

Healthy Families Arizona Evaluation Report 2004



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Healthy Families Arizona 2004 Evaluation Report Highlights

Program Participants

- 70% of mothers were single
- 87% of families were on AHCCCS
- 14% of infants were born <37 weeks gestation (state average 10%)
- 13% of infants had low birth weight (state average 7%)

Service Delivery

- 2,356 families were served
- 91% (2,137) engaged with the program (4 or more home visits)
- 63% remained in the program 1 year or longer
- Average length of time in program grew to 804 days (698 in 2002)

Outcomes

- 98.4% of families did not have a substantiated CPS match (comparison group 98.6%)
- Average Parenting Stress Index score improved
- 62% of parents' total stress score improved
- Immunization rate for infants was 94% (state average 77%)
- 97% of children were linked to a medical doctor
- 15% of mothers had subsequent pregnancies, with 30% of those 18 or younger.

Recommendations

- Examine and develop more best practices protocols for addressing substance abuse, domestic violence and mental illness
- Continue to emphasize careful planning of subsequent pregnancies, especially with young mothers
- The substance abuse screen should be re-evaluated and replaced and more training should occur in how to discuss substance use and abuse
- Re-emphasize the use of the home safety checklist
- Ages and Stages Questionnaire needs to be consistently administered
- The criteria for "successful completion" of the program should be re-examined
- Expand evaluation to include examination of implementation of prenatal services and development of relevant measures for these families

Future Directions

- Newly developed Healthy Parenting Inventory being implemented
- Longitudinal study underway



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Executive Summary

"In the sheltered simplicity of the first days after a baby is born, one sees again the magical closed circle, the miraculous sense of two people existing only for each other, the tranquil sky reflected on the face of the mother nursing her child."

Anne Morrow Lindbergh in *Gift of the Sea*

"Healthy parenting is especially challenging when our own childhoods weren't healthy. It requires energy, attention, and constant restraint. Realize that you need healing. Take time out to nurture yourself."

Vimala McClure in *The Tao of Mothering*

The two quotes above capture in many ways the challenge and the hope of Healthy Families Arizona. The first talks of the special joy found in the relationship between the mother and the child. The second reflects the challenge faced by many of the program families, and the need to find the strength within themselves to overcome their own history.

As much as parents seek to guide their children as they attempt to grow into healthy, productive adults, society on occasion has the task to help support the parents in that endeavor. Healthy Families Arizona is a program designed to provide that support, and through its efforts reduce the incidence of child abuse and neglect, provide stability for at-risk families, and grow a new generation of healthy families in the state.

The Healthy Families Arizona Program

Healthy Families Arizona is a home visitation program designed to provide supportive services and education to parents of newborns who might benefit from support to strengthen their families at this crucial time. The goals of the program include:

- To promote positive parent/child interaction
- To improve child health and development
- To prevent child abuse and neglect



All services are voluntary and may be provided for up to five years. Families enter the program based on a screening and assessment process. In the hospital after a child's birth, the family can consent to an initial screening that identifies family, parental, child, and community risk factors associated with child abuse and neglect. If the screening is assessed as positive (indicating potential increased needs), the family is offered intensive home visiting services through the Healthy Families Arizona program. Since the program is voluntary, the family can withdraw from the program at any time.

After the family accepts home visitation services, a Family Support Specialist visits the family in their home on a regular basis to provide supportive services and education. The Family Support Specialist seeks to develop a trusting, open, and constructive relationship with the family to meet their individual needs. The core Healthy Families Arizona services are:

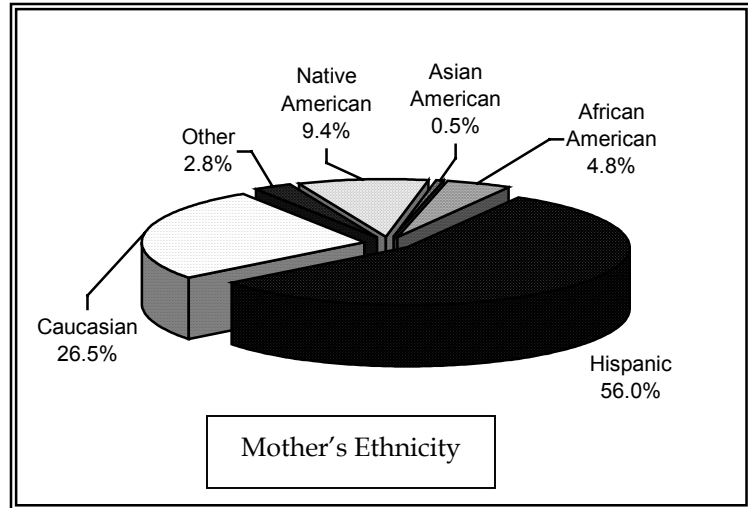
- Emotional support
- Assistance in developing positive parenting skills
- Education on child development and nutrition
- Education and assistance in problem solving and coping skills
- Education on preventive health care (immunizations, links to medical doctor)
- Linkages to preschool resources
- Referrals related to education, employment, mental health, and substance abuse services

This report focuses on aggregate data that are summarized across the 23 sites that make up the Healthy Families Arizona program. This report presents the evaluation data for the cohort of participants who received services in the Healthy Families Arizona program between the period of July 1, 2003 and June 30, 2004. This includes all families who received services at any time during the study period regardless of when they entered the program. In this year's report, more extensive site level data can be obtained in the Appendices.



The Families

Healthy Families Arizona served an ethnically diverse group of program participants who displayed one or more of the risk factors associated with potential for child neglect or abuse. Prominent among these were single motherhood, mothers without a high school education, and mothers with



late, inadequate, or no prenatal care. A high number of parents scored “severe” on several of the Parent Survey scales, including coping with a history of child abuse, having low self-esteem and feeling isolated, and dealing with current life stress, including low income, poor housing, and relationship difficulties. Finally, a larger than average number of infants were born early (less than 37 weeks gestation) and with low birth weight – risk factors associated with potential child abuse and neglect. Because Healthy Families Arizona has just begun to deliver prenatal services (as of fall 2004) as part of the program’s continuum of services, there is an opportunity to potentially impact the number of premature births and low birth weight babies.

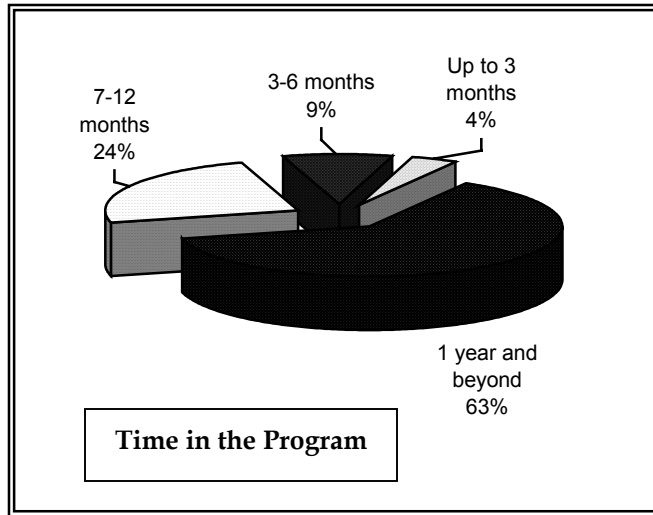
Risk factors for mothers at intake	Rate
Teen Births (<19)	22.7%
Births to single parents	69.9%
Less than high school education	61.2%
Not employed	83.7%
No health insurance	2.8%
Late or no prenatal care	35.8%
Median yearly income	\$7,540



Service Delivery

During the study year, 2,356 families were served and 2,137 remained with the program for four or more visits (referred to as “engaged families”). Families who did not engage in the program shared some common characteristics, including single marital status, a history of depression, and a history of criminal behavior.

The majority of the engaged families stayed with the program for at least one year, with 31% of families receiving services for three or more years. The average time between enrollment and termination increased from 2003 to 2004 to over two years (804 days).



Program Outcomes

The Healthy Families Arizona program exceeded the goal of fewer than five percent of the active families with a substantiated case of child abuse or neglect with an overall rate of 98.4 percent with no substantiated reports. This percent is similar when compared to a group of families eligible for the program but who received less than four home visits.

Group	Percent Without Substantiated Report
Healthy Families Arizona Participants	98.4% (n=1568)
Comparison Group Participants	98.6% (n=213)

The participant families showed significant improvement on all reliable subscales of the Parenting Stress Index. Families demonstrated increased competence and attachments, and decreased feelings of depression, isolation, negative mood, and feelings of restricted role as a parent. ($p < .05$). Parents



demonstrated greater use of safety practices as the child grew older and they spent more time in the program. However, three areas could use additional attention—the need to have electrical outlets covered, keeping poisons locked away, and having working smoke alarms installed. On health-related measures, the infants of participating families were immunized at a rate that exceeds the state standard and were linked to a doctor at a high rate. Overall, the percent of Healthy Families children who were immunized rose 6% from the previous year, indicating a strong and consistent effort by home visitors to support families in this area.

Immunization period	Percent immunized	Immunization rate for 2-year-olds in Arizona
2 month	96.7%	
4 month	94.3%	
6 month	87.1%	
12 month	95.9%	
Received all 4 in the series	94.0%	77.0%

For this study period, an increased percentage of infants were screened using the Ages and Stages Questionnaire, and those identified with developmental delays were appropriately referred. In regard to maternal life course outcomes, 15 percent of the mothers had subsequent pregnancies, with 30 percent of those 18 years or younger. In addition, during the period of time they were involved in the program, a progressively higher percentage of mothers became employed.

Conclusions and Recommendations

This year’s study indicates that the Healthy Families Arizona program continues to meet the needs of many of the state’s at-risk families in an effective manner. The program is recruiting the target population, providing services in a manner that results in a 90 percent engagement rate, and continuing to show positive results in multiple indicators. Recommendations that result from this evaluation include:



- The program should examine and develop more best practices protocols for appropriately addressing substance abuse, domestic violence and mental illness
- The program should continue to emphasize careful planning of subsequent pregnancies, especially with young mothers.
- The substance abuse screen should be re-evaluated and replaced and more training in how to discuss substance use and abuse is needed
- The use of the safety checklist to identify and help families implement safety practices in their homes should be re-emphasized.
- More emphasis needs to be placed on administering the *Ages and Stages Questionnaire* consistently through the program.
- The criteria for “successful completion” of the program should be re-examined.
- With the implementation of prenatal services, the evaluation will expand to include an examination of the implementation of prenatal services and development of relevant measures for these families.



Introduction

“In the sheltered simplicity of the first days after a baby is born, one sees again the magical closed circle, the miraculous sense of two people existing only for each other, the tranquil sky reflected on the face of the mother nursing her child.”

Anne Morrow Lindbergh in *Gift of the Sea*

“Healthy parenting is especially challenging when our own childhoods weren't healthy. It requires energy, attention, and constant restraint. Realize that you need healing. Take time out to nurture yourself.”

Vimala McClure in *The Tao of Mothering*

The two quotes above capture in many ways the hope and the challenge of Healthy Families Arizona. The first talks of the special joy found in the relationship between the mother and the child. The second reflects the challenge faced by many of the program families, and the need to find the strength within themselves to overcome their own history.

As much as parents seek to guide their children as they attempt to grow into healthy, productive adults, society on occasion has the task to help support the parents in that endeavor. Healthy Families Arizona is a program designed to provide that support, and through its efforts reduce the incidence of child abuse and neglect, provide stability for at-risk families, and grow a new generation of healthy families in the state.

