

NON-MORTALITY SPECIAL INCIDENTS

**Semi-Annual Report Submitted to the
California Department of Developmental Services**

JULY – DECEMBER 2010



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INTRODUCTION AND BACKGROUND

This report summarizes rates of special incidents between July and December 2010 for DDS consumers living in the community. It compares rates across recent years and identifies months in which rates were unusually high.

DDS can use this report to track special incident rates over time and monitor the effectiveness of risk management activities.

As one element of risk management and quality assurance, the California Department of Developmental Services (DDS) and California's network of regional centers monitor the occurrence of adverse events, captured through Special Incident Reports (SIR), to identify trends and develop strategies to prevent and mitigate risks. As required by Title 17, Section 54327 of the California Code of Regulations, vendors and long-term health care facilities report occurrences of suspected abuse, suspected neglect, injury requiring medical attention, unplanned hospitalization, and missing persons, if they occur when a consumer is receiving services funded by a regional center (under vendored care). In addition, *any occurrence* of consumer mortality or victim of crime must be reported whether or not it occurred while they were under vendored care.

This report, one of a series of semi-annual reports on non-mortality special incidents, summarizes incident rates for DDS consumers between July and December 2010. The report has two main goals:

1. To update time trends in special incident rates from our earlier reports to include data through December 2010.
2. To identify specific incident categories that were higher than their historical trend, and identify specific months in which incident rates were unusually high. DDS can use this report to track special incident rates over time.

The statistics and graphs presented in this report were constructed using data from the SIR System from 2002 through 2010. These data are augmented with three additional data sources maintained by DDS:

- The Client Master File (CMF)
- The Client Development Evaluation Report (CDER)
- The Early Start Report (ESR)

This report presents findings based on statistical analyses that measure a consumer's risk of experiencing a special incident. Further details are found at the bottom of each subsequent page.

The average monthly incident rate for this period was higher than in recent periods.

**Table 1: All Non-Mortality Special Incidents, Compared to Previous Periods
DDS Consumers, July - December 2010**

	Change From:	
	Jul-Dec 2009 (last year)	Jan-Jun 2010 (last period)
Raw Rate	-0.1%	-2.7%
Case-Mix Adjusted Rate	+0.4%	-2.8%

Arrows indicate statistically significant differences.

Key Findings:



- The case-mix adjusted non-mortality incident rate was 0.510% this period, compared to 0.525% last period (Jan-Jun 2010) and 0.508% the same period last year (Jul-Dec 2009). These figures are not shown in the table above.
- Case-mix adjusted incident rates fell by 2.8% compared to last period (Jan-Jun 2010). Comparable declines occurred in the raw incident rates. These declines were not statistically significant. The July-December 2010 rates were similar to those in the same period a year ago.

More About These Data

This report summarizes incident rates for consumers living in the community. This includes consumers receiving services from a regional center not residing in a developmental center or state-operated facility. Special incidents refer to seven categories of adverse events defined by Title 17, Section 54327 of the California Code of Regulations. They include: missing person, suspected abuse, suspected neglect, serious injury, unplanned hospitalization, victim of crime, and death.

