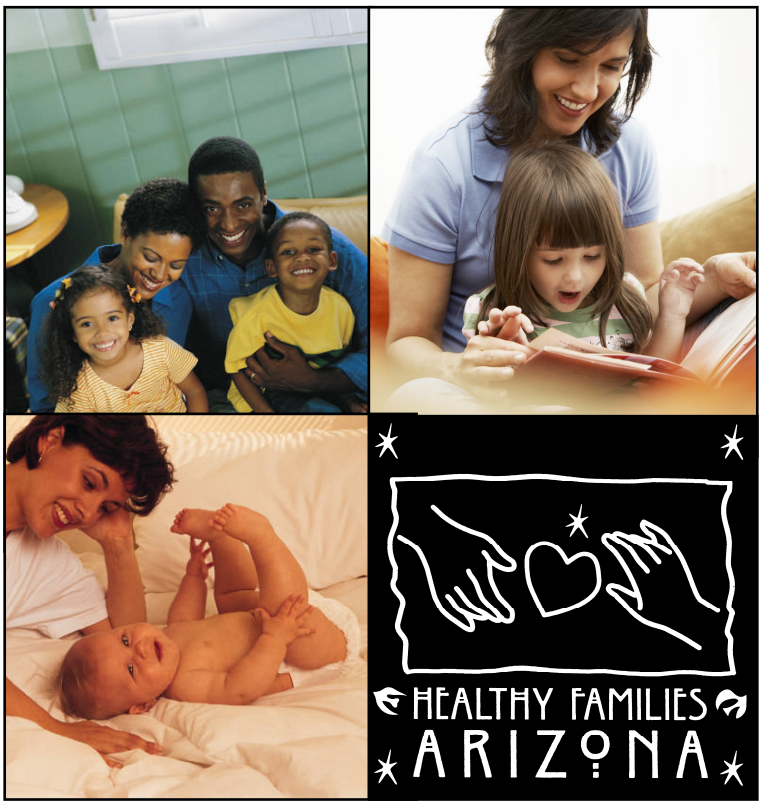
Healthy Families Arizona
Annual Evaluation Report
FY2008

July 2007 – June 2008



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Acknowledgements

This evaluation report represents the efforts of many individuals and many collaborating organizations.

The evaluation team for Healthy Families Arizona that contributed to this year's report includes evaluators Craig W. LeCroy, Ph.D., Kerry Milligan, MSSW, Jen Kozik, M.P. H., Darcy Richardson, BA, Cindy Jones, BS-MIS ; Olga Valenzuela, BA, Judy Krysik, Ph.D., Allyson Baehr, BA; Steven Wind, Ph.D., Geoff Wood, M.A., Allison Titcomb, Ph.D. , and data management staff, Veronica Urcadez, Delcia Cardenas, Melissa Nelson and Perla Poras.

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Executive Summary

The promotion of the healthy development of children continues to be an important priority, fueled in part by research that has supported child abuse prevention, early childhood education, and family support programs.

Much of this enthusiasm emerges because of the recognition that there are immense unmet needs among children and families in this country. Many of the most pervasive and intractable problems experienced by children can be found in homes with insufficient income, poor child care, poor parenting skills, and stressful conditions that interfere with effective child rearing and parenting. The long term consequences of poor care take a toll on many of America's children, among these are: infant mortality, low birth weight, neurodevelopmental impairments, child abuse and neglect, and accidental childhood injuries. The toll on parents is also devastating in terms of diminished economic self sufficiency, violence, educational failure and sporadic workforce participation. Every year, a large sum of money is spent by child welfare organizations in response to this myriad of problems.

Increasingly, policy makers are looking toward prevention programs as one remedy. Effective prevention programs that promote the safe and healthy development of children have the potential to greatly reduce the short and long-term costs of these social conditions. Home visitation programs are being promoted as a promising approach to reduce these serious problems and a way to embrace the new research in the birth-to-three field by promoting greater health and development among all of our children. Home visitation programs share several common beliefs: the importance of children's early years, a focus on the pivotal role parents can play in shaping the healthy development of children's lives, and a perspective that service delivery works better when bringing services to families rather than expecting them to seek and find assistance in their communities.

The Healthy Families Arizona Program

Healthy Families Arizona serves families experiencing multiple stressors that can put their children at risk for child abuse and neglect. The program has operated in Arizona since 1991 and follows the national Healthy Families America® model. Healthy Families Arizona continued program expansion activities, which began in

fall 2004. As a result of this work, program sites increased in number from 51 to 58 in FY2008. The program also continues to its expansion of prenatal services for pregnant women and their families. Over time, the program has also increased its professional development support for staff by updating web-based orientation training and providing specialty training in areas such as substance abuse and mental health issues.

Who Does Healthy Families Arizona Serve?

There were 5,527 families actively engaged in the program from July 1, 2007 to June 30, 2008. These families engaged in 4 or more home visits and over half of the families remained in the program 1 year or longer. Most of the engaged families entered the program after the birth of their child (4,225 families) , and 1,302 families entered during the prenatal phase.

Program participants reported a significant number of risk factors at entry into the program (listed with prenatal & postnatal percentages respectively), including:

- 80% and 76% were single mothers;
- 31% and 23% were teen births;
- 82% and 85% of the families utilized AHCCCS; and
- 68% and 63% of mothers had not finished high school.

Additionally, postnatal families reported the following risk factors at intake:

- 21% of the infants were born at less than 37 weeks gestation;
- 14% of the infants had low birth weight (less than 5.5 pounds)

What Difference Does Healthy Families Arizona Make for Families and Children?

Areas of Parental Improvement among Healthy Families participants

- Increased social support
- Increased problem solving
- Decreased depression
- Increased use of resources
- Improved commitment to parent role
- Improved parent child interaction
- Improved home environment
- Increased parenting efficacy

The Healthy Families Parenting Inventory (HFPI) revealed statistically significant improvement on 8 of 9 subscales and on the total HFPI score, suggesting that participation in the program reduced risk factors related to child abuse and neglect. Although the evaluation lacks a comparison group to study program effects, these findings continue to show that participants consistently report improvements in healthy parenting behaviors. The Healthy Families Longitudinal Evaluation, a separate 5-year study using an experimental design, will be able to provide comparisons with a control group. (see, LeCroy & Milligan Associates, 2008. *Healthy Families Longitudinal Evaluation, 4th year Study*).

Child Health, Development, and Safety

Child health and development indicators show positive results for the program. For example, there was a reported 87% immunization rate for the children of Healthy Families Arizona participants at 18 months. This is in comparison to a 79% immunization rate for 2-year-olds in Arizona and 82% for those insured by the Arizona Health Care Cost Containment System (AHCCCS) . A large percentage (94%) of families reported having a consistent medical doctor. Assessment of home safety practices shows over 90% of participants are reducing risks at the 24 month assessment on three safety practices: use of car seats, poisons locked, and smoke alarms installed. This compares favorably with national trends among the general population (e.g., national estimates of 90% car seat usage and 75% "working" smoke detectors). The program also screens for developmental delays and provides referrals for further services.

Child Abuse and Neglect

Child abuse and neglect incidents (substantiated) were examined for program participants. The results estimate that the percent of families showing no child abuse or neglect incidences was 98.9 percent. A small number of families, 43 out of 3885 families, had substantiated cases of child abuse and neglect.

Mothers' Health, Education, and Employment

The Healthy Families' model extends beyond parenting outcomes and also attempts to influence maternal life course outcomes. In terms of the mothers' health, time between subsequent pregnancies provides significant health benefits. Only 16% of mothers with subsequent pregnancy waited over 24 months. This percentage has gone down since 2006 which means that a smaller percentage of women are spacing their births in spite of the health benefits. Mothers do return to school at a significant percent—30% are enrolled in school within 2 years of program participation. Substance abuse continues to be a difficult problem for some of the families. The program screens over 20% of the participants as having potential substance abuse problems during the first 2 months of the program.

Continuous Program Improvement

The Healthy Families Arizona program is committed to continuous program improvement and reports on program changes and policy updates every year in the annual report. Also, program improvement is fostered through the *Building Bridges Newsletter* which publishes articles that reflect research developments in the field. Knowledge development has been ongoing and this year 2 articles, one on the development and validation of the Healthy Families Parenting Inventory (HFPI) and another on measurement issues in home visitation, were completed. Finally, three substudies were completed on prenatal program delivery, implementation of outreach, and an in-depth examination of risk factors for participants. Program recommendations include examining the use of supervision, improving the use of data for decision-making, development of protocols based on assessment data, assessing and improving program utilization by families, reconsidering the use of outreach, developing more clear criteria for risk assessment, reviewing the HFPI depression subscale, improving efforts to provide social support, and improving efforts to prevent repeat births and increasing the time between subsequent births.

Introduction

The Healthy Families Arizona program was established in 1991 as an initiative of the Department of Economic Security to develop and implement home visitation services with at-risk families. The program is modeled after the Healthy Families America initiative and is accredited by Prevent Child Abuse America. Healthy Families America began under the auspices of Prevent Child Abuse America (formerly known as the National Committee to Prevent Child Abuse) in partnership with Ronald McDonald House Charities and was designed to promote positive parenting, enhance child health and development, and prevent child abuse and neglect. Healthy Families America exists in over 440 communities in the United States and Canada.

As described by Prevent Child Abuse America, the Healthy Families program model is designed to help expectant and new parents get their children off to a healthy start. Families are screened according to specific criteria and participate **voluntarily** in the program. Participating families receive home visits and referrals from trained staff. By providing services to under-resourced, stressed, and overburdened families, the Healthy Families Arizona program fits into a continuum of services provided to Arizona families.

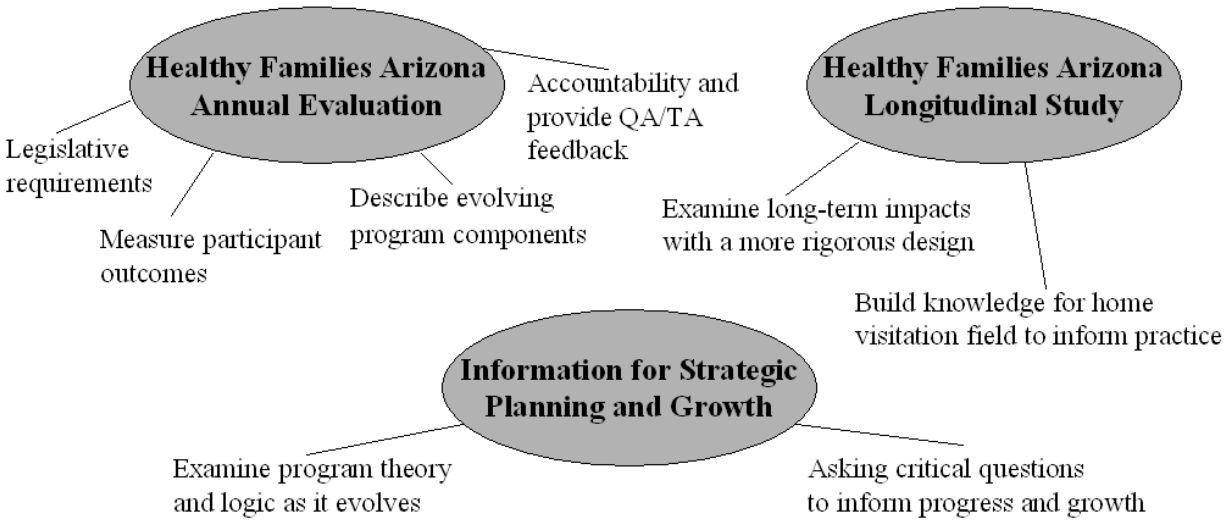
Initially, Healthy Families America drew largely from existing research, and knowledge and experiences gained through Hawaii Healthy Start program to design the program. Healthy Families America is built on a set of 12 research-based critical elements that provide a benchmark used to measure quality. As Healthy Families Arizona has evolved, ongoing studies have helped to enhance research-based home visitation practices in Arizona.

Healthy Families Arizona (HFAz) is a nationally credentialed, community-based voluntary home visitation program designed to promote positive parenting, child development and wellness, and to prevent child abuse and neglect. The program was established in Arizona in 1991 and has since expanded statewide to serve pregnant women and families who have risk factors that may result in abuse and neglect of their children. Since 2006, HFAz has included 55 program sites and 3 intake sites (58 total sites) serving over 150 communities (see Exhibit 1).

Exhibit 1. Healthy Families Arizona Map

The evaluation of Healthy Families Arizona has been an integral part of the program since its inception. The evaluation has collected data for basic program accountability and program improvement. The program's progress toward short and long term goals has also been assessed by providing process and outcome data. The program also initiated a longitudinal study in 2004 to more systematically examine the program's effectiveness. An overview of the program evaluation components are presented below:

Healthy Families Arizona Evaluation Components



In this Report

This annual program evaluation report for Healthy Families Arizona centers on annual participant outcomes, process information, and evaluation information useful for program improvement for the time period July 1, 2007- June 30, 2008. The process evaluation describes how the program is being implemented, the types of services provided, and characteristics of families participating in the program. The outcome (or summative) evaluation examines program outcomes and looks at the program's impact across a number of measures. Detailed appendices provide specific site data on process and outcome variables. The description of evaluation methodology explains the methods used for each part of the report.

Several unique additions have been incorporated into this year's report. An overview of a conceptual model for how Healthy Families fits within a prevention and protection continuum helps to illustrate how the program fits within the Department of Economic Security's priorities for children and families. Second, results from a series of evaluation sub-studies that examine key programmatic issues in greater detail are included to promote ongoing program learning and improvement.

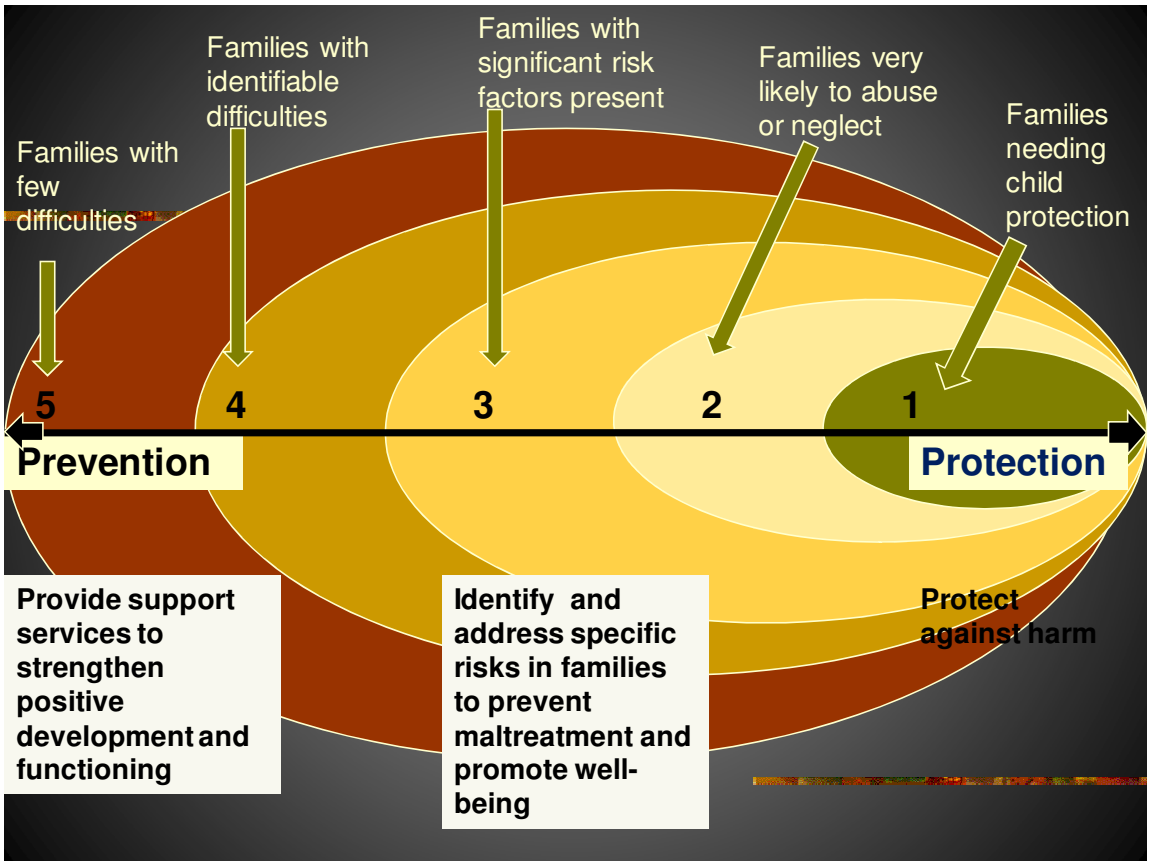
The 2008 Annual Report is only one of the many aspects of the Healthy Families Arizona evaluation. The evaluation also includes the creation and distribution of quarterly reports used for training and quality assurance purposes, the longitudinal study designed to examine program effectiveness, participation with Prevent Child Abuse America research initiatives to examine issues that impact Healthy Families nationally, systematic research and publication to advance knowledge learned from the evaluation, provision of ongoing special data analysis for credentialing and site visits, and presentations for program improvement based on the findings generated by the evaluation.

The prevention-protection continuum

An action plan for a comprehensive child abuse and neglect prevention system in Arizona was initially set forth in 2004 with recommendations that "a family at risk for child abuse and neglect is likely to cross multiple risk and protective factors. Thus, the recommended strategy is one that encompasses all domains, and involves an intelligent wraparound service delivery concept for children and families at risk for child abuse and neglect" (Action Plan for Reform of Arizona's Child Protection System, 2004). There is a continuing need for examination and refinement of the "continuum of services" across state agencies and community-based organizations to maximize the value of limited resources to serve families in need. Since its inception, Healthy Families Arizona has sought to provide a continuum of services for children and famlies, so that families are served appropriately as their needs increase or decrease. A continuum of services ensures that the family receives the appropriate level of service with sufficient support, coordination, consistency, and follow-up to provide the optimal chance for success.

The purpose of this Prevention-Protection continuum is to provide a better understanding of where Healthy Families Arizona fits into the overall model of prevention and protection services. The model starts by conceptualizing a prevention-protection continuum. As the Exhibit 2 shows, the continuum starts at the far left, representing primary or universal prevention, and continues to the far right, with required child protection. Along this continuum families function at five different levels: families without significant difficulties (5), families with identifiable difficulties (4), families with significant risk factors present (3), families likely to neglect or abuse their children (2), and families with child protection required (1).

Exhibit 2. The Prevention-Protection Continuum



This framework is helpful in understanding how Healthy Families Arizona addresses the needs of a wide range of families and spans much of the prevention-protection continuum. The program is considered a prevention program designed to promote wellness while also preventing maltreatment. On the wellness side, Healthy Families considers prevention more than the absence of disease or discord—it involves the promotion of protective factors that impact wellness such as support, parenting competence, and positive parent child interactions. The program also concerns itself with child maltreatment and identifies families at risk and seeks to reduce child neglect and abuse in the home. It is important to recognize that all families can benefit from the different interventions—for example, home visitation efforts to promote support and well-being benefit both families with less serious problems as well as families who are at risk for maltreatment.

Giving another example, when working with families with identifiable difficulties (scale level 4), the program emphasizes providing support and identifying services to help families ease stress and function more effectively. For families with identifiable risk factors present (scale level 3), the focus will be on assessing the level of risk and the multiplicity of risk factors. Depending on the assessment, families may be referred for psychological treatment, domestic violence services, or substance abuse counseling. These families will need to be more closely monitored and supervised. The Healthy Families Arizona program focuses most of its attention on families with these characteristics.

For families likely to neglect or abuse (scale level 2), the risk factors are severe enough that monitoring the family's progress, providing targeted services, and involving supervisors in ongoing decision-making is required. If families are unable to reduce their risk factors, additional services are required. For example, families with substance abuse problems would receive more intensive attention because research has shown that substance abuse is a significant risk factor associated with neglect and abuse.

For families requiring protection for the children (scale level 1), Child Protective Services must be brought into the picture. Although the goal of Healthy Families is to prevent abuse and limit the need for Child Protective Services, the program provides an opportunity for observation and monitoring of families that can bring safety to a child when needed. Without this "window" into the family's life, a child needing protection might not be identified.

It is important to note that the outcomes of most interest to program staff may vary with the different types of families described above. For example, the program can be evaluated according to outcomes related to promoting family wellness, and it can be evaluated with regard to its ability to avert abuse among families with the highest risk. It is also important to realize that families change and move up and down the continuum depending on a number of factors. Several programmatic implications emerge from the prevention-protection continuum conceptualization. Child maltreatment is more likely when numerous and high risk factors are present. However, it is possible that at this high level of risk prevention of maltreatment may rarely occur. This may be a situation where it is too little and too late to truly prevent child maltreatment. It is possible that Healthy Families works more effectively in

preventing families from moving toward greater risk factors and higher levels of risk. Because these families at a lower level of risk have an even lower base rate of child maltreatment it is difficult to test this theory with research. Hopefully, this continuum captures the many different families the Healthy Families programs attempts to serve and suggests the need for an evaluation that can assess a wide range of outcomes.

Evaluation Methodology

This evaluation includes both a process (or formative) evaluation component and an outcome (or summative) evaluation component. The primary questions for the process evaluation are: What are the procedures used to implement the program and do these procedures reflect the program model? Who participates in the program and what are the services provided? The primary question for the outcome evaluation is: What are the short and long term outcomes of the program? Together the process and outcome evaluations provide a comprehensive picture of the Healthy Families Arizona program.

For the process evaluation, we use a variety of quantitative and qualitative data collection methods to measure program operations and program implementation. Evaluation activities focus on obtaining and describing the program "inputs" such as numbers served, participant characteristics, and services received. The goal is to describe the participants involved in the Healthy Families Arizona program and document the services they receive. Also, we examine the program with regard to critical elements and expected standards from Healthy Families America as a benchmark for assessing some aspects of the implementation. The primary data for the process evaluation comes from the management information system developed to process data for Healthy Families Arizona. Sites are required to submit data that captures enrollment statistics, number of home visits, administration of assessment and outcome forms, descriptions of program participants, types of services provided, etc. Interviews and focus groups have been conducted with site staff on a variety of implementation issues. We also include information obtained from the quality assurance team regarding program implementation.

The overall aim for the outcome study is to examine program effects or outputs, at both the parent and child level on a number of different outcomes. The evaluation

team has worked together with program staff to develop and select key program measures that are used to provide feedback and to measure the program's ability to achieve specific outcomes. The primary activities of the outcome evaluation are to: examine the extent to which the program is achieving its overarching goals, examine the program's effect on short term goals, and examine the extent to which participant characteristics, program characteristics, or community characteristics moderate the attainment of the program's outcomes. For most of the outcome measures, Healthy Families site staff collect pretest or baseline data and follow up data at different time points of program participation at 6 months, 1 year, 18 months, and every 6 months thereafter as long as families are in the program. Part of the outcome evaluation also includes examination of substantiated cases of child abuse and neglect obtained through the Department of Economic Security's CHILDS data base. More detailed information about outcome measures is included in the outcomes section of this report.

Process and outcome components of the evaluation were developed and revised based n the logic models for both the prenatal and postnatal programs. Logic models for the prenatal and postnatal components of Healthy Families Arizona are presented in the Appendix.

Who does Healthy Families Arizona Serve?

During the current study year, July 2007 through June 2008, the total number of families actively engaged by the program was 5,527. Successful program engagement is defined as those families who complete 4 home visits. Not all families who enroll become actively engaged in the program Overall the engagement rate among families was 87 percent. This data is similar to what is reported nationally, with most programs reporting between 70-80 percent engagement (Katzev et al, 2002; Jacobs, et al., 2005; Williams, et al., 2005). The average length of family involvement in the program was 497 days with a median of 343 days.

Although Healthy Families Arizona has been expanded over the past several years, the program still serves a relatively small percent of the population across Arizona. In Arizona in 2007 there were 102,687 births (Arizona Health Statistics and Vital Statistics, 2007), and approximately 15% (15,403) of this total would be eligible for HFAz services, according to screening criteria used for the program. During the study year, 2,786 new families entered the program. Therefore, approximately 18% (2,786 out of approximately 15,403 eligible births) of all eligible families were served in 2007-2008 study year.

The data for this report focuses on participants who were "actively engaged" (received 4 or more home visits) in the Healthy Families program. About one quarter (23%) of the families enter the program in the prenatal period (prenatal participants) and about three quarters (77%) of the families enter the program after the birth of the child (postnatal participants). From July 2007 to June 2008, there were 1,302 families actively engaged as prenatal participants and 4,222 actively engaged as postnatal families. These numbers represent small increases from last year with 186 more prenatal participants and 312 more postnatal participants compared to last year.

There are currently 55 Healthy Families Arizona sites with Family Support Specialists and 3 sites with Family Assessment Workers for a total of 58 sites across the state. Exhibit 3 presents the total numbers of prenatal and postnatal participants enrolled and actively engaged from July 2007 to June 2008.

Exhibit 3. Participants Enrolled and Actively Engaged July 2007 – June 2008

County	Site	Prenatal	Postnatal
Cochise	Douglas/Bisbee	27	75
	Sierra Vista	13	62
	Sierra Vista Blake	27	62
Coconino	Flagstaff (La Plaza Vieja)	40	46
	Page	7	37
	Tuba City	16	44
	Wellspring	29	45
	Williams (Kinlani)	49	39
Gila	Globe/Miami	9	24
Graham	Safford	19	36
Maricopa	Central Phoenix	19	89
	Deer Valley	13	83
	East Mesa	27	81
	East Valley/Phoenix	12	100
	El Mirage/Surprise	10	100
	Gilbert	48	65
	Glendale	18	100
	Kyrene	24	89
	Maryvale	21	103
	Mesa	22	106
	Metro Phoenix	10	99
	Northwest Phoenix	17	96
	Peoria	18	70
	Scottsdale	25	129
	South Mountain	20	113
	South Phoenix	18	86
	Southeast Phoenix	14	85
	Southwest Phoenix	13	81
	Sunnyslope	32	78
	Tempe	18	100
	Tolleson/Avondale	13	85
	West Phoenix	17	99
Mohave	Bullhead City	15	52
	Kingman	22	48
	Lake Havasu City	49	86
Navajo	Winslow	8	29
Pima	Blake Foundation	28	105
	Casa de los Niños	28	80
	Casa Family First	36	95
	CODAC	45	103
	East/SE Tucson	36	88
	La Frontera	42	96
	Marana	22	78
	Metro Tucson	26	88
	Pascua Yaqui	50	39
	Southwest Tucson	24	76
Pinal	Apache Junction	27	74
	Gila River	18	16
	Coolidge	13	83
	Stanfield	12	23
Santa Cruz	Nogales	31	112
Yavapai	Prescott	20	129
	Verde Valley	63	75
Yuma	Primero Los Niños	7	66
	Yuma	15	77
Total (5,527)		1302	4225

In 2007-2008 there were 55 Healthy Family Arizona sites with Family Support Specialists (home visitors) and 3 sites with Family Assessment Workers for a total of 58 sites.

Engagement and Retention

There are many different ways to determine how successfully the program engages its participants. Our work has suggested that at least four home visits are needed for the participants to be engaged enough to benefit from the program. A further consideration in maintaining engagement with families is the extent to which home visitors are making the expected number of home visits. In general, the expectation is that program participants begin the program on level one with weekly visits for at least six months. Across almost all Healthy Families programs nationally, home visitors have not been able to meet the Healthy Families America (HFA) standard of 75% or more of expected visits (See Jacobs, 2005 for a review). Gomby et al. (1999) in her review of Healthy Families programs found that families receive only about half of the home visits they are suppose to receive. Programs continue to pursue new ways of keeping families engaged in service delivery over time.

In an attempt to better understand the challenges of meeting the 75% home visitation rate, Jacobs (2005) conducted an exploratory study that revealed the following: up to 20% of the home visits were missed because of staff-related factors including program demands, personal reasons given by the staff, and scheduling difficulties. As programs struggle to meet a higher standard of engagement, alternative program delivery options should be considered.

For Healthy Families Arizona, the evaluation team analyzed data regarding the number of home visits during the first 6 months of the 2007-2008 program year for all families who were not on outreach. Across all sites, the overall median number of home visits during the six month period was 15 visits (or approximately 2.5 visits per month). However, because families are on different levels of service intensity during the time period, this analysis does not provide information about the degree to which the 75% home visitation completion rate was attained.

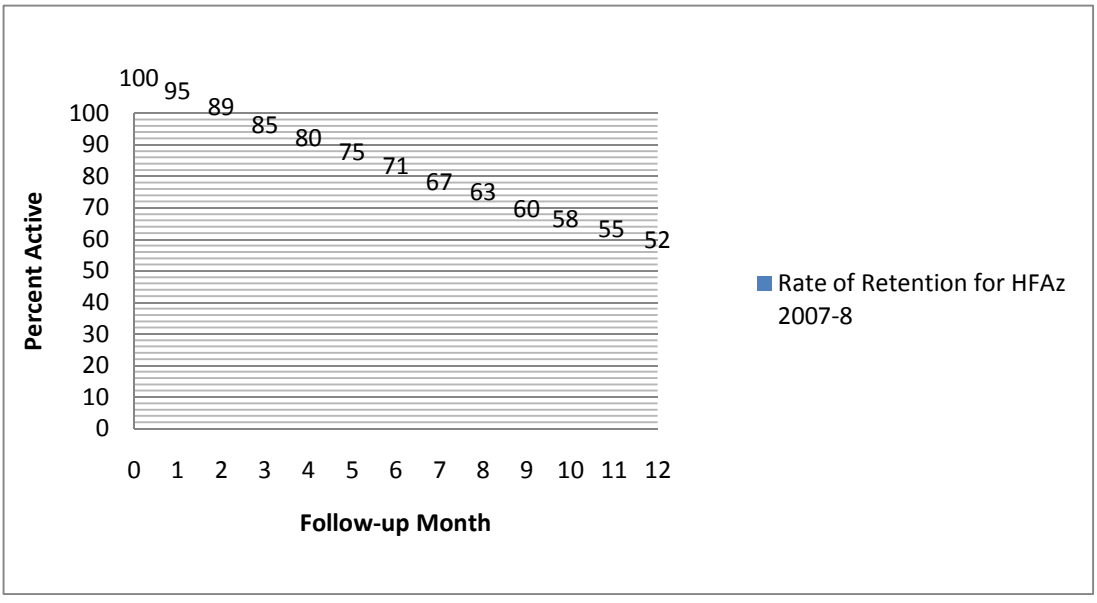
Overall, the length of time families stayed in the program remains to be approximately one year. For all families (both postnatal and prenatal) who closed (1,965), the median number of days in the program was 343 (just under 1 year).

