Affordable Care Act
Maternal, Infant and Early Childhood Home Visiting Program

Arizona 2011

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Introduction

The competitive funding opportunity announcement (FOA) released on June 1, 2011 seeks to accomplish two specific goals: (i) to award funds to states and jurisdictions that demonstrate interest and capacity to expand and/or enhance high-quality, evidence-based home visiting programs serving vulnerable families, which are embedded in comprehensive, high-quality early childhood systems; and (ii) to support states and jurisdictions that may be taking initial steps toward building high-quality, evidence-based home visiting programs that are part of comprehensive early childhood systems.

By submission of this application, Arizona is applying for the Expansion Grant, and is requesting $9,430,000 annually to significantly expand evidence-based home visiting in Arizona's at-risk communities. Arizona envisions, through this competitive application, to expand and enhance Arizona's high quality evidence-based home visiting programs to serve high-risk families, and hopes to further the first goal as outlined in the FOA. The following sections describe Arizona's purpose and history of implementing evidence-based home visiting programs, the current problems and the need for expansion of these services, proposed interventions, anticipated outcomes, priority elements and the enhanced State Home Visiting Logic Model.

1.1 Purpose: Arizona proposes to significantly expand on the evidence-based home visiting available to our identified at-risk communities. The expanded implementation of the evidence-based home visiting models will result in improved maternal and child health, prevention of child injuries, child abuse, neglect, or maltreatment, and reduction of emergency room visits; improvement in school readiness and achievement; reduction in crime or violence, improvements in family economic self-sufficiency; and improvements in the coordination and referrals for other community resources and supports for more of Arizona's at-risk populations. At the same time, Arizona will seek to strengthen the infrastructure of our early childhood home visiting system through the development of statewide standards, competencies, benchmarks, professional development opportunities and statewide and local coalitions.

Arizona's needs assessment for the Affordable Care Act (ACA) Maternal, Infant and Early Childhood Home Visiting (MIECHV) Program formula grant, identified 31 areas referred to as Community Health Analysis Areas (CHAA), to be at high-risk. The needs assessment was based on ACA Maternal, Infant and Early Childhood Home Visiting Program required indicators of maternal and prenatal health, infant health, child health, parenting skills, and school readiness, child abuse and maltreatment and family socioeconomic status, and the details of the needs assessment is described in the following sections.

The MIECHV formula funding grant provided an opportunity to Arizona to target evidence-based home visiting in the six CHAAs that were determined to be at high-risk with some capacity, leaving the remaining 25 CHAAs without the same opportunities. Arizona seeks funding of $9.43 million annually from this competitive grant opportunity to be able to work in collaboration with these 25 high-risk communities to implement evidence-based home visiting programs previously identified in Arizona's needs assessment as those with "strongest evidence" and "fit" (i.e. Healthy Families America and/or Nurse-Family Partnership) to improve early childhood and family outcomes in these communities.

Arizona, through this competitive grant application, proposes to enhance the state's evidence-based early childhood home visiting system in its role as a significant part of Arizona's early childhood system, and sustain the work that is being initiated through the MIECHV formula funding. Arizona proposes to achieve this through enhancement and strengthening of local early childhood home visiting coalitions that would be a part of a statewide Home Visiting Task Force (HVTF). This Task Force would facilitate the development of home visiting

cross model standards, core competencies for home visitors and supervisors, common benchmarks and indicators across models, and help to ensure integration and coordination of home visiting services with other community services. It will also work to include home visitors into the existing early childhood workforce and professional development systems.

Arizona has made significant inroads in creating an early childhood system and a statewide home visiting plan; the following sections detail the history and scope of Arizona's early childhood and MIECHV system.

1.2 Arizona's history of implementing home visiting programs and expansion strategy: In October 2009, the Arizona Departments of Health Services, Economic Security and Education, along with the Arizona Early Childhood Development and Health Board, also known as First Things First, and community providers of home visiting services convened an Early Childhood Home Visiting Task Force. While Arizona has a number of home visiting programs currently providing quality services to some of Arizona's young families, there had not been a systematic approach for planning, funding, and collaborating in providing accessible, quality home visiting services. The purpose of the Task Force, therefore, was to define a system-wide strategy for the future development and delivery of quality home visiting services throughout Arizona.

After several focused meetings, the Task Force produced a plan, titled *The Vision for Early Childhood Home Visiting Services in Arizona*. The Plan set out to provide a pathway for delivery of consistent, high quality home visiting services in the context of Arizona's statewide early childhood system.

