ORANGE COUNTY CARE COORDINATION COLLABORATIVE FOR KIDS

Trend Report August 2013 (Replaces June 2013 Version)

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OC C3 FOR KIDS TREND REPORT

A new collaborative group has been formed to develop an improved care coordination system for children with special health care needs (CSHCN) in Orange County, California. This collaborative, called **Orange County Care Coordination Collaborative for Kids** (**OC C3 for Kids**), includes representatives from key agencies that provide medical, social, and case management services for young children and families in Orange County (See Appendix A for a listing of participating agencies). The collaborative is being led by Help Me Grow Orange County.¹

OC C3 for Kids established an overarching goal for this effort:

To improve overall care for children and families with special health care needs by creating a collaborative care coordination system in Orange County.

Additionally, the following objectives were identified:

- Achieve better life-long results, with more patient and family satisfaction
- Develop greater effectiveness to reduce unnecessary procedures and provide better overall care for all Orange County children
- Learn from the process and results to:
 - o Identify innovative solutions to known medical, social, and economic risk factors
 - \circ Support CSHCN programs that already exist to achieve greater efficiencies
 - Target individuals and groups to involve in care coordination
 - \circ Use data to implement policies that streamline the care coordination system
- Create a sustainable system of care coordination for CSHCN and their families

Through funding from The Lucile Packard Foundation for Children's Health (LPFCH), OC C3 for Kids embarked on an 18-month process to further develop the countywide collaborative. Four specific goals are defined for the 18-month grant period:

Goal 1: To identify the specific needs of the Orange County care coordination collaborative starting with children birth to 5 years of age who have special health care needs (CSHCN) and their families.

Goal 2: To determine the organizational structure of the Orange County care coordination system for children birth to five years with special health care needs (CSHCN) and their families.

Goal 3: To conduct a pilot of the proposed Orange County Care Coordination model to validate the efficacy and refine team based development of procedures, tools, costs and processes before full implementation.

Goal 4: To create and implement a sustainability plan to secure resources to implement a care coordination countywide system with scalability and potential to expand to other age groups.

¹ Help Me Grow Orange County is a CHOC/UCI Neurodevelopmental program dedicated to improving outcomes for children birth to five years of age.

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One of the first activities of OC C3 for Kids was to identify key trends in Orange County that relate to children with special health care needs and their families. The following pages describe trends related to Orange County's child population, with a focus on children from birth to age five, along with potential risk factors, and children with special health care needs. Appendix B provides the underlying data tables for these charts and graphs.

BACKGROUND INFORMATION

Child Population Characteristics

In 2010, there were 729,272 children birth to age 17 in Orange County. Of these, 31%, or 226,849, were ages five and younger (kidsdata.org). Nearly half (46%) of children under age 17 were Hispanic/Latino; 32% were White; and 16% were Asian American (as cited on www.kidsdata.org, U.S. Census Bureau, American Community Survey, accessed on June 25, 2013). See Figures 1 and 2.



CHILD POPULATION, ORANGE COUNTY: 2005-2007 - 2009-2011

Figure 1

Definition: Estimated population ages 0-17.

Data Source: U.S. Census Bureau, American Community Survey. Accessed at <u>http://factfinder2.census.gov</u> (Dec. 2012).



CHILD POPULATION, ORANGE COUNTY, BY RACE/ETHNICITY: 2010

Figure 2

Definition: Percentage of the population under age 18, by race/ethnicity. Data Source: California Department of Finance, Estimates of Race/Ethnic Population with Age and Gender Detail, 1990-1999, 2000-2010. Accessed online at <u>http://www.dof.ca.gov/research/demographic/data/</u> (October 2012).

31% of Orange County's children are age five or younger.

Births

Births in Orange County have decreased 15% in the past 10 years (Figure 3). According to projections by the California Department of Finance, births are projected to increase somewhat in this decade (Figure 4).



BIRTHS BY YEAR, ORANGE COUNTY

Figure 3

Source: http://www.dof.ca.gov/research/demographic/reports/projections/births/



PROJECTED BIRTHS BY YEAR, ORANGE COUNTY

Figure 4

Source: http://www.dof.ca.gov/research/demographic/reports/projections/births/

Maternal Age

At more than 56%, the majority of births in Orange County in 2011 were to mothers between the ages of 25 and 34, with births to women ages 30-34 comprising the largest share (30%). The smallest share of births was to women age 45 and older (0.09%) and under age 15 (0.4%). In Orange County, approximately 6% of births are to mothers ages 19 and younger. See Figure 5.

The number of births decreased between 2009 and 2011 for women under age 30 and between 35 and 39; while the number of births increased for women between 30 and 34 and over 40 (Figure 6). The birth rate for women between ages 15 and 30 decreased between 2009 and 2011. Birth rates stayed about the same for women under age 15, ages 30-34 and ages 40-44. Birth rates increased slightly for women ages 35-39 and 45 and over (Figure 7).



PERCENTAGE OF TOTAL BIRTHS BY MATERNAL AGE, ORANGE COUNTY, 2011

Figure 5

For All Maternal Age Data:

Source: State of California, Department of Public Health, Birth Records

Population Source 2009: State of California, Department of Finance, Race/Hispanics Population with Age and Gender Detail, 2000–2010. Sacramento, California, September 2012.

Population Source 2010-2011: State of California, Department of Finance, Report P-3: State and County Population Projections by Race/Ethnicity, Detailed Age, and Gender, 2010-2060. Sacramento, California, January 2013.

Prepared by: County of Orange, Health Care Agency, April 2013/RM



NUMBER OF BIRTHS BY AGE OF MOTHER, ORANGE COUNTY, 2009-2011

Figure 6





Figure 7

| | | BIRTHS BY AGE OF MOTHER | | | | | | | | | | | |
|------|--------|-------------------------|-------|-------|--------|--------|-------|-------|-------------------|---------|--|--|--|
| YEAR | TOTAL | UNDER 15 | 15-19 | 20-24 | 25-29 | 30-34 | 35-39 | 40-44 | 45 AND OVER | UNKNOWN | | | |
| 2009 | 40,431 | 34 | 2,730 | 7,074 | 10,669 | 11,232 | 6,904 | 1,635 | 145 | 8 | | | |
| 2010 | 38,237 | 36 | 2,479 | 6,431 | 10,082 | 10,839 | 6,631 | 1,609 | 123 | 7 | | | |
| 2011 | 38,100 | 34 | 2,215 | 5,868 | 9,917 | 11,479 | 6,758 | 1,667 | 158 | 4 | | | |

BIRTH AND BIRTH RATE BY AGE OF MOTHER, ORANGE COUNTY, 2009-2011

| | BIR | BIRTHS BY AGE OF MOTHER, Rate per 1,000 Female Population | | | | | | | | | | |
|------|-----------------------|---|-------|-------|-------|-------|-------|-----------------------------|--|--|--|--|
| YEAR | UNDER 15 ² | 15-19 | 20-24 | 25-29 | 30-34 | 35-39 | 40-44 | 45 AND OVER ³ | | | | |
| 2009 | 0.3 | 25.3 | 70.1 | 103.7 | 114.7 | 62.3 | 14.3 | 1.2 | | | | |
| 2010 | 0.4 | 22.4 | 61.7 | 96.1 | 109.9 | 61.8 | 14.1 | 1.1 | | | | |
| 2011 | 0.3 | 20.1 | 54.9 | 94.3 | 114.3 | 64.9 | 14.4 | 1.4 | | | | |

Note: Birth rates are live births per 1,000 female population in specified age group. For women under 15, the birth rate is calculated using female population 10-14 years of age. For women 45 years and over, the birth rate is calculated using female population 45-49 years of age.

The majority of births in Orange County are to mothers between the ages of 25 and 34.

Insurance Coverage

Most children in Orange County are covered through private insurance (employer-provided, direct purchase, or through the military's TriCare insurance), and one-third of children are covered by public insurance (Medicare, Medi-Cal or other means-tested public insurance, or the military's Veteran's Affairs insurance). Eight (8%) of children ages 17 and younger are uninsured. See Figure 8. (*Analysis from the Children and Families Commission of Orange County, Health Care Access Report, 2013*)



Figure 8

Note: Children can be insured in more than one type of health insurance, thus percentages add up to more than 100%.

