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Healthy Families Arizona
Evaluation Report
2005

HEALTHY FAMILIES
ARIZONA

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Acknowledgements

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

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Healthy Families Arizona

2005 Evaluation Report Highlights

Program Growth

- Program expanded from 23 sites to 51 sites
- Prenatal program component initiated to serve pregnant women and their families
- Families with prior CPS history are now eligible for services

Program participants

Postnatal component

- 69% single mothers
- 88% families on AHCCCS
- 62% of mothers have less than high school education
- 17% infants born <37 weeks gestation
- 13% infants had low birth weight
- 34% of mothers received late or no prenatal care

Prenatal component

- 69% single mothers
- 84% families on AHCCCS
- 67% of mothers have less than high school education
- 20% infants born <37 weeks gestation
- 11% infants had low birth weight
- 32% of mothers received late or no prenatal care

Service Delivery

- 3,655 families were served
- 85% (3,096) families engaged with the program (4 or more home visits)
- 2735 families entered after the birth of their child and 361 entered prenatally
- 66% remained in the program 1 year or longer

Outcomes

- Overall, 98.2% of all families had no substantiated child abuse or neglect incidences
- Parents improved on 7 of 10 subscales of Healthy Families Parenting Inventory, indicating increased parenting competence, improved problem-solving and parent-child interaction, and decreased depression
- Percent of infants with all 2 year immunizations was 89% (state percent 77%)
- 97% of children were linked to a medical doctor
- 11.5% of mothers had subsequent pregnancies (28% 18years old or younger)

Recommendations

- Continue to enhance use of evidence-based practice and logic model
- Improve data collection
- Enhance services to prenatal families and families with older children

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Executive Summary

Introduction

Healthy Families Arizona is part of the growing trend towards evidence-based practice. The evaluation and quality assurance aspects of the program draw on practice and policy-related research findings in assessing program implementation and program outcomes. Many of the evidence-based aspects of Healthy Families Arizona are described in this report.

The Healthy Families Arizona Program

The Healthy Families Arizona program is a voluntary program that reaches out to families experiencing multiple stressors. These stressors are often avenues for poor child health and development as well as child abuse and neglect. Families identified as at-risk for multiple stressors and child abuse and neglect are assessed shortly after the birth of a child through a two-stage screening and assessment process. Families who are identified to benefit from services are offered a home visitation program. Home visitation staff provide a wide continuum of services such as emotional support, informal teaching, modeling of parent-child interaction, information and referral, transportation, and encouragement with parenting. The overall goals of the program are 1) promote positive parent/child interaction, 2) improve child health and development, and 3) prevent child abuse and neglect.

Program Implementation

Healthy Families Arizona is experiencing an exciting period of program expansion that began in the fall of 2004, as increased funding became available to expand from 23 to 51 program sites. New challenges in quality assurance and program monitoring and evaluation have emerged as the program experiences rapid and challenging growth. The program also launched new services for pregnant women and their families. Finally, the program began serving families with substantiated child abuse and neglect reports—for several years the program could not provide services to these families.

Program Outcomes

Child Health, Development, and Safety

Child health and development indicators show positive results for the program. For example, there was a reported 89% immunization rate for postnatal participants in the program. This is in comparison to a 77% immunization rate for 2-year-olds in Arizona. A large percentage of families were linked to a medical doctor (97.1% at 12 months). The program also screens for developmental delays and provides referrals for further services. Assessment of home safety practices such as use of car seats, poisons locked, and smoke alarms installed show a large percentage of participants using safety practices (all over 90% at a 24 month assessment).

Healthy Parenting Behavior

The Healthy Families Parenting Inventory (HFPI) is a primary measure of program outcome and revealed statistically significant improvement on 7 of 10 subscales and the total score of the HFPI. The scales that showed improvement include: increased problem solving, decreased depression, increased use of resources, improved parent child behavior, improved home environment, increased parenting competence, and increased parenting efficacy. These results suggest that program participants are reducing risk factors that are related to child abuse and neglect. While this data is limited without a comparison group, it does confirm that participants are reporting improvements in healthy parenting behavior.

Child Abuse and Neglect

Child abuse and neglect incidents (substantiated) were examined for program participants. The results reveal that child abuse and neglect rates continue to be low (1.8%) and meet the program goal of having no higher than a 5% rate of child abuse and neglect.

Maternal Life Course Outcomes

An additional outcome of the Healthy Families Arizona program is a positive influence on the mother's life course. Specifically, many of the participants enroll in school, obtain their GEDs or seek gainful employment. For example, data show that 39% of mothers were employed at 12 months and 19% are enrolled in school.

Participant Satisfaction

Healthy Families is a voluntary program and therefore, depends on participants obtaining personally meaningful benefits from the program. An annual assessment of participant satisfaction is conducted. Of those participants who complete and return surveys the results show they are very satisfied with the program services they receive. For example, in response to the questions, "I was satisfied with information provided on child development and parenting" 96% responded always or a lot; "I received the services I wanted and needed" 95.8% responded always or a lot.

Conclusions

The value of Healthy Families Arizona as a prevention program is the potential of having a positive impact on *multiple* goals. Positive changes across multiple indicators point to the deep benefits of the Healthy Families Arizona program. This is because the program allows for the delivery of multiple services to families in need. This program represents a strategy for delivering services that can have broad impacts. While the outcome evaluation in this report is limited without the benefit of a comparison group, past studies have also found positive effects. Furthermore, the addition of a longitudinal randomized control trial, which began this year, will provide the program with an opportunity to demonstrate long-term outcomes in the context of a rigorous research design.

Introduction

Legislators, policy makers, academics and program directors are all calling for "evidence-based" practice to guide our investment in social programs. The growing popularity of evidence-based practice is found at over 25 federal web sites. A Medline internet search on "evidence based treatment or practice will generate over 5,000 citations. The ongoing focus of home visitation programs like the Healthy Families Arizona program is smack in the middle of the evidence-based revolution.

The Healthy Families Arizona program is well positioned with regard to "evidence-based practice". Since 1991, before an emphasis on evidence-based practice had even begun, the Healthy Families Arizona program set out to collect ongoing data and examine program effectiveness—a center point for evidence-based practice. What is evidence-based practice? Evidence-based practice is an effort to draw on practice and policy related research findings as well as an evolving technology for integrating evidentiary, ethical, and practical issues (Gambrill, 2003). Integrating program evaluation with the program service delivery efforts puts "evidence" at the center of decision-making concerning all facets of the Healthy Families program.

The philosophy of evidence-based practice involves breaking down the division between research and practice. As Sackett et al. (2000) note it is: "the integration of the best research evidence with clinical expertise and client values." Too often, evidence-based practice is misunderstood as simply basing decisions on evidence—it is much more than this. An important aspect of evidence-based practice is encouraging an open review of a program and this annual report is part of that process. All Healthy Families Arizona data are made public for anyone to review and critique. Indeed, the goal is sharing responsibility for decision-making in a context of recognized uncertainty (in other words, when we don't have all the answers).

Perhaps most important for our purposes, is to understand evidence-based practice as a *systemic* approach to improving the quality of services (Gray, 2001; Sackett et al., 2000), including:

1. Working with program directors, program administrators, supervisors, and direct care home visitors to learn about evidence-based processes.
2. Involving participants of home visitation services as informed participants.
3. Reviewing Healthy Families Arizona management and administrative practices and policies that influence practice.

4. Addressing implementation challenges including the implications of scarce resources.

These broader aspects of evidence-based practice acknowledge that achieving evidence-based practice is a complex enterprise and not as simple as just administering a program with "good evidence". For example, poor morale or high turnover of home visitors could easily undermine the "effectiveness" of an evidence-based practice program.

How is evidence-based practice a part of the Healthy Families Arizona program? There are multiple ways that the Healthy Families Arizona program endeavors to be an evidence-based program, for example:

1. Examining practice decisions of home visitors and translating those decisions into research questions.
2. Finding the best available research to answer those questions (brokering knowledge for program directors and service staff).
3. Critically appraising the existing evidence of the home visitation program.
4. Using this analysis to inform ongoing practice and policy decisions.
5. Discovering and applying ways to retrieve relevant information and research.
6. Evaluating the process for improving the program and seeking ways to improve.

This report highlights many of the evidence-based aspects of the Healthy Families program, in the report the following examples show how:

- ✓ The annual report encourages greater shared decision making about what the program has achieved and can be a starting point for discussions of new directions the program should take.
- ✓ The discussion of the longitudinal study is an example of seeking a more rigorous test of the programs outcomes and investigating the potential long-term benefits of the program. The longitudinal study also will share its outcomes with the research community and promote critical discussion of findings.
- ✓ The newsletter, *Building Bridges*, was created to enhance knowledge use by program directors, supervisors, and home visitors. In this quarterly publication new research is reviewed that has direct relevance to administering home visitation services. For example, articles on preventing accidental injuries and new research findings on birth spacing.

- ✓ Sub-studies continue to be conducted in order to answer specific questions generated by program and evaluation staff to shed new perspectives on program implementation. Studies of what situations are considered most "difficult" for home visitors have been conducted and current efforts are addressing how home visitors are using training and best practices to respond to difficult situations.
- ✓ Improved outcome assessment was the goal in creating the Healthy Families Parenting Inventory (HFPI), which can improve the quality of data received from families and better direct how home visitors can help them.

Healthy Families Arizona Expansion

Healthy Families Arizona (HFAz) is experiencing an exciting period of program expansion that began in the fall of 2004, as increased funding became available to expand from 23 to 51 program sites by the summer of 2005. Program quality assurance and program evaluation take on increased importance as mechanisms to provide meaningful information for program planning, program enhancement and program monitoring during a time of rapid and challenging growth.

The impact of program expansion with a statewide initiative of this size brings opportunities and challenges in program evaluation and quality assurance. The Healthy Families Arizona expansion has provided opportunities to clarify a well-crafted program logic model and theory of change that can guide all Healthy Families staff in their daily work. This year brought opportunities to create new training approaches to bring new sites up to speed, implement improved outcome measures, and initiate a longitudinal outcome study. Rapid growth presents a challenge for program staff to maintain quality in program start-up. In particular, new programs have been challenged to recruit and hire talented new staff in a limited job market, provide training and supervision to new home visitors and new program directors, insure quality data collection among expanding and new sites, and maintain a shared and meaningful vision among newcomers and seasoned staff alike.

Since July 2004, several new sites have come "on board" each month and existing sites have expanded in the numbers of families they serve. This has required site and operations development, staff hiring, and training for new staff (CORE Training for home visitors and family assessment workers, Supervisor Training, data collection training, and prenatal program implementation training). In addition, beginning in August 2004, program policy began to support provision of services to families during the prenatal period. This has required training for existing and new sites in policies and

protocols, extensive community networking to establish referral and recruitment processes, training for home visitors and supervisors in the prenatal program components, and development of new and revised data collection instruments. Also in August 2004, program policy was changed so that Healthy Families Arizona can serve families who have been involved with child protective services.

In summary, during this program year an amazing effort has been undertaken to get 28 new sites up and running, while also expanding some of the existing 23 sites. This expansion has increased the availability of Healthy Families Arizona services to families in previously unserved regions of Arizona, and expanded services in the highest need areas. The map below highlights the fifty-one program sites throughout Arizona.

Healthy Families Arizona Program

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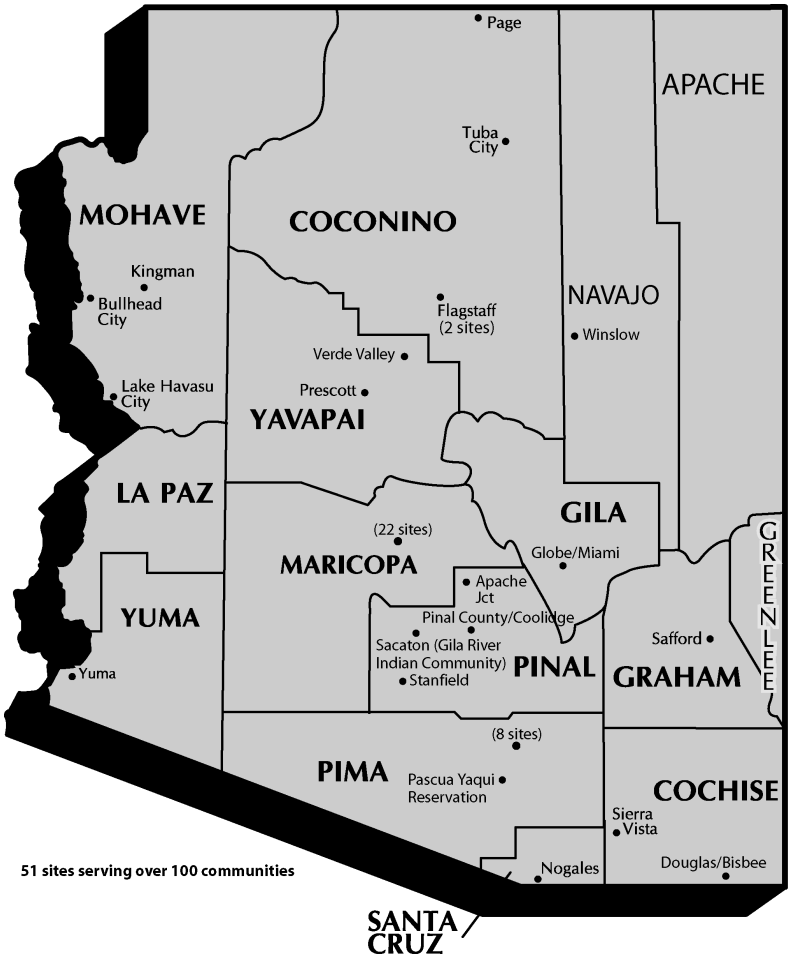

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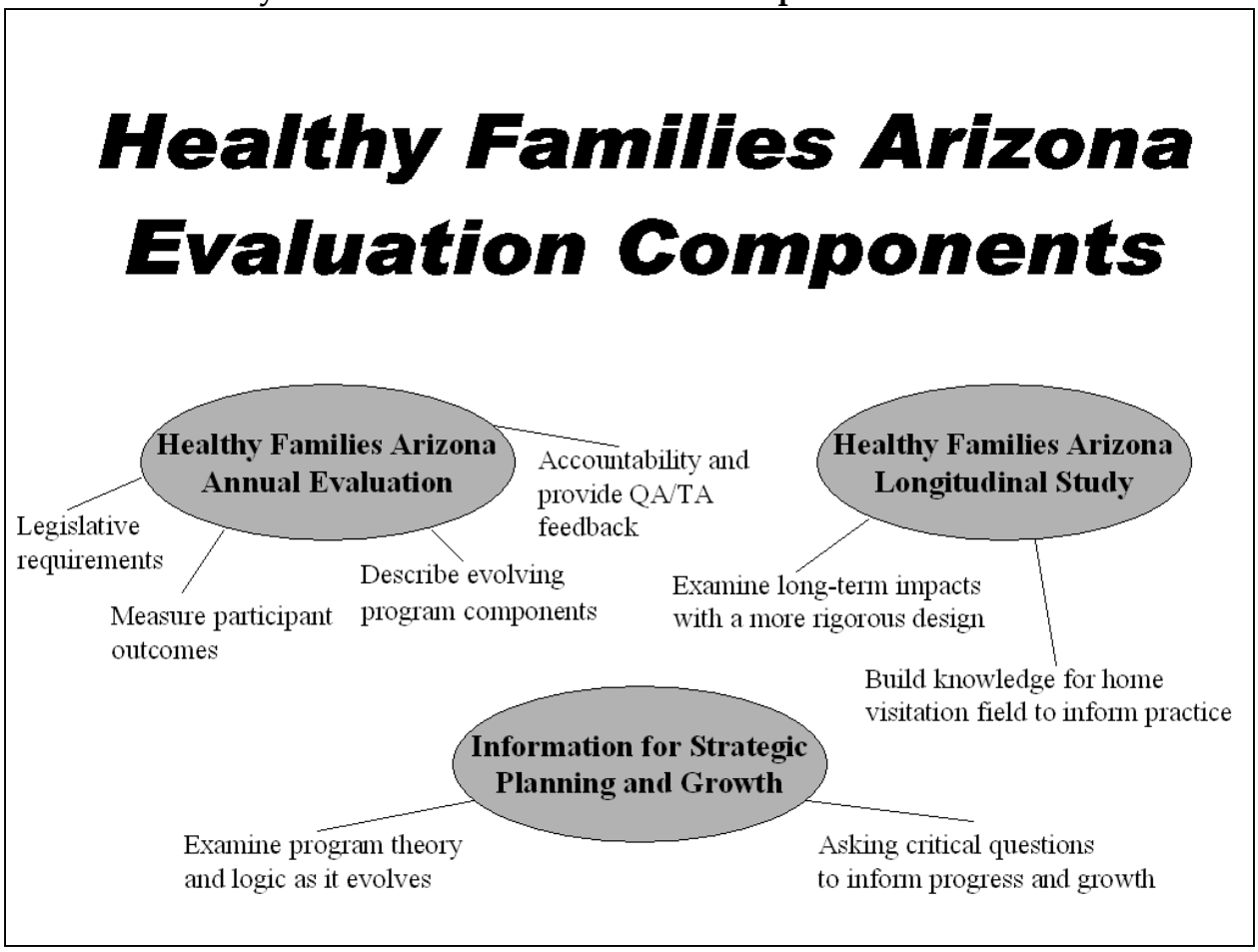
Program evaluation and research evolve as program matures

The evaluation of HFAz has, until 2004, focused on an annual review of selected implementation issues, services provided and participant outcomes, a review of current research in home visitation, 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 addition, the annual evaluation effort has focused on providing information for program improvement and quality assurance. For example, site-level evaluation reports provide immediate feedback to ensure that processes not working well and outcomes that are less than expected receive immediate attention. Quality Assurance and Training Specialists conduct at least two visits to each site per year to provide follow-up on concerns and technical assistance. Other contributions of the annual evaluation are to evaluate the outcomes relative to the requirements of the legislation authorizing the program and to provide information to guide strategic planning and growth since the program's inception in 1992. The annual evaluation has relied on two primary methods to evaluate program outcomes. One is an assessment of changes in specified outcomes from intake to specified time intervals thereafter. The second method is the use of a comparison group to evaluate program effectiveness. Positive program impacts have been found in many areas using these evaluation methods, e.g., fewer incidences of substantiated abuse and neglect, higher rates of immunization compared to the state, and decreased parental stress. These annual evaluation components continue to provide relevant information on the program's annual performance and trends across years.

