Year in Review

Annual Report submitted to the California Department of Developmental Services

Fiscal Year 2016-2017

Report prepared: September 2017

About this Report

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 individuals with developmental disabilities. 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 2001, DDS initiated a comprehensive risk prevention, mitigation, and management system as one cornerstone of quality services for individuals. This year-end report summarizes California's rates of reported special incidents during the fiscal year (FY) 2016-17. In FY 16-17, DDS served approximately 310,209 individuals with developmental disabilities in community settings.

As part of the risk management system, DDS monitors the occurrence of adverse events, or "special incidents," to identify trends and develop strategies for preventing and mitigating 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 an individual is receiving services funded by a regional center (under vendored care). (See page 11 for definitions of special incidents and vendored care.) In addition, any occurrence of mortality or an individual being a victim of crime must be reported whether or not it occurred while the individual was under vendored care.

This year-end report summarizes California's rates of reported special incidents during FY 16/17. 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 through June 2017, augmented with the DDS Client Master File (CMF), the Client Development Evaluation Report (CDER), and the Purchase of Service (POS). Mission Analytics Group (Mission), the risk management

Summary of Findings

- The number of incidents per 1,000 individuals is lower this fiscal year than the last two.
- The average non-mortality rate for the last 12 months (long-term trend) rose slightly in the last few months of the fiscal year.
- The suspected neglect incident rate is 10% higher this fiscal year than the last.

contractor for DDS, compiled this report based on statistical analyses that measure an individual'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. See below for a summary of findings.

THE RATE OF SPECIAL INCIDENTS WAS LOWER THIS FISCAL YEAR THAN IN THE PREVIOUS TWO YEARS.

At the end of FY 16/17, DDS was serving 310,209 individuals. This number includes people diagnosed as having a developmental disability who are served in the community and children who receive Early Start services. The number does not include individuals who are served in a State Developmental Center. See *Definitions* on page 11 for more details.

Table 1: Reported Incidents for Individuals Served by DDS

	FY 16/17	FY 15/16	FY 14/15
Total Number of Individuals, Last Month of Fiscal Year	**310,209**	295,919	282,805
Total Number of Reported Incidents	**21,271**	20,920	21,730
All Incidents per 1,000 Individuals	**68.6**	70.7	76.8
Deaths per 1,000 Individuals	**6.5**	6.8	6.8

Counts use data with incidents reported through June 30, 2017.

