIS
Massachusetts		Annual Health Screening Tool	
Minnesota	Long Term Care Screening Document (LTC)	LTC	LTC
Missouri	SIS	SIS	SIS
Montana	Mona/Mini-Mona	Mona/Mini-Mona	Mona/Mini-Mona
Nebraska	ICAP Currently Assessing the SIS	ICAP	ICAP
New Hampshire	SIS for Self-Directed	Health Assessmet Tool (HAT)	
New Jersey	Exploring SIS		
New Mexico	SIS	SIS	Vineland Adaptive Behavioral Scale
New York	Development Disabilities Profile (DDP)	Development Disabilities Profile (DDP)	Development Disabilities Profile (DDP)
North Carolina	SIS is used by Piedmont Behavioral Health		
North Dakota	PAR	Oregon	Oregon
Ohio	Development Disabilities Profile (DDP)	Screening/DDP and DDP Supplemental	
Oklahoma	SIS for Waivers		
Oregon	SIS	SIS/Supplemental	SIS/Supplemental
Pennsylvania	SIS	Priority of Needs for Services (PUNS)	PUNS

State	General Assessment Tool	Medical Assessment	Behavioral Assessment
Rhode Island	SIS/Personal Capacities Inventory (PCI)	SIS/PCI	SIS/PCI
South Dakota	ICAP	Service Based Rates	
Texas	ICAP	Texas LON Assessment	Texas LON Assessment
Utah	Exploring SIS to replace current resource allocation tool	SIS Supplemental	SIS Supplemental
Virginia	Testing SIS		
Washington	SIS	Comprehensive Assessment Tool (Care)	Comprehensive Assessment Tool (Care)
Wisconsin	SIS for ISIS Self Determination		
Wyoming	ICAP		

The development of the SIS was sponsored by the American Association on Intellectual and Developmental Disabilities (AAIDD).[1] The tool for adults (ages 16 and older) was five years in the making and first became available in 2004. A SIS for children is available for pilot testing. The SIS is designed to "understand the support needs of people with intellectual disabilities (i.e., mental retardation) and closely related developmental disabilities." Administration of the SIS informs the planning team about life areas where supports are needed. The SIS was designed to complement a person-centered approach to service delivery and to change the focus of assessment from measuring deficits to directly measuring support needs. This compares to other instruments that provide information from which the level and intensity of support needs must be indirectly deduced. The SIS does not measure adaptive or maladaptive behavior *per se*, although there is research that suggests that SIS results are reasonably predictive of such behaviors.

The scope of activities addressed in the SIS is broad and range from ability to perform a host of everyday activities to the ability to advocate and protect one's self-interests.[2] The SIS measures a person's support requirements in 57 life activities and across 28 behavioral and medical areas. The need for support in life activities is measured according to frequency (e.g., none, at least once a month), amount (e.g., none, less than 30 minutes), and type of support (e.g., monitoring, verbal gesturing). SIS subscales include:

- Home Living
- Community Living
- Lifelong Learning
- Employment
- Health and Safety
- Social

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[1] There is extensive information about the SIS on the AAIDD website at: siswebsite.org
[2] The SIS Supplemental Protection and Advocacy Scale does not factor into the Total Support Needs Index score.

SECTION 4: FINDINGS RELATED TO REIMBURSEMENT SYSTEMS

This Section reports key findings related to reimbursement adequacy and reimbursement systems. The eleven key findings related to reimbursement adequacy and systems include:

Provider Feedback

- Providers indicated that the current "bucket" system coupled with cost-based reimbursement pays adequately *in total* for services and supports
- At the same time, providers felt that distribution of dollars were not always targeted to the individuals who are medically fragile and/or behaviorally challenged
- Most providers recognize that they receive about five percent more than their estimated costs during the interim rate-setting process because of the occupancy factor of 95% and they monitor spending and set aside funds for the year-end payback

Statistical Analyses

- Statistical analysis demonstrated that bucket payments are strongly correlated (.96) with claims payment suggesting that the bucket payments for the medically fragile and/or behaviorally challenged are targeting the same individuals targeted in the reimbursement process itself
- PAR scores were more predictive of a provider's costs (in total and per day) than the Oregon Medical and Behavioral Scales
- PAR scores were predictive of bucket payments for medically fragile and/or behaviorally challenged individuals suggesting that the Oregon Medical and Behavioral Scales duplicate the core assessment process
- Statistical analysis revealed that certain PAR items and scores are a strong predictor of payments and cost in total and per day

Other State Reimbursement Systems

- Other states that base payment on assessed need do not use cost-based reimbursement systems
- States use a variety of rate mechanisms to adjust payments to reflect the assessed support needs of individuals
- Most states that adjust payment based on assessed need include all of an individual's needs and not a subset such as the medically fragile and/or behaviorally challenged

Administrative Burden

- North Dakota’s reimbursement system is slow to operate and very resource intensive

Provider Feedback on Reimbursement Adequacy and Systems

In discussions with the Advisory Committee and based on written feedback, providers were asked whether the right people were getting additional funds for medically fragile conditions and behavioral challenges. They responded that funding on an individual basis is often not appropriate, but that total funding is adequate. Providers specifically noted that they sometimes disagree with the Department and its individual assessments, but that they receive sufficient funding overall. In general, providers were more likely to state that funding is inadequate for medically fragile individuals than for those with behavioral challenges.

Taken in whole, these responses both confirm that providers would like to see improvement in the determination of funding for individuals who are medically fragile or have behavioral challenges, and suggest that such an improvement does not necessarily have to increase overall costs as these providers agree that they receive adequate funding in total.

Statistical Analyses

B&A developed a database that linked assessment data, claims payment and cost data and bucket payments for the medically fragile and/or behaviorally challenged. One of the primary questions to be addressed is whether the use of the Oregon Scales in determining the bucket payments adds to the information already available from the PAR. In order to answer that, the relationship between the bucket payments and the rates paid in claims for the same person must first be evaluated. Bucket payments and claims payments were converted to daily rates. B&A then used a Pearson correlation to examine this relationship. Table 4.1 shows these results.

Table 4.1: Correlation of Claims and Bucket Payments

Age Group	0-5	6-20	21+
Bucket 1	**-0.891**	**0.995**	-
Bucket 2	-0.023	-0.294	-
Bucket 3	**-1.0**	-	-
Bucket 4	**0.891**	0.934	**0.999**
Bucket 5	**0.981**	-1.0	**0.985**
Bucket 6	0.202	**0.338**	**0.204**

Small sample sizes play havoc with some correlations, so the statistically significant correlation coefficients are in bold. Buckets 1, 2, and 3 are for children only, so there is no correlation for adults. The significant correlation coefficients demonstrate a high degree of correlation between providers’ cost-based budget rates and the amount of bucket payment received. This means that providers receiving payments for medically fragile and/or behaviorally challenged individuals were already receiving high rates under the current system. As a result, it is logical to infer that the factors that determine payment rates for services in general could also be reasonable predictors of the bucket payments for individuals with medical and behavioral challenges due to the high correlation between the payments.

Under the Individualized Supported Living Arrangement (ISLA) program, rates are individualized to client need and our results for these non-residential programs are quite powerful. However, for most residential programs, payment rates per site under the current system are the same regardless of the assessed need of the client at the residential site. Since each provider site has its own unique ID in the claims and cost report data, we were able to do a detailed analysis of the payments and case-mix by site. This is an important aspect of the analysis because providers' costs are often affected by the mix of needs at a particular site. The costs of care are strongly impacted by how well resources are utilized and shared on the same site. For that reason we looked at several types of case-mix at each site: one using the PAR level as the measure of acuity, one using the behavioral health sub-score of the PAR as the acuity measure, as well as ones using the Medical and Psychiatric sub-scores of the PAR as the acuity measures. In each case, the case-mix is simply calculated as the sum of the acuity scores divided by the number of people receiving services on site. In addition to the PAR measures, we calculated a case-mix score based on the Oregon Medical Scale, the Oregon Behavioral Scale and the combination of the two.

Results show that only case-mix as measured by the PAR was related to the cost of residential sites. When we compare the case-mix of sites arranged by quartile to the adjusted payment per day and bucket payment per day for that quartile, only the PAR is consistent. Higher cost/payment sites are serving clients with higher needs as measured by the PAR. Appendix 1.0 describes the analysis in detail. When case-mix is based on Oregon assessment measures, individually or combined, there is no clear relationship to the costs incurred by the provider of residential services.

B&A and HSRI also developed a “best fit model” for North Dakota. This model selects those assessment items and scores that are most predictive of the costs providers will incur. Seven PAR elements were significantly related to a provider’s cost. Adding the Oregon Medical Scale scores did not contribute significantly to this result and the Oregon Behavioral Scale did not contribute at all.

Other State Reimbursement Systems

Other state reimbursement systems consider consumer needs in general, and medical fragility and/or behavioral challenges in particular, in a variety of ways. None of these are cost-based reimbursement systems. This is because there is an inherent disconnect between tying payment to assessed needs on the one hand, and cost settlement on the other. Cost settlement effectively wipes out the component of payment tied to assessed support needs of consumers. North Dakota grapples with this dilemma by subtracting bucket payments from a provider’s cost before reconciliation and settlement. In the end, this means that a provider’s payment is cost-based even if there was a temporary increase resulting from the bucket payment.

The first dimension on which reimbursement systems differ among states is whether they are retrospective or prospective.

- *Retrospective Reimbursement.* Retrospective reimbursement systems pay an interim rate to providers in a current year and then reconcile to cost report data for that year at a later date. Neither the provider nor the state know what the actual payment rate is until the reconciliation (also called settlement) process is completed after audit which often occurs two to three years after the interim rates were paid. This leaves both parties in the situation of not knowing financial exposure and revenues until a much later date in the future.

  For North Dakota this means the State may need to make payments to some providers in a current year for a reconciliation of a year at least two years prior to the current year. For providers this means that they must figure out what they may be overpaid or under paid in a particular year and carry that figure until reconciliation three years later. In general, North Dakota overpays providers in the interim rates by approximately 2.5%, principally as a result of the occupancy factor of 95% explained earlier. This policy improves the provider's cash position.

  Cost report and audit requirements are extensive under retrospective methodologies. Retrospective cost-based systems are very labor intensive for the state and providers and as a result are not used much anymore. (Only New Jersey claims it is completely cost settled for services provided to individuals with developmental disabilities. However, the cost settlement is actually between the Medicaid agency and the DDD agency which in turn does settlement with providers with limitations.)

- *Prospective Reimbursement.* Prospective reimbursement is distinguished from retrospective in that once the rate is established there is no after-the-fact reconciliation to cost data. Providers and the State know on a real-time basis what final payments are for a current year. Prospective reimbursement systems establish the payment for a service before the service is rendered. The established payment is made regardless of the cost of the service and there is no cost settlement. Both the State and the provider know what was spent and what revenue was received on a current basis. Prospective systems may require cost reporting but audit occurs rarely if ever. Prospective reimbursement systems may be called a "fee schedule" but this is not completely accurate. A fee schedule typically pays providers the lesser of the charge for the service or the established fee. This is not the case under "pure" prospective rate-setting systems. Hospital reimbursement systems based on DRGs and outpatient hospital reimbursement based on Medicare OPPS fall into this category. North Dakota's nursing facility reimbursement system also falls into this category.

Other important distinguishing features of reimbursement systems used by states are described in the following paragraphs:

Cost-based Reimbursement. Both retrospective and prospective reimbursement systems may be cost-based. Prospective rates may be determined in whole or in part by cost reported data. In the DD and Mental Health arena, cost-based systems are generally both budget-based and cost-based. This means that the available budget is limited by appropriations and that the actual revenue received by a provider is limited to the lesser of the available budget or cost whichever is less. Cost-based systems that are not budget-based are quite different than budget-based, cost-based systems. North Dakota's system is both budget-based and cost-based. The budget is used to implement available appropriations and appropriation increases and could pass along appropriation decreases in the same manner should the economy require such a reduction. At the end of the day, providers in North Dakota receive the lesser of the budget target or cost. North Dakota has not experienced the budget pressure that other states have experienced in recent years.

Independent Rate Models. Independent rate models typically are driven in large part by data outside the Medicaid system and are not exclusively dependent on cost report data submitted by providers. Such outside sources might include:

- Wage rates from the Bureau of Labor Statistics that reflect the labor pool for services
- Inflation and trend factors determined by forecasting firms
- Allowances for health insurance that reflect public policy objectives
- Actual worker's compensation, FICA, and Medicare taxes
- Occupancy cost per square foot
- Local food expense.

Independent models can use certain cost data components or at least use cost data to test the independent assumptions proposed. Independent rate models allow states to describe and quantify the nature of the services they want to purchase (e.g. staffing ratios) for high acuity clients versus what the state wishes to purchase for average and lower acuity clients. These models include wage differentials, staffing ratios, and provider training and credentialing. Here again, independent models operate well without cost settlement processes. Some sample models are included in Appendix 6.0.

Resource Allocation Models/Individual Funding Levels based on assessed needs linked to predicted resource use. Reimbursement systems called Resource Allocation Models allow similarly situated individuals with the same needs to receive comparable funding or support hours. Louisiana, Oregon, Colorado, Georgia, and Washington are using the Supports Intensity Scale (SIS) and certain supplemental questions as the foundation in building a resource allocation model for individual funding levels.

Case-mix adjusted rates. These systems measure acuity for all individuals served by a provider and adjust the rate based on total case-mix. Typically case-mix reimbursement systems adjust all direct care costs but not other components of the rate such as administrative overhead and capital.

Time and motion studies. Similar to case-mix reimbursement methods, time and motion studies are conducted to measure the nursing and specialized expertise required by certain individuals. Time and motion study results typically measure direct care costs but not overhead and capital. This methodology is used more frequently for elderly and physically disabled populations.

Rate modifiers. States such as Ohio and Arizona have also adopted rate modifiers to encourage provider acceptance of higher acuity clients and retention of those providers. These rate modifiers are built on a uniform rate-setting system, not a system based on individual provider cost as is the case for North Dakota. Ohio, for example, uses this approach for in-home supports. Two modifiers, one for behavior and another for delegated nursing activities, are added to the base rate developed using independent models. Ohio does not have cost settlement.

Rate adjustments tied specifically to wage differentials for providers of service. Some States set different rates depending on the credentials of the provider rendering the service, e.g. behavioral therapy may vary if the provider is a psychiatrist, psychologist, social worker or a technician. These adjustments are straightforward when a cost settlement process is not involved.

Tiered rates. Some states set different rates for different acuity levels of individuals requiring the same service. For example, day programs could vary depending on client needs in various categories or as a percentage differential applied to all services. Arizona uses tiered rates for group homes based on staffing patterns.

In discussions with providers in North Dakota regarding cost-based and prospective payment systems, one issue is the concern that rate reductions are “easier” under prospective systems. The reality is that rate freezes and/or reductions are easy under either type of rate system unless it is a pure retrospective cost-based reimbursement system (requiring a settlement and audit) without budget limits and/or limits on various cost categories. Even in the past when Medicare payments were based on “reasonable cost” there were always many limitations summarized in a massive document now called *Provider Reimbursement Manual CMS 15*.

Either a cost-based retrospective system or a prospective system can reduce payments. Both systems depend on clarity of assumptions which are generally better articulated in prospective systems in a way that all parties understand. Cost-based/budget-based systems are also much more resource intensive to operate than prospective systems.

Administrative Burden

B&A evaluated the operational efficiency of the current reimbursement system in North Dakota relative to other payment systems and obtained feedback from State DDD staff and providers.

North Dakota DDD’s current reimbursement system is resource intensive to maintain. A system is more resource intensive in maintenance and ongoing operations as a function of the number of times State agency staff and providers must “touch” the data and the extent to which that data is analyzed. The North Dakota system requires extensive attention by providers and the State. In order to determine final rates of reimbursement in the North Dakota DDD system, the State agency must touch the data a minimum of five times each year, including:

- Acceptance of paper and electronic cost reports each year
- Acceptance of paper and electronic budgets each year
- Calculation of interim rates based on salary and other limitations as well as changes in patient mix resulting in staffing changes
- Transfer of cost reports to audit for settlement

- Implementation of the settlement amounts through collections and withholds once audit completes work

Providers are “touching” this data in four of the five instances above. On top of the “touch” of DDD, the provider audit office within the Department of Human Services completes the audit that produces the final cost settlement and determines the amount actually paid by DDD for services. This office has other responsibilities in addition to those for DDD. Audits must be completed in order to finalize payment rates. As noted previously, audits are currently completed for some of SFY 2008 and are mostly complete for 2007. Until audits and settlements are completed no one knows precisely what was spent in a fiscal year. At this time, the delay is two years.

Staffing within DDD is inadequate to complete the workload required. In addition, the same staff handles bucket payments, the information system, and PAR data. Either DDD must change the nature of the reimbursement process or add adequate staff to handle the workload. Providers and the state agency are continuously chasing their tails to discover where they really began at least two years ago. It is very difficult to manage a provider agency, DDD, and appropriated dollars when key information on expenditures is not known for several years into the future.

Years ago, most States reimbursed facility-based providers participating in the Medicaid program on a cost-related basis. With the repeal of the Boren Amendment in 1997, almost all States terminated cost-based reimbursement for hospitals and nursing homes.

Around the country, the last holdouts are payments for services provided to the developmentally disabled and the seriously mentally ill. Pressure to increase federal financial participation pushed many States to a fee-for-service (FFS) structure that pays the same rate for the same service regardless of the provider of the service. Adoption of FFS moves away from both budget-based interim rates and cost settlement. This is the antithesis of North Dakota’s current reimbursement system that is mired in cost settlement. The cost reporting structure in North Dakota, however, is a significant strength were the DDD to move to a FFS reimbursement mechanism.

Other rate-setting strategies described above may have significant design, development and implementation effort and cost but require far less touching on an ongoing maintenance basis. For example, states that determine rates on a prospective basis (case-mix, individual funding levels, etc.) touch the data when the rates are set and, depending on when rates are rebased to reflect more current data, may not be touched for three to five years except to apply an annual inflation factor. There is no cost settlement process and audits may be conducted but are intermittent.

Provider feedback regarding the administrative burden of the reimbursement system generally pointed to the “slowness” of the process including rate-setting, settlements and contracts (recent improvements in timeliness were noted.) Some providers also commented that their internal management is complicated by managing multiple programs, that confusion occurs in interim rate-setting due to obscure formulas and researching decisions from years ago, and that rules and policies are not well-known or followed. Several providers indicated that they meet regularly with DDD to resolve audit and rate-setting concerns.

In general, providers are able to identify aspects of the system that they believe are less than optimal, particularly DDD's timeliness related to a number of functions, but have been able to create their own processes to manage within the system. That is not to say, however, that they do not have recommendations for improvements. The feedback suggests that there are some aspects of the current system that providers want to retain, particularly the funding that they receive. Providers desire improvements that do not disrupt the services consumers are receiving, are not driven by cost savings, are adjusted for inflation, recognize clients who are a community safety risk, are not based on client outcomes, recognize differences of small and large organizations and urban and rural providers, and do not create winners and losers.

ISLA

Providers gave more positive feedback to the ISLA program and suggested that it be considered as an option for moving to prospective payment. However, the ISLA program is also very labor intensive for two reasons:

- Hours are determined client-by-client which is time consuming for the approximately 750 authorizations under ISLA
- Payments are still cost-based and reconciled to costs for the provider in total

While it is true that prospective rates could be incorporated into ISLA with the elimination of cost-based reimbursement, this option was not considered because of the resource intensiveness of the program, the absence of resource allocation guidelines (other than being informed by PAR), and its reliance on PAR which is viewed cautiously by stakeholders. In addition, it is not reasonable for North Dakota to consider operating two systems – maintaining ISLA and moving to another option for all other services.

SECTION 5: OPTIONS IDENTIFIED FOR ADULTS AND CHILDREN

After rejecting numerous other approaches, B&A identified four options for serious consideration by North Dakota – two options for adults and two options for children. One of the options for children and adults retains the current cost-based reimbursement system. The others do not.

While the study specifically targeted assessment and reimbursement practices related to the medically fragile and/or behaviorally challenged, the study also asked B&A to examine state-of-the-art assessment tools and practices in other states. The latter led to identification of the Supports Intensity Scale (SIS) for consideration. Many features of the tool merit a serious look by North Dakota including underlying psychometric testing of the tool (for both reliability and validity), the adoption of the tool by many states in recent years, and the availability of a national database to compare North Dakota's population to others in the nation and internationally. For these reasons, the SIS is an option that the State should consider.

At the same time, the SIS is not strictly an assessment of medical fragility and/or behavioral challenge. Instead the tool examines needs across a number of dimensions. Adoption of the SIS for adults and children is a major investment of time and resources. The effort is so significant that adoption of the SIS should only be contemplated if the tool will be used as the foundation of payment under a resource allocation model, replacing the cost-based system entirely.

With this brief introduction the four options for consideration are:

Option A Adults PAR. The first option for adults is to make modifications to the Progress Assessment Review (PAR). The revised PAR could be used to identify individuals who are medically fragile and/or behaviorally challenged. Alternatively, under this option the PAR levels currently used as a guide in the budgeting process could be revised and used as the basis for distributing funds based on all of a client's assessed needs rather than medical fragility and behavioral challenges only. The reimbursement system would remain cost-based. The revised version of the adult PAR would be shortened to approximately 53 questions. These questions were selected as being the best and most economical list for providing information on the consumer without including questions that do not provide any significant new information. Of these 53 questions, 20 items were found to demonstrate statistical significance when considering their relationship to actual service expenditures. The revised PAR would begin with these 20 items supplemented by questions used by program managers and providers. Some items would be revised to improve their reliability. North Dakota can also consider Oregon Medical items for inclusion. Preliminary feedback from Program Managers suggests the addition of questions regarding substance abuse, autism spectrum disorder, money management and medication management (not medication administration).

The PAR can be used in two ways:

- To identify individuals eligible for bucket payments as done today with the addition of a weighting factor so that individuals with greater needs receive larger payments
- To distribute the combined resources of bucket payments and regular appropriations based on an individual's overall need

If this option is elected, the revised PAR would require pilot testing, development of a formal training manual and process, and an ongoing reliability and validity evaluation.

Option B Adult SIS. The second option is to discard the PAR and adopt another tool used elsewhere to make resource allocation decisions. The candidate for this new tool is the Supports Intensity Scale (SIS). Under this option the reimbursement system would change to prospective rates and a resource allocation model that allocates funds to clients based on the individual's support needs. The SIS is a tool that is gaining widespread acceptance as a resource allocation tool (see Appendix 2.0). Adopting the SIS as the resource allocation tool would be the more costly option to implement for North Dakota initially, but there would be long-term benefits in tying resources to client support needs and in the control inherent in a prospective rate and resource allocation system. The SIS also provides access to a national database that allows North Dakota to compare its client needs to other states.

In addition to the base SIS tool, a set of supplemental questions could also be used to provide information that would be useful in resource allocation, such as indicators of risk to the community that would require greater supervision and staff resources.

Adoption of the SIS with supplemental questions for adults is a major investment of state and provider resources. As described above, this option is reasonable only in concert with a replacement of the underlying cost-based reimbursement system.

Prospective rates for services would be established based on an independent rate model which allows providers and the state to understand each element of the rate. Rates can be established based on assumptions and maintained as benchmarks even if available appropriations are insufficient to cover the full rate (see Appendix 6.0).

Option C Child SIS. For children, a new set of assessment tools is going to be necessary, as the Child PAR is not usable for making resource allocation decisions. The Child SIS is currently in a validation phase and North Dakota could enter the pilot group to begin using it for resource allocation as described above for adults. Under this option the reimbursement system would also change.

The Child SIS should be an adequate tool for assessing support needs in children ages 5 to 15 (the adult SIS is used for ages 16 and up). Using the Child SIS would provide two significant benefits for North Dakota: (1) it would provide a resource allocation tool for children ages 5 to 15 that the state has not had before, and (2) it would provide a database of comparable data from around the country that would allow North Dakota to compare its distribution of resources to those in other states. For assessing extraordinary medical needs for children, the Oregon Medical Scales or selected items from those scales could be used as a supplement to the Child SIS. (See Appendix 4.0 for information on the Child SIS.)

The Child SIS is applicable for children ages 5 through 15. Another tool would need to be adopted to use for children under age 5. There are several available that could be evaluated as potential options, but the development of tools for that age group is still in its “infancy” and statistically reliable results on their effectiveness are rare. Tools currently in use in Arizona and California are potential options for North Dakota. The tool for young children must fulfill multiple purposes including performance reporting under the Early Intervention program.

It should be noted that North Dakota can choose to adopt the Child SIS even if it continues to use the PAR for adults.

Option D Oregon Medical and CALOCUS for Children. The second option for children, Option D, is to use the Oregon Medical Scale and CALOCUS (or a comparable tool) to identify just those children with behavioral problems and/or who are medically fragile. This option includes no generalized assessment for all children. Bucket payments and cost-based reimbursement would remain in place under this option. CALOCUS is a free tool but has a software scoring fee of $1.50 each. (See Appendix 5.0 for information on CALOCUS.)

SECTION 6: STRUCTURED ANALYSIS OF THE OPTIONS

This Section examines the four options presented in the previous section from the perspective of consumers, providers and the state.

Consumers

Table 6.1 examines the impact of the four options on consumers and their families. Under Options B and C, consumers are big winners.

Table 6.1 Consumer Impact of Options

	Options A and D Cost-Based	Options B and C SIS, Prospective Rates and Resource Allocation Levels
How are resources (dollars and support hours) distributed?	Provider Cost	Consumer Assessed Needs
Are the resources (dollars and support hours) distributed fairly? (Meaning do consumers with comparable needs and natural supports receive comparable resources)	To some extent	Yes
What is the rate paid for each service?	The interim provider rate based on the budget submitted by the provider – rates vary by provider	Prospective standardized rates that provide consumers confidence of the hours of support they will receive regardless of the provider of service
Is the reimbursement system consistent with the concepts of self direction?	Self direction is almost impossible in a cost settlement environment	Consumers are allocated resources based on their own needs which is completely consistent with self direction
What is the impact of the option on the consumer's role in care planning?	None	Consumer and family role is much more extensive
Will there be winners and losers among consumers under the option?	Yes	Yes but a three year transition is proposed so that no change is too big too fast
Is the system transparent for the consumer and family?	No	Yes consumers know the dollars/hours of support and can use them to directly meet their needs
Will consumers have more flexibility than under the current systems?	No	Yes

Providers

Each of the options impact providers differently in a variety of areas:

- Assessment and reimbursement functions
- Reimbursement and payment
- Care planning

As noted in the previous section, one element of Options B and C are prospective rates determined using an independent rate model. Some providers expressed concern that prospective rates are easier to reduce than cost-based rates. While this may be true of exclusively cost-based rates it is not the case with North Dakota's cost-based, budget based structure.

Table 6.2 examines provider impacts of each option.

Table 6.2 Provider Impact of Options

Function	Current System	Option A Revised PAR	Option B Adult SIS	Option C Child SIS	Option D Oregon Medical/ CALOCUS for Children
Payment for Services	Cost-based	Cost-based	Independent Rate Models establish standardized rates Stable	Independent Rate Models establish standardized rates Stable	Cost-based
Transparency	None	None	Independent Rate Model and Benchmark rates completely transparent	Independent Rate Model and Benchmark rates completely transparent	None
PROVIDERS FUNCTIONS					
Care Planning	Provider plays significant role	Provider plays significant role	Consumer and family with the Program Manager are central	Consumer and family with the Program Manager are central	Provider plays significant role
Assessment	Providers perform Oregon Medical and Behavioral Assessment	Provider does not perform assessments but will interact with assessor	Provider participates as a potential respondent	Provider participates as a potential respondent	Provider does not perform assessments but will interact with assessor
Rate-setting	Provider submits budget and interim rate is assigned	Provider submits budget and interim rate is assigned	State establishes prospective rate	State establishes prospective rate	Provider submits budget and interim rate is assigned

Function	Current System	Option A Revised PAR	Option B Adult SIS	Option C Child SIS	Option D Oregon Medical/ CALOCUS for Children
Exception or Enhanced Budget Requests	Provider submits exception /enhancement requests, currently more than 50% of clients	Provider submits exception /enhancement requests, currently more than 50% of clients but should be reduced	Consumer submits exception request in 1 to 6 percent of cases	Consumer submits exception request in 1 to 6 percent of cases	Provider submits exception /enhancement requests, currently more than 50% of clients
Cost Reporting	Provider completes and submits cost report	Provider completes and submits cost report	Provider completes and submits cost report	Provider completes and submits cost report	Provider completes and submits cost report
Audit	Provider responds to state audit findings	Provider responds to state audit findings	No state audit	No state audit	Provider responds to state audit findings
Reconciliation to Determine Final Rates	Provider receives final rates two years after the interim rate year	Provider receives final rates two years after the interim rate year	None	None	Provider receives final rates two years after the interim rate year
Resource Allocation Based on Client Assessed Needs	PAR levels/ID of medically fragile and behaviorally challenged	Revised PAR levels	Clients receive resource allocation and plan for support services with Program Managers	Clients receive resource allocation and plan for support services with Program Managers	PAR levels and Oregon ID medically fragile, CALOCUS ID of behaviorally challenged

State Impacts

As is the case with providers, the options impact State functions and administrative burden, rate-setting processes, and care planning. Cost is examined in the next section. Table 6.3 summarizes the impact of each option on the State.

Table 6.3 State Impacts of Four Options

Function	Current System	Option A Revised PAR	Option B Adult SIS	Option C Child SIS	Option D Oregon Medical/ CALOCUS for Children
STATE DDD (unless specified)					
Care Planning	Providers, Program Managers are key	Providers, Program Managers are key	Consumers and families with Program Managers are central Program Managers implement Resource Allocation Guidelines	Consumers and families with Program Managers are central Program Managers implement Resource Allocation Guidelines	Providers, Program Managers are key
Assessment	Program Managers perform PAR	Program Managers perform a revised PAR	Dedicated SIS unit with DDD or contractor perform SIS	Dedicated SIS unit with DDD or contractor perform SIS	Program Managers perform Oregon Medical and CALOCUS
Rate-setting	Interim rates established annually based on budget and targets Bucket payments based on Oregon scales distributed quarterly to providers	Interim rates established annually based on budget and targets Bucket payments combined with all payments and distributed based on PAR levels or based on a weighted score for medical fragility and behavioral only	Prospective independent rates are calculated by service across providers with some distinctions. Rates are inflated each year and rebased periodically No bucket payments	Prospective independent rates are calculated by service across providers with some distinctions. Rates are inflated each year and rebased periodically No bucket payments	Interim rates established annually based on budget and targets No change from the current system

Function	Current System	Option A Revised PAR	Option B Adult SIS	Option C Child SIS	Option D Oregon Medical/ CALOCUS for Children
Exception or Enhanced Budget Requests	More than 50% of clients are exception or enhanced budget requests the state must process	Improved PAR levels should reduce exceptions	Exception processing is reduced to 1% - 6%	Exception processing is reduced to 1% - 6%	No impact
Cost Reporting	State requires annual cost reporting	State requires annual cost reporting	State requires annual cost reporting	State requires annual cost reporting	State requires annual cost reporting
Desk Review	State desk reviews cost reports	State desk reviews cost reports	State desk reviews at least in the year of rebasing	State desk reviews at least in the year of rebasing	State desk reviews cost reports
Audit	Provider Audit performs audit. Audits performed and are completed two years later	Provider Audit performs audit. Audits performed and are completed two years later	Not required	Not required	Provider Audit performs audit. Audits performed and are completed two years later
Reconciliation to Determine Final Rates	Recon. process two years subsequent to cost report year	Recon. process two years subsequent to cost report year	None	None	Recon. process two years subsequent to cost report year
Resource Allocation Based on Client Assessed Needs	PAR Levels used as guideline	Revised PAR Levels used as guideline	Resource allocation model developed that distributes dollars based on client support needs	Resource allocation model developed that distributes dollars based on client support needs	None

SECTION 7: COST ESTIMATES

This Section examines the administrative cost associated with the proposed options and presents the impact on program costs for those options where an impact is expected.

Basis of Cost Estimates

Administrative costs underlying the current system and the data required to project administrative costs into the future were obtained from the state and providers in the following areas:

- Existing administrative resources invested for budgeting and interim rates, cost report desk review, cost settlement, handling special requests, medical and behavioral rate adjustments, and provider audit

- Client growth trends for DD

- Service utilization trends for DD for the client population.

Assumptions underlying cost estimates for new resources for both state and providers are documented in detail in Appendix 3.0 for Options A and D and Options B and C in the following categories:

- Purchase cost for the assessment tool
- Training
- Pilot Testing
- Staff
- IT changes
- Regulatory changes
- Software and licensing
- Consulting
- Annual recurring costs
- Transition costs (moving from cost-based to prospective)
- Eliminated administrative costs

B&A's and HSRI's experience in other states as well as input from AAIDD (for the SIS) and the State of Oregon were used to develop these administrative cost assumptions.

<u>Program Costs</u>

Options A and D assume no change in the cost-based reimbursement structure in North Dakota. Option B and C Adult and Child SIS, however, contemplate replacement of cost-based reimbursement with a resource allocation framework. As a result, an impact on program costs including provider rates and service expenditures is expected. The impact on program costs is also presented in this Section for Option B and C. It should be noted that Option A Revised PAR could also be used as the basis of a resource allocation model and, if it were, would result in similar program savings reported for Options B and C.

All cost estimates include the entire caseload (child and adult) for North Dakota DDD.

Provider Administrative Costs in the Current System

B&A developed and distributed a simple cost survey for service providers in North Dakota following the on-site meetings in Bismarck on March 31, 2010. The survey asked for estimates of the costs to the provider, either in terms of hours or dollars, of the assessment, budgeting, cost reporting, and cost reconciliation (auditing) process. Eleven providers responded to the survey, representing over 1,600 consumers being served. Some providers reported only hours and others reported only dollars (the survey tool allowed this flexibility because of the short time frame given for completing the survey). To maximize the use of responses B&A applied a value to hours reported without dollars or dollars reported without hours, based on an average rate of $18 per hour for assessment related tasks and $60 per hour for cost reimbursement related tasks. The differential in hourly rate reflects the survey results for those providers who reported hours and dollars and reflects the type of staff performing the function. Direct care staff participate in assessment related activities and financial tasks are performed by accountants and/or the Chief Financial Officer. The average cost per client when all provider data is used is $382.07 of which $335.75 relates to cost-based reimbursement system activities and $46.32 relates to the PAR and Oregon assessments.

State Administrative Costs in the Current System

The State also incurs significant costs in operating the current system. The reimbursement process, including budgeting, cost reporting, audit, and reconciliation is particularly resource-intensive on the State. It involves a significant amount of staff time that could be devoted to other improvements to the program. State costs include those for the Developmental Disabilities Division, Medicaid, and Provider Audit.

The State reports the following costs related to assessment and reimbursement:

Table 7.1: State Costs to Operate Current Reimbursement System

	Monthly Costs	Annual Costs
State DD Office	$8,718	$104,616
Department Provider Audit (All Staff)	$12,852	$154,224
DD Program Managers (All Staff)	$38,462	$461,544
DD Program Administrators (All Staff)	$13,063	$156,756
MMIS Claims Processing*	$5,000	$60,000
Department and Medicaid Oversight*	$7,000	$84,000
Total	**$85,095**	**$1,021,140**

*MMIS claims processing costs were estimated based on $1.50 per claim. Department and Medicaid oversight costs were estimated based on one full time (fully loaded FTE) and include waiver reporting and negotiations, financial reporting, policy oversight, etc.

North Dakota expends in excess of $1 million annually for the state to operate and maintain the current reimbursement and assessment systems.

The cost of the current system and options under consideration are projected for five years. (Please see Appendix 3.0 for all of the assumptions in the cost estimates.) For the purposes of these cost estimates, Options A and D, which retain the cost-based system, and Options B and C were grouped since the underlying cost is virtually the same. Both a low estimate and a high estimate was calculated for Options A and D and Options B and C.

Costs of a Revised PAR-Based System – Options A and D

Because the PAR is currently in use, revising the PAR to create better-fit PAR levels and identify individuals who are medically fragile and/or behaviorally challenged has lower up-front costs than switching assessment tools. The revised PAR would require some additional training for Program Managers, and we are recommending that additional resources be dedicated to assessments (pilot testing, reliability and validity tests, and training) to address stakeholder lack of confidence in the PAR. Under this option Program Managers would also complete the Oregon Medical scale for children.

Provider administrative costs do not differ in any meaningful respect from the current system, approximately $1.6 million under Options A and D. Both implementation and ongoing state administrative costs are higher. The process of revising the PAR and creating new logic to identify the medically fragile and behaviorally challenged or to develop new PAR levels based on the results would take about one year and would require consultant resources at an estimated cost between $150,000 and $300,000 depending in large part on the extensiveness of the consultant's role in pilot testing. Estimated State Administration costs, including the cost of integrating the program changes into the IT systems and the existing costs for cost-based reimbursement and assessments, would be between $1.4 million and $1.7 million, according to our estimates, for a total state and provider administrative cost of between about $3.0 million and $3.3 million in the first year.

Cost of a SIS-Based System – Options B and C

Administrative Costs

Replacing the PAR with the SIS would be more costly initially both in terms of time and dollars as it requires new assessments to be performed on all consumers and the results of those assessments to subsequently be used to develop a resource allocation model and prospective rates. The State would replace the existing cost-based system with prospective rates for services established on a statewide basis using an independent rate-setting process and a resource allocation model. The State would need to establish a dedicated team of SIS assessors who would receive thorough training on doing the SIS interviews and scoring the tool or alternatively contract for at least the initial SIS assessment for the 4,500 adults and children now served by DDD. The SIS scores would also need to be incorporated into the State's DDD IT systems and MMIS.

The process of conducting the SIS interviews on the entire program population is estimated to take about two years. Additional consulting resources are needed as well for development of prospective rates and the resource allocation model tying funding to assessed needs of clients. The rate-setting and resource allocation timeframe is twelve to fifteen months with nine months overlapping the SIS assessment processing. Our cost estimates are for a five year period with Years 1 and 2 as development years. The independent rates and the resource allocation model can be implemented for newly eligible people early in the second year but existing clients would not be fully implemented until the start of Year 3.

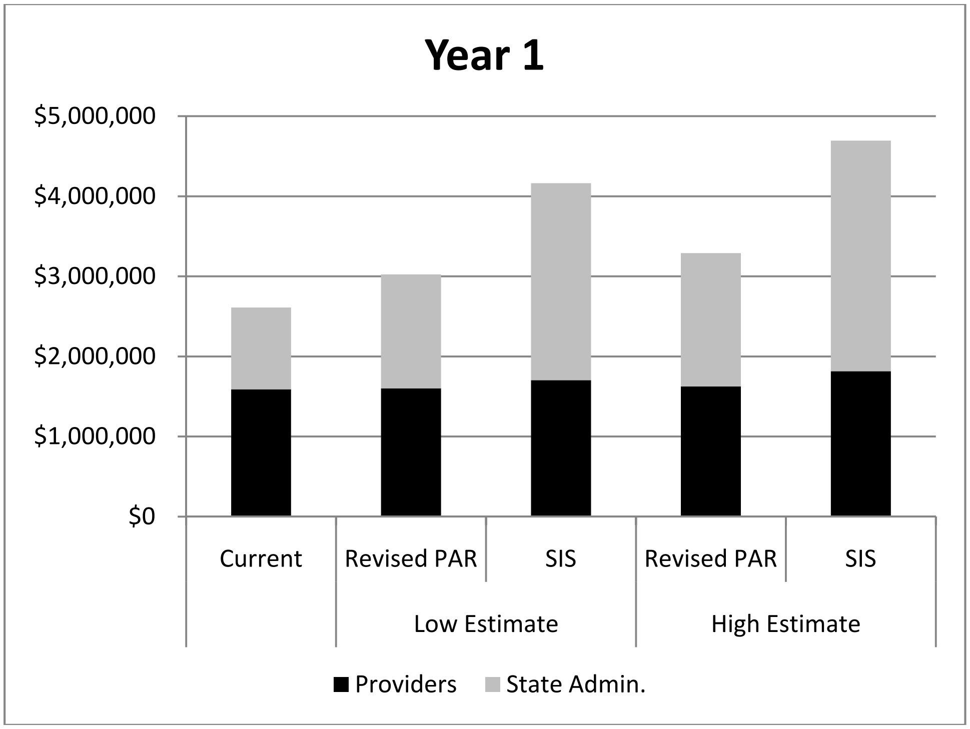
Table 7.2 presents the SIS startup and annual recurring costs.

Table 7.2 SIS One-Time and Annual Recurring Costs

Assessor Staff Determination Assumptions			
Annual SIS Assessments	2,250		
Number of Work Days for Assessments	202.5		
Number of Assessments Completed in a Day	2.0		
Assessor Staff Required	5.6		
Total Salary and ERE for 10 FTE		$ 646,429	
Travel		$ 83,063	
Occupancy		$ 26,275	
Other Operating Expenses		$ 24,560	
AAIDD Continuing Costs		$ 105,243	
Total Annual Operating Costs			$ 885,569
Cost per Assessment			$ 393.59
Capital and One Time Costs			
Office Equipment		$ 48,700	
AAIDD		$ 184,500	
Total Capital and One Time			$ 233,200
Amortized Capital and One Time (2 Years)		$ 116,600	
Cost per Assssmnt of Amort Cap and One Time		$ 51.82	
Fully Loaded Cost per Assessment			
Annual			$ 393.59
Cap and One Time (2 year amort)			$ 51.82
Total			**$ 445.41**

Combined Impact

The graphs below illustrate the combined costs for providers and the State Administration for the current system, the revised PAR, and the SIS, including low and high estimates for the proposed revised systems. In Years 1 and 2 the SIS options are in development and the current reimbursement system remains in place. As a result, Options B and C have higher administrative costs in these years. However, administrative costs decline in Years 3 and 4 and are substantially lower by Year 5.



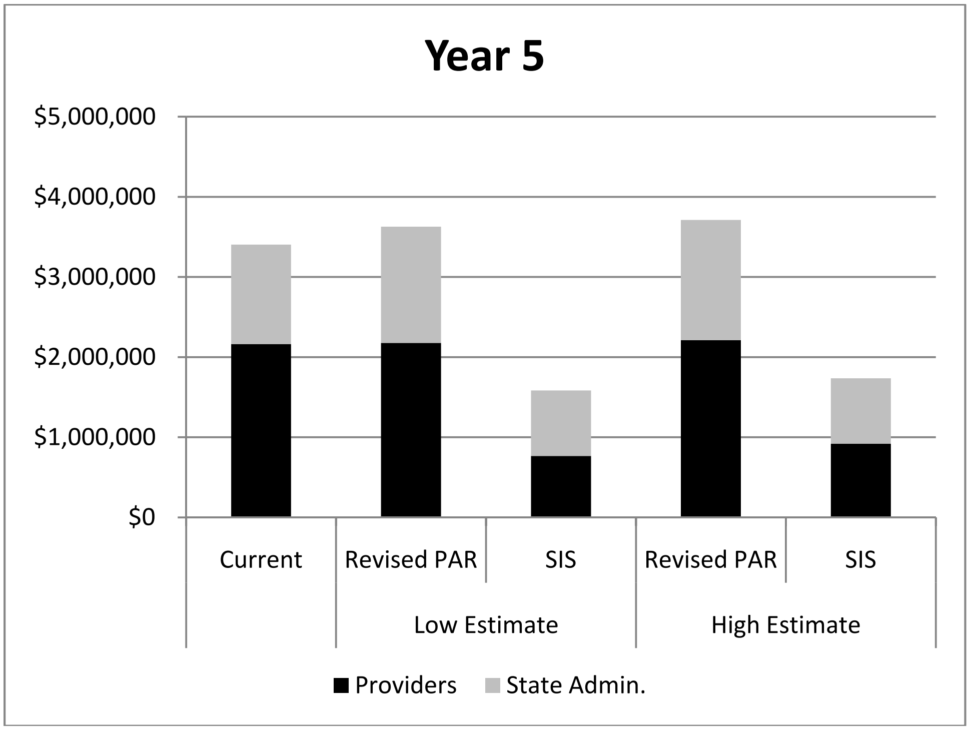


Table 7.3 presents the five year projection for the four options.

Table 7.3 Five Year Projection, Current System vs Options

	CURRENT	OPTIONS A & D		OPTIONS B & C	
		LOW	HIGH	LOW	HIGH
State Administrative Cost					
Year 1	$1,021,000	$1,422,000	$1,665,000	$2,459,000	$2,879,000
Year 2	$1,072,050	$1,252,000	$1,297,000	$2,582,000	$3,023,000
Year 3	$1,125,653	$1,314,000	$1,362,000	$1,586,000	$1,586,000
Year 4	$1,181,935	$1,380,000	$1,430,000	$1,666,000	$1,666,000
Year 5	$1,241,032	$1,449,000	$1,501,000	$818,000	$818,000
Total	$5,641,670	$6,817,000	$7,255,000	$9,111,000	$9,972,000
Provider Administrative Cost					
Year 1	$1,590,660	$1,602,000	$1,625,000	$1,704,000	$1,816,000
Year 2	$1,717,913	$1,730,000	$1,755,000	$1,840,000	$1,961,000
Year 3	$1,855,346	$1,868,000	$1,895,000	$1,371,000	$1,501,000
Year 4	$2,003,773	$2,017,000	$2,047,000	$1,480,000	$1,621,000
Year 5	$2,164,075	$2,178,000	$2,211,000	$766,000	$918,000
Total	$9,331,767	$9,395,000	$9,533,000	$7,161,000	$7,817,000
Total Administrative Cost					
Year 1	$2,611,660	$3,024,000	$3,290,000	$4,163,000	$4,695,000
Year 2	$2,789,963	$2,982,000	$3,052,000	$4,422,000	$4,984,000
Year 3	$2,980,998	$3,182,000	$3,257,000	$2,957,000	$3,087,000
Year 4	$3,185,709	$3,397,000	$3,477,000	$3,146,000	$3,287,000
Year 5	$3,405,107	$3,627,000	$3,712,000	$1,584,000	$1,736,000
Total	$14,973,437	$16,212,000	$16,788,000	$16,272,000	$17,789,000

Provider Rates/Service Costs

As noted earlier, Options B and C are coupled with an overhaul of the current cost-based reimbursement system, transforming it to a prospective rate/resource allocation framework where provider rates are set by the State and used to develop a resource allocation model that ties payment to the assessed level of need for the client. While any reimbursement system can be structured to achieve a designated spending target, other states pursuing prospective payment have experienced a reduction in per capita costs over time. This occurs for two reasons. First, prospective rates are more stable and predictable than cost-based systems. At least in the initial years of a prospective rate system, providers achieve cost efficiencies in part because savings accrue to the provider; if providers can keep their costs below the prospective rate, the difference is theirs to keep as profit or to spend as they see fit. Second, states have also found that client-based resource allocation systems allow the consumer and family flexibility to obtain only those services that are highly desirable and reduce utilization of services designated by a case manager that are not helpful to the client/family. For this reason, B&A has included a high level picture of the impact of Options B and C on rates of payment and per capita funding levels. Option A is not coupled with replacement of the reimbursement system and as a consequence no estimate is provided for the impact on provider rates and per capita funding.

The impact of Options B and C on provider rates was developed based on an examination of historical rate changes in North Dakota by service and weighted overall under the existing cost-based system compared to the annual inflation indices and periodic rebasing applied under prospective rate systems. According to calculations based on claims data from SFY 2009 and partial SFY 2010, the average rate increase by service was about 9.4 percent[3]. Global Insight is the source of inflation projections used by numerous states and CMS in their prospective payment systems; they project annual inflation for home health services (the closest applicable market basket) as of Q2 2010 to be 1.8 percent. Because North Dakota will likely include a "hold harmless" in the initial years after implementation of Options B and C (Years 3, 4 and 5) beginning in Year 6, the state can expect a more stable average annual growth rate by using an index such as Global Insight.[4]

Table 7.4: Illustrative Service Cost Savings

	8% Growth Before 2014, 3% After		5% Growth Before 2014, 3% After		4% Growth Before 2014, 3% After	
Fiscal Year	Total Payments (thousands)	Savings (thousands)	Total Payments (thousands)	Savings (thousands)	Total Payments (thousands)	Savings (thousands)
2009	$141,065		$141,065		$141,065	
2010*	$152,400		$148,100		$146,700	
2011*	$164,600		$155,500		$152,600	
2012*	$177,800		$163,300		$158,700	
2013*	$192,000		$171,500		$165,000	
2014*	$207,400		$180,100		$171,600	
2015*	$224,000		$189,100		$178,500	
2016*	$230,700	$11,200	$194,800	$9,400	$183,900	$8,900
2017*	$237,600	$23,700	$200,600	$20,000	$189,400	$18,800

* projected

As an illustration of potential savings to North Dakota, a reduction in the growth rate from 8 percent to 3 percent starting in the fourth year after the new system is implemented would reduce service payments by $11.2 million in the first year. A reduction from 5 to 3 percent growth would reduce payments by $9.4 million in the first year, and a reduction from 4 to 3 percent rate growth would reduce payments by $8.9 million in the first year.

Based on the experience of other states, the impact of the resource allocation model on per capita expenses in North Dakota was assumed as a five percent savings beginning in Year Four of implementation. Louisiana recently reported an 18% reduction in per capita costs resulting from its resource allocation model for new clients in the system. The State is now implementing the model for existing clients.

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[3] This calculation is based on partial SFY 2010 claims data, available as of the beginning of this project. Approximately one-third of SFY 2010 claims are included. Based on feedback, this appears to be unusually high.

[4] There are reasons other than inflation why authorities may choose to increase rates in a non-rebasing year. Compensation for new safety or training requirements, fuel cost increases, budgetary adjustments, or targeted wage increases are just a few examples.

SECTION 8: SUMMARY AND CONCLUSIONS

Perhaps the most significant problem with the current cost-based reimbursement system is the administrative burden it places on the financial parties – the providers and the State. The process of accounting for every dollar and ensuring that providers are paid according to their own individual costs is a tremendous task, as outlined in Section 3. Our estimate is that approximately $2.6 million per year is spent just to operate the reimbursement system. This includes the providers' costs, but since their costs are reimbursed by the State it is really all State and Federal cost.

Nevertheless, about $1 million per year of State staff resources are committed to this process every year. These are resources that could be dedicated to other projects if the reimbursement operations were not consuming them. Plans for additional training, program enhancements, or reductions in case manager caseloads would be potential uses for this time.

Adopting a prospective rate system that paid a fixed fee for each unit of service such as an hour or day of service provided would free the State staff from having to audit and prepare reconciliations once the cost-based system is closed out. The State could use as-filed cost reports to perform rebasing periodically (e.g. every three to five years) or could choose to audit the year used in rebasing. This audit process is not done by most states. As-filed cost reports are currently used in North Dakota for nursing facility rate-setting. There are certainly significant changes in the financial dynamics when moving from a retrospective to a prospective system, but the operation of the latter is vastly simpler and cheaper.