With additional funding available in 2004, the evaluation team designed and initiated a five-year longitudinal study. The longitudinal evaluation of HFAz differs from the ongoing evaluation in three essential ways. First, as it's name implies it is long-term – it follows the same 190 families for five years. Secondly, it uses a randomized control group as opposed to a comparison group as a means to determine program effectiveness. Third, it employs additional measures to test a full-range of potential outcomes. For instance, it measures domestic violence, substance abuse, mental health, and discipline on an on-going basis. Participants in the longitudinal study will be assessed at least once each year from their enrollment in the study until their child's fifth birthday. By age five, the children will be approaching elementary school, allowing for an assessment of school readiness. Zero to five is the period in which children are the most vulnerable to child abuse and neglect, and thus the most relevant for the study. Exhibit 1 on the following page illustrates the evaluation components of Healthy Families Arizona.

Exhibit 1. Healthy Families Arizona Evaluation Components



Longitudinal study underway

The approach to the HFAz Longitudinal Study can be described as a layered-study approach, wherein one study creates a foundation for the next. It consists of seven sub-studies; the first four were designed to prepare the program for the longitudinal evaluation and to provide information for the annual evaluation. Briefly, the first four substudies include: (1) a statement of program theory - how does the program plan to affect change through home visitation; (2) a retrospective study of 13 years of data collected on all HFAz participants to determine the factors related to substantiated child abuse and neglect; (3) the refinement of a program structure and logic model, and (4) an exploratory study of long-term outcomes in the HFAz program. Work on the first four substudies has been completed and the results will be reported in the First Annual Longitudinal Evaluation Report. The final three substudies: the Outcome, Process and Cost studies form the basis for examining the long-term impacts of the Healthy Families Arizona program. These parts of the study are now underway.

In this Report

Program implementation and expansion

The report begins with a review of major changes and challenges in the statewide Healthy Families Arizona (HFAz) program implementation and policy over the last year as the statewide effort has expanded from 23 to 51 program sites. A brief description of the new home visitation research/practice newsletter, *Building Bridges*, is also provided.

In later sections of this report, information from focus groups with HFAz home visitors and supervisors is provided in order to examine ongoing issues in program implementation.

Prenatal program implementation

During this program year, Healthy Families Arizona began to deliver services during the prenatal period. Information will be presented regarding the progress and challenges in implementing services to families before the birth of their child.

Program outcomes and service delivery

This report focuses on aggregate data that is summarized across all sites that make up the Healthy Families Arizona program. Data is presented regarding service delivery, participant characteristics and selected outcomes for participants who received HFAz services between the period of July 1, 2004 – June 30, 2005. This includes all families who received services at any time during the study period regardless of when they entered the program. Information will be provided about two new target groups, families who enter prenatally and families who have been previously involved with child protective services. Separate site reports are produced quarterly and provided to each site for quality management purposes. Site level data can also be obtained in the Appendices. In addition, this year's report provides the initial data gathered from the first year of implementation of the Healthy Families Parenting Inventory.

Program and Policy Updates

Exhibit 2 depicts some of the key program and policy changes that have occurred in the past year.

Exhibit 2: Developments in the Healthy Families Arizona program in 2004-2005

Expansion from 23 to 51 Program Sites

The Legislature and the Governor increased Healthy Families Arizona funding beginning in July 2004 that enabled the program to expand from 23 to 51 program sites. The expansion was completed in three phases. Phase 1 began July 2004, Phase 2 began October 2004, and Phase 3 began January 2005. The Phoenix area received the largest expansion (from 7 to 22 sites) because the highest number of births in the state occurs in Maricopa County. The Tucson area programs expanded from 4 sites to 8 total sites. New programs were developed for the Safford, Winslow, Globe, and Bullhead City/Kingman areas. Flagstaff, Verde Valley, Prescott and Pinal County also increased their capacity.

Expansion of Services for Pregnant Women and their Families

Beginning July 2004, Healthy Families Arizona was able to enroll pregnant women into the program. The sites developed arrangements with County Health Departments, Women, Infant & Children (WIC) nutrition support programs, local obstetricians, and prenatal clinics across the state to encourage a systematic referral system. Healthy Families and Health Start initiated collaboration meetings both at the state and local levels. It is anticipated that each year will demonstrate an increase in the number of prenatal referrals received by program sites.

The Healthy Families Arizona training team members were certified as state trainers for the prenatal curriculum, "Great Beginnings Start Before Birth" developed by Healthy Families America in partnership with Ronald McDonald House Charities. This training was provided to all HFAz staff beginning in August 2004 and has become an integral component of on-going training. The prenatal training is also available to Health Start staff beginning July 2005.

Expansion of Services for Families with CPS History

In July 1998, the Legislature added a clause to the Healthy Families law that prevented Healthy Families Arizona from serving families with substantiated child abuse and neglect reports. Effective August 2004, that clause was removed from the law allowing services to be delivered to families with a history of Child Protective Services (CPS) involvement. Healthy Families Arizona staff developed policy regarding service coordination with CPS and guidelines for appropriate referrals. Inclusion of families who are involved with child protective services has increased the need for additional training and support.

Specialty Training to Address Challenging Issues

To assist home visiting staff with addressing difficult issues such as substance abuse, domestic violence, mental health and other complicated lifestyle challenges, a multi-disciplinary task force was convened to review the Healthy Families Arizona state system. This task force made eight recommendations to increase the program's ability to both assess and address the complex issues affecting families. Three of these recommendations included training and clinical support. As such, the Healthy Families State Training team was awarded specialty-training units that provide additional training to staff on "facilitating change," substance abuse, domestic violence and mental health. Additionally, these specialty-training units allow for each site to contract with a clinical consultant that will participate in monthly team meetings and offer clinical support to staff working with families. With this type of clinical support, staff will be better able to address the multitude of challenges experienced by families in Healthy Families Arizona.

Additionally, the Healthy Families Arizona Excellence Committee, a multi-disciplinary committee charged to increase the quality of services across a broad spectrum of issues, developed an advanced Individual Family Support Plan training for home visiting staff. This training integrates the work of AzEIP (Arizona Early Intervention Program) and Healthy Families in the process of developing family goal plans that are family-centered and meaningful within the change process.

One of the new program functions added to the Healthy Families law is to "offer participants education on successful marriage." In October 2004, all staff received training in "Successful Relationships." The content of this training includes the benefits of a healthy relationship for children, promoting positive communication between partners, learning to deal with conflicts, exploring expectations about the ideal relationship, learning to parent together, and identifying domestic violence patterns. This training was added to the prenatal training so that all new staff will be trained. Additionally, staff provided pamphlets to families provided by the state about healthy marriages.

The Healthy Families Web Portal

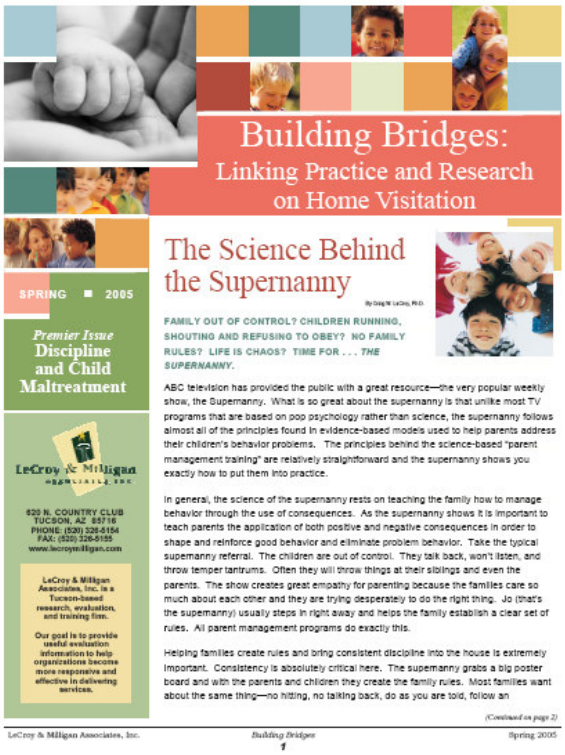
Healthy Families Arizona launched its Web Portal in June 2005. The Technical Assistance/Quality Assurance team recognized the administrative benefits of a web portal versus a web site. A web site is simply a listing of information and is non-interactive. It has no record keeping capacity or ability to flag areas of non-adherence to best practice standards. By moving from a web site to a web portal, HFAz is able to set up a system where staff can enter the information on their training logs on-line, access committee work and discussion boards within those committees to provide input, register for the training offered throughout the state on-line, access distance learning coursework and interact with each other online, post useful documents and web links so other staff have access, and maintain administrative records regarding contract and credentialing compliance and support. The HFAz Web Portal can be accessed by going to http://www.healthyfamiliesarizona.org.

Building Bridges: Linking Research and Practice in Home Visitation Newsletter
This year the evaluation team began publishing a newsletter, *Building Bridges*, in order to forge stronger connections between what is happening in the field and what knowledge 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 will be highly accessible with a focus on ideas and information that is readily useable by the reader. The newsletter seeks to build bridges across research, practice, training, and policy.

Each newsletter is organized around a theme. We felt this was the best way to communicate critical knowledge on a number of different topics and do so in a way that would be most beneficial. The theme of the first issue was discipline and child maltreatment. We selected this theme because child abuse and neglect prevention is one of the key goals of home visitation and discipline has a direct relationship to child maltreatment.

The cover of this issue shows our goal—to create an interesting and readable newsletter.

Additional themes in future issues will include: school readiness, maternal and child health, fatherhood, and depression.



Implementation of the Healthy Families Prenatal Component

The Prenatal Component of Healthy Families Arizona provides voluntary services targeted to expectant mothers and fathers identified at-risk for child abuse and neglect through a two-stage screening and assessment process. Family Support Specialists provide support and referral assistance in the home on a weekly and biweekly basis, and education based on the curriculum *Great Beginnings Start Before Birth*. The program strives to assist each expectant parent to develop empathy for his or her unborn child, to strengthen family and individual functioning, and to maximize the likelihood of full-term delivery with minimal complications. The goal is to provide Arizona children with the best possible start in a safe, stimulating, and abuse and neglect free environment. The amount of impact program services can have is dependent upon the stage of pregnancy when the parents enter the program. Late entry will still facilitate early access once the baby is born and the possibility to educate parents on the special care newborns require including information on SIDS, shaken-baby syndrome and how to calm a crying baby. It also offers an opportunity to screen for postpartum depression, a major factor in the commission of child abuse and neglect. Following birth, the family can receive Healthy Families Arizona program services for up to five years.

During this program year, the evaluation team developed and published a program logic model for the prenatal component. Information for the logic model was gathered from focus groups and interviews with key stakeholders, e.g., home visitors, program managers, supervisors, and the QA/TA team. The logic model identifies the five program outcomes, nine key program objectives leading to those outcomes, critical strategies and activities, and evaluation tools and resources for the program. Exhibit 3 identifies the nine key prenatal program objectives, and the full logic model is in Appendix E.

Exhibit 3. Healthy Families Arizona Prenatal Component 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 the safety of the home environment
- Increase the delivery of healthy babies, free from birth complications

Program staff hold a long-term goal of having all families who want Healthy Families services enter the program during the prenatal period. The prenatal component of Healthy Families Arizona represents a significant effort to design and implement training, curricula, services and protocols for the program.

The evaluation team conducted interviews with Healthy Families program staff from two urban and three rural areas in 5 counties in Arizona to gather perspectives about recruitment, initial service delivery strategies and challenges, and training and resources needed to effectively implement the prenatal program. Perspectives from those interviews are summarized below.

Recruitment

Recruiting families into Healthy Families poses unique challenges during the prenatal period, and program staff are experimenting with many strategies to determine what is most effective. Staff felt the keys to successful recruitment are to 1) develop strong relationships and support from key individuals, and 2) insure consistent, systematic screening takes place. There was some concern that because Healthy Families is known to serve families at risk for child abuse and neglect, referral agents might have a tendency to informally screen out families felt to be not at risk. Program staff are working with referral sources to insure that all families are screened and offered services in a systematic way.

Primary referral sources include:

- Prenatal clinics
- School counselors
- Teen parent programs
- Hospitals
- WIC offices
- Child Protective Services
- Health Department Reproductive Health Clinics
- Midwives
- Current families receiving Healthy Families services (word of mouth)
- Healthy Families staff

Referral strategies have included:

- Presentations and outreach
- Networking with local organizations (formal and informal connections)
- Establishing an intake process that coincides with hospital or clinic-based prenatal classes, birth preparation classes, obstetrical tours, or pre-admission processes
- Establishing a consistent, identifiable space for systematic screening in a hospital or clinic
- Developing and nurturing individual contacts in referral sources.

Challenges with Recruitment and Participation

Challenges to program implementation varied across the rural and urban communities. The most obvious example of these differences was the availability of medical providers. For more remote areas, the lack of a hospital or doctors who can care for prenatal women meant that families had to travel out-of-county for services. This in turn limited the number of sources for referrals to the Healthy Families prenatal program in that area.

All sites noted that in general families are hard to reach. Even when hospitals are utilized, the complexity (e.g., bureaucracy) of their systems sometimes delayed or prevented straightforward access to the prenatal families they serve. The smaller hospitals might not have space available for a Family Assessment Worker (FAW) to meet with the mothers in order to complete the assessment process.

Several staff who were interviewed mentioned challenges for the prenatal program start-up that can be described as "perceptual" in nature. For example, it was sometimes difficult to obtain a clear understanding of the benefits of participation in the Healthy Families prenatal services among staff at referral sites or the families themselves. Most of the staff interviewed said that the mothers seemed to clearly understand the benefits of Healthy Families *after* the birth of their babies, but were unclear about what a home visitor could do for them before they had their babies. A typical question from prospective mothers would be, "What will you do with me before the baby's born?" It was not an uncommon experience for a mom to refuse the program prenatally, but then call and ask for it after the baby's birth. One possible source of confusion might be the information handed out about the program. The broader Healthy Families postnatal services are described fully in program materials and the program does not as clearly describe prenatal services and expectations in a concrete, fun way.

Another challenge came from a few community providers who felt that the Healthy Families pre-natal program might be viewed as competing or overlapping with other services offered to mothers. This leads to some confusion both for providers and for families when they're unsure about the most appropriate services for the families.

Finally, there are times when a lack of "buy-in," time, or familiarity with the program among new referral sources seems to be a barrier. In some cases, a few individuals do not make referrals to the program because they believe that nurse visits better serve the prenatal families. Despite an initial enthusiasm and interest among referral providers, Healthy Families staff report that, "They forget about us." It is not a question of approval or interest in the program, but of maintaining the original high level of enthusiasm and support through meetings and contacts.

The most useful and successful strategies described by the staff revolved around positive relationships and clear understanding of the level of effort needed to do referrals and screening. Several said that "you have to know someone" at the hospital or other site where most prenatal women are contacted, and offer the screening and clear program information at that time. For agencies that offer to do the screening for the Healthy Families program, "you have to make sure they're prepared to do the extra work" and consistent follow-up to encourage referrals is critical. Informing the social workers at the hospital can be a key to success. In short, staff emphasized the need to invest the time to make *and* maintain the connections with referral resources and families to keep the program services visible and accessible.

Prenatal Service Delivery

According to staff, the services most frequently offered to prenatal parents included nutrition and health information and referrals, information about the baby's development, and stress reduction. Other services included encouraging doctor's appointments, getting the mother to the doctor (e.g., transportation), encouraging exercise, completing a birth plan, coaching on the importance of being ready for the birth, providing crisis services and resource referral, and using the *Great Beginnings Start Before Birth* curriculum with families. Exhibit 4 lists the most common prenatal services offered to families.

Exhibit 4. Healthy Families Prenatal Services

- Nutrition and Health Information
- Referrals to health and nutrition services
- Information on fetal development and maternal health
- Stress reduction information and skills
- Transportation to prenatal doctor appointments
- Completion of a birth plan
- Coaching on birth process
- Crisis intervention and referral

The utility of the *Great Beginnings Start Before Birth* curriculum was explored through the interviews with staff. Overall, staff seemed pleased with the curriculum noting that it provided innovative ideas, explicit information about birth plans, and "fun" activities. Some staff found it very helpful and useful, but others felt the need to supplement it with information from other sources such as the internet and magazines (e.g., tips and lists from American Baby, Lamaze sites, etc.). However, at the time of interviews, not all of the sites had the curriculum yet due to program startup, and so their views are not included.

Staff training and resource needs

Interviews with staff regarding *additional training or resources* that could help with the implementation of the prenatal component centered on two main themes: more information and more "advertising." The staff suggested that they could benefit from more detailed information on:

- the birthing process (e.g., videos)
- the development of the baby
- instructions for parents regarding the birth process
- expectations for first-time mothers
- how to deal with male doctors
- recognizing potential problem births ("We know about routine pregnancies---but what about the problem pregnancies?")
- more training on how to *use* the curriculum.

Several staff also lamented the lack of adequate mental health services and the need for help with drug rehabilitation for the prenatal families. One requested more resources for other types of mental health issues beyond depression, e.g., the need for an assessment or screening tool for other issues.

The second constellation of suggestions revolved around the need for clearer understanding and communication about the benefits of the Healthy Families prenatal program. "We need help to get the word out." Suggestions included the need for assistance with redoing brochures and producing flyers and other methods to raise awareness about the program (e.g., billboards, TV commercials). Staff also wanted training on how to describe the program to make it more interesting and enticing to potential clients. One person even suggested the possibility of offering pregnancy tests as a way to get potential mothers in the program.

In summary, although outcome data for the prenatal component is limited during this startup year, Healthy Families Arizona has established the staff training, recruitment and referral processes, and initial home visiting services needed to bring families into the program during the prenatal period. A continued focus on recruitment and engagement into the prenatal program is needed that identifies specific strategies to make the program attractive to pregnant women. In addition, more training and materials in prenatal issues would likely build the confidence and skills among home visitors in dealing effectively with families who enter Healthy Families during the prenatal period.

Healthy Families Arizona Program Services

Healthy Families Arizona is a home visitation program designed to provide supportive services and education to parents of newborns and to expectant parents who might benefit from support to strengthen their families at this crucial time. The overarching 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 or community organization serving families in the prenatal period. If the parent experiences multiple risks (based on factors known to be associated with child abuse and neglect), the family is offered program services. The program is voluntary, and the families may remain in the program for up to five years. In 2004-2005, two changes in policy expanded the program to serve two new target groups—expectant families and families with prior histories of child abuse or neglect.

Healthy Families Arizona has built its program model to incorporate the critical elements identified by Healthy Families America (HFA) as well as the mandated services established by Arizona legislation.