Source: U.S. Census, 2011

Most Orange County children (63%) are covered by private health insurance. Eight percent are uninsured. Between 2009 and 2011, the percentage of uninsured children in Orange County decreased from 10.4% to 8.2% of the total child population. Since the percentage of children with private insurance fell over this period, the decline in uninsured can be attributed to an increase in the percentage of children who are covered by public insurance, which rose from 26.8% in 2009 to 30.4% in 2011. (*Analysis from the Children and Families Commission of Orange County, Health Care Access Report, 2013*)



Figure 9

Source: U.S. Census, 2011

One-third of Orange County's children are covered by public health insurance (33%).

POTENTIAL RISK FACTORS

Prenatal care, maternal health behaviors and health status at birth may impact the health issues faced by children as they grow, and may be of special significance for children with special health care needs. Premature or low birth weight infants may face serious health problems as newborns and are at increased risk of long-term disability and impaired or delayed development. The following trends in potential risk factors are important to understand in the context of improving care coordination and the system of care for children with special health care needs, particularly the population aged birth to five years old.

Late or No Prenatal Care

The percentage of total births where prenatal care was not begun during the first trimester of pregnancy has hovered at 10% in the past 10 years, ranging from a low of 8.3% in 2005 to a high of 11.5% in 2009. See Figure 10.

PRENATAL CARE NOT BEGUN DURING THE FIRST TRIMESTER

20.0% 18.0% 16.0% 14.0% 11.5% 11.1% 10.7% 10.7% 12.0% 10.3% 9.6% 9.3% 10.0% 8.5% 8.4% 8.3% 8.0% 6.0% 4.0% 2.0% 0.0% 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011

ORANGE COUNTY, 2002-2011

Figure 10

Source: County Health Status Profiles

http://www.cdph.ca.gov/programs/ohir/Pages/CHSPPriorReports.aspx

Low and Very Low Birth Weight

In terms of total numbers, low birth weights decreased 5% and very low birth weights decreased 21%, along with the countywide decline in overall births (Figure 11). In terms of low birth weights as a percentage of all births, the percentages have remained fairly constant over 10 years, with low birth weights increasing from 5.1% to 5.5% of total births and very low birth weights decreasing from 1.0% to 0.9% of total births between 2001 and 2010 (Figure 12).





Figure 11





LOW WEIGHT BIRTHS AS A PERCENTAGE OF TOTAL BIRTHS, ORANGE COUNTY, 2002-2010

Figure 12

Source: 18th Annual Report on the Conditions of Children

8/23/2013

Preterm Births

Total number of preterm births (between 17 and 36 weeks) have declined from 4,591 in 2001 to 3,450 in 2010. Preterm births as a percent of total births has also declined from 10.1% (2001) to 9.1% (2010). See Figure 13.



NUMBER AND PERCENT OF PRETERM BIRTHS, ORANGE COUNTY, 2001-2010

Figure 13

Source: 18th Annual Report on the Conditions of Children

Birth Outcome

The following text and charts include information about birth outcomes for children born in Orange County, including both "point in time" data for 2010 as well as trend data for 2002–2010. The overall trend in birth outcomes is provided as well as detailed information about the type of outcome and length of hospital stay based on outcome.

Overall Trend

The percentage of newborns with a diagnosis at discharge indicating some level of special care required has increased over the past 10 years (Figure 14).

BIRTH OUTCOME: SOME LEVEL OF SPECIAL CARE REQUIRED



ORANGE COUNTY, 2002-2010

Figure 14

Source: Office of Statewide Health Planning and Development; data provided by MOMS Orange County

A greater percentage of Orange County newborns require some level of special care at hospital discharge than 10 years ago.

Birth Outcome Detail and Hospital Stay, 2010

While approximately 70% of babies born in Orange County in 2010 were classified as normal newborns, the remaining 30% had some type of problem and required additional care in the hospital. Extreme immaturity and premature births accounted for 7.4% of the births; however, 22.6% of full term babies also had some sort of problem and required a longer hospital stay. Babies who were born extremely early or had respiratory distress syndrome had an average hospital stay of 44 days. This is compared to 2.1 days for normal newborns.

| Birth Outcome and Average Hospital Stay (in Days) | | | | | | | | | |
|---|---------------------|----------------------|---------------------------|--|--|--|--|--|--|
| Orange County, 2010 | | | | | | | | | |
| | Number of Births | Percent of Births | Average Stay (Days) | | | | | | |
| Extreme Immaturity or Respiratory Distress | | | | | | | | | |
| Syndrome | 445 | 1.2% | 44.0 | | | | | | |
| Premature with major problems | 700 | 1.8% | 20.0 | | | | | | |
| Premature without major problems | 1,722 | 4.4% | 5.7 | | | | | | |
| Full term neonate with major problems | 1,485 | 3.8% | 6.4 | | | | | | |
| Neonate with other significant problems | 7,266 | 18.8% | 2.5 | | | | | | |
| Normal newborn | 27,073 | 70.0% | 2.1 | | | | | | |

Source: Inpatient Hospital Discharge Report, Office of Statewide Planning and Development, analysis from the Children and Families Commission of Orange County, Health Care Access Report, 2013

Note: Premature is defined as 37 weeks or less.

Birth Outcome – Outcome Detail and Hospital Stay, 2002-2010

Between 2002 and 2010, the number of neonates born with significant problems increased 53%, while the number of newborns born "normal" decreased 23%. The number of children born with extreme immaturity or respiratory distress syndrome has remained relatively constant. See Figure 15.

Additionally, the length of the average hospital stay has remained relatively constant for normal newborns and neonates with other significant problems. However, for premature babies without major problems, the average length of stay increased 39%, from 4.1 days in 2002 to 5.7 days in 2010. This amounts to an annual average increase of 4%. Similarly, babies born extremely premature are now staying in the hospital 21% longer, from 36.5 days in 2002 to 44.0 days (a 2% average annual increase). See Figure 16.

While there has been a steady decline in the number of births in the county, there has been an overall increase in the percent of newborns utilizing Neonatal Intensive Care Units (NICU) (Figure 17).



BIRTH OUTCOME



Source: Inpatient Hospital discharge Report, Office of Statewide Planning and Development



AVERAGE LENGTH OF NEONATAL HOSPITAL STAY (DAYS), ORANGE COUNTY, 2002-2010

Figure 16

Source: Inpatient Hospital discharge Report, Office of Statewide Planning and Development



Percent of Newborns Utilizing NICU and Number of Births, Orange County, 2002-2011

Figure 17

Sources: Hospital Annual Utilization Database, Office of Statewide Planning and Development, California Department of Public Health

Maternal Depression

2010 data from the Maternal and Infant Health Assessment (MIHA) Survey indicate that 14.9% of Orange County mothers reported prenatal depression, consistent with 15% of mothers statewide. See Figure 18. (Trend data not available.)

Substance Abuse

The same MIHA survey showed 2.0% of Orange County mothers smoked and 10.5% reported alcohol use during the first or third trimester of pregnancy in 2010 compared with statewide rates of 5.6% and 12.1%, respectively. See Figure 18. (Trend data not available.)



MATERNAL DEPRESSION AND SUBSTANCE ABUSE, ORANGE COUNTY, 2010

Figure 18

Sources: Maternal and Infant Health Assessment Survey, California Department of Public Health

Nearly 15% of Orange County mothers reported prenatal depression.

CHILDREN WITH SPECIAL HEALTH CARE NEEDS

Help Me Grow Orange County

Help Me Grow Orange County is a comprehensive, coordinated system designed to assist child health care providers, other professionals, and families in improving developmental outcomes for children, birth through age five. One of the core components of the system is a centralized call center staffed by care coordinators who assist families and professionals in connecting children to appropriate programs and services. Utilizing a toll free number and online portal, Help Me Grow Orange County connects children and their families to developmental services to enhance the development, behavior and learning of young children living in Orange County.

