Florida Statewide Quality Assurance Program

Quality Improvement Study
Contract Year 5: July 2005 – June 2006

Organizational Practices
That Best Predict Percent of Personal Outcome Measures Met

Florida DD HCBS Waiver

Prepared by Delmarva Foundation

Submitted to the Agency for Health Care Administration
and
The Agency for Persons with Disabilities

FSQAP QI Study
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Introduction

As of August 2006, funding for over 31,000 individuals with developmental disabilities in Florida was provided through the Medicaid Developmental Disabilities (DD HCBS) or Family and Supported Living (FSL) Home and Community Based Services Waivers. Administered by the Florida Agency for Healthcare Administration (AHCA), the DD HCBS and FSL Waivers allow for the provision of services in community-based settings as an alternative to institutional care. The Delmarva Foundation, through a contract with AHCA and in conjunction with the Agency for Persons with Disabilities (APD) since September 2001, has provided a quality assurance program for persons served through one or both of these waivers, called the Florida Statewide Quality Assurance Program (FSQAP).

Delmarva's Quality Improvement Consultants (QIC) must have a Bachelor's degree in a relevant social services field, at least five years of experience in the field of developmental disabilities, and meet the qualifications of the Qualified Mental Retardation Professional (QMRP). QICs provide a comprehensive onsite review of all providers who provide the following services through the DD HCBS Waiver: Adult Day Training (ADT), Non-Residential Support Services (NRSS), Residential Habilitation, Supported Employment, Supported Living Coaching, Support Coordination, In Home Supports (IHS) and Special Medical Home Care.[1] In addition, they interview consumers of the DD HCBS services in an effort to determine their quality of life, based upon the 25 Personal Outcomes Measures developed by the Council on Quality and Leadership.

The Council on Quality and Leadership (CQL) has participated as a subcontractor with Delmarva in the program since the contract's inception. As part of their responsibilities, CQL representatives have trained Delmarva consultants in the interview techniques specific to their 25 Personal Outcome Measures (POM).[2] The purpose of the interviews is to help determine the degree to which participants in the program have supports in place to improve their quality of life and to measure how well they are achieving outcomes in their lives that are important to them. Staff from CQL regularly monitor the consultants and also provide reliability oversight. As part of the FSQAP program, Personal Outcome Measures interviews have been conducted with over 8,000 individuals served through the DD Waiver program.

Background

The CORE tool is comprised of 18 outcome elements that measure organizational practices, and seven Minimum Service Requirement (MSR) elements.[3] The MSR elements are compliance oriented and are scored as Met or Not Met. Providers must

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[1] Prior to July 2005, providers of In Home Supports and Special Medical Home Care received a desk review. As of July 2005, providers of these services began receiving a CORE (Collaborative Outcomes Review Enhancement) onsite consultation.

[2] See Attachment 1 for a list of the POM indicators, within each of the seven POM domains.

[3] See Attachment 2 for a detailed description of each element.

supply documentation of the required background screening, required training, and proper billing procedures. Previous research indicates providers, on average, are compliant with most of the requirements in the MSR elements.[4] However, the focus of this study is the 18 outcome elements. The outcome elements are designed to evaluate:

- The provider's organizational practices as they relate to knowing the people they serve as well as their goals and desires.
- How the provider has implemented a person-centered approach to services.
- How well the provider ensures the safety, health, security and privacy of individuals.
- How much providers collaborate with others involved in the person's life.
- How well providers offer support to aid integration into the community.
- How well providers assist people in making informed choices.

Outcome elements have been logically grouped into six different categories as follows:

- *Rights*: Elements 1, 2, 3, and 7, ensuring the individual is educated and assisted to exercise rights, is treated with dignity, is afforded privacy and is free from abuse and neglect.
- *Choices*: Elements 4, 6 and 18, ensuring individuals participate in decisions concerning their lives, they are afforded choices in their services and supports and they are satisfied with those services.
- *Community*: Elements 5 and 10, ensuring individuals are provided services in the most appropriate integrated environment (in the community), according to their choices, and they are given opportunities to develop desired social roles.
- *Health and Safety*: Elements 8 and 9, ensuring individuals are healthy and safe.
- *Person-centered Approach*: Elements 11 – 15. In this category, QICs ensure individuals participate in planning their services and implementation plan, identify needed skills and strategies to achieve their desired goals, routinely review their implementation plan and direct changes, and demonstrate progress toward personal outcomes/goals. The provider's approach to supports and services is also evaluated.
- *Communication*: Elements 16 and 17, ensuring providers take on the responsibility, beyond their mission or scope, of helping individuals achieve outcomes through referral, advocacy or consultation, and they actively disseminate information to promote a person-centered planning and support process.

Description of the Data

Providers

[4] See the Year 4 Annual Report (http://www.dfmc-florida.org/annual_quarterly_reports/index.htm)

In this study we explore the correlation between each outcome element as well as the six categories described above, with the average number of POM outcomes achieved for individuals who were served by providers in the study. Providers are subject to a CORE consult if they provide Adult Day Training (ADT), Non-Residential Support Services (NRSS), Residential Habilitation, Supported Employment, Supported Living Coaching, In Home Supports (IHS) or Special Medical Home Care. Many provide more than one of these services or any number of other services such as Transportation, Companion, Chore, or Respite care. Providers were eligible for this study if they:

- provided one of the specific services as noted above, through the DD HCBS waiver;
- received only one CORE consultation between July 2004 and December 2005;
- and, had at least one person they served receive a POM interview some time between July 2003 and the day before their CORE consult.

