

September 1, 2004

# Developmental Disabilities Objective Assessment Process:

## Legislative Bill 297 Work Group Report and Recommendations State of Nebraska Developmental Disabilities System

*FINAL MERCER REPORT  
FOR WORK GROUP REVIEW*

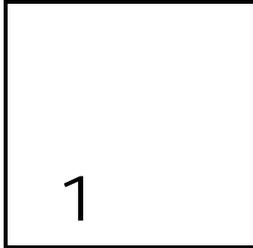
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Government Human Services Consulting

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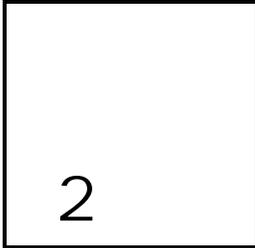
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## Introduction

At the request of the State of Nebraska Developmental Disabilities System (DDS), Mercer Government Human Services Consulting (Mercer) facilitated a series of work group sessions to review the proposed Nebraska Objective Assessment Process (OAP) and provide recommendations for implementation. This work group consisted of people representing families, providers, advocates, and state agencies. The staff at Mercer wish to thank the individuals and families, work group members, service providers, state and regional staff who have provided valuable information and spirited discussion. Also, the Mercer team especially wishes to recognize the leadership and commitment of the staff at the DDS state office. The continued support, diligence, and guidance have been very helpful and their commitment to people with disabilities and their families is to be commended. Thank you.



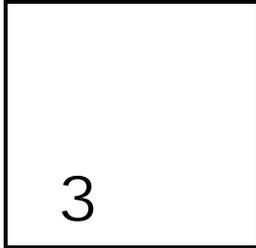
## Charge

The DDS has a legislative mandate (LB 297) to implement an individual needs assessment tool in order to achieve a fair and equitable distribution of state and federal funds to people receiving Home and Community – Based Services. In addition, DDS has a legislative and legal obligation to design and implement the Nebraska OAP to remain within current legislative appropriation.

To achieve this mandate, the DDS has adopted the OAP as its designated needs assessment system, and has selected the Inventory for Client and Agency Planning (ICAP) as its designated functional assessment tool. At this time, the ICAP is the only tool which DDS intends to use to determine individual resource allocations. The OAP has been administered to a portion of the people who receive services from the Developmental Disabilities System, and DDS has developed a set of allocation formulas that will prescribe the amount of public funds for individuals.

Prior to implementation, LB 297 requires that DDS conduct a full review of alternative approaches and / or modifications to the Objective Assessment Process. In response, DDS convened a work group consisting of people and families with disabilities, advocates, service providers, and state agency staff. The charter of the Work Group is to review the current OAP and ICAP instruments and identify and recommend additional items and/or modifications to those tools. In considering changes, the Work Group is further charged with recommending an OAP/ICAP implementation approach which is both deliberate and respectful of the impact to people, families, and providers.

This report represents the comments and recommendations of the work group. This report will be presented to DDS for their consideration.



## Background

The background chapter of this report is divided into three sections. The first section summarizes the proposed Nebraska Objective Assessment Process. The second section describes other needs assessment instruments and reviews their capabilities. The third section describes how other states are approaching the individual needs assessment process, and how it compares to Nebraska's approach.

## Nebraska Objective Assessment Process

A complete description of the Nebraska Objective Assessment Process is contained in "Objective Assessment Process: Description of the Development of the Formulas Used in Determining Level of Support", 2004, which was prepared by Don Severance in his capacity with DDS. The DDS study is attached to this report for reference purposes.

In summary, the Nebraska OAP process is designed to meet six goals. The intent of the assessments is to assign financial resources to people in an equitable fashion based upon individual ability. The assessments are intended to allow for individual change and promote portability of service. Finally, the assessments are intended to assist DDS in improving resource management and maintaining revenue neutrality.

The Nebraska OAP process considers only one criterion, functional abilities, for assigning individual financial resources. DDS selected the ICAP as their functional assessment instrument. The ICAP was selected because it is relatively simple to administer and has documented psychometric characteristics. The ICAP also does not require administration by licensed staff. Nebraska DDS staff have experience with two states, Wyoming and South Dakota, who currently use the ICAP for individual resource allocation purposes.

To determine the amount of public funds to assign to ICAP scores, DDS selected a sample of people (2,256 in residential services, and 2,461 in day programs) and examined the amount of services (in dollars) that this sample group received over the course of one

year (SFY 2003). Using multiple regression analyses, DDS developed correlations between the ICAP scores and service utilization patterns. These correlations were converted to “ICAP formulas” which DDS will use to assign future public funds to individuals. Funding levels from 2002/2003 were established as the financial baseline to calibrate the ICAP scores. State service coordinators have been trained and reliability measurement systems have been implemented. Multiple regression analysis was used to analyze the relationship between the number and cost of service units and the ICAP functional assessment scores, and funding formulas for residential and day programs were developed. Those formulas are presented in the following table, and are further described in the Severance 2004 study referenced previously. Each formula is a constant followed by the addition or subtraction of an ICAP score multiplied by the empirically derived weight. The total is multiplied by 1.015 to reflect the 1.5% increase in the provider rates for fiscal year 2004.

**Nebraska OAP / ICAP Scoring Formulas:**

**Day Services Level of Support in Dollars** = (8236.684 -32.299\*Broad Independence Index + 0.0242\*Broad Independence Index Squared + .00268\*Motor Skills Index Squared + 10.373\*Community Living Skills Index - 0.0107\*Community Living Skills Index Squared + 4.271\*General Maladaptive Index + 0.285\* General Maladaptive Index Squared + 83.652\*Hurt to Self Severity + 50.917\*Hurtful to Others Frequency + 51.349\*Hurtful to Others Severity + 35.592\*Unusual or Repetitive Habits Severity + 44.496\*Health Medication + 93.176\*Behavior Medication + 77.209\*Seizure Medication + 32.247\*Arm/Hand -22.778\*Age in Years + 0.00167\*Age in Years Cubed) \* 1.015.

Day Services Level of Support in Dollars =

<i>Sign</i>	<i>Variable</i>	<i>Function</i>	<i>Weight</i>
	(Constant)	Equals	8236.684
-	Broad Independence Index	Multiply	32.299
+	Broad Independence Index Squared	Multiply	0.0242
+	Motor Skills Index Squared	Multiply	0.00268
+	Community Living Skills Index	Multiply	10.373
-	Community Living Skills Index Squared	Multiply	0.0107
+	General Maladaptive Index	Multiply	4.271
+	General Maladaptive Index Squared	Multiply	0.285
+	Hurtful to Self Severity	Multiply	83.652
+	Hurtful to Others Frequency	Multiply	50.917
+	Hurtful to Others Severity	Multiply	51.349
+	Unusual or Repetitive Habits Severity	Multiply	35.592
+	Health Medication	Multiply	44.496
+	Behavior Medication	Multiply	93.176
+	Seizure Medication	Multiply	77.209
+	Arm/Hand	Multiply	32.247
-	Age in Years	Multiply	22.778
+	Age in Years Cubed	Multiply	0.00167
	Total	Multiply	1.015

**Nebraska OAP / ICAP Scoring Formulas (continued):**

**Residential Services Level of Support in Dollars** = (10350.253 - 18.021\* Broad Independence Index + 0.00497\* Motor Skills Index Squared - 0.303\* General Maladaptive Index + 0.867\* General Maladaptive Index Squared - 0.798\*Internalized Maladaptive Index Squared + 160.011\* Hurt to Self Severity + 198.728\*Hurtful to Others Severity + 91.263\* Unusual or Repetitive Habits Severity + 580.710\* Behavior Medication + 228.971\* Seizure Medication + 723.825\*Mobility - 57.1435\*Age in Years + 0.00511\* Age in Years Cubed) \* 1.015.