CHILDREN WITH DEVELOPMENTAL DISORDERS OR HEALTH ISSUES

| | 2010 | | 2011 | | 2012 | | |
|---|--|------------------|--|----------------------------|--|------------------|--|
| Measured by Intake Entry in Client Tracking System** | Measured by Intake Entry in Client Tracking System** | | Measured by In in Client Tr System | take Entry acking ** | Measured by Intake Entry in Client Tracking System** | | |
| Age | Developmental Disorders | Health Issues | Developmental Disorders | Health Issues | Developmental Disorders | Health Issues | |
| Birth to 1 | 24 | 64 | 15 | 36 | 20 | 42 | |
| 1 | 70 | 97 | 59 | 83 | 50 | 60 | |
| 2 | 106 | 86 | 127 | 81 | 93 | 83 | |
| 3 | 103 | 57 | 110 | 94 | 114 | 70 | |
| 4 | 78 | 58 | 116 | 95 | 91 | 49 | |
| 5 | 67 38 | | 69 36 | | 54 | 37 | |
| Total 0-5 | 448 | 448 400 | | 425 | 422 | 341 | |

MEASURED BY INTAKE ENTRY IN HELP ME GROW CLIENT TRACKING SYSTEM**

Note: Developmental Disorders and Health Issues are not mutually exclusive categories therefore the same child can be in both categories

** Information gathered from parent/caregiver at the time of the initial entry

TOTAL NUMBER OF CHILDREN SERVED BY HELP ME GROW AS MEASURED BY INTAKE ENTRY IN CLIENT TRACKING SYSTEM (STAR)

| Age | 2010 | 2011 | 2012 | |
|------------|----------------------|----------------------|----------------------|--|
| | Total served /Intake | Total served /Intake | Total served /Intake | |
| Birth to 1 | 203 | 174 | 182 | |
| 1 | 444 | 376 | 346 | |
| 2 | 579 | 440 | 384 | |
| 3 | 425 | 412 | 355 | |
| 4 | 339 | 339 | 274 | |
| 5 | 170 | 143 | 132 | |
| Total 0-5 | 2160 | 1884 | 1673 | |

Each year is a unique count therefore a child is counted only once and would not be included in the subsequent years.

CHILDREN WITH DEVELOPMENTAL DISORDERS OR HEALTH ISSUES AS A PERCENT OF TOTAL

CHILDREN SERVED

| | 2010 | | 2011 | | 2012 | | |
|---|--|------------------|--|----------------------------|--|------------------|--|
| Measured by Intake Entry in Client Tracking System** | Measured by Intake Entry in Client Tracking System** | | Measured by In in Client Tr System | take Entry acking ** | Measured by Intake Entry in Client Tracking System** | | |
| Age | Developmental Disorders | Health Issues | Developmental Disorders | Health Issues | Developmental Disorders | Health Issues | |
| 0-5 | 21% | 19% | 26% | 23% | 25% | 20% | |

Top health issues cited by parents or caregivers for children ages 0-5 between 2010 and 2012 were:

- prematurity (445 children or 34%);
- asthma (228 children or 17%); and
- allergies (200 children or 15%).

Top developmental disorders cited by parents or caregivers for children ages 0-5 between 2010 and 2012 were:

- speech/language disorder (597 children or 45%);
- \circ autism/autism spectrum disorder (301 children or 22%); and
- o developmental delay (174 children or 13%).

High Risk Infant (HRIF) Program

The Children's Hospital of Orange County(CHOC) and University of California, Irvine Medical Center (UCI) operate high risk infant programs that together serve a majority of infants in Orange County requiring services at a neonatal intensive care unit. The total number of infants in the HRIF Program has declined 4.5% from 397 in 2009 to 379 in 2012. See Figure 19. The percentage of infants with a birth weight of 1500 grams or less has also decreased from 58% of HRIF infants to 50% between 2009 and 2011 (Figure 20). Of the infants in the HRIF Program, multiples comprised 20% of births in 2012, down from 22% in 2009.

The number of HRIF infants with a gestational age of 27 weeks or less was 76 in 2012, down from 99 in 2009. HRIF infants born between 28 and 31 weeks decreased from 148 in 2009 to 144 in 2012. The percent of all HRIF infants who are less than 32 weeks gestational age decreased from 62% to 58% between 2009 and 2012 (Figure 21).

NUMBER OF HIGH RISK INFANTS BY BIRTH WEIGHT



CHOC AND UCI, 2009-2012

Figure 19

Source: Early Developmental Assessment Centers at CHOC and University of California, Irvine



PERCENT OF HRIF BIRTHS 1500 GRAMS OR LESS

Figure 20

Source: Early Developmental Assessment Centers at CHOC and University of California, Irvine



HIGH RISK INFANTS, GESTATIONAL AGE (UNDER 32 WEEKS) CHOC AND UCI, 2009-2012

Figure 21

Source: Early Developmental Assessment Centers at CHOC and University of California, Irvine

The High Risk Infant programs track children served at three core visits. Core Visit 1 occurs at between four and eight months; Core Visit 2 is between 12 and 16 months, and Core Visit 3 is between 18 and 36 months. At each visit, the following information is reported:

- Hospitalization since discharge from the hospital or since last visit.
- Whether the child is receiving or referred for medical services, and for which services.
- Whether the child is receiving or referred for special services, and for which services.
- Multiple items are included in the assessment, among them, visual impairment, hearing loss, cerebral palsy (or suspect for cerebral palsy), and whether the child was screened and referred for autism spectrum disorder.

Core Visit 1 (4-6 months): Between a quarter and a third of HRIF infants had been hospitalized since their original hospital discharge, and a majority of these children were receiving or being referred for both medical and special services. See Figures 22 and 23.







Figure 23

Core Visit 2 (12-16 months): At the second core visit, between 15% and 29% of HRIF children had been hospitalized since the last visit, with a majority of these children continuing to receive or be referred for medical and special services. See Figures 24 and 25.



Figure 24





Core Visit 3 (18-36 months): At the third core visit, between 15% and 20% of HRIF children had been hospitalized since the last visit. Again, a majority of these children continued to receive or be referred for medical and special services. See Figures 26 and 27.



Figure 26



Figure 27

Source for all HRIF Core Visit Data: CHOC/UCI Early Developmental Assessment Center

Note: The years on the charts refer to the children's birth year.

The top reasons for medical services referral at Core Visit 1 included ophthalmology, cardiology, pulmonology, gastroenterology, surgery, and neurology. At the second and third core visits, ENT joined the list of top reasons for medical service.

The top referrals for special services at the Core Visit 1 included physical therapy, visiting nurse, feeding therapy, occupational therapy and infant development. At the second and third core visits, speech and language and hearing services were added as top referrals for services needed.

No discernible pattern was evident among the core visits in terms of children who were referred for medical or special services, but who were not receiving services. The percentage of children seen where Cerebral Palsy was suspected or confirmed ranged from less than 1% to 4%. Visual impairment ranged from 2% to 9% and hearing loss ranged from 1% to 6%.

If children were screened for autism spectrum disorder, the screening most likely occurred at the second or third core visit. EDAC uses the M-CHAT (Modified Checklist for Autism in Toddlers) screening tool for toddlers approximately 16-30 months of age (with a starting point of 16 months corrected age). Parents fill out the M-CHAT tool. While Core Visit 1 is typically too young for this screening tool, some patients that are around 16 months corrected age are referred to EDAC for the 1st core visit. If there is a "yes" result on the M-CHAT screen, the process is to refer the child for additional evaluation. However, some children are *not* referred, as parents may have answered certain things on the screening tool to be "yes" for possible autism spectrum, but the therapist had observed otherwise (then referral is not necessary). Also, if the child is severely delayed or has a history of extreme prematurity or the delay is due to multiple medical conditions (e.g., tracheostomy, G-tube, multiple surgeries), then the patient will not be referred, as certain behaviors are not in autistic nature but due to multiple medical conditions/extreme prematurity.

Most children in the high risk infant program receive or are referred for medical and/or special services.

