Florida Statewide Quality Assurance Program

Quality Improvement Study

Contract Year 8 (July 2008 – June 2009)

Health and Safety Alerts and Provider Performance on the Health and Safety CORE Element

Florida DD HCBS Waiver

Prepared by the Delmarva Foundation

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

Executive Summary

Providers who render specific services through the Florida Medicaid Home and Community-Based Services Developmental Disabilities and Family and Supported Living waivers must participate in an annual Collaborative Outcomes Review and Enhancement (CORE) consult. As part of the consult, providers are monitored on a variety of health and safety issues, with an alert generated if there is a situation present that could result in immediate danger to an individual. In this study we explore provider performance on the Health and Safety element of the consult as well as trends and predictors of health/safety alert citations noted during the annual CORE consult.

Data for the study were taken from the results of 1,742 annual CORE consults completed between March 13, 2007, and December 12, 2008. During this time period, 197 health/safety alerts were reported and 690 providers (39.6%) scored Emerging or Not Emerging on the Health and Safety element. A score of Emerging or Not Emerging indicates the providers did not have systems in place to adequately address the health and safety needs of all the individuals for whom they provide services. Recommendations are provided, based on the following key findings from logistic regression analysis:

- Providers in Small Areas were more likely to have health/safety alerts and more likely to score Emerging or Not Emerging on the Health and Safety element than were providers in Medium size Areas. Provider in Large Areas showed the same results, although the relationship was not as strong.
- Participating in more than one CORE consult significantly decreases the odds of being evaluated as Emerging or Not Emerging on the Health and Safety element. However, this does not appear to impact the odds of receiving, or avoiding, a health/safety alert.
- Providers who offer Residential Habilitation were more likely to receive a health/safety alert than providers who did not offer that service.
- Supported Living Coaches were more likely to have a health/safety alert than providers who did not offer SLC, but they were 25 percent less likely to score poorly on the Health and Safety element.
- Providers if In-Home Support Services more likely to score poorly on the Health and Safety element than providers not offering IHSS.
- Overall provider performance on the CORE (CORE Results Elements Score) was positively associated with a reduction of health/safety alerts. Therefore, the better providers overall systems are, the less likely it is they will receive an alert.
- Various barriers to providing services that enhance the well-being of individuals were identified, including a lack of medical professionals, a lack of a pool of qualified providers, ineffective or a lack of training, and a lack of support coordination follow-through.

Introduction

Health and safety are basic needs for every individual, but are particularly vital for individuals with developmental disabilities. Providers who offer services to individuals should be aware of the health care needs for each person they serve and address all health and safety needs as applicable and appropriate. To prevent health and/or safety related incidents, providers who render services through one of Florida's Medicaid Waivers for individuals with developmental disabilities are required to have specific training in areas such as medication administration and health and safety, and have relevant equipment available as needed. If these requirements are not met, a person's health, safety, and/or rights could be placed in immediate danger.

Data in the Year 7 Annual Report (July 2007 – June 2008), submitted to the Agency for Persons with Disabilities and the Agency for Healthy Care Administration, indicated over 12 percent of providers (124) had some type of health or safety alert documented during the annual quality assurance review. In addition, approximately 40 percent (396) of the providers reviewed that year did not have adequate systems in place to ensure the health and safety of the individuals they served. Therefore, the state requested a study be completed that is designed to explore trends across the state and examine factors that could influence providers' performance relating to the health and safety of individuals they serve. In this study we explore the distribution of factors that impact health/safety alerts, factors that may be related to overall provider performance in this area, and barriers that may exist in maintaining the health and safety of Florida's individuals with developmental disabilities.

Background

Since September 2001, Delmarva Foundation, under a contract with the Agency for Health Care Administration (AHCA), has provided quality assurance oversight for providers who serve people with developmental disabilities through two different Home and Community-Based Services Medicaid Waivers—Developmental Disability (DD) and Family and Supported Living (FSL).[1] The Florida Statewide Quality Assurance Program (FSQAP) is a quality assurance collaborative including Delmarva, AHCA, and the Agency for Persons with Disabilities (APD). Delmarva's Quality Improvement Consultants (QIC) interview individuals receiving services and monitor providers to help ensure providers render services in a way that meets the stated goals and desires of the people they serve, and providers comply with licensure and other requirements specific to services offered.

[1] In October 2008, these waivers were replaced with a Tier System, placing all individuals receiving services into one of four different levels, based upon several criteria such as residential status and level of need.

The Consultative Outcomes Review and Enhancement (CORE) review process was developed by Delmarva, APD and AHCA, to monitor providers onsite and is used for providers who render the following services: Adult Day Training (ADT), Residential Habilitation (ResHab), Supported Living Coaching (SLC), Supported Employment (SE), In Home Support Services (IHSS), and Special Medical Home Care (SMHC). CORE consults include interviews with individuals, review of provider records, onsite observations, interviews with providers and staff, and contact with others as relevant to the individuals receiving services. QICs are trained on the Delmarva review processes and pass annual reliability on each component of the review. QICs are also trained by the Council on Quality and Leadership (CQL) to enhance interview techniques used during the CORE process, and are required to pass annual reliability on the Personal Outcome Measures (POM) interview. CQL partners with Delmarva to provide oversight for the interview process and annual reliability testing for each QIC.

Through the CORE consult, providers are scored on eight CORE Results Elements (CRE) and four Minimum Service Requirement (MSR) elements.[2] The focus of the CREs is the organization's systems and how well the provider's organizational systems help individuals achieve outcomes specific to the stated goals of individuals receiving services. MSRs determine compliance with licensure and other requirements such as background screening and billing documentation. One CRE, the Health and Safety element, is used to evaluate the extent to which a provider is ensuring consumers' health and safety needs are met. This element of the CORE consult is the focus of the current Quality Improvement study.