Because of the demands of health care reform on state Medicaid agencies, North Dakota will need to weigh this project in the context of the additional populations, physician reimbursement, eligibility and systems changes required by the Patient Protection and Affordable Care Act.

We also want to emphasize that transforming from a retrospective to a prospective payment system is a significant undertaking that will require cooperation and participation from many different parties; it is not something that just happens overnight. As we have described, it is likely a multi-year process that will require a comprehensive transition policy to make the changes and mitigate any negative impact on consumers and providers. One approach to easing the transition is to implement portions of the change in a pilot phase, where only certain providers, consumers, or regions would be involved. That way lessons learned can be distributed ahead of a rollout to the entire state.

Summary of Public Comments

The Interim Final Report was distributed to stakeholders and presented during a conference call to give an overview of the report and the recommendations of the consultants. We allowed approximately four weeks for review and comment before preparing this Final Report. A summary of the comments follows. The full text of the comments is included in Appendix 7.0.

Assessments: Commenters agreed with our conclusions that the current assessment process had significant shortcomings. One comment indicated that "Assessments need to be completed in a collaborative manner….[and] an independent assessment team should be utilized." Another commenter stated "We agree with B&A recommendations regarding utilizing a modified PAR or SIS in order to allocate resources" and "Both the modified PAR and SIS are better tools than the Oregon Scales." Further comments emphasized that any new assessment tools need to be accompanied by adequate assessor training and inter-rate reliability testing to ensure consistency in their application.

Reimbursement: Commenters had more trepidation over potential changes to the reimbursement methodology, although there were not any sharp objections to the report's recommendations. One commenter noted "We concur that changing to a prospective funding system has the potential to decrease time/cost required for budgeting and auditing" however also said "A prospective system rewards providers for containing costs, possibly to the point that services are compromised." Another commenter noted "Providers find that the individualized contract program rate-setting systems associated with programs such as ISLA are working well" and "A pilot phase on a smaller scale is recommended." B&A's rationale for not considering the ISLA program was addressed in previous sections.

Another commenter asked that the State learn from mistakes from the recently implemented Infant Development payment system. Since this system went into effect July 1, 2010, the lessons learned are not yet clear and need to be revisited as a new assessment and reimbursement system is implemented.

We also received comments from DD Program Managers on the proposed changes to the PAR and recommendations for questions that should be retained or deleted. Those comments are included in Appendix 7.0 as well. B&A believes that most of these recommendations should be accepted for the revised PAR but defers final decisions to the implementation team.

STATE OF NORTH DAKOTA
DEPARTMENT OF HUMAN SERVICES
DEVELOPMENTAL DISABILITIES DIVISION

DEVELOPMENTAL DISABILITIES REIMBURSEMENT STUDY

APPENDICES TO

DELIVERABLE 8: FINAL REPORT

SUBMITTED BY:

BURNS & ASSOCIATES, INC.
3030 NORTH THIRD STREET
PHOENIX, ARIZONA 85012

August 13, 2010

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Appendix 1.0

STATE OF NORTH DAKOTA
DEPARTMENT OF HUMAN SERVICES
DEVELOPMENTAL DISABILITIES DIVISION

DEVELOPMENTAL DISABILITIES
REIMBURSEMENT STUDY

DELIVERABLE 3: EVALUATION OF THE CURRENT REIMBURSEMENT, APPROPRIATION, ASSESSMENT AND CHANGE REQUEST SYSTEM

SUBMITTED BY:

BURNS & ASSOCIATES, INC.
3030 NORTH THIRD STREET
PHOENIX, ARIZONA 85012

February 25, 2010

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CHAPTER 1: INTRODUCTION AND BACKGROUND

Burns & Associates, Inc. (B&A) and their subcontractor, Human Services Research Institute (HSRI) were contracted by the North Dakota Department of Human Services' Developmental Disabilities Division (DDD) to analyze the assessment tools and criteria used to identify individuals who are medically fragile and/or behaviorally challenged. Further, B&A was tasked to evaluate the adequacy and appropriateness of compensation for providers serving people with extraordinary behavioral and medical needs. This report constitutes Deliverable 3 of that project – an overview and analysis of the current reimbursement system and assessments, claims, and costs under this system. In total, the study has eight deliverables:

Deliverable 1	Final Data Request	Complete
Deliverable 2	Three Day On-Site Visit and Materials	Complete
Deliverable 3	Evaluation of the Current Reimbursement, Appropriation, Assessment and Change Request System	**This Report**
Deliverable 4	Options for Assessment Scales, Resource Allocation Models, Other States Use of Scales, Options for Rate Adjustments Based on Changing Client Needs and Implementation Considerations	March 1, 2010
Deliverable 5	Preliminary Cost Estimates	April 15, 2010
Deliverable 6	Refined and Final Cost Estimates	May 15, 2010
Deliverable 7	Interim Report	June 15, 2010
Deliverable 8	Final Report	Aug 15, 2010

There were a number of data sources used in our evaluation of the current reimbursement system including:

- A detailed walk-through of the current system provided by DDD staff and all supporting documentation
- Focus groups, interviews and written comments received from stakeholders
- Quantitative analysis of assessments, claims and payments/costs
- B&A's and HSRI's experience with rate-setting systems and assessments in other states

B&A created a database for this report that links by individual the available Oregon assessment and Progress Assessment Review (PAR) data, claims payments made through North Dakota's

Medicaid Management Information System, provider cost reports and completed audit results. This database is the foundation of the statistical analyses reported in Deliverable 3.

While this report includes findings applicable to both adults and children, in preparing the report, it became clear that the current tools do not perform as well for children. As a result, B&A recommended that work on an appropriate assessment approach for children be separately addressed at this time. B&A, HSRI and DDD will have targeted work sessions and tasks that address children.

This report is divided into six Chapters as follows:

- Chapter 1 (this chapter) provides an overview of the report and introduces the project. It describes the project and the project deliverables.

- Chapter 2 is an overview of the current reimbursement system. It reviews the assessments in use – the PAR and the Oregon Medical and Behavioral scores. It also provides an overview of the interim rate-setting process, the budget adjustment process, the cost reporting and cost settlement process, and the audit process.

- Chapter 3 summarizes stakeholders' input. It reviews the comments received from stakeholders regarding the current system and the desired improvements in the assessment and payment processes as well as their comments on other major issues.

- Chapter 4 presents the results of the analysis using the linked database described above including assessments, claims and cost data. It includes a statistical analysis of the assessment data and the relationship of assessment scores to payment rates for services and legislatively appropriated "bucket" payments. It also includes a multiple regression analysis that identifies the strongest predictors of cost in the PAR and Oregon Scales and to what extent those questions explain the variation in costs to provide services.

- Chapter 5 presents our evaluation of the administration and operation of the current reimbursement system. It includes an analysis of the complexity and resources required to operate the system, a comparison to other rate-setting methodologies, and the challenges facing the Division in a cost settlement and budget environment.

- Chapter 6 is the summary and conclusions for this report.

CHAPTER 2: OVERVIEW OF THE CURRENT REIMBURSEMENT SYSTEM

To set the stage for the analysis of the current reimbursement system, Chapter 2 describes the three key elements of the payment system in place today including:

- Assessments of client need including the Oregon Medical Scale, the Oregon Behavioral Scale and the Progress Assessment Review (PAR)

- The rate-setting process including a description of interim rate-setting, cost reporting, cost settlement and audit processes

- The distribution of targeted appropriations for medically fragile and/or behaviorally challenged individuals

Assessments

North Dakota uses three assessment tools that each, to some extent, inform the rate-setting process. For the purposes of distributing targeted appropriations ("bucket" payments) for the medically fragile and/or behaviorally challenged, North Dakota utilizes two Oregon based tools, Medical and Behavior Scales, as directed by the Legislature. For more general purposes to guide resource allocation, DDD uses the Progress Assessment Review of which there is both an adult and child version.

Oregon Medical and Behavior Scales

The Oregon Medical and Behavior Scales were originally developed as tools to guide the deinstitutionalization process in that State and assess and track an individual's risk of community placement. The tool has been updated periodically by researchers. Neither tool is or was used by Oregon in rate-setting.

The original Oregon Risk Tracking Scales were designed by medical staff to support individual plan development of people with intellectual disabilities that were leaving the residential institutions in Oregon for community programs. It is especially designed to ensure the health of people with severe developmental disabilities during the transition to the community. The instrument has never been normed but received very favorable evaluation by the federal Center for Medicare and Medicaid Services (CMS) during the regular review of the comprehensive waiver in Oregon two years ago. Oregon has always been quite proud of the scales and the role they played in helping people in Oregon move safely from large institutions and institutional care facilities for the mentally retarded (ICF/MR) into the community. In October 2009 Oregon became the first State not to use ICF/MR care at all, either within the state or by out of state placements. Oregon is also one of nine states and Washington D.C. who do not use residential institutional care for people with intellectual disabilities. For the purpose of reimbursement Oregon moved to the Supports Intensity Scale (SIS) assessment along with Oregon-specific supplemental questions.

The Oregon tools do have a certain amount of clinical power but have never been groomed to be used as psychometric tools. We are unaware of any published reliability or validity studies. The tools do have a practical value for individual people to help protect their health and ensure that their individual plan of care has needed medical procedures in place. In Oregon (as in North Dakota) the behavioral component was not as useful as the medical scale.

Exhibit 2.1 provides a snap shot of the Oregon Medical Scale and scoring methods. The tool captures an individual's medical needs in eight categories:

- Overall Medical
- Skin/Physical Management
- GI/Feeding
- Respiratory
- Neurological
- Urinary/Kidney
- Metabolic
- Vascular

Exhibit 2.2 provides a snap shot of the Oregon Behavioral Scale. This Oregon scale measures client needs in a range of areas including:

- Night supervision required due to behaviors
- Destruction to property
- Aggression
- Self-injurious behaviors
- Behavior modification needs
- Restraints
- Participation in activities
- Active participation in activities
- Sexualized behaviors
- Frequency and intensity of problem behaviors

Both Oregon tools are administered by providers in North Dakota with some review by DDD. The Oregon assessments have not been completed on all clients so it is not possible to get the full picture of how DDD's full client load scores on these tools. Providers completed the tool on those individuals who were likely to meet the criteria for bucket payments.

Exhibit 2.1 Oregon Medically Fragile Scale and Scoring

Oregon Department of Human Services

MFCU CLINICAL CRITERIA

Consumer's Name: ____________________ **Provider** ____________________

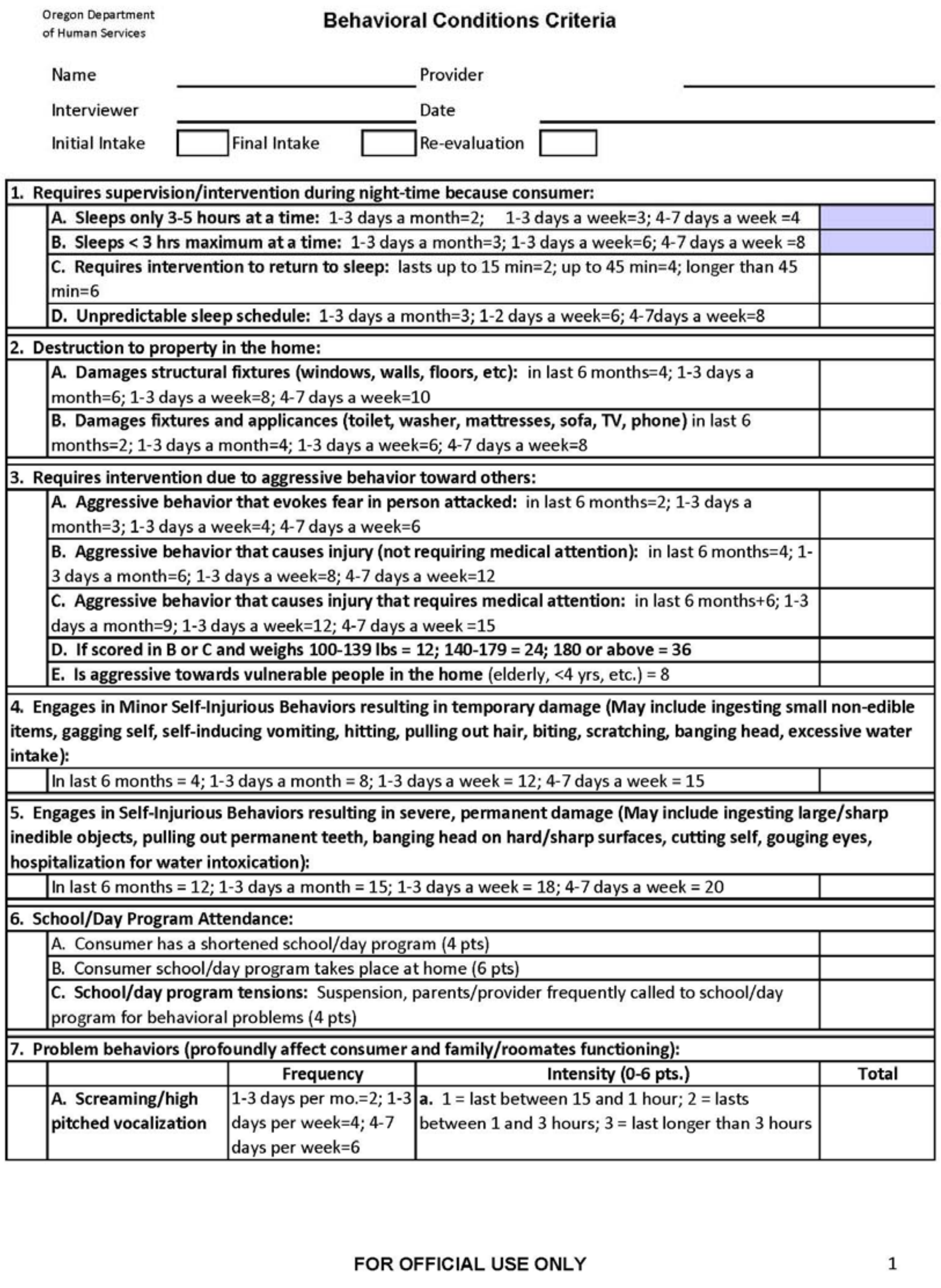
CARE ELEMENTS	CARE	POINTS	CARE ELEMENTS	CARE	POINTS	CARE ELEMENTS	CARE	POINTS
Overall			**GI/Feeding**			**Respiratory**		
1. Intervention no more than 2x noc	2		1. difficult/prolonged oral feeding	2		1. O2 via cannual lowflow rate	2	
2. Intervention > 2x at noc	3		2. complex dietary needs	2		2. O2 unplanned chng >1x/d	3	
3. Needs isolation	2		3. uncomplicated G tube feeding	1		3. Tracheostomy	5	
4. Complic. Med Schedule > q2hr	2		4. G tube feeding with min. problem	2		4. CO2 monitor	5	
5. Mod ongoing assess	4		5. NG tube feeding	3		5. cyanosis req pulse oxim	4	
6. Continual assessments	6		6. J tube feeding	4		6. signif. Apnea/brady (requires monitor)	3	
7. 2-10 hrs per week of LN	2		7. mod-sev problem w/tube feeding	2		7. suctioning < q 4 hr	2	
8. Needs LN > 10 hrs per week	3		8. reflux without airway involv	2		8. suctioning 1-4 hrs	3	
9. Needs LN > 10 hrs per day	6		9. reflux with airway involv	3		9. suctioning > q 1 hr	5	
10. VS/Neur/Resp asmt < q4hr	2		**Neurological**			10. CPT or Neb Rx < q 4 hr	2	
11. VS/Neur/Resp asmt q 2-4hr	3		10. szs-no intervention (>1x/week)	1		11. CPT or Neb Rx q 2-4 hrs	3	
12. VS/Neur/Resp asmt q 0-2hr	4		11. mild-mod szs (min. intervention)			12. CPT or Neb Rx > q 2 hrs	5	
Skin/Physical Management			12. -1x/w - 1x/d	2		13. resuscitation within 1 yr	4	
13. ROM	2		13. -1-4x/d	3		14. resuscitation within 1 mos	9	
14. OT (in the home)	2		14. ->4x/d	4		15. needs support to mait airway but survives > 2 hrs without	5	
15. PT (in the home)	2		15. Mod-sev szs (mod + intervention)			16. cannot mait airway without contin. Supp.	9	
16. Stoma care (@stoma)	2		16. ->1x/week	5		17. Ventilator	3	
17. Stage 2 skin breakdown	2		17. ->6x/day	6		18. - No resp effort	12	
18. Stage 3-4 skin breakdown	4		**Urinary/Kidney**			19. - vent > 12 hrs /d	9	
Metabolic			18. urinary cath. qday or <(not self)	2		20. - vent < 12 hrs/d	6	
19. insulin-dependent	2		19. indwelling cath or cath > qday	3		21. - standby only	3	
20. gluc monitoring < qid	1		20. Peritoneal dialysis	5		22. Vent unplanned chngs > qd	6	
21. gluc monitoring > qid	2		21. Hemodialysis (in the home)	8		**Vascular**		
22. sign. Metabolic disorder	4		22. - more than 1x per day	4		23. Central lines	8	
						24. Central line w/TPN	10	
						25. IM/SQ pain control	3	
						26. IV pain control	8	
						27. Occ transfusion/IV < q mos	2	
						28. IV Rx less often than q 4 hr	5	
						29. IV Rx q 4 hr or more often	6	
SUBTOTAL		0	**SUBTOTAL**		0	**SUBTOTAL**		0

Person Completing: ____________________

TOTAL (ALL COLUMNS): **0**

Date Completed: ____________________

Exhibit 2.2 Oregon Behavioral Scale and Scoring (Page 1 of 3)



Oregon Department
of Human Services

Behavioral Conditions Criteria

Name ____________________ Provider ____________________

Interviewer ____________________ Date ____________________

Initial Intake ☐ Final Intake ☐ Re-evaluation ☐

1. Requires supervision/intervention during night-time because consumer:				
	A. Sleeps only 3-5 hours at a time: 1-3 days a month=2; 1-3 days a week=3; 4-7 days a week =4			
	B. Sleeps < 3 hrs maximum at a time: 1-3 days a month=3; 1-3 days a week=6; 4-7 days a week =8			
	C. Requires intervention to return to sleep: lasts up to 15 min=2; up to 45 min=4; longer than 45 min=6			
	D. Unpredictable sleep schedule: 1-3 days a month=3; 1-2 days a week=6; 4-7days a week=8			
2. Destruction to property in the home:				
	A. Damages structural fixtures (windows, walls, floors, etc): in last 6 months=4; 1-3 days a month=6; 1-3 days a week=8; 4-7 days a week=10			
	B. Damages fixtures and applicances (toilet, washer, mattresses, sofa, TV, phone) in last 6 months=2; 1-3 days a month=4; 1-3 days a week=6; 4-7 days a week=8			
3. Requires intervention due to aggressive behavior toward others:				
	A. Aggressive behavior that evokes fear in person attacked: in last 6 months=2; 1-3 days a month=3; 1-3 days a week=4; 4-7 days a week=6			
	B. Aggressive behavior that causes injury (not requiring medical attention): in last 6 months=4; 1-3 days a month=6; 1-3 days a week=8; 4-7 days a week=12			
	C. Aggressive behavior that causes injury that requires medical attention: in last 6 months+6; 1-3 days a month=9; 1-3 days a week=12; 4-7 days a week =15			
	D. If scored in B or C and weighs 100-139 lbs = 12; 140-179 = 24; 180 or above = 36			
	E. Is aggressive towards vulnerable people in the home (elderly, <4 yrs, etc.) = 8			
4. Engages in Minor Self-Injurious Behaviors resulting in temporary damage (May include ingesting small non-edible items, gagging self, self-inducing vomiting, hitting, pulling out hair, biting, scratching, banging head, excessive water intake):				
	In last 6 months = 4; 1-3 days a month = 8; 1-3 days a week = 12; 4-7 days a week = 15			
5. Engages in Self-Injurious Behaviors resulting in severe, permanent damage (May include ingesting large/sharp inedible objects, pulling out permanent teeth, banging head on hard/sharp surfaces, cutting self, gouging eyes, hospitalization for water intoxication):				
	In last 6 months = 12; 1-3 days a month = 15; 1-3 days a week = 18; 4-7 days a week = 20			
6. School/Day Program Attendance:				
	A. Consumer has a shortened school/day program (4 pts)			
	B. Consumer school/day program takes place at home (6 pts)			
	C. School/day program tensions: Suspension, parents/provider frequently called to school/day program for behavioral problems (4 pts)			
7. Problem behaviors (profoundly affect consumer and family/roomates functioning):				
		Frequency	**Intensity (0-6 pts.)**	**Total**
	A. Screaming/high pitched vocalization	1-3 days per mo.=2; 1-3 days per week=4; 4-7 days per week=6	**a.** 1 = last between 15 and 1 hour; 2 = lasts between 1 and 3 hours; 3 = last longer than 3 hours	

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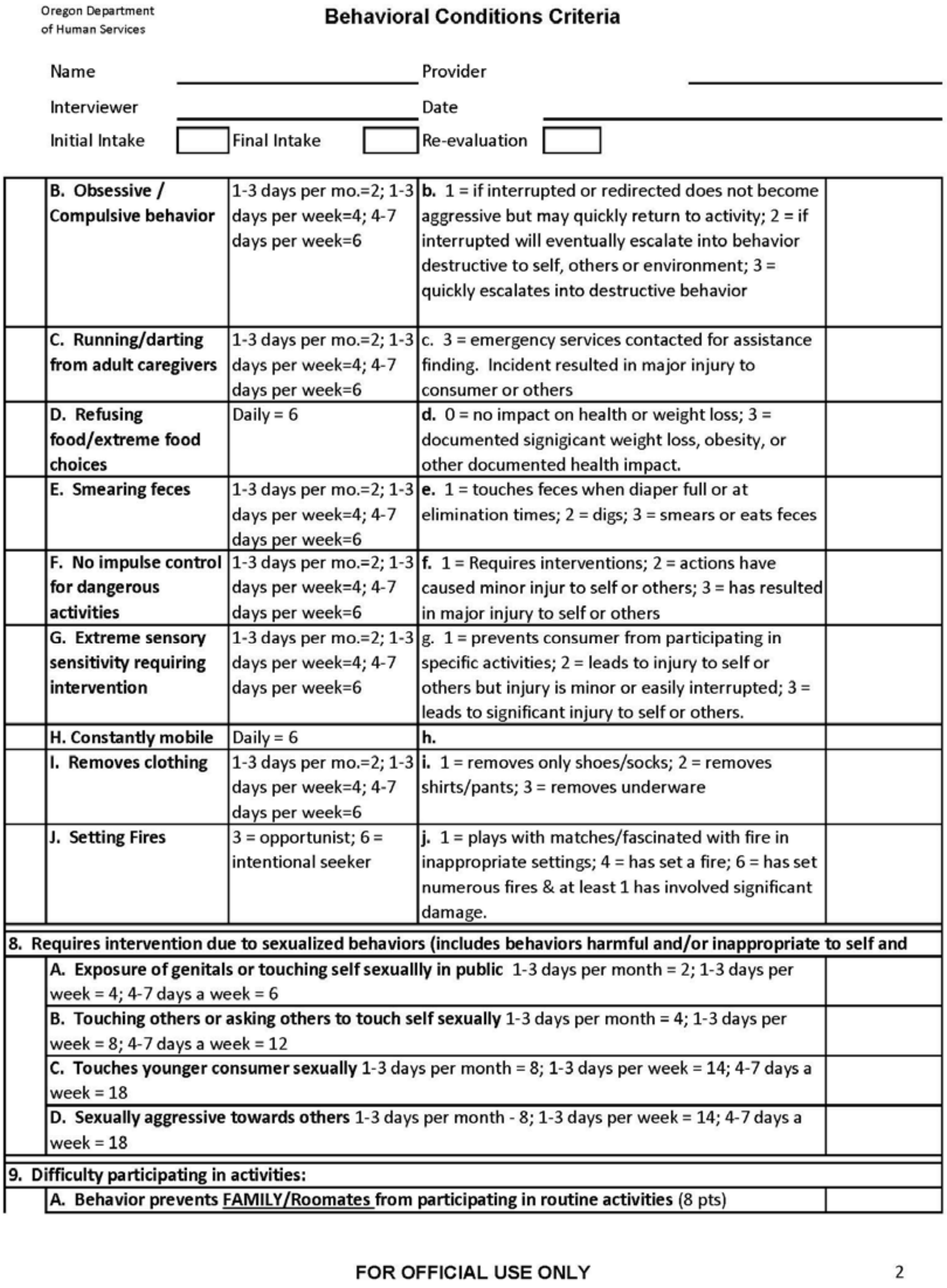
Exhibit 2.2 (continued) Page 2 of 3



Oregon Department
of Human Services

Behavioral Conditions Criteria

Name ____________________ Provider ____________________

Interviewer ____________________ Date ____________________

Initial Intake ☐ Final Intake ☐ Re-evaluation ☐

	B. Obsessive / Compulsive behavior	1-3 days per mo.=2; 1-3 days per week=4; 4-7 days per week=6	**b.** 1 = if interrupted or redirected does not become aggressive but may quickly return to activity; 2 = if interrupted will eventually escalate into behavior destructive to self, others or environment; 3 = quickly escalates into destructive behavior	
	C. Running/darting from adult caregivers	1-3 days per mo.=2; 1-3 days per week=4; 4-7 days per week=6	c. 3 = emergency services contacted for assistance finding. Incident resulted in major injury to consumer or others	
	D. Refusing food/extreme food choices	Daily = 6	**d.** 0 = no impact on health or weight loss; 3 = documented signigicant weight loss, obesity, or other documented health impact.	
	E. Smearing feces	1-3 days per mo.=2; 1-3 days per week=4; 4-7 days per week=6	**e.** 1 = touches feces when diaper full or at elimination times; 2 = digs; 3 = smears or eats feces	
	F. No impulse control for dangerous activities	1-3 days per mo.=2; 1-3 days per week=4; 4-7 days per week=6	**f.** 1 = Requires interventions; 2 = actions have caused minor injur to self or others; 3 = has resulted in major injury to self or others	
	G. Extreme sensory sensitivity requiring intervention	1-3 days per mo.=2; 1-3 days per week=4; 4-7 days per week=6	g. 1 = prevents consumer from participating in specific activities; 2 = leads to injury to self or others but injury is minor or easily interrupted; 3 = leads to significant injury to self or others.	
	H. Constantly mobile	Daily = 6	**h.**	
	I. Removes clothing	1-3 days per mo.=2; 1-3 days per week=4; 4-7 days per week=6	**i.** 1 = removes only shoes/socks; 2 = removes shirts/pants; 3 = removes underware	
	J. Setting Fires	3 = opportunist; 6 = intentional seeker	**j.** 1 = plays with matches/fascinated with fire in inappropriate settings; 4 = has set a fire; 6 = has set numerous fires & at least 1 has involved significant damage.	
8. Requires intervention due to sexualized behaviors (includes behaviors harmful and/or inappropriate to self and				
	A. Exposure of genitals or touching self sexuallly in public 1-3 days per month = 2; 1-3 days per week = 4; 4-7 days a week = 6			
	B. Touching others or asking others to touch self sexually 1-3 days per month = 4; 1-3 days per week = 8; 4-7 days a week = 12			
	C. Touches younger consumer sexually 1-3 days per month = 8; 1-3 days per week = 14; 4-7 days a week = 18			
	D. Sexually aggressive towards others 1-3 days per month - 8; 1-3 days per week = 14; 4-7 days a week = 18			
9. Difficulty participating in activities:				
	A. Behavior prevents <u>FAMILY/Roomates</u> from participating in routine activities (8 pts)			

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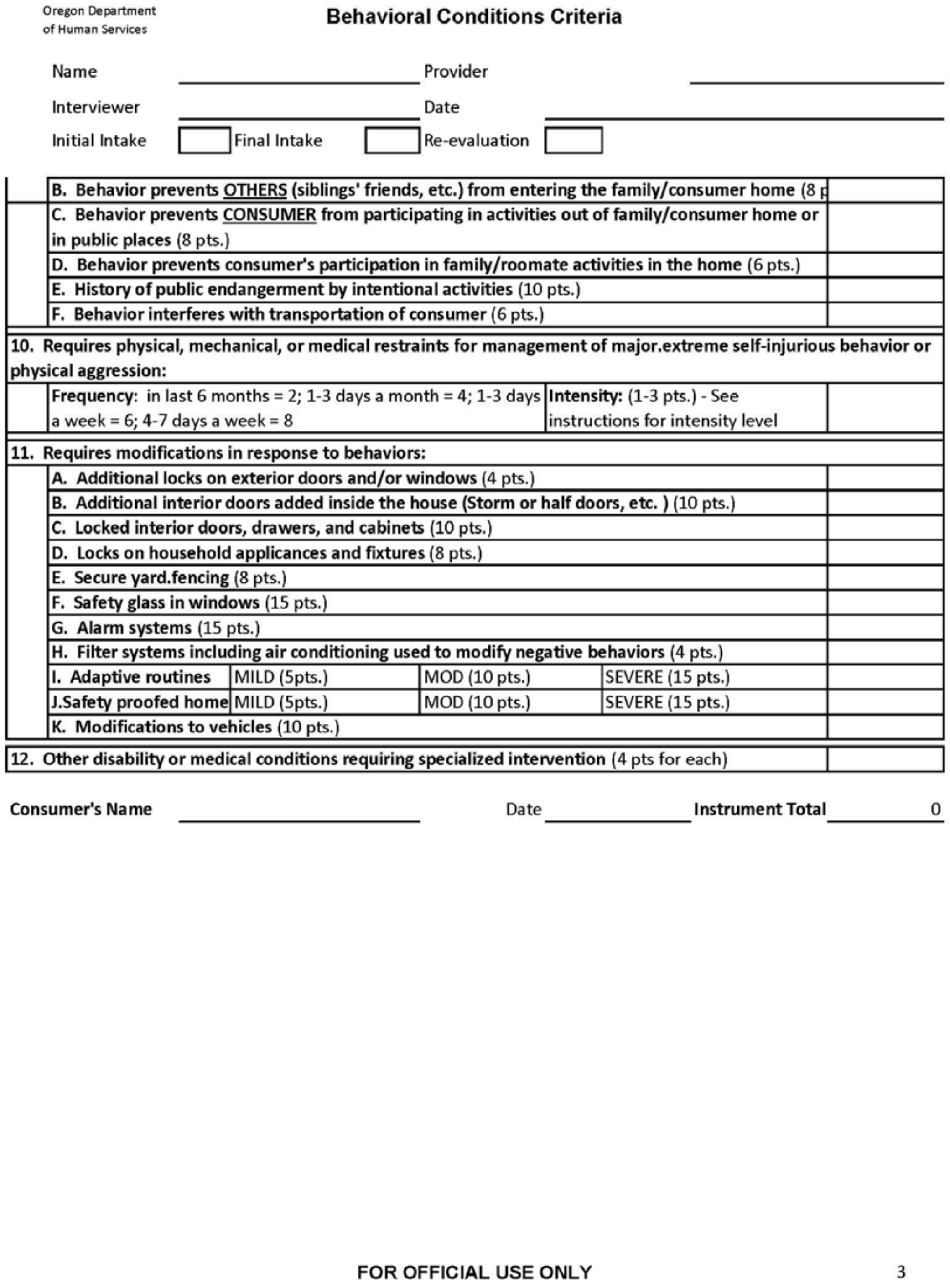
Exhibit 2.2 (continued) Page 3 of 3



Oregon Department
of Human Services

Behavioral Conditions Criteria

Name ____________________ Provider ____________________

Interviewer ____________________ Date ____________________

Initial Intake ☐ Final Intake ☐ Re-evaluation ☐

	B. Behavior prevents OTHERS (siblings' friends, etc.) from entering the family/consumer home (8 p				
	C. Behavior prevents CONSUMER from participating in activities out of family/consumer home or in public places (8 pts.)				
	D. Behavior prevents consumer's participation in family/roomate activities in the home (6 pts.)				
	E. History of public endangerment by intentional activities (10 pts.)				
	F. Behavior interferes with transportation of consumer (6 pts.)				
10. Requires physical, mechanical, or medical restraints for management of major.extreme self-injurious behavior or physical aggression:					
	Frequency: in last 6 months = 2; 1-3 days a month = 4; 1-3 days a week = 6; 4-7 days a week = 8		**Intensity:** (1-3 pts.) - See instructions for intensity level		
11. Requires modifications in response to behaviors:					
	A. Additional locks on exterior doors and/or windows (4 pts.)				
	B. Additional interior doors added inside the house (Storm or half doors, etc.) (10 pts.)				
	C. Locked interior doors, drawers, and cabinets (10 pts.)				
	D. Locks on household applicances and fixtures (8 pts.)				
	E. Secure yard.fencing (8 pts.)				
	F. Safety glass in windows (15 pts.)				
	G. Alarm systems (15 pts.)				
	H. Filter systems including air conditioning used to modify negative behaviors (4 pts.)				
	I. Adaptive routines	MILD (5pts.)	MOD (10 pts.)	SEVERE (15 pts.)	
	J.Safety proofed home	MILD (5pts.)	MOD (10 pts.)	SEVERE (15 pts.)	
	K. Modifications to vehicles (10 pts.)				
12. Other disability or medical conditions requiring specialized intervention (4 pts for each)					

Consumer's Name ____________________ Date ____________ **Instrument Total** 0

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PAR

The PAR informs unofficially the budget process for interim rate-setting as well as Individualized Supported Living Arrangements (ISLA) programmatic and administrative costs. North Dakota imported the PAR from Colorado in the 1990s and since then has adapted the tool to the State and automated the assessment and its results. The PAR is a comprehensive tool that assesses both specialized needs in addition to activities of daily living and independent community based activities unlike the Oregon Medical and Behavioral assessments. PAR assessment dimensions address:

- Adaptive skills
- Behavioral issues
- Communication issues
- Cognitive issues
- Day services support
- Independent living
- Legal issues
- Medical
- Motor skills
- Psychiatric
- Residential support
- Social skills

State program managers complete the PAR with advice and consent of the individual and family and results of the assessment are automated. In addition to the adult PAR tool, there is a Child PAR.

Child PAR

The Child PAR is not used to obtain a PAR Level or HCBS Indicator. All children eligible for DD Program Management meet the ICF/MR Level of Care. The Child PAR is used to compare the child's functioning in 18 foundation areas to same age peers. The Child PAR completed when the child enters Early Intervention is compared to the Child PAR results when they exit Early Intervention. The data is reported annually to the Office of Special Education Programs if the federal Department of Education as Individuals with Disabilities Education Act (IDEA) Part C Annual Performance Report (APR) Indicator # 3.

In addition to the 18 foundations a Child PAR also consists of AXIS I, AXIS II and AXIS III just like the regular PAR. The items in the Child PAR were developed at Portland University through a federal grant, but it is no longer supported and data is not collected now to establish the reliability and validity of the tool. Staff in the children's program within DDD are currently discussing switching to a different tool specifically designed to measure a child's progress. It should be noted that none of the tools commonly used by States do a good or even adequate job assessing children. However, there is a considerable amount of work now being done to improve assessment of children but much of that work will not be completed in time for this study.

Rate-Setting

The reimbursement system in North Dakota for services and supports to individuals with developmental disabilities makes payments in the current year based on an interim rate-setting process that is driven by submittal of a budget by providers. Final payments are cost settled after an audit.

When they were popular, cost-based reimbursement systems had certain common and unique features:

- A cost report format that is uniformly and consistently completed by each provider
- A sanction and/or penalty for failure to submit cost reports timely
- A desk review and/or audit process to verify submitted data
- State staff or contracted accounting firms assigned the audit function
- Detailed definitions of allowable costs

All of these characteristics are in evidence in North Dakota. The unique features of cost based systems fall primarily into two categories:

- Limits on allowable cost based on State-defined standards
- Interim payments made to providers

Some cost based systems place no limits on allowable costs. This is not the case in North Dakota either for establishing interim rates or final settlement. North Dakota has a formal “green sheet” target number or budget limitation that controls both interim rates and cost settlement.

Interim rates as well as final rates under the North Dakota DDD system are controlled in a number of areas including:

- Direct care wages and fringe benefits
- Supervisory and management salaries and fringe benefits
- Inflation
- Accreditation
- Occupancy

Interim rates are established based on the assumption that providers are 95% occupied. If a provider experiences higher occupancy they will owe DDD and if they experience less than 95%, the will “eat” the loss.

Audit

Cost reports submitted by providers are transferred to the audit function within the Department of Human Services. All providers are allowed a three month window with the potential of a one month extension for submittal of the cost report. North Dakota is ahead of many states in that there is an established cost reporting structure.

As of today, audits of cost reports are not yet completed for state fiscal year 2008 for one-third of the providers. SFY 2007 is substantially complete. Audits of providers are very comprehensive addressing:

- Reconciliation of units of service
- Appropriate classification of cost
- Accuracy of real property expense
- Consideration of salary schedules
- Rural Development Rental rates (USDA)

The entire process is labor intensive and slow.

Medically Fragile/Behaviorally Challenged

The Legislature began recognition of medically fragile children in the 2005/2007 biennium. Since that time, targeted appropriations have been authorized for six categories of adults and children who are medically fragile and/or behaviorally challenged. Table 2.1 below presents the appropriated amounts and the targeted populations.

Table 2.1 Targeted Appropriations

	Bucket 1	**Bucket 2**	**Bucket 3**	**Bucket 4**	**Bucket 5**	**Bucket 6**
Name	**Children's Intense Medical Needs**	**Children's ICF/MR Challenging Behavior Needs**	**Anne Carlsen Center – Severely High Medical Needs**	**Intense Medical Needs – Family Homes**	**Intense Medical Needs - Adult Residential**	**Critical Needs – Medically Fragile and Behavioral Challenging**
Effective Date	2005/2007 Biennium	2007/2009 Biennium	2007/2009 Biennium	2009/2011 Biennium	2009/2011 Biennium	2009/2011 Biennium
Dollar Amount (2009/2011 Biennium)	$663,167	$606,219	$909,329	$644,330	$805,412	$4.2 million
Age Limit	<21	<21	<21	All ages	≥21	All ages
Assessment Used	Oregon Medical	Oregon Behavioral	Oregon Medical	Oregon Medical	Oregon Medical	Oregon Medical and Behavioral
Score	16 or greater	50 or greater	40 or greater	16 or greater	16 or greater	13 or greater medical or 50 or greater behavioral
Provider Target	ICF/MR	ICF/MR	Only Anne Carlsen Center – Acute care	In-Home supports/ SDS-Family Support providers	Group home and ICF/MRs	All level providers if serving identified individuals
Number of individuals meeting criteria	21	49	6	20	41	501

Bucket payments for the first three categories targeted at children with special needs were incorporated into interim rates paid for services. In our analysis, these payments were removed from claims data. With the new buckets in the 2009/2011 biennium, DDD moved to payment methodology outside the Medicaid Management Information System (MMIS). Payments today are made on a quarterly basis. Starting with the 2009/2011 biennium, none of the bucket allotments are reflected in the DDD claims history.

Alternatively stated, the 2007/2009 biennial allotment funds (buckets 1 -3) were paid through the interim rates and are reflected in the DD claims history for the ICFs/MR. The 2009/2011 biennial allotments funds (buckets 1-6) are being paid via contract and will not appear in the DD claims history.

Distribution of dollars for each bucket is straight forward and in general is the number of people meeting established criteria as the denominator for available dollars.

CHAPTER 3: RESULTS OF STAKEHOLDER INPUT

A critical component of the analysis of the current reimbursement system is the inclusion of input from various stakeholders, including State agency staff within DHS and Medicaid, advocates, and providers. Gathering feedback from these groups provides insight into their perceptions regarding the system's strengths and weaknesses, many of which may not have been identified otherwise. This information then serves as a litmus test against which contemplated changes to the system can be measured. This chapter discusses the methodologies employed to engage stakeholders as well as the themes that emerged from their input.

B&A traveled to Bismarck and conducted three focus groups and several individual interviews over the course of three days in November 2009. Each group, one for the advisory committee, one for provider financial issues, and one for State agency staff lasted from two to eight hours. B&A developed an agenda for each meeting that covered discussion of each stakeholder group's role in the system, their evaluation of problems or issues that exist, brainstorming of solutions, and planning for ongoing participation. Participants in each group appear in Exhibit 3.1. Other topics specific to each group were also covered. B&A also prepared a written feedback form specific to each focus group and interview. These discussions, as well as written feedback are summarized in the remainder of this section.

State Agency Staff

A full-day meeting with DDD management staff was held to follow-up a series of conference calls held in the fall of 2009. Discussions with staff included major policy issues, the project timeline and work plan, and data needs.

The discussion included a summary of the tools that a number of States are using to assess the needs of individuals with developmental disabilities, how these tools have been implemented, and results that have been seen to date. The meeting also covered agency leaders' opinions of the current diagnostic tools used by North Dakota, the Progress Assessment Review (PAR) and the Oregon Medical and Behavioral Assessments. In particular, discussion involved whether the assessments adequately identify higher-need individuals and the need for tools that work well for children.

Rate strategies were also discussed at length. Most States have rejected cost based reimbursement systems because they are very labor intensive and do not provide positive incentives. Cost based systems under controlled budgets artificially limit provider costs and conversely cost based systems under growing budgets show increases that are not tied to policy objectives.

Further, there is a fundamental disconnect between tying assessed needs to payment in a cost settlement environment because payment either reflects assessed needs or costs but not both. Currently, costs for medically fragile individuals or those with behavioral challenges are not separately reported by providers. Coupled with the interaction of the two processes, budgets and "bucket" payments, actual costs of providing services to individual with medical fragility or behavioral challenges cannot be determined. The meeting also covered prospective rate systems as well as using case mix reimbursement versus individual funding levels

The meeting concluded with discussion of the data that would be used to evaluate assessment tools and provider payments. This included individual scores on both assessments, claims, cost reports, bucket payments, and audit data. A potential provider survey was also discussed.

Advisory Committee

The Advisory Committee includes sister State agencies, providers of residential and family supports, advocates, and North Dakota DDD staff. This meeting covered a number of topics including the PAR and the Oregon tools, care planning with and without medical fragility or behavioral challenges, and cost reporting, auditing, and payment. The discussion also highlighted participants' views regarding the independence of the current assessment and any regional differences for both the PAR completed by State Program Managers and the Oregon assessment tools completed by providers, assessments of children, specific questions that may be unreliable, and the equity of payment.

Related to the assessments, some participants expressed concerns that there are instances in which individuals who they believe should be eligible as developmentally disabled are not determined eligible by the PAR. (It should be noted, however, that North Dakota DDD serves more than twice as many individuals per 100,000 population than the national average). Additionally, inconsistencies were identified in regards to how the PAR is administered, with focus group participants saying that there are times when the program manager will have the provider or a client's parent(s) complete the assessment. The group generally agreed that the Oregon assessments accurately identify medically fragile individuals and those with behavioral challenges. However, it was also stated that the Oregon medical assessment performs better than the behavioral tool because the behavior assessment does not consider the amount of support that a client is receiving to prevent unwanted behaviors. A participant also noted that the assessments do not adequately capture the needs of aging clients.

The group observed that the State serves a large percentage of the under three years of age population. For children generally, an increase in the number of individualized placements outside of the family home has been noticed.

There was considerable discussion regarding client placements. The group agreed that placements are not always efficient in terms of matching clients' needs and resources. It was also noted that it is difficult to recruit adult family foster care providers, potentially due to the low reimbursement rate set by Medicaid.

Program Managers

Individual interviews were conducted with State Program Managers for adults and children due to this staff's critical role in assessment and care planning for clients. The agenda and topics were similar to those of the advisory committee focus group. Subsequent to the interviews, the program managers were invited to share additional comments with B&A.

Though generally supportive of the PAR, the program managers did note a number of deficiencies in the tool and its application. For instance, one program manager acknowledged that different staff interpret the questions differently and another stated that oversight is not always as effective as it should be. Questions 3 (related to the typical level of supervision a consumer needs in their own home), 21 (regarding the overall support level in day services), and 61 (concerning the independent living support level) were identified as particularly problematic. One program manager also noted that sleeping is not assessed by the tool.

The program managers generally feel that the PAR is a valid tool for measuring most clients' needs, but noted that the tool does not effectively assess every population. Most notably, they do not believe that it is an effective gauge for children. A program manager commenting on the Oregon tools stated that she believed it helps to track a child's progress, but this progress cannot always be separated from simple maturity. She also noted that she appreciates how the tool allows for small increments of growth that can demonstrate progress.

In addition to not always providing adequate assessments of children, one program manager said that the PAR does not sufficiently capture autism spectrum disorders or, more generally, developmental disabilities other than mental retardation. In terms of determining additional support needs, one program manager said that it does an effective job for medically fragile individuals, but does not always capture behavioral challenges.

Suggestions for changes included identifying an assessment for children and involving early intervention providers in that discussion. One program manager suggested the Vineland or Developmental Milestones tools. It was stressed that any assessment tool would have to be "quick" and provide meaningful data for parents.

Providers

A focus group was also held with contracted providers as well as State staff regarding both the general topics of the study and specific financial issues. In this group, discussion covered the PAR and Oregon tools, providing services to medically fragile individuals and those with behavioral challenges, problems or issues related to rate-setting, auditing, interim rate, budgeting, and care planning, and the cost-based reimbursement study.

The group discussed the PAR and Oregon assessments, including questions that are useful and those that are not as well as those that are duplicated across the tools. In addition to the assessments for identifying clients that are medically fragile or have behavioral challenges, the group discussed the need for a rational rate strategy for paying for services for those individuals. As part of this discussion, there was conversation regarding whether or not the bucket payments are consistent with the cost reimbursement system.

A significant portion of the discussion related to the data that would be necessary in order to evaluate changes to current assessment and funding methodologies. At a summary level, two broad options were available: utilizing DDD's records to tie assessment data to cost and claims information or conducting an informal survey including a time and motion study to evaluate the processes employed by providers to deliver a given service. The results of the study would illustrate differences in providers' service delivery methods and resource usage. B&A developed a sample to use for the study. However, when the providers estimated the staffing resources and costs that would be necessary to conduct the study, they made the decision not to move forward with it. Rather, they expressed their confidence in the overall B&A work plan and the use of other strategies to ensure provider input into the analysis.

Written Feedback

In addition to the focus group, B&A authored a questionnaire with 18 open-ended questions requesting feedback on the effectiveness of DDD's assessment tools, administrative operations and burdens associated with the current processes, the adequacy of funding for medically fragile individuals and those with behavioral challenges, and suggestions for improvements. B&A received ten completed questionnaires from providers. Of the ten, four providers submitted verbatim responses with two of the four providers adding their own unique comments. As these four questionnaires were returned by different providers, the results were tallied separately; that is, although identical, each of these responses was counted four times since they were submitted four times by different providers and it is presumed that each responder agrees with the comments they submitted. Providers' collaboration on the responses potentially increases or decreases the utility of the results because it represents consensus or reduces the diversity of opinions and potentially overstates the findings or.

The providers completing the questionnaire reported delivering a variety of services, including day supports, intermediate care facilities for the mentally retarded (ICF/ MR), group homes, Individualized Supported Living, and others, to more than 1,500 individuals with developmental disabilities. This is likely a duplicated count and represents approximately one-third of DDD's caseload. The remainder of this section summarizes the insights gained from the written comments.

Effectiveness of Assessment Tools

Providers were asked how they believed the Oregon Medical and Behavioral Assessments are working and whether the tools are reliable and valid. Nine providers submitted useable responses to this question. In general, the responses suggest a general acceptance of the use of an assessment tool and several positive comments were made, though a number of specific criticisms were noted in a majority of the responses.

Though respondents generally did not mention reliability and validity per se, one theme emerged in the responses that suggested concerns with the tool's reliability. Specifically, five providers stated that the results of the assessment vary across users and providers. Most of these responses noted that this issue is fostered to a significant degree by the lack of training on how to administer the assessment.

There were two broad concerns regarding the validity of the tool, one relating to the behavioral assessment and the other to the medical assessment. Seven providers wrote that the tool does not adequately capture the behavioral needs of certain clients. These respondents expressed that the tool only captures behavior at the time the instrument is used, but positive behavior at that time may be a result of the more intensive supports that an individual is receiving. In other words, an individual may be assessed as having high support needs due to behavioral issues and the provider will receive additional funding to provide that support. If the same client is later reassessed and those supports are effectively managing the individual's behavior, however, the client will receive an improved behavioral health score, which would strip the funding the provider receives to deliver the more intensive supports. Two other providers specifically stated that the behavioral criteria are comprehensive and accurate.

Related to the medical assessment, six providers expressed concerns with the tool's ability to adequate assess a client's needs. Among these concerns is the belief that the threshold to meet the criteria for medically fragile is set too high. As an example, several providers noted that the tool does not adequately capture medical needs that are time-consuming without being "serious", (e.g. diabetes) or chronic (e.g. an open wound). One provider stated that the assessment does not address certain "decline conditions", such as aging, dementia, and Alzheimer's. Additionally, respondents expressed that the assessment does not include many new medical procedures and would have to be updated in order to be valid.

Overall, providers appear to be accepting of a tool to determine whether a client is medically fragile or has significant behavioral needs, but they have concerns with the current Oregon tools. Addressing these issues would require either overhauling the current assessment tools or identifying and implementing new instruments.

Providers were asked the same questions for the PAR as for the Oregon tools. The nine responses to these questions possessed less detail, had fewer positive remarks, and included less commonality compared to the answers to the Oregon tools questions. There were two comments that each appeared in a majority of the responses. Providers noted that they were not involved in the PAR process and, as with the Oregon tool, the implementation of the tool may vary significantly amongst users.

In addition to the issue of variation between assessors, responses included concerns with differences across regions that impact the reliability of the tool. Finally, specific criticisms included that the Department sometimes completes the assessment using information provided by families without sufficient time and effort to derive an accurate score, that the tool is too general, and that it is done too infrequently and not when changes occur.

Based on these responses, providers appear are not confident in the administration of the PAR which is in contrast to the more positive responses from the program manager interviews. Though some of this skepticism relates to the tool itself, much of the discomfort is due to perceived shortcomings in the training for the administration of the assessment. One provider called for adoption of a single assessment to develop staffing level information.

Adequacy of Funding

The questionnaire asked whether the right people are getting additional funds for medically fragile conditions and behavioral challenges. The consensus from the nine useable responses indicates that providers believe that funding on an individual basis is often not appropriate, but that total funding is adequate. Providers specifically noted that they sometimes disagree with the Department and its individual assessments, but that, overall, they receive sufficient funding. In general, providers were more likely to state that funding is inadequate for medically fragile individuals than for those with behavioral challenges.