The most frequently given reasons for leaving the program include:

1) did not respond to outreach (31.7%);
2) moved away (25.1%);
3) family refused further services (14.1%);
4) unable to contact (6.7%);
5) self-sufficiency (5.5%);
6) completed program (4.3%); and
7) refused worker change (3.6%).

Exhibit 4 shows the rate of retention of families in the Healthy Families Arizona program at monthly intervals. As the figure illustrates, 85 percent of families remained active in the program at three months, and this declined to 71 percent by the six month interval. At the nine month interval, 58 percent of families remained active in the program and this decreased to 52 percent by the end of the first year. These retention rates were closely aligned with retention rates reported for nine other states with HFA programs (Evaluation of HFNY: First Year Program Impacts). As will be described in the outcomes section of this report, many significant positive outcomes are achieved within the first year of service.

Exhibit 4. Rate of Retention for Healthy Families Arizona 2007-2008



Characteristics of the target population

The Healthy Families Arizona program targets expectant parents and parents with newborn infants who live in high risk communities—those communities with high rates of teen pregnancies, child abuse and neglect reports, and low birth weight babies. Furthermore, the program seeks to offer services specifically to parents at high risk for parenting difficulties due to high stress, single parenting, lack of commitment to parenting, ineffective parenting, or mental health, substance abuse and domestic violence issues.

Exhibit 5 presents selected risk factors for mothers at intake for both prenatal and postnatal families compared with state rates. As the data show, birth mothers are teens in almost one third of all prenatal families and in over 20% of postnatal families. Single parents make up the vast majority of participants—over three quarters of the mothers at intake. Over 80% of the mothers are unemployed and receive AHCCCS. In relation to the state rates, these data confirm that Healthy Families participants do represent an "at risk" group of mothers . The program has been successful in recruiting families with multiple risk factors associated with child abuse and neglect and poor child health and developmental outcomes. Also, it is noteworthy that mothers who enter the program prenatally exhibit higher risk factors than those entering postnatally, indicating that the program is reaching the mothers who might most benefit from receiving supportive services as early as possible.

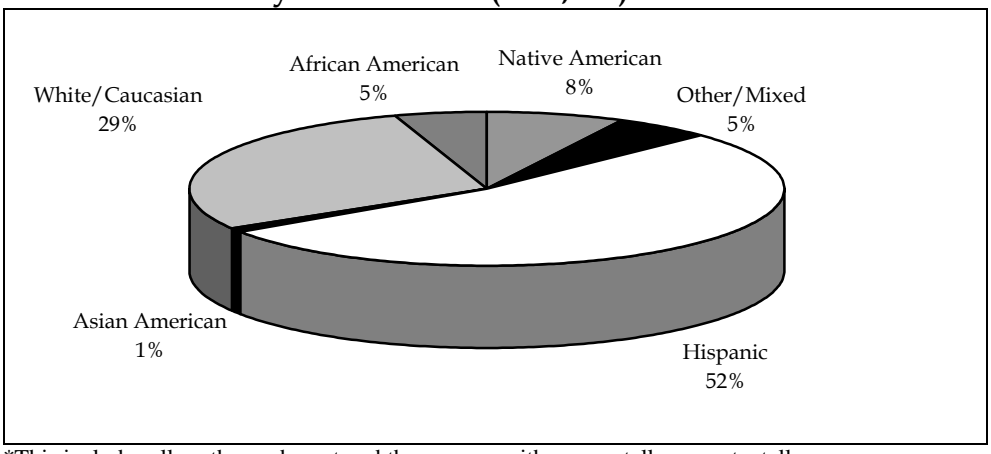
Exhibit 5. Selected Risk Factors for Mothers at Intake - 2008

Risk Factors of Mothers	Prenatal Families	Postnatal Families	Arizona state Rates - 2007
Teen Births (19 years or less)	31.3%	22.8%	12.6%*
Births to Single Parents	80.2%	75.9%	45.0%*
Less Than High School Education	68.0%	62.5%	27.9%*
Not Employed	83.3%	81.0%	NA
No Health Insurance	8.1%	3.7%	NA
Receives AHCCCS	82.3%	85.1%	52.2%*
Late or No Prenatal Care (or Poor Compliance)	33.3%	35.3%	23.5%**
Median Yearly Income	$11,832	$13,200	$48,899***

*Source: 2007 data from the Arizona Department of Health Services Vital Statistics records.
Percent does not include "unknown."
**Source: 2006 data from the Arizona Department of Health Services Vital Statistics records.
***U.S. Census Bureau American Community Survey 1-Year Estimate of median household income.
Note: Percentages for the combined total for prenatal and postnatal families can be found in Appendix B.

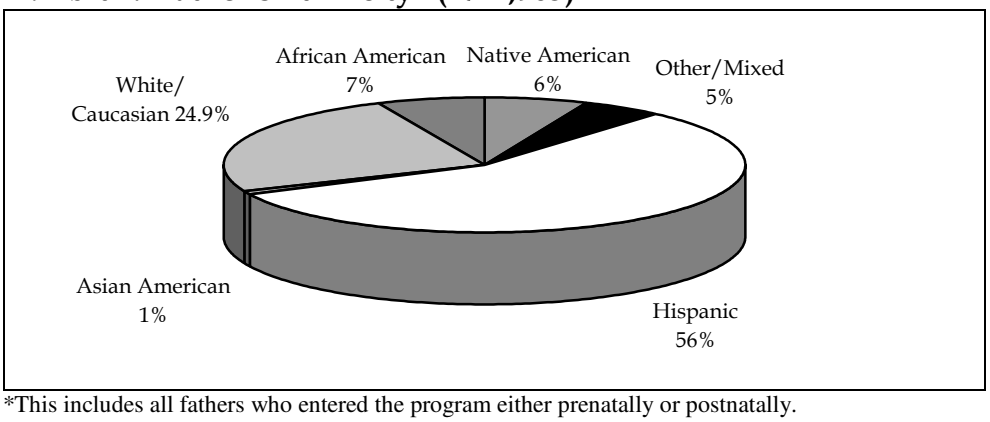
The Healthy Families Arizona program continues to serve a culturally diverse population. In the following two exhibits, ethnicity is examined from enrollment data for mothers and fathers, with prenatal and postnatal participants combined. Although ethnicity of the biological father is captured at birth, the number of fathers who actually engage with services throughout the program is much smaller, as can be seen later in this report. Just over 50% of mothers and fathers enrolled in the program are Hispanic.

Exhibit 6. Ethnicity of Mothers * (N=5,448)



*This includes all mothers who entered the program either prenatally or postnatally.

Exhibit 7. Father's Ethnicity* (N=4,903)

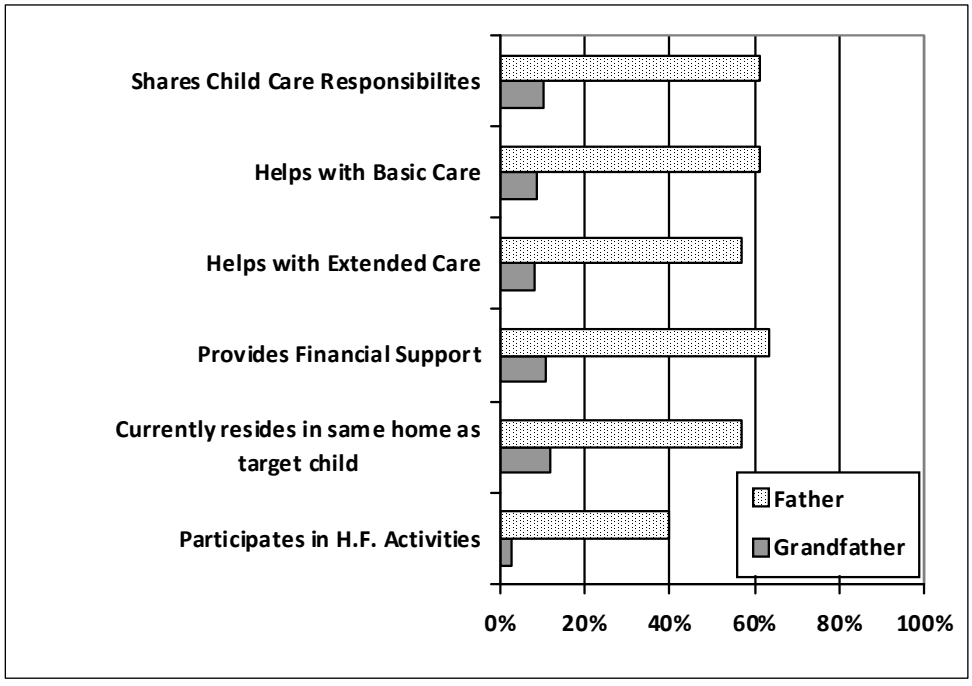


*This includes all fathers who entered the program either prenatally or postnatally.

Father/Male Involvement

Fathers contribute significantly to a child's emotional and developmental outcomes. Families that do not have a father or partner involved to share the stresses and responsibilities of parenting are at higher risk for child abuse and neglect. One ongoing goal over the past several years in Healthy Families Arizona has been increased male involvement. Data on 3,029 fathers and other male caretakers is available for families at the six month post-birth time period. During the first 6 months after the baby's birth, nearly 60% of families report father involvement in a variety of caretaking roles. However, fathers do not participate in Healthy Families activities as frequently, with only about 40% of families reporting father's involvement. This could be due to fathers working or being away from the home during the home visit. The role of grandparents in raising children is evident with approximately 10 percent of families reporting grandfather involvement. Of continued concern is the observation that 20-25 percent of all families report no male involvement during this time of the child's life. When these data are compared with last year, all activities show an increase of 3-4 percent. For example, "shares child care responsibilities" increased 3 percent and "helps with basic care" increased 4 percent. Efforts on the part of home visitors to provide support, encouragement and ideas for male family involvement are of ongoing importance.

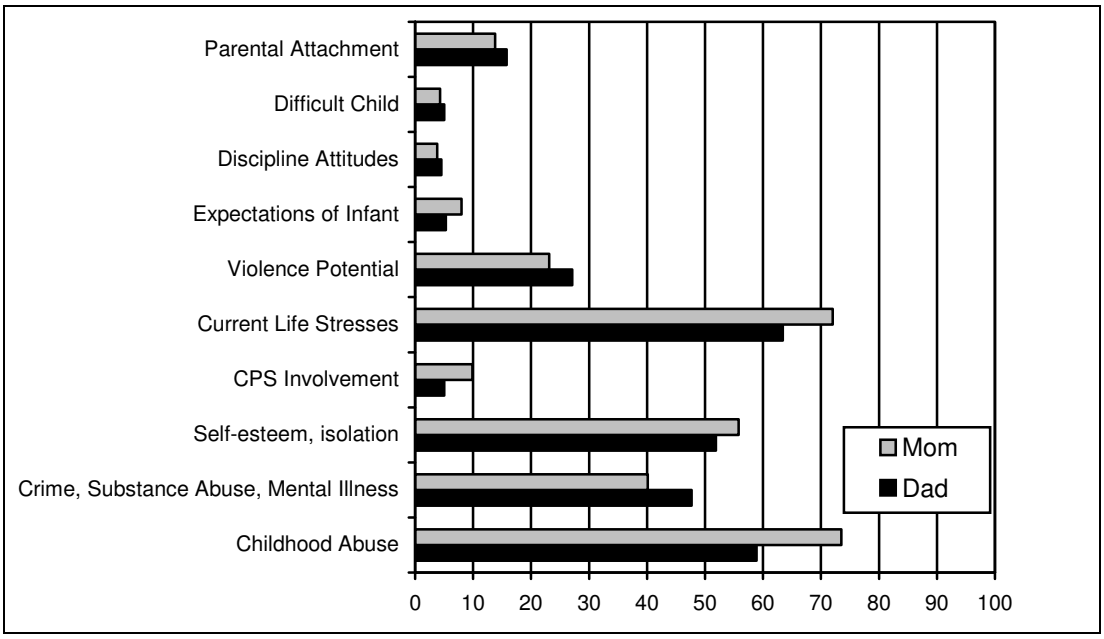
Exhibit 8. Male Involvement at 6 Months



Assessment of risk factors

Both mothers and fathers are assessed during an initial screening with the *Parent Survey*[1]. The parent survey helps the program learn about the family's circumstances and life events that place them at risk for child maltreatment and other adverse outcomes. During the intake process, the Family Assessment Worker evaluates each family across the 10 domains of the Parent Survey. The survey is administered in an interview format and the items are then rated by the worker according to level of severity. The percentage of parents scoring *severe* on each of the scales is presented for prenatal mothers and fathers and for postnatal mothers and fathers in Exhibits 9 and 10.

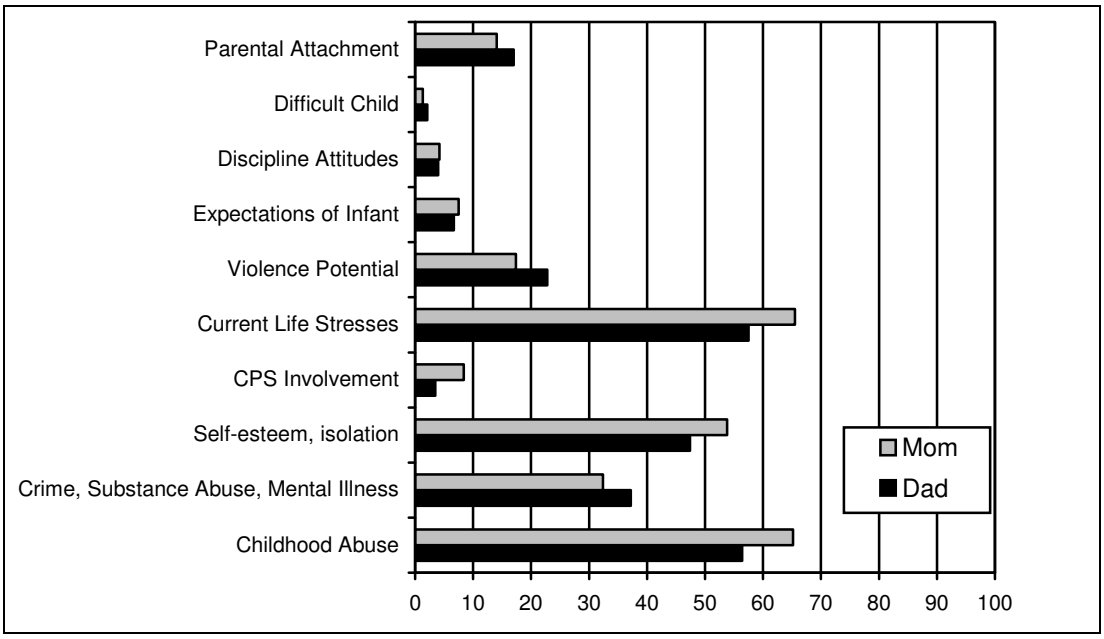
Exhibit 9. Percentage of Parents Rated Severe on Parent Survey Items
PRENATAL *



*Note: The Ns ranged from 1247-1288 for mothers and from 468-1076 for fathers depending on the item.

[1] The Family Stress Checklist was revised by the original developer and renamed the Parent Survey to impart a more strengths based perspective, however, the rating scale remains unchanged.

Exhibit 10. Percentage of Parents Rated Severe on Parent Survey Items POSTNATAL*



*Note: the Ns ranged from 3888-4193 for mothers and from 1855-3749 for fathers, depending on the items

The items rated as severe by a large percentage of mothers and fathers include: history of childhood abuse (for the parent), current life stressors, self-esteem and isolation, and a history of crime, substance abuse or mental illness. Interestingly, these top 4 items are similar for both mothers and fathers. There are no noticeable differences between prenatal participants and postnatal participants.

Overall, participants in the Healthy Families Arizona program are families that are impoverished, stressed, socially disadvantaged, and lacking in resources to manage the demands of parenting. It would appear that these families are among Arizona's most at-risk for child abuse and neglect and have the greatest potential for benefitting from programs that address long term child development outcomes.

Infant Characteristics

In addition to family risk factors, information about infant risk factors is collected at intake for postnatal families and at birth for prenatal families. This information helps to indicate the level of need of the families served by the program. The following exhibit displays the high-risk characteristics of the newborns among families who entered prenatally and postnatally.

Exhibit 11. Risk Factors for Infants - 2008

Risk Factors for Infants	Prenatal Families*	Postnatal Families**	Arizona State percent***
Born < 37 weeks gestation	16.7% (overall) 16.9% (1st Trimester Enrollment) 16.8% (3rd Trimester Enrollment)	20.9%	10.3%
Birth Defects	0.8 %	1.7%	<1%
Low Birth Weight	13.6%	15.6%	7.1%
Positive Alcohol/Drug Screen	1.6%	4.2%	NA

*The Family Support Specialist collects this information either from the family or a CPS referral for prenatal families.
**Family Assessment Workers collect this information from hospital records for postnatal families.
***2007 data from the Arizona Department of Health Services Vital Statistics records.

The overall risk factors for infants have remained about the same from last year. The percentage of postnatal Healthy Families Arizona program infants born early (less than 37 weeks gestation) is almost 17% regardless of the trimester in which the parent is enrolled. This is considerably higher than the overall state rate, again suggesting that the families being identified for service have a significant level of need. The percentage of low birth weight infants in the program also remains high in comparison to the state rate.

Data suggests the Healthy Families Arizona program is reaching parents and babies who have greater risks of child maltreatment and other unhealthy outcomes. Healthy Families Arizona home visitors have the opportunity to help mothers prevent having pre-term or low birth weight babies by encouraging parents to attend regular prenatal visits, to adopt healthy behaviors such as good nutrition habits, and to stop alcohol, drug, and tobacco use. The recent Healthy Families New York randomized control study reports that in a the control group mothers were significantly more likely to deliver low birth weight babies than were the mothers

eng

aged in the Healthy Families program (Mitchell-Herzfeld et al., 2005).
These data show that the infants in the Healthy Families Arizona program are at significant risk. Both low birth weight children and children born at less than 37 weeks gestation are at more risk for child maltreatment and present special challenges for parents.

Key Healthy Families Arizona Services

To reach the overall goals of reducing child abuse and neglect, success will be more likely when the program ensures that families not only stay engaged in the program but also receive the services and resources they need and are satisfied with the program. Three aspects of Healthy Families Arizona services are highlighted in more depth in this section: referral to resources, services for pre-natal families, and participant satisfaction with services.

Referral services

Many of the new and inexperienced mothers and fathers served by Healthy Families live in isolated or high risk neighborhoods or communities. An important aspect of the Healthy Families program model is linking families with needed community resources. While much of the home visitor's assistance is provided in the home, equally important is the home visitor's efforts to connect the family with educational, health, and family support services in the community. While some Healthy Families sites exist in communities with adequate resources, others are in communities with very limited support resources for families. Common problems noted among many sites are that there are not enough resource options for families who need help; eligibility requirements may restrict access to services; and families experience long waiting lists or need to travel long distances to receive services. Exhibit 12 presents data on the number of families that received various referrals to needed resources and the percent of families who actually *accessed* services.

Exhibit 12. Types of Healthy Families Arizona Referrals at six, twelve, eighteen and twenty-four months*

	Number of Families Who Received Referrals at 6-months & Percent of Those Who Accessed the Referral (n=1,520)		Number of Families Who Received Referrals At 12-months & Percent of Those Who Accessed Referral (n=1,491)		Number of Families Who Received Referrals At 18-months & Percent of Those Who Accessed Referral (n=594)		Number of Families Who Received Referrals At 24-months & Percent of Those Who Accessed Referral (n=697)	
	Number Received	% Accessed	Number Received	% Accessed	Number Received	% Accessed	Number Received	% Accessed
Health Care	602	58.6%	398	66.8%	213	66.7%	192	60.4%
Nutrition Services	474	75.9%	319	76.8%	185	74.6%	139	81.3%
Family and Social Support	698	51.0%	464	51.1%	229	52.8%	169	52.1%
Public Assistance	531	61.8%	354	65.0%	172	62.8%	136	62.5%
Employment, Training and Education	394	49.5%	251	53.8%	125	47.2%	85	51.8%
Counseling and Support Services	329	44.4%	212	54.7%	118	50.0%	107	39.3%
Child Development	389	68.1%	283	66.4%	156	64.7%	146	69.2%
Other	717	67.8%	477	70.2&	269	58.0%	203	58.6%

*The total number of referrals for each time period does not add up to the total number of families because some families may not have received any referrals or may have received multiple referrals.

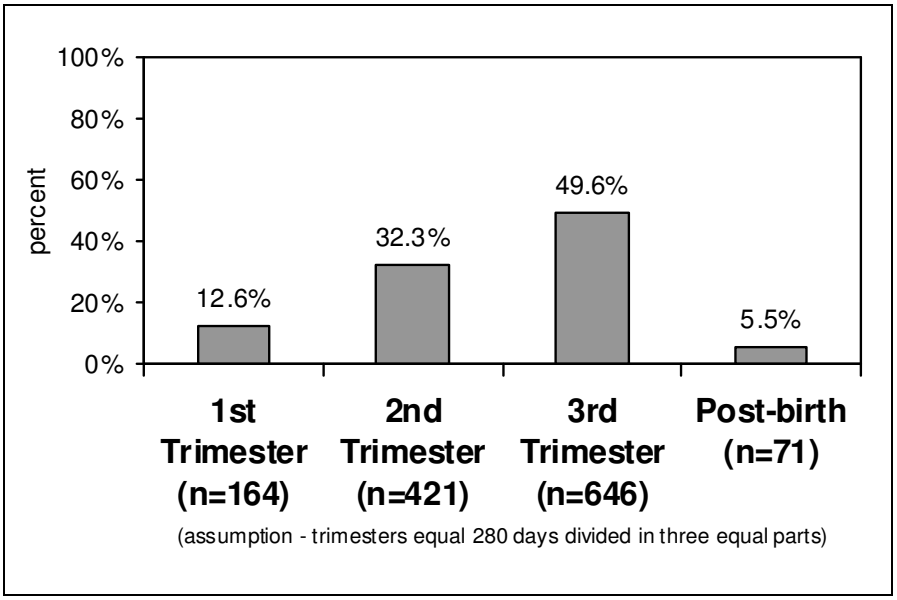
These data show that overall, program participants are making use of referrals, but families need continued support to follow through on referrals. Nutrition services and child development services are the most fully accessed services among families at all time periods. In addition, it would appear that more families could be helped by additional referrals. Referral utilization should continue to be an important priority in Healthy Families.

Services to Prenatal Families

Healthy Families Arizona expanded services to prenatal families in 2005. The program has focused on trying to reach mothers as early as possible, and data shows that the risk factors faced by the mothers that are being reached prenatally are significant. Identifying and engaging families early in their pregnancy can be challenging. It is a program focus for Healthy Families Arizona to reach families in the first trimester of pregnancy.

Exhibit 13 shows the trimester of enrollment for all families entering the program prenatally. The majority of the families do not enter until the third trimester, and this year's data is very similar to last year's results so there has not been an increase in recruiting families during the first trimester. This shows the continuing challenge the program faces in reaching families earlier. It also indicates a need to review definitions of prenatal enrollment (e.g., "prenatal" could be limited to those families who enroll prior to 24 weeks gestational age) to better target and track the effects of early involvement in HFAz visits.

Exhibit 13. Trimester of Enrollment*



*Families who are referred to the program prior to birth of the baby are considered to be in the prenatal category. While they may have been screened prior to the birth of the baby, final acceptance and enrollment did not occur until after the baby was born. Therefore, about 5.5% of "prenatal" families have a "post-birth" date of enrollment.

Developmental Screens for Children

Developmental screens are a service provided to families that participate in home visitation services. They are used to measure a child's developmental progress and identify potential developmental delays requiring specialist intervention. The program administers the Ages and Stages Questionnaire (ASQ) for physical development and the ASQ-Social Emotional (SE) which focuses on social and emotional difficulties. The program goal is to screen 80% of the children in families served by the program. As Exhibit 14 shows, the program is close to meeting this goal for the ASQ, but no interval of ASQ screening met the 80% standard. Rates of screening for this year are slightly below the previous year (2-6% lower), but hover right around the national average of 75% across sites (Harding, et.al., 2007). While some screenings are missed due to families being on outreach status, there is a need for continued attention to timely ASQ screening.

Exhibit 14. ASQ Screening

Interval ASQ Screening	Percent of children Screened with ASQ 2008	Percent screened as delayed 2008	Percent screened as delayed on the ASQ-SE * 2008
6-month	69.8%	5.6%	2.9%
12-month	75.7%	8.5%	4.5%
18-month	77.0%	24.2%	4.7%
24-month	75.6%	26.0%	8.0%
30-month	73.0%	18.1%	10.9%
36-month	75.2%	19.0%	20.7%
48-month	78.9%	18.9%	2.9%

- Note: data on screenings for the ASQ-SE is limited.

Healthy Families program data tracks what happens after a family's ASQ is scored: 1) the child is assessed as having no delays, 2) the child is referred for further assessment and is determined to have no delays upon a more extensive assessment, 3) families are referred to different services such as the Arizona Early Intervention Program (AzEIP) or other early intervention or therapy, or 4) the home visitor may provide developmental intervention or education to the family. Although from 5-26% of children (depending on their age) are initially screened as delayed in their development, up to one fourth of the children who initially screen as delayed on the ASQ are determined "not delayed" upon further assessment (see Exhibit 15 below).

For example, of the families at 6 months who screened as delayed on the ASQ and were referred for more assessment, 19 families showed no delay, 20 families were referred to the AzEIP, 12 families were referred to an early intervention program, 45 families received developmental intervention, 6 families received specialized therapy, and 2 declined further referral. The ASQ screening provides a valuable service to families because it enables them to access appropriate services to meet their child's particular needs. The following exhibit shows the level of screening being obtained with families at the different time intervals and the percent identified as delayed.

Exhibit 15. ASQ Follow-Up Services – 2008

	Continued Assessment shows "no delay" % (n)	Referred to AzEIP % (n)	Referred to other Early Intervention % (n)	Provided Developmental Intervention % (n)	Referred to Therapy % (n)	Parent Declined Referral % (n)
6-month Screen	29.7% (19)	31.3% (20)	18.8% (12)	70.3% (45)	9.4% (6)	3.1 % (2)
12-month Screen	19.7% (13)	18.2% (12)	15.2% (10)	81.8% (54)	1.5% (1)	9.1% (6)
18-month Screen	26.1 (31)	26.9 (32)	16.0 (19)	78.2 (93)	4.2 (5)	5.9 (7)
24-month Screen	18.8 (22)	34.2 (40)	15.4 (18)	76.9 (90)	6.0 (7)	8.5 (10)
30-month Screen	25.0 (17)	23.5 (16)	11.8 (8)	61.8 (42)	7.4 (5)	7.4 (5)
36-month Screen	18.4 (9)	12.2 (6)	14.3 (7)	79.6 (39)	4.1 (2)	4.1 (2)
48-month Screen	41.2 (7)	0% (0)	0% (0)	82.4 (14)	5.9 (1)	0% (0)

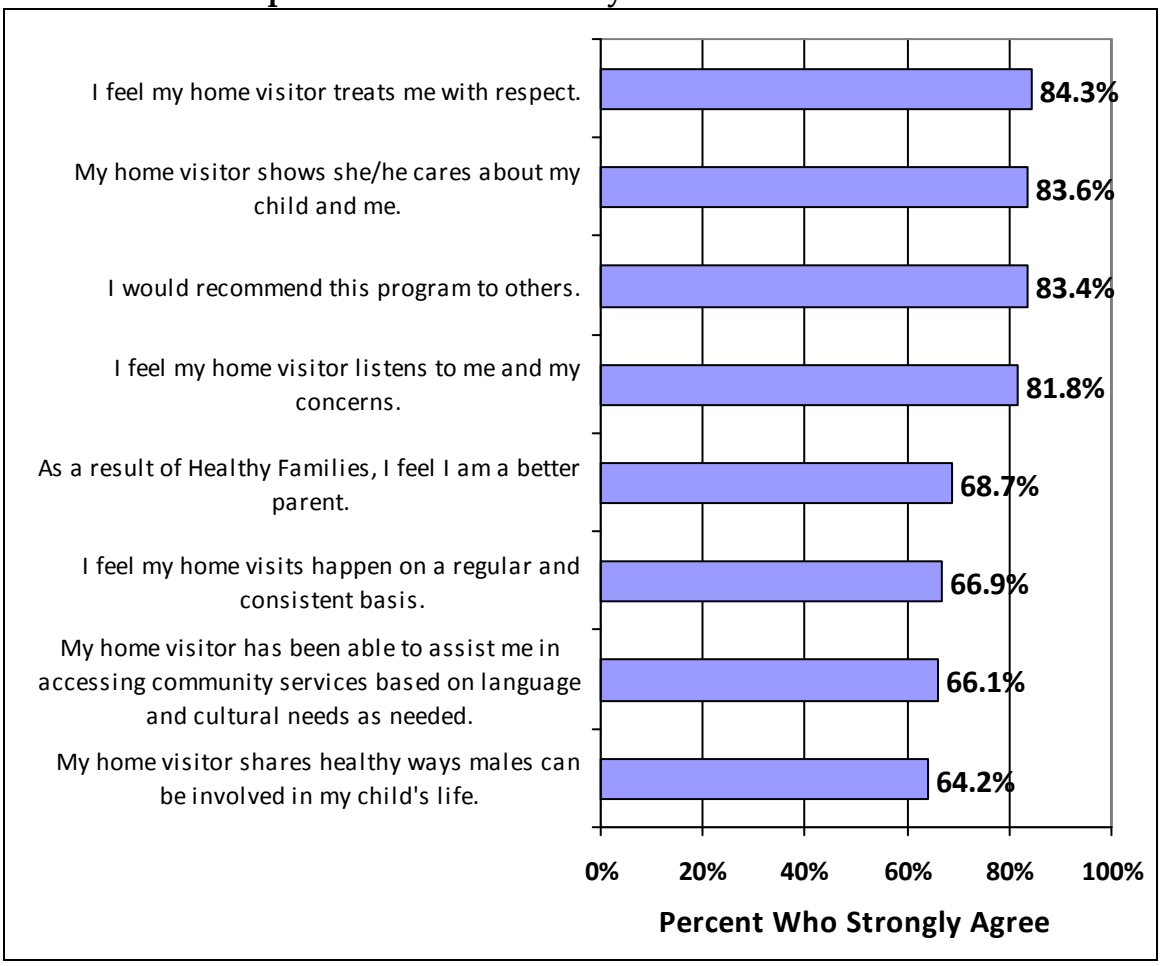
Note: Percents do not equal 100% as multiple referrals can happen for s single child.