**Residential Services Level of Support in Dollars =**

<i>Sign</i>	<i>Variable</i>	<i>Function</i>	<i>Weight</i>
	(Constant)	Equals	10350.253
-	Broad Independence Index	Multiply	18.0210
+	Motor Skills Index Squared	Multiply	0.00497
-	General Maladaptive Index	Multiply	0.303
+	General Maladaptive Index Squared	Multiply	0.867
-	Internalized Maladaptive Index Squared	Multiply	0.798
+	Hurt to Self Severity	Multiply	160.011
+	Hurtful to Others Severity	Multiply	198.728
+	Unusual or Repetitive Habits Severity	Multiply	91.263
+	Behavior Medication	Multiply	580.710
+	Seizure Medication	Multiply	228.971
+	Mobility	Multiply	723.825
-	Age in Years	Multiply	57.143
+	Age in Years Cubed	Multiply	0.00511
	Total	Multiply	1.015

DDS has also tested for consistency of ICAP scoring by service coordinators. Test-retest reliability for persons currently in services (correlation between previous and current administration of scale with a score of 1.0 representing the highest possible score) is as follows:

- ICAP Service Score - .839
- General Maladaptive Index - .637
- Broad Independence Scale - .918

Also DDS tested the ICAP scales to ensure that they were accurately measuring functional abilities. Chronbach's Alpha scores (1.0 representing the highest possible score) are as follow:

- Broad Independence Scale - .9832
- Motor Skills - .9456
- Social and Communication Skills - .9442
- Personal Living Skills - .9518
- Community Living Skills - .9388
- General Maladaptive - .9070

DDS did not test for cost variables related to provider contract differences, geographic cost of living factors, or individual consumer diagnoses. Currently, DDS is completing ICAP assessments on all people and calculating individual budget allocations. As further steps, DDS is collecting responses from individual Interdisciplinary Teams to determine those instances where the ICAP assigned funds may be inadequate. From this review, DDS intends to identify additional measures and recalculate cost allocation formulas as needed. As a future consideration, DDS intends to apply personal outcomes to the cost allocation formulas.

## Other Needs Assessment Instruments

For purposes of this report, Mercer has divided its review of individual needs assessments into two categories. The first category includes assessment tools which measure individual functional and adaptive behavior. Five functional assessment tools were assessed:

- Scales of Independent Behavior-Revised (SIB-R),
- Vineland Adaptive Behavior Scales,
- AAMR Adaptive Behavior Scales (ABS),
- Inventory for Client and Agency Planning (ICAP), and
- Support Needs Assessment Process (SNAP).

The second category includes assessment tools which measure support / situational needs. Four support / situational instruments were examined:

- Aging / HCBS Consumer Direction Tool,
- Self – Intensity Scale (SIS),
- Florida Individual Cost Guidelines (ICG), and
- Montana Needs Assessment (MONA).

These two categories of instruments differ in five important ways and are described by Dr. Robert Schalock:

1. Construct measured: a functional / adaptive behavior instrument measures the adaptive skills that a person has learned—that is, a measure of achievement or performance. A support needs / situational scale measures the extraordinary support that a person needs in order to participate in the activities of daily life.
2. Focus: a functional / adaptive behavior instrument focuses on the pattern of adaptive behaviors displayed by an individual, whereas a support needs / situational scale focuses on the pattern and intensity of support needed to enhance participation in home and community life.

3. Uses: the primary uses of a functional / adaptive behavior scale are to diagnose a condition and to identify relevant educational and training goals that can be listed on individualized education/training plans, whereas the primary use of a support needs / situational scale is to determine a person's support needs in different areas of life and relative to others with developmental disabilities and to develop individualized support plans.
4. Item stems: the item stems on a functional / adaptive behavior scale consist of an array of adaptive behaviors or skills needed to successfully function in society, whereas the item stems on a support needs / situational scale consist of an array of life activities in which a person engages when participating in society.
5. Item responses: the item responses on a functional / adaptive behavior scale consist of a person's level of mastery or proficiency in relation to the adaptive skills, whereas the item responses on a support needs / situational scale consist of the intensity and pattern of extraordinary supports a person needs in order to participate in the identified life activities.

The *Scales of Independent Behavior-Revised* (SIB-R), the *Vineland Adaptive Behavior Scales*, the *AAMR Adaptive Behavior Scales* (ABS), and the *Inventory for Client and Agency Planning* (ICAP) are the most widely used adaptive behavior assessments. Of these the ICAP is the most widely used for individual cost allocation. Consequently, the ICAP will be presented in more detail elsewhere in this section. The popularity of these need assessment tools is tied to several facts. First, these tools are relatively simply to use. Second the need assessment tools are standardized to persons with developmental disabilities. Third, each tool referenced is accurate and contains an adequate number of skill and performance areas to measure. In addition to the SIB-R, Vineland, ABS, and ICAP, Mercer also reviewed the *Support Needs Assessment Process* (SNAP), *Montana Needs Assessment* (MONA), and *Individual Cost Guidelines* (ICG) instruments currently used in Rhode Island, North Carolina, Montana, and Florida. Finally, Mercer reviewed the *Support-Intensity Scale* (SIS), which is not currently used statewide but has demonstrated excellent predictability in local areas in Colorado, and the *Consumer Directed Tool* which is under development by the National Association of Aging Resource and Home and Community-based Services Resource Network.

The *Scales of Independent Behavior (SIB-R)* last revised in 1996 offers an excellent format for capturing behavior problems. SIB-R pairs the scale for behavior problems with scores from its adaptive skill scale and offers a unique score that melds the two scales into one overall rating of independence. Information is captured either through a questionnaire or through a structured interview. Its popularity is within school settings, though it has norms that extend to adults aging into their 80's.

The *Vineland Adaptive Behavior Scale* is a variation of the Vineland Social Maturity Scale and contains norms up to the age 18. Its strengths center on the psychometric integrity of the tool. The Vineland recommends that the assessment be administered by a

psychologist or other professional with a graduate degree, and therefore is limited to clinical staff to administer and interpret. The instructions are clear and the test items are ordered by difficulty. The options are to rate an item as occurring *never*, *sometimes* or *usually*. Information is gathered through general inquiries by the clinician with follow-up questions if necessary. The evaluator then records their impression as the score. The consumer is never read the item.

The American Association on Mental Retardation developed the *AAMR Adaptive Behavior Scale, 2nd Edition (ABS)*. This tool assesses the manner in which individuals with mental retardation cope with the usual and social demands of their environments. The adaptive behavior scale has two choices for the evaluator. The evaluator can either record the level of skill / mal-adaptive behavior (never/occasionally/usual), or just record the presence of the skill / mal-adaptive behavior (yes/no). In some instances, items are worded in a problem-oriented style which has caused concern with self-advocates. The tool provides a comprehensive identification of problem behaviors, but does not allow for the indication of severity. The test blends the ratings into one score.

The *Inventory for Client and Agency Planning (ICAP)* is a 16-page booklet that assesses the adaptive and maladaptive behaviors for persons with developmental disabilities. The ICAP gathers additional information to determine the type and amount of special assistance that people with disabilities may need. This is accomplished through the gathering of demographic characteristics, diagnosis, support services needed and received as well as social and leisure activities. Scoring and database software allows for reports to be printed. The software can retain historical information on 10,000 people. The ICAP can be completed in less than 30 minutes. The ICAP adaptive and maladaptive behavior sections contain items selected from the SIB-R with norms for infants through adults. Similar to the SIB-R, the ICAP generates a Service Score, a rating that combines measures of adaptive and maladaptive behavior. The Service Score is indicative of overall need for intervention, level of supervision, and the degree of training that may be required. The ICAP is used by several states, often with customized additions for rate setting and planning. The following table lists examples:

<b>Purpose</b>	<b>State</b>
Consumer Planning	Nebraska
Individual Resource Allocation	South Dakota, Texas, Delaware, and Wyoming
Limited Use	Arizona, Idaho, Montana, New Mexico, Utah, Virginia and Washington State

The ICAP has 77 adaptive behavior items divided into four areas: Motor Skills; Social and Communication Skills; Personal Living Skills; and Community Living Skills. Each item is worded as a statement of a task: Washes, rinses and dries hair, for example. The respondent rates the ability using a scale ranging from 0 to 3. The scale is designed to assess the quality of the performance as well as the individual's motivation. The motivation component separates the ICAP from the other tools in that it captures the

possibility that a person may have the ability but for whatever reason(s) is not utilizing the skill.

The ICAP also differs in the manner that it captures maladaptive behaviors. Some tests attempt to rate each maladaptive behavior on a list as occurring “seldom” or “frequently” or attempt to list the seriousness from a list of possible behaviors. The ICAP is designed to capture all possible behaviors by avoiding the use of a checklist. Rather it is designed to measure behavior within eight categories using open-ended questions. It adds to these questions, inquiring on frequency and severity. Of interest, the ICAP further inquires as to the usual management response to the identified behaviors. The result is the identification of four dimensions: the specific problem behavior; frequency; severity; and the usual management response.