In this Report

Home visitation programs continue to be refined as research and experience provide insights into effective practices and critical concerns. As the Healthy Families Arizona program matures, the program's policies, practice, and evaluation have been refined to address emerging issues and needs. Over the past several years, the evaluation reports focused on an annual review of selected implementation issues, services provided and participant outcomes, a review of the previous studies and research, an examination of the program's adoption of commonly accepted practice principles, and a review of the program's adherence to the Healthy Families America Critical Elements. In collaboration with Healthy Families Arizona Steering Committee members, and the quality assurance and training team and program staff, the evaluation team has examined the overall evaluation approach. A number of recommendations are in the process of being implemented.

The first portion of this year's report will provide an overview of changes in policy, program delivery, and evaluation. Subsequent sections will review the Fiscal Year 2004 data in comparison to data reported last year in order to examine the trends that may be found in the data over time. Family demographic data are reviewed in order to assess whether the program is reaching the families for which it was designed. Service delivery is discussed in regard to family engagement and retention, and participant satisfaction. Finally, selected outcome data is reviewed.¹

¹ This report focuses on aggregate data that is summarized across the 23 sites that made up the Healthy Families Arizona program in FY 04. This report presents the evaluation data for the cohort of participants who received services in the Healthy Families Arizona program between the period of July 1, 2003 and June 30, 2004. This includes all families who received services at any time during the study period regardless of when they entered the program. In this year's report, more extensive site level data can be obtained in the Appendices.



Program and Policy Updates

Exhibit 1 depicts some of the program and policy changes that have occurred in the past year.

Exhibit 1: Developments in the Healthy Families Arizona program in 2003-04

Healthy Families Statewide Credential received

The Re-accreditation process was completed and Healthy Families Arizona received a Statewide Credential (November 2004), with no need for a deferment period (i.e., all standards were met successfully without correction needed). In early 2004, the entire state system completed a self-assessment, and 60% of the sites received a site visit. The HFAz evaluation system was lauded by the peers and the entire state system was called “a gem” of a program by objective peer reviewers who are part of other state systems.

Implementation of the Social/Emotional Ages and Stages Questionnaire

An ongoing goal of home visitors is to find ways to effectively initiate conversations with parents about child development and to identify referral needs. In April 2003, the HFAz program implemented use of the Social/Emotional scales of Ages and Stages Questionnaire (ASQ-SE) to assess social and emotional development among children and identify needs for referrals. Training in the Ages and Stages Questionnaire is required within 6 months to one year of hire of new Family Support Specialists. HFAz program staff have found it helpful in identifying needs for infant mental health services, but report a lack of available services to meet the needs. Arizona is the only statewide program utilizing the ASQ-SE in a systematic way.

Revision of the Individual Family Service Plan

The Individual Family Service Plan (IFSP “Goal Plan”) was revised to increase its utility as a method to address challenging family issues. The goals will have more depth and be based around the family’s regular routines – so that incorporating these goals into the family’s life will be more easily accomplished. An additional training for the IFSP process was developed and will become a regular part of Healthy Families training services along with the ASQ and ASQ-SE.

State Policy/procedures updated

The policies and procedures manual was revised to give sites a clearer understanding of statewide policy.



Technical Assistance/Quality Assurance (TA/QA) process revised

The Technical Assistance/Quality Assurance (TA/QA) site visit system was revised to offer a “menu” type approach to training. Two different types of site visits are designed to better meet site needs – one is a “credentialing site visit” in which standards of best practice are reviewed once per year; the other is a “technical assistance” site visit in which TA/QA staff will observe practice and respond to the sites’ needs and issues. This emphasis on effective practice enables the TA/QA staff to provide training and mentoring on the specific difficult situations and challenges encountered by home visitors, a need that was illuminated in last year’s evaluation report.

Prenatal services to begin

Beginning in August, 2004, program policy supports provision of services to families during the prenatal period. Sites are working with their “Baby Arizona” doctors, prenatal health clinics, Women Infants and Children program (WIC), County health departments, Health Start programs, and local OB/GYNs to develop systematic ways for reaching out to families during the prenatal period. Prenatal policies, procedures, and appropriate forms were developed and implemented statewide. Healthy Families TA/QA staff members have been trained as certified Healthy Families America Prenatal Core trainers and were able to train all of the “seasoned staff” across the state during 2004. A training schedule has been established to train all new staff.

Healthy Families eligibility policy revised

Program policy was changed as of August 2004 so that HFAz can serve families who have been involved with child protective services. The appropriate policies and protocols have been developed with the Department of Economic Security to determine how to provide services in a voluntary way and work closely at the local level to support healthy parenting.



The Evaluation Review

One of the particular strengths of Healthy Families Arizona is the collaborative nature of all elements of the program. The Department of Economic Security staff, the program providers, the Technical Assistance/Quality Assurance (TA/QA) staff and the evaluation staff have a close, on-going relationship that enables open examination of the program when needed, and allows change to take place in an efficient manner. In the last year, evaluation activities have focused on further explicating the program theory through logic model development, research, and development of new measures to more accurately capture outcomes of interest, and beginning preparation for conducting a longitudinal study.

Logic Model Development

Accurately measuring the true impact of the Arizona Healthy Families program is an important goal that the evaluation team has worked on since the program's inception. During this year, the evaluation team led the Evaluation Subcommittee (comprised of several providers, TA/QA staff, and others) in re-examining the theory and logic forming the basis of the Healthy Families program. The first step was clarifying outcomes for the program aligned along five major goals. These were:

- Decreased Child Abuse and Neglect
- Increased Family Economic Self-Sufficiency
- Increased Family Social Competence
- Increased Positive Parent/Child Relationship
- Optimized Child Development

These goals form the basis for further development of a program logic model, which in turn will help the program further refine the outcomes of interest for future evaluations.

The evaluation team will also be assisting the program staff in developing a logic model specific to the prenatal program. That logic model will be used to select outcomes for the prenatal portion of the program, as well as choose an appropriate measurement tool for those outcomes.



Research and Development of New Tools

Two new tools have been under development during this year – the Healthy Families Parenting Inventory (described below), and an “embedded” evaluation tool. The embedded evaluation tool grew out of a desire to 1) provide the Family Support Specialists an improved means of targeting goals and areas for support, and highlighting progress; and 2) track family outcomes related to those goals.

Longitudinal Study Plans

Finally, LeCroy & Milligan Associates will begin a longitudinal study of the program in late 2004. This study will provide valuable information on the long-term effects of the program, and will be used to further refine the program and the evaluation.

Development of the Healthy Families Parenting Inventory

Research and development of the new Healthy Families Parenting Inventory was completed during this year. The process used to develop the inventory is outlined below.

While various instruments have been used to evaluate home visitation programs like Healthy Families, it is becoming apparent that many of the instruments may not be equipped to capture the changes that take place in families. In the HFAz program various instruments have been used including the *Parenting Stress Index* and the *Child Abuse Potential Inventory*. Although these instruments are considered acceptable in terms of the standard scientific criteria of reliability and validity, these instruments were not necessarily designed to capture outcome data, and clearly were not designed as measures specifically related to the Healthy Families Arizona program. The intent of the *Parenting Stress Index* is to measure stress in the family; the intent of the *Child Abuse Potential Inventory* is to measure the likelihood of abuse. Nevertheless, this is not the same thing as measuring change that might occur within families while participating in the program. For example, consider these items in the *Child Abuse Potential Inventory*:



- *I have a child who is clumsy*
- *My telephone number is unlisted*
- *I have a physical handicap*
- *As a child I was abused*
- *Right now, I am deeply in love.*

It is clear that these items are not amenable to change and would not do a good job in evaluating the **outcomes** of the Healthy Families Arizona program. In this respect, many of the existing instruments used in evaluations are not *sensitive to change specifically related to Healthy Families Arizona*. For example, the *Parenting Stress Index* measures constructs (and changes to those constructs) related to stress – including temperament which is considered an inherited trait and likely resistant to change. It is not sensitive to the changes occurring in the families that *lead to reduced stress*. In order to better assess the changes that are occurring within these families that are directly related to the outcomes of the HFAz program, the evaluation team began the process of designing an outcome instrument specific to the Healthy Families program and that meets the criteria of being sensitive to program-specific change.

Process Of Developing The Measure

The evaluation team used four basic principles to guide the effort:

- Develop a measure grounded in the practice of Healthy Families
- Develop the measure with input from home visitors, supervisors, and experts
- Use information from previous studies of Healthy Families
- Use existing measures to build on

To accomplish the goal of building an instrument from “the ground up” we gathered data from multiple contexts including focus groups with home visitors, the development of a logic model, and an extensive review of relevant literature. For example, in the focus groups, one of the critical questions we asked was: “If you had the opportunity to tell us what we should be measuring to capture the



changes in these families, what do you think we should be looking for?" A rich source of data was gathered. An example of one response to this question was:

You can see a difference in how they are taking care of themselves. In the past we might have seen the parent being attentive to the family but we didn't really see the parent attend to themselves. So now you not only see them taking care of the child or children, but you see them also taking care of themselves, and realizing they need some mental health services.

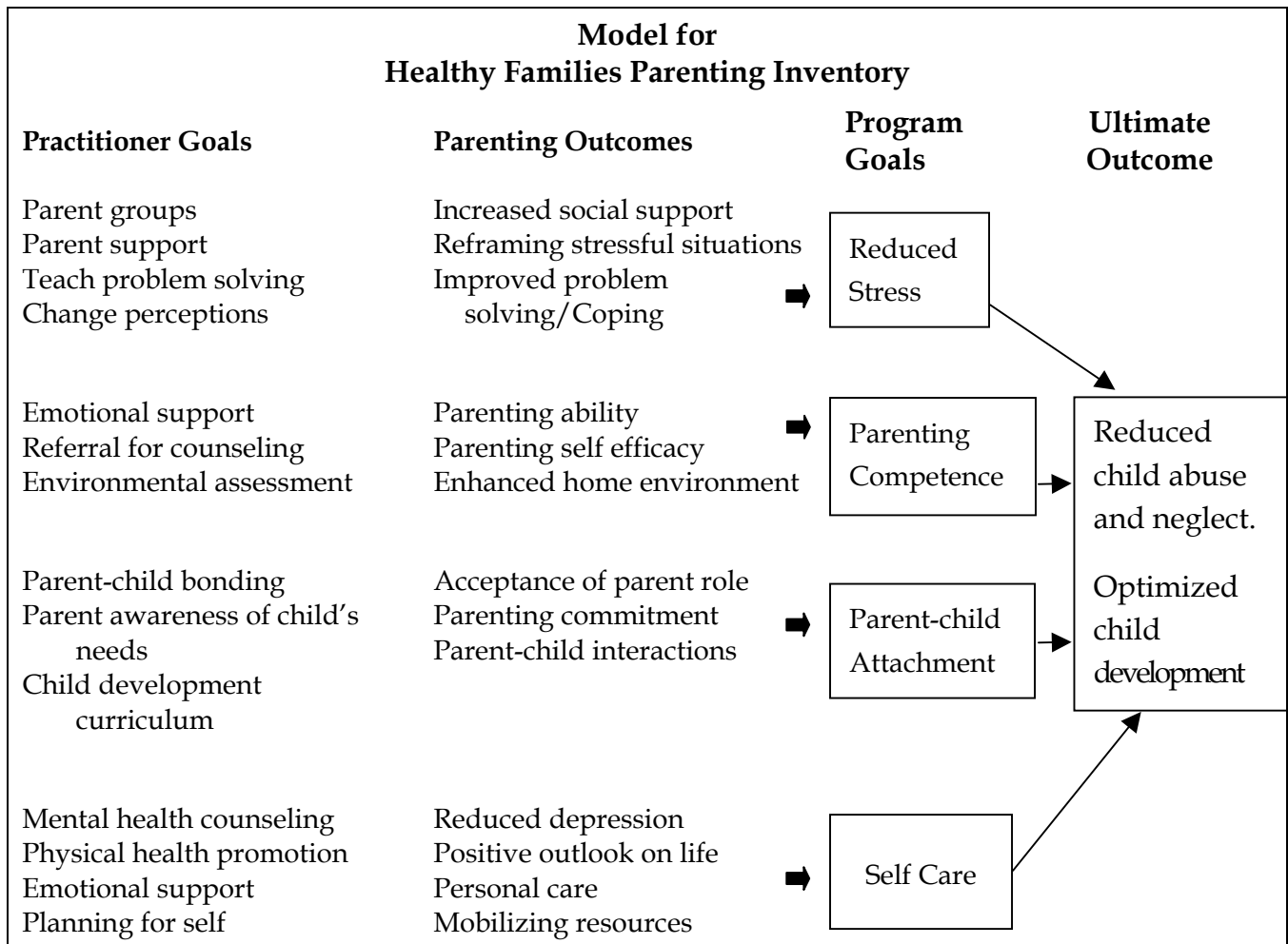
As we gathered multiple sources of data, we identified key themes that represent the changes happening in the families. The observable, positive changes included such things as:

- Obtaining support
- Reducing stress
- Using problem solving skills
- Having better abilities to parent
- Creating a better home environment
- Increasing one's commitment as a parent
- Improving child/parent interactions
- Reducing depression
- Taking care of oneself
- Having a more positive outlook on life

We compared these themes with the various instruments that are available for review. From this information, we drafted a model that captures the unique home visitor behaviors that are intended to help parents achieve positive outcomes related to the ultimate goal of reduced child abuse and neglect. The model that forms the theoretical basis for the new Healthy Families Parenting Inventory is shown in Exhibit 2.



Exhibit 2: Healthy Families Parenting Inventory Theoretical Model



The final result of this research and input was the new Healthy Families Parenting Inventory that includes 10 subscales:

- Social support
- Problem solving and coping
- Depression
- Personal care
- Mobilizing resources
- Acceptance/commitment of parent role
- Parent child behaviors



- Home environment
- Parenting competence
- Parenting efficacy

After questions or items were developed for each of the subscales, the instrument was pilot tested on over 100 families not enrolled in the Healthy Families program. This data allowed us to establish the reliability of the instrument. Further analysis was also conducted to establish the factorial validity of the instrument. This data also confirmed that the Healthy Families Parenting Inventory was measuring what we intended it to measure. (See Appendix D for the final Healthy Families Parenting Inventory.)

The Healthy Families Parenting Inventory was designed to be maximally useful to program providers. It will be used for service planning with the program participants. In particular, it can measure *overall severity of difficulties* by creating a “cutting score” that warrants immediate action by the home visitor. In addition, the measure will contain information on *critical needs* that will help the home visitors to establish priorities. The measurement of *support targets* will focus on areas that home visitors can easily target with various intervention strategies. For example, an intervention target might be social support, problem solving, or depression. Lastly, the Healthy Families Parenting Inventory is unique in its inclusion of *strengths* as an important aspect to many of the subscales.



Overview of the Healthy Families Arizona Program

Healthy Families Arizona is a home visitation program designed to provide supportive services and education to parents of newborns who might benefit from support to strengthen their families at this crucial time. The goals of the program include:

- To promote positive parent/child interaction
- To improve child health and development
- To prevent child abuse and neglect

Families are selected via a screening process that begins in the hospital. If the parent is found to be at risk (based on factors known to be associated with child abuse and neglect), they are offered program services. The program is voluntary, and the families may remain in the program for up to five years. For the period covered by this report, families with any substantiated report of child abuse or neglect were excluded from the program. However, legislation was passed in 2004 that will allow the program to serve all at-risk families beginning in August 2004. In addition, the legislation allows the program to serve families prenatally.

Program Participants

The families that participate in the Healthy Families Arizona program enter the program because they have many stresses in their lives. The stressors constitute *risk factors* that have been associated with increased risk for child abuse and neglect, as well as poor child health and developmental outcomes (LeCroy & Milligan Associates, 2001). Exhibit 3 highlights the risk factor data for the Fiscal Year 2003 program participants and Fiscal Year 2004 participants.



Exhibit 3: Selected Risk Factors For Healthy Families Arizona Mothers At Intake.

Risk Factors of Mothers at Intake	Rate-2003	Rate-2004
Teen births (<19)	21.3%	22.7%
Births to single parents	69.2%	69.9%
Less than high school education	61.9%	61.2%
Not employed	85.3%	83.7%
No health insurance	3.4%	2.8%
Late or no prenatal care	37.6%	35.8%
Median yearly income	\$9,600	\$7,540

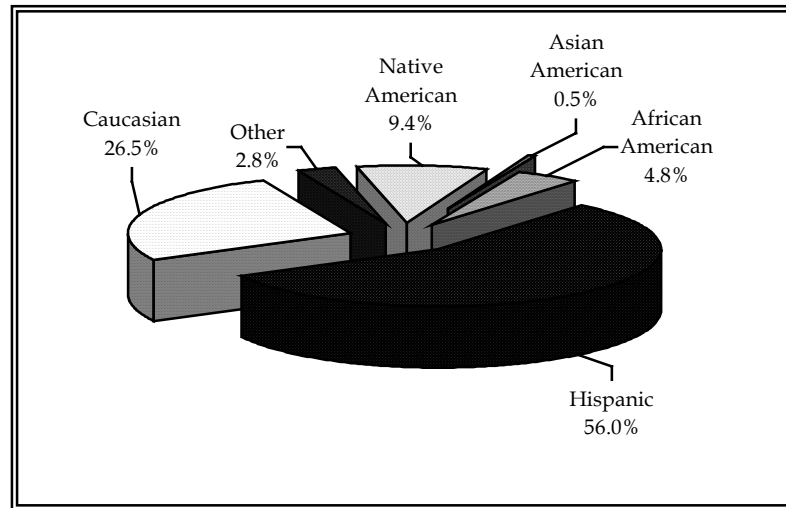
These data illustrate that the screening process is recruiting the population targeted by Healthy Families Arizona. The most notable factors are the continued high rates of births to single parents and parents without a high school education. The proportion of all mothers in Arizona who are single is 41.2 percent of the total – as compared to the 69.9 percent of mothers in Healthy Families Arizona. While the number of parents without health insurance is lower than in 2003, a greater percentage are insured by Arizona Health Care Cost Containment System (AHCCCS) in 2004 (87.3%) than in 2003 (82.3%). The percentage of parents with late or no prenatal care remains high, although it is lower in 2004 than in 2003. However, it is considerably higher than the state rate of 7.2 percent. Since the program is able to work with pregnant women beginning in August 2004, the change in the percentage of mothers receiving prenatal care in the next report will be of particular interest.

An additional change this year is the shift in median income of the participant families, which fell from \$9,600 in 2003 to \$7,540, a change of \$2,060. Also, 88% of all HFaz families report incomes of \$20,000 or less per year, and the average household size among participants is 4.9 persons. This highlights the continued economic stress faced by the families in the program.



Healthy Families Arizona continues to serve a *culturally diverse population*. The ethnic makeup of the families served in 2004 (Exhibit 4) is show below.

Exhibit 4: Ethnicity Of Healthy Families Arizona Mothers.

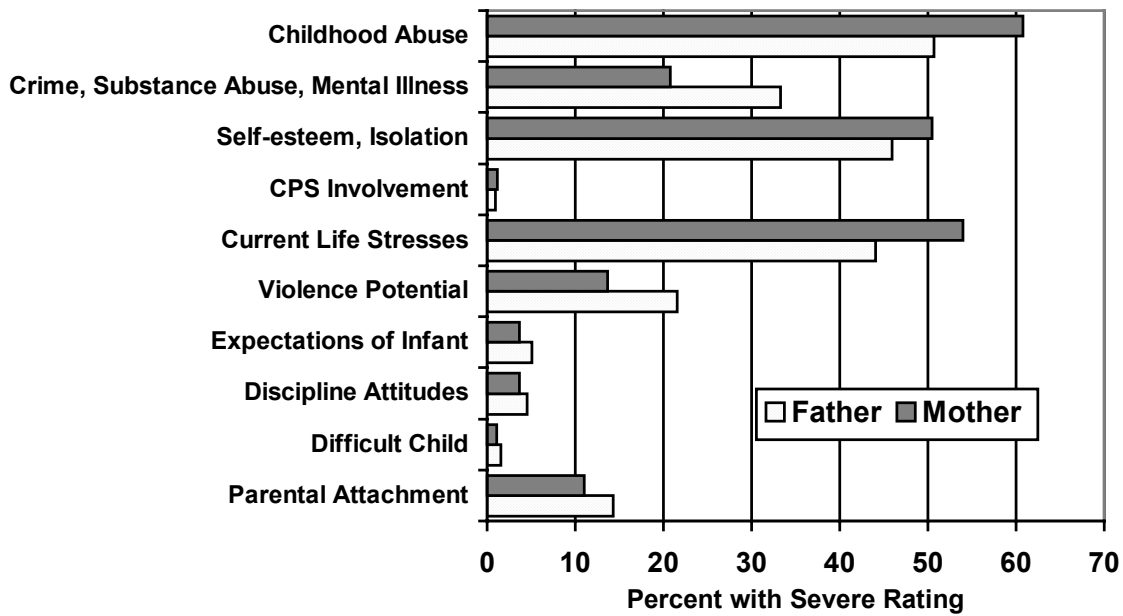


Families (mothers, and fathers when they are involved) are assessed using the *Parent Survey*. At intake, the Family Assessment Worker evaluates each parent's level of stress in 10 domains. The percentage of parents scoring severe on each of the scales are presented in Exhibit 5.

As in previous years, the three most significant stressors are coping with a history of child abuse, having low self-esteem and feeling isolated, and dealing with current life stress, including low income, poor housing, and relationship difficulties. Criminal involvement, having a history of substance abuse, and mental illness are more significant problems for the fathers than for the mothers. Also, fathers show more history of violence, and report more difficulties with parental attachment than do mothers.



Exhibit 5: Percentage Of Parents Rated Severe On The Family Stress Checklist.



Data are also collected regarding high-risk characteristics of the newborns (see Exhibit 6).

Exhibit 6: Percentage Of Infants With High-Risk Characteristics.

Risk Factors for infants at intake	State Rate	HFAz Rate 2004	HFAz Rate 2003
Born <37 weeks gestation	9.9%*	13.9%	15.3%
Birth defects	NA	1.3%	1.3%
Low birth weight	7.1%**	12.8%	14.0%
Positive alcohol screen	NA	0.6%	0.4%

* 2001 Data from the Arizona Department of Health Services

** 2003 Data from the Arizona Department of Health Services

The percentage of Healthy Families Arizona infants born early (less than 37 weeks gestation) was less than the 2003 percentage, although it is still high when compared to the state rate. The percentage of low birth weight infants in the program is also less than previous years, but again remains high in comparison



to the state rates. These risk factors are known to be associated with increased potential for child abuse and neglect and other unhealthy outcomes. The Healthy Families Arizona home visitors support the needs of these families with high-risk infants by providing support, assessment, and referral from the time of birth onward.

