2011-2012 YEAR IN REVIEW

RISK MANAGEMENT AND MITIGATION

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INTRODUCTION AND BACKGROUND

According to Title 17 of the California Code of Regulations, vendors and long-term health care facilities must report certain "special incidents" that occur to consumers with developmental disabilities. This year-end report summarizes California's rates of reported special incidents during the fiscal year (FY) 2011-2012.

The California Department of Developmental Services (DDS) relies on a network of 21 regional centers to plan, coordinate, and monitor an array of services for individuals with developmental disabilities. In July 2011, DDS served approximately 244,000 individuals with developmental disabilities in community settings. In 2001, DDS initiated a comprehensive risk prevention, mitigation, and management system as one cornerstone of quality services for consumers.

As part of this system, DDS monitors the occurrence of adverse events, or "special incidents," 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 person if they occur when a consumer is under vendored care. (See the last page for definitions of special incidents and vendored care.) In addition, any occurrence of consumer mortality or victim of crime must be reported, whether or not it occurred while the consumer was under vendored care.

This year-end report summarizes California's rates of reported special incidents during FY 2011/12. The report delineates special incident rates by type, comparing them with incident rates from the previous fiscal year. The rates and graphs presented in this report were constructed using data from the Special Incident Reporting (SIR) System from January 2002 through June 2012, augmented with three additional data sources maintained by DDS:

1. The Client Master File (CMF).
2. The Client Development Evaluation Report (CDER).
3. The Early Start Report (ESR).

Mission Analytics Group (Mission), the risk management contractor for DDS, compiled this report based on statistical analyses that measure a consumer's risk of experiencing a special incident. The report concludes with a discussion of how DDS, Mission, and the regional centers are working to ensure effective risk management practices to prevent the occurrence of special incidents.

The rate of special incidents has been steady or declining over time.

Table 1: Reported Special Incidents for All DDS Consumers

	FY 09/10	FY 10/11	FY 11/12
Total Number of Consumers	269,373	270,596	279,848
Total Number of Reported Incidents	18,160	18,234	18,266
All Incidents per 1,000 Consumers	67.4	66.5	65.3
Deaths per 1,000 Consumers	6.6	6.2	5.8

FY 11/12 counts are from data received July 2012, with incidents reported by June 30, 2012.

Key Findings:

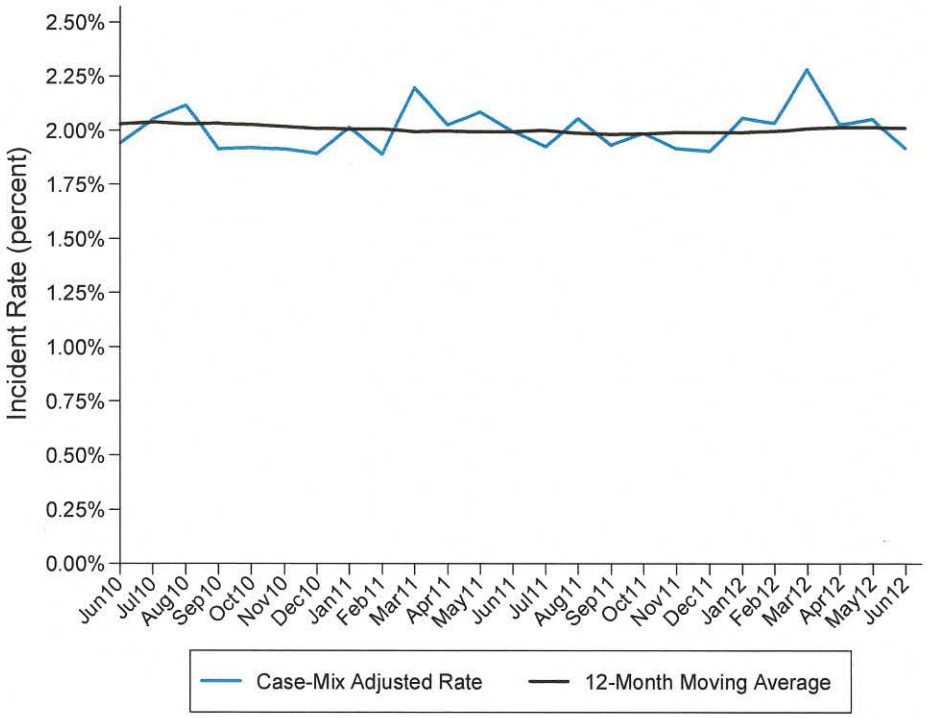
- Approximately 279,800 consumers were served by DDS at some point in FY 2011/12, up about 9,000 from FY 2010/11. This difference is largely due to an increase in the number of consumers served in family homes and consumers below the age of 32.
- There were 18,266 special incidents reported in FY 2011/12, including 16,637 non-mortality incidents and 1,629 deaths. However, additional mortality incidents for this period may be reported in later months.
- Between FY 2010/11 and FY 2011/12, there was a statistically significant decrease in the overall number of incidents per 1,000 consumers.
- The number of deaths per 1,000 consumers in FY 2011/12 (5.8) was 6.5% lower than that of the previous year (6.2) and 12% lower than that of FY 2009/10 (6.6). The change relative to FY 2009/10 is statistically significant.
- At 5.8 deaths per 1,000 consumers, California's overall mortality rate for individuals with developmental disabilities appears to be lower than rates published by other states, although the populations served by each state may differ. The Ohio Department of Developmental Services, which serves a similar share of its state population, reported 8.9 deaths per 1,000 consumers in calendar year 2011. See page 7 for details.

More About These Data

Total Number of Consumers refers to the total number of individuals served by DDS at any point during a fiscal year. For FY 2011/12, the total number counts individuals served between July 2011 and June 2012. This number includes people diagnosed as having a developmental disability who are served in the community (Status Code 2) and children receiving Early Start services (Status Code 1). The number does not include individuals who are served in a State Developmental Center. See *Definitions* on page 11 for more details.

The non-mortality incident rate has remained close to the 12-month trend line, although the rate was elevated in the spring of 2012.

Figure 1: Statewide Non-Mortality Rates, Out-of-Home Consumers Age 3 and Up Case-Mix Adjusted Monthly Rates since June 2010



Key Findings:

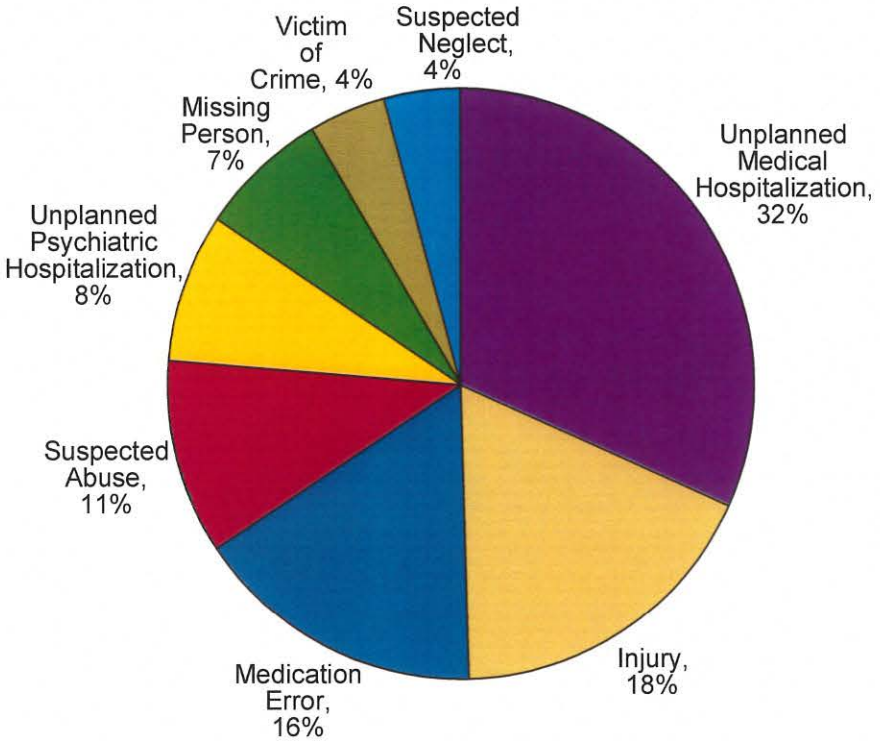
- The monthly non-mortality special incident rate (blue line) was largely at, or below, the 12-month trend for the first eight months of FY 2010/11. The rate jumped between February and March 2012, but returned to the long-term trend in the following months. A similar pattern occurred in FY 2010/11.