Three of the referenced standardized tools allow for similar comparisons. The assessments are the ABS, SIB-R and the ICAP. The definitions and the use or scores to assign levels of support intensity have many similarities, especially between the SIB-R and the ICAP. When comparing the assessments it is important to consider the standard deviation ranges for each tool. Specifically, the ICAP has a standard deviation of plus or minus 6. A Service Score of 70 could be viewed as being representative of a range from 64 to 76. By contrast the SIB-R has a standard deviation of plus or minus 2 with the concomitant Score of 70 being a range from 68 to 72. The number of test items primarily drives the differences in the standard deviations. The ICAP is developed around 77 test items and can be administered in less than 30 minutes. The SIB-R by contrast has nearly 300 test items. The following table compares the test items.

	<b>ABS</b>	<b>ICAP</b>	<b>SIB-R</b>
Number of Levels and degrees of intensity	4	6	6
Comparability of Scores	Yes	Yes	Yes
Comparability of time to administer	Yes	No	Yes

The following table compares statistical similarities among selected individual assessment instruments.

Tool	Materials	Number of Items	Norm	Standard Deviation	Reliability	Inter-Rater Reliability	Validity
SIB-R	Manual Planning Sheets Software	Adaptive= 259 Behavior =24	Birth to 90 years	+ or - 2	.98	.95	.91
Vineland	Manual Planning Sheets Software	Adaptive=541 Behavior=36	Birth to 18 years	+ or - 4	.85	.74	N/A
ABS	Manual Planning Sheets Software	Adaptive=356 Behavior= Included	3 to 80 years	+ or - 3	.66	.74	.41

The North Carolina *Support Needs Assessment Profile* (SNAP) is a tool developed by the North Carolina Developmental Disabilities Policy Workgroup to ensure system-wide consistency through an assessment of a person’s level of intensity for supports and services. The SNAP has several key features. It was designed for easy administration usually within 20 minutes. The SNAP assesses intensity of services and supports within three domains:

- Daily Living,
- Health, and
- Behavior.

The SNAP uses a five-point scale defined as Levels which are tied to degree of required staff supervision. Level 1 is the minimal with Level 5 the most intense. Use of the NC-SNAP has been suspended in North Carolina, and ongoing reliability studies are being conducted to refine and improve upon inter-rater accuracy.

The *Consumer Direction Tool* is the result of a collaborative effort between the National Association of State Units on Aging and the Home and Community-Based Services Resource Network. While its primary design is to measure the degree of choice available to an elder, the framework is applicable for people with developmental disabilities and could result in a comprehensive profile when paired with a standardized tool such as the ICAP. The strength in this combination is that the Consumer Direction Tool provides the ICAP assessment which is primarily deficit-driven, with an assessment that strives to capture abilities and natural supports with consumer-directed services.

The Consumer Direction Tool has four sections, each section representing one of the principles of the American with Disabilities Act:

1. Opportunity: This section contains nine questions. The questions range from system-related issues, such as the availability of information about services and the respective policies and procedures to access community services to service standards. Questions 1-5 address consumer choice issues. Questions 6-9 address both consumer choice and consumer direction issues.
2. Meaningful Participation: This section has ten questions and centers on the role a consumer plays in the design, approval and delivery of their services and the degree to which those services reflect the consumer's preferences, personal goals and objectives and vision for the future. Questions 1-4 address consumer choice issues. Questions 5-10 address both consumer choice and consumer direction issues.
3. Independence and Financial Security: This section has nine questions and is centered on the degree a consumer has control over decisions impacting their lives. The questions focus in part on the degree that program requirements accommodate consumer choice and independence. Additionally, this section explores the degree of flexibility a consumer has to direct resources and the limits of what may or may not be purchased. Questions 1-5 address consumer choice. Questions 6-9 address both consumer choice and consumer direction.
4. Financial Security Other Safeguards: This section has eight questions and is focused on determining whether the resources needed to support the consumer are available. The section examines both personal and public sector funds. Questions 1-7 address consumer choice issues. Question 8 addresses both consumer choice and consumer direction issues.

The tool defines consumer choice as the ability to determine when, where and how services are to be provided. This includes the ability of the consumer to select services outside of the traditional range of support offered. Consumer direction is used to describe the level of authority the consumer has to select, manage and if necessary dismiss the worker or organization providing the supports. The assessment captures information on a person's cognitive and physical needs. The tool is indifferent to behavior problems and less inclusive than other assessments regarding medical conditions. Therefore, this tool requires additional information to be gathered in order to develop a comprehensive profile of a person's overall need. The tool's strength, as noted, is that it reveals information gathered from the assessment process that can provide excellent benchmarks for the development and implementation of an outcome-driven system. Additionally, this is the first tool that attempts to address the expected outcomes and standards for compliance with the Americans with Disabilities Act.

The Support-Intensity Scale (SIS): The description presented in this section is taken from discussions between the Nebraska OAP Work Group and Dr. Robert Schalock who is one

of the prime authors of the SIS. In summary, the SIS is based upon the premise that there are five predictors which influence both the pattern and intensity of needed supports and form the basis of supports-based funding.

Those factors are:

- personal competence (usually measured on the basis of an intelligence test and an adaptive behavior assessment),
- types of life activities,
- medical support needs,
- behavioral support needs, and
- type of settings.

The SIS assumes that people employ a person-centered planning process which identifies their individual support needs. The SIS assessment process focuses the person's pattern and intensity of needed supports, and presumes that the level of funding support determined by the SIS is directly related to the person-centered plan. To achieve the desired outcomes, the assessment identifies the needed supports for those outcomes to occur. With regard to predictors of cost, research in constructing the SIS revealed the following findings:

- The currently used ICAP (which is highly correlated with standardized measures of intelligence) assesses personal competence. Generally, personal competence accounts for about 20-25% of the variance of funding amount.
- The potential use of the AAMR Supports Intensity Scale (SIS) would assess types of life activities, and exceptional medical and behavioral support needs. On the SIS standardization sample, these three variables accounted for 29% of the variance in funding amount.
- The types of settings can refer to desired settings and not just current settings. On the SIS Standardization sample, type of current setting accounted for 32% of the variance.

*Individual Cost Guidelines (ICG):* The Individual Cost Guidelines were developed in Florida as a replacement for the current Florida Status Tracking System (FSTS). The ICG is a WEB-based support needs-based assessment instrument which uses four primary factors to determine individual costs. The factors are:

- Age (Birth to 6, 7 to 13, 14 to 18, 19 to 21, 22 to 45, 45 and older),
- Living Situation (With Family, Out-of-Family),
- Geography (Keys, Miami, and rest of state), and
- Functional Supports (behavior supports, health supports, community inclusion supports, current abilities, employment supports).

Individual cost allocations are a single amount and exclude room and board, case management, and primary health costs. ICG allocations are used as planning guidelines in the person-centered planning process, and individuals develop individual budgets which can exceed or do not use their allocation within a +/- 5% range. In instances where cost plans vary more than +/- 5% from usual and typical patterns, regional and state utilization reviews are conducted to determine the final allocation.

Montana Needs Assessment (MONA): The Montana Needs Assessment is a WEB-based assessment tool and is similar to the Florida ICG in that it bases the individual budget allocations upon support needs rather than functional skills. The primary cost factors for the MONA are:

- Age (3 to 6, 6 to 18, 19 to 21, 22 to 45, 45 and older),
- Living Situation ( With Family, Supported Living, Group Home),
- Geography (Transportation zones for urban, rural, and rural remote), and
- Functional Support Needs (behavior, health, community inclusion, employment).

The tool is currently being calibrated to Montana expenditure history and personal / program outcome standards.

## Other State Experience

As noted several states use the ICAP as an integral part of rate setting. This section reviews the experience of South Dakota, Texas, Delaware, Florida, and Montana. Texas translates the overall score to service levels and establishes dollar values to those levels.

South Dakota: South Dakota uses components of the ICAP as part of a formula that drives the total number of staff hours authorized for an individual for a year's period. In South Dakota, services are divided into categories. One category represents a flat rate reimbursement and the second reflects rates that vary with the intensity required as determined by consumer characteristics. Direct support hours thus can vary significantly, and as a result rates for key service areas (Case Management, Residential, Day/Vocational and Nursing) can vary dramatically. Other services such as physical therapy are reimbursed at a flat rate. To determine the amount of service to provide, the following formula is applied:

Service Unit: _____				
ICAP Broad Independence score	x	-0.30	=	
ICAP General Maladaptive Index	x	-0.91	=	
ICAP Seizure	x	-0.524	=	
Multiple calculations for age and other factors				

The result generates an authorization for direct support coverage required addressing the support needs of the individual.