The plan looked at early childhood in Arizona and compiled information about the various home visiting programs offered throughout the state. That document was used as the basis of the inventory contained in the ACA Maternal, Infant and Early Childhood Home Visiting program needs assessment. Many home visiting models of service delivery are evidence-based family support strategies with proven results for pregnant women, first-time parents, and families with children birth through age five. Some of the evidence-based home visiting programs (EBHVP) in Arizona have been: Healthy Families Arizona, the Nurse-Family Partnership, Parents as Teachers, and Early Head Start. Other home visiting programs are essentially those that have some evidence of efficacy, such as Healthy Start and Health Start that are funded by local government and community-based organizations in numerous communities throughout the state.

The Vision for Early Childhood Home Visiting Services in Arizona developed universal recommendations and goals which serve in a significant way as the basis of the goals for the MIECHV Updated Plan and this Competitive Grant application.

While the Task Force was a start for Arizona's early childhood home visiting system; when the ACA Maternal, Infant and Early Childhood Home Visiting statute was passed in March 2010, Arizona decided to gather the state agencies that provide early childhood home visiting. Included in this group were the Title V agency and the state's Single State Agency for Substance Abuse which in Arizona are housed within the Arizona Department of Health Services, the state's Head Start Collaboration Director from the Arizona Department of Education, a representative from the state's Title II agency, the Arizona Department of Economic Security, which serves as the state's child care and child welfare agency, a representative from the Inter Tribal Council of Arizona and senior management from Arizona's Early Childhood Development and Health Board, more commonly known as First Things First. Most of these agencies are Early Childhood Comprehensive System stakeholders, and are members of the State Advisory Council for Project LAUNCH as well. The First Things First Board has also been designated by the governor as the State Advisory Council on Early Childhood Education and Care.

When the FOA was released it was not clear which agency would be designated as the applicant by the governor. In an effort to move forward, these agencies committed to work together on the grant application process. The group, called the Inter-Agency Leadership Team (IALT) determined the units of analysis, data needs and sources, evaluation criteria for communities at-risk and evaluation criteria for evidence-based models. The approach was founded on a commitment to make decisions together that would guide the needs assessment process and build on the plan for early childhood home visiting in a concerted effort to best serve the most vulnerable in the state. The IALT utilized the *Vision for Early Childhood Home Visiting Services in Arizona* as the basis of our vision for our initial application.

After the initial ACA Maternal, Infant and Early Childhood Home Visiting Program application was submitted, the IALT met again to work on developing the methodology for the designation of "at-risk" for the Needs Assessment. The Needs Assessment collected and analyzed the data required by the Affordable Care Act Maternal, Infant and Early Childhood Home Visiting Program. After the Needs Assessment was submitted, the IALT met again to select the communities to serve as a part of the Updated Plan. Together, the group developed the methodology for the selection process to include: efficiency/economies of Scale (0 to 4 population, geographic proximity, start-up costs, capacity, need); appropriateness of high-risk indicators to home visiting indicators (e.g. child maltreatment, school dropout, Infant Mortality Rate, domestic violence, crime) and benchmarks; relevance and applicability of evidence-based programs (EBPs) to the targeted at-risk community; the presence of existing home visiting programs in the community and the percent of young children served by current home visiting programs. The group together selected the communities and the models based on community input.

Finally, when this Competitive Grant opportunity was released, the IALT set out a process for pursuing the strategic vision outlined in the MIECHV Updated State Plan. This process will be detailed in the following sections with discussions of problem description, interventions, anticipated outcomes, identification and selection of high-risk communities, process of community engagement, and the vision for Arizona's home visiting.