Program Participants

During the period of July 2004 through June 2005, a total of 3,655 families were enrolled in the Healthy Families Arizona program. Of these, 3,096 families became actively engaged in the program,[1] with 2,735 enrolling after the birth of their child and 361 enrolling during the prenatal period. Twenty-six families who enrolled in the program had histories of child abuse and/or neglect (23 postnatal and 3 prenatal).

During 2004-2005, Healthy Families expanded steadily throughout the year to a total of 51 sites. Exhibit 5 shows the number of participants served by each site during 2004-2005. The number of participants varies widely during start-up as sites came on board at different times.

[1] Actively engaged families are defined as those who participate in four or more visits.

Exhibit 5. Healthy Families Arizona Participants Enrolled and Actively Engaged, by Site July 2004 - June 2005

County	Site	Prenatal	Postnatal
Cochise	Douglas/Bisbee	3	89
	Sierra Vista	14	70
Coconino	Flagstaff (La Plaza Vieja)	18	65
	Page	3	43
	Tuba City	7	40
	Williams (Kinlani)	20	35
Gila	*Globe/Miami*	3	21
Graham	*Safford*	6	16
Maricopa	Central Phoenix	8	108
	Deer Valley	3	17
	East Mesa	15	42
	East Valley Phoenix	8	82
	El Mirage/Surprise	5	54
	Gilbert	9	54
	Glendale	5	43
	Kyrene	3	39
	Maryvale	6	74
	Mesa	9	137
	Metro Phoenix	9	63
	Scottsdale	4	36
	South Mountain	7	25
	South Phoenix	9	71
	Southeast Phoenix	4	95
	Sunnyslope	3	106
	Tempe	3	24
	Tolleson/Avondale	2	37
Mohave	*Bullhead City*	2	19
	Kingman	4	30
	Lake Havasu City	9	100
Navajo	*Winslow*	5	10
Pima	*Blake Foundation*	6	73
	Casa de los Niños	4	102
	Child & Family Resources	0	11
	CODAC	8	115
	East/SE Tucson	3	12
	La Frontera	6	138
	Marana	2	28
	Pascua Yaqui	21	57
	Southwest Tucson	2	29
Pinal	*Apache Junction*	24	21
	Gila River	13	4
	Pinal County	11	94
	Stanfield	7	9
Santa Cruz	Nogales	6	106
Yavapai	Prescott	10	135
	Verde Valley	28	76
Yuma	Yuma	4	80

Prenatal Total
All Sites = 361

Postnatal Total
All Sites = 2,735

**Italicized sites are new sites started between July 2004-June 2005*

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 6 highlights the risk factor data for both the prenatal and postnatal program participants in the Fiscal Year 2005, as compared to the general Arizona population.

Exhibit 6. Selected Risk Factors for Mothers at Intake--2005

Risk Factors of Mothers	Prenatal Families	Postnatal Families	Arizona—2003
Teen Births (19 years or less)	28.6 %	28%	13%*
Births to Single Parents	68.7%	69.3%	41%*
Less Than High School Education	67.1%	62.5%	30%*
Not Employed	No data	83.7%	NA
No Health Insurance	7.3 %	2.1%	NA
Receives AHCCCS	84.2%	88.5%	50.4%*
Late or No Prenatal Care	32.1 %	34.4%	22.9%*
Median Yearly Income	$10,560	$9,600	$42,590**

*Source: 2003 data from the Arizona Department of Health Services Vital Statistics records. Percent does not include "unknown".
**U.S. Census Bureau Population survey 2002-2004. Three Year Average median family income for families with related children at home
Note: Percentages for the combined total for Prenatal and postnatal families can be found in Appendix F.

These data illustrate that the screening process is recruiting the population targeted by Healthy Families Arizona—those with multiple risk factors. Both the prenatal and postnatal programs are successful in reaching single, teen mothers with less than a high school education. Healthy Families participants consistently show notably higher rates of these risk factors than the overall rates for Arizona families. Overall, data revealed that the prenatal mothers were younger (average age 22.6 years) than the postnatal mothers (average age 24 years), indicating that recruitment is successfully recruiting younger mothers. In general, the characteristics of mothers served this year are quite similar to previous years. With median incomes between $9,000-$10,000 it is clear that economic stress and poverty continue to pervade families' lives.

Analysis of the twenty-three families in this year's cohort who came into the postnatal program with histories of substantiated child abuse and neglect revealed even higher rates of risk factors among this group. Among these mothers, nearly half (43.5%) had no or inadequate prenatal care; 75% had not graduated high school; and their annual median income was much lower--$3990. Other risk factors were very similar to the other groups.

Healthy Families Arizona continues to serve a culturally diverse population. The ethnic makeup of the families who entered prenatally and postnatally in 2005 are shown below in Exhibits 7 and 8.

Exhibit 7. Ethnicity of Mothers Enrolled Prenatally (N=356)

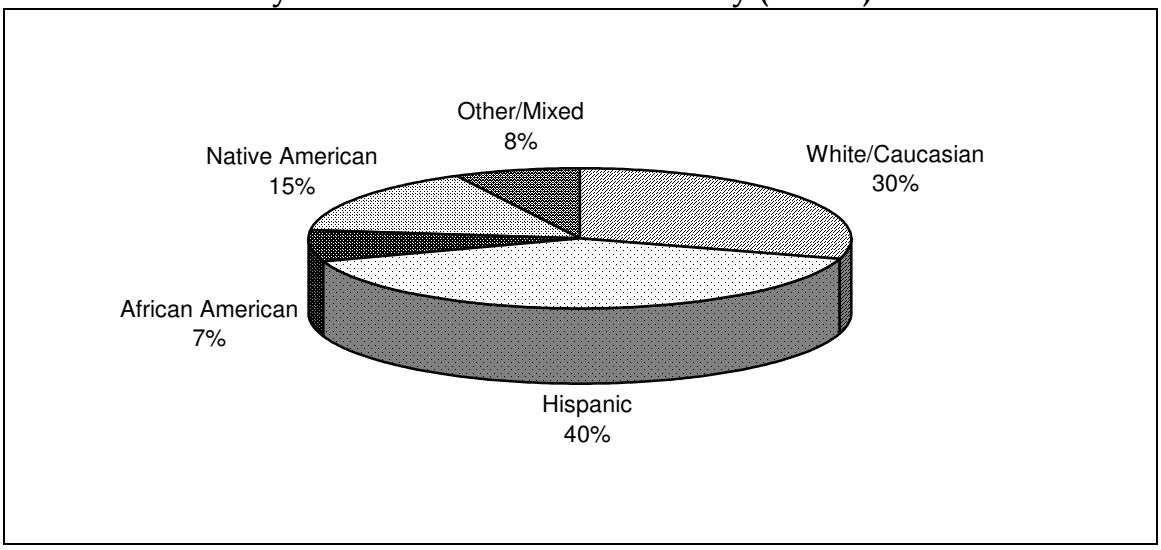
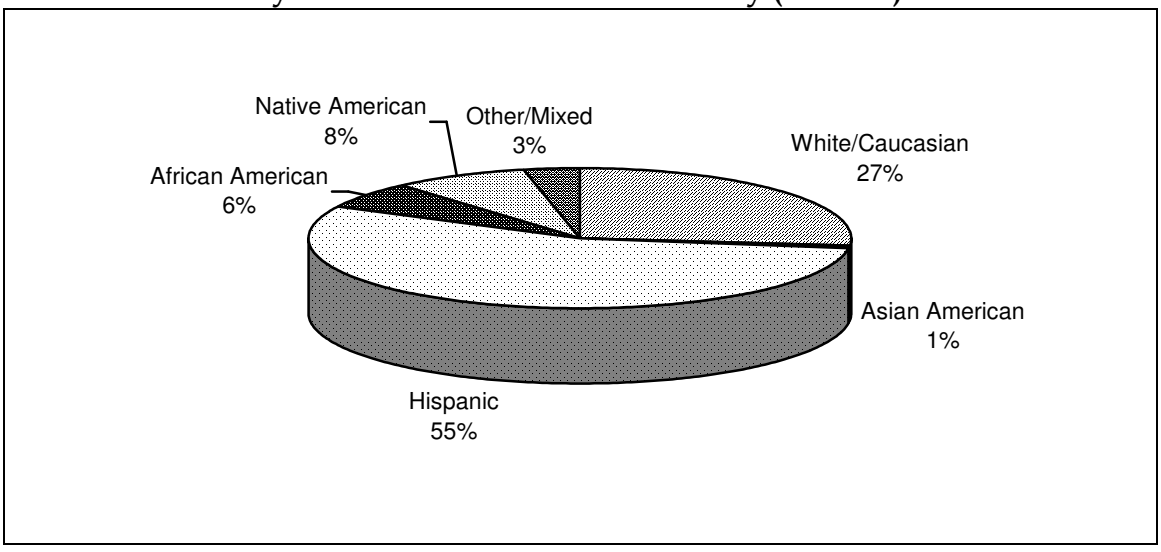


Exhibit 8. Ethnicity of Mothers Enrolled Postnatally (N=2704)



Healthy Families Arizona continues to put effort into encouraging and supporting father involvement. During this year, ethnicity data was gathered on 320 prenatal fathers and 2440 postnatal fathers. The ethnic breakdown of fathers is displayed below.

Exhibit 9. Father Ethnicity-- Prenatal Families (N=320)

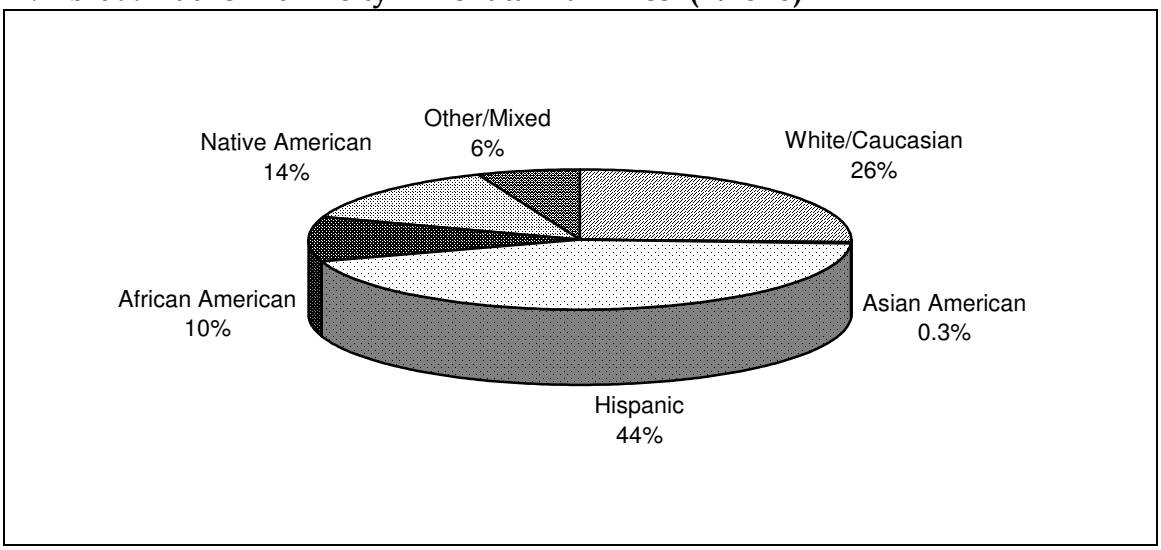
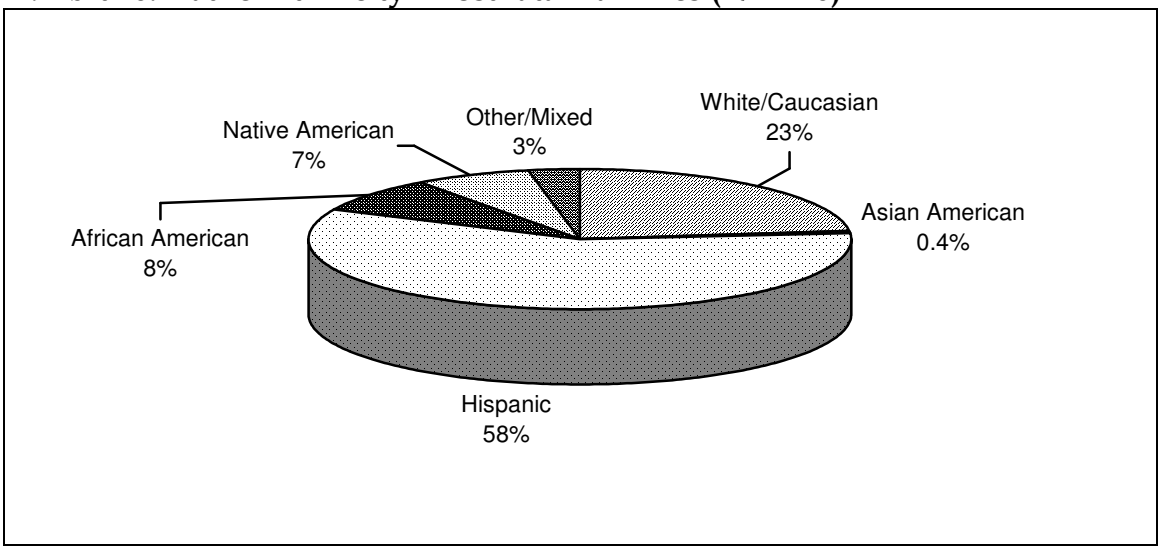


Exhibit 10. Father Ethnicity-- Postnatal Families (N=2440)



In addition to collecting basic demographic information during the screening process, families (mothers, and fathers when they are involved) are assessed using the ***Family Stress Checklist.*** During the 2005 program year, the Family Stress Checklist was revised and renamed the *Parent Survey* to impart a more strengths-based perspective with staff and families; however the rating scale remains the same. At intake, the Family Assessment Worker evaluates each parent's level of stress in 10 domains. The percentages of parents scoring severe on each of the scales are presented in Exhibit 11.

Exhibit 11. Percentage of Parents Rated Severe on the Family Stress Checklist Items PRENATAL (N= 361 mothers; N= 361 fathers)

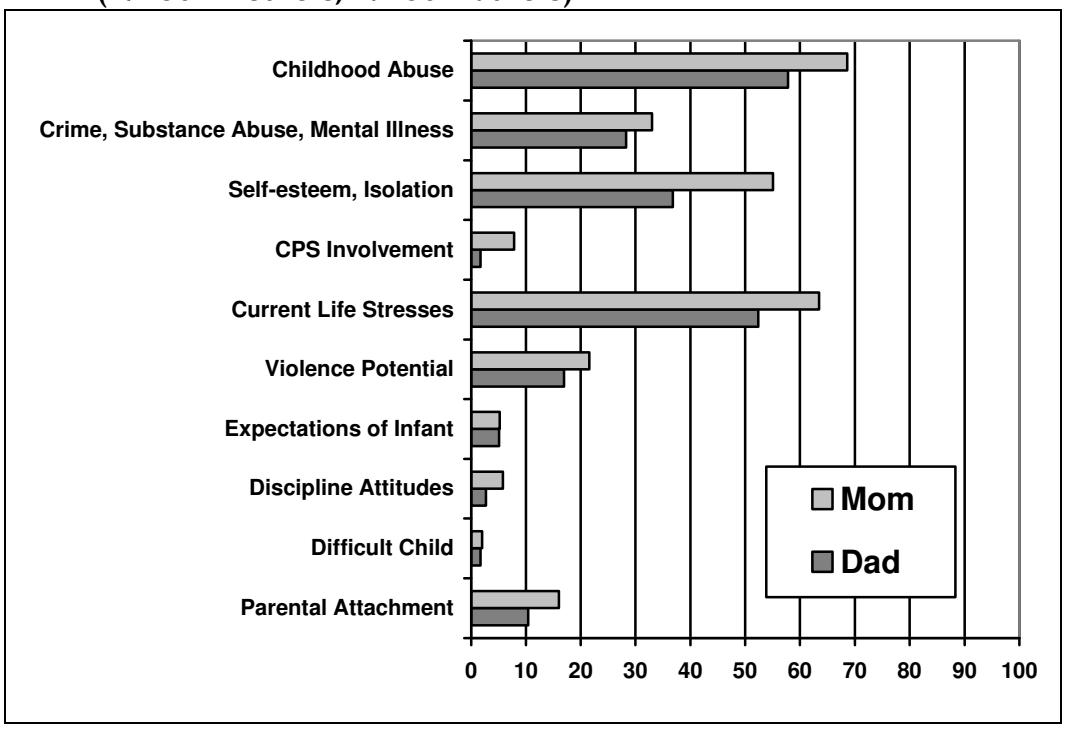
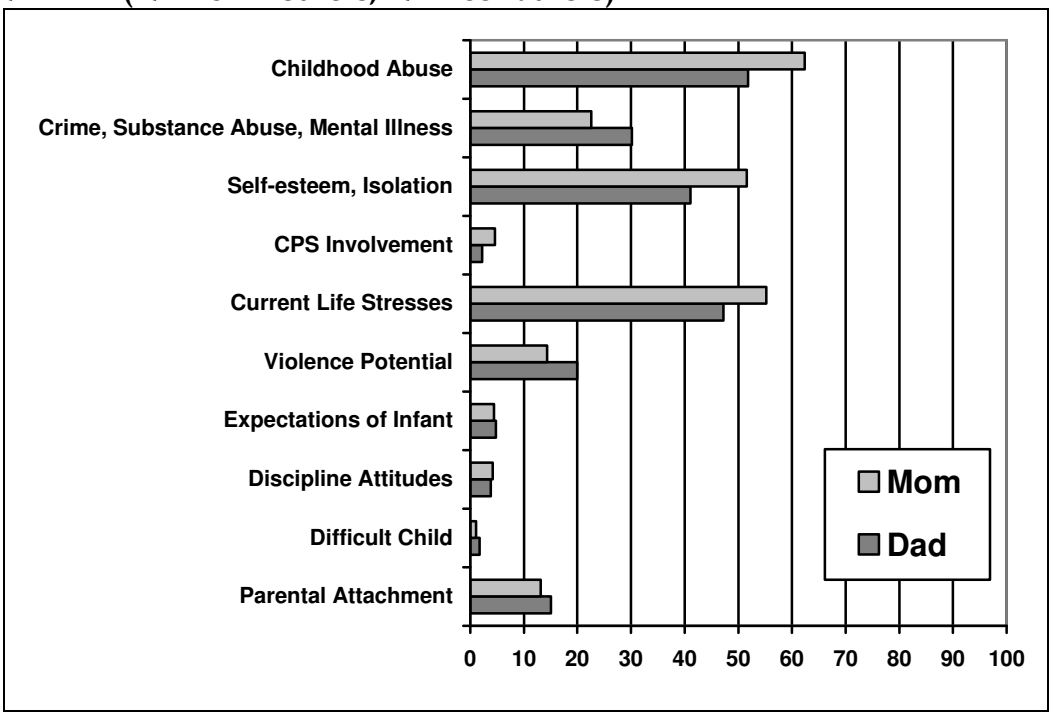


Exhibit 12. Percentage of Parents Rated Severe on the Family Stress Checklist Items POSTNATAL (N=2734 mothers; N=2735 fathers)



As in previous years, the most significant stressors are coping with a history of child abuse, having low self-esteem, feeling isolated, and dealing with current life stress, including low income, poor housing, and relationship difficulties. In addition, many families enter the program with risks related to crime, substance abuse and mental illness. Although the kinds of stressors affecting parents who enter prenatally are similar to those who enter the program after the birth of their babies, overall the percentage of severe stress scores is slightly higher for the prenatal families, indicating that the program is reaching the mothers that might most benefit from the earlier services by reducing stressors before the new baby arrives.