As indicated in the table to the right, there were 490 providers who met these criteria and were included in this study. A majority were from an Agency, defined as having more than one provider providing services. This is fairly consistent with the proportion of all providers who received a CORE consult during the fourth year of the contract, July 2004 – June 2005. Evidence suggests solo providers of the services included in this study are more likely to achieve better outcomes on their CORE consult than agencies. This may be due to the challenges agencies have meeting the requirements for multiple employees and services, and managing turnover.[5] Therefore, it is important to include this factor in the study.

Providers With One CORE Consult

July 2004 - December 2005

Type	Number	Percent
Agency	426	86.9%
Solo	64	13.1%
Total	490	100.0%

Providers are distributed across the APD areas as demonstrated in the following table. The greatest proportion of providers was in Area 23 (23%), which is also the area with the greatest number of consumers on the Waiver. There are a relatively few number of providers within each of the other areas and therefore, little statistical analysis can be completed making comparisons across APD Areas.

[5] Florida Statewide Quality Assurance Program, Annual Report, Contract Year 4, Prepared by Delmarva Foundation and submitted to the Florida Agency for Health Care Administration and the Agency for Persons with Disabilities, September 15, 2005.

Providers With One CORE Consult
July 2004 - December 2005

APD Area	Number	Percent
1	15	3.1%
2	51	10.4%
3	38	7.8%
4	30	6.1%
7	28	5.7%
8	18	3.7%
9	21	4.3%
10	28	5.7%
11	41	8.4%
12	25	5.1%
13	32	6.5%
14	19	3.9%
15	31	6.3%
23	113	23.1%
Total	490	100.0%

There is some evidence suggesting the number of consumers who reside in a particular area may impact the level of outcomes achieved as defined by the 25 POMs. Consumers living in larger areas are more likely to have a higher number of POMs met than consumers in smaller areas, possibly because larger urban areas may offer a broader array of services and also more community programs and employment opportunities.[6] Medicaid Claims data from AHCA were used to identify the number of consumers living in each area during the study period. Providers in areas with over 2,000 consumers on the DD HCBS waiver were categorized as Large. These include the Orlando, Miami-Dade and Suncoast (Tampa) areas. Medium size areas had from 1,000 to 1,999 consumers (e.g., Jacksonville and Pensacola) and Small areas fewer than 1,000 consumers. The categories contain the following APD Areas and are used in the analysis:

- Large—7, 11, 23 (93 providers)
- Medium—1, 2, 3, 4, 9, 10 and 13 (215 providers)
- Small—8, 12, 14 and 15 (182 providers)

Provider performance on the CORE is evaluated as Achieving, Implementing, Emerging or Not Emerging. These levels of evaluation have been presented in previous work and

[6] Outcome Results Analysis: Best Predictors of Percent of Outcomes Met, Prepared by Delmarva Foundation and submitted to the Florida Agency for Health Care Administration and the Agency for Persons with Disabilities, June 2005.

are explained in more detail in Attachment 3 at the end of this study.[7] Each of the 18 outcome elements is evaluated at one of these levels. These are then combined for an overall provider evaluation level. The following table presents the distribution of providers in this study by their level of performance. Most were evaluated as either Implementing or Emerging. This is consistent with the overall evaluation of all providers who received a CORE consult during contract year four. For this analysis, results for each outcome element were divided into two categories: Achieving or Implementing v Emerging or Not Emerging.[8]

Providers With One CORE Consult
July 2004 - December 2005

Performance Level	Providers	Percent
Achieving	80	16.3%
Implementing	202	41.2%
Emerging	195	39.8%
Not Emerging	13	2.7%
Total	490	100.0%

Individuals (Consumers)

Every year of the FSQAP contract, a random sample of individuals receiving services through the DD HCBS waiver is selected for the POM interview process. The individuals in the current study are part of a subset of the random samples selected in Year 3 and Year 4 (July 2003 – June 2005) and the first half of Year 5 (July 2005 – December 2005). Because we are interested in how the organizational structures of the provider at the time of the CORE impacted individuals, we include only POM interviews that were completed prior to the CORE consult. Therefore, individuals who received a service from one of the eligible providers and had a POM interview sometime between July 2003 and the day prior to the provider's CORE consult are included in the study. The number of POM interviews per provider ranged from one (154 providers, or 31%) to a high of 64 for one provider, with an average of five and median of two per provider. The average percent of POM outcomes scored as Met, per provider, is used as the dependent variable. This ranges from zero to 96 percent and is normally distributed with a mean of 42.3 percent and a median of 41.6 percent.

Several demographic characteristics of individuals on the DD HCBS program have been shown to significantly impact their ability to achieve positive outcomes when measured with the 25 POMs: age, type of home, and primary disability. Younger individuals tend to have a higher percent of outcomes met. They are generally still in school and have all

[7] See The Year 4 Annual Report and Year 4 Quality Improvement Studies, available on the Delmarva Website: htpp://www.dfmc-florida.org.

[8] The distribution of results across the 18 outcome elements is shown in Attachment 4.

the supports and services available to them through the school system. Individuals in family homes, independent or supported home environments have better outcomes than individuals in group homes or other living situations, possibly due to the availability of natural supports. Finally, people with mental retardation as their primary disability tend to have fewer outcomes met, even when controlling for age and where they live.[9] In addition, as discussed above, the size of the area in which people live tends to impact the percent of outcomes achieved, with larger areas generating better results.

