2007-2008 YEAR IN REVIEW
Risk Management and Mitigation

ACUMEN, LLC
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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) 2007-2008.

The California Department of Developmental Services (DDS) serves over 220,000 individuals with developmental disabilities, relying on a network of 21 regional centers to plan, coordinate, and monitor an array of services. In 2001, DDS initiated a comprehensive risk prevention, mitigation, and management system as one cornerstone of quality services for consumers living in the community. As part of this system, DDS tracks adverse events that occur to consumers with developmental disabilities. Title 17 of the California Code of Regulations mandates that vendors and long-term health care facilities report these events, known as special incidents, to the regional centers, which in turn report them to DDS. Title 17 defines seven categories of special incidents:

- Missing person
- Reasonably suspected abuse/exploitation
- Reasonably suspected neglect
- A serious injury or accident
- Any unplanned hospitalization
- Death
- Victim of crime

This year-end report summarizes California’s rates of reported special incidents during FY 2007-2008. It 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 2008, 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).

Acumen, LLC (Acumen) the department’s risk management contractor, 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, Acumen, and the regional centers are working to ensure effective risk management practices to prevent the occurrence of special incidents.
Both the consumer population and the number of reported special incidents increased in FY 07/08, but overall rates declined.

### Table 1
Reported Special Incidents for All DDS Consumers

<table>
<thead>
<tr>
<th></th>
<th>FY 06/07</th>
<th>FY 07/08</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Number of Consumers</td>
<td>239,451</td>
<td>249,547</td>
</tr>
<tr>
<td>Total Number of Reported Incidents</td>
<td>17,280</td>
<td>17,695</td>
</tr>
<tr>
<td>All Incidents per 1000 Consumers</td>
<td>72.2</td>
<td>70.9</td>
</tr>
<tr>
<td>Deaths per 1000 Consumers</td>
<td>6.7</td>
<td>6.5</td>
</tr>
</tbody>
</table>

**Key Findings:**

- The total number of consumers served by regional centers in FY 07/08 rose 4% compared to the previous year, while the number of reported special incidents grew by 2% compared to the previous year.
- At 70.9 incidents per 1000 consumers, the statewide rate of reported special incidents was slightly lower in FY 07/08 than in the previous year.
- The number of deaths per 1000 consumers in FY 07/08 (7.0) was similar to that of the previous year (7.1).
- California’s overall mortality rate appears to be lower than rates published by other states, although the populations served may differ (see below). The reported 2007 mortality rate in Connecticut was 12.97 deaths per 1000, while Massachusetts’ rate (for adults in 2006) was 16.6 deaths per 1000.

### More About These Data

*Total Number of Consumers* is the number of different individuals served by DDS during FY 07/08. Note that this number is larger than the number of individuals served by DDS in any one month. 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.

Statewide incident rates appear to follow a familiar trend; rates dip in autumn months and rise in winter months.

Figure 1: Statewide Non-Mortality Rates, All DDS Consumers
Case-Mix Adjusted Monthly Rates since June 2006

Key Findings:
- Monthly incident rates that control for changes in the characteristics of the consumer population reveal a trend seen in previous years; the incident rate (blue line) dips below the long-term average (black line) in the autumn, and rises above in the winter and spring.
- The spike observed between March and June 2007, driven by a statewide training initiative, did not persist into FY 07-08.

More About These Data
The black line above represents a 12-month moving average. It is calculated by taking an average of 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 hospitalization and injury incidents account for almost three quarters of reported non-mortality incidents.

Key Findings:
- Unplanned hospitalizations are the most commonly reported non-mortality incident type, accounting for 39% of all reported incidents in FY 07/08. Injury incidents follow closely behind at 31%.
- The least common types of reported incidents are suspected neglect, missing person, and victim of crime, which combined account for less than 20% of all special incidents.

More About These Data
The percentages shown above are based on raw counts of special incidents and are not case-mix adjusted. Percentages may not add up to 100% due to rounding.
Reported incident rates for hospitalization, suspected abuse, and victim of crime decreased, while rates of injury increased.

Table 2: Case-Mix Adjusted Breakdown of Special Incidents by Type, FY07/08

<table>
<thead>
<tr>
<th></th>
<th>Avg. Monthly Incident Rate FY 07/08</th>
<th>Change from FY 06/07</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unplanned Hospitalization</td>
<td>0.20%</td>
<td>-5%</td>
</tr>
<tr>
<td>Injury</td>
<td>0.17%</td>
<td>+6%</td>
</tr>
<tr>
<td>Suspected Abuse</td>
<td>0.07%</td>
<td>-13%</td>
</tr>
<tr>
<td>Suspected Neglect</td>
<td>0.03%</td>
<td>+1%</td>
</tr>
<tr>
<td>Missing Person</td>
<td>0.04%</td>
<td>+1%</td>
</tr>
<tr>
<td>Victim of Crime</td>
<td>0.03%</td>
<td>-27%</td>
</tr>
</tbody>
</table>

Key Findings:

- Reported rates of unplanned hospitalization fell 5% compared to the previous year, although they continue to account for the greatest share of non-mortality special incidents.
- Reported rates of injury increased by 6% compared to the previous year.
- Rates of suspected neglect and missing person stayed fairly constant relative to the previous year, each increasing by 1%.
- Reported rates of suspected abuse decreased by 13%, while rates of victim of crime decreased by 27%. Because there are relatively few cases of these incidents, a small change in the number of incidents may drive large percentage changes.