Service Delivery

Three aspects of service delivery will be reviewed in this report. First, data regarding program engagement and retention are reviewed to give insight into characteristics of families who voluntarily join and stay in the program. Second, a review of types of services provided to the family provides insight into the key components of the program as the child grows. Third, program satisfaction data is provided to gain insight into what aspects of the program are most worthwhile from the families' point of view.

Number of families served

The total number of families served (enrolled) by all Healthy Families Arizona sites during the study period (July 1, 2003 through June 30, 2004) was 2,356. Families may enroll in the program, but they are not considered actively engaged until four home visits have been completed. In the current study year, 2,137 families (90.7%), who were enrolled in the program became engaged – a slight increase from last year. The distribution of engaged families for each site is shown in Exhibit 7. The number of families served by the sites is based on the funding level and number of Family Support Specialists at each site.



Exhibit 7: Healthy Families Arizona Participants Served By Site.

Site and Participants Served	Site and Participants Served
Cochise County Douglas/Bisbee 100 Sierra Vista 77	Coconino County Flagstaff 96 Page 47 Tuba City 51
Maricopa County Central Phoenix 104 East Valley Phoenix 64 Maryvale 88 Mesa 113 South Phoenix 73 Southeast Phoenix 101 Sunnyslope 106	Mohave County Lake Havasu City 103 Pima County Casa de los Niños 131 CODAC 113 La Frontera 146 Pascua Yaqui 54 Child & Family Resources 48
Pinal County Pinal County Department of Public Health 93	Santa Cruz County Nogales 107
Yuma County Yuma 93	Yavapai County Prescott 147 Verde Valley 82
TOTAL ALL SITES = 2,137	

The consistent characteristics of families *less likely* to engage in the program include:

- More often single parents
- More likely to be living alone or with non-parental relative
- More history of depression (an 8% difference from families who engage)
- More likely to have history of criminal behavior, substance abuse or mental illness
- Greater potential for violence
- Greater difficulty with daily life stresses



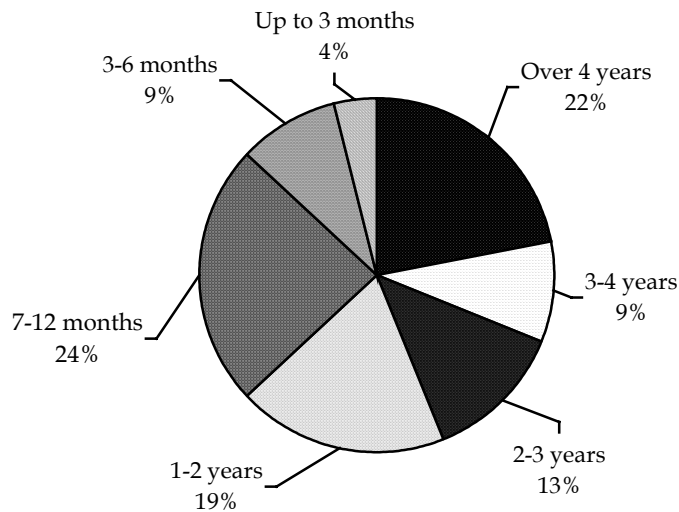
The risk factors present in these families highlight the importance of reaching out to engage them in the program. Because they are likely to be single parents often living alone, they may have increased needs for support and outreach. Understanding this pattern enables the program to develop ways to creatively engage mothers and fathers who may be hesitant to become involved.

As the Healthy Families Arizona program matures, the *average length of time in the program at termination for engaged families* is increasing. A greater proportion of families are staying in the program for three, four and five years. Therefore, the average length of time families are in the program increased from 698 days to 804 days – an increase of over three months. The length of time families stay in the program is shown in Exhibit 8. As can be seen, 19% of the families who terminated in 2004 remained in the program at 1-2 years, 22% stayed 2-4 years, and 22% remained over 4 years.

It is noteworthy that in a recent evaluation of a Healthy Families program in Hawaii (Duggan, et.al., 2004), only about half of the families stayed with the program for more than one year. Healthy Families Arizona, with its emphasis on engagement and retention, has had success in retaining families that exceeds many other programs. The success at program implementation may be one of the reasons why program outcomes for the HFAz program have been more positive than for other programs like the one evaluated in Hawaii.



Exhibit 8: Average Length Of Time In Program At Termination For Engaged Families.



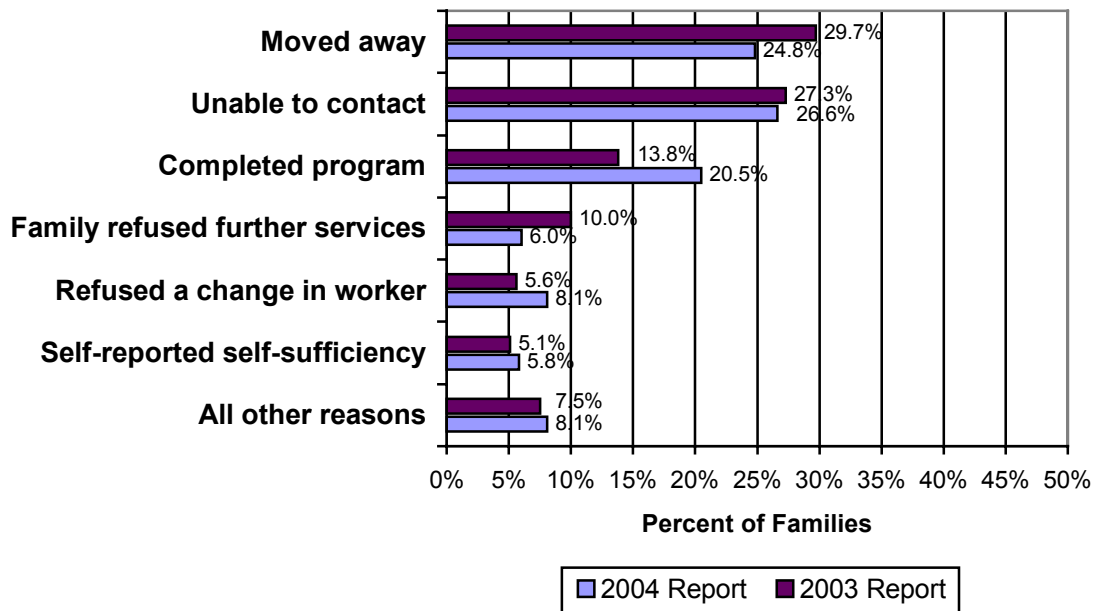
Staff retention appears to contribute to success in retaining families in the program. Healthy Families Arizona also gathers data on staff retention of Supervisors, Family Support Specialists and Family Assessment Workers. In examining those sites with the longest retention rates, program data reveals that those sites also have high retention of their staff. For example, in four of the sites with the longest average length of time to termination, the supervisors have been employed for at least 8 years, and nearly all of the Family Support Specialists have been employed for at least 5 years. These supervisors and home visitors are seasoned professionals with experience and expertise in building relationships, dealing with difficult issues, and effectively conducting outreach to retain families.

The number of families who have successfully completed the program according to the criteria established by Healthy Families Arizona has doubled over the past year. In the current evaluation year, the program completion rate was 20.5 percent. The previous two years' completion rates were 10.5 percent and 13.8 percent respectively. While many of the criteria for "successful program completion" focus on family stability, aspects of self-sufficiency, consistent child development, and decreased parental stress, several of the exit criteria should be examined. Criteria such as the need for completion of three years of program service may be less meaningful than the outcomes of the family in achieving its goals and exhibiting stability.



Similar to last year, over half of the families leaving the program either moved away (24.8%) or could not be contacted (26.6%). The transience of families in Arizona poses particular challenges to retention. With the expansion of Healthy Families programs throughout Arizona, programs may be able to develop better strategies for transferring families between program sites. The data for the families terminating are shown in Exhibit 9.

Exhibit 9: Reasons For Program Termination – Engaged Families.



Types of Services provided

As the Healthy Families Arizona program has grown, program staff and evaluators have increasingly examined the types of service provided to the families engaged in the program. Understanding the particular mix of services that are most beneficial at different points in the developing families’ lives helps to focus the intervention. As stated earlier in this report, the core Healthy Families Arizona services are:

- Emotional support
- Assistance in developing positive parenting skills
- Education on child development and nutrition



- Education and assistance in problem solving and coping skills
- Education on preventive health care (immunizations, links to medical doctor)
- Linkages to preschool resources
- Referrals related to education, employment, and mental health and substance abuse services.

The chart below illustrates the pattern of services provided parents at the six, twelve, and eighteen month points for active families in the program. The first five services are the ones most used in implementing the program.

Exhibit 10: Healthy Family Arizona Service Patterns

Service	<u>6-Months</u> No. of families who used service (Total N=593)	<u>12-Months</u> No. of families who used service (Total N=399)	<u>18-Months</u> No. of families who used service (Total N=276)
Child Development Education	575	379	266
Emotional Support	484	334	244
Model Bonding/Parent-Child Curriculum	508	331	214
Information and Referral	428	308	200
Model Life Coping Skills	314	244	161
Literacy Training	202	123	66
Crisis Intervention	148	111	95
Case Management Services	197	147	113
Linkage to MD or Other Services	130	83	55
Parent Groups	162	112	83
Playgroups	109	81	53
Transportation	89	64	36
Discussions Regarding Domestic Violence	75	60	41



As can be seen in the table, during the families' first 18 months in the program, Family Support Specialists are focusing most heavily on child development education, modeling parenting skills, providing emotional support and providing referrals to community resources. Discussions about sensitive and difficult issues such as domestic violence are much less frequent, although many home visitors have reported that domestic violence, substance abuse and mental health problems are often evident in families they serve. As reported in the 2003 annual report, over two thirds of all home visitors reported they had experienced dealing with these issues with families "in the last 30 days" (LeCroy & Milligan Associates, 2003). The HFAz Quality Assurance and Training team and program supervisors have focused training and supervision on building skills and knowledge in domestic violence, substance abuse, and mental health issues, so that home visitors are more comfortable and prepared to address these areas and help families get into services. The development of the embedded evaluation instrument is also designed to provide a tool for targeting goals and service needs of families and measuring progress in family outcomes.

Program Outcomes

Healthy Families Arizona continues to collect outcome data on a number of outcome indicators in order to evaluate program effectiveness. These indicators include program impact on child abuse and neglect, child health outcomes, parental stress and competence, safety practices in the home, medical and social service use, and employment and educational attainment. Earlier in this report, there was a discussion regarding measurement, and the sometimes difficult choices that must be made in regard to what measure to use to accurately capture the kind of change that is occurring. With the implementation of several new measures in the fall of 2004, new data will be available in next year's report.

Child Abuse and Neglect

Exhibit 11 presents the data regarding substantiated child abuse and neglect reports for two groups – the Healthy Families Arizona program families and a comparison group. The program group consists of families who have had at least four or more home visits and the comparison group consists of families who



dropped out prior to completing at least four visits. The results are based on all families who were active in the program during the study period of July 1, 2003 to June 30, 2004 with at least six months time in the program.

Exhibit 11: Percent Of Child Abuse And Neglect Incidences In Program And Comparison Groups.

