



**HAND to HOLD**  
*Fragile Babies. Strong Support.*

## **Prematurity Snapshot**

### **National Statistics**

One out of every eight babies in the U.S. is born pre-term.<sup>1</sup>

Three-quarters of all preterm births occur spontaneously; in nearly half the cases, the causes are unknown.<sup>2</sup>

Preterm infants are at increased risk of lifelong disability and early death compared with infants born later in pregnancy.<sup>3</sup>

Over the last 30 years, the number of preterm births has risen. And though the rate of premature deliveries declined between 2006 and 2008, the rate (12.3 percent) still remains higher than in any year from 1981-2002.<sup>4</sup>

While infant survival rates have improved over the years, 78 infants are lost each day in the U.S.<sup>5</sup>

Premature birth, low birth weight and birth defects are the top causes of newborn death and can result in lifelong disabilities.<sup>6</sup>

Community-based support services designed to assist families after the NICU are greatly lacking.<sup>7</sup>

Researchers have found that parents of premature infants and babies born with special health care needs often struggle with depression, anxiety and post-traumatic stress disorder.<sup>8</sup>

One research study found that 76 percent of mothers who had children in the NICU and who didn't receive trauma-preventive intervention showed symptoms of clinically significant psychological trauma at discharge, compared to just 36 percent of mothers who did receive crisis intervention. This study shows that intervention can significantly lessen the emotional impact of premature birth.<sup>9</sup>

### **Texas Statistics**

In 2006, 1 in 7 babies (13.7% of live births or 54,612 babies) was born preterm in Texas.<sup>10</sup>

In 2006, the infant mortality rate was 6.2 per 1,000 live births (2,474 babies) in Texas.<sup>11</sup>



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In an average week in Texas:

- 7,685 babies are born
- 1,021 babies are born to teen mothers (age 15-19)
- 2,549 are delivered by c-section
- 1,050 babies are born preterm (before 37 weeks gestation)
- 649 babies are born low birth weight
- 48 babies die before their first birthday.<sup>12</sup>

### **Central Texas Statistics**

Of the approximately 310 births in Austin each week, 39 are premature.<sup>13</sup>

In Travis County, 2,064 babies—nearly 6 each day—were born preterm (before 37 weeks gestation) in 2006 as compared to 54,177 premature births in Texas.<sup>14</sup>

In Travis County, 7.2% of all live births (16,152) are born with a low birth weight (less than 2,500 grams or 5.5 lbs).<sup>15</sup>

### **Effectiveness of Support**

Even interventions requiring relatively few resources, such as telephone support, parent-to-parent support and group support, have been associated with reduced psychological morbidity for parents.<sup>16</sup>

One study reported that of mothers receiving support from a peer, a majority 87% found peer support helpful. Those who received support reported feeling less stress. Over time, those who received intervention reported less depression, less anxiety and greater perceived social support.<sup>17</sup>

### **Prematurity and Early Intervention**

Many children in early intervention had compromised birth histories, including significant percentages of children with low birth weight, an early history of care in a neonatal intensive care unit, prematurity or some combination of these. The proportion of children entering early intervention who had been born at low birth weight is high (32%), as is the percentage of very low birth weight children (10%). When compared to national birthrates and birth weight statistics, these figures suggest that there are an enormous number of LBW (more than 800,000) and even VLBW (more than 150,000) children in the birth to 3 population who are not receiving early intervention services.<sup>18</sup>



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“The early childhood years present a singular opportunity to influence lifelong development and to prevent or minimize developmental problems in children with disabilities or at risk of developing disabilities.”<sup>19</sup>

Findings from the National Early Intervention Longitudinal Study show significantly high percentages of children show mastery of developmental milestones after one year of receiving early intervention services.<sup>20</sup>

At kindergarten, 32% or nearly one-third of the former Early Intervention participants were no longer considered to have a disability. And kindergarten teachers indicated that 82% of the former early intervention participants without a disability in kindergarten had thinking and reasoning skills that were normal for their age.<sup>21</sup>

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<sup>1</sup> National Center for Health Statistics, final natality data, retrieved May 21, 2010 from [www.marchofdimes.com/peristats](http://www.marchofdimes.com/peristats)

<sup>2</sup> Iams JD. The epidemiology of preterm birth. *Clinics In Perinatology*. 2003; 30: 651-54.

<sup>3</sup> Martin JA, Osterman MJK, Sutton PD. Are preterm births on the decline in United States? Recent data from the National Vital Statistics System. NCHS data brief, no 39. Hyattsville, MD: National Center for Health Statistics, 2010. Accessible at [www.cdc.gov/nchs/data/databriefs/db39.htm#states](http://www.cdc.gov/nchs/data/databriefs/db39.htm#states)

<sup>4</sup> Ibid.

<sup>5</sup> National Center for Health Statistics, final mortality data, 1990-1994 and period linked birth/infant death data, 1995-present retrieved May 21, 2010 from [www.marchofdimes.com/peristats/](http://www.marchofdimes.com/peristats/).

<sup>6</sup> National Center for Health Statistics, final natality data, retrieved May 21, 2010 from [www.marchofdimes.com/peristats/](http://www.marchofdimes.com/peristats/).

