Corpus Christi-Nueces County
Public Health District
Council Report on 1115 Waiver
MEND
1-21-2015

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1115 Waiver Background Information

In 2011, the Texas Legislature directed the Texas Health and Human Services Commission ("HHSC") to expand Medicaid managed care and to preserve hospitals' access to federal supplemental payments consistent with upper payment limits. HHSC determined the best approach to meet legislative mandates and to expand Medicaid managed care, preserve hospitals' access to supplemental payments, achieve savings, and improve quality was to negotiate a five-year Section 1115 Medicaid waiver titled Texas Healthcare Transformation and Quality Improvement Program 1115 Waiver ("1115 Waiver").

A resolution was adopted by commissioner's court on February 29, 2012, that requested the Nueces County Hospital District to serve as the anchor entity for the Regional Healthcare Partnership created by the Texas HHSC under the Texas Healthcare Transformation and Quality Improvement Program 1115 waiver. Regional Healthcare Partnership (RHP) Plan 4, which was approved by the state and submitted to the Centers for Medicare & Medicaid Services (CMS) on April 9, 2013 as part of the state's Delivery System Reform Incentive Payment (DSRIP) Pool, authorized under Texas's 1115 demonstration, entitled Texas Healthcare Transformation and Quality Improvement Program.

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Initially the Corpus Christi-Nueces County Public Health District (CCNCPHD) submitted four projects and was approved May, 2013 for the one City project related to childhood obesity also referred to as the MEND project and the County was approved for two projects: (1) Diabetes, (2) Health Information Exchange (H.I.E) HHSC later approved the final County Patient Navigator project in March of 2014.

These projects are five year projects that end September 30, 2016. Each year is called a demonstration year (DY) beginning with DY1 and ending with DY5. There was no activity in DY1 other than submitting proposals to HHSC.

Funding is contingent on Intergovernmental Transfer ("IGT") match of approximately 40%, to be sent by the City of Corpus Christi to HHSC *only if you meet your metric*. If the metric is met HHSC will match 60% toward your project goals and return your 40% IGT supplemental payment as part of the incentive payments for DSRIP project. If your metric/goals are not met you do not send any IGT for the unmet metric to HHSC. HHSC allows providers (CCNCPHD) to carry forward any unmet metrics in an attempt to assist in obtaining the metric.

What is DSRIP?

Delivery System Reform Incentive Payment (DSRIP) is a way for providers to receive matching funds that support a regions collaborative efforts to improve access to care, quality of care, and the health of patients and families they serve.

Providers are hospitals, physicians groups, community mental health centers, and local health departments.

To receive payment from the DSRIP Pool a provider must meet specific metrics for each innovative projects submitted.

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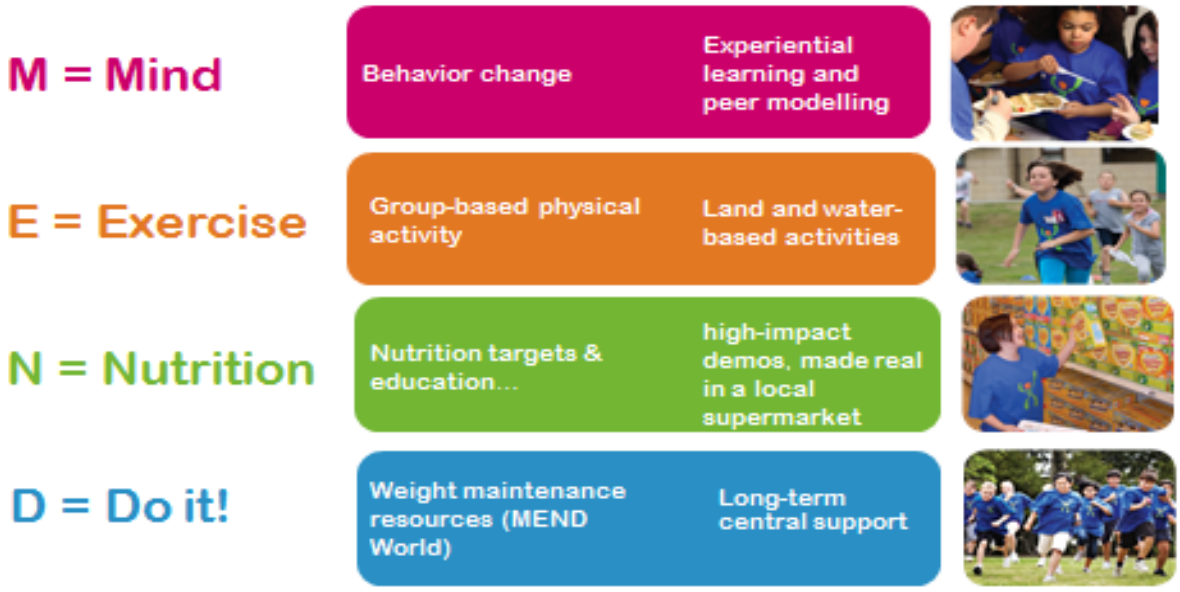
MEND



MEND is an evidence based childhood healthy weight program that teaches group based physical activities and nutritional classes aimed at supporting healthy life style changes. A parent is encouraged to attend.

There are two separate MEND programs; one is the MEND 2 - 5 year old program and the other is the MEND 7 - 13 year old program. The MEND 2 - 5 does not have a weight requirement while the MEND 7 - 13 requires children to be overweight or obese. Both programs can allow for 6 year olds depending upon the maturity level of the child.

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MEND 2 – 5 program(s)
10 weeks, once a week, 1.5 hr/session

Who	First 45 min	Second 45 min
Parents	Mind and Nutrition	Parenting discussion
Children		Exercise

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MEND 7 – 13 program(s)
10 weeks, twice a week, 2 hr/session

Who	First hour	Second hour
Parents	Mind and Nutrition	Parenting discussion
Children		Exercise

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DY3 MEND Program Sites (16)

October 1, 2013 -September 30, 2014

Sites	Participants
Los Encinos	33
Zavala	24
Montclair	15
Cullen	8
Galvan	15
Cunningham	16
Oak Park	17
Fannin	19
Allen	16
Yeager	15
Calk	17
Meadowbrook	16
Taft	40
Boys & Girls Club (CC)	15
Boys & Girls Club (Robstown)	15
Moore	3

The number of children that participated in MEND programs in DY3 was 293 and 217 parents for a total of 510 participants.