Not surprisingly, for those families who entered the postnatal program with histories of prior child abuse and neglect incidences, the same pattern of more severe stress scores is evident. These mothers scored higher on stressors such as childhood abuse, histories of crime, substance abuse and mental health issues, and problems with isolation and self-esteem.

As the Healthy Families Arizona program has matured, more and more training emphasis is being placed on increasing home visitors' knowledge and skills in addressing these most difficult risk factors with families.

Infant Characteristics

During the Healthy Families screening process (or following the birth of the baby for prenatal families), program staff assess the risk factor characteristics of the newborns. Having an infant with health problems increases the potential for child abuse and neglect in families. The challenges to new parents can be overwhelming. Infants who are born weighing less than 2,500 grams are at a greater risk for many problems including death within the first month of life, developmental disabilities and a myriad of health problems throughout their lives such as chronic lung disease, adult-onset diabetes, coronary heart disease, high blood pressure, intellectual, physical and sensory disabilities, and psychological and emotional distress. Babies born to mothers who have abused alcohol and other drugs during pregnancy face similar health problems. The costs to the parents of having a drug-affected, premature or low birth weight baby can be huge—not only financially but emotionally as well. Seeing their baby struggling for life or not being able to take their baby home from neonatal intensive care is extremely stressful to new parents.

The Healthy Families prenatal component aims to deter some of these risk factors by assuring good prenatal care, and the postnatal program supports parents during these difficult times. Exhibit 13 displays the high-risk characteristics of the newborns among families who entered prenatally and postnatally.

Exhibit 13. Risk Factors for Infants at Intake--2005

Risk Factors for Infants	Prenatal Families	Postnatal Families	Arizona State percent
Born < 37 weeks gestation	20.2%	16.6%	11%*
Birth Defects	1.6%	1%	1%*
Low Birth Weight	10.7%	12.7%	7.1%*
Positive Alcohol/Drug Screen	3.1%	1.9%	NA

*2003 data from the Arizona Department of Health Services Vital Statistics records

The percentage of Healthy Families Arizona infants born early (less than 37 weeks gestation) has increased from the 2004 percentage (13.9%) of Healthy Families participants, and it is nearly twice as high as the state rate. The percentage of low birth weight infants in the program is about the same as previous years, but again remains high in comparison to the state rates. It is apparent that Healthy Families is reaching parents and babies who have greater risks leading to child abuse and neglect and other unhealthy outcomes. As the prenatal component of the program grows, the Healthy Families Arizona home visitors have a great opportunity to help mothers prevent having pre-term or low birth weight babies by encouraging parents to attend regular prenatal visits and adopt healthy behaviors such as good nutrition habits and stopping alcohol, drug and tobacco use.

Service Delivery

In examining service delivery, participant retention and participant satisfaction, it is helpful to focus on the context of program growth this year. With the initiation of the prenatal component of Healthy Families, new services were developed and implemented. As new sites started up, they faced the challenge of hiring and training staff in the program service model, and insuring documentation of services and activities. The development of the program logic model was an additional tool to help staff focus on the most important strategies for each component. New quality assurance forms have been developed and implemented to better track service delivery.

To reach the overall goals of reducing child abuse and neglect, success will be more likely when the program ensures that families stay engaged in the program, receive the services they need, and are satisfied with the program. Each of these aspects of the program will be reviewed in the following section.

During the study year the total number of families served by the program was 3,655. However, not all families who initially enroll become actively engaged in the program. Successful program engagement is defined as those families who complete 4 home visits. A breakdown of the total families enrolled in Healthy Families Arizona reveals that:

- 2,735 postnatal families became actively engaged, with 23 of these families having a prior CPS history
- 469 postnatal families terminated before 4 visits (none had a prior CPS history)
- 361 prenatal families became actively engaged
- 87 prenatal families terminated prior to 4 home visits, with three of these families having prior CPS history.

This year marked the first year that families with a CPS history were served because of the change in the Healthy Families legislation. Because the families exhibited increased risk factors, staff thought they might be more difficult to engage in the program, but data shows that all the families were successfully engaged. Overall the engagement rate among families who entered postnatally is 85.3 percent. This is lower than the rate from the previous year (90.7%), but still represents a significant engagement rate. Part of the explanation for the lower rate may stem from the challenges associated with program startup in many of the new sites.

For prenatal families, the engagement rate is lower—80.6 percent. Some of the challenges in recruitment were described earlier in this report and it will be important to examine engagement of prenatal families more fully next year when the program model is more mature.

Families who terminated from the program prior to completing 4 home visits, when compared to engaged families are:

- More likely to be single (postnatal)
- More likely to have a criminal history, be involved with illegal substances, or suffer from some form of mental illness (prenatal and postnatal)
- More likely to suffer from current life stresses (prenatal and postnatal).

The length of time families stay in the program continues to increase. Only data on the postnatal families are reported because so few prenatal families had left at the time of this report. For the group (N= 662) that terminated during the past year, 66% had been in the program over 12 months, compared to 63% last year. This rate of retention points to the continued emphasis given by Family Support Specialists to building a solid relationship with each family.

The most frequently given reasons for terminating from the program include:

1) moved away (23.5%)
2) unable to contact (15.9%)
3) did not respond to outreach (14.7%)
4) completed program (12.7%)
5) reported self-sufficiency (10%)
6) declined worker change (7.3%).

An important aspect of the Healthy Families program model is linking families with needed community resources. While much of the home visitor's activity is provided in the home in terms of child development education, coaching and modeling bonding, and so on, equally important is the home visitor's efforts to connect the family to other resources 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. A common problem noted among more rural sites is that there are not enough options for families who need help, or transportation is a significant barrier as they have to travel to other communities to access resources.

During this program year, the Healthy Families program made several changes in the types of data collected regarding service delivery, as program staff wanted to better track the types of external resource referrals made by home visitors and the outcomes of those referrals in terms of services actually received. Data is limited for this year due to changes in data collection forms and new sites starting up at different times. Exhibit 14 below illustrates the types of referrals made by Family Support Specialists for those families who are served at the 6, 12, and 18-month intervals. The largest percentage of the referrals fall into the "Other " category, indicating the data collection tool may not be capturing the types of service referrals that are commonly made.

Exhibit 14. Types of Healthy Families referrals at six, twelve and eighteen months

Service referrals	Types of referrals at 6-months (N=836)	Types of referrals at 12-months (N=371)	Types of referrals at 18-months (N=154)
Health Care	13%	13%	12%
Nutrition Services	6%	6%	2%
Public Assistance	17%	13%	14%
Family and Social support	13%	13%	16%
Employment, Training and Education	15%	10%	12%
Counseling and support services	7%	10%	5%
Other	30%	34%	38%

Participant Satisfaction

One aspect of program implementation, especially with a voluntary program like Healthy Families, is the satisfaction family members express about their participation. Healthy Families program sites distribute a satisfaction survey to participants during a two-month time period each year. For this program year, 517 surveys were returned from 23 sites. This is a large number of families, but they cannot be considered representative of all families served by the program; nonetheless it provides important information about the program. A separate Satisfaction Report (LeCroy & Milligan Associates, 2005) was completed for program staff about a variety of satisfaction questions, and that analysis revealed high satisfaction in all areas of the program. For this report, only several critical areas are highlighted below.

Two key components of the Healthy Families model are 1) the use of the Individual Family Support Plan (IFSP) to set concrete goals with participants and 2) the teaching of child development and parenting skills. Exhibit 15 and 16 show that participants feel quite satisfied with the child development materials and understand the service plan (IFSP).

Exhibit 15. Responses to "I understand when the home visitor explained the family service plan to me."

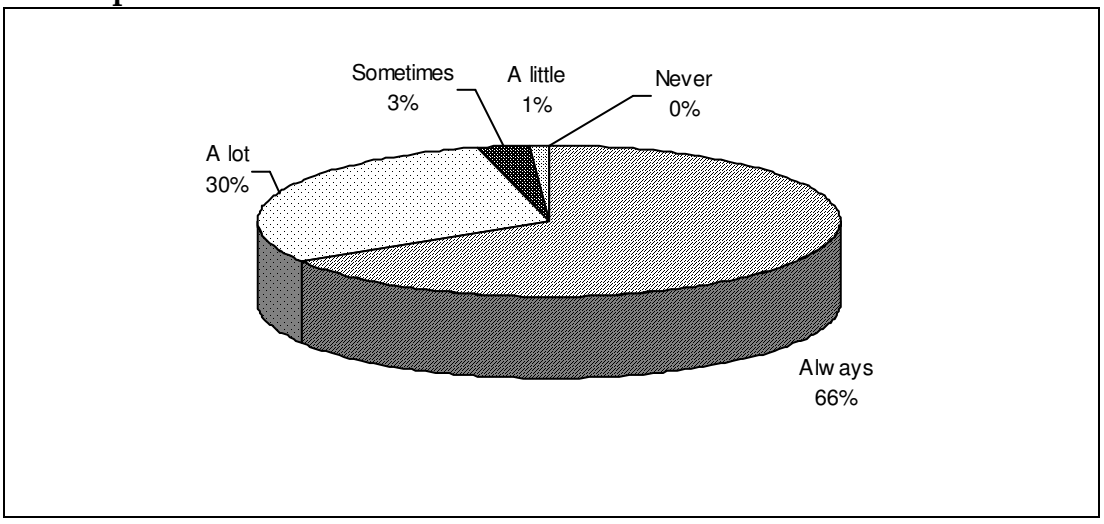
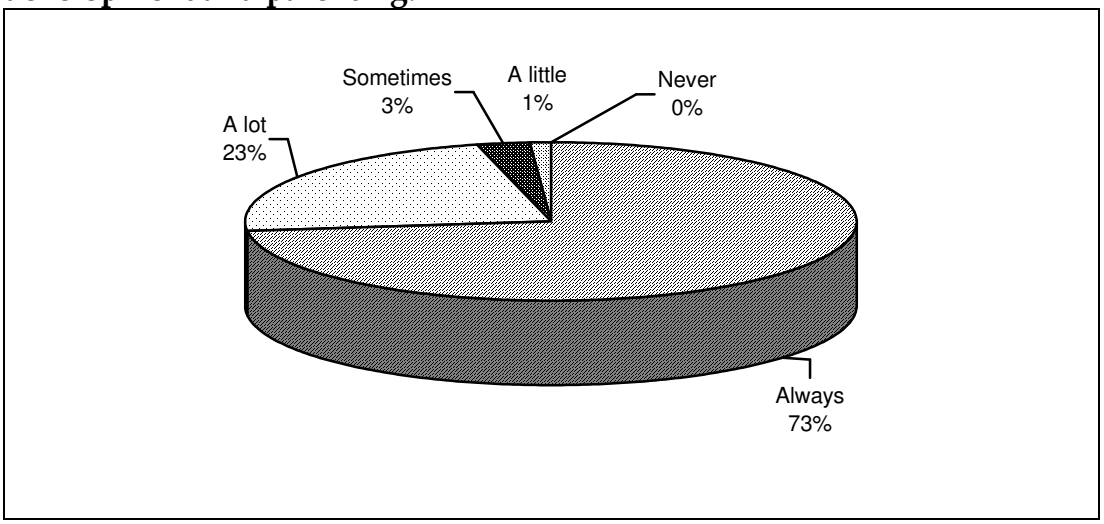
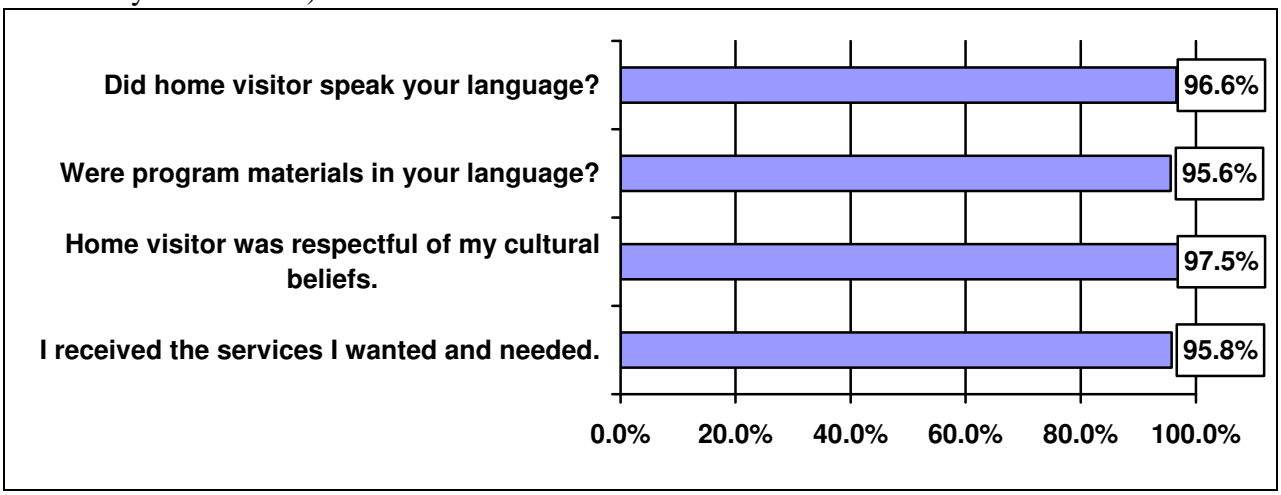


Exhibit 16. Responses to "I was satisfied with information provided on child development and parenting."



A large percentage of HFAz participants speak or use Spanish as their primary language. It is critical that home visitors speak the families' language and program materials are translated appropriately and in a culturally respectful manner. Participant responses regarding the relevance of program materials are shown below in Exhibit 17.

Exhibit 17. Participants' perception of usefulness and responsiveness of Healthy Families services (For questions 3 and 4, on a five point scale, percentages shown are "a lot" and "always" combined)



In summary, all of the participant satisfaction data suggest the program is well received by the participants. This is particularly important for a voluntary program. Furthermore, program satisfaction is a first step in producing program outcomes.

Program Outcomes

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**. T**he development of the Healthy Families logic models and the Healthy Families Parenting Inventory (HFPI) are helping HFAz better measure specific outcomes by clearly linking measures to known risk factors and indicators of child abuse and neglect. These indicators include program impact on child abuse and neglect, parental stress and competence, health risk behaviors, parental depression, parent-child bonding, safety practices, medical and social service use, employment, education attainment, and others.

Program Logic Model

Over the last year, two logic models were developed for the Healthy Families Arizona program—one for the postnatal services and one for prenatal Services. Both logic models are included in Appendix E & F. The logic model process brought together stakeholders to work together to clarify the underlying rationale for the programs, the most important outcomes for prenatal and postnatal families, the activities and processes that will lead to these outcomes, and ways to measure the outcomes. Through this process, gaps in assumptions about outcomes, program activities and evaluation measures were revealed, resulting in changes and refinements in program services and evaluation measures. The process of developing and sharing the program logic models serves to build a common understanding of the logical connections between the program components—that is, how program activities will lead to the accomplishment of objectives and goals. In addition, the logic model includes the measures that will be used to determine if the activities were carried out as planned (process measures), and if the program's goals were met (outcome measures).

The following Exhibit identifies the primary objectives of the prenatal and postnatal logic models and the data source for measuring outcomes related to each objective. Some tools are still being developed or refined.

Exhibit 18. Program Objectives and Data Sources

Objective	Data Source
Increased Social Support Network	HFPI* Social Support Scale
Improved Mental Health	HFPI Depression Scale HFPI Personal Care Scale FSS-23** Services received
Increased Parents' Health Behaviors	FSS-23-Link to Medical Doctor Substance Abuse Screen (CRAFFT)
Increased Problem Solving Skills	HFPI Problem Solving Scale
Improved Family Stability	FSS-23—Employment, Education HFPI Mobilizing Resources Scale
Increased Parental Competence	HFPI Parental Competence Scale HFPI Parenting Efficacy Scale
Increased Positive Parent/Child Interaction	HFPI Parent/Child Behavior Scale
Improved Child Health	FSS-23 --Immunizations Link to Medical Doctor Safety Checklist
Optimized Child Development	HFPI—Parent child Interaction ASQ Screening
Prevention of child abuse and neglect	CHILDS Registry Check Total HFPI score
Increase empathy for the unborn child (prenatal)	HFPI-prenatal
Increase father involvement	HFPI—Commitment to Parent Role Father Involvement levels
Increase safety in the home environment	HFPI—Home environment Safety Checklist
Increase the delivery of healthy babies, free from birth complications	FSS-20P; FSS-23
Improve nutrition	In development

*Healthy Families Parenting Inventory

**FSS-23 is a Healthy Families Arizona tool developed to collect process and outcome data every six months.

In the last year, Healthy Families Arizona made some significant changes in the way it collects program process and outcome data. For example, the Parenting Stress Index has been replaced by the Healthy Families Parenting Inventory (HFPI). A review of other tools resulted in changes to the FSS-23 data collection form in order to collect information that will more accurately measure both process and outcomes related to the program objectives listed above. For example, as mentioned earlier, the program has begun to collect data on referrals made/recommended for the families in the program. As a result of the new forms and recent introduction of these data collection efforts, and the inexperience of the new personnel associated with expansion, some of the data is limited.

For 2005, the following outcomes were examined:

- Parent outcomes, e.g., parental stress, (Healthy Families Parenting Inventory)
- Child and Maternal health outcomes
- Safety in the home environment
- Child Abuse and Neglect.

Child and Family Health and Parenting Outcomes

Development and Implementation of the Healthy Families Parenting Inventory (HFPI)

Last year the evaluation team initiated the development of a new outcome instrument, the Healthy Families Parenting Inventory (HFPI) in place of the Parenting Stress Index. While various instruments have been used in past research and evaluation of home visitation programs, most are ill equipped to capture the actual changes made by participants. This is because many of the existing instruments were not designed as *outcome instruments* but rather instruments that measure concepts, like family stress. By focusing on outcomes and designing an instrument specifically for the Healthy Families program we believe better outcome data can be generated for the evaluation.