One individual comment included praise that (unspecified) needs which were not previously recognized are now being taken into consideration. Conversely, another individual comment stated that program managers sometimes move a person from an independent living arrangement to a more dependent arrangement rather than trying to meet that client's needs in their current home.

A separate question asked whether dollars are going to the right providers. Six responses were received to this question. One responded yes while four identical responses indicated that the split between day supports and residential services need to be fine-tuned. Though no more specificity was provided in this answer, given that the primary responder provides mostly day supports, it is inferred that the responses should be read as indicating that funding should be shifted from residential services to day supports. The final response noted that the "current bucket system allocation does not make sense" but did not articulate specific objections. In response to a different question, one provider stated that if DDD continues to use the Council on Quality Leadership, the initiatives that CQL lists, such as individual housing and social connections, must be funded.

Another question asked whether dollars for behavioral and medical problems duplicate other budgeting processes such as approved adjustments. Five responses to this question were submitted and three were generally identical. The three identical responses noted that the funding generally was not duplicative while the other response stated that the "bucket money" does, in fact, duplicate other funding. The identical responses also stated that critical needs should not be tied to the audit settlement process. Finally one of the three added that it is difficult to add nursing to any contract.

A number of providers expressed support for the cost reimbursement system. One provider, though, mentioned that while they have historically opposed shifting away from cost-reimbursement, they would support a well-designed prospective system.

Taken in whole, these responses both confirm that providers would like to see improvement in the determination of funding for individuals who are medically fragile or have behavioral challenges, and suggest that such an improvement does not necessarily have to increase overall costs as these providers agree that they receive adequate funding in total.

Administrative Operations and Burdens

The questionnaire asked providers for their perspective on the administrative burden created by the existing assessment and cost reporting, budgeting, and settlement processes. The primary complaint related to the assessment process was the timeframe for completion, mentioned by five of ten respondents. One provider reiterated an earlier comment, noting that in addition to the limited time to complete the assessments, no training was provided. Two providers stated that, after the first round, they believe the process will be manageable.

A handful of other comments were included in response to this question. Two respondents stated that the providers should be involved in PAR development. Single providers mentioned concerns related to documentation, suggested that medically fragile individuals receive more frequent assessments, and asserted that the assessment tools are lengthier than they should be.

The most common response to the question regarding the cost reporting, budgeting, and settlement burden was that the processes are slow, noted by five of nine responding providers. The specific "slow" processes varied from respondent to respondent, but included rate-setting, settlements, and contracts. Three providers did compliment improvements in timeliness in certain areas. Individual respondents commented that their internal management is complicated by managing multiple programs, that confusion occurs in interim rate-setting due to obscure formulas and researching decisions from years ago, and that rules and policies are not well-known or followed.

A separate question asked providers to discuss solutions that they have considered to assessment and payment processes and cost-reporting, audit, and other administrative burdens. Of the eight responses, two simply noted that the current system is working. Three identical responses stated that they have asked to meet regularly with DDD to review concerns with audit and rate-setting mechanisms. Another response said that focus should be on results for people rather than administrative micro management, but it is unclear whether this is a statement of a strategy the provider has undertaken or a suggestion for DDD.

A few questions were asked regarding specific aspects of providers' administration of the program. One of these asked how providers reserve dollars for paybacks given that interim rates are consistently higher than final rates. Of the seven responses, six noted that they recognize they receive about five percent more than their estimated costs so they monitor spending and set aside funds for the year-end payback with one of the providers noting that they invest these moneys in a certificate of deposit during the year. Unlike these responses, which suggest providers have processes in place to ensure that the payback is not a surprise that creates a burden, the seventh response stated that the payback is a struggle based on fiscal circumstances from year to year.

Another question inquired as to whether individuals with similar PAR, medical, and behavioral scores live together. Six of eight respondents stated that the scores generally were not used to determine placements. The remaining responses were less definitive with one noting that individuals in group homes will have similar scores but those living in apartments will have less consistent scores, and the other stating that individuals with similar medical needs live together in the same home area to better utilize equipment and staff but other instances where individuals with similar scores live in the same residential area has occurred by coincidence.

As with questions related to funding, the responses to inquires related to administrative burdens seem to indicate that there is not widespread dissatisfaction with the existing system. In general, providers are able to identify aspects of the system that they believe are less than optimal, particularly DDD's timeliness related to a number of functions, but have been able to create their own processes to manage within the system. That is not to say, however, that they do not have recommendations for improvements.

Recommendations for Change

Providers were queried regarding criteria they believe are important as changes to the system are considered and evaluated, analyses that should be conducted before an approach is selected, and changes they would make to existing assessments and processes. The feedback suggests that there are some aspects of the current system that providers want to retain, particularly the funding that they receive. At the same time, there are perceived improvements to the assessments that they would like to see implemented.

Of the ten responses to the question on what criteria is important when contemplating changes, five expressed that a new assessment should not disrupt services that individuals are currently receiving (and, by extension, should not impact staff enhancements that are already in place). Further, the responses stated that changes should neither be driven by cost savings nor result in winners and losers. Also in terms of funding, respondents suggested that rates not be based on client outcomes, account for cost differences between small and large organizations as well as urban and rural providers, accurately allocate resources required by each client, include a "community safety risk" supplement for those who require line-of-sight supervision, and be adjusted over time for inflation.

Several principles for any new assessment were articulated. Providers stated that the assessment should result in clients with high medical or behavioral needs receiving the necessary staffing and equipment for support; however, the scores should not be used by agencies to determine whether an individual is eligible for admission. The responses stated that an assessment should be objective and accurate, fair and equitable, predictive of cost (staff time), and user friendly. Several providers also noted that it should be flexible enough to measure the changing needs of individuals between the current annual assessments. Suggested criteria also included allowing opportunities for input into any changes as well as the sharing of preliminary results with providers, providing training to ensure accuracy and consistency, implementing a control system to increase accountability, and removing politics from the process. Finally, two respondents suggested that any new assessment be field tested before implementation.

When asked for a list of changes that they would make to the current assessments, providers unsurprisingly returned to the perceived deficiencies they noted previously in the questionnaire. For example, providers believe that they should be involved in the PAR process and that the assessment be updated when conditions change. Providers also recommended that training be instituted to ensure consistency amongst evaluators.

The majority of the comments, though, focused on changes that they would make to the Oregon assessments for medically fragile individuals and those with behavioral challenges. These suggestions include:

- Considering past behavior when developing the behavioral assessment
- Updating the medical assessment with new procedures

- Ensuring that the medical assessment does not focus only on procedures, but also considers ongoing needs (e.g. insulin shots)
- Accurately reflecting nursing time

Other specific concerns with the Oregon tools were expressed, including that it ignores professional expertise, does not break scores into categories to determine services and staffing, and does not include age equivalent scores. Providers also wish to ensure that assessments are not duplicative. Overall, the providers' feedback suggest that they recognize the need for an assessment to determine clients' service needs, but they believe that the current assessment is applied inconsistently and does not adequately capture clients' medical and behavioral needs.

Exhibit 3.1: Stakeholder Interview and Group Participants

Advisory Committee Group Participants

Deb Balsdon
Tina Bay
John Bole
Donna Byzewski
Wanda Carlson
Robbin Hendrickson
Paul Kolstoe
Teresa Larsen
Jon Larson
Mike Marum
Jim Moench
Vicci Pederson
Don Wald

Provider Group Participants

Tina Bay
Borgi Beeler
John Bole
Wanda Carlson
Robbin Hendrickson
JoAnne Hoesel
Lawrence Hopkins
Eric Monson
Barb Murry
Tom Newberger
Vicci Pederson
Colette Perkins

Program Manager Interviews

Jim Fisher
Kristen Vander Vorst

CHAPTER 4: RESULTS OF THE ANALYSIS OF ASSESSMENTS, CLAIMS, AND COSTS

B&A conducted both a programmatic and quantitative analysis of the current reimbursement system and payments for medically fragile and/or behaviorally challenged individuals. This chapter reports the results of the quantitative analysis of the relationship between cost/payments and assessed needs.

To do this analysis, B&A and HSRI compiled a comprehensive database of clients served by North Dakota DDD clients using data from five sources:

- Paid claims for services rendered in state fiscal year 2009 and part of 2010
- The PAR, including overall PAR level, summary scores by dimension and scores from individual questions
- The Oregon Scales medical and behavioral scores
- Audited provider cost reports from fiscal years 2007 and 2008
- Client and provider files

B&A used the complete SFY 2009 claims data for all payment analyses. There were a total of 4,147 unique clients in the 2009 claims data, though not all utilized services that were the focus of this analysis. Infant Development was not included because of a lack of assessment scores. When merged with the assessment data and limited to full-year clients only there were a total of 1,086 unique individuals who received more than $82 million in audit-adjusted services (see the discussion in Chapter 2 and the audit adjustment discussion below for additional information).

The PAR data provided by DDD was composed of several files that each contained different sections or summaries of the PAR assessment results by client. The different files contained different numbers of clients. The combined PAR dataset is compromised of only those individuals included in all of the files and for whom all of the scores and sub-scores were available. Since complete data was not available for each individual the usable dataset does not contain everyone who received a PAR assessment. The details are below.

Table 4.1: Number of Clients in PAR Data Files

Dataset	Unique Clients
PAR Levels	2,301
PAR summary scores	1,494
Behavioral and Psychiatric Individual Questions	1,874
Motor Skills, Independent Living, Social Skills and Communication Skills Individual Questions	1,484
Medical Individual Questions	1,568

The individual PAR questions selected for analysis are shown in Exhibit 4.1 at the conclusion of this chapter. The questions are organized into the following categories:

- Summary scores highlighted
- Day supports
- Motor skills
- Independent living
- Social skills
- Cognitive skills
- Behavioral issues
- Medical issues
- Psychiatric issues
- Legal support
- Diagnosis

After merging all of the PAR files, there were a total of 2,333 unique clients, of which 32 were in a detail file but not in the PAR Levels file and 118 were in the PAR Levels file but not in any of the detail files.

The Oregon Scale data was provided in a single file that included demographic information on the client and the Oregon Behavioral and Medical Scores. Not all clients in the file had one or both of the Behavioral and Medical Scores. There were a total of 1,249 unique clients in the Oregon Scales file. Of those, 958 had a Behavioral Score and 775 had a Medical Score. The Oregon Scales file also included data on the Bucket payments to clients. There were 21 people with Bucket 1 allocations, 49 people with Bucket 2 allocations, 6 with Bucket 3, 23 with Bucket 4, 41 with Bucket 5, and 507 with Bucket 6 allocations. Within Bucket 6, 470 got the base amount, 35 got two times the base amount, and 2 got three times the base amount. When the Oregon Scales data was merged with the combined PAR dataset there was a grand total of 2,501 unique people, of which 1,252 were in the PAR data but not in the Oregon data and 168 were only in the Oregon data. Following is a brief profile of the population in the combined dataset based on the 1,252 people in the assessments data.

Table 4.2: Clients by AXIS II Level

AXIS II Level	Count
Missing	171
Mental Retardation Severity Unspecified	97
Not Mentally Retarded	1
Mild Mental Retardation	389
Moderate Mental Retardation	282
Severe Mental Retardation	189
Profound Mental Retardation	123
Total	**1,252**

Table 4.3: Clients by PAR Level

PAR Level	Count
Missing	171
0	11
1	551
2	234
3	136
4	97
5	52
Total	**1,252**

When the combined PAR-Oregon data was merged with the claims we maintained 1,086 people with PAR and/or Oregon Scales scores. There were 166 people with an assessment score who could not be matched to any claims.

Audit Adjustments to Payments

DDD provided B&A with audited cost reports for 35 providers for the previous three years. Audit adjustments for each provider site and service were calculated based on a simple formula using summary totals in the audited cost reports. For each site and service in the cost reports, the "Sub-Total Allowed Costs" was divided by the "Sub-Total Payments" to get the adjustment factor. The adjustments were applied to the state fiscal year 2009 claims data in order to estimate cost-settled expenditures for 2009. In about two-thirds of the cases a fiscal year 2008 cost report was available to use to calculate the audit adjustment factor for payments made in 2009; in the remaining cases, fiscal year 2007 cost reports were used. The fact that the cost and payments data was available at such a detailed level makes the audit adjustments more accurate as a fine-grained estimate of costs, however we have no way of knowing at this point how allowed costs compare to the payments for fiscal year 2009, so the adjustment is still just an estimate of final expenditures.

There were a total of 168 individual audit adjustment factors calculated that were then applied to the claims data. The mean adjustment was 98.6 percent, meaning that, on average, allowed costs were 98.6 percent of payments. The values ranged from a low extreme of 40.8 percent to a high of 251 percent. In order to remove outliers that were likely the result of unusual circumstances in the cost report year, we excluded the top 5 percent and bottom 5 percent of values. That resulted in a more realistic cap of 120 percent at the high end and 80 percent at the low end. The median adjustment was at 96.7 percent.

Analysis of Client Payments

Once the comprehensive database is constructed the analysis of client payments is possible. B&A began by standardizing payments to a daily rate. For services billed on a daily basis this is a simple calculation of dividing the total payments by the total units. For hourly rate services such as Day Services and Family Supports we needed to utilize the number of days billed as the denominator, making an assumption that on average the number of hours per day utilized was constant for the same client. Once we had the denominator we could also calculate a rate for the bucket payments by dividing the client's total bucket payments for the year by the total number of days of service for the year (only full-year clients were included in this part of the analysis).

We divided the client population into three separate groups for this analysis -- ages 5 and under, ages 6 to 20, and ages 21 and over. The counts of clients by age and bucket are shown below.

Table 4.4: Number of Clients by Age and Bucket

	0-5	6-20	21+
Bucket 1	8	13	0
Bucket 2	6	43	0
Bucket 3	3	3	0
Bucket 4	14	6	3
Bucket 5	6	2	33
Bucket 6	85	91	332

One of the primary questions to be addressed is whether the use of the Oregon Scales in determining the bucket payments can be replicated using elements from the PAR. In order to answer that, the relationship between the bucket payments and the rates paid in claims for the same person must first be evaluated. Bucket payments and claims payments were converted to daily rates. B&A then used a Pearson correlation to examine this relationship. Table 4.5 shows these results.

Table 4.5: Correlation of Claims and Bucket Payments

	0-5	**6-20**	**21+**
Bucket 1	**-0.891**	**0.995**	-
Bucket 2	-0.023	-0.294	-
Bucket 3	**-1.0**	-	-
Bucket 4	**0.891**	0.934	**0.999**
Bucket 5	**0.981**	-1.0	**0.985**
Bucket 6	0.202	**0.338**	**0.204**

Small sample sizes play havoc with some correlations, so the statistically significant correlation coefficients are in bold. Buckets 1, 2, and 3 are for children only, so there is no correlation for adults. The significant correlation coefficients demonstrate a high degree of correlation between providers’ cost-based budget rates and the amount of bucket payment received. This means that providers receiving payments for medically fragile and/or behaviorally challenged individuals were already receiving high rates under the current system. As a result, it is logical to infer that the factors that determine payment rates for services in general could also be reasonable predictors of the bucket payments for individuals with medical and behavioral challenges due to the high correlation between the payments.

Analysis of Sites

Under the Individualized Supported Living Arrangement (ISLA) program, rates are individualized to client need. However, for most residential programs, payment rates per site under the current system are the same regardless of the assessed need of the client at the residential site. Since each provider site has its own unique ID in the claims and cost report data, we were able to do a detailed analysis of the payments and case-mix by site. This is an important aspect of the analysis because providers' costs are often affected by the mix of needs at a particular site. The costs of care are strongly impacted by how well resources are utilized and shared on the same site. For that reason we looked at several types of case-mix at each site - one using the PAR level as the measure of acuity, one using the behavioral health sub-score of the PAR as the acuity measure, as well as ones using the Medical and Psychiatric sub-scores of the PAR as the acuity measures. In each case, the case-mix is simply calculated as the sum of the acuity scores divided by the number of people receiving services on site. It should be noted in interpreting PAR case mix measures that lower scores indicate a greater need.

In addition to the PAR measures, we calculated a case mix score based on the Oregon Medical Scale, the Oregon Behavioral Scale and the combination of the two. For the Oregon measures, we calculated the case mix of a site by assigning each resident a 0 if they did not qualify or had no data, a 1 for individuals that did qualify, and a 2 or 3 for individuals who qualified for double or triple the base value in Bucket 6. This methodology was used for the Oregon Behavioral, Medical and combined qualifying individuals, and the results were summed and divided by total residents to derive a site's case mix. Unlike the PAR, lower scores indicate lesser need.

For the correlated resource utilization of the site we calculated a total rate per day for the entire site, which is simply the total payments for all services provided on site divided by the total number of client days of service provided. We used both the audit-adjusted payments per day and bucket payments per day as measures. Our correlations were performed separately by age group, but in this case to compensate for small sample sizes we combined the 0-5 and 6-20 age groups. Summary statistics for each age group are shown below.

Table 4.6: Summary Statistics for Under 21 Age Group

Variable	N	Mean	Std Dev	Minimum	Maximum
Case-Mix PAR	41	1.56	0.86	0.60	4.00
Case-Mix PAR Behavioral	41	3.56	0.96	2.00	6.00
Case-Mix PAR Medical	41	3.53	1.03	1.00	5.00
Case-Mix PAR Psychiatric	41	4.14	1.62	1.50	6.00
Case-Mix Oregon Medical	41	1.28	1.10	0.00	3.00
Case-Mix Oregon Behavioral	41	1.48	0.98	0.00	3.00
Case-Mix Oregon Combined	41	1.96	0.86	1.00	3.00
Claims Payment per Day	38	523.85	653.97	130.20	3,196.00
Bucket Payment per Day	27	67.49	82.52	6.04	309.14

Table 4.7: Summary Statistics for Over 21 Age Group

Variable	N	Mean	Std Dev	Minimum	Maximum
Case-Mix PAR	74	1.85	0.83	1.00	4.60
Case-Mix PAR Behavioral	74	3.46	0.78	1.00	6.00
Case-Mix PAR Medical	74	3.63	0.56	2.00	5.00
Case-Mix PAR Psychiatric	74	3.71	1.08	1.00	6.00
Case-Mix Oregon Medical	74	1.55	0.90	0.00	3.00
Case-Mix Oregon Behavioral	74	1.63	0.84	0.00	3.00
Case-Mix Oregon Combined	74	2.27	0.63	1.00	3.00
Claims Payment per Day	71	335.78	647.41	33.21	4,513.00
Bucket Payment per Day	53	39.61	216.44	0.77	1,576.00

The correlation matrix for the different case-mix scores and the two different payment rates is below. The statistically significant correlation coefficients are in bold.

Table 4.8: Correlation Matrix for Under 21 Age Group

	Case-Mix PAR	Case-Mix PAR Behav.	Case-Mix PAR Medical	Case-Mix PAR Psych.	Case-Mix Oregon Medical	Case-Mix Oregon Behav.	Case-Mix Oregon Combined	Claims Payment per Day
Case-Mix PAR Behavioral	**0.390**							
Case-Mix PAR Medical	**0.383**	**-0.403**						
Case-Mix PAR Psychiatric	**0.345**	**0.621**	**-0.462**					
Case-Mix Oregon Medical	0.113	**0.437**	-0.284	0.199				
Case-Mix Oregon Behavioral	**0.366**	0.078	**0.365**	-0.086	0.209			
Case-Mix Oregon Combined	**0.352**	**0.430**	-0.008	0.282	**0.686**	**0.565**		
Claims Payment per Day	0.021	0.261	**-0.417**	0.269	**0.336**	-0.172	0.169	
Bucket Payment per Day	0.006	**0.431**	**-0.602**	**0.384**	0.341	0.025	0.046	**0.630**

Table 4.9: Correlation Matrix for Over 21 Age Group

	Case-Mix PAR	Case-Mix PAR Behav.	Case-Mix PAR Medical	Case-Mix PAR Psych.	Case-Mix Oregon Medical	Case-Mix Oregon Behav.	Case-Mix Oregon Combined	Claims Payment per Day
Case-Mix PAR Behavioral	**0.485**							
Case-Mix PAR Medical	**0.579**	-0.085						
Case-Mix PAR Psychiatric	**0.229**	**0.507**	**-0.239**					
Case-Mix Oregon Medical	-0.101	**0.287**	**-0.323**	**0.251**				
Case-Mix Oregon Behavioral	0.082	-0.098	0.190	-0.133	0.000			
Case-Mix Oregon Combined	0.198	**0.263**	0.021	0.054	**0.593**	**0.438**		
Claims Payment per Day	**-0.320**	0.180	**-0.533**	**0.369**	0.129	**-0.300**	-0.160	
Bucket Payment per Day	-0.200	**0.314**	**-0.505**	**0.377**	-0.080	**-0.398**	**-0.328**	**0.965**

As it stands the correlations do not reveal much regarding the correlation of case-mix and expenditures by site. It is likely that when we aggregate needs scores by site the tendency toward the average washes out the important correlations for individuals. For example, a residential site may have one person with high behavioral needs living with two or three others with little or no behavioral issues. As a result, when the behavioral scores are aggregated for the site, the high needs of the one individual are washed out in averaging them with the lower scores of the other residents at the site. When that happens, we will not see the strong correlations with needs and resource utilization that we saw when looking at clients at the individual level. Table 4.10, however, tells us important information regarding the relationship between residential sites with a higher case mix and those with a lower case mix.

For the PAR data, the lower the score the higher the assessed needs of the individual. When we compare the case mix of sites arranged by quartile to the adjusted payment per day and bucket payment per day for that quartile, only the PAR is consistent. Higher cost/payment sites are serving clients with higher needs as measured by the PAR. The same result is found for most sub-scores and for bucket payments per day.

Table 4.10: Quartile Analysis for Residential Sites

		Amount Paid Per Day Quartiles			
Age Group	Variable	Mean Quartile 1	Mean Quartile 2	Mean Quartile 3	Mean Quartile 4
21 and Older	Case-Mix PAR	2.39	2.20	1.53	1.27
	Case-Mix PAR Behavioral	3.69	3.65	3.30	3.25
	Case-Mix PAR Medical	3.95	3.91	3.48	3.23
	Case-Mix PAR Psychiatric	3.82	3.42	3.82	4.00
	Case-Mix Oregon Medical	1.36	1.42	1.58	1.95
	Case-Mix Oregon Behavioral	1.66	1.50	1.84	1.37
	Case-Mix Oregon Combined	2.34	2.35	2.31	2.08
Under 21	Case-Mix PAR	1.64	1.37	1.44	1.75
	Case-Mix PAR Behavioral	3.83	2.91	3.36	4.00
	Case-Mix PAR Medical	3.61	3.72	3.66	3.27
	Case-Mix PAR Psychiatric	4.43	3.79	3.83	4.59
	Case-Mix Oregon Medical	1.17	1.02	1.15	1.45
	Case-Mix Oregon Behavioral	1.27	1.61	1.60	1.28
	Case-Mix Oregon Combined	2.07	1.94	1.68	2.05

Table 4.10: Quartile Analysis for Residential Sites (cont.)

		Bucket Payment Per Day Quartiles			
Age Group	Variable	Mean Quartile 1	Mean Quartile 2	Mean Quartile 3	Mean Quartile 4
21 and Older	Case-Mix PAR	2.25	1.85	1.52	1.28
	Case-Mix PAR Behavioral	3.69	3.37	3.08	3.37
	Case-Mix PAR Medical	3.96	3.81	3.56	3.17
	Case-Mix PAR Psychiatric	3.79	3.45	3.58	4.09
	Case-Mix Oregon Medical	1.48	1.16	1.15	1.52
	Case-Mix Oregon Behavioral	1.84	1.75	1.42	0.99
	Case-Mix Oregon Combined	2.45	2.12	1.88	1.73
Under 21	Case-Mix PAR	1.33	1.56	1.41	1.54
	Case-Mix PAR Behavioral	3.24	2.95	3.42	4.25
	Case-Mix PAR Medical	4.08	3.67	3.81	2.85
	Case-Mix PAR Psychiatric	3.67	3.52	3.56	5.14
	Case-Mix Oregon Medical	0.77	0.67	0.76	1.07
	Case-Mix Oregon Behavioral	1.40	1.00	1.26	1.17
	Case-Mix Oregon Combined	1.72	1.24	1.54	1.50

Resource Consumption Predictors

As the individual needs and resource consumption have shown a strong correlation, we want to determine which specific measures of need are strong predictors of resource consumption so that we can use them to set rates and funding authorizations. To do this we used our client-level database and ran several multiple regression models using questions from the PAR as independent variable (predictors) and measures of resource consumption as the dependent variable (predicted value). We examined eight different regression models, four for non-residential placement clients only and four for residential placements. Under each placement we ran the model using four separate dependent variables: claims payment per day, claims and bucket payment per day, total claims payments, and total claims plus bucket payments.

There are far too many permutations of the model and ways to interpret the data to include here, however for each model we would like to simply indicate which variables turned out to be significant predictors of changes in resource consumption. The overall predictive power of the model (R-squared) is also listed for each with an interpretation of the model's predictive strength.

Many of the variables listed were close to being statistically significant in several of the models but did not quite reach the threshold for inclusion in the table.

Table 4.11: Summary of Resource Prediction Models Using PAR Questions

Placement	Dependent Variable	R-Squared	Significant Predictors
Non-Residential	Total claims payments	0.512 (strong)	Age 6-20 BS78: Aggression BS84: Inappropriate Sexual Behavior IL57: Community Mobility
Non-Residential	Claims payment per day	0.893 (very strong)	Age 6-20 IL44: Personal hygiene IL51: Household Chores IL57: Community Mobility MD92-15: Suction Equipment MD92-18: Respirator MD92-21: Tube Feeding MS33: Rolling or sitting
Non-Residential	Total claims plus bucket payments	0.520 (strong)	Age 6-20 BS84: Inappropriate Sexual Behavior IL57: Community Mobility
Non-Residential	Claims and bucket payments per day	0.935 (very strong)	Age 6-20 MD92-15: Suction equipment MD92-18: Respirator MS33: Rolling and Sitting
Residential	Total claims payments	0.561 (strong)	Age 6-20 MD92-14: Tracheostomy Care
Residential	Claims payment per day	0.363 (moderate)	BS84: Inappropriate Sexual Behavior IL44: Personal hygiene MD92-32: Decubitus Care and Equipment
Residential	Total claims plus bucket payments	0.616 (strong)	Age 6-20 MD92-14: Tracheostomy Care
Residential	Claims and bucket payments per day	0.363 (moderate)	BS84: Inappropriate Sexual Behavior IL44: Personal hygiene

Several interesting observations can be made from these results. First, the non-residential models overall have stronger predictive power than the residential models by virtue of their higher average R-squared. This is not surprising as residential placements include many costs not directly associated with direct care or proportional to the level of the client's need. In a non-residential setting almost all of the State's cost is related to the service being provided, therefore the expenditures are strongly related to the level of need. Second is that in the non-residential models, the strongest results came from using the "per day" expenditures rather than total expenditures, although all of the models had strong predictive power.

As for the predictor variables, children age 6-20 turned out to be strong in almost all models. Children under 6 had a relatively low count in the dataset so they never established any significance in predicting expenditures. The behavioral variables that showed up as significant are not a surprise: aggression and inappropriate sexual behavior are often strong predictors as they are behaviors that require increased staffing levels to deal with. Community mobility is also commonly a strong predictor because the amount of assistance the client requires for mobility greatly affects the amount of staff time needed to assist them. Many of the other Independent Living variables like personal hygiene and household chores are not usually strong predictors of cost so their presence here is something of an anomaly.

It is very encouraging that so many medical care variables showed up as significant predictors in these models. The amount of medical care required by a client is always an important and large predictor of expenditures and it shows here. Tracheostomy care, respirator, suction equipment, and tube feeding are not only expensive themselves but require a large amount of highly skilled staff time to facilitate.

As for some other variables that did not show up as significant in these models, there are several which B&A has found to be significant in the past which we believe warrant further observation: running or wandering away, bladder and bowel control, wound care, number of prescriptions taken, seizures, and mobility (in interaction with behavioral issues). Some of these variables had very small samples in the database so they did not present as significant, but they have been found to be strong predictors of expenditures in other situations.

We also modeled the Oregon Medical and Behavioral scores using the same model dependent variables. Because of collinearity problems we did not include the Oregon factors in the same regression models with the PAR questions. The results are below.

Table 4.12: Regression Results Using Oregon Scores

Placement	Dependent Variable	R-Squared	Significant Predictors
Non-Residential	Total claims payments	0.089 (weak)	Medical Score
Non-Residential	Claims payment per day	0.039 (weak)	None
Non-Residential	Total claims plus bucket payments	0.132 (weak to moderate)	Medical Score
Non-Residential	Claims and bucket payments per day	0.065 (weak)	Behavioral Score
Residential	Total claims payments	0.308 (moderate)	Medical Score
Residential	Claims payment per day	0.024 (weak)	None
Residential	Total claims plus bucket payments	0.439 (moderate to strong)	Behavioral Score Medical Score
Residential	Claims and bucket payments per day	0.034 (weak)	Medical Score

The models using only the Oregon scores did not produce results nearly as strong as those that used the PAR variables. The models using total payments came out stronger than the ones using payments per day, but there is no clear reason why that should be the case. The strongest model was in the residential setting using total claims and bucket payments as the dependent variable. Both the Oregon Behavioral and Medical scores were significant predictors in a model that explained 44 percent of the variation in payments. However, because the models in general were weak and inconsistent, we do not find the Oregon Scale scores to be good candidates for predicting costs.

Exhibit 4.1 PAR Summary Scores and Individual Questions

3	What is the typical level of supervision and/ or support (Residential support)
21	Overall support level in day service for age 3 and older (Day services support)
38	Motor skills support level (Motor skills)
61	Independent living support level (Independent living)
66	Social skills support level (Social skills)
74	Primary modes of communication (Communication skills)
75	Receptive communication (Communication skills)
76	Expressive communication (Communication skills)
77	Overall support level in adaptive areas (Adaptive skills)
90	Overall support level for behavior issues (Behavioral issues)
200	Chronic or recurrent clinical (Diagnosis I)
210	Chronic or recurrent personality (Diagnosis II)
220	Chronic or recurrent medical (Diagnosis III)

Ques.	**Description**
Day Services Supports	
7	Quality of products
8	Quantity of products
Motor Skills	
31	Hand use
32	Arm use
33	Rolling and sitting
34	Crawling and standing
35	Ambulation
36	Wheelchair mobility
37	Mobility
Independent Living	
39	Eating/ drinking
40	Toileting
41	Level of bladder control
42	Level of bowel control
43	Bathing or showering
44	Personal hygiene
45	Dressing
46	Care of clothing
47	Food preparation
48	Nutrition
49	Washing dishes
50	Bed making
51	Household chores
52	Basic medical self-help
54	Safety/ health awareness
55	Movement in familiar settings
57	Community mobility
58	Money handling
59	Purchasing
60	Ordering food in public

Ques.	**Description**
Social Skills	
62	1:1 interaction with familiar individuals
63	1:1 interaction w/ unfamiliar individuals
64	Group interaction in social or work
Cognitive Skills	
67	Associating time with events and actions
68	Math skills
69	Writing skills
70	Reading skills
71	Attention span
72	Remembering instruction/ demonstration
73	Initiative
Behavioral Issues	
78	Aggression
79	Verbal or physical threatening
80	Self-injurious behavior
81	Destruction of property
82	Running or wandering away
83	Inappropriate Undressing
84	Socially inappropriate sexual behavior
85	Stealing
86	Resistiveness/ Rebelliousness
87	Disruptive behaviors
88	Withdrawal-like behavior
89	Victim
Legal	
109	Supports for legal issues

Exhibit 4.1 PAR Summary Scores and Individual Questions (cont.)

Ques.	Description	Ques.	Description
Medical			
91	Chronic major medical conditions	92	Respiratory therapy
91	Chronic or recurrent	92	Oxygen
91	Cardiovascular/circulatory system	92	Respirator
91	Gastrointestinal system	92	Special eating utensils, plate guard
91	Respiratory system	92	Special diet
91	Neurological system	92	Nasal/gastric or tube feeding
91	Genitourinary system	92	Intravenous nutrition
91	Skin (integument) system	92	Prosthetic device (limb, hand)
91	Endocrine system	92	Specially fitted wheelchair
91	Musculoskeletal system	92	Electric wheelchair
91	Contagious or communicable	92	Manual wheelchair
91	Allergies	92	Walker/crutches/cane
91	Other	92	Braces/splints/casts/orthopedic shoes
92	Special health care	92	Lifting devices
92	Sterile dressings	92	Special bed or chair
92	Diabetic test	92	Special bath/shower or toilet
92	Injections	92	Decubitus (skin) care and equipment
92	Medication other than by injection	92	Positioning devices
92	Dialysis	92	Hearing aid
92	Chemotherapy/radiation	92	Vision aid
92	Infection control precautions	92	Dental Prosthetics
92	Monitoring of body systems	92	Specialized dental care/program
92	Ostomy equipment	92	Head protective device (helmet)
92	Catheter	95	Hearing
92	Enemas	96	Vision
92	Supplies (Ex: diapers, bed pads, etc.)	97	Seizures
92	Apnea monitor	98	Managing prescription medications
92	Tracheostomy care	99	Endurance
92	Suction equipment	100	Overall support level
Psychiatric			
101	Psychotropic medication	104	Sexual deviancy/ offender counseling
104	Non-medication treatments	104	Substance abuse counseling/ treatment
104	Behavior/ other psychosocial program	104	Cultural/ traditional methods
104	Psychotherapy	106	Overall support level
Diagnosis			
200	Chronic/ recurrent clinical disorders	220	Diseases of the digestive system
210	Mental retardation level	220	Genitourinary system diseases
210	Personality disorders	220	Hematological diseases
220	Diseases of the nervous system	220	Diseases of the eye
220	Diseases of the circulatory system	220	Diseases of the ear, nose, and throat
220	Diseases of the respiratory system	220	Musculoskeletal/ connective tissue
220	Neoplasms	220	Diseases of the skin
220	Diseases of the endocrine system	220	Congenital malformation/ deformation
220	Nutritional diseases	220	Infectious diseases
220	Metabolic diseases		

CHAPTER 5: ADMINISTRATION AND OPERATIONAL ANALYSES

While the previous chapter reported B&A's findings on the quantitative analysis of the current reimbursement system, Chapter 5 presents the results of our analysis of the administrative and operational features of the system. The analysis reported in this chapter is based on four sources of information:

- A detailed walk-through of the current system provided by DDD staff
- Focus groups, interviews and written comments received from DDD program managers and service providers (summarized in Chapter 3)
- Quantitative analysis of assessments, claims and payments/costs (summarized in Chapter 4)
- B&A's and HSRI's experience with rate-setting systems and assessments in other States

The administrative costs of the current system and comparisons to alternatives identified for North Dakota will be addressed in future deliverables.

Overview

North Dakota's current reimbursement system mixes a cost based reimbursement structure with additional compensation specifically related to individuals who are medically fragile and/or behaviorally challenged. By itself, the components of the current system specific to the identification and compensation of the enhanced needs of those individuals who are medically fragile and/or behaviorally challenged including the Oregon Medical and Behavioral assessment scales and distribution of the targeted appropriation "buckets" are relatively straightforward. However, evaluating the adequacy of those payments is problematic given the complexity of the system as a whole.

Within the current reimbursement system, the State uses three assessment tools to accomplish its goals. These assessment tools coupled with the interim rate-setting and budgeting process, audit and cost settlement, make operation of North Dakota's current reimbursement system very complex and resource intensive. When compared to other rate-setting designs used by States, North Dakota's system is one of the most, if not the most, difficult to administer.

The remainder of this chapter discusses the key administrative and operational challenges within the current system examining:

- The disconnect between payment based on the assessed needs of individuals and a cost based reimbursement structure
- Features of the interim rate-setting, audit and cost settlement process that make North Dakota's system resource intensive

- Administrative strengths and weakness of the three assessment tools

Mixing Payment Based on Assessed Need and Cost Based Reimbursement

In North Dakota, determining the appropriate payment for medically fragile and/or behaviorally challenged individuals is difficult for several reasons. First, costs associated with medically fragile and behaviorally challenged individuals cannot be separately identified within the current reporting structure. Even if the cost reporting structure were altered to request individual specific cost data, our experience in other States has found that providers are unable to provide this data. This is particularly problematic for residential settings where all residents regardless of need are paid the same rate.

Second, the current budget adjustment process accounts for some of the same underlying costs of high need clients that targeted appropriations (referred to as buckets) address. Both state agency staff and providers acknowledge this overlap as summarized in Chapter 3. The correlation between adjusted payments per day and bucket payments reported in Chapter 4 underscore this duplication.

Third, there is an inherent disconnect between tying payment to certain assessed needs on the one hand and cost settlement on the other.

Most rate strategies that tie payment to the assessed needs of individuals address all needs rather than specific categories such as medical fragility and/or behavior challenges. Strategies adopted by states include:

- *Individual funding levels based on assessed needs linked to predicted resource use.* Louisiana, Oregon, Colorado, Georgia, and Washington State are using the Supports Intensity Scale (SIS) and certain supplemental questions as the foundation in building a resource allocation model for individual funding levels.

- *Development of independent rate models.* Independent rate models, unlike cost based models, are informed by outside sources of information such as Bureau of Labor Statistics wage and fringe benefit information as well as costs reported by providers. Independent rate models allow states to describe and quantify the nature of the services they want to purchase (e.g. staffing ratios) for high acuity clients versus what the state wishes to purchase for average and lower acuity clients. These models include wage differentials, staffing ratios, and provider training and credentialing. Here again, independent models operate well without cost settlement processes.

- *Case mix adjusted rates.* These systems measure acuity for all individuals served by a provider and adjust the rate based on total case mix. Typically case mix reimbursement systems adjust all direct care costs but not other components of the rate such as administrative overhead and capital.

- *Time and motion studies.* Similar to case mix reimbursement methods, time and motion studies are conducted to measure the nursing and specialized expertise required by certain individuals. Time and motion study results typically measure direct care costs but not overhead and capital. The methodology is used more frequently for elderly and physically disabled populations.

- *Rate modifiers*. States such as Ohio and Arizona have also adopted rate modifiers to encourage provider acceptance of higher acuity clients and retention of those providers. These rate modifiers are built on a uniform rate-setting system, not a system based on individual provider cost as is the case for North Dakota. Ohio, for example, uses this approach for in-home supports. Two modifiers, one for behavior and another for nursing delegated activities, are added to the base rate developed using independent models. Ohio does not have cost settlement.

- *Rate adjustments tied specifically to wage differentials for providers of service*. Some States set different rates depending on the credentials of the provider rendering the service, e.g. behavioral therapy may vary if the provider is a psychiatrist, psychologist, social worker or a technician. These adjustments are straightforward when a cost settlement process is not involved.

- *Tiered rates*. Some states set different rates for different acuity levels of individuals requiring the same service. For example, day programs could vary depending on client needs in various categories or as a percentage differential applied to all services.

Resource Intensive Features of the Current Reimbursement System

Putting the issue of assessments aside until the next section of this chapter, the resource intensity of a reimbursement system is generally measured in two ways:

- Design, development and implementation of the system (DDI)

- Ongoing resources required to maintain the system

Both State agency and stakeholder resources required under the reimbursement system are considerations in this analysis. Because the North Dakota reimbursement system is already in place, there are no resources required for DDI. DDI, however, will be important in future deliverables when the current system is compared to alternatives that do have DDI expense.

The North Dakota DDD's current reimbursement system is resource intensive to maintain. A system is more resource intensive in maintenance and ongoing operations as a function of the number of times State agency staff and providers must "touch" the data and the extent to which that data is touched or scrutinized. The North Dakota system requires extensive touch by providers and the State. In order to determine final rates of reimbursement in the North Dakota DDD system, the State agency must touch the data at a minimum of five points in time each year, including:

- Acceptance of paper and electronic cost reports each year
- Acceptance of paper and electronic budgets each year

- Calculation of interim rates based on salary and other limitations as well as changes in patient mix resulting in staffing changes
- Transfer of cost reports to audit for settlement
- Implementation of the settlement amounts through collections and withholds once audit completes work

Providers are “touching” this data in four of the five instances above. On top of the “touch” of DDD, the provider audit office within the Department of Human Services completes the audit that produces the final cost settlement and determines the amount actually paid by DDD for services. This office has other priorities in addition to DDD. Audits must be completed in order to finalize payment rates. As noted previously, audits are completed for some of SFY 2008 and are mostly complete for 2007 as of this writing. Until audits and settlements are completed no one knows precisely what was spent in a fiscal year. At this time, the delay is at least two-and-a-half years.

Staffing within DDD is inadequate to complete the workload required. In addition, the same staff handles bucket payments, the information system, and PAR data. Either DDD must change the nature of the reimbursement process or add adequate staff to handle the workload. Providers and the state agency are continuously chasing their tails to discover where they really began at least two years ago. It is very difficult to manage a provider agency, DDD, and appropriated dollars when key information on expenditures is not known for several years into the future.

Initially and years ago, most States reimbursed facility based providers participating in the Medicaid program on a cost-related basis. With the repeal of the Boren amendment in 1997, almost all States terminated cost based reimbursement for hospitals and nursing homes.

Around the country, the last hold outs are payments for services provided to the developmentally disabled and the seriously mentally ill. Pressure to increase federal financial participation pushed many states to a fee-for-service (FFS) structure that pays the same rate for the same service regardless of the provider of the service. Adoption of FFS moves away from both budget based interim rates and cost settlement. This is the antithesis of North Dakota’s current reimbursement system that is mired in cost settlement. The cost reporting structure in North Dakota, however, is a significant strength were the DDD to move to a FFS reimbursement mechanism.

Other rate-setting strategies described above may have significant DDI but require far less touching on an ongoing maintenance basis. For example, states that determine rates on a prospective basis (case mix, individual funding levels, etc.) touch the data when the rates are set and, depending on when rates are rebased to reflect more current data, may not be touched for three to five years except to apply an inflation factor. There is no cost settlement process and audits may be conducted but are periodic.

It is understood that fundamental changes to the overall reimbursement system are beyond the scope of this study.

Administrative Strengths and Weaknesses of Assessment Tools

In this section of Chapter 5, B&A evaluates the strengths and weaknesses of the three assessment tools used by North Dakota DDD without comparison to other tools used by States. The comparison between North Dakota's tools and those used by other States will be included in Deliverable 4. B&A acknowledges from the start that there is no one perfect assessment tool that ties neatly to all of the objectives and requirements of most state DDD agencies. For example:

- Few tools are designed for cradle to grave. This is important for North Dakota since children of all ages are served within the DDD structure unlike many states. The inclusion of early intervention defined as 0-5 years of age is quite different from other States' DD programs (EI in most states is 0-3)

- Even if an assessment tool were applicable cradle to grave scoring would be different given "expected" behaviors at different ages (Arizona DD uses four assessment tools, three that vary by age and one specific to rate modifiers)

- Many tools are comprehensive and go beyond the target populations in North Dakota (Supports Intensity Scale, Developmental Disabilities Profile)

- Few tools link assessed needs to support needs which is especially true for diagnostic tools

- Even fewer tools link assessed needs to resource consumption

This section addresses the three assessments used by North Dakota DDD. Deliverable 4 will present other assessment options used by States and compare these instruments to those utilized by North Dakota.

Assessments are typically evaluated along the following dimensions:

- Time to administer
- Credentials of staff required for administration
- Ease of quantitative scoring
- Training and testing requirements
- Reliability and validity of the tool
- Independence of the assessment from service provision
- Estimated cost of administration
- Record review requirements
- Face-to-face requirements
- Reassessment
- Mechanisms for change in client condition
- Cost to purchase the tool
- Availability of electronic versions and scoring
- Likelihood of acceptance by providers, families and consumers

The three tools used in North Dakota are administered very differently as described in Chapter 2. Further, each of the dimensions above is critical when contemplating a change in assessment tools, but only select elements are important for evaluating the tools currently in use. *Most importantly, because of the established relationship between the PAR, PAR sub-scores, individual PAR questions and bucket payments reported in Chapter 4, administration of three assessment tools is an unnecessary complication within the North Dakota system.* While the data suggest the Oregon tool does a good job identifying individuals with medical needs, so does the PAR. Further, the Oregon Behavioral tool performs poorly in identification of individuals requiring behavioral supports. PAR sub-scores and individual questions perform much better.

The remainder of this section describes the strengths and weaknesses of the Oregon and PAR assessments.

The PAR is completed by DDD Program Managers. The Oregon assessment scales are completed by provider staff familiar with the client. Other than the fact that the tools duplicate assessment of client needs, the tools have strengths and weaknesses described in the following sections.

Progress Assessment Review

The PAR has a number of strengths including:

- The PAR is fully automated by overall PAR level, sub-scores and individual questions
- A PAR is completed at least annually on all participants in DDD programs including those with significant needs and those with fewer needs
- Unlike the Oregon tools, the PAR assesses the full spectrum of an individual’s functionality and needs
- The PAR is completed independent of service provision
- While not systematic, there is oversight by DDD of the PAR data and its accuracy
- There is both a child and adult PAR

At the same time, the PAR has a number of weaknesses the most important of which is the mixed perceptions of the reliability and validity of the tool by stakeholders described in Chapter 3. It should be noted that some of this criticism of the tool can also be interpreted as strengths. For example, providers expressed concerns that they were not involved in conducting the PAR. This critique underscores the independence of the assessment from service provision. Other weaknesses of the tool include:

- While sub-scores and responses to individual items available electronically for most individuals they are not automated for every individual

- There is no systematic training and testing package

- The tool is old and is focused on measuring the individual’s deficits rather than identification of supports to achieve goals

- The medical assessment is not updated to reflect more current procedures and conditions

- There are a handful of specific questions that are uniformly viewed as unreliable because of the lack of specificity

- The PAR and child PAR are not effective assessments of children (unfortunately this is also true of most other assessments in use by States today, which will be discussed in Deliverable 4)

- Perceptions of regional differences in conducting the PAR

- There are no up-to-date psychometric or normative data for the PAR

- There is no structured process to capture significant changes to an individual’s situation and needs outside of the annual process

- The PAR includes questions that do not inform care managers or resource allocation

The PAR, and for that matter any new assessment, must also consider the extensive demands placed on program managers that are outside the scope of the current study. These demands include implementation of a new “risk” management assessment and person centered planning.

Oregon Medical and Behavioral Assessments

While not universal, many stakeholders believe the Oregon Medical Assessment does an adequate job identifying individuals who are medically fragile. The data analysis reported in Chapter 4 supports this belief. On the other hand, many stakeholders believe that the Oregon Behavioral Assessment does a poor job identifying individuals with behavioral challenges. The data analysis in Chapter 4 also supports this belief.

That said, North Dakota’s experience with the Oregon Medical and Behavioral Assessments is recent and a structured ongoing operational process has yet to be put into place. Both tools have some significant weaknesses including:

- Providers complete the tools with inconsistent oversight by program managers (e.g. one program manager stated they had never seen the Oregon tools)

- There are no training and/or testing requirements for individuals completing the assessments

- Assessments should be independent of service provision and this is not the case for the Oregon tools

- The Oregon tool was developed specifically for care planning and not for use in rate-setting

- There are few normative statistics or psychometrics that point to the tools' reliability and/or validity

- Even though the Oregon Medical Assessment performs well, it does not evaluate an individual's chronic needs for nursing services that are unrelated to specific procedures

- The assessment was performed in most cases only for individuals who were likely to qualify for a bucket payment

- There is no overall picture of North Dakota DDD clients in terms of scores on the Oregon tools

- Only the overall score is available electronically for both tools making refinements impossible

CHAPTER 6: SUMMARY AND CONCLUSIONS

This report analyzed the reimbursement system currently being used by the Division in terms of:

- A desk review of documentation regarding the processes and procedures involved in performing needs assessments, setting interim rates, cost reporting, auditing and setting of final rates, and the purpose and determination of bucket payments
- Stakeholder feedback resulting from on-site meetings and written comments submitted addressing the successes and shortcomings of the current assessment and reimbursement system
- A statistical analysis of the payments and assessment data provided by the Division including correlation analysis between payments and assessments and a series of multiple regression models to locate assessment variables that may be strong predictors of resource consumption
- An operational and administrative analysis of the reimbursement and assessment system, including a comparison to other types of reimbursement methodologies in use and a review of challenges facing the system. (Our analysis of other types of assessments will be reported in Deliverable 4)

This report did not assess the current reimbursement system in North Dakota and the assessments in use in the context of specific other State comparisons. That said there are tentative conclusions and a direction for future analyses:

- Based on B&A's and HSRI's analyses, use of three assessments is duplicative and unnecessary. The PAR with minor modifications can achieve the same purpose designed for the Oregon tools
- Replacing both the Oregon tools and PAR solely for the purpose of identifying individuals who are medically fragile and/or behaviorally challenged is unnecessary and costly
- North Dakota DDD can improve the PAR through minor adjustments to questions and implementation of a formal training, testing, and quality control process
- DDD must determine whether payments should be need based or cost based and avoid mixing these methodologies

At this juncture, it appears that targeted appropriations for the medically fragile and/or behaviorally challenged should not be separated from the current reimbursement system and process.

Appendix 2.0

STATE OF NORTH DAKOTA
DEPARTMENT OF HUMAN SERVICES
DEVELOPMENTAL DISABILITIES DIVISION

DEVELOPMENTAL DISABILITIES REIMBURSEMENT STUDY

DELIVERABLE 4: OPTIONS FOR ASSESSMENT MODELS, OTHER STATES' USE OF SCALES, AND IMPLEMENTATION CONSIDERATIONS

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CHAPTER 1: INTRODUCTION AND BACKGROUND

Burns & Associates, Inc. (B&A) and their subcontractor, Human Services Research Institute (HSRI) were contracted by the North Dakota Department of Human Services' Developmental Disabilities Division (DDD) to analyze the assessment tools and criteria used to identify individuals who are medically fragile and/or behaviorally challenged. Further, B&A was tasked to evaluate the adequacy and appropriateness of compensation for providers serving people with extraordinary behavioral and medical needs. This report constitutes Deliverable 4 of that project, providing an overview and analysis of current utilization of assessment tools and models in other States. In total, the study has eight deliverables:

Deliverable 1	Final Data Request	Complete
Deliverable 2	Three Day On-Site Visit and Materials	Complete
Deliverable 3	Evaluation of the Current Reimbursement, Appropriation, Assessment and Change Request System	Complete
Deliverable 4	Options for Assessment Scales, Resource Allocation Models, Other States Use of Scales, Options for Rate Adjustments Based on Changing Client Needs and Implementation Considerations	**This Report**
Deliverable 5	Preliminary Cost Estimates	April 15, 2010
Deliverable 6	Refined and Final Cost Estimates	May 15, 2010
Deliverable 7	Interim Report	June 15, 2010
Deliverable 8	Final Report	Aug 15, 2010

This deliverable is centered on the study of tools used within North Dakota as well as assessment tools utilized across the nation. Through this analysis, options are outlined for tools that would best suit the State. Several criteria were considered:

- Overall validity and reliability of the tool;
- Ability to measure support needs of service recipients, including individuals with high levels of behavioral or medical need;
- Ease of data collection and analysis for the state; and,
- Operating costs associated with using the tool (i.e. trainings, administration, implementation, etc.).