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The information in the MEND portfolio, to be discussed next is for only children ages 7-13 that completed both pre & post, Pediatric Quality of Life Surveys and their information was inputted into the Operational Management and Monitoring System (OMMS) data system as required by the Delivery Partners. Children ages 2-5 do not fill out the Pediatric Quality of Life Surveys because this survey is age specific.

*The MEND Portfolio Information below is not tied to funding.

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1. Portfolio Overview

1.1 Introduction

	Program ID	Participants
1	CCN01_0001	13
2	CCN01_0002	14
3	CCN01_0005	15
4	CCN01_0006	5
5	CCN01_0007	8
6	CCN01_0010	14
7	CCN01_0011	12
8	CCN01_0012	15
9	CCN01_0013	17
10	CCN01_0014	15
11	CCN01_0015	15
12	CCN01_0016	20
13	CCN01_0017	16
14	CCN01_0018	16
15	CCN01_0019	14
16	CCN01_0020	16
	Total	225

Key points for the programs[1]:

- The current Portfolio consists of 225 children.
- Average attendance was 92.9%.
- There were 2 drop-outs (included in the 225 children). A drop-out is a child who has attended ≤ 5 of the 20 sessions.

[1]Filters applied

- Age: 7-13 years old (at pre-program measurements - Session 1)
- BMI z-score at baseline > 1.036 (at least overweight i.e. ≥ 85th BMI percentile)

Note: Dropout rate and attendance are only reported for programs that have fully completed attendance data on OMMS.

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1.2 Demographics

The demographic data presented in this section are based on confirmed participants from all 16 programs.

	N (%)
Gender – male	103 (46%)
Single-parent families	114 (65%)
Origin	
Not of Hispanic, Latino, or Spanish origin	12 (8%)
Mexican, Mexican American, Chicano	112 (71%)
Puerto Rican	1 (1%)
Another Hispanic, Latino, or Spanish origin	33 (21%)
Race/Ethnicity	
White	132 (91%)
Black, African American, or Negro	8 (6%)
American Indian or Alaska Native	2 (1%)
Other Pacific Islander	1 (1%)
Mixed	2 (1%)
Accommodation	
Owned outright	15 (12%)
Owned with mortgage or loan	46 (36%)
Shared ownership	2 (2%)
Private landlord	50 (39%)
Rented from government	14 (11%)
Primary earner employed	114 (84%)

	N (%)
Household income ('000 $)	
0-20	59 (44%)
20-40	41 (30%)
40-60	16 (12%)
60-80	13 (10%)
80+	6 (4%)
Highest Year School Completed	
Some high school	36 (23%)
HS Diploma/GED	55 (35%)
Some college	45 (29%)
Associates Degree	11 (7%)
Bachelor's Degree	8 (5%)
Master's Degree	2 (1%)
Insurance Status	
Employer based health insurance	54 (36%)
Medicare/Medicaid	67 (45%)
No health insurance	15 (10%)
Other public/government sponsored health insurance	11 (7%)
Privately/self funded health insurance	2 (1%)
Underinsured	39 (30%)
Other language in household	99 (58%)
Pregnant mothers	0 (0%)
Food stamps	83 (52%)
BMI status	
Overweight	47 (21%)
Obese	178 (79%)

Please note than n's may differ across variables as the analysis at each time point is based on available data for each index.

Occupation	N (%)
Administrative Support Workers	1 (1%)
Construction and Extractive Craft Workers	3 (3%)
Healthcare Practitioner Professionals	12 (11%)
Installation, Maintenance and Repair Craft Workers	2 (2%)
Laborers and Helpers	8 (7%)
Management, Business and Financial Workers	9 (8%)
Other	54 (49%)
Other professional Workers	6 (5%)
Production Operative Workers	1 (1%)
Sales Workers	6 (5%)
Science, Engineering and Computer Professionals	3 (3%)
Technicians	2 (2%)
Transportation and Material Moving Operative Workers	3 (3%)

	N (%)
Above the Federal Poverty Level, or 'not in poverty'	44 (35%)
At or below the Federal Poverty Level, or 'in poverty'	82 (65%)

	N (%)
Above 200% Federal Poverty Guideline, or 2 x the Federal Poverty Guideline (please note, this upper limit will exclude those families making above this limit from many state and/or federal benefits and entitlements)	15 (12%)
At or below 200% Federal Poverty Guideline, or 2 x the Federal Poverty Guideline (please note in many states this level is the upper limit cutoff for access to benefits/entitlements)	111 (88%)

	N (%)
Above 400% Federal Poverty Guideline, or 4 x the Federal Poverty Guideline.	3 (2%)
At or below 400% Federal Poverty Guideline, or 4 x the Federal Poverty Guideline.	123 (98%)

Please note than ns may differ across variables as the analysis at each time point is based on available data for each index.

2. Portfolio results

2.1.1 Baseline measurements

Variable	N	Minimum	Maximum	Mean	SD
Age (years)	225	6.6	13.9	9.8	1.7
Height (cm)	225	104.1	188.0	139.7	13.3
Weight (kg)	225	21.8	108.9	54.4	17.9
BMI (kg/m^2)	225	17.6	42.4	27.2	5.6
Waist (inches)	225	21.0	48.0	34.0	5.9
Number of people in household	155	2.0	9.0	4.7	1.4
Attendance (%)	223	80.0	100.0	92.9	5.1

SD: Standard deviation

Please note than n's may differ across variables as the analysis at each time point is based on available data for each index.

2.1.2 Summary of results

Results presented in this section are on children who were overweight or obese at baseline.