Participant satisfaction

Data on participant satisfaction information provides valuable information for program staff and a time for reflection for participants. If participants are satisfied with the program and the work of the home visitor, they are more likely to benefit from the program. The following data summarizes the responses of participants who took the Healthy Families participant satisfaction survey during the spring of 2008. The survey is distributed to all current participants in the program and returned by mail. Data was received from all 55 sites for a total of 1,502 completed surveys;

however, two sites used an older version of the survey and are not included in this report. Therefore, this summary analysis is based on 1,447 participants from 53 sites. Exhibit 16 below shows key highlights from the full report of participant satisfaction that is provided each spring to all program sites. The exhibit presents the items which received the highest percent of strongly agree responses from participants and the items receiving the lowest percent of strongly agree. Clearly, participants feel well-respected by their home visitors. Fewer participants agree strongly that home visits happen on a regular basis, or that the home visitor provides ideas for male involvement or access to community services. Overall, for the complete survey, most of the respondents endorsed the satisfaction items as strongly agree over 70% of the time. The complete Satisfaction Survey is included in the Appendices of this report.

Exhibit 16. Participant Satisfaction Survey – Selected Items



Outcomes for Families
What is changing for Healthy Families Participants?

While there are multiple outcomes that could be measured, the Healthy Families Arizona program focuses the evaluation on the following primary outcome indicators:

- Parent outcomes
- Child abuse and neglect
- Child development and wellness
- Mother's health, education, and employment

Parent outcomes

One of the primary intermediate goals of the Healthy Families Arizona program is to have a positive influence on parenting attitudes and behaviors. While reducing child abuse and neglect is the ultimate outcome, intermediate objectives such as changes in parenting behaviors can inform us about progress toward the ultimate goal. The intermediate goals of the Healthy Families program revolve around a few key factors known to be critical in protecting children from maltreatment (Jacobs, 2005):

- providing support for the family;
- having a positive influence on parent-child interactions;
- improving parenting skills and abilities and sense of confidence; and
- promoting the parents healthy functioning.

In order to evaluate critical intermediate goals the evaluation team developed the Healthy Families Parenting Inventory or the HFPI in 2004. The development of the HFPI was guided by several perspectives and sources: the practice experience of the home visitors in the Healthy Families Arizona program; data gathered directly from home visitors, supervisors, and experts; information obtained from previous studies of the Healthy Families program; and examination of other similar measures. The process included focus groups with home visitors, the development of a logic model, and an extensive review of relevant literature. The final instrument includes 9 scales: Social Support, Problem-solving, Depression, Personal Care, Mobilizing Resources, Role Satisfaction, Parent/child interaction, Home Environment and Parenting Efficacy.

In 2007-2008, the HFPI underwent more extensive testing, specifically, a method called exploratory factor analysis. Essentially, this analysis explores patterns among the survey questions in order to discern relationships and to assess the strength of the HFPI's ability to measure key concepts.

For this study, an exploratory factor analysis (EFA) was conducted using the principal components extraction method with varimax rotation. The EFA was conducted to provide preliminary evidence as to the adequacy of the factor structure of the model upon which the HFPI was developed. An a priori criterion loading of 0.30 was set for inclusion of items in the initial stage of item reduction as per the recommendation of Feher Waltz, Stickland, & Lenz (2004, p. 162). The pattern of item-to-item correlations within subscales and item to total subscale score correlations were generally as predicted. Based on the pattern of correlations, however, one of the 10 subscales was deleted. The parental competence subscale was highly correlated with three subscales: parent child interaction (r = .84), home environment (r = .90), and parental efficacy (r = .86). Also, two items with factor loadings less than .30 were deleted from the original scale. The subscale and overall reliability was assessed and found to be adequate to good. A complete report was generated detailing the efforts to establish the initial validation of the HFPI and has been submitted for publication in a peer reviewed journal (Krysik & LeCroy, 2008). The factor loading and subscale alphas for the nine factor model which establishes the initial validity and reliability of the instrument are presented in the following exhibit.

Exhibit 17. Factor Loadings and Subscale Alphas for the Nine Factor Model

Subscale Title (Chronbach's Alpha)	Item	Factor Loading
Social Support (.84)	I feel supported by others	.71
	I feel that others care about me	.74
	I discuss my feelings with someone	.54
	If I have trouble, I feel there is always someone I can turn to for help	.85
	I have family or friends who I can turn to for help	.80
Problem-Solving (.92)	I learn new ways of doing things from solving problems	.53
	I deal with setbacks without getting discouraged	.69
	When I have a problem, I take steps to solve it	.56
	When I am faced with a problem, I can think of several solution	.47
	I am good at dealing with unexpected problems	.65
	I remain calm when new problems come up	.75

Subscale Title (Chronbach's Alpha)	Item	Factor Loading
Depression (.79)	I feel sad	.50
	I feel positive about myself	.68
	The future looks positive for me	.72
	I feel unhappy about everything	.68
	I feel hopeless about the future	.70
	There isn't much happiness in my life	.48
	I have so many problems I feel overwhelmed by them	.51
	It is hard for me to get in a good mood	.64
	My life is fulfilling and meaningful	.53
Personal Care (.76)	I find ways to care for myself	.54
	I take care of my appearance	.57
	I get enough sleep	.75
	I am a better parent because I take care of myself	.79
	I take time for myself	.58
Mobilizing Resources (.86)	I know where to find resources for my family	.76
	I know where to find important medical information	.70
	I can get help from the community if I need it	.80
	I am comfortable in finding the help I need	.67
	I know community agencies I can go to for help	.76
	It is hard for me to ask for help from others	.18*
Role Satisfaction (.76)	Because I'm a parent, I've had to give up much of my life	.57
	I feel trapped by all the things I have to do for my child	.69
	I feel drained dealing with my child	.48
	There are times my child gets on my nerves	.48
	I feel controlled by all the things I have to do as a parent	.59
	I feel frustrated because my whole life seems to revolve around my child	.30
Parent/Child Interaction (.77)	I have a hard time managing my child	.67
	I can be patient with my child	.67
	I respond quickly to my child's needs	.60
	I do activities that help my child grow and develop	.56
	When my child is upset, I'm not sure what to do	.49
	I use positive words to encourage my child	.46
	I can tell what my child wants	.41
	I am able to increase my child's good behavior	.37*
	I remain calm when my child is upset	.61
	I praise my child everyday	.55
Home Environment (.76)	My child has favorite things to comfort him/her	.55
	I read to my child	.39*
	I plan and do a variety of activities with my child every day	.60
	I have made my home exciting and fun for my child	.71
	I have organized my home for raising a child	.58
	I check my home for safety	.50

Subscale Title (Chronbach's Alpha)	Item	Factor Loading
	My child has a schedule for eating and sleeping in my home	.30*
	I set limits for my child consistently	.26*
	I make plans for our family to do things together	.57
	I set rules for behavior in my home	.45
Parenting Efficacy (.87)	I feel I'm doing an excellent job as a parent	.81
	I am proud of myself as a parent	.83
	I am more effective than most parents	.72
	I have set goals about how I want to raise my child	.58
	I am a good example to other parents	.78
	I learn new parenting skills and use them with my child	.60

Note. * indicates that the item was revised as presented; however, the factor loading is for the original item.

Since the HFPI is newly developed, ongoing work and refinement is being conducted with the tool. The demand for it as an evaluation tool has grown steadily, and it is used in many programs across several states, and recently it was introduced in Finland.

The following section describes the results obtained for each subscale of the HFPI. The level of significance is reported along with the *effect size* which estimates the *magnitude* of the change. The results using this instrument include multiple tests, however, all the findings except one exceed a *p*. <.000 level (a very good significance level), therefore, we did not attempt to control for the number of tests being conducted as this would not have changed the findings. These findings are based on data reported from the sites and represent approximately 1,500 participants who completed both instruments at the 6 month interval, and 500 participants who had matched instruments at the 12 month intervals.

Social Support

Research has found that communities with low rates of social support and mutual caring have higher rates of child maltreatment (Gelles, 1992; MacMillan et al., 1995; Wolfe, 1998). In essence, effective parenting is compromised by limited social ties to extended family, neighbors, and informal community resources. Too often parents are left without the needed support. The HFPI measurement of social support tries to examine the emotional support available to the parent. As the following exhibit

shows, changes were significant from baseline to 6 months and from baseline to 12 months. However, it is noteworthy that aside from findings on the Personal Care subscale, the results on Social Support show the least impact from the program. This suggests that efforts to re-examine social support and examine new ways of helping families develop meaningful and helpful relationships is warranted.

Exhibit 18. Change in Social Support

Sub-scale	Significant improvement from baseline to 6 months	Significance	Effect size	Significant improvement from baseline to 12 months	Significance	Effect size
Social support	✓	**.001**	**(.09)**	✓	**.071**	**(.07)**

Problem Solving

The development of strong problem solving skills is a foundation for healthy functioning. Healthy Families Arizona seeks to help parents increase their abilities to solve problems and make decisions. A focus on problem solving was extended to parenting by one of the original researchers on the study of *Interpersonal Cognitive Problem Solving* and was published in *Problem Solving Techniques in Child Rearing* (1978) and revised in *Thinking Child, Thinking Parent* (2004). Quite simply, if parents, when confronted with parenting conflicts, can learn to use problem solving skills rather than respond with immediate reactions, they can more effectively eliminate ineffective parenting responses like anger and physical punishment. Research indicates that coping and problem solving activities play a role in well being and help to reduce stress and increase effective parenting (Heppner, Cooper, Mulholland, & Wei, 2001; Heppner & Lee, 2002; Shure, 2004). As the following exhibit shows, changes in problem-solving were significant from baseline to 6 months and from baseline to 12 months.

Exhibit 19. Change in Problem Solving

Sub-scale	Significant improvement from baseline to 6 months	Significance	Effect size	Significant improvement from baseline to 12 months	Significance	Effect size
Problem solving	✓	**.000**	**(.30)**	✓	**.000**	**(.33)**

Depression

When combined with the demands of being a parent, the characteristics of adult depression, such as feeling helpless or useless, being unable to function effectively, poor concentration, and interpersonal disinterest, make it highly unlikely that a positive and productive relationship will develop between parent and child (Factor and Wolfe 1990). Depression has been associated with child physical abuse (Whipple & Webster-Stratton, 1991). Mothers with depression are less able to interact effectively with their children, and irritability and anger often result when interacting with children (Myers, 2002). Weissman, Paykel and Klerman (1972) conducted a number of observational studies of the interactions between depressed mothers and their offspring. They concluded that these children were deprived of normal involvement with their parents. Parent-child interactions in these families were marked by disinterest, less involvement, and poor communication. Furthermore, studies (Leschied, et al., 2005) have found that maternal depression is related to increased involvement with child welfare agencies and with poor child outcomes such as attention deficit disorder, conduct disorder, and poor emotional adjustment. Postpartum depression can be common in women. Across Healthy Families sites, depression is frequently present with about 20% of mothers reporting depression (Diaz, et al., 2004; Jacobs et al., (2005) report that half of teen mothers served in the Massachusetts Healthy Families program reported depressive symptoms in the clinical range. Reducing depression can have a wide range of positive outcomes for both mothers and children. As the following exhibit shows, changes in depression were significant from baseline to 6 months and from baseline to 12 months for HFAz program participants.

Exhibit 20. Change in Depression

Sub-scale	Significant improvement from baseline to 6 months	Significance	Effect size	Significant improvement from baseline to 12 months	Significance	Effect size
Depression	✓	**.000**	**(.20)**	✓	**.000**	**(.23)**

Personal Care

Home visitors identified increasing the parents' abilities to care for themselves as an important goal in their work with families in the Healthy Families program. The personal care subscale provides information about the extent to which the mother is taking care of herself and meeting some of her own wants and needs. Often parents feel trapped by the birth of a child and have not made the adjustments necessary to feel good about themselves in their new role as parents—enhancing their sense of personal care can help address this concern. Research that suggests children are at higher risk for maltreatment during times of instability and stress (Wolfe, 1998), and if parents are unable to care adequately for themselves, their stress may be higher. There were no significant improvements from baseline to 6 month assessment and no significant improvements from baseline to 12 month assessment on the Personal Care subscale. This suggests workers should focus additional efforts on creative ways to support personal care. However, it is also likely that the baby's development interacts with the mothers attention to personal care—as the baby changes, he or she will require different kinds of parenting effort and it will affect available time for personal care.

Exhibit 21. Change in Personal Care

Sub scale	Significant improvement from baseline to 6 months	Significance	Effect size	Significant improvement from baseline to 12 months	Significance	Effect size
Personal care	**none**			**none**		

Mobilizing Resources

The prevailing social, cultural, and economic pressures that challenge families should be examined when developing strategies to support families. There are many factors at the societal level, such as poverty, unemployment, and norms that support violence, that combine to make child-rearing difficult. (Wolfe, 1998: Prilletensky, et al., 2001). Being a single parent, living in poverty, being unemployed, and/or living in a stressed environment are more even more difficult when there are few resources to help family members cope with these stressors. Social services often emphasize "wrap around" services and resources that can be brought to families to help them cope and parent more effectively. Research has demonstrated that having multiple

risk factors increases the likelihood of child maltreatment and promotes conditions that may foster poor child development outcomes (Prilletensky, et al., 2001). Helping families to mobilize resources can reduce the number and impact of risks. As the following exhibit shows changes in Mobilizing Resources were significant from baseline to 6 months and from baseline to 12 months for HFAz participants.

Exhibit 22. Change in Mobilizing Resources

Sub-scale	Significant improvement from baseline to 6 months	Significance	Effect size	Significant improvement from baseline to 12 months	Significance	Effect size
Mobilizing resources	✓	**.000**	**(.32)**	✓	**.000**	**(.43)**

Commitment to Parent Role

Parents lacking a strong commitment to the parent role have a more difficult time being effective parents. Some parents may not see being a parent as part of their own identity and can perceive it as restricting opportunities for themselves. Children have many needs and parents can sometimes feel controlled by these demands and may develop feelings of resentment toward the child. Research studies have shown that maternal and infant attachment can predict positive outcomes for children (Ali, & Larry, 1981; Armstrong, et al., 2000; Field, 1995; Van den Boom, 1994). Efforts at improving parent and child attachment should be reflected by changes in this subscale. As the following exhibit shows changes in Commitment to Parent Role were significant from baseline to 6 months and from baseline to 12 months for HFAz participants.

Exhibit 23. Change in Commitment to Parent Role

Sub-scale	Significant improvement from baseline to 6 months	Significance	Effect size	Significant improvement from baseline to 12 months	Significance	Effect size
Commitment To Parent Role	✓	**.000**	**(.16)**	✓	**.000**	**(.18)**

Parent/child Interaction

Increasing the quantity and quality of parent child interaction is an important Healthy Families goal because this interaction will help facilitate child health, growth, and development. Also, parents who are not functioning well due to stress, depression, or other problems are less sensitive to the interactions they have with their children. Research has found that parents who are having personal difficulties have more difficult parent child interactions, i.e., their children are less involved and less responsive (Jacobs, 2005). Research has found that the potential for child maltreatment increases when frustrated parents rely on punitive discipline strategies such as yelling, threatening, pushing or grabbing to control their children (Pranksy, 1991; Whipple & Webster-Stratton, 1991). When parents develop parenting skills and enhance their parenting efficacy they are less likely to resort to poor parenting approaches and thus are more likely to promote positive child development outcomes. As the following exhibit shows, changes in Parent/Child Interaction were significant from baseline to 6 months and from baseline to 12 months for HFAz participants.

Exhibit 24. Change in Parent/child Interaction

Sub-scale	Significant improvement from baseline to 6 months	Significance	Effect size	Significant improvement from baseline to 12 months	Significance	Effect size
Parent/child Behavior	✓	**.000**	**(.19)**	✓	**.000**	(.20)

Home environment

Ensuring that parents have the knowledge required to create a home environment that promotes positive child development and safety for their children is one of the many strategies to promote child health and wellness. A well organized and positive home environment also promotes parents' confidence in their parenting abilities. Home visitors help to encourage a home environment that has developmentally stimulating experiences available for the child. Research has found that mothers who had better play area conditions also had better parent/child interactions, were more involved in play, and were more responsive (Jacobs, et al., 2005). The home environment can influence child development outcomes.

As the following exhibit shows, changes in Home Environment were significant from baseline to 6 months and from baseline to 12 months for HFAz participants.

Exhibit 25. Change in Home Environment

Sub-scale	Significant improvement from baseline to 6 months	Significance	Effect size	Significant improvement from baseline to 12 months	Significance	Effect size
Home Environment	✓	**.000**	**(.35)**	✓	**.000**	**(.54)**

Parenting Efficacy

The Healthy Families program also attempts to impact each parent's sense of competence and self-confidence. A high level of parenting efficacy sets the context for positive and productive parent child interactions. Many parents lack parenting efficacy. One way to increase their efficacy is to help them develop better knowledge and skills related to childrearing. Child management, family organization, and discipline, for example, are areas in which parents frequently report needing help (Prilleltensky, et al., 2001). As the following exhibit shows, changes in Parenting Efficacy were significant from baseline to 6 months and from baseline to 12 months for HFAz participants.

Exhibit 26. Change in Parenting Efficacy

Sub-scale	Significant improvement from baseline to 6 months	Significance	Effect size	Significant improvement from baseline to 12 months	Significance	Effect size
Parenting Efficacy	✓	**.000**	**(.16)**	✓	**.000**	**(.21)**

Total change score on the HFPI

In order to provide a more comprehensive understanding of changes in parenting during participation in the Healthy Families program, it is also useful to examine the total score on the Healthy Families Parenting Inventory and to determine the significance of change across all subscales. As the exhibit below shows, there were significant changes from baseline to 6 months and from baseline to 12 months. This

significance and the effect sizes support the conclusion that important changes were taking place among families. Overall, the percent of individuals who showed positive change from baseline to 12 months on the total score was 67 percent.

Exhibit 27. Overall Change in Healthy Families Parenting Inventory outcomes

Sub-scale	Significant improvement from baseline to 6 months	Significance	Effect size	Significant improvement from baseline to 12 months	Significance	Effect size
Total Scale	✓	**.000**	**(.29)**	✓	**.000**	**(.32)**

Child abuse and neglect

This report includes data from CHILDS on the rates of child abuse and neglect for Healthy Families Arizona participants. It is important to acknowledge that using official child abuse data as an indicator of program success is complex and is unlikely to fully answer the question about the effectiveness of Healthy Families in preventing child abuse. There are several reasons for these limitations. First, child abuse is an event that occurs infrequently and, therefore, changes are difficult to detect with statistical methods. Second, using official incidents of child abuse and neglect does not necessarily reflect actual behavior—using only reported and substantiated incidents of abuse only captures incidents that rise to that level; some incidents of child abuse or neglect are undetected and thus an fully accurate count is not possible. Third, using official data requires a process whereby cases are "matched" on available information such as mother's name, social security number, and date of child's birth. When any of this information is missing such as the legal name, the accuracy of the match decreases. Finally, because home visitors are trained in the warning signs of abuse and neglect and are required to report abuse or neglect when it is observed, this creates a "surveillance" effect—what might have gone unreported had there been no home visitor shows up in the official data. Because of these issues, many programs are beginning to not report actual rates of child abuse and neglect as the standard, but instead rely on measures that document reducing risk factors and increasing protective factors—factors shown to predict child maltreatment.

Because families with a history of child abuse and neglect are no longer excluded from program participation, we expected to see an increase in substantiated reports of child abuse. However, this was clearly not the case this year. For this year's report, 98.9% of the Healthy Families matched cases were without a substantiated report as can be seen in Exhibit 28. Although 98.9% of the Healthy Families participants have no substantiated reports, 43 of the families did have a substantiated report (1.1% of families). Of these cases 29 were neglect, 10 were physical abuse, 3 were sexual abuse, and 1 was a case of child death. A comparison group was created from families that were initially enrolled, but not successfully "engaged" in the Healthy Families program. As the exhibit shows there were no clear differences between the two groups.

Exhibit 28. Percent of families showing no child abuse and neglect incidences

Group	Percent Without Substantiated Report 2006-2007 (n = 3,301)	Percent Without Substantiated Report 2007-2008 (n = 3,885)
All Families	99.7%	98.9%
Comparison Group	98.6%	98.7%

Child Development and Wellness

Promoting optimal child growth and development is a key aspect of the Healthy Families program. Home visitors are in a strategic position to help families obtain access to health resources and promote wellness. Three indicators of child development and wellness are reported in this report: immunizations, access to medical doctors, and safety practices in the home.

Immunizations

Immunization of children is a primary public health objective nationwide —it is a cornerstone of Healthy People 2010 and is also promoted by the Arizona Healthy Families program. Healthy Families Arizona supports children obtaining all their necessary immunizations which are key to preventing debilitating diseases. HFAz home visitors regularly check each family's immunization booklet to assess completion of immunizations. Exhibit 29 presents the past three years of data on

immunization rates for the 2,4,6, and 12 month immunization periods. For 2008, approximately 87% of the children in the Healthy Families Arizona program, for whom we had data on immunizations, were reported to have received all 4 immunizations in the recommended series given by 18 months of age. This percentage exceeds the immunization rate for 2-year olds in Arizona for 2006 (79%) and the immunization rate for 2-year-olds in AHCCCS (82%) for 2006. Overall, this suggests the program is successfully promoting immunization for the children served by Healthy Families Arizona.

Exhibit 29. Immunization Rate of Healthy Families Arizona Children

Immunization Period	Percent Immunized 2006	Percent Immunized 2007	Percent Immunized 2008	Immunization Rate for 2-year-olds in Arizona (2006)*	Immunization Rate for 2-year-olds in AHCCCS in Arizona (2006)**
2 month	86.4%	91.3%	91.3%		
4 month	83.9%	88.4%	88.5%		
6 month	69.5%	77.7%	75.9%		
12 month	87.4%	87.4%	90.2%		
Received all 4 in the series by 18 months of age	83.5%	87.5%	87.4%	79.0%	82.0%

*Source: 2006 data from the Arizona Department of Health Services
**Source: 2007 report to Arizona Early Childhood Development and Health Board

Access to Medical Doctors

Health care access is an issue affecting children across the nation and linking children to a primary medical care professional is a key to promoting health and wellness in families. The Healthy Families program tracks the percent of families that are considered linked to medical doctors. As the following exhibit shows, a large percent of the families, over 94% across all time periods, for whom we had data on, are linked to doctors.

Exhibit 30. Percentage of Children Linked to a Medical Doctor

	6 months	12 months	18 months	24 months
Percent of children with medical home 2006*	97.5%	97.1%	96.4%	97.8%
Percent of children with medical home 2007*	96.0%	94.1%	92.4%	94.7%
Percent of children with medical home 2008**	95.6%	96.7%	94.4%	94.0%

*Postnatal only and **Prenatal and postnatal

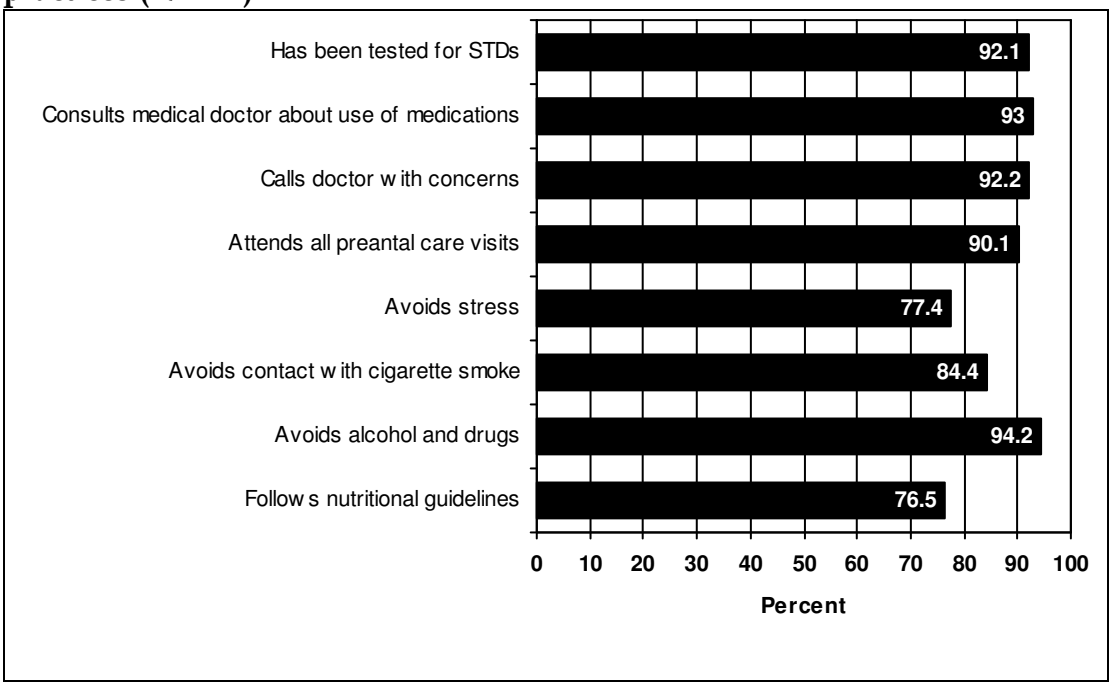
Safety Practices in the Home

Safety practices help prevent accidents and promote injury prevention—important goals for promoting child health and wellness. Unintentional injuries are the leading cause of death for children and adolescents ages 1 to 19. Each year over 13,000 children die from unintentional injuries. A recent report, *What works for children, 2008,* concluded that home visits can reduce the risk of accidental injuries in the home by approximately 26 percent. Healthy Families Arizona assesses and promotes safe environments for children through education about safety practices and by monitoring safety in the home through the completion of the safety checklist. The following exhibits show results for families that had data in these areas. Exhibit 31 reports the use of four key safety practices across five time points for postnatal participants. Exhibit 32 displays 8 safety practices for prenatal participants. As the data show, safety practices increase over time spent in the program and reach high rates, for example, 98% use of car seats and 96% of poisons properly locked. Car seat use has been estimated to be 90% for a similar age group (Glassbrenner & Ye, 2007) and the data reported for the Healthy Families program exceeds this percent. Similarly, one study reports that 75% of Americans have "working alarms" and this is much lower than the 92% working alarm data reported by the Healthy Families program.

Exhibit 31. Percent of all postnatal families implementing safety practices

	2-Month (n = 1,526)	6-Month (n = 1,811)	12-Month (n = 1,298)	18-Month (n = 773)	24-Month (n = 627)
Outlets Covered	42.3%	55.2%	67.4%	78.2%	82.3%
Poisons Locked	84.3%	88.2%	92.4%	95.4%	96.3%
Smoke Alarms	87.1%	87.4%	89.4%	88.8%	92.5%
Car Seats	99.3%	99.2%	98.9%	99.2%	98.6%

Exhibit 32. Percent of prenatal families implementing prenatal safety practices (N=241)



Mothers' Health, Education, and Employment

The Healthy Families' model extends beyond parenting outcomes and also attempts to influence maternal life course outcomes. The Healthy Families program has the opportunity to encourage and support families to seek new educational opportunities, complete their high school education, obtain greater economic self-sufficiency, and obtain better paying and better quality jobs.

Subsequent Pregnancies and Birth Spacing

The goal of promoting mothers' health is addressed by efforts to prevent repeat pregnancies and promote longer birth spacing for mothers. Multiple births for some families can represent increased stress and parenting difficulties, especially if the birth is unwanted or unplanned. The following exhibit shows that over the past three years, the percent of HFAz mothers who reported subsequent pregnancies hovers around 11 percent. Of the 11.5% (n=484) of mothers who had a subsequent pregnancy in 2008, 29% (n=139) were 19 or younger.

Exhibit 33. Percentage of Mothers who reported subsequent pregnancies

	2006	2007	2008
Percent of mothers with subsequent pregnancies	11.8%	10.4%	11.5%

Mothers with greater birth spacing have fewer pregnancy complications and are less likely to give birth to low birth weight or premature babies (Kallan, 1997). The health benefits of birth spacing are considerable and Healthy Families can support the new public campaign about birth spacing that says, "three to five years saves lives" by educating families about the benefits of longer time periods between births. The following exhibit shows the length of time to subsequent pregnancy for those mothers who do have subsequent births. The most important data is the percent of mothers who waited over 24 months between births. This percent decreased 5.6% from 2006 to 2007, and decreased by another 2.7% from 2007 to 2008, which means that a smaller percentage of women are adhering to the "three to five years saves lives" philosophy. Because this health benchmark has not gone in the desired direction, more training for home visitors to better address this issue should be considered.

Exhibit 34. Length of Time to Subsequent Pregnancy for Those Families with Subsequent Births

Length of Time to Subsequent Pregnancy	2005 Percent of Mother	2006 Percent of Mother	2007 Percent of Mother	2008 Percent of Mother
1 to 12 mos.	33.3%	37.7%	42.1%	40.2%
13 to 24 mos.	42.3%	38.1%	39.3%	43.9%
Over 24 mos.	24.4%	24.2%	18.6%	15.9%

School , Educational enrollment, and Employment

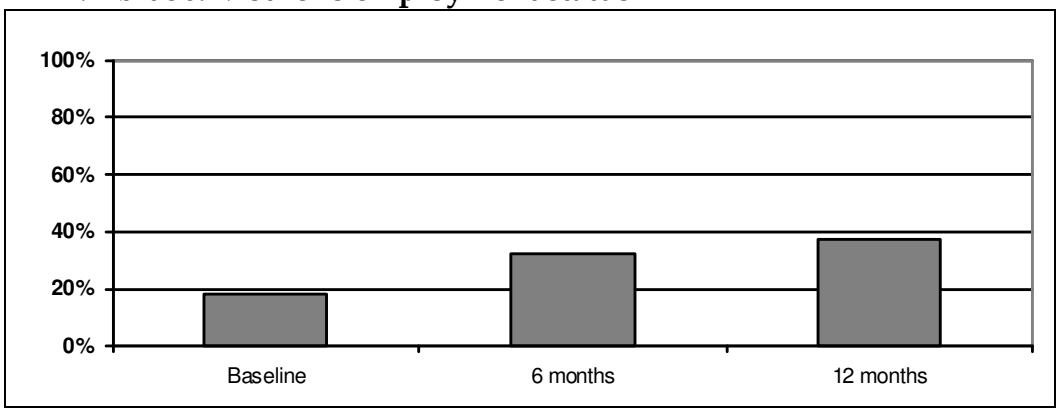
School and educational obtainment are also important to consider when examining the program's potential impact on maternal life course outcomes. Increased education is associated with better overall well-being and greater family stability. As the following Exhibit 35 shows, at 6 months, 21% of the mothers are enrolled in school and that percent grows to almost 32% for mothers who participate in the program at 36 months.