There were 1,477 individuals who received a POM interview, and they are distributed across the APD areas as indicated in the next table. For comparison purposes, the consumer population for Year 4 (July 2004 – June 2005) is also shown, generated from the ABC database housed at APD.[10] The distribution in the study sample is similar to the population as a whole. The largest difference is in Area 11, where there is a somewhat lower proportion of individuals represented in the sample than in the population.

Personal Outcome Measures: July 2003 - Dec 2005
DD HCBS Population: July 2004 - June 2005
Distribution by APD Area

	POMs		Population	
APD Area	Number	Percent	Number	Percent
1	82	5.6%	1,263	5.3%
2	156	10.6%	1,884	7.9%
3	89	6.0%	1,095	4.6%
4	119	8.1%	1,897	7.9%
7	110	7.4%	2,360	9.8%
8	69	4.7%	799	3.3%
9	92	6.2%	1,361	5.7%
10	80	5.4%	2,060	8.6%
11	144	9.7%	3,356	14.0%
12	64	4.3%	822	3.4%
13	84	5.7%	1,228	5.1%
14	51	3.5%	824	3.4%
15	50	3.4%	770	3.2%
23	287	19.4%	4,267	17.8%
Total	1,477	100.0%	23,986	100.0%

The following table gives the distribution of individuals by home type, age group and primary disability. While the sample appears to be representative of the population in

[9] Outcome Results Analysis: Best Predictors of Percent of Outcomes Met, Prepared by Delmarva Foundation and submitted to the Florida Agency for Health Care Administration and the Agency for Persons with Disabilities, June 2005.
[10] Totals for the population vary across the different demographic tables because in some cases there was missing data (birth dates) and data for the primary disability were extracted from the ABC database at a later date and therefore the files had been updated with some additional eligible consumers.

most areas, there are some differences. There was a much smaller proportion of individuals in the sample who lived in a family home, than was true for the population (38.4% compared to 61.2%), and a larger proportion living in independent or supported living or in a group home. Group homes include small (356) and large group homes (118), assisted living facilities (55), and residential treatment facilities (21). A smaller proportion of the sample is in the youngest age group, with a larger proportion among adults age 26 to 44. The sample distribution across disability appears fairly consistent with the population. These types of differences impact the extent to which the individuals in the sample represent the population as a whole. However, since any differences should be randomly distributed across providers, for this study they should not impact the results.

Personal Outcome Measures: July 2003 - Dec 2005
DD HCBS Population: July 2004 - June 2005
Distribution by Age Group, Home Type and Disability

	POMs		Population	
Home Type	Number	Percent	Number	Percent
Family Home	567	38.4%	14,673	61.2%
Ind/Sup Living	328	22.2%	3,165	13.2%
Group Homes	550	37.2%	5,845	24.4%
Unknown[11]	32	2.2%	303	1.3%
	1477	100.0%	23,986	100.0%
Age Group				
3 - 17	101	6.8%	4,123	17.5%
18 - 21	75	5.1%	1,836	7.8%
22 - 25	129	8.7%	2,148	9.1%
26 - 44	726	49.2%	9,841	41.8%
45 - 54	260	17.6%	3,289	14.0%
55 - 64	139	9.4%	1,770	7.5%
65+	47	3.2%	518	2.2%
	1,477	100.0%	23,525	100.0%
Primary Disability				
Mental Retardation	1,295	87.7%	20,594	83.9%
Cerebral Palsy	112	7.6%	2,107	8.6%
Autism	49	3.3%	1,175	4.8%
Other/Unknown	21	1.4%	678	2.8%
Total	1,477	100.0%	24,554	100.0%

[11] Home type and disability codes were not always recorded in either the ABC data or the Delmarva data.

Independent Variables

Provider Type:
Solo (0) v *Agency* (1)

Area Size: This is designed as a categorical variable, including three categories; Small, Medium and Large. The Large category is omitted from the equation such that the Medium and Small areas are compared to the Large areas when interpreting the results.

Large—APD Areas 7, 11, 23 (93 providers) (Reference Group)
Medium—1, 2, 3, 4, 9, 10 and 13 (215 providers)
Small—8, 12, 14 and 15 (182 providers)

Home Type:
"Percent In Home" is the percent of individuals in the sample who live in a family home. This is divided at 50 percent: providers with 50 Percent or fewer individuals in the sample living in family homes (141 or 28.8%) v providers with over 50 percent (349 or 71.2%).
"Percent in Independent or Supported Living" is the percent of individuals in the sample who live in independent or supported living. This is divided at 50 percent: providers with 50 Percent or fewer individuals in the sample living in Independent or Supported living (106 or 21.6%) v providers with over 50 percent (384 or 78.4%).
"Percent in Group Homes" is the percent of individuals who live in a small or large group home or an assisted living facility. This is also divided at 50 percent: providers with 50 Percent or fewer individuals in the sample living in group homes (326 or 66.5%) v providers with over 50 percent (164 or 33.5%).

Disability: Providers with more than 80 percent of individuals in the sample with mental retardation as their primary disability (385 or 78.6%) v providers with 80 percent or fewer (105 or 21.4%).

Average Age: The average age of the individuals in the sample per provider.

Dependent Variable
Average Outcomes Met: The average percent of outcomes met for individuals in the study, per provider, based upon the 25 POM items developed by CQL.