Providers are evaluated on each CRE as Achieving, Implementing, Emerging and Not Emerging. Providers who are Achieving in Health and Safety have systems in place to ensure they know the health and safety needs of each individual they serve, they are adequately addressing each of these needs, and they are helping individuals take control of their own health and safety. Implementing providers may adequately address all health and safety needs for individuals but may not systematically help individuals control this for themselves. Emerging providers are still developing systems to address all health and safety needs and providers who are Not Emerging have nothing in place to ensure the health and safety of the individuals they serve.[3]

A health/safety alert is issued if the QIC determines a person's health and/or safety are in immediate jeopardy and the provider does not have systems in place to determine or address this issue. Once

[2] See Attachment 2 for a brief description of each CORE element and please reference the tool at http://www.dfmc-florida.org/public/core_wiscc_tools.aspx for a more detailed explanation of the procedures and elements.
[3] A brief description of each evaluation level has been provided. Please go to http://www.dfmc-florida.org/Public/docs/provider/CORE_Tool_03_06_07.pdf for a detailed description of each evaluation level in the H & S element. See Attachment 3 for a description of probes used when scoring this element.

an alert is issued, the provider and the local DD office are notified, and immediate corrective intervention must be taken. Health/safety alerts are triggered by certain situations, including but not limited to the following Delmarva protocol items:

Health Alerts

- Administering medication without 01-01 (Medication Administration Policy Directive) medication administration training and validation.
- Administering medication via injection without an RN or LPN license.
- Wheelchair in disrepair or does not fit the individual and the individual has difficulty breathing, eating, or drinking.
- Medication errors found at the time of the consult the provider had not identified such as administering medication:
    - to the wrong person;
    - at the wrong time;
    - on the wrong day;
    - in the wrong amount, or;
    - at the wrong dosage.
- Medication error(s) found prior to the consult that have not been addressed by the provider.
- A serious medical procedure or examination requiring follow-up that has not been completed, e.g. surgery (this constitutes medical neglect).
- Lack of follow-up to recommendations made by pharmacy review that indicates a potential for serious interactions.
- Sharing personal care items, such as soap, a hair brush, or a tooth brush when there is a serious infectious bacterium or virus present in the environment, for example MRSA or meningitis (N.B. conditions such as lice or scabies do not qualify as serious).
- In a licensed facility, lack of air conditioning or heat when obviously indicated (must call Regional Manager).
- The person is under a physician's care for a chronic medical condition including pulmonary, gastrointestinal, neurological, psychiatric, or cardiac conditions, and does not have access to medical care and/or medications.
- Medication administered with no documentation, e.g. pharmacy label or prescription, or a PRN medication is ordered without appropriate specific parameters.
- An individual expresses suicidal ideation to the provider and has a plan and/or the means to self harm but no action has been taken by the provider.
- An individual with a history of chronic mental illness, such as depression or schizophrenia, expresses suicidal ideation to the provider, regardless of plan and/or means to self harm, and no action has been taken by the provider.

Safety Alerts

- There is no grab bar in the bathroom of an individual who has an unsteady gate (documented by physician) and has a history of falls.
- Exits are blocked by furniture, supplies, etc., and no other exits are available.
- Windows, doors, and/or sliding glass doors have iron bars which block exits and there is no key, no other way to open the iron bars, or no other exit from the room.
- Wheelchair is in disrepair or does not fit the individual and the individual is being injured as a result.
- Unattended individuals in a vehicle without evidence they have safety skills to be left alone (this constitutes neglect).
- Exposed electrical wires.
- Individual who requires a wheelchair, modifications, or adaptive equipment or supports, and these are not available to transfer the person safely.
- Individual uses a wheelchair in a home that has no ramps and the entries have steps.
- Individual is transported by provider/staff who have no valid driver's license and/or insurance.

The purpose of this study is to examine various factors associated with the health and safety of individuals receiving services through one of Florida's Medicaid waivers for persons with a developmental disability. Factors associated with whether or not a provider receives a health/safety alert are examined. Factors associated with the provider's performance on the CORE Health and Safety Element are also explored. In addition, discussion is included as to whether the factors that influence performance scores on the Health and Safety Element also impact the probability of being cited with an alert. Barriers to providing services to adequately address health and safety needs are presented.

Data

Data for this study were taken from the results of 1,742 CORE consults conducted between March 13, 2007, and December 12, 2008. Because a revised CORE process was implemented March 13, 2007, consults completed prior to that time can not be used in the analysis.

Dependent Variables

Two different dependent variables are used in the analyses. A categorical variable is used to measure whether or not a provider received a health/safety alert during the annual CORE consult.

- Yes=1
- No=0

Another categorical variable is used to measure provider performance on the CORE Health and Safety element.

- Achieving/Implementing=0
- Emerging/Not Emerging=1

A little over 11 percent of the 1,742 reviews completed had a health/safety alert, 197 reviews. Close to 40 percent of providers were evaluated as Emerging or Not Emerging on the CORE Health and Safety Element. Table 1 shows the relationship between provider performance on the CORE element and alerts. Over 55 percent of the 61 providers who scored Not Emerging also had an alert. Providers who received a health/safety alert are not eligible to be scored as Achieving on the element. However, it is clear that as provider performance on this indicator improves, alerts are less likely to be triggered.

Table 1: CORE Health and Safety Element Score Percent with a Health/Safety Alert March 13, 2007 - December 12, 2008				
H & S Alert	Achieving	Implementing	Emerging	Not Emerging
Yes	0.0%	4.1%	21.1%	55.7%
Total Consults	316	736	629	61
A/I v E/NE	1,052		690	

Explanatory (Independent) Variables

Multiple factors could influence whether or not a provider receives a health/safety alert. Information on these factors is limited to the data available to Delmarva, collected during the consultation process:

- **Provider Type**: Agency versus Solo.
- **Area Size**: Data from the Agency for Person's with Disabilities were used to identify the number of consumers in each Area as of October 2008. Areas with over 2,500 consumers were categorized as Large. These include the Broward, Orlando, Miami-Dade and Suncoast Areas. Medium size areas had from 1,400 to 2,500 consumers (e.g., Jacksonville, Pensacola, and Tallahassee) and Small areas fewer than 1,400 consumers. The categories contain the following APD Areas:
  - Large—7, 10, 11, 23
  - Medium—1, 2, 3, 4, 9, and 13

  - Small—8, 12, 14 and 15
- **Number of CORE reviews** a provider received in the same district since July 2004.
- **Number of services**: total number of services offered by a provider at the time of the consultation.
- **Type of services**: whether providers offered each of the following at the time of the consultation:
  - Non-Residential Support Services (NRSS) or Companion Service (COMP)[4]: Yes=1; No=0
  - Adult Day Training (ADT) : Yes=1; No=0
  - Residential Habilitation (ResHab) : Yes=1; No=0
  - Supported Employment (SE) : Yes=1; No=0
  - Supported Living Coaching (SLC) : Yes=1; No=0
  - In-Home Support Services (IHSS) : Yes=1; No=0
  - Other Services – any service other than the ones mentioned above: Yes=1; No=0
- **CORE Results Element (CRE) Score**: Calculated score using results for each CRE where Achieving = 3, Implementing = 2, Emerging = 1, and Not Emerging = 0.

Methods

Descriptive statistics are used to provide an overview of each variable. The number and percent of consults within categories of each explanatory variable are shown in Tables 2 and 3. Values for each dependent variable, the percent of providers with a health/safety alert and the percent of providers scoring Emerging or Not Emerging on the Health and Safety Element, are also presented. The distribution of each dependent variable is shown across APD Areas in Figures 1 and 2. Results in the descriptive section present overall associations and do not account for other factors that may impact each dependent variable.