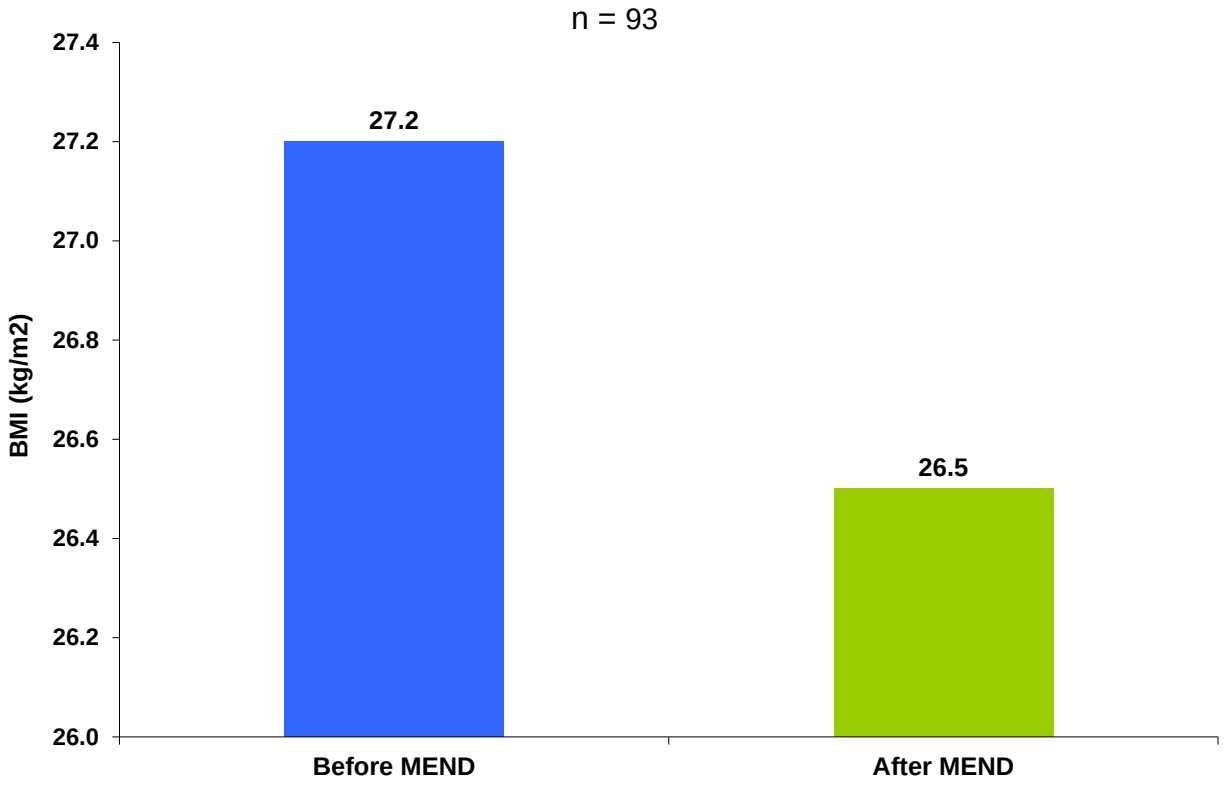
Variable	N	Mean Change	Status
BMI (kg/m^2)	93	-0.7	Positive
Waist circumference (inches)	100	-0.9	Positive
Physical activity (hours/week)	105	4.7	Positive
Sedentary activities (hours/week)	91	-3.8	Positive
Recovery heart rate (beats per minute)	95	-1.4	Positive
Nutrition score	99	5.7	Positive
Total difficulties score	104	-3.0	Positive
Body image score	97	1.8	Positive
Self-esteem score (Rosenberg's scale)	118	1.7	Positive

2.2. Quantitative Results [1]

Results presented in this section are on children who were overweight or obese at baseline.

2.2.1 Anthropometry

2.2.1.1 Body Mass Index (BMI)

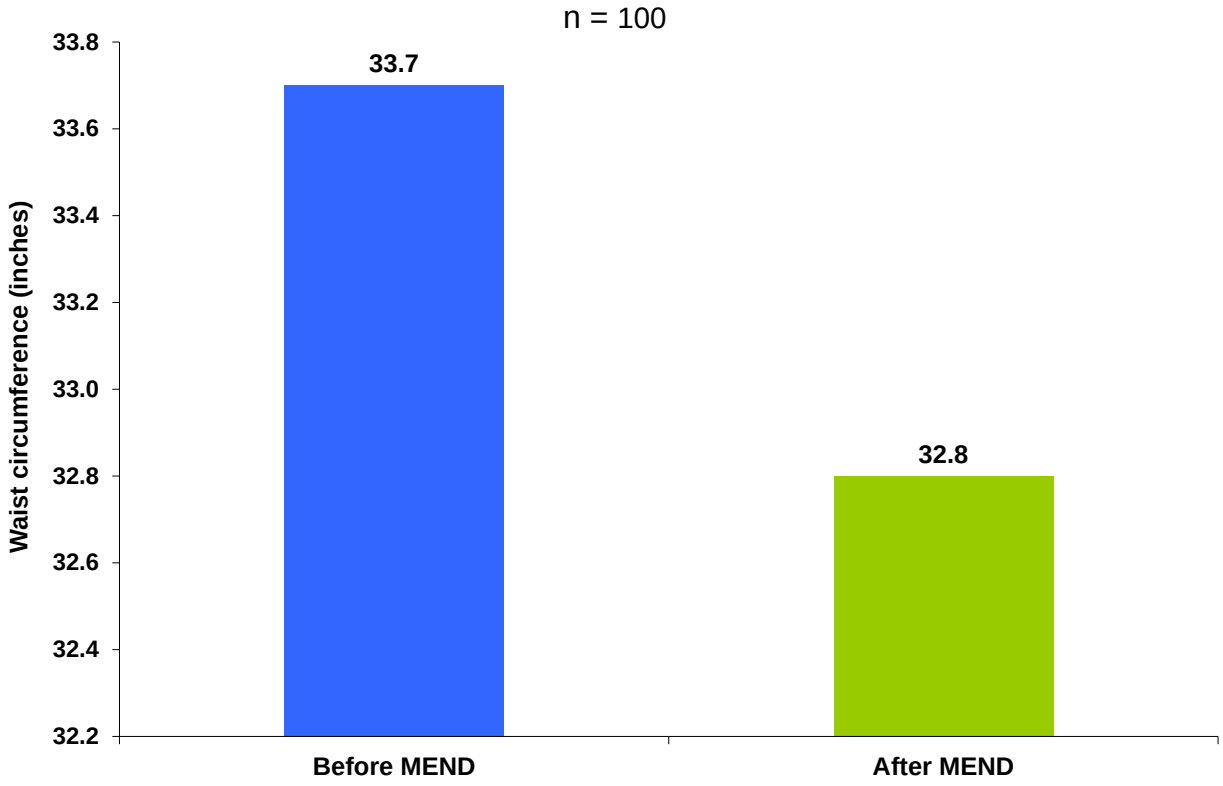


BMI decreased from 27.2 kg/m^2 before MEND 7-13 to 26.5 kg/m^2 after MEND 7-13, leading to a 0.7 BMI unit reduction for the group of MEND 7-13 participants.

Body Mass Index (BMI) is calculated by dividing weight (in kg) by height (in meters) squared. It is used to categorize individuals as underweight, healthy weight, overweight or obese. In clinical practice, the 95th BMI percentile for age and gender is used as the cut-off point to define obesity in children. BMI is a valuable tool for initial screening and follow-up as it is easily calculated; however, it does not take into consideration body composition, so it should be ideally complemented by other measures -e.g. waist circumference (see below)- to assess changes in degree of overweight.