Methodology

Bi-variate correlation analysis is used to determine the extent to which each CORE outcome element is associated with the average percent of POM outcomes met.[12] This

[12] Bi-variate analyses tests the association between two variables only, not controlling for other factors that likely impact the relationship of interest.

relationship is tested by APD Area and statewide. Standard Pearson's r correlations test the strength of the association and t-tests determine the statistical significance. Pearson's r values range from -1 to 1. The closer the value is to zero, the weaker the association. If providers with Achieving/Implementing on the CORE element also have a high average percent met on the 25 POM items, the Pearson's r value will be further from zero in a positive direction.

The probability (p-value) associated with this informs us how likely the association is due to chance. A standard probability level used to determine statistical significance in the social sciences is $p<=0.05$. However, because we do not have a very large sample size, a p-value of 0.10 or less may also indicate an important relationship exists, that might be detected with a larger sample size. The importance of the p-value is in giving an indication of the probability we may be wrong in our assumptions about the results. In this study, we are more interested in the relative importance of each element rather than in applying a stringent probability level to the results.

Bi-variate correlation analysis tests the association between two variables but does not take into account other variables that may influence the relationship. Many factors could potentially impact outcomes that can be achieved by individuals living with developmental disabilities, such as family support, attitudes, money, living situations, friends, degree of disability, and/or community opportunities. Ideally, we would "statistically control" for all these factors in order to determine the unique impact different facets of a provider's organizational systems have on the outcomes of the people they serve—how the 18 CORE elements uniquely impact the POM outcomes. However, we are limited to the data available in the Delmarva data collected on providers during a CORE consult and for individuals during a POM interview.[13]

A regression model was developed to test the net impact of each independent organizational factor, as defined in the 18 CORE elements, on the overall quality of life for individuals supported by those organizational systems, based on the total percent of outcomes they had achieved on all 25 POMs. R-Square reflects the percent of variance in the dependent variable that is explained by the variables in the equation and ranges from 0 to 1. An R-Square of .20 indicates 20 percent of the variance in the percent of outcomes met is explained by the variables used in the regression equation. The R-Square value will increase as additional variables are added to the equation, explaining more of the variation in the percent of outcomes met. However, by establishing a base model and interjecting the CORE elements one at a time, we can compare the difference in the R-Square for each item and determine which organizational structures have the greatest impact on the explained variance. The method also generates a partial correlation which gives us the correlation between the CORE element and the percent of outcomes met, net of other influences (other variables in the equation). This ranges from -1 to 1 and shows us the strength and direction of the relationship. The closer this is to zero, the weaker the association.

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[13] Demographic data are supplemented with APD's ABC data when needed and when available in the ABC data.

Results

Bi-variate Correlations

Results statewide indicate 13 of the 18 elements have a statistically significant bi-variate correlation with individual outcomes, using a p<= .05 to determine statistical significance.[14] Recall that a bi-variate relationship tests the difference between two variables without taking any other extraneous factors into consideration. Given this caveat, the largest correlation is between Element 10 and the percent of outcomes met, indicating that when organizational systems are in place to ensure individuals are able to develop desired social roles, individual outcomes are likely to be better. Also relatively strong is the association of Element 3 with the percent of outcomes met, indicating that if systems are in place to ensure privacy for individuals, they are also more likely to have a higher percent of outcomes met. However, even though these relationships are statistically significant, with a Pearson's r of 0.20 and 0.19 respectively, they are not very strong. The correlation between Element 18 and Element 4 with the percent of outcomes met are the third and fourth strongest (r=0.17, r-0.16 respectively), indicating that if systems are in place to the degree individuals feel satisfied with their services, and if providers ensure individuals actively participate in decisions concerning their lives, they generally are more likely to have POM outcomes met.

Also of interest are the CORE elements that do not show a strong or statistically significant relationship with individuals' outcomes, Elements 5, 7, 9, and 11. Element 7, showing that organizational structures are in place to ensure people are free from abuse and neglect, is the least likely element to impact outcomes, with a .00 correlation—virtually no impact. Element 5, ensuring individuals are provided with opportunities to receive services in the most integrated settings appropriate to their needs and choices, also does not appear to impact overall outcomes for individuals. Finally, correlations for elements showing organizations ensure the individual is safe (Element 9) and also that a personal outcome approach is used to design person-centered supports and services (Element 11), while somewhat stronger than the associations shown for Elements 5 and 7, are relatively week.

Regression Analysis

Results from the base regression model using the Percent Met on all 25 POM items as the dependent variable are presented in the following table. A multi-variate regression allows us to explore the unique impact of one variable on another, controlling for the influence of other variables in the equation (independent variables). The R-Square value indicates that 20.7 percent of the variation in the percent of outcomes met for the individuals in the sample is explained by the eight variables in the equation. These eight variables represent the average age of individuals linked to each provider; living arrangements (percent in family homes, percent in independent/supported living and

[14] Results from the bi-variate correlation analyses are presented in the table located in Attachment 5. The Pearson's r value is given on the first row for each element and the p-value on the second row. There were too few providers to complete the table by APD Area.

percent in group homes); size of area (Medium and Small v Large); the percent of individuals with mental retardation as their primary disability; and if the provider is an Agency or Solo provider. The R-square of 20.7 percent informs us many other factors greatly impact the outcomes people achieve.