The development of the HFPI was guided by several principles: the actual practice as conducted by 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 10 scales that were tested for reliability. The final result is an inventory that is specific to Healthy Families, captures change initiated by the program, and has good reliability data. The average reliability across the ten subscales is .83. (See Appendix C for specific reliability data).

Although the use of the HFPI is new, there is enough data on participants to report the results of changes from the two month (N=974) and six month (N=638) administration of the instrument. Exhibit 19 presents each subscale and the results of the statistical analysis of changes in parents from two months to six months.

Exhibit 19. Healthy Families Parenting Inventory

Scale	Significant Improvement Baseline to 6 months	Significance
Social Support		.232
Problem Solving	✔	.013*
Depression	✔	.036*
Personal Care		.348
Mobilizing Resources	✔	.001*
Commitment to Parent Role		.106
Parent/Child Behavior	✔	.002*
Home Environment	✔	.001*
Parenting Competence	✔	.000*
Parenting Efficacy	✔	.008*
Total Scale	✔	.001*

*Indicates a significant difference at the .05 level. (Statistical significance indicates the results of the analysis could only be due to chance in 5 out of 100 cases.)

As Exhibit 19 shows, seven of the ten scales, plus the overall scale, showed a statistically significant difference in the families between the two month and six month administration of the instrument. Families are showing significant improvement on most of the scales that indicate healthy parenting. Because some of the scales measure new aspects of the program's outcome, it is encouraging to see these positive outcomes.

Child Abuse and Neglect

The following exhibit presents data for families who were active in Healthy Families during the period of July 1, 2004 to June 30, 2005 and who had been in the program at least six months. The percent of families having a substantiated incidence of child abuse or neglect since entering the program is compared with the previous two years' rates. In addition, analysis was conducted to determine if the new policy of accepting families with prior histories of substantiated reports may have had an impact on the rate.

For the total families served by Healthy Families in 2005, 98.2 percent had no substantiated reports of child abuse or neglect. The data show that if families with prior CPS histories are removed from the analysis, the percent of families without substantiated reports is 98.3 percent—essentially the same as last year. For those engaged families with a prior CPS history, 92.3 percent had no further reports.

Exhibit 20. Percent of families showing NO child abuse and neglect incidences

Group	Percent without substantiated report 2003	Percent without substantiated report 2004	Percent without substantiated report 2005 (N=1814)
All Families	99.0	98.4	98.2
Families without prior CPS history	99.0	98.4	98.3
Families with a prior CPS history	Not served	Not served	92.3

As more families with previous CPS histories are accepted into the program in future years there may be a negative impact on the rate of child abuse and neglect since many of these families are at higher risk for abuse and neglect. As stated in previous years, the CPS match data should be treated with caution. Child abuse and neglect rates 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 in short periods of time may not be representative of long term effects;
- Many incidents of child abuse and neglect go unreported, which calls into question the reliability of the data;
- Families in the program may be under increased surveillance, and this may result in increased reporting.

Safety Practices

Both the prenatal and postnatal program components seek to help families develop and maintain a safe home environment for their children. The area of program emphasis can be one of the most instrumental ways of assuring reduced injuries due to neglect in the home and car. Home visitors continue to administer the home safety checklist at a high rate during the families' tenure with the program. The following exhibit shows the data for postnatal families in critical areas of safety as the child grows.

Exhibit 21. Percent of families implementing safety practices

	2 Month	6 Month	12 Month	18 month	24 month
Outlets Covered	47.8%	65.5%	75.6%	80.9%	82.9%
Poisons Locked	83.9%	90.0%	93.2%	93.6%	93.1%
Smoke Alarms	84.5%	89.5%	87.1%	84.7%	90.0%
Car seats	99.4%	99.4%	97.0%	97.0%	98.0%

The numbers of families implementing the various safety practices when the child is very young remains very similar to previous years. Continued attention to safety practices during the infant years is needed, particularly with smoke alarms, electrical outlets and poisons.

The program excels in assuring infants and children are secured in car safety seats. However, as the child begins talking and resisting (a common problem at three years), home visitors need to coach parents on maintaining car seat use through much of elementary school. The data also show clearly that as the child becomes more mobile at 12-24 months, appropriate safety practices increase steadily. Additional data shows that by the age of three, 98% of families display emergency phone stickers, 98% of families supervise their children during play, and 98.9% insure pool safety.

Promoting family members health behaviors and child health are key objectives of both the prenatal and postnatal components of Healthy Families Arizona. The **immunization rate for the children** is one of the indicators used to measure this objective. Exhibit 22 shows the rate for the infants of Healthy Families participants for 2005 and 2004. This year's data shows that there has been a slight decrease in immunizations at each period. It is unknown whether this is a data collection problem due to new site startup or whether families are not getting the immunizations. Healthy Families supervisors and staff should maintain high expectations for immunization completion. Overall, Healthy Families Arizona families continue to have their children immunized at a rate greater than the Arizona percentages.

Exhibit 22. Immunization Rate of Healthy Families Arizona Children

Immunization Period	Percent Immunized Postnatal - 2005	Percent Immunized Postnatal -2004	Immunization Rate for 2-year-olds in Arizona (2004)*
2 month	92.7%	96.7%	
4 month	90.2%	94.3%	
6 month	82.3%	87.1%	
12 month	92.1%	95.9%	
Received all 4 in the series by 2 years old.	89.1%	94.0%	77.0%

*Source: 2004 data from the Arizona Department of Health Services

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***. The data reveal a substantial number of the children linked to a medical doctor.

Exhibit 23. Percentage of Children Linked to a Medical Doctor

	6 months	12 months	18 months	24 months
Percent of children with medical home	98.6%	97.1%	98.7%	96%

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 program uses the Ages and Stages Questionnaire (ASQ) as a screening tool for developmental delays. Approximately three quarters of all children are screened for developmental delays. There has been a slight decrease in the numbers who receive the ASQ from the previous year, and this is likely due to program expansion as new workers have much to focus on during their first year and data collection is new to them. However, a primary objective of Healthy Families is to promote child development and this is an area for increased attention. The data show a similar pattern to the previous year in that the percentage of children screening as delayed increases with age.

Exhibit 24. ASQ Screening

Interval ASQ Administered	Percent of children screened with ASQ 2004	Percent of children screened with ASQ 2005	Percent screened as delayed 2005
6-Month	81.0 %	72.4 %	5.6 %
12-Month	80.6 %	78.8 %	4.6 %
18-Month	73.3 %	72.0 %	19.9 %
24-Month	76.1 %	72.3 %	22.1 %
30-Month	75.1 %	71.6%	16.5 %
36-Month	NA	73.3%	20.9%
48-month	NA	66.7%	31.4%

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. Approximately one-fourth to one-fifth of the children who initially screen delayed with the ASQ are determined to be "not delayed" when referred for further assessment.

In other cases, further assessment indicates that additional intervention is needed, and appropriate referrals need to be made or the Family Support Specialist needs to focus on appropriate development interventions with the child and family. The pattern of services received is similar to last year with referral to the Arizona Early Intervention Program (AzEIP) being the most common external resource used. It is notable that as potential delays are identified when the child gets to be three to four years old, a more common intervention choice becomes the Family Support Specialist providing a developmental intervention at home with the parent and child (61% at 36 months and 72% at 48 months report providing this service). This may indicate an appropriate use of child development curricula in the Healthy Families program model, as the home visitor becomes more familiar with the child and family over the course of service. Further exploration into this aspect of the program model may illuminate how these professional choices are made. Exhibit 25 illustrates the types of referrals and services received by families with children exhibiting delays.

Exhibit 25. ASQ Referral Status—2005

	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	27% (7)	19% (5)	19% (5)	38% (10)	4% (1)	4% (1)
12-month Screen	18% (3)	18% (3)	18% (3)	53% (9)	0% (0)	0% (0)
18-month Screen	39%(16)	24% (10)	10% (4)	37% (15)	2% (1)	5% (2)
24-month Screen	21% (7)	44% (15)	9% (3)	35% (3)	6% (2)	0% (0)
36-month Screen	17% (2)	35% (8)	17% (4)	61% (14)	4% (1)	0% (0)
48-month Screen	19%(6)	16%(5)	3%(1)	72%(23)	0%(0)	3%(1)

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

Mother's Health, Education 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 the health and well-being of participating mothers in outcomes such as subsequent pregnancies, education, and employment.

During the study period, 11.5 percent of the mothers who entered postnatally reported ***subsequent pregnancies,*** compared to 15% in 2004. Of these, 27.9 percent were 18 years or younger, compared to 29% in 2004. Exhibit 26 shows the length of time to subsequent pregnancy for active families during each year.

Exhibit 26. Length Of Time To Subsequent Pregnancy

Length of Time to Subsequent Pregnancy	2005 Percent of mothers	2004 Percent of mothers
1 to 12 mos.	33.3%	31.6 %
13 to 24 mos.	42.3%	42.3 %
Over 24 mos.	24.4%	26.1 %

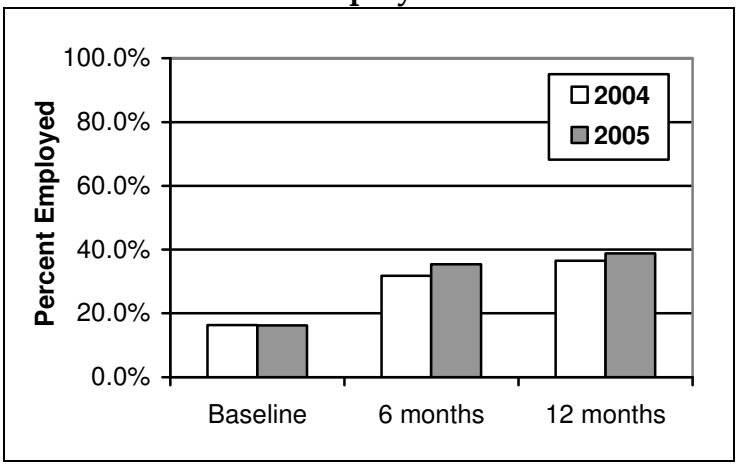
Parents who participate in Healthy Families Arizona may desire to complete or further their education. Home visitors provide links and support to finish GED programs, or enroll in vocational or college education programs. Exhibit 27 displays the percentage of mothers enrolled in school full or part-time at different intervals.

Exhibit 27. Percent of Mothers enrolled in school

	Percent enrolled part-time	Percent enrolled fulltime
6 month (N=437)	4.6%	9.3%
12 month (N=345)	6.3%	12.7%
24month (N=162)	5.0%	7.8%
36 month(N=141)	6.3%	8.4%

Exhibit 28 shows the ***employment status*** of mothers actively engaged in the program at various points in the program as compared to 2004. While the mothers employed at baseline is the same as 2004, those employed at six and twelve months show slight increases over 2004, with 35% employed full or part-time at 6 months, and 39% employed at 12 months.

Exhibit 28. Mother's employment status



Substance Abuse Screening

Alcohol and other substance abuse is a significant risk factor for child abuse and neglect. As illustrated in the program logic model, the primary roles of the home visitor are to help identify and assess when alcohol or other drug abuse may be affecting the family, educate about risky and healthy choices and make referrals for support or treatment services if appropriate. In the past years the CAGE assessment instrument was used, but was not well received by home visitors. After an evaluation review, the CRAFFT screening tool was chosen this year as a replacement, in hopes that it would screen effectively for substance abuse problems while at the same time promoting communications. The brief alcohol and drug-screening test is known by a mnemonic, CRAFFT, based on the first letter of keywords in the 6 easy-to-remember questions.

It is a widely used assessment instrument and has acceptable reliability and validity data. It is particularly intended for young adults and adolescents. It consists of a series of questions that are intended to allow the home visitor and parent to have a conversation about substance use and abuse. 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.

The data indicate that only 25-33% of the families are screened using the CRAFFT depending on the interval examined (6 months, 12 months, etc). Of those, none were identified as having a positive screen. Again, because this is a new instrument introduced within a year of rapid expansion, it has not been fully implemented. This represents a significant issue for the program, given the recent emphasis on substance abuse issues. In response to the need for further training in this area, in 2004-2005 the program developed and began implementing training workshops in motivational interviewing and facilitating change to increase the skills and comfort of the Family Support Specialists and supervisors in addressing these difficult issues.

To explore substance abuse and other difficult family issues, the evaluation team has examined the ways in which home visitors decide how to address significant issues with families. A summary of this year's process study follows.

Decision- Making Study

Over the years, the HFAz evaluation effort has conducted several special process studies in order to better understand program implementation. For example, the "problematic situations" study (LeCroy & Whitaker, 2005) sought to identify very specific problematic situations for home visitors. It was designed to shed additional understanding on what situations were difficult and provide a framework for improving supervision and training to respond to those difficult situations.

Many of the families in HFAz present difficult and challenging problems. Over the past several years there has been a focus on three critical risk factors: mental health, domestic violence, and substance abuse. All of these factors pose substantial risk for child abuse and have been found to mitigate the positive effects of home visitation services. While home visitors receive ongoing training on many of these issues it is unclear how the training influences decision making and ultimately what is done to address such critical issues.

To begin an exploration of these decision-making processes, the evaluation team conducted a focus group with home visitors from southern Arizona program sites to examine how home visitors make decisions about what to do with families when dealing with families who have significant risk factors and problems. The intent of the study was to obtain information about what drives home visitor decisions about what problem to address, how to approach the family, and whether there are any "best methods" for "solving challenging problems." The following Exhibit lists the questions that home visitors said that they must answer for themselves as they make decisions regarding how to address a difficult family problem or concern, grouped according to themes.

Exhibit 29. Concerns that affect home visitor intervention decisions

Themes	Common Questions of Home Visitors
Safety	Am I safe? Is the family safe? Are the children safe? Should I call the police?
Timing	How will the mom or dad react? Should I bring this up now or later? When is the best time to approach this with them?

Uncertainty	Is this just a suspicion? Did families admit to an issue? Are families aware of the issue? Is there clear evidence of the difficulty?
Fear	Will this lead the family to refuse services? Am I doing the right thing in bringing this issue up? How will my relationship with the family be impacted?
Obtaining needed services	Will the family be able to get the additional help they need? Are there agencies in the community that can provide this assistance?

The focus group brought forth a valuable discussion concerning *how home visitors attempt to deal with critical risk factors in families*. Insight may be gained by examining the home visitors' words in describing how they approach families who have significant problems or risk factors:

- "You need to be non-judgmental, have an open attitude."
- "You need to hang in there with them—getting past the "shock value" can build trust. They want to see if you're going to run like everyone else in their lives."
- "You need to ask neutral/open-ended questions to gently probe on issues."
- "You need to deal with your own issues." (i.e., to be effective with families)
- "Sharing, and listening helps lift the family's burden." (i.e., the Home visitor's role is to listen, not counsel)
- Uncertainty is typical—"Prepare yourself for a roller-coaster ride."
- "I try to provide ongoing encouragement and emotional support."
- "I help them deal with their other crises." (e.g., "When their baby is in the NICU, parents are overwhelmed but when they get home they think the hospital took care of everything--- preemies are really hard.")
- "We need to focus on parenting skills."

The most appropriate and helpful role of the supervisor was explored, and the program staff outlined the types of supervision efforts that are found to be most helpful, including:

- Debriefing after the home visit
- Processing and reflecting the experience with the Family Support Specialist (FSS)
- Knowing legal ramifications of family issues and home visitor choices

- Helping to focus the home visitors on their critical roles and understand that they can't "fix" the big issues; i.e. they can help the family with parenting skills and improving their relationship with their baby
- Connecting the FSS to other resources

The focus group also examined *how confident home visitors were in addressing difficult issues such as substance abuse, mental illness or domestic violence*. They responded by saying they are very confident in their overall knowledge and experience but worry about the application of their knowledge in the specific situation. In particular, the home visitors noted:

- Bringing up the subject is hard--- when something sensitive needs to be discussed.
- Without an admission or concrete evidence of a problem (e.g., marijuana on the coffee table), it's hard to discuss the issue. (for example, a family member might say that they used drugs in the past, but not anymore. "If they're denying it, what can you do?")
- The FSS needs a good relationship with the family to be able to discuss issues.
- They needed more coaching on how to suggest an evaluation for mental health.
- Despite the home visitors' overall length of experience and knowledge of emergency procedures, there is still fear and concern. The staff emphasized the importance of the supervisor relationship where the FSS can discuss how they handled the situation and what else could have been done with the family.
- Home visitors struggle with the feeling that they may have failed the family somehow; that they have a lost opportunity when the family drops out of the program.
- The assessment process can bring awareness that serves as an important step in understanding what the most difficult risk factors may be for a family.
- You need to trust your intuition despite the anxiety at the back of your mind.

They were also asked where they learned how to respond, how they think through the family situation and choices for intervention. Most of the home visitors indicated that they obtained on-the-job training. They learned from experience, the Healthy Families training institutes, agency-level training, and specialty trainings. They also indicated that staff meetings, discussions with their supervisor and case reviews were helpful.

Final comments shared by home visitors regarding the key ingredients for effectively making decisions reflected the importance of experience combined with training. The respondents offered these points:

- There are certain things you can't train. You need to hire "good raw material", (i.e. a talented employee) .
- You need to be able to "think on your feet" and know how to recognize when the family is ready for a counselor, for example.
- There is a big difference between book knowledge and experience. Even the extensive trainings are "just book knowledge." Experience is the best way to put everything together. Perhaps an apprentice model would be best. Other ways to get more "hands on" include observation, learning from each other.
- Other suggestions included having "advanced" core training (even a whole day on one risk factor area) for experienced workers who've already completed core training-- instead of the same trainings and same handouts that they've seen many times.

In summary, it is clear that home visitors are continually identifying and assessing choices about how they work with families on a daily basis. A number of considerations must be juggled at once—personal safety, readiness among family members, how to broach or initiate discussion of a difficult issue, the repercussions of addressing an issue with the family, and how to follow-up with the family. The home visitors value the supervisory relationship and on-going professional development to sharpen their skills and knowledge in critical areas. The need for on-the-job learning and reflective supervision seems vitally important to strengthening and sustaining the home visitors in their challenging work.

Recommendations

The Healthy Families Arizona program exhibits aspects of both a mature and a newly developing program. For example, while much of the Healthy Families Arizona structure has become solid over the years, new sites bring the opportunities and challenges inherent in growth. The review of data over this year, combined with previous years, provides an opportunity to reflect on the needs of the program as it expands. The following recommendations are made to support program expansion.