Multivariate logistic regression models are used to test the impact of each explanatory variable on the dependent variable, when the dependent variable is binary, such as having an alert versus not having an alert. In these models, the "net" impact of each variable is estimated. The p-value gives the probability the results are due to chance and the odds ratio gives the strength of the relationship. These are explained further in the Results section.

[4] After Non-Residential Support Services was discontinued, many NRSS services were picked up by providers rendering Companion services. Therefore, we include Companion in the study. However, providers of Companion services only receive a CORE consult if they also render one of the other services subject to an onsite review.

Since one provider often offers a number of services, it is possible the services interact with one another in their impact on the dependent variable. An interaction is present when the effect of one explanatory variable is modified by another explanatory variable. A common example is the way education and gender may interact when predicting income. We know that having a higher level of education, on average, generates higher income. However, at the same education levels income is generally greater for men than for women. So the relationship between education and income varies, depending upon whether you are male or female. Combinations of services rendered by the providers were tested for interactions but none was found to be significant.

Results

Description of Explanatory Variables

Only one explanatory variable, the CRE Score, is entered as a continuous variable in the regression model using health/safety alerts as the dependent variable. The range of scores is 0 to 24. This has a normal distribution with a mean of 13.6 and a median of 13. The average score for the 197 providers who had a health/safety alert was 9.29, compared to an average score of 14.2 for the 1,545 providers who did not have an alert citation.

All other explanatory variables are categorical. A description of the Area Size, Provider Type, Total number of Services, and Total Number of CORE Consults is presented in Table 2. The number and percent of consults within each category is shown, as well as the percent of providers who received a health/safety alert and the percent evaluated as Emerging or Not Emerging on the Health and Safety CORE Element. These percentages do not take into consideration other influences that impact the potential relationship between the specific explanatory variable and the number of health/safety alerts or provider's performance score. Results from regression analyses, presented in the next section, account for some confounding factors.

A summary of results from Table 2 indicates the following:

- More than half of the providers render services in Large Areas. However, providers in Small Areas were more likely to have an alert than were providers in Medium or Large Areas. Providers in Small Areas were also more likely to be scored as Emerging or Not Emerging on the Health and Safety CORE Element, over 53 percent.
- A majority of providers were agencies, and agency providers were more likely to have a health/safety alert. However, agency and solo providers were equally likely to score Emerging or Not Emerging on the Health and Safety CORE Element.

- Providers who received four or fewer CORE consults since July 2004 had a similar percentage of health/safety alerts. The 24 providers with more than four previous CORE consults had a lower percentage of health/safety alerts.
- The percent of providers receiving Emerging or Not Emerging on the Health and Safety Element was lower for each additional consult provided, decreasing from close to 53 percent for providers receiving their first CORE to just below 21 percent for providers who had at least five CORE consults.
- Providers who offer multiple services appear to have more health/safety alerts and poorer performance on the CORE Element.

Table 2: Descriptive Statistics (March 13, 2007 – December 12, 2008)					
Percent with Health and Safety Alert					
Percent Scoring Emerging/Not Emerging on Health and Safety Element					
Explanatory Variables		# of Providers	Pct of Providers	Pct w/ Alert	Pct at E/NE
Area Size	Small	285	16.4%	17.5%	53.3%
	Medium	505	29.0%	8.3%	32.3%
	Large	952	54.6%	11.0%	39.4%
Provider type	Agency	1406	80.7%	12.9%	39.7%
	Solo	336	19.3%	4.8%	39.3%
Total # of CORE	1	405	23.2%	11.6%	51.9%
	2	575	33.0%	11.3%	42.6%
	3	469	26.9%	10.8%	34.3%
	4	269	15.4%	11.9%	25.7%
	5	24	1.4%	8.3%	20.8%
Total # of Services	1	518	29.7%	7.0%	34.0%
	2-4	806	46.3%	9.6%	38.3%
	>4	418	24.0%	20.1%	49.0%
Total # of Consults		1,742			

Information in Table 3 presents the number and percent of providers who rendered the services subject to an onsite CORE consult. The "Other" category includes all other services offered by the providers in the study. A summary of information from Table 3 is as follows, noting these are

descriptive only and do not account for other factors that may impact the relationship between services rendered and health/safety alerts.

- Providers were least likely to render Adult Day Training (ADT). However, providers offering ADT were most likely to have a health/safety alert, most likely because they render services to nearly 13,000 individuals, or over 40 percent of the individuals receiving waiver services.[5]
- Only 18.4 percent of the providers offered Supported Employment.
- Providers were most likely to offer Companion/NRSS services.
- Providers who offered In-Home Support Services (IHSS) were most likely to score poorly, Emerging or Not Emerging, on the Health and Safety Element (46.8%).

Table 3: Service Provided March 13, 2007 - December 12, 2009				
Percent with Health and Safety Alert				
Percent Scoring Emerging/Not Emerging on Health and Safety Element				
Service	# of Providers	Pct of Providers	Pct w/ Alert	Pct at E/NE
Adult Day Training	185	10.6%	18.4%	39.5%
Residential Habilitation	729	41.8%	13.6%	37.7%
Supported Employment	320	18.4%	15.6%	37.2%
Supported Living Coaching	681	39.1%	14.5%	36.0%
In-Home Support Services	797	45.8%	14.4%	46.8%
Companion (NRSS)	854	49.0%	13.9%	44.3%
Other	919	52.8%	14.4%	44.9%
Total Consults	1,742			

Health/Safety Alerts by Area

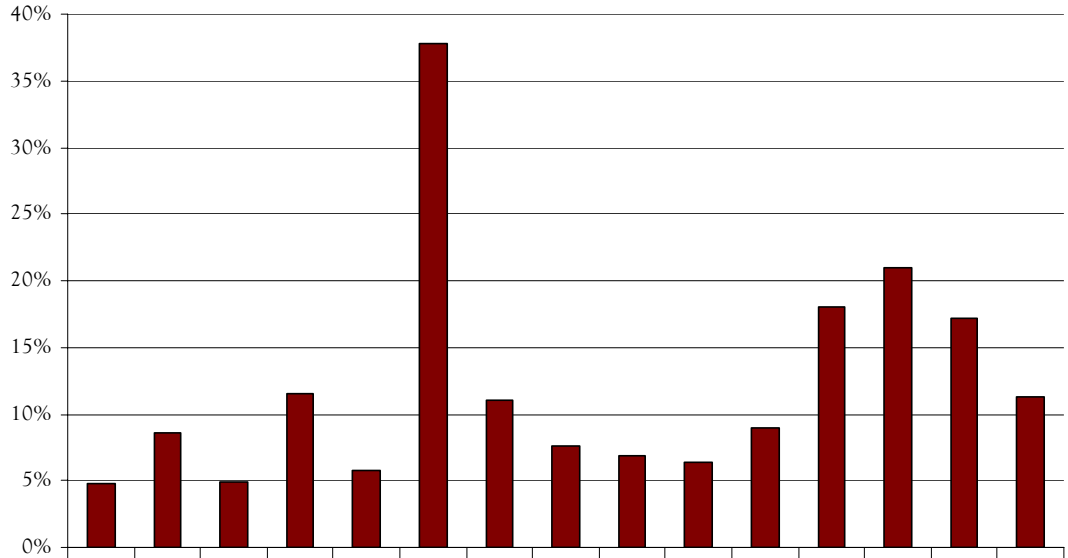
Results in Figure 1 show the percent of CORE consults conducted between March 13, 2007, and December 12, 2008, that had a health/safety alert for each APD Area. Findings indicate:

- Providers in Area 8 were most likely to have a health/safety alert citation. Close to 40 percent of the 45 consults completed in that Area received an alert.
- 17 percent or more of providers in Areas 14, 15, and 23 received an alert citation during the CORE consult.

[5] Information obtained through conversation with APD.

- Providers in Areas 1 and 3 were least likely to have a health/safety alert, with less than five percent on average.

Figure 1: Percent of Consults with Health/Safety Alerts by APD Area
March 13, 2007 - December 12, 2008



	1 (63)	2 (139)	3 (81)	4 (78)	7 (120)	8 (45)	9 (54)	10 (157)	11 (292)	12 (109)	13 (90)	14 (50)	15 (81)	23 (383)	State (1,742)
Pct w/ Alert	4.8%	8.6%	4.9%	11.5%	5.8%	37.8%	11.1%	7.6%	6.9%	6.4%	8.9%	18.0%	21.0%	17.2%	11.3%

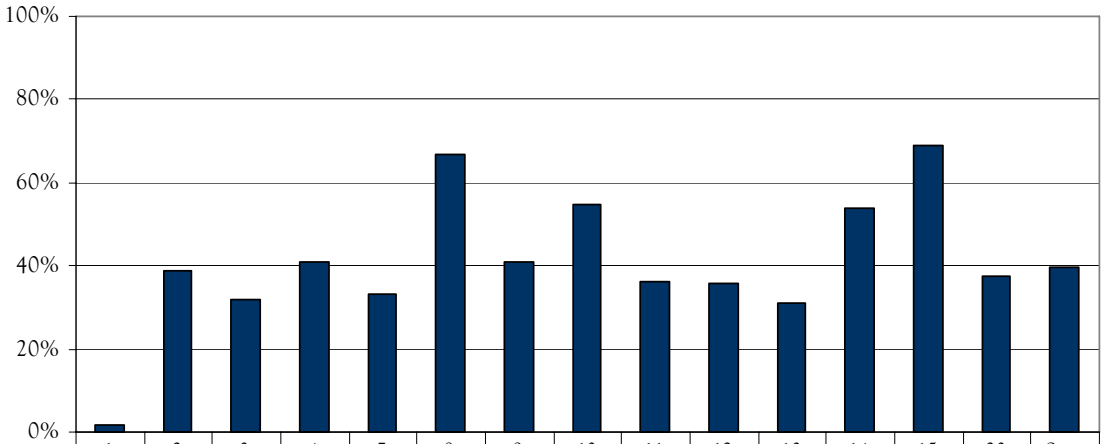
Provider Performance on Health and Safety CORE Element by APD Area

The distribution of provider performance results on the Health and Safety CORE Element across APD Areas is presented in Figure 2. The percent of providers evaluated as Emerging or Not Emerging is shown. Results appear to be similar but more evenly distributed than for health/safety alerts.

- Providers in Areas 15 and 8 were most likely to be evaluated as Emerging or Not Emerging on the CORE element, 69.1 percent and 66.7 percent respectively.
- Over half of the providers in Areas 10 and 14 were also evaluated poorly on the Health and Safety Element, 54.8 percent and 54 percent respectively.
- Only one of the 63 providers in Area 1 who received a CORE during the time period was evaluated as Emerging or Not Emerging in Health and Safety. Therefore, most providers in this Area appear to have systems in place to enhance individuals' lives and help ensure their safety.

- Eight of the 14 Areas showed results at or below the statewide average.

Figure 2: Emerging and Not Emerging Providers by APD Area
CORE Health and Safety Element
March 13, 2007 - December 12, 2008



	1 (63)	2 (139)	3 (81)	4 (78)	7 (120)	8 (45)	9 (54)	10 (157)	11 (292)	12 (109)	13 (90)	14 (50)	15 (81)	23 (383)	State (1,742)
E/NE	1.6%	38.8%	32.1%	41.0%	33.3%	66.7%	40.7%	54.8%	36.3%	35.8%	31.1%	54.0%	69.1%	37.3%	39.6%

Regression Analysis

Multivariate Logistic Regression models are used to "control" for other factors when trying to determine the impact of different variables on the outcome of interest, the dependent variable. The influences of other variables in the model are "held constant" to help determine the unique influence of the specific explanatory variable. Essentially, if all other factors are the same (same Area size, same type of provider, same number of services provided, etc.), then what is the impact of the one variable of interest? The p-value, or probability value, is the probability the relationship between two variables is due to error. It is used to reflect the statistical significance of the relationship. A p-value of 0.05 or smaller is often used in social science research and indicates there is a five percent chance or less the results are due to error. A p-value of 0.10 indicates a 10 percent chance or less the results are due to error. Statistical significance levels are arbitrary and depend upon how much error you are willing to accept in the model or research area.

In logistic regression models, the odds ratio gives the strength of the relationship between the explanatory or independent variable and the dependent variable, holding other factors in the model constant. In the first regression model (Table 4), the odds ratio indicates the odds of receiving a health/safety alert versus the odds of not receiving one, for every one unit change in the explanatory

variable. For example, for providers who offered Supported Living Coaching (Table 4), the odds of receiving a health/safety alert were 2.15 times higher than the odds for providers who did not provide Supported Living Coaching. Odds ratios greater than one indicate a positive relationship, such as the example just cited. Odds ratios between 0 and 1 indicate a negative or inverse relationship. An odds ratio of 1 means the odds of receiving a health/safety alert are the same, regardless of the response on the explanatory variable. The farther away the odds ratio is from one, the stronger the relationship.