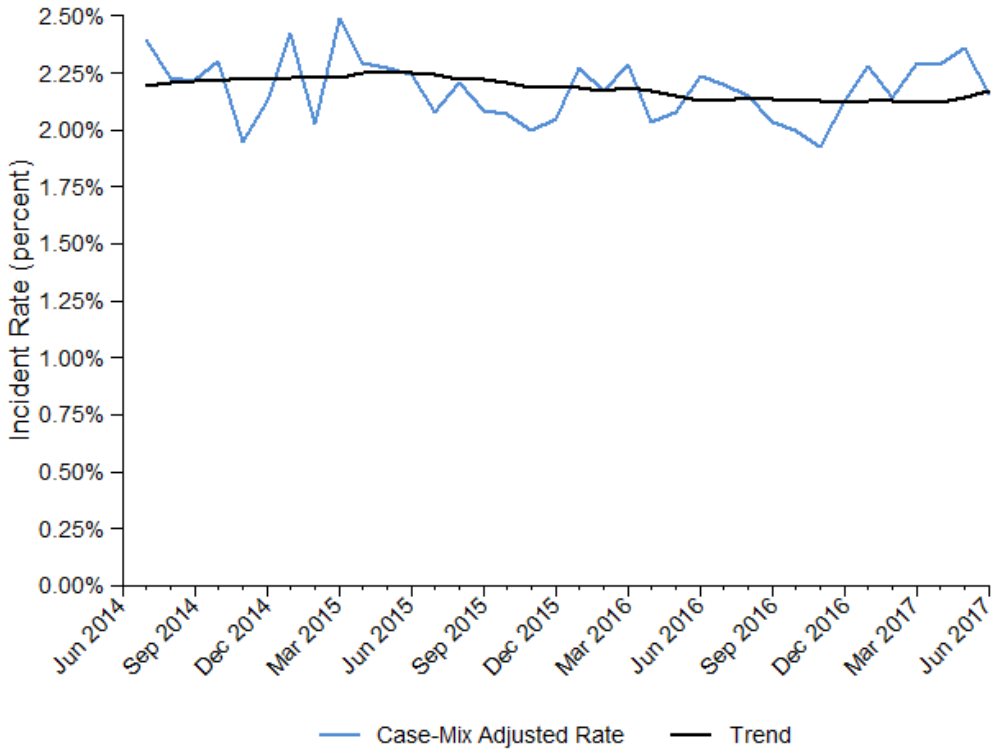
Key Findings

- The number of individuals served by DDS has increased over the last two fiscal years, and at 310,209 is nearly 10% greater than the number served in FY 14/15.
- There were 21,271 special incidents reported in FY 16/17, including 19,260 non-mortality incidents and 2,011 deaths.
- The number of deaths per 1,000 individuals in FY 16/17 (6.5) is 4% lower than that of the previous fiscal year (6.8). However, additional mortality incidents for this period may be reported in later months. The differences are not statistically significant.
- The differences in the number of all incidents per 1,000 individuals between FY 16/17 versus each of the two preceding years are statistically significant.

The non-mortality long-term trend decreased slightly from June 2015 to April 2017 but ticked up in May 2017.

The blue line in Figure 1 represents the share of individuals statewide who experience one or more special incidents in a month. The trend line (black) represents a 12-month moving average of the data in the blue line. The value for each month in the trend line is the average of the monthly incident rates over the previous 12 months. The lines shown on this graph represent individuals ages 3 and above and account for changes in the characteristics of the population over time. This approach, called "case-mix adjustment," controls for individual characteristics, such as age and medical condition, and removes these effects from the calculated trend.

Figure 1: Statewide Non-Mortality Rates, Out-of-Home Individuals
Case-Mix Adjusted Monthly Rates Since June 2014



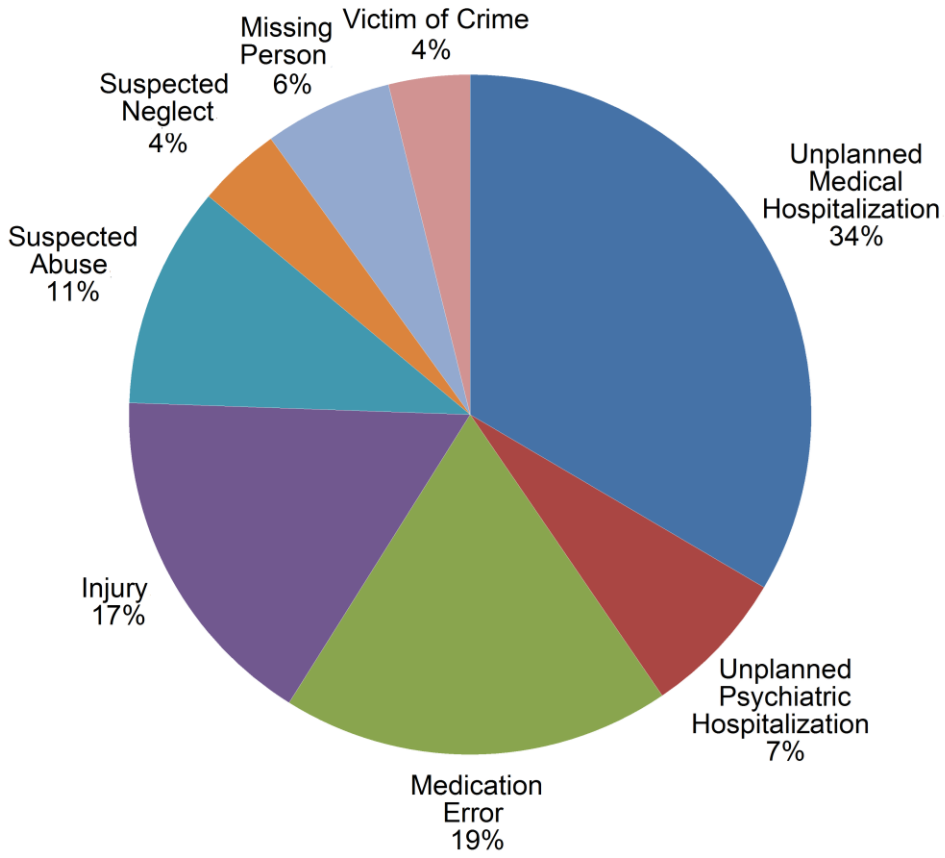
Key Findings

- The monthly rate of non-mortality special incidents (blue line) tends to be higher from January to June than from July to December in any given year, due to seasonal differences, especially in the rate of medical hospitalizations.
- The monthly non-mortality special incident rate (blue line) was consistently above the long-term trend (black line) from December 2016 to June 2017. This rate was higher for a longer time period than in recent years. The last time the rate was above the long-term trend for more than three months was from March to October 2014.