Enhance the evidence-based structure of the Healthy Families program. Using evidence-based practice is at the heart of Healthy Families Arizona. Program effectiveness can be enhanced even more with a stronger, formalized mechanism for using research information for decision-making. In this way, the program can better apply evidence to delivery of program services and program staff become more involved in the evaluation process. An identified mechanism for sharing knowledge will build a stronger link between program staff and the evaluation process, and promote greater collaboration in building research and evidence into the program development process. The Excellence Committee could invite an annual evaluation review and feedback session that would result in recommended program changes based on evaluation and research findings. The annual review would also be a time to generate new evaluation questions for the evaluation team to investigate.

Develop standards for sites that set expectations for collecting and submitting data so that quarterly evaluation feedback reports are meaningful. The quality assurance and evaluation components of Healthy Families Arizona should develop new policies for following up with sites when they fall below standards for quality data collection. This will insure that the management information system provides accurate feedback for ongoing program quality assurance processes.

The program needs to improve the administration of several of the evaluation instruments, in particular, the Safety Checklist and the Ages and Stages Questionnaire. In addition, a re-evaluation of the substance abuse screening tool (CRAFFT) needs to be conducted in terms of implementation and the tool's ability to identify substance abuse problems. Program staff should give special attention to insuring appropriate referrals are given to families when a concern is identified.

Recruitment and retention in the program remains an ongoing concern. Specific recruitment and retention strategies should be developed. All home visitation programs work to create and sustain a mutually satisfying match between the family's needs and what the program has to offer. The Healthy Families Arizona program should be recognized for having obtained a better retention than many Healthy Families programs throughout the nation, and over time retention has increased. Nonetheless, exploration of how the program might continue to address retention is warranted particularly with the influx of new families and program expansion. A sub-study that compares two different approaches to retention could provide some insight. Further, new service delivery strategies might continue some form of engagement sufficient to reap benefits (e.g., would parents who might terminate continue if a telephone support program was in place?). Specific approaches need to be tailored for rural and urban areas. Special efforts should be made to <u>retain</u> families with a CPS history, to <u>recruit</u> prenatal families into the program, and <u>engage</u> postnatal families in program delivery. There are important differences between prenatal families, postnatal families, and families with histories of CPS reports. Program protocols should be tailored for each of these groups.

The program should identify specific strategies to meet the needs of families who have prior histories of child abuse and neglect. These families are at higher risk for subsequent abuse or neglect and may need more clinical services or community resources to strengthen their parenting skills. Recruitment and retention of these families is also critical and may require focused strategies and increased resources, such as more intensive home visits, clinical consultation or more intensive follow-up on referrals.

Continued program development is needed in delivering services to parents with multiple children at various ages and with families when the child is age 2 or older. When children get older the program goals need to shift to increased emphasis on parent child interaction and positive discipline strategies. As children get older and become more active many parents are prompted to use unhealthy discipline strategies. Staff must assess how to deliver effective services with limited contact (by age 2 most families graduate to a level that reduces the amount of home visitations). This requires reviewing program design (e.g. videotape modeling) and/or forging stronger links with additional community resources to provide support and education for child management skills.

The recruitment materials for the prenatal component of Healthy Families Arizona could be strengthened by development of attractive materials that clarify the services, goals and benefits of enrolling in Healthy Families during the prenatal period. This will help referral sources understand and communicate the services to pregnant women and help motivate families to participate.

Linking families to needed resources is a key strategy in the Healthy Families model, but data collection forms do not seem to be capturing the types of referrals being made. The evaluation and training teams should review the instrument and make revisions to capture a more accurate picture of the types of referrals that are made the most.

Staff training and development is an important focus during this time of program expansion and staff are indicating a desire for relevant training. The program staff and Quality Assurance and Training Team should continue to track the number and types of staff training completed during the year, and assess the usefulness and satisfaction with staff training.

The revised HFAz logic model presents a framework for reviewing program activities and assuring the home visitors are engaging in activities that address each of the 10 objectives. The use of the program logic model is important because programs can experience "program drift" which often leads to a slow but significant change in the coherent direction of the program. The program staff should revisit how the program activities are being administered as the program expands and maintain supervision guidelines for addressing each objective. This will keep the program focused and directed to the identified goals and objectives of the program. The Evaluation team, in collaboration with the Healthy Families Steering Committee should periodically review and refine the program logic model to insure it reflects any changes in the goals, objectives, activities and resources of the program.

References

Chaffin, Mark (2004). Is it time to rethink Healthy Start/Healthy Families? *Child Abuse and Neglect, 28*, 589-595.

Duggan, A., McFarlane, E., Fuddy, L., Burrell, L., Higman, S. M., Windham, A., & Sia, C. (2004). Randomized trial of a statewide home visiting program: Impact in preventing child abuse and neglect. *Child Abuse and Neglect, 28*, 597-622.

Explaining the 2001-02 Infant Mortality Increase: Data From the Linked Birth/Infant Death Data Set. NVSR Volume 53, Number 12. 23 pp. (PHS) 2005-1120.

Gambrill, E. (2003). Evidence-based practice: Sea changes or the emperor's new clothes? *Journal of Social Work Education, 39*, 3-23.

Gray, J. A. M. (2001). The origin of evidence-based practice. In A. Edwards & G. Elwyn (Eds.), *Evidence-informed client choice* (pp. 19-33). New York: Oxford University Press.

LeCroy, C.W. & Whitaker, K. (2005). Improving the quality of home visitation: An exploratory study of difficult situations. *Child Abuse and Neglect, 29*, 1003-1013.

LeCroy & Milligan Associates, Inc. (2005). *Healthy Families Arizona Participant Satisfaction Survey FY 2005 Results*. LeCroy & Milligan Associates, Inc. Tucson, AZ.

Sackett, D. L., Strauss, S. E., Richardson, W. C., Rosenberg, W., & Haynes, R. (2000). *Evidence-based medicine: How to practice and teach EBM.* New York: Churchill Livingstone.

Appendix A: Site Level Data

Age of Child at Entry by Site - 2005
(Age in days)

Site	Mean (Age in Days)	Number	Standard Deviation
Douglas	16.57	87	16.54
Central Phoenix	24.80	105	21.96
Maryvale (Phoenix)	23.17	72	22.82
South Phoenix	22.21	71	19.80
East Valley (Phoenix)	21.86	79	18.91
Nogales	14.55	105	21.07
Page	24.07	43	16.45
Casa de los Niños (Tucson)	25.82	100	21.85
CODAC (Tucson)	29.40	114	25.13
La Frontera (Tucson)	23.61	137	23.04
Child & Family Resources (Tucson)	23.73	11	21.42
Sierra Vista	12.90	68	15.27
Tuba City	22.00	38	23.32
Verde Valley	12.29	75	17.92
Yuma	19.62	79	19.12
Pascua Yaqui	29.32	56	24.42
Lake Havasu City	26.23	99	20.72
Flagstaff	22.60	63	24.87
Sunnyslope (Phoenix)	24.92	103	20.55
Prescott	23.97	134	22.26
Pinal County	17.45	92	22.48
Mesa	26.35	136	20.38
Southeast Phoenix	22.32	93	18.23
El Mirage (Maricopa)	26.08	50	23.24
Blake Foundation (Pima)	33.17	71	24.28
Marana	37.82	28	22.79

Site	Mean (Age in Days)	Number	Standard Deviation
Safford	28.81	16	36.77
Stanfield (Pinal)	25.33	9	31.52
Apache Junction	34.67	18	30.12
Gila River	33.67	3	13.58
Winslow	51.43	7	23.99
Kingman	19.89	28	15.76
Globe/Miami	31.57	14	32.31
Kyrene (Maricopa)	33.76	33	31.87
Metro Phoenix	27.95	63	25.28
Tolleson (Maricopa)	21.94	36	19.52
South Mountain (Maricopa)	27.70	23	22.67
Glendale (Maricopa)	17.63	41	17.99
Deer Valley (Maricopa)	29.00	17	24.26
East/SE Tucson	36.92	12	23.87
SW Tucson	26.43	28	16.66
Bullhead City	20.80	15	7.54
Tempe (Maricopa)	16.33	24	17.10
Gilbert (Maricopa)	23.00	52	21.72
Scottsdale (Maricopa)	23.69	36	21.29
East Mesa (Maricopa)	28.94	35	25.91
Kinlani-Flagstaff	15.46	35	22.61
Total	23.51	2654*	22.24

*Note: total does not include missing data for 81 participant files.

Days to Termination by Site - 2005
(For terminated families)

Site	POSTNATAL Only *		
	Mean (Days to termination)	Standard Deviation	Number
Douglas	1204.83	539.51	18
Central Phoenix	798.60	618.19	25
Maryvale (Phoenix)	1214.58	648.44	24
South Phoenix	493.81	367.28	21
East Valley (Phoenix)	791.82	476.46	17
Nogales	1142.50	678.00	18
Page	812.61	634.82	18
Casa de los Niños (Tucson)	852.12	635.83	50
CODAC (Tucson)	742.61	471.04	31
La Frontera (Tucson)	827.53	587.12	45
Child & Family Resources (Tucson)	923.78	618.54	9
Sierra Vista	561.72	402.47	32
Tuba City	1031.00	645.54	7
Verde Valley	802.97	613.62	29
Yuma	539.48	396.64	21
Pascua Yaqui	765.33	582.87	9
Lake Havasu City	710.54	570.24	35
Flagstaff	592.77	422.89	22
Sunnyslope (Phoenix)	663.60	497.27	35
Prescott	640.80	488.03	40
Pinal County	1059.06	663.16	31
Mesa	664.66	483.15	38
Southeast Phoenix	773.67	448.71	33
El Mirage (Maricopa)	1122.75	807.57	4
Blake Foundation (Pima)	410.50	278.03	20
Marana	165.50	58.69	2
Safford	NO DATA	NO DATA	N/D
Stanfield (Pinal)	NO DATA	NO DATA	N/D
Apache Junction	186.00	0	1
Gila River	NO DATA	NO DATA	N/D
Winslow	209.00	NO DATA	1

Site	POSTNATAL Only *		
	Mean (Days to termination)	Standard Deviation	Number
Kingman	NO DATA	NO DATA	N/D
Globe/Miami	NO DATA	NO DATA	N/D
Kyrene (Maricopa)	485.00	490.68	4
Metro Phoenix	1067.00	624.26	3
Tolleson (Maricopa)	213.00	0	1
South Mountain (Maricopa)	622.67	434.01	3
Glendale (Maricopa)	NO DATA	NO DATA	N/D
Deer Valley (Maricopa)	110.50	21.92	2
East/SE Tucson	907.00	944.69	2
SW Tucson	853.00	0	1
Bullhead City	NO DATA	NO DATA	N/D
Tempe (Maricopa)	NO DATA	NO DATA	N/D
Gilbert (Maricopa)	1177.50	638.52	2
Scottsdale (Maricopa)	439.40	420.57	5
East Mesa (Maricopa)	658.00	0	1
Kinlani-Flagstaff	354.50	84.15	2
Total	766.68	563.68	662

*There were only 2 prenatal families who terminated during this data collection period.

Top Three Reasons for Termination by Site - 2005
Percent and number ( ) within Site

	POSTNATAL*		
Site	**Moved Away**	**Unable to contact**	**Did Not Respond to Outreach Efforts**
Douglas	27.8% (5)	5.6% (1)	16.7% (3)
Central Phoenix	16% (4)	16% (4)	24% (6)
Maryvale (Phoenix)	13.6% (3)	9.1% (2)	9.1% (2)
South Phoenix	4.8% (1)	23.8% (5)	28.6% (6)
East Valley (Phoenix)	15.4% (2)	15.4% (2)	15.4% (2)
Nogales	35.3% (6)	0	17.6% (3)
Page	16.7% (3)	38.9% (7)	5.6% (1)
Casa de los Niños (Tucson)	24% (12)	12% (6)	14% (7)
CODAC (Tucson)	19.4% (6)	35.5% (11)	19.4% (6)
La Frontera (Tucson)	30.2% (13)	11.6% (5)	0
Child & Family Resources (Tucson)	22.2% (2)	0	0
Sierra Vista	28.1% (9)	9.4% (3)	18.8% (6)
Tuba City	42.9% (3)	0	14.3% (1)
Verde Valley	39.3% (11)	10.7% (3)	0
Yuma	28.6% (6)	14.3% (3)	14.3% (3)
Pascua Yaqui	11.1% (1)	55.6% (5)	11.1% (1)
Lake Havasu City	34.3% (12)	14.3% (5)	8.6% (3)
Flagstaff	9.1% (2)	18.2% (4)	13.6% (3)
Sunnyslope (Phoenix)	6.1% (2)	12.1% (4)	18.2% (6)
Prescott	47.5% (19)	17.5% (7)	7.5% (3)
Pinal County	16.1% (5)	19.4% (6)	19.4% (6)
Mesa	24.3% (9)	21.6% (8)	13.5% (5)
Southeast Phoenix	12.1% (4)	27.3% (9)	33.3% (11)
El Mirage (Maricopa)	0	0	0
Blake Foundation (Pima)	20% (4)	15% (3)	10% (2)
Marana	0	0	0
Safford	No data	No data	No data
Stanfield (Pinal)	No data	No data	No data
Apache Junction	0	0	0

	POSTNATAL*		
Site	**Moved Away**	**Unable to contact**	**Did Not Respond to Outreach Efforts**
Gila River	No data	No data	No data
Winslow	0	0	0
Kingman	No data	No data	No data
Globe/Miami	No data	No data	No data
Kyrene (Maricopa)	50% (2)	0	25% (1)
Metro Phoenix	100% (3)	0	0
Tolleson (Maricopa)	100% (1)	0	0
South Mountain (Maricopa)	0	0	33.3% (1)
Glendale (Maricopa)	No data	No data	No data
Deer Valley (Maricopa)	0	0	0
East/SE Tucson	0	0	50 % (1)
SW Tucson	0	0	100% (1)
Bullhead City	No data	No data	No data
Tempe (Maricopa)	No data	No data	No data
Gilbert (Maricopa)	0	0	100% (2)
Scottsdale (Maricopa)	20% (1)	0	40% (2)
East Mesa (Maricopa)	0	0	0
Kinlani-Flagstaff	50% (1)	0	50% (1)
Total	23.5% (152)	15.9% (103)	14.7% (95)

*There were only 2 prenatal families who terminated during this data collection period.

Health Insurance by Site at Intake - 2005
Percent and number ( ) within Site

Site	PRENATAL			POSTNATAL		
	None	AHCCCS	Private	None	AHCCCS	Private
Douglas	0	100% (3)	0	2.2% (2)	92.1% (82)	5.6% (5)
Central Phoenix	12.5% (1)	75% (6)	12.5% (1)	1.9% (2)	86% (92)	9.3% (10)
Maryvale (Phoenix)	0	80% (4)	0	4.1% (3)	86.3% (63)	8.2% (6)
South Phoenix	11.1% (1)	66.7% (6)	11.1% (1)	1.4% (1)	87.3% (62)	7.0% (5)
East Valley (Phoenix)	0	87.5% (7)	12.5% (1)	2.5% (2)	81.5% (66)	14.8% (12)
Nogales	0	100% (6)	0	1.9% (2)	93.3% (97)	3.8% (4)
Page	0	100% (3)	0	0	95.3% (41)	4.7% (2)
Casa de los Niños (Tucson)	0	100% (4)	0	1.0% (1)	88.2% (90)	9.8% (10)
CODAC (Tucson)	0	87.5% (7)	0	0	94.7% (107)	3.5% (4)
La Frontera (Tucson)	0	80% (4)	20% (1)	2.9% (4)	90.5% (124)	5.8% (8)
Child & Family Resources (Tucson)	No data	No data	No data	0	90.9% (10)	9.1% (1)
Sierra Vista	0	71.4% (10)	28.6% (4)	1.5% (1)	78.5% (51)	15.4% (10)
Tuba City	0	100% (7)	0	2.5% (1)	90% (36)	5% (2)
Verde Valley	7.1% (2)	85.7% (24)	7.1% (2)	1.4% (1)	86.3% (63)	12.3% (9)
Yuma	0	100% (4)	0	3.8% (3)	94.9% (75)	0
Pascua Yaqui	0	85% (17)	0	0	94.7% (54)	0
Lake Havasu City	0	88.9% (8)	11.1% (1)	3% (3)	87% (87)	9% (9)
Flagstaff	29.4% (5)	64.7% (11)	0	4.6% (3)	83.1% (54)	10.8% (7)
Sunnyslope (Phoenix)	0	100% (3)	0	2.9% (3)	86.7% (91)	7.6% (8)
Prescott	10% (1)	90% (9)	0	1.5% (2)	85.8% (115)	7.5% (10)
Pinal County	18.2% (2)	72.7% (8)	9.1% (1)	1.1% (1)	91.4% (85)	7.4% (7)
Mesa	11.1% (1)	77.8% (7)	11.1% (1)	1.5% (2)	87.2% (116)	7.5% (10)
Southeast Phoenix	0	100% (4)	0	4.3% (4)	84% (79)	9.6% (9)
El Mirage (Maricopa)	0	100% (5)	0	3.8% (2)	73.1% (38)	17.3% (9)
Blake Foundation (Pima)	16.7% (1)	66.7% (4)	0	2.8% (2)	88.9% (64)	8.3% (6)
Marana	0	100% (2)	0	7.1% (2)	85.7% (24)	7.1% (2)
Safford	0	80% (4)	0	0	93.8% (15)	6.3% (1)
Stanfield (Pinal)	71.4% (5)	28.6% (2)	0	0	100% (9)	0