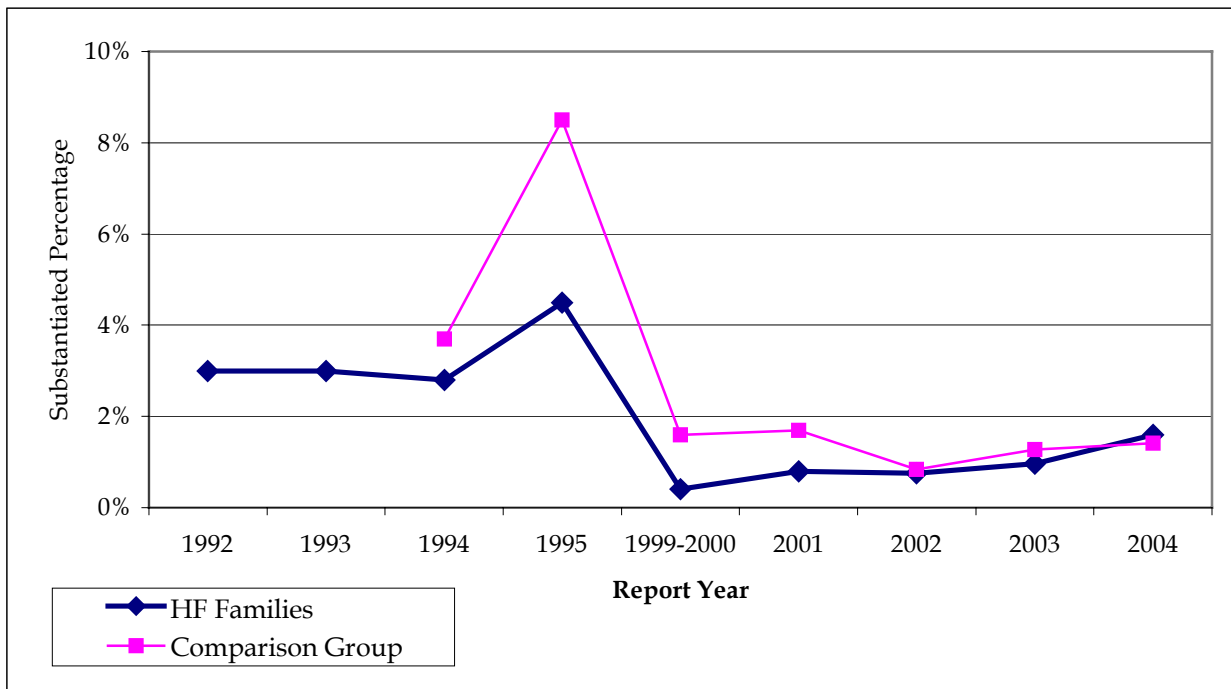
Group	Percent without substantiated report 2003	Percent without substantiated report 2004
Healthy Families Arizona Participants	99.0 % (n=1554)	98.4 % (n=1568)
Comparison Group Participants	98.7 % (n=234)	98.6 % (n=213)

Exhibit 12 shows the rate of substantiated child abuse and child neglect for all of the years Healthy Families Arizona has reported data.² Prior to 1999, the program was allowed to work with families with a history of substantiated child abuse or neglect reports. Beginning in 1999, the program no longer could enroll or support families with substantiated reports. As might be expected, the data indicate that rate of substantiation for enrolled families was greater when working with families with a history of abuse and neglect (1992 through 1995). Beginning in August 2004, the program will once again be allowed to support families with a history of substantiated reports, and therefore the overall rate of substantiated cases for the program families is likely to rise.

² Data were not available in 1996, 1997 or 1998 because the state CPS data reporting system was being revised. Comparison group data were not collected until 1994.



Exhibit 12. Substantiated Reports Trend.



While the percent of families without a substantiated report has gone down, *the incidence of child abuse and neglect* may not be good measures of short-term program impact for several reasons, including:

- child abuse and neglect are low occurring events, and small changes over short periods of time may not represent the longer term effect of the program;
- many incidents of child abuse and neglect go unreported, calling into question the reliability of the measure;
- increased surveillance of families who are involved in community programs such as Healthy Families Arizona may lead to increased reporting.

For these reasons, caution must be used when coming to conclusions regarding program impact based on child abuse and neglect data. Having said that, there may be more useful data regarding longer term changes, and the permanency of



those longer term changes which will be investigated with the longitudinal study now underway.

Parenting Stress

Reducing *parental stress* is one of the key measures used to look at the success of the Healthy Families Arizona program. This is because of the relationship between parental stress and child abuse and neglect. Healthy Families Arizona used the Parenting Stress Index (Abidin, 1995) to assess total stress and data regarding seven subscales – sense of competence, parental attachment, feeling restricted in one’s role, depression, isolation, distractibility, and mood. While this instrument is a reliable and valid measure used extensively in research and evaluation, use of the instrument was discontinued in December 2003 as a newly developed measure is being introduced to the program (as explained earlier in this report). However, there was sufficient data to analyze the baseline to six-month and baseline to twelve-month changes.

Exhibit 13 summarizes the analytic results for the total stress score and each subscale for baseline data (pretest) and subsequent tests at six and twelve months. As illustrated in the exhibit, the total parenting stress score shows significant change across both time intervals. The sense of competence, feeling restricted in role, depression, isolation, parental attachment and mood subscales all showed improvement across all time intervals.³

³ Definitions of the subscales and additional statistical details can be found in Appendix B. The Distractibility scale is not reported as the scale has been found to be unreliable.



Exhibit 13: Parenting Stress Index Findings.

Subscale	Significant Improvement Baseline to 6 months	Significant Improvement Baseline to 12 months
Sense of Competence	✓	✓
Parental Attachment	✓	✓
Feeling Restricted in Role	✓	✓
Depression	✓	✓
Isolation	✓	✓
Mood	✓	✓
Total Stress Score	✓	✓

The data also reveal that 67 percent of the families taking both the baseline and 6-month PSI showed improvement in the total stress score. This is an increase over the last year.

Safety Practices

Healthy Families home visitors report great success in using the “Child Safety Checklist” with families, as families are very receptive to learning how to make their homes safe for their children. Because accidents are a leading cause of injury and death among young children, improved safety practices in the home has long been a key objective of the program. At the 2-month assessment point, home visitors are developing relationships with the family and setting the stage for discussing safety practices as the family’s infant grows. Exhibit 14 details two of the items tracked on the child safety checklist – outlets covered and poisons locked away. Families are showing increases in use of these safety practices as the child gets older – at 2, 6, and 12 months – for last year and the current year.⁴

⁴ Other indicators include appropriate use of car seats, the securing of scissors, knives, lighters and matches, water safety, outside supervision, food storage, and a listing of emergency phone



However, the overall percentage of families employing the practice is not increasing. As children become more mobile through crawling and walking, program staff should re-emphasize the need to help families adopt safe practices in these two areas at 6 and 12 months and beyond.

Exhibit 14: Percent Of Safety Practices Implemented.

	2 Month		6 Month		12 Month	
	2003	2004	2003	2004	2003	2004
Outlets Covered	49.8%	46.5%	61.1%	56.4%	75.5%	75.7%
Poisons Locked	84.8%	83.3%	87.4%	86.2%	93.1%	93.8%

One other safety practice that is independent of child mobility that needs attention is the availability of a working smoke alarm in the home. At the two-month interval, 84 percent of homes have working alarms. At 12 months, 87 percent have working alarms. This could also be an area of emphasis for the home visitors in the future.

Adequate medical care for all family members is another key goal of Healthy Families Arizona. The *immunization rate for the children* is one of the indicators used to measure this objective. Exhibit 15 shows this rate for the infants of families enrolled in Healthy Families Arizona in the current study year and the previous year.

numbers. At the two-month assessment, these other safety practices were all being actively used by over 98 percent of the participants.



Exhibit 15: Immunization Rate of Healthy Families Arizona Children

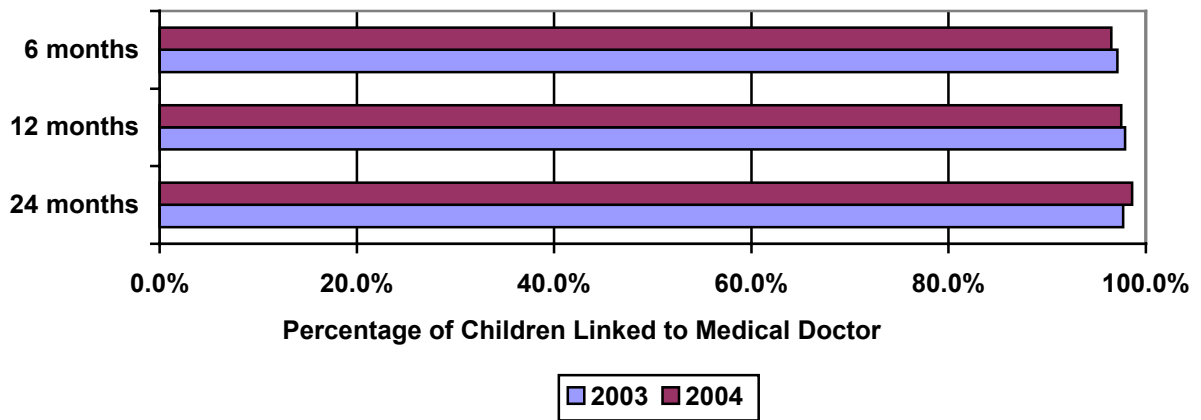
Immunization Period	Percent Immunized 2003	Percent Immunized 2004	Immunization Rate for 2-year-olds in Arizona (July 2004)
2 month	95.1%	96.7%	
4 month	92.8%	94.3%	
6 month	85.1%	87.1%	
12 month	92.0%	95.9%	
Received all 4 in the series	88.8%	94.0%	77.0%

The program continues to see growth in this important area, and the rate of immunization continues to outpace the state rate by a considerable margin, in spite of the fact that the families served represent a high-risk group perceived as less likely to receive immunizations.

A second way to look at the goal of ensuring the families receive adequate medical care is to look at the *percentage of children linked to a medical doctor*. As can be seen in Exhibit 16, over 96% of children have a medical home at each of the data intervals. There is very little change from last year to this year on this variable, showing that the program continues to meet the challenge of having a high percentage of children linked to a primary care physician.



Exhibit 16: Percentage of Children Linked to a Medical Doctor.



Equally important to the need for quality care of the child is the need to ensure the *parent* receives appropriate health care. Health care for parents can contribute to better family planning and early identification of problems such as depression or domestic violence – all problems that affect the health and well-being of the entire family. This year, more than 80 percent of the parents report they have a primary care physician after they’ve been in the program eighteen months.

One of the keys to achieving the high rate of success in both immunizations and linkage to physicians is continued emphasis by supervisors and regular feedback to the sites. Data regarding the immunization rates and the linkage to a doctor are reported regularly to the sites via the Healthy Families Arizona Quarterly Family Data Report, which is used by the sites as an on-going quality assurance tool. The quarterly reports provide timely information about which families need support in medical and health care.

Child Development

The promotion of healthy child development is a central goal of Healthy Families Arizona. One tool used by the Family Support Specialists to achieve this goal is the Ages and Stages Questionnaire (ASQ). By working with the parents to fill out the questionnaire every 6 months, the home visitors have an opportunity to teach about the developmental tasks and milestones of their children as they grow.



Additionally, the questionnaire can indicate the need to do additional assessment for **potential developmental delays**. This early detection allows for referral to appropriate follow-up services such as the Arizona Early Intervention Program (AzEIP), or another intervention program. Exhibit 17 displays the information regarding the percentage of children in the program screened, and the percentage who screened positive for developmental delays. The data suggest that the overall percentage of children screened goes down over time, while the number of children scoring as having a potential delay is going up.