Exhibit 35. Percent of Mothers enrolled in school-2008

	Percent enrolled part-time	Percent enrolled fulltime
6 month	11.2%	21.2%
12 month	12.3%	24.9%
24month	13.6%	30.8%
36 month	13.3%	31.7%

Mothers who are actively engaged in the program show an increasing rate of employment from initial assessment to 12 months of program participation. Almost 40% of the mothers are employed at 12 months and this is similar to the national estimate of employment for mothers of young children, which is approximately 50%. While increasing employment and income is fundamental for family well-being there are complex realities facing families as they begin to increase their earnings. One concern is that as mothers increase their income, there is the potential for families to become ineligible for AHCCCS health insurance and also not be covered by employers. Furthermore, the importance of home visitors working with families in obtaining quality child care is critical given the limited child care options for families with low incomes.

Exhibit 36. Mother's employment status



Substance Abuse Screening

A critical role of the Healthy Families home visitor is the identification and initial screening of alcohol and drug use among family members. Research finds a strong relationship between substance abuse and risk for child maltreatment (Pan, et al., 1994; Widom, 1992; Wolfe, 1998). When a family member suffers from substance abuse it is not surprising to find that the individual is not able to adequately care for and supervise children. Successful treatment of substance abuse is a difficult outcome that usually requires intensive treatment, but home visitors can provide education to families about substance abuse and make referrals for treatment services. Exhibit 37 presents data on the percent of families screened and the percent of those families who screened positive for drug use. The percent screened is higher than last year and continues to show programs are screening families at a higher rate[2]. A 26% positive screen at 2 months is high and suggests the CRAFFT is screening a large number of families as positive and who are potentially in need of substance abuse information or treatment. The New York Healthy Families study, using the AUDIT for assessment, found 16% of the Healthy Families participants reported drug use.

Exhibit 37. Percent screened and assessed positive on the CRAFFT

Time at assessment	Percent Screened	Percent Assessed Positive
2 months	81%	26%
6 months	75%	8.2%
12 months	81%	7.3%

Note: The 2 month screen asks about lifetime substance use; later screens ask about use in the past 6 months.

[2] In last year's annual report it was reported that 0% of participants screened positive at 6 and 12 months. This was an error. The rates last year were similar to what is reported in the above exhibit.

Continuous Program Improvement

The next sections of the report focus on the ongoing efforts toward continuous program improvement for program learning and decision making. This section includes information on program and policy updates for 2007-2008, the *Building Bridges* newsletter, and knowledge contributions to the field. The following section includes special sub-studies which focus on prenatal efforts, outreach efforts, and a closer examination of families at higher risk for child abuse and neglect.

Program and Policy Updates

Healthy Families Arizona programs are responding to the Revised 2008 – 2010 Accreditation Standards from Healthy Families America/Prevent Child Abuse America.

Healthy Families Arizona programs are working diligently to prepare for accreditation which is scheduled for 2009. There are two sets of accreditation standards; one set of standards is designed specifically for the statewide system to assure that the system is performing to best practice measures; the other set of standards is designed to be completed by the individual Healthy Families Arizona (HFAz) programs. In order for Healthy Families Arizona programs to be accredited, both the state system and the programs within the system must meet standards of best practice.

The HFAz state system accreditation criteria include five functional areas. These functional areas include: 1) adherence to a system of statewide policies, 2) provision of both training and technical assistance, 3) monitoring and quality assurance services, 4) utilization of evaluation results to improve practice, and 5) administration services that assure appropriate oversight of service implementation.

The individual programs follow the best practice standards that operationalize the Healthy Families America 12 Critical Elements. These Critical Elements are broken into three major service activities: 1) initiation of services, 2) home visiting services, and 3) administration. There are 119 standards that indicate best practice-based upon over 30 years of research.

There are three major steps in the accreditation process. First, both the HFAz state system and the individual programs prepare a written self-study that enables HFAz to take a critical look at the services offered and improve practice as needed. This written self-study is submitted to the national office. The second step requires site visits by nationally trained peer reviewers. The HFAz state system receives a site visit first, and once the system meets the requirements for accreditation, the individual programs receive a site visit. The peer reviewer pairs that come to Arizona from other states and serve as outside, objective observers. Following the site visit, each program will receive an Accreditation Site Visit Report that will detail

the strengths of the program as well as areas in which services can be improved. Finally, each program can demonstrate improvement in practice and formally respond to the Healthy Families America Accreditation Panel, who will make the final decision to accredit. Peer review site visits are tentatively scheduled for May 2009 for the statewide system, and for July and August 2009 for the individual program sites.

Healthy Families Arizona Implements Analyses and Plans for Improvement
During every supervisor meeting from October 2007 to present, the HFAz Accreditation Committee has offered training to programs to assist them in preparing their self-studies for accreditation. There are five formal analyses of program services that are a part of the accreditation process. These include program acceptance, family retention, staff retention, cultural sensitivity, and progress towards accomplishment of program goals. During the past year, the Accreditation Committee has prepared a sample and a template for each of these five analyses to assist programs in developing their own for their self-study. The analyses are very helpful to identify patterns and trends that impact quality of services and assist programs in improving their practices. Additionally, the Committee has reviewed these analyses and plans for improvement and offered feedback to strengthen each.

Advanced Training in Early Literacy
HFAz implemented the first series of advanced trainings for more seasoned staff in 2007 - 2008. Early literacy is directly related to language and social-emotional development, which is a foundation for school readiness. Early literacy and language acquisition are supported within the context of parent-child interactions and relationships. The communication between parents and their children is essential to determining relationship issues that can be addressed in a strength-based manner. Supporting parents in understanding how their child communicates within their unique developmental capacity offers home visitors and supervisors innovative methods of interventions or activities utilizing videotapes and observations. A series of three one-day sessions were offered through the HFAz semi-annual Institutes with an interim session offered in July. In order to attend the training, each Supervisor was encouraged to bring one or two home visitors and integrate activities over a seven-month timeframe. Training objectives included incorporating culture within language basics, assessment techniques anchored in observing, waiting, and listening, and how to adapt activities to further language/social-emotional development.

Utilizing the Initial Assessment as a Means to Promote Positive Change
Healthy Families Arizona has been focusing on how to use the information gathered from parents during initial contacts to develop opportunities to promote positive change in families based upon the concept of "change-talk". Using "change-talk" allows staff to immediately begin to address some of the issues that a parent wishes to change. Wording such as "I do not want to parent the way my parents did" offers

important opportunities for the supervisor and home visitor to address issues very early on in home visiting services by exploring more what the parent means and constructing goals with the parent about what they want to do differently. Home visitors are encouraged to use motivational interviewing techniques to highlight discrepancies between what parents actually practice and how they want to be as parents. These goals become part of the guide to service delivery.

Final Revision of the Supervisor CORE Training

The Healthy Families Arizona Program Specialist team completed final revisions for the three sessions of Supervisor CORE training, each session designed to take place every six months for eighteen months. Each training provides core concepts of reflective, relationship-based practice which builds on each supervisor's skills using the HFAz Supervisor Professional Development Guide. Training methods include a combination of lecture, use of videotapes, scenarios for practice, issues that supervisors are currently addressing, and self-assessment. Materials are designed to integrate all training content offered within the system and to anchor the HFAz philosophical approach in practice.

The Building Bridges Newsletter

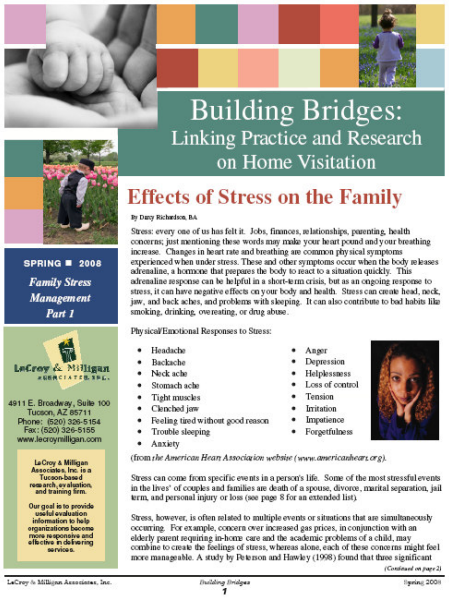
Building Bridges: Linking Research and Practice in Home Visitation Newsletter
The goal of the newsletter, *Building Bridges*, is to forge stronger connections between what is happening in the field of home visitation and what knowledge and research is available from the scientific community. Our mission in creating this newsletter is simply to provide up-to-date information and analysis regarding new and exciting advances in research and practice on home visitation, family support, and other child and family programs. The information attempts to be highly accessible with a focus on content and information that is readily useable by the reader. The newsletter seeks to build bridges across research, practice, training, and policy.

For the 2007-2008 year we produced the following newsletters (all available at: http://www.healthyfamiliesarizona.org/Publications.aspx):

Family Violence
-Effective Domestic Violence Screening
-Chains of Violence
-Exposure to Domestic Violence
-Domestic Violence in the Native American Population

Helping Families Access Community Resources
-Encouraging family participation
-Guidelines for increasing resource utilization
-Resource utilization: What families have to say

Family Stress Management (part 1)
-Effects of stress on the family
-Family stress models
-Coping techniques and tips for stress management
-Creative perspectives: Another day breathing


Building Bridges:
Linking Practice and Research on Home Visitation
Effects of Stress on the Family
SPRING ■ 2008
Family Stress Management Part 1
LeCroy & Milligan ASSOCIATES, INC.
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LeCroy & Milligan Associates, Inc. is a Tucson-based research, evaluation, and training firm.
Our goal is to provide useful evaluation information to help organizations become more responsive and effective in delivering services.
By Dany Richardson, BA
Stress: every one of us has felt it. Jobs, finances, relationships, parenting, health concerns; just mentioning these words may make your heart pound and your breathing increase. Changes in heart rate and breathing are common physical symptoms experienced when under stress. These and other symptoms occur when the body releases adrenaline, a hormone that prepares the body to react to a situation quickly. This adrenaline response can be helpful in a short-term crisis, but as an ongoing response to stress, it can have negative effects on your body and health. Stress can create head, neck, jaw, and back aches, and problems with sleeping. It can also contribute to bad habits like smoking, drinking, overeating, or drug abuse.
Physical/Emotional Responses to Stress:
- Headache
- Backache
- Neck ache
- Stomach ache
- Tight muscles
- Clenched jaw
- Feeling tired without good reason
- Trouble sleeping
- Anxiety
- Anger
- Depression
- Helplessness
- Loss of control
- Tension
- Irritation
- Impatience
- Forgetfulness
(from the American Heart Association website (www.americanheart.org).
Stress can come from specific events in a person's life. Some of the most stressful events in the lives' of couples and families are death of a spouse, divorce, marital separation, jail term, and personal injury or loss (see page 8 for an extended list).
Stress, however, is often related to multiple events or situations that are simultaneously occurring. For example, concern over increased gas prices, in conjunction with an elderly parent requiring in-home care and the academic problems of a child, may combine to create the feelings of stress, whereas alone, each of these concerns might feel more manageable. A study by Peterson and Hawley (1998) found that three significant
(Continued on page 2)
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Building Bridges
1
Spring 2008

Family Stress Management (part 2)
-Minimizing financial stress
-Managing common stressors
-Helping families and children with the loss of a loved one

Knowledge Contributions to the Field

In November of 2007, the *Journal of Prevention and Intervention in the Community*, published a special issue entitled: Healthy Families America: Initiative: Integrating Research, Theory, and Practice. Members of the evaluation team made the following contributions to the special issue:

- *Evaluation of Healthy Families Arizona: A Multisite Home Visitation Program* (Judy Krysik and Craig W. LeCroy)
- *The Role of Community in Facilitating Service Utilization* (Debra Daro, Karen McCurdy, Lydia Falconnier, Carolyn Winje, Elizabeth Anisfeld, Aphra Katzev, Ann Keim, Craig W. LeCroy, William McGuigan, and Carnot Nelson)

The evaluation team has also been involved in many aspects of program improvement that will be shared with the research community. The following manuscripts have been written and are being reviewed for possible publication:

- *The Development and Initial Validation of an Outcome Measure for Home Visitation: The Healthy Families Parenting Inventory* (Judy Krysik and Craig W. LeCroy)
- *Measurement Issues in Home Visitation: A Research Note* (Craig W. LeCroy and Judy Krysik)

Healthy Families Arizona Prenatal Families Evaluation Substudy

Extensive research shows pregnancy is a pivotal time to address behavioral risks that negatively impact the health of both the mother and child. Recent research suggests that home visitation programs targeting prenatal families provide a benficial experience for participants, and more information about program implementation and fidelity can help refine training efforts and clarify key participant outcomes. An examination of the HFAz prenatal component included interviews and surveys with Quality Assurance staff, home visitors and supervisors, a detailed review of the prenatal curriculum, and analysis of data from July 1, 2004, through March 31, 2008. The study provides insight into program implementation and a comparison of prenatal and postnatal families.

Key findings include:

- A vast majority of HFAz home visitors have received training in the prenatal component and felt it was valuable in preparing them to work with families prenatally. Home visitors would like more materials to use in working with prenatal families.
- When comparing responses across training staff, home visitors, and supervisors regarding the prenatal program training curriculum, there appears to be a relatively high-level of program fidelity. Topics that were most emphasized in the curriculum were also mentioned as being the most important and frequently discussed topics by the QA team and the survey respondents.
- Prenatal mothers tend to be slightly younger, and fewer hold a high school degree, than mothers entering postnatally.

Recommendations

- Continued refinement of the prenatal program components should include attention to father/male involvement in the prenatal period, possibly collecting more information regarding birthing classes, vitamins, and smoking cessation in order to assess changes in these critical health behaviors.
- Since it is difficult to conclude at this time that the program leads to positive birth outcomes, it is important to clearly identify and track the most important intermediate outcomes linked to healthy birth outcomes such as number of well-child visits, health insurance, smoking, breastfeeding, nutrition habits, and mother/child bonding.

Prenatal Sub-study

Extensive research shows pregnancy is a pivotal time to address behavioral risks that negatively impact the health of both the mother and child (Herzig, Danley, Jackson, Peterson, Chamberlain, and Gerbert, 2005). Harmful health activities such as smoking, poor nutrition, and substance use are known risk factors for poor birth outcomes such as spontaneous abortions, low birth weight, preterm delivery, and eventually cognitive and behavioral problems in children (Chomitz, Cheung, and Lieberman, 1995). Moreover, pregnant women in high stress situations often deliver infants earlier and deliver infants who weigh less (Lobel, Cannella, DeVincent, Schneider, Graham, and Meyer, 2008). Data from medical models show that screening and counseling during pregnancy decrease risky behaviors (Herzig, Danley, Jackson, Petersen, Chamberlain, and Gerbert, 2005). This theory extends to the home visitation models as well, with the idea being that case managers following evidence-based curricula will demonstrate improved pregnancy outcomes for the mother and child.

Recent research suggests that home visitation programs targeting prenatal families provide a beneficial experience for participants. The Healthy Families America Prenatal Project concluded that parents found information on bonding with their babies, setting personal goals, stress management, and information for fathers most useful to their families (Prevent Child Abuse America, 2004). While participants report positive experiences with home visitation programs, many evaluations find it difficult to pinpoint and report positive outcomes attributed to the programs themselves (Culp, Culp, Hechtner-Galvin, Howell, Saathoff-Wells, and Marr, 2004). It becomes the formidable task of evaluations of home visitation programs like Healthy Families to examine and analyze the effects of home visitation on prenatal families.

As a result, the evaluation team closely examined the HFAz prenatal component during this past year. The following provides review of both process evaluation and outcome evaluation measures as they apply to prenatal families. To gain further insight into the prenatal component of Healthy Families Arizona, the evaluation team interviewed HFAz Quality Assurance (QA) team members, who provide the prenatal training statewide. A detailed review of the prenatal curriculum was done, which highlighted key concepts stressed during program enrollment. Evaluators also surveyed over 200 program staff statewide about their opinions regarding the

prenatal component and to gain a sense of program implementation. An extensive review of data from July 1, 2004, through March 31, 2008, provides a direct comparison of prenatal and postnatal families. The data profile includes basic demographic information as well as birth and program outcomes. Finally, conclusions are presented that encapsulate the lessons learned through this extensive review to inform the Healthy Families program.

Interview with Quality Assurance Team Members

In April 2008, members of the evaluation team conducted an interview with two members of the HFAz Quality Assurance Team who conduct prenatal trainings. The purpose of the interview was to learn more about the prenatal component from their perspective and it allowed the QA team to tell the HFAz prenatal story. Interview questions focused on the HFAz prenatal training and reviewed the prenatal component. The following section describes highlights of the interview.

The HFAz prenatal component of the program began in 2005 after the QA team members were trained by Prevent Child Abuse America. Trainings occur every other month in either Tucson or Phoenix to accommodate the HFAz employees located throughout the state. The training is a requirement for all Family Support Specialists (FSS), Family Assessment Workers (FAW), and supervisors. Attendees receive 24 hours of training, and sessions are limited to 15 people per training. The training follows the HFAz Prenatal Training Manual by trimester and incorporates handouts and materials from other sources. According to the interviewees, the most emphasized topics include:

- The dangers of drug and alcohol use
- Bonding
- Support systems
- Depression (both prenatal and postnatal)
- Nutrition
- Parent/child activities
- Father involvement
- Safety issues
- Developmental stages for both the baby and the mother.

Some of the activities mentioned include:

- Reviewing things that happen in the pregnancy
- Simulating pregnancy/symptoms of pregnancy
- Small group discussions
- Reviewing handouts that can be used with families
- Preparing for and practicing home visits/role-playing.

Prenatal referrals to the program in rural areas usually come from prenatal clinics or doctors' offices, while there are few consistent referral sources in the urban areas because of competing social service agencies that also serve prenatal families. It has been a challenge getting families much earlier than the 3rd trimester, if at all. All HFAz sites have the ability to serve families prenatally, but most prenatal work is done with current postnatal families who have subsequent pregnancies.

The best parts of the prenatal component, as reported by the interviewees, include helping the mother with bonding, having one-on-one attention with the mother, having a good curriculum, and having a better relationship between the FSS and the family. Some additional challenges with recruiting and retaining prenatal families are very similar to postnatal families. Families have difficulty finding time and some have to juggle work and school, especially teen mothers. It is difficult to have regular, consistent home visits. Working with grandparents in the family can also be a challenge.

Prenatal Curriculum Review

The focus of the prenatal curriculum review was the "Great Beginnings Start Before Birth; Home Visitors' Manual" published by Prevent Child Abuse America (2003). HFAz does utilize two other supplemental prenatal curricula, but the focus lies on the PCAA curriculum, as it is what HFAz program staff are trained with and encouraged to use with their families. This curriculum was reviewed page by page, and primary topics were tracked, the number of references to each topic were tallied, as were number of handouts about each topic. Based on these tallies, each topic was given a score based on how much it was emphasized in the curriculum, from "Mentioned" (scored as a 1) to "Discussed in length" (scored as a 5). Each topic was also placed in one of seven categories that emerged as primary themes from the curriculum.

The following is a list of the categories that emerged and the number reflects how many topics were in each category:

- Caring for self/support (18)
- Effects of an unhealthy lifestyle (6)
- Father/Male Involvement (3)
- Medical/Prenatal care (12)
- Preparing for the baby (18)
- Progression of pregnancy and fetal development (5)
- Information for the FSS working with a prenatal family (7)

Particular attention was focused on those topics with emphasis levels of 4 or 5 and whether those topics are assessed in the HFAz evaluation, if the topics can be mapped to the HFAz Prenatal Logic Model, and if it is a focus of the HFAz prenatal training. The following exhibit details those findings.

Exhibit 38. Curriculum Review Findings

Topic	Emphasis Level	Mapped to the Prenatal Logic Model?	Addressed in the Prenatal Training?
Assessment of Family	4	Yes	Yes
Depression	4	Yes	Yes
Individual Family Service Plan	4	Yes	Yes
Labor/Delivery Classes/ Hospital	4	Yes	Yes
Handling Temperament of New Baby	4	Yes	Yes
Breast/Bottle Feeding	5	Yes	Yes
Coping with crying Baby	5	Yes	Yes
Father/Male Involvement	5	Yes	Yes
Grief/Loss	5	No	Yes
Knowledge of Fetal/Baby Development	5	Yes	Yes
Nutritional Considerations	5	Yes	Yes
Prenatal Bonding/Stimulation	5	Yes	Yes
Prenatal Care/Visits	5	Yes	Yes
FSS Relationship Building with Family	5	Yes	Yes
Stress	5	Yes	Yes
Support System	5	Yes	Yes

This analysis provided a fundamental understanding of the prenatal curriculum content. Healthy Families Staff were then surveyed to better understand how this curriculum and training are used with prenatal families.

Healthy Families Staff Survey Responses

In May 2008, a web-based survey was sent to all HFAz sites for program staff to complete. Over 200 responses were received from mostly Family Support Specialists (FSS), Family Assessment Workers (FAW), supervisors, and managers. Of those responding, 87% had experience working with a family prenatally as part of their HFAz caseload and 92% had attended the HFAz prenatal training. Of those who had attended the prenatal training, 91% felt the training prepared them to work with prenatal families, however 47% indicated they would like additional training. All of the suggestions for topics to include in additional training were shared with the HFAz Quality Assurance Team.

HFAz staff were asked "How does your site decide if a family is prenatal?" The overwhelming majority of respondents said families are considered prenatal if the mother is pregnant or anytime between conception and birth, regardless of trimester. Other answers indicated their enrollment was contingent on how many weeks pregnant they were. Some sites may wait to enroll a family postnatally if they are close to giving birth, while some may not enroll them if they are past their 1st trimester. Some indicated that the supervisor or FAW decides.

HFAz staff were also asked to list up to 5 of the most important activities/discussions they focus on with families during each trimester. The following exhibit shows the top 5 topics for each trimester and the number of times each topic was mentioned.

Exhibit 39. Prenatal Topics by Trimester as Reported by HFAz Program Staff

	Topic	Number of Times Mentioned by Respondents
1st Trimester	Nutritional Considerations/Eating Healthy	111
	Prenatal Care/Visits	111
	Knowledge of Baby's Development	72
	Feelings/Attitudes about Pregnancy/Baby	35
	Physical Changes in Mom	34
2nd Trimester	Knowledge of Baby's Development	80
	Prenatal Bonding/Stimulation/Attachment	80
	Nutritional Considerations/Eating Healthy	66
	Prenatal Care/Visits	58
	Stress Reduction/Management	43
3rd Trimester	Preparing for Labor/Birth/Delivery	88
	Birth Plan	78
	Preparing for Baby	71
	Knowledge of Baby's Development	34
	Prenatal Care/Visits	33

HFAz staff were then asked "Do you feel your site is reaching prenatal families early enough in their pregnancy?" Respondents were equally divided in their answers. Of those responding that they are not reaching them early enough, most commented that the majority of their prenatal families are in their 3rd trimester upon enrollment, and with so much paperwork, they barely have time to start the prenatal curriculum or engage the mother in the program before the baby is born.

One quote really encapsulates these responses:

> *"By reaching families earlier in the pregnancy I believe we would have a greater opportunity to inform them of the choices available to them during their pregnancy, as well as the other important information that families could benefit from for a better outcome after birth."*

Another question asked "Do you believe that families who enter the HFAz program prenatally have better outcomes than families who enter after their baby's birth?" Eighty-one percent (81%) responded "Yes." Of these respondents, their reasons for answering "yes" can be summarized in the following themes:

- They are better able to provide more information regarding mom's health, prenatal care, substance abuse, domestic violence, and decreasing stress and anxiety.
- There is more time for the FSS to build trust, a stronger bond, and become a part of the family's lives before the baby arrives. This could lead to families staying in the program longer. It also allows time to try to build a support network for mom before the baby arrives.
- It allows time to increase prenatal bonding and attachment and mother's confidence level in becoming a mom. They are better able to educate moms on what the baby will be like, what they will need, breastfeeding, etc. *"The earlier the better. Some prenatal moms are already mad at their babies."*

Another notable quote from an FSS suggests that the prenatal period is a better time to captivate and educate moms than the postnatal period.

> *"Families are already thinking of important development/safety/bonding/empathy issues related to parenting before the baby comes and not when they are exhausted and adjusting to huge life changes."*

Positive outcomes from prenatal programming in HFAz could be realized with families who are in the program and have a subsequent pregnancy. Staff were asked "How often do you use the prenatal curriculum with your postnatal families who have a subsequent pregnancy?" Approximately 49% reported they "often" use it, with 30% reporting "sometimes" and the remaining 21" reporting "rarely" or "never".

When respondents were asked to comment on successes, challenges, and suggestions related to prenatal services, there was a wide variety of responses. Successes were defined by useful curriculum and training, enjoyment in working with the prenatal population, and importance of the program helping special populations. Challenges included a need for more training, more activities, visuals, and resources to use especially with early prenatal families, getting families too late in their pregnancy, and difficultly in engaging this population. Suggestions were to include prenatal curriculum on the HFAz website, to be able to show educational movies about baby's development to moms, to not consider 3rd trimester enrollees as prenatal, that meeting with early prenatal moms four times per month is too often, and they need more prenatal information in Spanish.

Profile of Prenatal Engaged Families

Of the total 5,248 families that were engaged (completed 4 home visits) in the Healthy Families Arizona program between July 1, 2004 and March 31, 2008[3], 249 entered the program on or before their fourth month of pregnancy. According to the March of Dimes Foundation (2008), adequate prenatal care can begin in the fourth month of pregnancy, and consequently, these families were examined in the following data profile. The tables below compare these participants to women who enrolled in the program postnatally (n=4,014). The profile includes demographic information, risk factors, birth outcomes, and select program outcomes for both groups.

Demographics

Exhibit 40. Mothers Ethnicity for Prenatal Mothers Compared to Postnatal Mothers

	White/ Caucasian	Hispanic	Native American	African American	Asian American	Other/ Mixed
Prenatal mothers	29.4%	51.0%	9.8%	2.4%	0.8%	6.5%
Postnatal mothers	28.2%	54.5%	6.4%	5.5%	0.6%	4.8%

Exhibit 41. Demographics and Risk Factors for Prenatal Mothers Compared to Postnatal Mothers

Characteristic	Prenatal mothers	Postnatal mothers
Median age	21	23
Marital status single	69.2%	69.9%
Not Employed	77.9%	83.1%
Less than high school education	70.3%	64.1%
No Health Insurance	14.8%	2.8%
Receives AHCCCS	72.0%	86.6%
Median Household Income*	$14,040	$14,400

[3] This only includes families who did not close before their baby was born.

There are noteworthy differences between the prenatal and postnatal families. Prenatal mothers tend to be slightly younger and fewer hold a high school degree, yet slightly more are employed. Insurance rates also vary between the two groups with prenatal mothers having higher rates of uninsured mothers and fewer mothers on AHCCCS. This difference is partially explained by mothers being enrolled in AHCCCS at the time of their baby's birth.

Time in program

Using the median, prenatal families were in the program 501 days compared with 375 days for postnatal families.

Healthy Behaviors

Exhibit 42. Healthy Behaviors for Prenatal Mothers Compared to Postnatal Mothers

Characteristic	Assessment interval	Prenatal mothers	Postnatal mothers
Completed Immunization Schedule	2 months	91.3%	90.2%
Completed Immunization Schedule	6 months	73.9%	69.8%
Received All Well-Child Visits	6 months	89.0%	87.6%
Child linked with Primary Health Care Provider	6 months	96.4%	97.0%
Child has health insurance	6 months	97.0%	97.0%

With prenatal families staying in the program longer and therefore receiving more services, they have more time to develop healthy behaviors for their children. The above table illustrates modest gains in specific healthy behaviors. A slightly greater percentage of prenatal families completed their immunization schedules and received well-child visits. Both groups had similar percentages of children linked with physicians and have health insurance.

A noteworthy difference between the two groups was in the percent of mothers who reported having no prenatal care. Approximately 22% of prenatal mothers had no prenatal care whereas nearly 37% of postnatal mothers had no such care.

Birth Outcomes

Exhibit 43. Birth Outcomes for Prenatal Mothers Compared to Postnatal Mothers

Characteristic	Prenatal mothers	Postnatal mothers
Gestational age (<37 weeks)	18.5% (n=29)	20.8% (n=636)
Low birth weight (< 2500 grams)	13.5% (n=24)	15.8% (n=620)
Birth defects	1 birth out of 249	52 births out of 4,014
Positive alcohol or drug screen	4 positive screens out of 249	133 positive screens out of 4,014

Given the overall relatively low occurrence of negative birth outcomes, it is difficult to compare these two groups on these indicators. However, it is noteworthy that fewer prenatal mothers had children prior to 37 weeks gestation than postnatal mothers. Since these birth outcomes are linked to many factors potentially outside the realm of the Healthy Families program, the focus of measurable success should be more on healthy behaviors. Additional emphasis could be placed on measuring other intermediate outcomes linked to poor birth outcomes and an infant's health such as smoking, nutrition, and breastfeeding. These behaviors are widely known to impact a child's overall health and success.

Conclusions

After examining the training component, prenatal curriculum, program implementation by home visitors, and evaluation data, some conclusions and recommendations may be made for the prenatal program. When comparing responses from the HFAz Quality Assurance team and the survey respondents (mostly Family Support Specialists or home visitors) with the curriculum, there appears to be a relatively high-level of program fidelity. Topics that were most emphasized in the curriculum were also mentioned as being the most important and discussed topics by the QA team and the survey respondents. Since it is difficult to conclude that program implementation leads to positive birth outcomes, the most important intermediate outcomes or "healthy behaviors" to continue to examine in the evaluation should include immunizations, number of well-child visits, health insurance, smoking, breastfeeding, and mother/child bonding.

Healthy Families Arizona
Creative Outreach Evaluation Substudy

Creative outreach remains an important component of the HFAz program. This substudy explored some seminal pieces of literature, reviewed current policies and procedures for creative outreach, analyzed perspectives from Healthy Families staff surveys and interviews, and examined historical outreach data collected from July 1, 2004 to March 31, 2008.