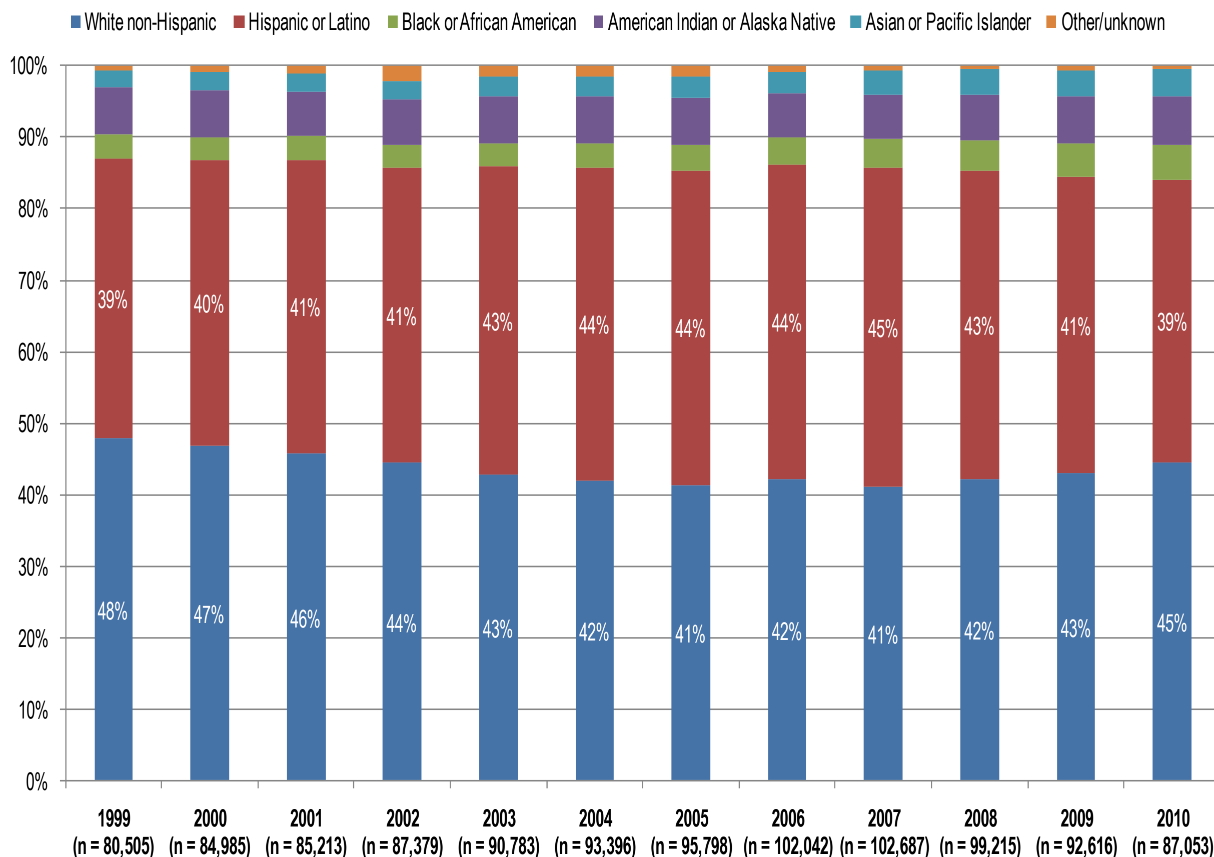
1.3 Problem description, proposed intervention, and anticipated outcomes: Arizona is the sixth largest state in the nation, with a total area of 114,000 square miles – about 400 miles long and 310 miles wide. Arizona is also one of the youngest states. The end of the Mexican-American War in 1848 resulted in Mexico ceding 55 percent of its territory, including parts of present-day Arizona to the United States. It was not until 1863 that a separate territory was carved out for Arizona. On February 14, 1912, President Taft signed the bill making Arizona the 48th state. According to Census 2010, the population for Arizona is estimated to be at 6,392,017 and there has been a 24.6 percent increase in population since the last 2000 Census (5,130,632).[1] Arizona has 56 people per square mile; in 2010, Maricopa County contained 59.7 percent of Arizona's population and accounted for 59.1 percent of the state's growth between 2000 and 2010, and is the fourth most populous county in the US. During the same time, Pinal County doubled its population to be the second fastest growing county in the nation. Phoenix was the seventh most populous city containing a total population of 1,445,632 people with approximately 10 percent increase from the 2000 Census. Arizona had the second fastest growth rate (24.6%) following Nevada (35.1%); however, Arizona also ranked third highest in dependency-ratio (both old-age dependency ratio as well as child-age dependency ratio).[2] The pressure on the productive population is also compounded by the levels of poverty and as per American Community Survey

[1] Population Distribution and Change 2000 to 2010: 2010 Census Briefs US Census Bureau. Retrieved June 20, 2011, from http://www.census.gov/prod/cen2010/briefs/c2010br-01.pdf.

[2] Age and Sex Composition: 2010 Census Briefs, US Census Bureau. Retrieved June 20, 2011, from http://www.census.gov/prod/cen2010/briefs/c2010br-03.pdf. Dependency ratios indicate the potential effects of changes in population age structures for social and economic development, pointing out broad trends in social support needs.