*Texas:* The following table is an example of how *Texas* utilizes the ICAP for rate setting. The ICAP scoring of maladaptive behavior can range from +10, which is indicative of overall good adjustment, to -74 representing severe and serious misconduct. The scales are set with an average score of 0 and a standard deviation of 10. The Service Score can range from 0 to 100, with a score of 100 representing independence, no behavior problems and very minimal needs for support.

ICAP Service Score	Texas Level of Need	Foster Home Scale	Group Home Scale	Day Support Scale
70-100	Intermittent to Limited	42.23 to 45.51	100.73 to 110.30	14.52 to 18.15
40-69	Limited to Extensive	45.51 to 61.95	110.30 to 124.64	18.15 to 24.20
20-39	Extensive to Pervasive	61.95 to 84.97	124.64 to 148.54	24.20 to 36.30
1-19	Pervasive	84.97	148.54	36.30
Note "a"	Pervasive Plus	111.27	196.35	145.22
"a" Certification that self-injurious, disruptive or aggressive behavior constitutes a clear and present danger to the individual or others with constant one on one supervision needed to ensure health and safety.				

*Delaware:* Delaware uses two ICAP scores, Broad Independence Index and General Mal-Adaptive, to determine direct care staff support needs. Staff levels vary by type of community living situation (foster home versus supported living versus group home) and day program (workshop / activity versus supported employment). From the ICAP scores, individual cost allocations are developed for both residential and day supports. Case management, individual room and board, and basic health coverage are not included. Additionally, Delaware treats children in out-of-home settings and people with select diagnoses (e.g. autism and Prader-Willi) as exceptions to the ICAP process.

*Florida:* Florida previously used an ICAP-based functional assessment tool called the Florida Status Tracking System (FSTS) to determine individual budget allocations. As a result of current law suits and class-action settlements, Florida has discontinued the use of the FSTS and is implementing a support needs-based instrument called the Individual Cost Guidelines (ICG). The ICG identifies four primary cost drivers:

- Age (Birth to 6, 7 to 13, 14 to 18, 19 to 21, 22 to 45, 45 and older),
- Living Situation (With Family, Out-of-Family),
- Geography (Keys, Miami, and rest of state), and
- Functional Supports (behavior supports, health supports, community inclusion supports, current abilities, employment supports).

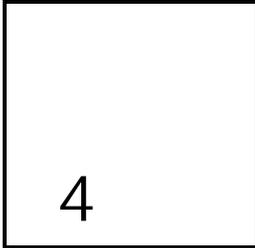
Individual cost allocations are a single amount and exclude room and board, case management, and primary health costs. ICG allocations are used as planning guidelines in the person-centered planning process, and individuals develop individual budgets which

can exceed or do not use their allocation. In instances where cost plans vary widely from usual and typical patterns, regional and state utilization reviews are conducted to determine the final allocation. Approximately 25,000 people in Florida have been assessed and revisions to the cost allocation algorithms are currently in progress. Florida has chosen to integrate the implementation of the ICG with a major restructuring of its provider reimbursement rate system.

*Montana:* As referenced in the earlier section, the Montana Needs Assessment is a WEB-based assessment tool and is similar to the Florida ICG in that it bases the individual budget allocations upon support needs rather than functional skills. The primary cost factors for the MONA are:

- Age (3 to 6, 6 to 18, 19 to 21, 22 to 45, 45 and older),
- Living Situation (with family, supported living, group home),
- Geography (transportation zones for urban, rural, and rural remote), and
- Functional Support Needs (behavior, health, community inclusion, employment).

The tool has currently been applied to 400 people and will be completed on the total population (2,100 people) by January 2005. The tool is being calibrated to Montana expenditure history and personal / program outcome standards. Montana has a designed implementation plan which includes major provider rate reform. As such, Montana intends to phase implementation over a three year period with both rate and individual budget adjustments as needed. As part of its phase-in approach, Montana is initiating a risk mitigation provision which contains financial gains for people and providers to 5% and financial losses to 3%.



## Work Group Findings

The Nebraska Work Group recognized and is appreciative of the substantial thought and consideration that have gone into the OAP process; as such, the Work Group found evidence of significant forward thinking and creativity. For this report, however, the Work Group did not list these major contributions, but rather focused their deliberations on three specific questions and recommended changes that might improve the process. In that the report appears to focus solely on those changes and perceived needs, the Work Group wishes to reaffirm that the OAP system as presented by the Department is a thoughtful and comprehensive approach. The three focus questions of concern are:

- Is the Objective Assessment Process accurate, appropriate, and how might it be improved?
- Are there other measures beyond those identified in the ICAP which predict cost and are they appropriate for Nebraska?
- How have other states implemented individual cost allocation processes and are there any of these approaches appropriate for implementing the Objective Assessment Process?

Findings for each question are listed below. In some instances, findings from Mercer research are included in addition to those from the Work Group. In those instances, Mercer is noted as the source of the finding.

**Question # 1 - How might the Objective Assessment Process be improved?** The Work Group made the following findings.

*Finding#1: The proposed OAP process does not include Person-Centered Planning and is heavily reliant upon the ICAP assessment tool. The ICAP has limitations and should not be used as the sole source of determining individual cost allocations.* A critical aspect of the OAP process is the use of Person-Centered Planning to assist people to determine the purpose and expectations of publicly funded supports. A discussion of

person-centered planning by the workgroup, however, revealed that there is no evidence of statewide implementation. Person-centered planning appears to have limited impact on how services and supports are designed, selected, or provided in Nebraska. Without a person-centered planning process, the implementation an Objective Assessment Process for assigning individual resources will leave people with disabilities unprepared to exercise choice and control of their services. The person-centered plan is the first step of the Objective Assessment Process. With regard to the ICAP, the ICAP has three limitations. First, the ICAP is not able to consider severity and frequency of intrusive personal behaviors, and specifically how to address prevention and behavior maintenance needs. Second, the ICAP does not consider personal safety, flexibility of choice, continuity of supports. And third, the ICAP does not address individual support needs but rather is limited to providing an inventory of personal skill deficits.

*Finding #2: The OAP as initially proposed by DDS lacks an adequate exception process for people who will experience major shifts in resources.* For some people, implementation may occur too quickly and be disruptive. In those instances, the exception process in the OAP is inadequate to address those concerns in a timely fashion. The use of specific individual cost amounts may present too precise a budget and create unintended and unwanted changes in services, and the ICAP funding formulas “compress” costs to a linear regression line. The ICAP funding levels may encourage providers to offer services in larger settings as the only alternative. There are currently no evaluation measures or processes to minimize negative impacts on people. Additionally, the OAP process relies on support coordinator / case managers as the primary source of ICAP data. Controls for inter-rater reliability, ICAP “score creep”, and changes in case management personnel need to be in place. Finally, by limiting the application of the ICAP to only people served by the Home and Community-Based Services waiver, people living at Beatrice, on the Wait List, or in ICFMR will be funded differently.

*Finding #3: There are a group of people with exceptional health or behavior risks for whom the ICAP will not assign funds.* There are some instances where people possess significant health or safety risks. Because there are a small number of these individuals and the cost of their supports is tailored to their specific risk concerns, there will be insufficient cost and service utilization data for the ICAP to predict individual allocation levels with any consistency. The small number of people in this population and the wide variability of cost and support approaches will make ICAP cost generalizations inadequate.

*Finding #4: Historical expenditure and service utilization patterns are not adequate predictors of individual service needs.* Three factors compromise historical service utilization. First, the ICAP formulas are unable to consider the lack of access to services. People who have been underserved may in fact have a significant need for a service but find it not available, therefore not incurring cost. Second, provider rates have not been updated using new cost bases, nor have any recent rate studies been conducted to reflect current financial pressures. Therefore, inequitable funding situations created over time have not been corrected and will be perpetuated by limiting the individual cost allocations

to historical experience. And third, the historical service utilization experience has not been correlated to any personal or program outcomes. Using historical costs may lock people into using historical services and minimize flexibility and choice. Therefore, the historical expenditures may have in some instances purchased poor outcomes and services; basing future individual service allocations on such a history would continue poor practices, and potentially inhibit the use of outcome-based incentives.

**Question # 2 - Are there other measures that predict costs?** Mercer examined individual assessment instruments and related validation studies from several states. The findings are as follows.