While this report includes findings applicable to both adults and children, current tools do not perform as well for children. As a result, it is recommended that the majority of these tools be viewed as usable for adults but not for children unless otherwise noted. B&A , Inc. recommended that work on an appropriate assessment approach for children be separately addressed at this time. B&A, HSRI and DDD will have targeted work sessions and tasks that address children and will report findings separately from this deliverable.

This report is divided into five Chapters:

- Chapter 1 (this chapter) provides an overview of the report and introduces the project. It describes the project and the project deliverables.
- Chapter 2 offers an overview of assessment tools used by other States. This overview includes, in most cases, cost implications for the tools, how States use the tools, validity and reliability, etc.
- Chapter 3 provides an overview of the assessments currently in use in North Dakota including a best fit model developed by HSRI using Progress Assessment Review (PAR) data to show which domains are best suited for the State.
- Chapter 4 presents recommendations from Burns & Associates and HSRI on what assessment tools would most benefit North Dakota.
- Chapter 5 is the summary and conclusions for this report.

North Dakota currently uses the Progress Assessment Review (PAR) to determine the needs of individuals with developmental disabilities as well as the Oregon Medical and Behavioral scales to identify medically fragile clients and those with behavioral challenges. Interviews with agency staff and providers (discussed in Deliverable 3) indicated a broad consensus that these assessment tools should be improved.

In general, the State has three options. It can import a tool being used elsewhere in the country and tailor that tool to its needs as necessary, revise the PAR to better align this assessment with service and funding needs, or create a new instrument. The final option is neither practical nor necessary because existing tools, including the PAR, already include many of the components required to meet the State's requirements. In Deliverable 3.0, the study demonstrated that the use of the Oregon Tools and PAR is unnecessary and duplicative. For this reason, Oregon is not included as an option for consideration. The following chapters, then, highlight tools in use elsewhere in the country and analyze the PAR.

CHAPTER 2: ASSESSMENT INSTRUMENTS ACROSS THE COUNTRY

This chapter reviews and analyzes the assessment tools that States employ to link the funding of community developmental disabilities services to individual assessments. Broadly, these tools may be placed in one of two categories, those that have been developed by independent organizations for national use and those that have been developed by individual States or their contractors. In general, the profiles contain a description of the tool, its purpose, and how it is administered; its strengths and weaknesses; and its costs.

Nationally Utilized Assessment Tools

Two assessment tools are used in several States and territories to determine need for support and services: the Supports Intensity Scale (SIS) and the Inventory for Client Planning (ICAP). Though the SIS is more widely used, both are strong tools. Each has gone through national norming procedures and their wide use has allowed for evaluation of validity and reliability and modification to enhance the instruments. However, with national norms and higher confidence States often end up paying higher premiums to administer the tests. Additionally, States must train interviewers, develop technology requirements and establish validity checking mechanism to ensure proper use of these tools. Both are described below.

Supports Intensity Scale (SIS). The development of the SIS was sponsored by the American Association on Intellectual and Developmental Disabilities (AAIDD).[1] The tool for adults (ages 16 and older) was five years in the making and first became available in 2004. A SIS for children is under development and is expected on the market in early 2011. In the meantime, some States (e.g., Utah) have modified the tool and applied it to children by removing items (e.g., employment) that clearly pertain only to adults.

The SIS is designed to "understand the support needs of people with intellectual disabilities (i.e., mental retardation) and closely related developmental disabilities." Administration of the SIS informs the planning team about life areas where supports are needed. The SIS was designed to complement a person-centered approach to service delivery and to change the focus of assessment from measuring deficits to directly measuring support needs compared to other instruments that provide information from which the level and intensity of support needs must be indirectly deduced. The SIS does not measure adaptive or maladaptive behavior *per se*, although there is research that suggests that SIS results are reasonably predictive of such behaviors.

The scope of activities addressed in the SIS is broad and range from ability to perform a host of everyday activities to the ability to advocate and protect one's self-interests.[2] The SIS measures a person's support requirements in 57 life activities and across 28 behavioral and medical areas. The need for support in life activities is measured according to frequency (e.g., none, at least once a month), amount (e.g., none, less than 30 minutes), and type of support (e.g., monitoring, verbal gesturing). SIS subscales include:

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[1] There is extensive information about the SIS on the AAIDD website at: siswebsite.org/page.ww?section=root&name=Home

[2] The SIS Supplemental Protection and Advocacy Scale does not factor into the Total Support Needs Index score.

- Home Living
- Community Living
- Lifelong Learning
- Employment
- Health and Safety
- Social

In addition to subscale scores, a Total Support Needs Index score is generated, which is a composite score generated from the scores across all SIS items. The SIS also provides broad medical and behavioral support scores. These scores are intended to prompt additional exploration of the supports necessary to address medical and behavioral issues.

The baseline SIS instrument does not capture certain types of information about the individual (e.g., types of disability, presence of certain conditions, and other demographic/situational information). This information must be captured from other data sets and/or the baseline instrument must be supplemented by adding items in order to obtain a complete picture. As a consequence, some States have developed what have come to be termed SIS "Plus" instruments. For example, Utah has added 18 eighteen items intended to assess three types of consumer risk: caretaker and environmental risks, individual behavioral risks, and health risks. The Louisiana supplement captures a wide range of additional information.

The SIS is designed to be administered by a trained interviewer who has extensive experience in supporting people with disabilities or a bachelor's degree in an appropriate human service field. It is especially important to follow the published techniques for conducting the SIS interview. One of the main purposes in using the SIS is the formulation of an appropriate individual service plan. The ability to listen to and respectfully check the answers of respondents to what is known about the person being assessed is very important. The ability to interview well and thoroughly is central to the examiner's skill set for successful administration of the tool. So far, States are electing to use case managers to administer the SIS.

AAIDD encourages interviewing the consumer receiving services and family members. The SIS takes longer to administer than other tools because it requires interviewing multiple informants who know the consumer and then reconciling the interview results. SIS administration requires 45-60 minutes per informant, although average administration times of as much as two hours have been reported. With two or three informants, Nebraska (which conducted a feasibility study of adopting the SIS) reported that the SIS takes twice as long to administer as the ICAP. When administration of the SIS is tightly linked to the development of individual support plans, additional time can be required since administration of the tool prompts active discussion of how the support plan should be constructed to address the person's support needs. More typically, the SIS is administered in advance of the planning meeting rather than as part of the meeting. Louisiana administered the SIS to about 1,700 people from February to May 2006 and officials reported that each SIS took about 45-60 minutes to complete when two informants were concurrently interviewed. Louisiana used a limited number of private-sector case managers to conduct the SIS interviews.

Relatively intensive training is required for individuals who administer the SIS. Training is available through AAIDD and costs $2,000 per day plus trainer expenses and material costs. Training includes practicums where individuals perform SIS work ups. Customized training for a pilot test of the SIS would likely cost about $12,000 for two two-day training opportunities. Utah elected to employ a "train-the-trainer" approach, sending two staff to AAIDD-sponsored intensive training. These staff then provided training to Utah case managers. Utah also is furnishing training to service providers in the SIS, since service providers function as one type of key informant. SIS administration costs should be figured at twice those for the ICAP – or about $100 - $120 per consumer.

In addition to training costs, material costs must be considered because the SIS is a proprietary instrument that must be purchased from AAIDD in paper booklet form at a cost of about $1.50 per booklet (AAIDD contracts with States on an individual basis). There is a CD-ROM version that permits capturing assessments results and supports scoring and exporting the data to other applications. The CD-ROM version permits the addition of up to eight additional user-defined data fields to the tool. There is a supporting manual that may be purchased separately. AAIDD also makes available a web-based system (SIS Online) that supports entering completed assessments into a central database. Whether the CD-ROM or the SIS Online alternative is selected, SIS assessments are conducted using the paper booklet and the results are entered into the electronic version.

The estimated costs for acquiring the SIS for administration to a waiver population are displayed in the following table. The cost figures ire premised on administering the SIS to a sample of 500 waiver participants. Costs are based on acquiring 17 manuals plus 700 booklets. In this cost figure, an assumption is made that AAIDD will fly in interviewers, and this cost reflects those related fees as well.

Scope	Requirements	Estimated Total Cost
Sample: 500 HCB-DD Waiver participants	17 "complete packages" (manual plus 25 booklets) plus 400 additional booklets.	$400,000

Recurring product acquisition costs depend on the frequency of re-administration of the tool and the inflow of new individuals into the waiver. If the SIS were administered on a two-year cycle for a population of 4,400 individuals, it would be necessary to purchase approximately 2,200 booklets each year at a cost of $3,239 per year, not including interviewer labor costs. Linking SIS to the individual service plan development process implies an annual administration cycle. Costs would scale upward if the SIS also were administered to individuals waiting for waiver services (for strategic planning purposes).

As noted above, AAIDD offers two options for capturing SIS assessment results electronically. The CD-ROM based SIS electronic scoring program is a stand-alone application that can be installed on any Windows-based computer. This software has roughly the same functionality as the ICAP Compuscore software except that it supports more up-to-date methods of distributing results (e.g., production of Adobe PDF reports that can be e-mailed to providers, consumers, and families in advance of planning meetings). The cost of this software is $325 per installation.

AAIDD also has created SIS Online, which permits the entire SIS tool to be entered on the web and supports nightly downloading of the information to a local server. SIS Online permits a state to add up to 25-user defined data fields to the baseline SIS instrument. There is no equivalent to SIS Online available for the ICAP. AAIDD pricing of SIS Online is based in part on the number of sites where SIS results will be entered and in part on the number of assessments that are entered. According to AAIDD, based on operating 22 user sites, annual SIS online costs would total approximately $21,000 if the use of the SIS is limited to the main waiver population.

SIS Online has screens that look much like the paper version, with drop down menus and mouse-overs of item descriptions of all 85 SIS items. The SIS Online system can generate an individual report in Adobe PDF or HTML format with information on raw scores, standard scores, and percentile ranking, and a graphic plot of the areas assessed by the scale. Results are accessible online for ready reference and an unlimited number of users can access the database at the same time. With respect to data analysis, SIS Online supports exporting SIS results to other user applications. As a general matter, one would select the SIS CD-ROM version or SIS Online, but not both. Because SIS Online supports unlimited users, provides for a larger number of user-defined data fields, and does not require batch uploading of results, it is more useful than the CD-ROM version, especially in large scale applications.

In the two years the SIS has been available, it has generated considerable interest among States and other organizations. So far Colorado, Louisiana, Georgia, Pennsylvania, Oregon, Utah and Washington have selected the SIS as their baseline assessment tool. Alta Regional Center in Sacramento, California also has adopted the SIS. Alta serves 13,000 children and adults with developmental disabilities. In North Carolina, Piedmont Behavioral Healthcare employs the SIS as its baseline assessment tool and to support person-centered planning in its home and community based services (HCBS) waiver for people with developmental disabilities. The Resource Exchange in Colorado Springs was one of the first organizations nationwide to adopt the SIS. In Oregon, the State is employing the SIS and implementing level based funding allocations for residential services. Virginia is using a pilot group to establish a tier rate reimbursement system using the SIS and is studying the instrument as a level of care measure for their Medicaid HCBS waivers. Several other States are currently considering using the SIS for similar endeavors.

Utah[3], Louisiana, and Oregon have designed supplements to the SIS to capture additional information. Washington also has added a limited number of additional items to the SIS. Pennsylvania intends to supplement the SIS with information that is presently captured through its Prioritization of Urgency of Need for Services (PUNS) waiting list profiling tool. However, Pennsylvania does not have active plans to employ the SIS for resource allocation purposes.

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[3] Information about the Utah supplement and the state's implementation of SIS is available at: hsdspd.state.ut.us/sis.htm

The early adopters of the SIS have focused on applying it for its principal intended purpose – i.e., supporting the individual planning process. However, other applications are emerging, including allocation of funding.

For example, Georgia redesigned its two HCBS waivers for persons with developmental disabilities and submitted revised waivers to the federal Centers for Medicare and Medicaid Services (CMS) in the last year. Both waivers feature service plan authorization limits based in part on each client's historical spending and in part on an amount figured by applying a DOORS-like methodology that uses SIS, age and living situation data to calculate an individual budget amount. This methodology employed statistical methods to find a best fit between SIS data elements and current expenditures. The Georgia design is intended to begin the process of shifting individual resource allocations to rely increasingly on assessed need and other situational factors as prime determinates. Service rates will still be based on a State determined fee-schedule. In part, the Georgia approach also is driven by the State's objective of incorporating self-direction features into its waivers.

Washington has developed a payment model that incorporates selected elements of the SIS and other consumer-related factors into a unified methodology for determining payments for people who receive community residential services (either in the form of group home or supported living services). The design of this payment model was very sophisticated and entailed calibrating the model to the results of a concurrent independent survey of experts to estimate service hours needed by level of support. This model operates in conjunction with seven broad levels of residential support intensity but generates individual payment amounts. Development of this model began in 2005. The model is still being refined but was implemented statewide in 2007. The SIS and other consumer-related factors drive the direct supports portion of the residential rate, but transportation and other administrative costs are figured separately. The State also has started work to develop payment models for employment and adult community access services that also will selectively integrate SIS and other information about individuals into the models.

Louisiana examined employing SIS data to establish individual resource allocations and/or service unit authorization levels in its principal HCBS waiver for individuals with developmental disabilities. Utah officials report that they also may employ the SIS to revamp the State's present resource allocation scheme. Alta Regional Center in California has started work on developing SIS-based individual resource allocations. Other States also have expressed interest in using the SIS along these lines. Oregon and Colorado are in the process of implementing SIS models to form reimbursement tiers for their comprehensive community waiver programs. Colorado has also begun implementing a similar model for its supports waiver.

The SIS was developed by a panel of expert authors. It benefited from extensive literature research. Solid psychometric techniques were used to develop the tool and iteratively refine it. Items were selected and weighted using the Q-sort method of test construction. The instrument was normed on a sample of 1,306 adults with intellectual disabilities from 33 States and 2 Canadian provinces. The SIS has acceptable reliability/validity, although test/retest and inter-rater reliability were initially less strong than other tools. In part, inter-rater reliability problems stem from issues in interpretation and consistency in administration that are now being addressed by AAIDD. Follow-up studies have found that good inter-rater reliability can be achieved through intensive training and by employing experienced examiners. Higher scores validly measure the need for more support and the tool has been independently judged to have construct validity.[4]

Inventory for Client and Agency Planning (ICAP). The ICAP was developed in the early 1980s and released in its present form in 1986. The stated purpose of the ICAP is to "aid in screening, monitoring, managing, planning and evaluating services" for persons with developmental disabilities. It is designed as a structured assessment of an individual's adaptive behavior and problem (maladaptive) behaviors. The instrument also captures selected additional information about a person (e.g., age, types of disabilities, services received and services desired). A common use of the instrument is to assist users (service providers, regional authorities, and State agencies) in compiling standardized profile information about individuals who receive services. The instrument was not developed principally to support rate determination or resource allocation strategies, although it has been employed by several States for such purposes. The ICAP is intended for use with adults and children who are at least three years of age.[5]

The ICAP is relatively compact and is composed of 77 items related to an individual's adaptive behavior (i.e., a person's skills) and nine items related to problem behaviors plus additional items that compile diagnostic information (e.g., types of disability), demographic information (e.g., age), functional limitations and needed assistance (e.g., health limitations), information about services received and recommended changes in services, and other information. Altogether the ICAP has 185 items.

Adaptive behavior is assessed along four dimensions:

- Motor Skills
- Social and Communication Skills
- Personal Living Skills
- Community Living Skills

Adaptive behavior is rated using the following scale:

- Never or rarely does well, even if asked
- Does, but not well (or 1/4 of the time)
- Does fairly well (or 3/4 of the time)
- Does well without being asked

The instrument generates a composite scale score for each adaptive behavior dimension plus a composite "broad independence" score that cuts across all four dimensions.

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[4] Pittenger, D. J. [in press] Test review of Supports Intensity Scale. From B. S. Plake & J. C. Impara (Eds.), *The sixteenth mental measurements yearbook* [Electronic version]. Retrieved, May 3, 2006 from the Buros Institute's *Test Reviews Online* website: unl.edu/buros

[5] Background information about the ICAP, its development and applications is available at cpinternet.com/~bhill/icap/

Maladaptive (problem) behavior is assessed along eight dimensions:

- Hurtful to Self
- Hurtful to Others
- Destructive to Property
- Disruptive Behavior
- Unusual or Repetitive Habits
- Socially Offensive Behavior
- Withdrawal or Inattentive Behavior
- Uncooperative Behavior

Problem behaviors are rated by frequency and severity. The instrument combines these items into four maladaptive behavior indices (scale scores) and an overall maladaptive behavior index score.

The ICAP also includes an algorithm that produces what is termed a Service Level Index score. The score is a blend of the adaptive behavior (70 percent) and problem behavior (30 percent) parts of the instrument and is intended to measure the relative overall intensity of supervision and/or training that a person might require. Service Level Index scores are grouped into nine levels. ICAP Service Level scores are inverse – namely, the higher the score, the less assistance is person is likely to need. Service Level Index score categories range from "total personal care and supervision" to "infrequent or no assistance for daily living." Though the ICAP is a reliable tool for measuring adaptive and problem behavior, adaptive behavior scoring does not directly measure the frequency or intensity of the support necessary to assist a person. Instead, inferences must be made about support needs based on the extent of assessed adaptive and maladaptive behaviors.

- The ICAP collects relatively minimal information about individual health status, which is not considered in calculating the Service Level Index score. The tool also does not take collect information about the extent to which non-paid caregivers are available to meet the needs of an individual. Additionally, the instrument does not contain sufficient elements related to vocational and employment supports.

The ICAP is designed to be administered by a professional who has known the person for at least three-months and sees the person on a day-to-day basis. As a consequence, the ICAP is frequently administered by service providers. However, in some States, case managers are tasked with administering the ICAP or reviewing provider-administered ICAPs. An alternative approach is contracting with third-parties to administer the tool.

Tool administrators (examiners) must be trained. There is a complete, well-designed examiner manual that supports training. It is sufficient that instrument administrators possess a relatively basic qualified mental retardation professional (QMRP)-type skill set. Specialized clinical skills are not required to administer the ICAP. Scoring the results is straightforward and is built into the instrument. Training to administer the tool generally requires no more than one day.

Provided that the ICAP is administered by someone who knows the person, the instrument takes about 30 minutes to administer. When other types of personnel (e.g., case managers) administer the tool, the time required to complete increases since consultation with other informants often is necessary.

The cost of training community personnel in ICAP administration hinges on the administration strategy that is selected. For example, if the tool were to be administered by service providers, a sufficient number of provider agency personnel would have to be trained. If the tool is administered by case managers, a decision must be made whether all case managers or only a select number would be trained to administer the tool. A one-day training session at a central site would likely cost in the range of about $3,000 - $5,000.

Assuming 30 minutes to administer the tool plus time to record the results and travel, administration costs are approximately $60 per waiver participant. Three States (Alaska, Delaware and Wyoming) contract out ICAP administration to private independent organizations. When private organizations administer the ICAP, costs range from $300 to $535 per assessment due to personnel time, travel costs and administration strategy (for example, Wyoming mandates that three informants be interviewed).

The ICAP must be purchased from the publisher (Riverside Press). It is a proprietary, copyright protected instrument[6] and a booklet must be purchased for each instance that the tool is administered. The booklet and the supporting examiner manual may not be reproduced locally. A complete package consisting of an examiner's manual plus 25 booklets costs $167.50. Additional booklets can be purchased in lots of 25 for $65.00. Spanish-language versions of the booklet and examiner's manual are available. A Windows-PC based Compuscore software package is available for $285.00.

The estimated costs for acquiring the ICAP for administration to waiver populations are displayed in the table below. The cost figures are premised on administering the ICAP to a sample of 500 waiver participants. There also is a provision for DDD to acquire two complete ICAP-paper and Compuscore software packages. Extra booklets are included for training purposes. This estimate does not include the cost of training or ongoing labor for administration.

Scope	**Requirements**	**Estimated Total Cost**
Sample: 500 HCB-DD Waiver participants	17 "complete packages;" 200 additional booklets; 17 Compuscore packages	$8,213

Recurring product acquisition costs would depend on the frequency of re-administration of the tool and the inflow of new individuals into the waiver. Typically, the ICAP is administered on a periodic two or three-year cycle although States usually provide for re-administration when there is a material change in the person's condition. Annual administration usually is not necessary

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[6] Purchase information is available at: riverpub.com/products/icap/index.html

since adaptive and maladaptive behaviors usually do not change significantly in short periods of time. With a 4,500-client population on a three-year cycle, it would be necessary to purchase approximately 1,500 booklets each year at a cost of $3,900 per year. Costs would scale upward if the ICAP also were administered to include individuals waiting for waiver services.[7] The purchases of the Compuscore and examiner manuals are one-time expenses.

About 17 States have used the ICAP in one fashion or another in one or more dimensions of system management. In some states, the use of the tool is very limited (e.g., Washington only employs the ICAP as part of determining the eligibility of individuals with developmental disabilities who do not have mental retardation). In combination with other diagnostic information, the ICAP is employed by Montana, Utah, and Wyoming to determine eligibility for services. The ICAP also can function as an element in the determination of level of care for entry into Medicaid developmental disabilities long-term services, especially with respect to measuring active treatment needs and functional limitations. Texas has long defined multiple levels of care for institutional care facilities for the mentally retarded (ICF/MR) services (and thereby HCBS waiver services) based on ICAP Service Level Index scores. A relatively common application of the ICAP has been to profile a State's service population as to the nature and extent of disability and other characteristics.

Several States employ the ICAP in determining service payment rates or establishing overall resource allocations.

For example, in 2004 the Tennessee Division of Mental Retardation Services (DMRS) revamped its payments for HCBS waiver services by tying payment levels to ICAP Service Level Need Index scores and other information about consumers.[8] The new payment system replaced an especially complex payment structure that contained 243 distinct residential habilitation rates and 240 distinct supported living rates that were based on combinations and permutations of service type, size of living arrangement, and staffing patterns. The complexity of the predecessor rate structure posed serious system management problems.

The revised Tennessee rate structure is keyed to six ICAP-derived levels. The rate matrix for residential habilitation services (group homes) establishes fixed uniform rates based on the assessed consumer level and facility size. There is a second rate matrix for supported living services that also establishes fixed uniform rates based on consumer level, whether shift staffing is employed, and the number of people supported (up to three) in a living arrangement. The system provides for time-limited "special needs" adjustments to the base rates in specified circumstances. The rates were built by specifying staffing requirements, wage costs, and percentage-based allowances for other direct and administrative expenses. Day services rates follow a similar structure. Rates by level have been established for facility-based and community-based day services and supported employment services.

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[7] Wyoming, for example, administers the ICAP to wait-listed individuals to confirm the eligibility of such persons for services as well as to estimate the costs of supporting such persons once they enter the waiver program.

[8] **DESCRIPTION BASED ON: TENNESSEE DIVISION OF MENTAL RETARDATION SERVICES (2004): *PROPOSED RATE STRUCTURE FOR SERVICES IN THE STATEWIDE AND ARLINGTON WAIVERS* [TRANSMITTED SEPARATELY TO DDD].**

The new rate structure took two years to develop and was negotiated with providers. The new rate structure was implemented during 2005 when it was incorporated into Tennessee's two HCBS waivers for people with developmental disabilities. Tennessee officials report that the rates were influenced by the necessity to accommodate previous payments and avoid disruptions in payments to certain community agencies, which inflated the final rates.

Since implementation, Tennessee has encountered two problems. The first is "ICAP-creep" – namely, ICAP re-administration has led to the reclassification of individuals into the upper payment tiers. ICAP creep has affected payments for about 20 percent of consumers. In Tennessee, provider agencies administer the ICAP to most individuals. The State has pinpointed common errors where ICAP creep has been most noticeable and has taken corrective measures. The second problem lies in the authorization of special needs payments. The amount of these payments has ratcheted upward, prompting state officials to consider instituting new controls on the authorization of these payments.

The ICAP-based levels devised by Tennessee parallel how similar levels have been constructed in other States. There are problems in how the rates were built for each level. Payments for other direct and administrative costs are figured on a fixed percentage basis of direct costs. This practice results in inflated rates since these types of costs usually do not scale upward in exact parallel with direct service costs. Tennessee performed limited rate shadowing (e.g., simulating results prior to implementation of the new rates).

The post-implementation problems identified by State officials are not surprising. Absent a strategy to independently validate ICAP results, ICAP-creep can be expected when the tool is administered by providers who have a financial stake in the results of the assessment. While there are valid reasons for providing for special needs add-ons, such add-ons are difficult to manage.

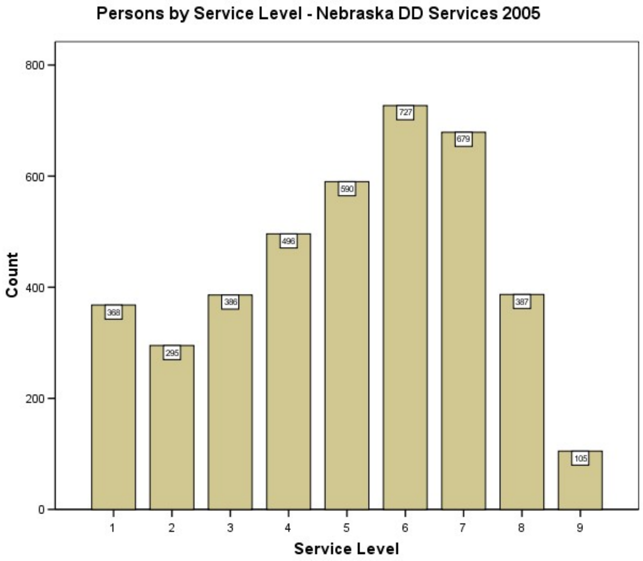
In the late 1990s, Wyoming developed and implemented a prospective, individual budgeting process (labeled DOORS) that employs ICAP data as a primary input to determine the total amount of HCBS waiver funding that is authorized for each person. DOORS employs relatively sophisticated statistical methods to select specific ICAP (and other) items that are to be the best predictors of total individual expenditures. DOORS is designed to standardize overall funding authorizations based on consumer characteristics and selected other factors. Distinct DOORS models have been developed and implemented for the adult waiver, the child waiver, and the adult brain injury waiver. In Wyoming, person-specific rates for major waiver services (e.g., residential habilitation) are established during the development of the individual plan. Rates for other waiver services (e.g., respite) are subject to a uniform rate schedule.

South Dakota has designed and implemented an especially elaborate payment determination method, Service-Based Rates (SBR), that combines ICAP results and other information about individuals, provider cost data, service utilization patterns, time-study and other information to generate 40 payment categories for HCBS waiver services. These payment categories are rolled into nine wrap-around payment rates to which an individual is assigned. The SBR has been in operation since the late 1990s. One of purposes of the SBR was to standardize payments to community agencies based on consumer characteristics and other factors that affect the costs of services. SBR replaced the State's prior practice of negotiating payments provider-by-provider, which led to substantial inequities and disparities in payments.

In the 1990s, the Utah Division of Services for People with Disabilities developed an ICAP-based matrix that established residential and daytime service dollar authorization maximums. This matrix is based on five ICAP Service Level Index score ranges and provides for overrides in the case of outliers, most typically people with co-occurring mental illnesses. Provider rates are keyed to the matrix. Over the years, the matrix has morphed to include children and family-based services. In Utah, the matrix principally guides decision making concerning service plan approval.

In 2006, Utah decided to adopt the SIS as its principal assessment tool. The State may discontinue the current ICAP funding matrix once it accumulates sufficient experience to develop SIS-driven funding algorithms.

Nebraska uses the ICAP to determine the number of service units that each waiver participant can use during the month through a system labeled Objective Assessment Process. In Nebraska, the ICAP is administered by State-employed case managers. Authorized units are combined with fixed service rates to determine funding authorizations. The underlying service authorization algorithms were developed employing statistical methods similar to those used to develop the Wyoming DOORS model. Each person has a unique service authorization level. Service authorizations are generated for both day and residential services for each adult HCBS waiver participant. Nebraska operates three HCBS waivers for about 4,000 adults with developmental disabilities. The Objective Assessment Process replaced a tier-based funding system that was somewhat akin to the present Tennessee system. The Objective Assessment Process methodology is being challenged in court as part of the *Bill M* federal lawsuit. The plaintiffs contend that the process results in the under-authorization of services relative to consumer support need. Nebraska is currently performing a side-by-side evaluation of the ICAP with the SIS.



The chart shows the distribution of Nebraska consumers by ICAP Service Level Index category. The chart illustrates that, with respect to these scores, the ICAP generates a relatively normal distribution with a slight J shape.

States have varied in how they have adapted the ICAP for funding applications, especially in the level of sophistication that underlies the application. The ICAP does not directly measure support need; instead, when it is used in funding-related applications, the underlying assumption is that the extent of the adaptive and problem behaviors that are measured by the tool are predictive of service intensity requirements.

Nominally, the ICAP Service Level Index score appears to provide a straightforward means of converting ICAP results into a tiered payment scheme. Several States have done just that. However, in general, this score has not been demonstrated to be an especially powerful predictor of resource consumption, probably due to how the score is constructed by its 70/30 weighting of adaptive and problem behaviors. Research has revealed that the more powerful ICAP-derived predictors are the ICAP broad independence and ICAP general maladaptive index scores and consumer characteristics such as diagnosis, level of mental retardation, age, and the use of psychotropic medications. This research strongly suggests that it is more appropriate to adopt a selective approach to translating ICAP results into funding-related applications such as rate setting or resource allocation.

Tools such as the ICAP are more readily applied to "traditional" residential and day time services. They are less readily applied to other types of services (e.g., personal assistance, supported employment, respite) where funding considerations revolve around the volume of services authorized (i.e., number of units) rather than the unit payment rate. In part, this is due to the fact that the development of the ICAP occurred when the framework for service delivery was dominated by the provision of such traditional services.

Linking assessment results to funding places a premium on skilled, uniform administration of the assessment tool. The Tennessee experience with ICAP creep illustrates some of the problems that can be encountered along these lines.. To overcome these problems, some states have outsourced administration to third-parties or instituted "ICAP police" schemes to look behind the administration of the tool. These issues, of course, are not unique to the ICAP.

The ICAP has acceptable psychometric properties. The tool was developed using state-of-the-art techniques for the design and testing of an instrument of this type. The tool was normed. There are some weaknesses in the norming for certain age groupings, principally children. Inter-rater reliability and test/re-test reliability are within acceptable ranges, although reliability levels vary with respect to sub-domain.[9] The tool was developed using a pool of 1,764 subjects and there were numerous statistical checks to test the influence of population characteristics. The tool has been independently judged to have construct validity – that is, it acceptably measures what it is intended to measure.

State Specific Assessment Tools

In contrast to nationally used tools, States often develop their own assessment tools. Often, this is motivated by lower costs, a desire to tailor the assessment to meet the State's unique needs or infrastructure constraints. Assessments designed by States are public domain and other States may choose to adopt an instrument created by another. Without national norming and reliability and validity testing, however, an in-house assessment may not actually capture the data for which it was designed. Following is a review of some State-developed tools.

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[9] Wikoff, Richard (1989). *Inventory for Client and Agency Planning*. From J. C. Conoley & J. J. Kramer (Eds.), *The tenth mental measurements yearbook* [Electronic version]. Retrieved May 15, 2006, from the Buros Institute's *Test Reviews Online* website: http://www.unl.edu/buros.

Macomb-Oakland Regional Center (MORC) DD Proxy Measure (PM). This 31 item instrument was created in 1997 and includes six main elements that are proxy measures for level of functioning for people with developmental disabilities. The last change to the tool was made in 2004 and was a method to assist MORC capturing new data requirements for licensed residential settings.

A case manager administers the tool and MORC staff report that an initial assessment takes 30 to 60 minutes with an update taking on average 15 to 20 minutes. The tool is checked by a quality committee at MORC to ensure that the case manager answered the questions in the way the PM author intended. The six main elements include:

- Predominant communications style
- Assistance for independence needed
- Status of existing support system
- Heath status
- Assistance for accommodating challenging behaviors
- Assistance for accommodating challenging behaviors

These are rated by selecting from two to five levels with a provision to leave an item blank when information is unavailable. A typical response set, for example, is the status of existing support system stem that is answered with:

- 1 = Yes the caregiver status is at risk
- 2 = No, caregiver status is not at risk
- 3 = No caregiver is involved

Blank = Unreported or information is unavailable.

The instrument serves as a measure of level of care and is completed with each intake and before the annual service plan is created.

Developmental Disabilities Profile (DDP). The DDP was developed by the New York State Office of Mental Retardation and Developmental Disabilities (OMRDD) in the late 1980s and finalized in 1990 as a device designed principally to gather standardized information about adults and children receiving and waiting for services in order to inform strategic planning decisions. In New York, the tool plays a limited role with respect to payments. However, some other States have applied the tool to payments.

The DDP is a four-page instrument that compiles information about disability, intellectual challenges, medical condition, seizures, medications, mobility, behavioral challenges and conditions, self-care and daily living (e.g., ADLs and IADLs that are assessed along similar lines as the ICAP). As such it has a deficits rather than strengths orientation. The instrument yields three index scores: adaptive functioning, maladaptive behavior, and health needs. Since the indices are not equivalent numerically (unequal number of questions in each index), the index scores are converted; the maximum possible converted score is 300. The higher the score, the greater (more intensive) the potential needs of the individual are assessed to be.[10]

- The DDP differs from the ICAP principally in its scoring algorithms and treatment of various types of items that factor into scoring. The ICAP only scores adaptive and maladaptive behaviors. The DDP generates a separate health needs index score and factors functional limitations into the adaptive behavior score. Like other tools that focus on the person receiving services, the tool insufficiently accounts for environmental and care-giver related factors that might be important in determining resource needs.

The level of effort to administer the DDP probably is no different than the ICAP. Time/level of effort likely hinges on who administers the instrument (e.g., service provider or case manager). When administered by a case manager (as in the cases of Indiana and Ohio), level of effort increases since information must be obtained from one or more informants.

In New York, the DDP is employed to perform case-mix rate calculations for some types of community residential services. Two other States have applied the DDP to community services funding. Ohio and Kansas selected the DDP because it is briefer than the ICAP (and thus less time-consuming to administer) as well as less costly since it is not proprietary. Both States judged that the DDP would provide information that is comparable to the ICAP.

In 1990, Kansas selected the DDP to establish tiered funding levels for ICF/MR services. The State then created a parallel set of five funding tiers for its HCBS waiver based on DDP scores and Kansas' own weighting of DDP results. These tiers are expressed as funding limits for residential services, day services, and in-home services (furnished instead of residential services). The basic tier structure has remained essentially unchanged since it was originally designed and implemented. From time-to-time, Kansas has experiences problems in managing the amount and volume of individual add-on adjustments to the funding tiers. There also are issues in Kansas concerning the adequacy of community funding. As noted previously, DDP results are uploaded to the State through the Kansas Basis 6.0 system, a system that also captures and integrates additional information about individuals and service plan authorizations.

The Ohio Department of Mental Retardation and Developmental Disabilities (OMRDD) selected the DDP to serve as the basis for establishing funding ranges for its HCBS waiver programs for people with developmental disabilities. Ohio's main aim was to standardize waiver funding across the state's 88 counties, employing consumer characteristics to connect funding and service needs. The development and implementation of this system has taken several years and was quite costly. Ohio has developed a web-based application that permits county MR/DD boards to enter DDP assessment results into a database that in turn is linked to service plan authorization information. Counties also may upload DDP information to the State via batch processing. Ohio started its roll-out of the DDP-based funding ranges in 2005. In 2007 the State moved toward a simpler reimbursement system and began negotiating with CMS about methodology.

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[10] New York State DDP User's Guide is located at: omr.state.ny.us/wt/manuals/wt_ddp2toc.jsp The Ohio adaptation of the DDP is located at: odmrdd.state.oh.us/CountyBoardsDoc/ODDP/DDP_all2.pdf. The Indiana adaptation is located at: in.gov/fssa/servicedisabl/ddpform.pdf.

North Carolina Support Needs Assessment Profile (NC-SNAP). NC-SNAP was developed by researchers at the State's Murdoch Developmental Center as part of a two and a half year research project. The goal was to develop a compressed assessment tool that could be quickly administered yet yield results that were broadly equivalent to the administration of more extensive tools, principally the ICAP. The stated purpose of the tool was to compile information about consumer service needs for use in system planning. The NC-SNAP compiles information about a person's needs for daily living supports, health care supports and behavioral supports and rates intensity using a straightforward five-point rating system. This information is converted to a composite score that differentiates the relative support needs of individuals among five support need levels. The instrument can be employed for both children and adults.

In North Carolina, the NC-SNAP must be completed by a certified examiner, generally a case manager or QMRP. The examiner's guide is straightforward and easy to understand. The NC-SNAP can be completed in a very brief amount of time, usually 15 minutes. Resolving conflicts in information may require up to 30 minutes. Like other similar tools, the expectation is that the examiner will be familiar with the person or consult other individuals who have knowledge of the person.

The NC-SNAP is owned by the Murdoch Center Foundation.[11] Copies of the instrument are purchased through the Foundation at $1.00 per copy. An examiner's guide is available for $2.00. There is no software package offered that is equivalent to the ICAP Compuscore Package.

Though its authors have never endorsed its use as a tool for funding applications, North Carolina uses the NC-SNAP to authorize differential funding levels (tiered payment amounts) for certain residential services provided through the State's HCBS waiver for people with developmental disabilities and/or as a basis for the authorization of certain services. In Kentucky, the NC-SNAP is employed to authorize supplementary residential services payments for a class of high need individuals.

In Louisiana, the tool is used in a limited fashion in performing assessments for some types of children's services. Colorado Regional Centers also employ the tool.

Florida Questionnaire for Situational Information (QSI). Version 4.0 of the QSI is a 43-page questionnaire containing several scales designed to "gather key information about a person that will describe his or her life situation for the purpose of planning supports over a 12-month period. These descriptions reflect a person's needs for assistance in order to adjust to life changes while living, working, fulfilling valued roles, and participating in his/her community". This tool is currently being used in Florida by the APD to assist in developing support plans for people with intellectual and developmental disabilities of all ages. The QSI is part of a broader process to develop support plans that includes the preferences of the individual as well as information from other sources.

The QSI was developed from Florida's previous assessment tool, the *Florida Status Tracking Survey*, which was largely compiled from several needs assessment tools developed twenty years ago in Tennessee and Oklahoma. The tool has been used since 2008 to assess over 15,000

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[11] Information is available at: murdochfoundation.org/DDSNAP.htm

individuals by 75 QSI administrators hired and trained by APD. Administrators are trained using a 19-page training manual and a 36-page administrative guide that provide guidance on how to conduct interviews and obtain information. Once trained, QSI administrators gather information from several sources including interviews with the individual, caregivers, or health care professionals, and review of personal records (e.g., recent assessments, medical records, school records, previous support plans). This information is recorded in the following six areas:

1. The *Life Change and Adjustment Scale* lists 20 items, each with an associated point value, selected according to an individual's experience over the past 12 months. Six additional items request information regarding symptoms of distress, life changes expected over the next 12 months, and other information.

2. The *Community Inclusion and Valued Adult Roles* section lists 15 items that are rated according to five levels indicating "how much personal support the person requires (both now and in the future) in order to participate actively in his or her local community" (QSI, Version 4.0, p.10). Level 1 represents no need for support; levels 2 and 3 represent increasing need for support; and levels 4 and 5 represent the greatest level of need for support.

3. The *Employment* section includes three "Yes" or "No" items related to working.

4. The *Functional Status* section includes 11 items that focus "on a person's need for assistance during the normal course of a routine day, including sight, hearing, communication, and ambulation" (QSI Version 2.0 Administration Guide, p. 15). Items in this section are rated according to five levels (0 to 4). Level 0 represents no need for assistance; levels 2 and 3 represent increasing need for assistance; and level 4 represents the greatest need for assistance.

5. The *Behavioral Status* section includes eight items related to "interventions used to address problems with behavior" over the past 12 months (QSI Version 4.0, p. 22). This section is also scored according to five levels (0 to 4) that represent increasing levels of intervention. The behavioral area measures level of intervention to address the following behaviors hurtful to self/self-injurious behaviors, aggressive/hurtful towards others, destructive to property, inappropriate sexual behavior, running away, and other behaviors that may result in separation from others.

6. The *Physical Status* section contains 12 physical health items and nine items related to medical concerns, including an extensive list of medical conditions. This section is concerned with "life situations and physical conditions that may pose a need for medical interventions or health care" (QSI Version 4.0, p. 30). Items are rated from 0 to 4.

Montana Resource Allocation Protocol (MONA). The MONA is a tool developed by private consultants that is intended to be employed in conjunction with a new community services funding system that is being implemented in Montana. The MONA is a clone of the tool that was developed by the same consultants in Florida for use in a funding system that is roughly similar to the system that they are installing in Montana.

The MONA was not designed to function as a stand-alone assessment instrument and is not intended for clinical use or as a service planning tool. Instead, the MONA generates a benchmark funding amount based on "usual and typical" spending on behalf of persons who have similar characteristics and circumstances. As people complete their person-centered plans, the MONA generates funding guidelines to assist people with their purchasing decisions. It is not a service authorization instrument nor is it a rate-determination tool.

The MONA is designed around pre-specified cost drivers that affect the overall costs of supporting a person in the community:

- Age of the individual
- Living situation (e.g., with family, own home, supported living, group home)
- Geographic location of providers
- Key support needs (community inclusion, behavioral support needs, health support needs, and current abilities)

While the pre-specified cost-drivers clearly have a bearing on the costs of supporting an individual, they have not been statistically validated. As used in Montana, the MONA tool solely serves the purpose of attempting to link historical utilization patterns with information about individuals to generate waiver service plan cost boundaries.

Maryland Individual Indicator Rating Scale. This instrumented was developed in 1997 by the State's Developmental Disabilities Administration for the express purpose of measuring individual need in order to determine the appropriate level of provider reimbursement. This very brief six-page tool focuses on health/medical and supervision/assistance needs. These needs are measured using a five-point rating scale. The rating scale includes elements that are specific to residential, day program and supported employment services. In Maryland, residential services are delivered in three-person settings.

Assessment results are tied to a five-by-five grid that contains payment rates for residential and day/supported employment services. The rate grid contains rate cells that combine the rating of a person's health/medical needs and the rating of supervision/assistance needs. For example, if a person has a high supervision/assistance rating but a low health/medical need, the rate is lower than in the case of a person who has high needs along both dimensions. Maryland has further refined the rates by establishing area-specific rates for six geographic areas (e.g., rates are higher in areas near the DC metro area than for the Baltimore area or more rural areas of Maryland). The original rate grids were developed through detailed examination of provider costs and have been periodically updated. Maryland's objective was to standardize payments across providers. Maryland does not represent that the tool was constructed to meet strict psychometric principles.

The rate grid concept is an interesting method of setting up rates to factor in assessment results along two dimensions rather than relying on a single measure (e.g., ICAP Service Level Index score). The Maryland tool is one of the few tools that specifically addresses day program/supported employment services.

Connecticut Level of Need Assessment Tool. The Connecticut Department of Mental Retardation has recently developed a comprehensive level of need assessment tool. This tool replaces a briefer tool that had been used in Connecticut to assess consumer needs for services and supports. The new Connecticut tool is a fourteen-page instrument that compiles in-depth information in the following domains:

- health and medical
- Personal care activities
- Daily living activities
- Behavior
- Safety
- Levels of residential and day supports
- Communication
- Transportation
- Social life, recreation and community activities
- Primary unpaid caregiver characteristics
- Other personal dimensions.

This tool is designed to compile a wide range of information about individuals and support multiple uses. The tool employs assorted rating methods, including some that are similar to the SIS.

The tool is intended to serve as the basis for determining individual budget amounts for people who participate in Connecticut's two HCBS waivers for people with developmental disabilities. Connecticut has conducted in-depth statistical analyses of the information generated by the tool to pinpoint factors that affect the costs of supporting individuals. Under both of Connecticut's HCBS waivers, individuals are assigned individual budget amounts. These amounts regulate the amount of services and supports that can be authorized for an individual. Additionally, Connecticut provides that individuals may elect to self-direct some or all of their waiver services utilizing the individual budget amount. Connecticut will be rolling out an individual budget determination methodology based on the new tool shortly. This new methodology will replace a much less sophisticated "high, medium and low" method of setting individual budget limits. The new methodology will assign individuals to budget levels by type of living arrangement. The budget levels are based on a limited number of items contained in the level of need tool. Concurrently, Connecticut is engaged in a multi-year effort to standardize services payment rates across provider agencies. Heretofore, Connecticut determined rates through negotiation with individual service providers and employed traditional provider-based contracting practices.

The Connecticut tool is very robust. In part, its length stems from the State's effort to compile a very wide range of information that is employed for multiple uses. In its use as an individual budgeting tool, only some parts of the tool factor in to determining the individual budget amount.

Oregon Basic Supplement Criteria Inventory. The Oregon Basic Supplement Criteria Inventory (BSCI) is used in conjunction with Oregon's adult Support Services waiver. The waiver provides limited funding to support individuals with developmental disabilities who principally live with their families.

In Oregon, each Support Services waiver participant is entitled to receive up to $9,600 in waiver goods and services. Additional funding may be authorized based on the score generated from the administration of the BCSI. The ten-page BCSI includes the following domains:

- Assistance with daily living
- Physical mobility
- Daytime supervision
- Medical supports
- Night-time monitoring and care
- Behaviors that harm self or others
- Destruction of structures
- Destruction of furnishings
- Complex adaptation of routines in response to behaviors
- Adaptation of the home
- Community-limiting actions
- History of public endangerment by intentional actions
- Single (non-paid) caregiver
- Limited caregiver capacity
- Caregiver's age
- Caregiver responsibility

Each domain is scored. Persons who have a BCSI score of 60 or less are eligible for the basic $9,600 entitlement. A score between 61 and 80 permits the authorization of up to $14,400 in waiver goods and services. A score of 81 or above permits the authorization of up to $20,000 in waiver goods and services, the maximum that may be authorized through the Support Services waiver.[12] The tool may not be used solely for the purpose of authorizing increased funding for day services. Supplemental funding is provided only to complement the other supports that a person might have.

This tool was not designed for application to "comprehensive" waiver services in Oregon. The tool is not represented as having been developed using strict psychometric properties. It was examined and revised by Oregon in 2006.

Arizona Developmental Disabilities Rate Assessment Tool (RAT). The purpose of the RAT is to capture the current level of functioning of the consumer and his or her circumstances to determine the appropriate rate to be paid to the independent provider. The assessment covers the following five domains:

- Activities of Daily Living
- Behavior Supports
- Family Supports
- Health Care
- Independent Provider

The tool produces level of functioning scores that are used to determine rate modifiers to the base pay rate for the independent provider. These scores are obtained through an assessment that is given to each client for the following services:

- Attendant Care: Non-Family Member (ANC)
- Habilitation, Support (HAH)
- Attendant Care: Family Member (AFC)
- Housekeeping (HSK)
- Habilitation, Individually
- Designed Living Arrangement (HAI)
- Respite Hourly (RSP)

The score ranges have dollar amount modifiers assigned based upon domain and service. The following chart shows how the modifier amounts are assigned for the scores for each level of service:

Assessment Scores	**Activities of Daily Living**					
	ANC	**AFC**	**HAI**	**HAH**	**HSK**	**RSP**
0 - 3	---	---	---	---	---	---
4 - 8	$0.25	$0.25	$0.75	$0.50	---	$0.50
9 - 14	$0.75	$0.75	$1.75	$1.00	---	$1.50
15 - 30	$1.25	$1.25	$2.75	$1.50	---	$2.50
Assessment Scores	**Behavior Supports**					
	ANC	**AFC**	**HAI**	**HAH**	**HSK**	**RSP**
0 - 5	---	---	---	---	---	---
6 - 10	$0.25	$0.25	$0.75	$0.75	---	$0.75
11 - 20	$0.50	$0.50	$1.50	$1.50	---	$1.50
21 - 40	$0.75	$0.75	$2.25	$2.25	---	$2.50
41 - 80	$1.25	$1.25	$3.00	$3.00	---	$3.00
Assessment Scores	**Family Supports**					
	ANC	**AFC**	**HAI**	**HAH**	**HSK**	**RSP**
0 - 3	---	---	---	---	---	---
4 - 6	---	---	---	---	$0.25	---
7 - 9	$0.25	---	---	$0.25	$0.50	---
10 - 11	$0.50	---	---	$0.50	$0.75	---
Assessment Scores	**Health Care**					
	ANC	**AFC**	**HAI**	**HAH**	**HSK**	**RSP**
0 - 3	---	---	---	---	---	---
4 - 6	---	---	---	---	---	$0.25
7 - 9	$0.25	$0.25	$0.25	$0.25	---	$0.50
10 - 15	$0.50	$0.50	$0.50	$0.50	---	$1.00
Assessment Scores	**Independent Provider**					
	ANC	**AFC**	**HAI**	**HAH**	**HSK**	**RSP**
0 - 3	---	---	---	---	---	---
4 - 6	---	---	$0.50	$0.25	$0.75	$0.25
7 - 9	$0.25	---	$1.00	$0.50	$1.50	$0.50
10 - 25	$0.75	---	$1.50	$0.75	$2.50	$1.00

The tool is not scored by the assessor/support coordinator, and the assessor/support coordinator does not know the score at the time of the assessment. If a rate assessment is not performed for any consumer, the consumer is not allowed to use an independent provider and must use an agency provider. All modifiers are summed and added to the base rate to determine an individualized rate for each client for each service.

The RAT was developed internally by the State (with consultant assistance) and was the subject of two pilot tests prior to implementation. The RAT demonstrates high inter-rater reliability and modifier scores have remained consistent since implementation.

Client Development Evaluation Report- Revised (CDER-R). California uses the CDER, which contains diagnostic and evaluation information for individuals who have active status in the Department of Developmental Services system. In general, only individuals age three and above have a CDER completed. Prior to age three, an Early Start Report, which contains data items that are more appropriate for infants and toddlers, is completed. A CDER must be completed or updated at the time a person's Individual Program Plan (IPP) is developed. A new IPP (and thus updated CDER) is required at least once every three years. The CDER should also be updated whenever there is a significant change in the person's physical or mental capabilities.

