

## CHAPTER 3

# Healthy Development Services Initiative

**“ [HDS gave us] very good information about things that are important to us as teen parents...we learned how to take care of our kids, what to expect from them, and how to be better parents.”**

—HDS Parent



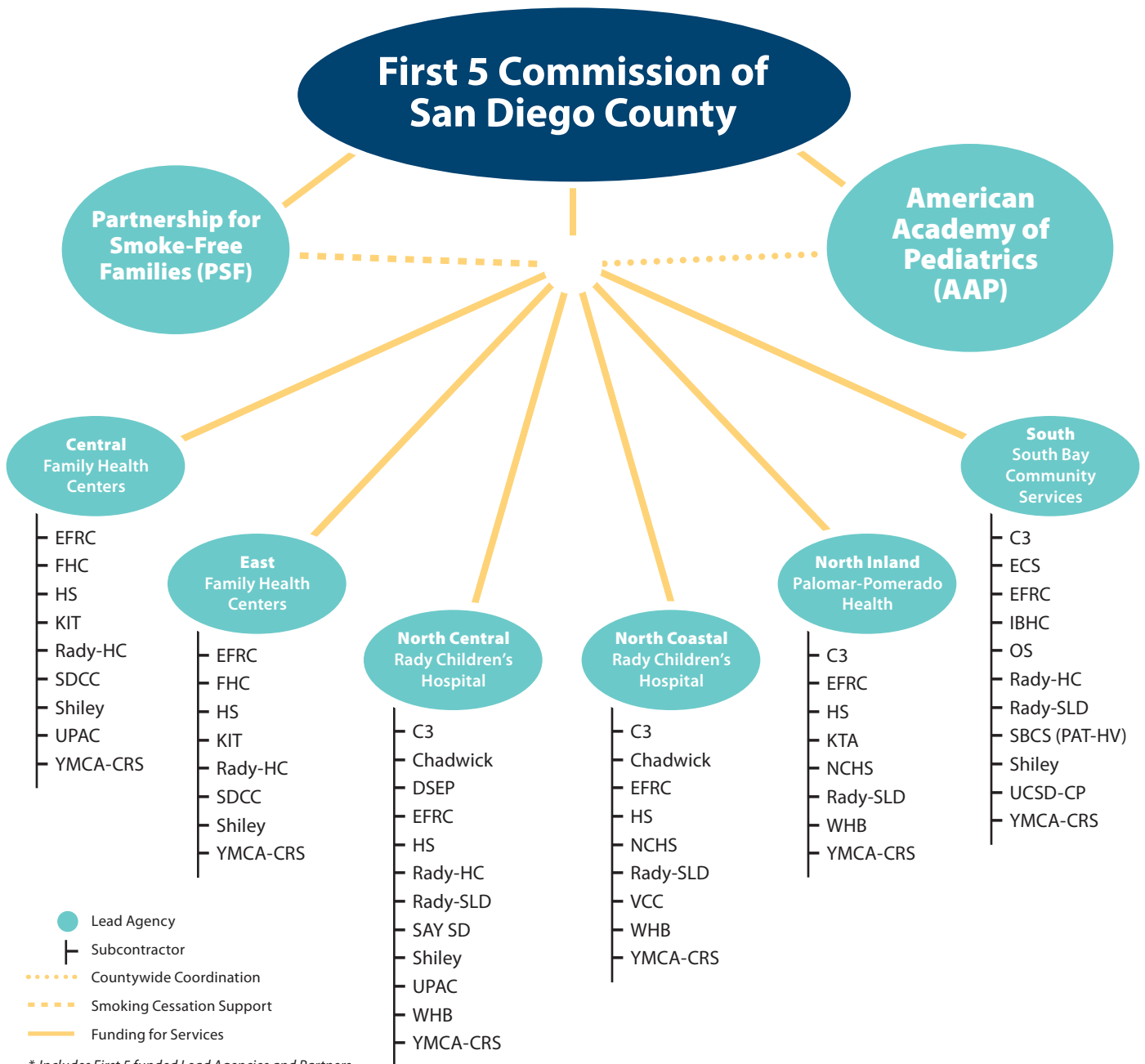
### Key Results

- + **Over 1 in 7 children age 0 to 5 years in San Diego County were served through HDS services.** Some 32,912 individual children were served through the gateway services.
- + **Children received needed services.** Approximately 64.2% of all children needing assessments and 73.4% of children needing treatment received services this year.
- + **Children exhibited health and developmental gains.** Across the project, over half (57.1%) of all children tracked during FY 2007-08 showed gains based on treatment received through HDS. Many of those children who did not show gains continued in the program or were referred to specialists for additional assistance.
- + **Children had access to and used appropriate health care resources.** Over 95% of children were insured, and nearly 100% had an appropriate medical home and had received an annual well child visit.
- + **HDS providers increased collaboration and service coordination.** A total of 10,883 children/families being served in HDS received a referral to another HDS service, for a total of 11,071 referrals. Three quarters (75.6%) of those referrals resulted in a successful initiation of services. Also, a total of 21,865 referrals were given to HDS clients for non-HDS services during FY 2007-08.
- + **The HDS system of care approach continued to strengthen.** Regional leads and AAP continued to meet to standardize approaches to service delivery through clinical pathways, referral networks and data collection.

### Summing It Up

- + Nearly 33,000 children were served by four HDS gateway services in FY 2007-08, an increase of 4,000 from the previous fiscal year. Children served among all service areas equaled 68,733, though children may have received services across multiple areas and may be duplicative.
- + Developmental screenings were the most provided service, 16,032 screenings were provided to 13,624 children.
- + Over 7,000 children received a screening for speech and language delays (for a total of 8,926 screenings). In addition, a total of 2,860 behavioral screenings were provided to 2,553 children, a tremendous increase from the previous fiscal year.
- + Over 8,000 newborns received at least one newborn medical home visit, for a total of 13,442 visits.
- + Nearly 9,000 vision and hearing screenings were performed this year.
- + Over 25,000 families received tobacco use screenings this year; 5.5% of screenings indicated a smoker in the household and were referred to the Smoker's Helpline.

# Healthy Development Services Initiative\*



\* Includes First 5 funded Lead Agencies and Partners.

**C3**=Children's Care Connection  
**Chadwick**=Chadwick Center for Children and Families  
**DSEP**=Developmental Screening and Enhancement Program  
**ECS**=Episcopal Community Services  
**EFRC**=Exceptional Family Resource Center

**FHC**=Family Health Centers of San Diego  
**HS**=Home Start, Inc.  
**IBHC**=Imperial Beach Health Clinic  
**KIT**=Kids Included Together, Inc.  
**KTA**=Kids Therapy Associates, Inc.  
**NCHS**=North County Health Services  
**OS**=Operation Samahan Clinic

**PAT-HV**=Parents as Teachers Home Visiting  
**Rady-HC**=Rady Children's Hospital Home Care  
**Rady-SLD**=Rady Children's Hospital Speech and Language Department  
**SAY SD**=Social Advocates for Youth San Diego  
**SBCS**=South Bay Community Services  
**SDCC**=San Diego Center for Children

**Shiley**=UCSD Shiley Eyemobile  
**UCSD CP**=UCSD Community Pediatrics  
**UPAC**=Union of Pan-Asian Communities  
**VCC**=Vista Community Clinic  
**WHB**=Welcome Home Baby  
**YMCA-CRS**=YMCA Childcare Resource Service

# Introduction

Over the last decade, research studies have increasingly demonstrated the role and importance of healthy development in assuring school readiness and lifelong learning capacity. Early identification of a developmental or physical delay is critical to ensuring children enter school ready to learn. According to the Centers for Disease Control and Prevention, 17% of children ages 0-17 years have developmental or behavioral disabilities, and even more have delays in language or other areas. Yet, less than 50% of these children are identified as having a delay prior to entering school, by which time the delay may become more significant and opportunities for treatment are missed.<sup>76</sup> Furthermore, there may be significant costs (\$30,000 to \$100,000 per child) resulting from the failure to identify and address developmental problems in the early years. Much of this cost is ultimately born by the education system when children with preventable delays enter school.<sup>77</sup>

In response to this need, the First 5 Commission of San Diego County funded the Healthy Development Services Initiative (HDS) in January 2006. The Initiative's primary goal is the early identification and treatment of health problems and developmental delays that can negatively affect a child's ability to learn. The initiative follows the research recommendations of developing systems that reduce gaps and improve the coordination of early childhood services.<sup>78</sup> First 5 San Diego has allocated \$51.6 million over four and a half years for this project. In FY 2007-08, HDS worked to provide services to thousands of children throughout San Diego County and continued to work on system-level efforts to improve the delivery of those services, creating a system of care that is more responsive and more effective.

## Key Elements

HDS is a comprehensive system, centered on four key goals:

1. Promote early identification of needs by increasing access to screening, assessment, and treatment for cognitive, behavioral, and developmental delays.
2. Assure children receiving health and developmental services are showing appropriate gains.
3. Provide all first time parents with a free newborn home visit and provide at-risk families with ongoing in-home support services.
4. Empower parents to acquire the knowledge and skills necessary to support and/or improve their children's health and development.

The HDS Initiative has a number of key elements:

- **Systems Change:** HDS aims to transform the system of care for health and developmental services for young children by creating a more coordinated and comprehensive system built upon existing networks, resources, and services. HDS seeks to develop and strengthen connections between existing programs,

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<sup>76</sup> U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center on Birth Defects and Developmental Disabilities. Accessed 28 September 2007. <<http://www.cdc.gov/ncbddd/child/devtool.htm>>

<sup>77</sup> Halfon, N., Uyeda, K., Inkelas, M., Rice, T. "Building Bridges: A Comprehensive System for Healthy Development and School Readiness." National Center for Infant and Early Childhood Health Policy, 2004.

<sup>78</sup> Ibid.

expand existing services, fund new programs that fill service gaps, increase provider capacity to deliver high quality services, and leverage funding.

- **Regional Service Networks (RSNs):** In each of San Diego County’s six Health and Human Services Agency (HHSA) regions, a lead agency and its funded partners form a coordinated network to keep children in need from “falling through the cracks” by improving coordination of referrals and services, reducing service duplication and filling service gaps.
- **Comprehensive Services:** Each RSN provides the following health and developmental services to children ages 0-5 years and their families:<sup>79</sup>
  - **Regional Coordination** of services, case management, and referrals.
  - **Parent Support and Empowerment (PS&E)** services that assist parents of children with special needs in navigating the system of care and/or provide parents of young children education and skills related to child development.
  - **Newborn Medical Home Visits (NMHV)** for all first time parents that include screening and referrals for health and developmental needs, as well as referrals to ancillary services for the family and children.
  - **At-Risk Home Visitation (ARHV)** or ongoing home visiting for families considered “at-risk” including support and case management to meet a variety of family needs.
  - **Screening, assessment and treatment** for children in the areas of vision, hearing, development, speech and language, and behavioral services.
  - **Health and Behavioral Consultation** services for licensed and license-exempt early care and education providers and the families they serve.
  - **Tobacco use screening and cessation referral** services for pregnant woman and new parents to reduce children’s exposure to tobacco in the home.
- **Countywide Support and Capacity Building:** The American Academy of Pediatrics (AAP), California Chapter 3, is contracted to oversee and coordinate HDS’ countywide implementation. AAP identifies screening protocols and clinical pathways, develops referral guidelines, organizes uniform and standardized reporting, shares best practices and designs quality improvement resources and support. Additionally, AAP coordinates needed training, develops and utilizes an advisory committee, creates linkages with key health care and community-based organizations, and promotes fiscal leveraging.

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<sup>79</sup> For a list of all subcontracted service providers, see the agency listings under HDS in Appendix A.

## Summing It Up

During FY 2007-08, HDS served 68,733 children ages 0-5 years among the many HDS service areas (Exhibit 2.1).<sup>80</sup> However, a more conservative measurement estimates that 32,912 unduplicated children received HDS services.<sup>81</sup> This represents one in seven children aged 0 to 5 years in San Diego County.<sup>82</sup> The introduction of a Commission data system in FY 2008-09 will allow for the collection of an unduplicated count of children served by HDS. FY 2007-08 marks the second year of HDS and provides a year of comparison data that provides a sense of how services have grown. Eight of the 11 service areas increased the number of children served in FY 2007-08. There were significant increases in the number of developmental screenings, speech and language services, behavioral services, newborn home visits, and behavioral consultation services. Seven out of nine service areas that had established target numbers met those targets (See Exhibit 3.1).<sup>83</sup> Three service areas had a decrease in the number of children served from FY 2006-07 to FY 2007-08, though still met their target numbers.

### Developmental, Speech/Language and Behavioral Services

Early identification and treatment of delays or concerns in children's development, speech and language, and behavior is critical for children's later success in school and life. AAP recommends developmental screening at 9, 18, and 24 or 30 months and whenever a parent or provider concern is expressed. Despite this national recommendation, previous data indicated that only approximately 65.0% of San Diego parents reported that their child received some type of developmental screening or assessment.<sup>84</sup> Consequently, First 5 San Diego determined developmental screening to be a top priority for HDS and a primary gateway for most other HDS services.

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<sup>80</sup> This number is a combination of all children served in the categories listed and includes a duplicated count of children who may have received services in multiple categories. These process numbers originate from contractors' quarterly reports to the Commission, which are produced by each region. It is not possible to determine a true unduplicated count of all children served for the entire project.

<sup>81</sup> AAP calculates this number by designating four service components as primary "gateway" services in which children are likely to enter into the HDS system: NMHV; Developmental screening; Vision screening; PS&E (indirectly served children). Children are not directly served by PS&E, as parents are the primary clients. Therefore, the number of children for this category is based on each parent served having at least one child under the age of 6 years of age.

<sup>82</sup> This ratio was calculated by dividing the unduplicated count by an estimated 273,588 children ages 0-5 years in San Diego County. Accessed through the California Department of Finance website  
<[http://www.dof.ca.gov/HTML/DEMOGRAP/ReportsPapers/Projections/Births/birth\\_projections](http://www.dof.ca.gov/HTML/DEMOGRAP/ReportsPapers/Projections/Births/birth_projections)>

<sup>83</sup> In FY 2007-08, AAP and First 5 established a more standardized approach to developing targets with the regional leads allowing for comparison of service numbers to target numbers.

<sup>84</sup> First 5 San Diego. Family Survey Report. San Diego, CA: Author, 2005. The survey question was asked of parents with a child of at least one year of age: "Has a doctor or other professional ever had your child pick up small objects, stack blocks, throw a ball, or recognize different colors?" This question was used as a proxy, because many parents are unfamiliar with the term "developmental assessment."

### Exhibit 3.1 Total Children Served by Service Category\*

Service Area	Total New Children Served in FY 2006-07	Total New Children Served in FY 2007-08	Increase (+) or Decrease (-) in New Children Served from FY 2006-07 to FY 2007-08	FY 2007-08 Target Number Met
Developmental Screening	11,622	13,624	+	✓
Developmental Assessment/Treatment***	5,801	6,605	+	✓
Speech and Language Services***	8,771	11,423	+	No target
Behavioral Services***	1,209	4,384	+	No target
Newborn Medical Home Visitation	6,396	8,331	+	✓
At-Risk Home Visitation	3,187	2,157	-	✓
Vision Screening	8,921	8,590	-	✓
Vision Assessment/Treatment***	959	1,135	+	
Hearing Screening	8,952	8,639	-	✓
Parent Support and Empowerment**	1,999	2,367	+	✓
Behavioral Consultation****	90	1,478	n/a****	
<b>Total Maximum Children Served*****</b>	<b>57,907</b>	<b>68,733</b>	<b>+</b>	
<b>Total Minimum Children Served*****</b>	<b>28,938</b>	<b>32,912</b>	<b>+</b>	

\*Total number of children served may include duplicate counts as the same child may have accessed services in more than one category.

\*\*Children are only indirectly served through this service; parents are the primary clients. It was assumed that each parent served had at least one child under the age of 6.

\*\*\*Number of children served within this service category may include duplicate counts as the same child may have accessed more than one service (screening, assessment, and/or treatment) within this category.

\*\*\*\*In FY 2006-07, the number of children who received behavioral assessments through consultation services was counted here, however in 2007-08, the collection was modified to include the number of clients who required a consultation (typically a parent or provider). It was assumed that each client requiring a consultation represented a child. Because of the change in data collection, the two fiscal years cannot be compared.