AUTISM SCREENING, CHOC HRIF PROGRAM, 2009-2011

| | 2009 | | | 2010 | | | | 2011 | | |
|---|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|--|
| | Core Visit 1 | Core Visit 2 | Core Visit 3 | Core Visit 1 | Core Visit 2 | Core Visit 3 | Core Visit 1 | Core Visit 2 | Core Visit 3 | |
| Children Seen | 180 | 124 | 92 | 201 | 152 | 98 | 232 | 152 | 7 | |
| Children Screened (M-CHAT) | 2 | 9 | 50 | 2 | 23 | 77 | 0 | 30 | 7 | |
| Children Referred for Further Assessment | 0 | 0 | 4 | 0 | 2 | 7 | 0 | 0 | 7 | |
| Percent of Children Seen who were Screened | 1% | 7% | 54% | 1% | 15% | 79% | 0% | 20% | 100% | |

Source: CHOC/UCI Early Developmental Assessment Center

AUTISM SCREENING, UCI HRIF PROGRAM, 2009-2011

| | 2009 | | | 2010 | | | | 2011 | | |
|---|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|--|
| | Core Visit 1 | Core Visit 2 | Core Visit 3 | Core Visit 1 | Core Visit 2 | Core Visit 3 | Core Visit 1 | Core Visit 2 | Core Visit 3 | |
| Children Seen | 121 | 85 | 66 | 85 | 69 | 45 | 72 | 49 | 3 | |
| Children Screened (M-CHAT) | 0 | 6 | 54 | 1 | 15 | 36 | 1 | 15 | 1 | |
| Children Referred for Further Assessment | 0 | 4 | 12 | 0 | 6 | 6 | 0 | 1 | 0 | |
| Percent of Children Seen who were Screened | 0% | 7% | 82% | 1% | 22% | 80% | 1% | 31% | 33% | |

Source: CHOC/UCI Early Developmental Assessment Center

California Children's Services

The California Children's Service (CCS) program helps ensure access to essential health care services for children ages 0-21 with certain serious diseases. A total of 4,064 Orange County children ages zero through 5 years old were enrolled in the California Children's Services program as of March 2013 (trend data not available). See Figure 28.





Figure 28

Source: California Children's Services

Regional Center of Orange County (RCOC)

Early Start

Infants and toddlers (up to 36 months of age) with a developmental delay or disability or who have certain risk factors are eligible for early intervention services through RCOC. Funded by the federal government, this early intervention program is called "Early Start" in California. Created by the Early Intervention Services Act, California's Early Start program serves infants and young children under age three who are considered "high risk" for developmental disability due to, for example, significant delay in one or more developmental areas or certain medical problems and complications. In recent years, the California Legislature has narrowed eligibility for Early Start. Previously, any child under three who was suspected of being at-risk for developmental disability could receive Early Start services. (*Source: CA Department of Developmental Services*)

The number of Orange County children enrolled in Early Start has decreased from 3,412 in 2008 to 2,553 in 2012. Births in Orange County have decreased at the same time, with Early Start cases as a percentage of the 0-3 population hovering around 2%. See Figure 29.

New Early Start Cases (2008-2012) and Cases as Percentage of Total Population ages 0-3 (2008-2010), Orange County



Figure 29

Source: Regional Center of Orange County

Note: 0-3 age cohort data not available for 2011 and 2012.

Lanterman Act Services

To be eligible for services and supports under California's Lanterman Developmental Disabilities Services Act, adults and children ages three and older must have a developmental disability. A developmental disability is defined as a disability that is attributable to any of the following conditions: intellectual disability (formerly referred to as mental retardation), cerebral palsy, epilepsy, autism and disabling conditions found to be closely related to intellectual/cognitive disability or to require treatment similar to that required for individuals with intellectual disabilities.

If a child younger than three years of age is eligible under Lanterman, he/she would also be included in the Early Start program. If a child is in Early Start, he/she will have eligibility determined at or before age three for services under the Lanterman Act (lifelong services for a disability). Of the almost 200 children exiting early start services each month, an average of 10% are found eligible for Lanterman services. The remaining 90% transition into either preschool services through the Local Education Agency (LEA) or community resources, such as Head Start and private pre-schools.

The proportion of new Lanterman cases for children from birth through age five in Orange County decreased 14% between 2008 and 2012 from a total of 574 cases in 2008 to 496 cases in 2012 (Figure 30).



New Lanterman Cases Orange County, Ages 0-5



Source: Regional Center of Orange County

Children with Autism served by RCOC

Many of the children served by the Regional Center have an autism diagnosis.

| Children with a Diagnosis of Autism Served by RCOC, July 2012 | | | | | | | | |
|---|-----------------------|-----------------------|------------------------|--|--|--|--|--|
| | Number of Children | Number with Autism | Percent with Autism | | | | | |
| 3-4 years of age | 731 | 308 | 42.1% | | | | | |
| 5-9 years of age | 2140 | 1088 | 50.8% | | | | | |
| 10-14 years of age | 1877 | 853 | 45.4% | | | | | |
| 15-18 years of age | 1541 | 626 | 40.6% | | | | | |

Source: Health Care Access Report, June 2013, Children and Families Commission of Orange County

42% of three- and four-year olds served by Regional Center of Orange County have a diagnosis of autism.

County of Orange Social Services Agency (SSA)

The County of Orange Social Services Agency (SSA) provides Child Protective Services (CPS) to children, many of whom have special health care needs. SSA identifies special needs in the following categories: Physical, Behavioral, Emotional, and Developmental. Each child is reported only once – if a child has multiple needs, the highest-level category is selected for the year being reported.

The total number of active CPS cases for children younger than seven served by SSA remained relatively constant between 2002 and 2012, increasing 1.5% during that period. Of those active cases, the number of children with special needs decreased 31% during the same 10-year period. In 2002, 87% of all active SSA cases represented children with special needs. In 2012, that proportion decreased to 59%. See Figure 31. By far, the greatest special need category identified is Physical, followed by Developmental (Figure 32).

PERCENT OF CHILDREN SERVED (ACTIVE CASES) WITH SPECIAL NEEDS, 2002-2012



Figure 31

Source: County of Orange, Social Services Agency

SPECIAL NEED CLASSIFICATION FOR CHILDREN AGES 0-6 SOCIAL SERVICES AGENCY ACTIVE CASES, 2012



Figure 32

Source: County of Orange, Social Services Agency

Orange County School Districts

Data from Orange County School Districts and the California Department of Education are primarily focused on the K-12 population. However, Orange County school districts do report to the California Department of Education some numbers of children in special education who are younger than six. Because there are no total 'enrollment' numbers by age for these young ages it is not possible to calculate a percentage of children with special needs out of total enrollment. Pure numbers are provided on the following page. The categories of Speech and Language Impairment and Autism have higher numbers in this age group, therefore trends for these categories (numbers only, not percent) are provided on the next pages.

| | Special Education Enrollment by Age and Disability | | | | | | | | | | | | |
|-------|--|------|--------------------|--------------------------|--------------------|-----------------------|------------------------|--------------------------|-------------------------------|------------------------------------|-----------------------------------|------------------------------|----------------------|
| | Orange County, 2011/12 | | | | | | | | | | | | |
| Age | Autism | Deaf | Deaf- Blindness | Emotional Disturbance | Hard of Hearing | Mental Retardation | Multiple Disability | Orthopedic Impairment | Other Health Impairment | Specific Learning Disability | Speech/ Language Impairment | Traumatic Brain Injury | Visual Impairment |
| <1 | 0 | 0 | 0 | 0 | 36 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 1 |
| 1 | 0 | 2 | 0 | 0 | 51 | 2 | 3 | 10 | 0 | 0 | 0 | 0 | 1 |
| 2 | 3 | 7 | 0 | 0 | 48 | 4 | 7 | 11 | 2 | 0 | 20 | 0 | 3 |
| 3 | 516 | 14 | 1 | 0 | 26 | 84 | 30 | 33 | 97 | 1 | 1,174 | 0 | 8 |
| 4 | 637 | 13 | 0 | 0 | 28 | 94 | 29 | 53 | 85 | 2 | 1,451 | 2 | 12 |
| 5 | 688 | 14 | 1 | 1 | 29 | 95 | 19 | 56 | 116 | 13 | 1,618 | 1 | 12 |
| Total | | | | | | | | | | | | | |
| 0-5 | 1844 | 50 | 2 | 1 | 218 | 279 | 88 | 167 | 300 | 16 | 4263 | 3 | 37 |

Speech and Language Impairment

While there was variation from year-to-year, the number of three-, four- and five-year olds in special education with speech and language impairment have grown over the past five years (Figure 33). At most in any given year, five children aged one year old were enrolled with speech and language impairment, and up to 25 children ages two years old.