More About These Data

The black line above represents a 12-month moving average. It is calculated by taking an average of the statewide incident rates from the most recent 12-month period. The blue line represents the share of consumers statewide who experience one or more special incidents in a month. The lines shown on this graph account for differences in consumer characteristics, as well as changes in the characteristics of the consumer population over time. This approach, called "case-mix adjustment," controls for consumer characteristics such as age and medical condition and removes these effects from the calculated trend.

Unplanned psychiatric, medical hospitalizations along with injury incidents account for almost three-quarters of reported non-mortality incidents.

Figure 2: Breakdown of Non-Mortality Special Incidents by Type, All DDS Consumers, July 2011 – June 2012



Key Findings:

- In this fiscal year, Mission began to track medication errors separately from other injury incidents and unplanned psychiatric admissions separately from unplanned medical hospitalization incidents.
- Unplanned medical hospitalization is the most commonly reported non-mortality incident type, accounting for about 32% of all reported incidents in FY 2011/12. Medication error incidents are the second most commonly reported incident type, making up 16% of all reported incidents.
- The least common types of reported incidents are suspected neglect, victim of crime, and missing person, which combined account for 15% of all special incidents.

More About These Data

Definitions of all special incident types can be found on the *Definitions* page (page 11).

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

The rates of most non-mortality incident types fell from FY 10/11 to FY 11/12, but these changes were not statistically significant.

Table 2: Case-Mix Adjusted Breakdown of Special Incidents by Type, FY 11/12

	Avg. Monthly Incident Rate FY 11/12	Change from FY 10/11	Change from FY 09/10
Unplanned Medical Hospitalization	0.70%	-1%	-6%
Unplanned Psychiatric Hospitalization	0.17%	-4%	-5%
Injury	0.39%	-3%	+8%
Medication Error	0.34%	+4%	+3%
Suspected Abuse	0.21%	+3%	-10%
Suspected Neglect	0.08%	+13%	+3%
Missing Person	0.14%	-2%	-10%
Victim of Crime	0.08%	-1%	< 1%

Key Findings:

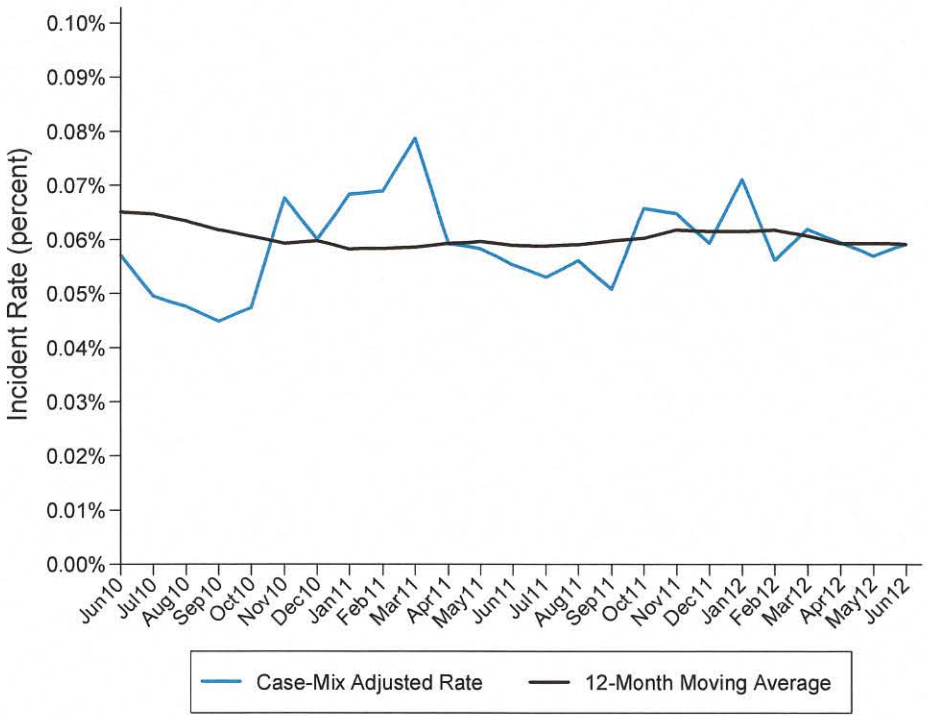
- Average monthly incident rates declined for five incident types between FY 2010/11 and FY 2011/12.
- The rates of medication error incidents and suspected neglect incidents were higher in FY 2011/12 than in either of the previous years.
- None of the changes presented in Table 2 are statistically significant.

More About These Data

"Avg. Monthly Incident Rate for FY 2011/12" refers to the rate of out-of-home consumers statewide who experience one or more incidents in an average month. Rates are case-mix adjusted (refer to page 3 for description). Case-mix adjusted rates include only individuals aged 3 and above.

The mortality rate dipped below the long-term trend in summer 2011 but remained close to the long-term trend for much of FY 2011/12.

Figure 3: Mortality Incidents, Statewide
Case-Mix Adjusted Monthly Rates since June 2010



Key Findings:

- In summer 2011, the monthly mortality rate (the blue line) was unusually low, a pattern consistent with that observed in summer 2010.
- Lower monthly mortality rates during the summer were followed by spikes in the winter and rates near the long-term trend in the latter half of FY 2011/12.
- At the end of FY 2011/12, the long-term trend for the adjusted rate of mortality incidents was 5.9 deaths per 1,000 consumers.

More About These Data

The trend line (black line) is the monthly mortality rate averaged over the latest 12-month period. The monthly rate is multiplied by 12 to provide an annualized rate, meaning the rate that would be seen for the year if the monthly rate prevailed for 12 months. The trend is calculated by taking the average of the *Case-Mix Adjusted Rate* (blue line) for the previous 12-month period (case-mix adjustment described on page 3).

California's mortality rates appear to be no higher than published rates from other states.

Table 3: Comparison of Statewide Mortality Rates

State Organization and Year	Share of State Population Served	Population Included	Deaths per 1,000
California DDS, FY 2011/12	0.8%	Children and adults living in the community	5.8
Connecticut DDS, FY 2010/11	0.4%	Children and adults living in the community	11.9
Louisiana OCCD, FY 2010/11	0.2%	Children and adults served on waivers	9.5
Massachusetts DMR, CY 2008	0.5%	Adults	17.8
Ohio MRDD, CY 2011	0.8%	Children and adults	8.9
South Dakota DDD, CY 2011	0.3%	Children and adults served on waivers	12.1

Key Findings:

- At 5.8 deaths per 1,000 consumers, California's mortality rate appears to be lower than those of other states we observed.
- Differences in mortality rates may occur as a result of differences in severity and disabilities between California's consumer population and populations served by other states.

More About These Data

See page 2 for the definition of individuals included in the California mortality data.