\*\*\*\*\*Maximum children served is a total of all children served for each service area; Minimum children served is a total of all children served through the four gateway service areas: Parent Support & Empowerment, Newborn Medical Home Visits, Vision Screening, and Developmental Screening.

Exhibit 3.2 shows the number of screenings, assessments, and treatment units provided, as well as the number of children receiving those development, speech, and behavioral services during FY 2007-08 compared to the previous fiscal year.<sup>85</sup> All services and children served increased from FY 2006-07.

Exhibit 3.2 Developmental, Speech/Language and Behavioral Services						
	Developmental		Speech & Language		Behavioral	
	FY 2006-07	FY 2007-08	FY 2006-07	FY 2007-08	FY 2006-07	FY 2007-08
Screenings	13,275	16,032	7,774	8,926	645	2,860
Children Screened	11,622	13,624	6,442	7,087	466	2,553
Assessments	3,371	4,589	972	1,974	460	1,364
Children Assessed	3,045	3,786	931	1,866	203	508
Treatment Units*	11,329	13,969	9,532	11,275	2,858	7,507
Children Treated	2,756	2,819	1,398	2,470	540	1,323

\*Treatment units include: parent and child workshops, classes, and one-on-one therapy sessions. Subcontractors' curricula are derived from evidence-based models such as the Hanen model for speech and language and Parent-Child Interaction Therapy (PCIT) for behavioral services.

**Developmental Services.** Of all HDS service areas, developmental services provided the largest number of service units to the most children during the fiscal year. A total of 16,032 developmental screenings were provided to 13,624 children. Approximately 45.6% of children screened were determined to need some follow-up after screening, an increase from last fiscal year (40.3%).<sup>86</sup> Developmental assessment and treatment contractors conducted 3,786 assessments and provided 13,969 treatment units. The average treatment unit per child increased from four units per child served in FY 2006-07 to five treatment units per child served in FY 2007-08.

**Speech and Language Services.** Although it is not a gateway to other HDS services, speech/language service contractors continued to serve a relatively high number of children. Over 7,000 children received screenings for speech and language delays (for a total of 8,926 screenings). Of the children screened, 29.7% screened were found to need further assessment, an increase from last fiscal year (27.3%).<sup>87</sup> Speech and language service contractors assessed 1,866 and treated 2,470 children, for a total of 11,275 treatment units. The average treatment unit per child decreased from 6.8 units per child in FY 2006-07 to an average of 4.6 units per child in FY 2007-08.

<sup>85</sup> It is important to note that these three service areas often overlap and during FY 2007-08, service providers were asked to more clearly collect each service as it occurred even if there was overlap. For instance, some developmental service providers screen for speech and behavioral delays during the developmental screen, as the issues are not always distinguishable. In these cases, providers should have documented all three screenings, rather than just one. This was not necessarily the case for FY 2006-07, and therefore increases in services may be reflective not only of program growth, but of more accurate counting.

<sup>86</sup> The number of children needing follow-up does not match the number of children served in the assessment or treatment categories, as some children are referred for services from outside the HDS network. The percentage needing follow-up is based on all children receiving the service and is therefore an duplicated count of children served.

<sup>87</sup> Ibid.

**Behavioral Services.** Behavioral screenings (n= 2,860) were provided to 2,553 children during this fiscal year. Over a third of these children (36.9%) were identified as needing further assessment, which is a decrease from last fiscal year (50.8%).<sup>88</sup> Behavioral assessments (n=1,364) were given to 508 children, and 1,323 children were provided a total of 7,507 treatment units (average of 5.7 units of service per child). This was an increase from FY 2006-07 (average of 5.3 service units per child).

**“Thank you for teaching us how to keep our children healthy and also how to and how not to discipline our children...I know I will be a better parent now.”**

**– Teen Parent who received Behavioral Services**

### Home Visitation

Research has found home visiting models to be highly effective in providing services to hard-to-reach and at-risk populations, as well as improving family health and self-sufficiency.<sup>89</sup> HDS offers a medical home visit by a nurse to all first time parents in San Diego County within the first two weeks of an infant’s life. This newborn medical home visit (NMHV) serves many purposes, including assessment of the mother’s and newborn’s health, as well as the mother’s risk for postpartum depression. The nurse examines the child’s feeding and assists with breastfeeding support as needed and provides brief parent education about child development, including distribution of the Kit for New Parents (See Chapter 7 for a discussion of the Kit for New Parents). The home visit also includes a general screening for home safety and smoking in the household, and identifies needs for referrals and resources.

In FY 2007-08, the RSNs and AAP continued to build relationships with local birthing centers to facilitate the referral of first-time mothers to NMHV. New mothers from 13 of 17 San Diego County birthing centers currently refer to HDS. As a result, during the 2007 calendar year, 61.4% of San Diego County’s first time mothers were referred for a HDS newborn medical home visit, a 17.2% increase from 2006 calendar year.<sup>90</sup> As Exhibit 3.3 illustrates, there appears to be a gap between the number of referrals and the number of children being served by HDS.<sup>91</sup> Of those referred, 66.2% received a newborn medical home visit, which is an increase from last fiscal year (62.0%). In addition, the bar graph shows the gap between the number of referrals and the estimate of new mothers served by the birthing centers. Overall, 40.7% of first time mothers are receiving newborn medical home visits – a large increase from last fiscal year (27.4%). It is important to note that not all birthing centers are currently participating in the NMHV referral process and that parents can decline a visit.<sup>92</sup>

<sup>88</sup> Ibid.

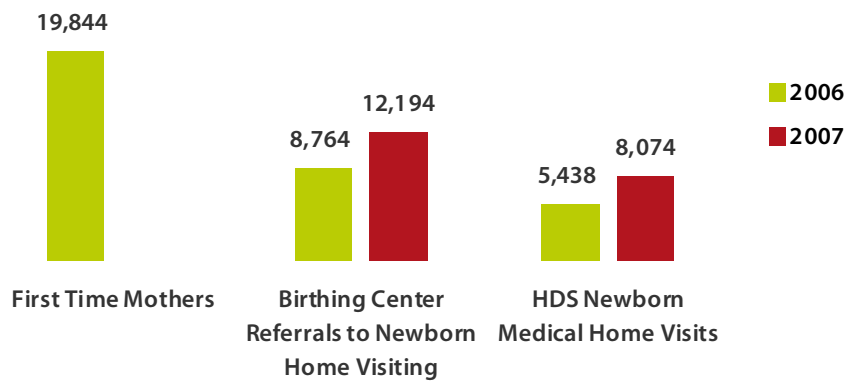
<sup>89</sup> A. Goodman. Grants Results Special Report. The Story of David Olds and the Nurse Home Visiting Program. July 2006. Robert Wood Johnson Foundation. <<http://www.rwjf.org/files/publications/other/DavidOldsSpecialReport0606.pdf>>

<sup>90</sup> 2007 calendar year data was used for referrals and NMHV. The number of first time mothers in 2006 is used as an estimate for 2007, as the number of new mothers in 2007 was not available.

<sup>91</sup> It is important to note that there is a lag time between when the referral is given and when the home visit occurs, and therefore any referrals made at the end of the calendar year will likely not have resulted in reported visits. It is unknown how many of these referrals were pending or lost to follow-up.

<sup>92</sup> Birthing centers that are not actively referring new mothers to NMHV services include Kaiser Permanente Zion, Paradise Valley Hospital (maternity services now pending), Camp Pendleton, and Best Start Birth Center.

**Exhibit 3.3** 2007 Newborn Medical Home Visiting Referrals and Visits Compared to Estimates from 2006 Number of First Time Mothers\*



\*Source: State of California, Department of Health Services, Center for Health Statistics. *Birth Statistical Master Files*. Prepared by County of San Diego, Health & Human Services Agency, Maternal, Child & Family Health Services (MCFHS)

During FY 2007-08, the NMHV service providers conducted over 13,400 visits -- which included the initial visit, and any necessary follow-on visits or phone follow-up -- to over 8,300 infants and their families (refer to Exhibit 3.4). Of the children served, 7,125 (85.5%) were breastfeeding at the time of the visit, an increase from last fiscal year (83.7%).<sup>93</sup> However, more children were living in a household with a smoker than last fiscal year (7.6% in FY 2007-08 compared to 6.0% in FY 2006-07).

Exhibit 3.4 Home Visitation Services				
	Newborn		At Risk	
	FY 2006-07	FY 2007-08	FY 2006-07	FY 2007-08
Visits*	8,037	13,442	7,098	8,087
Children Served	6,396	8,331	3,187	2,157

\*Number includes initial visits, follow-on visits and phone calls

Separate, but often an extension of NMHV services, are the home visits provided for families considered at-risk (i.e., at-risk home visitation or ARHV). These visits assist families who will most likely need additional services to prevent child abuse and neglect, improve health outcomes and strengthen family skills. As Exhibit 3.4 illustrates, 2,157 at-risk children and their families received 8,087 home visits. While the number of children and their families served decreased from last fiscal year, it is important to note that the average visits per child increased from an average of 2.2 visits in FY 2006-07 to an average of 3.7 visits in FY 2007-08. This increase in the average number of visits per child suggests that children and their families are being more intensively served through ARHV. For at-risk children and their families, more children seen at the first home visit were breastfeeding (49.1%) than last fiscal year (40.9%).<sup>94</sup> Additionally, 6.9% of the children considered at-risk were living in a household with someone who smokes, a considerable increase from FY 2006-07 (2.4%). The home visitors provide families with referrals to the California Smoker’s Helpline as part of the connection to Partnership for Smoke-Free Families (see page 62).

<sup>93</sup> The Centers for Disease Control’s National Immunization Survey estimates that between 75-77% of babies are breastfed at some point before 3 years of age. Source: Centers for Disease Control and Prevention. *National Immunization Survey*. 2005. Accessed 9 September 2007. <www.cdc.gov/nis>

<sup>94</sup> The ARHV providers serve families with children through age five, and thus many are not of breastfeeding age.

### Hearing and Vision Services

Ensuring children have access to hearing and vision screenings is another service component of HDS. These types of screenings are often provided by mobile programs that visit preschools, child care programs and other organizations where children are present.

During FY 2007-08, a total of 8,639 children received hearing screenings (see Exhibit 3.5). Of those children screened, 14.9% were found to need further assessment, which is an increase from last fiscal year (10.4%).<sup>95</sup> Hearing screening providers refer all children who need additional assessment or treatment outside of HDS to a primary physician for services.

Vision service providers also conducted screenings for 8,590 children during FY 2007-08. Of those children screened, 20.5% were noted as needing additional services which decreased from FY 2006-07 (25.4%).<sup>96</sup> Vision service contractors also assessed 696 children and treated 439 children, averaging one treatment unit per child.

Exhibit 3.5 Hearing and Vision Services				
	Hearing		Vision	
	FY 2006-07	FY 2007-08	FY 2006-07	FY 2007-08
Screenings	8,953	8,705	9,130	8,697
Children Screened	8,952	8,639	8,921	8,590
Assessments	-	-	797	763
Children Assessed	-	-	794	696
Treatment Units	-	-	162	439
Children Treated	-	-	83	439

### Parent Support and Empowerment

The primary focus of HDS is to ensure early identification and treatment of children's delays. Key to this project is assisting parents, who often lack the knowledge and resources needed to navigate complex health and social service systems or may not feel empowered to advocate for their children's needs. Parent support and empowerment (PS&E) providers seek to educate parents about child development, available resources and the skills needed to support their children.

Exhibit 3.6 Parent Support & Empowerment Services		
	FY 06-07	FY 07-08
Sessions	3,079	3,188
Parents Served	2,109	2,367
Children Served Indirectly*	1,999	2,367

*\*For FY 2007-08, the actual number of children served indirectly was not collected, as parents are the primary clients. It was assumed that each parent served had at least one child less than 6 years of age; therefore the number of parents and number of children estimated to be served are identical.*

<sup>95</sup> The number of children needing follow-up does not match the number of children served in the assessment or treatment categories, as some children are referred to services outside of HDS for follow-up (i.e., families have private insurance or qualify for other publicly funded services). The percentage needing follow-up is based on all children receiving the service (i.e., a duplicated count of children served, not the unduplicated count).

<sup>96</sup> Ibid.

In FY 2007-08, PS&E contractors provided approximately 3,188 sessions with 2,367 parents, including one on-one sessions and group workshops and classes. Over 2,300 children were beneficiaries of the PS&E services. (See Exhibit 3.6).

**Health and Behavioral Consultation Services**

Consultation services are offered to child care providers and parents of children who are in need of additional assistance related to children’s health and/or behavior. These consultation agencies provide action plans and behavioral modification techniques for children with behavioral concerns. Exhibit 3.7 reports the types and numbers of services provided by the contracted consultation service providers during FY 2007-08. There was an increase in all types of consultation services, with the exception of a slight decrease in family consultation, when compared to FY 2006-07 results.

<b>Exhibit 3.7 Consultation Services</b>		
	<b>FY 2006-07</b>	<b>FY 2007-08</b>
Family Consultations	921*	838
Provider Consultations	863	1,329
Workshops	217	966
Workshop Attendees**	2,521	4,141

*\*This number has been updated since last fiscal year report*

*\*\*Includes an unduplicated count of parent, provider and child attendees per month (not unduplicated for year)*

### Tobacco Use Screening and Treatment Referral Services

Smoking during pregnancy can seriously slow fetal growth and nearly doubles a woman’s risk of having a baby with low birth rate. The Surgeon General has stressed that secondhand smoke causes premature death and disease in children including asthma and other respiratory diseases.<sup>97</sup> As a separate but integral part of HDS, the Partnership for Smoke-Free Families (PSF) is a nationally recognized, countywide tobacco control program operated through Rady Children’s Hospital and partially funded through First 5 San Diego.<sup>98</sup>

PSF trains clinicians across the childbirth continuum to implement evidence-based practices for treating tobacco use.<sup>99</sup> PSF’s Quit Link

program trains providers (obstetricians, home visitors, and pediatricians) to identify tobacco use among pregnant women, new parents, caregivers, and the at-risk families they see. Additionally, the program instructs providers to refer these families to the California Smoker’s Helpline smoking cessation program.<sup>100</sup>

During FY 2007-08, PSF exceeded all targeted tobacco screenings goals reaching a total of 25,439 women receiving prenatal care, a newborn

medical home visit (NMHV), at risk home visits (ARHV) and at pediatric offices. This was a significant increase over the number of screenings documented in FY 2006-07. As Exhibit 3.8 illustrates, the greatest number of tobacco screenings this year were conducted in the prenatal period, with 50.9% (n = 12,953) of total screenings occurring in obstetric offices, followed by 33.6% (n=8,553) at NMHV.<sup>101</sup>

Exhibit 3.8 Tobacco Screenings				
	FY 2006-07	FY 2007-08		
	Number of Screenings	Number of Screenings	Number of Smokers	% of Smokers Based on Screening
Prenatal	6,033	12,953	499	3.9%
Newborn Medical Home Visit	2,418	8,553	560*	6.6%
At-Risk Home Visit		1,394	129*	9.3%
Pediatric	1,917	2,539	212	8.4%
<b>Total</b>	<b>10,368</b>	<b>25,439</b>	<b>1,400</b>	<b>5.5%</b>

\*Number of households

<sup>97</sup> U.S. Department of Health and Human Services, Centers for Disease Control and Prevention. Children and Secondhand Smoke Exposure. 2007. Accessed 30 September 2008.

<<http://www.surgeongeneral.gov/library/smokeexposure/report/fullreport.pdf>>

<sup>98</sup> PSF was developed through a collaborative between Rady Children’s Hospital, Sharp Healthcare, and Scripps Health. In addition to other awards, PSF was selected by the Robert Wood Johnson Foundation Smoke Free Families National Dissemination Office to create a manual outlining the implementation and lessons learned of PSF focusing. Printed in 2004, the aforementioned manual is currently being distributed nationwide.

<sup>99</sup> The training provides clinicians and office staff with skills and resources to implement the U.S. Public Health Service’s Clinical Practice Guideline for Treating Tobacco Use and Dependence, which advocates the “5 A’s” approach of asking patients about tobacco use at each visit, advising smokers to quit, assessing smokers’ willingness to quit, assisting smokers to quit, and arranging for follow-up to monitor smoking status and provide support.

<sup>100</sup> The Commission first authorized PSF funding in February 2000. It was incorporated into HDS in January 2006.

<sup>101</sup> There are some differences in the number of smokers identified as reported by NMHV, ARHV and PSF. Reporting could be better coordinated in FY 2008-09 to address these small discrepancies.