Exhibit 17: ASQ Screening

Interval ASQ Administered	Percent of Children Screened with ASQ	Percent Screened as Delayed Percent (N)
6-Month	81.0 %	5.3 % (22)
12-Month	80.6 %	10.9 % (29)
18-Month	73.3 %	17.7 % (36)
24-Month	76.1 %	21.8 % (43)
30-Month	75.1 %	15.2 % (28)

Many of the children are bilingual which can result in temporary “delays” at the two-year period. If the ASQ indicates a potential delay, it is important to ensure further assessment is made to determine the proper course of action. Continued assessment often indicates no delay is evident. In other cases, further assessment indicates that additional intervention is needed, and appropriate referrals need to be made. Exhibit 18 provides the data regarding assessment status and referral.



Exhibit 18: ASQ Referral Status.

	Re-assessment Shows “No “Delay”	Referred to AzEIP	Referred to Early Intervention	Provided Developmental Intervention	Referred to Therapy	Parent Declined Referral
	% (N)	% (N)	% (N)	% (N)	% (N)	% (N)
6-month Screen	40.9% (9)	13.6% (3)	18.2% (4)	54.5% (12)	0% (0)	4.5% (1)
12-month Screen	24.1% (7)	27.6% (8)	13.8% (4)	37.9% (11)	10.3% (3)	10.3% (3)
18-month Screen	13.9% (5)	27.8% (10)	19.4% (7)	41.7% (15)	0% (0)	11.1% (4)
24-month Screen	7.0% (3)	46.5% (20)	7.0% (3)	41.9% (18)	4.7% (2)	11.6% (5)
36-month Screen	7.1% (2)	50.0% (14)	21.4% (6)	50.0% (14)	10.7% (3)	3.6% (1)

Note: percents do not equal 100% as multiple referrals can happen for a single child

In all cases, other than those where the re-assessment indicated that the child was not delayed or where the parent refuses further action, the children screened as developmentally delayed receive follow-up services. These services include referral to the Arizona Early Intervention Program, other developmental intervention, or other therapy.

Substance Abuse Services

Another risk for many families is the **potential for alcohol and drug problems**, which is strongly linked to child abuse and neglect. The Healthy Families Arizona program provides screening to families in an effort to help determine who may need to seek alcohol or drug treatment. While a positive screen doesn't necessarily indicate a substance abuse problem or alcoholism, it may be an



important signal to Healthy Families staff about the need for further discussion or referral. Routine use of an appropriate screen may reduce the stigma associated with asking questions about substance use and in turn, help families seek help more readily.

Exhibit 19 shows the results of the screening at the 2, 6, 12, and 18-month intervals. Only a small number of mothers revealed positive screens. However, this rate is very similar to the 3% rate of positive screens found in a study of women in the general population. Data at 12 months shows that the home visitors provided information or educational materials about substance abuse to 82% of families and made referrals to a community service, AA or Alanon with 11% of families.

Exhibit 19: Percentage Of Families Who Screened Positive For Alcohol And Drug Problems.

Screening Interval	Positive Screens	Positive Screens
	2004	2003
2 months (N=315)	5.7%	6.3%
6 months (N=223)	3.6%	7.8%
12 months (N=119)	2.5%	4.6%
18 months (N=123)	5.7%	4.6%

Both Healthy Families home visitors and the evaluation team have not been satisfied with the CAGE as a tool for substance abuse screening and discussion. Furthermore, the CAGE has been found to be less sensitive and reliable with women and teens than with men (Allen & Anthenelli 2003). As part of the current evaluation review, the evaluation team is researching and recommending a more appropriate instrument that will screen effectively for substance abuse problems while at the same time promoting communications. The TA/QA team is also working with DES staff and providers to provide additional training to the home visitors in skills such as motivational interviewing, so they are better equipped to communicate with the families on these kinds of sensitive issues.



Mother's Health and Employment

The Healthy Families Arizona program focuses on the health and well-being of the parents as well as children. Each year, the evaluation examines *maternal life outcomes* such as subsequent pregnancies, education, and employment.

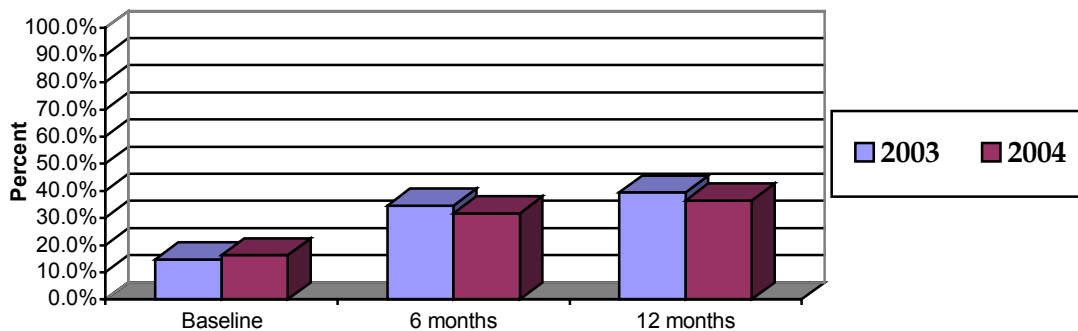
During the study period, 15 percent of the mothers reported *subsequent pregnancies*. Of these, 29.7 percent were 18 years or younger. Exhibit 20 shows the length of time to subsequent pregnancy. As shown, the time between births is lengthening. The trend, albeit minor, indicates that Healthy Families Arizona mothers are waiting longer to have another child.

Exhibit 20: Length Of Time To Subsequent Pregnancy

Length of Time to Subsequent Pregnancy	2004 Percent of Mothers	2003 Percent of Mothers
1 to 12 mos.	31.6 %	33.0 %
13 to 24 mos.	42.3 %	45.9 %
Over 24 mos.	26.1 %	21.1 %

Exhibit 21 shows the *employment status* of mothers actively engaged in the program at various points in the program as compared to 2003. While the mothers employed at baseline shows a slight increase (16.3% in 2004), those employed at six (31.8% in 2004) and twelve months (36.5% in 2004) show slight decreases.

Exhibit 21. Mother's Employment Status.



Conclusions and Recommendations

Healthy Families Arizona is a growing and vital program for delivering prevention services to at-risk families. Many important changes are taking place in the program. All families, regardless of any previous history with Child Protective Services, are now eligible to be screened and assessed into the program. Families can begin to be served by the program before the birth of the child. All of these changes can have a positive impact on a vulnerable part of the population – the newborn children of families at risk.

In response to these and other changes, the evaluation is also changing. A new instrument, specifically developed to track the positive changes possible with the Healthy Families Arizona program is being implemented. The program is in the process of determining how to include the home visitors' perception of change as part of an embedded evaluation instrument. The team is beginning the process of choosing the appropriate tool for measuring change with prenatal children. At the same time, a more rigorous longitudinal study is under way. All of this, combined with the changes in the program itself, create an exciting period, and future, for the program.

The program continues to undergo evaluation and quality improvement. This report describes a program that continues to serve a diverse population with clear indicators of risk. The number of participants who have had little or no prenatal care and low birth weight babies continues to be higher than average, indicating a potential to positively impact this area with prenatal services. Almost all sites continue to serve families to their capacity. Although the program served approximately the same number of families as last year, an increasing number (91 percent) elected to stay in the program for an increasingly longer period – the average length of time in the program grew from 698 days to 804 days. This is part of a continuing trend over the last several years, and reflects the emphasis the program staff has placed on engagement and retention of program families.



Program outcomes continue to document the program's effectiveness. The number of parents *without* a substantiated report of child abuse and neglect continues to meet the state goal of over 95 percent. Multiple measures of parental stress show significant improvements over time. A larger percent of total families reported positive changes compared to last year. The child safety checklist continues to be a valuable tool, although some increased attention could be paid to some items. The immunization rate for Healthy Families Arizona babies continues to increase, well outpacing the overall state rate.

The children are screened for developmental delays at a high rate. As more families remain longer in the program, it is important for family support specialists to continue to achieve a high rate of developmental screening as the children grow nearer to school-age. Families, particularly young mothers, continue to need strong support to carefully plan subsequent pregnancies. During the study period, 15 percent of the mothers had subsequent pregnancies. Of those who did become pregnant, 30 percent were 18 or younger, and 32 percent became pregnant within one year.

Based on this evaluation, the following recommendations are made.

1) To effectively address some of the most difficult family problems such as substance abuse, domestic violence and mental illness, the program should continue to find the most appropriate role for home visitors in addressing these issues. Further clarification of the Healthy Families logic model will help define the most appropriate services to be provided by home visitors. *The program should review and refine existing protocols to ensure they are consistent with emerging best practices, appropriately address the significant issues faced by the families, and address the developmental needs of the child.* Step-by-step practice protocols, grounded in best practice research, will clarify and strengthen the fidelity of the Healthy Families program model.

2) *The program should continue to emphasize careful planning of subsequent pregnancies, especially with young mothers.* Fifteen percent of the program participants had subsequent pregnancies while enrolled in the program. Nearly one-third of them were by teenage mothers.



3) *The substance abuse screen has been re-evaluated and replaced. More training in how to discuss substance use and abuse is needed.* A screen which is more sensitive and accurate for use with women has been recommended; both research and practical experience of home visitors supports this recommendation. In addition, because of the high risks associated with prenatal alcohol and other drug use, a prenatal screen is needed that opens the door for discussion around the dangers unique to drug use during this period. A well-done screening represents a learning opportunity for the parent and leads to better assurance that the most appropriate services will be recommended to the family. However, home visitors must be comfortable and trained to effectively deal with these issues.

4) *The use of the safety checklist to identify and help families implement safety practices in their homes should be re-emphasized.* Three areas in particular could be easily resolved with minimal investment – covers on electrical outlets, keeping poisons locked up, and installing working smoke alarms.

5) More emphasis needs to be placed on administering the *Ages and Stages Questionnaire* consistently through the program. The percent of children screened using the instrument declines over time, while the number of children screening positive for developmental delays is increasing.

6) *The criteria for “successful completion” of the program should be re-examined.* There may be additional ways to examine the extent to which a family is “successful” that are based on specific outcomes related to their goals. Current criteria related to a specified length of time in the program may be a less useful and valid measure of their progress.

7) With the implementation of prenatal services, the evaluation will expand to include an examination of the implementation of prenatal services. *As part of the expansion, relevant measures for these families should be developed.* Development of a prenatal logic model will aid in determining the appropriate outcomes for the program and serve as a guide in developing appropriate measures.



Future Considerations for Program Improvement and Program Evaluation

Looking to the future, there are several initiatives underway that will improve the evaluation and consequently, strengthen the program.

The longitudinal study has begun.

In the recent *Emerging Practices in the Prevention of Child Abuse* (Caliber, 2003), the need to expand existing knowledge about the effectiveness of prevention is the overriding theme. The report specifically states, “Existing knowledge about the efficacy of prevention in the field of child maltreatment is limited; clearly, all the major prevention models and strategies could benefit from more rigorous study” (p. 1). Chaffin (2004) echoed the same theme in a recent commentary on the Hawaii Healthy Start program. *The Healthy Families Arizona program is uniquely positioned to address many of the criticisms levied against previous home visitation studies.* The program has a centralized, strong quality assurance/technical assistance component; it has over 10 years of evaluation experience and a database with 14 years of data.

The new Healthy Families Parenting Inventory has been implemented.

One of the consistent criticisms of home visitation programs has been that there is insufficient data regarding the specific outcomes related to the program model. *The Healthy Families Parenting Inventory was developed in a manner that grounded the instrument in the specific outcomes of the Healthy Families Arizona program.* Work is underway to develop an additional measure that will be filled out by the Family Support Specialists to provide information regarding the type and scope of change in the program.



