Outcome Assessment for 2019 & 2020

Jasper Mountain Psychiatric Residential Program

May 2021

Introduction

Since 1998 Jasper Mountain has conducted comprehensive outcome assessment of the children in its programs. The two primary outcome assessment components are what pre and post testing while in the program, and follow-up data collection reflecting the child's progress after discharge for up to five years. This report focuses on the pre and post testing results of the 29 children who discharged from Jasper Mountain in the years 2019 and 2020 with some reference to the 316 children discharged since 1998. Typically, this report is issued annually in January and covers the prior year but due to a transition in the Agency Director role, this report covers both 2019 and 2020. The Agency Director historically has authored these reports for many years, and now this task will be completed by the Clinical Director who will issue these reports every January from this point on.

There are two additional data sets to examine in this report, namely that CAFAS scores are compared over the past 17 years in terms of pre-test severity levels and percentage of improvement over those years and the children's discharge placements are now being tracked in this report to illustrate where our graduates go after treatment.

Executive Summary

This summary concerns the children discharged from the intensive residential treatment program during the calendar years of 2019 and 2020. The fifteen graduates in 2019 and the 14 graduates in 2020 were given post-tests to compare with data from pretests given at the start of treatment. The following results were seen:

- Overall there was a 34% average improvement in attachment disorder for this two-year cohort, and a 38% average improvement for the group among this cohort that entered in the most severely attachment disturbed range.
- There was 62% average improvement among these groups on their clinical treatment objectives.
- There was a 72% average improvement among this cohort on their most serious behaviors.
- As measured by the CAFAS there was 51% average improvement in functioning among this two-year cohort.
- Looking at 17 years of CAFAS data showed us that the average improvement rates kept climbing despite the population we treat being more impaired.
- 60% of our graduates in 2019 and 2020 dropped an entire level of care, no longer requiring residential treatment or hospitalization.
- Using a new tracking measure, placement upon discharge, we learned that in this two-year cohort, 76% of the graduates went into family settings rather than group homes or facilities.

Outcome Assessment for 2019 & 2020

Jasper Mountain Psychiatric Residential Program

May 2021

Importance of Outcome Data

Outcome data essentially indicates the changes that occur during the process of the treatment program. While useful, outcome data does not say if the changes are temporary or lasting, for this purpose a longitudinal follow-up study is needed. If long-term and short-term data sets are compared, it is easy to see that lasting changes are of more practical importance than short-term changes. However, it is extremely unlikely that lasting changes are possible without the foundation of initial changes. Because of this, and the ability to identify improvement of children in a particular year, outcome data is very important.

Another reason outcome data is important is to determine if the treatment program is in fact accomplishing what it intends to accomplish during the time the child is in residence. Based upon the answer to, 'Do children in the program improve over time?' decisions can be made to improve specific aspects of the program. The best outcome data is a comparison of two snap shots--at the point treatment begins and again when it ends. The difference between the two measures indicates changes the child has made during treatment.

The third value of outcome data is to consider the cohort of children the program has been asked to work with over the last year compared to previous years. In this regard the trends in the children will be explored for the past 17 years, from 2003 to 2020. The reduction in referrals to psychiatric treatment in Oregon continues to play a substantial role in a state crisis due to insufficient placement options leading children to be housed in hotels and many sent out of state with no in-state resources. Since 2008, most of the children in our program and in this sample are from states other than Oregon.

A Caveat on Outcome Data

It must be mentioned that all changes made by children cannot be immediately attributed to the treatment provided. Particularly with young children, there is a developmental or maturational expectation that the learning curve of young children is greater than for other periods of life. This is one reason that treatment can be most efficient (highest return for the investment) at younger developmental ages. Maturation indicates an expectation that some children would have matured even without treatment. An experimental research design with tightly controlled variables and random assignment would be necessary to indicate exactly what caused the changes. Such a design is impractical with the multitude of intervening variables in residential treatment. With such a research design, there would need to be a control group and random assignment of children to our program and with other emotionally disturbed children who would intentionally receive no treatment. This creates ethical problems denying children who seriously need treatment from obtaining it just so a research

project can be conducted. The agency has opted to collect outcome data that can measure the changes themselves without definitively identifying the cause of the changes. This type of design is called Outcome Assessment and is a recognized approach in the outcome literature. Our priority is to help children heal and grow regardless of whether we can take any specific credit for the improvement.