Key findings include:

- More families close on outreach during the initial six-month of being in the program, but tend to re-engage more often at later time points, possibly indicating the development of rapport with the family by HFAz workers.
- When comparing HFAz outreach and non-outreach families, there are some demographic differences. Minority families who are younger, single parents, and with higher parenting risk factors are more likely to be on outreach when compared to non-outreach families.
- Based on this sub-study, it can be concluded that program staff seem to be practicing creative outreach in ways that is consistent with the policies and procedures. They seem to understand the purpose and intention of outreach, but there are many frustrations and concerns with the level of effort put forth and the lack of success in re-engaging families.

Recommendations

- Outreach needs to be systematically reviewed in light of this sub-study. Consider shifting families who cannot receive services (request outreach for whatever reason) to a less intensive program intervention. This intervention would likely consist of follow- up phone calls and program material and careful referrals for additional services.
- Explore the suggestions from home visitors that outreach should not last longer than 1 month and that transitioning a family to a new home visitor might be more successful if the new home visitor could do at least one home visit together with the departing home visitor.

Outreach Sub-Study

Creative outreach remains an important component of the HFAz program. Research has shown creative outreach to be an efficient and effective tool to promote early engagement and participation in home visiting programs. The purpose of this sub-study on outreach was to explore some seminal pieces of literature, review the current policies and procedures associated with creative outreach, explore perspectives gained through a survey with HFAz program staff, detail the findings of an interview with a QA team member, and explore the findings on creative outreach by examining data collected from July 1, 2004 to March 31, 2008.

Some studies have attempted to explain the reasons that mothers engage in home visitation programs and what barriers and drivers impact the decisions to participate. Ammerman et al (2006) explored predictors of whether or not a mother will engage in a home visitation program in the first year of service. Early program engagement was explored by studying the length of time active in the program, number of home visits received, and the length of time between visits. Findings of this study indicate that almost 32% of mothers disengaged from the home visitation program prior to the end of the first month of program service. However, white women and women with increased parenting risk were more likely to engage and remain in the program. Also, gaps in program service were common with one-two month gaps occurring between visits quite often.

Other studies have looked more specifically at the rapport building component of a home visitation program to see how rapport built at the initial visit is either extended into future visits, or fails to make a substantial impact (Daro & Harding, 1999; McCurdy & Daro, 2001). Another study (Kitzman et al., 1997) explored the time management skills and commitment levels of individual mothers participating in a home visitation program and found that time management skills and levels of personal motivation also impact whether or not a mother will follow through with previous home visitation commitments. Further, other studies (Baker et al., 1999; Daro & Harding, 1999; Duggan et al., 1999) found maternal life circumstance such as moving, relocation due to employment, and change in family housing situation as key reasons for families not to receive the recommended number of home visits. In terms of family refusals, as many as eight percent of families may refuse a visit outright (Marcenko & Spence, 1994), but more important is the number of passive

refusals after agreeing to enroll in a home visitation program. These could be anywhere from 12% on the low end to as much as 22% of families on the high end (Duggan et al., 1999; Katzev, Pratt & McGuigan, 2001; Wagner et al., 2003). Reasons for these active and passive refusals vary, but research in this area has revealed these refusals may reflect a tendency toward social isolation or a higher level of risk for parenting difficulties.

Given the importance of creative outreach to increase engagement and retention rates in the HFAz program, it is critical to review the policies and procedures impacting the implementation of this program component. This task will be accomplished both by reviewing written documentation on the program and by surveying and interviewing staff members on both program implementation and outcome-related issues.

Review of Creative Outreach Policies and Procedures

To best understand how creative outreach works within the HFAz program, the HFAz Policies and Procedures Manual was reviewed (there were no specific training materials that addressed creative outreach). Creative outreach has several purposes, but primarily it is used to engage or re-engage families who are not having regular home visits. If there has been no face-to-face contact with a family for 30 days, they are put on outreach. Creative outreach activities are to be continued for a minimum of 90 days in an attempt to re-engage the family. If a home visit does not occur during this time, the family's file should be closed. There are three different levels of outreach which are described below:

Level X – FSS will attempt to engage family through creative outreach for a minimum of 3 months with weekly outreach efforts (phone calls, mailings, drop-bys, etc.).

Level Y – No home visits, mailings, or phone calls are required for a maximum of 90 days. This is used when a family informs the program that they will be out of the service area for 30 or more consecutive days.

Level Z – No home visits or phone calls, just weekly outreach efforts via mailings for 90 days. This can also be used with families who have moved out of the service area. Families who request closure are encouraged to participate on Level Z.

Families may go on and off of outreach throughout their time of enrollment with HFAz, but they can only be on outreach for a maximum of 120 days per enrollment year. Families who request closure and decline Level Z, are to have their files closed immediately with no further outreach efforts.

Healthy Families Staff Perspectives on Outreach

In May 2008, a web-based survey was sent to all HFAz sites for program staff to complete. Over 200 responses were received from mostly Family Support Specialists (FSS), Family Assessment Workers (FAW), supervisors, and managers. Of those responding, 78% said they had received training on when to place a family on creative outreach. Of those who had received training, 80% felt the training prepared them to use creative outreach effectively with families. All of the suggestions for topics to include in additional training were shared with the HFAz Quality Assurance Team.

Across all responses, respondents were very consistent with their definitions, purposes of creative outreach, and criteria for placing a family on outreach. The majority of respondents said that creative outreach is when no face-to-face contact has been made with a family for 30 days and they try to re-engage families with a variety of methods and creativity. Weekly contact is made via mailings, phone calls, emails, or drop-bys. They also defined creative outreach by Levels X, Y, and Z. Many respondents mentioned that the purpose is also to show families that they care; they support them; they are thinking about them; they are not giving up on them; they are a continuing resource; they would like to continue to be a part of their life; and they are consistent, trustworthy, concerned, committed, and dependable. They also said that creative outreach is an opportunity to build trust and rapport, to show families the integrity of the program, to help them better understand the program, to show the benefits of the program, and to help them feel like they are a part of something. Some other noteworthy quotes include the following:

- *"Allowing families flexibility and respect to stay in the program even if their lives don't allow weekly visits."*
- *"To give families space and time if that is what they need."*
- *"To allow life to happen, sometimes things that are beyond our control occur and we need to allow our families time to deal with it on their own and then we can celebrate with them and we can see growth in our families."*

HFAz staff were asked to list the 5 most common reasons a family might be placed on creative outreach, their top 5 answers are listed below (the number reflects the number of times it was mentioned):

1. Schedule changes – mom goes back to work or school, no time, too busy (119);
2. Attempted home visits and phone calls are met with no response, avoidance, no contact, or the family is unreachable (59);
3. Family is away from home, out of town, on vacation, or out of the service area for an extended period of time (57);
4. Family is inconsistent with home visits, they keep cancelling or not showing up (55); and
5. A family moves and cannot be located (76).

Three different questions were asked of respondents related to what they do with families while they are on creative outreach, and the responses were remarkably similar across all three questions. All three questions essentially related to: "What are some of the most effective strategies you've used to re-engage families?" The creative ideas and responses are summarized below.

- **Phone calls**--can be personalized friendly messages, telling them you care and let them know you are available to help, "selling" the program's benefits, providing information about upcoming ASQ or immunization, checking the parent summary to find something they were interested in or needed help with, offering a small token you have been wanting to give them, letting them know that it's okay that they haven't been available if they are ready to pick up again, remembering mom's or child's birthday by singing Happy Birthday into answering machine.
- **Drop bys**--to talk; to take activities designed to get reengagement such as a holiday craft activity; to do a fun family activity; to give special information they need/have expressed interest in ; to give gifts, food box, clothes, diapers donations, books.
- **Letters/cards/creative mailings**—that may include: message in a bottle, mothers survival kit, unique individualized letters, what's new with baby, enthusiastic note about wanting to see them again, info about a topic family had previously mentioned (e.g., fun summer activities), handwritten, homemade cards with poems, inspirational poems, seeds to plant, invite to family events and give info about community events, funny card with baby in super hero costume, and/or closure letter.

- **Providing child development information in person, by mail or over the phone**
- **Get higher authority (supervisor) to call**.
- **Contact someone else who interacts with family** such as relatives and emergency contacts.
- **Flexibility in scheduling or rescheduling appointments**, offering to meet with someone else who cares for the child
- **Persistence**--visit and call multiple times, at different/unusual times of day or on their days off.
- **Keep contact consistent**--"prevention-is-the-best-medicine" type of answers, need to establish rapport at first, stay in contact with no gaps; must focus on them as individuals and their needs, following through with what you say you'll do, building trust and honesty.
- **Offer to assist with transportation and connect to resources**.

HFAz staff were also asked about the challenges they face when trying to re-engage families. The most common responses are categorized below in order of most to least mentioned:

- **Being ignored**—families not answering the phone or the door, not returning calls creates a feeling of being unwanted that is difficult to deal with
- **Being unable to locate**—families move, change or disconnect their phone, and don't give you forwarding information.
- **Families don't want the program**— families don't feel they need the program; they are too proud to participate in a program for needy families, the program is different than what they expected, and they don't understand the benefits of the program.
- **Working with difficult families**—teenagers, transients, families moving back and forth between Mexico or the reservation and the U.S., substance abusers, families who are CPS involved, mothers who have gone back to work or school and have no time.
- **Feel like a stalker**—feel like we are hounding the families, like bill collectors, it's embarrassing and dangerous doing unannounced drop-bys, irritates families, and makes them feel less empowered.
- **Takes too much time and too many resources**—high gas prices, long travel times, takes a lot of time to plan outreach efforts, waste of time to do drop-bys when no one is home.

Respondents were asked "How often does Creative Outreach help families re-engage with the program?" The majority of HFAz staff (77%) felt outreach helped "some of the time". When asked to explain their answers, responses were quite diverse; some are included below.

- It really just depends on the family and the situation.
- If a family never engaged in the first place or never had a home visit, they almost never engage through creative outreach.
- Some respondents have had some success, but usually just with families who were engaged at one time, who just left the service area for an extended period and returned, who really want the program, and who's schedule changed so they could re-engage.
- Some have no success at all with creative outreach.
- Some families are just too shy to tell you they don't want the program, so they will ignore you.
- Sometimes stressors are too severe for families to re-engage (CPS, work, child care issues, finances, substance abuse).
- If an FSS tries their hardest and wants the family to re-engage, it usually happens.
- More success is achieved through really creative outreach methods.
- Teenagers don't respond well.

When asked about any other challenges or successes with creative outreach, many HFAz staff expressed frustration with the process and questioned the ultimate benefits of creative outreach. Some staff felt that long term (e.g. 90 days) efforts at outreach to re-engage reluctant families might be more appropriately spent engaging willing families. Many recommended that if families don't respond after 1 month of outreach efforts, their file should be closed.

- *"I don't like it when families can 'string me along' on creative outreach and I go out to see them over and over and they don't respond. Sometimes I feel like I'm doing work, spending time and using gas that would be better spent elsewhere. I'm more than willing to do what I can to reengage them, but if they don't respond to a card at their door and letters mailed and a phone message, I come to believe that they have made a choice already and I'm spinning my wheels."*

- *"I would like to see us shortening the [outreach] time frame, even though I understand the purpose behind trying to reengage the families who never had a consistent, supportive and caring person in their lives and we want to be that person. But what I see is that there seems to be little success in numbers of being able to reengage them. Instead of knocking on somebody's door or engaging in other efforts for up to 3 months or longer, it would be nice if we could serve another family who is participating and opening the door. Money and efforts can be spent more appropriately in these cases. If we are not visiting, we can not work on prevention services with families, which is our goal to prevent child abuse. FSSs are oftentimes frustrated with continuing to reengage somebody who shows little or no interest."*

Profile of Families on Outreach

The table below shows the incidence of families on outreach over time in the Health Families Arizona program. Almost 30% of families go on outreach within the first six months of the program, this amount increases to 34% at twelve months, and then tapers downward over the remaining time periods. It would appear that outreach is more successful in the first 6 months, as the median time on outreach is 2 months, compared to the full three months at all other intervals. Thirty to forty percent of families re-engage from outreach. Many families close while on outreach (28-49%).

Exhibit 44. Incidence of Families on Outreach Over Time in HFAz Program

	6 Months (n=2826)	12 Months (n=2174)	18 Months (n=1476)	24 Months (n=1038)	30 Months (n=613)	36 Months (n=263)
% of Families on Outreach	29%	34%	30%	28%	28%	21%
Median Time on Outreach	2 Months	3 Months	3 Months	3 Months	3 Months	3 Months
Family reengaged from Outreach	31%	30%	30%	38%	40%	35%
Family Closed while on Outreach	49%	33%	32%	37%	28%	37%

Given that some research has shown demographic differences in early engagement of families participating in home visitation programs, the table below shows mothers' ethnicity for outreach families compared to non-outreach families. Fewer white families and slightly more Hispanic, Native American and African American families are on outreach when compared to non-outreach families. However, in general, there do not seem to be any substantial differences between those participants on outreach and those who are not.

Exhibit 45. Mothers' Ethnicity among Outreach Families Compared to Non-outreach Families

	White	Hispanic	Native American	African American	Other
Outreach Family (n=1952)	24.5%	55.3%	8.0%	6.4%	5.8%
Non-Outreach Family (n=3232)	30.1%	52.5%	7.1%	4.4%	5.9%

There are also some other demographic differences between outreach and non-outreach families. Outreach families are slightly younger (measured by mothers' median age) and tend to be comprised of more single mothers. Employment rates are quite similar between the two groups, but outreach mothers have less education than do non-outreach mothers. Outreach mothers have less median household income, but similar rates of health insurance and AHCCCS participation.

Exhibit 46. Demographics and Health Insurance Information for Outreach Families Compared to Non-Outreach Families

Characteristic	Outreach Family (n=1952)	Non-Outreach Family (n=3232)
Median age	22	24
Marital status single	75.2%	67.8%
Not employed	82.2%	82.8%
Less than high school education	68.4%	62.4%
Median household income	$12,000	$14,400
No health insurance	5.3%	5.0%
Receives AHCCCS	87.2%	85.2%

Conclusions

After reviewing key literature on home visitation programs, the HFAz Policies and Procedures related to creative outreach, responses from HFAz program staff , an interview with a member of the QA team, and data for outreach families, it can be concluded that program staff seem to be practicing creative outreach in a way that is consistent with the policies and procedures. They seem to understand the purpose and intention of outreach, but there are many frustrations with the lack of success and the amount of effort they put forth. Further exploration of reengagement rates would be useful to the program, and focusing on sites that have high rates of reengagement could inform the program statewide of effective strategies to use in creative outreach.

The data collected from July 1, 2004 to March 31, 2008 for HFAz families show some important trends. There are differences in how families respond to creative outreach when examining outreach over the life of the program. More families close on outreach during the initial six-month time point, but tend to re-engage more often at later time points, possibly indicating the development of rapport with the family by HFAz staff. When comparing HFAz outreach and non-outreach families, there are also some demographic differences. Families on outreach are more likely to be younger, single parents, and have less income and less schooling when compared to non-outreach families.

Healthy Families Arizona Families At Risk Evaluation Substudy

Multiple individual, family, and community factors can suggest a child's risk for maltreatment and poor developmental outcomes, while other factors may serve to protect children. In an effort to better understand some of the primary risk factors for child abuse and neglect that have been identified and their prevalence in the Healthy Families program, this substudy focused on two primary risk factors: parental depression and substance use. A brief literature review grounds the findings in the context of the field. Demographic information, scores on the Healthy Families Parenting Inventory (HFPI), and data regarding the co-occurrence of these and other risk factors is included and analyzed for parents who screened positive for depression or substance abuse.

Key findings include:

- Within the depression subgroup, a lower percent of Hispanics reported depression and a higher percent of Whites reported depression than the rest of Healthy Families participants.
- A higher percent of the Substance Abuse Subgroup scored severe on risk factors on the Parent Survey; specifically on items: Lifestyle Behaviors and Mental Health, Parents Childhood Experiences, Parenting Experiences, Coping Skills and Support System, Stresses, Anger Management Skills, and Bonding Attachment Issues.
- The Social Support subscale on the HFPI showed no significant changes in either the Depression or Substance group from Baseline to 6 Months.
- On the HFPI from Baseline to 12 Months, there were no significant changes in Social Support or Personal Care items for either group, and no significant changes in Parent Child Behavior or Parenting Efficacy for the Depression Subgroup only.
- A large number of participants screen positive for with both substance abuse and depression.
- The time in program for the Substance Abuse group was 73 days less on average than other participants.
- A lower percent of families in the Substance Abuse group screened positive on CRAFFT at 6/12 months, but the percent was still higher than for all other participants at 6/12 months.

Recommendations

- Data based protocols should be developed to help support supervision and provide home visitors with more clear directions in how to respond to families and how to make more use of evidence based protocols. While existing practices are in place for responding to families with different needs (e.g., domestic violence or substance abuse) these existing practices should be strengthened and new approaches considered in light of the most recent evidence.

Families at Risk Sub-study

In order to better understand parents with significant risk factors two sub-studies were conducted: one on depression and one on substance abuse. The goal of these studies was to determine if particular characteristics could be discovered for the participants who were found to be at significant risk for either depression or substance abuse.

Literature Review

Research suggests that there may be an association been psychiatric/personality disturbances of mothers and child abuse and neglect (Walsh, MacMillan, & Jamieson, 2002). A study by Chaffin, Kelleher, and Hollenberg (1996) found that depression carried the highest risk of any disorder other than substance abuse. Depressed parents in this study were nearly 3.5 times more likely to physically abuse their children than parents who were not depressed, when other factors were statistically controlled. One community-based study of 594 mothers at-risk for child maltreatment showed that higher levels of maternal depression signaled increased risk of severe physical assault. The odds of physical assault were incrementally higher at more severe levels of depression (Windham, Rosenberg, Fuddy, McFarlane, Sia, & Duggan 2004).

Maternal depression appears to be more closely related to child physical abuse than it is to neglect, but some association may exist with neglect as well. This association may be mediated by factors such as substance abuse (Chaffin, Kelleher, & Hollenberg, 1996). Substance abuse and depression are often found to be highly inter-related, as both are chronic relapsing problems that are relatively common among adults of parenting age. Both have also been linked to childhood histories of maltreatment (Malinosky-Rummel & Hansen, 1993).

One challenge in researching the relationships between depression, substance abuse, and child abuse and neglect is determining the order of association. Studies suggest that mothers abused as children are at higher risk for substance abuse, depression, and abuse/neglect of their own children. Other research suggests that becoming identified as a maltreating or at-risk parent may also predispose to depression (Chaffin, Kelleher, & Hollenberg, 1996). In addition, some research shows that the risk of child abuse and neglect may only increase for depressed mothers when a

substance abuse disorder is also present (Swanson, Holzer, Ganju, & Jono, 1990). In summary, it is challenging to isolate which psychosocial factors put mothers at the greatest risk for child abuse. Research suggests that substance abuse and psychiatric disorders, such as depression, are associated in some way, though the exact relationship is unclear. Also, it is likely that having multiple risk factors may compound the risk of abuse (Brown, Cohen, Johnson, & Salzinger, 1998). Implications for home visitation programs are that identification and response to these types of problems may require a comprehensive approach designed to assess, monitor, and treat across risk factors of the families served (Windham, Rosenberg, Fuddy, McFarlane, Sia, & Duggan 2004)

Risk Profile -- Depression

In order to help inform the Healthy Families Arizona program on depression among participants, a basic profile is provided of Healthy Families participants engaged in the program from July 1, 2004 to March 31, 2008 who screened positive for depression in the initial hospital intake screening provided by Family Assessment Workers to determine program eligibility.

The following profile includes basic demographic information for these families, risk scores, Healthy Families Parenting Inventory scores, and other information. When feasible, multiple time points are presented and the data is compared to all other families in the Healthy Families program.

Of the total 5,248 families that were engaged (had completed 4 home visits) in the Healthy Families Arizona program between July 1, 2004 and March 31, 2008[4], 1,966 screened positive for current or prior depression on entry into the program. Thus, nearly 38% of families screened positive at the time they entered the program. The remaining 3,249 who were engaged in the program between July 1, 2004 and March 31, 2008 are identified as the "All Other Healthy Families Participants" in the following tables and sections.

[4] This only includes families who did not close before their baby was born.

Demographics

Exhibit 47. Mothers Ethnicity in Depression Subgroup Compared to All Other Healthy Families Participants

	White/ Caucasian	Hispanic	Native American	African American	Asian American	Other/ Mixed
Depression Subgroup	35.6	46.1	6.4	5.9	0.7	5.4
All Other HFAz Participants	25.2	56.3	7.6	5.3	0.6	5.0

There are differences in ethnic composition between the Depression Subgroup and all other Healthy Families participants. Approximately a third of the Depression Subgroup was White/Caucasian, whereas only a quarter of the rest of the HFAz participant sample reported this ethnicity. The percent of Hispanics in the Depression Subgroup was 46.1% whereas they comprise 56.3% of the rest of the Healthy Families participants.

The Depression Subgroup also reported a slightly lower percent of single mothers, though the average age of these mothers was two years older. The Depression Subgroup also reported a slightly higher median household income and slightly higher educational attainment (more mothers with at least a high school degree).

Exhibit 48. Demographics for Mothers in Depression Subgroup Compared to All Other Healthy Families Participants at Intake

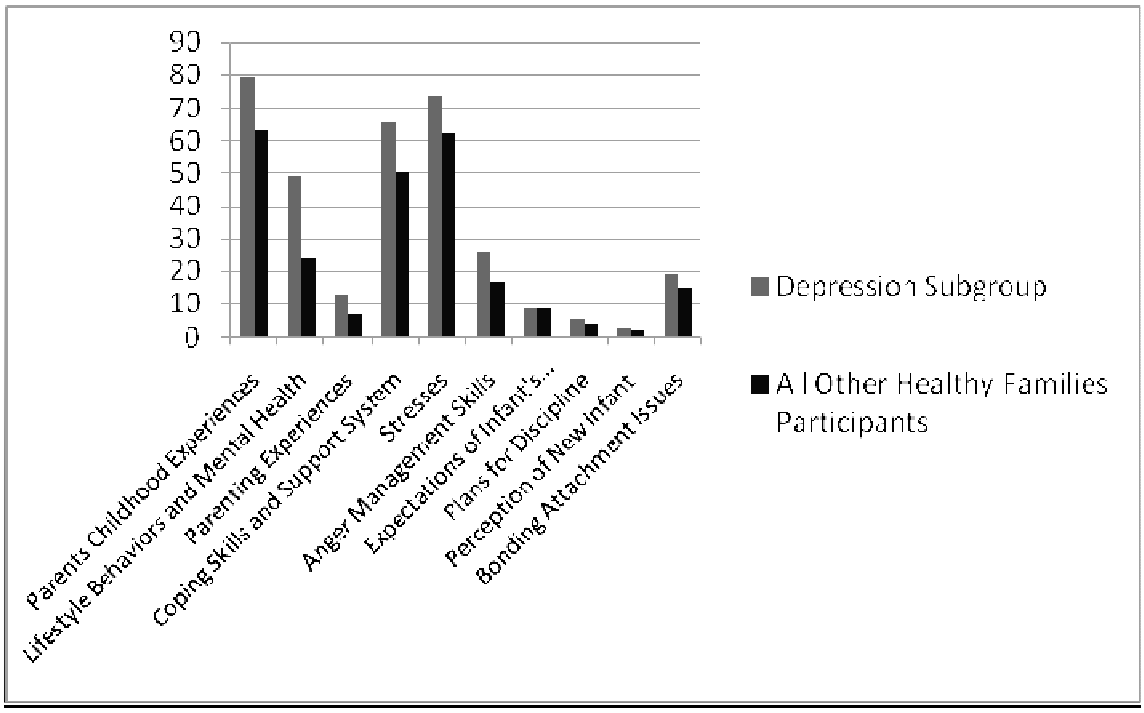
Characteristic	Depression Subgroup	All Other Healthy Families Participants
Median age	24	22
Marital status single	66.2%	73.3%
Not Employed	82.1%	83.3%
Less than high school education	61.8%	66.9%
No Health Insurance	4.1%	4.0%
Receives AHCCCS	84.0%	86.7%
Median Household Income	$13,920	$13,520

Assessment of Risk

During the screening process, parents are assessed for child abuse risk factors using the Parent Survey, a modified version of the Family Stress Checklist. A Family Assessment Worker uses this tool to evaluate each parent's level of stress across 10 domains. In one study validating the measure, of families that scored a 40 or higher (severe rating) on this checklist, 76% were shown to later be involved in child abuse and neglect. (Murphy, Orkow, Nicola, 1985).

Of families in the Depression Subgroup, 71.9% received a rating of 40 or higher. In comparison, only 49.0% of all other Healthy Families participants scored severe overall. The following chart shows a breakdown by the different survey items included in this rating for the Depression Subgroup and Healthy Families overall.

Exhibit 49. Percentage of Parents Participants Rated Severe on the Parent Survey Items: By Depression Subgroup and All Other Healthy Families Participants



The percent of parents screened as severe in the areas of Lifestyle Behaviors and Mental Health was significantly higher, as might be anticipated, in the Depression Subgroup. A higher percent of mothers in this subgroup were also scored as severe across most categories, with some of the most significant differences in the categories of Parents Childhood Experiences, Parenting Experiences, Coping Skills and Support System, Stresses, Anger Management Skills, and Bonding Attachment Issues. These results provide additional validation of the Parent Survey.

Healthy Families Parenting Inventory Findings

The Healthy Families Parenting Inventory (HFPI) was designed by evaluation staff to capture change initiated in parents in 10 key parenting areas. Findings on the HFPI are included for the Depression Subgroup and compared with all other Healthy Families participants, from Baseline to 6 Months and also from Baseline to 12 Months in the following exhibit.

Exhibit 50. Healthy Families Parenting Inventory: Baseline to 6 Months by Depression Subgroup and All Other Healthy Families Participants

Sub scale	Depression Subgroup (n=450)		All Other Healthy Families Participants (n=726)	
	Statistical Significance from Baseline to 6 Months	Was there Improvement? Yes/No	Statistical Significance from Baseline to 6 Months	Was there Improvement? Yes/No
Social Support	.175	Yes, but not significant	.095	Yes, but not significant
Problem Solving	.000	Yes	.000	Yes
Depression	.000	Yes	.000	Yes
Personal Care	.002	No	.000	No
Mobilizing Resources	.000	Yes	.000	Yes
Commitment to Parent Role	.004	Yes	.000	Yes
Parent/Child Behavior	.000	Yes	.000	Yes
Home Environment	.000	Yes	.000	Yes
Parenting Efficacy	.001	Yes	.000	Yes
Total Scale	.000	Yes	.000	Yes

*Note: Numbers less than .05 is statistically significant.
**Improvement is noted as any increase in mean scores from pretest to posttest

These results suggest that significant gains are made by the depressed group—gains that are similar to the other Healthy Family participants. However, the changes are a bit less for the depressed group even though they are significant from pretest to posttest. The following exhibit shows the same data but at the 12 month follow-up period.

Exhibit 51. Healthy Families Parenting Inventory: Baseline to 12 Months by Depression Subgroup and All Other Healthy Families Participants

Scale	Depression Subgroup (n=200)		All Other Healthy Families Participants (n=298)	
	Significance level from Baseline to 6 Months*	Was there Improvement? Yes/No**	Significance level from Baseline to 6 Months*	Was there Improvement? Yes/No**
Social Support	.285	Yes, but not significant	.597	Yes, but not significant
Problem Solving	.002	Yes	.000	Yes
Depression	.032	Yes	.001	Yes
Personal Care	.556	No	.311	No
Mobilizing Resources	.000	Yes	.000	Yes
Commitment to Parent Role	.010	Yes	.048	Yes
Parent/ Child Behavior	.054	No	.015	Yes
Home Environment	.000	Yes	.000	Yes
Parenting Efficacy	.056	No	.002	Yes
Total Scale	.000	Yes	.000	Yes

*Note: Numbers less than .05 is statistically significant.
**Improvement is noted as any increase in mean scores from pretest to posttest

Data at the 12 month follow up appears to tell a different story. At 12 months, 4 of the 9 subscales show results that fail to achieve significance for the Depression Subgroup. However, for all other Healthy Families participants, only two subscales (personal care and social support) fail to show a statistically significant change from pretest to 12 months. Although the overall N is reduced in this analysis (N=200)

which makes significant finding more difficult to detect, it appears that many of the previous positive changes for the depressed participants are not present at the 12 month marker. Ongoing and consistent work with mothers initially identified as depressed is critical if significant changes are to be obtained one year after program start.

Time in program

Families in the Depression Abuse Subgroup were, on average, in the program 369 days compared with 386 days for all Healthy Families participants.

Summary of Findings

- Within the depression subgroup, a lower percent of Hispanics reported depression and a higher percent of Whites reported depression than the rest of Healthy Families participants.
- A higher percent of the Substance Abuse Subgroup scored severe on risk factors on the Parent Survey; specifically on items: Lifestyle Behaviors and Mental Health, Parents Childhood Experiences, Parenting Experiences, Coping Skills and Support System, Stresses, Anger Management Skills, and Bonding Attachment Issues.
- The Social Support subscale on the HFPI showed no significant changes in either group Baseline to 6 months.
- On the HFPI from Baseline to 12 Months, there where were no significant changes in Social Support or Personal Care items for either group, and no significant changes in Parent Child Behavior or Parenting Efficacy for the Depression Subgroup only.
- A large number of participants have co-morbidity of substance abuse and depression.
- The time in program for the Depression Subgroup was 17 days less on average than other participants.

Risk Profile—Substance Abuse

Extensive research over the last few decades suggests that parental substance abuse is associated with increased risk for child abuse. Some studies even suggest it increases the risk twofold (Walsh, MacMillan, & Jamieson, 2003). This finding likely does not come as a surprise to administrators and workers in the child abuse and substance abuse fields. A study by Peddle and Wang (2001) showed that 85% of state administrators rated substance abuse as one of the top two problems exhibited by families reported for maltreatment. Studies also suggest that substance abuse by caregivers significantly increases the likelihood of the substantiation of both physical abuse and neglect cases (Sung, Shillington, Hohman, & Jones, 2001).

It is difficult to determine, however, whether other factors such as socioeconomic status, race, family composition, housing insecurity, past experience of child abuse, domestic violence or other factors are equally relevant predictors. Substance abuse often occurs in the context of these and other socioeconomic problems (Sheridan, 1995). A study by Hogan, Myers, and Elswick (2006), showed that low-income women with many risk factors are at high risk for child abuse, but that drug use did not differentiate them from their non-user peers with similar social and demographic backgrounds. Even studies that find significant differences once these and other factors are controlled for, are still hesitant to presume that parental substance abuse has a causal relationship with child abuse.