Other state rates are drawn from online resources, including the *Connecticut Mortality Annual Report FY2011* (March 2012), www.ct.gov/dds/lib/dds/health/reports/mortality_report_fy_11.pdf, *Louisiana OCDD Waiver Services Annual Mortality Report 2011* (October 2012), http://new.dhh.louisiana.gov/assets/docs/earlysteps/publications/Annual_Mortality_Report_2010-2011.docx, *2008 Mortality Report for Massachusetts* (August 2010), www.mass.gov/eeohhs/docs/dmr/mortalityreport2008.pdf. *Ohio 2011 MUI/Registry Unit Annual Report*, http://odmrdd.state.oh.us/healthandsafety/Documents/2011%20MUI%20Annual%20Report.pdf, and *South Dakota Division of Developmental Disabilities Trend Analysis: 2011 Critical Incident Reporting* (December 2012), http://dhs.sd.gov/dd/Division/documents/CIRAnnualReport2011.pdf.

The risk management contractor analyzes SIR data to better target remediation activities at the regional center and state level.

Throughout the years, Mission has improved its use of SIR case reviews and statistical analyses as part of monitoring, discovery, and improvement activities associated with spikes or longer-term increases in incident rates. Many additional activities will also support regional centers in avoiding future incidents. We describe these activities below.

Monitoring and Discovery Activities:

- *Improved Risk Adjustment Models:* As described above, the contractor uses risk models to account for the risk of special incidents associated with consumer characteristics, such as age and medical condition, to permit DDS to distinguish changes in incident rates associated with changes in the caseload from those that may reflect risk management practice. In FY 2011/12, the contractor introduced improved versions of the risk models that account for different risk factors for unplanned psychiatric admissions compared to unplanned medical hospitalizations and different risk factors for medication errors compared to injuries such as falls or lacerations. The improved models also better account for CDER evaluation elements and transitions between different residential care settings.
- *Discovery and 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 the regional centers faced obstacles in implementing these follow-up activities. These responses are reviewed by the DDS Quality Management Executive Committee (QMEC) quarterly, and may be used to develop strategies for mitigating 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. Mission provides additional analyses and technical assistance to regional centers identified, based on results. For such regional centers, the contractor conducts additional analyses to determine the detailed incident types and/or consumer characteristics associated with the increase. Based on these results, the contractor determines whether a more detailed review of the SIRs is necessary to better understand the issue. As appropriate, Mission also works with the regional centers to identify mitigation strategies.

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, content for Spring 2012 focused on avoiding unplanned hospitalizations for urinary tract infections, and content for Summer 2012 focused on avoiding unplanned hospitalizations for diabetes.

- *DDS Mental Health Services Act (MHSA):* DDS began Cycle II of the Mental Health Services Act (MHSA) Projects on July 1, 2011. Five regional centers received MHSA funds in the following areas: Substance Abuse, Infant/Early Childhood Mental Health, MHSA Forums, Psychotherapy to Reduce Psychiatric Hospitalizations, and Transition Age Youth. Projects establish a task force; develop assessment and treatment tools; train professionals, families, and consumers; and promote best practices and service approaches to effectively serve consumers with mental illness involved in the criminal justice system.

Planned Activities for the Coming Year:

- The risk management contractor will use Medi-Cal claims data for DDS consumers, to identify consumers who are prescribed large numbers of prescription medications for long-term use, to support regional center clinical staff in monitoring for possible polypharmacy issues. In addition, the Medi-Cal claims data will be used to help identify consumers with chronic medical conditions such as diabetes.
- Based on the findings from analyses of long-term increases in incident rates and follow-up site visits, Mission is developing a medication administration checklist to help service coordinators and residential care providers establish and maintain effective medication administration to reduce the risk of medication errors.
- At the request of QMEC, the contractor will conduct additional analyses to determine whether any types of residential care settings are associated with risks of special incidents that are higher than expected, given the care challenges for the resident populations.