[1] All figures presented in this section are average values for the group of MEND 7-13 participants
n = number of children with pre and post data on each measurement

2.2.1.2 Waist circumference

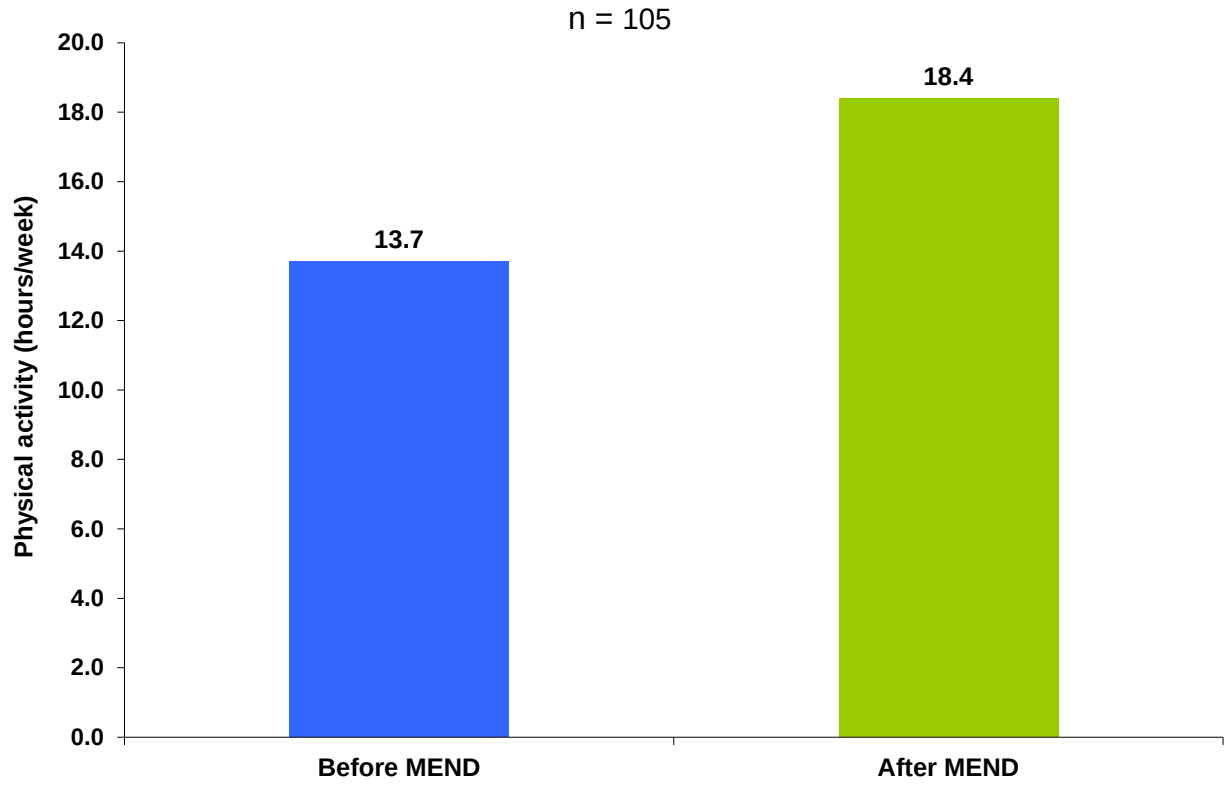


On an average, waist circumference decreased by 0.9 inches after the program (i.e. from 33.7 to 32.8 inches).

Waist circumference is a measure of abdominal fat, which has been associated with several obesity-related co-morbidities e.g. heart disease and diabetes. Changes in waist circumference are always due to changes in body fat, specifically abdominal fat which is associated with health risk. Waist circumference is a very important measurement as, unlike BMI, it is specifically related to changes in abdominal fat, which is reliably related to the health risks of increased weight. Obesity management programs aim to change the composition of the child's body over the course of development so that muscle mass increases along with a reduction in the level of adipose (fat) tissue. Such changes in the proportions of muscle and adipose over the course of an intervention may mean that BMI is unchanged in children attending MEND 7-13. This is why waist circumference is a useful additional measure to examine outcome since it is generally considered more sensitive to changes in body composition. Reductions in waist circumference in the absence of a reduction in BMI will indicate that abdominal fat has been reduced and that health outcomes have been improved.