SPECIAL NEEDS ENROLLMENT, SPEECH AND LANGUAGE IMPAIRMENT, 2008-2012

Autism

The number of children in special education with autism increased since 2007-08 for children between two and six years old. No children aged one were enrolled with autism and at most three children ages two years old were enrolled with autism in any given year (Figure 34).



SPECIAL NEEDS ENROLLMENT, AUTISM, 2008-2012

Figure 34 Source: California Department of Education

Figure 33 Source: California Department of Education

K-12 Students

The number of children receiving special education services through the school districts has remained relatively stable over the past 10 years (about 51,000 children each year). See Figure 35. However, between 2003 and 2012, there was a threefold (306%) increase in the number of children with autism receiving special education services and a 55% increase in the number of children with "other" disabilities (traumatic brain injury, orthopedic impairment, emotional disturbance, multiple disabilities and other health impairments). On the other hand, the number of children with a specific learning disability decreased 32%.



K-12 STUDENTS RECEIVING SPECIAL EDUCATION SERVICES BY TYPE OF DISABILITY, 2003-2012

Figure 35

Source: California Department of Education

OTHER INDICATORS

The participants of OC C3 for Kids desire to include data related to chronic disease such as obesity and asthma. However, only asthma data were available and are presented below.

Asthma

Asthma prevalence among children ages one to 18 has decreased in Orange County since 2003. As of 2009, 7.4% of children in Orange County had been diagnosed with asthma at some point in their lives, lower than the California average (13.4%) and the national average (9.6%). Among children ages one to five, 4.7% had a diagnosis of asthma. By age, youth between six and 11 years had the highest prevalence of asthma diagnoses. By gender, males had a higher percentage of asthma diagnoses (8.6% males compared to 6.1% females); as did higher incomes (9.1%). See Figure 36.



CHILDREN EVER DIAGNOSED WITH ASTHMA (AGE, ETHNIC, SEX, AND INCOME DETAIL), ORANGE COUNTY, 2009

Figure 36

Source: University of California, Los Angeles, Center for Health Policy Research, California Health Interview Survey (<u>www.chis.ucla.edu</u>); Orange County Community Indicators Report

Note: Estimates for the subpopulations "Young Child" and "Asian" are considered unstable and should be interpreted with caution. The income brackets relate to the 2009 Federal Poverty Guidelines. For a family of four: "Low" is \$44,100 or below, "Middle" is between \$44,101 and \$88,200, and "High" is \$88,201 and above.

Indicators to Include if Data Becomes Available

- 1. Mental Health possible sources include the County Mental Health/Behavioral Health, school districts/*Orange County Special Education Local Plan Areas (SELPAS)*.
- 2. Public Health Nursing data about children with special needs that get a visit from Public Health Nurse (PHN) (CalWorks is one subset)
- 3. Obesity data from four Women, Infants and Children (WICs) in Orange County.

Conclusion

The process of gathering data for this trend report helped clarify what we know, and also what we don't know, about Orange County's young children with special health care needs, along with potential risk factors that may lead to special health care needs. This report will be used to guide the Orange County Care Coordination Collaborative For Kids (OC C3 For Kids) as an improved care coordination system is developed. Additionally, this report will be used to raise awareness in the community - including policy makers, health care providers, parents and caregivers - about the work of OC C3 For Kids. It will also help develop processes to better advocate for changes in Orange County's systems of care, from management to funding to provision of service. As OC C3 For Kids work continues, this report will be updated and incorporated into sustainability efforts.

APPENDIX A

ORANGE COUNTY CARE COORDINATION COLLABORATIVE FOR KIDS (OC C3 FOR KIDS)

American Academy of Pediatrics, Chapter 4 Bridges Maternal Child Health Network Burke Consulting California Children's Services CalOptima Center for Autism and Neurodevelopmental Disorders of SC Children and Families Commission of Orange County CHOC Children's Foundation CM Consulting OC Comfort Connection Family Resource Center Early Development Assessment Center Family Support Network Help Me Grow Orange County Kern County Medically Vulnerable Care Coordination Project Orange County Department of Education, Center for Healthy Kids and Schools Orange County Health Care Agency Orange County Social Services Agency Regional Center of Orange County School Readiness Nurses

APPENDIX B: DATA TABLES

Child Population, Orange County: 2005-2007 - 2009-2011

| Year | Number of Children |
|-----------|--------------------|
| 2005-2007 | 772,715 |
| 2006-2008 | 767,427 |
| 2007-2009 | 752,822 |
| 2008-2010 | 738,042 |
| 2009-2011 | 737,150 |

Definition: Estimated population ages 0-17.

Data Source: U.S. Census Bureau, American Community Survey. Accessed at http://factfinder2.census.gov (Dec. 2012).

Child Population, Orange County, by Race/Ethnicity: 2010

| Race/Ethnicity | Percent of Population | Number of Children |
|----------------------------------|-----------------------|--------------------|
| African American/Black | 1.30% | 9,523 |
| American Indian | 0.20% | 1,202 |
| Asian American | 16.20% | 118,155 |
| Hispanic/Latino | 46.20% | 337,046 |
| Native Hawaiian/Pacific Islander | 0.30% | 2,058 |
| White | 31.80% | 232,143 |
| Multiracial | 4.00% | 29,146 |
| Total | 100.00% | 729,273 |

Definition: Percentage of the population under age 18, by race/ethnicity.

Data Source: California Department of Finance, Estimates of Race/Ethnic Population with Age and Gender Detail, 1990-1999, 2000-2010. Accessed online at http://www.dof.ca.gov/research/demographic/data/ (October 2012).

Live Births in Orange County, 2002-2011

| Year | Number of Births |
|------|------------------|
| 2002 | 44,796 |
| 2003 | 45,366 |
| 2004 | 45,060 |
| 2005 | 44,065 |
| 2006 | 44,231 |
| 2007 | 44,026 |
| 2008 | 42,456 |
| 2009 | 40,431 |
| 2010 | 38,237 |
| 2011 | 38,100 |

Source: http://www.dof.ca.gov/research/demographic/reports/projections/births/ Health Care Agency data from OCCIR

| Year | Number of Projected Births |
|------|----------------------------|
| 2012 | 38,138 |
| 2013 | 38,893 |
| 2014 | 39,266 |
| 2015 | 39,509 |
| 2016 | 39,681 |
| 2017 | 40,442 |
| 2018 | 41,051 |
| 2019 | 41,183 |
| 2020 | 41,372 |
| 2021 | 41,482 |

Projected Births, Orange County, 2012-2021

Sources: Actual births thru 2011, CA Dept. of Public Health, Ctr. for Health Statistics. Projected births: Demographic Research Unit.