UNPLANNED MEDICAL HOSPITALIZATIONS, INJURY INCIDENTS, AND MEDICATION ERRORS ACCOUNT FOR MORE THAN TWO-THIRDS OF REPORTED NON-MORTALITY INCIDENTS.

Definitions of all special incident types can be found on the *Definitions* page (page 11). The percentages shown below are based on raw counts of special incidents and are not case-mix adjusted. The percentages in the chart do not add up to 100% because of rounding.

Figure 3: Breakdown of Non-Mortality Special Incidents by Type, Individuals served by DDS, July 2016 – June 2017



Key Findings

- Unplanned medical hospitalization remains the most commonly reported non-mortality incident type, accounting for about 34% of all reported incidents in FY 16/17. Medication error (19%) and injury (17%) incidents continue to be the second and third most commonly reported incident types.
- The least common types of reported incidents are victim of crime, suspected neglect, and missing person, which, combined, account for about 14% of all special incidents.

THE RATE OF SUSPECTED NEGLECT INCIDENTS SAW THE LARGEST INCREASE FROM THE LAST FISCAL YEAR.

We calculate a monthly incident rate for each incident type. In Table 2, "Avg. Monthly Incident Rate FY 16/17" refers to the share of out-of-home individuals statewide who experience one or more incidents in an average month. Rates are case-mix adjusted (refer to *Definitions* on page 11). Case-mix adjusted rates include only individuals age 3 and above.

Table 2: Case-Mix Adjusted Breakdown of Special Incidents by Type

	Avg. Monthly Incident Rate FY 16/17	Change from FY 15/16	Change from FY 14/15
Unplanned Medical Hospitalization	**0.75%**	1%	-2%
Unplanned Psychiatric Hospitalization	**0.16%**	-3%	-5%
Injury	**0.39%**	6%	-4%
Medication Error	**0.41%**	2%	-6%
Suspected Abuse	**0.25%**	0%	-4%
Suspected Neglect	**0.10%**	10%	-9%
Missing Person	**0.14%**	4%	-5%
Victim of Crime	**0.09%**	-6%	-1%