Types of Data Used

There are three types of data or observations of change that have been used in this assessment.

1. Quantified standardized data
2. Personal subjective judgments
3. Objective behavioral tracking

One or more of these approaches is commonly used in outcome studies, with the most complete assessment coming from a combination of all three. All three have something to add to the reflection of changes the child has or has not made during treatment. Multiple sources of data and observers can provide a more complete picture.

One of the unique aspects of our agency's outcome study is the child has an opportunity to contribute to the process and provide a subjective point-of-view. The child's observations of himself or herself are combined with the observations of parents and the clinical team. All aspects of the outcome data have been quantified to enable measuring various important objectives of treatment.

Assessment Measures Used

The following eight standardized, subjective judgment, or behavioral tracking measures are used for outcome data:

- Attachment Disorder Assessment Scale--Revised (Ziegler, 2006). This standardized scale has been used for two decades and recently published with the results of independent psychometric research from six states. It has been shown to be useful in determining the presence and severity of attachment issues.
- Child and Adolescent Functional Assessment Scale/CAFAS (Hodges, 1990). This is a standardized assessment instrument to determine the level of functioning in multiple areas of the child's life including home, school, community, behavior, emotions, and others.
- Child and Adolescent Service Intensity Instrument/CASII (AACAP, 2005) This measure of mental health acuity has been chosen by the State of Oregon to help determine the level of need for treatment intensity.

- Clinical improvement data. Therapists' subjective observations of improvement on each measurable treatment objectives on the child's treatment plan.
- LaneCare Clinical Evaluation Instrument (Scheck, 2000). This is a standardized assessment instrument that reflects the overall psychiatric and behavioral functioning of the child in sixteen domains.
- Maladaptive Behavior Rating Scale. Expanding upon the State of Oregon Level 5 Criteria, this objective behavioral tracking instrument identifies twelve of the most disruptive behaviors seen in the population of children coming into residential treatment.
- Personal Inventory of Kid's Optimal Capacities (PIKOC) (Ziegler, 1998). This scale allows children to assess their own development in multiple areas of skills and capacities.
- Vineland Adaptive Behavior Scales (Sparrow, Balla and Cicchetti, 1984). This standardized instrument to review the skill areas of Communication, Daily Living Skills, and Socialization. Information on this instrument primarily comes from parents or from people who know the child well.

Results per Assessment Measure

The Attachment Disorder Assessment Scale-Revised/ADAS-R

Assessing the severity of attachment problems using the ADAS-R involves consideration of the child's developmental history, their quality of relationships with others and their problematic behaviors.

2019 ADAS-R Results

PRE		**POST**	
Average Score	52	Average Score	41
		% Overall Improvement	**21%**
		% Improvement in Significant Attachment Disorder group	**34%**

2020 ADAS-R Results

	PRE		**POST**
Average Score	50	Average Score	27
		Overall % of Improvement	**46%**
		% Improvement for Significant Attachment Disorder group	**41%**

Outcome Assessment for 2019 & 2020

Jasper Mountain Psychiatric Residential Program

May 2021

Discussion:

In 2019 at intake, 8 children scored with significant attachment disorder and at discharge, only one child scoring at that level of severity. In 2020 it was a similar story with 6 children scoring in the significant attachment disorder range and only one scoring in that range upon discharge. This data suggests that among the most attachment disordered group, significant progress was made to improve their attachment disorder issues. In addition, the entire group of graduates in both years improved remarkably in overall scores on the ADAS-R.

In considering these results it is important to keep in mind that of the three areas that determine the child's score, one cannot be lowered--the child's history. Therefore the gains came in the child's behavior and quality of relationships, which are important gains and will be needed in the family placements most of the children transitioned into. Our experience with improvements in attachment contradict some who say that children with attachment disorders are not amenable to treatment. In our treatment environment we find some of the largest improvement in this area.