Even though causality and the mechanisms behind the association between parental substance abuse and child abuse have yet to be fully established, the importance of this association should not be disregarded. Substance abuse may only be one problem a family is facing putting them at risk for child abuse, however, it is one that can be identified and sometimes, treated successfully (Murphy, Jellinek, Quinn, Smith, Poitrast, & Goshko, 1991). Substance abuse should be considered a significant risk factor and addressed accordingly by the Healthy Families program.

In order to provide more information to the Healthy Families program about substance abuse among participants, a basic profile is provided of Healthy Families participants from July 1, 2004 to March 31, 2008 who screened positive for substance abuse. The screening was based on their two month CRAFFT, a tool chosen by program staff for assessment and increased communication with families on substance abuse concerns. In order to screen positive on the CRAFFT, a mother must

mark at least 2 of 6 substance abuse-related questions as "yes." These questions ask for information on substance use at intake or within the past 6 months. A positive screen does not necessarily indicate a substance abuse problem, though it is considered a reliable indicator of a potential area of concern.

The following profile includes basic demographic information for these families, risk scores, Healthy Families Parenting Inventory scores, and other information. When feasible, multiple time points are presented and the data is compared to all families in the Healthy Families program.

Profile of Substance Abuse Subgroup

Of the total 5,248 families that were engaged (had completed 4 home visits) in the Healthy Families program between July 1, 2004 and March 31, 2008[5], 884 screened positive for substance abuse at 2 months. That is, nearly 17% of families screened positive for substance abuse at this time point. The remaining 4,364 who were engaged during this time period are identified as the "All Other Healthy Families Participants" in the following tables and sections.

Demographics

There are significant differences in ethnic composition between the Substance Abuse Subgroup and all other Healthy Families participants. Nearly 50% of the Substance Abuse Subgroup was White/Caucasian, whereas only a quarter of the rest of the sample reported this ethnicity. The percent of Hispanics in the Substance Abuse subgroup was 30.2%, whereas they comprise 57.0% of the rest of the Healthy Families participants. Research suggests that minorities are less likely than Caucasians to disclose substance abuse in self-reports, which may help to explain this racial discrepancy (Sun, Shillington, Hohman & Jones, 2001).

The Substance Abuse Subgroup also reported a higher percent of single mothers and a slightly higher median income. A higher percent of the mothers in this subgroup group also had less than a high school education.

[5] This only includes families who did not close before their baby was born.

Exhibit 52. Mothers' Ethnicity in Substance Abuse Subgroup Compared to All Other Healthy Families Participants

	White/ Caucasian	Hispanic	Native American	African American	Asian American	Other/ Mixed
Substance Abuse Subgroup	48.9%	30.2%	7.9%	6.2%	0.5%	6.5%
All Other Healthy Families Participants	25.1%	57.0%	7.1%	5.3%	0.7%	4.7%

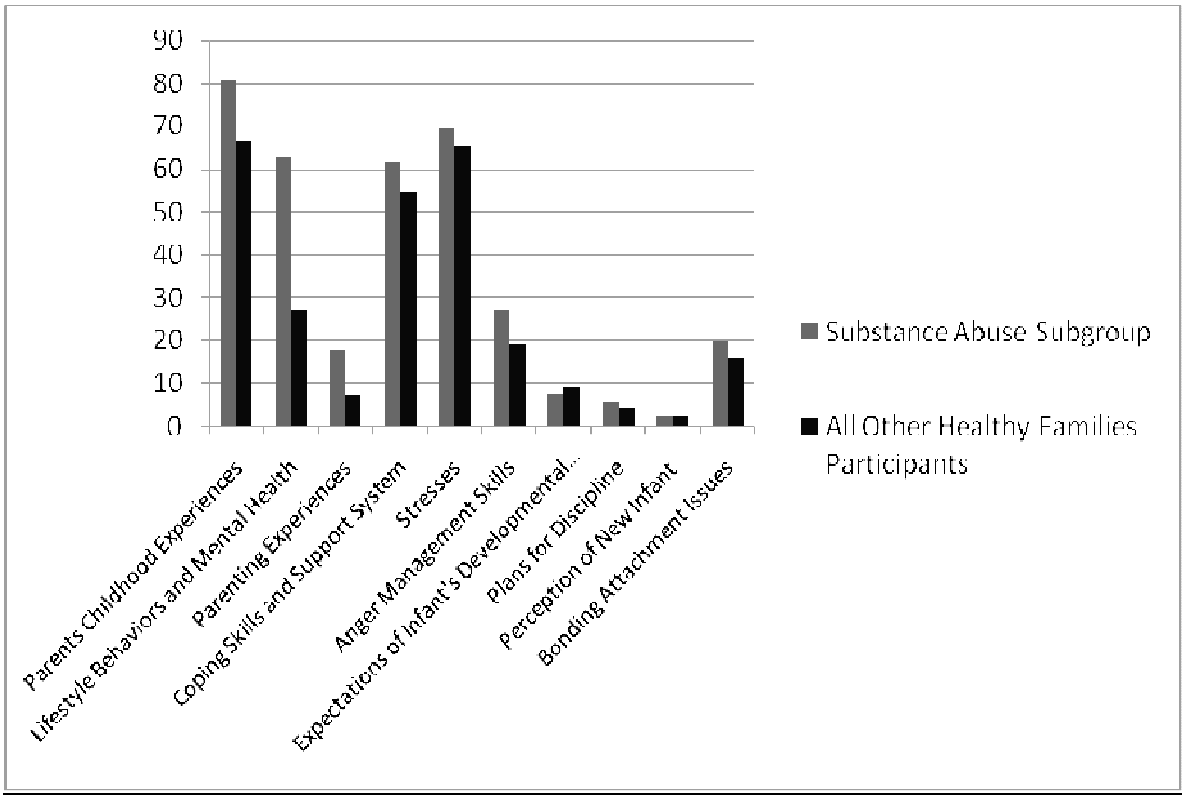
Exhibit 53. Demographics for Mothers in Substance Abuse Subgroup Compared to All Other Healthy Families Participants at Intake, 2008

Characteristic	Substance Abuse Subgroup	All Other Healthy Families Participants
Median age	23	23
Marital status single	75.0%	69.8%
Not Employed	81.3%	83.1%
Less than high school education	60.4%	65.9%
No Health Insurance	3.1%	4.2%
Receives AHCCCS	85.8%	85.7%
Median Household Income	$14,000	$13,470

Assessment of Risk

Of families in the substance abuse subgroup, overall 75.4% received a rating of 40 (or higher (Severe) on the Parent Survey. In comparison, only 54.0% of all other Healthy Families participants scored severe overall. The following Exhibit shows a breakdown by the different survey items included in this rating, for the substance abuse subgroup and Healthy Families group overall.

Exhibit 54. Percentage of Parents Rated Severe on the Parent Survey Items: By Substance Abuse Subgroup and All Other Healthy Families Participants



The percent of parents screened as severe in the areas of Lifestyle Behaviors and Mental Health was significantly higher, as might be anticipated, in the Substance Abuse Subgroup. A higher percent of mothers in this subgroup were also scored as severe in the categories of Parents Childhood Experiences, Parenting Experiences, Coping Skills and Support System, Stresses, Anger Management Skills, and Bonding Attachment Issues.

HFPI and Substance Abuse

The Healthy Families Parenting Inventory (HFPI)was designed by evaluation staff to show change among parents in 10 key parenting areas. Findings on the HFPI are included for the substance abuse sub-group and compared with all other Healthy Families participants.

Exhibit 55. Healthy Families Parenting Inventory: Baseline to 6 Months by Substance Abuse Subgroup and All Other Healthy Families Participants

Scale	Substance Abuse Subgroup (n=291)		All Other Healthy Families Participants (n=888)*	
	Statistical Significance from Baseline to 6 Months*	Was there Improvement? Yes/No**	Statistical Significance from Baseline to 6 Months	Was there Improvement? Yes/No
Social Support	.599	No	.026	Yes
Problem Solving	.000	Yes	.000	Yes
Depression	.000	Yes	.000	Yes
Personal Care	.311	No	.000	No
Mobilizing Resources	.000	Yes	.000	Yes
Commitment to Parent Role	.016	Yes	.000	Yes
Parent/ Child Behavior	.003	Yes	.000	Yes
Home Environment	.000	Yes	.000	Yes
Parenting Efficacy	.004	Yes	.000	Yes
Total Scale	.000	Yes	.000	Yes

*Note: Numbers less than .05 indicate statistical significance

**Improvement is noted as any increase in mean scores from pretest to posttest

These data suggest that 2 of the 9 subscales at baseline to 6 months do not change for families with a substance abuse profile (social support and personal care), whereas all the subscales showed significant change for the other Healthy Families participants. There were not enough cases to examine this data at the 12 month period.

Time in program

Families in the Substance Abuse Subgroup were, on average, in the program 318 days compared with 391 days for all Healthy Families participants.

Follow-up Substance Abuse Screenings—CRAFFT at 6 and 12 months

In addition to the 2 month screening, the CRAFFT is also administered at 6 and 12 months in the program. At each administration, the question asks the participant to describe their substance use within the past 6 months. Of the families in the Substance Abuse Subgroup, 15.8% screened positive at the 6 month time point, and only 6.3% screened positive at 12 months.

Co-morbidity

Literature suggests that there is a high co-occurrence of substance abuse and mental health issues such as depression. It was found that 396 participants that were engaged between July 1, 2004 and March 31, 2008, screened positive for substance abuse at 2 months (CRAFFT) and also screened positive for current or prior depression upon entrance into the program. Thus, 20.1% of mothers (396 of 1,966) who screened positive for depression also reported a substance abuse problem. And 44.8% of mothers (396 of 884) who screened positive for substance abuse also screened positive for depression.

Summary of Findings

- Racial differences between groups may be based on low self-reporting of substance abuse among minorities.
- A higher percent of Substance Abuse Subgroup scored severe on risk factors on the Parent Survey; specifically on these items: Lifestyle Behaviors and Mental Health, Parents Childhood Experiences, Parenting Experiences, Coping Skills and Support System, Stresses, Anger Management Skills, and Bonding/Attachment Issues.

- Social Support and Personal Care were scales on HFPI in which *only* the Substance Abuse Subgroup showed no significant changes.
- The time in the program was 73 days less on average for the Substance Abuse Subgroup than other participants.
- A lower percent of families in Substance Abuse Subgroup screened positive on CRAFFT at 6/12 months, but the percent was still higher than for all other participants at 6/12 months.

Conclusions and Recommendations

This annual report provides annual process and outcome results, as well as data and findings from several special sub-studies, in an effort to provide useful information for program accountability and program learning and improvement. Based on recommendations for last year's evaluation, sub-studies were completed on outreach, the prenatal program, and families at risk. While there are multiple outcomes that could be measured in home visitation programs, the Healthy Families Arizona program focuses the evaluation on the following primary outcome indicators: parent outcomes, child health and wellness, and child abuse and neglect. Based on results from such measures as the Healthy Families Parenting Inventory, participant tracking data, safety checklists, screening tools, child abuse and neglect rates, and participant satisfaction surveys, Healthy Families Arizona continues to address and reach most of its goals.

As the program matures, more clarity can be reached with continued examination of the program theory (logic model), evolving literature about home visitation, and deeper analysis of data related to the important concepts and outcomes of interest. To capitalize on the potential for learning from the extensive and ongoing data collection efforts, the evaluation continuously seeks to better understand the relationship between Healthy Families Arizona processes or activities and participant outcomes. For example, we have explored the nature and differences between the highest risk participants (those with risk factors of depression and substance abuse) and other Healthy Families participants with fewer risk factors. By posing and answering questions related to the program objectives, the evaluation can help to inform practice.

Recommendations based on this year's evaluation activities include the following:

- **Supervision has not been systematically studied in Healthy Families and it should become a focus of ongoing program improvement**. Supervision is a critical part of effective service delivery. For example, families identified as high risk should receive more direct supervision to address their level of risk.

- **More data-based decision making should be included in the work with families from both the home visitors and supervisors.** While compliance with outcome assessment like the HFPI has improved over time, significant improvement should be an ongoing goal. Also, new efforts at training and supervision should emphasize how data-based decisions can be made.
- **Continued attention should be given to data collection and data submission to decrease the amount of missing data.** An examination of the quantity of paperwork required of program staff should be made to determine the most useful and relevant data to collect for case management, quality assurance and evaluation.
- **Data-based protocols should be developed to help support supervision and provide home visitors with more clear directions on how to respond to families and how to make more use of evidence-based protocols**. While existing practices are in place for responding to families with different needs (e.g., domestic violence or substance abuse) these existing practices should be strengthened and new approaches considered in light of the most recent evidence.
- **Clear policies should be in place for how home visitors can keep an acceptable level of contact even when face-to-face contact is not occurring or possible**. More clear efforts and documentation should be provided in assessing the amount of program utilization provided to families. This is a critical and challenging objective, given that that expected service levels are not being met by Healthy Families Arizona or other Healthy Families programs around the country.
- **Outreach needs to be systematically reviewed in light of the sub-study conducted on this topic.** Consider shifting families who cannot receive services (request outreach for whatever reason) to a less intensive program intervention. This intervention would likely consist of follow-up phone calls and program material and careful referrals for additional services. This would eliminate the issues associated with putting families on outreach and would focus the home visitor's efforts on providing services to families at levels that best meet the family's needs. Explore the suggestions from home visitors that outreach should not last longer than one month and that transitioning a family to a new home visitor might be more successful if the new home visitor could do at least one home visit with departing home visitor.

- **Alternatives to creative outreach should be considered, such as providing participants with an alternative to face-to-face contact**. This would allow the program to potentially meet the needs of participants who otherwise stay on outreach and never fully re-engage with the program.
- **Work should continue in defining high risk families and developing protocols that match the level of risk the family is facing.** Assessment of risk level is a critical factor in providing supervision and responding effectively to families in need.
- **The evaluation should explore the ability of the HFPI depression subscale to accurately assess depression.** A separate analysis should be conducted of the depression subscale including an analysis of the variability in scores and a comparison of these results with other depression scales like the CES-D. A determination should be made if additional depression screening tools are necessary.
- **New efforts should be made to help home visitors enhance the level of social support that is provided.** Social support has long been recognized as a key construct for the Healthy Families program. High levels of social support are associated with multiple benefits including reduced stress and more effective parenting practices. Outcome data from last year and this year finds the change in social support to be one of the weakest areas of improvement.
- **Increased effort should be directed toward preventing repeat births and in increasing the time between births.** Because this health benchmark has gone in the opposite direction than hoped for, program staff should redouble their efforts to educate families. In addition, training efforts for home visitors should be re-examined.
- **Continued refinement of the prenatal program components should be developed and implemented.** Efforts should include attention to father/male involvement in the prenatal period. In addition, changes in critical health behaviors could be examined by collecting more participant information about attendance in birthing classes, use of prenatal vitamins, and progress in smoking cessation.

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Appendix A: Site Level Data

Age of Child at Entry by Site – 2008
(Age in Days)

Site	Mean (Age in Days)	Number	Standard Deviation
Douglas	16.68	75	13.51
Central Phoenix	32.80	88	24.30
Maryvale	26.95	102	24.58
South Phoenix	30.30	86	25.19
East Valley	33.90	94	26.20
Nogales	18.31	105	20.72
Page	26.19	37	22.16
Casa de los Niños	37.90	80	22.18
CODAC	37.92	102	25.38
La Frontera	36.34	95	26.83
Sierra Vista	12.68	62	16.27
Tuba City	25.78	40	24.59
Verde Valley	13.15	73	14.95
Yuma	19.17	76	19.95
Pascua Yaqui	30.42	38	25.75
Lake Havasu City	24.54	85	15.56
Flagstaff	23.31	42	26.17
Sunnyslope	30.41	78	22.03
Prescott	27.46	127	24.76
Coolidge	23.65	82	25.72
Mesa	28.90	104	20.95
Southeast Phoenix	28.34	82	23.50
El Mirage	34.63	100	28.40
Blake Foundation	37.59	100	25.47
Marana	41.36	78	26.15
Safford	28.47	36	31.51
Stanfield	18.43	23	18.86
Apache Junction	33.50	74	26.96
Gila River	35.71	14	22.40
Winslow	27.91	23	23.40
Kingman	29.67	45	22.07
Globe/Miami	40.65	23	25.42
Kyrene	32.83	89	24.92
Metro Phoenix	31.62	99	24.85
Tolleson	30.21	85	21.61

Site	Mean (Age in Days)	Number	Standard Deviation
South Mountain	26.18	111	21.06
Glendale	29.04	99	22.25
Deer Valley	27.50	82	23.07
East/SE Tucson	34.06	78	26.19
SW Tucson	40.31	75	28.27
Bullhead City	21.06	50	18.85
Northwest Phoenix	27.40	95	20.24
Tempe	30.14	98	22.40
Gilbert	30.88	65	21.30
Scottsdale	31.31	127	24.07
West Phoenix	29.13	97	24.65
East Mesa	38.08	78	20.88
Kinlani-Flagstaff	18.77	39	23.97
Southwest Phoenix	31.23	81	24.71
Peoria	33.67	69	32.56
Metro Tucson	34.58	86	21.67
Casa Family First	38.96	92	24.77
Wellspring	15.20	41	24.24
Primero Los Niños	17.91	64	14.47
Sierra Vista Blake	12.56	61	17.16
Total	29.22	4130	24.31

Note: total does not include missing data for 101 participant files.

Days to Program Exit by Site – 2008
(For families who left the program)

Site	Prenatal				Postnatal			
	Median	Mean	Standard Deviation	Number	Median	Mean	Standard Deviation	Number
Douglas	226.00	242.00	168.31	5	507.00	718.44	635.64	25
Central Phoenix	455.00	455.00	115.31	4	303.00	393.68	352.14	34
Maryvale	250.00	317.83	181.23	6	292.00	430.31	370.35	32
South Phoenix	296.00	435.00	337.48	5	294.00	461.70	411.38	27
East Valley	700.50	700.50	152.03	2	558.00	742.13	522.46	31
Nogales	272.50	275.13	72.97	8	437.00	837.14	699.31	35
Page	293.50	376.50	353.06	4	522.00	809.91	779.60	11
Casa de los Niños	262.00	319.11	179.77	9	378.00	464.36	355.37	28
CODAC	434.00	443.08	246.26	13	338.00	581.08	519.48	40
La Frontera	365.00	416.31	250.50	13	618.00	809.67	631.58	27
Sierra Vista	486.00	571.00	315.71	6	381.00	586.84	481.62	19
Tuba City	441.00	580.80	270.21	5	503.00	771.23	659.95	13
Verde Valley	572.00	519.95	296.61	19	288.00	571.70	625.29	27
Yuma	369.00	346.60	188.11	5	405.00	507.22	401.30	27
Pascua Yaqui	470.50	550.25	335.20	16	887.00	1037.53	733.02	15
Lake Havasu City	219.00	307.35	262.89	23	292.50	639.39	619.45	38
Flagstaff	341.00	356.06	255.97	16	530.00	695.07	521.78	15
Sunnyslope	281.00	366.20	266.69	10	273.50	437.60	395.58	20
Prescott	148.00	279.67	325.54	6	663.00	731.26	543.70	46
Coolidge	263.00	459.40	385.19	5	674.50	757.04	589.89	26
Mesa	586.00	511.17	338.12	6	538.00	612.06	426.31	33
Southeast Phoenix	555.00	570.57	295.22	7	826.00	836.17	595.41	30
El Mirage	593.00	494.33	206.51	3	498.00	589.47	431.02	36
Blake Foundation	407.50	446.13	246.47	8	483.50	614.59	432.63	46
Marana	237.00	403.44	342.99	9	371.00	418.77	265.26	35
Safford	491.00	584.43	325.21	7	581.00	617.88	380.98	8
Stanfield	411.00	483.83	238.05	6	380.00	388.18	173.57	11
Apache Junction	449.00	475.17	289.71	12	379.00	425.94	255.86	35
Gila River	845.50	627.50	391.86	8	402.00	554.20	402.04	5
Winslow	566.50	553.83	291.75	6	212.00	335.00	345.25	12
Kingman	390.00	365.50	184.78	8	327.00	355.94	300.91	16
Globe/Miami	408.00	498.17	285.60	6	562.50	492.00	199.37	6
Kyrene	293.00	412.38	290.45	8	320.50	337.10	199.49	30
Metro Phoenix	498.50	498.50	47.38	2	207.00	329.76	335.84	25
Tolleson	597.50	597.50	86.97	2	639.00	608.43	388.61	28
South Mountain	330.00	342.70	158.69	10	388.00	410.71	252.45	45
Glendale	231.50	335.60	221.36	10	720.00	741.41	489.81	32

Site	Prenatal				Postnatal			
	Median	Mean	Standard Deviation	Number	Median	Mean	Standard Deviation	Number
Deer Valley	221.50	400.17	387.61	6	450.00	512.26	314.77	46
East/SE Tucson	264.00	411.86	312.72	7	362.00	366.79	207.11	19
SW Tucson	340.00	340.00	227.69	2	416.00	488.04	320.62	23
Bullhead City	329.00	373.78	182.43	9	284.50	310.19	182.90	16
Northwest Phoenix	319.00	308.80	99.00	5	229.50	372.18	363.57	50
Tempe	258.00	310.40	169.90	5	204.00	234.78	108.20	37
Gilbert	310.50	397.06	318.77	18	318.50	519.61	436.07	18
Scottsdale	276.00	329.00	249.86	12	254.00	366.17	285.40	65
West Phoenix	355.00	372.86	149.03	7	529.00	586.45	334.58	38
East Mesa	230.00	362.83	304.64	6	414.00	596.27	426.92	26
Kinlani-Flagstaff	488.00	513.75	291.55	16	468.50	802.43	656.09	14
Southwest Phoenix	265.00	258.75	47.68	4	227.00	334.11	369.54	27
Peoria	530.00	594.86	236.99	7	329.50	474.57	292.49	30
Metro Tucson	202.00	240.93	77.54	15	259.00	393.62	379.07	34
Casa Family First	246.00	285.69	158.11	13	267.50	325.38	233.01	26
Wellspring	244.50	320.57	256.36	14	183.00	281.33	259.78	27
Primero Los Niños	633.00	604.33	323.95	3	309.00	473.63	448.53	19
Sierra Vista Blake	238.00	319.88	229.79	8	237.50	250.04	108.72	26
Total	321.00	409.44	266.93	455	351.50	523.54	453.32	1510

Top Four Reasons for Exit by Site – 2008
Percent and number within site

Site	Overall (Prenatal and Postnatal Combined)									
	#1 Did Not Respond to Outreach Efforts		#2 Moved Away		#3 Family Refused Further Services		#4 Unable to Contact		Completed Program (ranked #6)	
	%	n	%	n	%	n	%	n	%	n
Douglas	50%	13	30.8%	8	7.7%	2	0	0	0	0
Central Phoenix	23.7%	9	34.2%	13	23.7%	9	7.9%	3	2.6%	1
Maryvale	34.2%	13	26.3%	10	10.5%	4	5.3%	2	2.6%	1
South Phoenix	40.6%	13	15.6%	5	9.4%	3	12.5%	4	3.1%	1
East Valley	21.2%	7	27.3%	9	12.1%	4	3.0%	1	3.0%	1
Nogales	26.2%	11	35.7%	15	2.4%	1	7.1%	3	26.2%	11
Page	20.0%	3	33.3%	5	26.7%	4	0	0	20.0%	3
Casa de los Niños	29.7%	11	24.3%	9	18.9%	7	5.4%	2	2.7%	1
CODAC	34.6%	18	21.2%	11	11.5%	6	0	0	9.6%	5
La Frontera	33.3%	13	23.1%	9	5.1%	2	2.6%	1	12.8%	5
Sierra Vista	28.0%	7	40.0%	10	4.0%	1	0	0	4.0%	1
Tuba City	23.5%	4	17.6%	3	23.5%	4	5.9%	1	11.8%	2
Verde Valley	15.6%	7	37.8%	17	0	0	6.7%	3	6.7%	3
Yuma	37.5%	12	31.3%	19	15.6%	5	6.3%	2	3.1%	1
Pascua Yaqui	32.1%	9	17.9%	5	7.1%	2	0	0	21.4%	6
Lake Havasu City	23.3%	14	31.7%	19	23.3%	14	3.3%	2	8.3%	5
Flagstaff	22.6%	7	48.4%	15	19.4%	6	6.5%	2	0	0
Sunnyslope	37.9%	11	13.8%	4	27.6%	8	10.3%	3	3.4%	1
Prescott	21.2%	11	36.5%	19	9.6%	5	1.9%	1	15.4%	8
Coolidge	19.4%	6	22.6%	7	6.5%	2	12.9%	4	9.7%	3
Mesa	23.1%	9	41.0%	16	10.3%	4	10.3%	4	2.6%	1
Southeast Phoenix	33.3%	12	8.3%	3	13.9%	5	13.9%	5	8.3%	3
El Mirage	51.3%	20	5.1%	2	7.7%	3	10.3%	4	2.6%	1
Blake Foundation	16.7%	9	22.2%	12	3.7%	2	14.8%	8	13.0%	7
Marana	15.9%	8	31.8%	14	13.6%	6	9.1%	4	2.3%	1
Safford	13.3%	2	26.7%	4	6.7%	1	0	0	0	0
Stanfield (Pinal)	70.6%	12	17.6%	3	5.9%	1	0	0	0	0
Apache Junction	34.0%	16	31.9%	15	19.1%	9	4.3%	2	0	0
Gila River	38.5%	5	23.1%	3	7.7%	1	0	0	0	0
Winslow	38.9%	7	11.1%	2	11.1%	2	11.1%	2	0	0
Kingman	25.0%	6	25.0%	6	16.7%	4	29.2%	7	0	0
Globe/Miami	75.0%	9	0	0	8.3%	1	8.3%	1	0	0
Kyrene	18.4%	7	31.6%	12	21.1%	8	5.3%	2	0	0
Metro Phoenix	51.9%	14	33.3%	9	3.7%	1	11.1%	3	0	0
Tolleson	26.7%	8	26.7%	8	26.7%	8	0	0	3.3%	1
South Mountain	47.2%	25	13.2%	7	11.3%	6	9.4%	5	0	0

Site	Overall (Prenatal and Postnatal Combined)									
	#1 Did Not Respond to Outreach Efforts		#2 Moved Away		#3 Family Refused Further Services		#4 Unable to Contact		Completed Program (ranked #6)	
	%	n	%	n	%	n	%	n	%	n
Glendale	31.0%	13	11.9%	5	14.3%	6	7.1%	3	4.8%	2
Deer Valley	28.8%	15	17.3%	9	11.5%	6	9.5%	5	0	0
East/SE Tucson	42.3%	11	19.2%	5	3.8%	1	11.5%	3	0	0
SW Tucson	36.0%	9	32.0%	8	12.0%	3	4.0%	1	0	0
Bullhead City	16.0%	4	56.0%	14	16.0%	4	4.0%	1	0	0
Northwest Phoenix	32.7%	18	25.5%	14	21.8%	12	3.6%	2	1.8%	1
Tempe	48.8%	20	17.1%	7	29.3%	12	0	0	0	0
Gilbert	11.8%	4	38.2%	13	23.5%	8	11.8%	4	2.9%	2
Scottsdale	30.3%	23	25.0%	19	11.8%	9	9.2%	7	0	0
West Phoenix	31.1%	14	15.6%	7	6.7%	3	11.1%	5	0	0
East Mesa	48.4%	15	19.4%	6	3.2%	1	16.1%	5	3.2%	1
Kinlani-Flagstaff	23.3%	7	30.0%	9	26.7%	8	3.3%	1	10.0%	3
Southwest Phoenix	43.3%	13	6.7%	2	33.3%	10	3.3%	1	3.3%	1
Peoria	61.1%	22	13.9%	5	5.6%	2	0	0	0	0
Metro Tucson	34.0%	16	17.0%	8	4.3%	2	10.6%	5	0	0
Casa Family First	30.8%	12	17.9%	7	20.5%	8	5.1%	2	0	0
Wellspring	19.5%	8	31.7%	13	34.1%	14	2.4%	1	0	0
Primero Los Niños	31.8%	7	36.4%	8	22.7%	5	0	0	4.5%	1
Sierra Vista Blake	50.0%	17	23.5%	8	11.8%	4	8.8%	3	0	0
Total	31.7%	615	25.1%	486	14.1%	274	6.7%	130	4.3%	83