The provider's CRE Score is a continuous variable. Therefore, results indicate the odds of receiving a health/safety alert at different levels along the continuum of scores. Categorical variables are designated in different categories, such as Yes or No. Therefore, results are interpreted in comparison to a reference category. For example, on Area size, the reference category is Medium Size Areas. Therefore, results for Small and Large Areas are compared to Medium Areas. Reference categories for each categorical variable in the model are as follows:

- Area Size: Large and Small are compared to Medium;
- Provider Type: Agency is compared to Solo;
- # of Services are compared to 1 Service;
- # of CORE Consults are compared to 1 Consult;
- Each service is Yes compared to No.

Health/Safety Alerts

Results for the regression analysis on receiving a health/safety alert during the annual CORE consult are shown in Table 4. Factors that were significant at p = .05 or less are shaded. After adjusting for other factors in the model, six explanatory variables indicated a significant association with whether or not the provider received a health/safety alert.[6]

A summary of findings from Table 4 indicates the following:

- The size of the Area appears to be associated with health/safety alerts. Providers rendering services in Small Areas were 95 percent more likely to have a health/safety alert than providers in Medium Size Areas (1.95 – 1 = 95%). Providers in Large Areas were over 60 percent (1.61 – 1 = 61%) more likely to have an alert than providers in Medium Size Areas.
- Controlling for the other factors in the model, agency providers were close to two times more likely to have a health/safety alert than were solo providers.

[6] Models were developed to test for the interaction between services offered by the providers. However no interactions were significant.

- Providers who offered Residential Habilitation and providers who offered Supported Living Coaching were more likely to have a health/safety alert than providers who did not offer these services. In each case, providers were approximately two times more likely to have the alert cited.
- The model also indicates providers of In-Home Support Services (IHSS) may be 45 percent more likely to have an alert. The chance of error for this association is just over 10 percent ($p = .101$). Therefore, this is not considered statistically significant with a five percent error rate. However, the finding may be worth further investigation if the state is willing to accept there is a 10 percent chance this could be incorrect.
- The only factor in this model that shows a positive influence on receiving an alert is the overall provider CRE score. This is an inverse relationship indicating that as the provider's score increased by one point, the provider is about 21 percent less likely to have received a health/safety alert.

Table 4: Regression Analysis
Health/Safety Alerts

Explanatory Variable	Odds Ratio	P-value
Area Size		
Small	1.95	0.010
Large	1.61	0.030
Agency	1.92	0.036
Number of Services		
2 to 4	0.94	0.857
>4	1.02	0.971
Number of CORE		
2	1.04	0.856
3	1.24	0.406
4	1.57	0.129
5	1.12	0.885
Service		
ADT	1.53	0.131
ResHab	1.92	0.002
SE	1.37	0.192
SLC	2.15	0.001
IHSS	1.45	0.101
Comp/NRSS	0.99	0.977
Other	1.28	0.388
CRE Score	0.79	0.000

Health and Safety CORE Element Score

The same Multivariate Logistic Regression model was used to determine the factors that may impact provider performance on the Health and Safety CORE Element. In this model the dependent variable was whether or not the provider scored poorly (Emerging or Not Emerging) on the Health and Safety Element. The provider's CRE Score is not included in this model because the element score, the dependent variable, is used as part of the calculation for the provider's overall CRE score.

Table 4: Regression Analysis		
CORE Health and Safety Element		
Explanatory Variable	**Odds Ratio**	**P-value**
Area Size		
Small	2.34	0.000
Large	1.43	0.004
Agency	0.89	0.439
Number of Services		
2 to 4	1.00	0.996
>4	1.63	0.120
Number of CORE		
2	0.69	0.007
3	0.54	0.000
4	0.35	0.000
5	0.37	0.054
Service		
ADT	1.34	0.119
ResHab	1.00	0.978
SE	0.79	0.128
SLC	0.74	0.034
IHSS	1.51	0.002
Comp/NRSS	1.07	0.625
Other	1.09	0.616

Logistic Regression results from using the Health and Safety Element as the dependent variable are presented in Table 4, and indicate the following:

- Area Size appears to impact the provider's performance on the Health and Safety Element, similar to the impact on health/safety alerts. Providers in Small Areas were 133 percent ((1-2.33=1.33)*100) more likely to receive lower scores (Emerging or Not Emerging) than providers rendering services in Medium Size Areas. Providers in Large Areas were 62

percent more likely to score poorly on the Health and Safety Element as compared to those in Medium Areas.

- The total number of CORE consults the provider has received since 2004 has a positive impact on the provider's performance on the Health and Safety Element. Providers with just two consults, compared to one, were close to 30 percent less likely to score Emerging or Not Emerging. This positive effect increases with each consult. Providers with four consults were 65 percent less likely to score poorly on the element than providers with only one consult. While the relationship for five consults is not significant at p=.05, the chance of error is p=.054 and represents only 24 consults.
- Providers who offered Supported Living Coaching, compared to providers who did not offer this service, were close to 25 percent less likely to score Emerging or Not Emerging on the Health and Safety Element.
- Providers who offered IHSS, compared to providers who did not offer this service, were 51 percent more likely to score Emerging or Not Emerging.

Barriers

During each CORE consult, providers work with the consultants to identify barriers they face within the service delivery system that prevent them from providing an optimum level of care. Barriers are associated with specific indicators and coded through "drop down" menus in the CORE application. When a barrier is coded as "Other", the consultant includes a description of the barrier in a comment field. For the 1,742 consults included in this study, 263 providers reported a barrier associated with the Health and Safety Element in the CORE consult. The 263 providers had, on average, 1.29 barriers, ranging from one to five with a total of 339 barriers for the element.

The top 10 barriers relative to the Health and Safety Element noted by providers during the study period are presented in Table 5.[7] Data indicate over 11 percent of providers reported ineffective support from and/or a lack availability of medical professionals. Many providers indicated a need for dental professionals as well as behavioral analysts, speech, occupational and physical therapists.[8] Ineffective support is also due to a lack of support from behavioral analysts who do not have adequate behavior support plans developed to ensure staff can understand and properly implement

[7] Attachment 3 presents all the barriers as listed with the drop down menu (pre-determined items) and the number and percent of times each was noted.
[8] Personal communication with the Director of the Florida Program was used to interpret barrier descriptions and enhance the barriers discussion.

the correct course of action, and they do not ensure staff is trained on data collection and interpretation of results from behavioral plan activities.[9]

Table 5: Barriers to Health and Safety CORE Element			
March 13, 2007 - December 12, 2009			
Total Number of Barriers = 339			
Rank	Number of Times Used	Percent	Description of Barrier
1	43	12.7%	Other
2	38	11.2%	Ineffective support from or lack of medical professionals
3	36	10.6%	Needed services are not approved and/or funded
4	30	8.8%	Cost of doing business versus reimbursement rates
5	24	7.1%	Ineffective or lack of training
7	15	4.4%	Lack of qualified pool of potential employees
6	14	4.1%	APD Area Office or state initiatives
8	11	3.2%	Lack of Support Coordinator follow-through
9	10	2.9%	Limited organizational skills
10	10	2.9%	Emergency situations

Over 10 percent of providers indicated needing services for individuals that are not approved or funded. Many of these are generated from Prior Service Authorization (PSA) denials. One source for denials appears to be that support coordinators do not always write up the request for the service appropriately. Another source of current frustration is from the Tier system implemented in October 2008. Individuals may be in a Tier that does not provide services they need. For example, Tier 4 does not include pharmacy reviews or dental care.