The Child and Adolescent Functional Assessment Scale/CAFAS

The Child and Adolescent Functional Assessment Scale is used by the State of Oregon to track progress of its children and youth in residential treatment. The instrument measures impairment ranging from none/minimal to severe impairment on each of 8 subscales. On the scale, the higher the score, the more severe the impairment. The highest score possible using these 8 domains is 240. If we remove the Substance Use domain which rarely if ever applies to our population, the most impaired score possible would be 210. Here are the 8 subscales scored:

- School/Work Role Performance
- Home Role Performance
- Community Role Performance
- Behavior Toward Others
- Moods/Emotions
- Self-Harmful Behavior
- Substance Use
- Thinking

	Average % Improvement on CAFAS 2019 & 2020						
Year	**Pre Avg**	**Post Avg**	**% Improvement**	**Year**	**Pre Avg**	**Post Avg**	**% Improvement**
2019	151	83	45%	2020	149	64	57%

Outcome Assessment for 2019 & 2020

Jasper Mountain Psychiatric Residential Program

May 2021

17 Years of CAFAS Data																		
	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Pre	86	84	90	103	121	135	154	140	144	145	154	156	146	155	156	156	151	149
Post	68	53	57	68	77	91	95	100	108	83	86	86	101	82	81	83	83	64
% I	21%	37%	37%	34%	36%	33%	38%	29%	25%	43%	44%	45%	31%	47%	48%	47%	45%	57%

Discussion:

The years 2019 and 2020 both saw significant levels of improvement as measured by the CAFAS, with 2020 results being particularly strong.

In this report, a historical view of CAFAS data is offered as well. One can see that from 2003 to 2008, the average intake CAFAS score was significantly lower (103) than in the 12 years that followed 2009 to 2020 (151). This data confirms that the children referred to residential treatment on average were increasingly more disturbed after 2008. It was in 2008 that Managed Care started in Oregon which led to more stringent criteria for determining a child's level of care needs. Only the most disturbed children were referred for residential levels of care from 2008 onward.

Looking at average improvement percentages per year since 2003, one can see that over the 17 years of data, 100% of the children saw at least 21% improvement in their CAFAS score with the overall 17-year average being 41% improvement. One can also see that average improvement scores increased significantly starting in 2012. The average improvement percentage for the 10 years from 2002 to 2011 was 32%. In the 7 years from 2012 – 2020, the average improvement rate jumped to 45%. This data suggests that the program got better at improving the disturbed behaviors of children even while the level of disturbance had increased substantially.

Child Assessment of Service Intensity Instrument (CASII)

This instrument was designed by psychiatrists to determine the level of intensity of treatment the child or youth needs. It was included since the formation of LaneCare, our first local managed care entity which began in 2008. The instrument rates level of impairment in each of 6 domains on a 0-5 scale. The highest score possible on the CASII is 35. Here are the domains:

- Risk of Harm
- Functional Status
- Comorbidity
- Recovery Environment Stressors
- Recovery Environment Supports
- Resiliency and Treatment History
- Acceptance and Engagement in Treatment

Outcome Assessment for 2019 & 2020

Jasper Mountain Psychiatric Residential Program

May 2021

	Average % Improvement on CASII 2019 & 2020						
Year	**Pre Avg**	**Post Avg**	**% Improvement**	**Year**	**Pre Avg**	**Post Avg**	**% Improvement**
2019	26	19	27%	2020	27	19	29%

Oregon has relied upon CASII scores as part of their assessment for a child's level of care (LOC) needs since 2008. The Oregon scale for LOC goes from Level 0 to Level VI. The table below shows the LOC, its description, and the CASII score range and compares LOC at intake and discharge for graduates in 2019 and 2020. The shaded rows indicate residential services.

LEVEL	DESCRIPTION of LEVEL	CASII Scores	2019 Pre	2019 Post	2020 Pre	2020 Post
0	Basic prevention	7-9	0	0	0	0
I	Recovery maintenance	10-13	0	1	0	2
II	Intermittent outpatient	14-16	0	3	0	3
III	Regular outpatient	17-19	0	5	0	3
IV	Intensive outpatient	20-22	3	4	2	3
V	Unlocked 24-hour psychiatric residential	23-27	6	1	9	3
VI	Locked 24-hour psychiatric residential	28-35	6	0	2	0

Discussion:

Upon intake, 100% of the children in 2019 and 2020 scored at Level IV or above on the CASII. For 100% of those children, Level IV (ICTS Outpatient) services had already been tried and had failed to remediate their most serious problems.

At discharge, 60% of the graduates in 2019 and 2020 dropped at least one level of care to outpatient, 27% required Intensive Outpatient (ICTS services), and 6% required ongoing psychiatric residential treatment. None required a locked residential program such as a hospital or Oregon's SCIP (Secure Children's Inpatient Program) and SAIP (Secure Adolescent Inpatient Program) through the Perry Center.