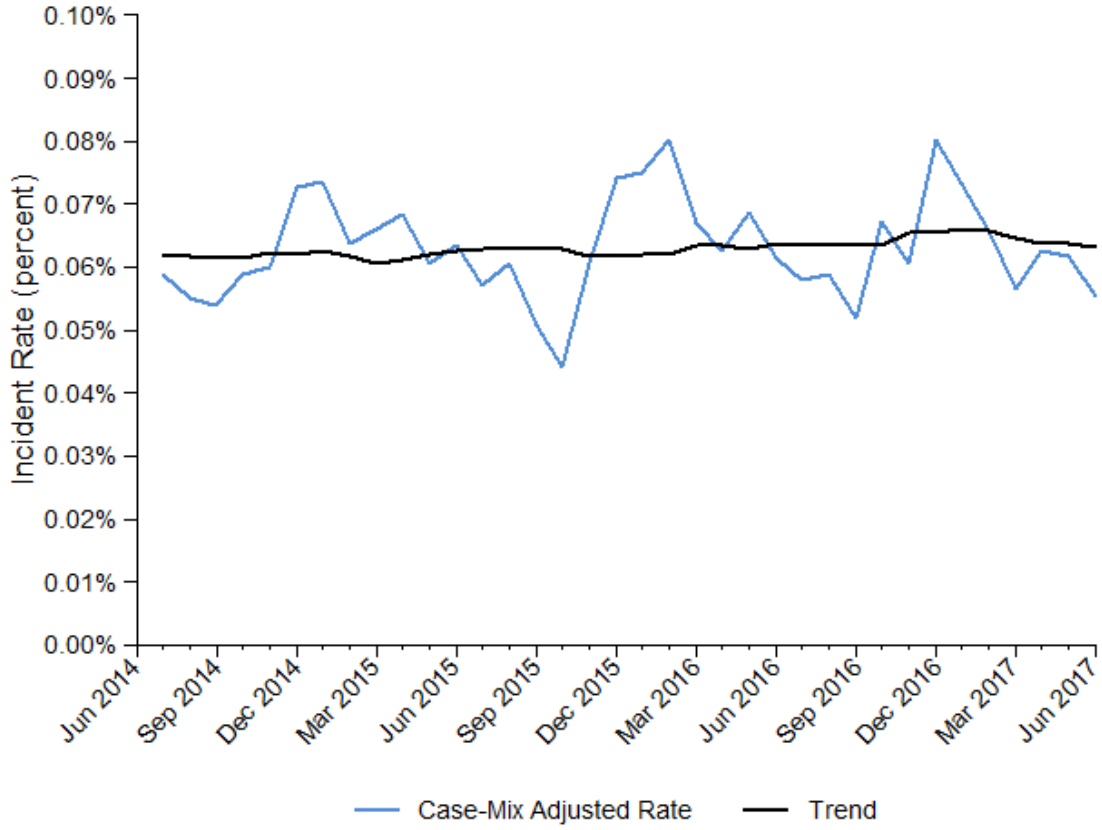
Key Findings

- The rate of suspected neglect incidents in FY 16/17 increased by 10% compared to FY 15/16, but decreased by 9% relative to FY 14/15. There were 879 suspected neglect incidents, compared to 832 in FY 15/16 and 1,037 in FY 14/15. Because suspected neglect incidents are relatively rare, this rate can be volatile.
- The victim of crime incident rate, at 0.09%, dropped 6% from FY 15/16 to FY 16/17.
- The injury incident rate increased by 6% from FY 15/16 to FY 16/17, but decreased by 4% from FY 14/15 to FY 16/17.

THE MORTALITY RATE WAS HIGHER FROM DECEMBER 2015 TO MARCH 2016 THAN THE LONG-TERM TREND.

The blue line in Figure 4 represents the monthly mortality rate (in percent) adjusted for case-mix (see definition of case-mix adjustment on page 11). The trend line (black) represents a 12-month moving average of the data in the blue line. The value for each month in the trend line is the average of the monthly incident rates over the previous 12 months. For both lines, the rates include only individuals age 3 and over and are case-mix adjusted.

Figure 4: Mortality Incidents, Statewide
Case-Mix Adjusted Monthly Rates Since June 2014



Key Findings

- The mortality rate was higher than the long-term trend during the winter months of this fiscal year, as also occurred during the past two years. During FY 16/17, the rate was lowest in September 2016, at a little above 0.05%.
- The long-term trend in mortality incidents has been steady over the last two fiscal years.

CALIFORNIA'S MORTALITY RATES APPEAR TO BE LOWER THAN PUBLISHED RATES IN OTHER STATES.

Other state rates are drawn from online resources, including *Connecticut Mortality Annual Report FY 2016* (March 2017), *Georgia DBHDD 2016 Annual Mortality Report, Indiana DDRS Mortality Data Review,* and *South Dakota Division of Developmental Disabilities Critical Incident Reporting Trend Analysis: 2016.*[1]

Table 3: Comparison of Statewide Mortality Rates

State Organization and Year	Share of State Population Served	Population Included	Deaths per 1,000 Individuals
California DDS, FY 16/17	**0.8%**	**Children and adults living in the community**	**6.6**
Connecticut DDS, FY 15/16	0.5%	Children and adults living in the community	13.0
Georgia DBHDD, CY 2016	0.1%	Adults (at least 18 years of age) served on waivers	14.0
Indiana DDRS, CY 2016	0.4%	Children and adults living in the community	18.4
South Dakota DDD, CY 2016	0.3%	Children and adults served on waivers	17.0

Key Findings

- At 6.6 deaths per 1,000 individuals, the mortality rate in California appears to be lower than the rates in the other states we observed.
- Differences in mortality rates may occur as a result of differences in severity and disabilities between the individual population in California and populations served by other states.