The cost of doing business may conflict with reimbursement rates. Regarding health and safety, this may result from an attitude of "it's not my job". In addition, if service hours are limited, such as with Supported Living Coaching being limited to 20 hours a week when a person also receives In Home Support services, when all service units have been used the SLC may not feel obligated to stay in the hospital with someone or take a sick or injured individual to the doctor. So the health and/or safety of the person can be negatively impacted when providers are not adequately reimbursed for

[9] This information is supported in the Barriers Study, completed in Year 5 of the contract and posted on the FSQAP website.

the cost of helping the person, or if the providers do not use the allocated hours in an efficient manner.

Ineffective training or a lack of training is often listed as a barrier to services if the behavior analyst does not train staff on the behavior plan. Staff members working with individuals are not able to adequately follow the plan in helping individuals with specific behavior issues. In addition, a lack of Medication Administration training may be reported as a barrier to the health and safety of individuals. Staff may not have adequate training to provide injections or feedings tubes, but may find it necessary to do so.

APD Area and state initiatives refer to barriers caused when providers are consumed with a new policy or procedure, such as Tier implementation, and are not able to focus on the individual being served. Providers may not have time to adequately complete service logs, which then does not give support coordinators information necessary to maintain the health and safety of persons receiving services. However, information also indicates support coordinators do not always follow through with suggestions from providers. For example, providers may state they tell the support coordinator about medication dangers or pain the person may be experiencing, but the providers do not see any action on these or similar issues.

When a lack of organizational skills is noted as a barrier it often means the provider does not have adequate tracking systems in place to identify issues and needed action to move toward solutions. Therefore, staff or other providers may not be aware of specific needs. For example, if a wheel chair or smoke alarm is broken and there is no system to record or track this information, there may be no follow through to rectify the situation.

Close to 21 percent (71) of the barriers were originally scored as "Other" and therefore not on the pre-populated drop down menus. When QICs mark "Other" for these, they include a description of the barrier. Based on the description, 28 of the barriers originally coded as "Other" were recoded into one of the barriers listed in the table, leaving 43 in the "Other" category. Of these, 11 (over 3% of the total number of barriers) noted changing/increasing medical and/or safety needs of the individuals served, particularly due to aging.

Communication issues were noted five times as an "Other" barrier. These included a lack of communication with governing agencies and a lack of communication between/among all providers rendering services for the individual. In addition, "communication limitations with individuals and family members" was noted by six providers. Therefore, communication in general appears to be a barrier for some providers to the health and safety of individuals receiving services.

Discussion

In this study we have examined provider performance on the Health and Safety component of the CORE consult process as well as trends and predictors of health/safety alerts for providers who offered services through a Medicaid waiver to people with developmental disabilities. Over 1,700 consults were used in the analysis, of which 197 had a health/safety alert and 40 percent (690) were evaluated as Emerging or Not Emerging on the Health and Safety Element during the annual CORE consult. Health/safety alerts are issued when a situation is noted that could cause immediate danger to individual(s). Results of Emerging or Not Emerging on the Health and Safety element indicate the provider does not have adequate systems in place to ensure the health and safety of individuals receiving services. Several factors appear to be significantly associated with the likelihood a provider will be cited with a health/safety alert but not all are also associated with the provider's performance on the CORE element measuring the effectiveness of the organizational systems.

Area Size

On average, some APD Areas appear to be more likely to have providers cited with a health/safety alert than others. Providers in Areas 8, 14 and 15 were most likely to have an alert; particularly Area 8 where close to 38 percent of providers included in the study had a health/safety alert citation. These Areas were also more likely than any other Area, with the exception of Area 10, to have providers who performed poorly on the Health and Safety Element. Areas 8, 14 and 15 represent three of the four Areas designated as small, or less populated, than the other APD Areas. In regression analysis, Small Areas were shown to be significant predictors of both alerts and performance on the CORE element, when compared to Medium size Areas. Small Areas were 95 percent more likely to have an alert and 134 percent more likely to be scored as Emerging or Not Emerging on the Health and Safety Element.

Providers in Large Areas were also found to be 61 percent more likely to have a health/safety alert than providers in Medium size Areas. This, however, appears to be driven primarily by Area 23, where over 17 percent of the 383 providers reviewed were cited with an alert. Providers in Large Areas were 43 percent more likely to score poorly on the Health and Safety Element. Close to 55 percent of the 157 providers reviewed in Area 10 (Broward) were evaluated as Emerging or Not Emerging on this element, the highest rate for the Large Areas.

It is not clear from the data why Areas with a Medium size population, such as Tallahassee, Pensacola and Jacksonville, would perform better in health and safety than more rural or more populated Areas. It is possible that provider meetings and training sessions are more accessible than in Large or Small rural Areas. In Small Areas, if a session is offered and only 20 providers sign up,

the session may be canceled. So consistently providing adequate training may be difficult. Providers in rural Areas may also face large expenses traveling to a central location for a meeting or training. In Large Areas it is more difficult to find a venue that is large enough to accommodate providers. For example, many training sessions are held in Tampa and providers from outlying regions such as Largo and Venice may be less likely to attend due to time and budget constraints. If the lack of training is in Medication Administration, this can increase the chance a provider will receive a heath/safety alert.

In addition, rural Areas have more difficulty recruiting providers, particularly for occupational, speech and/or physical therapy, and for dental services. It is difficult for providers to travel to neighboring counties when they are only reimbursed for the time spent with the person and not for travel time, which can be several hours. Transportation is also an issue in many rural areas. With a lack of providers in the nearby vicinity, individuals may need to find transportation to neighboring counties, or do without the needed service.

Recommendation 1: The APD central office should work with each Area office to determine if training and education in health and safety issues is being adequately offered, and is offered in places accessible to most providers, and initiate programs to increase trainings where necessary. Reports from Delmarva can help identify providers who do not have sufficient health and safety training as required for each service rendered.

Recommendation 2: Recruiting a sufficient number of providers and medical professionals to rural areas has been an ongoing problem, particularly for behavioral and dental services. Areas may want to consider a collaborative workgroup to brainstorm ideas that could improve access to medical professionals for individuals.