Clinical Improvement Data

This is the data that is most specific to the individualized treatment issues of each child. Improvement on clinical treatment issues rounds out the outcome data by adding the opinion of the clinician who is responsible to develop, implement, and evaluate the treatment plan. Because treatment issues go right to the heart of the child's problems, they can be some of the more difficult improvements for the child to make.

Outcome Assessment for 2019 & 2020

Jasper Mountain Psychiatric Residential Program

May 2021

Average Clinical Improvement in 2019 & 2020			
2019	**58%**	**2020**	**65%**

Discussion:

Each of the treatment goals was assessed for the percent of improvement based on the measurable objectives in the treatment plan. Each child's treatment issue scores were averaged, as were the average overall scores for each child's clinical improvement. The result was significant improvement across the board in clinical treatment areas. Since treatment issues are honed over time leaving only the most challenging issues for the child to work on, 60% improvement is considered an excellent result.

The LaneCare Clinical Evaluation Instrument/LCEI

The fourteen domains the LCEI measures are:

- Hospitalizations/crisis stays
- Psychiatric medications
- Behaviors in past one month
- Severity of symptoms in past one month
- Intensity of service need/professional support
- Symptom or stress-management capacity
- Duration of symptoms at initial completion
- School behavior problems
- Activities of Daily Living (ADL's)
- Quality of family support system
- Quality of community support system
- Self-Efficacy/goal directedness

	Average % Improvement on LCEI 2019 & 2020						
Year	**Pre Avg**	**Post Avg**	**% Improvement**	**Year**	**Pre Avg**	**Post Avg**	**% Improvement**
2019	30	26	13%	2020	42	26	38%

Discussion:

The highest possible (most severe) score on the LCEI is 60.

In 2019, out of the fifteen graduates, 14 (93%) demonstrated improvement in their LCEI score. 1 child, however, deteriorated in their LCEI score at discharge having chosen to become dramatically more assaultive, seemingly due to their fear of leaving the program.

Outcome Assessment for 2019 & 2020

Jasper Mountain Psychiatric Residential Program

May 2021

In 2020, out of the fourteen graduates, 13 (93%) demonstrated improvement on the LCEI and 1 child scored higher as we discovered a psychotic disturbance in the child, rare for our population. However, that child returned home with intensive family therapy in the community.

The overall result was that the program's residents exhibited significant psychiatric and behavioral problems in the beginning of treatment and significantly less so at the end.

Maladaptive Behavior Rating Scale (Formerly the State of Oregon Level V Criteria)

This tool expands upon the Level 5 Criteria for the State of Oregon rates twelve of the most troubling behaviors for families who have taken care of our residents using the following behaviors on a 0-3 rating scale (0=none, 1=mild, 2=moderate, 3=severe). The significance of these issues and behaviors also indicates a less likely placement in a family. The following behaviors are rated:

- Aggressive/assaultive
- Sexual behaviors/sexual offenses
- Suicidal threats or attempts/depression
- Self-harm behaviors
- Defiance/non-cooperation
- Lack of attachment/remorse
- Soiling/smearing
- Urinating outside of toilet
- Running away/unaware of danger
- Property destruction
- Fire setting/fire fascination
- Stealing/lying

	Average % Improvement on MBRS 2019 & 2020						
Year	**Pre Avg**	**Post Avg**	**% Improvement**	**Year**	**Pre Avg**	**Post Avg**	**% Improvement**
2019	19	6	68%	2020	16	4	75%

Discussion:

As has been the case every year, graduates of the program in 2019 & 2020 reflect significant improvement in serious behavior problems.

Overall the children reflect significant improvement in the behaviors that prevented them from receiving treatment in a family and community setting requiring intensive residential treatment in the first place.

Outcome Assessment for 2019 & 2020

Jasper Mountain Psychiatric Residential Program
May 2021

The Personal Inventory of Kid's Optimal Capacities/PIKOC

The PIKOC provides a unique tool currently available only to our program. This instrument brings an important component of growth to the overall consideration of improvement--the child's opinion and self-assessment. Although some would question the value or truthfulness of the child's self-opinion, research on the PIKOC has shown that children tend to rate themselves more evenly than parents or teachers, in that they rate their weakness slightly higher and their strengths slightly lower than adults (parents and teachers).