*Finding # 5: Most Individual Assessment Tools consider additional cost factors than the ICAP.* The following table describes the primary cost drivers used in select states and compares them to the ICAP. For reference purposes, Nebraska is compared using the ICAP tool. A response of “yes” indicates that measures are independent from each other in predicting cost.

**Table A – Primary Cost Drivers Used by Nebraska OAP and Select States**

MEASURE	Nebraska OAP	SIS	California	Florida	Pennsylvania	Montana	Delaware
Functional Ability	yes	yes	yes	yes	yes	yes	yes
Age	no	no	yes	yes	no	yes	yes
Diagnosis	no	no	yes	no	yes	no	yes
Living Situation	no	yes	yes	yes	yes	yes	yes
Personal Life Events	no	yes	yes	yes	yes	yes	no

*Finding # 6: Functional Ability alone is not the significant predictor of cost.* From the SIS studies conducted by AAMR, University of California- POS/CDER study, and Georgetown/Louisiana State University study of the Florida ICG, Mercer found the following data regarding the ability of various cost measures to predict tool cost of care.

**Table B – Range of Predictable Costs by Cost Measure**

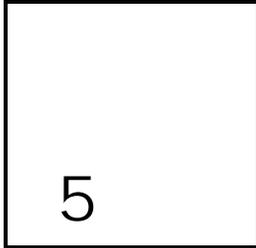
MEASURE	Percent of Predicted Cost – Range	Study
Age	14% to 18%	California, Florida
Living Situation	31% to 32%	SIS, California, Florida
Personal Life Events	10% to 17%	SIS, Florida
Diagnosis	5% to 7%	California
Functional Ability	3% to 5%	SIS, Florida, and California

**Question # 3 - How have other states implemented individual cost allocation processes?**

Mercer has reviewed the implementation experience of other select states and presents the following findings:

*Finding # 7: Other states have used a phased approach which includes pilot projects, performance outcomes and evaluation measures, and individual and provider risk-mitigation strategies.* Specific state findings are as follows:

STATE	Risk Mitigation	Implementation Approach	Personal Outcomes and Evaluation
Florida	none	Phase in Rate Reform in Residential and Day Habilitation, Individual Budgets for people in own homes, and then All people and Programs – three year timeline	Council on Quality Leadership Personal Outcome Measures
Montana	Limits – 3% loss; 5% gain – both people and providers	Pilot rate reform AND individual budgets in select communities; phase in rates over three years	CMS / Medstat measures; CORE indicators
Delaware	Limits – 3% loss; 5% gain – both people and providers	Pilot rate reform AND individual budgets in select communities; phase in rates over three years	Center for Outcome Analysis –Personal Life Outcomes
Arizona	Cost guidelines are not binding; tracking differences between tool and individual plan	Pilot providers	Center for Outcome Analysis; CORE indicators



## Recommendations

The Work Group respectfully offers the following recommendations to the Developmental Disabilities System.

The following recommendations apply to the Rules of Fairness and Equity:

- Recommendation # 1: The OAP should begin with the use of person-centered planning and involve criteria in addition to Functional Abilities as measured by the ICAP. While Functional Abilities will be a significant defining criterion for determining individual budget allocations, these allocations will also be determined by current funding levels and individual circumstances which may include changes in family and living situations, and personal choice. The OAP should be viewed as a multi-step process where the individual outcomes are assessed and included, as well as a skill assessment, and that both are part of the funding formulae. (Links to Findings 1, 5, and 6.)
- Recommendation # 2: Historical service utilization levels for State Fiscal Year 2003 are presumed as the baseline to establish individual service levels. However, future financial trend analysis is needed, and historical service utilization levels will need to be adjusted by a review of best program practices during the course of implementation. (Links to Finding 4.)
- Recommendation # 3: People will have equal access to funds regardless of where they live, however, the assessment process will recognize the differences in cost between assisted and supported situations; should people choose to change their supports, their authorized funding level will be adjusted to reflect the change in financial costs. (Links to Finding 2.)

- Recommendation # 4: Unused individual budget amounts will be collected every six months and redistributed to people who have short-term emergent needs or who are underserved. (Links to Findings 1, 2, and 3.)
- Recommendation # 5: People who have exceptional support needs due to significant health or safety risks may be authorized funding based upon an individual service plan in addition to their functional abilities. (Links to Findings 1, 3, and 6.)

The following Recommendations apply to the Principles for Implementation:

- Recommendation # 6: The OAP should start with the Person Centered Plan which will identify needed personal supports. The OAP will then use the ICAP and other support needs assessments (such as the SIS) to compare the cost of the desired person-centered plan and the usual and typical costs as demonstrated by the ICAP / SIS. In those instances where there are significant differences, a secondary review will be conducted (for example, by an external interdisciplinary team and consumer peer reviewers) to provide added perspective and information. An illustrative depiction of this process is included in Attachment 2. (Links to 1, 2, 3, 4, 5, and 6.)
- Recommendation # 7: People should not be put at risk for their safety and/or freedom from harm as a result of the effect of their individual budget allocations. In those instances where personal safety and freedom from harm are at risk, the Objective Assessment Process will be suspended, and the person-centered plan will prevail. (Links to Findings 1 and 3.)
- Recommendation # 8: Prior to implementation, a comprehensive analysis is required to determine the extent of the financial and personal impact for each consumer. DDS should conduct an Individual Impact Analysis using people with current OAP scores and the proposed OAP funding formulas. Similarly, DDS should conduct a Provider Impact Analysis using similar data and compare to current service contracts. (Links to Findings 2 and 7.)
- Recommendation # 9: DDS should conduct a survey of Individual Consumer Choice with People First and other self-advocates to ensure that people are informed and comfortable with the changes in their service funding. As a result of the impact analyses, DDS should identify actions to increase Community Inclusion and individual participation to include joint meetings or presentations with People First. (Links to Finding 7.)
- Recommendation # 10: In those instances where people feel that the assessment to determine individual funding levels is insufficient, people may request one or all of the following options for reconsideration:
  - a. Peer Review by a group of people and families,
  - b. Reassessment by a different rater, and

c. Alternative assessments.

(Links to Findings 1, 2, 3, 4, 5, 6, and 7.)

- Recommendation # 11: Implementation of the OAP and associated tools should occur in a phased fashion in order to test for individual fairness and financial impact. DDS staff are very familiar with ICAP but should also review other scales (such as the SIS and MONA) and talk with other states (Montana) who have implemented individual authorization systems similar to the OAP. (Links to Findings 2 and 7.)
- Recommendation # 12: A “risk mitigation” factor should be applied during the phased implementation which limits the percent of change which an individual or family may experience; e.g. no person will receive an increase greater than 5% or a decrease greater than 3%. (Links to Findings 2 and 7.)
- Recommendation # 13: The use of the OAP assessment tool will be suspended if the inter-rater reliability falls below a certain threshold for the tool. The threshold will be consistent with industry standards for inter-rater reliability; for example, an 85% threshold. (Links to Findings 2 and 7.)
- Recommendation # 14: Evaluation criteria need to be defined and an evaluation process in place prior to implementation of the individual cost allocation process. These evaluation criteria need to be comprehensive and include measures for personal outcomes, provider viability and quality of support, financial impact, and maintenance and promotion of civil rights. Evaluation tests need to be conducted by people and families who are directly involved in receiving and choosing their supports. (Links to Findings 1, 2, and 7.)

The following Recommendations apply to the Implementation Steps:

- Recommendation # 15: DDS needs to incorporate consumer / community risk guidelines and identify and examine people who are Outliers from the ICAP approach to determine what measures should be used to assign funds. (Links to Findings 1, 2, 3, 5, 6, and 7.)
- Recommendation # 16: There are four key questions that Mercer recommends be examined as part of the Implementation process:
  1. Will people who receive supports be able to obtain desired outcomes using the OAP model?
  2. Will DDS be able to afford the cost and shift resources to meet changing service trends driven by self-determination?
  3. Are the cost assumptions viable?

4. Does the current DDS organization have adequate resources to fully implement the model?

(Links to Findings 1, 4, and 7.)

- **Recommendation # 17:** Mercer recommends that Person Centered Planning and Personal Outcome Measures and the amount of staff hours needed to achieve them be defined for both control and test groups in the following areas:
  1. Health and Wellness
  2. Safety and Freedom from Harm
  3. Stable home
  4. Choice
  5. Work, careers, and meaningful day activities
  6. Community inclusion
  7. Personal Satisfaction: Individual and family satisfaction will also be measured and will involve the following areas:
    - a. Ease and relevance of the PCP process
    - b. Ease and comfort level of the purchasing process
    - c. Ease and flexibility of changing services or providers

(Links to Findings 1, 2, 3, and 7.)