Number of Live Births by Age of Mother, Orange County, 2009-2011 (By Place of Residence)

| | | | BIRTHS BY AGE OF MOTHER | | | | | | | | | |
|------|--------|----------|-------------------------|-------|--------|--------|-------|-------|--------|---------|--|--|
| | | | 15 10 | | 25.20 | 22.24 | 25.20 | | 45 AND | | | |
| YEAR | IOTAL | UNDER 15 | 15-19 | 20-24 | 25-29 | 30-34 | 35-39 | 40-44 | OVER | UNKNOWN | | |
| 2009 | 40,431 | 34 | 2,730 | 7,074 | 10,669 | 11,232 | 6,904 | 1,635 | 145 | 8 | | |
| 2010 | 38,237 | 36 | 2,479 | 6,431 | 10,082 | 10,839 | 6,631 | 1,609 | 123 | 7 | | |
| 2011 | 38,100 | 34 | 2,215 | 5,868 | 9,917 | 11,479 | 6,758 | 1,667 | 158 | 4 | | |

General Fertility Rates, Total Fertility Rates, and Birth Rates by Age of Mother, 2009-2011 (By Place of Residence)

| | | | | BIRTHS BY AGE OF MOTHER | | | | | | | | |
|------|------------------------------|---|--------------------------|-------------------------|-------|-------|-------|-------|-------|-----------------------------|--|--|
| YEAR | GENERAL FERTILITY RATE | TOTAL FERTILITY RATE ^{2,3} | UNDER 15 ² | 15-19 | 20-24 | 25-29 | 30-34 | 35-39 | 40-44 | 45 AND OVER ³ | | |
| 2009 | 63.4 | 1,952.2 | 0.3 | 25.3 | 70.1 | 103.7 | 114.7 | 62.3 | 14.3 | 1.2 | | |
| 2010 | 59.4 | 1,829.1 | 0.4 | 22.4 | 61.7 | 96.1 | 109.9 | 61.8 | 14.1 | 1.1 | | |
| 2011 | 59.0 | 1,815.2 | 0.3 | 20.1 | 54.9 | 94.3 | 114.3 | 64.9 | 14.4 | 1.4 | | |

²For women under 15, the birth rate is calculated using female population 10-14 years-of-age.

³For women 45 years and over, the birth rate is calculated using female population 45-49 years-of-age.

SOURCE: State of California, Department of Public Health, Birth Records

PREPARED BY: County of Orange, Health Care Agency, April 2013/RM

| | Private | Public | Uninsured |
|------------------|---------|---------|-----------|
| Under 6 years: | 135,295 | 93,159 | 12,956 |
| 6 to 17 years: | 328,738 | 152,294 | 47,489 |
| Birth through 17 | 464,033 | 245,453 | 60,445 |

Health Insurance by Type and Age, Orange County, 2011

Source: U.S. Census, 2011

| Children's | Health | Insurance | Coverage | Trends, | Orange | County | 2009-2011 |
|------------|--------|-----------|----------|---------|--------|--------|-----------|
| | | | | , | | •/ | |

| | 2009 | 2010 | 2011 |
|-------------|---------|---------|---------|
| Private | 442,963 | 433,617 | 421,253 |
| Public | 202,178 | 200,915 | 223,739 |
| Combination | 31,077 | 27,184 | 31,226 |
| Uninsured | 78,738 | 71,496 | 60,445 |
| Total | 754,956 | 733,212 | 736,663 |

Source: U.S. Census, 2011

| | | Number Late/No | |
|-----------------|--------------|----------------|------------|
| Year (3-Yr Avg) | Total Births | Prenatal Care | Percentage |
| 2000-2002 | 45,286.3 | 4,679.7 | 10.3% |
| 2001-2003 | 45,090.7 | 4,176.7 | 9.3% |
| 2002-2004 | 44,936.7 | 3,818.3 | 8.5% |
| 2003-2005 | 44,691.0 | 3,703.0 | 8.3% |
| 2004-2006 | 44,318.3 | 3,723.0 | 8.4% |
| 2005-2007 | 43,952.0 | 4,198.7 | 9.6% |
| 2006-2008 | 43,374.0 | 4,629.3 | 10.7% |
| 2007-2009 | 42,043.3 | 4,828.7 | 11.5% |
| 2008-2010 | 40,109.3 | 4,464.3 | 11.1% |
| 2009-2011 | 38,154.70 | 4,476.4 | 10.7% |

Prenatal Care Not Begun During the First Trimester, Orange County, 2002-2011

Source: County Health status Profiles

http://www.cdph.ca.gov/programs/ohir/Pages/CHSPPriorReports.aspx

| | | Low Birth Weight (includes | |
|------|--------------|----------------------------|-----------------------|
| Year | Total Births | very low birth weight) | Very Low Birth Weight |
| 2001 | | 2666 | 461 |
| 2002 | 44,796 | 2710 | 431 |
| 2003 | 45,366 | 2718 | 454 |
| 2004 | 45,060 | 2782 | 478 |
| 2005 | 44,065 | 2826 | 457 |
| 2006 | 44,231 | 2816 | 479 |
| 2007 | 44,026 | 2879 | 494 |
| 2008 | 42,456 | 2705 | 417 |
| 2009 | 40,431 | 2670 | 406 |
| 2010 | 38,237 | 2462 | 362 |

Number of Births with Low or Very Low Birth Weight, Orange County 2001-2010

Source: <u>http://www.oshpd.ca.gov/HID/Products/PatDischargeData/ResearchReports/Hospipqualind/vol-util_indicatorsrpt/2011Util.pdf</u>

Percent of Births with Low or Very Low Birth Weight, Orange County 2002-2010

| Year | Very Low Birth Weight | Low Birth Weight |
|------|-----------------------|------------------|
| 2002 | 1.0% | 5.1% |
| 2003 | 1.0% | 5.0% |
| 2004 | 1.1% | 5.1% |
| 2005 | 1.0% | 5.4% |
| 2006 | 1.1% | 5.3% |
| 2007 | 1.1% | 5.4% |
| 2008 | 1.0% | 5.4% |
| 2009 | 1.0% | 5.6% |
| 2010 | 0.9% | 5.5% |

Source: <u>http://www.oshpd.ca.gov/HID/Products/PatDischargeData/ResearchReports/Hospipqualind/vol-util_indicatorsrpt/2011Util.pdf</u>

Preterm Births, Orange County 2001-2010

| | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 |
|--------------------------|------|------|------|------|------|------|------|------|------|------|
| Number of Preterm Births | 4591 | 4416 | 4550 | 4415 | 4335 | 4158 | 4315 | 4033 | 3800 | 3450 |
| Percent of Total Births | 10.1 | 10 | 10.1 | 9.8 | 9.8 | 9.4 | 9.8 | 9.5 | 9.4 | 9.1 |

Source: County Health Status Profiles

http://www.cdph.ca.gov/programs/ohir/Pages/CHSPPriorReports.aspx

| | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 |
|---|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Extreme Immaturity or Respiratory | | | | | | | | | |
| Distress Syndrome | 482 | 507 | 447 | 488 | 467 | 534 | 435 | 476 | 445 |
| Premature (with or without major | | | | | | | | | |
| problems) | 2,612 | 2,237 | 2,467 | 2,474 | 2,577 | 2,586 | 2,656 | 2,587 | 2,422 |
| Full term neonate with major problems | 1,820 | 1,246 | 1,234 | 1,244 | 1,420 | 1,400 | 1,301 | 1,389 | 1,485 |
| Neonate with other significant problems | 4,741 | 5,425 | 5,393 | 5,470 | 5,943 | 6,751 | 7,257 | 7,703 | 7,266 |
| | 35,25 | 36,20 | 35,89 | 34,96 | 34,41 | 33,42 | 30,63 | 28,15 | 27,07 |
| Normal newborn | 0 | 0 | 9 | 0 | 3 | 7 | 0 | 0 | 3 |
| | 44,90 | 45,61 | 45,44 | 44,63 | 44,82 | 44,69 | 42,27 | 40,30 | 38,69 |
| TOTAL | 5 | 5 | 0 | 6 | 0 | 8 | 9 | 5 | 1 |

Number of Children with Specified Birth Outcome, Orange County, 2002-2010

Source: Inpatient Hospital Discharge Report, Office of Statewide Planning and Development, analysis from the Children and Families Commission of Orange County, Health Care Access Report, 2013 Note: Premature is defined as 37 weeks or less.

| | # of Births | % of Births | Avg Stay (Days) |
|---|-------------|-------------|-----------------|
| Extreme Immaturity or Respiratory Distress Syndrome | 445 | 1.2% | 44.0 |
| Premature with major problems | 700 | 1.8% | 20.0 |
| Premature without major problems | 1,722 | 4.5% | 5.7 |
| Full term neonate with major problems | 1,485 | 3.8% | 6.4 |
| Neonate with other significant problems | 7,266 | 18.8% | 2.5 |
| Normal newborn | 27,073 | 70.0% | 2.1 |