The PIKOC gives a child the opportunity to give themselves a letter grade A, B, C, D, or F on 8-9 questions in each of 11 areas important for a child's behavioral health. An A is scored 4, a B is scored 3, a C is scored 2, and a D is scored 1. The following are the 11 areas:

- Being Responsible
- Social Skills & Getting Along with Others
- Working and Doing My Part
- Thinking Smart
- Being a Positive Person
- Self-Care
- Handling Feelings
- Love & Relationships
- Imagination
- Communication
- Being Safe

The clinician is asked to provide the overall PIKOC score pre and post. We do not collect data on each specific area, but this could be something to consider for the future.

	Average % Improvement on PIKOC 2019 & 2020						
Year	**Pre Avg**	**Post Avg**	**% Improvement**	**Year**	**Pre Avg**	**Post Avg**	**% Improvement**
2019	200	304	34%	2020	247	266	7%

In 2019 and 2020, the average scores in the graduating groups showed that the children appeared to be more positive about their behaviors than they did at intake, which has been the trend since 2006 when we began using this measure.

The Vineland Adaptive Behavior Scales-3/VABS-3

The Vineland is the most current standardized instrument rating three adaptive life skills areas: communication, daily living skills, and socialization. It provides a reliable and validated means to compare children in the program with children in the general

population. This instrument uses the opinions of the family or others who know the child well.

Vineland Results for 2019			
DOMAIN	**PRETEST AVG**	**POSTTEST AVG**	**% IMPROVEMENT**
Communication	19th percentile	16th percentile	-16% (loss)
Daily living skills	24th percentile	17th percentile	-7% (loss)
Socialization	8th percentile	15th percentile	47%

Vineland Results for 2020			
DOMAIN	**PRETEST AVG**	**POSTTEST AVG**	**% IMPROVEMENT**
Communication	8	13	38%
Daily living skills	18	24	24%
Socialization	9	16	44%

Discussion:
Our population of children almost always fall into the lowest quartile on this instrument both at intake and at discharge. Even the most accomplished graduates tend to score in the 25th percentile in these domains likely because of the devastating impact of their trauma and multiple placement changes on the normal development of adaptive skills. Also, many of the children we serve have executive functioning issues due to drug and alcohol exposure which can impair the development of adaptive skills.

The results of the Vineland-3 for the children discharged in 2019 and 2020 show that the biggest gains were in the Socialization domain. Daily living skills can sometimes lose ground in residential treatment partly because this domain measures knowledge expected for that age child in a typical household, such as knowledge of your phone number and address, ability to make your own breakfast, ability to answer a telephone call, many of which are not applicable in our setting. In 2019, graduates on average saw a loss of 7% in this area, yet in 2020 saw a gain of 24%. In the Communication domain, gains are expected since teaching healthy communication skills is a focus of treatment at Jasper Mountain. Yet in 2019, the graduating group saw a loss of 16% in this area, while the 2020 group saw a gain of 44%.

The variation in the results between 2019 and 2020 could indicate administration and scoring issues. Here are some of the administration factors with this instrument:

To be administered meaningfully, the VABS requires much training on the interview style used to obtain the data. Clinicians view a training video describing the interview

process which instructs them to casually weave each Vineland question into normal conversation. It takes a great deal of practice to get proficient at this and our clinicians simply do not have this proficiency as they do not use the instrument often enough to develop it. Over the years as you can see in the table on p. 12 that looks at the past 14 years of improvement data, the VABS data is the most wildly varied of any of the measures.

Because the results are difficult to interpret, and because the instrument is time-consuming and complicated to administer properly, we are eliminating this instrument from our battery of assessments done for our graduates pre and post in coming years.

On a per-child basis we will continue to administer a Vineland-3 when adaptive skills are important to assess to complete that child's clinical picture. We will utilize our most proficient staff with the instrument.

Placement upon Discharge

This is a new measure which is not numeric but tells a story about where our graduates go immediately after graduation. Our follow-up study where we track the child for 5 years completes this story. This measure will start for graduates of 2019 and continue to be part of our Outcome Assessment report moving forward. For this purpose, home means their adoptive or birth parents' home, foster home means regular or treatment foster care, group home depicts a small but staffed home, and facility describes a residential program whether short or long term.