Health Insurance by Site at Intake – 2008
Percent and number within Site*

Site	PRENATAL						POSTNATAL					
	None		AHCCCS		Private		None		AHCCCS		Private	
	%	n	%	n	%	n	%	n	%	n	%	n
Douglas	7.7%	2	88.5%	23	0	0	1.3%	1	94.7%	71	4.0%	3
Central Phoenix	5.3%	1	84.2%	16	10.5%	2	8.0%	7	87.4%	76	3.4%	3
Maryvale	4.8%	1	90.5%	19	4.8%	1	4.9%	5	85.3%	87	9.8%	10
South Phoenix	11.8%	2	82.4%	14	5.9%	1	2.3%	2	89.5%	77	8.1%	7
East Valley	27.3%	3	72.7%	8	0	0	4.0%	4	82.8%	82	13.1%	13
Nogales	20.7%	6	72.4%	12	3.4%	1	10.4%	11	84.9%	90	3.8%	4
Page	0	0	100.0%	7	0	0	0	0	100.0%	37	0	0
Casa de los Niños	3.7%	1	96.3%	26	0	0	2.5%	2	91.1%	72	2.5%	2
CODAC	7.3%	3	85.4%	35	4.9%	2	3.0%	3	89.1%	90	5.9%	6
La Frontera	4.9%	2	90.2%	37	2.4%	1	1.0%	1	94.8%	91	3.1%	3
Sierra Vista	0	0	72.7%	8	27.3%	3	3.8%	2	67.3%	35	23.1%	12
Tuba City	0	0	93.8%	15	0	0	2.4%	1	95.2%	40	0	0
Verde Valley	12.7%	8	73.0%	46	14.3%	9	5.4%	4	86.5%	64	8.1%	6
Yuma	15.4%	2	76.9%	10	7.7%	1	1.4%	1	94.6%	70	4.1%	3
Pascua Yaqui	0	0	95.7%	45	2.1%	1	0	0	97.3%	36	2.7%	1
Lake Havasu City	2.1%	1	81.3%	39	16.7%	8	5.8%	5	88.4%	76	5.8%	5
Flagstaff	14.3%	5	71.4%	25	11.4%	4	2.4%	1	85.7%	36	11.9%	5
Sunnyslope	16.7%	5	83.3%	25	0	0	3.9%	3	84.2%	64	10.5%	8
Prescott	11.1%	2	72.2%	13	11.1%	2	3.4%	3	83.9%	99	10.2%	12
Coolidge	8.3%	1	83.3%	10	8.3%	1	1.2%	1	86.7%	72	12.0%	10
Mesa	0	0	76.2%	16	19.0%	4	5.8%	6	75.0%	78	18.3%	19
Southeast Phoenix	15.4%	2	84.6%	11	0	0	2.4%	2	88.1%	74	9.5%	8
El Mirage	10.0%	1	80.0%	8	10.0%	1	2.0%	2	70.0%	70	26.0%	26
Blake Foundation	7.1%	2	85.7%	24	7.1%	2	3.8%	4	89.4%	93	5.8%	6
Marana	4.8%	1	76.2%	16	14.3%	3	3.8%	3	85.9%	67	3.8%	3
Safford	0	0	81.3%	13	18.8%	3	0	0	87.9%	29	12.1%	4
Stanfield (Pinal)	8.3%	1	83.3%	10	8.3%	1	9.5%	2	90.5%	19	0	0
Apache Junction	7.4%	2	81.5%	22	11.1%	3	2.7%	2	80.8%	59	13.7%	10
Gila River	0	0	94.1%	16	5.9%	1	0	0	100.0%	16	0	0
Winslow	14.3%	1	85.7%	6	0	0	0	0	100.0%	29	0	0
Kingman	13.6%	3	68.2%	15	18.2%	4	2.1%	1	87.5%	42	10.4%	5
Globe/Miami	0	0	100.0%	9	0	0	0	0	83.3%	20	16.7%	4
Kyrene	8.3%	2	83.3%	20	8.3%	2	3.4%	3	78.4%	69	15.9%	14
Metro Phoenix	0	0	100.0%	10	0	0	3.1%	3	85.7%	84	11.2%	11
Tolleson	7.7%	1	84.6%	11	0	0	10.8%	9	74.7%	62	13.3%	11
South Mountain	15.8%	8	68.4%	13	15.8%	3	3.6%	4	84.8%	95	9.8%	11
Glendale	11.1%	2	88.9%	16	0	0	2.0%	2	82.8%	82	13.1%	13
Deer Valley	15.4%	2	42.6%	6	38.5%	5	4.8%	4	83.1%	69	12.0%	10

Site	PRENATAL						POSTNATAL					
	None		AHCCCS		Private		None		AHCCCS		Private	
	%	n	%	n	%	n	%	n	%	n	%	n
East/SE Tucson	2.8%	1	77.8%	28	13.9%	5	3.4%	3	85.2%	75	10.2%	9
SW Tucson	8.7%	2	91.3%	21	0	0	5.3%	4	90.7%	68	4.0%	3
Bullhead City	6.7%	1	80.0%	12	13.3%	2	8.3%	4	85.4%	41	6.3%	3
Northwest Phoenix	11.8%	2	41.2%	7	47.1%	8	6.4%	6	85.1%	80	8.5%	8
Tempe	11.1%	2	88.9%	16	0	0	3.0%	3	82.8%	82	14.1%	14
Gilbert	2.3%	1	95.5%	42	2.3%	1	4.6%	3	66.2%	43	23.1%	15
Scottsdale	0	0	84.0%	21	12.0%	3	1.6%	2	80.6%	104	17.8%	23
West Phoenix	11.8%	2	88.2%	15	0	0	5.1%	5	85.9%	85	9.1%	9
East Mesa	8.0%	2	88.0%	22	4.0%	1	1.3%	1	90.9%	70	6.5%	5
Kinlani-Flagstaff	9.3%	4	90.7%	39	0	0	0	0	86.5%	32	13.5%	5
Southwest Phoenix	7.7%	1	84.6%	11	0	0	2.5%	2	83.8%	67	13.8%	11
Peoria	16.7%	3	72.2%	13	5.6%	1	1.5%	1	79.4%	54	17.6%	12
Metro Tucson	7.7%	2	84.6%	22	3.8%	1	5.8%	5	87.2%	75	4.7%	4
Casa Family First	11.4%	4	80.0%	28	2.9%	1	0	0	91.5%	86	7.4%	7
Wellspring	11.1%	3	77.8%	21	7.4%	2	0	0	88.4%	38	11.6%	5
Primero Los Niños	16.7%	1	83.3%	5	0	0	7.8%	5	89.1%	57	3.1%	2
Sierra Vista Blake	4.8%	1	66.7%	14	23.8%	5	7.5%	4	64.2%	34	24.5%	13
Total	8.1%	100	82.3%	1021	8.0%	99	3.7%	153	85.1%	3513	10.1%	416

*"Other" insurance percentages are not listed in this table but can be estimated by subtracting the sum of the other insurance categories from 100.

Later or No Prenatal Care or Poor Compliance at Intake
2008 by Site
Percent and number ( ) within Site

Did the mother have late or no prenatal care or poor compliance with prenatal care?

Site	PRENATAL			POSTNATAL		
	Yes	No	Unknown	Yes	No	Unknown
Douglas	44.4% (12)	55.6% (15)	0	33.3% (25)	64.0% (48)	2.7% (2)
Central Phoenix	21.1% (4)	78.9% (15)	0	40.9% (36)	56.8% (50)	2.3% (2)
Maryvale	47.6% (10)	47.6% (10)	4.8% (1)	30.1% (31)	68.0% (70)	1.9% (2)
South Phoenix	22.2% (4)	72.2% (13)	5.6% (1)	36.5% (31)	57.6% (49)	5.9% (5)
East Valley	33.3% (4)	66.7% (8)	0	44.0% (44)	50.0% (50)	6.0% (6)
Nogales	32.3% (10)	51.8% (18)	9.7% (3)	52.7% (59)	42.9% (48)	4.5% (5)
Page	14.3% (1)	85.7% (6)	0	27.0% (10)	73.0% (27)	0
Casa de los Niños	25.0% (7)	75.0% (21)	0	35.0% (28)	65.0% (52)	0
CODAC	33.3% (15)	66.7% (30)	0	34.0% (35)	65.0% (67)	1.0% (1)
La Frontera	45.2% (19)	54.8% (23)	0	35.4% (34)	62.5% (60)	2.1% (2)
Sierra Vista	53.8% (7)	46.2% (6)	0	43.5% (27)	54.8% (34)	1.6% (1)
Tuba City	35.0% (4)	75.0% (12)	0	38.6% (17)	56.8% (25)	4.5% (2)
Verde Valley	19.0% (12)	81.0% (51)	0	34.7% (26)	61.3% (46)	4.0% (3)
Yuma	53.3% (8)	46.7% (7)	0	35.5% (27)	64.5% (49)	0
Pascua Yaqui	12.0% (6)	88.0% (44)	0	10.3% (4)	89.7% (35)	0
Lake Havasu City	38.8% (19)	57.1% (28)	4.1% (2)	37.2% (32)	55.8% (48)	7.0% (6)
Flagstaff	28.2% (11)	71.8% (28)	0	23.9% (11)	76.1% (35)	0
Sunnyslope	28.1% (9)	62.5% (20)	9.4% (3)	32.1% (25)	62.8% (49)	5.1% (78)
Prescott	30.0% (6)	55.0% (11)	15.0% (3)	49.6% (64)	44.2% (57)	6.2% (8)
Coolidge	50.0% (6)	50.0% (6)	0	47.0% (39)	53.0% (44)	0
Mesa	36.4% (8)	59.1% (13)	4.5% (1)	34.6% (36)	61.5% (64)	3.8% (4)
Southeast Phoenix	38.5% (5)	61.5% (8)	0	40.0% (34)	60.0% (51)	0
El Mirage	50.0% (5)	50.0% (5)	0	30.0% (30)	67.0% (67)	3.0% (0)
Blake Foundation	32.1% (9)	67.9% (19)	0	39.0% (41)	56.2% (59)	4.8% (5)
Marana	22.7% (5)	72.7% (16)	4.5% (1)	28.2% (22)	70.5% (55)	1.3% (1)
Safford	10.5% (2)	89.5% (17)	0	13.9% (5)	86.1% (31)	0
Stanfield (Pinal)	36.4% (4)	63.6% (7)	0	56.5% (13)	43.5% (10)	0
Apache Junction	44.4% (12)	48.1% (13)	7.4% (2)	40.5% (30)	58.1% (43)	1.4% (1)
Gila River	44.4% (8)	55.6% (10)	0	50.0% (8)	50.0% (8)	0
Winslow	75.0% (6)	25.0% (2)	0	39.3% (11)	60.7% (17)	0
Kingman	36.4% (8)	63.6% (14)	0	26.1% (12)	58.7% (27)	15.2% (7)
Globe/Miami	44.4% (4)	55.6% (5)	0	29.2% (7)	62.5% (15)	8.3% (2)
Kyrene	33.3% (8)	62.5% (15)	4.2% (1)	38.2% (34)	56.2% (50)	5.6% (5)
Metro Phoenix	20.0% (2)	80.0% (8)	0	43.4% (43)	53.5% (53)	3.0% (3)
Tolleson	46.2% (6)	53.8% (7)	0	41.2% (35)	52.9% (45)	5.9% (5)
South Mountain	45.0% (9)	50.0% (10)	5.0% (1)	36.3% (41)	61.1% (69)	2.7% (3)
Glendale	38.9% (7)	50.0% (9)	11.1% (2)	27.0% (27)	67.0% (67)	6.0% (6)
Deer Valley	15.4% (2)	76.9% (10)	7.7% (1)	26.8% (22)	72.0% (59)	1.2% (1)
East/SE Tucson	25.0% (9)	75.0% (27)	0	21.6% (19)	77.3% (66)	1.1% (1)

Site	PRENATAL			POSTNATAL		
	Yes	No	Unknown	Yes	No	Unknown
SW Tucson	45.85 (11)	54.2% (13)	0	38.2% (29)	61.8% (47)	0
Bullhead City	26.7% (4)	73.3% (11)	0	26.9% (14)	71.2% (37)	1.9% (1)
Northwest Phoenix	11.8% (2)	88.2% (15)	0	44.8% (43)	53.1% (51)	2.1% (2)
Tempe	33.3% (6)	66.7% (12)	0	42.0% (42)	56.0% (56)	2.0% (2)
Gilbert	50.0% (24)	50.0% (24)	0	23.4% (15)	71.9% (46)	4.7% (3)
Scottsdale	24.0% (6)	68.0% (17)	8.0% (2)	32.6% (42)	62.0% (80)	5.4% (7)
West Phoenix	23.5% (4)	64.7% (11)	11.8% (2)	26.3% (26)	69.7% (69)	4.0% (4)
East Mesa	55.6% (15)	40.7% (11)	3.7% (1)	48.8% (39)	45.0% (36)	6.3% (5)
Kinlani-Flagstaff	34.7% (17)	63.3% (31)	2.0% (1)	30.8% (12)	69.2% (27)	0
Southwest Phoenix	38.5% (5)	61.5% (8)	0	34.6% (28)	59.3% (48)	6.2% (5)
Peoria	33.3% (6)	61.1% (11)	5.6% (1)	21.7% (15)	75.4% (52)	2.9% (2)
Metro Tucson	19.2% (5)	80.8% (21)	0	26.1% (23)	72.7% (64)	1.1% (1)
Casa Family First	42.9% (15)	57.1% (20)	0	29.5% (28)	69.5% (66)	1.1% (1)
Wellspring	27.6% (8)	69.0% (20)	3.4% (1)	24.4% (11)	75.5% (34)	0
Primero Los Niños	42.9% (3)	57.1% (4)	0	39.1% (25)	60.9% (39)	0
Sierra Vista Blake	29.6% (8)	63.0% (17)	7.4% (2)	32.3% (20)	61.3% (38)	6.5% (4)
Total	33.3% (432)	64.2% (833)	2.5% (32)	35.3% (1487)	61.5% (2591)	3.2% (133)

PRENATAL Ethnicity of Mother by Site – 2008
Percent and number (n) within Site

Site	Mixed/Other		Caucasian/ White		Hispanic		African American		Asian American		Native American	
	%	n	%	n	%	n	%	n	%	n	%	n
Douglas	7.4%	2	7.4%	2	81.5%	22	0	0	0	0	3.7%	1
Central Phoenix	10.5%	2	36.8%	7	42.1%	8	10.5%	2	0	0	0	0
Maryvale	4.8%	1	23.8%	5	61.9%	13	9.5%	2	0	0	0	0
South Phoenix	11.1%	2	11.1%	2	61.1%	11	16.7%	3	0	0	0	0
East Valley	0	0	8.3%	1	75.0%	9	16.7%	2	0	0	0	0
Nogales	0	0	9.7%	3	83.9%	26	6.5%	2	0	0	0	0
Page	0	0	20.0%	1	0	0	0	0	0	0	80.0%	4
Casa de los Niños	7.1%	2	10.75	3	75.0%	21	3.6%	1	0	0	3.6%	1
CODAC	15.6%	4	13.6%	6	72.7%	32	2.3%	1	0	0	2.3%	1
La Frontera	2.4%	1	7.3%	3	73.2%	30	14.6%	6	0	0	2.4%	1
Sierra Vista	15.4%	2	38.5%	5	38.5%	5	0	0	7.7%	1	0	0
Tuba City	6.3%	1	0	0	0	0	0	0	0	0	93.8%	15
Verde Valley	4.9%	3	57.4%	35	34.4%	21	0	0	0	0	3.3%	3
Yuma	0	0	6.7%	1	86.7%	13	6.7%	1	0	0	0	0
Pascua Yaqui	10.5%	5	2.1%	1	4.2%	2	0	0	4.2%	2	79.2%	38
Lake Havasu City	6.1%	3	77.6%	38	10.2%	5	4.1%	2	0	0	2.0%	1
Flagstaff	2.5%	1	37.5%	15	37.5%	15	2.5%	10	0	0	20.0%	8
Sunnyslope	9.4%	3	25.0%	8	53.1%	17	9.4%	3	0	0	3.1%	1
Prescott	5.0%	1	65.0%	13	25.0%	5	5.0%	1	0	0	0	0
Coolidge	15.4%	2	23.1%	3	53.8%	7	0	0	0	0	7.7%	1
Mesa	0	0	36.4%	8	59.1%	13	0	0	0	0	4.5%	1
Southeast Phoenix	14.2%	2	7.1%	1	50.0%	7	21.4%	3	0	0	7.1%	1
El Mirage	10.0%	1	10.0%	1	50.0%	5	20.0%	2	0	0	10.0%	1
Blake Foundation	3.6%	1	7.1%	2	78.6%	22	3.6%	1	7.1%	2	0	0
Marana	9.0%	2	36.4%	8	45.5%	10	0	0	0	0	9.1%	2
Safford	0	0	63.2%	12	31.6%	6	5.3%	1	0	0	0	0
Stanfield	8.3%	1	25.0%	3	33.3%	4	16.7%	2	0	0	16.7%	2
Apache Junction	3.7%	1	70.4%	19	22.2%	6	0	0	3.7%	1	0	0
Gila River	0	0	11.1%	2	0	0	0	0	0	0	89.9%	16
Winslow	12.5%	1	37.5%	3	25.0%	2	0	0	0	0	25.0%	2
Kingman	4.5%	1	90.9%	20	0	0	0	0	4.5%	1	0	0
Globe/Miami	0	0	37.5%	3	25.0%	2	0	0	0	0	37.5%	3
Kyrene	4.2%	1	16.7%	4	66.7%	16	0	0	0	0	12.5%	3
Metro Phoenix	30.0%	3	40.0%	4	30.0%	3	0	0	0	0	0	0
Tolleson	0	0	15.4%	2	84.6%	11	0	0	0	0	0	0
South Mountain	10%	2	10.0%	2	75.0%	15	5.0%	1	0	0	0	0
Glendale	5.6%	1	44.4%	8	33.3%	6	16.7%	3	0	0	0	0
Deer Valley	7.7%	1	38.5%	5	53.8%	7	0	0	0	0	0	0
East/SE Tucson	2.8%	1	36.1%	13	41.7%	15	16.7%	6	2.8%	1	0	0
SW Tucson	4.2%	1	8.3%	2	87.5%	21	0	0	0	0	0	0
Bullhead City	7.1%	1	64.3%	9	14.3%	2	7.1%	1	0	0	7.1%	1
Northwest Phoenix	11.8%	2	23.5%	4	47.1%	8	11.8%	2	5.9%	1	0	0
Tempe	22.2%	4	22.4%	4	38.9%	7	16.7%	3	0	0	0	0
Gilbert	10.4%	5	64.6%	31	18.8%	9	0	0	0	0	6.3%	3
Scottsdale	4.2%	1	41.7%	10	41.7%	10	8.3%	2	4.2%	1	0	0
West Phoenix	5.9%	1	17.6%	3	76.5%	13	0	0	0	0	0	0
East Mesa	7.4%	2	25.9%	7	66.7%	18	0	0	0	0	0	0

Site	Mixed/Other		Caucasian/ White		Hispanic		African American		Asian American		Native American	
	%	n	%	n	%	n	%	n	%	n	%	n
Kinlani-Flagstaff	0	0	12.2%	6	61.2%	30	0	0	0	0	26.5%	13
Southwest Phoenix	7.7%	1	7.7%	1	76.9%	10	7.7%	1	0	0	0	0
Peoria	5.6%	1	33.3%	6	55.6%	10	5.6%	1	0	0	0	0
Metro Tucson	3.8%	1	38.5%	10	50.0%	13	3.8%	1	0	0	3.8%	1
Casa Family First	0	0	20.0%	7	71.4%	25	2.9%	1	0	0	5.7%	2
Wellspring	7.2%	2	25.0%	7	28.6%	8	3.6%	1	0	0	35.7%	10
Primero Los Niños	0	0	16.7%	1	83.3%	5	0	0	0	0	0	0
Sierra Vista Blake	0	0	70.4%	19	22.2%	6	7.4%	2	0	0	0	0
Total	5.9%	76	31.0%	399	47.1%	607	4.7%	61	.8%	10	10.5%	135

POSTNATAL Ethnicity of Mother by Site – 2008
Percent and number ( ) within Site

Site	Mixed/Other		Caucasian/ White		Hispanic		African American		Asian American		Native American	
	%	n	%	n	%	n	%	n	%	n	%	n
Douglas	2.6%	2	8.0%	6	88.0%	66	0	0	1.3%	1	0	0
Central Phoenix	2.2%	2	20.2%	18	69.7%	62	5.6%	5	0	0	2.2%	2
Maryvale	3.0%	3	18.4%	19	66.0%	68	9.7%	10	1.0%	1	1.9%	2
South Phoenix	4.8%	4	16.5%	14	57.6%	49	18.8%	16	1.2%	1	1.2%	1
East Valley	3.0%	3	34.3%	34	52.5%	52	7.1%	7	1.0%	1	2.0%	2
Nogales	0	0	.9%	1	98.2%	110	0	0	0	0	.9%	1
Page	0	0	2.9%	1	0	0	0	0	0	0	97.1%	34
Casa de los Niños	1.3%	1	13.8%	11	75.0%	60	2.5%	2	2.5%	2	5.0%	4
CODAC	7.9%	8	25.5%	26	60.8%	62	2.0%	2	1.0%	1	2.9%	3
La Frontera	8.3%	8	14.6%	14	71.9%	69	4.2%	4	0	0	1.0%	1
Sierra Vista	4.8%	3	43.5%	27	48.4%	30	3.2%	2	0	0	0	0
Tuba City	2.3%	1	0	0	0	0	0	0	2.3%	1	95.5%	42
Verde Valley	0	0	52.1%	38	42.5%	31	1.4%	1	0	0	4.1%	3
Yuma	3.2%	2	4.7%	3	89.1%	57	1.6%	1	1.6%	1	0	0
Pascua Yaqui	13.1%	5	0	0	15.8%	6	2.6%	1	2.6%	1	65.8%	25
Lake Havasu City	8.2%	7	45.3%	39	40.7%	35	0	0	0	0	5.8%	5
Flagstaff	11.1%	5	33.3%	15	35.6%	16	0	0	0	0	20.0%	9
Sunnyslope	7.7%	6	33.3%	26	52.6%	41	5.1%	4	0	0	1.3%	1
Prescott	3.1%	4	43.4%	56	51.2%	66	.8%	1	.8%	1	.8%	1
Coolidge	0	0	33.3%	27	51.9%	42	3.7%	3	0	0	11.1%	9
Mesa	7.7%	8	30.5%	32	55.2%	58	3.8%	4	1.0%	1	1.9%	2
Southeast Phoenix	2.4%	2	14.3%	12	72.6%	61	8.3%	7	0	0	2.4%	2
El Mirage	8.0%	8	38.4%	38	42.4%	42	7.1%	7	3.0%	3	1.0%	1
Blake Foundation	5.9%	6	24.5%	25	62.7%	64	6.9%	7	0	0	0	0
Marana	11.5%	9	35.9%	28	48.7%	38	2.6%	2	0	0	1.3%	1
Safford	5.9%	2	64.7%	22	23.5%	8	5.9%	2	0	0	0	0
Stanfield	4.5%	1	22.7%	5	50.0%	11	13.6%	3	0	0	9.1%	2
Apache Junction	1.4%	1	60.3%	44	34.2%	25	2.7%	2	0	0	1.4%	1
Gila River	0	0	12.5%	2	0	0	0	0	0	0	87.5%	14
Winslow	3.4%	1	10.3%	3	17.2%	5	6.9%	2	0	0	62.1%	18
Kingman	6.8%	3	77.3%	34	13.6%	2	0	0	2.3%	1	0	0
Globe/Miami	9.1%	2	50.0%	11	9.1%	2	0	0	0	0	31.8%	7
Kyrene	2.2%	2	24.7%	22	59.6%	53	5.6%	5	1.1%	1	6.7%	6
Metro Phoenix	5.0%	5	27.3%	27	52.5%	52	11.1%	11	0	0	4.0%	4
Tolleson	1.2%	1	8.2%	7	83.5%	71	5.9%	5	0	0	1.2%	1
South Mountain	3.6%	4	9.8%	11	74.1%	83	8.9%	10	.9%	1	2.7%	3
Glendale	7.0%	7	35.0%	35	48.0%	48	7.0%	7	1.0%	1	2.0%	2
Deer Valley	6.0%	5	42.4%	35	44.6%	37	3.6%	3	2.4%	2	1.2%	1
East/SE Tucson	8.4%	7	36.9%	31	45.2%	38	6.0%	5	1.2%	1	2.4%	2
SW Tucson	1.4%	1	6.8%	5	86.5%	64	2.7%	2	0	0	2.7%	2
Bullhead City	8.0%	4	64.0%	32	26.0%	13	2.0%	1	0	0	0	0
Northwest Phoenix	8.2%	8	39.6%	38	40.6%	39	7.3%	7	0	0	4.2%	4
Tempe	9.0%	9	27.0%	27	55.0%	55	5.0%	5	1.0%	1	3.0%	3
Gilbert	7.7%	5	58.5%	38	21.5%	14	6.2%	4	0	0	6.2%	4
Scottsdale	10.1%	13	44.2%	57	36.4%	47	4.7%	6	0	0	4.7%	6

Site	Mixed/Other		Caucasian/ White		Hispanic		African American		Asian American		Native American	
	%	n	%	n	%	n	%	n	%	n	%	n
West Phoenix	5.1%	5	15.3%	15	67.3%	66	8.2%	8	2.0%	2	2.0%	2
East Mesa	0	0	16.0%	13	80.2%	65	1.2%	1	0	0	2.5%	2
Kinlani-Flagstaff	2.6%	1	20.5%	8	33.3%	13	2.6%	1	0	0	41.0%	16
Southwest Phoenix	4.9%	4	14.8%	12	67.9%	55	9.9%	8	0	0	2.5%	2
Peoria	2.8%	2	37.1%	26	50.0%	35	7.1%	5	0	0	2.9%	2
Metro Tucson	8.1%	7	29.1%	25	50.0%	43	8.1%	7	2.3%	2	2.3%	2
Casa Family First	6.4%	6	26.6%	25	59.6%	56	5.3%	5	1.1%	1	1.1%	1
Wellspring	6.8%	3	43.2%	19	13.6%	6	0	0	2.3%	1	34.1%	15
Primero Los Niños	0	0	1.8%	1	96.4%	54	0	0	1.8%	1	0	0
Sierra Vista Blake	6.5%	4	44.3%	27	31.1%	19	14.8%	9	3.3%	2	0	0
Total	5.0%	210	28.1%	1167	54.5%	2268	5.0%	210	.8%	32	6.6%	273

Gestational Age by Site – 2008
(Number and Percent within Site)

Was the gestational age less than 37 weeks?

Site	PRENATAL				POSTNATAL			
	No		Yes		No		Yes	
	%	n	%	n	%	n	%	n
Douglas	100%	2	0	0	73.7%	14	28.3%	5
Central Phoenix	100%	6	0	0	73.6%	53	26.4%	19
Maryvale	75%	12	25%	4	68.9%	62	31.1%	28
South Phoenix	75%	9	25%	3	77.8%	63	22.2%	18
East Valley	100%	1	0	0	62.1%	54	37.9%	33
Nogales	91.7%	11	8.3%	1	84.3%	43	15.7%	8
Page	100%	5	0	0	94.1%	32	5.9%	2
Casa de los Niños	95.2%	20	4.8%	1	78.1%	50	21.9%	14
CODAC	86.2%	25	13.8%	4	82.1%	64	17.9%	14
La Frontera	95.8%	23	4.2%	1	84.0%	68	16.0%	13
Sierra Vista	100%	8	0	0	90.4%	47	9.6%	5
Tuba City	84.6%	11	15.4%	2	79.3%	23	20.7%	6
Verde Valley	88.9%	40	11.1%	5	91.8%	56	8.2%	5
Yuma	100%	5	0	0	93.4%	57	6.6%	4
Pascua Yaqui	81.8%	9	18.2%	2	96.2%	25	3.8%	1
Lake Havasu City	89.3%	25	10.7%	3	83.8%	62	16.2%	12
Flagstaff	85.0%	17	15.0%	3	67.6%	23	32.4%	11
Sunnyslope	60.0%	6	40.0%	4	69.7%	46	30.3%	20
Prescott	76.5%	13	23.5%	4	91.3%	105	8.7%	10
Coolidge	75.0%	3	25.0%	1	82.3%	51	17.7%	11
Mesa	71.4%	5	28.6%	2	75.3%	70	24.7%	23
Southeast Phoenix	87.5%	7	12.5%	1	74.6%	53	25.4%	18
El Mirage	75.0%	3	25.0%	1	70.8%	63	29.2%	26
Blake Foundation	68.4%	13	31.6%	6	84.2%	64	15.8%	12
Marana	72.7%	8	27.3%	3	74.6%	44	25.4%	15
Safford	88.9%	8	11.1%	1	94.4%	17	5.6%	1
Stanfield	90.0%	9	10.0%	1	80.0%	16	20.0%	4
Apache Junction	92.3%	12	7.7%	1	79.7%	47	20.3%	12
Gila River	81.8%	9	18.2%	2	100%	15	0	0
Winslow	100%	4	0	0	88.9%	24	11.1%	3
Kingman	100%	2	0	0	89.5%	34	10.5%	4
Globe/Miami	66.7%	4	32.3%	2	90.0%	18	10.0%	2
Kyrene	81.8%	9	18.2%	2	79.2%	61	20.8%	16
Metro Phoenix	100%	2	0	0	71.3%	62	28.7%	25

Site	PRENATAL				POSTNATAL			
	No		Yes		No		Yes	
	%	n	%	n	%	n	%	n
Tolleson	100%	3	0	0	85.1%	63	14.9%	11
South Mountain	75.0%	9	25.0%	3	77.7%	80	22.3%	23
Glendale	75.0%	6	25.0%	2	75.6%	59	24.4%	19
Deer Valley	83.3%	5	16.7%	1	77.0%	47	23.0%	14
East/SE Tucson	80.0%	16	20.0%	4	69.5%	41	30.5%	18
SW Tucson	63.6%	7	36.4%	4	89.4%	59	10.6%	7
Bullhead City	0	0	100%	1	76.5%	13	23.5%	4
Northwest Phoenix	40.0%	2	60.0%	3	67.9%	57	32.1%	27
Tempe	60.0%	3	40.0%	2	77.8%	70	22.2%	20
Gilbert	89.5%	34	10.5%	4	60.3%	35	39.7%	23
Scottsdale	75.0%	9	25.0%	3	75.2%	85	24.8%	28
West Phoenix	100%	11	0	0	73.3%	55	26.7%	20
East Mesa	86.7%	13	13.3%	2	69.6%	48	30.4%	21
Kinlani-Flagstaff	84.4%	27	15.5%	5	95.8%	23	4.2%	1
Southwest Phoenix	50.0%	2	50.0%	2	80.3%	57	19.7%	14
Peoria	85.7%	6	14.3%	1	81.0%	51	19.0%	12
Metro Tucson	70.6%	12	29.4%	5	85.3%	64	14.7%	11
Casa Family First	78.3%	18	21.7%	5	83.1%	64	16.9%	13
Wellspring	94.1%	16	5.9%	1	89.5%	17	10.5%	2
Primero Los Niños	66.7%	2	33.3%	1	87.5%	42	12.5%	6
Sierra Vista Blake	78.6%	11	21.4%	3	84.9%	45	15.1%	8
Total	83.3%	558	16.7%	112	79.1%	2,661	20.9%	702

Low Birth Weight by Site – 2008
(Number and Percent within Site)

Did the child have low birth weight?
(less than 2500 grams, 88 ounces, or 5.5 pounds)