## Making a Difference: Outcomes

The Healthy Development Services Initiative tracks seven core outcomes through the evaluation. The following section outlines the results of these outcomes. Similar to FY 2006-07, there are limitations in data collection that will be resolved with the implementation of the Commission's data system. For a discussion of these limitations, please see Appendix B.

### Breastfeeding

Research has shown that breastfeeding provides nutritional, health, immunological, developmental and psychological benefits for infants and children.<sup>102, 103</sup> The First 5 San Diego breastfeeding indicator aims to measure the percent of children who are breastfeeding at 6 weeks and 6 months of age. This indicator was collected by the NMHV and ARHV providers during FY 2007-08, as breastfeeding support is often a part of their service delivery. The nurses providing the newborn visits educate the new mother about the benefits of breastfeeding, as well as present helpful techniques to increase breastfeeding success. The at-risk home visitor provides breastfeeding assistance as well, but only as needed.<sup>104</sup>

Compared to FY 2006-07, the results for this fiscal year show that slightly fewer children served by NMHV were breastfeeding at 6 weeks of age (73.5% vs. 75.8%); however there were more children breastfeeding who were served by ARHV (88.0% vs. 81.1%; see Exhibit 3.9). Results for breastfeeding at 6 months of age were very similar to the previous year (Exhibit 3.10).

**Overall, 76.7% of children were breastfeeding at 6 weeks of age, and 58.0% were breastfeeding at 6 months of age during FY 2007-08.**

As expected, and similar to last year, the rate of breastfeeding decreased from the 6 weeks to the 6 months age time points. For the NMHV group in this fiscal year, 73.5% indicated some breastfeeding at 6 weeks of age and 55.5% were breastfeeding at 6 months of age. For ARHV, there was a higher rate of breastfeeding at 6 weeks and 6 months of age (88.0% and 68.4%, respectively).

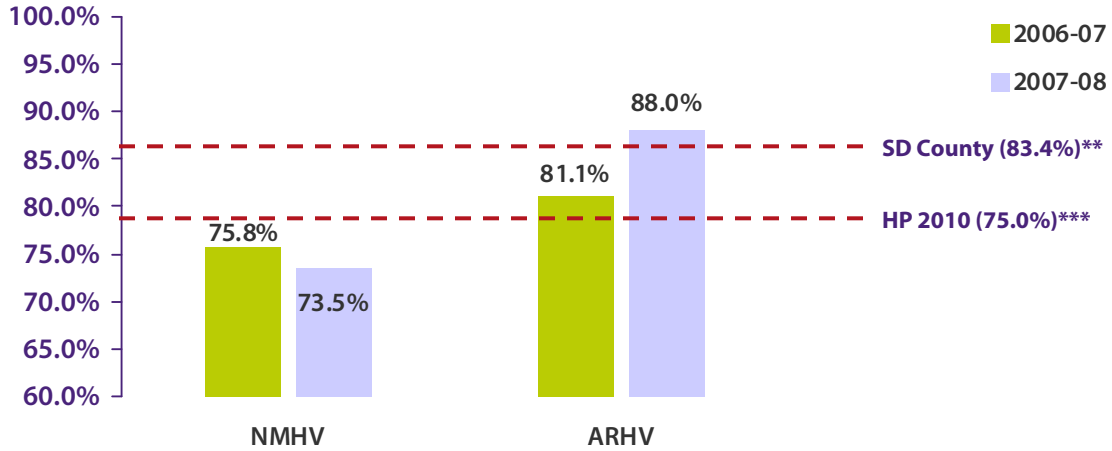
Exhibit 3.9 and 3.10 also show the rates of breastfeeding from various secondary data sources. The bar graph in Exhibit 3.9 shows that during FY 2006-07 the rates of breastfeeding at 6 weeks of age for both NMHV and ARHV children met or surpassed the Healthy People 2010 goal, though the rate dropped slightly below the goal for NMHV children during FY 2007-08. Exhibit 3.10 indicates that the Healthy People 2010 goal of breastfeeding at 6 months of age was surpassed both this year and last. ARHV showed higher breastfeeding rates than NMHV, perhaps because families receiving ARHV are benefiting from the ongoing support of a home visitor, while NMHV services are typically only given once.

<sup>102</sup> Bright Futures Children's Health Charter. "Nutrition Issues and Concerns." Bright Futures in Practice: Nutrition. Washington, DC: Georgetown University, 2002.

<sup>103</sup> American Academy of Pediatrics Work Group on Breastfeeding. "Breastfeeding and the Use of Human Milk." Pediatrics, 100 (1997): 1035-39.

<sup>104</sup> Lactation support is not part of all at-risk home visitors' protocol therefore caution should be used when interpreting the long-term breastfeeding findings. These outcomes may not actually be a result of the service. ARHV providers will not collect this data beginning FY 2008-09.

**Exhibit 3.9** Breastfeeding rates at 6 weeks of age by service\*

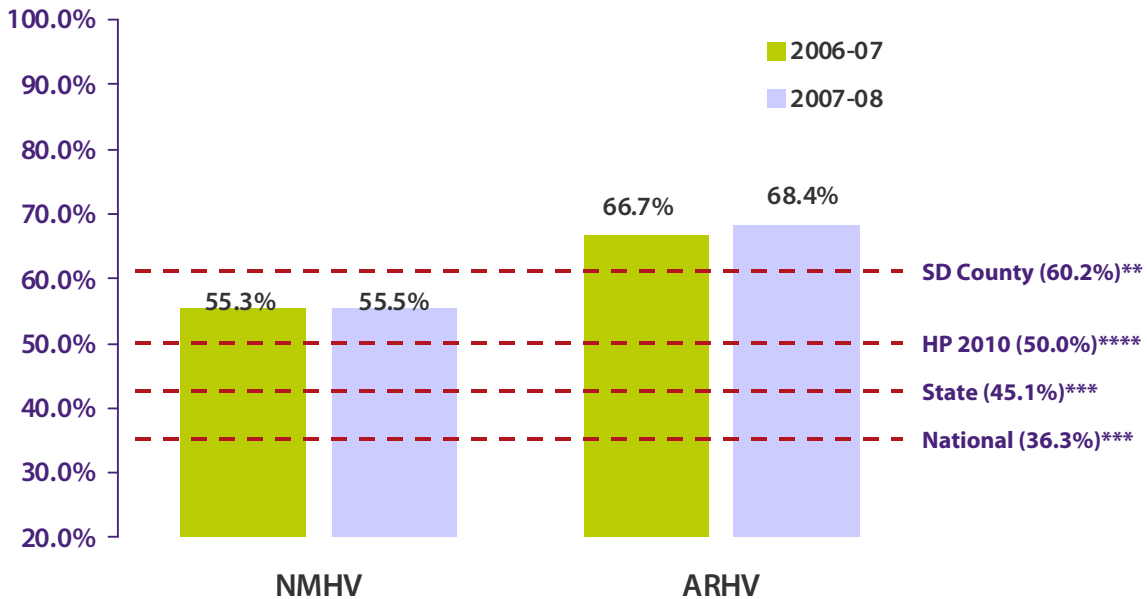


\*Includes the valid percent of children with breastfeeding status (does not include unknown or missing data).

\*\*Source: *First 5 San Diego Family Survey Report*. San Diego, CA: Author, 2005.

\*\*\*Source: Office of Disease Prevention and Health Promotion, "Maternal, Infant and Child Health." *Healthy People 2010: Volume II*. Washington DC: U.S. Department of Health and Human Services, 2000. Accessed 5 September 2007. <[www.healthypeople.gov](http://www.healthypeople.gov)>

**Exhibit 3.10** Breastfeeding rates at 6 months of age by service\*



\*Includes the valid percent of children with breastfeeding status (does not include unknown or missing data).

\*\*Source: *First 5 San Diego Family Survey Report*. San Diego, CA: Author, 2005.

\*\*\*Centers for Disease Control and Prevention. *National Immunization Survey*. 2004. Accessed 3 January 2006. <[www.cdc.gov/nis](http://www.cdc.gov/nis)>

\*\*\*\*Source: Office of Disease Prevention and Health Promotion, "Maternal, Infant and Child Health." *Healthy People 2010: Volume II*. Washington DC: U.S. Department of Health and Human Services, 2000. Accessed 5 September 2007. <[www.healthypeople.gov](http://www.healthypeople.gov)>

In FY 2007-08, HDS home visitation providers began to report in aggregate the change in breastfeeding status over time. Specifically, they documented the number of children who were breastfeeding at the first visit and 6 weeks of age, and first visit, and 6 months of age. While the majority of reported children were breastfed at both time periods for both NMHV and ARHV, it is interesting to note that of children who were *not* breastfeeding at the first visit, approximately 4.0% of children were breastfeeding at 6 weeks of age and 3.0% of children were being breastfed at 6 months of age. These results may indicate that the breastfeeding support that NMHV and ARHV provide new mothers may help to initiate breastfeeding behavior after the first visit.

### Assessment and Treatment

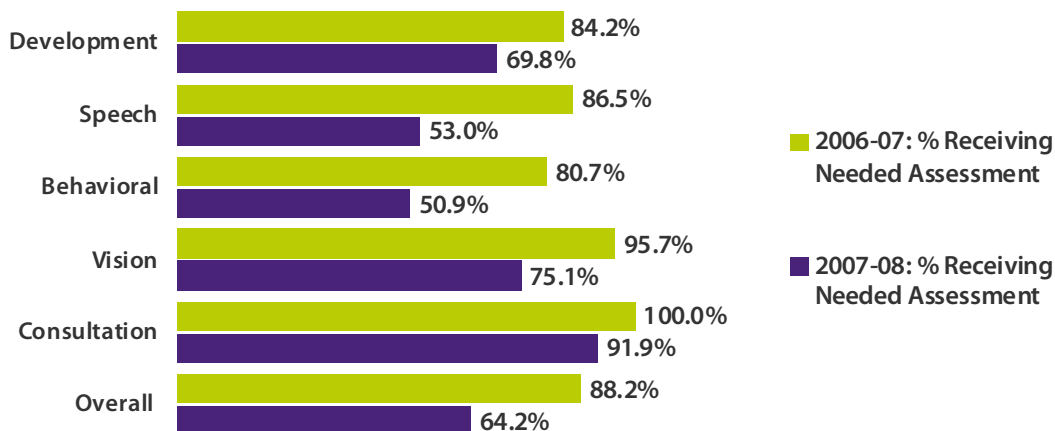
Because HDS is designed as a system of care, a critical measurement of the system’s success is referrals across the system and the initiation of services. Data were collected on the percent of children who received an assessment and treatment after being identified as needing these services. Data were collected in five service areas: developmental, speech and language, behavioral, behavioral consultation, and vision.

**Assessment:** Overall, the majority of those children needing assessments still received them (a combined 64.2% for all service areas). Completed assessments for all service areas decreased in FY 2007-08 compared to the previous fiscal year, with speech and behavioral services seeing the largest decrease in assessment completions (Exhibit 3.11).

Additionally, a total of 83.4% who received an assessment were subsequently identified as needing treatment (an increase from last year’s 67.1%), which indicates that the screening and referral process is increasingly more accurate, as there were more children assessed this year who were presenting with health and developmental delays (See Exhibit 3.12).

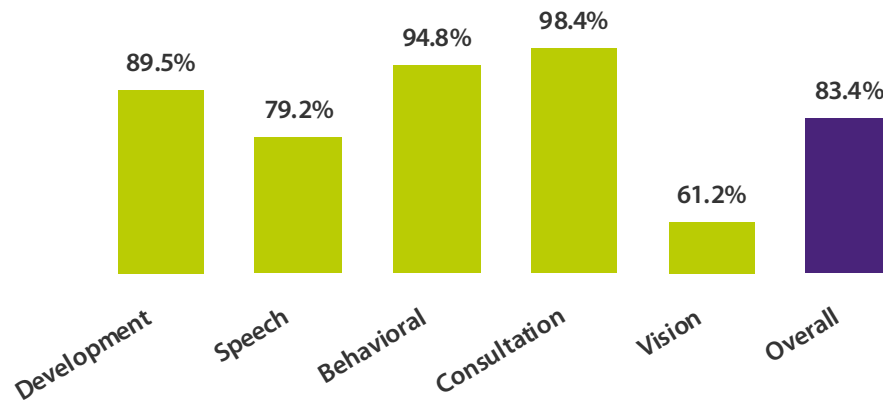
**During FY 2007-08, approximately 64.2% of all children needing assessment and 73.4% of children needing treatment received services.**

**Exhibit 3.11** Children receiving assessment based on need by service\*



\*Includes the valid percent of children receiving services (pending services were not included).

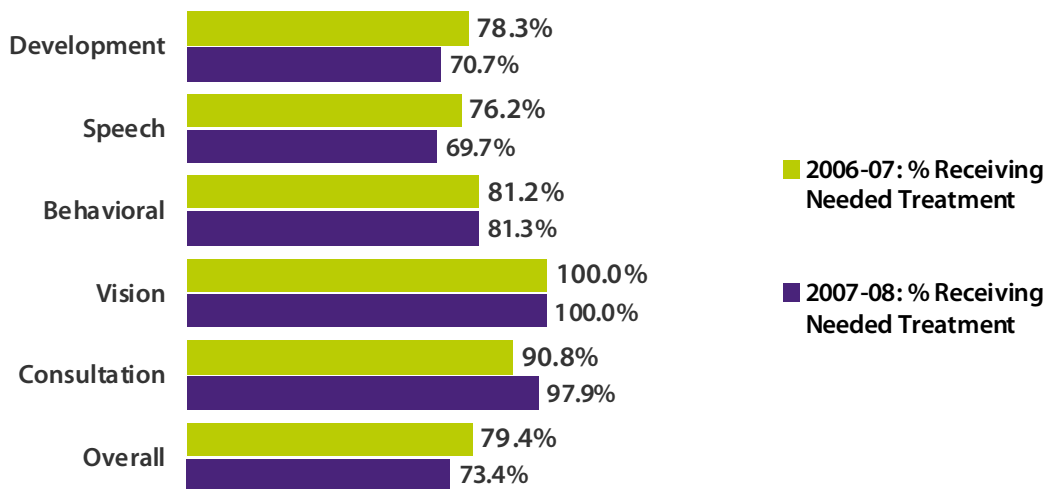
**Exhibit 3.12** Assessments that indicated treatment need by service - FY 2007-08\*



\*Includes the valid percent of children whose assessment showed need (does not include missing data).

**Treatment:** Overall, 73.4% of children needing treatment received services. Similar to the assessment data, there was a slight decrease compared to last fiscal year in children who received treatment based on those that needed it for both developmental and speech services. Other service areas had similar findings or improvements from last year. (See Exhibit 3.13.)

**Exhibit 3.13** Children receiving treatment based on need by service\*



\*Includes the valid percent of children receiving services (pending services were not included).

**Attrition:** The number of children not receiving the services they needed during FY 2007-08 was about one-third (35.8%) for assessments and one-quarter (26.6%) for treatment. The most common reasons for children not receiving needed services included that the family was lost to follow-up (47.2% for assessments and 50.5% for treatment across all service areas) and the family declined services (30.0% for assessments and 23.0% for treatment across all service areas).<sup>105, 106</sup> One reason for this may be that families do not understand the

<sup>105</sup> “Lost to follow-up” is defined as a family who has not been successfully contacted because the family has moved, has a wrong or disconnected phone number, or has not returned messages.

importance of early intervention services or are resistant to receiving services so they do not follow through on provider phone calls or appointments. In addition, families may more and do not provide forwarding information. More case management services are need to ensure that families are not lost when their children have health and developmental needs that can easily be met.

**Wait time for services:** Approximately 20% of children referred for either assessment or treatment had no reported outcome. It is likely that these children were put on waiting lists for services or were referred near the end of the reporting period when there was not enough time to receive the service. Similar to the previous fiscal year, there are wait times for some services. In the most impacted regions, wait times for speech services reached two months; wait times for behavioral services ranged between two weeks and up to six months for one provider. While regional leads are working with AAP to address these issues, these figures indicate a need for more resources at the assessment and treatment provider agencies. Some HDS-associated providers noted that the increase in screenings has, in turn, increased the number of children identified with delays. In general, the assessment and treatment components are more costly and require a greater number of qualified professionals than are currently available in San Diego County – particularly speech and language and behavioral therapists (see the systems evaluation component of this chapter for more information).