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Appendix A

Site Level Data

- Age of Child at Entry
- Days to Termination
- Reason for Termination
- Health Insurance at Intake
- Late or No Prenatal Care or Poor Compliance at Intake
- Ethnicity of Mother
- Gestational Age
- Low Birth Weight
- Yearly Income
- Family Stress Checklist Score



Age of Child at Entry by Site - 2004
(Age in days)

Site	Mean (Age in Days)	Standard Deviation	Number
Douglas/Bisbee	14.92	15.97	99
Central Phoenix	23.64	20.99	101
Maryvale (Phoenix)	22.90	20.74	87
South Phoenix	23.29	21.88	72
East Valley (Phoenix)	21.92	18.40	62
Nogales	14.65	18.82	106
Page	27.55	22.98	47
Casa de los Niños (Tucson)	21.40	17.39	129
CODAC (Tucson)	23.88	22.55	112
La Frontera (Tucson)	20.87	21.40	145
Child & Family Resources (Tucson)	21.75	22.15	48
Sierra Vista	14.26	16.58	74
Tuba City	17.32	20.09	50
Verde Valley	11.49	15.59	82
Yuma	19.52	17.14	93
Pascua Yaqui	33.92	25.21	53
Lake Havasu City	23.17	19.70	103
Flagstaff	18.21	21.92	95
Sunnyslope (Phoenix)	24.86	18.36	104
Prescott	21.67	18.93	147
Casa Grande	17.86	22.35	90
Mesa	22.06	17.37	111
Southeast Phoenix	19.32	16.23	98
Total	20.66	19.94	21.08



Days to Termination by Site - 2004
(For terminated clients)

Site	Mean (Days to termination)	Standard Deviation	Number
Douglas/Bisbee	1157.54	607.51	28
Central Phoenix	817.96	701.93	25
Maryvale (Phoenix)	721.50	642.95	26
South Phoenix	755.30	560.96	20
East Valley (Phoenix)	692.32	586.18	19
Nogales	1162.08	771.27	37
Page	726.82	525.21	17
Casa de los Niños (Tucson)	855.35	577.91	40
CODAC (Tucson)	853.05	579.99	22
La Frontera (Tucson)	876.35	567.70	37
Child & Family Resources (Tucson)	964.13	565.09	16
Sierra Vista	761.52	652.61	23
Tuba City	910.26	732.31	19
Verde Valley	732.27	578.71	26
Yuma	766.81	622.12	31
Pascua Yaqui	1390.35	658.00	17
Lake Havasu City	509.03	374.22	34
Flagstaff	823.16	531.80	32
Sunnyslope (Phoenix)	577.30	631.49	33
Prescott	682.24	552.43	58
Casa Grande	664.71	552.26	24
Mesa	642.83	512.09	24
Southeast Phoenix	729.19	564.24	21
Total	804.90	615.70	629



Top Three Reasons for Termination by Site - 2004
(Percent and number within Site)

Site	Moved Away	Unable to contact	Completed Program
Douglas/Bisbee	18.5% (5)	14.8% (4)	29.6% (8)
Central Phoenix	24.0% (6)	24% (6)	20.0% (5)
Maryvale (Phoenix)	34.6% (9)	23.1% (6)	19.2% (5)
South Phoenix	15.8% (3)	31.6% (6)	10.5% (2)
East Valley (Phoenix)	27.8% (5)	44.4% (8)	16.7% (3)
Nogales	24.3% (9)	13.5% (5)	48.6% (18)
Page	17.6% (3)	29.4% (5)	11.8% (2)
Casa de los Niños (Tucson)	5.1% (2)	43.6% (17)	15.4% (6)
CODAC (Tucson)	13.6% (3)	31.8% (7)	27.3% (6)
La Frontera (Tucson)	35.1% (13)	24.3% (9)	27.0% (10)
Child & Family Resources (Tucson)	18.8% (3)	12.5% (2)	37.5% (6)
Sierra Vista	17.4% (4)	34.8% (8)	21.7% (5)
Tuba City	31.6% (6)	21.1% (4)	31.6% (6)
Verde Valley	40.0% (10)	28.0% (7)	12.0% (3)
Yuma	13.8% (4)	48.3% (14)	24.1% (7)
Pascua Yaqui	11.8% (2)	5.9 (1)	52.9% (9)
Lake Havasu City	29.4% (10)	14.7% (5)	2.9% (1)
Flagstaff	38.7% (12)	6.5 (2)	3.2 (1)
Sunnyslope (Phoenix)	27.3% (9)	6.1% (2)	15.2% (5)
Prescott	31.6% (18)	28.1% (16)	15.8 (9)
Casa Grande	25.0% (6)	45.8% (11)	20.8 (5)
Mesa	33.3% (8)	29.2% (7)	8.3% (2)
Southeast Phoenix	19.0% (4)	61.9% (13)	14.3 (3)
Total	24.8% (154)	26.6% (165)	20.5% (127)



Health Insurance by Site at Intake - 2004
(Percent and number within Site)

Site	None	AHCCCS	Private
Douglas/Bisbee	3.0% (3)	91.9% (91)	5.1% (5)
Central Phoenix	1.0% (1)	81.6% (84)	15.5% (16)
Maryvale (Phoenix)	4.6% (4)	83.9% (73)	11.5% (10)
South Phoenix	1.4% (1)	84.9% (62)	12.3% (9)
East Valley (Phoenix)	4.9% (3)	82.0% (50)	11.5% (7)
Nogales	7.6% (8)	88.6% (93)	1.9% (2)
Page	0	91.5% (43)	8.5% (4)
Casa de los Niños (Tucson)	1.5% (2)	84.6% (110)	12.3% (16)
CODAC (Tucson)	0.9% (1)	93.7% (104)	3.6% (4)
La Frontera (Tucson)	2.1% (3)	90.4% (132)	6.2% (9)
Child & Family Resources (Tucson)	2.1% (1)	89.4% (42)	8.5% (4)
Sierra Vista	0	74.6% (53)	21.1% (15)
Tuba City	15.7% (8)	84.3% (43)	0
Verde Valley	1.3% (1)	88.6% (70)	10.1% (8)
Yuma	4.3% (4)	94.6% (87)	0
Pascua Yaqui	0	88.7% (47)	3.8% (2)
Lake Havasu City	2.9% (3)	87.4% (90)	8.7% (9)
Flagstaff	3.1% (3)	89.6% (86)	7.3% (7)
Sunnyslope (Phoenix)	2.9% (3)	85.7% (90)	9.5% (10)
Prescott	1.4% (2)	86.2% (125)	6.9% (10)
Casa Grande	3.3% (3)	89.1% (82)	7.6% (7)
Mesa	0.9% (1)	88.3% (98)	4.5% (5)
Southeast Phoenix	3.0% (3)	84.0% (84)	10.0% (10)
Total	2.8% (58)	87.3% (1839)	8.0% (169)



**Late or No Prenatal Care or Poor Compliance at Intake - 2004
by Site (Percent and number within Site)**

Site	The participant received no or late prenatal care or showed poor compliance with prenatal care		
	True	False	Unknown
Douglas/Bisbee	43.0% (43)	53.0% (53)	4.0% (4)
Central Phoenix	30.8% (32)	69.2% (72)	0
Maryvale (Phoenix)	31.8% (28)	63.6% (56)	4.5% (4)
South Phoenix	37.0% (27)	61.6% (45)	1.4 (1)
East Valley (Phoenix)	33.3% (21)	61.9% (39)	4.8% (3)
Nogales	54.2% (58)	40.2% (43)	5.6% (6)
Page	39.1% (18)	60.9% (28)	0
Casa de los Niños (Tucson)	26.2% (34)	63.8% (83)	10.0% (13)
CODAC (Tucson)	32.1% (36)	63.4% (71)	4.5% (5)
La Frontera (Tucson)	29.5% (43)	65.8% (96)	4.8% (7)
Child & Family Resources (Tucson)	35.4% (17)	60.4% (29)	4.2% (2)
Sierra Vista	29.9% (23)	68.8% (53)	1.3% (1)
Tuba City	29.4% (15)	62.7% (32)	7.8% (4)
Verde Valley	57.3% (47)	42.7% (35)	0
Yuma	45.2% (42)	53.8% (50)	1.1 (1)
Pascua Yaqui	18.9% (10)	79.2% (42)	1.9% (1)
Lake Havasu City	28.2% (29)	70.9% (73)	1.0% (1)
Flagstaff	30.9% (29)	69.1% (65)	0
Sunnyslope (Phoenix)	28.6% (30)	69.5% (73)	1.9% (2)
Prescott	42.5% (62)	54.8% (80)	2.7% (4)
Casa Grande	36.6% (34)	62.4% (58)	1.1% (1)
Mesa	35.4% (40)	59.3% (67)	5.3% (6)
Southeast Phoenix	42.6% (43)	56.4% (57)	1.0% (1)
Total	25.8% (761)	61.1% (1300)	3.1% (67)



**Ethnicity of Mother by Site - 2004
(Percent and number within Site)**

Site	Caucasian	Hispanic	African American	Asian American	Native American	Other
Douglas/Bisbee	10.0% (10)	89.0% (89)	0	0	0	1.1% (1)
Central Phoenix	26% (27)	57.7% (60)	9.6% (10)	1.9% (2)	1.0% (1)	3.8% (4)
Maryvale (Phoenix)	20.7% (18)	70.1% (61)	6.9% (6)	0	1.1% (1)	1.1% (1)
South Phoenix	12.3% (9)	68.5% (50)	17.8% (13)	0	0	1.4% (1)
East Valley (Phoenix)	35.9% (23)	42.2% (27)	17.2% (11)	1.6% (1)	0	3.1% (2)
Nogales	0	100% (105)	0	0	0	0
Page	2.1% (1)	4.3% (2)	0	0	91.5% (43)	2.1% (1)
Casa de los Niños (Tucson)	26.7% (35)	59.5% (78)	5.3% (7)	0.8% (1)	3.1% (4)	4.6% (6)
CODAC (Tucson)	14.3% (16)	74.1% (83)	6.3% (7)	0	3.6% (4)	1.8% (2)
La Frontera (Tucson)	13.1% (19)	75.9% (110)	2.1% (3)	1.4% (2)	5.5% (8)	2.1% (3)
Child & Family Resources (Tucson)	14.6% (7)	79.2% (38)	4.2% (2)	0	0	2.1% (1)



Site	Caucasian	Hispanic	African American	Asian American	Native American	Other
Sierra Vista	40.3% (31)	48.1% (37)	3.9% (3)	0	1.3% (1)	6.5% (5)
Tuba City	0	0	0	0	100% (51)	0
Verde Valley	59.8% (49)	36.6% (30)	0	0	3.7% (3)	0
Yuma	5.6% (5)	93.3% (84)	1.1% (1)	0	0	0
Pascua Yaqui	1.9% (1)	9.4% (5)	0	0	64.2% (34)	24.5% (13)
Lake Havasu City	53.4% (55)	37.9% (39)	1.0% (1)	1.9% (2)	2.9% (3)	2.9% (3)
Flagstaff	16.7% (16)	44.8% (43)	3.1% (3)	0	35.4% (34)	0
Sunnyslope (Phoenix)	50.0% (53)	29.2% (31)	10.4% (11)	0.9% (1)	2.8% (3)	6.6% (7)
Prescott	62.6% (92)	36.7% (54)	0	0.7% (1)	0	0
Casa Grande	25.3% (23)	63.7% (58)	6.6% (6)	0	2.2% (2)	2.2% (2)
Mesa	46.0% (52)	41.6% (47)	6.2% (7)	0	3.5% (4)	2.7% (3)
Southeast Phoenix	21.8% (22)	58.4% (59)	11.9% (12)	0	3.0% (3)	5.0% (5)
Total	26.5% (564)	56.0% (1190)	4.8% (103)	0.5% (10)	9.4% (199)	2.8% (60)