Site	PRENATAL				POSTNATAL			
	No		Yes		No		Yes	
	%	n	%	n	%	n	%	n
Douglas	100%	5	0	0	85.1%	63	14.9%	11
Central Phoenix	100%	5	0	0	76.1%	67	23.9%	21
Maryvale	87.5%	14	12.5%	2	71.8%	74	28.2%	29
South Phoenix	80.0%	8	20.0%	2	74.1%	63	25.9%	22
East Valley	100%	1	0	0	79.4%	77	20.6%	20
Nogales	78.9%	15	21.1%	4	90.2%	101	9.8%	11
Page	60.0%	3	40.0%	2	91.9%	34	8.1%	3
Casa de los Niños	90.0%	18	10.0%	2	83.3%	65	16.7%	13
CODAC	90.3%	28	9.7%	3	89.0%	89	11.0%	11
La Frontera	92.3%	24	7.7%	2	86.3%	82	13.7%	13
Sierra Vista	100%	11	0	0	86.9%	53	13.1%	8
Tuba City	92.9%	13	7.1%	1	90.9%	40	9.1%	4
Verde Valley	95.6%	43	4.4%	2	93.3%	70	6.7%	5
Yuma	100%	7	0	0	92.0%	69	8.0%	6
Pascua Yaqui	91.3%	21	8.7%	2	97.3%	36	2.7%	1
Lake Havasu City	91.7%	33	8.3%	3	86.0%	74	14.0%	12
Flagstaff	89.5%	17	10.5%	2	75.6%	34	24.4%	11
Sunnyslope	75.0%	9	25.0%	3	85.7%	66	14.3%	11
Prescott	77.8%	14	22.2%	4	93.8%	121	6.2%	8
Coolidge	100%	7	0	0	86.7%	72	13.3%	11
Mesa	50.0%	4	50.0%	4	84.8%	89	15.2%	16
Southeast Phoenix	88.9%	8	11.1%	1	84.1%	69	15.9%	13
El Mirage	80.0%	4	20.0%	1	79.0%	79	21.0%	21
Blake Foundation	72.7%	16	27.3%	6	88.1%	89	11.9%	12
Marana	66.7%	8	33.3%	4	88.3%	68	11.7%	9
Safford	75.0%	9	25.0%	3	88.9%	32	11.1%	4
Stanfield	70.0%	7	30.0%	3	81.0%	17	19.0%	4
Apache Junction	93.3%	14	6.7%	1	87.8%	65	12.2%	9
Gila River	83.3%	10	16.7%	2	100%	16	0	0
Winslow	100%	3	0	0	92.9%	26	7.1%	2
Kingman	100%	5	0	0	95.7%	44	4.3%	2
Globe/Miami	85.7%	6	14.3%	1	95.7%	22	4.3%	1
Kyrene	86.7%	13	13.3%	2	81.8%	72	18.2%	16
Metro Phoenix	100%	2	0	0	76.8%	76	23.2%	23

Site	PRENATAL				POSTNATAL			
	No		Yes		No		Yes	
	%	n	%	n	%	n	%	n
Tolleson	100%	3	0	0	85.7%	72	14.3%	12
South Mountain	81.8%	9	18.2%	2	85.5%	94	14.5%	16
Glendale	80.0%	8	20.0%	2	81.0%	81	19.0%	19
Deer Valley	85.7%	6	14.3%	1	81.9%	68	18.1%	15
East/SE Tucson	94.4%	17	5.6%	1	80.0%	68	20.0%	17
SW Tucson	88.9%	16	11.1%	2	90.7%	68	9.3%	7
Bullhead City	100%	8	0	0	83.0%	39	17.0%	8
Northwest Phoenix	80.0%	4	20.0%	1	74.7%	71	25.3%	24
Tempe	66.7%	6	33.3%	3	80.0%	80	20.0%	20
Gilbert	84.2%	32	15.8%	6	72.3%	47	27.7%	18
Scottsdale	88.2%	15	11.8%	2	81.7%	103	18.3%	23
West Phoenix	92.9%	13	7.1%	1	79.6%	78	20.4%	20
East Mesa	85.7%	12	14.3%	2	71.4%	55	28.6%	22
Kinlani-Flagstaff	85.7%	30	14.3%	5	89.7%	35	10.3%	4
Southwest Phoenix	75.0%	3	25.0%	1	85.2%	69	14.8%	12
Peoria	90.0%	9	10.0%	1	87.0%	60	13.0%	9
Metro Tucson	75.0%	15	25.0%	5	91.5%	75	8.5%	7
Casa Family First	79.3%	23	20.7%	6	89.2%	83	10.8%	10
Wellspring	94.7%	18	5.3%	1	79.5%	35	20.5%	9
Primero Los Niños	100%	4	0	0	92.3%	60	7.7%	5
Sierra Vista Blake	89.5%	17	10.5%	2	85.5%	53	14.5%	9
Total	86.4%	673	13.6%	106	84.4%	3,508	15.6%	649

Yearly Income by Site – 2008

Site	PRENATAL		POSTNATAL	
	Median Yearly Income	Number	Median Yearly Income	Number
Douglas	$2,160	23	$7.140	68
Central Phoenix	$11,880	12	$10,800	65
Maryvale	$16,800	17	$9,600	64
South Phoenix	$12,000	12	$13,800	54
East Valley	$15,600	10	$14,400	63
Nogales	$9,600	25	$10,200	91
Page	$4,320	7	$12,000	33
Casa de los Niños	$13,200	23	$12,000	62
CODAC	$9,800	36	$10,800	91
La Frontera	$11,400	38	$10,800	81
Sierra Vista	$3,936	10	$5,070	56
Tuba City	$10,600	8	$10,000	25
Verde Valley	$11,520	57	$12,000	72
Yuma	$2,040	11	$9,000	64
Pascua Yaqui	$7,200	41	$7,110	36
Lake Havasu City	$16,800	44	$18,000	79
Flagstaff	$12,00	40	$14,400	41
Sunnyslope	$10,600	22	$16,800	55
Prescott	$16,800	11	$16,300	44
Coolidge	$5,016	3	$7,200	47
Mesa	$13,960	18	$14,300	75
Southeast Phoenix	$14,040	10	$12,000	52
El Mirage	$14,400	7	$20,000	63
Blake Foundation	$9,600	25	$13,800	77
Marana	$18,000	17	$15,600	50
Safford	$10,800	15	$13,260	34
Stanfield	$14,400	5	$3,000	16
Apache Junction	$13,200	21	$15,864	63
Gila River	$4,560	15	$7,188	12
Winslow	$9,600	7	$7,338	26
Kingman	$20,400	15	$11,400	30
Globe/Miami	$12,600	8	$7,200	16
Kyrene	$13,200	17	$14,400	60
Metro Phoenix	$1,440	7	$10,320	71
Tolleson	$15,600	10	$15,036	72
South Mountain	$15,600	11	$13,200	71
Glendale	$13,200	15	$18,700	66
Deer Valley	$21,120	11	$14,400	49
East/SE Tucson	$14,400	31	$13,200	65
SW Tucson	$12,600	22	$13,000	67
Bullhead City	$6,000	9	$14,480	32

Site	PRENATAL		POSTNATAL	
	Median Yearly Income	Number	Median Yearly Income	Number
Northwest Phoenix	$19,200	13	$14,400	65
Tempe	$9,600	15	$15,000	64
Gilbert	0 *	26	$16,800	38
Scottsdale	$12,600	14	$14,400	71
West Phoenix	$17,640	14	$17,040	72
East Mesa	$15,520	18	$16,180	58
Kinlani-Flagstaff	$9,600	45	$14,400	36
Southwest Phoenix	$11,622	8	$15,600	57
Peoria	$7,680	11	$19,200	53
Metro Tucson	$7,200	21	$12,000	74
Casa Family First	$10,140	31	$13,476	73
Wellspring	$12,000	24	$8,960	40
Primero Los Niños	$12,000	3	$9,816	54
Sierra Vista Blake	$6,480	25	$15,600	53
Total	$11,832	1,014	$13,200	3,066

*17 families reported no income

Parent Survey Score by Site – 2008

Site	PRENATAL			POSTNATAL		
	Mean Score	Percent of mothers whose score was greater than 40	Number of mothers whose score was greater than 40	Mean Score	Percent of mothers whose score was greater than 40	Number of mothers whose score was greater than 40
Douglas	40.93	63.0%	17	36.07	37.3%	28
Central Phoenix	54.74	89.5%	17	46.18	71.9%	64
Maryvale	50.00	76.2%	16	45.49	68.9%	71
South Phoenix	46.67	66.7%	12	44.94	66.3%	57
East Valley	45.00	58.3%	7	42.65	63.0%	63
Nogales	41.29	51.6%	16	35.49	39.3%	44
Page	49.29	85.7%	6	33.24	27.0%	10
Casa de los Niños	43.57	57.1%	16	37.00	40.0%	32
CODAC	41.00	51.1%	23	38.69	54.4%	56
La Frontera	42.14	59.5%	25	39.01	46.9%	45
Sierra Vista	41.15	46.2%	6	36.61	41.9%	26
Tuba City	36.25	56.3%	9	33.30	34.1%	15
Verde Valley	37.78	46.0%	29	39.13	53.3%	40
Yuma	37.00	46.7%	7	31.88	20.8%	16
Pascua Yaqui	31.60	22.0%	11	32.95	28.2%	11
Lake Havasu City	48.70	73.5%	36	39.65	50.0%	43
Flagstaff	39.50	52.5%	21	41.63	60.9%	28
Sunnyslope	41.41	53.1%	17	41.22	59.0%	46
Prescott	51.00	80.0%	16	38.41	41.1%	53
Coolidge	42.69	61.5%	8	37.77	47.0%	39
Mesa	50.00	81.8%	18	40.42	50.9%	54
Southeast Phoenix	36.79	50.0%	7	44.41	64.7%	55
El Mirage	43.50	80.0%	8	41.90	64.0%	64
Blake Foundation	45.18	64.3%	18	40.57	48.6%	51
Marana	45.00	68.2%	15	38.46	47.4%	37
Safford	32.63	36.8%	7	28.19	22.2%	8
Stanfield	44.58	83.3%	10	36.96	39.1%	9
Apache Junction	53.33	92.6%	25	47.09	71.6%	53
Gila River	42.50	55.6%	10	37.19	50.0%	8
Winslow	38.13	50.0%	4	36.11	51.7%	15
Kingman	48.64	77.3%	17	45.64	64.6%	31
Globe/Miami	30.56	55.6%	5	37.27	41.7%	10
Kyrene	41.67	50.0%	12	45.67	69.7%	62
Metro Phoenix	42.00	70.0%	7	47.73	74.7%	74

Site	PRENATAL			POSTNATAL		
	Mean Score	Percent of mothers whose score was greater than 40	Number of mothers whose score was greater than 40	Mean Score	Percent of mothers whose score was greater than 40	Number of mothers whose score was greater than 40
Tolleson	37.69	38.5%	5	40.00	50.6%	43
South Mountain	43.50	75.0%	15	45.00	69.0%	78
Glendale	56.94	88.9%	16	43.45	62.0%	62
Deer Valley	35.00	30.8%	4	45.06	68.7%	57
East/SE Tucson	41.53	52.8%	19	41.76	54.5%	48
SW Tucson	35.42	41.7%	10	35.86	39.5%	30
Bullhead City	50.33	80.0%	12	43.37	59.6%	31
Northwest Phoenix	42.35	58.8%	10	48.23	77.1%	74
Tempe	52.22	83.3%	15	45.40	74.0%	74
Gilbert	59.79	95.8%	46	43.77	69.2%	45
Scottsdale	50.20	76.0%	19	47.09	72.1%	93
West Phoenix	43.53	64.7%	11	41.52	55.6%	55
East Mesa	48.89	74.1%	20	41.79	58.0%	47
Kinlani-Flagstaff	43.78	69.4%	34	40.51	51.3%	20
Southwest Phoenix	58.08	92.3%	12	43.27	65.4%	53
Peoria	43.33	61.1%	11	43.79	62.9%	44
Metro Tucson	47.88	80.8%	21	44.03	64.8%	57
Casa Family First	44.31	66.7%	24	39.11	46.3%	44
Wellspring	41.72	65.5%	19	40.89	46.7%	21
Primero Los Niños	38.57	42.9%	3	35.23	31.8%	21
Sierra Vista Blake	45.37	66.7%	18	36.69	43.5%	27
Total	43.99	63.1%	822	41.17	55.4%	2,342

Trimester of Enrollment into Prenatal Program
July 2007 to June 2008

(includes all families, even those that did not engage)

Site	1st Trimester		2nd Trimester		3rd Trimester		Post-birth		Total
	#	%	#	%	#	%	#	%	#
Douglas	4	14.8%	11	40.7%	11	40.7%	1	3.7%	27
Central Phoenix	2	10.5%	4	21.1%	13	68.4%	0	0%	19
Maryvale	2	9.5%	7	33.3%	12	57.1%	0	0%	21
South Phoenix	2	11.1%	9	50.0%	7	38.9%	0	0%	18
East Valley	2	16.7%	5	41.7%	4	33.3%	1	8.3%	12
Nogales	6	19.4%	8	25.8%	13	41.9%	4	12.9%	31
Page	2	28.6%	2	28.6%	3	42.9%	0	0%	7
Casa de los Niños	7	25.0%	8	28.6%	12	42.9%	1	3.6%	28
CODAC	4	8.9%	20	44.4%	20	44.4%	1	2.2%	45
La Frontera	5	11.9%	12	28.6%	23	54.8%	2	4.8%	42
Sierra Vista	1	7.7%	4	30.8%	7	53.8%	1	7.7%	13
Tuba City	0	0	5	31.3%	11	68.8%	0	0%	16
Verde Valley	7	11.1%	18	28.6%	36	57.1%	2	3.2%	63
Yuma	1	6.7%	4	26.7%	8	53.3%	2	13.3%	15
Pascua Yaqui	10	20.0%	20	40.0%	20	40.0%	0	0%	50
Lake Havasu City	7	14.3%	20	40.8%	22	44.9%	0	0%	49
Flagstaff	9	22.5%	5	12.5%	25	62.5%	1	2.5%	40
Sunnyslope	2	6.3%	8	25.0%	19	59.4%	3	9.4%	32
Prescott	3	15.0%	4	20.0%	12	60.0%	1	5.0%	20
Coolidge	3	23.1%	5	38.5%	5	38.5%	0	0%	13
Mesa	0	0	9	40.9%	13	59.1%	0	0%	22
Southeast Phoenix	1	7.1%	7	50.0%	5	35.7%	1	7.1%	14
El Mirage	0	0	4	40.0%	5	50.0%	1	10%	10
Blake Foundation	2	7.1%	12	42.9%	13	46.4%	1	3.6%	28
Marana	4	18.2%	6	27.3%	8	36.4%	4	18.2%	22
Safford	2	10.5%	6	31.6%	10	52.6%	1	5.3%	19
Stanfield	2	16.7%	3	25.0%	7	58.3%	0	0%	12
Apache Junction	7	25.9%	10	37.0%	10	37.0%	0	0%	27
Gila River	1	5.6%	8	44.4%	6	33.3%	3	16.7%	18
Winslow	1	12.5%	1	12.5%	6	75.0%	0	0%	8
Kingman	6	27.3%	7	31.8%	7	31.8%	2	9.1%	22
Globe/Miami	0	0	5	55.6%	4	44.4%	0	0%	9
Kyrene	2	8.3%	7	29.2%	14	58.3%	1	4.2%	24
Metro Phoenix	1	10.0%	1	10.0%	8	80.0%	0	0%	10
Tolleson	0	0	6	46.2%	7	53.8%	0	0%	13
South Mountain	2	10.0%	10	50.0%	7	35.0%	1	5.0%	20

Site	1st Trimester		2nd Trimester		3rd Trimester		Post-birth		Total
	#	%	#	%	#	%	#	%	#
Glendale	1	5.6%	4	22.2%	13	72.2%	0	0%	18
Deer Valley	0	0	4	30.8%	8	61.5%	1	7.7%	13
East/SE Tucson	2	5.6%	10	27.8%	18	50.0%	6	16.7%	36
SW Tucson	1	4.2%	10	41.7%	9	37.5%	4	16.7%	24
Bullhead City	4	26.7%	6	40.0%	3	20.0%	2	13.3%	15
Northwest Phoenix	2	11.8%	4	23.5%	10	58.8%	1	5.9%	17
Tempe	3	16.7%	5	27.8%	9	50.0%	1	5.6%	18
Gilbert	0	0	12	25.0%	34	70.8%	2	4.2%	48
Scottsdale	3	12.0%	8	32.0%	12	48.0%	2	8.0%	25
West Phoenix	1	5.9%	10	58.8%	6	35.3%	0	0%	17
East Mesa	3	11.1%	10	37.0%	13	48.1%	1	3.7%	27
Kinlani-Flagstaff	12	24.5%	12	24.5%	24	49.0%	1	2.0%	49
Southwest Phoenix	1	7.7%	4	30.8%	7	53.8%	1	7.7%	13
Peoria	3	16.7%	7	38.9%	6	33.3%	2	11.1%	18
Metro Tucson	2	7.7%	9	34.6%	13	50.0%	2	7.7%	26
Casa Family First	3	8.3%	13	36.1%	16	44.4%	4	11.1%	36
Wellspring	6	20.7%	5	17.2%	18	62.1%	0	0%	29
Primero Los Niños	0	0	2	28.6%	4	57.1%	1	14.3%	7
Sierra Vista Blake	7	25.9%	5	18.5%	10	37.0%	5	18.5%	27
Total	164	12.6%	421	32.3%	646	49.6%	71	5.5%	1302

Engaged Prenatal Families that Exited Before Baby's Birth
By Site – July 2007 through June 2008

Site	Total Families	# Closed before birth	% Closed before birth
Douglas	27	0	0
Central Phoenix	19	0	0
Maryvale	21	0	0
South Phoenix	18	0	0
East Valley	12	0	0
Nogales	31	0	0
Page	7	0	0
Casa de los Niños	28	0	0
CODAC	45	1	2.2%
La Frontera	42	1	2.4%
Sierra Vista	13	0	0
Tuba City	16	0	0
Verde Valley	63	1	1.6%
Yuma	15	0	0
Pascua Yaqui	50	1	2.0%
Lake Havasu City	49	2	4.1%
Flagstaff	40	2	5.0%
Sunnyslope	32	1	3.1%
Prescott	20	0	0
Coolidge	13	0	0
Mesa	22	0	0
Southeast Phoenix	14	0	0
El Mirage	10	0	0
Blake Foundation	28	0	0
Marana	22	0	0
Safford	19	0	0
Stanfield	12	0	0
Apache Junction	27	1	3.7%
Gila River	18	1	5.6%
Winslow	8	1	12.5%
Kingman	22	0	0
Globe/Miami	9	0	0
Kyrene	24	0	0
Metro Phoenix	10	0	0
Tolleson	13	0	0
South Mountain	20	0	0
Glendale	18	0	0
Deer Valley	13	0	0
East/SE Tucson	36	1	2.8%
SW Tucson	24	0	0
Bullhead City	15	0	0
Northwest Phoenix	17	0	0

Site	Total Families	# Closed before birth	% Closed before birth
Tempe	18	1	5.6%
Gilbert	48	1	2.1%
Scottsdale	25	0	0
West Phoenix	17	0	0
East Mesa	27	0	0
Kinlani-Flagstaff	49	0	0
Southwest Phoenix	13	0	0
Peoria	18	0	0
Metro Tucson	26	0	0
Casa Family First	36	0	0
Wellspring	29	1	3.4%
Primero Los Niños	7	0	0
Sierra Vista Blake	27	0	0
Total	1,302	16	1.2%

Appendix B. Instrument Properties

Parent Survey*

Problem Areas and Interpretation (Mother & Father)

Areas (Scales)	Range	Interpretation/ Administration
1. Parent Childhood Experiences (e.g., Childhood history of physical abuse and deprivation)	0, 5, or 10	The *Parent Survey* comprises a 10-item rating scale. A score of 0 represents normal, 5 represents a mild degree of the problem, and a 10 represents severe for both the Mother and Father Parent Survey Checklist items. The *Parent Survey* is an assessment tool and is administered to the mother and father prior to enrollment through an interview by a Family Assessment Worker from the Healthy Families Arizona Program. A family is considered eligible to receive the Healthy Families Arizona program if either parent scores 25 or higher.
2. Lifestyle, Behaviors and Mental Health (e.g., substance abuse, mental illness, or criminal history)	0, 5, or 10	
3. Parenting Experiences (e.g., Previous or current CPS involvement)	0, 5, or 10	
4. Coping Skills and Support Systems (e.g., Self-esteem, available lifelines, possible depression)	0, 5, or 10	
5. Stresses (e.g., Stresses, concerns, domestic violence)	0, 5, or 10	
6. Anger Management Skills (e.g., Potential for violence)	0, 5, or 10	
7. Expectations of Infant's Developmental Milestones and Behaviors	0, 5, or 10	
8. Plans for Discipline (e.g., infant, toddler, and child)	0, 5, or 10	
9. Perception of New Infant	0, 5, or 10	
10. Bonding/Attachment Issues	0, 5, or 10	
Total Score	0 - 100	A score over 25 is considered medium risk for child abuse and neglect, and a score over 40 is considered high-risk for child abuse.

* Modified from the Family Stress Checklist

Healthy Families Parenting Inventory Cronbach's Alpha Scores

Subscale	Alpha* 2 month	Alpha* 6 month	Alpha* 12 month
Social Support	r=.84	r=.86	r=.88
Problem Solving	r=.81	r=.80	r=.86
Depression	r=.84	r=.82	r=.85
Personal Care	r=.82	r=.80	r=.83
Mobilizing Resources	r=.78	r=.81	r=.82
Accepting the parent role	r=.77	r=.80	r=.81
Parent Child Behaviors	r=.78	r=.79	r=.82
Home Environment	r=.78	r=.80	r=.83
Parenting Efficacy	r=.84	r=.87	r=.88

***Alpha scores represent the correlation of items on a scale, and indicate how well the items in a subscale related to each other.**

Appendix C. Healthy Families Arizona Prenatal Logic Model

Long Term Outcomes	***Program Resources***
① *Reduced child abuse and neglect* ② *Increased child wellness and development* ③ Strengthened family relations ④ *Enhanced family unity* ⑤ Reduced abuse of drugs and alcohol	Family Support Specialists; Family Assessment Workers; Clinical consultants; Quality Assurance/Training/Evaluation; Funding; Community based services, e.g., prenatal support & education programs, hospital programs, nutrition services, translation & transportation services, mental health, domestic violence, substance abuse services

Prenatal Program Objectives								
Increase the family's support network	**Improve mother's mental health**	Increase parents' health behaviors	Increase the family members' problem solving skills	Improve nutrition	Increase empathy for the unborn baby	Increase father involvement	Increase safety in the home environment	Increase the delivery of healthy babies, free from birth complications
Program Activities and Strategies								
Assess family's support systems **Model** relationship skills **Foster connections** to positive support sources	**Identify** signs and history of depression, abuse, mental illness, substance abuse **Review** history of birthing **Encourage** medical assessment, referral and treatment if needed **Encourage** exercise, personal care, rest **Educate** on post partum depression	**Assess** personal risk behaviors **Educate** on risk behaviors, lifestyle choices, community resources, affect of drugs, medicines on fetus **Explore** domestic violence, form safety plan **Encourage** help seeking and adoption of healthy behaviors	**Identify** major life stressors **Educate** on problem-solving, goal setting. Use IFSP to review progress **Educate** on access to community resources, how to reach out **Make referrals** as needed for anger and stress management **Teach** stress reduction	**Educate** and provide materials on nutrition during pregnancy, buying and choosing healthy foods, and requirements for healthy fetal development **Provide referrals** to WIC, other resources **Encourage** healthy celebrations	**Explore and assess** issues around pregnancy, relationships, hopes, fears **Discuss and educate** about changes in body, sexuality during pregnancy **Share** developmental information about stages of development of fetus **Encourage** pre-birth bonding and stimulation exercises (reading, touch, etc)	**Explore** father's feelings, childhood experiences, expectations, hopes and fears about baby and goals for fatherhood **Educate** about changes in intimacy, ways father can support mother **Encourage** supportive relationships for father **Educate** on father's legal rights and responsibilities	**Assess, encourage and guide** family in making needed safety arrangements, e.g. crib safety, car seat, pets, SIDS, child care, feeding **Educate** on baby temperaments, how to calm baby, Shaken Baby Syndrome, medical concerns **Refer** to parenting workshops **Explore** cultural beliefs about discipline	**Connect** mother to prenatal care and encourage compliance with visits **Encourage** STD testing **Educate** on symptoms requiring medical attention **Promote** breastfeeding and refer to resources
Outcome Evaluation Measures								
H.F. Parenting Inventory-Prenatal (HFPIP); FSS-23	HFPIP; FSS-23	HFPIP; FSS-23; CRAFFT	HFPIP; FSS-23	HFPIP; FSS-23	HFPIP; FSS-23	HFPIP; FSS-23; father involvement scale	HFPIP; FSS-23; Safety checklist	HFPIP; FSS-23; FSS20P

Appendix D. Healthy Families Arizona Postnatal Logic Model

Long Term Outcomes	***Program Resources***
① *Reduced child abuse and neglect* ② *Increased child wellness and development* ③ Strengthened family relations ④ *Enhanced family unity* ⑤ Reduced abuse of drugs and alcohol	Family Support Specialists; Family Assessment Workers; Clinical consultants; Quality Assurance/Training/Evaluation; Funding; Community based services, e.g., parenting support & education programs, nutrition services, translation & transportation services, mental health, domestic violence, substance abuse services

Postnatal Program Objectives								
Increase the family's support network	**Improve mother's mental health**	Increase parents' health behaviors	Increase the family members' problem solving skills	Improve family stability	Increase parental competence	Increase positive parent-child interaction	**Improve child health <u>and</u> Optimize child development**	Prevent child abuse and neglect
Program Activities and Strategies								
Assess family's support systems **Model** relationship skills **Foster connections** to positive support sources **Educate** on communication skills	**Identify** signs and history of depression, abuse, mental illness, substance abuse **Address** issues of grief and loss **Encourage** medical assessment, referral and treatment if needed **Encourage**/coach on exercise, personal care, rest **Educate** on post-partum depression	**Assess** personal risk behaviors; **Educate** on dangers of specific risk behaviors **Support** family in making lifestyle changes and adopting healthy behaviors **Educate** on community resources **Explore** domestic violence, create safety plan	**Identify** major life stressors **Educate** on problem-solving, goal setting. Use IFSP to review progress **Educate** on access to community resources, how to reach out **Make referrals** as needed for anger and stress management **Educate** about effect of stress on child	**Assess** basic living skills and needs; help family access housing, education, job, and budget management services. **Coach** parent to set and evaluate goals; teach basic living skills **Promote** use of community resources for self sufficiency **Explore** family planning decisions	**Provide empathy** and support to parent in parenting role **Teach** child development, early brain development, temperament **Address** parental expectations of child **Educate** about importance of routines and rules **Refer** to parenting groups and classes	**Promote and teach** developmentally appropriate stimulation activities **Educate** about rhythm and reciprocity, reading baby's cues **Promote** reading, bonding during feeding **Encourage** family activities, celebrations **Coach** on father involvement	**Complete** developmental assessments and make referrals **Address** medical screenings, support well child checks, immunizations, and good nutrition habits **Promote** play, reading; provide links to early childhood programs **Assess and Guide** family in making safety arrangements, e.g., home and car safety	**Assess** risk of child abuse and neglect **Coach** and guide in choices for child care **Educate** about consequences of child abuse and neglect
Outcome Evaluation Measures								
Healthy Families Parenting Inventory (HFPI); FSS-23	HFPI; FSS-23	HFPI; FSS-23; CRAFFT	HFPI; FSS-23	HFPI; FSS-23	HFPI; FSS-23	HFPI; FSS-23; father involvement scale	HFPI; FSS-23; Safety checklist; ASQ	HFPI; FSS-23; FSS20

Appendix E. Healthy Families Participant Satisfaction Survey ©
Site #_____

Thank you so much for completing our survey. The Healthy Families staff know how busy your life is and we truly appreciate you taking the time to complete this survey. This survey is anonymous (we do not collect names), and it is designed to gather your feelings and opinions. There are no right or wrong answers. The results will help us know what is working in the program and what needs improving.

Directions: Please choose ONE answer that best fits how you feel and color in the circle.		Strongly Disagree	Disagree	Agree	Strongly Agree
1.	I feel I receive the help and services I want and need.	○	○	○	○
2.	I feel my home visits happen on a regular and consistent basis.	○	○	○	○
3.	I feel my home visitor spends enough time with me.	○	○	○	○
4.	I am confident in my home visitor's skills.	○	○	○	○
5.	My home visitor shows she/he cares about my child and me.	○	○	○	○
6.	I feel my home visitor is supportive of me.	○	○	○	○
7.	I feel comfortable talking with my home visitor.	○	○	○	○
8.	I feel my home visitor listens to me and my concerns.	○	○	○	○
9.	I feel my home visitor treats me with respect.	○	○	○	○
10.	My home visitor accepts me and my family as the ultimate decision makers for the well being of my child(ren) and the services we receive.	○	○	○	○
11.	My home visitor shares healthy ways males (fathers, grandfathers, partners, etc.) can be involved in my child's life.	○	○	○	○
12.	I feel my home visitor is respectful of my cultural beliefs and practices.	○	○	○	○
13.	My home visitor has been able to assist me in accessing community services based on language and cultural needs as needed.	○	○	○	○

Directions: Please choose ONE answer that best fits how you feel and color in the circle.		Strongly Disagree	Disagree	Agree	Strongly Agree
14.	I am interested in pursuing the goals my home visitor helped me create.	○	○	○	○
15.	I understand the information provided to me on child development and parenting.	○	○	○	○
16.	The educational materials, handouts, and activities are helpful.	○	○	○	○
17.	I am able to use the information from the educational materials, handouts and activities with my family.	○	○	○	○
18.	Forms and written materials (like letters, brochures, and notices) are easy for me to understand.	○	○	○	○
19.	The educational materials, handouts, and activities are respectful of my cultural beliefs and practices.	○	○	○	○
20.	I feel I receive high quality services in Healthy Families.	○	○	○	○
21.	As a result of Healthy Families, I feel I am a better parent.	○	○	○	○
22.	I would recommend this program to others.	○	○	○	○

23. Do you speak another language other than English?

○ Yes ○ No

24. Were the program materials provided to you in a language that you read and understand?

○ Yes ○ No

25. Did your home visitor speak a language you understand?

○ Yes ○ No

26. How long have you been in the Healthy Families program?

_____years _____months

27. How many different home visitors have you had since beginning Healthy Families? _____

28. Would you like to have contact with other families in the Healthy Families program (for example, attending socials, gatherings, etc.)?

○ Yes ○ No

29. Please describe in what ways your life has improved because of Healthy Families?

30. I am (check one): ○ Male ○ Female

31. What is your age? _____

32. What is your ethnic background? (Check one):

- ○ White/Caucasian (not Hispanic)
- ○ Hispanic or Latino
- ○ Black or African American (not Hispanic)
- ○ Asian or Asian American
- ○ American Indian/Native American
- ○ Mixed, please describe:_____
- ○ Other, please describe:_____

33. Please describe any suggestions you have for how the program or the home visitor can provide better services.

☺ Thank you for completing this survey! ☺