#### Child Health and Developmental Gains

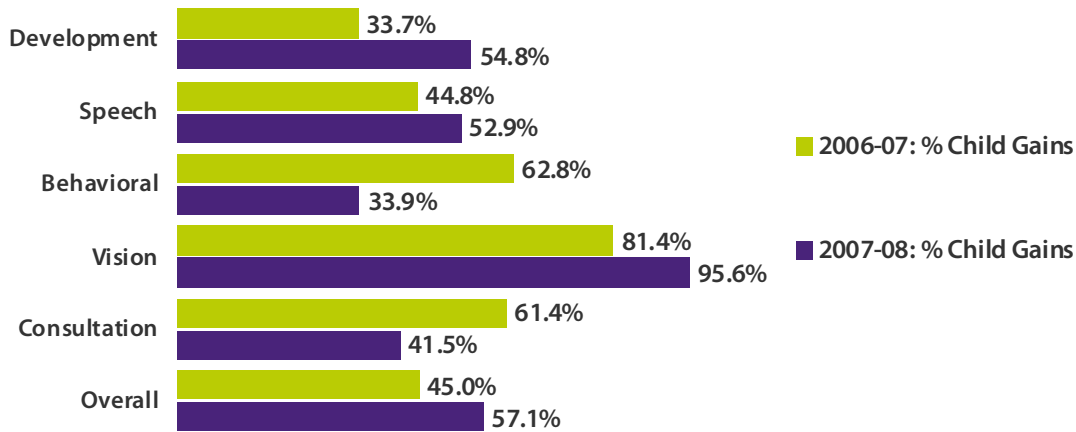
One of the most important and challenging HDS outcomes to measure is a child's health and developmental gains as a result of treatment.<sup>107</sup> Exhibit 3.14 illustrates the combined percent of children with gains in each service area as a result of the treatment, comparing FY 2007-08 to the previous fiscal year. Across the project, over half (57.1%) of all children tracked showed gains (an increase from last year's 45.0%). FY 2007-08 data shows an increase in children showing gains after receiving developmental and vision services; however, children's gains in behavioral services decreased.

**Across the project, over half (57.1%) of all children tracked during FY 2007-08 showed gains based on treatment received through HDS.**

<sup>106</sup> These percentages are out of the total number of children who did not receive an assessment (n=3511 out of 9798); and those that did not receive treatment (n=1880 out of 7068).

<sup>107</sup> Please see Appendix B for information on the limitations of this indicator.

**Exhibit 3.14** Child gains due to HDS treatment by service\*



*\*Includes the valid percent of children reported as showing gains (pending outcomes were not included).*

It is important to note that some delays are more straightforward in their treatment and ability to exhibit gain than others, which accounts for some of the difference in child gain results. For example, the measurement of child gain for vision services is the use of corrective lenses, a relatively simple and low cost corrective action. It is expected that the percentage of gain be relatively high. By contrast, the other services show more modest gains, but these services have more complex measurements of gain. Behavioral treatment, in particular, may include a long period of treatment through classes or one-on-one sessions, and gains may be measured by multiple measurement tools. Children may be in services for a relatively long period of time before gains are realized. While behavioral service providers reported only 33.9% of their clients showed a gain, 30.9% of children not yet showing a gain will continue in their treatment services.

Specifically, when children did not demonstrate a gain, the following reasons were reported (percentages reported for all services in aggregate):

- Child was lost to follow-up or family refused measurement (58.7%)
- The measurement of the gain was unclear, which may point to additional needs (18.1%)
- Child continued in program (12.7%)
- Child was referred to another non-HDS provider for additional services (8.1% )
- Child was referred to another HDS provider for additional services (1.3%)

### Parent Knowledge and Skill Increase

The PS&E subcontractors are charged with assisting parents in learning about children’s health and developmental needs and how to navigate complex systems of care. Other intensive services, like those seen in child treatment and ARHV, include a parent component where the parent is directly participating in classes, workshops, or one-on-one sessions. To measure the impact of these services, these parents completed a brief survey before and after receiving services to document changes in knowledge and skills. These surveys included

program-specific measures which are aggregated to show results across each service area.<sup>108</sup>

As part of the post test, parents were all asked the extent to which they agreed with a set of three, standardized, general statements:

- **Knowledge:** As a result of the program, I know more about the health and developmental needs of my child.
- **Skills:** As a result of the program, I can do more to help my child's health and development.
- **Empowerment:** As a result of the program, I will be able to meet the health and developmental needs of my child in the future.

Results of the three general parent questions were aggregated across service areas and follow in Exhibit 3.15 showing comparisons between fiscal years. Not surprising, the numbers of parents who agreed with these statements continued to be high this fiscal year, though some of the results were slightly lower than those reported in FY 2006-07. Although these questions do not ask parents to specify what they have learned or increased as a result of the program, these responses indicate that, according to parents, they are generally benefiting from HDS programs.

**Exhibit 3.15** Parent affirmative responses to general questions (aggregated across service areas)\*



*\*Valid percents (unknown or missing responses were not included)*

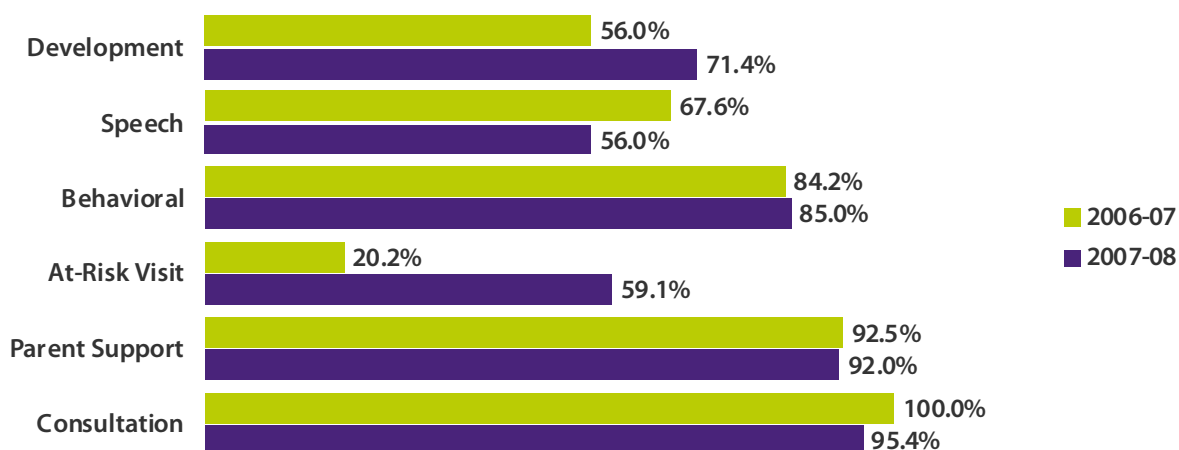
In addition to the three general questions, parents' knowledge and skills were also measured by service providers using program-specific tools as noted above. These results can be seen in Exhibits 3.16 and 3.17 by service area and fiscal year. Though many parents exhibited improvements in knowledge and skills, the results for FY 2007-08 were somewhat mixed, depending on the service area. Similar to FY 2006-07, over 80% of parents receiving services through PS&E, behavioral services, and behavioral consultations exhibited knowledge and skills gains. For increased knowledge specifically, parents showed far lower increases in the ARHV (59.1%), speech (56.0%) and developmental (71.4%) service areas. However, this fiscal year – in comparison to the previous fiscal year – ARHV possessed a much higher percentage of parents who

<sup>108</sup> Please see Appendix B for information on the limitations of this indicator.

demonstrated increased knowledge. Results pertaining to enhanced skills for FY 2007-08 are similar to the knowledge findings, though more parents had increased skills than knowledge for both developmental and speech service areas.

Reasons for minimal increases in knowledge and/or skills between pre- and post-test scores could be a result of the pretest score being high (indicating existing knowledge/skills)<sup>109</sup>, a parent’s lack of knowledge gain, and/or an unclear result or score (perhaps indicating additional needs). One service area that continued to have high pretest scores was ARHV, with 23.6% for knowledge and 35.1% for skills. Additionally, speech services reported that 30.6% of parents had a high pretest score on knowledge. These data suggest that parents may already be knowledgeable and skillful at some level when they begin services. Further assessment is needed to determine whether the appropriate populations are being served through ARHV and speech, or the measurement tools are not sufficiently sensitive to detect changes in parents’ knowledge and skill level.

**Exhibit 3.16** Parent increases in knowledge by service\*



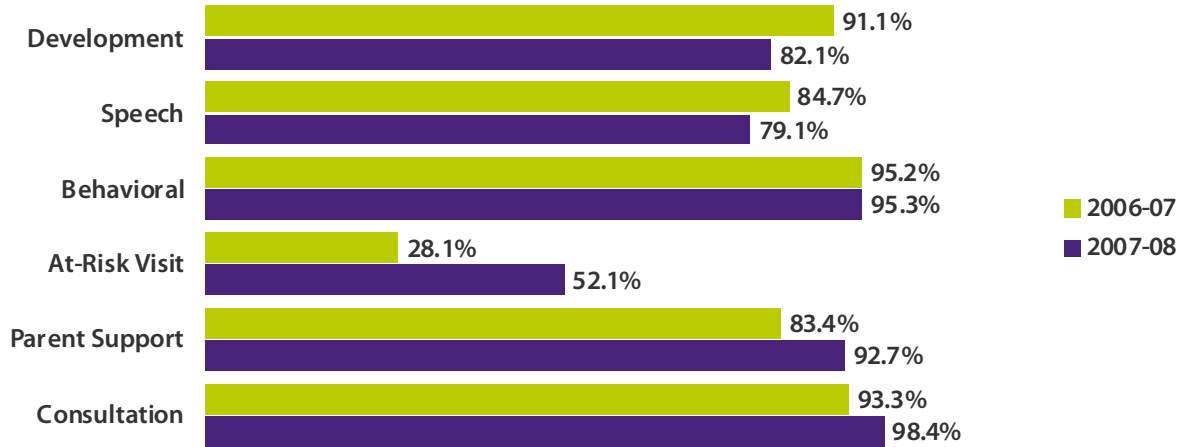
*\*Valid percents (unknown or missing responses were not included)*

**“What [C3] gave me was invaluable. You cannot put a price tag on it. ... My life is night and day, and it’s day now. The sun is shining. ... The growth and the transformation he made just from those classes was astounding. ... If he can [behave] here [at the C3 classes], he can do it at home, at the playground, and at school.”**

**-Lisa, First 5 Parent**

<sup>109</sup> The HDS indicator specifies an increase or improvement of knowledge and skills, therefore parents scoring high on a pretest were not considered “improving.”

**Exhibit 3.17** Parent increases in skills by service \*



\*Valid percents (unknown or missing responses were not included)

### Children and Families Use of Health and Developmental Resources

The final HDS outcome aims to measure the appropriate use of resources by children and their families in two areas:

- Health care (both preventative and urgent)
- Cognitive and social-emotional care

In order to measure these indicators, a two-fold design was crafted that includes reporting results of four components related to the children’s use and access of health care, as well referral tracking and reporting to services both within and outside of the HDS network.

#### Children’s Access and Use of Health Care

This section includes data related to four elements of children’s access and use of health care, including the status of children having:

- 1) Health insurance
- 2) A primary medical provider (i.e., medical home)
- 3) An annual well child preventive exam
- 4) Up-to-date immunizations

All four of these items are important in terms of ensuring appropriate health care for children. Both home visitation service areas (NMHV and ARHV) collected this data during FY 2007-08, as these service providers connect clients to appropriate health care resources.<sup>110</sup> All home visitors were asked to collect this data at baseline (entry into services), and again at

**2007-08 Overall Child Health Care Access/Use Results**

- Health Insurance: 95.8%
- Medical Home: 98.2%
- Annual Child Exam: 98.0%
- Up-to-Date Immunizations: 84.5%

<sup>110</sup> In the previous FY, PS&E and Developmental service providers also collected this data; however it was determined that these providers did not consistently assess health care needs among clients, nor did they often refer families to resources as part of service delivery, and therefore these providers did not collect this data in FY 2007-08.

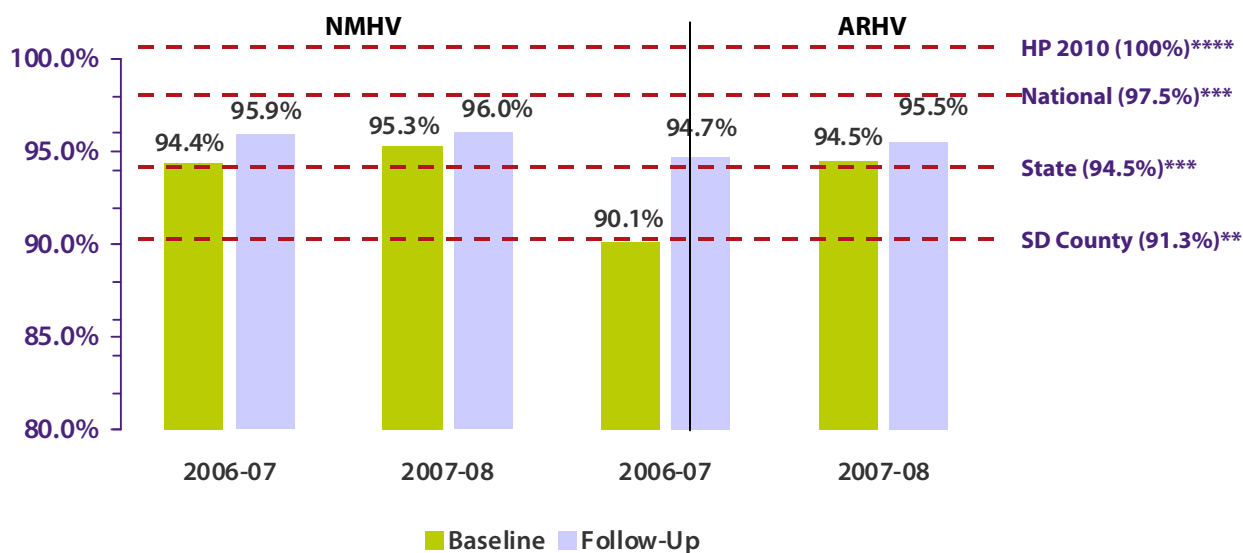
follow-up (i.e., at 6 months of child’s age for NMHV; at case closure for ARHV).<sup>111</sup> The following subsections offer details of each of the four children’s access and use of health care elements.

**Health Insurance**

During FY 2007-08, HDS children’s health insurance rates at baseline and follow-up were at or above 90%, which generally coincides with other county, state, and national comparison and benchmark data (Exhibit 3.18). Notably, both types of home visitation providers’ data present a higher rate of insured children at follow-up – a combined rate of 95.8% of children had insurance at NMHV and ARHV follow-up. Additionally, insured rates were slightly higher this fiscal year than last.

A large majority of children had insurance at both pre and post periods (NMHV = 91.5%; ARHV = 91.0%), with some becoming insured at post after not having insurance at the first visit (both NMHV and ARHV = 4.5%). There were a small portion of children who were insured at the first visit but were uninsured at post (NMHV = 3.8%; ARHV = 3.5%), and less than 1% did not have insurance at either time period (NMHV = 0.2%; ARHV = 1.0%).

**Exhibit 3.18** Children with health insurance by service\*



\*HDS data includes valid percents (does not include unknown or missing responses)  
 \*\*Source: First 5 San Diego. *Family Survey Report*. San Diego, CA: Author, 2005.  
 \*\*\*Source: University of California, Los Angeles, *California Health Interview Survey*. 2005. Accessed 30 May 2007. <www.chis.ucla.edu>  
 \*\*\*\*Source: Centers for Disease Control and Prevention. *National Survey of Early Childhood Health* (n=2,068). 2000. Accessed 14 October 2005. <www.cdc.gov/nchs>  
 \*\*\*\*\*Source: Office of Disease Prevention and Health Promotion, “Maternal, Infant and Child Health.” *Healthy People 2010: Volume II*. Washington DC: U.S. Department of Health and Human Services, 2000. Accessed 5 September 2007. <www.healthypeople.gov>

<sup>111</sup>During FY 2007-08, this data was collected in aggregate; however, service providers reported how specific clients changed from pre to post. This is different method from how data was collected last year, and therefore this portion of the chapter includes tables that present the change from pre to post for this FY, as well as graphs that present comparisons of aggregated results at pre and post for this FY and last FY.