The CDER is divided into two major elements, the Diagnostic Element and the Evaluation Element. The Diagnostic Element contains information pertaining to the individual's developmental disabilities, mental disorders, risk factors, major medical conditions, hearing and vision impairments, behavior modifying drugs, special health care requirements, and other special conditions. The Evaluation Element covers information relating to motor, independent living, social, emotional, cognitive, and communication skills. CDER data is collected by regional centers, or in cases of persons residing in the developmental centers (DCs), the data is collected by the DCs.

In 2007, the CDER was revised and became the CDER-R. This revision updated pieces of the tool such as medical diagnosis and treatments, more current language, and slight revisions to the outlay of questions. This version of the tool was field tested to review overall validity.

Progress Assessment Review. The PAR is a comprehensive tool that assesses both specialized needs in addition to activities of daily living and independent community based activities. North Dakota imported the PAR from Colorado in the 1990s and since then has adapted the tool to the State and automated the assessment and its results. North Dakota utilizes the Progress Assessment Review (PAR) to unofficially inform the budget process for interim rate-setting as well as Individualized Supported Living Arrangements (ISLA) programmatic and administrative costs. PAR dimensions address:

- Adaptive skills
- Behavioral issues
- Communication issues
- Cognitive issues
- Day services support
- Independent living
- Legal issues
- Medical
- Motor skills
- Psychiatric
- Residential support
- Social skills

State program managers complete the PAR with advice and consent of the individual and family and results of the assessment are automated. A copy of the PAR was provided in Deliverable 3.0. In addition to the adult PAR tool, there is a Child PAR.

The Child PAR is not used to obtain a PAR Level or HCBS Indicator. All children eligible for services meet the ICF/ MR Level of Care. The Child PAR is used to compare the child's functioning in 18 foundation areas to same age peers. The Child PAR completed when the child enters early intervention is compared to the Child PAR results when they exit. The data is reported annually to the Office of Special Education Programs in the federal Department of Education as Individuals with Disabilities Education Act (IDEA) Part C Annual Performance Report (APR) Indicator # 3.

In addition to the 18 foundations a Child PAR also consists of AXIS I, AXIS II and AXIS III just like the regular PAR. The items in the Child PAR were developed at Portland University through a federal grant, but it is no longer supported and data is not collected now to establish the reliability and validity of the tool. Staff in the children's program within DDD are currently discussing switching to a different tool specifically designed to measure a child's progress. It should be noted that none of the tools commonly used by States do an adequate job assessing children. There is a considerable amount of work now being done to improve assessment of children but that work will not be completed in time for this study. As noted in the introduction, viable options applicable to children will be reported separately and are not included in this Deliverable.

Oregon Medical and Behavior Scales. The Oregon Medical and Behavior Scales were originally developed as tools to guide the deinstitutionalization process in that State and assess and track an individual's risk of community placement. The tool has been updated periodically by researchers. Neither tool is or was used by Oregon in rate-setting.

Both Oregon tools are administered by providers in North Dakota with some review by DDD. The Oregon assessments have not been completed on all clients so it is not possible to get the full picture of how DDD's full client load scores on these tools. Providers completed the tool on those individuals who are likely to meet the criteria for bucket payments.

The original Oregon Risk Tracking Scales were designed by medical staff to support individual plan development of people with intellectual disabilities that were leaving the residential institutions in Oregon for community programs. It is especially designed to ensure the health of people with severe developmental disabilities during the transition to the community. The instrument has never been normed but received very favorable evaluation by the federal Center for Medicare and Medicaid Services (CMS) during the regular review of the comprehensive waiver in Oregon two years ago. Oregon has always been quite proud of the scales and the role they played in helping people in Oregon move safely from large institutions and institutional care facilities for the mentally retarded (ICF/MR) into the community. In October 2009 Oregon became the first State not to use ICF/MR care at all, either within the state or by out of state placements. Oregon is also one of nine states and Washington D.C. who do not use residential institutional care for people with intellectual disabilities. For the purpose of reimbursement Oregon moved to the Supports Intensity Scale (SIS) assessment along with Oregon-specific supplemental questions.

The tool captures an individual's medical needs in eight categories:

- Overall Medical
- Skin/Physical Management
- GI/Feeding
- Respiratory
- Neurological
- Urinary/Kidney
- Metabolic
- Vascular

This Oregon scale measures client needs in a range of areas including:

- Night supervision required due to behaviors
- Destruction to property

- Aggression
- Self-injurious behaviors
- Behavior modification needs
- Restraints
- Participation in activities
- Active participation in activities
- Sexualized behaviors
- Frequency and intensity of problem behaviors

The Oregon tools do have a certain amount of clinical power but have never been groomed to be used as psychometric tools. We are unaware of any published reliability or validity studies. The tools do have a practical value for individual people to help protect their health and ensure that their individual plan of care has needed medical procedures in place. In Oregon (as in North Dakota) the behavioral component was not as useful as the medical scale.

CHAPTER 4: RECOMMENDED ASSESSMENT TOOL FOR THE STATE OF NORTH DAKOTA

After reviewing the tools, it is recommended that North Dakota consider one of two options, either adopting the SIS with supplemental questions developed by Oregon or keeping and revising the PAR. Under either option, it is recommended that the State cease use of the Oregon Medical and Behavioral Scales.

Under the first option, North Dakota would import the SIS. Due to the national norming and validity of the SIS, the State's use of such a tool could yield great benefits. Further, AAIDD has stated that a version of the SIS aimed at children will likely be available in early 2011. This would allow the state to use a common valid tool across service populations.

To date, HSRI and B&A have worked in eight States and two Canadian territories and are looking at beginning work in eight other States regarding SIS informed resource allocation models. From this experience, findings show that assessment models used in one State can be slightly modified and applied to another State. These findings would allow North Dakota to collect data and quickly move into a usable model. By doing so, the State is also able to minimize costs and begin with relatively high confidence in the model due to prior use.

However, since the State is not considering revising its cost based reimbursement methodology at this time, implementation and adoption of the SIS takes a very significant investment if its primary use is identification of medically fragile and/or medically challenged individuals. If North Dakota were to move reimbursement from a cost based model to one based on resource allocation informed by assessment data (e.g. individual funding levels), then adoption of the SIS makes more sense. Appendix 1.0 describes the tasks and effort of moving to a resource allocation model based on SIS.

The second option would be for the state to continue utilizing the PAR, but modifying the tool to gather only the most relevant and important information. Using the PAR would require less effort in redeveloping infrastructure to handle incoming assessments and therefore would be more economical. This option would entail a review of what and how to best utilize the scales of the PAR. Also, consideration around the tool's confidence and validity should be evaluated to ensure overall consistency. It is recommended that, if the State chooses to use the PAR, many current questions be eliminated.

It is recommended that the State eliminate use of the Oregon Medical and Behavioral Scales after ensuring that the PAR is sufficiently modified to identify medically fragile individuals and those with behavioral challenges. Currently, the State completes both the PAR and the Oregon scales, unnecessarily using resources and time. Further, analysis performed by HSRI in January 2008 for an unrelated project found that the Oregon Medical and Behavioral Scales accounted for only about 18 percent of the variance in client expenditures. The state could develop a tool without these scales while accounting for relatively high percentages of the variance.

The PAR is comprised of 134 questions. The following analysis considers the contribution of 53 selected questions. These 53 questions were selected based on their content and previous experience that HSRI and Burns & Associates reviewers have had in selecting similar questions for resource allocation in more than 25 other jurisdictions in the United States and Canada. The ten PAR questions currently used to make PAR levels for resource allocation were included in the 53 selected questions.

For the 891 people for whom the PAR tool has been administered, the analysis found 20 items, questions or stems that demonstrate statistical significance when considering their relationship to actual service expenditures.

These results are included in Table 1 below, which designates the PAR item (abbreviated), the percentage of explained variance for each item (adjusted r square), and the significant statistical confidence. Each item was entered in to an analytical statistical package, using the entry method of linear regression to produce the results displayed in the table.

Table 1: Contribution of PAR Items to Explained Variance of Actual Expenditures

PAR Question	Explained Variance	Statistical Confidence	PAR Question	Explained Variance	Statistical Confidence
Level of MR	.025	.000	MD 92 10 Score	.007	.025
AS 77 Score	.128	.000	MD 92 14 Score	.024	.000
B1 90 Score	.034	.000	MD 92 21 Score	.019	.000
MD 100 Score	.042	.000	MD 92 32 Score	.013	.002
MS 38 Score	.037	.000	IL 39 Score	.073	.000
PY 106 Score	.008	.013	IL 40 Score	.088	.000
RS 3 Score	.147	.000	IL 54 Score	.037	.000
SS 66 Score	.074	.000	IL 57 Score	.092	.000
MS 34 Score	.040	.000	BS 78 Score	.036	.000
MS 35 Score	.053	.000	BS 80 Score	.069	.000

The percentage of explained variance for these 20 questions ranges from .007 to .147, with each item contributing a small but important explanation of North Dakota's current service dollar expenditures.

Four of the ten PAR questions currently used to form PAR levels are among the 20 items demonstrating statistical significance. These questions are highlighted in Table 1, and together, explain a combined 26.6 percent of the variance in current service expenditures.

To match service dollars to individuals needs a best fit resource allocation model was constructed by performing a stepwise regression using all the PAR questions in Table 1 as potential predictor variables of actual annual expenditures. With this method, the 20 variables were narrowed to seven, and a best fit resource allocation model emerges which can explain 43.1 percent of current expenditures. This can be accomplished without any use of the Oregon tool results.[13]

This best fit model is illustrated below in Table 2. It includes a list of the seven PAR items identified as the best fitting predictor variables and their contribution to the model.

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[13] The Oregon Medical Scale would add only 1.5% more explained variance to this model, which is not enough to justify its use.

Table 2: The Contribution of PAR Items to a Best Fit Model Explaining Expenditures	
PAR Questions	**Explained Variance**
Level of MR	.025
MD 21 Score	.015
MS 38 Score	.029
RS 3 Score	.238
MS 35 Score	.019
MD 92 21 Score	.015
IL 39 Score	.090

This selection of PAR questions provides the most powerful explanation of actual service expenditure covering 43.1 percent[14] of variance. This particular mix of seven PAR questions provides this explanation by working together as a team with each item adding to the solution. Two of the ten PAR questions currently used to form PAR levels are highlighted in Table 2. This sharper model eliminates eight of the current PAR questions that are not significantly related to actual service expenditures, and adds five different, statistically relevant, PAR questions to bolster the model. As noted in Deliverable 3.0, stakeholders suggested that the RS score was not reliable. However, the model is just as robust when RS score is replaced by actual placement setting.

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[14] (F Change = 5.330, df2 198 Durbin-Watson 1.968.)

CHAPTER 5: CONCLUSION

This report reviewed and analyzed:

- Current assessment tools being used in the field of developmental disabilities nationally as well as state specific instruments.

- Assessment instruments' reliability, ability to measure overall and selected domains, cost, and ease of use, to determine which tools would best work for North Dakota's developmental disability service system.

- Options for adoption of a new or revised consumer assessment tool including a best fit model for the State in using the PAR results previously collected.

From this analysis, the following options become apparent:

- First, the State could decide to continue using the PAR for assessing individuals and making resource allocations. Doing so without modifying the assessment hinders the State's ability to be truly flexible and allocate funding in the most equitable way. However, this option is the most cost effective option.

- Second, the State could continue to use the PAR, however, modify the tool to eliminate unneeded questions, and possibly include applicable questions from the Oregon Medical scale. This option would take commitment from the State to redefine the existing system. Doing so would likely call for new assessments to be gathered, and a detailed review of what questions from both scales would aid in developing the most rational model. This option is cost effective, but would require additional resources to develop the needed infrastructure for information technology, data containment and analysis, and policy decisions related to how this model will be sustainable throughout the years.

- Last, the State could decide to move away from the PAR and use a nationally normed tool such as the SIS. This option has benefits related to system flexibility, reliability and validity and a streamlined process for gathering data and allocating resources. This option is the least cost efficient initially. The State would need to contract with AAIDD for the use of the tool, and likely consult with outside entities to develop a model moving forward. Further, this process takes time. HSRI's experience finds that in most States implementing a SIS informed system takes 2-3 years. This process includes planning, collecting data, building a model and implementation.

At this time, it seems that the State could benefit from either modifying the PAR or moving to the SIS. Unless North Dakota intends to replace its cost based reimbursement system, adoption of the SIS may be premature at this time. DDD leadership and stakeholders should review these options carefully so that once a decision is made, the State is confident in their decision and are able to move through the process confidently.

As next steps, B&A, Inc. and HSRI will continue refinement of the PAR revision and SIS options, meet with the State and stakeholders and develop cost estimates for the options.

APPENDIX 1.0: USING ASSESSMENT DATA FOR RESOURCE ALLOCATION

An assessment tool must provide sufficient information to accurately and appropriately differentiate among service participants with respect to their supports needs. It is essential that the tool selected be capable of reliably assessing support needs and is useful in measuring the relationship between these needs and dollars expended. HSRI and B&A believe that either the SIS or a revised PAR could meet these criteria.

As is and has been the trend for most States, gathering assessment data is only a piece of the overall goal. Most often, States uses the data collected in their resource allocation processes. Below, is a brief look at HSRI and Burns & Associates' process and use of assessment informed resource allocation models. The steps outlined are not always used by every State, and are meant as a look into an ideal planning to implementation project.

This approach has four main phases: (1) preparation for the project, (2) data collection, (3) setting individual assessment levels, IBAs/ LBAs and service rates, and (4) implementation. [15]

Phase 1: Preparatory Tasks

There are three preparatory tasks:

Policy makers must articulate their goals. While the overarching intent may be to improve the efficiency and effectiveness of resource allocation, under that umbrella may fall other policy goals:

- Assuring that resources are authorized to individuals equitably and in ways that accurately and reliably account for personal support needs.
- Assuring that resources are managed effectively and efficiently.
- Assuring that services are reimbursed in ways that service providers are compensated with fair and reasonable rates.
- Introducing participant direction into the delivery of services.
- Assuring provider reimbursement rates reflect underlying system values and preferred outcomes.
- Complying with the governmental requirements set by administering agencies.

At the project's outset, policy makers need to consider these and/or other policy goals, and indicate those that most drive the effort. These decisions will come into play later to help address various issues that arise and judge the outcome of the effort.

Engage stakeholders throughout the course of the project. Stakeholders include service recipients, parents, service providers and others concerned with the outcome. Through a

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[15] Kimmich, M., Agosta, J., Fortune, J., Smith, D., Melda, K., Auerbach, K. & Taub, S. (2009) *Developing individual budgets and reimbursement levels using the supports intensity scale.* Houston: Independent Living Research Utilization (ILRU) Community Living Partnership.

Stakeholders Committee broad input and feedback can be continually acquired to help ensure that the envisioned changes and their implementation are consistent with service system values and principles. This involvement also will contribute to ensuring the feasibility and practicality of the changes made.

The importance of this step was evident in the discussions that B&A and HSRI have had with stakeholders, which was summarized in Deliverable 3. For example, during focus groups and subsequent written feedback opportunities with providers, a primary criticism of the PAR was the fact that providers were not involved in its completion. There was apparently greater acceptance of the Oregon tools from providers, presumably due to their role in completing these assessments. The success of any changes to client assessments depends upon buy-in from stakeholders.

Review Provider Reimbursement. Information must be collected on the amount of money that is expended annually for each participant. This expenditure information should not be biased by legacy reimbursement rates that are caused by differing geography-based and administrative jurisdictions, rates set to deal with specific deinstitutionalizing events, or significant differences between providers resulting from a negotiation process. Removing the reimbursement system bias from the expenditure data may be an extensive task, but it is essential to deriving Individual Budget Allocations (IBAs) or Level Based Allocations (LBAs) that are equitable.

Phase 2: Data Collection

There are three considerations associated with data collection:

Decide whether to begin with a small portion of the population or to gather information on all waiver recipients. Eventually, the State will need to have information on the entire population, but may find it more feasible, financially and practically, to start data collection with a representative random sample. As long as the sample is drawn properly, it can serve as a legitimate proxy for the entire population. This approach allows policymakers to field-test crucial components of the change process, to learn how best to manage the data collection process, to smooth out logistical difficulties, and to explore the potential impact of changes in the resource allocation model. Larger samples increase the certainty of the results, especially where there are modest relationships between assessments and expenditures. Alternatively, policymakers may choose to start by assessing the entire population. While this requires greater investment at the onset, it provides more reliable analysis of potential risks and impacts.

Regardless of how a state begins this process, it is advisable to delay implementing the new resource allocation model until the standardized assessment tool has been administered across the entire population. It is crucial that the data collection is managed carefully and thoroughly. Otherwise it could significantly set back the reform effort. Success requires that data collectors are well trained and a precise process is in place to guide their actions. The assessments must be administered properly so that the funding application is built on a solid platform of consistent data. If there are questions about how well assessments have been performed, the entire funding application will be thrown into doubt. And, as data are collected, managers must continually check to assure that the data are being collected accurately and without bias.

The other critical issue related to data collection is proper compilation of the information. Accuracy and reliability must be assured. This requires reviewing data for completeness, internal consistency, and possible error patterns. Catching omissions or errors early can greatly reduce problems at the data analysis and interpretation stages.

Phase 3: Levels or Individual Budgets and Rates

There are two considerations associated with setting levels and usual and customary rates:

Information on individual support needs can be used to set either level-based budget allocations or individual budget allocations.

When setting level-based budget allocations, the support needs of individuals are systematically analyzed in relation to costs (and perhaps direct service hours). Items in the selected support needs measure are examined in a variety of ways to determine what combinations of variables can best explain variance associated with targeted dependent variables (e.g., annual costs and/or a measure of services hours). The analysis is used to separate individuals into a reasonable number of assessment levels where there is meaningful separation between the levels. Typically, these levels depict low to high support needs, with other categories related to complex behavioral or medical needs. Ideally, total waiver expenditures and hours of support change in relation to changes in assessment level. The number of levels and their composition are dictated by the data set. The levels are tested against two major service categories, residential services and day services, or can be tested by living situation: group home, independent living, and living with family. This process results in defined levels composed of individuals who are assigned to each level. All individuals falling within a level are assigned the same allocation (unless finer distinctions are made within levels, such as by creating sub-levels).

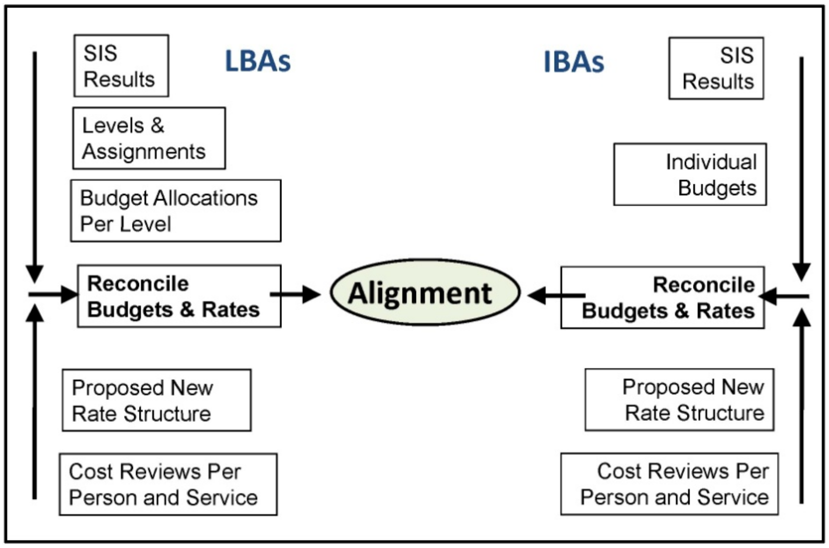
If the data allow, it is possible for individuals to claim their own unique level, resulting in “true” individualized budget allocations. Again, it is presumed that individuals with greater needs should have access to more resources; those with lesser needs should get less. Yet, it is understood that each individual has his or own unique needs; no two people have the same needs and priorities. It is presumed that individuals and their planning teams know best what services are most important for that person. IBAs are decidedly not based on a preset determination of need for a particular provider, agency or group. Inevitably, people should choose providers, not the other way around. As a result, an IBA is both individualized to one’s need and personalized because of how the allocation is spent later.

Achieving this level of precision, however, can be hard to do initially. IBAs are calculated through systematic analysis (as described above), but each individual is granted his/her own level or allocation.

The IBA is portable, as is an LBA. The individual waiver participant has the funding, not the service provider. The person chooses the provider and the money moves with the person. There are no guaranteed clients. IBAs or LBAs are also prioritized because the waiver participant and the interdisciplinary team set priorities and because people with the greatest need get the most. Finally the IBAs/LBAs are predictable because both the individual and the State know and plan within their limits.

Regardless of whether IBAs or LBAs are applied, individual allocations must be based upon unbiased reimbursement rates. Depending on the results from an evaluation of the current reimbursement system, States may decide either to use the existing rate structure or take the opportunity to adjust reimbursement rates to eliminate biases in the legacy system, better define the costs (and services), increase the overall amount of reimbursement, or encourage certain services over others. In general, our approach to rate determination stresses the application of a standard rate-determination framework that bases rates on the level of direct staff effort necessary to deliver a particular service and on observed usual and customary provider cost. This approach is designed to yield payment rates that are directly related to standardized service costs.

Central to this framework is the fundamental rate determination principle that a State's payments for services should ensure that each provider of a service receives sufficient compensation to support the delivery of necessary services to each individual. In such a situation payments for community services will be based on assessed differences in supports needs (based on a standardized assessment of such needs), while still promoting the economical and efficient delivery of services.



More specifically, rate setting entails three fundamental steps:

1. Defining allowable costs and the subject service elements
2. Considering present provider costs by these cost elements
3. Monitoring the resulting rates to assess their aggregate impact on the system, especially with regard to budget goals (e.g., cost neutrality)

Phase 4: Implementation

Implementation requires careful reflection and planning.

With assessment levels established and expenditure amounts associated with each level or individual budget, it is time to review what has been learned. Establishing predetermined expenditure amounts (which should operate more frequently as caps as opposed to floors) obviously has ramifications for people with developmental disabilities and for service providers. For example, some States have revised their expenditure amounts only to experience unanticipated increases in overall expenditures. In some of these States, this has led to suspension of new enrollments in the HCBS waiver to avoid expenditure overruns. Other States have experienced serious disruptions in their provider networks as a result of rate restructuring, causing negative consequences not only for providers and their staff but also for people with developmental disabilities. It is critical that great care be exercised to ensure that the revised reimbursement rates and/ or payment levels do not result in major disruptions of the supports upon which people with developmental disabilities and their families rely. The State must develop the capacity to anticipate and analyze the effects of proposed changes. In particular, it is important to simulate the results of the new payment structure, secure information about how funding patterns will change, and obtain feedback about the real-world implications of the change. Having ongoing involvement of stakeholders will be helpful in this effort.

The provider reimbursement rates that are used in developing IBAs/LBAs may or may not be graduated to take into account differing intensities of support needs exhibited by waiver participants as well as other factors influencing the delivery of services, such as geographic location. Finally policy preferences may be built into the rates such as, for example, providing funding for staff training or health insurance. Initial prototype service rates are subsequently reviewed and revised as warranted. Finally IBAs/LBAs must be reconciled to the State budget, accepted cost assumptions, rate and reimbursement rules, state and federal policy decisions, and possibly local budgets to finalize the personal budget allocation. The budgets people are awarded must be sufficient to purchase the services for which they are meant to pay and providers must likewise be reimbursed sufficiently for the services they deliver.

Care must be taken to set LBAs or IBAs to achieve stated policy goals, but in a way to minimize disruption for consumers. States must be aware that as new allocations are set, some individuals will have increases in the amount they are assigned while others will experience reductions, and plans must be developed to handle them.

A <u>plan must be developed to implement the new policies and practices</u> across the system. Consistent application of existing assessment tools was identified through stakeholder input as another perceived shortcoming in the current system. Stakeholders stated that assessments are inconsistent due to, among other reasons, inadequate training, geographic differences, and disregard of existing policies. Addressing these concerns will entail modifying administrative rules, building awareness among clients and providers, training or retraining staff who are key to the implementation process, developing individual service plans, revising billing and payment practices as needed, and otherwise assuring smooth implementation.

In addition, State staff should be prepared to use exceptional care/cost procedures to accommodate individuals who have unique support needs and do not fit within the established cost allocation model. Any model, after all, is a best fit solution to accommodate most individuals and will not be satisfactory for all.

The <u>new practices are implemented</u>. State staff must work with waiver recipients, their families, service providers and others to see that new procedures and decision rules are put in place and monitored over time, so that adjustments can be made as necessary. Experience reveals that several iterations are typically needed before the new allocation system becomes an accepted integral part of the overall service system. During the “transition” period, the State agency may find it necessary to mitigate the near-term financial impact of the new structure on providers as well as individuals.

Overall, the process is a challenging one, dealing with the uncertainty of what the data will present as well as the sensitive dynamics of the situation on the ground. It is not a process that can be rushed. Each State is different. The basic approach must be to follow the data and actively engage all stakeholders.

Appendix 3.0

STATE OF NORTH DAKOTA
DEPARTMENT OF HUMAN SERVICES
DEVELOPMENTAL DISABILITIES DIVISION

DEVELOPMENTAL DISABILITIES REIMBURSEMENT STUDY

DELIVERABLE 6: REFINED AND FINAL COST ESTIMATES

SUBMITTED BY:

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July 4, 2010

TABLE OF CONTENTS

CHAPTER 1: INTRODUCTION AND BACKGROUND

Burns & Associates, Inc. (B&A) and their subcontractor, Human Services Research Institute (HSRI) were contracted by the North Dakota Department of Human Services' Developmental Disabilities Division (DDD) to analyze the assessment tools and criteria used to identify individuals who are medically fragile and/or behaviorally challenged. Further, B&A was tasked to evaluate the adequacy and appropriateness of compensation for providers serving people with extraordinary behavioral and medical needs. This report constitutes Deliverable 6 of that project – the refined and final estimate of the costs of implementing the options suggested by the consultants. In total, the study has eight deliverables:

Deliverable 1	Final Data Request	Complete
Deliverable 2	Three Day On-Site Visit and Materials	Complete
Deliverable 3	Evaluation of the Current Reimbursement, Appropriation, Assessment and Change Request System	Complete
Deliverable 4	Options for Assessment Scales, Resource Allocation Models, Other States Use of Scales, Options for Rate Adjustments Based on Changing Client Needs and Implementation Considerations	Complete
Deliverable 5	Preliminary Cost Estimates	Complete
Deliverable 6	**Refined and Final Cost Estimates**	**This Report**
Deliverable 7	Interim Report	July 8, 2010
Deliverable 8	Final Report	Aug 15, 2010

There were a number of data sources used in the development of our cost estimates, including:

- A survey of providers asking for estimated costs related to reimbursement and assessment activities
- A report from DDD on the administrative costs related to provider budgeting, rate-setting, audit, and reconciliation as well as administration and use of the PAR and Oregon tools
- Quantitative analysis of assessments, claims and payments/costs
- B&A's and HSRI's experience with rate-setting systems and assessments in other states.

This report is divided into five Chapters as follows:

Chapter 1 (this chapter) is the introduction and outlines the rest of the report.

Chapter 2 includes a description of the options for which B&A developed cost estimates for both adults and children. A cost estimate for assessment of very young children 0 to 5 years of age is not included.

Chapter 3 includes the cost estimates and breakdowns of cost by several categories.

Chapter 4 is a description of the limitations of the data used to create these estimates and includes notes on the program and utilization growth estimates used to project future costs. It also includes a discussion of the opportunity costs associated with changing to a new system.

Chapter 5 is the summary and conclusion to this report.

CHAPTER 2: OPTIONS INCLUDED IN THIS REPORT

In Deliverable 4, B&A and HSRI described two feasible options for revising the assessment and payment approach for adults with developmental disabilities and two options for children. The first option for adults is to make modifications to the Progress Assessment Review (PAR). The revised PAR could be used to identify individuals who are medically fragile and/or behaviorally challenged. Alternatively, under this option the PAR levels currently used as a guide in the budgeting process could be revised and used as the basis for distributing funds based on all of a client's assessed needs rather than medical fragility and behavioral challenges only. The reimbursement system would remain cost-based.

The second option was to discard the PAR and adopt another tool used elsewhere to make resource allocation decisions. The most likely candidate for this new tool is the Supports Intensity Scale (SIS), which is being used in approximately 20 other states and in other countries to inform resource allocation. Under this option the reimbursement system would change to prospective rates and a resource allocation model that allocates funds to clients based on the individual's support needs.

For children, a new set of assessment tools is going to be necessary, as the Child PAR is not usable for making resource allocation decisions. The Child SIS is currently in a validation phase and North Dakota could enter the pilot group to begin using it for resource allocation as described above for adults. Under this option the reimbursement system would also change. Alternatively, the Child and Adolescent Level of Care Utilization System (CALOCUS) tool could be used for behavioral needs assessment and the Oregon Medical Scale could be used for medical needs assessment for children. If this approach is selected the reimbursement system would remain cost-based.

The Child SIS is applicable for children ages 5 through 15. For younger children, North Dakota will require another approach. California and Arizona tools for children under age 5 are under consideration but are not reviewed in this report. The Child SIS and CALOCUS with Oregon Medical will be discussed in this report.

Adults Option A: The first option for adults is to use a revised version of the adult PAR that has been reduced to 53 questions. These questions were selected as being the best and most economical list for providing information on the consumer without including questions that do not provide any significant new information. Of these 53 questions, 20 items were found to demonstrate statistical significance when considering their relationship to actual service expenditures. The revised PAR would begin with these 20 items (Table 1), supplemented by questions used by program managers and providers.

Table 1: Contribution of PAR Items to Explained Variance of Actual Expenditures

PAR Question	Explained Variance	Statistical Confidence	PAR Question	Explained Variance	Statistical Confidence
Level of MR	.025	.000	MD 92 10 Score	.007	.025
AS 77 Score	.128	.000	MD 92 14 Score	.024	.000
B1 90 Score	.034	.000	MD 92 21 Score	.019	.000
MD 100 Score	.042	.000	MD 92 32 Score	.013	.002
MS 38 Score	.037	.000	IL 39 Score	.073	.000
PY 106 Score	.008	.013	IL 40 Score	.088	.000
RS 3 Score	.147	.000	IL 54 Score	.037	.000
SS 66 Score	.074	.000	IL 57 Score	.092	.000
MS 34 Score	.040	.000	BS 78 Score	.036	.000
MS 35 Score	.053	.000	BS 80 Score	.069	.000

The percentage of explained variance in expenditures for these 20 questions ranges from .007 to .147, with each item contributing a small but important explanation of North Dakota's current service dollar expenditures. Four of the ten PAR questions currently used to form PAR levels are among the 20 items demonstrating statistical significance.

Unless the item/question is a significant predictor or is used by program managers or providers, it would be eliminated. Table 2 presents the suggested revised PAR. North Dakota can also consider Oregon Medical items for inclusion. As reported in Deliverable 4, a best fit model with seven key items from the PAR and no supplemental questions from the Oregon Medical is quite powerful, explaining 43.1 percent of current expenditures.

Adults Option B: The second option for adults would be to dispose of the PAR as a resource allocation tool and adopt the Supports Intensity Scale (SIS). The SIS is a tool that is gaining widespread acceptance as a resource allocation tool as described in Deliverable 4. Adopting the SIS as the resource allocation tool would be the more costly option for North Dakota initially, but the long-term benefits of tying resources to client support needs and control inherent in a prospective system are significant. The SIS also provides access to a national database that allows North Dakota to compare its client needs to other states.

In addition to the base SIS tool, a set of supplemental questions could also be used to provide additional information that would be useful in resource allocation, such as indicators of risk to the community that would require greater supervision and staff resources.

Adoption of the SIS with supplemental questions for adults is a major investment of state and provider resources. As noted in Deliverables 3 and 4, this option is reasonable only in concert with a replacement of the underlying cost-based reimbursement system. The cost estimates assume that adoption of the SIS is coupled with a complete replacement of the cost-based reimbursement system. Option A does not require replacement of the underlying cost-based reimbursement system.

Children's Options C and D: Because the Child PAR is not suitable for medical and behavioral rate modification and/or resource allocation, another tool(s) will need to be used given the poor performance particularly of the Oregon Behavioral Scale described in Deliverables 3 and 4. Children are particularly challenging when trying to assess needs in an MR/DD program because it is difficult to identify extraordinary support needs that are different than what every child needs. For example, assistance with hygiene is a task all parents need to perform for their children; identifying the extent to which such a need is "extraordinary" for a MR/DD child is very difficult. The first option for an assessment tool would be the Child SIS, which is currently in its piloting phase. The Child SIS should be an adequate tool for assessing support needs in children ages 5 to 15 (the adult SIS is used for ages 16 and up). Using the Child SIS would provide two significant benefits for North Dakota: (1) it would provide a resource allocation tool for children ages 5 to 15 that the state has not had before, and (2) it would provide a database of comparable data from around the country that would allow North Dakota to compare its distribution of resources to those in other states. For assessing extraordinary medical needs for children, the Oregon Medical Scales or selected items from those scales could be used as a supplement to the Child SIS.

Another tool would need to be adopted to use for children under age 5. There are several available that could be evaluated as potential options, but the development of tools for that age group is still in its "infancy" and statistically reliable results on their effectiveness are rare. Tools currently in use in Arizona and California are potential options for North Dakota. The tool for young children must fulfill multiple purposes including performance reporting under the Early Intervention program. Cost estimates for the tool for young children are not included in this deliverable. We will refer the Child SIS option as Option C. It should be noted that North Dakota can choose to adopt the Child SIS even if it continues to use the PAR for adults.

The second option for children, Option D, is to use the Oregon Medical Scale and CALOCUS (or a comparable tool) only to identify just those children with behavioral problems and/or who are medically fragile. This option includes no generalized assessment for all children.

Table 2: Questions Included on Proposed Revised PAR

PAR QTY	PAR CATEGORY	SUB-QUESTION
3	RESIDENTIAL LEVEL	Typical Level
21	DAYS SERVICES SUPPO	Overall Support Level
34	MOTOR SKILLS	CRAWLING AND STANDING (Select highest level.)
35	MOTOR SKILLS	AMBULATION (Use of special assistive devices (Ex: canes,
36	MOTOR SKILLS	WHEELCHAIR MOBILITY (Wheelchair may be motorized.)
37	MOTOR SKILLS	MOBILITY (Human assistance needed for on a consistent basis
38	MOTOR SKILLS	Overall Support Level
39	INDEPENDENT LIVING	EATING/DRINKING (Rate tasks involved in eating food (include
40	INDEPENDENT LIVING	TOILETING (Involves initiating and caring for those bodily
41	INDEPENDENT LIVING	LEVEL OF BLADDER CONTROL (Rate normal control level. Do NOT
42	INDEPENDENT LIVING	LEVEL OF BOWEL CONTROL (Rate normal control level. Do NOT
43	INDEPENDENT LIVING	BATHING OR SHOWERING (Ability to wash body. Note: ability to
44	INDEPENDENT LIVING	PERSONAL HYGIENE (Those tasks involved in basic bodily care,
45	INDEPENDENT LIVING	DRESSING (Putting on/removing regular articles of clothing,
51	INDEPENDENT LIVING	HOUSEHOLD CHORES (Such as vacuuming, dusting, sweeping,
54	INDEPENDENT LIVING	SAFETY/HEALTH AWARENESS (Places self or others in dangerous
55	INDEPENDENT LIVING	MOVEMENT IN SETTINGS FAMILIAR TO CONSUMER (Ex: in home,
57	INDEPENDENT LIVING	COMMUNITY MOBILITY (Movement around the neighborhood or
61	INDEPENDENT LIVING	Overall Support Level
64	SOCIAL SKILLS	GROUP INTERACTION IN SOCIAL AND/OR WORK ENVIRONMENTS
66	SOCIAL SKILLS	Overall Support Level
67	COGNITIVE SKILLS	ASSOCIATING TIME WITH EVENTS AND ACTIONS
74	COMMUNICATION SKIL	Primary Modes of communication
75	COMMUNICATION SKIL	Receptive Communication
76	COMMUNICATION SKIL	Expressive Communication
77	ADAPTIVE SKILLS	Overall Support Level
78	BEHAVIORAL SKILLS	AGGRESSION
80	BEHAVIORAL SKILLS	SELF INJURIOUS BEHAVIOR
81	BEHAVIORAL SKILLS	DESTRUCTION OF PROPERTY
82	BEHAVIORAL SKILLS	RUNNING OR WANDERING AWAY
83	BEHAVIORAL SKILLS	INAPPROPRIATE UNDRESSING
84	BEHAVIORAL SKILLS	SOCIALLY INAPPROPRIATE SEXUAL BEHAVIOR
90	BEHAVIORAL SKILLS	Overall Support Level for Behavior Issues
92	MEDICAL	SPECIAL HEALTH CARE Does individual require special health
92.1	MEDICAL	Steril Dressings
92.10	MEDICAL	Catheter
92.13	MEDICAL	Apnea Monitor
92.14	MEDICAL	Tracheostomy Care
92.15	MEDICAL	Suction Equipment
92.18	MEDICAL	Respirator
92.21	MEDICAL	Nasal/Gasiric or Tube Feeding
92.22	MEDICAL	Intravenous Nutrition or Other Parenteral Equipment
92.32	MEDICAL	Decubitus (Skin) Care and Equipment
92.5	MEDICAL	Dialysis
92.6	MEDICAL	Chemotherapy/Radiation
92.9	MEDICAL	Ostomy Equipment
97	MEDICAL	SEIZURES (Indicate seizure frequency WITH medication if
100	MEDICAL	OVERALL SUPPORT LEVEL FOR CHRONIC OR RECURRENT MAJOR M
101	PSYCHIATRIC	Psychotropic Medication
104	PSYCHIATRIC	Non-Medication Treatments
106	PSYCHIATRIC	OVERALL SUPPORT LEVEL FOR MENTAL HEALTH/PSYCHIATRIC
109	LEGAL	Supports for Legal Issues/Criminal Offenses

CHAPTER 3: COST ESTIMATES

Development of cost estimates required data and a series of assumptions for each option under consideration.

Administrative Costs

Administrative costs underlying the current system and the data required to project administrative costs into the future were obtained from the state and providers in the following areas:

- Existing administrative resources invested for budgeting and interim rates, cost report desk review, cost settlement, handling special requests, medical and behavioral rate adjustments, and provider audit
- Client growth trends for DD
- Service utilization trends for DD for the client population.

These administrative cost estimates also required assumptions for:

- New state and provider resources required for each Option including
  - Purchase cost for the estimate tool
  - Pilot testing
  - Training
  - Documentation
  - IT
- Annual recurring costs
- Resources eliminated for each Option.

B&A's and HSRI's experience in other states as well as input from AAIDD and the State of Oregon were used to develop these administrative cost assumptions.

Program Costs

Options A and D assume no change in the cost-based reimbursement structure in North Dakota. Option B and C Adult and Child SIS, however, contemplate replacement of cost-based reimbursement with a resource allocation framework. As a result, an impact on program costs including provider rates and service expenditures is expected. The impact on program costs is also presented in this chapter for Option B and C. It should be noted that Option A Revised PAR could also be used as the basis of a resource allocation model and, if it were, would result in similar program savings reported for Options B and C SIS.

Provider Administrative Costs in the Current System

B&A developed and distributed a simple cost survey for service providers in North Dakota following the on-site meetings in Bismarck on March 31, 2010. The survey asked for estimates of the costs to the provider, either in terms of hours or dollars, of the assessment, budgeting, cost reporting, and cost reconciliation (auditing) process. Eleven providers responded to the survey, representing over 1,600 consumers being served. Table 3 summarizes the responses below.

According to the raw responses, providers who responded in terms of hours reported that an average of 5.3 hours is needed per client for assessment and reimbursement-related tasks. Providers who responded in terms of dollars reported an average cost of about $414 per client for those tasks.

Table 3: Summary of Raw Responses to Provider Administrative Cost Survey

	Total		Average per Provider		Average per Client	
	Hours	Dollars	Hours	Dollars	Hours	Dollars
What are your annual costs related to the PAR?	431	$1,405	143.7	$1,405	0.55	$10.41
What are your annual costs related to the Oregon Medical assessment?	730	$813	141.9	$406	0.50	$4.34
What are your annual costs related to the Oregon Behavioral assessment?	786	$1,712	170.2	$1,712	0.58	$12.68
What are your annual costs related to individual enhancement requests to the Division?	650	$1,967	117.3	$983	0.36	$8.09
Assessments Subtotal	2,597	$5,896	573.1	$4,507	1.99	$35.51
What are your annual costs committed to the budget process and interim rate determination?	1,038	$47,753	221.8	$11,938	0.88	$113.79
What are your annual costs committed to the cost reporting and audit process (including independent audits)?	1,450	$51,158	304.4	$12,789	1.10	$109.94
What are your annual costs related to individualized rate-setting, including costs related to contracting?	635	$17,033	125.4	$5,678	0.39	$46.84
What are your other annual costs related to the reimbursement process?	1,145	$39,246	264.3	$13,082	0.94	$107.88
Reimbursement Subtotal	4,268	$155,190	915.9	$43,487	3.31	$378.44
Grand Total	6,865	$161,086	1,488.9	$47,994	5.31	$413.95

Some providers reported only hours and others reported only dollars (the survey tool allowed this flexibility because of the short time frame given for completing the survey). To maximize the use of responses B&A applied a value to hours reported without dollars or dollars reported without hours, based on an average rate of $18.00 per hour for assessment related tasks and $60 per hour for cost reimbursement related tasks. The differential in hourly rate reflects the survey results for those providers who reported hours and dollars and reflects the type of staff performing the function. Direct care staff participate in assessment related activities and financial tasks are performed by accountants and/or the Chief Financial Officer. The revised result is presented in Table 4 below.

Table 4: Revised Provider Survey Results Based on $18 per hour for Assessment Related Tasks and $60 per hour for Cost Reimbursement Related Tasks

	Total		Average per Provider		Average per Client	
	Hours	Dollars	Hours	Dollars	Hours	Dollars
What are your annual costs related to the PAR?	431	$8,263	86.2	$1,653	0.66	$ 12.70
What are your annual costs related to the Oregon Medical assessment?	730	$13,467	73.0	$1,347	0.51	$ 9.45
What are your annual costs related to the Oregon Behavioral assessment?	786	$14,906	87.3	$1,656	0.59	$ 11.18
What are your annual costs related to individual enhancement requests to the Division?	650	$19,631	65.0	$1,963	0.38	$ 12.98
Assessments Subtotal	2,597	$56,266	311.5	$6,619	2.14	$46.32
What are your annual costs committed to the budget process and interim rate determination?	2,294	$128,033	208.5	$11,639	1.79	$ 95.83
What are your annual costs committed to the cost reporting and audit process (including independent audits)?	2,389	$140,478	217.2	$12,771	1.81	$ 99.25
What are your annual costs related to individualized rate-setting, including costs related to contracting?	1,035	$60,793	94.1	$5,527	0.68	$ 39.73
What are your other annual costs related to the reimbursement process?	2,145	$112,826	238.3	$10,257	1.90	$ 100.95
Reimbursement Subtotal	7,862	$442,130	758.1	$40,194	6.17	$335.75
Grand Total	10,459	$498,396	1,069.6	$46,812	8.31	$382.07

The average amount per client when all provider data is used is $382.07 of which $335.75 relates to cost based reimbursement system activities and $46.32 relates to the PAR and Oregon assessments.

Providers reported some difficulty allocating costs to reimbursement system and assessment functions. As a result, B&A suspects the estimates are conservative. If this is true, each provider may be employing the equivalent of one FTE on average just to maintain the current assessment and reimbursement system.

State Administrative Costs in the Current System

The State also incurs significant costs in operating the current system. The reimbursement process, including budgeting, cost reporting, audit, and reconciliation is particularly resource-intensive on the State. It involves a significant amount of staff time that could be devoted to other improvements to the program. State costs include those for the Developmental Disabilities Division, Medicaid, and Provider Audit.

The State reports the following costs related to assessment and reimbursement:

Table 5: State Costs to Operate Current Reimbursement System

	Monthly Costs	Annual Costs
State DD Office	$8,718	$104,616
Department Provider Audit (All Staff)	$12,852	$154,224
DD Program Managers (All Staff)	$38,462	$461,544
DD Program Administrators (All Staff)	$13,063	$156,756
MMIS Claims Processing*	$5,000	$60,000
Department and Medicaid Oversight*	$7,000	$84,000
Total	**$85,095**	**$1,021,140**

*MMIS claims processing costs were estimated based on $1.50 per claim. Department and Medicaid oversight costs were estimated based on one full time (fully loaded FTE) and include waiver reporting and negotiations, financial reporting, policy oversight, etc.

North Dakota currently expends in excess of $1 million annually for the state to operate and maintain the current reimbursement and assessment systems.

The estimated costs for operating the current system are itemized in Table 6 below. For provider costs, based on the collected survey data, B&A assumed a per-client average cost as a midpoint between our high and low estimates of the providers' cost per hour. We selected $46 per client for tasks related to assessments and $336 per client for reimbursement-related tasks. We then projected the costs out five years, assuming a constant five percent growth rate in client population and three percent cost inflation to the providers.

For State administrative costs, we assumed over $1 million in combined costs for assessments and reimbursement, and projected it out five years assuming a five percent annual cost increase.

The five percent growth in administrative cost reflects historical patterns. The total cost for providers and the State comes to over $2.5 million per year.

Table 6: Estimated Administrative Costs for Operating the Current Reimbursement System

	Assumption	Annual Cost
Number of Consumers in Service	4,500	
Providers		
Assessments (38% of pop. per year)	$ 46.00 per client	$78,660
Reimbursement	$ 336.00 per client	$1,512,000
Providers Subtotal, 1st Year		$1,590,660
Projected 2nd Year	8% client and cost growth	$1,717,913
Projected 3rd Year	8% client and cost growth	$1,855,346
Projected 4th Year	8% client and cost growth	$2,003,773
Projected 5th Year	8% client and cost growth	$2,164,075
State Administration		
Assessments and Reimbursement		$1,021,000
State Administration Subtotal, 1st Year		$1,021,000
Projected 2nd Year	5% cost growth	$1,072,050
Projected 3rd Year	5% cost growth	$1,125,653
Projected 4th Year	5% cost growth	$1,181,935
Projected 5th Year	5% cost growth	$1,241,032
Total State Administrative Costs, 5 Years		$5,641,670
Total, 1st Year		$2,611,660
Projected 2nd Year		$2,789,963
Projected 3rd Year		$2,980,998
Projected 4th Year		$3,185,709
Projected 5th Year		$3,405,107
Grand Total State and Provider Administrative Costs, 5 Years		$14,973,437

Both provider and state administrative activities change from the current system under each of the four options identified for adults and children. The cost estimates reflect changes in administrative functions. Table 7 describes the provider and state administrative functions under the current system and compared to each of the four options under consideration.

The main differences in the administrative functions performed relate to whether cost-based reimbursement is maintained or replaced with prospective rates and a resource allocation model as shown in the table.

Table 7: Administrative Functions Under Proposed Options

Function	Current System	Option A Revised PAR	Option B Adult SIS	Option C Child SIS	Option D Oregon Medical/ CALOCUS for Children
STATE DDD (unless specified)					
Assessment	Program Managers perform PAR	Program Managers perform a revised PAR	Dedicated SIS unit with DDD or contractor perform SIS	Dedicated SIS unit with DDD or contractor perform SIS	Program Managers perform Oregon Medical and CALOCUS
Rate-setting	Interim rates established annually based on budget and targets Bucket payments distributed based on Oregon scales quarterly to providers	Interim rates established annually based on budget and targets Bucket payments combined with all payments and distributed based on PAR levels or based on a weighted score for medically fragility and behavioral only	Prospective independent rates are calculated by service across providers with some distinctions. Rates are inflated each year and rebased periodically No bucket payments	Prospective independent rates are calculated by service across providers with some distinctions. Rates are inflated each year and rebased periodically No bucket payments	Interim rates established annually based on budget and targets No change from the current system
Exception or Enhanced Budget Requests	More than 50% of clients are exception or enhanced budget requests the state must process	Improved PAR levels should reduce exceptions	Exception processing is reduced to 1% - 6%	Exception processing is reduced to 1% - 6%	No impact
Cost Reporting	State requires annual cost reporting	State requires annual cost reporting	State requires annual cost reporting	State requires annual cost reporting	State requires annual cost reporting

Desk Review	State desk reviews cost reports	State desk reviews cost reports	State desk reviews at least in the year of rebasing	State desk reviews at least in the year of rebasing	State desk reviews cost reports
Audit	Provider Audit performs audit. Audits performed and are completed two years later	Provider Audit performs audit. Audits performed and are completed two years later	Not required	Not required	Provider Audit performs audit. Audits performed and are completed two years later
Reconciliation to Determine Final Rates	Recon. process two years subsequent to cost report year	Recon. process two years subsequent to cost report year	None	None	Recon. process two years subsequent to cost report year
Resource Allocation Based on Client Assessed Needs	PAR Levels used as guideline	Revised PAR Levels used as guideline	Resource allocation model developed that distributes dollars based on client support needs	Resource allocation model developed that distributes dollars based on client support needs	None
PROVIDERS					
Assessment	Providers perform Oregon Medical and Behavioral Assessment	Provider does not perform assessments but will interact with assessor	Provider participate as a potential respondent	Provider participate as a potential respondent	Provider does not perform assessments but will interact with assessor
Rate-setting	Provider submits budget and interim rate is assigned	Provider submits budget and interim rate is assigned	State establishes prospective rate	State establishes prospective rate	Provider submits budget and interim rate is assigned
Exception or Enhanced Budget Requests	Provider submits exception /enhancement requests, currently more than 50% of clients	Provider submits exception /enhancement requests, currently more than 50% of clients but should be reduced	Consumer submits exception request in 1 to 6 percent of cases	Consumer submits exception request in 1 to 6 percent of cases	Provider submits exception /enhancement requests, currently more than 50% of clients

Cost Reporting	Provider completes and submits cost report	Provider completes and submits cost report	Provider completes and submits cost report	Provider completes and submits cost report	Provider completes and submits cost report
Audit	Provider responds to state audit findings	Provider responds to state audit findings	No state audit	No state audit	Provider responds to state audit findings
Reconciliation to Determine Final Rates	Provider receives final rates two years after the interim rate year	Provider receives final rates two years after the interim rate year	None	None	Provider receives final rates two years after the interim rate year
Resource Allocation Based on Client Assessed Needs	PAR levels	Revised PAR levels	Clients receive resource allocation and plan for support services with Program Managers	Clients receive resource allocation and plan for support services with Program Managers	PAR levels

Costs of a Revised PAR-Based System – Options A and D

Administrative Costs

Because the PAR is currently in use, revising the PAR to create better-fit PAR levels and identify individuals who are medically fragile and/or behaviorally challenged has lower up-front costs than switching assessment tools. The revised PAR would require some additional training for Program Managers, and we are recommending that additional resources be dedicated to assessments based on stakeholder feedback that some providers and even family members of consumers are completing the PAR currently, which should not be the case. In order to maintain inter-rater reliability and eliminate bias, only third-parties such as DDD Program Managers should be completing assessments. This means for example that providers would no longer complete either Oregon tool.