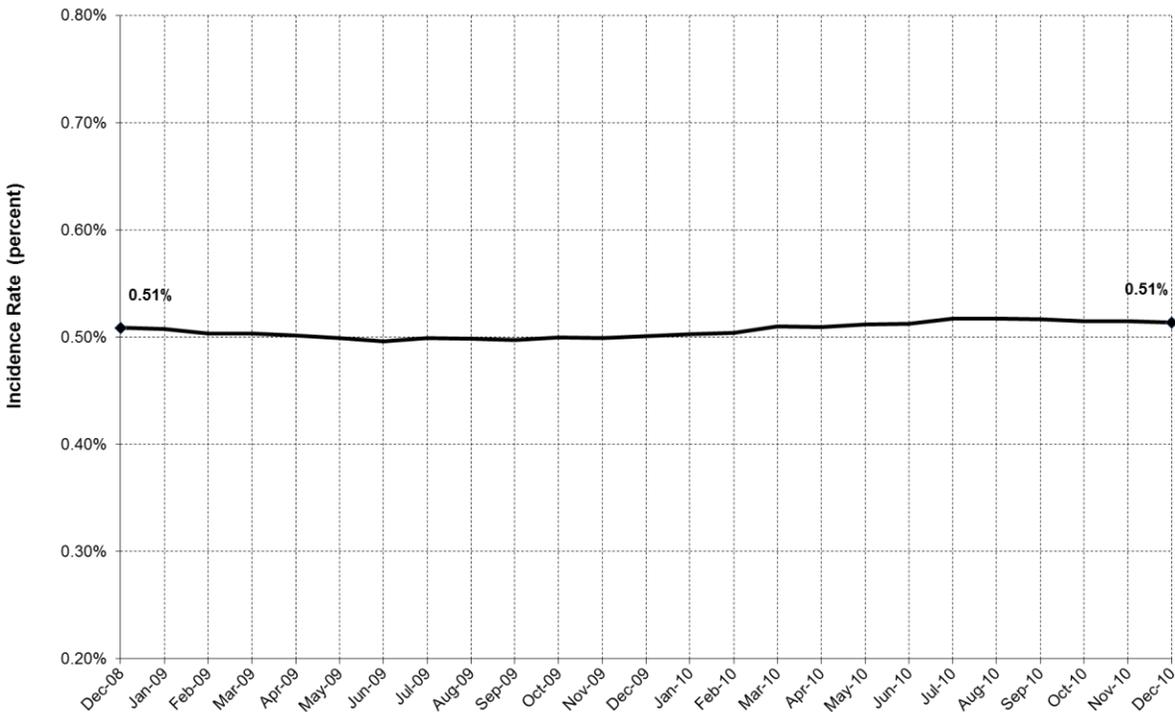
The *Raw Rate* is defined as the percentage of statewide consumers who experience one or more special incidents in an average month. It is calculated by dividing the *total number of consumers with one or more incidents* by the *total consumer population*. Note that this rate does not tell you how many SIRs there were per person in a given month.

The *Case-Mix Adjusted Rate* accounts for differences in the characteristics of the consumer population over time. In comparing statewide SIR rates to those of previous periods, case-mix adjustment permits us to distinguish trends affected by changes in population from trends associated with risk management practices. For example, an influx of medically fragile consumers could increase rates of unplanned hospitalization incidents, even if the effectiveness of risk management practices did not change.

Arrows on Table 1 and Table 2 test the difference in two proportions for statistical significance at the 95% confidence level. Statistically significant differences are differences that would occur by chance less than 5% of the time.

The statewide trend for non-mortality special incidents has remained essentially flat over the past two years.

**Figure 1: Non-Mortality Special Incidents, Case-Mix Adjusted Statewide Trend
DDS Consumers, December 2008 – December 2010**



Key Findings:

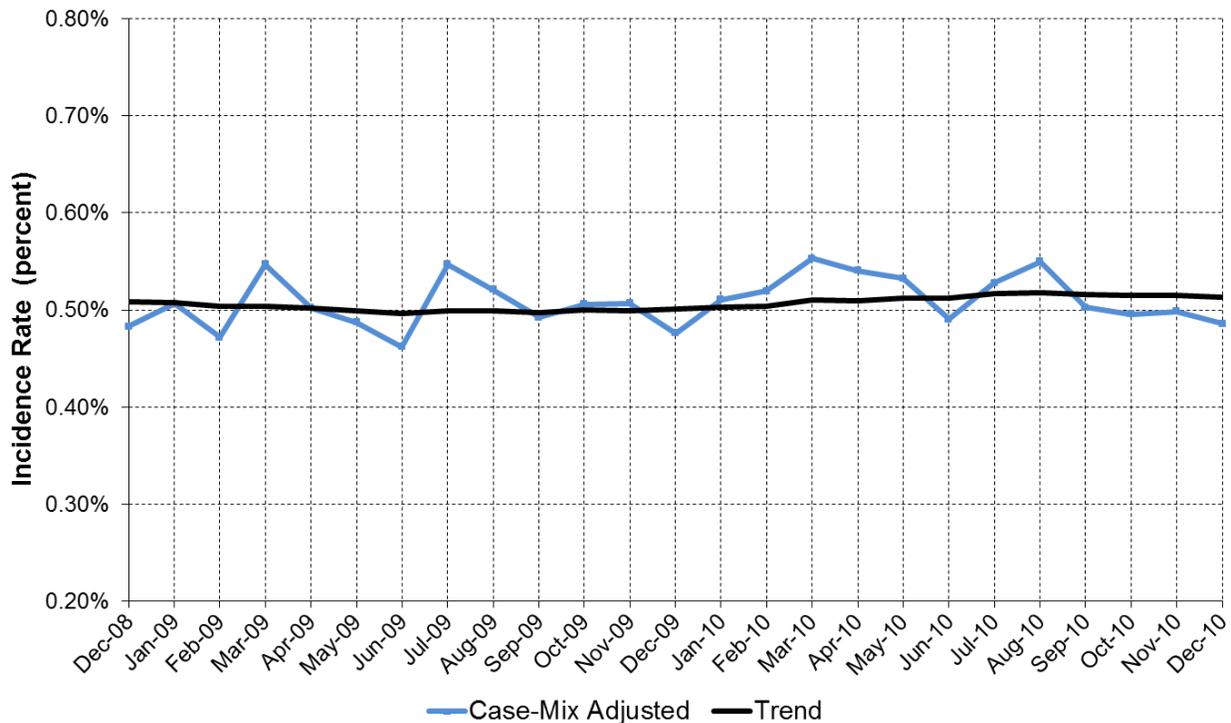
- The long-term trend in statewide non-mortality incident rates is equivalent to the previous period.
- Although the trend in statewide non-mortality incident rates decreased slightly compared to last period (see page 2), the average rate has essentially returned to its long range level.

More About These Data

The monthly incident rate is defined as the share of consumers experiencing one or more non-mortality incidents in a given month. The trend line in Figure 2 represents a 12-month moving average of the monthly incident rate. It is calculated by taking an average of statewide non-mortality special incident rates from the most recent 12-month period. This trend also accounts for the differences in the characteristics of the consumer population over time. This approach, called “case-mix adjustment,” controls for changes in consumer characteristics and removes these effects from the calculated trend.

After an increase in July and August, non-mortality incident rates were below the long-run average.

**Figure 2: Non-Mortality Special Incidents, Case-Mix Adjusted Monthly Rates
DDS Consumers, December 2008 – December 2010**



Key Findings:

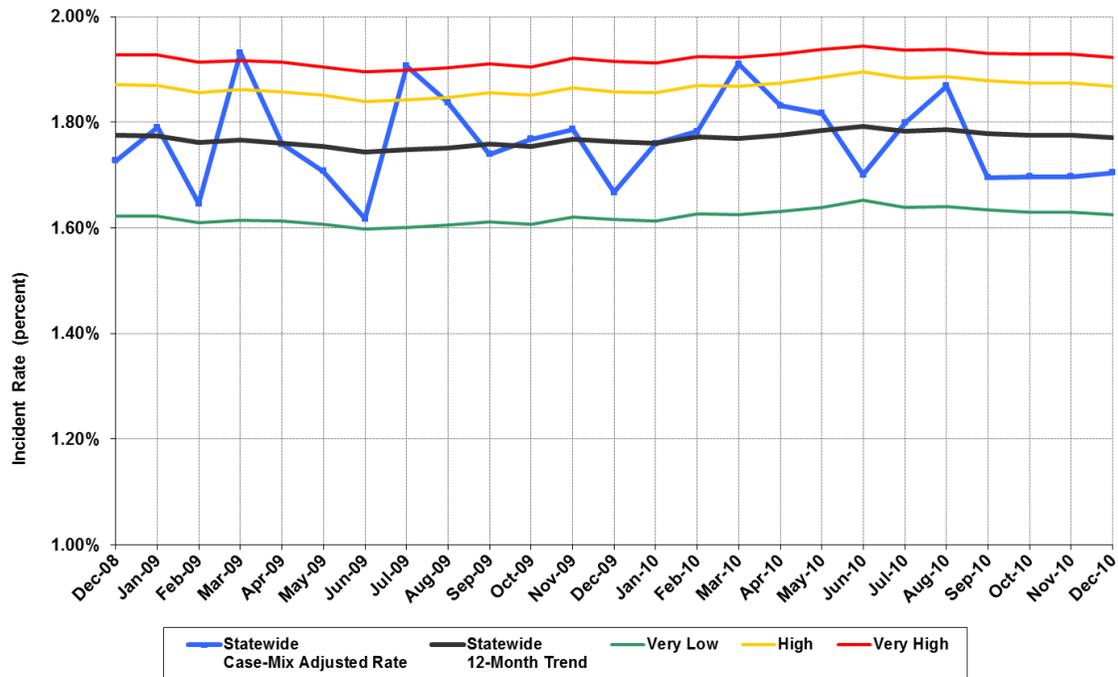
- The monthly non-mortality special incident rate (blue line) was below the 12-month trend for the most recent four months, after being somewhat above in July and August 2010.
- Explanations regarding the July-August increase are discussed in the following pages.

More About These Data

The black line in Figure 1 is the same line shown in Figure 2, representing the 12-month trend. The blue line represents the percentage of consumers statewide who experience one or more special incidents in a month. Both rates are case-mix adjusted, meaning that the trends account for changes in consumer characteristics over time. See page 2 for more details.

The July-August increase in the statewide non-mortality incident rate for out-of-home consumers was not statistically significant.

Figure 3: Non-Mortality Special Incidents, Case-Mix Adjusted Monthly Rates DDS Out-of-Home Consumers, December 2008 – December 2010



Key Findings:

- Out-of-home consumers represent the majority of reported non-mortality incidents, since most incidents are reportable only when under vendored care.
- The increase in the non-mortality incident rate in August did not cross the “high” threshold, meaning it was not statistically significant.