### ***Medical Home***

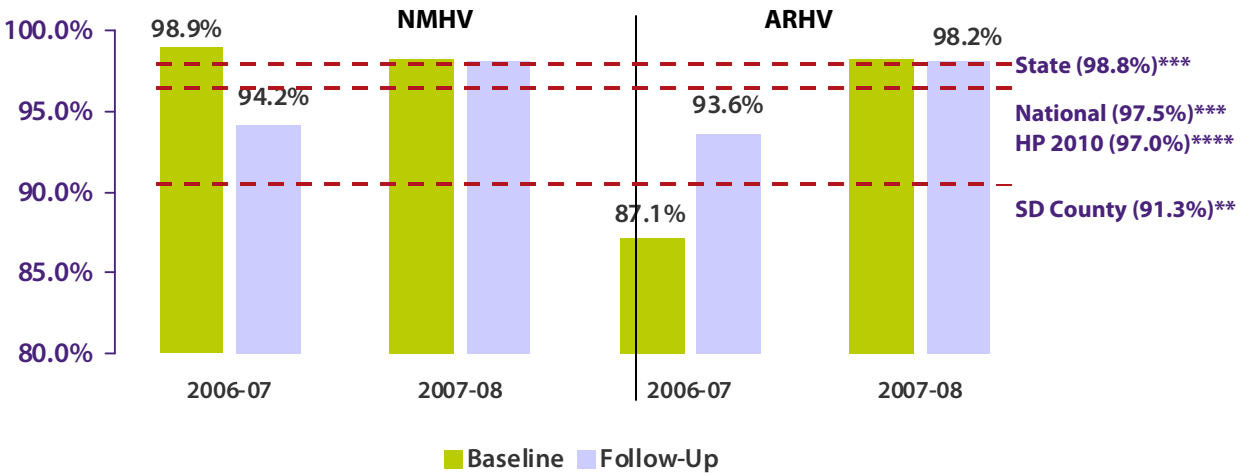
Children with a medical home are more likely to use appropriate preventive and urgent health resources, as well as have better health outcomes.<sup>112</sup> Medical home rates among children tracked during FY 2007-08 were high (between 98-99%), surpassing the Healthy People 2010 goal, as seen in Exhibit 3.19.<sup>113</sup> Additionally, the data show a larger percentage of children with a medical home for both NMHV and ARHV than last year. There were however, fewer children with a medical home at follow-up than baseline for both home visitation service areas. Overall, across both service areas at follow-up, approximately 98.2% of children served had an appropriate source of medical care at *both* baseline and follow-up (NMHV = 97.9%; ARHV = 98.2%). Less than 2% of children who had a medical home at baseline, but the follow-up measure indicated an inappropriate source of medical home – an urgent care facility, emergency room, a source outside of the United States or no facility (NMHV = 1.8%; ARHV = 1.6%).

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<sup>112</sup> Institute of Medicine (U.S.). Health Insurance is a Family Matter. National Academies Press, 2002, 111.

<sup>113</sup> For this element, any parent's response that the child *normally* received care from a primary care physician/group, community clinic, or military medical facility was considered to be a medical home.

**Exhibit 3.19 Children with a medical home by service\***



\*HDS data includes valid percents (does not include unknown or missing responses)

\*\*Source: First 5 San Diego. *Family Survey Report*. San Diego, CA: Author, 2005.

\*\*\*Source: University of California, Los Angeles, *California Health Interview Survey*, 2005. Accessed 30 May 2007. <[www.chis.ucla.edu](http://www.chis.ucla.edu)>

\*\*\*\*Source: Centers for Disease Control and Prevention. *National Health Interview Survey*. (n=12,249). 2003. Accessed 8 October 2005. <[www.cdc.gov/nchs/nhis](http://www.cdc.gov/nchs/nhis)>

\*\*\*\*\*Source: Office of Disease Prevention and Health Promotion, "Maternal, Infant and Child Health." *Healthy People 2010: Volume II*. Washington DC: U.S. Department of Health and Human Services, 2000. Accessed 5 September 2007. <[www.healthypeople.gov](http://www.healthypeople.gov)>

### Well Child Visits

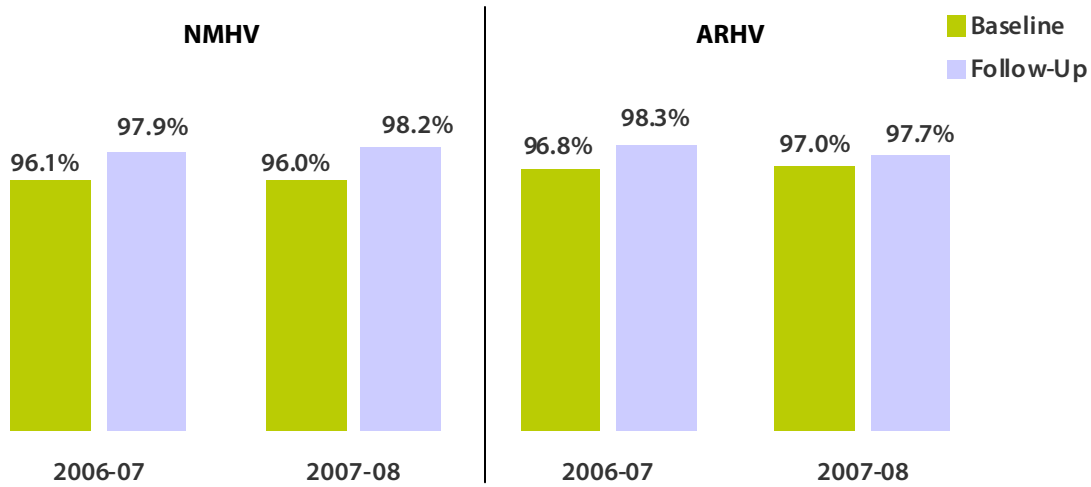
Well child check-ups are important for appropriate preventive care, allowing physicians to promote behaviors conducive to healthy development and give age-appropriate counseling.<sup>114</sup> HDS home visitation service providers asked parents if their child had received their initial medical visit (for children ages 2 months and under) or if their child had had any well-child check-ups within the last year (for children older than 2 months). There are no appropriate county, state, or national data for comparison.<sup>115</sup>

For both service areas and fiscal years, there was an increase in the percentage of children with an annual preventive visit at follow-up, with consistency across the two years (see Exhibit 3.20). When combining the number of children served by NMHV and ARHV, 98.0% of the children received an annual well child visit by follow-up. Similar to the other health care access measurements, most children received a well child exam at both pre and post. There were some children who had not visited their primary care at baseline, but successfully received that visit by post (3.7% for NMHV, 2.0% for ARHV).

<sup>114</sup> M. Regalado and N. Halfon, "Primary Care Services Promoting Optimal Child Development from Birth to Age Three Years: Review of the Literature," *Archives of Pediatrics and Adolescent Medicine* 155 (12,2001): 1311-1312. Available at [http://www.cmwf.org/usr\\_doc/regalado\\_optimalchild\\_531.pdf](http://www.cmwf.org/usr_doc/regalado_optimalchild_531.pdf).

<sup>115</sup> The only similar contextual data found includes the average number of general well child visits that children ages 0-2 have had within the past year. These data cannot be used for comparison to HDS results, however, because HDS does not ask how many visits the child has had throughout the previous 12 months.

**Exhibit 3.20** Children with an annual well child visit by service\*



\*HDS data includes valid percents (does not include unknown or missing responses)

### **Child Immunizations**

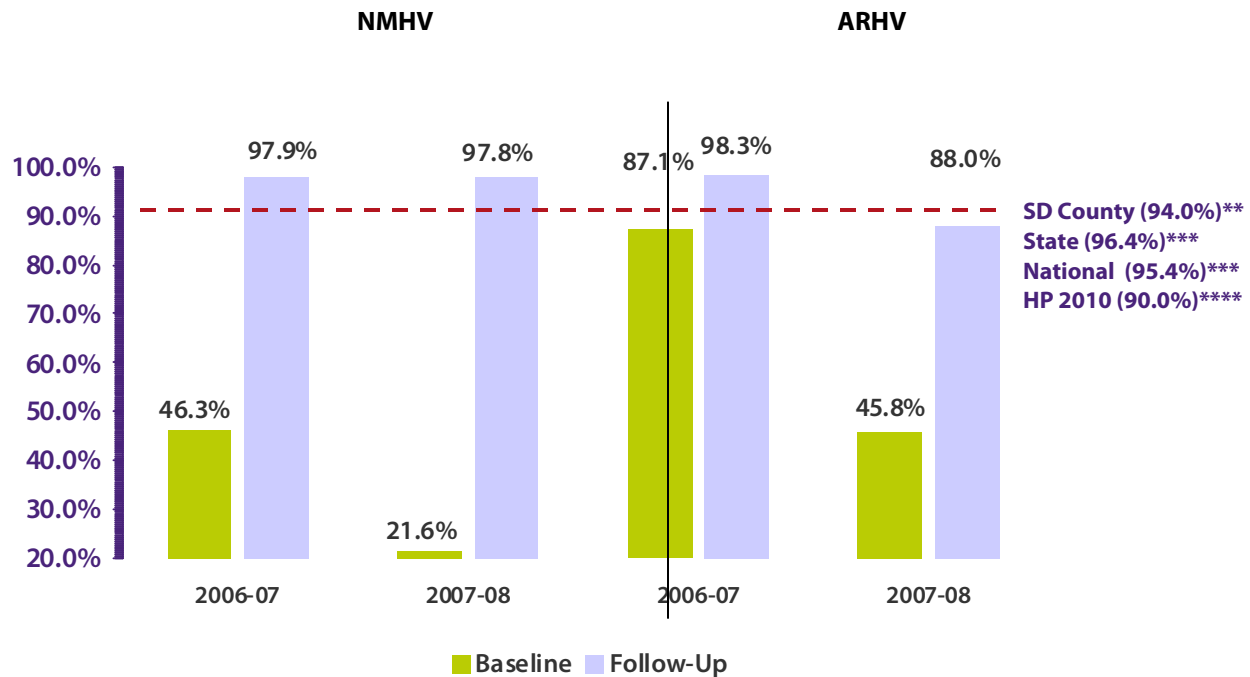
Children who have health insurance and who use appropriate preventive health care resources are more likely to have up-to-date immunizations.<sup>116</sup> For FY 2007-08, the rate of up-to-date immunizations at baseline was well below the Healthy People 2010 marker for both NMHV and ARHV. Importantly, nearly all NMHV children and most ARHV children tracked were current on their immunizations by the follow-up visit (exhibit 3.21).<sup>117</sup> When NMHV and ARHV results are combined at follow-up, 84.5% of the children had up-to-date immunizations. Interestingly, both NMHV and ARHV populations exhibited a lower rate of children with current immunizations at baseline in FY 2007-08 compared to FY 2006-07 (NMHV exhibited 21.6% vs. 46.3%, respectively and ARHV reported 45.8% vs. 87.1%), though there is no indication why this trend occurred.<sup>118</sup>

<sup>116</sup> Trust for America's Health/Every Child By Two. Closing the Vaccination Gap: A Shot in the Arm for Childhood Immunization Programs. August 2004. [www.healthyamericans.org](http://www.healthyamericans.org).

<sup>117</sup> HDS home visitation providers collected immunization status for children over 2 months old by either parent self-report or checking the child's immunization card. As many parents are not actually aware of the recommended vaccination schedule, parent self-report is sometimes unreliable in determining rates of up-to-date immunizations. Therefore, the verification method (i.e., reviewing the card) was preferred whenever feasible.

<sup>118</sup> Most NMHV first visits occur during the first 2 weeks of life, however this data was only collected on children whose first visits (i.e., baseline measurement) occurred when they were age 2 months and older, and therefore eligible for a vaccination.

**Exhibit 3.21** Children with up-to-date immunization status by service\*



\*HDS data includes valid percents (does not include unknown or missing responses)

\*\*Source: California Department Health Services, Immunization Branch, "2006 Kindergarten Assessment Results," Accessed 4 September 2006.

\*\*\*Source: Centers for Disease Control and Prevention, "Vaccination Coverage Among Children Entering School, United States 2005-2006 School Year," October 20, 2006 SS(41) 1124-1126

\*\*\*\*Source: Office of Disease Prevention and Health Promotion, "Maternal, Infant and Child Health." *Healthy People 2010: Volume II*. Washington DC: U.S. Department of Health and Human Services, 2000. Accessed 5 September 2007. <www.healthypeople.gov>

### Use of Referrals

For the first time, this year HDS providers tracked and reported referrals for children from HDS providers to other HDS network services, as well as to agencies outside of the HDS network. HDS providers were required to track a sample of the completion of referrals within their HDS Regional Service Network during FY 2007-08. All referrals made outside of the HDS Regional Service network were also counted and reported by service category, but not tracked for successful linkage.

#### ***Referrals Internal to the HDS Network***

One goal in creating HDS as a network of services is to enhance the coordination of providers who are serving young children and their families. Under the direction of the regional leads, HDS providers share resources and coordinate referrals. Yet, measuring referral outcomes across all service areas in HDS is challenging.<sup>119</sup>

Below are the key findings related to HDS services that *provided* referrals to their clients during this fiscal year (see Exhibit 3.22 for details).

<sup>119</sup> The referring agency is responsible for reporting the number of children given out-going referrals. The referring agency also follows up with the agency to which they referred to track the results for a sample of those referrals. Following up with the family is conducted as a last resort if not other information is available. The sampling size for referral outcomes was a minimum of 25%.

- Of the 10,883 total children who received a referral, most of those children were being served by the two primary gateway service areas – NMHV (n=4,169) or developmental (n=3,902).
- Similar to last year, the majority of all NMHV referrals were to PS&E and ARHV, while most of developmental service referrals were to speech and language.
- ARHV and hearing service areas had the largest increases in referrals since FY 2006-07.
- Overall referral completion rate was 75.6%, with vision, hearing, and developmental providers reporting the highest percent of children receiving services at the referred-to agency.
- Most service areas reported that at least 60% of their clients received the referred-to service, though NMHV reported slightly lower numbers, with 57.6% of their children linking successfully.
- As stated previously, there are many reasons why a family may not receive services. For those clients that did not initiate services, the majority were lost to follow-up. Additionally, families may decline services or may not follow through with the appointment for new services, especially if they are uncomfortable or unclear about the purpose of the service.

During FY 2007-08, a total of 10,883 children/families being served in HDS received a referral to another HDS service, for a total of 11,071 referrals. Three quarters (75.6%) of those referrals resulted in a successful initiation of services.

**Exhibit 3.22 Referrals within HDS Network by service and fiscal year:  
Services providing referrals**

Service Area	FY 2006-07		FY 2007-08	
	Total Children Referred OUT n*	Initiated Services Valid %**	Total Children Referred OUT n*	Initiated Services Valid %**
Developmental Services	3,444	55.8%	3,902	76.0%
Speech / Language Services	318	71.1%	314	65.9%
Behavioral Services	46	80.6%	153	72.9%
Newborn Medical Home Visitation (NMHV)	5,210	86.9%	4,169	57.6%
At-Risk Home Visitation (ARHV)	47	72.2%	539	62.2%
Vision Services	0	-	1	100.0%
Hearing Services	0	-	1,560	99.9%
Parent Support and Empowerment (PS&E)	84	76.9%	70	71.0%
Health / Behavioral Consultation Services	76	86.6%	175	65.1%
<b>Total</b>	<b>9,225</b>	<b>71.5%</b>	<b>10,883</b>	<b>75.6%</b>

\*Includes total number of children referred by HDS service areas to other HDS services. Children could have been referred to a service area more than once, but are counted here only once. The total number of referrals for FY 2007-08 was 11,071.

\*\*The valid percent of referrals (NOT children referred) resulting in an initiation of services includes only those where the outcome of the referral was tracked and determined (pending referrals waiting to receive confirmation from referred-to agency were not included). Initiation of services was reported by referring agency, not the referred-to agency, therefore this may be an underreporting of completed referrals.

Below are the key referral process findings related to HDS services *receiving* the referrals (see Exhibit 3.23 for details).

- The HDS service areas receiving the most internal referrals in order are as follows: speech, ARHV, developmental, and PS&E.
- The developmental service area had the largest increase in receiving referrals during FY 2007-08.
- Clients referred to developmental and PS&E had the highest rates of referral completion (94.4% and 85.2%, respectively), while ARHV and behavioral services had the lowest completion rate (57.0% and 64.3%).