2.3 Physical (in)activity and fitness

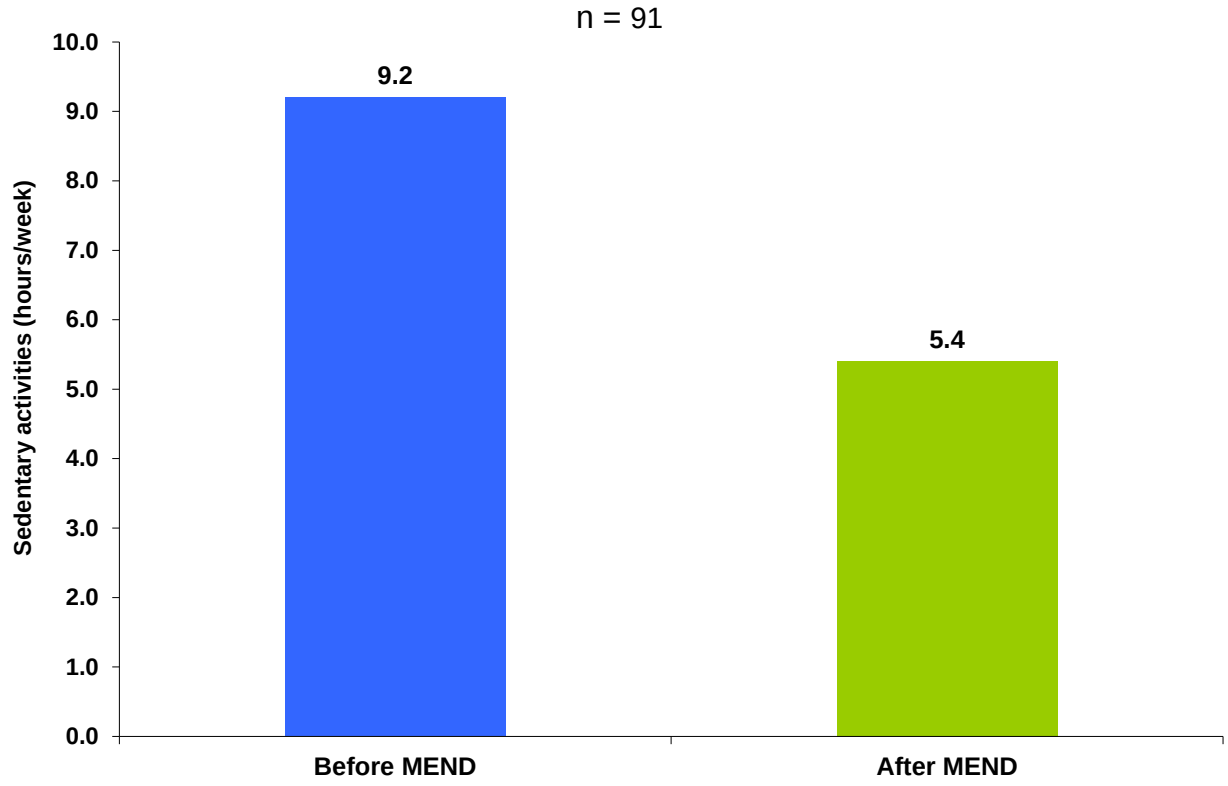
2.3.1 Time spent in physical activity



An average increase of 4.7 hours physical activity per week occurred among the MEND 7-13 participants 13.7 hours/week before MEND 7-13 versus 18.4 hours/week after MEND 7-13).

The official recommendation for children's physical activity levels is at least one hour of moderate to vigorous physical activity per day. Any increase towards meeting the recommendation is extremely positive. For obese children this target may be unrealistic. Therefore, it is important to consider time spent in all levels of physical activity.

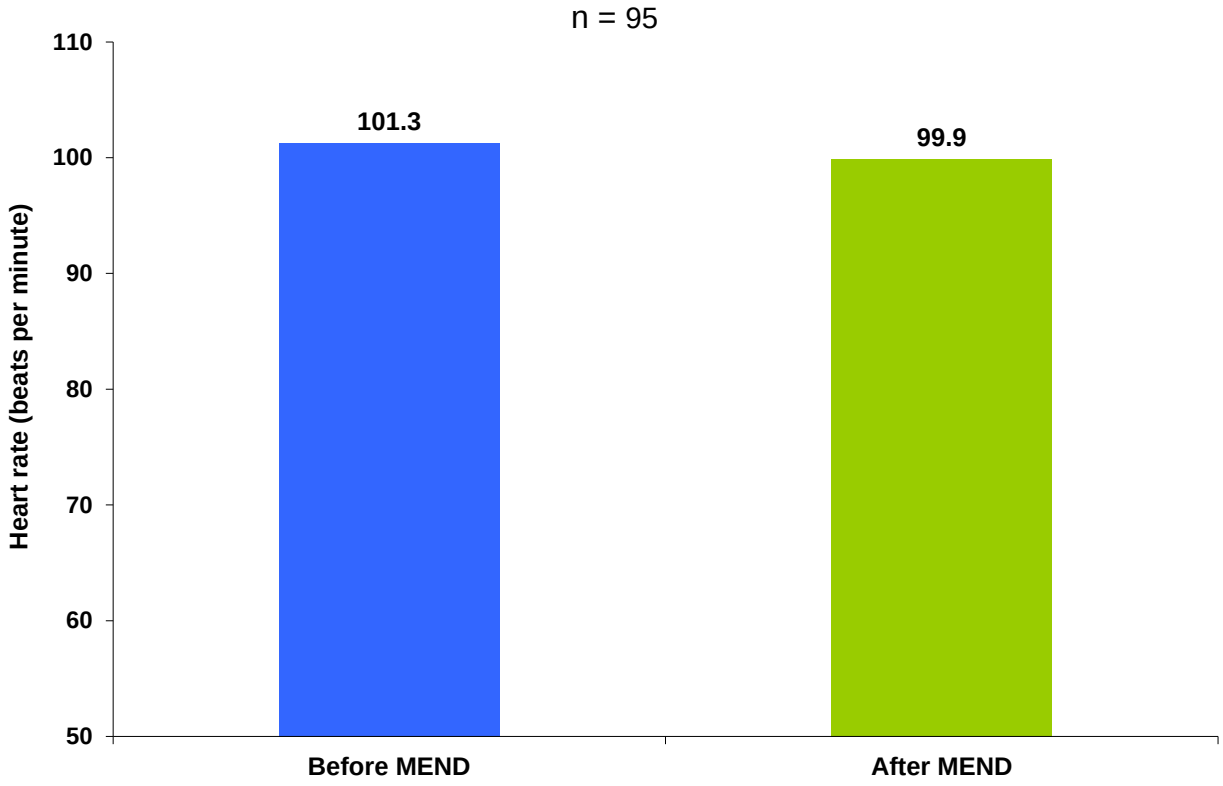
2.3.2 Time spent in sedentary activity



A 3.8-hour decrease in sedentary activity was also observed after MEND 7-13, as television viewing and computer usage decreased from 9.2 to 5.4 hours per week.

Television viewing has been associated with childhood obesity both directly by promoting sedentary behavior and indirectly by encouraging the passive over consumption of high-calorie foods and drinks during these activities. MEND 7-13 focuses on increasing physical activity as well as reducing sedentary behavior as these independently influence a child's weight status. Both physical activity and sedentary behavior need to be targeted in any multi-component obesity intervention.