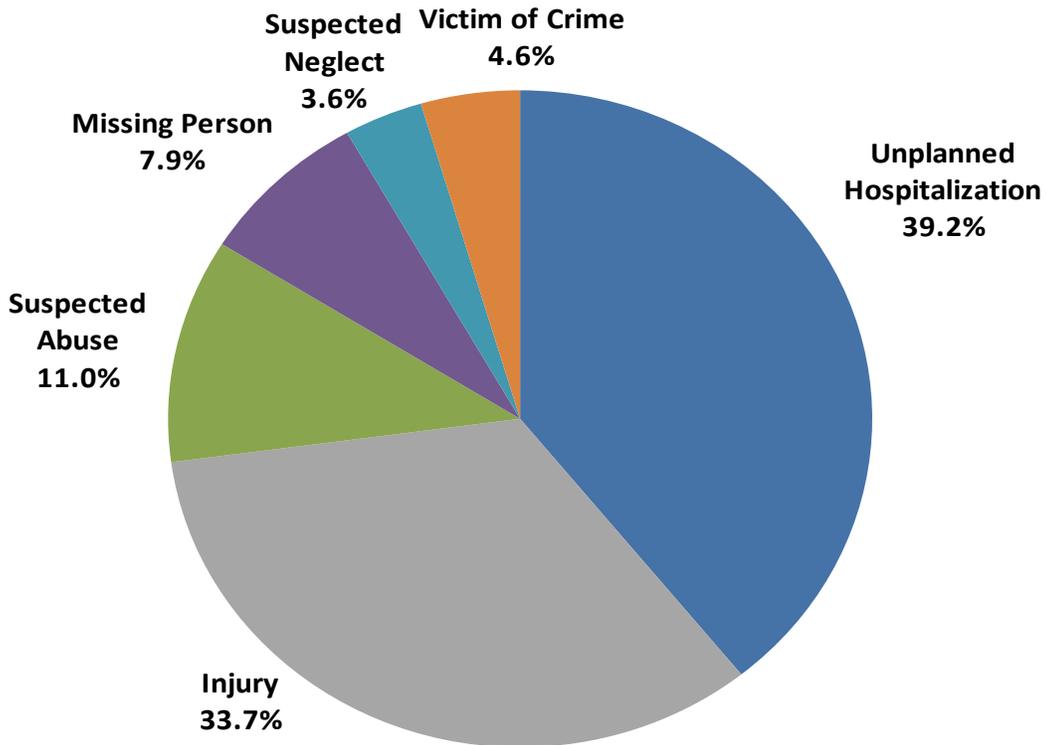
More About These Data

Out-of-home Consumers are defined as individuals residing in community settings such as licensed residential facilities, Family Home Agency (FHA), Supported Living Services (SLS), or Independent Living Services (ILS).

This graph identifies non-mortality incident rates that are unusually high, and, therefore, classified as a “spike.” A rate that rises above the yellow line in a given month will occur randomly in only one month out of twenty (less than 5% of the time) and is considered “High.” A rate that rises above the red line in a given month will occur randomly less than 1% of the time. Rates above the red line, therefore, are very unlikely to be chance events and are classified as “Very High.”

Unplanned hospitalization and injury incidents accounted for almost three quarters of reported non-mortality incidents.

Figure 4: Breakdown of Non-Mortality Special Incidents by Type
DDS Consumers, July - December 2010



Key Findings:



- Unplanned hospitalizations, at 39.2%, continue to be the most commonly reported non-mortality special incident type. This share is slightly lower than in the previous six month period.
- Between July and December 2010, injury incidents represented almost 34% of reported incidents, up slightly from 32% in the previous six month period. As described on the next page, these shares reflect a rise in injury incidents and a fall in unplanned hospitalizations.

More About These Data

The percentages shown above are based on raw counts of reported special incidents and are not case-mix adjusted.

A decline in unplanned hospitalizations reduced the non-mortality incident rate, somewhat offset by a rise in injuries.

**Table 2: Percent Change in Average Monthly Rates of Non-Mortality Special Incidents
DDS Consumers, July - December 2010**

	Change From:	
	Jul-Dec 2009 (last year)	Jan-Jun 2010 (last period)
Unplanned Hospitalization	-5%	-8%
Injury	+11%	+5%
Suspected Abuse	-7%	-11%
Suspected Neglect	-23%	+3%
Missing Person	+1%	-7%
Victim of Crime	+5%	-1%

Arrows indicate statistically significant differences.

Key Findings:

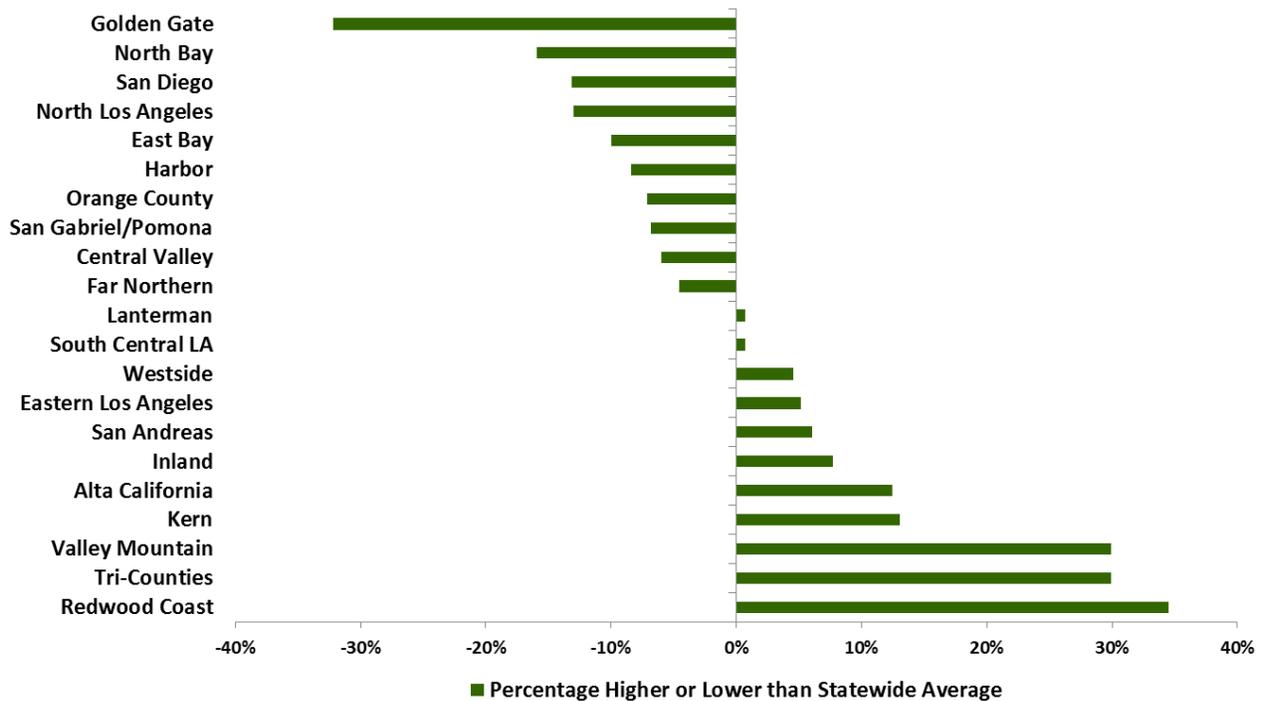
- The fall in non-mortality special incident rates compared to last period was driven primarily by a decline in unplanned hospitalizations, although rates of suspected abuse and missing person also fell.
- Rates of suspected neglect reports have stabilized after the large drop last period. See page 9 for additional information.
- Rates of injury incidents were up in this period, relative to both the previous period and the previous year. The rate for victim of crime was higher than last year, but about the same as last period.
- None of these changes were statistically significant.

More About These Data

These figures are calculated using case-mix adjustment, as described on page 2. Arrows indicate that the change is statistically significant at the 95% confidence level, assuming a binomial distribution. These differences are expected to occur by chance less than 5% of the time. Rates for specific incident types are calculated as the share of consumers experiencing an incident of that type in a given month.

Among the 21 regional centers, Redwood Coast, Tri-Counties and Valley Mountain had the highest non-mortality incident rates.

Figure 5: Non-Mortality Special Incident Rates by Regional Center Compared to State December 2009 – December 2010



Key Findings:



- Over the current reporting period, Valley Mountain Regional Center (VMRC), Tri-Counties Regional Center (TCRC) and Redwood Coast Regional Center had the highest rates of reported non-mortality incidents, all more than 30% above the statewide average.
- Golden Gate Regional Center had unusually low rates of non-mortality incidents, at 32% below the statewide average.

Follow-Up Activities:

- Mission Analytics Group, Inc. (Mission), the risk management contractor, is providing technical assistance to VMRC and TCRC to assist in determining the cause of high incident rates and to identify possible remediation activities. See page 11 for additional information.