Regression Results: Percent Outcomes Met
N = 490

Base Model R-Square	*20.7%*		
Independent Variables	t-score	p-value	Partial Correlation
Average Age	-3.05	0.000	-0.138
Independent/Supported Living	3.17	0.002	0.127
Group Homes	-3.36	0.001	-0.136
Family Home	1.09	2.740	0.044
Medium Size Areas	0.81	0.417	0.033
Small Areas	-1.45	0.148	-0.059
Mental Retardation	0.26	0.795	0.011
Agency	-4.55	0.000	-0.185

The t-score and p-value listed for each variable reflect the statistical significance of the relationship between each variable and the percent of outcomes met. The larger the t-score and the smaller the p-value, the less likely it is the effect documented in the sample is due to chance, meaning there is a real impact on the dependent variable. The Partial Correlation indicates the "unique" correlation of each independent variable with the percent of outcomes met, net of all other factors in the equation. This differs from the bi-variate correlation presented above, and is almost always smaller. In a bi-variate correlation, the effects of other influences are not "partialed" out of the association.

Highlights from the base regression model include the following:

- The strongest relationship with outcomes is the type of provider providing services, an agency v a solo provider. Results inform us providers operating as an agency are less likely to have individuals with a higher percent of outcomes met than solo providers. The large t score (-4.55) and very small p-value (0.000) indicate there is a very small probability this relationship is due to sampling error or chance.
- As has been demonstrated throughout the FSQAP project, age is a factor in determining outcomes. Providers with a younger population, on average, serve individuals with a greater percent of outcomes met.
- When 50 percent or more of provider's consumers lived in a group home, average outcomes for individuals served by those providers were likely to be lower than for providers with fewer than 50 percent of individuals living in group homes.

This is the third strongest association in the model with a 15 percent Partial Correlation.

By adding the CORE elements to the base model, one at a time, we can begin to determine the relative impact each has on the percent of outcomes met for individuals served by the providers in the study. The following table gives the t-score, p-value and partial correlation for each element, as well as the R-Square for each model. The "R-Sq Change" column shows the difference in the R-Square for the Base Model and the model with the CORE element included. Adding a variable to the equation will generally improve R-Square, explaining more of the variation in the dependent variable. It is apparent the CORE elements do not add much explanation to the variation in the percent of outcomes met. Element 10 (developing social roles) shows the greatest increase, but with only a 1.4 percent improvement in explaining the variance in outcomes.

Impact of CORE Elements on Percent of Outcomes Met

July 2003 - December 2005

Base Model R-Square		20.7%			
CORE Element	t-score	p-value	Partial	R-Sq	R-Sq Change
1	0.143	0.886	0.007	20.7%	0.0%
2	1.619	0.106	0.074	21.1%	0.4%
3	2.275	0.023	0.103	21.6%	0.9%
4	1.224	0.222	0.056	21.0%	0.3%
5	-0.487	0.626	-0.022	20.7%	0.0%
6	1.683	0.093	0.077	21.2%	0.5%
7	-0.766	0.444	-0.035	20.8%	0.1%
8	1.237	0.217	0.056	21.0%	0.3%
9	0.913	0.362	0.042	20.8%	0.1%
10	2.968	0.003	0.134	22.1%	1.4%
11	-0.42	0.674	-0.019	20.7%	0.0%
12	1.172	0.242	0.053	20.9%	0.2%
13	1.406	0.160	0.064	21.0%	0.3%
14	1.747	0.081	0.080	21.2%	0.5%
15	0.946	0.345	0.043	20.9%	0.2%
16	1.244	0.214	0.057	21.0%	0.3%
17	1.338	0.184	0.061	21.0%	0.3%
18	2.636	0.009	0.119	21.8%	1.1%

Elements 3, 10 and 18 (see below for description) demonstrate the greatest impact on the percent of outcomes met for individuals served by the providers and are statistically significant using the more stringent cut off point of $p <= .05$. These were significant bi-variate relationships as noted previously, and are robust enough to show a significant association when controlling for other relevant factors in the equation. Therefore, taking into account the size of the area in which the provider serves individuals, the average age

of the individuals served, the percent who live in family homes, independent or supported living, or group homes, the percent who have mental retardation, and whether the provider is an agency or solo entity, strength in organizational structures in the following areas appear to help produce better outcomes for individuals served:

- Ensuring the individuals are developing desired social roles—the strongest relationship with a Partial correlation of 13.4 percent (Element 10).
- Ensuring individuals have privacy (Element 3).
- And, providing services such that individuals are satisfied with their services (Element 18).

In addition to these three areas, Elements 2, 6 and 14 (see below for description) also show some impact on the dependent variable. While the probability levels are greater than $p \leq 0.05$, the probability the associations seen here are due to chance are at or less than 10 in 100 (Element 2 slightly higher at $p=.106$), indicating these factors may generate some influence on the outcomes for individuals:

- The provider allows individuals to participate in the routine review of their implementation plan and direct changes they desire to assure outcomes (Element 14).
- Individuals are afforded choice of services and supports (Element 6).
- And, individuals are treated with dignity and respect (Element 2).

Also of interest are the CORE elements that, in this study, do not appear to have a unique substantial influence on the degree to which individuals have outcomes met in their lives, with a high probability the results seen are simply due to chance. Some of these may even show an inverse relationship (negative correlation) that may not truly exist but is only due to sampling fluctuations. While this study finds these to be weaker statistical relationships, this does no imply they are not important to the philosophy and overall values of the APD program. They include the following areas:

- Organizational practices are in place to ensure individuals are educated and assisted by the provider to fully exercise their rights (Element 1).
- Providers ensure individuals are provided opportunities to receive services in the most integrated settings, appropriate to their needs and according to their choices (Element 5).
- Providers use a personal outcome approach to design person-centered supports and services, and to enhance service delivery in order to assist each individual in achieving personal outcomes (Element 11).