Status of Birth and Average Hospital Stay (in Days), Orange County, 2010

Sources: Hospital Annual Utilization Database, Office of Statewide Planning and Development, California Department of Public Health

Number of Births and Percent Using NICU, Orange County 2002-2011

| Year | Births | Percent using NICU | Number Using NICU |
|------|--------|--------------------|-------------------|
| 2002 | 44,796 | 7.5% | 3,376 |
| 2003 | 45,366 | 7.7% | 3,486 |
| 2004 | 45,060 | 7.1% | 3,190 |
| 2005 | 44,065 | 7.0% | 3,085 |
| 2006 | 44,231 | 7.1% | 3,125 |
| 2007 | 44,026 | 9.7% | 4,256 |
| 2008 | 42,456 | 8.1% | 3,457 |
| 2009 | 40,431 | 9.8% | 3,976 |
| 2010 | 38,237 | 10.0% | 3,805 |
| 2011 | 38,100 | 10.5% | 4,015 |

Sources: Hospital Annual Utilization Database, Office of Statewide Planning and Development, California Department of Public Health

| indernal Depression, Smoking and meenor ese, orange | | | | | |
|---|------------------|------------|--|--|--|
| | Orange County | California | | | |
| Maternal Depression | 14.9% | 15.0% | | | |
| Maternal Smoking | 2.0% | 5.6% | | | |
| Maternal Alcohol Use | 10.5% | 12.1% | | | |

Maternal Depression, Smoking and Alcohol Use, Orange County and California, 2010

Sources: Maternal and Infant Health Assessment Survey, California Department of Public Health

Help Me Grow Orange County Data

Children with Developmental Disorders or Health Issues

| | 2010 | | 2011 | | 2012 | |
|--------------|--------------------|----------|-----------------|----------|-----------------|----------|
| Measured by | Measured by Intake | | Measured by | Intake | Measured by 2 | Intake |
| Intake Entry | Entry in Client | Fracking | Entry in Client | Fracking | Entry in Client | Fracking |
| in Client | System* | | System* | | System* | * |
| Tracking | | | | | | |
| System** | | | | | | |
| Age | Developmental | Health | Developmental | Health | Developmental | Health |
| | Disorders | Issues | Disorders | Issues | Disorders | Issues |
| Birth to 1 | 24 | 64 | 15 | 36 | 20 | 42 |
| 1 | 70 | 97 | 59 | 83 | 50 | 60 |
| 2 | 106 | 86 | 127 | 81 | 93 | 83 |
| 3 | 103 | 57 | 110 | 94 | 114 | 70 |
| 4 | 78 | 58 | 116 | 95 | 91 | 49 |
| 5 | 67 | 38 | 69 | 36 | 54 | 37 |
| Total 0-5 | 448 | 400 | 496 | 425 | 422 | 341 |

Note: Developmental Disorders and Health Issues are not mutually exclusive categories therefore the same child can be in both categories

** Information gathered from parent/caregiver at the time of the initial entry

Help Me Grow Orange County Data

Total Number of Children Served

| Age | 2010 | 2011 | 2012 |
|------------|----------------------|----------------------|----------------------|
| | Total served /Intake | Total served /Intake | Total served /Intake |
| Birth to 1 | 203 | 174 | 182 |
| 1 | 444 | 376 | 346 |
| 2 | 579 | 440 | 384 |
| 3 | 425 | 412 | 355 |
| 4 | 339 | 339 | 274 |
| 5 | 170 | 143 | 132 |
| Total 0-5 | 2160 | 1884 | 1673 |

Each year is a unique count therefore a child is counted only once and would not be included in the subsequent years.

Source: Help Me Grow Orange County

High Risk Infant Program, CHOC & UCI, 2009-2012

| CHOC & UCI Number of Births by Birth | 2009 | 2010 | 2011 | 2012 |
|--------------------------------------|------|------|------|------|

| Weight, All Births | | | | |
|----------------------|-----|-----|-----|-----|
| 0-999 grams | 101 | 79 | 71 | 80 |
| 1000-1500 grams | 131 | 113 | 131 | 111 |
| 1501-2499 grams | 85 | 82 | 86 | 87 |
| 2500 grams and above | 80 | 78 | 83 | 101 |

Source: Early Developmental Assessment Centers at CHOC and University of California, Irvine

| Number and Percent of Births Using | | | | |
|---------------------------------------|--------|--------|--------|-------|
| CHOC/UCI NICU | 2009 | 2010 | 2011 | 2012 |
| Total Births in Orange County | 40,431 | 38,237 | 38,100 | |
| Total Infants in CHOC & UCI NICU | 232 | 192 | 202 | 191 |
| CHOC & UCI NICU Percent of all Births | 0.57% | 0.50% | 0.53% | 0.50% |

Source: Early Developmental Assessment Centers at CHOC and University of California, Irvine

| Number of Children born at Gestational Age | | | | |
|--|------|------|------|------|
| Less Than 32 Weeks, CHOC & UCI | 2009 | 2010 | 2011 | 2012 |
| 0 - 27 weeks | 99 | 73 | 76 | 76 |
| 28-31 weeks | 148 | 149 | 155 | 144 |

Source: Early Developmental Assessment Centers at CHOC and University of California, Irvine

Number of Children Enrolled in California Children's Services, Orange County, March 2013

| Age | Participant Count |
|-------|-------------------|
| 0 | 736 |
| 1 | 846 |
| 2 | 720 |
| 3 | 598 |
| 4 | 568 |
| 5 | 596 |
| Total | 4,064 |

Source: California Children's Services

Regional Center of Orange County Data, 2008-2012

| | 2008 | 2009 | 2010 | 2011 | 2012 |
|--|---------|---------|---------|-------|-------|
| New Early Start Cases | 3,412 | 3,349 | 3,119 | 2,927 | 2,553 |
| Orange County Child Population, ages 0 - 3 | 160,530 | 155,029 | 152,682 | | |
| Early Start Cases as a Percent of 0 - 3 population | 2.1% | 2.2% | 2.0% | | |

Source: Regional Center of Orange County

New Lanterman Cases by Age, Orange County, 2008-2012

| Age | 2008 | 2009 | 2010 | 2011 | 2012 |
|-------|------|------|------|------|------|
| 0 | 82 | 73 | 65 | 51 | 56 |
| 1 | 13 | 12 | 16 | 5 | 16 |
| 2 | 17 | 12 | 15 | 9 | 9 |
| 3 | 329 | 292 | 277 | 317 | 287 |
| 4 | 74 | 68 | 65 | 64 | 73 |
| 5 | 59 | 60 | 55 | 47 | 55 |
| Total | 574 | 517 | 493 | 493 | 496 |

Source: Regional Center of Orange County

| Children with a Diagnosis of Autism Served by RCOC, July 2012 | | | | | | | | |
|---|------|------|-------|--|--|--|--|--|
| Number of Children Number with Autism Percent w | | | | | | | | |
| 3-4 years of age | 731 | 308 | 42.1% | | | | | |
| 5-9 years of age | 2140 | 1088 | 50.8% | | | | | |
| 10-14 years of age | 1877 | 853 | 45.4% | | | | | |
| 15-18 years of age | 1541 | 626 | 40.6% | | | | | |

Source: Health Care Access Report, June 2013, Children and Families Commission of Orange County