2.3.3 Recovery heart rate (fitness indicator)

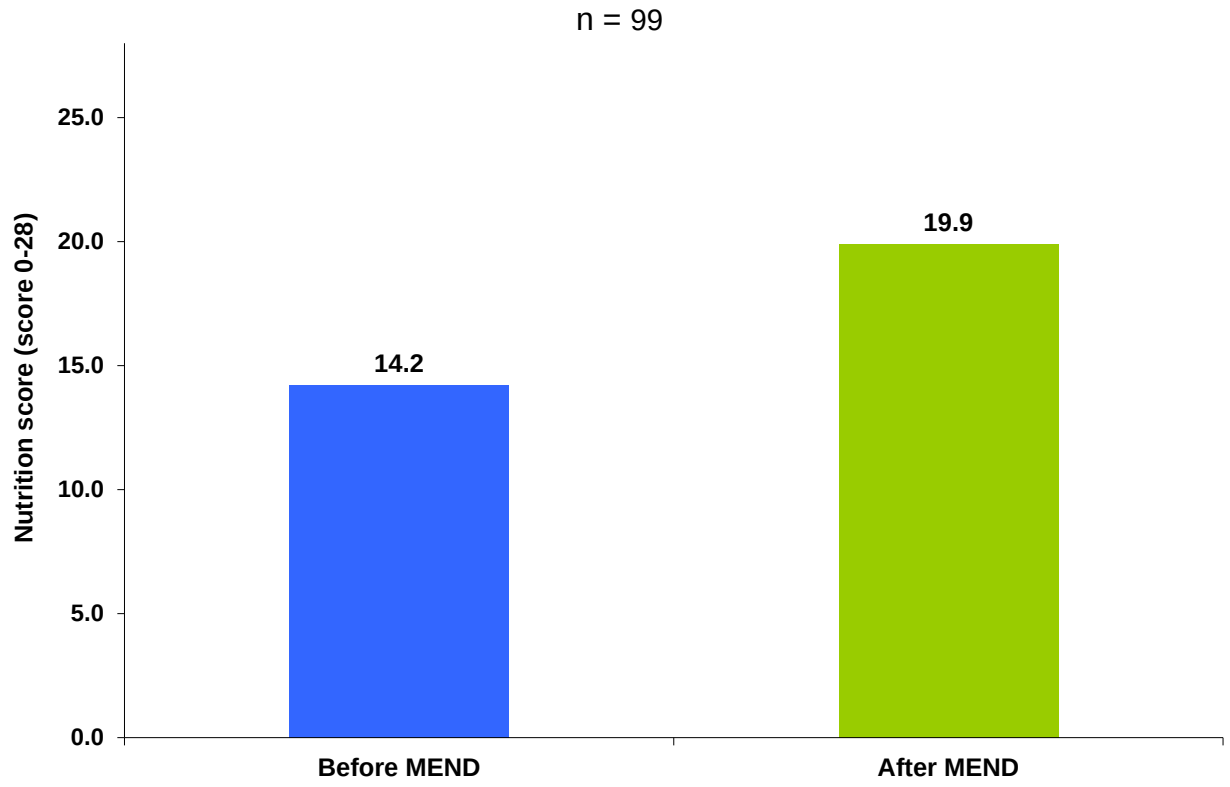


MEND 7-13 participants were fitter by the end of the program, as indicated by the 1.4 beats per minute decrease in heart rate following the 3-minute step test.

The 3-minute YMCA step test is a validated test used to assess fitness levels in children. This is achieved by measuring the recovery heart rate (beats during the minute after the step test). The quicker the heart rate returns to normal levels (resting heart rate) the fitter the child is. Fitness is considered a very important component of children's health. Low fitness is associated with increased risk factors for health problems and it is much easier for a fit overweight child to grow into their weight than an overweight child who is unfit.

2.4.1 Dietary habits

2.4.1.1 Nutrition score

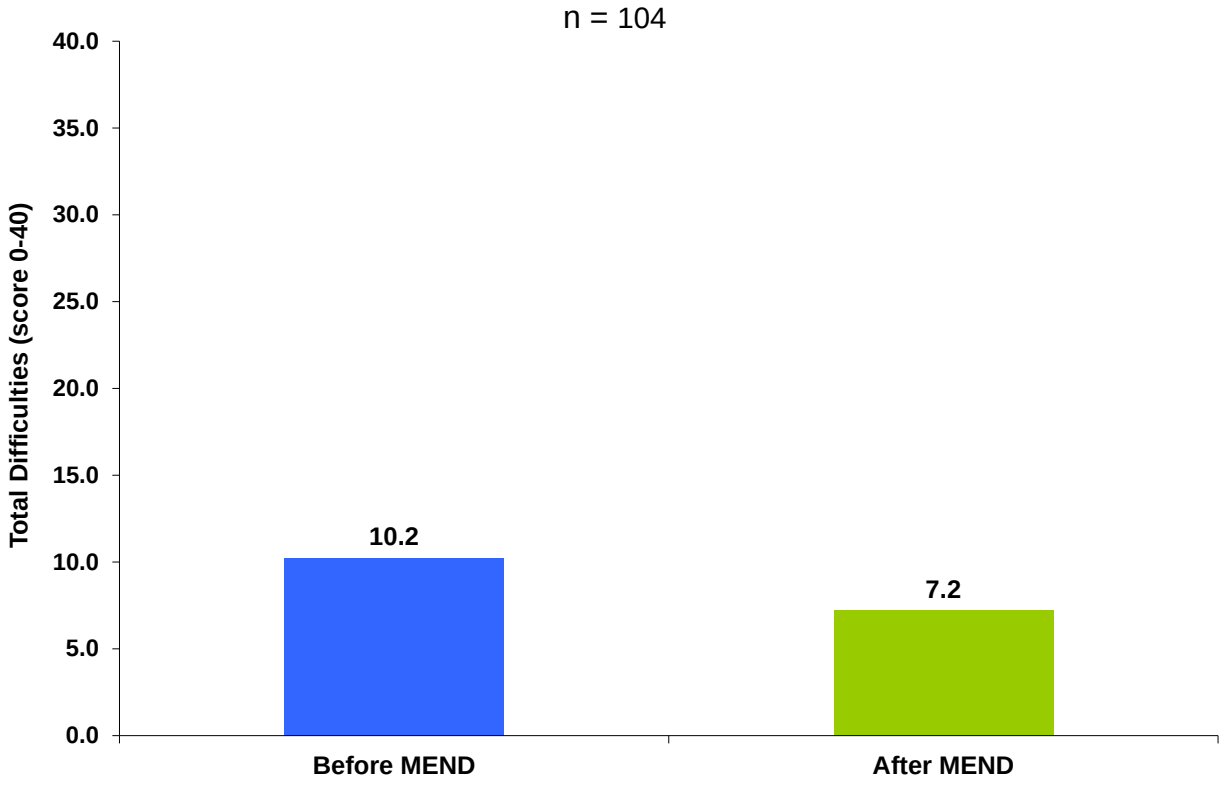


The group's nutrition score increased by 5.7 units.

Throughout MEND 7-13, children are taught several MEND-Friendly dietary habits such as eating breakfast daily, drinking 6-8 cups of water per day, choosing MEND-Friendly as opposed to MEND-Unfriendly foods (they are given the criteria for food categorization during the sessions). Increases in nutrition score are indicative of substantial improvements in eating habits and nutritional intake.

2.5 Psychological indices

2.5.1 Parent's questionnaire - strengths and difficulties questionnaire (SDQ)



Based on the Strengths and Difficulties questionnaire (SDQ), parents assessed their children as having fewer difficulties (such as hyperactivity, emotional symptoms and peer problems) in their everyday life (score reduction of 3 units).