- **Recommendation # 18:** Implementation of the OAP should occur using a Design / Shadow / Pilot / Phased approach to establish consistent rating practices prior to full implementation. Mercer recommends that the implementation process involves the following steps:
  1. **Shadowing:** For the next 60 days, shadow the ICAP tool, SIS tool, and the Individual Service Plan budgets on a sample of 10% of the HCBS population. Shadowing will involve tracking the impact of the revised individual service authorization levels without actual implementation.
  2. **Piloting:** Implement pilot projects in three communities to determine the operational issues and financial viability of the revised OAP. Those people and agencies participating in the Pilots will be offered a “hold harmless” provision in

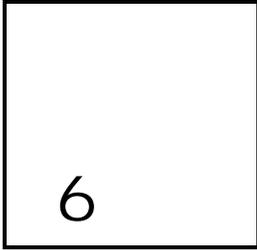
case unforeseen issues arise. These pilots should start 30 days after the beginning of the Shadowing and continue for at least five months.

3. Phase I / Implement Residential Programs: Based upon findings from the Pilots, implementation of the OAP will focus on Residential Habilitation programs only. This phase should take six months to implement. Mercer recommends starting implementation with the residential programs. However, implementation could begin with the day programs.
4. Phase II / Implement Day Programs: Within three months of the implementation of Residential Phase I, the Day Program agencies should also be transitioned to the new OAP model.
5. Phase III / Initiate Self-Directed Services: Upon successful implementation of the OAP model for residential and day programs, DDS should initiate a HCBS waiver amendment to provide self-directed / non-facility based services.

(Links to Findings 2 and 7.) A graphic of this sample implementation plan is included in Attachment 3.

- Recommendation # 19: Mercer recommends that Control Group and Test Group conditions be established during the Pilot phase. Control group members for each phase will continue to receive their current services as defined by their Individual Service Plans. Personal satisfaction and outcomes from control group members will be collected three times during the pilot: week 1, week 13, and week 26. Cost and service utilization data will be collected two times during the pilot: week 1, and week 26. Test group members in each phase will participate in person-centered planning and individual budgeting during week 1 through week 6. Personal satisfaction and outcomes from test group members will be collected four times during the pilot: week 1, week 6, week 13, and week 26. Cost and service utilization data will be collected three times during the pilot: week 1, week 13, and week 26. (Links to Findings 1, 2, 3, 4, and 7.)
- Recommendation # 20: Mercer recommends that pilot provider staffing levels will be collected four times during each phase of the pilot: week 1, week 6, week 13, and week 26. This data will include key staff indicators (e.g. staff vacancies, turn-over, overtime, staff training) as well as hours of staff time provided. Pilot providers will provide data on Personal Outcomes for week 1, week 6, week 13, and week 26 for both control group and test group members. (Links to Findings 2 and 7.)
- Recommendation # 21: Mercer recommends that an Evaluation Protocol similar to the following table be constructed by DDS. (Links to Findings 1, 2, 3, and 7.)

<b>Rate and Member-Directed Service Pilots</b>			
<b>What are the questions to be answered?</b>	<b>What data are needed to answer the questions?</b>	<b>How will the data be collected?</b>	<b>What analyses will be conducted?</b>
Is the personal budget sufficient to purchase the services desired?	Self-report from individuals, advocate guardians, families, Division staff, and providers	Self-report questionnaires	Analysis of reports of sufficiency Comparison of services on plan to services purchased
Are the rates sufficient to pay for the services that are desired?	Self-report from individuals, advocate guardians, families, Division staff, and providers	Self-report questionnaires	Review of financial viability and staff turnover
Is the billing process more timely, less complicated, and more accurate?	Self-report from individuals, advocate guardians, families, Division staff, and providers Division policies and procedures Data on time for claim to be processed	Self-report questionnaires Tracking of claim	Analysis of reports of timeliness Comparison of changes in time frames in Division policies and procedures Comparison of actual claims processing time to policies and procedures
Did the person get the services and supports that they were supposed to get?	Self-report from individuals, advocate guardians, families, Division staff, and providers	Self-report questionnaires	IHP Audit and PQL review
Are personal outcomes what are desired?	Self-report from individuals, advocate guardians, families, Division staff, and providers	Self-report questionnaires	Personal Quality of Life reviews
Are personal outcomes what are on the plan?	Self-report from individuals, advocate guardians, families, Division staff, and providers	Self-report questionnaires	Essential Lifestyles Planning conversion to PQL criteria Case management analysis
Do services and supports improve in quality?	Self-report from individuals, advocate guardians, families, Division staff, and providers	Self-report questionnaires	PQL analysis
What are the negative outcomes?	Self-report from individuals, advocate guardians, families, Division staff, and providers Health status	Self-report questionnaires Licensing & certification findings	Incident management trends and patterns Health Status trends and patterns
What type of monitoring is needed of the process?	Self-report from individuals, advocate guardians, families, Division staff, and providers	Self-report questionnaires	Licensing and certification findings



## Attachments

## Attachment 1

### Objective Assessment Process: Description of the Development of the Formulas Used in Determining Level of Support

THE NEBRASKA DEVELOPMENTAL DISABILITIES  
SYSTEM

# OBJECTIVE ASSESSMENT PROCESS

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DESCRIPTION OF THE DEVELOPMENT OF  
THE FORMULAS USED IN DETERMINING  
LEVEL OF SUPPORT

# OBJECTIVE ASSESSMENT PROCESS

## DESCRIPTION OF THE DEVELOPMENT OF THE FORMULAS USED IN DETERMINING LEVEL OF SUPPORT

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### PURPOSE OF THE OBJECTIVE ASSESSMENT PROCESS

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The Objective Assessment Process (OAP) was developed in response to legal, legislative and political mandates to develop a process to equitably distribute funding to individuals receiving services from the Nebraska Developmental Disabilities System (DDS) based on objective assessments of the people's needs.

The mandates specified the need for objective assessment and for equitable distribution of funding. Therefore, DDS's mandate was first to determine an objective assessment that would measure attributes of persons relevant to determining their level of support. Then, provided the information from this assessment, the mandate was to utilize this information to provide equitable funding to persons receiving services from DDS.

This report provides an overview of the efforts to meet these mandates.

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### SELECTION OF ASSESSMENT INSTRUMENT

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A committee of persons from the Developmental Disabilities System along with support personnel from the Beatrice State Developmental Center was convened to review instruments used by other states and to look into the alternative of developing an instrument to objectively assess person's needs.

This committee reviewed a number of assessments developed in other states. Unfortunately, many of these instruments were developed without any studies of their reliability or validity in assessing factors relevant to the support of individuals in our services. Without such study, it would not be possible to know if the information gathered was be useful or would provide the discrimination of persons needs required for the equitable distribution of supports.

The idea of developing an instrument by DDS was considered, but not prioritized due to time expense of conducting studies of the reliability and validity of a new instrument, including the revisions that would be required to finalize such an instrument.

Current commercial instruments were reviewed as they generally have been through a rigorous development process and studies are available to reliability and validity claims of the instrument. Of the instruments reviewed, the Inventory for Client and Agency Planning or ICAP was selected. The reason for the selection of the instrument were its psychometric characteristics (excellent reliability and validity), its ease of use and efforts of other states in using the instrument to distribute funding. The instrument was developed by persons who have worked in the field of Mental Retardation and is the same group of authors as for the Scales of Independent Behavior, a well-known adaptive behavior scale.

An advantage of using this instrument has been that the ability to access the experiences of other states in using this instrument. It is currently used by 17 states for funding, eligibility and/or other database uses. Bradley K. Hill, the managing author of the ICAP, has also become a valuable resource in addressing issues regarding the scoring and use of the instrument.

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#### **DATA SET USED TO DETERMINE FORMULAS**

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Currently, the ICAP has been completed on everyone in the system three times. The original data set was completed in 1996. At the time, Service Coordinators were asked to complete ICAPs on everyone on their caseload within approximately a month. Thus, these were completed primarily without input from anyone other than the Service Coordinator.