<b>Exhibit 3.23 Referrals <u>within</u> HDS Network by service and fiscal year: Services <u>receiving</u> referrals</b>				
<b>Service Area</b>	<b>FY 2006-07</b>		<b>FY 2007-08</b>	
	<b>Total Children Referred IN n*</b>	<b>Initiated Services Valid %**</b>	<b>Total Children Referred IN n*</b>	<b>Initiated Services Valid %**</b>
Developmental Services	321	80.6%	2,064	94.4%
Speech / Language Services	2,596	51.4%	2,760	81.7%
Behavioral Services	298	71.0%	395	64.3%
Newborn Medical Home Visitation (NMHV)	1	100.0%	0	-
At-Risk Home Visitation (ARHV)	2,718	84.4%	2,564	57.0%
Vision Services	140	56.5%	428	69.9%
Hearing Services	152	53.2%	486	58.2%
Parent Support and Empowerment (PS&E)	2,913	97.0%	2,033	85.2%
Health / Behavioral Consultation Services	86	51.1%	153	67.1%
<b>Total</b>	<b>9,225</b>	<b>71.5%</b>	<b>10,883</b>	<b>75.6%</b>

\*Includes total number of children referred by HDS service areas to other HDS services. Children could have been referred to a service area more than once, but are counted here only once. The total number of referrals for FY 2007-08 was 11,071.

\*\*The valid percent of referrals (NOT children referred) resulting in an initiation of services includes only those where the outcome of the referral was tracked and determined (pending referrals waiting to receive confirmation from referred-to agency were not included). Initiation of services was reported by referring agency, not the referred-to agency, therefore this may be an underreporting of completed referrals.

From both referral provider and referral receiver perspectives, the most commonly noted reason for referrals not being successful was that many of the families were lost to follow-up (overall 16.4%), pointing to the need for more case management resources for families in the HDS system. Additional reasons for not linking to services included families refusing services (7.0%) and providers refusing the referral (1.0%).

### ***Referrals External to the HDS Network***

HDS providers were not required to track the results of referrals made to agencies outside of the HDS system of care, but were asked to report the total number of referrals made to different health and social services.<sup>120, 121</sup> The list of outside referral services included six broad categories and specific service organizations or types of services within each category:

- **Health Care Services:** includes First 5 San Diego’s Healthcare Access Initiative, primary care physician, public health nursing, other health-related services.
- **Dental Care Services:** includes First 5 San Diego’s Oral Health Initiative and other dental services.
- **Parent/Family Support Services:** includes First 5 San Diego’s First 5 for Parents Project and other parent support and education services.
- **Child Services:** includes First 5 San Diego’s School Readiness Initiative, child care/day care, child education services, such as Head Start and preschool, as well as other non-HDS child development services.
- **Early Intervention Services:** includes Regional Center, California Early Start, School Districts and other intervention services.
- **Other Services:** includes services not reported in the categories above, such as mental health care, basic and urgent needs, teen services, and other services as designated by the HDS providers.

**A total of 21,865 referrals were given to HDS clients for non-HDS services during FY 2007-08.**

A look at what HDS services were referring out of the HDS network is useful to determine which needs could not be met within that particular service or the HDS system. This year, a total of 21,865 referrals were provided to clients for services outside of HDS, which is a 26.4% increase from last year (see Exhibit 3.24). Both NMHV and ARHV service providers reported the highest number of outgoing referrals to outside agencies (5,764 and 4,764, respectively), which would be expected as the home visitation providers do an overall assessment of families, which in turn, may lead to additional needs that are not provided by HDS. This year, NMHV had a tremendous increase in the number of referrals given to outside agencies – proportionally greater than the increase in NMHV. Most of the referrals given through NMHV were for breastfeeding support and parent support or parent education services. Families being visited by ARHV are typically in need of many services to help them meet more urgent needs; therefore, it is no surprise that the majority of ARHV referrals outside of HDS were classified as basic needs (e.g., housing, food, clothes) and parent support.

<sup>120</sup> For referrals to outside agencies, it is unknown the extent to which subcontractors defined “referral” in the same manner. For instance, some providers may have thought that referrals were only defined as contact information given to parents as a result of an actual need for services vs. other providers who may have given a number of resources to parents in case they were interested in certain services.

<sup>121</sup> Note that the number of referrals is not necessarily the same as the number of children referred, as a child could have received multiple referrals.

Exhibit 3.25 presents the numbers of referrals that were made to services outside of HDS, quantified by six broad categories covering a variety of health and social services. Similar to FY 2006-07, the category receiving the most referrals this year is “Other,” which includes a variety of service organizations and programs. Over a third (38.3%) of the “Other” referrals were for basic and urgent needs, such as food and shelter. In the other service categories, referrals were most commonly provided for health care services (24.0%), over half of which were to a primary medical provider (56.8%). Early intervention services were also important (12.1%), and referrals to California Early Start, School Districts and the Regional Center made up 5.1%, 3.5% and 2.8% of the total referrals. There was a large increase in the number of referrals to parent and family support services compared to last fiscal year (an increase of 140%); however dental care referrals saw a large decrease (a decrease of 81%).

<b>Exhibit 3.24 Referrals to <u>outside</u> HDS Network: HDS services <u>providing</u> referrals</b>				
<b>Service Area (HDS)</b>	<b>FY 2006-07 Referrals</b>		<b>FY 2007-08 Referrals</b>	
	<b>n</b>	<b>%</b>	<b>n</b>	<b>%</b>
Developmental Services	1,657	9.6%	2,328	10.6%
Speech /Language Services	385	2.2%	472	2.2%
Behavioral Services	53	0.3%	202	0.9%
Newborn Medical Home Visitation	1,095	6.3%	5,764	26.4%
At-Risk Home Visitation	3,227	18.7%	4,764	21.8%
Vision Services	3,544	20.5%	1,051	4.8%
Hearing Services	5,226	30.2%	3,013	13.8%
Parent Support and Empowerment	1,979	11.4%	4,249	19.4%
Health / Behavioral Consultation Services	136	0.8%	22	0.1%
<b>Total</b>	<b>17,302</b>	<b>100.0%</b>	<b>21,865</b>	<b>100.0%</b>

**Exhibit 3.25 Referrals outside HDS Network:  
Services receiving HDS referrals**

Service Category (non-HDS)	FY 2006-07 Referrals		FY 2007-08 Referrals	
	n	%	n	%
Health Care Services	3,530	20.4%	5,244	24.0%
Dental Care Services	1,126	6.5%	217	1.0%
Parent/Family Support Services*	1,829	10.6%	4,384	20.1%
Child Services**	1,631	9.4%	2,791	12.8%
Early Intervention Services	2,143	12.4%	2,652	12.1%
Other	7,043	40.7%	6,577	30.1%
<b>Total</b>	<b>17,302</b>	<b>100.0%</b>	<b>21,865</b>	<b>100.0%</b>

\*These referrals can be for the Parent Education Initiative and other parent support education.

\*\*These referrals can be for child care/daycare, the School Readiness Initiative, child education such as Pre-K and Head Start and child development/behavior (non HDS).

As part of the First 5 San Diego goal to create a more integrated system of services for young families, First 5 is particularly interested in knowing how the various First 5 initiatives and projects intersect. In terms of HDS referrals to other First 5 funded projects, nearly 1,800 referrals were provided by HDS to these other First 5 services, which was approximately 8.2% of all referrals to outside programs/services (Exhibit 3.26). The percentage of referrals to other First 5 initiatives and funded services decreased from last fiscal year (10.2%). Comparison of the two years shows a large increase in referrals to School Readiness and Health Care Access, but a large drop in referrals to the Oral Health Initiative and First 5 for Parents project.

**Exhibit 3.26 HDS referrals to other First 5 funded initiatives/projects by fiscal year**

First 5 Project	FY 2006-07 Referrals	FY 2007-08 Referrals
	n	n
Healthcare Access Initiative	215	868
Oral Health Initiative	1,103	117
First 5 for Parents Project	474	228
School Readiness Initiative	27	574
<b>Total</b>	<b>1,819</b>	<b>1,787</b>

The reasons for fluctuations in referrals outside the HDS network and to other First 5 Initiatives are unknown. Trends may change due to changing needs of families served by HDS. Additionally, linkages to other F5 services or outside resources may change overtime, depending on the connection maintained between clinicians and other personnel. In areas where referral rates are low, new in-service presentations may be needed to remind HDS providers about the availability of additional services for their families.

## Making the Connection

HDS is the most purposeful attempt of the San Diego Commission to create, from the ground up, a more integrated system of developmental services for young children and their families. The vision was to infuse child development into parenting and provider practices; fill the gap in services for children with mild to moderate delays in the early years, when intervention will make a lifelong difference; to create a seamless network of development services that serve all families in San Diego County and to create connections between the systems that service children with developmental delays – from mild to severe delays – so children are referred and receive appropriate and prompt services. By structuring the project with six Regional Service Networks (RSNs), which brought together formerly isolated services and obliged them to collaborate, the Commission deliberately attempted to stimulate systems integration and change.

Evaluating systems change is challenging, thus, the HDS evaluation includes a robust system-level evaluation to track if, and how, the system of care for young children is being strengthened as a result of this initiative. This evaluation is based on the Substance Abuse and Mental Health Services Administration’s (SAMHSA) design for evaluating systems of care.<sup>122</sup> This approach examines the implementation and development of the HDS system of care and provides feedback for continuous improvement of the quality of each RSN and its countywide presence. The system level evaluation of HDS is designed to collect information on specific performance indicators. The performance indicators are determined by the intersection of the Initiative’s “Core Principles” (fundamental ideas or assumptions of the Initiative) and “Infrastructure/Service Domains” (key components of program operations; see Exhibit 3.27).

**Exhibit 3.27**  
**System-level Evaluation: HDS Service Components**

**Domains: Key Components of Program Operations**

<b>Infrastructure Domain</b>	<b>Service Delivery Domain</b>
<ul style="list-style-type: none"><li>▪ Leadership and Partnership</li><li>▪ Management and Operations</li><li>▪ Evaluation and Quality Assurance</li></ul>	<ul style="list-style-type: none"><li>▪ Service Provision</li><li>▪ Provider Capacity Building to Delivery Quality Services</li><li>▪ Parent Education, Support and Empowerment</li><li>▪ Linkages to Ancillary Supports</li></ul>

**Core Principles: Fundamental Assumptions of the Initiative**

For each domain component, the evaluation examines a variety of performance indicators according to each of the following eight Core Principles, or fundamental assumptions of HDS:

1. Comprehensive
2. Coordinated & Integrated
3. Family Focused
4. Early Intervening
5. Responsive to Cultural, Linguistic, and Special Needs
6. Readily Accessible
7. Accountable
8. Sustainable

<sup>122</sup> U.S. Department of Health and Human Services, Substance Abuse and Mental Health Services Administration. 2000 Annual Report to Congress on the Evaluation of the Comprehensive Community Mental Health Services for Children and Their Families Program. Accessed 27 August 2007. <<http://www.mentalhealth.samhsa.gov/publications/allpubs/CB-E200/arc05toc.asp>>

The data presented in this section documents the evolution of HDS over time in each Core Principle and Domain of the Evaluation Framework. Data collection activities used this fiscal year included:<sup>123</sup>

- **Online Survey of Regional Leads:** Lead representatives from each RSN were invited to participate in an online survey to assess progress toward achieving the goals in each of the areas described in Exhibit 2.30. Five out of the six regional leads participated in the survey.
- **Subcontractor Survey:** This online survey provided feedback from several HDS service providers regarding the coordination efforts of regional leads, and current successes and challenges within HDS. One representative from all HDS subcontractors (n=27) were invited to complete the online survey. A total of 19 responses were received, a response rate of 70.1%.
- **Regional Coordination Focus Group:** 11 HDS providers including Regional Leads, Case Managers, a Social Worker, Assessment Specialist, Research Associate, Program Director, and Regional Service Manager participated in this group to provide feedback on how regional coordination across the HDS system works.
- **Regional Lead Quarterly Reports:** In FY 2007-08, regional leads began tracking issues of collaboration, community involvement and outreach and community partnerships, as well as providing narrative descriptions of activities, successes and challenges.
- **Countywide Coordination Quarterly Reports:** A review was conducted of AAP's quarterly reports reflecting on the work they accomplished throughout the year.
- **HDS Meeting Agendas and Minutes:** Meeting minutes were reviewed for key activities and process decisions.

The system-level data show that there has been much change in each of the RSNs across the core principles. Key findings for each core principle, along with definitions, are provided in the following section. Where possible, comparisons to findings from the previous fiscal year are made.

## 1. Comprehensive

*Definition: A combination of new and existing multi-disciplinary and multi-agency services promoting children's health and development are responsive to the individual needs of children and families within the target population in each region.*

**Building Relationships:** The success of the HDS system of care depends to a large degree on the strength of the relationships between the lead contractors and their subcontractors that provide direct services, between the HDS lead (AAP) and local pediatricians, and between the HDS system and developmental services providers such as the Regional Center, California Early Start and the school systems.

As the countywide coordinator, AAP conducted 45 visits with local pediatric offices to help standardize the practice of performing developmental screenings in accordance with national AAP guidelines. AAP and the other HDS providers have worked and successfully built relationships with the 13 birthing hospitals that now provide referrals to NMHV, the Regional Center, California Early Start, public health nursing, and local school districts. None of these relationships existed prior to HDS.

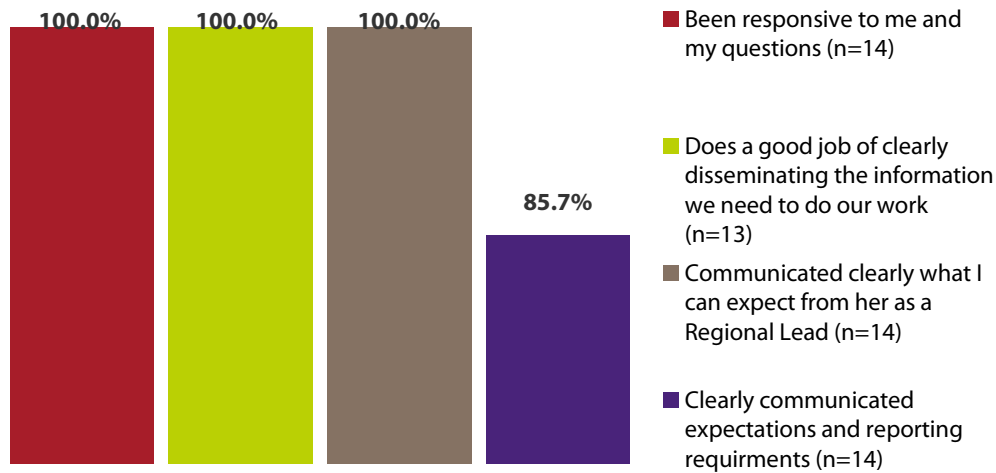
The regional leads also continued to successfully build relationships within their own networks, evidenced by

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<sup>123</sup> Additional details on the data collection activities can be found in Appendix B.

subcontractors' reporting a high level of satisfaction with their regional leads. All respondents of the subcontractor survey (100%) agreed that their regional network coordinator has been responsive, clearly communicates what their agency can expect from the regional lead, and does a good job of disseminating the information needed to do their work. Fewer subcontractors (85.7%) responded that expectations and reporting requirements are clearly communicated (see Exhibit 3.28).

**Exhibit 3.28** Subcontractors' Satisfaction with Regional Coordination\*



\* Valid percents are reported. 'Not applicable' responses were coded as invalid and not reported.

**Connecting Families to the Network:** A key aspect to providing HDS's comprehensive services is the referral process. Prior to HDS, there was no coordinated referral system. Children needing a variety of services from multiple providers had to "find their own way" and children were often screened and rescreened by providers in different systems. In just over 2 years, four of the six regions have clearly defined and established protocols for how and when to provide referrals for additional HDS services to ensure children are able to receive the services they need throughout the HDS network. In addition, the regional leads worked together to establish a countywide form to use for all HDS referrals. These steps make services seamless for families who may be under stress with concern over their child's developmental progress. At this time, most but not yet all of the dozens of community partners and agencies use the HDS referral form.