Case-Mix Adjustment – A process that accounts for differences in the characteristics of the consumer population over time. Case-mix adjustment allows us to distinguish trends driven by changes in population from trends driven by risk management practices. If, for example, there were an influx of medically fragile consumers into a given region, we would expect rates of unplanned hospitalization incidents to increase, even if the effectiveness of the risk management practices did not change. Case-mix adjustment accounts for changes such as these, so that rates (and risk management practices) can be reasonably compared to previous periods. Children under age 3 are excluded from case-mix adjusted results.

Death Rate – The annual number of deaths per 1,000 individuals. For monthly mortality data, an annualized rate is calculated by multiplying the monthly rate by 12.

Injury – Serious injury/accident, including: lacerations requiring sutures or staples; puncture wounds requiring medical treatment beyond first aid; fractures; dislocations; bites that break the skin and require medical treatment beyond first aid; internal bleeding requiring medical treatment beyond first aid; any medication errors; medication reactions that require medical treatment beyond first aid; or burns that require medical treatment beyond first aid.

Medication Error – When an individual under vendored care experiences one or more of the following situations: 1) wrong medication, 2) wrong dose, 3) wrong time, or 4) wrong route. According to the Reporting Alignment Project, an individual has a one-hour window to take his or her medications based on the time prescribed by the physician. Any medication administered or self-administered more than one hour before, or after the prescribed time, is considered a missed dose medication error.

Missing Person – When a consumer is missing and the vendor or long-term health care facility has filed a missing persons report with a law enforcement agency.

Mortality – Any consumer death, regardless of cause.

Out-of-home Consumer – An individual residing in a community setting such as licensed residential services, Family Home Agency (FHA), Supported Living Services (SLS), or Independent Living Services (ILS), rather than in the home of a parent or guardian.

Raw (rate) – The unadjusted rate (e.g., the total number of incidents divided by the total number of consumers).

Suspected Abuse – Reasonably suspected abuse/exploitation, including: physical, sexual, fiduciary, emotional/mental or physical and/or chemical restraint.

Suspected Neglect – Reasonably suspected neglect, including failure to: provide medical care for physical and mental health needs; prevent malnutrition or dehydration; protect from health and safety hazards; assist in personal hygiene or the provision of food, clothing or shelter, or exercise the degree of care that a reasonable person would exercise in the position of having the care and custody of an elder or a dependent adult.

Total Number of Consumers – The total number of individuals served by DDS at any point during the fiscal year. Note that this number is larger than the number of individuals served by DDS at a single point in time. This total includes consumers living in the community – that is, consumers receiving services from a regional center, not residing in a Developmental Center or state-operated facility.

Unplanned Medical Hospitalization – Unplanned or unscheduled hospitalization due to the following conditions: respiratory illness, including but not limited, to asthma; tuberculosis; and chronic obstructive pulmonary disease; seizure-related; cardiac-related, including but not limited to, congestive heart failure; hypertension and angina; internal infections, including but not limited to, ear, nose and throat, gastrointestinal, kidney, dental, pelvic, or urinary tract; diabetes, including diabetes-related complications; wound/skin care, including but not limited to, cellulitis and decubitus; nutritional deficiencies, including but not limited to, anemia and dehydration.

Involuntary Psychiatric Admission – Unplanned or unscheduled hospitalization due to a psychiatric condition.

Vendored Care – A consumer is considered "under vendored care" when he or she is receiving services funded by a regional center.

Victim of Crime - Includes the following: robbery, including theft using a firearm, knife, or cutting instrument or other dangerous weapons or methods, which force or threaten a victim; aggravated assault, including a physical attack on a victim using hands, fist, feet or a firearm, knife or cutting instrument or other dangerous weapon; larceny, including the unlawful taking, carrying, leading, or riding away of property, except for motor vehicles, from the possession or constructive possession of another person; burglary, including forcible entry; unlawful non-forcible entry, and attempted forcible entry of a structure to commit a felony or theft therein; rape, including rape and attempts to commit rape.