[1] http://www.ct.gov/dds/lib/dds/health/reports/mortality_report_fy_16.pdf
https://dbhdd.georgia.gov/sites/dbhdd.georgia.gov/files/related_files/document/2016%20Annual%20Mortality%20Report%20Revised.pdf,
https://www.in.gov/fssa/files/2015%20Annual%20MRC%20report%2006_01_16.pdf ,
http://dhs.sd.gov/servicetotheblind/docs/2015%20CIR%20Annual%20Trend%20Analysis.pdf

Risk Management Activities

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. Additional activities that support regional centers in avoiding future incidents are described below.

Monitoring and Discovery

- *Discovery and Reporting Back:* Regional centers with quarterly spikes in individual incident types report to DDS, through 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 provided to the DDS Quality Management Executive Committee (QMEC) quarterly and may be used to develop strategies for how to mitigate risk to individuals statewide.

- *Long-Term Increases in Incident Rates*: Mission has established a multi-stage process to investigate long-term increases in incident rates. Mission provides additional analyses and technical assistance to regional centers identified based on results. For such regional centers, Mission conducts additional analyses to determine the detailed incident types and/or individual characteristics associated with the increase. Based on these results, Mission 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.

- *Monitoring of Medication Use and Chronic Conditions:* To support regional center clinical staff in monitoring for possible polypharmacy issues, Mission uses Medi-Cal claims data for DDS clients to identify individuals who are prescribed large numbers of prescription medications for long-term use. In addition, the Medi-Cal claims data are used to help identify individuals with chronic medical conditions, such as diabetes. Mission is currently working with regional centers to identify other ways to use claims data to target risk mitigation strategies.

- *Monitoring of Suspected Abuse and Neglect Incidents:* Mission provides additional outreach to regional centers for cases of individuals who are at increased risk of suspected abuse and/or neglect. Mission provides information on individuals who have been the subject of two suspected abuse or neglect incidents within a year. Mission provides quarterly spreadsheets that identify individuals who were the subject of a suspected abuse or neglect SIR during the most recent quarter, to determine which of those individuals were the subjects of the same type of SIR within the previous 12 months.

- *Additional Analyses of Residential Settings:* At the request of the QMEC, Mission conducts additional analyses to determine whether any types of residential care settings were associated with risks of special incidents that were higher than expected given the care challenges for the resident populations.

- *Monitoring Individuals Who Have Transitioned to the Community Due to Developmental Center Closure:* Mission submits semi-annual reports to DDS to support the Quality Management Advisory Group for the

Sonoma, Fairview, and Porterville general treatment area closure cohorts. These reports track all individuals who have transitioned from the developmental centers since the closure plan date. The semi-annual reports help monitor changes in residential settings, changes in the CDER, and SIR rates. Mission will continue to develop these semi-annual reports for one year after the last individual has transitioned from each developmental center.

- *Monitoring of Individuals Who Have Transitioned from Any Developmental Center to the Community*: In addition to monitoring the closure cohorts, Mission develops a semi-annual report that includes data on all individuals who have transitioned from developmental centers within the last five years, whether or not these transitions were part of the closure process. These semi-annual reports also help monitor changes in residential settings, changes in the CDER, and SIR rates.

- *Additional Monitoring of Individuals Who Have Transitioned from Any Developmental Center to the Community:* Mission provides additional outreach to regional centers for cases of individuals in the mover cohort who have experienced two or more SIRs during a quarter and report to DDS and the regional center on these individuals for risk prevention and mitigation purposes. Mission provides quarterly spreadsheets that identify individuals who have experienced two or more SIRs of the same type of SIR within the previous 12 months.

System Improvement

- *Public Health Campaign Regarding Pneumococcal and Flu Vaccines Among DDS Clients*: Data from the National Core Indicators (NCI) suggested that individuals with developmental disabilities in California use preventive health care at lower rates than individuals with developmental disabilities in other states participating in the NCI. In FY 16/17, DDS, through Mission and in collaboration with the Association of Regional Center Agencies (ARCA) Chief Counselors Risk Management Committee (ACCRMC) and the chairs of the regional center Risk Management and Planning Committees (RMAPC), implemented an informational campaign to increase the use of pneumococcal and flu vaccines. The campaign developed materials and disseminated them through the www.ddssafety.net website and the regional centers. Additionally, Mission in collaboration with four regional centers implemented a pilot to monitor individuals at high risk of experiencing an unplanned medication hospitalization due to respiratory conditions. The four regional centers asked these individuals to receive a flu and/or pneumococcal vaccination if medically indicated by their physician and track whether they received the vaccination or not. Mission analyzed the SIR data and found a small reduction in the regional centers' unplanned medication hospitalization incident for high-risk individuals, but the sample was too small to be statistically significant.