Site	PRENATAL			POSTNATAL		
	None	AHCCCS	Private	None	AHCCCS	Private
Apache Junction	4.2% (1)	91.7% (22)	4.2% (1)	0	90.5% (19)	4.8% (1)
Gila River	0	92.3% (12)	7.7% (1)	0	100% (4)	0
Winslow	0	80% (4)	20% (1)	0	100% (10)	0
Kingman	0	100% (4)	0	10% (3)	76.7% (23)	13.3% (4)
Globe/Miami	0	100% (3)	0	0	100% (21)	0
Kyrene (Maricopa)	33.3% (1)	66.7% (2)	0	0	76.9% (30)	23.1% (9)
Metro Phoenix	11.1% (1)	88.9% (8)	0	1.6% (1)	98.4% (61)	0
Tolleson (Maricopa)	0	100% (1)	0	2.7% (1)	86.5% (32)	8.1% (3)
South Mountain (Maricopa)	0	85.7% (6)	14.3% (1)	0	100% (25)	0
Glendale (Maricopa)	0	100% (5)	0	0	88.4% (38)	9.3% (4)
Deer Valley (Maricopa)	33.3% (1)	66.7% (2)	0	0	76.5% (13)	17.6% (3)
East/SE Tucson	0	66.7% (2)	33.3% (1)	0	91.7% (11)	8.3% (1)
SW Tucson	50% (1)	50% (1)	0	6.9% (2)	86.2% (25)	6.9% (2)
Bullhead City	0	100% (2)	0	0	100% (19)	0
Tempe (Maricopa)	0	100% (3)	0	0	95.7% (22)	4.3% (1)
Gilbert (Maricopa)	0	77.8% (7)	11.1% (1)	1.9% (1)	90.6% (48)	7.5% (4)
Scottsdale (Maricopa)	0	100% (4)	0	2.8% (1)	88.9% (32)	8.3% (3)
East Mesa (Maricopa)	0	100% (14)	0	0	92.9% (39)	4.8% (2)
Kinlani-Flagstaff	10% (2)	85% (17)	0	0	88.6% (31)	8.6% (3)
Total	7.3% (26)	84.2% (298)	5.4% (19)	2.1% (56)	88.5% (2393)	7.6% (206)

Late or No Prenatal Care or Poor Compliance at Intake – 2005 by Site

Percent and number ( ) within Site

Site	PRENATAL			POSTNATAL		
	True	False	Unknown	True	False	Unknown
Douglas	33.3% (1)	66.7% (2)	0	42.7% (38)	55.1% (49)	2.2% (2)
Central Phoenix	50% (4)	50% (4)	0	29% (31)	68.2% (73)	2.8% (3)
Maryvale (Phoenix)	16.7% (1)	93.3% (5)	0	28.8% (21)	67.1% (49)	4.1% (3)
South Phoenix	22.2% (2)	66.7% (6)	11.1% (1)	29.6% (21)	70.4% (50)	0
East Valley (Phoenix)	37.5% (3)	62.5% (5)	0	40.2% (33)	57.3% (47)	2.4% (2)
Nogales	0	100% (6)	0	49.1% (52)	45.3% (48)	5.7% (6)
Page	0	100% (3)	0	30.2% (13)	69.8% (30)	0
Casa de los Niños (Tucson)	50% (2)	50% (2)	0	24.5% (25)	65.7% (67)	9.8% (10)
CODAC (Tucson)	12.5% (1)	87.5% (7)	0	31.0% (35)	66.4% (75)	2.7% (3)
La Frontera (Tucson)	16.7% (1)	83.5% (5)	0	30.4% (42)	63.8% (88)	5.8% (8)
Child & Family Resources (Tucson)	No data	No data	No data	54.5% (6)	45.5% (5)	0
Sierra Vista	21.4% (3)	78.6% (11)	0	22.9% (16)	72.9% (51)	4.3% (3)
Tuba City	0	100% (7)	0	42.5% (17)	55% (22)	2.5% (1)
Verde Valley	7.1% (2)	82.1% (23)	10.7% (3)	48% (36)	50.7% (38)	1.3% (1)
Yuma	25% (1)	75% (3)	0	53.8% (43)	45% (36)	1.3% (1)
Pascua Yaqui	14.3% (3)	85.7% (18)	0	12.3% (7)	87.7% (50)	0
Lake Havasu City	22.2% (2)	66.7% (6)	11.1% (1)	25.3% (25)	70.7% (70)	4% (4)
Flagstaff	33.3% (6)	55.6% (10)	11.1% (2)	26.6% (17)	71.9% (46)	1.6% (1)
Sunnyslope (Phoenix)	0	100% (3)	0	24.8% (26)	74.3% (78)	1% (1)
Prescott	50% (5)	50% (5)	0	45.2% (61)	53.3% (72)	1.5% (2)
Pinal County	63.6% (7)	36.4% (4)	0	37.2% (35)	62.8% (59)	0
Mesa	22.2% (2)	66.7% (6)	11.1% (1)	32.1% (44)	62.8% (86)	5.1% (7)
Southeast Phoenix	25% (1)	75% (3)	0	40% (38)	57.9% (55)	2.1% (2)
El Mirage (Maricopa)	60% (3)	40% (2)	0	27.8% (15)	64.8% (35)	7.4% (4)
Blake Foundation (Pima)	83.3% (5)	16.7% (1)	0	23.6% (17)	75% (17)	1.4% (1)
Marana	50% (1)	50% (1)	0	42.9% (12)	53.6% (15)	3.6% (1)
Safford	0	100% (6)	0	13.3% (2)	86.7% (13)	0

Site	PRENATAL			POSTNATAL		
	True	False	Unknown	True	False	Unknown
Stanfield (Pinal)	85.7% (6)	14.3% (1)	0	44.4% (4)	55.6% (5)	0
Apache Junction	45.8% (11)	54.2% (13)	0	28.6% (6)	71.4% (15)	0
Gila River	41.7% (5)	58.3% (7)	0	0	100% (4)	0
Winslow	25% (1)	75% (3)	0	11.1% (1)	88.9% (8)	0
Kingman	25% (1)	75% (3)	0	20.7% (6)	58.6% (17)	20.7% (6)
Globe/Miami	0	100% (3)	0	42.9% (9)	52.4% (11)	4.8% (1)
Kyrene (Maricopa)	66.7% (2)	33.3% (1)	0	46.2% (18)	48.7% (19)	5.1% (2)
Metro Phoenix	44.4% (4)	55.6% (5)	0	36.5% (23)	61.9% (39)	1.6% (1)
Tolleson (Maricopa)	50% (1)	50% (1)	0	35.1% (13)	62.2% (23)	2.7% (1)
South Mountain (Maricopa)	28.6% (2)	71.4% (5)	0	48% (12)	48% (12)	4% (1)
Glendale (Maricopa)	0	100% (5)	0	41.9% (18)	58.1% (25)	0
Deer Valley (Maricopa)	100% (3)	0	0	35.3% (6)	64.7% (11)	0
East/SE Tucson	66.7% (2)	33.3% (1)	0	25% (3)	75% (9)	0
SW Tucson	100% (2)	0	0	37.9% (11)	62.1% (18)	0
Bullhead City	50% (1)	50% (1)	0	31.6% (6)	63.2% (12)	5.3% (1)
Tempe (Maricopa)	33.3% (1)	66.7% (2)	0	43.5% (10)	52.2% (12)	4.3% (1)
Gilbert (Maricopa)	37.5% (3)	62.5% (5)	0	42.6% (23)	55.6% (30)	1.9% (1)
Scottsdale (Maricopa)	25% (1)	75% (3)	0	28.6% (10)	71.4% (24)	0
East Mesa (Maricopa)	40% (6)	53.3% (8)	6.7% (1)	45% (18)	45% (18)	10% (4)
Kinlani-Flagstaff	35% (7)	65% (13)	0	31.4% (11)	68.6% (24)	0
Total	32.1% (115)	65.4% (234)	2.5% (9)	34.4% (936)	62.4% (1698)	3.1% (85)

PRENATAL Ethnicity of Mother by Site - 2005
Percent and number ( ) within Site

Site	Mixed/Other	Caucasian/ White	Hispanic	African American	Asian American	Native American
Douglas	0	0	66.7% (2)	0	0	33.3% (1)
Central Phoenix	12.5% (1)	25% (2)	62.5% (5)	0	0	0
Maryvale (Phoenix)	20% (1)	0	60% (3)	20% (1)	0	0
South Phoenix	11.1% (1)	11.1% (1)	33.3% (3)	44.4% (4)	0	0
East Valley (Phoenix)	0	37.5% (3)	37.5% (3)	25% (2)	0	0
Nogales	0	0	100% (5)	0	0	0
Page	0	0	0	0	0	100% (2)
Casa de los Niños (Tucson)	0	50% (2)	50% (2)	0	0	0
CODAC (Tucson)	50% (4)	0	37.5% (3)	12.5% (1)	0	0
La Frontera (Tucson)	0	16.7% (1)	83.3% (5)	0	0	0
Child & Family Resources (Tucson)	No data	No data	No data	No data	No data	No data
Sierra Vista	0	71.4% (10)	14.3% (2)	14.3% (2)	0	0
Tuba City	0	0	0	0	0	100% (7)
Verde Valley	3.6% (1)	57.1% (16)	28.6% (8)	0	0	10.7% (3)
Yuma	0	0	100% (4)	0	0	0
Pascua Yaqui	19% (4)	0	14.3% (3)	0	0	66.7% (14)
Lake Havasu City	11.1% (1)	66.7% (6)	11.1 (1)	0	0	11.1% (1)
Flagstaff	16.7% (3)	22.2% (4)	55.6% (10)	5.6% (1)	0	0
Sunnyslope (Phoenix)	0	0	66.7% (2)	33.3% (1)	0	0
Prescott	10% (1)	80% (8)	10% (1)	0	0	0
Pinal County	9.1% (1)	18.2% (2)	63.6% (7)	9.1% (1)	0	0
Mesa	0	44.4% (4)	55.6% (5)	0	0	0
Southeast Phoenix	0	0	100% (4)	0	0	0
El Mirage (Maricopa)	40% (2)	20% (1)	40% (2)	0	0	0
Blake Foundation (Pima)	0	16.7% (1)	83.3% (5)	0	0	0
Marana	0	50% (1)	0	50% (1)	0	0
Safford	0	50% (3)	50% (3)	0	0	0

Site	Mixed/Other	Caucasian/ White	Hispanic	African American	Asian American	Native American
Stanfield (Pinal)	0	33.3% (2)	33.3% (2)	0	0	33.3% (2)
Apache Junction	0	69.6% (16)	26.1% (6)	4.3% (1)	0	0
Gila River	0	0	0	0	0	100% (13)
Winslow	20% (1)	0	20% (1)	0	0	60% (3)
Kingman	25% (1)	75% (3)	0	0	0	0
Globe/Miami	0	0	100% (3)	0	0	0
Kyrene (Maricopa)	0	0	100% (3)	0	0	0
Metro Phoenix	0	11.1% (1)	66.7% (6)	0	0	22.2% (2)
Tolleson (Maricopa)	0	0	100% (2)	0	0	0
South Mountain (Maricopa)	0	0	42.9% (3)	57.1% (4)	0	0
Glendale (Maricopa)	20% (1)	20% (1)	60% (3)	0	0	0
Deer Valley (Maricopa)	0	33.3% (1)	66.7% (2)	0	0	0
East/SE Tucson	0	33.3% (1)	33.3% (1)	33.3% (1)	0	0
SW Tucson	0	0	100% (2)	0	0	0
Bullhead City	0	50% (1)	50% (1)	0	0	0
Tempe (Maricopa)	33.3% (1)	0	33.3% (1)	33.3% (1)	0	0
Gilbert (Maricopa)	11.1% (1)	44.4% (4)	0	33.3% (3)	0	11.1% (1)
Scottsdale (Maricopa)	0	0	100% (4)	0	0	0
East Mesa (Maricopa)	6.7% (1)	46.7% (7)	40% (6)	6.7% (1)	0	0
Kinlani-Flagstaff	5% (1)	20% (4)	40% (8)	5% (1)	0	30% (6)
Total	2.8% (10)	29.8% (106)	39.9% (142)	7.3% (26)	0	15.4% (55)

POSTNATAL Ethnicity of Mother by Site - 2005
(Percent and number within Site)

Site	Mixed/Other	White/ Caucasian	Hispanic	African American	Asian American	Native American
Douglas	0	11.2% (10)	88.8% (79)	0	0	0
Central Phoenix	2.8% (3)	23.4% (25)	59.8% (64)	11.2% (12)	1.9% (2)	0.9% (1)
Maryvale (Phoenix)	2.8% (2)	17.8% (13)	67.1% (49)	8.2% (6)	0	4.1% (3)
South Phoenix	2.8% (2)	8.5% (6)	64.8% (46)	22.5% (16)	0	1.4% (1)
East Valley (Phoenix)	3.9% (3)	24.1% (19)	54.4% (43)	12.7% (10)	1.3% (1)	3.8% (3)
Nogales	0	0	100% (105)	0	0	0
Page	0	0	2.3% (1)	2.3% (1)	0	95.3% (41)
Casa de los Niños (Tucson)	3% (1)	27.5% (28)	65.7% (67)	1% (1)	1% (1)	2% (2)
CODAC (Tucson)	3.5% (4)	17.5% (20)	71.1% (81)	4.4% (5)	0	3.5% (4)
La Frontera (Tucson)	2.2% (3)	13% (18)	76.8% (106)	3.6% (5)	0.7% (1)	3.6% (5)
Child & Family Resources (Tucson)	0	18.2% (2)	81.8% (9)	0	0	0
Sierra Vista	8.6% (6)	38.6% (27)	45.7% (32)	5.7% (4)	0	1.4% (1)
Tuba City	2.5% (1)	0	0	0	0	97.5% (39)
Verde Valley	2.6% (2)	57.9% (44)	32.9% (25)	0	0	6.6% (5)
Yuma	0	6.9% (5)	91.7% (66)	0	0	1.4% (1)
Pascua Yaqui	23.6% (13)	3.6% (2)	12.7% (7)	1.8% (1)	0	58.2% (32)
Lake Havasu City	1% (1)	50.5% (50)	42.4% (42)	1% (1)	2% (2)	3% (3)
Flagstaff	1.5% (1)	26.2% (17)	35.4% (23)	1.5% (1)	1.5% (1)	33.8% (22)
Sunnyslope (Phoenix)	3.9% (4)	48.6% (51)	33.3% (35)	10.5% (11)	1% (1)	2.9% (3)
Prescott	0.7% (1)	58.5% (79)	38.5% (52)	0	0.7% (1)	1.5% (2)
Pinal County	2.2% (2)	23.9% (22)	56.5% (52)	8.7% (8)	0	8.7% (8)
Mesa	4.4% (6)	39.4% (54)	44.5% (61)	7.3% (10)	0	4.4% (6)
Southeast Phoenix	4.3% (4)	12.8% (12)	67% (63)	12.8% (12)	0	3.2% (3)
El Mirage (Maricopa)	3.8% (2)	32.1% (17)	56.6% (30)	7.5% (4)	0	0
Blake Foundation (Pima)	2.7% (2)	19.2% (14)	67.1% (49)	8.2% (6)	0	2.7% (2)
Marana	7.1% (2)	53.6% (15)	35.7% (10)	0	3.6% (1)	0
Safford	0	50% (8)	43.8% (7)	6.3% (1)	0	0

Site	Mixed/Other	White/ Caucasian	Hispanic	African American	Asian American	Native American
Stanfield (Pinal)	0	33.3% (3)	33.3% (3)	0	0	33.3% (3)
Apache Junction	0	80% (16)	15% (3)	0	0	5% (1)
Gila River	0	0	0	0	0	100% (4)
Winslow	10% (1)	20% (2)	10% (1)	20% (2)	0	40% (4)
Kingman	10% (3)	73.3% (22)	13.3% (4)	0	3.3% (1)	0
Globe/Miami	5.9% (1)	5.9% (1)	17.6% (3)	0	0	70.6% (12)
Kyrene (Maricopa)	2.6% (1)	35.9% (14)	46.2% (18)	10.3% (4)	0	5.1% (2)
Metro Phoenix	4.8% (3)	9.5% (6)	74.6% (47)	9.5% (6)	0	1.6% (1)
Tolleson (Maricopa)	0	16.2% (6)	73% (27)	10.8% (4)	0	0
South Mountain (Maricopa)	8% (2)	20% (5)	44% (11)	28% (7)	0	0
Glendale (Maricopa)	2.4% (1)	9.5% (4)	78.6% (33)	9.5% (4)	0	0
Deer Valley (Maricopa)	0	35.3% (6)	58.8% (10)	5.9% (1)	0	0
East/SE Tucson	8.3% (1)	50% (6)	33.3% (4)	0	8.3% (1)	0
SW Tucson	0	20.7% (6)	75.9% (22)	0	3.4% (1)	0
Bullhead City	15.8% (3)	63.2% (12)	21.1% (4)	0	0	0
Tempe (Maricopa)	8.4% (2)	4.2% (1)	83.3% (20)	4.2% (1)	0	0
Gilbert (Maricopa)	0	54.7% (29)	32.1% (17)	11.3% (6)	0	1.9% (1)
Scottsdale (Maricopa)	2.9% (1)	17.1% (6)	71.4% (25)	8.6% (3)	0	0
East Mesa (Maricopa)	7.2% (3)	19% (8)	61.9% (26)	9.5% (4)	0	2.4% (1)
Kinlani-Flagstaff	5.8% (2)	28.6% (10)	42.9% (15)	8.6% (3)	0	14.3% (5)
Total	3.3% (91)	26.7% (721)	55.4% (1497)	5.9% (160)	0.5% (14)	8.2% (221)

Gestational Age by Site - 2005
(Number and Percent within Site)
Was the gestational age less than 37 weeks?