The SDQ is a parent-rated measure of common psychological symptoms in childhood. Scores on the SDQ are categorised according to whether the child has low, borderline or high psychological needs. The ranges for these categories are:

0 – 13 Low needs

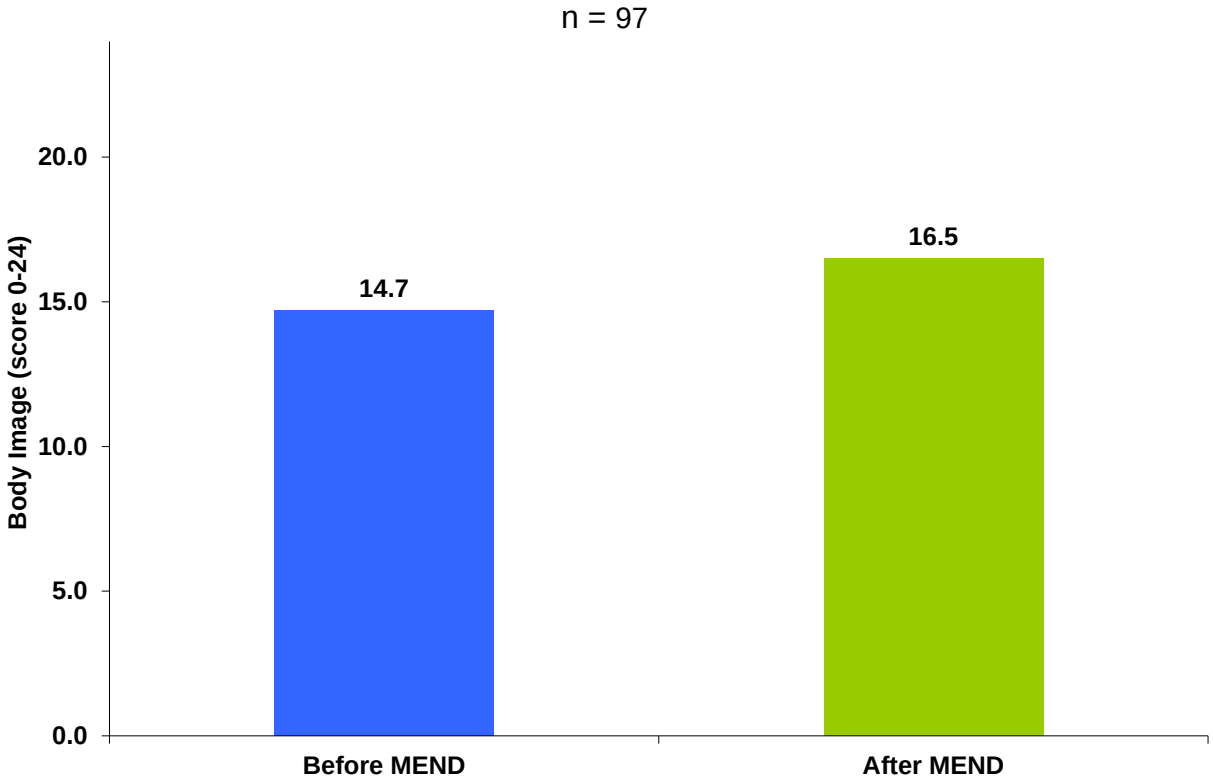
14 – 16 Borderline high/low needs

17 – 40 High needs

The mean score on the SDQ was within the low needs range and it is encouraging to note that post-program the average SDQ score was even lower. This suggests that participating in MEND 7-13 is associated with improved psychological functioning.

In cases where a child's SDQ score remains above 17 at the end of MEND 7-13 or is above 17 at the start of the program with no post-program measurement we recommend that the delivery team should consider talking with the family to discuss consulting their Primary Care Physician regarding their children's well-being. In the report's Appendix you can find a list of participants who fulfill these criteria.

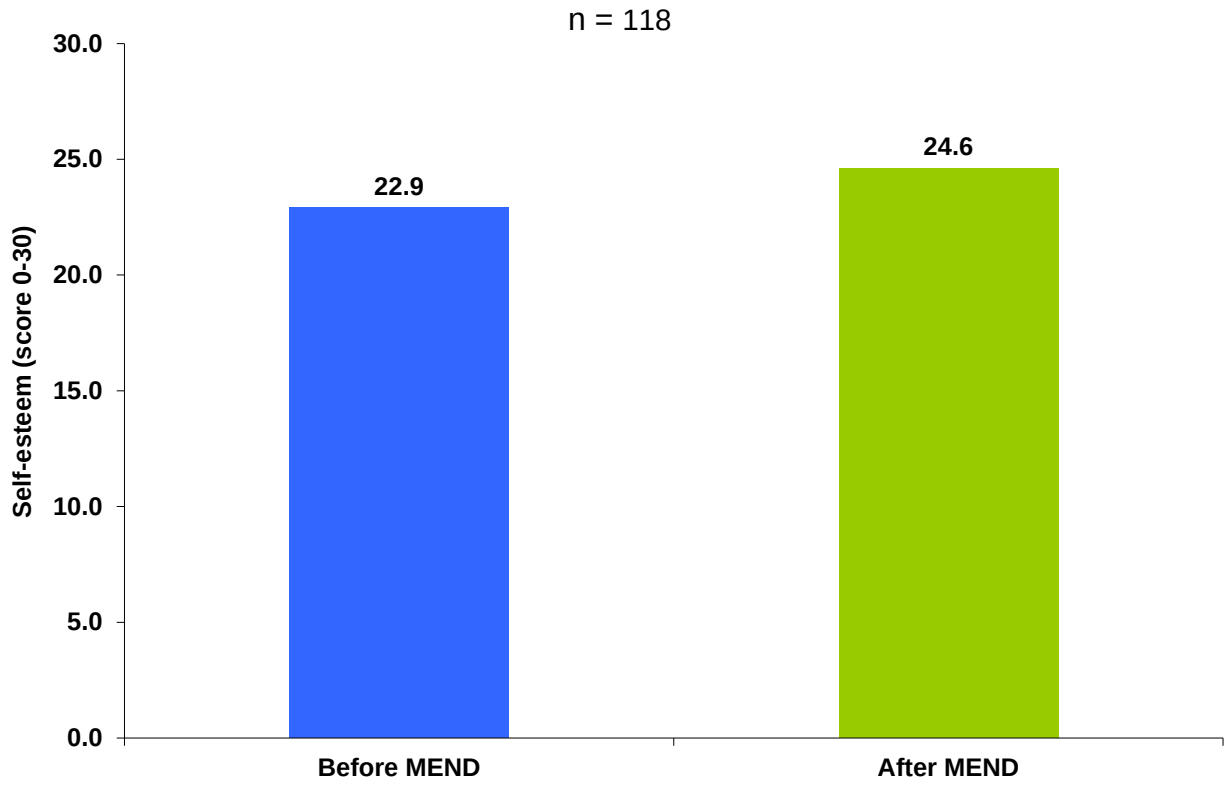
2.5.2 Children's "About my body questionnaire" (body image)



The average body-image score for the group was 14.7 out of 24 pre-program compared to 16.5 out of 24 post-program. This means children increased their body esteem by 1.8 units.