Recommendation 3: If local APD offices find providers are not receiving Medication Administration training as needed, each office should work to ensure this training is offered and attended by all providers and staff in the Area who require it. Provisions should be made to help ensure all providers have adequate access to at least one session.

Services Offered

Several types of services may impact the provider's chance of receiving a health/safety alert or impacting performance on the Health and Safety Element. Providers of Residential Habilitation were close to twice as likely (92%) to have an alert than were providers who did not offer this service. However, there was not a significant association between offering Residential Habilitation and the evaluation level on the Health and Safety Element. Supported Living Coaches were over twice as likely (115%) to have an alert than providers who do not render this service, but were less likely to

score poorly on the Health and Safety element. With a somewhat higher error rate (p=.101), data indicate providers of In-Home Support Services were about 45 percent more likely to have an alert, and were also more likely to score Emerging or Not Emerging in the Health and Safety area.

Residential Habilitation is a service that requires a Medication Administration Record (MAR) Report for individuals living in the facility. Very few residents are permitted to self medicate so providers and staff are required to have Medication Administration training as well as the report for each individual. Many alerts are generated when the report is not properly signed. In addition, a new Medication Administration Rule, 65G-7, requiring additional training was enacted in March 2008. Many ResHab providers did not receive the required training on time, generating an automatic health alert. Also, it is more difficult to ensure all employees have required training with a large number of staff and high turnover rates. Therefore, while provider performance levels indicate their systems are not more or less likely to generate Emerging or Not Emerging in Health and Safety overall, various facets of the service appear to increase the likelihood of being cited with a health or safety alert.

One possible reason Supported Living Coaches generally do better on the Health and Safety Element is they tend to have more education on health and safety topics. In addition, they are automatically involved in a quarterly meeting with the person and the support coordinator, at the person's home, to discuss the person's goals as well as many health and safety issues. They examine the check list for safety and discuss personal health needs of the individual. Therefore, they generally have good systems in place to help ensure the health and safety of individuals.

However, Supported Living Coaches may also have more alert citations because individuals live alone, creating a higher risk environment for medication errors, particularly when they self administer medications. Transportation to needed medical appointments may be an issue, particularly when the Coach's hours have been met or exceeded for the week. People in their own home could be at higher risk for safety issues if they do not have sufficient income to fix broken smoke alarms or ramps. Homes can become dangerously hot or cold if there is not enough money to run the air conditioner or heater. Therefore, SL Coaches serve people who live alone and may be more likely to generate alerts, even if the providers' systems are adequate to address health and safety issues.

While providers of IHSS were more likely to have health/safety alerts, the chance this result was due to error was somewhat higher (10%). According to Delmarva reviewers, much of this may be because IHSS providers do not keep Medication Administration Records but administer medication because there is often no one else to help with it. However, IHSS providers were significantly more likely to score poorly on the Health and Safety Element. When this service is rendered in shifts, communication is not always successful among the different staff and they subsequently lack continuity in the service and often lack knowledge of the person. Staff are not there long enough to

get to know the person as well as when the IHSS provider resides with the individuals. The service often appears to be rendered as a "basic caregiver" service and providers do not always support individuals to understand their own health care and safety or to direct and manage their own health care.

Recommendation 4: APD should track the rate at which providers of Residential Habilitation receive health/safety alerts. If results in this study were primarily due to the new 65G-7 rule, providers may have since received the necessary training thereby reducing the rate of citations. However, if the rate of alerts continues to be significantly higher than for providers who do not render this service, APD should ensure all ResHab providers have the necessary Medication Administration training, and explore other reasons for health/safety alerts in Florida's group homes.

Recommendation 5: It is possible a lack of oversight may increase the number of health/safety alerts generated by individuals living in their own homes and receiving Supported Living Coaching. APD should work with SL Coaches to review the health and safety checklist and ensure it continues to adequately address all relevant areas for individuals living on their own.

Recommendation 6: Providers rendering IHSS are often administering medications for individuals who live independently. APD should continue to ensure required medication administration training is obtained. Additional training in the area of health and safety, and the overall philosophy of the supported living program, should be developed targeting IHSS providers.

Recommendation 7: IHSS is the only service reviewed with an onsite CORE consult that does not require an Implementation Plan for individuals. APD should consider requiring IHSS providers to develop an Implementation Plan for each individual served, targeting areas of Health and Safety. This could help place a greater focus on health and safety issues, reduce the number of health/safety alerts, and improve IHSS provider performance overall on the Health and Safety Element.

Recommendation 8: APD should develop a procedure to help IHSS staff maintain continuity and knowledge of the person when IHSS is rendered in shifts. When appropriate, APD should consider requiring IHSS providers to attend the quarterly meetings for individuals with the Supported Living Coach and Support Coordinator.

Provider Type

Agency providers were 92 percent more likely to have a health/safety alert than were solo providers, but both were equally likely to score Emerging or Not Emerging on the Health and Safety Element. Close to 13 percent of the 1,406 agencies were cited with an alert compared to less than five percent of the 336 solo providers. Results for the element are similar to overall performance of agency and

solo providers as noted in the Year 8, 2nd Quarter Report.[10] While solo providers were somewhat more likely to perform as Not Emerging and agency providers more likely to perform as Achieving or Implementing, the differences were small. However, the increased responsibility of additional staff in agencies may generate circumstances that give rise to health/safety alerts: staff turnover, reduced communication among staff about the needs of individuals, and less staff oversight in assuring required training and education sessions are completed.

Recommendation 9: Training specific to managing staff in larger agencies should be developed and required for all agency providers with more than an agreed upon number of staff. Training should include ways to develop tracking systems to ensure all staff has the required training and methods to improve communication across staff and locations. Education on distance management styles may be appropriate if providers have facilities that cross large geographic areas.

Number of CORE Consults

Previous research has demonstrated that participating in multiple CORE consults has a positive impact on the provider's overall performance.[11] This association appears to be true for the Health and Safety component of the consult as well. With each consult, the odds of scoring Emerging or Not Emerging on this element decreases. Therefore, provider's show improvement in their overall systems that helps guarantee the well-being of individuals receiving services after the first and with each subsequent contact with Delmarva Quality Improvement Consultants.

However, the additional consults over the years do not appear to impact the likelihood of receiving, or avoiding, a health/safety alert. Provider performance on each element maintains a focus on the organizational systems and how providers positively impact the lives of all individuals who receive services from them. In addition, systems that track individual needs may be more superficial, as historically documented by relatively poor and declining performance on the Projected Service Outcomes.[12] Providers may have systems in place to collect data and track events, but if they do not follow through—trend and use the data—the loop is not closed, prevention policies may not be implemented, and health or safety needs may remain unmet. For example, results of the analysis of behavioral data are often not shared with staff implementing behavior programs. This aspect of the provider's systems is now incorporated in the element that measures Achieving Results, an element scored as Not Emerging more than any other CORE Results Element.