Number of Graduates per Type of Placement				
YEAR	Home	Foster Home	Group Home	Facility
2019 – 15 grads	8	3	0	4
2020 – 14 grads	8	3	2	1

Discussion:

In 2019 and 2020 73% and 79% respectively of our graduates moved on to family settings, as opposed to a group homes or facilities. Follow-up data will tell the story of whether the child was able to maintain in their home setting.

For the combined years of 2019 and 2020, 76% of the graduates moved directly into a family setting. This percentage of success is most correlated with the drop in serious behaviors as measured by the MBRS which demonstrated that for this cohort, there was an overall average improvement of 72%.

Outcome Assessment for 2019 & 2020

Jasper Mountain Psychiatric Residential Program

May 2021

Long-term Improvement Data Comparison

14 Year Improvement Comparison per Assessment															
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
ADAS	37%	51%	34%	22%	58%	42%	44%	75%	34%	45%	48%	58%	56%	21%	46%
CAFAS	36%	33%	38%	29%	25%	43%	44%	45%	65%	47%	48%	47%	38%	45%	57%
CASII	20%	16%	19%	12%	19%	20%	31%	23%	23%	27%	26%	38%	36%	27%	29%
Clinical	56%	63%	58%	45%	59%	66%	66%	59%	63%	65%	66%	56%	60%	58%	65%
LCEI	20%	09%	20%	15%	14%	24%	21%	30%	23%	24%	18%	33%	29%	13%	38%
Level 5*	74%	77%	80%	64%	76%	90%	86%	96%	65%	95%	79%	95%	83%	58%*	65%*
PIKOC	15%	18%	11%	16%	08%	07%	12%	4%	1%	9%	4%	2%	5%	34%	7%
COM	14%	36%	40%	160%	100%	31%	138%	171%	300%	0%	233%	33%	75%	-16%	38%
DLS	-22%	30%	111%	13%	-59%	22%	36%	44%	167%	0%	70%	70%	30%	-7%	24%
SOC	22%	60%	-40%	-50%	-19%	200%	133%	250%	400%	25%	122%	200%	140%	47%	44%

*Level 5 Criteria changed to MBRS in 2019.

Concluding Remarks

The past two years' data, when considered with data from all children discharged from the program since 1998, and utilizing several sources of observations, provides evidence that children improved most substantially in these areas:

- Clinical improvement (Treatment item progress)
- Serious behavior (Level 5/MBRS)
- Functional level (CAFAS)
- Attachment and relationship skills (ADAS-R)
- Required Level of Care (CASII)
- Stability (LCEI)

In fact the children improved on every measure (except in 2019 in daily living and communication skills measured by the VABS) and significantly improved on most measures.

Changes in the Oregon mental health system continue to be monitored. There is now an Oregon Senate Bill in play (SB710) which threatens to disrupt residential behavioral healthcare for our most violent and destructive children and youth. The Oregon Health Authority has managed to push back implementation until 2022, but change is on the horizon and the impact appears troubling not only to providers but to system administrators such as OHA and DHS. Procedures pertaining to physical containment are predicted to be more complex and onerous (some believe virtually impossible) to implement unless changes can be made in the bill. This news has already led to some of Oregon's residential programs to seriously consider denying access to the most violent children and youth. This bill could easily have the unintended consequence of leaving

Outcome Assessment for 2019 & 2020

Jasper Mountain Psychiatric Residential Program

May 2021

Oregon's most violent and dangerous children and teens in hospitals or hotels, or simply moving from place to place until they can no longer be managed. There is already a critical lack of residential resources in Oregon after years of moving away from residential care.

At Jasper Mountain, the trend to shorter stays among Oregon children was counterbalanced with out-of-state children with longer stays in treatment. The program currently has Medicaid Contracts with five states (Alaska, Washington, Idaho, Nevada, and Ohio). Although research is sometimes referenced that shorter stays have not hindered outcomes or may even improve outcomes, this has not been the case at Jasper Mountain since the system changed in 2005. Despite our challenges with changes in the system of care, the program continues to provide the following track record:

- 82% improvement in serious behavior
- 40% improvement in functional level
- 60% improvement in specific treatment objectives
- 24% reduction in psychiatric acuity (severity)
- Significant improvement in relationship skills.

We are now twenty-two years into the process of outcome measurements with all 316 children who have been discharged since 1998. However, the results to date are showing an emerging and consistent trend toward significant improvement in all areas. The data to date provides a strong positive reflection of the improvement made by these children at the point they left the program compared to when they began treatment.