### Key Areas of Regional Coordination

- Leadership and coordination
- Evaluation management
- Case management
- Outreach and networking

**Regional Coordination:** One of the greatest aspects of regional coordination is the provision of referrals to families – both for HDS services and services outside the HDS network. In addition, regional coordination allows the sharing of best practices and for more standardization so families are served consistently throughout the county. To improve service delivery and integrate staff across HDS provider agencies, regular meetings, trainings and site visits are held throughout the regions. Regional staff also make efforts to distribute information to community based organizations and other ancillary support programs in their regions by participating in community collaborative meetings to market HDS services, attending regional events sponsored by other organizations, coordinating with local school districts to distribute information to parents, conducting presentations and engaging in community outreach activities such as health fairs.

This year, the regional leads began tracking some of their efforts to structure a comprehensive system of care on a quarterly basis. Exhibit 3.29 highlights key regional coordination activities conducted throughout the fiscal year.

<b>Exhibit 3.29 Key Regional Coordination Activities</b>	
	<b>FY 07-08</b>
<b>Referrals</b>	
Referrals to network subcontractors (within region)	4,532
Referrals made to other regional leads	910
<b>Training Opportunities</b>	
Trainings for regional and subcontractor staff coordinated or led by the regional lead	43
Trainings and/or in-services for regional and subcontractor staff in other regions coordinated or led by the regional lead	30
In-services provided by other agencies (that the regional lead helped to arrange) for regional and subcontract staff	20
<b>Community Involvement and Outreach</b>	
Meetings, presentations and in-services provided by the regional lead to entities or providers outside of HDS	134
Health fairs and community events attended to promote HDS	73
Conferences attended to promote HDS	15
<b>Community Partnerships</b>	
Ongoing partnerships	143
New sites outreached to by the regional lead	22
New active partnerships	17

*\*This was optional to collect; however, all six regions reported data*

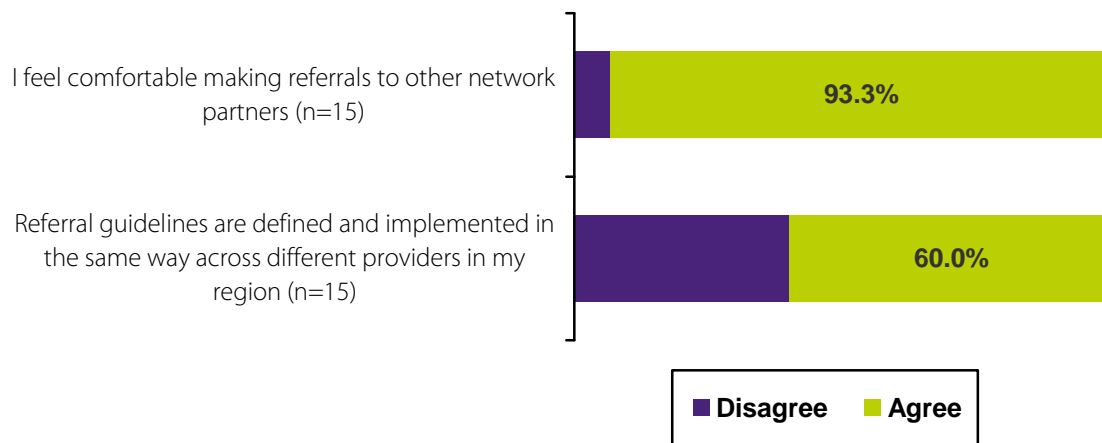
## 2. Coordinated and Integrated

*Definition: Agencies/providers work in a complementary manner to avoid duplication of services, eliminate gaps in care, share information, and utilize outside resources.*

The design of HDS requires that eleven categories of services are coordinated and integrated -- something that did not exist prior to HDS. To measure this factor, the evaluation asked questions directly of the providers who are part of the developing system and also tracked the structural changes that are being made to HDS to support system coordination and integration.

**A view from the front lines:** Responses from providers (Exhibit 3.30) indicate that more work can be done on implementing standardized referral guidelines across the different providers in a region (an activity already underway by AAP). Service providers also cited a number of ways how they share best practices and guidelines with their regional lead and other providers in their network, including case review and consultation, training, regular communication, as well as sharing of resources and quarterly reports.

**Exhibit 3.30** Service Provider's Perspective: Coordinated & Integrated\*



\*Valid percents are reported. 'Not applicable' responses were coded as invalid and not reported.

Subcontractors noted a variety of technical assistance that can be provided in FY 2008-09 to increase coordination and integration of services countywide. Recommendations included:

- Continued data collection support and clear evaluation/outcome criteria, especially in regards to the new database system
- Improving ease of receiving referrals
- Public promotion of HDS services to the community in all languages
- Continued outreach to physicians that developmental services are important
- Continued brainstorming about ways to serve children who do not qualify for First 5 or other funded services
- Regular site visits or conference calls by the evaluator and/or lead to review any concerns or questions

***A view from the top:*** AAP works to enhance the coordination and integration of services at a structural level within the initiative. AAP meets regularly with the regional leads, both individually and in group operations and executive-level monthly meetings. The purpose of these meetings is to work with the regional leads to improve service coordination countywide. This fiscal year, AAP pursued the following avenues to strengthen the system that HDS is creating.

***Standardizing service definitions:*** Although there is a focus on coordinating service delivery, there are often inconsistent definitions of services across providers, as well as a variety of service models, assessments used, and referral protocols. This fiscal year, AAP began working with Regional Leads and HDS service providers to identify common practices and establish consistent protocols. Some of these efforts include:

- **Convening of service area workgroups.** AAP convened meetings with providers from developmental services, at-risk home visitation and parent support & empowerment. Through the identification of common service elements, providers can ensure that HDS services are well coordinated and provided in a consistent manner countywide.
- **Identification of minimum standards for case management.** AAP worked with Regional Leads to identify the following areas where case management is most needed:
  1. Families receiving two HDS services need help coordinating these services
  2. Families needing multiple HDS services
  3. Coordination of HDS with outside agencies, such as Regional Center and the school districts
  4. Families needing HDS services but also exhibiting needs for services outside HDS (i.e., Regional Center).

AAP is also planning to establish common countywide intake procedures for case management in the next fiscal year.

- **Exploring changes to behavioral services.** As demand for these services has increased, provider capacity is being stretched. Regional Leads are already maintaining waitlists for these services. AAP and the Regional Leads are working on how to improve provider capacity. Additionally, AAP and the Regional Leads have identified key priorities for behavioral services:
  1. Redefine behavioral services to be more comprehensive
  2. Establish a similar set of referral criteria
  3. Consider appropriate outcomes
  4. Evaluate the increase in expulsions in early care and preschool settings.

***Streamlining interactions with common organizations:*** One way in which AAP worked with the Regional Leads was to identify ways to facilitate regional coordination. This included coordinating services and protocols with common subcontractors and coordinating outreach to common organizations, such as Public Health Nursing and California Early Start.

***Exploring the role of case management:*** The Regional Leads have also focused on the role case management plays in the coordination of HDS services. To explore this topic, a “case management” focus group was conducted. Key findings included:

- Case management varies from in-person (particularly with ARHV) to over the phone.
- Some participants commented that case management is such an important part of HDS that it should be a stand-alone service area, rather than a piece of the existing early intervention services.
- It would be beneficial to have a dedicated person to work with families as they move through the HDS system.
- They recommended linking families to HDS services through a “gateway,” such as newborn home visiting.
- There has been better coordination of referrals throughout HDS and an increase in communication between service providers to ensure that families are being tracked.
- Challenges include integrating referral tracking and management into their existing workload as well as difficulty following up on referrals outside of the HDS network.
- The implementation of electronic referral tracking through the Contract Monitoring and Evaluation Data System (CMEDS) will be of huge benefit to case management and care coordination, but only if there is a commitment from all HDS partners to utilize the system.

**“I define case management as helping a family navigate the systems, referring, overcoming barriers to accessing referrals.”**

**– Focus Group Participant**

**Promoting HDS:** A priority of HDS this year has been communication and outreach. AAP and the Regional Leads worked together to identify a common message for HDS that can be used to promote HDS to pediatricians, other providers, and families. In addition, AAP worked very closely with First 5’s Communications Contractor to develop the new communications plan, which focuses on the importance of early intervention and healthy development check-ups.

### The HDS Message

- **Effective developmental screening requires using the right screening tool**
- **Early intervention can make a big difference in children’s lives**
- **Once screening identifies a need, developmental services are available to help through HDS and other community resources**

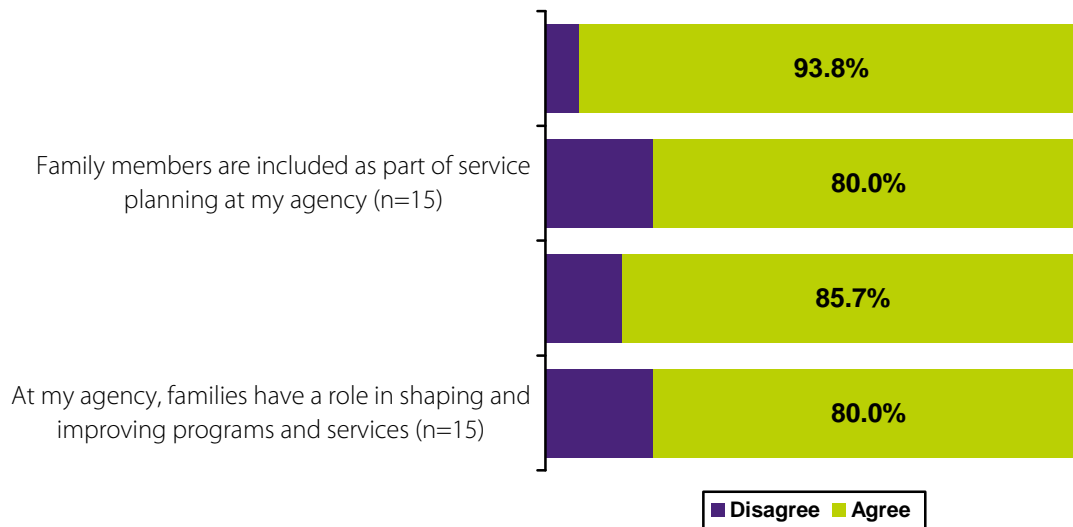
### 3. Family Focused

*Definition: The family is central to the care of children ages 0-5 years and the system and service processes are designed to maximize family involvement and empower families to navigate and utilize systems of care.*

In a field that involves hospitals, public health, education, behavioral health and other government services, it is easy for the voices of families in need to be lost. Too often, systems are created that meet internal organizational needs rather than address the barriers that families face in accessing services. Lead and subcontractors were surveyed concerning how they incorporate the family perspective into the HDS service system. Three of the five respondents from the lead survey stated that they hold family/provider team

meetings, parent advisory groups, and include family’s perspectives in intervention designs. Additionally, subcontractors reported strong integration of families into service delivery based on four core attributes of family focused service provisioning (Exhibit 3.31).

**Exhibit 3.31** Service Provider’s Perspective: Family Focused\*



*\*Valid percents are reported. ‘Not applicable’ responses were coded as invalid and not reported.*

Participants in the subcontractor survey also reported many successes in working with families. These included:

- **Connecting Families to Services:** Providers reported success in helping families understand a complex service system and connecting families to services earlier, as well as connecting them to additional community resources.
- **Providing Education and Addressing Concerns:** Providers have developed tailored parent education for different groups (e.g., military fathers and new mothers) as well as focused on specific educational topics (e.g., Baby Basics, a class in development for new parents).
- **Improving Access to Services:** Bi-cultural (English and Spanish) staff make it easier to understand and serve families from both cultures. In addition, providers have created groups for the children who are on a waitlist for individual services, in order for them to receive some interim treatment.

Providing a family focused system of care is complicated by the larger structure and needs of the family that are outside of what First 5 funds. These include being able to serve families with severe needs or multiple psychosocial factors that require additional services outside of HDS, such as housing and employment assistance. Other challenges include gaps for services for children with special needs and the large geographical areas that providers cover throughout San Diego County.

On a structural level, AAP worked with providers in FY 2007-08 to identify family focused strategies. A standing agenda item at the monthly meetings with AAP and the Regional Leads is the identification and sharing of existing strategies for engaging and tracking families. These have included a “drop by” strategy for home visitors and placing family educators in Family Resource Centers to keep families connected.

#### 4. Early Intervening

*Definition: Children are screened/ assessed as early as possible and enter into services for optimal prevention and/or treatment of health and developmental problems or delays.*

Core to HDS is the principle that early intervention – particularly in the first 3 years of life – provides the greatest opportunity to bring about profound, lifelong benefits.<sup>124</sup> Within the HDS system, AAP conducts many outreach efforts with local service providers to ensure children can access HDS services as soon as possible. One such effort is the outreach to birthing hospitals to promote referrals to newborn home visiting (see page 59). Another is outreach to local pediatricians. As previously stated, AAP conducted 45 visits with local pediatric offices to discuss HDS services and promote the use of developmental screenings as part of the well child check-up. Regions also facilitate early intervention by promoting screening/assessment and entry into care by working collaboratively with clinics, medical providers and community agencies in their region, through community outreach/outreach specialists, as well as working with Child Welfare Services (CWS) and Public Health Nursing (PHN).

#### HDS Target Population

- Children with mild to moderate developmental delays rather than developmental disabilities
- Issues connected with home environment and lack of stimulation rather than genetically based developmental concerns
- Children who would benefit from short-term services (roughly less than three months duration)

#### 5. Responsive to Cultural, Linguistic, and Special Needs

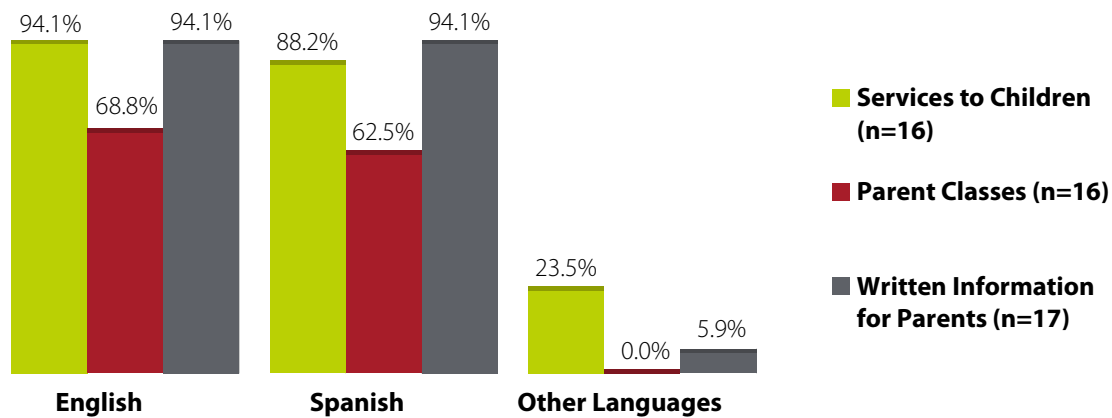
*Definition: Agencies/providers are sensitive to differences in race/ethnicity, religion, language, gender, sexual orientation, abilities/disabilities, socioeconomic background, and other community-specific characteristics in order to maximize client participation and service quality.*

With over 80 languages spoken regionally and with residents originating from over 100 nations, it is critical for services in San Diego County to be culturally and linguistically appropriate. Subcontractors were asked to respond to their ability to be responsive to the cultural, linguistic and special needs, through a variety of ways.

**Cultural/Linguistic:** The regions take different approaches to this area. All regions have bilingual and bicultural staff to meet the needs of Spanish speaking families. Many regions outsource services to reach additional populations. For example, two regions subcontract with the Union of Pan Asian Communities (UPAC) to help address the language needs of families who speak Chinese, Vietnamese as well as other Asian-Pacific languages. Three reported providing annual cultural competency training for HDS providers. Regions also address and review cultural competency issues at site visits with subcontractors. Subcontractors generally provide services and written materials in Spanish, and 62.5% of subcontractors provide parenting classes in Spanish (Exhibit 3.32). Services to children are also provided in Chinese, Tagalog and Vietnamese, with one respondent providing services for children in eight different languages and written information for parents included Vietnamese, Chinese and Japanese.

<sup>124</sup> Shronkoff, J.P., and Phillips, Deborah A. National Research Council, et al. From Neurons to Neighborhoods: The Science of Early Childhood Development. National Academy Press, (Washington D.C., 2000).

**Exhibit 3.32 Service Provider's Perspective: Language Capacity\***



\* Categories are not mutually exclusive as respondents may have been from agencies that provide more than one service within HDS. Valid percents are reported. 'Not applicable' responses were coded as invalid and not reported.