Social Services Agency Data

Children with Special Health Care Needs, Ages 0-6 by Year and Need Category

| | Behavioral* | | Developmental* | | Emotional* | | Physical* | | Non Special Need | | Total Cases | |
|------|-------------|------|----------------|------|------------|------|-----------|------|------------------|------|-------------|------|
| | Active** | New^ | Active** | New^ | Active** | New^ | Active** | New^ | Active** | New^ | Active** | New^ |
| 2012 | 5 | 1 | 123 | 25 | 17 | 8 | 662 | 199 | 566 | 221 | 1373 | 454 |
| 2011 | 6 | 5 | 136 | 53 | 19 | 10 | 752 | 297 | 632 | 238 | 1545 | 603 |
| 2010 | 3 | 2 | 122 | 50 | 28 | 4 | 753 | 290 | 721 | 298 | 1627 | 644 |
| 2009 | 2 | 2 | 103 | 49 | 54 | 12 | 751 | 269 | 782 | 282 | 1692 | 614 |
| 2008 | 82 | 35 | 0 | 0 | 91 | 21 | 807 | 249 | 876 | 330 | 1856 | 635 |
| 2007 | 0 | 0 | 70 | 39 | 179 | 21 | 853 | 336 | 929 | 456 | 2031 | 852 |
| 2006 | 1 | 1 | 44 | 28 | 344 | 92 | 771 | 352 | 755 | 460 | 1915 | 933 |
| 2005 | 2 | 1 | 34 | 19 | 533 | 109 | 653 | 287 | 456 | 342 | 1678 | 758 |
| 2004 | 1 | 0 | 33 | 15 | 737 | 311 | 612 | 271 | 258 | 159 | 1641 | 756 |
| 2003 | 2 | 1 | 29 | 12 | 765 | 379 | 572 | 221 | 221 | 146 | 1589 | 759 |
| 2002 | 3 | 2 | 26 | 7 | 610 | 391 | 538 | 220 | 176 | 89 | 1353 | 709 |

* Special Health Care Categories are hierarchy based 1. Physical 2. Behavioral 3. Emotional 4. Developmental (if multiple categories existed only the highest level in the hierarchy was selected for the calendar year)-for example if a child had both a physical and emotional conditions only the Physical since physical was a higher level physical was selected.

Source: County of Orange, Social Services Agency

| Condition Description |
|--|
| Behavioral |
| Sexual Behavior Is Inappropriate |
| Drug Use |
| Temper Tantrums, is Volatile |
| Plays with Matches |
| Depressed and/or Withdrawn |
| Disobedient at Home |
| Other Behavioral Condition |
| Demands Attention |
| Sexual Victim |
| Screams More Than Usual for Age |
| Cruel or Mean to Others |
| Physically Assaults Peers/Adults |
| Does not Get Along with Other Children |
| Fearful or Anxious |
| Developmental |
| Special Education Pupil, Certified |
| Developmentally Delayed |
| Speech Impairment |
| Developmentally Disabled |
| Learning Disorder |
| Prematurity |
| Dyslexia |
| Oth. Developmental/Functional Limitation |
| |
| Emotional |
| Autism |
| Psych Hospitalization (Current/Past) |
| Mood Swings (Frequent and/or Persistent) |
| Other Client Emotional Condition |
| Attention Deficit Hyperactive Disorder |
| Psychotropic Medication Required |
| Hyperactive/Restless |
| Manic Depressive |
| Emotional Disorder (DSM, Curnt Rev) |
| Attention Deficit Disorder |
| Impulsive (Acts Without Thinking) |
| Violent or Harmful Toward Self |

Physical Cerebral Palsy Bedwetting / Enuresis Impetigo Kidney Disease, Chronic Intraventricular Hemorrhage Prenatal Drug Exposure - Heroin Spina bifida Prenatal Drug Exposure -Marijuana Bronchopneumonia Muscular Dystrophy Fetal Alcohol Effect/Fet. Alcohol Sndrom Fetal Alcohol Effect Prenatal Drug Exposure - PCP Prenatal Drug Exposure - Other Other Chronic Disordr Req Ongoing Trtmnt Diabetes Down's Syndrome Neurological Impairment Blind / Visual Impairment Prenatal Drug Exposure **Respiratory Failure** Shaken Baby Syndrome Diet, Requires Special Cleft Lip/Palate Encopresis Subdural Hematoma Cancer Other Physical Health Condition Prenatal Drug Exposure - Cocaine Cleft Palate Hearing Impairment Failure to Thrive Herpes Immune Deficiency Disorder Blind Gastroenteritis Anal Fissure Severe Deficits In Self-Help Skills Some Deficits In Self-Help Skills Deaf/Hearing Impairment Visual Impairment Apnea Equipment Meningitis

Deaf

Medication Required Medical Equipment/Procedures Required

Asthma Hernia Heart Murmur **Cystic Fibrosis**

Prenatal Alcohol Exposure Non-Ambulatory Hepatitis

Fetal Alcohol Syndrome Prenatal Drug Exposure - Methamphetamine **Burns** Battered Child Syndrome Medical Procedures Required Seizure Disorder **Congenital Anomalies** Tuberculosis High Blood Pressure / Hypertension Medical Equipment Required Hemophilia Scoliosis Sexually Transmitted Disease Enteritis **Congenital Heart Disease**

Obesity **Conversion Client Condition**

Water on the Brain / Hydrocephalus Sinusitis Arthritis

Sickle Cell Bronchial Pulmonary Dysplasia **Multiple Disabilities**

Source: County of Orange, Social Services Agency

| Special Education Enrollment by Age and Disability | | | | | | | | | | | | | |
|--|------------|----------|------------------------|----------------------------------|----------------------------|---------------------------|--------------------------------|----------------------------------|-----------------------------------|--|---|----------------------------------|--------------------------|
| Orange County, 2011/12 | | | | | | | | | | | | | |
| Age | Autis m | De af | Deaf- Blind ness | Emotio nal Disturb ance | Har d of Hear ing | Mental Retard ation | Multi ple Disab ility | Orthop edic Impair ment | Other Health Impair ment | Speci fic Learn ing Disab ility | Speech / Langua ge Impair ment | Tram autic Brain Injury | Visual Impair ment |
| 0 | 0 | 0 | 0 | 0 | 36 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 1 |
| 1 | 0 | 2 | 0 | 0 | 51 | 2 | 3 | 10 | 0 | 0 | 0 | 0 | 1 |
| 2 | 3 | 7 | 0 | 0 | 48 | 4 | 7 | 11 | 2 | 0 | 20 | 0 | 3 |
| 3 | 516 | 1 4 | 1 | 0 | 26 | 84 | 30 | 33 | 97 | 1 | 1,174 | 0 | 8 |
| 4 | 637 | 1 3 | 0 | 0 | 28 | 94 | 29 | 53 | 85 | 2 | 1,451 | 2 | 12 |
| 5 | 688 | 1 4 | 1 | 1 | 29 | 95 | 19 | 56 | 116 | 13 | 1,618 | 1 | 12 |
| Tot al | 1944 | 5 | 2 | 1 | 210 | 370 | 00 | 167 | 200 | 16 | 4262 | 2 | 27 |
| 0-5 | 1844 | U | 2 | 1 | 218 | 2/9 | 88 | 167 | 300 | 16 | 4263 | 3 | 37 |

Source: California Department of Education

| Number of Children with Speech and Language Impairment | | | | | | | | | | | |
|--|----------------|----|----|------|------|------|------|--|--|--|--|
| Age | | | | | | | | | | | |
| Year | ır 0 1 2 3 4 5 | | | | | | | | | | |
| 2007-08 | 0 | 2 | 25 | 1122 | 1375 | 1415 | 1779 | | | | |
| 2008-09 | 0 | 3 | 20 | 1165 | 1446 | 1572 | 1636 | | | | |
| 2009-10 | 0 | 5 | 21 | 1217 | 1447 | 1499 | 1705 | | | | |
| 2010-11 | 0 | 2 | 22 | 1169 | 1541 | 1507 | 1617 | | | | |
| 2011-12 | 0 | 0 | 20 | 1174 | 1451 | 1618 | 1615 | | | | |
| Number of Children with Autism | | | | | | | | | | | |
| | | Ag | e | | | | | | | | |
| Year | 0 | 1 | 2 | 3 | 4 | 5 | 6 | | | | |
| 2007-08 | 0 | 0 | 2 | 423 | 518 | 507 | 484 | | | | |
| 2008-09 | 0 | 0 | 2 | 446 | 586 | 634 | 557 | | | | |
| 2009-10 | 0 | 0 | 1 | 451 | 610 | 639 | 667 | | | | |
| 2010-11 | 0 | 0 | 3 | 456 | 612 | 692 | 665 | | | | |
| 2011-12 | 0 | 0 | 3 | 516 | 637 | 688 | 715 | | | | |

Source: California Department of Education