Provider administrative costs do not differ in any meaningful respect from the current system, approximately $1.6 million. Both implementation and ongoing state administrative costs are higher. The process of revising the PAR and creating new logic to identify the medically fragile and behaviorally challenged or to develop new PAR levels based on the results would take about one year and would require consultant resources at an estimated cost between $150,000 and $300,000 depending in large part on the extensiveness of the consultant's role in pilot testing. Estimated State Administration costs, including the cost of integrating the program changes into the IT systems and the existing costs for cost-based reimbursement and assessments, would be between $1.4 million and $1.7 million, according to our estimates, for a total state and provider administrative cost of between about $3.0 million and $3.3 million in the first year. An itemization of the costs for the first five years is presented in Table 8 below. All costs in these estimates have been rounded to the nearest thousand to avoid the illusion of precision.

Table 8: Estimated Costs for a Revised PAR-Based System - Options A and D[1]

	Low Estimate		High Estimate	
	Assumption	**Annual Cost**	**Assumption**	**Annual Cost**
Number of Consumers in	4,500		4,500	
Providers				
Assessments, Annual recurring	$ 40.00 per client	$90,000	$ 50.00 per client	$113,000
Reimbursement	$ 336.00 per client	$1,512,000	$ 336.00 per client	$1,512,000
Providers Subtotal, 1st Year		$1,602,000		$1,625,000
Projected 2nd Year	8% client and cost growth	$1,730,000	8% client and cost growth	$1,755,000
Projected 3rd Year	8% client and cost growth	$1,868,000	8% client and cost growth	$1,895,000
Projected 4th Year	8% client and cost growth	$2,017,000	8% client and cost growth	$2,047,000
Projected 5th Year	8% client and cost growth	$2,178,000	8% client and cost growth	$2,211,000
State Administration				
Documentation and Rulemaking (Year 1)		$10,000		$20,000
Additional Training and Reliability Testing		$40,000		$60,000
IT Transition Costs (Year 1)		$30,000		$50,000
Consulting Fees (Year 1)		$150,000		$300,000
Interviews, Annual recurring[1]	$ 100.00 per client	$171,000	$ 125.00 per client	$214,000
Assessments & Reimbursement	From Table 5	$1,021,000	From Table 5	$1,021,000
State Administration Subtotal, 1st Year		$1,422,000		$1,665,000
Projected 2nd Year	5% cost growth	$1,252,000	5% cost growth	$1,297,000
Projected 3rd Year	5% cost growth	$1,314,000	5% cost growth	$1,362,000
Projected 4th Year	5% cost growth	$1,380,000	5% cost growth	$1,430,000
Projected 5th Year	5% cost growth	$1,449,000	5% cost growth	$1,501,000
Total State Administrative Cost Five Years		$6,817,000		$7,255,000
Total, 1st Year		$3,024,000		$3,290,000
Projected 2nd Year		$2,982,000		$3,052,000
Projected 3rd Year		$3,182,000		$3,257,000
Projected 4th Year		$3,397,000		$3,477,000
Projected 5th Year		$3,627,000		$3,712,000
Grand Total State and Provider Administrative Cost, 5 Years		$16,212,000		$16,788,000

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[1] Assumes adults have the PAR readministered every 3 years and children are reassessed every year. Assumes 5% population growth.

Providers

Assessments: Based on the information from Table 4, we are assuming the cost to the provider is between $40 and $50 per assessment, generally for their participation time in the process. The cost estimate assumes that half of the population is assessed every year (children are assessed every year, adults every three years).

Reimbursement: We included the fully-loaded annual reimbursement cost from Table 4.

Client Growth and Cost Inflation: Five year projections reflect the same five percent client growth and three percent cost growth for providers.

State Administration

Documentation and Rulemaking: Our estimate is based on experience with other states for time spent developing policy manual updates and writing administrative rules. Because the PAR change is a modification rather than a replacement our low estimate assumes approximately 133 hours and the high estimate 266. These costs are applied only to Year 1.

Additional Training and Reliability Testing: Because we strongly recommend that additional assessor training and results testing be incorporated into a revised PAR process, we have included costs for those tasks here. These costs are applied only to Year 1.

IT Transition Costs: The costs of editing tables in the PAR database systems, revising the interface and scoring of the PAR and system testing is included here. These costs are applied only to Year 1.

Consulting Fees: We have included estimated consulting fees for refining the PAR and developing scoring algorithms, however most of the cost is related to pilot testing of the new PAR. The low estimate assumes the State would be doing the pilot testing and the consultants would be doing analysis of the results. The high estimate assumes the consultants perform the pilot testing as well. These costs are applied only to Year 1.

Interviews, Annual recurring: The annual cost of conducting revised PAR interviews by Program Managers or, if the state desires, a dedicated PAR unit. Also included in the estimate is the additional ongoing training needed and reliability and validity testing required on a sample basis each year. These costs are applied to all years.

Current Assessment & Reimbursement Costs: These are the costs from Table 5 and are included in each of the five years.

State Administrative Cost Growth: State administrative costs are increased five percent per year as were estimates under the current system.

Cost of a SIS-Based System – Options B and C

Administrative Costs

Replacing the PAR with the SIS would be more costly initially both in terms of time and dollars as it requires new assessments to be performed on all consumers and the results of those assessments to subsequently be used to develop a resource allocation model and prospective rates. The state would replace the existing cost-based system with prospective rates for services established on a statewide basis using an independent rate-setting model and a resource allocation model. The State would need to establish a dedicated team of SIS assessors who would receive thorough training on doing the SIS interviews and scoring the tool or alternatively contract for at least the initial SIS assessment for the 4500 adults and children now served by DDD. The SIS scores would also need to be incorporated into the State's DDD IT systems and MMIS.

The process of conducting the SIS interviews on the entire program population is estimated to take about two years. Additional consulting resources are needed as well for development of prospective rates and the resource allocation model tying funding to assessed needs of clients. The rate-setting and resource allocation timeframe is twelve to fifteen months with nine months overlapping the SIS assessment processing. Our cost estimates are for a five year period with Years 1 and 2 as development years. The prospective rate system and resource allocation model go live in Year 3.

Table 9 summarizes the range of SIS implementation and ongoing costs. The estimates show a large range between high and low to ensure North Dakota's actual expense is captured even if there are barriers encountered. SIS startup and annual recurring costs underlying the estimates in Table 9 are broken down in Table 10 on a subsequent page. A more detailed SIS cost estimate is included in Attachment 1 at the end of this report.

Providers

Assessments: The assumed cost is higher than under the PAR since the SIS is generally a more lengthy and involved process. The cost estimate assumes that half of the population is assessed every year (children are assessed every year, adults every three years). These costs are applied to all years.

Cost Reporting: Under Options B and C providers would continue to generate annual cost reports as they do now. These costs are applied to all years.

Cost-Based Reimbursement: We are estimating that the providers will continue all of the activities of cost-based reimbursement (as estimated in Table 6) for Years 1 and 2.

Transition Reimbursement: Changes to reimbursement systems are usually accompanied by a transitional period which blends the new and old systems. We are estimating costs of $136 per consumer to close out the cost-based reimbursement system including audit and reconciliation processes. Using survey results from Table 4, providers would not incur further costs related to the budget submittal and interim rate-setting process. The new reimbursement system would go live in Year 3. The transition occurs in Years 3 and 4 because Years 1 and 2 are development years.

State Administration

SIS Startup Costs: As documented in Table 10, the adoption of the SIS includes one-time costs such as software purchases, IT system integration, and training of the interviewers and trainers. These costs are spread across Years 1 and 2.

SIS Assessments, Years 1 and 2: In the startup phase of the new system, every consumer will need to be assessed using the SIS. We assume a higher number of interviewers employed and a full assessment of the population completed within two years.

SIS Assessments Ongoing: After the initial assessment round is complete, adults would be reassessed at least every three years and children at least every year. A slightly smaller number of interviewers will be required. This cost would begin in Year 3 and continue annually.

Documentation and Rulemaking: Our estimate is based on experience with other states for time spent developing policy manual updates and writing administrative rules. Our low estimate assumes 266 hours and our high estimate assumes 665 hours to make these revisions at a loaded rate of $100 per hour. These costs are split between Year 1 and Year 2.

Consulting Fees: We have included estimated consulting fees for implementing the SIS and developing scoring algorithms, however most of the cost is related to setting the prospective rates and development of the resource allocation model. These costs are split between Years 1 and 2.

IT Transition Costs: The costs of integrating SIS Online into the Division’s IT systems as well as moving functions to the MMIS and extensive readiness testing are included. These costs are split between Years 1 and 2. Comparable logic is available to North Dakota’s vendor and may already be available in state.

Transition Reimbursement: During the transition period the State will need to continue the cost-based rate process in order to close it out and ease providers into the new system. We are using the reimbursement costs from Table 5 for this estimate. These costs are fully loaded in Years 1 and 2 and applied at 75 percent of the fully loaded cost in Years 3 and 4 during the go-live for the new reimbursement system. The state may want to consider outsourcing close-out functions so Division staff resources can be fully focused on the new reimbursement system and assessment tool.

Table 9: Option B and C Adult and Child SIS Estimated Costs

	Low Estimate		High Estimate	
	Assumption	**Annual Cost**	**Assumption**	**Annual Cost**
Number of Consumers in Service	4,500		4,500	
Providers				
Assessments, One-time cost (Years 1 and 2)	$ 50.00 per client	$113,000	$ 100.00 per client	$225,000
Assessments, Annual recurring[2]	$ 50.00 per client	$113,000	$ 100.00 per client	$225,000
Cost Reporting	$100.00 per client	$450,000	$100.00 per client	$450,000
Cost-Based Reimbursement (Years 1 and 2)	From Table 6	$1,590,660	From Table 6	$1,590,660
Transition Reimbursement (Years 3 and 4)	$136.00 per client	$612,000	$136.00 per client	$612,000
Provider Administrative Cost 1st Year		$1,704,000		$1,816,000
Projected 2nd Year	8% client and cost growth	$1,840,000	8% client and cost growth	$1,961,000
Projected 3rd Year	8% client and cost growth	$1,371,000	8% client and cost growth	$1,501,000
Projected 4th Year	8% client and cost growth	$1,480,000	8% client and cost growth	$1,621,000
Projected 5th Year	8% client and cost growth	$766,000	8% client and cost growth	$918,000
State Administration				
SIS Startup, one-time cost		$117,000		$117,000
SIS Assessments Year 1 and 2		$886,000		$1,116,000
SIS Assessments Ongoing		$673,000		$673,000
Documentation and Rulemaking		$10,000		$25,000
Consulting Fees		$300,000		$400,000
IT Transition Costs		$125,000		$200,000
Transition Reimbursement (4 yrs) From Table 5	*75% in Years 3 and 4	$1,021,000	*75% in Years 3 and 4	$1,021,000
State Admin. Subtotal, 1st Year		$2,459,000		$2,879,000
Projected 2nd Year	5% cost growth	$2,582,000	5% cost growth	$3,023,000
Projected 3rd Year	5% cost growth	$1,586,000	5% cost growth	$1,586,000
Projected 4th Year	5% cost growth	$1,666,000	5% cost growth	$1,666,000
Projected 5th Year	5% cost growth	$818,000	5% cost growth	$818,000
State Administrative Cost 5 Years		$9,111,000		$9,972,000
Total, 1st Year		$4,163,000		$4,695,000
Projected 2nd Year		$4,422,000		$4,984,000
Projected 3rd Year		$2,957,000		$3,087,000
Projected 4th Year		$3,146,000		$3,287,000
Projected 5th Year		$1,584,000		$1,736,000
Grand Total State and Providers, 5 Years		$16,272,000		$17,789,000

[2] Assumes 2 year implementation of SIS and 3 year readministration for adults and 1 year for children

Table 10: SIS Assessments Annual and One-Time Costs

Assessor Staff Determination Assumptions			
Annual SIS Assessments	2,250		
Number of Work Days for Assessments	202.5		
Number of Assessments Completed in a Day	2.0		
Assessor Staff Required	5.6		
Total Salary and ERE for 10 FTE		$ 646,429	
Travel		$ 83,063	
Occupancy		$ 26,275	
Other Operating Expenses		$ 24,560	
AAIDD Continuing Costs		$ 105,243	
Total Annual Operating Costs			$ 885,569
Cost per Assessment			$ 393.59
Capital and One Time Costs			
Office Equipment		$ 48,700	
AAIDD		$ 184,500	
Total Capital and One Time			$ 233,200
Amortized Capital and One Time (2 Years)		$ 116,600	
Cost per Assssmnt of Amort Cap and One Time		$ 51.82	
Fully Loaded Cost per Assessment			
Annual			$ 393.59
Cap and One Time (2 year amort)			$ 51.82
Total			**$ 445.41**

SIS Development and Implementation Costs

- The most significant start up and ongoing cost of the SIS are the assessors and supervisors (10 staff initially reducing to 8 after implementation) that conduct and oversee the assessments themselves. As shown in Table 10, staff and supervisor expense in the first two years is $646,429. This assumes that the SIS is implemented in two years. Subsequently, a SIS will be performed every three years on adults and every year for children. Staff expense reduces to approximately $493,000 on an ongoing basis. All of the staffing expenses for the low estimate assume that the State has a dedicated unit of assessors initially and into the future. The high estimate assumes that the State contracts for the initial SIS assessment with an outside firm and in the third year establishes an internal unit of 8 dedicated assessors. A factor representing profit and contingencies was added to the estimate.

- Travel expense to conduct the initial SIS assessment is $83,063 inclusive of mileage and per diem. Travel also reduces as the assessment schedule is reduced for adults to approximately $63,000 on an ongoing basis.
- The occupancy space for the assessors is $26,275 annually.
- Other operating expenses are estimated at $24,560 annually.
- Capital and one-time costs including computers and printers are estimated at $48,700.

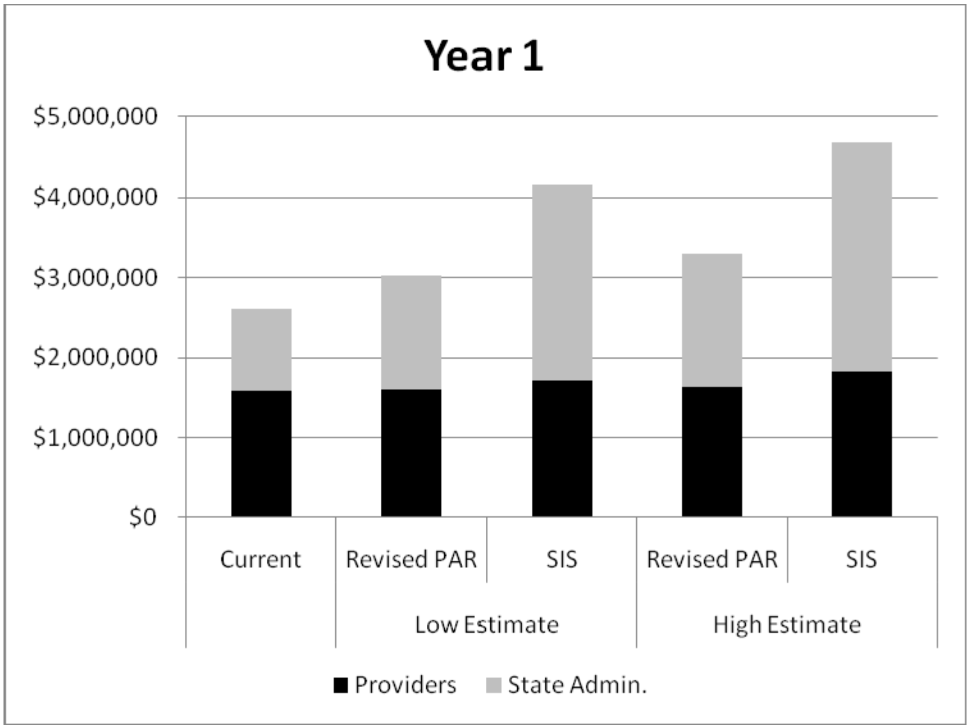
A number of one time and ongoing costs are associated with AAIDD for licensing and online tools. These include:

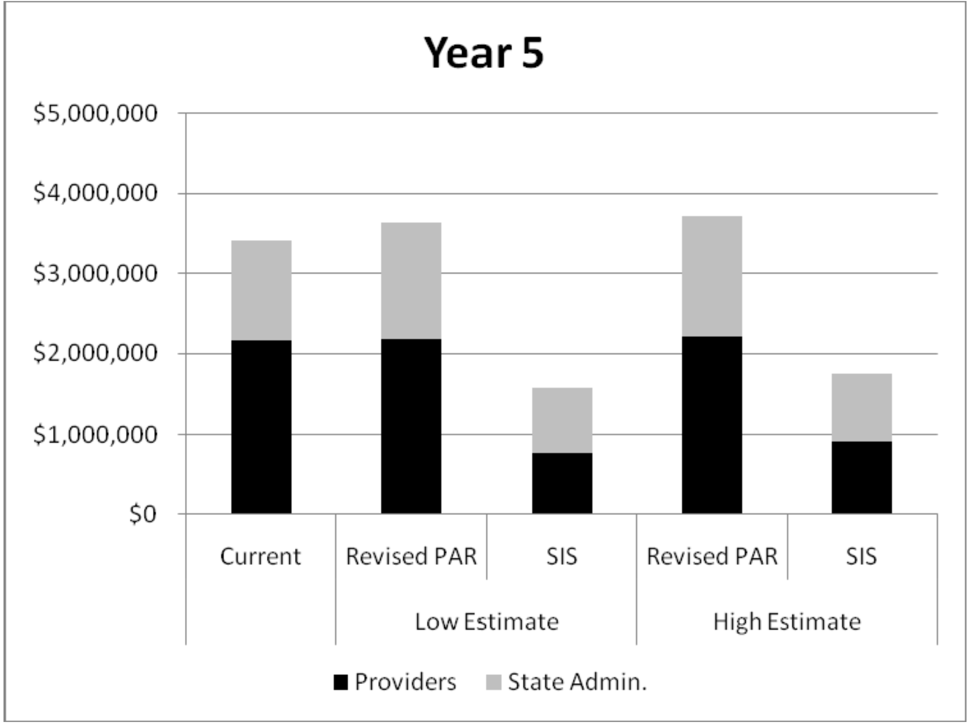
- Continuing costs for licensing, IT consulting, service training, and inter-rater reliability tests of $105,243
- One-time costs of $184,500 for SIS Online and training the trainers and assessors.

For Years 1 and 2, cost per SIS is estimated at $445.41 assuming a state staff team is assembled to perform the assessments. If outside resources are used, there will be an additional expense of approximately $100 per client. This is still considerably lower than the $750 to $1,000 per SIS charged by AAIDD.

Combined Impact

The graphs below illustrate the combined costs for providers and the State administration for the current system, the revised PAR, and the SIS, including low and high estimates for the proposed revised systems. In Years 1 and 2 the SIS options are in development and the current reimbursement system remains in place. As a result, Options B and C SIS have higher administrative costs in these years. However, administrative costs decline in Years 3 and 4 and are substantially lower by Year 5.





<u>Provider Rates/Service Costs</u>

As noted earlier, Options B and C are coupled with an overhaul of the current cost-based reimbursement system, transforming it to a prospective rate/resource allocation framework where provider rates are set by the state and used to develop a resource allocation model that ties payment to the assessed level of need for the client. While any reimbursement system can be structured to achieve a designated spending target, other states pursuing prospective payment have experienced a reduction in per capita costs over time. This occurs for two reasons. First, prospective rates are more stable and predictable than cost-based systems. At least in the initial years of a prospective rate system, providers achieve cost efficiencies in part because savings accrue to the provider; if providers can keep their costs below the prospective rate, the difference is theirs to keep as profit or to spend as they see fit. Second, states have also found that client-based resource allocation systems allow the consumer and family flexibility to obtain only those services that are highly desirable and reduce utilization of services designated by a case manager that are not helpful to the client/family. For this reason, B&A has included a high level picture of the impact of Options B and C on rates of payment and per capita funding levels. Option A is not coupled with replacement of the reimbursement system and as a consequence no estimate is provided for the impact on provider rates and per capita funding.

The impact of Options B and C on provider rates was developed based on an examination of historical rate changes in North Dakota by service and weighted overall under the existing cost-based system compared to the annual inflation indices and periodic rebasing applied under prospective rate systems. According to calculations based on claims data from SFY 2009 and partial SFY 2010, the average rate increase by service was about 9.4 percent[2]. Global Insight is the source of inflation projections used by numerous states and CMS in their prospective payment systems; they project annual inflation for home health services (the closest applicable market basket) as of Q2 2010 to be 1.8 percent. Because North Dakota will likely include a "hold harmless" in the initial years after implementation of Options B and C (Years 3, 4 and 5) beginning in Year 6, the state can expect a more stable average annual growth rate by using an index such as Global Insight.[3]

Per capita payment changes vary widely, but other states' experiences with implementing resource allocation based on assessment levels shows how well variance in payment can be explained by needs assessment instruments.

Table 11: Difference in Explained Variance Before and After Model Implementation

State and Waiver	State's Explained Variance Before Model	State's Explained Variance After Model Initial Rollout
Louisiana NOW	4.0%	45.6%
Oregon Comp.	19.0%	44.5%
Colorado Comp.	28.0%	51.5%
Georgia Comp. & NOW	54.6%	75.3%

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[2] This calculation is based on partial SFY 2010 claims data, available as of the beginning of this project. Approximately one-third of SFY 2010 claims are included. Based on feedback, this appears to be unusually high.

[3] There are reasons other than inflation why authorities may choose to increase rates in a non-rebasing year. Compensation for new safety or training requirements, fuel cost increases, budgetary adjustments, or targeted wage increases are just a few examples.

Improving the explained variance does not in and of itself reduce overall costs, but it does make payment more logical and predictable. Based on the experience of other states, the impact of the resource allocation model on per capita expenses in North Dakota was assumed as a five percent savings beginning in Year Four of implementation. Louisiana recently reported an 18% reduction in per capita costs resulting from its resource allocation model for new clients in the system. The state is now implementing the model for existing clients.

Our assumption is that the efficiency gains of implementing a resource allocation model, coupled with the controlled inflationary adjustments built in to a prospective rate system would provide a significant return on investment for the State beginning in the fourth year after the replacement system goes into effect.

The table below demonstrates some illustrative examples of the service cost savings of reducing annual inflation rates by 5 percent, 2 percent, and 1 percent annually starting in the fourth year after Options B and C are implemented. The 2009 total is based on actual claims paid. All other payment amounts are estimated and rounded.

Table 12: Illustrative Service Cost Savings

	8% Growth Before 2014, 3% After		5% Growth Before 2014, 3% After		4% Growth Before 2014, 3% After	
Fiscal Year	Total Payments (thousands)	Savings (thousands)	Total Payments (thousands)	Savings (thousands)	Total Payments (thousands)	Savings (thousands)
2009	$141,065		$141,065		$141,065	
2010*	$152,400		$148,100		$146,700	
2011*	$164,600		$155,500		$152,600	
2012*	$177,800		$163,300		$158,700	
2013*	$192,000		$171,500		$165,000	
2014*	$207,400		$180,100		$171,600	
2015*	$224,000		$189,100		$178,500	
2016*	$230,700	$11,200	$194,800	$9,400	$183,900	$8,900
2017*	$237,600	$23,700	$200,600	$20,000	$189,400	$18,800

* projected

A reduction in the growth rate from 8 percent to 3 percent starting in the fourth year after the new system is implemented would reduce service payments by $11.2 million in the first year. A reduction from 5 to 3 percent growth would reduce payments by $9.4 million in the first year, and a reduction from 4 to 3 percent rate growth would reduce payments by $8.9 million in the first year.

Child SIS - Option C

The administrative costs for the Child SIS are essentially the same on a per-assessment basis as for the adults. Because the one-time overhead costs for implementing the SIS are significant, we have included both adults and children in the administrative cost estimate for Option B. This made the most sense as an approach since the overhead will not need to be duplicated for separate adult/child SIS rollouts.

Previously we pointed out that the Child SIS is still in its pilot phase, and North Dakota had an opportunity to participate in the piloting of the tool to help improve the accuracy of its scoring. As an “early adopter” of the Child SIS, it is likely that some cost benefits would be extended to the State as the tool goes live in its production form, however that is not something that we can estimate at this time.

CALOCUS and Oregon Medical - Option D

Finally, the second option for children would be to adopt just the CALOCUS and Oregon Medical tools for children with extraordinary behavioral and medical issues. Oregon Medical is already in use in the state so there would be no additional costs above and beyond the current. CALOCUS is a tool that is given away gratis, but the data processing services associated with it are proprietary and require a processing fee of about $1.50 per person.

CHAPTER 4: LIMITATIONS OF THE DATA USED FOR ESTIMATES

In Chapter 3 we presented estimates of cost for three separate scenarios: the current assessment and reimbursement system, a new system based on a revised PAR, and a new system based on implementing the SIS. Each of these cost estimates are based on data that is generalized and assumptions about the future that cannot be precisely predicted. In this chapter we will highlight some of these limitations that must be considered when reading this report.

Reported costs are based on estimates and averages

The data reported by the providers in the cost survey and by the State related to assessment and reimbursement costs are compiled as averages and are based on the providers' and State's own estimates of their time and expenses as well as the consultants' assumption about the value of that time. Because this is an ad hoc analysis, providers and the State do not normally track their time and expenses for these activities. By necessity we needed to ask for estimates of time and expenses in order to get any kind of valuable information at all. However we believe that the response to the provider survey provides a realistic estimate of the costs incurred by providers.

Future growth is only a projection

For this report we adopted the same cost and program growth assumptions used by DDD for their internal projections. They assume a five percent annual increase in participants in the program and a five percent annual growth rate in administrative costs (mostly for salary and benefits). We have adopted these growth rates as the upper limit in our estimates.

Because this is a State-funded program it also depends on the appropriation of funds by the Legislature. In this report we have not presumed any action by the Legislature other than that reflective of past practice. It is always the purview of the Legislature to increase or decrease program funding at their will, and it is important to point out that we are projecting the cost to implement these program changes and not predicting to what extent they will be funded. Any rate system can be designed around budget limitations.

Some costs and schedules may be affected by externalities

IT costs in particular are affected by external factors that could not be known at this time. In particular any plans to transition IT functions from DDD to the MMIS would also include the IT elements of any reimbursement system change. Should that occur, the scheduling of those changes becomes an element of the MMIS priority chain and will have to compete for priority with a host of other projects that are completely unrelated to this project such as bringing up a new MMIS and health care reform.

Other factors that may increase costs or extend schedules include prolonged CMS review, court injunctions, lawsuits, key staff turnover, and realignment of priorities by the Governor or the Legislature.

Opportunity Costs

Perhaps the most significant problem with the current cost-based reimbursement system is the administrative burden it places on the financial parties – the providers and the State. The process of accounting for every dollar and ensuring that providers are paid according to their own individual costs is a tremendous task, as outlined in Chapter 3. Our estimate is that approximately $2.6 million per year is spent just to operate the reimbursement system. This includes the providers' costs, but since their costs are reimbursed by the State it is really all State and Federal cost.

Nevertheless, about $1 million per year of State staff resources are committed to this process every year. These are resources that could be dedicated to other projects if the reimbursement operations were not consuming them. Plans for additional training, program enhancements, or reductions in case manager caseloads would be potential uses for this time.

Adopting a prospective rate system that paid a fixed fee for each unit of service such as an hour or day of service provided would free the State staff from having to audit and prepare reconciliations once the cost-based system is closed out. The state could use as filed cost reports to perform rebasing periodically (e.g. every three to five years) or could choose to audit the year used in rebasing. This audit process is not done by a number of states. As filed cost reports are currently used in North Dakota for nursing facility rate-setting. There are certainly significant changes in the financial dynamics when moving from a retrospective to a prospective system, but the operation of the latter is vastly simpler and cheaper.

Because of the demands of health care reform on state Medicaid agencies, North Dakota will need to weigh this project in the context of the additional populations, physician reimbursement, eligibility and systems changes required by the Patient Protection and Affordable Care Act.

CHAPTER 5: SUMMARY AND CONCLUSION

This report has presented the cost estimates for transitioning the assessment and reimbursement systems to a new, more effective method for resource allocation. As stated in the introduction to this report, this Deliverable will be followed by Deliverable 7 which will be the interim final report for the project.

Chapter 2 outlined the options for assessments being recommended by the consultants. For adults this includes the SIS and a revised version of the PAR. While a revised PAR would be a less expensive option for the State, the SIS option includes the availability of a wealth of comparable information that can be used to validate the scoring and compare North Dakota's program to those in other states. For children ages 5 to 15 the recommendation is to adopt the Child SIS or the CALOCUS tool for behavioral assessment and the Oregon Medical Scales for medical assessment. For children under age 5 a different tool will need to be selected.

Chapter 3 included the cost estimates for the current system, a new system based on a revised PAR, and a new system based on the SIS. It reviewed the results of provider cost surveys and included an estimate of State administrative costs related to assessments and reimbursement. As mentioned, the SIS has high initial overhead costs, but coupled with a transition to prospective rate reimbursement, the costs become much more manageable.

Chapter 4 was a review of the limitations of the available data and covered some of the types of occurrences that would cause actual costs to vary significantly from our estimates.

This concludes Deliverable 6, the Refined and Final Cost Estimates. Deliverable 7 will be the Interim Final Report, which will consolidate the information provided in previous deliverables and on-site meetings and present the consultants' final recommendations for system enhancements.

Appendix 4.0

CREATING A SCALE TO MEASURE THE SUPPORT NEEDS OF CHILDREN

James R. Thompson
Illinois State University
134th Meeting of the AAIDD
Providence, RI
June 10, 2010

Rationale for Creating the Children's SIS

- Children with intellectual and related developmental disabilities are different than children from the general population because they require more and different types of support to fully participate in the activities of daily life
- Understanding children by their support needs is more functional (i.e., useful) for purposes of planning than understanding their deficits, etiology, etc.
- Progress in any field is often related to the capacity to measure key constructs of interest.

Demands of the Environment

Settings

Activities

MIND THE GAP

Health

Intelligence

AB

Problem Behavior

Personal Competence

What the Children's SIS should provide

- Provide a standardized assessment
  - Uniform Procedure
  - Scores that indicate a child's intensity of support needs relative to other children with ID
- Provide planning teams with information on the nature of support that a child needs to participate in a variety of activities in inclusive settings
- Provide a tool that may spark an interest in certain activities that have not previously been considered

What the Children's SIS is not expected to provide

- **WILL NOT** provide guidance about whether or not a child wants to participate in different types of activities
- **WILL NOT** provide a good measure of achievement

Progress so far

- Developed an item pool
  - Refined it using Q-Sort
  - 19 medical, 14 behavioral items
  - 7 subscales – 61 items
- Collected Data on Approx 1,000 children
- 40 cases for inter-rater data
- Initial descriptions of support needs of typically functioning children for SIS Children items

Field Test – Instrumentation & Data Collection Procedures

- Interviewer Instructions
  - Receive training
  - Information from 2 respondents
- Demographic Information
- Concurrent Validity – Estimates of Support Needs
- Medical and Behavioral Items
- Support Needs Scale – 7 subscales

Sampling Plan calls for 2,160

Age	Mild	Moderate	Severe/Profound
5-6	120	120	120
7-8	120	120	120
9-10	120	120	120
11-12	120	120	120
13-14	120	120	120
15-16	120	120	120
TOTAL	720	720	720

Contact Rod Realon at RREALON@aol.com

Inter-rater Study

- Interviewers were trained by Carolyn Hughes and Jim Thompson – 40 dyads
  - 2 interviewers independently interviewing 2 different respondents (4 respondents) - 21
  - 2 interviewers independently interview 1 of the same respondents and 1 different respondent (3 respondents) - 8
  - 2 interviewers independently interviewing the same 2 respondents (2 respondents) – 11
- Dyads completed separate interviews between 1 and 10 weeks apart

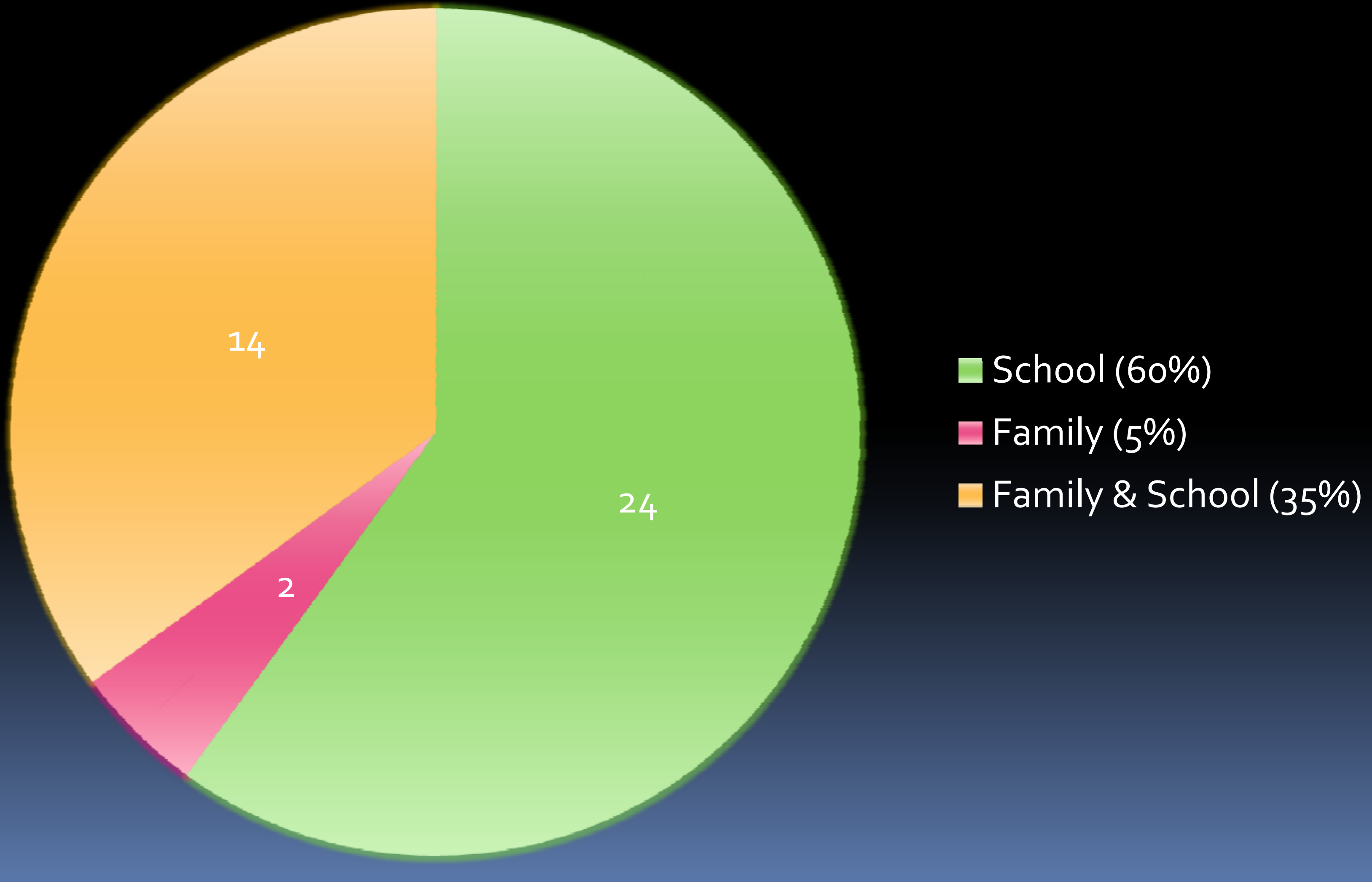
Inter-rater Study – Interviewers

- Interviewers - 80
  - Teachers in the Child's School District - 54
  - Related Service Professional in Child's School Dist - 6
  - Residential Support Staff - 4
  - Family members or family friend - 4
  - Graduate Students with no connection to child - 12

Inter-rater Study - Respondents

- Respondents – n =130 (# cases with at least 1)
    - Teachers or Former Teachers – 55 (34)
    - Paraprofessionals – 36 (24)
    - Related Service Professionals – 13 (9)
    - Parents – 18 (14)
    - Other family members – 8 (6)

Inter-rater study : # Cases with different combinations of respondents



Inter-rater Study - Children

- Gender
  - 24 males, 16 females
- Age
    - 5 – 8 (4)
    - 9-12 (15)
    - 13 -16 (21)

Inter-rater Study - Children

	IQ Mild	IQ Moderate	IQ Severe	IQ Profound
AB Mild	10	1		
AB Moderate	8	8	2	
AB Severe		3	2	1
AB Profound				5

Inter-Rater Correlations*

Subscale	*r*
Home Living	.954
Community & Neighborhood	.804
School Participation	.853
School Learning	.851
Health & Safety	.886
Social	.826
Advocacy	.789
TOTAL SCORE	.911

*n = 40; based on raw scores (not standard scores)

Addressing the Confounding Influence of Age on Support Needs

- Support needs are confounded by age
  - Younger children need more support than older children
- Two solutions to dealing with the "age" problem
    - Create different scales for each age level – items matched to age of children
    - Create a single scale but different norms for each age level – items must be applicable across age ranges

Measuring the extraordinary support needed by children with intellectual disability requires answering this question:

What support is needed by typically functioning children of different ages?

Scoring the Children's SIS

Kenny

Scoring the items

- Type = nature of support; from others, from none to fully physical assistance
- Frequency = how often; from negligible to always
- Time = how much time on a day support is needed; from none to 4 hours or more

Scoring the Children's SIS

Completing household chores – Score = 5

- Type = 2 (additional verbal/gestural prompting)
- Frequency = 2 (extra support will need to be provided for about half of the occurrences)
- Time = 1 (more time providing support is needed, but it would take less than 30 minutes a day)

Shopping – Score = 8

- Type = 3 (additional partial physical assistance)
- Frequency = 3 (extra support will need to be provided for most occurrences, only occasionally he not require extra support)
- Time = 2 (more time providing support is needed, between 30 and 2 hours per day)

Scoring the Children's SIS

Participating in Activities Common School Areas – Score = 8

- Type = 2 (additional verbal/gestural prompting)
- Frequency = 4 (always - extra support will needed on every occasion)
- Time = 2 (more time providing support is needed, between 30 and 2 hours each day)

Learning how to use and using educational mats, etc. – Score = 10

- Type = 3 (partial physical assistance)
- Frequency = 3 (extra support will need to be provided for most occurrences, only occasionally will he not require extra support)
- Time = 4 (more time providing support is needed, 4 hours or more)

Appendix 5.0

CALOCUS

Version 1.5

Child and Adolescent Level of Care Utilization System

American Academy of Child and Adolescent Psychiatry
American Association of Community Psychiatrists

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CALOCUS

Version 1.5

Child and Adolescent Level of Care Utilization System

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PART I

HISTORICAL PERSPECTIVE

The need for the Child and Adolescent Level Of Care Utilization System (CALOCUS) stems from the progressive development since the mid-1980's of Systems of Care for children and adolescents with serious emotional disturbances. These systems have been further impacted by the development of managed care principles during the 1990's. These two threads in children's mental health have resulted in the majority of children and adolescents being treated in community settings with limited access to inpatient and residential services. CALOCUS provides a framework for defining the appropriate character and intensity of both services and resources to meet the needs of these children and adolescents.

Jane Knitter's 1982 book, Unclaimed Children: The Failure of Public Responsibility to Children and Adolescents In Need of Mental Health Services, was the first to identify significant services gaps for those children most in need of care. She also found that many children were inappropriately receiving services at a higher level of care due to a lack of alternative resources. Ms. Knitter was perhaps the first to recommend "a coordinated range of services for troubled children and adolescents" and the development of "placement standards...that ensure children are placed in hospitals only when necessary."

The federal Child and Adolescent Services System Program (CASSP) was founded in 1984 as a response to these identified problems. The 1986 monograph, A System of Care for Children and Youth With Serious Emotional Disturbances, by Beth Stroul, M.Ed. and Robert M. Friedman, Ph.D. clearly articulates the need for a coordinated continuum of care that includes a broad array of community-based services. The monograph also provided a set of "Guiding Principles" for the development of local systems of care. These principles are included in Appendix A.

Also essential in the development of multiple levels of care are the principles of "Wraparound" or "Individualized Services." The development of a Wraparound plan for a child does not rely solely on pre-existing programs or agency services. Rather, it is a comprehensive plan, using both formal and informal supports, to remediate weaknesses and build on existing strengths of the child and his/her family. Augmented by the inclusion of Wraparound services, the System of Care approach has bet implemented in some areas so that many children and adolescents can now be safely and effectively treated in community settings.

As managed care has progressed in the 1990's; there has been a greater emphasis on using cost-effective treatments. Though managed care has often been associated with the denial of services; it can be a useful tool for effective utilization of limited mental health and associated resources. Too often, there has been disagreement between payers, providers and consumers as to the most appropriate Level of Care. VanDenBerg and Grealish pointed out in a 1996 article that, "If the adults disagree, the child fails." It is hoped that the CALOCUS will help to provide a consensus on level of care determination that is urgently needed.

PART II

FOUNDATIONS AND PRINCIPLES

There have been a number of previous attempts to use clinical assessments as a method of determining level of care needs in children and adolescents. However there has been no clearly defined method for linking the clinical assessment to the need for treatment, or the level of care best suited to deliver this treatment. The previous instruments gave us some idea of the child or adolescent's clinical status with regard to mood, anxiety, or thought process and other clinical areas of relevance, but they did not always have a direct connection with his/her holistic treatment needs.

Another approach to children and adolescent treatment placement focused on the development of criteria, which were specific to a given child or adolescent's mental health program. For example, a day hospital might have a set of criteria, which would describe the type of patient that was deemed most appropriate for that program. This idea evolved into the concept of "level of care" which attempted to group services of similar intensity together. Standardized and specific criteria were also developed along with "level of care" definitions.

Finally, the combination of these two concepts resulted in the development of "dimensional", assessments for "level of care" determinations. This process now combines the assessment related to a child or adolescent's clinical needs, or functional status, with a set of clearly defined levels of care, and subsequently develops a methodology for matching clinical needs to treatment resources. This structure for assigning appropriate level of care was first developed for LOCUS, by the American Association of Community Psychiatrists.

The CALOCUS instrument is a method of quantifying the clinical severity and service needs of three quite different populations of children and adolescents. It may be used in children with psychiatric disorders, substance use disorders, or developmental disorders, and has the ability to integrate these as overlapping clinical issues. This differs from the adult instrument LOCUS, which did not incorporate patients with developmental disorders.

CALOCUS begins by defining a set of dimensions for assessment that, although limited in number, are all relevant to the type of services that a child or adolescent would need. Our intent was that the ratings used would be simple, yet specific in their content, so there would not be a great deal of complexity, or confusion, in making decisions. The ratings would be quantifiable in order to convey information easily, but also provide a spectrum along which a child or adolescent may lie on any given dimension. Thus, these quantifiable ratings would allow a composite rating score to be obtained that would be the result of the interaction of each of the individual dimension scores. This integration of multiple dimensions is the essence of the CALOCUS instrument. It is this that guides the user to an appropriate CALOCUS level of care assignment.

Cultural competency is essential to accurate use of CALOCUS. A clear understanding of the cultural factors influencing each dimension is important; the dimension of Treatment, Acceptance and Engagement is particularly sensitive to these factors. The use of a cultural consultant may be very helpful in situations where there is a lack of clarity.

In order to develop an instrument applicable to a wide variety of treatment environments and child or adolescent needs it was important to develop a set of definitions for levels of care that described the resource intensities needed at each specific level of care. These definitions needed to be flexible and adaptable, in order to be broadly applicable to the wide variety of treatment environments in which care would be given. This approach was chosen to allow service providers to give adequate clinical services and quality care in the most economic and realistic fashion.

Administration or ease of use, of the instrument was also important. It was anticipated that ease of use, time and universal adaptability would be critical factors in establishing the broad acceptability of CALOCUS. This could lead to the establishment of a single standard agreed upon for use with children and adolescents by insurance agencies, service providers and consumers.

CALOCUS employs multi-disciplinary/multi-informant perspectives on children and adolescents and is designed to be used by a variety of mental health professionals. Although if is primarily used for initial level of care placement decisions, it can be used at all stages of treatment to assess the level of intensity of services needed. An important aspect of CALOCUS is its potential use for fee for service utilization management. Many instruments in the past have developed separate criteria for hospital admissions, continuing care and discharge planning. The CALOCUS instrument makes it unnecessary to use different criteria because of the “dynamic” nature of the quantifiable dimensional ratings. CALOCUS could also be applied to activities such as treatment planning, outcome monitoring and program development.

There are a number of things that CALOCUS will not do. It will not prescribe program design, but rather the type and intensity of resources that need to be available in that program. It does not specify treatment intervention, and it does not invalidate the importance of clinical judgement. CALOCUS also does not limit our creativity in developing specific treatment programs that meet the needs of special populations or localities. This will continue to be the role of the professional clinician.

The following sections of this manual will provide you with more detail regarding the CALOCUS instrument and its appropriate use with children and adolescents.

PART III

CALOCUS DIMENSIONAL RATING SYSTEM

The CALOCUS dimensional rating system is used to determine the intensity of a child or adolescent's service needs. It operationalizes many of the factors clinicians would consider in determining the most appropriate services and level of care needed. Each dimension has a five point rating scale, from least to most severe. For each of the five possible ratings within each dimension, a set of criteria is clearly defined. Only one criterion needs to be met for that rating to be selected. Therefore, for each dimension, the highest rating in which at least one of the criteria is met is the rating that should be assigned.

CALOCUS has six dimensions:

RISK OF HARM: This dimension is an expansion of the LOCUS dangerousness dimension, necessitated by a child's developmental vulnerability to victimization. Thus, this dimension is the measurement of a child or adolescent's risk of self-harm by various means and an assessment of his/her potential for being a victim of physical or sexual abuse, neglect or violence.

FUNCTIONAL STATUS: This dimension measures the impact of a child or adolescent's primary condition on his/her daily life. It is an assessment of the child's ability to function in all age-appropriate roles: family member, friend and student. It is also a measure of the effect of the primary problem on such basic daily activities as eating, sleeping and personal hygiene.

CO-MORBIDITY: This dimension measures the co-existence of disorders across four domains: Developmental Disability, Medical, Substance Abuse, and Psychiatric. Remember, if the primary condition is a substance abuse problem or a developmental disability, then any psychiatric condition also present would be considered a co-morbid condition.

RECOVERY ENVIRONMENT: This dimension is divided into 2 sub-scales: Environmental Stress and Environmental Support. An understanding of the strengths and weaknesses of the child or adolescent's family is essential to choosing an accurate rating in this dimension. It is also a measure of the neighborhood and community's role in either worsening or improving the child or adolescent's condition. Thus, high ratings on both these sub-scales (Extremely Stressful Environment and No Support in Environment) will have a major impact on both the composite score and the actual level of care chosen.

RESILIENCY AND TREATMENT HISTORY: Resiliency refers to a child or adolescent's innate or constitutional emotional strength, as well as the capacity for successful adaptation Rutter, 1990). The concept of resiliency is familiar to clinicians who treat children or adolescents who have the most severe disorders and/or survive the most traumatic life circumstances, yet who either maintain high functioning and developmental progress, or use treatment for a rapid return to that state. This dimension also measures the extent to which the child or adolescent and his/her family have responded favorably to past treatment.

ACCEPTANCE AND ENGAGEMENT (Scale A-Child/Adolescent, Scale-B Parents/Primary Caretaker): This dimension is divided into two sub-scales to allow for measurement of both the child or adolescent's and his/her family's acceptance and engagement. Clearly, the child or adolescent's treatment benefits when the family is proactively and positively engaged, and conversely, treatment suffers when the family is disinterested, disruptive or openly hostile toward the process. Only the highest sub-scale score (the sub-scale indicating the most significant challenge to treatment) is used in calculating the composite score.

Use of Dimensions

In order to understand what each parameter is measuring, it is important to review the introductory paragraphs for each dimension carefully, beginning on page 12. *Remember, you want to select the highest rating in each dimension, where at least one of the criteria is met*. In some cases, the actual clinical picture may not fit any of the criteria on the rating scales exactly. In that situation, users should pick the closest fit or choose the criterion that most closely approximates the actual condition of the child or adolescent they are considering.

When there is some confusion about which rating should be assigned, and you are not certain which is the closest fit, you should choose the higher rating. No instrument can anticipate every circumstance, or be so general that it can be applied to every situation, so a great deal of clinical judgement will be needed. Although the instrument does supply some guidelines, the clinician is required to make a determination as to which rating within each dimension is most appropriate. The clinician should base their decision on the interview with the child or adolescent, and all other available clinical information. The sources of information may include, but not be limited to other clinical reports, school records, other agency reports, mental health status examinations and/or family interviews.

In the evaluation of children and adolescents, a multi-informant approach that integrates information about the child and family from multiple sources and observers should be used. Scores in CALOCUS are based on the child or adolescent's status at the time of administration of the instrument. Scores for a particular child or adolescent can be expected to change, especially in crisis situations and as interventions are implemented. When an individual's life circumstances are stable or functioning has not deviated much from baseline, scores likewise may not change dramatically. Clinicians should use judgment to determine how frequently to re-administer the instrument during treatment. As a general rule, CALOCUS should be administered at the beginning of treatment, at points of significant change (such as on consideration of a change in level of care), and at the termination of services. Under most circumstances, CALOCUS should be administered more frequently at the higher levels of care.

PART IV

LEVEL OF CARE SERVICES

The Levels of Care in CALOCUS are organized in a unique way. In CALOCUS, the focus is on the level of resource intensity, which is more flexibly defined in order to meet the child or adolescent's needs. Each level of care is defined by a combination of service variables: physical facilities (care environment), clinical services, support services, crisis stabilization and prevention services. Some levels of care may contain the same resources found at other levels of care. With higher levels of care, a greater number and variety of services are utilized. In addition, the need for active case management of services will increase at the higher levels.

The levels of care are defined so that they can be effectively used regardless of the extent of collaboration in a local system of care. In a community with a more traditional array of services, the higher levels of care will necessarily be provided in residential or inpatient settings. In areas where there is an active use of the Wraparound process in a community-based system of care, the higher levels of intensity of service can be provided in the least restrictive environment possible.