Gestational Age by Site - 2004
(Number and Percent within Site)

Site	Was the gestational age less than 37 weeks?	
	No	Yes
Douglas/Bisbee	89.8% (88)	10.2% (10)
Central Phoenix	79.3% (73)	20.7% (19)
Maryvale (Phoenix)	85.9% (67)	14.1% (11)
South Phoenix	89.2% (58)	10.8% (7)
East Valley (Phoenix)	80.0% (48)	20.0% (12)
Nogales	88.6% (93)	11.4% (12)
Page	91.3% (42)	8.7% (4)
Casa de los Niños (Tucson)	81.5% (97)	18.5% (22)
CODAC (Tucson)	85.0% (85)	15.0% (15)
La Frontera (Tucson)	82.1% (110)	17.9% (24)
Child & Family Resources (Tucson)	84.8% (39)	15.2% (7)
Sierra Vista	88.7% (63)	11.3% (8)
Tuba City	87.2% (34)	12.8% (5)
Verde Valley	85.4% (70)	14.6% (12)
Yuma	92.2% (83)	7.8% (7)
Pascua Yaqui	95.9% (47)	4.1% (2)
Lake Havasu City	89.2% (83)	10.8% (10)
Flagstaff	89.7% (78)	10.3% (9)
Sunnyslope (Phoenix)	80.2% (77)	19.8% (19)
Prescott	94.4% (136)	5.6% (8)
Casa Grande	91.1% (82)	8.9% (8)
Mesa	71.3% (72)	28.7% (29)
Southeast Phoenix	83.7% (77)	16.3% (15)
Total	86.1% (1702)	13.9% (275)



**Low Birth Weight by Site
(Number and Percent within Site)**

Site	Did the child have low birth weight (less than 2500 grams or 88 ounces)?	
	No	Yes
Douglas/Bisbee	86.0% (86)	14.0% (14)
Central Phoenix	83.5% (86)	16.5% (17)
Maryvale (Phoenix)	81.8% (72)	18.2% (16)
South Phoenix	87.7% (64)	12.3% (9)
East Valley (Phoenix)	78.1% (50)	21.9% (14)
Nogales	88.8% (95)	11.2% (12)
Page	93.6% (44)	6.4% (3)
Casa de los Niños (Tucson)	88.5% (116)	11.5% (15)
CODAC (Tucson)	89.4% (101)	10.6% (12)
La Frontera (Tucson)	83.4% (121)	16.6% (24)
Child & Family Resources (Tucson)	89.6% (43)	10.4% (5)
Sierra Vista	88.3% (68)	11.7% (9)
Tuba City	86.3% (44)	13.7% (7)
Verde Valley	87.8% (72)	12.2% (10)
Yuma	94.5% (86)	5.5% (5)
Pascua Yaqui	96.2% (51)	3.8% (2)
Lake Havasu City	87.4% (90)	12.6% (13)
Flagstaff	81.3% (78)	18.8% (18)
Sunnyslope (Phoenix)	87.7% (93)	12.3% (13)
Prescott	94.5% (138)	5.5% (8)
Casa Grande	91.4% (85)	8.6% (8)
Mesa	76.6% (85)	23.4% (26)
Southeast Phoenix	88.1% (89)	11.9% (12)
Total	87.2% (1857)	12.8% (272)



Yearly Income by Site

Site	Median Yearly Income	Number
Douglas/Bisbee	\$ 7,200	95
Central Phoenix	\$ 5,664	77
Maryvale (Phoenix)	\$ 9,600	65
South Phoenix	\$ 5,448	55
East Valley (Phoenix)	\$ 7,500	44
Nogales	\$ 9,600	100
Page	\$ 4,800	45
Casa de los Niños (Tucson)	\$ 7,540	101
CODAC (Tucson)	\$10,300	94
La Frontera (Tucson)	\$ 7,500	122
Child & Family Resources (Tucson)	\$ 9,600	40
Sierra Vista	\$ 3,300	68
Tuba City	\$ 6,900	36
Verde Valley	\$ 7,200	76
Yuma	\$ 7,200	80
Pascua Yaqui	\$ 5,124	51
Lake Havasu City	\$10,800	102
Flagstaff	\$ 7,200	89
Sunnyslope (Phoenix)	\$ 5,268	79
Prescott	\$12,000	44
Casa Grande	\$ 9,300	52
Mesa	\$ 6,000	87
Southeast Phoenix	\$ 5,160	77
Total	\$ 7,540	1679



Family Stress Checklist Score by Site - 2004

Site	Mean Score	Percent of mothers whose FSC score was greater than 40	Number of mothers whose FSC score was greater than 40
Douglas/Bisbee	39.39	54.0%	54
Central Phoenix	38.80	46.2%	48
Maryvale (Phoenix)	36.31	42.0%	37
South Phoenix	38.49	49.3%	36
East Valley (Phoenix)	36.95	48.4%	31
Nogales	32.71	21.5%	23
Page	35.53	36.2%	17
Casa de los Niños (Tucson)	39.27	49.6%	65
CODAC (Tucson)	36.19	43.4%	49
La Frontera (Tucson)	39.25	53.4%	78
Child & Family Resources (Tucson)	36.49	41.7%	20
Sierra Vista	35.78	35.1%	27
Tuba City	31.18	19.6%	10
Verde Valley	34.76	32.9%	27
Yuma	35.00	34.4%	32
Pascua Yaqui	31.57	25.9%	14
Lake Havasu City	37.86	44.7%	46
Flagstaff	38.49	42.7%	41
Sunnyslope (Phoenix)	39.86	52.8%	56
Prescott	42.07	58.5%	86
Casa Grande	31.24	25.8%	24
Mesa	37.23	43.4%	49
Southeast Phoenix	36.34	45.5%	46
Total	37.05	42.9%	916



Appendix B

Parenting Stress Index Information

Reliabilities for Current Study

<i>Subscale</i>	<i>Alpha</i>
Competence	.70
Attachment	.60
Restricted Role	.74
Depression	.78
Isolation	.73
Distractibility	.50
Mood	.67

Change in Parenting Stress Index Subscales Scores from baseline to 6 months

Subscale	Baseline		6 months		Significance
	Mean	SD	Mean	SD	t
Competence	31.5	6.2	29.7	6.2	7.17***
Attachment	12.9	3.6	12.4	3.7	3.62***
Restricted role	19.6	5.3	18.9	5.5	3.13*
Depression	20.8	6.1	19.7	6.1	4.82***
Isolation	14.5	4.7	13.8	4.8	3.56***
Mood	10.4	3.0	9.1	2.9	9.01***

Note: * p<.01, ** p<.001, *** p<.000, dependent t-tests, SD=Standard Deviation.



Change in Total Parenting Index Scores from baseline to 6 months

Subscale	Baseline		6 months		Significance
	Mean	SD	Mean	SD	t
Total Stress Score	137.0	25.5	128.9	24.9	7.25***

*** p<.000

Change in Parenting Stress Index from baseline to 12 months

Subscale	Baseline		12 months		Significance
	Mean	SD	Mean	SD	t
Competence	31.6	6.2	29.3	6.0	7.07***
Attachment	12.8	3.6	12.0	3.4	4.29***
Restricted role	19.5	5.2	18.6	5.2	3.27**
Depression	20.9	6.1	19.2	5.9	5.69***
Isolation	14.5	4.5	13.6	4.5	3.97***
Mood	10.5	3.0	9.4	2.9	6.36***

Note: * p<.01, ** p<.001, *** p<.000, dependent t-tests, SD=Standard Deviation.

Change in Total Parenting Index Scores from baseline to 12 months.

Subscale	Baseline		12 months		Significance
	Mean	SD	Mean	SD	t
Total Stress Score	135.5	23.4	127.3	23.5	7.55***

*** p<.000



Range and Reliability of the Parenting Stress Index (PSI) (Selected subscales for original reliabilities analysis)

Subscales	Range ^a	Alpha Coefficient	Administration
Sense of Competence	13 - 65	.77	Administered at 3 weeks, 6 months, and 18 months
Parental Attachment	7 - 35	.64	
Role Restriction	7 - 35	.74	
Depression	9 - 45	.75	
Social Isolation	6 - 30	.69	
Mood	5 - 25	.70	
Distractibility	9 - 45	.82	
Total Score ^b	78-390	.85	

^a A higher score on each of the subscales represents a higher degree of stress in that area.

^b The total score on the *Parenting Stress Index* is computed by summing all of the subscales, with a higher score indicating more stress.



Description of Parenting Stress Index Subscales

Sense of Competence Subscale: Assesses the parent's sense of competence in relation to his or her role as parent. It relates to knowledge of how to manage the child's behavior and comfort in making decisions such as when and how to discipline the child.

Parental Attachment Subscale: Assesses the intrinsic investment the parent has in the role of parent. This subscale was expected to determine the parent's motivation level to fulfill the role of parent.

Restrictive Role Subscale: Assesses the negative impact, losses, and sense of resentment associated with the parent's perceptions of loss of important life roles.

Depression Subscale: Assesses the extent to which the parent's emotional availability to the child is impaired and the extent to which the parent's emotional and physical energy is compromised.

Isolation Subscale: Examines the parent's social isolation and the availability of social support for the role of parent.

Distractibility Subscale: Assesses the degree to which the child displays many of the behaviors associated with Attention Deficit Disorder with Hyperactivity and other behaviors which result in a continuous drain on the parents' energy, which requires not only active parental management but also sustained high states of vigilance.

Mood Subscale: Assesses child characteristics related to excessive crying, withdrawal, and depression. The parent usually experiences these behaviors as anxiety or anger provoking.



Appendix C

Family Stress Checklist

Family Stress Checklist Problem Areas and Interpretation (Mother & Father)

Problem Areas	Range	Interpretation/ Administration
I. Childhood history of physical abuse and deprivation.	0, 5, or 10	<p>The FSC is a 10 item rating scale. A score of 0 represents normal, 5 represents a mild degree of the problem, and a 10 represents severe, on both the Mother and Father Family Stress Checklist items. The FSC is an assessment tool and is administered to the mother through an interview by a Family Assessment Worker from the Healthy Families Arizona Program. The interview takes place shortly after birth, or as near to that time as possible.</p> <p>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.</p>
II. Substance abuse, mental illness, or criminal history.	0, 5, or 10	
III. Previous or current CPS involvement.	0, 5, or 10	
IV. Self-esteem, available lifelines, possible depression.	0, 5, or 10	
V. Stresses, concerns.	0, 5, or 10	
VI. Potential for violence.	0, 5, or 10	
VII. Expectations of infants' milestones, behaviors.	0, 5, or 10	
VIII. Discipline of infant, toddler, and child.	0, 5, or 10	
IX. Perception of new infant.	0, 5, or 10	
X. Bonding, attachment issues.	0, 5, or 10	
Total Score	0 - 100	



Appendix D

Healthy Families Parenting Inventory

Healthy Families Parenting Inventory Alpha Scores

<u>Subscale</u>	<u>Alpha*</u>
Social support	r=.87
Problem solving	r=.92
Depression	r=.79
Personal care	r=.69
Mobilizing resources	r=.83
Accepting the parent role	r=.72
Parent child behavior	r=.87
Home environment	r=.84
Parent competence	r=.86
Parenting efficacy	r=.89

*Alpha score represents the correlation of items on a scale, and is an indication of how well the items in a subscale relate to each other.