---

[10] Available at (http://www.dfmc-florida.org/public/annual_quarterly_reports/index.aspx).
[11] Impact of Participating in Multiple Consults on Provider Performance, submitted to and approved by the Agency for Health Care Administration and the Agency for Persons with Disabilities, July 2008, http://www.dfmc-florida.org/public/docs/studies/2007_2008/Multiple_Review_Impact_07_11_2008.pdf.
[12] See the Year 6 Annual Report, (http://www.dfmc-florida.org/public/annual_quarterly_reports/).

Recommendation 10: Delmarva Quality Improvement Consultants should ensure providers are given technical assistance with programs that monitor provider systems so data are analyzed and used to improve services to individuals, particularly in the areas of health and safety.

Recommendation 11: Because each CORE element encompasses numerous aspects of the provider's system, it may be difficult to tease out specific areas for providers to focus quality improvement initiatives (often embedded in the narrative of the report). For example, while providers improve each year on the Health and Safety Element, performance in different areas (Achieving Results) may impact the health and safety of individuals. The elements should be revised to more clearly delineate results and guide providers to areas needing quality improvement.

Barriers

Barriers to providers and families in obtaining services that impact health and safety range from a lack of medical professionals in the area to a lack of communication among providers offering services to the same individual. Many barriers are incorporated into a series of "drop down" menus. However, over 21 percent of the barriers for the Health and Safety Element were listed as "other" and therefore information for the barrier is not as accessible to data analyses. In addition, several barriers not listed in the menu were used fairly often, particularly the changing needs of the population due to aging. While barriers are included in the provider report there is no systematic way of using the information to improve services. In addition, barriers listed in the drop down menus provide APD, AHCA, and Delmarva the opportunity to partner in "drill down" analysis to determine other root cause issues and direct resources toward specific quality improvement targets based on available data.

Recommendation 12: Delmarva should examine the list of comments associated with "other" barriers and add relevant barriers to the drop down menu as appropriate. This will help provide more data that are readily accessible for analysis within each Area, and "drill down" opportunities for AHCA, APD and Delmarva.

Recommendation 13: Delmarva should develop a barriers report for each Area on a quarterly basis. This will include a list of all barriers noted in the consult for each CORE element. The report would be distributed to the Regional Managers for discussion at the Area quarterly meetings.

Attachment 1

CORE Elements

CORE Results Elements

- Person Directed Planning
- Health and Safety
- Free from Abuse, Neglect and Exploitation
- Rights
- Choice
- Community Life
- Collaboration
- Achieving Results

Minimum Service Requirements

- Level II Background Screening
- Provider /Staff Training
- Service Authorization/Billing as Authorized
- Maintains Billing Documentation

Attachment 2
Health and Safety Element Probes

1. The provider is knowledgeable of the person's health/safety needs.
2. The provider tracks or has a system to advocate for the health/safety needs of the person as applicable and appropriate.
3. The person is encouraged to take responsibility for his/her own health/safety as much as possible or according to his/her preference.
4. The person is provided with education related to his/her own health/safety needs (i.e. medications, side effects of medications, medication reviews, preventative health care, natural disasters, community safety, work safety, and home safety such as evacuations). Learning styles are taken into consideration.
5. Pharmacy reviews/therapies/reports are available of which the provider/staff are aware.
6. Provider/staff are trained on current medications/side effects/specific protocols. Staff is trained on the state's current medication administration and supervision of self-administration policy if medication is handled in any way.
7. Supervision and support levels are appropriate to the person while providing dignity of risk without jeopardizing the person's health/safety.
8. Providers have systems to evaluate and identify trends for incident reports. Modifications, interventions and system changes are made based upon the analysis of the reports.
9. The person is making informed decisions about diagnoses, healthy eating, medications, medical treatment, equipment and adaptation needs.
10. Circles of support or appointed citizen advocates are used when appropriate to oversee health/safety.
11. Preventative health care is addressed or advocated for by the provider/staff.
12. Vehicles used for transportation have the required safety equipment (See page 2111 to 2115 in the DD Waiver Services Coverage and Limitations Handbook). For providers who do not bill for transportation services but transport the person, the provider's vehicles have the safety standards required by federal law.
13. The provider has a system to gather historical information about the person's and families' medical, behavioral, and emotional health. This is to also include safety issues identified in the past. The system includes obtaining consent from the person/guardian to gather this information.

Attachment 3
Barriers Associated with Health and Safety Element

Number	Percent	Description of Barrier
71	20.9%	Other
31	9.1%	Needed services are not approved and/or funded
28	8.3%	Ineffective support from or lack of medical professionals
27	8.0%	Cost of doing business versus reimbursement rates
19	5.6%	Ineffective or lack of training
13	3.8%	APD Area Office or state initiatives
13	3.8%	Lack of qualified pool of potential employees
11	3.2%	Lack of Support Coordinator follow-through
10	2.9%	Limited organizational skills
9	2.7%	Emergency situations
8	2.4%	Agency staff turnover
7	2.1%	Lack of historical documentation
7	2.1%	Lack of policies and procedures
7	2.1%	Lack of strong foundation for supports and services
6	1.8%	Communication limitations with individuals and family members
6	1.8%	Lack of provider follow-through
5	1.5%	Excessive paperwork requirements
4	1.2%	Changing priorities
4	1.2%	Lack of Area Office support
4	1.2%	Lack of financial resources
4	1.2%	Lack of Home and Community-Based Waiver Service providers
4	1.2%	Limited understanding of how to access and network with other resources
4	1.2%	Perception the individual is unable to assist in directing supports and services
4	1.2%	Undue family and/or guardian influence
3	0.9%	Community preconceptions and/or prejudices
3	0.9%	Conflicting messages between Area offices
3	0.9%	Conflicting messages, licensing protocols/rules versus a person centered approach
3	0.9%	Fear of liability issues
3	0.9%	Individual lacks financial resources
3	0.9%	Lack of follow through by the individual/guardian
3	0.9%	Lack of transportation and/or commuting resources
3	0.9%	Lack of varied and/or number of community resources
2	0.6%	Competing priorities
2	0.6%	Guardianship issues

2	0.6%	Workload
1	0.3%	Friendship versus professional relationship
1	0.3%	Undue provider influence
1	0.3%	Untimely receipt of service authorizations
0	0.0%	Lack of consistency in implementation of state policy and procedures
0	0.0%	Limited or lack of technical or computer skills
0	0.0%	Support plan is driven by the system rather than the individual
0	0.0%	Untimely receipt of support plan goals
339	100.0%	Total Barriers