Site	PRENATAL		POSTNATAL	
	No	Yes	No	Yes
Douglas	No data	No data	85.5% (65)	14.5% (11)
Central Phoenix	100% (1)	0	74.4% (61)	25.6% (21)
Maryvale (Phoenix)	No data	No data	81.5% (44)	18.5% (10)
South Phoenix	100% (4)	0	81.8% (45)	18.2% (10)
East Valley (Phoenix)	50% (1)	50% (1)	78.3% (54)	21.7% (15)
Nogales	100% (1)	0	86.5% (83)	13.5% (13)
Page	No data	No data	92.5% (37)	7.5% (3)
Casa de los Niños (Tucson)	100% (2)	0	78.5% (73)	21.5% (20)
CODAC (Tucson)	100% (4)	0	90% (90)	10% (10)
La Frontera (Tucson)	0	100% (1)	82.4% (103)	17.6% (22)
Child & Family Resources (Tucson)	No data	No data	90.9% (10)	9.1% (1)
Sierra Vista	75% (6)	25% (2)	93.1% (54)	6.9% (4)
Tuba City	50% (1)	50% (1)	93.5% (29)	6.5% (2)
Verde Valley	80% (8)	20% (2)	90.1% (64)	9.9% (7)
Yuma	100% (3)	0	90.4% (66)	9.6% (7)
Pascua Yaqui	100% (1)	0	95.5% (42)	4.5% (2)
Lake Havasu City	100% (2)	0	92.1% (82)	7.9% (7)
Flagstaff	87.5% (7)	12.5% (1)	81.6% (40)	18.4% (9)
Sunnyslope (Phoenix)	100% (1)	0	79.8% (71)	20.2% (18)
Prescott	100% (4)	0	89.7% (113)	10.3% (13)
Pinal County	83.3% (5)	16.7% (1)	90% (72)	10% (8)
Mesa	0	100% (1)	68.6% (81)	31.4% (37)
Southeast Phoenix	0	100% (1)	80.2% (65)	19.8% (16)
El Mirage (Maricopa)	100% (2)	0	78.9% (30)	21.1% (8)
Blake Foundation (Pima)	100% (3)	0	83.1% (54)	16.9% (11)
Marana	0	100% (1)	76% (19)	24% (6)
Safford	100% (1)	0	100% (1)	0

Site	PRENATAL		POSTNATAL	
	No	Yes	No	Yes
Stanfield (Pinal)	100% (1)	0	75% (3)	25% (1)
Apache Junction	No data	No data	100% (3)	0
Gila River	83.3% (5)	16.7% (1)	100% (2)	0
Winslow	No data	No data	70% (7)	30% (3)
Kingman	50% (1)	50% (1)	88.2% (15)	11.8% (2)
Globe/Miami	100% (1)	0	88.9% (8)	11.1% (1)
Kyrene (Maricopa)	100% (2)	0	57.7% (15)	42.3% (11)
Metro Phoenix	100% (3)	0	70.3% (26)	29.7% (11)
Tolleson (Maricopa)	No data	No data	85% (17)	15% (3)
South Mountain (Maricopa)	No data	No data	78.9% (15)	21.1% (4)
Glendale (Maricopa)	100% (3)	0	88.5% (23)	11.5% (3)
Deer Valley (Maricopa)	0	100% (1)	91.7% (11)	8.3% (1)
East/SE Tucson	100% (1)	0	88.9% (8)	11.1% (1)
SW Tucson	No data	No data	89.3% (25)	10.7% (3)
Bullhead City	No data	No data	33.3% (1)	66.7% (2)
Tempe (Maricopa)	100% (1)	0	80% (12)	20% (3)
Gilbert (Maricopa)	50% (4)	50% (4)	76.2% (32)	23.8% (10)
Scottsdale (Maricopa)	100% (1)	0	80% (16)	20% (4)
East Mesa (Maricopa)	No data	No data	70.4% (19)	29.6% (8)
Kinlani-Flagstaff	70% (7)	30% (3)	90.5% (19)	9.5% (2)
Total	79.8% (87)	20.2% (22)	83.4% (1825)	16.6% (364)

Low Birth Weight by Site - 2005
(Number and Percent within Site)
Did the child have low birth weight (less than 2500 grams or 88 ounces)?

Site	PRENATAL		POSTNATAL	
	No	Yes	No	Yes
Douglas	100% (1)	0	85.2% (75)	14.8% (13)
Central Phoenix	100% (1)	0	84.9% (90)	15.1% (16)
Maryvale (Phoenix)	100% (1)	0	78.1% (57)	21.9% (16)
South Phoenix	100% (4)	0	84.5% (60)	15.5% (11)
East Valley (Phoenix)	100% (2)	0	83.3% (65)	16.7% (13)
Nogales	100% (2)	0	90.6% (96)	9.4% (10)
Page	No data	No data	97.7% (42)	2.3% (1)
Casa de los Niños (Tucson)	100% (3)	0	88.1% (89)	11.9% (12)
CODAC (Tucson)	100% (5)	0	93% (107)	7% (8)
La Frontera (Tucson)	0	100% (1)	85.4% (117)	14.6% (20)
Child & Family Resources (Tucson)	No data	No data	81.8% (9)	18.2% (2)
Sierra Vista	88.9% (8)	11.1% (1)	94.3% (66)	5.7% (4)
Tuba City	100% (1)	0	97.5% (39)	2.5% (1)
Verde Valley	100% (11)	0	90.4% (66)	9.6% (7)
Yuma	100% (3)	0	93.7% (74)	6.3% (5)
Pascua Yaqui	100% (2)	0	96.4% (54)	3.6% (2)
Lake Havasu City	100% (3)	0	89.9% (89)	10.1% (10)
Flagstaff	87.5% (7)	12.5% (1)	73% (46)	27% (17)
Sunnyslope (Phoenix)	100% (1)	0	82.9% (87)	17.1% (18)
Prescott	100% (4)	0	90.4% (122)	9.6% (13)
Pinal County	100% (5)	0	93.5% (87)	6.5% (6)
Mesa	66.7% (2)	33.3% (1)	78.8% (104)	21.2% (28)
Southeast Phoenix	100% (2)	0	85.9% (79)	14.1% (13)
El Mirage (Maricopa)	100% (4)	0	88.2% (45)	11.8% (6)
Blake Foundation (Pima)	100% (3)	0	89% (65)	11% (8)
Marana	0	100% (1)	82.1% (23)	17.9% (5)
Safford	50% (1)	50% (1)	87.5% (14)	12.5% (2)
Stanfield (Pinal)	100% (1)	0	55.6% (5)	44.4% (4)
Apache Junction	100% (1)	0	85% (17)	15% (3)

Site	PRENATAL		POSTNATAL	
	No	Yes	No	Yes
Gila River	66.7% (4)	33.3% (2)	100% (4)	0
Winslow	No data	No data	90% (9)	10% (1)
Kingman	100% (3)	0	79.3% (23)	20.7% (6)
Globe/Miami	100% (2)	0	94.1% (16)	5.9% (1)
Kyrene (Maricopa)	100% (2)	0	83.8% (31)	16.2% (6)
Metro Phoenix	100% (5)	0	87.1% (54)	12.9% (8)
Tolleson (Maricopa)	No data	No data	88.9% (32)	11.1% (4)
South Mountain (Maricopa)	50% (1)	50% (1)	72% (18)	28% (7)
Glendale (Maricopa)	100% (3)	0	88.1% (37)	11.9% (5)
Deer Valley (Maricopa)	0	100% (1)	100% (16)	0
East/SE Tucson	100% (2)	0	66.7% (8)	33.3% (4)
SW Tucson	No data	No data	86.2% (25)	13.8% (4)
Bullhead City	No data	No data	94.7% (18)	5.3% (1)
Tempe (Maricopa)	100% (1)	0	81.8% (18)	18.2% (4)
Gilbert (Maricopa)	50% (4)	50% (4)	88.5% (46)	11.5% (6)
Scottsdale (Maricopa)	100% (1)	0	94.1% (32)	5.9% (2)
East Mesa (Maricopa)	No data	No data	83.8% (31)	16.2% (6)
Kinlani-Flagstaff	100% (11)	0	94.1% (32)	5.9% (2)
Total	89.3% (117)	10.7% (14)	87.3% (2339)	12.7% (341)

Yearly Income by Site - 2005

Site	PRENATAL		POSTNATAL	
	Median Yearly Income	Number	Median Yearly Income	Number
Douglas	$7,296	3	$8,400	87
Central Phoenix	$5,004	2	$7,700	73
Maryvale (Phoenix)	$9,000	4	$10,800	55
South Phoenix	$10,128	4	$6,000	45
East Valley (Phoenix)	$4,992	4	$10,800	55
Nogales	$8,280	6	$9,600	98
Page	$10,800	3	$6,720	43
Casa de los Niños (Tucson)	$7,200	3	$9,600	79
CODAC (Tucson)	$8,400	5	$10,800	95
La Frontera (Tucson)	$11,100	6	$8,400	111
Child & Family Resources (Tucson)	No data	No data	$13,800	10
Sierra Vista	$16,281	13	$2,880	63
Tuba City	$19,800	4	$9,300	27
Verde Valley	$10,080	24	$8,400	69
Yuma	$10,800	3	$8,400	69
Pascua Yaqui	$10,800	20	$6,870	54
Lake Havasu City	$19,711	9	$12,000	97
Flagstaff	$12,000	17	$9,600	58
Sunnyslope (Phoenix)	$11,070	2	$6,600	73
Prescott	$15,000	3	$10,100	36
Pinal County	$4,161	3	$9,000	49
Mesa	$12,000	7	$6,084	101
Southeast Phoenix	$22,020	2	$7,800	69
El Mirage (Maricopa)	$49,000	2	$14,400	35
Blake Foundation (Pima)	$6,850	4	$7,800	62
Marana	$18,000	1	$9,600	25
Safford	$10,800	6	$10,104	14
Stanfield (Pinal)	$7,800	4	$17,772	4
Apache Junction	$12,282	22	$17,400	18

Site	PRENATAL		POSTNATAL	
	Median Yearly Income	Number	Median Yearly Income	Number
Gila River	$13,200	7	No data	No data
Winslow	$3,450	4	$9,600	8
Kingman	$7,800	3	$12,000	27
Globe/Miami	$72,000	1	$16,800	6
Kyrene (Maricopa)	$10,560	2	$15,600	25
Metro Phoenix	$6,090	6	$12,000	41
Tolleson (Maricopa)	No data	No data	$12,600	28
South Mountain (Maricopa)	$1,536	5	$6,168	16
Glendale (Maricopa)	$6,624	2	$14,400	31
Deer Valley (Maricopa)	$12,000	3	$14,400	11
East/SE Tucson	$19,200	3	$14,400	9
SW Tucson	$3,312	2	$13,700	24
Bullhead City	$5,000	1	$12,000	15
Tempe (Maricopa)	$15,600	2	$12,000	17
Gilbert (Maricopa)	$5,016	9	$14,000	24
Scottsdale (Maricopa)	$24,000	3	$12,000	25
East Mesa (Maricopa)	$10,200	6	$14,400	29
Kinlani-Flagstaff	$5,400	17	$7,200	34
Total	$10,560	262	$9,600	2044

Family Stress Checklist Score by Site - 2005

Site	PRENATAL			POSTNATAL		
	Mean Score	Percent of mothers whose FSC score was greater than 40	Number of mothers whose FSC score was greater than 40	Mean Score	Percent of mothers whose FSC score was greater than 40	Number of mothers whose FSC score was greater than 40
Douglas	41.67	100%	3	37.70	48.3%	43
Central Phoenix	44.38	62.5%	5	39.35	45.4%	49
Maryvale (Phoenix)	44.17	83.3%	5	37.70	48.6%	36
South Phoenix	45.56	66.7%	6	39.65	53.5%	38
East Valley (Phoenix)	40.63	62.5%	5	40.12	58.5%	48
Nogales	33.33	16.7%	1	34.39	32.1%	34
Page	41.67	66.7%	2	33.60	25.6%	11
Casa de los Niños (Tucson)	42.50	50%	2	37.21	46.1%	47
CODAC (Tucson)	50.63	87.5%	7	39.39	52.2%	60
La Frontera (Tucson)	50.83	100%	6	38.15	49.3%	68
Child & Family Resources (Tucson)	No data	No data	No data	36.82	36.4%	4
Sierra Vista	40.36	35.7%	5	36.07	35.7%	25
Tuba City	27.86	28.6%	2	30.50	12.5%	5
Verde Valley	37.32	50%	14	34.54	31.6%	24
Yuma	26.25	25%	1	34.06	32.5%	26
Pascua Yaqui	31.90	23.8%	5	31.75	24.6%	14
Lake Havasu City	47.78	66.7%	6	39.10	48%	48
Flagstaff	36.67	38.9%	7	39.31	46.2%	30
Sunnyslope (Phoenix)	30.00	33.3%	1	39.29	50%	53
Prescott	45.50	70%	7	40.67	54.8%	74
Pinal County	36.82	45.5%	5	33.14	33%	31
Mesa	42.22	55.6%	5	39.04	51.1%	70
Southeast Phoenix	26.25	25%	1	37.58	50.5%	48
El Mirage (Maricopa)	35.00	40%	2	36.57	44.4%	24
Blake Foundation (Pima)	42.50	50%	3	41.30	49.3%	36

Site	PRENATAL			POSTNATAL		
	Mean Score	Percent of mothers whose FSC score was greater than 40	Number of mothers whose FSC score was greater than 40	Mean Score	Percent of mothers whose FSC score was greater than 40	Number of mothers whose FSC score was greater than 40
Marana	45.00	100%	2	28.04	42.9%	12
Safford	25.83	0	0	22.50	6.3%	1
Stanfield (Pinal)	41.43	57.1%	4	35.56	33.3%	3
Apache Junction	46.25	62.5%	15	43.81	71.4%	15
Gila River	41.54	53.8%	7	31.25	25%	1
Winslow	41.00	60%	3	21.00	20%	2
Kingman	46.25	75%	3	38.50	46.7%	14
Globe/Miami	35.00	33.3%	1	27.86	33.3%	7
Kyrene (Maricopa)	31.67	33.3%	1	40.00	59%	23
Metro Phoenix	39.44	55.6%	5	40.56	49.2%	31
Tolleson (Maricopa)	35.00	50%	1	35.41	35.1%	13
South Mountain (Maricopa)	40.00	57.1%	4	42.20	56%	14
Glendale (Maricopa)	45.00	100%	5	34.65	41.9%	18
Deer Valley (Maricopa)	38.33	66.7%	2	34.12	41.2%	7
East/SE Tucson	30.00	33.3%	1	40.83	75%	9
SW Tucson	42.50	50%	1	35.17	34.5%	10
Bullhead City	45.00	50%	1	33.68	36.8%	7
Tempe (Maricopa)	51.67	66.7%	2	40.42	62.5%	15
Gilbert (Maricopa)	50.56	77.8%	7	41.30	59.3%	32
Scottsdale (Maricopa)	38.75	50%	2	41.11	52.8%	19
East Mesa (Maricopa)	52.00	93.3%	14	41.90	59.5%	25
Kinlani-Flagstaff	41.00	60%	12	41.86	60%	21
Total	40.64	55.1%	199	37.55	45.5%	1245

Appendix B: 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	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.
II. Substance abuse, mental illness, or criminal history.	0, 5, or 10	
III. Previous or current CPS involvement.		
IV. Self-esteem, available lifelines, possible depression.	0, 5, or 10	
V. Stresses, concerns.	0, 5, or 10	
VI. Potential for violence.		
VII. Expectations of infants' milestones, behaviors.	0, 5, or 10	
	0, 5, or 10	
VIII. Discipline of infant, toddler, and child.	0, 5, or 10	
IX. Perception of new infant.		
X. Bonding, attachment issues.	0, 5, or 10	
	0, 5, or 10	
	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.

Appendix C: Healthy Families Parenting Inventory

Healthy Families Parenting Inventory Alpha Scores

Subscale	Alpha*
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.

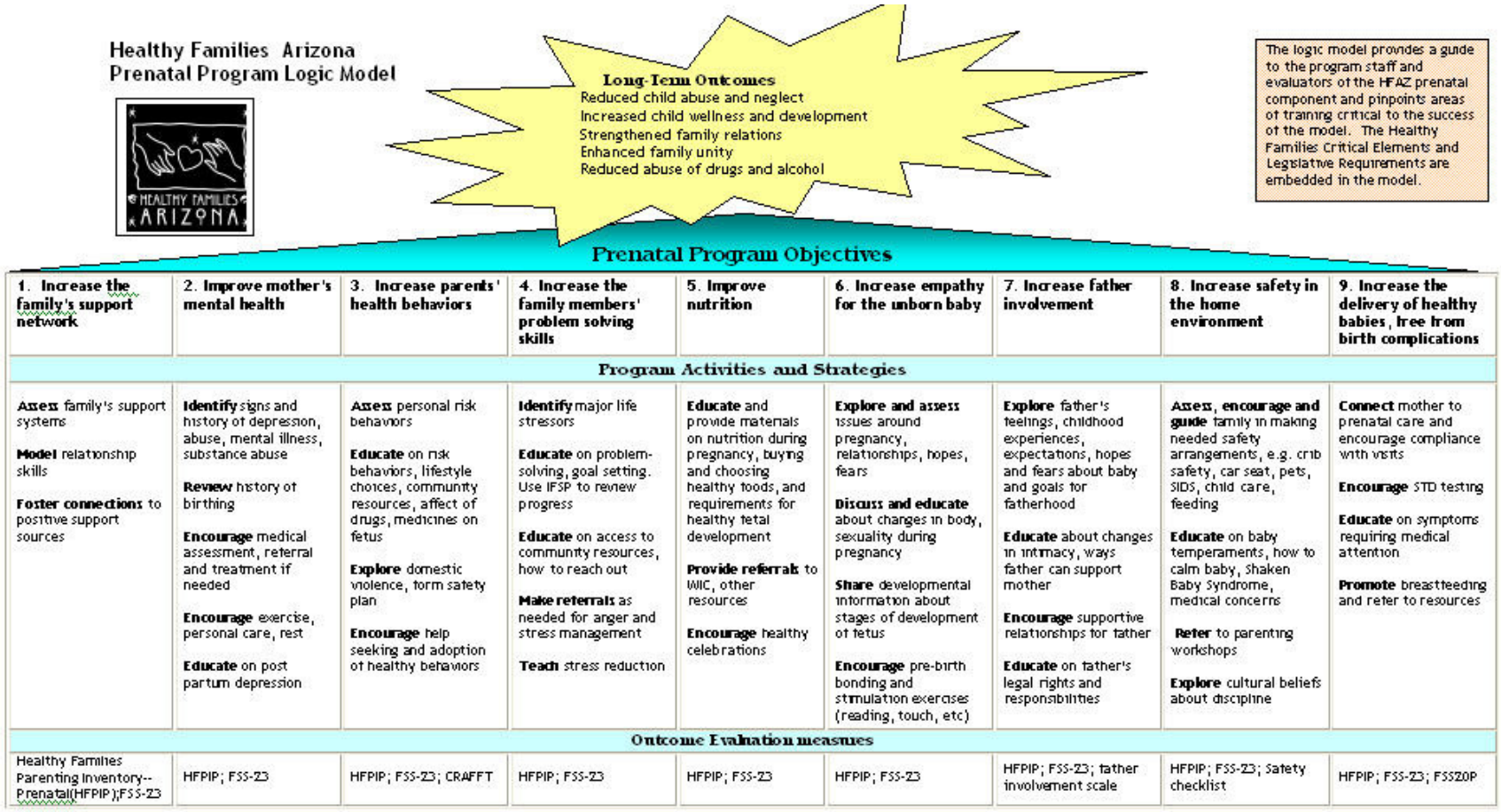
Appendix D: Selected Risk Factors at Intake

All Families –2005

Selected Risk Factors for Mothers at Intake--2005

Risk Factors of Mothers	All Families (prenatal and postnatal combined)
Teen Births (19 years or less)	28.8%
Births to Single Parents	69.3%
Less Than High School Education	62.9%
Not Employed	83.7%
No Health Insurance	2.7%
Receives AHCCCS	87.9%
Late or No Prenatal Care	34.2%

Appendix E. Healthy Families Prenatal Logic Model



Appendix F. Healthy Families Postnatal Logic Model