(ACS) 2008 estimates, Arizona ranks 13th in the nation for poverty for all ages with approximately 15 percent (14.7) below poverty level compared to 13.2 percent in the nation. Further, Arizona ranked fifth in the nation for children without health insurance (16% vs. 9.9%) and sixth for all persons without health insurance (19.5% vs. 15.4%).[3] High dependency ratio, poverty, and lack of insurance have significant bearing on health status and these can disproportionately impact minorities. Arizona has a significantly large proportion of Hispanic population and figure 2 displays the proportion of births by race and ethnicity during 1999 to 2010. The number of births to Arizona residents peaked in 2007 at 102,687 births, and then declined. In 2009, the number of births declined to 92,616, a 10 percent decrease from the high point in 2007 and this trend continued in 2010 (87,053 births) with a 15 percent decline from 2007 and a 6 percent decline from 2009. The decline in the births was most significant in the Hispanic population and the proportion of births in 2010 to this group equaled 1999 proportion.

Figure 2. Race and Ethnic Distribution of Resident Births 1999-2010



While births have generally declined, the zero to five population in Arizona was the fourth largest in the nation as per 2009 estimates that estimated this population at 518,341.[4] The existence of a large zero to five population, and given the socio-demographic profile, tells us Arizona is in need of and uniquely positioned to provide evidence-based home visiting services. While Arizona has a robust early childhood system in place,

[3] 2011 Statistical Abstracts: US Census Bureau. Retrieved June 20, 2011 from http://www.census.gov/compendia/statab/cats/health_nutrition/health_insurance.html

[4] 2009 Census estimates indicate Arizona population to be at 6,595,778, which is higher than the 2010 release of population distribution and change Census Brief that estimated the population at 6,392,017. However, age and sex specific estimates for 2010 through Summary File for Arizona are not available yet.

there are very few resources available to provide evidence-based home visiting services for many of our populations in need of these services.

Arizona currently has over 170 early childhood home visiting programs; making for a robust but fragmented system. There are different agencies involved and multiple funding streams. Programs are paid by the services they provide which actually can cause a competition for clients in some areas, even though other areas have few services. There is no way to ensure each family is receiving the appropriate services. If a family is found to be better served by another program, there are no formal transition policies or Memorandums of Understanding to provide for seamless continuity of services.

Rural areas have more difficulty supporting their families with home visiting. The capacity of all health and child care services is strained in many of the rural areas. Greenlee County has only recently been able to attract a pediatrician. As of May 2010, 63 areas in Arizona are federally designated as Primary Care Health Professional Shortage Areas (HPSAs), 51 areas are designated as Dental HPSAs, and 6 areas are designated as Mental HPSAs.[5] Travel is of great concern for home visitors in the remote areas. Weather can make the difference between being able to reach a community or not; rural roads can be washed out and impassable after a storm.

Arizona has suffered as has the rest of the nation by the economic downturn. Most of the state agencies experienced dramatic funding cuts. The ADHS High Risk Perinatal Program lost 60 percent of its funding in 2009 and was forced to restrict eligibility for enrollment. Healthy Families is operating at about 65 percent of former capacity due to loss of state funding from the 2009 state cuts as well. Fortunately, First Things First (Arizona's Early Childhood Development and Health Board) programs have not been affected by the economic downturn as they are funded through a dedicated tobacco tax, not out of the state general fund. By statute these funds are not subject to reduction by the legislature. As a result of the cuts to Healthy Families, many of the First Things First Regional Councils elected to fund Healthy Families programs to assure access to these important family services. Early Head Start has limited capacity as well.

Arizona's proposed intervention is based on strategic decisions made for the MIECHV Updated Plan by the IALT, which will utilize grant funds obtained from the competitive process to expand Nurse-Family Partnership and Healthy Families to reach the remainder of communities identified as high-risk. Arizona also proposes to utilize a part of the grant funding to build on the early childhood home visiting system work already begun.

IALT intends to direct 85 percent of the funds, after the evaluation monies are subtracted, to expanding evidence-based home visiting. The remaining 15 percent of the grant funds will be used to support the enhancement of a statewide system of home visiting as it fits into Arizona's early childhood system.

The proposed intervention builds upon the MIECHV Updated Plan that identified 31 high-risk communities of which only six are being funded. The details of identifying 31 high-risk communities are discussed in the needs assessment section of this document. Arizona intends to prioritize the expansion of home visiting services based on risk, efficiencies (sufficient number of children to support a program, proximity to another CHAA) and current capacity in conjunction with active engagement of the community members through a series of community meetings. Arizona has learned through its most recent MIECHV Updated State Plan that a participatory approach that strategically engages communities is more likely to succeed and sustain partnerships.

The Program Manager who has been hired for the MIECHV Program will manage the additional home visiting sites and in addition to this position, a new position will be established as a Statewide Home Visiting

[5] Arizona Department of Health Services: 2010 Title V Maternal and Child Health Needs Assessment.