CORE Area Effects
In addition to the unique impact of each CORE element, in this study we have also explored the impact of the six different CORE areas, as explained in the background section: Rights, Community, Person-centered Approach, Communication, Health and Safety, and Choices.

Impact of CORE Areas on Percent of Outcomes Met
July 2003 - December 2005

CORE Area	t-score	p-value	Partial
Rights	1.503	0.134	6.8%
Community	0.190	0.850	0.9%
Person-centered Approach	0.772	0.441	3.5%
Communication	2.282	0.023	10.4%
Health and Safety	1.653	0.099	7.5%
Choices	1.487	0.138	6.8%

Elements that are combined to indicate effective communication is in place within the provider's organizational structures show a significant impact on individual outcomes. This signifies the importance of interaction among all providers serving each individual. All providers are responsible for the well being of the individual and should not provide services as if they are doing so "in a vacuum". Providers who act as advocates and promote an environment of cohesive action among all providers and supports appear to have an organizational strength that significantly and positively impacts the lives of people served. Therefore, the consultative approach that outcomes are everyone's responsibility may have a positive impact on whether the POMs are present.

Health and safety is the second strongest area impacting individuals' outcomes. When taken together, we see the importance of meeting the needs of individuals in these two very basic areas, with only a 9 out of 100 probability the result is due to chance. If people do not have good health or do not feel safe, they are less able to interact with the community, to meet new people and establish new friendships. They may not "feel up to" increasing activity levels, setting goals for themselves, or even fighting for their own rights.

Discussion and Recommendations

While not all elements have shown statistical significance in this study, this does not imply any elements are unimportant to an organization's successful service to individuals. It may be, however, that some are more important than others or that some organizational systems found in this study as "not significant" may operate through or in conjunction with other variables. These relationships are at times difficult to tease out. For example, ensuring individuals are educated and assisted by the provider to fully

exercise their rights may be directly related to the development of social roles, which in turn impacts individual outcomes. The effect of developing social roles may then "over shadow" the impact of rights.

An organizational practice related to an individual's self worth (developing desired social roles) has the greatest impact on individual outcomes (Element 10). Developing various social roles helps give people a sense of belonging, an integral part of our culture and society. Unfortunately, in reviewing the 18 outcome elements at the state level, Element 10 is least likely to be evaluated as Achieving and one of the elements most often found to be Not Emerging. Subsequently, the POM outcome regarding the development of social roles for individuals across the state (People perform different social roles) has also shown the lowest percent of outcomes met over the past several years.

Recommendation 1: More emphasis needs to be placed on efforts to improve providers' practices in the area of the development of social roles for people with developmental disabilities. Training should be offered through the APD Area offices to help providers and individuals/families define, understand and develop social roles important to them: to improve their education, exposure and experience in this area.

Organizational practices that offer choices of services for individuals with disabilities is another important CORE component identified as impacting POM outcomes. This result reinforces the identification of *Chooses Services* as a "driver outcome", meaning that if this POM outcome is met for individuals, they are more likely to have 13 or More POM outcomes met. If providers, or communities, do not offer choices, individuals will have few options from which to choose, and the overall percent of outcomes met is then negatively impacted. Like "social roles", this POM has remained low over the years, and evidence to date in Year 5 of the contract (July – December 2005) suggests this outcome has decreased since Year 4.

Why have options and choices continued to be limited in this population? Some evidence suggests if one choice is made, other choices of supports and services may stop. For example, if individuals make an initial choice related to a church they wish to attend or grocery store where they want to shop or whom they would like to have as their supported living coach, providers may not always check to see if the individuals would like to try something else. The supports for the people accept the status quo rather than continuously educating, exposing and providing experiences for people they serve. Evidence also suggests other people, supports or family members are making choices for the individual living with a disability. In general, people are more satisfied with their circumstances when they have control over their lives. In addition, the community may have limited resources.

Recommendation 2: Continue to encourage all providers and supports to provide the 3 E's—Educate, Expose and Experience, especially when individuals have already made choices. This will help provide individuals with options and more control over their lives, allowing them to continue to make choices for supports and service they feel they need.

Other important CORE areas that appear to impact the overall outcomes in the lives of individuals with disabilities involve issues of privacy, and being treated with dignity and respect. These are basic rights that are often taken for granted, but which many people in this population are denied. The POM determining if people feel respected, in the most recent quarterly report to the state, indicated about 50 percent of individuals do not have this basic need met. Privacy is somewhat better, with about 64 percent indicating they have privacy. A key to ensuring these rights are upheld is to ask questions showing an interest in the person, actively listen to responses, and act on the information gained through this process.

Recommendation 3: Include a session on active listening in a training seminar. This is a skill many of us do not have and is essential in rendering optimum services to individuals with disabilities. The sessions should stress the importance of including the individual in developing the implementation plan, with a focus on actively listening to the individual's expectations and using the organization's resources to then monitor and redirect services, if appropriate, to accomplish those expectations.

One of the main concepts incorporated into the CORE and WiSCC procedures is that an individual's life is the responsibility of all providers involved in serving the person. Providers should not ignore an individual's needs because they are "out of the provider's domain". The processes promote the collaboration of providers and supports working with the same individual in order to increase communication and assist the individual in meeting desired results. Communication should be established at regular and frequent intervals. The CORE area of Communication, the combination of Elements 16 and 17 (providers advocate for the individuals beyond the scope of their own services and disseminate information to promote a cohesive person-centered process), was shown to be the strongest area impacting overall outcomes for individuals in this population.