<sup>7</sup> See *Austin American-Statesman* series “Tiny Babies, Fragile Families” by Andrea Ball which ran September 8-9, 2007. Excerpts available from <http://www.statesman.com/news/content/news/local/preemies.html>

<sup>8</sup> See *New York Times* article “For Parents on NICU, Trauma May Last” by Laurie Tarkan published August 24, 2009 accessible at [www.nytimes.com/2009/08/25/health/25trau.html?\\_r=2](http://www.nytimes.com/2009/08/25/health/25trau.html?_r=2) which references a study from Stanford School of Medicine and another from Duke University. See also “The relationship between acute stress disorder and posttraumatic stress disorder in the neonatal intensive care unit.” Shaw RJ, Bernard RS, Deblois T, Ikuta LM, Ginzburg K, Koopman C. *Psychosomatics*. 2009 Mar-Apr; 50 (2): 131-7. Accessible from <http://psy.psychiatryonline.org/cgi/content/full/50/2/131> and “Posttraumatic stress symptoms in mothers of premature infants.” Holditch-Davis D, Bartlett TR, Blickman AL, Miles MS. *Journal of Obstetric, Gynecologic, & Neonatal Nursing*. 2003 Mar-Apr; 32(2): 161-71.

<sup>9</sup> Jotzo M, Poets CF. Helping parents cope with the trauma of preterm birth: An evaluation of a trauma-preventive psychological intervention. *Pediatrics*. 2005; 115: 915-919. Accessible from <http://www.pediatrics.org/cgi/content/full/115/4/915>

<sup>10</sup> National Center for Health Statistics, final natality data, retrieved August 25, 2010 from [www.marchofdimes.com/peristats](http://www.marchofdimes.com/peristats)

<sup>11</sup> National Center for Health Statistics, final natality data, retrieved August 25, 2010 from [www.marchofdimes.com/peristats](http://www.marchofdimes.com/peristats)



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<sup>12</sup> Perinatal Data Snapshots: Texas Maternal and Infant Health Overview (July 2010) Retrieved August 25, 2010 from [http://www.marchofdimes.com/peristats/pdflib/999/pds\\_48\\_all.pdf](http://www.marchofdimes.com/peristats/pdflib/999/pds_48_all.pdf).

<sup>13</sup> In 2006, 16,152 babies were born in Travis County (399,309 in Texas) according to the Texas Department of State Health Services, Texas Birth Data 2006 accessed May 26, 2010 from <http://soupfin.tdh.state.tx.us/birthdoc.htm>. The number of live births was divided by the weeks of the year, and that number was divided by eight according to the national statistic that one in eight babies are born preterm which is referenced in note 1.

<sup>14</sup> Texas Department of State Health Services, Texas Birth Data 2006 accessed May 26, 2010 from <http://soupfin.tdh.state.tx.us/birthdoc.htm>

<sup>15</sup> Snapshot 2010: Travis, County Health Rankings is a program of the Robert Wood Johnson Foundation and the University of Wisconsin Population Health Institute. Retrieved May 26, 2010 from <http://www.countyhealthrankings.org/texas/travis>

<sup>16</sup> Marina N, Glazebrook C. Emotional support for families of sick neonates. *Paediatrics and Child Health*. April 2008; 18(4): 196-199.

<sup>17</sup> Preyde M, Ardal F. Effectiveness of a parent "buddy" program for mothers of very preterm infants in a neonatal intensive care unit. *Canadian Medical Association Journal*. 2003; 168:969-973. Retrieved August 3, 2010 from <http://www.ncbi.nlm.nih.gov/pubmed/12695379?dopt=Abstract>

<sup>18</sup> Low birth weight is considered <2500 grams or 5 lbs. 8 ounces, and very low birth weight is 1500 grams or 3 lbs. 5 ounces. Spiker, D., Mallick, S., Hebbeler, K., Scarborough, A., Simeonsson, R., and Bailey, D. Birth History and Health Status of Children Entering the Early Childhood Intervention. *NEILS Data Report 5*. 2004, SRI International: Menlo Park, CA. Accessible from [http://www.sri.com/neils/pdfs/EFI2\\_LBW\\_8-16-04.pdf](http://www.sri.com/neils/pdfs/EFI2_LBW_8-16-04.pdf)

<sup>19</sup> American Academy of Pediatrics Council on Children With Disabilities, DUBY JC. Role of the medical home in family-centered early intervention services. *Pediatrics*. 2007 Nov;120(5):1153-8. Accessible from <http://www.ncbi.nlm.nih.gov/pubmed/17974754>

<sup>20</sup> Results Experienced by Children and Families 1 Year after Beginning Early Intervention. *Twenty-fourth annual report to Congress on the implementation of the Individuals with Disabilities Education Act, Section IV*. 2002, U.S. Department of Education, Washington, D.C. Accessible from <http://www2.ed.gov/about/reports/annual/osep/2002/section-iv.pdf>

<sup>21</sup> Hebbeler, K., Spiker, D., Bailey, D., Scarborough, A., Mallick, S., Simeonsson, R., Singer, M., and Nelson, L. *Early intervention for infants and toddlers with disabilities and their families: Participants, services, and outcomes. Final Report of the National Early Intervention Longitudinal Study*. 2007, SRI International: Menlo Park, CA. Accessible from [http://www.sri.com/neils/pdfs/NEILS\\_Final\\_Report\\_02\\_07.pdf](http://www.sri.com/neils/pdfs/NEILS_Final_Report_02_07.pdf). See also <http://www.sri.com/neils/>.