- *DDS SafetyNet Website:* Mission maintains the DDS SafetyNet, a website promoting health and safety for individuals with developmental disabilities. In addition to addressing safety issues identified in partnership with the ARCA Chief Counselors Risk Management Committee, SafetyNet materials respond directly to trends in special incident rates to help manage risk among the individual population.

- *Medication Error Diagnostic Tool:* Based on findings from analysis of long-term increases in incident rates and follow-up site visits, Mission developed a medication error diagnostic tool to help service coordinators and residential care providers establish and maintain effective medication administration and reduce the risk of medication errors. Currently, eight regional centers use the tool. Some of these centers have seen declines in their rates of medication errors—Far Northern Regional Center is an example—but it is not possible statistically to attribute these declines to use of the diagnostic tool, strictly speaking. Some regional centers have used the tool, in particular, in connection with individuals who have left Lanterman Developmental Center (LDC). The focus on LDC arose because, in monitoring transitions from LDC, Mission found that medication errors occurred at a much higher rate among the mover population than in the population with developmental disabilities as a whole. This may have reflected the more rigorous oversight of the mover population or the greater complexity in caring for these individuals. The regional centers complete the diagnostic tool and send the data to Mission each quarter for analysis. The analysis examines the processes that providers use to administer medications and seeks to identify steps in these processes that account for large shares of medication errors. Ideally, providers use this information to mitigate the risk of future errors.

- *DDS Mental Health Services Act (MHSA):* The Cycle III (Fiscal Year 2014-15 to 2016-17) MHSA Projects are now in their third year. The Mental Health/Forensic Collaborative will assist individuals and regional centers in navigating the criminal justice system and shortening incarceration time by establishing training for competency to stand trial and identifying resources within the community. An infant mental health project will promote cultural competence in clinical care settings, while another project will develop a mental health clinic to provide psychiatric assessment, medication management, and individual and group therapy. Two projects will assist transition-age youth with referral and connections to appropriate community resources, continuity of care before, during, and after hospital admission, identification of new community resources, early detection and assessment of mental health conditions, and establishment of a Wellness/Drop-In Center. The final project will provide training on evidence-based practices and how each can be used for prevention and early intervention.

Planned Activities for the Coming Year

- *Monitoring of Individuals for the Settlement Agreement with the Centers for Medicare and Medicaid Services (CMS):* DDS, through Mission, will continue to monitor individuals transitioning from Fairview Developmental Center and the Porterville Developmental Center general treatment area and supported through home and community-based services waiver funds. DDS and Mission will develop quarterly monitoring reports as part of the materials DDS provides to the Health and Human Services Agency, as well as semi-annual monitoring reports for CMS.

- *Mortality System Improvement Project:* Based on findings from other state mortality practices, DDS, through Mission and in collaboration with the ACCRMC, is working to collect enhanced mortality data from the regional centers. Enhanced mortality data collection will begin in FY 18/19. The risk management contractor will provide expanded mortality analysis based on this information in future reports.

Terms and Definitions

- **Case-Mix Adjustment** – A process that accounts for differences in the characteristics of the individual 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 individuals 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 client, 3) wrong dose, 4) wrong time, 5) wrong route. For example, 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 and, therefore, a "wrong time" medication error.

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

- **Mortality** – Any individual death, regardless of cause.

- **Out-of-home Individual** – 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 individuals with incidents divided by the total number of individuals).

- **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; or

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 Individuals** – The total number of individuals served by DDS at the end of the fiscal year. Note that this number is smaller than the number of individuals served at any point during the fiscal year. This total includes individuals living in the community, that is, individuals receiving services from a regional center not residing in a Developmental Center or a 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; and nutritional deficiencies, including but not limited to anemia and dehydration.

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

- **Vendored Care** – An individual 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 that force or threaten a victim; aggravated assault, including a physical attack on a victim using hands, fists, 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 to a structure to commit a felony or theft therein; and rape, including rape and attempts to commit rape.