Recommendation 4: APD area offices should re-establish the "Circle of Supports" as a means to enhance communication and collaboration through the use of periodic face to face meetings.

The CORE area of Health and Safety, the combination of Elements 8 and 9 (the individuals is healthy and safe), appears to be the second strongest indicator of the average number of outcomes met. If providers have organizational practices that ensure the health and safety of the individuals they serve, those individuals are more likely to have a better quality of life as measured by the POMs.

Recommendation 5: The Agency for Person's With Disabilities should initiate a training program that will help providers in identifying and supporting <u>preventive</u> health care. Some specific areas that could be given more immediate focus: annual dental exams, annual pap smears, periodic breast exams, mammograms, prostate exams, annual physical, and vision/hearing exams. APD Area 4 has a preventive health chart that might be useful to use as a template (see Attachment 6).

One additional finding in this study is that solo providers of services monitored through a CORE consult are likely to serve individuals with higher outcomes than agency providers, controlling for other factors such as residence and age. There are several possible reasons for this.

- It may be due in part to the fact that solo providers are able to adapt their philosophy and practices more easily to each individual's needs than a provider with 100 employees (and high turnover rates), implementing a more person centered approach to service delivery. Solo providers would likely have more individualized services rather than a one size fits all mentality.
- Solo providers may have more control over their service delivery verses an agency provider who may be consumed with paperwork.
- Solo providers are able to dedicate their finances to service delivery rather than overhead.
- An additional factor may be diffusion of responsibility. Solo providers know they are responsible for ensuring outcomes and goals for individuals. However with an agency the home manager may pass responsibility to a lead staff and/or other providers, with the result that important information and responsibilities "fall through the cracks".

Recommendation 6: APD and Delmarva should explore any possible reasons why agency providers serve individuals who have fewer outcomes met in their lives than do solo providers, including streamlining paper work. APD should then develop and implement training specific to the challenges faced by agency providers.

The purpose of this study was to identify the relevant importance of providers' organizational structures as measured by the CORE outcome elements in terms of outcomes for individuals. While this study offers some insight into the impact of different provider practices, there are limitations in the data and methods and results should be treated as tentative until further work can be completed in this area.

- Many providers had only one individual who had received a POM interview. While some providers only serve a small number of consumers, it would be preferable to have a larger number of individuals per provider to calculate the average percent of POMs met per provider.
- We do not know the proportion of individuals used per provider. For example, when two providers each had three POM interviews used in the study, we do not know if these were 100 percent or 10 percent of the provider's caseload.
- The POM data were taken from three different random samples and as shown in the Data Section, some differences exist as to the degree the sample represents the DD population. However, for the purposes of this study, this limitation should have minimal impact on the results because we are not generalizing to the population of individuals with disabilities but investigating organizational practices of providers serving those individual.

- Because the POM interviews were completed up to 18 months prior to the CORE consult, some changes in the provider organizations could have been implemented that might have impacted POM outcomes for individuals, negatively or positively.

Recommendation 7: In order to better determine the impact of the CORE process (and the organizational practices measured by this process) on outcomes for individuals, a "before/after" study should be considered as a Quality Improvement Study during the third or fourth year of the current contract (Year 8). By this time many providers will have received at least two CORE consults and it will be possible to compare the POM outcomes for these providers before the CORE process began and for two or three years following its implementation. The impact of each organizational practice can be re-examined at that time as well as any impact the CORE process itself may have had on providers.

Finally, the CORE tool is a relatively new method of monitoring and ensuring quality improvement among providers. Although formal reliability has not yet been established, consultants have been tested on reliability on an element by element basis through the use of various scenarios distributed prior to bi-weekly conference calls. In addition, regional managers review 100 percent of the consultants' findings to help ensure consistency in the evaluations. Formal reliability testing is currently being developed and implemented.

Attachment 1

Personal Outcome Measures

Identity

- People choose personal goals.
- People choose where and with whom they live.
- People choose where they work.
- People have intimate relationships.
- People are satisfied with services.
- People are satisfied with their personal life situations.

Autonomy

- People choose their daily routine.
- People have time, space and opportunity for privacy.
- People decide when to share personal information.
- People use their environments.

Affiliation

- People live in integrated environments.
- People participate in the life of the community.
- People perform different social roles.
- People have friends.
- People are respected.

Attainment

- People choose services.
- People realize personal goals.

Safeguards

- People are connected to natural support networks.
- People are safe.

Rights

- People exercise rights.
- People are treated fairly.

Health and Wellness

- People have the best possible health.
- People are free from abuse and neglect.
- People experience continuity and security.

Attachment 2
CORE Outcome and Minimum Service Requirement Elements

Outcome Elements

1. The individual is educated and assisted by provider to fully exercise rights.
2. The individual is treated with dignity and respect.
3. The individual's personal privacy is observed.
4. The individual actively participates in decisions concerning his or her life.
5. Individual is provided with opportunities to receive services in the most integrated settings appropriate to his/her needs and according to his/her choice.
6. Individual is afforded choice of services and supports.
7. Individual is free from abuse, neglect and exploitation.
8. Individual is healthy.
9. Individual is Safe.
10. The individual is developing desired social roles that are of value to the individual.
11. A personal outcome approach is used to design person-centered supports and services, and to enhance service delivery in order to assist each individual in achieving personal outcomes.
12. Individual directs the design of his/her implementation plan, identifying needed skills and strategies to accomplish personal desired goals.
13. The provider organizes resources, strategies and interventions to facilitate each individual's outcome achievement.
14. The individual participates in the routine review of his/her implementation plan and directs changes desired to assure outcomes/goals are met.
15. Individual is achieving his/her desired outcomes/goals or receiving supports that demonstrate progress toward personal outcomes/goals.
16. The provider takes responsibility for addressing individual outcome areas beyond the provider's mission and scope through referral, advocacy or consultation.
17. The provider actively coordinates the dissemination of information to the individual/family/guardian and other providers in order to promote a cohesive person-centered planning and support process.
18. Individual is satisfied with services.