The second set was completed in 1999 at the time of each person's annual evaluation. The ICAPs were to be completed with the team to insure the input of individuals, their guardians and family and provider staff. There were indications that the ICAPs were not all completed within the team setting and there were concerns that the group setting may have allowed some persons greater influence than others in the final ratings of the ICAP.

The third set is currently being completed. In 2002, the decision was made to complete ICAPs on a biennial basis. A standard protocol was developed to insure input by the individual and by staff who work the person in each major setting the person is in. The training was revised to address issues found from evaluations of how the ICAPs had been completed. All Service Coordinators were retrained in January and February of 2002 to aid increasing the accuracy of the ICAPs in their completion.

As the ICAPs completed since 2002 have been completed in the most consistent and accurated manner, it would seem obvious to use the database begun in 2002. However, there are other considerations. In January of 1999, the OAP was implemented for persons first entering services and for persons requesting an increase in their funding. As the development of the formulas looks at the relationship between the variables measured by the ICAP and the level of support the person has received, there is a concern in using information from individuals whose funding was determined by the OAP. However, to exclude those persons would limit the persons who required increases as well as those who entered services since 1999. Thus, the sample would likely be biased as it would not include some persons with higher needs. As the formulas are developed using the actual billing data, exclusion of those who are already under the OAP would ignore information regarding persons who did not use the total OAP amount. This information is important to be able to redistribute the funds persons don't use to persons who have greater needs. Another consideration is that the blend of services being utilized has shifted over the last several years. There has been an increase in the proportion of persons utilizing assisted versus supported residential services, for example. The average support for residential services has been increasing relative to the support for day services during this time, also. Thus, using earlier data sets and the funding data related to when those ICAPs were completed would reflect the services at that time and not the current trends in services. Thus, it was decided to use the 2002/2003 ICAPs to determine the current formulas utilizing funding data persons in services during the 2002/2003 fiscal year.

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#### **DETERMINING VARIABLES IN THE FORMULA**

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The variables entered into the formula were chosen based on their logical and empirical relationship to the support provided to individuals. This is, the variables must show a significant

relationship to the funding provided and must show a relationship that is in the direction that would be expected. For example, hearing acuity may show a significant relationship to funding and would, on that criteria, be included in the formula. However, if that relationship indicates that persons with hearing difficulties have received less funding than those who hear well, it would be excluded as the expectation is that persons with less skills or more hearing difficulties would require more, rather than less, support than persons with no auditory difficulties.

In addition, the effort is to include more global variables prior to entering variables related to specific items. For example, for maladaptive behaviors, the ICAP provides an overall score, three subscale scores, a means to scale the scores on each item, as well as providing the raw score ratings for each item. As the larger scale is a more reliable measure, it is entered first. Then the subscales are entered. While information about individual items is generally not used, that information is then entered as the weighting of these items in the larger scales is likely somewhat different in the services in Nebraska than in the population used to develop the ICAP norms. This allows for the idiosyncrasies of Nebraska's services to be captured in the formula.

In recognition that the relationship between adaptive and maladaptive abilities and the level of support needed is not always linear, the squares of the variables were also considered. This allows the curvilinear nature of these relationships to be captured in the formula.

In addition to variables involving adaptive and maladaptive behaviors, other variables to be considered include functional limitations, age, a specific item regarding whether a person can swallow soft foods and an item regarding whether the person communicates primarily through sign language. Squares of the adaptive and maladaptive indexes and the square and cube of age were also included in the analysis to account for the curvilinear relationship between these variables and the funding persons receive.

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#### **DETERMINING THE WEIGHTING OF THE VARIABLES**

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Using a statistical procedure to determine the relationship between the variables does the weighting of the variables and the support people receive. The procedure is called multiple regression as it weights each of multiple variables according to their relationships to the funding persons receive.

As the funding persons receive has traditionally been determined by the teams, this methodology preserves the underlying considerations the teams used in determining the support for the person, but eliminates inequities related to other factors that are not related to the individual's abilities. These factors include variances in advocacy for each person, variances related to a provider or providers and recency in entering services among other variables that determined the level of support previously.

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#### **THE FINAL FORMULAS**

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Formulas were generated for day and residential services. As can be seen, the weighting of the variables included differ between the two formulas. These different weightings provide a picture in the differences between these two type of services. For example, the ability of a person to use their arm and hand was significantly related to the day services funding, but not for the residential services funding. However, for the residential funding, mobility was a significant factor, while it was not significantly related to the day services funding.

Below are the formulas, first as arithmetic expressions and then in table form. The formula for day services (generally thought of as five eight-hour days during the week) is presented first, followed by the formula for residential services (weekends and evenings). Each formula is a constant followed by the addition or subtraction of an ICAP score multiplied by the empirically derived weight. The total is multiplied by 1.015 to reflect the 1.5% increase in the provider rates for fiscal year 2004.

**Day Services Level of Support in Dollars** = (8236.684 -32.299\*Broad Independence Index + 0.0242\*Broad Independence Index Squared + .00268\*Motor Skills Index Squared + 10.373\*Community Living Skills Index - 0.0107\*Community Living Skills Index Squared + 4.271\*General Maladaptive Index + 0.285\* General Maladaptive Index Squared + 83.652\*Hurt to Self Severity + 50.917\*Hurtful to Others Frequency + 51.349\*Hurtful to Others Severity + 35.592\*Unusual or Repetitive Habits Severity + 44.496\*Health Medication + 93.176\*Behavior Medication + 77.209\*Seizure Medication + 32.247\*Arm/Hand -22.778\*Age in Years + 0.00167\*Age in Years Cubed) \* 1.015.

**Day Services Level of Support in Dollars** =

<i>Sign</i>	<i>Variable</i>	<i>Function</i>	<i>Weight</i>
	(Constant)	Equals	8236.684
-	Broad Independence Index	Multiply	32.299
+	Broad Independence Index Squared	Multiply	0.0242
+	Motor Skills Index Squared	Multiply	0.00268
+	Community Living Skills Index	Multiply	10.373
-	Community Living Skills Index Squared	Multiply	0.0107
+	General Maladaptive Index	Multiply	4.271
+	General Maladaptive Index Squared	Multiply	0.285
+	Hurtful to Self Severity	Multiply	83.652
+	Hurtful to Others Frequency	Multiply	50.917
+	Hurtful to Others Severity	Multiply	51.349
+	Unusual or Repetitive Habits Severity	Multiply	35.592
+	Health Medication	Multiply	44.496
+	Behavior Medication	Multiply	93.176
+	Seizure Medication	Multiply	77.209
+	Arm/Hand	Multiply	32.247
-	Age in Years	Multiply	22.778
+	Age in Years Cubed	Multiply	0.00167
	Total	Multiply	1.015

**Residential Services Level of Support in Dollars** = (10350.253 - 18.021\* Broad Independence Index + 0.00497\* Motor Skills Index Squared - 0.303\* General Maladaptive Index + 0.867\* General Maladaptive Index Squared - 0.798\*Internalized Maladaptive Index Squared + 160.011\* Hurt to Self Severity + 198.728\*Hurtful to Others Severity + 91.263\* Unusual or Repetitive Habits Severity + 580.710\* Behavior Medication + 228.971\* Seizure Medication + 723.825\*Mobility - 57.1435\*Age in Years + 0.00511\* Age in Years Cubed) \* 1.015.