More About These Data

“Monthly Incident Rate for FY 07/08” refers to the rate of consumers statewide who experience one or more incidents in an average month. Rates are case-mix adjusted (refer to Page 3 for description).
Controlling for consumer characteristics, the mortality rate is trending downward, although a strong seasonal component remains.

Figure 3: Mortality Incidents, Statewide
Case-Mix Adjusted Monthly Rates since June 2006

Key Findings:
- Mortality rates during FY 07-08 followed trends seen in prior years; rates dipped during the summer-fall season and spiked in the winter.
- Like the year before, this year’s statewide mortality rate (blue line) was highest in January and February.
- Over the past two years, the trend line (black) has steadily decreased.

More About These Data
The trend line (black line) is the monthly mortality rate averaged over the latest 12 month period. The trend is calculated by taking the average of the Case-mix Adjusted Rate (blue line) for the previous twelve-month period. The lines in the graph above also use case-mix adjustment, as described on the bottom of page 3.
California's mortality rates appear to be no higher than rates published from other states we have observed.

Table 3: Comparison of Statewide Mortality Rates
2006 figures, unless otherwise noted

<table>
<thead>
<tr>
<th>State and Organization</th>
<th>Share of State Population Served</th>
<th>Population Included</th>
<th>Mortality Rate (deaths /1000)</th>
</tr>
</thead>
<tbody>
<tr>
<td>California DDS</td>
<td>0.7%</td>
<td>Individuals living in the community</td>
<td>7.0</td>
</tr>
<tr>
<td>Connecticut DDS</td>
<td>1.3%</td>
<td>Children and adults</td>
<td>13.0</td>
</tr>
<tr>
<td>Massachusetts DMR</td>
<td>1.7%</td>
<td>Adults</td>
<td>16.6</td>
</tr>
<tr>
<td>Ohio MRDD</td>
<td>1.0%</td>
<td>Children and adults</td>
<td>9.6</td>
</tr>
</tbody>
</table>

Key Findings:
- At 7.0 deaths per 1000 consumers, California's mortality rate appears to be lower than those of other states we observed, although populations included in these data differ considerably.
- California’s population may differ given differences in the population included and severity of disabilities served.

More About These Data

Massachusetts mortality data was collected from the 2006 Mortality Report, and is also available online: [http://www.mass.gov/Eeohhs2/docs/dmr/mortalityreport2006.pdf](http://www.mass.gov/Eeohhs2/docs/dmr/mortalityreport2006.pdf).

Ohio mortality data was collected from the report “Reporting Rates for MUIs per 1000 individuals,” found online at [http://odmrdd.state.oh.us/health/muireport/2007/rates-report-selected1000.pdf](http://odmrdd.state.oh.us/health/muireport/2007/rates-report-selected1000.pdf).
Several activities are planned for the coming year, including checklists for case managers and resources for RC mortality reviews.

**Status on Current Activities:**

- Regional centers receive graphs each month that allow them to identify significant increases in special incident rates.
- Regional centers are also reporting back information about their follow-up to any spikes in incident rates. These reports will provide information in greater depth about any unusual increases in incident rates and help guide risk management activities.
- In response to trends in special incident rates, Acumen publishes articles and presentations each month on [www.ddssafety.net](http://www.ddssafety.net), as well as a quarterly newsletter. These materials are geared toward consumers, their families, and their support providers.
- Acumen is meeting regularly with service coordinators and clinical staff at several regional centers to develop a set of statewide mortality review guidelines. Acumen is also collecting information on other Medicaid waiver programs and how they conduct mortality reviews for individuals with developmental disabilities.

**Planned Activities for the Coming Year:**

- Acumen is developing reports to identify long-term increases in regional center incident rates, in addition to identifying month-to-month spikes.
- Acumen is developing reference materials for regional center staff, including a set of diagnosis-specific checklists for service coordinators to use in their annual and quarterly planning meetings.
- DDS and Acumen are working to tailor accessible materials on the [www.ddssafety.net](http://www.ddssafety.net) website to educate consumers about issues important to their health and safety, as well as offer risk prevention resources.
- Acumen is working with regional center risk management staff and clinicians to develop tools for regional center mortality review committees. Additionally, Acumen is also developing a separate report on mortality review best practices from other states.