Minimum Service Requirements

1. Provider meets service specific projected service outcomes as identified for each service.
2. Level 2 background screenings are completed for all direct service employees. All employees undergo background screening every five years.
3. Independent providers and agency staff receive other training specific to the needs or characteristics of the individual as required to successfully provide services and supports. New providers have the required training and qualifications for the service.

4. Proof of required training in recognition of abuse and neglect and the required reporting procedures is available to all independent providers and agency staff.
5. Provider is authorized to provide the service.
6. The service is provided and billed as authorized (authorized rate, frequency, staffing ration as appropriate).
7. The provider maintains required documentation. New providers maintain required documentation to include all required policies and procedures.

Attachment 3

CORE Outcome Element Evaluation Levels

Achieving

- Implementing components are present.
- The organization is assisting individuals to achieve outcomes, or to complete increments toward achieving the outcomes.
- Results that communicate choices and preferences that matter most to the person being served are observable.
- Consistent practices of self-determination/person-centered supports are evident in the organization's mission and practices.
- Provider knows the people they serve, includes their choices and preferences that matter most to each person, and continuously probes to ensure that this information is current and accurate.
- Education, Experience and Exposure are present, practiced and evident on a consistent basis.

Implementing

- Consistent action toward achieving outcome increments is predominately present, with only a few sporadic inconsistencies present.
- Strategies and organizational practices are in place to effect change and focus on the individual, but the results have not yet been achieved.
- Provider has general information regarding the people they serve and has methodologies in place for continued probing to update their knowledge about the person. However, this methodology is not consistently applied to all persons served.
- Education, Experience and Exposure are generally taking place and are being integrated into service delivery, but not all opportunities are being addressed.

Emerging

- Some or sporadic action toward achieving outcome increments may be seen, but overall outcomes are not being achieved.
- The provider has some systematic practices that relate to the individual's outcomes but they are implemented sporadically.
- Provider has general information regarding the people they serve but has no consistent system in place for continued probing to update their knowledge about the person.

- Some Education, Experience and Exposure may be taking place. However, the provider is not systematically and consistently implementing these concepts.

Not Present

- Little to no appropriate action has been taken related to the individual's identified outcomes.
- Any implementation related to the achievement of the individual's outcomes is either inconsistent or without direction.
- There is little or no evidence regarding the organization's mission, coordination and practice in the principles of self-determination/person-centered supports.
- The provider has limited information about the individuals and their choices and preferences.
- No planned or directed Education, Experience and Exposure are taking place.

Attachment 4
Distribution of Providers Across CORE Elements
Achieving/Implementing v Emerging/Not Emerging
July 2004 - December 2005

Number	CORE Element																	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Achieving/ Implementing	187	317	301	223	234	228	238	308	326	160	210	219	219	172	253	297	307	357
Emerging/ Not Emerging	303	173	189	267	256	262	252	182	164	330	280	271	271	318	237	193	182	133
Total	490	490	490	490	490	490	490	490	490	490	490	490	490	490	490	490	489	490

Percent	CORE Element																	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Achieving/ Implementing	38%	65%	61%	46%	48%	47%	49%	63%	67%	33%	43%	45%	45%	35%	52%	61%	63%	73%
Emerging/ Not Emerging	62%	35%	39%	54%	52%	53%	51%	37%	33%	67%	57%	55%	55%	65%	48%	39%	37%	27%
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

Element Key

1	Exercises rights	10	Social roles
2	Dignity and respect	11	Person-centered approach
3	Has privacy	12	Directs implementation plan
4	Participates in decisions	13	Facilitates outcomes
5	Integrated settings	14	Reviews implementation plan
6	Choice services/supports	15	Achieves desired outcomes
7	Abuse and neglect	16	Advocates beyond mission/scope of work
8	Healthy	17	Coordinates/disseminates information
9	Safe	18	Satisfied with services

Attachment 5
Bi-Variate Correlations
CORE Elements with POM Percent Met

CORE Element		Correlations Statewide
1	Pearson's r	0.10
	p-value	0.03
2	Pearson's r	0.14
	p-value	0.00
3	Pearson's r	0.19
	p-value	0.00
4	Pearson's r	0.16
	p-value	0.00
5	Pearson's r	0.04
	p-value	0.40
6	Pearson's r	0.14
	p-value	0.00
7	Pearson's r	0.00
	p-value	0.98
8	Pearson's r	0.09
	p-value	0.04
9	Pearson's r	0.07
	p-value	0.11
10	Pearson's r	0.20
	p-value	0.00
11	Pearson's r	0.06
	p-value	0.16
12	Pearson's r	0.13
	p-value	0.00
13	Pearson's r	0.13
	p-value	0.00
14	Pearson's r	0.14
	p-value	0.00
15	Pearson's r	0.08
	p-value	0.07
16	Pearson's r	0.12
	p-value	0.01
17	Pearson's r	0.12
	p-value	0.01
18	Pearson's r	0.17
	p-value	0.00
Number of CORE		490