One way to think about the levels of care is to compare them with the difference between the services available in a single pediatrician's office (the lower levels of care) and a major medical center (higher levels of care). For well-baby checks and most common medical conditions, a child or adolescent can be treated in the pediatrician's office. For more complex problems, especially those that are potentially disabling or life threatening, treatment at a major medical center would be appropriate due to the wider array of services and the availability of specialists.

In CALOCUS, there are seven levels of care:

Level 0: <ins>Basic Services</ins>. This is a basic package of prevention and health maintenance services that are available to everyone in the population being served, whether or not they need mental health care.

Level 1: <ins>Recovery Maintenance and Health Management</ins>. This level of service is usually reserved for those stepping down from higher levels of care who need minimal system involvement to maintain their current level of function or need brief intervention to return to their previous level of functioning. Examples of this level of service are children or adolescents who only need ongoing medication services for a chronic condition or brief crisis counseling.

Level 2: <ins>Outpatient Services</ins>. This level of care most closely resembles traditional office based practice and requires limited use of community-based services.

Level 3: Intensive Outpatient Services. It is at this level that services begin to become more complex and more coordinated. The use of case management begins at this level. The use of child and family teams to develop Individualized Service (Wraparound) Plans also begins, using mostly informal community supports such as church or self-help groups and “Big Brothers/Big Sisters.” This level requires more frequent contact between providers of care and the youth and his family as the severity of disturbance increases.

Level 4: Intensive Integrated Service Without 24-Hour Psychiatric Monitoring. This level of care best describes the increased intensity of services necessary for the “multisystem, multi-problem” child or adolescent requiring more extensive collaboration between the increased number of providers and agencies. A more elaborate Wraparound plan is also required, using an increased number of formal supports. Additional supports may include respite, homemaking services or paid mentors. In more traditional systems, this level of service is often provided in a day treatment or a partial hospitalization setting. Active case management is essential at this level of care.

Level 5: Non-Secure, 24-Hour, Services with Psychiatric Monitoring. Traditionally, this level of care is provided in group homes or other unlocked residential facilities, but may be provided in foster care and even family homes if the level of Wraparound services in the community is extraordinarily high. In either case, a complex array of services should be in place around the child and a higher level of care coordination is needed in order to manage the child’s multiple needs.

Level 6: Secure, 24-Hour, Services With Psychiatric Management. Most commonly, these services are provided in inpatient psychiatric settings or highly programmed residential facilities. If security needs could be met through the Wrap Around process, then this level of intensity of service could also be provided in a community setting. Case management remains essential to make sure that the time each child spends at this level of care is held to the minimum required for optimal care and that the transition to lower levels of care are smooth.

All of these levels will be discussed in greater detail, beginning on page 24 of this document.

PART V

PLACEMENT METHODOLOGY

As noted earlier, each dimension is defined along a scale of one to five. Each score in the scale is defined by one or more criteria. Only <u>one</u> of these criteria needs to be met for a score to be assigned to the subject. The clinician should select the highest rating level in each dimension that most accurately identifies the child or adolescent's condition.

Having provided you an overview of the dimensions, the rating system should be discussed. Once you have chosen a rating in each dimension, you use the composite score to arrive at a placement recommendation. The recommendation describes a level of resource intensity which best suits a given patient according to their needs. It does not mean that the child, adolescent or family needs to comply with the recommendation, nor that these are the only services that can be offered. The child, adolescent or family may have an option to choose a lower level of care than that being recommended, unless they are being involuntarily committed for their own safety or the safety of others.

Once scores have been assigned in all six-dimension parameters, they should be recorded on the worksheet and summed to obtain the composite score. Using the CALOCUS determination grid will now give you a rough estimate of the level of care recommendation. It is important to remember that in some cases, independent criteria are defined that will automatically place the child or adolescent in a specific level of care. This may be indicated regardless of their scores in other dimensions. For example, if an adolescent scores very high in suicidal or dangerous behavior, and has no ability to protect their safety outside of the protected setting, then that particular score would indicate placing the child or adolescent in at a level six intensity of service (usually provided in a locked psychiatric setting) no matter what other circumstances existed. These independent criteria are marked in the AACP/AACAP Level of Care Determination Decision Tree (see page 38) and the AACP/AACAP Level of Care Determination Grid (see page 40). The CALOCUS decision tree should be used for the most accurate recommendation. Though the independent criteria may predetermine the level of care, please complete the CALOCUS to obtain ratings in each dimension and a composite score.

When you come to assigning levels of care, there will be some treatment systems that do not have comprehensive services for all populations at every level of the continuum. If this is the case, then the level of care recommended by the CALOCUS may not be available, and a choice will need to be made as to whether more intensive services, or less intensive services, should be provided. In most cases, the <u>higher</u> level of care should be selected, unless there is a clear and compelling rationale to do otherwise. This again will lead us to err on the side of caution and safety, rather than risk and instability. The CALOCUS Decision Tree is the most accurate way of determining what level of care a child/adolescent child or adolescent should be offered. Although it may at first sight look complicated, it is fairly simple to use once you become familiar with it. When using the CALOCUS Decision Tree, always begin at the appropriate "Entry Point" found at the top of the page. Then questions pertaining to the score in each dimension will help you arrive at a recommended level of care. It is important, when first using the Decision Tree, to read the questions carefully and pay close attention to the "ands" and "ors" before selecting a Yes or No response.

As a busy clinician you neither have to memorize the definition of each level of care, nor do you have to know the criteria for placement at that level. However, as you become more familiar with the criteria you will then be able to complete your assessments quicker and easier. Eventually you will want to develop an array of services that are available within your treatment system, for each level of care outlined in CALOCUS. So, when a level of care placement recommendation is given, you will know what services are needed to approach the requirements of that level, and also what pieces may need to be appended in order to complete the treatment plan. Services can always be customized according to local and cultural needs.

CALOCUS is a system that is not overly prescriptive. It is flexible and adaptable, and describes an array of services, and level of service or resource intensity, rather than a level of care per se. This quality should allow your treatment system to incorporate CALOCUS with ease.

CALOCUS INSTRUMENT

Evaluation Parameters for Assessment of Service Needs

Definitions

DIMENSION I. RISK OF HARM

This dimension considers a child or adolescent's potential to be harmed by others or cause significant harm to self or others. Each category contains items that assess a child or adolescent's risk of harming him/herself and of harming others. While Risk of Harm most frequently is manifested by suicidal or homicidal behavior, it also may embody unintentional harm from misinterpretations of reality; inability to adequately care for oneself or temper impulses with judgment; or intoxication. Furthermore, Risk of Harm may be manifested by a child or adolescent's inability to perceive threats to safety and to take appropriate action to be safe. In this regard, younger children and children with developmental or other disabilities, unless protected, are more vulnerable. It also is true that children of any age who have experienced severe and/or repeated abuse in a hostile environment may be unable to perceive threat or take adequate measures to increase their safety.

In addition to direct evidence of potentially dangerous behavior or vulnerability from interview and observation, other factors should be considered in determining the likelihood of such behavior, such as past history of dangerous behavior and/or abuse and/or neglect, ability to contract for safety, and ability to use available supports. It also is important to be alert to racial or ethnic biases that may lead clinicians to misinterpret behaviors as threatening or dangerous.

1. LOW RISK OF HARM

a. No indication of current suicidal or homicidal thoughts or impulses, with no significant distress, and no history of suicidal or homicidal ideation.

b. No indication or report of physically or sexually aggressive impulses.

c. Developmentally appropriate ability to maintain physical safety and/or use environment for safety.

d. Low risk for victimization, abuse, or neglect.

2. SOME RISK OF HARM

a. Past history of fleeting suicidal or homicidal thoughts with no current ideation, plan, or intention and no significant distress.

b. Mild suicidal ideation with no intent or conscious plan and with no past history.

c. Indication or report of occasional impulsivity, and/or some physically or sexually aggressive impulses with minimal consequences for self or others.

d. Substance use without significant endangerment of self or others.

e. Infrequent, brief lapses in the ability to care for self and/or use environment for safety.

f. Some risk for victimization, abuse, or neglect.

3. SIGNIFICANT RISK OF HARM

a. Significant current suicidal or homicidal ideation with some intent and plan, with the ability of the child or adolescent and his/her family to contract for safety and carry out a safety plan. Child or adolescent expresses some aversion to carrying out such behavior.

b. No active suicidal/homicidal ideation, but extreme distress and/or a history of suicidal/homicidal behavior.

c. Indication or report of episodic impulsivity, or physically or sexually aggressive impulses that are moderately endangering to self or others (e.g. status offenses, impulsive acts while intoxicated; self-mutilation; running away from home or facility with voluntary return; fire-setting; violence toward animals; affiliation with dangerous peer group.)

d. Binge or excessive use of alcohol and other drugs resulting in potentially harmful behaviors.

e. Episodic inability to care for self and/or maintain physical safety in developmentally appropriate ways.

f. Serious or extreme risk for victimization, abuse or neglect.

4. SERIOUS RISK OF HARM

a. Current suicidal or homicidal ideation with either clear, expressed intentions and/or past history of carrying out such behavior. Child or adolescent has expressed ambivalence about carrying out the safety plan and/or his/her family's ability to carry out the safety plan is compromised.

b. Indication or report of significant impulsivity and/or physical or sexual aggression, with poor judgment and insight, and that is/are significantly endangering to self or others (property destruction; repetitive fire setting or violence toward animals.)

c. Indication of consistent deficits in ability to care for self and/or use environment for safety.

d. Recent pattern of excessive substance use resulting in clearly harmful behaviors with no demonstrated ability of child/adolescent or family to restrict use.

e. Clear and persistent inability, given developmental abilities, to maintain physical safety and/or use environment for safety.

Note: A rating of serious risk of harm requires care at level 5 (non-secure, 24-hour services with psychiatric monitoring), independent of other dimensions.

5. EXTREME RISK OF HARM

a. Current suicidal or homicidal behavior or such intentions with a plan and available means to carry out this behavior;

    i. Without expressed ambivalence or significant barriers to doing so, or

    ii. With a history of serious past attempts that are not of a chronic, impulsive, or consistent nature, or

    iii. In presence of command hallucinations or delusions that threaten to override usual impulse control.

b. Indication or report of repeated behavior, including physical or sexual aggression, that is clearly injurious to self or others (e.g., fire setting with intent of serious property destruction or harm to others or self, planned violence and/or group violence with other perpetrators) with history, plan, or intent, and no insight and judgment (forcible and violent, repetitive sexual acts against others).

c. Relentlessly engaging in acutely self endangering behaviors.

d. A pattern of nearly constant and uncontrolled use of alcohol or other drugs, resulting in behavior that is clearly endangering.

Note: A rating of extreme risk of harm requires care at level 6 (secure, 24-hour services with psychiatric management), independent of other dimensions.

DIMENSION II. FUNCTIONAL STATUS

This dimension measures changes in the degree to which a child or adolescent is able to fulfill responsibilities and to interact with others, changes in vegetative status, (such as sleeping, eating habits activity level, or sexual interest), and capacity for self-care. Functioning may be compared against what would be expected for a given child or adolescent at a given developmental level, or may be compared to a baseline functional level for that individual. For the purposes of this dimension, only sources of impairment directly related to developmental, psychiatric, and/or substance use problems should be considered. While other types of disabilities may play a role in determining the support services required, they generally will not be considered in determining level of care placement in the behavioral treatment continuum. Functional deficits that are ongoing and may place a child or adolescent at risk of harm are rated on Dimension I. An example would be the failure of an autistic child to understand the risk of safety when crossing a busy intersection. Clinicians also need to be aware that psychosocial functioning may be under-estimated in the context of low socioeconomic status or different expectations about functioning for children and adolescents of culturally distinct backgrounds.

1. MINIMAL FUNCTIONAL IMPAIRMENT

a. Consistent functioning appropriate to age and developmental level in school behavior and/or academic achievement, relationships with peers, adults, and family, and self-care/hygiene/control of bodily functions.

b. No more than transient impairment in functioning following exposure to an identifiable stressor with consistent and normative vegetative status.

2. MILD FUNCTIONAL IMPAIRMENT

a. Evidence of minor deterioration, or episodic failure to achieve expected levels of functioning, in relationships with peers, adults, and/or family (e.g., defiance, provocative behavior, lying/cheating/not sharing, or avoidance/lack of follow through); school behavior and/or academic achievement (difficulty turning in homework, occasional attendance problems), or biologic functions (feeding or elimination problems) but with adequate functioning in at least some areas and/or ability to respond to redirection/intervention.

b. Sporadic episodes during which some aspects of self-care/hygiene/control of bodily functions are compromised.

c. Demonstrates significant improvement in function following a period of deterioration.

3. MODERATE FUNCTIONAL IMPAIRMENT

a. Conflicted, withdrawn, or otherwise troubled in relationships with peers, adults, and/or family, but without episodes of physical aggression.
b. Self-care/hygiene deteriorates below usual or expected standards on a frequent basis.
c. Significant disturbances in vegetative activities, (such as sleeping, eating habits, activity level, or sexual interest), that do not pose a serious threat to health.
d. School behavior has deteriorated to the point that in-school suspension has occurred and the child is at risk for placement in an alternative school or expulsion due to their disruptive behavior. Absenteeism may be frequent. The child is at risk for repeating their grade.
e. Chronic and/or variably severe deficits in interpersonal relationships, ability to engage in socially constructive activities, and ability to maintain responsibilities.
f. Recent gains and/or stabilization in functioning have been achieved while participating in treatment in a structured, protected, and/or enriched setting.

4. SERIOUS FUNCTIONAL IMPAIRMENT

a. Serious deterioration of interpersonal interactions with consistently conflictual or otherwise disrupted relations with others, which may include impulsive or abusive behaviors.
b. Significant withdrawal and avoidance of almost all social interaction.
c. Consistent failure to achieve self-care/hygiene at levels appropriate to age and/or developmental level.
d. Serious disturbances in vegetative status, such as weight change, disrupted sleep or fatigue, and feeding or elimination, which threaten physical functioning.
e. Inability to perform adequately even in a specialized school setting due to disruptive or aggressive behavior. School attendance may be sporadic. The child or adolescent has multiple academic failures.

Note: A rating of serious functional impairment requires care at level 5 (non-secure, 24-hour services with psychiatric monitoring), independent of other dimensions.

5. SEVERE FUNCTIONAL IMPAIRMENT

a. Extreme deterioration in interactions with peers, adults, and/or family that may include chaotic communication or assaultive behaviors with little or no provocation, minimal control over impulses that may result in abusive behaviors.
b. Complete withdrawal from all social interactions.
c. Complete neglect of and inability to attend to self-care/hygiene/control of biological functions with associated impairment in physical status.
d. Extreme disruption in vegetative function causing serious comprise of health and well being.

e. Nearly complete inability to maintain any appropriate school behavior and/or academic achievement given age and developmental level.

Note: A rating of severe functional impairment requires care at level 6 (secure, 24-hour services with psychiatric management), independent of other dimensions. The only exception to this is if the sum of IVA & IV B = 2, indicating both a minimally stressful and a highly supportive recovering environment.

DIMENSION III. CO-MORBIDITY: DEVELOPMENTAL, MEDICAL, SUBSTANCE USE, AND PSYCHIATRIC

This dimension measures the coexistence of disorders across four domains (developmental medical, substance use, and psychiatric); but does not consider co-occurring disturbances within each domain. Coexisting disorders across domains may prolong the course of illness, or necessitate the use of more intensive or restrictive, or additional, services. Physiologic withdrawal states related to substance use should be considered medical co-morbidity for scoring purposes. Clinicians must be alert to the under-recognition of co-morbidity in children from lower socioeconomic backgrounds and culturally distinct backgrounds that are underserved.

NOTE: If a child or adolescent has more than one disorder in the same domain (e.g., two medical, developmental, substance use, or psychiatric disorders), the second does not count as "co-morbidity" for purposes of scoring on CALOCUS. For example, two medical disorders, such as diabetes and asthma or two psychiatric disorders, such as attention deficit hyperactivity disorder and major depressive disorder, are not counted as additional co-morbidity for the purposes of scoring CALOCUS.

1. NO CO-MORBIDITY

a. No evidence of medical illness, substance abuse, developmental disability, or psychiatric disturbances apart from the presenting problem.

b. Past medical, substance use, developmental, or psychiatric conditions are stable and pose no threat to the child or adolescent's current functioning or presenting problem.

2. MINOR CO-MORBIDITY

a. Minimal developmental delay or disorder is present that has no impact on the presenting problem and for which the child or adolescent has achieved satisfactory adaptation and/or compensation.

b. Self-limited medical problems are present that are not immediately threatening or debilitating and that have no impact on the presenting problem and are not affected by it.

c. Occasional, self-limited episodes of substance use are present that show no pattern of escalation, with no indication of adverse effect on functioning or the presenting problem.

d. Transient, occasional, stress-related psychiatric symptoms are present that have no discernable impact on the presenting problem.

3. SIGNIFICANT CO-MORBIDITY

a. Developmental disability is present that may adversely affect the presenting problem, and/or may require significant augmentation or alteration of treatment for the presenting problem or co-morbid condition, or adversely affects the presenting problem.

b. Medical conditions are present requiring significant medical monitoring (e.g., diabetes or asthma).

c. Medical conditions are present that may adversely affect, or be adversely affected by, the presenting problem.

d. Substance abuse is present, with significant adverse effect on functioning and the presenting problem.

e. Recent substance use that has significant impact on the presenting problem and that has been arrested due to use of a highly structured or protected setting or through other external means.

f. Psychiatric signs and symptoms are present and persist in the absence of stress, are moderately debilitating, and adversely affect the presenting problem.

4. MAJOR CO-MORBIDITY

a. Medical conditions are present or have a high likelihood of developing that may require intensive, although not constant, medical monitoring (e.g., insulin-dependent diabetes, hemophilia).

b. Medical conditions are present that will adversely affect, or be affected by, the presenting disorder.

c. Uncontrolled substance use is present that poses a serious threat to health if unabated and impedes recovery from the presenting problem.

d. Developmental delay or disorder is present that will adversely affect the course, treatment, or outcome of the presenting disorder.

e. Psychiatric symptoms are present that clearly impair functioning, persist in the absence of stressors, and seriously impair recovery from the presenting problem.

Note: A rating of major co-morbidity requires care at a level of 5 (non-secure, 24-hours services with psychiatric monitoring), independent of other dimensions. The only exception to this is if the sum of IVA & IV B = 2, indicating both a minimally stressful and a highly supportive recovering environment.

5. SEVERE CO-MORBIDITY

a. Significant medical condition is present that is poorly controlled and/or potentially life threatening in the absence of close medical management (e.g., severe alcohol withdrawal, uncontrolled diabetes mellitus, complicated pregnancy, severe liver disease, debilitating cardiovascular disease).

b. Medical condition acutely or chronically worsens or is worsened by the presenting problem.

c. Substance dependence is present, with inability to control use, intense withdrawal symptoms and extreme negative impact on the presenting disorder.
d. Developmental disorder is present that seriously complicates, or is seriously compromised by, the presenting disorder.
e. Acute or severe psychiatric symptoms are present that seriously impair functioning, and/or prevent voluntary participation in treatment for the presenting problem, or otherwise prevent recovery from the presenting problem.

Note: A rating of severe co-morbidity requires care at level 6 (secure, 24-hour services with psychiatric management), independent of other dimensions.

DIMENSION IV. RECOVERY ENVIRONMENT

This dimension considers factors in the environment that may contribute to the onset or maintenance of the primary disorder, and factors that may support a child or adolescent's efforts to achieve or maintain recovery. Supportive elements in the environment include, first and foremost, the presence of stable, supportive, and ongoing relationships with family (biological or adoptive) members. Other important supportive factors include the availability of adequate housing and material resources, stable and supportive relationships with friends, employers or teachers, clergy, professionals, and other community members. Clinicians must be alert to underestimation of family, cultural, and community strengths, where such strengths/resources may not be evident or may not be readily mobilized. Stressful circumstances may include interpersonal conflict or trauma, life transitions, losses, worries relating to health and safety, and difficulty in maintaining role responsibilities.

Because children and adolescents are more dependent on, and exert less control over, their environment than adults, in the CALOCUS, the recovery environment encompasses the family milieu, as well as the school, medical, social services, juvenile justice, and other components in which the child or adolescent may receive services or be involved on an ongoing basis. Two sub-scales are used to measure this dimension: Environmental Stress and Environmental Support. These two sub-scales are designed to balance the relative contributions of these factors.

Environmental Stress

1. MINIMALLY STRESSFUL ENVIRONMENT

a. Absence of significant or enduring difficulties in environment and life circumstances are stable.
b. Absence of recent transitions or losses of consequence (e.g., no change in school, residence, or marital status of parents, or no birth/death of family member).
c. Material needs are met without significant cause for concern that they may diminish in the near future, with no significant threats to safety or health.

d. Living environment is conducive to normative growth, development, and recovery.
e. Role expectations are normative and congruent with child or adolescent’s age, capacities and/or developmental level.

2. MILDLY STRESSFUL ENVIRONMENT

a. Significant normative transition requiring adjustment, such as change in household members, or new school or teacher.
b. Minor interpersonal loss or conflict, such as peer relationship ending due to change in residence or school, or illness or death of distant extended family member that has moderate effect on child and family.
c. Transient but significant illness or injury (e.g., pneumonia, broken bone).
d. Somewhat inadequate material resources or threat of loss of resources due to parental underemployment, separation, or other factor.
e. Expectations for performance at home or school that create discomfort.
f. Potential for exposure to substance use exists.

3. MODERATELY STRESSFUL ENVIRONMENT

a. Disruption of family/social milieu (e.g., move to significantly different living situation, absence or addition of parent or other primary care taker, serious legal or school difficulties, serious drop in capacity of parent or usual primary care taker due to physical, psychiatric, substance abuse, or other problem with expectation of return to previous functioning).
b. Interpersonal or material loss that has significant impact on child and family.
c. Serious illness or injury for prolonged period, unremitting pain, or other disabling condition.
d. Danger or threat in neighborhood or community, or sustained harassment by peers or others.
e. Exposure to substance abuse and its effects.
f. Role expectations that exceed child or adolescent’s capacity, given his/her age, status, and developmental level.

4. HIGHLY STRESSFUL ENVIRONMENT

a. Serious disruption of family or social milieu due to illness, death, divorce, or separation of parent and child or adolescent; severe conflict; torment and/or physical/sexual abuse or maltreatment.
b. Threat of severe disruption in life circumstances, including threat of imminent incarceration, lack of permanent residence, or immersion in alien and hostile culture.
c. Inability to meet needs for physical and/or material well-being.
d. Exposure to endangering, criminal activities in family and/or neighborhood.
e. Difficulty avoiding substance use and its effects.

5. EXTREMELY STRESSFUL ENVIRONMENT

a. Traumatic or enduring and highly disturbing circumstances, such as 1) violence, sexual abuse or illegal activity in the home or community, 2) the child or adolescent is witness to or a victim of a natural disaster, 3) the sudden or unexpected death of a loved one, 4) unexpected or unwanted pregnancy.
b. Political or racial persecution, immigration, social isolation, language barriers, and/or illegal alien status.
c. Incarceration, foster home placement or re-placement, inadequate residence, and/or extreme poverty or constant threat of such.
d. Severe pain, injury, or disability, or imminent threat of death due to severe illness or injury.

<u>Environmental Support</u>

1. HIGHLY SUPPORTIVE ENVIRONMENT

a. Family and ordinary community resources are adequate to address child’s developmental and material needs.
b. Continuity of active, engaged primary care takers, with a warm, caring relationship with at least one primary care taker.

2. SUPPORTIVE ENVIRONMENT

a. Continuity of family or primary care takers is only occasionally disrupted, and/or relationships with family or primary care takers are only occasionally inconsistent.
b. Family/primary care-takers are willing and able to participate in treatment if requested to do so and have capacity to effect needed changes.
c. Special needs are addressed through successful involvement in systems of care (e.g., low level special education, tutoring, speech therapy.)
d. Community resources are sufficient to address child’s developmental and material needs.

3. LIMITED SUPPORT IN ENVIRONMENT

a. Family has limited ability to respond appropriately to child’s developmental needs and/or problems, or is ambivalent toward meeting these needs or addressing these problems.
b. Community resources only partially compensate for unmet material and emotional needs and/or child or adolescent has limited or inconsistent access to network.
c. Family or primary care-takers demonstrate only partial ability to make necessary changes during treatment.

4. MINIMALLY SUPPORTIVE ENVIRONMENT

a. Family or primary care taker is seriously limited in ability to provide for the child's developmental, material, and emotional needs.

b. Few community supports and/or serious limitations in access to sources of support so that material, health, and/or emotional needs are mostly unmet.

c. Family and other primary care takers display limited ability to participate in treatment and/or service plan (e.g., unwilling, inaccessible, cultural dissonance).

5. NO SUPPORT IN THE ENVIRONMENT

a. Family and/or other primary care takers are completely unable to meet the child's developmental, material, and/or emotional needs.

b. Community has deteriorated so that it is unsafe and/or hostile to the needs of children and adolescents for education, recreation, constructive peer relations, and mentoring from unrelated adults.

c. Lack of liaison and cooperation between child-servicing agencies.

d. Inability of family or other primary care takers to make changes or participate in treatment.

e. Lack of even minimal attachment to benevolent other, or multiple attachments to abusive, violent, and/or threatening others.

DIMENSION V. RESILIENCY AND TREATMENT HISTORY

This dimension records that a child or adolescent's ability to self-correct when there are disruptions in the environment. This includes the ability to use the environment as well as the child/adolescent's own internal resources. This judgment can be made by considering how well the child or adolescent has responded to the treatment in the past, but consideration should also be given to responses to stressor and life changes.

For children/adolescents who have faced major life changes and respond adaptively, the score will be low. For children/adolescents who are sensitive to minor changes such as schedule disruptions, the score will be higher. Most children in the autistic spectrum struggle with particular sensitivities that leave then much less flexible to manage the minor bumps of life.

With regard to treatment, children may respond well to some treatment situations and poorly to others. The treatment response in some cases may not be related to level of intensity, but rather to the characteristics, attractiveness, and/or cultural competency of the treatment provided. However, children and adolescents rarely have long histories of prior treatment upon which to evaluate resiliency, thus responses to stressors and life changes with no professional involvement should be considered as well.

Most recent experiences in treatment or care take precedence over more remote experiences in determining the score. For younger children who may not have extensive involvement in any treatment, responses to developmental challenges without professional involvement may be as indicative of resiliency as treatment history.

Recovery for children and adolescents is defined not only as a period of stability and control of problems, but also as a continuation or resumption of progress toward an expected developmental level for a given child or adolescent.

1. FULL RESILIENCY AND/OR RESPONSE TO TREATMENT

a. Child has demonstrated significant and consistent capacity to maintain development in the face of normal challenges, or to readily resume normal development following extraordinary challenges**.**

b. Prior experience indicates that efforts in most types of treatment have been helpful in controlling the presenting problem in a relatively short period of time.

c. There has been successful management of extended recovery with few and limited periods of relapse even in unstructured environments or without frequent treatment.

d. Able to transition successfully and accept changes in routing without support; optimal flexibility.

2. SIGNIFICANT RESILIENCY AND/OR RESPONSE TO TREATMENT

a. Child demonstrated average ability to deal with stressors and maintain developmental progress.

b. Previous experience in treatment has been successful in controlling symptoms but more lengthy treatment is required.

c. Significant ability to manage recovery has been demonstrated for extended periods, but has required structured settings or ongoing care and/or peer support.

d. Recovery has been managed for short periods of time with limited support or structure.

e. Able to transition successfully and accept changes in routine with minimal support.

3. MODERATE OR EQUIVOCAL RESILIENCY AND/OR RESPONSE TO TREATMENT

a. Child has demonstrated an inconsistent or equivocal capacity to deal with stressors and maintain normal development.

b. Previous experience in treatment at low level of intensity has not been successful in relief of symptoms or optimal control of symptoms.

c. Recovery has been maintained for moderate periods of time, but only with strong professional or peer support or in structured settings.

d. Has demonstrated limited ability to follow through with treatment recommendations.

e. Developmental pressures and life changes have created temporary stress.
f. Able to transition successfully and accept change in routine most of the time with a moderate intensity of support.

4. POOR RESILIENCY AND/OR RESPONSE TO TREATMENT

a. Child has demonstrated frequent evidence of innate vulnerability under stress and difficulty resuming progress toward expected developmental level.
b. Previous treatment has not achieved complete remission of symptoms or optimal control of symptoms even with intensive and/or repeated exposure to treatment
c. Attempts to maintain whatever gains that can be attained in intensive treatment have limited success, even for limited time periods or in structured settings.
d. Developmental pressures and life changes have created episodes of turmoil or sustained distress.
e. Transitions with changes in routine are difficult even with a high degree of support.

5. NEGLIGIBLE RESILIENCY AND/OR RESPONSE TO TREATMENT

a. Child has demonstrated significant and consistent evidence of innate vulnerability under stress, with lack of any resumption of progress toward expected developmental level.
b. Past response to treatment has been quite minimal, even when treated at high levels of care for extended periods of time.
c. Symptoms are persistent and functional ability shows no significant improvement despite this treatment exposure.
d. Developmental pressures and life changes have created sustained turmoil and/or developmental regression**.**
e. Unable to transition or accept changes in routine successfully despite intensive support.

DIMENSION VI. TREATMENT ACCEPTANCE AND ENGAGEMENT

The Acceptance and Engagement dimension measures both the child or adolescent’s, as well as the parent and/or primary care taker’s, acceptance of and engagement in treatment. For the purpose of this document, treatment includes an array of therapeutic interventions to address the child’s, adolescent’s, and parent and/or primary care taker’s needs. The sub-scales reflect the importance of the parent and/or primary care taker’s willingness and ability to participate pro-actively in the intake, planning, implementation, and maintenance phases of treatment. It also is critical to note that a parent or primary care taker’s cultural background influences understanding and acceptance of a problem, as well as choice of care options for solving it. Care should be taken to note barriers to proper assessment and treatment based on cultural differences between the youth and parent and/or primary care taker and the clinician. If needed, consultation with or addition of culturally congruent staff may eliminate cultural barriers to effective assessment and treatment**.**

Only the highest of the two sub-scale scores (child or adolescent vs. parent and/or primary care taker) is added into the composite score. In addition, if a child or adolescent is emancipated, the parent and/or primary care taker sub-scale is not scored.

Child or adolescent acceptance and engagement

The child or adolescent sub-scale measures the ability of the child or adolescent, within developmental constraints, to form a positive therapeutic relationship with people in components of the system providing treatment, to define the presenting problems, to accept his or her role in the development and perpetuation of the primary problem, and to accept his or her role in the treatment planning and treatment process, and to actively cooperate in treatment.

1. OPTIMAL

a. Quickly forms a trusting and respectful positive therapeutic relationship with clinicians and other care providers.
b. Able to define problem(s) and accepts others' definition of the problem(s), and consequences.
c. Accepts age-appropriate responsibility for behavior that causes and/or exacerbates primary problem.
d. Actively participates in treatment planning and cooperates with treatment.

2. CONSTRUCTIVE

a. Able to develop a trusting, positive relationship with clinicians and other care providers.
b. Unable to define the problem, but accepts others' definition of the problem and its consequences.
c. Accepts limited age-appropriate responsibility for behavior.
d. Passively cooperates in treatment planning and treatment.

3. OBSTRUCTIVE

a. Ambivalent, avoidant, or distrustful relationship with clinicians and other care providers.
b. Acknowledges existence of problem, but resists accepting even limited age-appropriate responsibility for development, perpetuation, or consequences of the problem.
c. Minimizes or rationalizes problem behaviors and consequences.
d. Unable to accept others' definition of the problem and its consequences.
e. Frequently misses or is late for treatment appointments and/or is noncompliant with treatment, including medication and homework assignments.

4. ADVERSARIAL

a. Actively hostile relationship with clinicians and other care providers.
b. Accepts no age-appropriate responsibility role in development, perpetuation, or consequences of the problem.
c. Actively, frequently disrupts assessment and treatment.

5. INACCESSIBLE

a. Unable to form therapeutic working relationship with clinicians or other care providers due to severe withdrawal, psychosis, or other profound disturbance in relatedness.
b. Unaware of problem or its consequences.
c. Unable to communicate with clinician due to severe cognitive delay or speech/language impairment.

Parent and/or primary care taker acceptance and engagement

The parent and/or primary care taker sub-scale measures the ability of the parents or other primary care taker to form a positive therapeutic relationship, to engage with the clinician in defining the presenting problem, to explore their role as it impacts on the primary problem, and to take an active role in the treatment planning process.

1. OPTIMAL

a. Quickly and actively engages in a trusting and positive relationship with clinician and other service providers.
b. Sensitive and aware of the child or adolescent’s needs and strengths as they pertain to the presenting problem.
c. Sensitive and aware of the child or adolescent’s problems and how they can contribute to their child’s recovery.
d. Active and enthusiastic in participating in assessment and treatment.

2. CONSTRUCTIVE

a. Develops positive therapeutic relationship with clinicians and other primary care takers.
b. Explores the problem and accept others’ definition of the problem.
c. Works collaboratively with clinicians and other primary care takers in development of treatment plan.
d. Cooperates with treatment plan, with behavior change and good follow-through on interventions, including medications and homework assignments.

3. OBSTRUCTIVE

a. Inconsistent and/or avoidant relationship with clinicians and other care providers.
b. Defines problem, but has difficulty creating a shared definition of development, perpetuation, or consequences of the problem.
c. Unable to collaborate in development of treatment plan.
d. Unable to participate consistently in treatment, with inconsistent follow-through.

4. ADVERSARIAL

a. Contentious and/or hostile relationship with clinician and other care providers.
b. Unable to reach shared definition of the development, perpetuation, or consequences of problem.
c. Able to accept child or adolescent’s need to change, but unable or unwilling to consider the need for any change in other family members.
d. Engages in behaviors that are inconsistent with the treatment plan.

5. INACCESSIBLE

a. No awareness of problem.
b. Not physically available.
c. Refuses to accept child or adolescent, or other family members’ need to change.
d. Unable to form relationship with clinician or other care provider due to significant cognitive difficulties, psychosis, intoxication, or major mental illness or impairment.

PART VII

CALOCUS LEVELS OF CARE UTILIZATION CRITERIA

The levels of care described in CALOCUS represent a graded continuum of treatment responses designed for use with the CALOCUS dimensional assessments and composite score. At each level of service, a broad range of programming options, allowing for variations in practice patterns and resources among communities, is described. The continuum encompasses traditional services, as well as newer forms of care, such as those in programs inspired by CASSP Principles. Each level of care subsumes the services at every level of care below it. (See Appendix A)

The system of care described in this document includes, but is not limited to, services provided by mental health, social services, juvenile justice, health, education, substance abuse, vocational, developmental disability, and recreational agencies, as well as other programs with unique funding streams and overlapping functions.

Children and adolescents with multiple complex problems usually require the services of multiple components within the system of care. In these cases, integrating care is essential. This document advocates for the use of “child and family” teams, composed of family members, supportive members of the family’s community, and service providers from a spectrum of components in the system of care. These teams give families a role in directing care by bringing together with the family all those with the potential to assist the child or adolescent. These teams may be given various names in different localities, but should include representatives from as many components as necessary from the local system of care. Optimally, Wraparound service principles form the basis for sharing resources and blending services in an individualized service plan for a child or adolescent and family. (VanDenBerg & Grealish, 1996)

The CALOCUS levels of care also provide rough estimates of the staff time involved in providing services at different levels. The actual service time required by each child or adolescent and family is highly variable. However, in the aggregate, service time estimates may be of value to program planners.

Level of Care Transitions

The service needs of a child or adolescent and family in treatment are likely to change as treatment progresses. For example, the needed level of care may drop below the provided level of care, and/or the youth’s status may indicate that care may be better provided in either traditional or wraparound configurations. Level of care transitions need not occur sequentially. It may be desirable for a child or adolescent to remain at a higher level of care to preclude relapse and unnecessary disruption of care, and to promote lasting stability.

A child or adolescent may make the transition to another level of care when, after an adequate period of stabilization and based on the family's and treatment team's clinical judgment, the child or adolescent meets the criteria for the other level of care. Re-administration of CALOCUS can help clinicians determine a child or adolescent's readiness for another level of care, and can help identify the foci of subsequent treatment. A flexible Individualized Service (Wraparound) Plan can facilitate seamless transitions, with the same clinicians and staff providing care at multiple service levels whenever possible.

Multidisciplinary Treatment Teams

This document supports the view that many types of agencies and professionals, when providing services within their scope of practice, are integral to the successful treatment of children and adolescents. Programs should be licensed to offer the requisite services for the levels of care provided and should have the staff and program capabilities necessary to provide those services. In addition, while this document does not specify requirements for the levels of clinician training, clinicians should be highly trained, with applicable licensure and/or certification (e.g., child and adolescent psychiatrists, pediatricians, family doctors, child and adolescent psychologists, marriage and family therapists, clinical social workers, professional counselors, psychosocial nurses, independent nurse practitioners, substance abuse clinicians, and/or pastoral counselors), and with training specifically in child, adolescent, and family treatment. Clinicians should provide only care that is within their scope of practice. Non-credentialed staff or paraprofessionals providing therapeutic services as part of the treatment plan should receive supervision by licensed practitioners with training and expertise in child, adolescent, and family treatment. In addition, family members and/or members of the child or adolescent's community may provide an array of basic (non-clinical) services.

Nothing in this document precludes a child and adolescent psychiatrist from being the primary clinician for both psychotherapeutic and medication services. In addition, at all levels of care including crisis intervention, back-up coverage by child and adolescent psychiatrists is an essential element of the service system.

The levels of care are described along a continuum of restrictiveness and intensity. No recommendations in this document supersede Federal, State, or local licensing or operating requirements for agencies, programs, or facilities.

Even with conscientious assessment and scoring of CALOCUS, critical differences among children and adolescents and their families may demand an Individualized Service Plan encompassing services at more than one level of care. Measured and informed clinical judgment and service planning with the family take precedence. Reasons for deviation from the level of care recommended by the instrument should be documented by the clinician in the case record.

LEVEL 0. BASIC SERVICES FOR PREVENTION AND MAINTENANCE

Basic Services are designed to prevent the onset of illness and/or to limit the magnitude of morbidity associated with individual family or social risk factors, developmental delays, and existing emotional disorders in various stages of improvement or remission. Services may be developed for individual or community application and are generally offered in a variety of community settings. Prevention and community support may be provided through traditional means, as well as through print and broadcast media (e.g., public service announcements and/or targeted mailings).

1. **CLINICAL SERVICES**. It is imperative that Basic Services in all settings provide screening for mental health and developmental disorders. Comprehensive, multidisciplinary assessments for children and adolescents who, after initial screening, emerge with multi-faceted problems should be readily available. Expert evaluations should be readily available. Linkage with mental health and substance abuse services (e.g., scheduling intakes) should be provided to families identified in screening assessment. Consultative services by mental health clinicians should be effectively integrated into all prevention and support functions. Medical care from either a pediatrician or family physician should be available in the community.

2. **SUPPORT SERVICES**. Basic Services should be available to children, adolescents, and families through active collaboration with religious and culturally distinct community groups, and in a variety of community settings, including schools and adult education centers, day care and recreational/social facilities, vocational and social services agencies, and medical facilities. Community volunteers and agency staff should be trained to provide prevention services.

3. **CRISIS STABILIZATION AND PREVENTION SERVICES**. 24-hour crisis services should be publicized, accessible, and fully integrated into Basic Services in all community settings. Crisis services should include emergency evaluation, brief intervention, and disposition. Child and adolescent psychiatrists and/or psychosocial nurses should be available for direct contact and consultation on a 24-hour basis. Additional crisis intervention and stabilization efforts should include outreach to vulnerable populations, such as homeless families, as well as intervention with victims of trauma and disaster.

4. **CARE ENVIRONMENT**. Prevention and community support activities may occur in many settings, from a child or adolescent’s home, to schools, churches, medical and recreational facilities, or traditional mental health settings. Facilities should address ease of access (e.g., proximity to public transportation, schools, social services agencies); adequate design (e.g., accommodation for families with disabled or special needs members, play areas for children); cultural competence (e.g., ambiance that is welcoming to families of multiple ethnic and socio-economic groups) and specific service needs (e.g., supervised day care so that parents can participate, staff or consultants for non-English speaking and/or hearing-impaired attendees).

Placement Criteria

All children, adolescents, and families should receive Basic Services.

LEVEL ONE. RECOVERY MAINTENANCE AND HEALTH MANAGEMENT

Level One services typically provide follow-up care to mobilize family strengths and reinforce linkages to natural supports. Those appropriate for Level One services either may be substantially recovered from an emotional disorder or other problem, or, their problems are sufficiently manageable within their families, such that the problems are no longer threatening to expected growth and development.

1. **CLINICAL SERVICES**. While clinical services at Level One may be non-intensive and/or episodic, they should be readily accessible so that families may use services to avert the need for higher levels of care. Clinical consultation and assessment should be culturally competent and should consider the extent to which families can mobilize natural supports in the community. Time-limited professional interventions, as well as ongoing case management and follow-up medication services may be provided as part of Level One clinical services. Medical care from either a pediatrician or family physician should be available in the community.

2. **SUPPORT SERVICES**. Level One support services consist mainly of natural supports in the community, including extended family, family friends, and neighbors; church and recreational programs; 12-step and other self-help programs; school-sponsored programs; and employment. Families appropriate to this level of care have the capacity to access these community resources as needed without professional intervention.

3. **CRISIS STABILIZATION AND PREVENTION SERVICES**. 24-hour crisis services should be available to children, adolescents, and families at this level of care. Crisis intervention staff should consult with primary clinicians. Crises services should include emergency evaluation, brief intervention, and outreach services. Direct services and/or consultation from child and adolescent psychiatrists and/or psychosocial nurses should be available in each community on a 24-hour basis.

4. **CARE ENVIRONMENT**. Recovery maintenance and health management services may be provided in a traditional mental health setting (e.g., office or clinic), or in facilities of other components in the system of care. Facilities should address ease of access (e.g., proximity to public transportation, schools, social services agencies, etc.); adequate design (e.g., accommodation for families with disabled or special needs members, play areas for children); and specific service needs (e.g., supervised day care so that parents can participate, resources for non-English speaking and/or hearing-impaired attendees, etc.). For adolescents, facilities should facilitate a mix of adult supervision with privacy for peer group activities. The facilities should be safe and comfortable for children and adolescents at all developmental levels, as well as their families.

Placement Criteria

Children and adolescents with composite scores in the range of 10-13 generally may be stepped down to or receive Level One services. Placement at Level One usually indicates that the child or adolescent has successfully completed treatment at a more intensive level of care and primarily needs assistance in maintaining gains realized in the past, or does not need services that are more intensive or restrictive than those offered at Level One. Placement determinations should be made by culturally competent staff or with consultation by culturally competent clinical specialists.

COMPOSITE SCORE (Level 1)

10 - 13

LEVEL TWO. OUTPATIENT SERVICES

This level of care includes mental health services for children, adolescents, and families living in the community. Level Two services frequently are provided in mental health clinics or clinicians offices. Services also may be provided within a juvenile justice facility, school, social service agency, or other community setting. Children and adolescents appropriate for Level Two services generally do not require the extensive systems coordination and case management of the higher levels of care, since their families are able to use community supports with minimal assistance. The degree of individualization of services at Level Two also may not be as extensive as at higher levels of care, but continuity of at least one treatment relationship often is essential to maintenance at optimal levels of functioning. Clinicians offering follow-up at Level Two must provide continuing individual and family assessment with the capacity to add needed services as necessary.

1. **CLINICAL SERVICES**. Clinical services for outpatient care consist primarily of individual, group, and family therapies with active family participation in treatment planning and implementation. Treatment intensity ranges from one hour every other week, to two hours per week, unless the primary service consists of monthly medication management. Psychiatric and cultural competency consultation to the treatment team should occur regularly. Medication, evaluation and management may be an essential element. Child and adolescent psychiatrists and psycho-social nurses should be part of the primary treatment team for medication services and 24-hour back-up. Selected adjunct interventions (e.g., occupational, recreational, vocational, and/or expressive therapies) should be made available as indicated. Medical care from either a pediatrician or family physician should be available in the community.

2. **SUPPORT SERVICES**. Support services for children, adolescents, and families are most often natural supports within the community, including extended family, friends, and neighbors; church and recreational programs; 12-step and other self-help groups; school-sponsored programs; and employment. These families should have the capacity to access other elements of the system of care without substantial professional help, but may need referral and minimal case management. Families also may need support for financial, housing, or child-care problems, or for accessing vocational and education services. These should be included as part of the child or adolescent's individualized service plan.

3. **CRISIS STABILIZATION AND PREVENTION SERVICES**. 24-hour crisis services should be accessible to children, adolescents, and families at this level of care. Furthermore, crisis services should be provided in collaboration with the family's other service providers. Crisis services should include emergency evaluation, brief intervention, and outreach services. Direct services and/or consultation from child and adolescent psychiatrists and psychosocial nurses should be available on a 24-hour basis.

4. **CARE ENVIRONMENT**. Outpatient services may be provided in a traditional mental health setting (e.g., office or clinic), in facilities of other components of the service system, or in other community settings. Facilities used for treatment should address ease of access (e.g., proximity to public transportation, schools, social services agencies, etc.); adequate design (e.g., accommodation for families with disabled or special needs members, play areas for children); and specific service needs (e.g., supervised day care so that parents can participate, resources for non-English speaking and/or hearing-impaired attendees, etc.). For adolescents, facilities should facilitate a mix of adult supervision with privacy for peer group activities. The facilities should be safe and comfortable for children and adolescents at all developmental levels, as well as their families.

Placement Criteria

Children and adolescents with a composite score in the range of 14-16 generally may begin treatment at, or be stepped down to, Level Two services. Placement at Level Two indicates that the child or adolescent does not need services that are more intensive/restrictive than those offered at Level Two, or has successfully completed treatment at a more intensive level of care and primarily needs assistance in maintaining gains realized in the past. Placement determinations should be made by culturally competent staff or with consultation by culturally competent specialists.

COMPOSITE SCORE (Level 2) 14 - 16

LEVEL THREE. INTENSIVE OUTPATIENT SERVICES

This level of care generally is appropriate for children and adolescents who need more intensive outpatient treatment and who are living either in their families with support, or in alternative families or group facilities in the community. The family's strengths allow many, but not all, of the child's needs to be met through natural supports. Treatment may be needed several times per week, with daily supervision provided by the family or facility staff. Services may be provided in a mental health clinic or clinician's office, but often are provided in other components of the system of care with mental health consultation. Service coordination is essential for maintaining the child or adolescent in the community at Level Three. Medical care from either a pediatrician or family physician should be available in the community.

1. **CLINICAL SERVICES**. Level Three services incorporate individual, group, and family therapy. Level Three services increasingly depend on the use of "child and family" teams as service coordination becomes more complex. Service intensity averages approximately three days per week. Psychiatric consultation to the treatment or "child and family" team should occur regularly. Medication management may be an essential part of treatment. Child and adolescent psychiatrists and psychosocial nurses are part of the treatment team providing medication services and 24-hour back-up. Selected adjunct interventions (e.g., occupational, recreational, vocational, and/or expressive therapies) may be used as indicated. In addition, referrals for clinical services for other family members may be needed. Transition planning for discharge to a lower level of care should be part of the services plan. Medical care from either a pediatrician or family physician should be available in the community.

2. **SUPPORT SERVICES**. Level Three support services include case management by a culturally competent primary clinician or case manager, or with cultural competency consultation as needed. Support services for these children, adolescents, and families should emphasize natural and culturally congruent supports within the community, such

as extended family, neighborhood, church groups, self-help groups and community employers. Families may have difficulty accessing elements of the system of care without professional help due to the complexity of their child or adolescent's problems. In addition, families may need support for financial, housing, child-care, vocational, or education services. These should be included as part of the child or adolescent's individualized service plan.

3. **CRISIS STABILIZATION AND PREVENTION SERVICES**. 24-hour crisis services, including child and adolescent psychiatric and nursing consultation and/or direct contact, should be available at this level of care. Crisis services should be accessible and, when provided, crisis team personnel should contact the family's primary service providers. Crisis services should include emergency evaluation, brief intervention, and outreach.

4. **CARE ENVIRONMENT**. Intensive outpatient services may be provided in a traditional mental health setting (e.g., office or clinic), in facilities of other components of the service system, or in other community settings. The site should have the capacity for short-term management of aggressive or other endangering behavior. Facilities should address ease of access (e.g., proximity to public transportation, schools, social services agencies, etc.); adequate design (e.g., accommodation for families with disabled or special needs members, play areas for children); and specific service needs (e.g., supervised day care so that parents can participate, resources for non-English speaking and/or hearing-impaired attendees, etc.). For adolescents, facilities should facilitate a mix of adult supervision with privacy for peer group activities. The facilities should be safe and comfortable for children and adolescents at all developmental levels, as well as their families.

Placement Criteria

Children and adolescents with scores in the range of 17-19 generally may begin treatment at, or be stepped down to, Level Three services. Placement at Level Three generally is excluded by a score of 4 or higher on any dimension. Placement at Level Three indicates that the child or adolescent either does not need more intensive or restrictive services, or has successfully completed treatment at a higher level of care and needs assistance in maintaining gains. Consideration for this level of care should include the age, size, and manageability of the child or adolescent, and the family and community resources available. Placement determinations should be made by culturally competent staff or in consultation with cultural competency specialists.

COMPOSITE SCORE (Level 3) 17 - 19

LEVEL FOUR. INTENSIVE INTEGRATED SERVICES WITHOUT 24-HOUR PSYCHIATRIC MONITORING

This level of care refers to services provided to children and adolescents capable of living in the community with support, either in their family, or in placements such as group homes, foster care, homeless or domestic violence shelters, or transitional housing. To be eligible for Level Four services, a child or adolescent's service needs must require the involvement of multiple components within the system of care. For example, an adolescent may require the services of a probation officer, a mental health clinician, a child and adolescent psychiatrist, and a special education teacher to be maintained in the community. These children and adolescents, therefore, need intensive, clinically informed case management to coordinate multi-system and multidisciplinary interventions. Optimally, an individualized service plan is developed by a "child and family" team. Services are delivered more frequently and for more extended periods than at lower levels of care. Services in this level of care include partial hospitalization, intensive day treatment, and home-based wraparound care. Level Four services also may be provided in schools, substance abuse programs, juvenile justice facilities, social services group care facilities, mental health facilities, or in the child or adolescent's home.