More About These Data

The percentages above are case-mix adjusted, meaning that they account for differences in the characteristics of the consumer population over time. See Page 2 for more details.

Mission Analytics Group is conducting further analyses to identify the drivers of unusually high (or low) incident rates.

Mission is coordinating closely with the regional centers to track and monitor the follow-up activities associated with quarterly SIR spikes. For longer term increases in incident rates, Mission uses SIR case reviews, site visits and statistical analyses as part of its monitoring, discovery and improvement activities. A number of additional activities continue to support DDS and regional centers in preventing future incidents. We describe these activities below.

Monitoring & Discovery Activities:

- **Reporting Back:** Regional centers with quarterly spikes in individual incident types are required to report back to Mission any discovery and remediation activities related to these spikes including a description of why any spikes occurred, what follow-up actions were taken, and whether they faced obstacles in implementing these follow-up activities. These responses are reviewed by the DDS Quality Management Executive Committee on a quarterly basis and may be used to develop strategies on how to mitigate risk to consumers statewide.
- **Long-term Increases in Incident Rates:** Mission has established a multi-stage process to investigate drivers of long-term increases in incident rates. We provide additional analyses and technical assistance to regional centers identified based on results such as those shown on page 11. For such regional centers, we conduct additional analyses to determine the detailed incident types and/or consumer characteristics associated with the increase. Based on these results, we determine whether or not a more detailed review of the SIRs is necessary to better understand the issue. As appropriate, we also work with the regional centers to identify mitigation strategies.
 - Follow-up analysis of the long term increase in non-mortality incidents at TCRC determined that medication errors was a key driver of an increased rate of reported injury incidents. Detailed review of the SIRs indicated that missed doses were the most common cause of medication errors. Mission staff and a nurse consultant will conduct site visits to study the process of medication administration at a subset of vendors to identify potential vulnerabilities to missed dose errors and mitigation strategies.
 - Similar analysis for KRC also identified medication errors as a key component of the increased rate of non-mortality incidents and, as with TCRC, the majority of these incidents were missed doses. Mission will determine next steps for KRC based on lessons from the site visits at TCRC.
 - Based on the findings shown on page 10, Mission is conducting follow-up analyses on non-mortality incidents for VMRC.
- **Long-term Decline in Suspected Neglect Rates:** In the previous semi-annual report, Mission documented a statistically significant decline in the statewide rate of reported suspected neglect incidents. Follow-up analysis showed that



this decline in the trend reflected a small change in the absolute number of suspected neglect incidents, representing a monthly difference of 7 to 10 incidents. Overall, the number of incidents per month ranged from 25 to 57. Given the small average change and the high variability in the number of reported suspected neglect incidents, we determined that the sample size was too small to support additional analyses. We will continue to monitor the suspected neglect rate. If the decline continues, additional months of data will provide a larger sample size to compare differences over time.

System Improvement Activities:

- *DDS SafetyNet Website:* Mission maintains the DDS SafetyNet, a website promoting health and safety for individuals with developmental disabilities. In addition to addressing general safety issues, SafetyNet materials respond directly to trends in special incident rates to help manage risk among the consumer population. For example, recent content on medication errors was developed in response to findings from the technical assistance analyses.
- *DDS Mental Health Services Act (MHSA):* DDS and regional centers are concluding the current cycle of the Mental Health Services Act (MHSA) Projects. Between August and December 2010, six regional centers convened ten trainings for clinicians, other professionals, direct service providers, families, and consumers. Two Regional Planning Summits were also convened to promote and facilitate collaboration between regional centers and county mental health programs. Seven additional trainings will occur in the next six months.
- *Medication Errors Checklist:* In light of the new information on the role of medication errors in injury incident rates at TCRC, plans to develop a medication administration checklist were put on hold. After completion of site visits and related follow-up, Mission and DDS will determine what lessons improvement activities at TCRC offer for statewide system improvement.