**Children with Special Needs:** AAP and the Regional Leads focused on identifying and promoting available training and professional development opportunities that would expand service providers' capacity to work with children with special needs. This can be especially challenging when doing assessment and treatment with these children. HDS providers with specific experience serving children with special needs also offered training and in-services to their HDS colleagues.

In addition, through building regional platforms focused on early identification of developmental delays, HDS has had an impact on the overall system that serves children with special needs. In particular, HDS referrals have dramatically increased the outcomes of the Child Find program at the Regional Center.

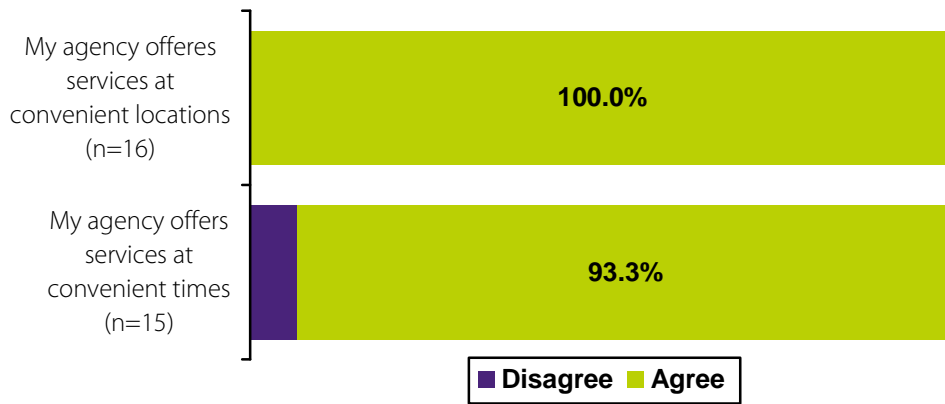
## 6. Readily Accessible

*Definition: Agencies/providers identify and address barriers, such as physical location and building accessibility (i.e., ADA compliant), transportation, hours of operation, financial constraints, cultural and linguistic barriers, and insurance status to increase access to services.*

Both the regional leads individually and AAP on behalf of the overall initiative have undertaken steps to enhance the accessibility of services.

**Regional specific activities:** Within the RSNs, Leads do much to ensure families have access to HDS services. Clients' financial barriers are addressed by linking families to community resources (such as Healthy Families, Medi-Cal and WIC) either through direct assistance or referrals. Transportation is a key barrier to accessing services. Leads provide transportation assistance and place services in convenient locations. Additionally, HDS subcontractors reported offering services at convenient times and locations (Exhibit 3.33).

**Exhibit 3.33** Service Provider’s Perspective: Readily Accessible\*



\*Valid percents are reported. 'Not applicable' responses were coded as invalid and not reported.

Regional Leads reported that it is a challenge to hire and retain bilingual staff across the regions, but particularly in professional areas where there is a lack of professionals with early childhood specialties. Within HDS, there is a particularly high demand for speech and behavioral therapists who can serve young children and/or provide services in Spanish. There are also needs for more providers in vision screenings and developmental treatment. Additional clinician time is needed for occupational therapy, physical therapy and speech services. Subcontractors noted similar challenges. The majority of respondents (64.7%) reported that their agency was not staffed sufficiently to meet service needs due to a variety of operational reasons including high service demand, low caseloads required for intense services, lack of bilingual staff, and turnover. To assist with challenges in recruiting and retaining staff, First 5 San Diego has worked internally to change to multi-year budgeting for HDS, enabling providers to guarantee multiyear positions. This is especially beneficial for filling vacancies mid- and late-year.

These staffing challenges, coupled by the increase in demand as HDS services become more well-known, have resulted in wait lists for many of the service areas. One of the most affected areas is behavioral treatment, where wait times varied by provider and region. The longest wait times ranged from four to six months.

**Cross-initiative activities.** AAP has pursued a number of activities to facilitate the accessibility of HDS services. These include:

- Working with First 5’s Communications Contractor to design the Public Service Announcements and other communications materials about the importance of a developmental screening.
- Meeting with other initiatives, including Preschool for All and Oral Health, to identify ways families can be linked to the variety of services First 5 funds.
- Working with Regional Leads to better define the HDS target population to promote more effective communication with community partners and appropriate referrals to HDS.
- Coordinating several trainings for HDS providers, including a 2-day ASQ/ASQ-SE train-the-trainers seminar, a workshop on autism, and a child development training that focused on administration of the Ages and Stages Questionnaire (ASQ) assessment tool.

AAP is currently investigating opportunities for telemedicine, which allows providers to interact with families via the telephone, Internet, other networks. Use of this technology would better connect families in remote

parts of the County to HDS services. While Regional Leads see the potential of this technology, they note that telemedicine may not be useful in all service areas, such as speech and language services and sessions with younger children with shorter attention spans. There may also be cultural and generational resistance to these services.

### **7. Accountable**

*Definition: Agencies/providers (on a countywide basis) acknowledge and carry out responsibility for agreed upon program goals and service outcomes.*

Regional Leads are tasked with creating and overseeing regional networks for service providers. The leads continue to strive to better understand their subcontractors' service delivery systems and strengthen relationships. Leads are responsible for ensuring that all service providers are meeting their obligations to HDS. Regional leads share best practices and guidelines with other providers in their regions through meetings, conferences, trainings, email exchanges, reports, and site visits. Additionally, the executive meetings facilitated through AAP and quarterly subcontractor meetings help ensure that program goals and service outcomes are being carried out. As this complex system of services has now taken root, Leads can now set specific service targets and improve overall quality assurance. As the convener of provider meetings, AAP can continue to refine service content and protocols.

### **8. Sustainable**

*Definition: Agencies/providers organize ongoing efforts and develop strategies to ensure continuation of services, system-wide values, interagency relationships, and program outcomes.*

Sustainability is an important component to HDS as providers look past the current F5 funding of this initiative and into the future. As noted last year, to ensure that RSN Leads are contributing to the investment in HDS, lead contractors are required to provide a 20% match for the remaining 3 years of HDS.

Several leads noted in their quarterly report narratives that they, or their subcontractors, are actively seeking additional funding to expand or continue HDS services. Unique strategies include negotiating a royalty fee from a childhood development website and working to secure Medi-Cal Administrative Activities (MAA) reimbursement for outreach efforts to Medi-Cal eligible families supported by HDS.

AAP has convened an HDS redesign committee to examine the current structure of HDS and use recommendations from their quality assurance work evaluation data to improve services and better structure the HDS system to meet ongoing needs. The efforts of this committee will be shared in the coming fiscal year.

## Update on Recommendations from FY 2006-07

The following actions were recommended in First 5 San Diego's Annual Evaluation Report. First 5, AAP and HDS providers made changes to address these recommendations, as is discussed below.

### **Recommendation 1: Continue collaboration and strengthen commitment to countywide vision.**

Update: In FY 2007-08, HDS continued to collaborate between regions as well as with agencies and entities outside of the HDS network.

### **Recommendation 2: Support Coordination.**

Update: The need for more support and resources for coordination continued to be a theme for FY 2007-08. Regional Leads and subcontractors continued to cite the need for case management in order to help families navigate the network of services within HDS and outside the realm of HDS. AAP has begun to work with Regional Leads to identify areas where case management is most needed.

### **Recommendation 3: Maximize Outreach.**

Update: HDS partners continued to outreach and raise community awareness around the importance of early childhood health and developmental services available to families. In FY 2007-08, HDS regional leads outreached to new agencies to create new HDS partnerships. Additionally, Regional Leads held numerous meetings, presentations and in-services for entities and providers outside of HDS.

### **Recommendation 4: Examine opportunities for standardization.**

Update: HDS programs and the program evaluation would benefit if the definitions of services and the program-specific measurement tools were standardized as much as possible. In FY 2007-08, AAP convened service area workgroup meetings with At-Risk Home Visitation and began discussions with developmental and parent support and empowerment service providers to discuss ways to strengthen the delivery of care and identify consistent service definitions.

### **Recommendation 5: Strengthen capacity building activities.**

Update: In FY 2007-08, Regional Leads conducted a number of collaboration activities including providing technical assistance, training, and in-services for subcontractors to build staff capacity. However, barriers to services that were reported during FY 2006-07, continued to be cited by HDS partners in FY 2007-08. These barriers include lack of trained specialists, as well as retaining bilingual and bicultural staff to adequately serve families.

## Recommendations

In the future, the Commission may wish to consider the following recommendations:

- + **Expand capacity to support prompt, professional treatment.** HDS service delivery grew in FY 2007-08 and HDS partners provided service to approximately 13% more children. Along with this growth, waiting lists for assessment and treatment services continue to grow in length. As more children are increasingly screened, more are identified as needing professional assessments and treatment. This is stretching the capacity of the existing system and resulting in longer wait times for families. Additional funding is needed for treatment, and the local system needs to be expanded to provide these services. In particular, there are shortages of bilingual staff in most areas.
- + **Play a leadership role in increasing the numbers of early childhood development professionals in the San Diego area.** All HDS providers have noted the challenges of locating qualified professionals and a notable need for speech and language professionals and behavioral therapists. AAP and some of the regional leads are looking at working with the Commission staff and other area providers on innovative strategies to bringing more professionals to this area.
- + **Address the need for case management.** Regional Leads and subcontractors continued to cite the need for case management in FY 2007-08. In addition to helping families coordinate and navigate services in a complex system, case management would be beneficial in ensuring:
  - o Fewer families lost to follow-up;
  - o An increase in the number of completed assessments for the developmental, speech and language, behavioral, consultation, and vision service areas;
  - o An increase in the number of children and families that successfully connect to a referral within the HDS network; and
  - o An increase in the number of referrals to other First 5 initiatives.

AAP is interested in piloting the use of FANS – Family Assistance Navigation Specialists – to bolster case management. This would require either additional funding or reallocating resources from other HDS services.

- + **Strengthen the HDS platform.** A broad based planning effort is underway to create a SART (Screening, Assessment, Referral and Treatment) program for children in San Diego County. Part of the planning process has included designing a system that will build upon the HDS platform. In addition, as ties are built and strengthened, HDS is part of referrals into, and from, the systems that support children with more severe developmental delays, including the Regional Center Child Find program and the school systems. As HDS becomes a platform that integrates with, and moves toward, a true continuum of services, it is critical that the HDS platform is strong enough to support and not be crushed by these other efforts. At minimum, this would include expanding case management and treatment.
- + **Strengthen focus on accountability and sustainability:** As this complex system of services is strengthened, these are two important core principles to establishing a system of care. AAP, First 5 and the Regional Leads can collaborate to ensure more consistency in services and protocols across regions. Leads can also set specific service targets and improve overall quality assurance to improve accountability across the system. As HDS continues to grow and develop, it will be important for the regional networks to focus on leveraging funds to support the continuation and expansion of HDS.

- + **Continue to examine opportunities for standardization.** HDS partners can now take the lessons of year one and two to better define more consistent service definition, delivery and targets across regions, as well as standardize assessment instruments and measurements.

## A Final Word on the Healthy Development Services Project

In FY 2007-08, HDS partners increased service provision throughout San Diego County, serving over 32,000 children. HDS also began to address the need to reduce gaps and improve coordination of services as referral systems within regions were established. Through the creation of HDS, developmental services are now better coordinated within and across regions, as well as across systems. Deep partnerships have been created with the Regional Center, California Early Start, public health nurses, birthing hospitals and pediatricians' offices.

Before HDS, these system providers had little reason to work together but are now collaborating to build a true system of developmental services for children. In roughly two and a half years, HDS has built and connected regional systems that create a platform of developmental services and referrals for children with mild to moderate delays. This is a tremendous achievement. The intent is that – as a result of four and a half years of stable funding – this system will be well established and prove to be an integral part of a continuum of services for children with special needs that is committed to early identification and treatment providing lifelong benefits.

Through the leadership of the local AAP, HDS has raised considerable awareness of the need for young children to have regular developmental checkups. The goal is to change pediatric practice *and* to have parents embrace developmental checkups and become more knowledgeable and involved in promoting their child's optimum development.

Although work to improve standardization between service areas and regions remains, there is a strong commitment to the importance of this throughout the initiative and undoubtedly will continue to be a key element in the coming year.

## Case Study 3

### Fitting in With the Playgroup\*

#### *A Mother's Concern*

Gwen lives in a neighborhood where she can walk outside and talk to other mothers. When her son Justin was 6 months old, Gwen, along with about 20 other mothers, decided to create a playgroup for their children. Now, two years later, Gwen noticed that Justin hesitated to assert himself with his peers. "...Other kids were taking toys away from him and he was pushed around easily, and he couldn't protect himself," Gwen said. "He wouldn't push back; he would stand back, which caused a lot of emotional stress for him." Also, although her husband speaks English, Gwen speaks Dutch and she noticed that Justin was having difficulties asserting himself in English. "And I was hoping to boost his language skills," she said, adding, "so he could start off saying to kids 'Don't push me' or 'My turn.'" Gwen's concerns were not just about Justin's self-defense abilities, she was also growing concerned that Justin was being pushed around so much that "he kind of lost his trust in people." Gwen found help for Justin through a variety of services offered by First 5's Healthy Development Services at Family Health Center (FHC).

#### *Connecting to Services*

On the advice of one of the playgroup mothers, Gwen connected to First 5 through a call to 211. Initially, Gwen recalled feeling a bit hesitant and uncomfortable because she "didn't know anything specific," she said. "I just knew that it was the program called First 5 for children..." However, Gwen decided to follow through with the call to 211, which referred her to Family Health Centers (FHC). At the beginning, Justin underwent several basic assessments. "They do cognitive; they do fine motor skills and gross motor skills. So, they do all kinds of tests," she said. Justin's assessments had a strong emphasis on his speech to determine if there were concerns or issues that might need additional focus. Gwen recalled that Justin did well on many of the tests, with the exception of the language test. "Maybe language-wise he should be more advanced," Gwen urged. In addition to receiving help with her son's speech, Gwen had also told FHC staff that Justin had an eating problem. "He is a picky eater, does not like to eat vegetables, and plays with his food," she said.

**"...he was doing much better. He did stuff he would never do for me. He did it because he loved the Occupational Therapy."**

**- Gwen, First 5 Parent**

In order to improve his speech, Justin attended one-on-one meetings with a speech therapist and then he progressed to small group sessions that included Gwen. To address Justin's eating problem, he began seeing an occupational therapist who helped him work on improving his food intake and sensory glands. Justin works well with the occupational therapist and enjoys spending time with her, which served as a good catalyst for making the therapy fun. "He was very happy to go. And then it became food oriented, which was the goal," Gwen recalled.

#### *Progress Made*

Gwen remembers that, in the beginning, Justin was scared to enter the First 5 Services at Family Health Centers because he was unfamiliar with the setting. But as time progressed, Gwen recalled that "he just learned to love it..." Gwen has watched Justin's fear diminish and his social initiative and assertiveness increase. Gwen recalled that, in the past, Justin did not defend himself in the playgroup but she now sees a positive change in his behavior since enrolling in First 5. "He stood up for himself in the play group," she said. "He would pull his toys back when somebody else would take [them] away." In addition to seeing improvement in Justin's language, Gwen has learned strategies from the occupational therapist to help improve Justin's poor eating

habits. “You cannot just [put] a food bowl in front of him and say ‘eat’ because he doesn’t like it,” Gwen said. “So, they warm up [and he will] eat it and then [they encourage him to] start eating. And, in the end, he’s just eating.”

### ***Working Toward the Future***

Gwen feels that Justin’s speech challenges are due to him being bilingual, but she is more concerned about his “being shy and not being able to communicate the things that are... dangerous,” she affirmed. Therefore, she would not only like Justin to be able to better communicate for conversational purposes, but also for his own safety. Justin has finished all the individual speech therapist sessions and will continue participating in the small group sessions. Gwen would also like to see Justin continue to improve his eating habits in the next couple of months. Justin is still refusing vegetables. Since they have completed the maximum allotted occupational therapy sessions at the FHC, she is working to convince her insurance to pay for additional occupational therapy sessions that she feels can continue to help Justin improve his eating habits.

*\*All names were changed to protect confidentiality*

**“I’m very grateful to have this support network to use at First 5...being free and just the opportunity to know, yes, you have a problem, you should work on it, it makes things easier and try to work on it much earlier than later on.”**

**- Gwen, First 5 Parent**