1. **CLINICAL SERVICES**. Clinical services at Level Four should be available at times that meet the needs of the family, including non-traditional periods (e.g., evenings and weekends). The frequency of direct contact and/or consultation by child and adolescent psychiatrists and psychosocial nurses should be determined in consultation with the primary clinician and the child and family team. Primary medical care should be accessible as an integrated part of the comprehensive array of services. Interventions may include individual, group, and family therapy, and may be organized into protocols such as occur in day treatment, or offered as part of a comprehensive wraparound plan. Services may be offered within any of the components of the system of care. Services should be designed for flexibility, as part of an Individualized Service Plan, and with emphasis on building on the strengths of the child or adolescent and family. Medical care from either a pediatrician or family physician should be available in the community.

2. **SUPPORT SERVICES**. Level Four case management services are provided to coordinate the multi-faceted service needs of the children and adolescents and their families at this level of care. Recreational activities, after-school employment, church programs, and other community activities may be integrated into the Individualized Service Plan to form a graded continuum of natural, clinical, and culturally congruent supports, with emphasis on natural supports when available. Families are likely to need support for financial, housing, child-care, vocational, and/or education services. These should be included as part of the child or adolescent's Individualized Service Plan.

Services should be family-centered, with the goals of either maintaining or reintegrating the child or adolescent in to the home and community.

3. **CRISIS STABILIZATION AND PREVENTION SERVICES**. At Level Four, children, adolescents, and families must have access to 24-hour emergency evaluation and brief intervention services that include direct contact and/or consultation by a child and adolescent psychiatrist or psychosocial nurse. Crisis services must be mobile and integrated into the care plan. Crisis services may be offered by a number of components in the system of care, although care should be taken to avoid service duplication. The goal of crisis services is to foster family strengths and prevent the need for admission to higher levels of care.

   At Level Four, respite care may be offered to families to provide relief from the demands of caring for the child or adolescent and as a “cooling off” mechanism during crises and while treatment plans are implemented.

   A Wraparound team’s capacity for managing a child or adolescent at Level Four is partially determined by their age, size, and developmental level, as well as the strengths and size of the team. An inability to manage risk of harm may be reflected in a higher composite score on CALOCUS, and justifies transfer to a more restrictive setting or intensification of the wraparound program to offer active medical monitoring or management.

4. **CARE ENVIRONMENT**. Level Four services may be provided in an outpatient clinic or hospital (e.g., partial or intensive day treatment), any component in the service system (e.g. public or private day school, juvenile detention center, group home), or in the home (e.g., home-based services). The facility must have the capacity for short-term management of aggressive or other endangering behavior. Transportation needs should be accommodated, both for staff to serve children and adolescents in community settings and to help children, adolescents, and families access services. When home-based treatment is provided, staff transportation needs should be addressed. To optimize family participation, Level Four facilities should be located as near as possible to the child or adolescent’s home. Facilities should incorporate ease of access (e.g., proximity to public transportation, schools, social services agencies); adequate design (e.g., accommodation for families with disabled or special needs members, play areas for children); and specific service needs (e.g., supervised day care so that parents can participate, resources for non-English speaking and/or hearing-impaired people). For adolescents, facilities should allow for a mix of adult supervision and privacy for peer group activities. The facilities should be safe and comfortable for children and adolescents at all developmental levels, as well as their families.

Placement Criteria

Children and adolescents with scores in the range of 20-22 generally may begin treatment at, or be stepped down to, Level Four services. Placement at Level Four indicates that the child or adolescent either does not need more intensive services, or has successfully completed treatment at a more intensive level and primarily needs assistance in maintaining gains. Consideration for this level of care should include the age, size, and manageability of the child or adolescent, and the family and community resources available. Placement determinations should be made by culturally competent staff or with consultation by culturally competent specialists.

COMPOSITE SCORE (Level 4) 20 - 22

LEVEL FIVE. NON-SECURE, 24-HOUR SERVICES WITH PSYCHIATRIC MONITORING

This level of care refers to treatment in which the essential element is the maintenance of a milieu in which the therapeutic needs of the child or adolescent and family can be addressed intensively. This level of care traditionally has been provided in non-hospital settings such as residential treatment facilities or therapeutic foster homes. Equivalent services have been provided in juvenile justice facilities and specialized residential schools, and could be provided in homeless and/or domestic violence shelters or other community settings. It also is possible to provide Level Five services in a child or adolescent’s home, if wraparound planning and resources can provide the needed service intensity in the less restrictive environment. Level Five services include development of a Wraparound program, initiated by the “child and family team” preparing them for the child or adolescent’s re-integration into their family and community and/or treatment in lower levels of care. Ideally, the step-down plan represents a modification of the comprehensive Level Five service plan, providing continuity of care and integrating the child or adolescent’s treatment experiences into the return to the community setting.

1. **CLINICAL SERVICES**. Programs for children or adolescents in residential settings, or with wraparound plans offering Level Five services in the community, comprise the core treatment at this level of care. The primary clinician should review the child or adolescent’s progress daily and debrief back-up staff as needed. Child and adolescent psychiatrists are integral members of the treatment team and, if not the primary mental health clinician, serve an important consultative or supervisory function, maintaining daily contact with the team and providing 24-hour psychiatric consultation. Medication management should be available. Treatment modalities may include individual, group, and family therapy, with substance abuse services, either as the primary treatment or as an element of a comprehensive program, available as indicated. Primary medical care should be an accessible integrated part of the comprehensive array of services. Non-credentialed child care staff who work in residential programs and who participate as part

of intensive Wraparound programs should be considered part of the clinical team, participate in treatment planning, be actively supervised and trained, and follow the treatment plan. Staff and programs should be culturally competent, with access to cultural competency consultation as needed. Treatment should be family-centered. The goal of treatment for children or adolescents in out-of-home placements should be a timely return to the family and community. Thus, transition planning should be considered in daily clinical review. Medical care from either a pediatrician or family physician should be available in the community.

2. **SUPPORT SERVICES**. Active case management is integral to care at Level Five regardless of which component of the system of care is the lead service provider. Children and adolescents in Level Five programs should receive adequate supervision for activities of daily living. Supervised off-campus passes or excursions into the community from a home-based wraparound program should be provided. Facility or program staff, supportive family members, and/or family friends identified by the “child and family” team may provide basic support services, including recreational, social, or educational activities, and, as needed, escort to substance abuse or self-help groups. Families may need help for problems with housing, child care, finances, and job or school problems. These services should be integrated into the child or adolescent’s individual service plan.

3. **CRISIS STABILIZATION AND PREVENTION SERVICES**. Children and adolescents at Level Five may require higher levels of care for brief periods to manage crises. Services may include seclusion and/or restraint interventions, as well as crisis medication, with supervision by a child and adolescent psychiatrist or other senior clinician within their scope of practice. The treatment team should address with the family the conditions under which seclusion and restraint or other behavioral interventions are initiated and terminated. These interventions should be used in accordance with the legal requirements of the jurisdiction and ethical professional practices.

   More restrictive care may be needed temporarily because the team cannot safely manage acute exacerbations in the child or adolescent’s risk of harm status or sudden deteriorations in functioning. Reevaluation using the dimension scales of CALOCUS may yield a composite score supporting admission level six. When more restrictive or intensive services are provided outside of the residential unit or wraparound plan, the staff of all involved service components should collaborate with the family to plan a timely return to lower levels of care. In addition, the treatment plan should be reviewed for adequacy in meeting the child or adolescent’s fluctuating needs.

4. **CARE ENVIRONMENT**. When care at level five is provided institutionally, living space must be provided that offers reasonable protection and safety given the developmental status of the child or adolescent. Physical barriers preventing easy egress from or entry to the facility may be used, but doors at Level Five facilities are not

regularly locked. Staffing and engagement are the primary methods of providing security both in facilities and in Wraparound plans. Staffing patterns should be adequate to accommodate episodes of aggressive and/or endangering behavior of moderate duration (e.g., sufficient staff should be available to both monitor a safe room for unlocked seclusion and maintain supervision of the other children or adolescents). Capacity for transporting residents off-campus for educational or recreational activities is a critical element of Level Five services.

Level Five facilities should be located as near as possible to the child or adolescent's home. In addition, facilities for Level Five activities should incorporate ease of access (e.g., proximity to public transportation, schools, social services agencies, etc.); adequate design (e.g., accommodation for families with disabled or special needs members, play areas for children); and specific service needs (e.g., supervised day care so that parents can participate, resources for non-English speaking and/or hearing-impaired people, etc.). Facilities should be safe and comfortable for children and adolescents at all developmental levels, as well as for their families.

Placement Criteria

Children and adolescents with scores in the range of 23-27 generally may begin treatment at, or may be transitioned into, Level Five services. Placement at Level Five indicates that the child or adolescent either does not need more intensive services, or has successfully completed treatment at a more intensive level and primarily needs assistance in maintaining gains. Consideration for Level Five services should include the age, size, and manageability of the child or adolescent, and the family and community resources available. Placement determinations should be made by culturally competent staff or with consultation by culturally competent specialists.

COMPOSITE SCORE (Level 5) 23 - 27

LEVEL SIX. SECURE, 24-HOUR SERVICES WITH PSYCHIATRIC MANAGEMENT

Level Six services are the most restrictive and often, but not necessarily, the most intensive in the level of care continuum. Traditionally, Level Six services have been provided in a secure facility such as a hospital or locked residential program. This level of care also may be provided through intensive application of mental health and medical services in a juvenile detention and/or educational facility, provided that these facilities are able to adhere to medical and psychiatric care standards needed at Level Six. Level Six services also may be provided in community settings, including a child or adolescent's home, if mental health and medical services are organized at the required intensity and security measures are adequate. Although high levels of restrictiveness are typically required for effective intervention at Level Six, every effort to reduce, as feasible, the duration and pervasiveness of restrictiveness is desirable to minimize its negative effects.

1. **CLINICAL SERVICES**. Every child or adolescent requiring Level Six services can be presumed to be in a crisis or near crisis state, and therefore, clinical services should reflect the highest level of service intensity and restrictiveness for the protection of the child or adolescent, the family, and the community. Clinical services must be comprehensive and relevant to the emergent and safety issues at hand. Children and adolescents at Level Six require monitoring and observation on a 24-hour basis. Treatment modalities may include individual, group and, intensive family therapy as well as medication management, and are aimed at managing the crisis, restoring previous levels of functioning, and decreasing risk of harm. Substance abuse treatment at Level Six may include social or medical detoxification. Occupational and recreational therapy may be helpful as indicated. The treatment plan must be family-centered and must address management of aggressive and/or suicidal or self-endangering behavior. Access to pediatric or family physician should be available in the community.

   Treatment at Level Six may be organized by a child and adolescent psychiatrist supervising the care provided by the multi- disciplinary treatment team. Child and adolescent psychiatric and nursing services should be available on a 24-hour basis. A member of the treatment team leadership (e.g., a child and adolescent psychiatrist, psychosocial nurse, or other senior clinician) should have daily contact with the child or adolescent. The child and adolescent psychiatrist should consult regularly with the family and the "child and family" team to assure integration of Level Six services with the care provided at previous levels of care. Review of the child or adolescent's status by the treatment team should occur daily, with the goal of transition planning for a rapid return to lower levels of care. Uncomplicated or specialized transition plans may be necessary, depending on the child or adolescent's or family's needs during step-down. All children and adolescents leaving Level Six services must have a well-defined crisis plan that anticipates and accommodates complications during transition to lower levels of care. Medical care from either a pediatrician or family physician should be available in the community.

2. **SUPPORT SERVICES**. All necessities of living and well-being must be provided for children and adolescents treated at Level Six. The children's legal, educational, recreational, vocational, and spiritual needs should be assessed according to individual needs and culture. Social and cultural factors must be considered in discharge planning. A “child and family” team should be created, if not already in place, mobilizing the strengths of the child or adolescent and family to provide support during the crisis and in aftercare. When capable, children and adolescents should be encouraged to participate in treatment planning, and should maintain activities of daily living, such as hygiene, grooming, and maintenance of their immediate environment. Families are likely to need support for financial, housing, child-care, vocational, and/or educational services. Case management for coordination of services provided after transition to lower care levels should begin while the child or adolescent receives Level Six services. Discharge planning should include integration of the child or adolescent into the home and community, and linkage with social services, education, juvenile justice, and recreational resources as needed. All support services should be described in the Individualized Service Plan.

3. **CRISIS STABILIZATION AND PREVENTION SERVICES**. At Level Six, crisis services involve rapid response to fluctuations in psychiatric and/or medical status. Crisis stabilization may include seclusion and/or restraint interventions as well as crisis medication, under the supervision of a child and adolescent psychiatrist or other professional within their scope of practice. The treatment team should address with the family the conditions under which seclusion and restraint interventions are initiated and terminated, and these interventions should be in accordance with legal requirements and ethical professional practices. Emergency medical services should be available on-site or in close proximity and all staff should have training in emergency protocols.

4. **CARE ENVIRONMENT**. In most cases, Level Six care is provided in a closed and locked facility. Alternative settings must have an equivalent capacity for providing a secure environment. Facilities should have space that is quiet and free of potentially harmful items, with adequate staffing to monitor child or adolescent using such a space (e.g., seclusion, restraint, and/or holding). Facilities and staff also should provide protection from potential abuse from others. Level Six facilities should be capable of providing involuntary care.

   Level Six facilities, or their alternatives, should be located as near as possible to the child or adolescent’s home. In addition, these facilities should incorporate ease of access (e.g., proximity to public transportation, schools, social services agencies, etc.); adequate design (e.g., accommodation for families with disabled or special needs members, play areas for children); and specific service needs (e.g., supervised day care so that parents can participate, resources for non-English speaking and/or hearing-impaired people, etc.). The facilities should be safe and comfortable for children and adolescents at all developmental levels, as well as for their families.

Placement Criteria

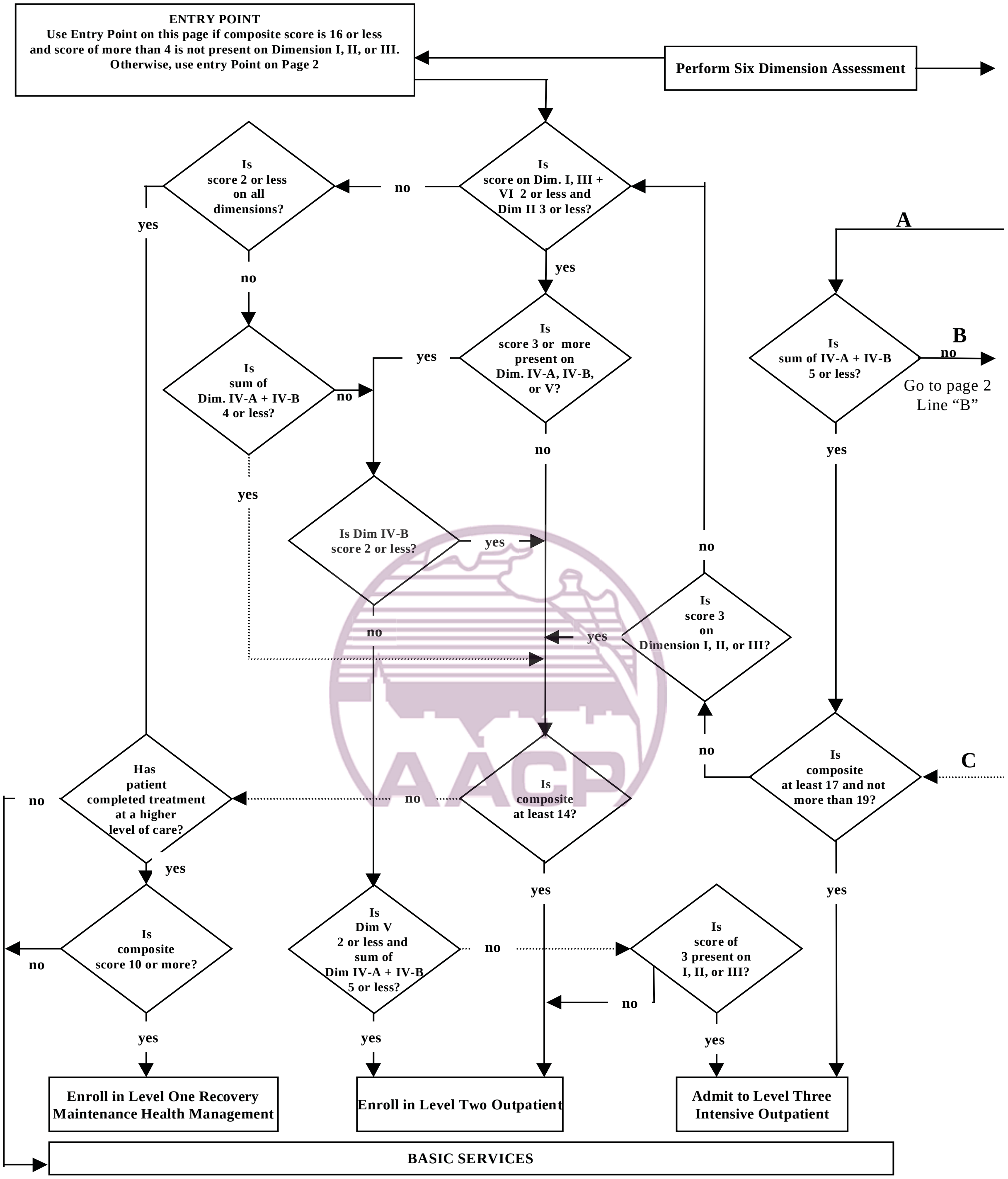
Children and adolescents with scores of 28 or higher are appropriate for treatment at Level Six. Consideration for this level of care should include the age, size, and manageability of the child or adolescent, and the family and community resources available. Placement determinations should be made by culturally competent staff and/or with consultation by cultural competency specialists.

COMPOSITE SCORE (Level 6) **28 or higher**

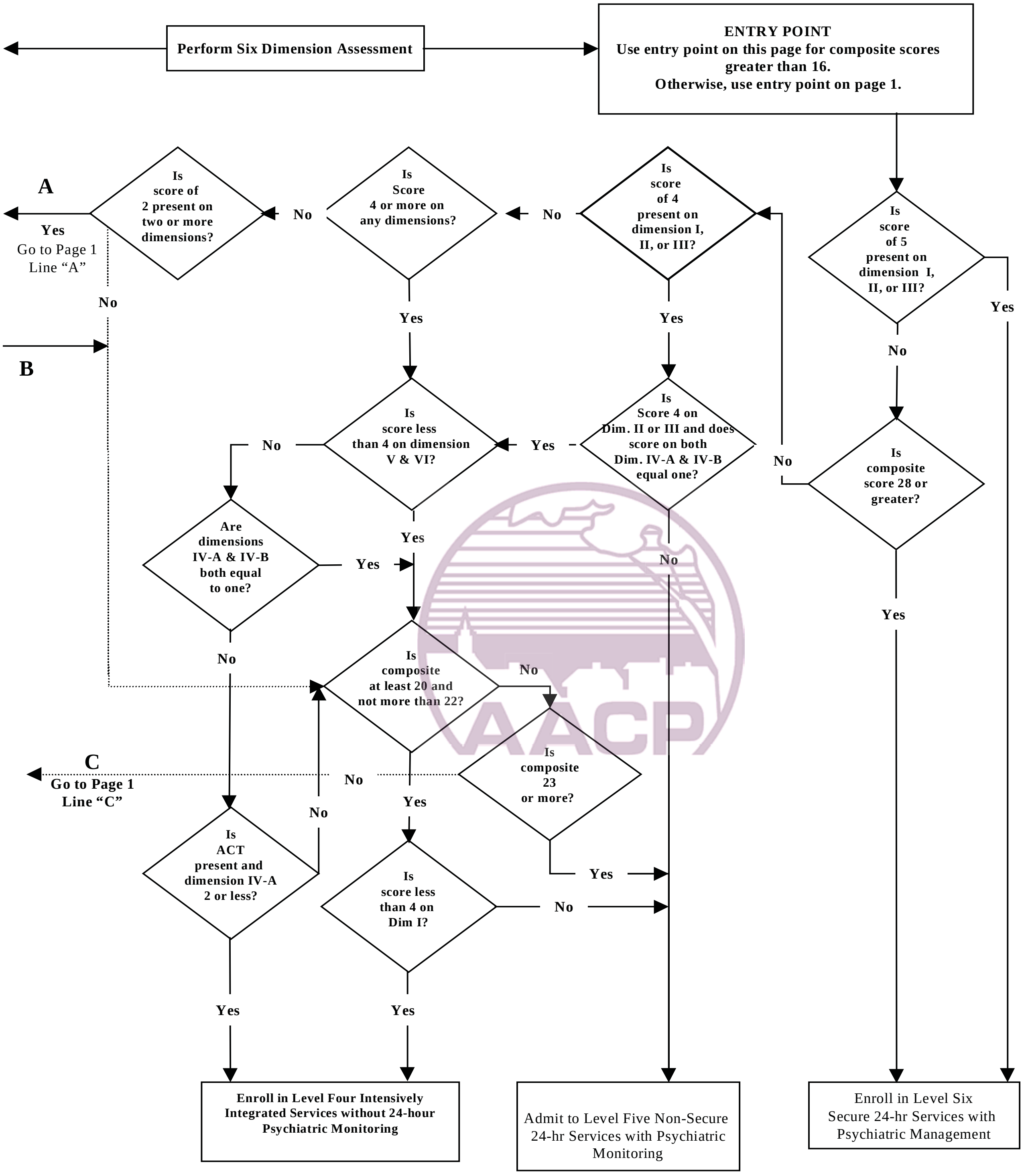
LEVEL OF CARE COMPOSITE SCORE TABLE

LEVEL	**DESCRIPTION**	**SCORE**
Zero	Basic Services for Prevention and Maintenance	7-9
One	Recovery Maintenance and Health Management	10-13
Two	Outpatient Services	14-16
Three	Intensive Outpatient Services	17-19
Four	Intensive Integrated Services Without 24-Hour Psychiatric Monitoring	20-22
Five	Non Secure, 24-Hour psychiatric Monitoring	23-27
Six	Secure, 24-Hour Psychiatric Monitoring	28+

LEVEL OF CARE DECISION TREE Part A
CALOCUS LEVEL OF CARE DETERMINATION DECISION TREE



LEVEL OF CARE DECISION TREE Part B
CALOCUS LEVEL OF CARE DETERMINATION DECISION TREE



AACP / AACAP
LEVEL OF CARE
DETERMINATION GRID

Level of Care / Dimensions	Recovery Maintenance Health Management Level 1	Outpatient Level 2	Intensive Outpatient Level 3	Intensively Integrated w/o 24-hr Psych Mon. Level 4	Non-Secure 24-hr Services with Psych Monitoring Level 5	Secure 24-hr Services with Psych Management Level 6
I. Risk of Harm	2 or less	2 or less	3 or less	3 or less	④ 3	⑤ 4
II. Functional Status	2 or less	2 or less	3 or less	3 or less	④* 3	⑤ 4
III. Co-Morbidity	2 or less	2 or less	3 or less	3 or less	④* 3	⑤ 4
IV A. Recovery Environment “Stress”	Sum of IV A + IV B is 4 or less	Sum of IV A + IV B is 5 or less	Sum of IV A + IV B is 5 or less	3 or 4[+]	4 or more	4 or more
IV B. Recovery Environment “Support”				3 or less	4 or more	4 or more
V. Resiliency & Treatment History	2 or less	2 or less	3 or less	3 or 4[+]	3 or more	4 or more
VI. Acceptance & Engagement	2 or less	2 or less	3 or less	3 or 4[+]	3 or more	4 or more
Composite Rating	10 to 13	14 to 16	17 to 19	20 to 22	23 to 27	28 or more

❍ indicates independent criteria - requires admission to this level regardless of composite score

* Unless sum of IV A and IV B equals 2

[+] See text for special circumstances

CALOCUS WORKSHEET

Rater Name____ Date________________

Please check the applicable ratings within each dimension and record the score in the lower right hand corner. Total your score and determine the recommended level of care using either the Placement Grid or the Decision Tree.

I. Risk of Harm
- ☐ 1. Low Potential for Risk of Harm
- ☐ 2. Some Potential for Risk of Harm
- ☐ 3. Significant Potential for Risk of Harm
- ☐ 4. Serious Potential for Risk of Harm
- ☐ 5. Extreme Potential for Risk of Harm

Score ________

II. Functional Status
- ☐ 1. Minimal Impairment
- ☐ 2. Mild Impairment
- ☐ 3. Moderate Impairment
- ☐ 4. Serious Impairment
- ☐ 5. Severe Impairment

Score

III. Co-Morbidity
- ☐ 1. No Co-Morbidity
- ☐ 2. Minor Co-Morbidity
- ☐ 3. Significant Co-Morbidity
- ☐ 4. Major Co-Morbidity
- ☐ 5. Severe Co-Morbidity

Score ________

IV-A. Recovery Environment - Level of Stress
- ☐ 1. Minimally Stressful Environment
- ☐ 2. Mildly Stressful Environment
- ☐ 3. Moderately Stressful Environment
- ☐ 4. Highly Stressful Environment
- ☐ 5. Extremely Stressful Environment

Score ________

IV-B. Recovery Environment - Level of Support
- ☐ 1. Highly Supportive Environment
- ☐ 2. Supportive Environment
- ☐ 3. Limited Support in Environment
- ☐ 4. Minimal Support in Environment
- ☐ 5. No Support in Environment

Score ________

V. Resiliency and Treatment History
- ☐ 1. Full Response to Treatment
- ☐ 2. Significantly Resilient and/or Response to Treatment
- ☐ 3. Moderate or Equivocal Response to Treatment And Recovery Management
- ☐ 4. Poor Response to Treatment and Recovery Management
- ☐ 5. Negligible Response to Treatment

Score ________

VI-A. Acceptance and Engagement - Child/Adolescent
- ☐ 1. Optimal
- ☐ 2. Constructive
- ☐ 3. Obstructive
- ☐ 4. Destructive
- ☐ 5. Inaccessible

Score ________

VI-B. Acceptance and Engagement - Parent/Primary Caretaker
- ☐ 1. Optimal
- ☐ 2. Constructive
- ☐ 3. Obstructive
- ☐ 4. Destructive
- ☐ 5. Inaccessible

Score ________

Composite Score ☐

Level of Care Recommendation ☐

SCORING SHEET
Child and Adolescent Level of Care Utilization System

A. Clinical Level of Care Recommendation ______
(Assign before using CALOCUS)

B. Calculation of Composite CALOCUS Score ______

	Dimension	Dimension Rating (circle score)					
1.	Risk of Harm	1	2	3	**4**	**5**	______
2.	Functional Status	1	2	3	**4***	**5**	______
3.	Co-Morbidity	1	2	3	**4***	**5**	______
4.	Recovery Environment						
	Environmental Stressors	1	2	3	4	5	______
	Environmental Support	1	2	3	4	5	______
5.	Resiliency and Treatment History	1	2	3	4	5	______
6.	Acceptance and Engagement						
	Child/Adolescent	1	2	3	4	5	
	Parent and/or primary care taker	1	2	3	4	5	______

(Note: please record the higher of the two scores)

*Note: **Bold** indicates independent criteria-requires automatic admission to a higher level of care regardless of combined score. A score of 4 results in placement at level 5 and a score of 5 results in placement at level six.*
** = independent criteria may be waived if sum of IV-A and IV-B scores equal 2.*

COMPOSITE CALOCUS SCORES (add right column) ______

C. CALOCUS Derived Level of Care Recommendation (Consult Grid and Decision Tree) ______

D. Actual (Disposition) Level of Care ______

Reason for Variance from CALOCUS Level of Care Recommendation
____
____
____

Patient/Family Name: ____

Date of Scoring: ____________________ Name of Scorer: ______________________________

Appendix 6.0

Appendix 6.0 includes three sample independent rate models as an illustration of how prospective rates may be constructed. These are based on rates in use in another state and do not reflect any market analysis done in North Dakota. They are included as examples of the rate model structure only. Should North Dakota opt to use prospective independent rate models, the exact cost components and the values assigned to them would be determined as part of a rate-setting exercise specific to the state.

The three sample models are for an in-home personal care service, a facility-based day program, and an adult support home (also known as adult foster care). Other services have their own models with similar structures to these.

Sample Independent Rate Models

Home-Based Services

Personal Care Service

	In-Home Personal Care
Unit of Service	1 hour
Hourly Wage	$13.49
Annual Wage	$28,059
ERE (as percent of wages)	34.5%
Hourly Compensation (wages + ERE)	**$18.14**
Annual Compensation (wages + ERE)	$37,740
Factors Offsetting Direct Care Service Hours	
- Total Hours	8.00
- Travel Time	0.50
- Time allocated to notes/med records	0.00
- Training Time	0.25
- Time allocated to missed appointments	0.08
- Average on-site time; "Billable Hours"	7.17
- *Productivity Adjustment*	*1.12*
Hourly Compensation After Adjustment	**$20.24**
Annual Compensation After Adjustment	$37,740
Transportation	
- Vehicle allocation	$0.00
- Number of Miles	15.00
- Amount per mile	$0.445
Total Mileage Amount	$6.68
Hourly Transportation cost	**$0.93**
Program Compliance	
- Compliance Percent	0.0%
- Non-travel/Total cost	$21.17
Hourly Program Compliance cost	**$0.00**
Program Support Cost	
- Program Support Percent	4.0%
- Non-travel/Total cost	$21.17
Total Program Support Cost	**$0.98**
Administrative Overhead	
- Administrative Percent	10.0%
- Non-travel/Total cost	$21.17
Hourly Administrative Overhead cost	**$2.46**
Rate	
Benchmark Rate	$24.61
Adopted Rate Factor	95.00%
Adopted Rate	**$23.38**

Sample Independent Rate Models
Day Programs
Sample Facility-Based Day Program

Service	**Facility-Based Day Program**			
Staff-to-Client Ratio	**1:3.5**	**1:5.5**	**1:7.5**	**1:9.5**
Unit of Service	1 client hour	1 client hour	1 client hour	1 client hour
Hourly Wage	$11.73	$11.73	$11.73	$11.73
Annual Wage	$24,398	$24,398	$24,398	$24,398
ERE (as percent of wages)	34.5%	34.5%	34.5%	34.5%
Hourly Compensation (wages + ERE)	**$15.78**	**$15.78**	**$15.78**	**$15.78**
Annual Compensation (wages + ERE)	$32,816	$32,816	$32,816	$32,816
Productivity Assumptions				
- Total Hours	8.00	8.00	8.00	8.00
- Direct Care Travel Time: Charged to Transportation	0.66	0.66	0.66	0.66
- Total Hours before productivity adjustments	7.34	7.34	7.34	7.34
- Time allocated to facility preparation	0.50	0.50	0.50	0.50
- Time allocated to notes & medical records	0.00	0.00	0.00	0.00
- Training Time	0.22	0.22	0.22	0.22
- Employer Time	0.10	0.10	0.10	0.10
- Average on-site time; "Billable Hours"	6.53	6.53	6.53	6.53
- *Productivity Adjustment*	*1.13*	*1.13*	*1.13*	*1.13*
Hourly Compensation After Adjustment	**$17.75**	**$17.75**	**$17.75**	**$17.75**
Annual Compensation After Adjustment	$28,965	$28,965	$28,965	$28,965
Days Adjustment				
- Days Billable	225	225	225	225
- Days Paid	250	250	250	250
- Ratio	0.90	0.90	0.90	0.90
- Hourly Rate	$19.72	$19.72	$19.72	$19.72
- Annual Compensation	$28,965	$28,965	$28,965	$28,965
Staffing				
- Number of Staff Members	4.57	2.91	2.13	1.68
- Number of Individuals Served	16.0	16.0	16.0	16.0
Ratio of staff to individual	1:3.5	1:5.5	1:7.5	1:9.5
Total Staff Compensation	$132,413	$84,263	$61,793	$48,784
Total Hourly Compensation After Adjustment	**$90.15**	**$57.37**	**$42.07**	**$33.21**
Hourly Compensation per Individual	**$5.63**	**$3.59**	**$2.63**	**$2.08**
Mileage				
- Program-Related Transportation per Individual	2.0	2.0	2.0	2.0
- Amount per mile	$0.926	$0.926	$0.926	$0.926
Total Mileage Amount per Individual	**$1.85**	**$1.85**	**$1.85**	**$1.85**
Hourly Mileage Cost per Individual	**$0.28**	**$0.28**	**$0.28**	**$0.28**
Capital				
- Square Footage	2,000	2,000	2,000	2,000
- Square Footage per client	125.0	125.0	125.0	125.0
- Cost per Square Foot	$19.46	$19.46	$19.46	$19.46
- Number of Days in Service	225	225	225	225
Total Square Footage per Individual per Day	**$10.81**	**$10.81**	**$10.81**	**$10.81**
Hourly Capital Cost per Individual	**$1.66**	**$1.66**	**$1.66**	**$1.66**

Sample Independent Rate Models

Day Programs

Sample Facility-Based Day Program

Service	**Facility-Based Day Program**			
Staff-to-Client Ratio	**1:3.5**	**1:5.5**	**1:7.5**	**1:9.5**
Supplies				
- Supplies per Individual per Day	$2.05	$2.05	$2.05	$2.05
Hourly Supply Cost per Individual	**$0.31**	**$0.31**	**$0.31**	**$0.31**
Hourly Program Compliance cost				
- Compliance Percent	0%	0%	0%	0%
- Non-travel cost	$7.89	$5.84	$4.88	$4.33
Hourly Program Compliance cost	**$0.00**	**$0.00**	**$0.00**	**$0.00**
Hourly Curriculum Development cost				
- Curriculum Development Percent	2.0%	2.0%	2.0%	2.0%
- Total cost	$7.89	$5.84	$4.88	$4.33
Hourly Curriculum Development cost	**$0.19**	**$0.14**	**$0.12**	**$0.10**
Program Support Costs				
- Program Support Percent	4.0%	4.0%	4.0%	4.0%
- Non-travel/Total cost	$7.89	$5.84	$4.88	$4.33
Hourly program support cost	**$0.38**	**$0.28**	**$0.23**	**$0.21**
Administrative Overhead				
- Administrative Percent	10.0%	10.0%	10.0%	10.0%
- Non-travel cost	$7.89	$5.84	$4.88	$4.33
Hourly administrative cost	**$0.94**	**$0.70**	**$0.58**	**$0.52**

Rate				
Benchmark Rate	$9.39	$6.95	$5.81	$5.15
Adopted Rate Factor	95.00%	95.00%	95.00%	95.00%
Adopted Rate	**$8.92**	**$6.60**	**$5.52**	**$4.89**

Sample Independent Rate Models

Support Home Services

Sample Vendor Supported Home, Adult

Service	**Support Home**
Unit of Service	1 day
Daily Rate Based on	1 individual
Number of Years Under Supervision, on Average	5.0
Number of Days Under Supervision, per Year	365
Initial Home Licensure	
- Comparable rate	$1,000
- Inflation Factor	1.00
- DD Premium	10.0%
Initial Home Licensure	**$1,100.00**
Annual Cost (spread over 5 years) = $1,100 in first year / 5 years	**$220.00**
License Renewal	
- Percentage of Initial Home Licensure Payment	
License Renewal	**$500.00**
Annual Cost (spread over 5 years) = ($605 * 4 years) / 5 years	
Total Fixed Cost of Licensure	**$720.00**
Training	
- **Salary**	
- Training Staff	$17.70
- Annual Wage	$36,816
- ERE (as percent of wages)	30.0%
Hourly Compensation (wages + ERE)	$23.01
Annual Compensation (wages + ERE)	$47,861
- **Initial Training**	$1,000.00
- Hours of Training (1st year)	20.0
- Cost of Training	$1,470.00
Annual Cost (spread over 5 years) = $420 in first year / 5 years	**$294.00**
- **Ongoing Training**	
- Hours of Training (Included in renewal)	
- Cost of Training	
Annual Cost (spread over 5 years) = ($210 * 4 years) / 5 years	**$0.00**
Total Fixed Cost of Training	**$294.00**
Respite/Relief	
- Respite Hours Allowance	720.0
- Respite Hourly Agency Provider Rate, less Admin. Overhead	$15.98
Annual Cost of Respite/Relief	**$11,510.00**
Vendor Supplied In-Home Support	
- In-Home Hours Allowance	70.0
- Hourly Allowance, less Admin. Overhead	$17.70
Annual Cost of Vendor In-Home Support	**$1,240.00**
Administration and Monitoring Staff	
- Hourly Wage	$16.52
- ERE (as percent of wages)	34.5%
- Number of Visits to Family, per Year	20.6
- Duration of Each Visit, in Hours	1.3
Annual Cost of Administration and Monitoring Staff	**$595.04**

Sample Independent Rate Models

Support Home Services
Sample Vendor Supported Home, Adult

Service	**Support Home**
Mileage	
- Number of Miles, per Month	60.8
- Number of Miles, per Year	729
- Amount per Mile	$0.445
Annual Mileage Cost	**$324.51**
Program Support Cost	
- Program Support Percent	4.0%
- Non-travel/Total cost	$14,684
Total Program Support Cost	**$682.96**
Administrative Overhead	
- Administrative Percent	10.0%
- Non-travel cost	$14,684
Total Administrative Cost	**$1,707.39**
Total Cost per Family per Year	**$17,073.89**
Payment for Agency Services	
Total Cost per Family per Day	**$46.78**
Payment to Family	
- Room and Board	$13.94
- Other	$54.06
Total Payment to Family, per Day	**$68.00**
Total Payment to Agency, per Day	$114.78
Payment to Agency without Room and Board (paid separately)	$100.84
Rate	
Benchmark Rate	$100.84
Adopted Rate Factor	95.00%
Adopted Rate	$95.80

Appendix 7.0

NDacp NORTH DAKOTA ASSOCIATION OF COMMUNITY PROVIDERS

P.O. Box 7037
Bismarck, North Dakota 58507-7037
701-220-4778

August 5, 2010

Gretchen Enquist
Burns and Associates, Inc.
3030 North Third Street
Phoenix, Arizona 85012

Dear Ms. Enquist,

Thank you for your invitation to respond to the Interim Final Report, issued to the North Dakota Department of Human Services as a deliverable in the DD Reimbursement Study, dated July 6, 2010. The following represents a unified response from the provider agencies represented by the ND Association of Community Providers. We have also reviewed the June 2008 White Paper published by AAIDD, entitled "Resource Allocation and the Supports Intensity Scale: Four Papers on Issues and Approaches" for further information.

As noted in the White Paper, changing funding patterns has enormous implications, requiring information to be secured about how funding patterns will change and "obtaining feedback about the real-world implications for change". It is of utmost importance to us as providers to continue the ability to provide nationally recognized, high quality support services to the people we serve. We recognize that the current assessment and reimbursement process is likely to change, and would like to emphasize our expectation that providers be actively and directly involved with all aspects of the creation of the assessment and payment systems. The following represent our comments regarding the interim report and its implied recommendations:

Assessment:
We concur with Burns & Associates report that assessments need to better reflect the needs of the people we support, and agree that there is a need to avoid duplicative assessments. Other principles regarding the selection of assessment tools that are important to us are as follows:

- The provider is often the most knowledgeable about the individuals we support. Assessments need to be completed in a collaborative manner including input from the provider. We strongly agree that an independent assessment team should be utilized, regardless of which assessment option is selected. While the report holds that provider completion of assessments represents a conflict of interest, we also feel that a conflict exists when the funding agency controls the assessment process, especially in a resource allocation payment model.

- Inter-rater reliability is imperative in the implementation of any assessment tool, to assure the greatest level of consistency across the various regions of the state.
- It is important to consider and develop processes that assure timeliness of assessments, adequate frequency, and clear and responsive factors that would trigger re-assessment of an individual as needs change.
- Any assessment tool selected must address and be responsive to the individual's environment, particularly living arrangements, ie: group or individual.
- Costs associated with the ongoing operations of an independent assessment team should be offset by savings in DD Program Management costs, considering duties associated with assessments would be eliminated.
- Providers request to be involved in the review and final selection of the assessment tool, and feel it is imperative to assist in the design of the assessment process prior to implementation.

Payment System:
It is noted that the Interim Final Report identifies only 2 options for payment system design; the current retrospective, cost-based model used in our "green sheet" programs, or a new prospective system that would entirely replace all currently used rate-setting models. It is notable that the options presented eliminate contemplation of continued use of any current models, or of any other useful models. Providers find that the individualized contract program rate-setting systems associated with programs such as ISLA are working well, and could easily be transformed into a prospective payment system. Additional points to consider would include:

- Adequate time to study and develop a new payment model must be allocated. As noted in the AAIDD White Paper, stakeholder involvement is necessary, and care should be taken to assure provider involvement up-front in the creation phase (rather than just reactive opportunities). It is noted that in Washington State, a workgroup involving providers met monthly for 2.5 years to develop all aspects of a new payment system. Providers and other non-state entities were crucial to informing all aspects of the new system.
- Currently-used models that work should be considered for continuation with minor tweaking, along with possibly other payment options not selected in the report.
- ND providers feel it is important for the state and providers to review mistakes from the recent changes to the Infant Development payment system, and to utilize lessons learned in an effort to avoid similar pitfalls.
- We support your position that a process to identify and acknowledge support needs for "outliers" must be included in the rate determination process.
- The provider community needs to have input on the choice of parameters that would be built into a new system, ie: variables and the value of each of the variables (pay points). It is important that this input be included as discussions begin rather than creating options and asking input on options.
- Variables may include, but are not limited to, supplies and other costs, food & dietary supplies and property, as listed in the North Dakota cost report.

Other factors to consider would include those relating to geographical and economic conditions and differences across the state.

- We are concerned how CQL would be included in our rates with respect to a new payment system, and request inclusion of this ongoing cost.
- The adoption of any new rate-setting system needs to include a significant transition period from the current system, and it is imperative that providers be included in defining and implementing the transition process.
- A pilot phase on a smaller scale is recommended, in order to test any new model of assessment and corresponding rate-setting before statewide roll-out. The article by Gary Smith and Jon Fortune as contained in the AAIDD White Paper stresses the importance of such testing and feedback.
- The state should be willing to delay the implementation of any new system of payment or assessment if major difficulties arise in the design phase, to assure maximum success.
- Any new system should be characterized by being simplified, unified, and consistent.

Thank you for the opportunity to provide this response to the report. We recognize that the scope of the report encompasses an analysis by Burns and Associates of the adequacy and appropriate compensation provided by current systems of assessment and rate-setting, and that inherent in the report are recommendations of four options for consideration. Ultimately, it will be the determination of the State and the Legislature as to how to proceed. It is the request of the provider community that the above concerns be included for consideration in the Final Report, and in any subsequent contractual arrangements between Burns and Associates and the ND Department of Human Services that may result from those decisions.

Thank you again for this opportunity for review and response by the provider community.

Sincerely,

Barbara Murry

Barbara Murry, Executive Director
ND Association of Community Providers

Sandi Marshall

Sandi Marshall, President
ND Association of Community Providers

c. NDACP corporate members
John Bole, Director, DDD, DHS

[via e-mail]

From: Borgi Beeler
[recipient list omitted]
Subject: review of deliverable 7

After review of Deliverable Seven for the North Dakota Developmental Disabilities Reimbursement Study, we have the following comments:

The description and conclusions regarding North Dakota's current assessment and reimbursement systems are accurate.

Two issues are identified:

1. Resource allocation for services
2. Excessive resources consumed by administration of a retrospective system

The report does not give a detailed history regarding resource allocation for providers in North Dakota. Previously, providers and regional Program Administrators negotiated staffing levels (FTE) by person. The system worked for MVAW, but we understand it was difficult to maintain consistency across regions. In 2003, budget constraints led the state to issue a "no new enhancements" rule, which did not completely eliminate enhancements, but did severely reduce availability of enhancements and over time was causing increased difficulty in acquiring sufficient funds for staffing for people with several behavioral and medical needs.

The "bucket money" based on scores from the Oregon Scales was in response to provider feedback that sufficient funding was not being provided for people with severe behavioral and medical needs. Since we had sufficient funding in our budget at the time, MVAW did not participate in the request for additional dollars. Burns & Associates' (B&A) conclusions regarding the inadequacy of the "bucket money" system is totally accurate and not surprising to any of us. The "bucket money" is a temporary band-aid and was not intended to serve as a permanent solution.

We agree with B&A recommendations regarding utilizing a modified PAR or SIS in order to allocate resources. An objective scoring method should be equitable and more consistent than the old negotiation method. Both the modified PAR and the SIS are better tools than the Oregon Scales (primarily because the Oregon Scales measures current behavior instead of actual needs). As mentioned in the report several times, training is crucial to the success of any assessment system. We believe that a certification requirement would ensure that assessments are completed by adequately trained state employees. In addition to covering the technical aspects of completing the assessment, the certification training should emphasize methods of selecting sources of information and interviewing techniques. It will also be necessary to specify timeframes for completing the assessment, including re-assessment upon occurrence of major life changes, such as moving to a new setting.

[continued]

Specific methods of resource allocation, including a complete change in reimbursement systems for the SIS, are not presented in sufficient detail to express an opinion of concurrence at this time. There are many ways to accomplish rate-setting, and the report lists several models. We have no experience with prospective rate-setting, and to my knowledge the Department's experience is limited to the model the state currently uses with nursing homes. We would be interested in more information before committing to such a major change. If the prospective option is pursued, we believe that continued assistance from an expert consultant will be required.

The last paragraph of Deliverable Seven Section Four (page 19) summarizes provider feedback and indicates that "These are goals which are not attainable taken together." We understand that any payment system strives to balance conflicting objectives concerning cost containment and adequacy of funding. We believe that the goal of any payment system should be to achieve an equilibrium with funding that is both sufficient to provide quality service and equitable between providers, yet not cause excessive burden on the state budget.

We concur that changing to a prospective funding system has the potential to decrease time/cost required for budgeting and auditing. However, conversion from retrospective to prospective has many implications. In addition to receiving enough funding, we are concerned about the long-term impact that the change will have on attitudes and behavior. A retrospective system rewards decisions that manage costs within limits and maximize reimbursement. A prospective system rewards providers for containing costs, possibly to the point that services are compromised. There will need to be safeguards to avoid potential deterioration of services that may result once financial incentives exist for reduced spending. Perhaps the current accreditation and Protection & Advocacy systems will fill that role.

On the state side, once the Department loses the ability to disallow or place limits on specific types of costs, the only recourse is to cut rates. We don't want a system where rates are cut for everybody when some providers spend excessively on questionable items (in the opinion of Department employees, legislators, or the taxpayer) or cut costs to the detriment of services.

We appreciate the service provided by Burns & Associates in producing a very comprehensive and helpful analysis and report. We would encourage the Department to retain their services in continuing the process if the option of a prospective payment system is pursued.

Thank you for the opportunity to provide feedback. Note that our comments are only relevant for adult services. As MVAW does not serve children, we cannot comment on the options for children.

Borgi Beeler
President/CEO
Minot Voc Adj Workshop

[via e-mail]

From: Franz, Ron A.

[recipient list omitted]

Subject: PAR suggestions

Here are some suggestions for the PAR, should it be used to determine level of payment. Some of these come from suggestions made by other DDPM's at our meeting today, some may be repetitions of Sue's email that you have, and some are my own opinions. I may have left out some suggestions made today. So this email is not intended to represent everyone's opinion, or a consensus. I am sending copies to the DDPM's who participated so they can chime in if I left out something they feel should be considered.

1. At our meeting, there was discussion of the fact that for many of the PAR questions, the abilities of the client do not fully match the descriptive areas that contribute to the PAR score. Many times the DDPM is left to take what appears to be the "Less Bad" choice. I wonder if this may be improved by expanding the choices on a Likert-type scale, that would allow for more of a continuum of responses in an area. Or if not a Likert-type scale, at least adding more choices than the usual four.
2. There are several areas under "Independent Living" on the current PAR that the consultants eliminated: Care of clothing, food preparation, nutrition, washing dishes; also money handing and purchasing. I would keep the latter two and add budgeting, as these areas are descriptive of services typically provided in SLA. Also, I would like to keep the former four, as they are typical of ISLA services. While it appears that the decision to eliminate these items was based upon their predictability for actual expenditures, it may well be that they would be more valid if the scoring criteria were rewritten.
3. Today there was a discussion regarding the elimination of 73.0 Initiative, by the consultants. It is felt that, given two clients with similar skills, more resources are typically needed for the client who takes less initiative. Without the use of additional resources, lack of initiative may easily impact the client's health and safety. So there should be some way of accounting for what a client actually *does*, as opposed to what we believe they can do.
4. Today it was pointed out that 104.0, Non-medication treatments, is included in the consultants' recommendations, but they have not included any specific areas of treatment. However, use of the non-medication treatments (the ones listed on the current PAR are Behavior Intervention, Psychotherapy, Sexual Offender Counseling and Substance Abuse Counseling, and Cultural/Traditional Methods) typically require an investment of time on the part of the provider, so consideration should be given to these areas.
5. Perhaps, however, expanding the Behavior section will provide the expenditure predictability sought by adding specifics to 104.0, Non-medication treatments (see#4)-so, like Sue, I recommend Keeping Disruptive Behavior, and adding addictive behaviors including chemicals/drinking, as well as compulsive shopping and hoarding.
6. Finally, if the consultants were considering leaving out the Axis categories, this may be a mistake, as intuitively it would appear that there would be a strong correlation between some diagnoses-such as the level of Mental Retardation as well as the psychoses-and expenditures. I suppose that in the end the consultants will need to determine whether the use of diagnoses may or may not be necessary, given redefinition of the functional items that measure areas affected by the diagnosed condition.

[via e-mail]

From: Poykko, Sue R.

[recipient list omitted]

Subject: PAR feedback

A few thoughts /topics for discussion on revising the PAR:

Motor Skills - #31 - #32 both measure UE abilities and I see this as important as lower extremity measurements. Keep.

Independent Living - #51(household chores) Could the inclusive list on this question be expanded to include laundry, etc. that is being recommended for deletion? #58 – (money handling) I'd keep as this is one indicator of economic self sufficiency and an area of huge support needs for many clients.

Cognitive - #71(attention span) – Keep

Behavior - #83(inappropriate dressing) – Delete; #85(stealing) – Keep; #87(disruptive behavior) – Keep; Add questions with a focus on addictions whether they be formally diagnosed or not (gambling, chemical/alcohol abuse or use), compulsive shopping (credit cards/TV order/etc.) and hoarding.

Medical - #92.2 (diabetic testing) – Keep; #92.3(injections) – Keep; 92.11(enemas) – Keep; 92.17 (oxygen) – Keep; 92.37(specialized dental care) – Keep; 95.0(hearing) – Keep; 96.0(vision) – Keep.

Legal – Could the questions be expanded to include attempts to break the law that we may provide preventative support for but may never end up actually getting involved in the legal system. They may still have the potential for being charged criminally however (Ex. Stealing/taking things from a roommate/housemate without criminal intent.)

There wasn't any notation about keeping/deleting the Axis I, II, III information. I vote to keep it in there. I'd even add an "other" in each one so we can add something that doesn't neatly fall into the diagnosis set.