**Residential Services Level of Support in Dollars** =

<i>Sign</i>	<i>Variable</i>	<i>Function</i>	<i>Weight</i>
	(Constant)	Equals	10350.253
-	Broad Independence Index	Multiply	18.0210

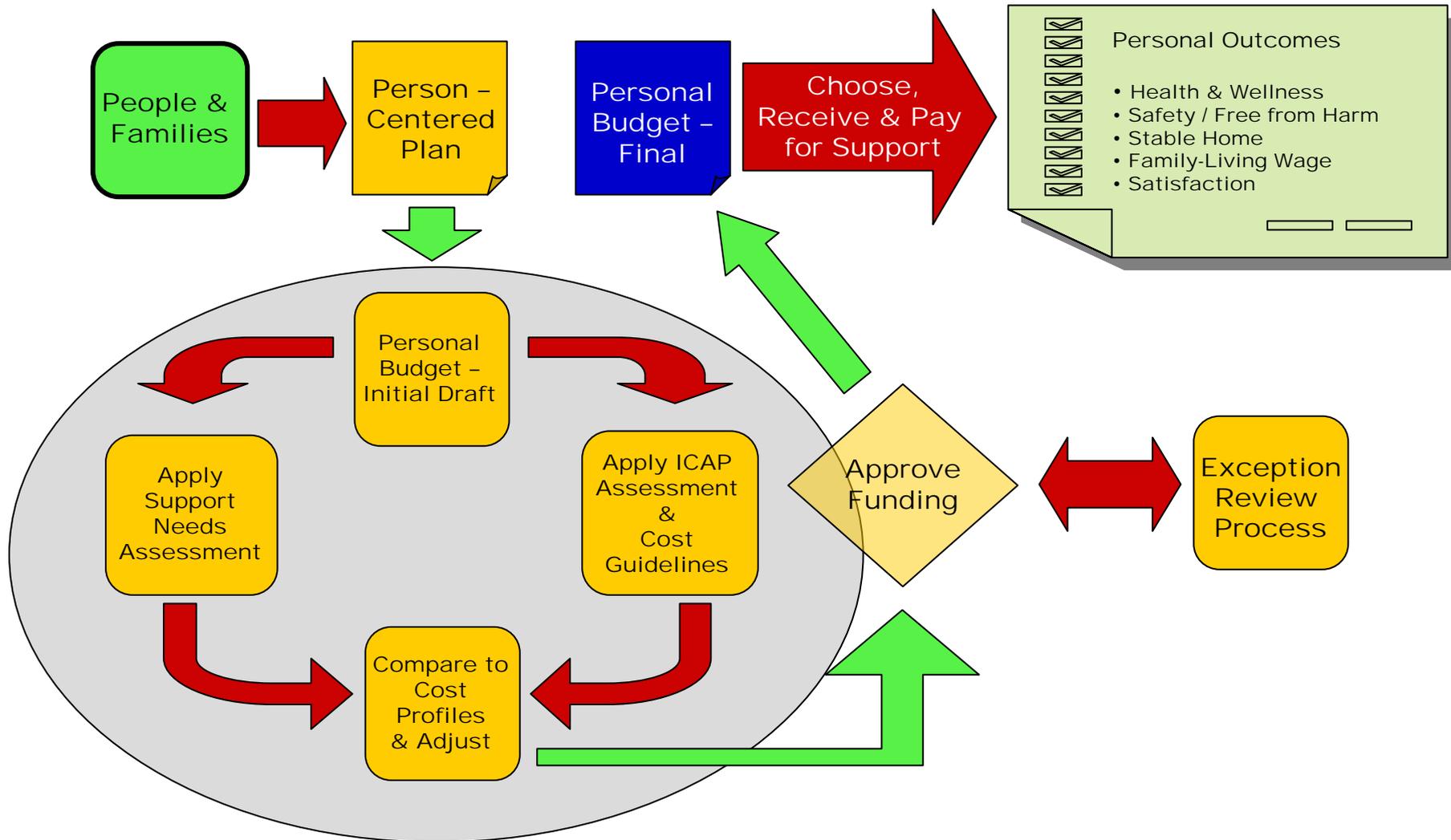
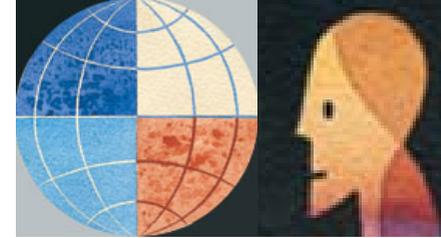
+	Motor Skills Index Squared	Multiply	0.00497
-	General Maladaptive Index	Multiply	0.303
+	General Maladaptive Index Squared	Multiply	0.867
-	Internalized Maladaptive Index Squared	Multiply	0.798
+	Hurt to Self Severity	Multiply	160.011
+	Hurtful to Others Severity	Multiply	198.728
+	Unusual or Repetitive Habits Severity	Multiply	91.263
+	Behavior Medication	Multiply	580.710
+	Seizure Medication	Multiply	228.971
+	Mobility	Multiply	723.825
-	Age in Years	Multiply	57.143
+	Age in Years Cubed	Multiply	0.00511
	Total	Multiply	1.015

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## Attachment 2

### Nebraska Proposed OAP System Design

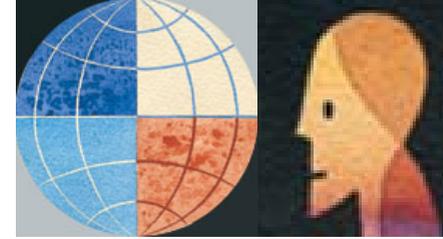
# Nebraska Objective Assessment Process System Design



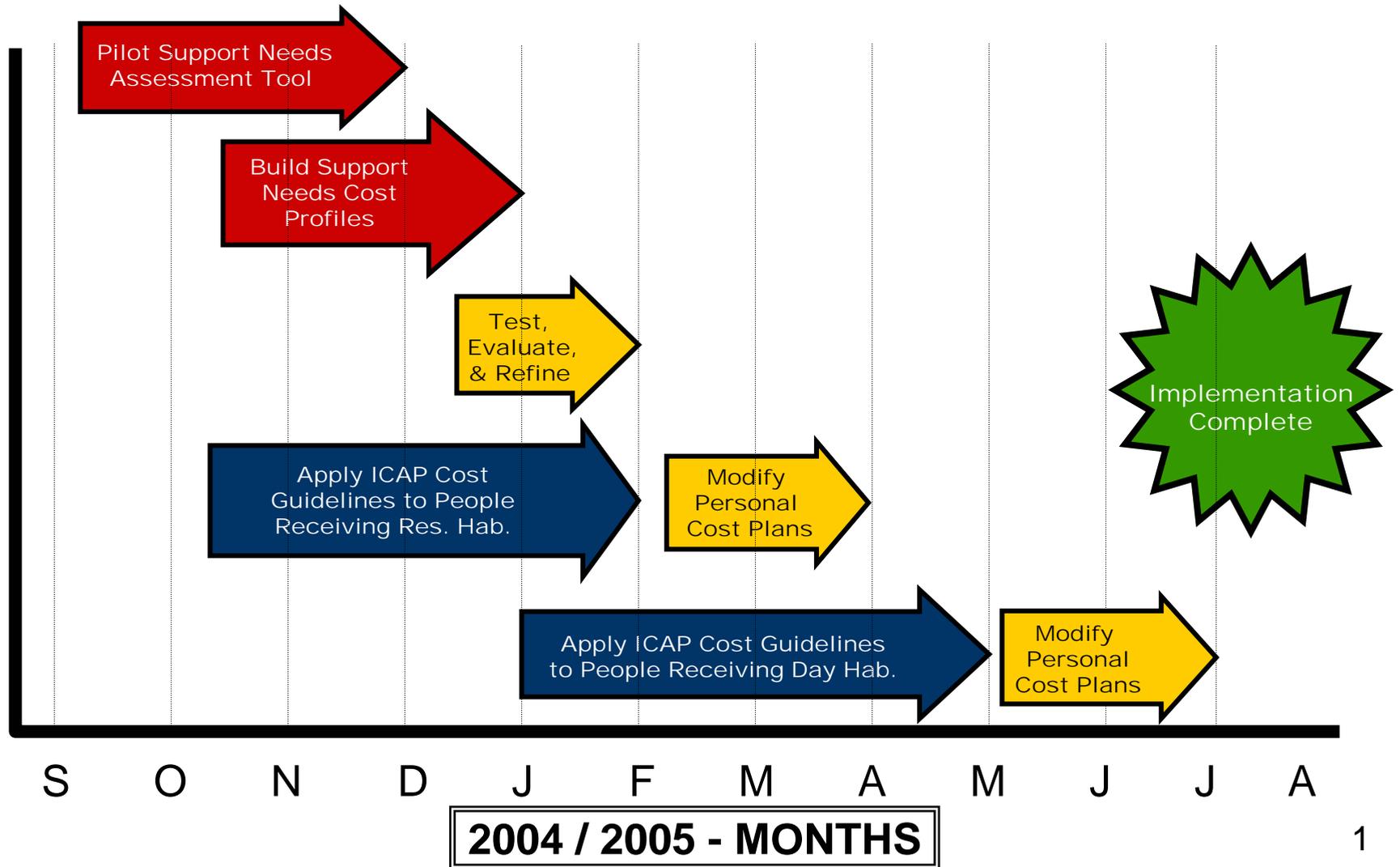
## Attachment 3

### Sample Implementation Schedule

# Implementation Schedule for Objective Assessment Process



**TASKS**



**MERCER**  
Government Human Services Consulting

Mercer Government Human Services  
Consulting  
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