This Body Esteem Scale measures the way a child thinks and feels about the way that their body looks. Increases in scores on this scale suggest that children are feeling better about their body. This is important because improvements in body image may reduce the child's risk of developing unhealthy weight control practices in the future.

2.5.3 Children's "What I think about myself" questionnaire (Rosenberg's self-esteem scale)



The average self-esteem score for the group was 22.9 out of 30 pre-program compared to 24.6 out of 30 post-program. This means that self-esteem increased by 1.7 units.

The Rosenberg Self-Esteem Scale is a validated and widely used 10-item instrument that measures global self-esteem. Higher scores indicate higher self-esteem.

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Funding Metric(s)

DY1 October 1, 2011 to September 30, 2012	**$93,100**

No actions in DY1

DY2 October 1, 2012 to September 30,2013	**$1,467,250**

HHSC approved $372,403 DY1 seed money between 4 projects prior to any project approvals (in County coffers)

Category 2 Metric: 1

1. Met: Engage stakeholders, identify resources and potential partnership and develop intervention plan- Document innovative strategy and plan (Received $2.5M - $1,032,750 IGT = $1,467,250)
**Hired the only 1115 Waiver Administrator September 2013 **

DY3 October 1,2013 to September 30, 2014	**$1,220,937**

Original Metrics

1. Document implementation strategy and testing outcomes, 5 sites will run MEND programs

2. 500 children will complete the 10 week MEND program **(in October 2014 reporting after two administrators left employment abruptly; this metric was identified as deleted)**

3. To participate in semi-annual face-to-face meetings or seminars organized by the RHP **(in October 2014 reporting after two administrators left employment abruptly; this metric was identified as deleted)**

Current Metrics

Category 2 Metrics: 2

1. Met: Document implementation strategy and testing outcomes, 5 sites will run MEND programs ($1M - $419,500 IGT = $580,500 Note: $167,800 County project IGT)
2. Number of new ideas, practices, tools or solutions tested by each provider **(requested carry forward, HHSC approved, we plan on meeting this metric)** ($1M - $419,500 IGT = $580,500)

Category 3 Metrics: 2

1. New Metric-NMI (Needs more information) **submitted information January 16, 2015 to HHSC for approval** - 1st yr required pediatric quality of life surveys-submission ($51,625 - $21,656.5 IGT = $29,968.50)

2. New Metric-NMI (Needs more information) **submitted information January 16, 2015 to HHSC for approval** - 1st yr required pediatric quality of life surveys-validation ($51,625 - $21,656.5 IGT = $29,968.50)

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DY4 October 1, 2014 to September 30, 2015 $1,204,159

Current Metrics

Category 2 Metrics: 3

1. 500 children will complete the 10 week MEND program ($666,667 -$285,800 IGT= $380,867)
2. Number of new ideas, practices, tools or solutions tested by each provider ($666,667 -$285,800 IGT= $380,867)
3. To participate in semi-annual face-to-face meetings or seminars organized by the RHP ($666,667 -$285,800 IGT= $380,867)

Category 3 Metric: 2

1. Pediatric quality of life surveys -submission /validation ($53,875 - $23,096 IGT= $30,779)
2. Pediatric quality of life surveys-validation ($53,875 - $23,096 IGT= $30,779)

DY5 October 1, 2015 to September 30, 2016 $629,697

Current Metrics

Category 2 Metrics: 3

1. 1500 children will complete the 10 week MEND program ($300,573 - $128,855 IGT= $171,717)
2. Number of new ideas, practices, tools or solutions tested by each provider ($300,573 - $128,855 IGT= $171,717)
3. Participate in semi-annual face-to-face meetings or seminars organized by the RHP ($300,573 - $128,855 IGT= $171,717)

Category 3 Metric: 2

1. Pediatric quality of life surveys -submission ($100,250 - $42,977 IGT = $57,273)
2. Pediatric quality of life surveys-validation ($100,250 - $42,977 IGT = $57,273)

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MEND 1115 Waiver
Actual/Anticipated Budget

Date		Income	Expense	Total	Metric (s)
~4/1/2013	DY 1 Seed Money	$93,100		$93,100	No actions in DY1
	DY2 Oct 1, 2012 to Sept 2013				
1/30/2014	DY 2 Incentive Payment	$1,467,250		$1,560,350	(1) Met - Engage stakeholders
	DY 3 Oct 1, 2013 to Sept 30, 2014				
	DY 3 Expenses		$811,092	$749,258	
1/30/2015	DY 3 Incentive Payment	$580,500			Category 2 (2) metrics-met 1 metric-5 Delivery Sites
6/30/2015	DY 3 Anticipated Incentive Payment carry forward	$580,500			Category 2 will meet 2nd metric-innovative ideas & practices
6/30/2015	DY 3 Anticipated Incentive Payment carry forward	$59,937		$1,970,195	Category 3 Metric-Pedi QLS
	DY4 Oct 1, 2014 to Sept 30, 2015				
	DY4 projected expenses		$1,180,262	$789,933	
1/30/2016	DY4 Anticipated Incentive Payment	$1,142,601			Category 2 (3) Metrics- 500 children, innovative ideas, participate in meetings
	DY4 Anticipated Incentive Payment	$61,558			Category 3 Metric-Pedi QLS
				$1,994,092	
	DY5 Oct 1, 2015 to Sept 2016				
	DY 5 Anticipated Expenses		$1,608,353	385,739	
1/30/2017	DY 5 Anticipated Incentive Payment	$515,151			Category 2 (3) Metrics- 1500 children, innovative ideas, participate in meetings
	DY 5 Anticipated Incentive Payment	$114,546			Category 3 Metric-Pedi QLS
				$1,015,436	

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