Coordinator. The Coordinator will work with First Things First to reconvene the Home Visiting Task Force. This group will work together to: develop standards, core competencies, cross model standards; will institute a process to continually look at best practices; and work towards the coordination of professional development opportunities for home visitors into the very robust early childhood workforce and professional development system. Arizona proposes to maintain the Inter-Agency Leadership Team to provide oversight to the Home Visiting Task Force. This will be important because the different state agencies will need to approve any policy decisions developed by the Task Force. All curriculum developed will incorporate, and not deviate from, our selected evidence-based model curriculums.

Concurrently, each community will enhance or build local consortiums or councils. These groups will work at a local level to maintain updated information on the home visiting services available in the community and other support services in the community, and ensure local providers (WIC, pediatricians, early childcare, Child Protective Services, behavioral health, etc.) and families are aware of available home visiting services. The local groups will be a part of regional groupings. The Statewide Home Visiting Coordinator will coordinate efforts between the local regions and the state Task Force, including professional development opportunities. Representatives from many disiplinces, including behavioral health, domestic violence and injury prevention have agreed to work with these local coalitions to provide guidance on resources and best practices.

The IALT suggested piloting the local system building component including integration of other family support services in Pima County, specifically Tucson the first year, and building on lessons learned out to the rest of the state the remaining years of the competitive grant.

When awarded the competitive funds, Arizona anticipates several outcomes that are both immediate and long-term. The immediate outcomes relate to expansion of home visiting services to currently under-funded, high-risk communities. Another important outcome is the reconvening of the Arizona's Home Visiting Task Force. An important long-term outcome is Arizona's enhanced capacity for delivering high quality evidence-based home visiting programs that are currently unavailable at a statewide level, apart from improving legislatively mandated benchmarks.

1.4 Arizona's priority element focus: With this application, Arizona intends to address elements of the following priority areas:

- **Priority Element 1:** To support improvements in maternal, child and family health. Specifically: Engaging health service providers in at-risk communities to encourage identification and referral of pregnant women, young children, and families to home visiting programs

- ***Priority Element 2***: To support effective implementation and expansion of evidence-based home visiting programs or systems with fidelity to the evidence-based model. By rigorously implementing these evidence-based home visiting models, we anticipate significant improvement in maternal and newborn health, prevention of child injuries and maltreatment, improvement in school readiness, reduction in domestic violence, improvement in family self sufficiency and an improvement in the coordination and referrals for community resources and supports.

- ***Priority Element 3***: To support the development of statewide home visiting programs; specifically developing cross model program standards; developing core competencies for home visitors and supervisors; developing common benchmarks across models or states; and integrating home visiting services with other family support.

- ***Priority Element 4***: To support the development of comprehensive early childhood systems that span the prenatal through age five continuum, specifically coordinating the early childhood workforce and professional development systems to include home visitors.

Focusing on Priority 3 and 4 will enable us to build on the home visiting system already begun but to bring it to scale as well, and thereby improve the outcomes for all families served by home visiting.

The following figure represents the logic model for the MIECHV competitive grant which builds on the logic model submitted for the MIECHV formula funded grant.

1.5 Home Visitation Enhanced Logic Model: Bolded items add to the existing State MIECHV Logic Model; all other items expand/strengthen items already included in the existing State MIECHV Logic Model

<table>
<tr><th>Inputs</th><th>Activities</th><th>Outputs</th><th>Short Term Outcomes</th><th>Longer Term Outcomes</th></tr>
<tr><td rowspan="7">Grant funding

Partner agencies

Evidence based home visiting models

Community based providers

Home Visiting Taskforce

Home Visiting State Plan</td><td>Expand high quality home visiting services to identified high-risk communities across the State of Arizona</td><td># of families served by program type/area</td><td>Families supported to achieve their home visiting objectives related to maternal and child health, school readiness, and economic stability</td><td rowspan="7">For enrolled children and families:

Improved maternal and child health

Improved school readiness

Greater economic stability</td></tr>
<tr><td>Re-convene the Home Visiting Taskforce; develop cross model standards, benchmarks, and core competencies</td><td>Cross model standards, benchmarks, and core competencies developed</td><td>Strengthened home visiting services statewide</td></tr>
<tr><td>Assess training needs, develop a standardized training curriculum for home visitors, and provide training</td><td>Training needs assessed
Curriculum developed
# of trainings provided
# of training participants</td><td>Better prepared home visiting workforce</td></tr>
<tr><td>Support regional coalitions in developing sustainable partnerships</td><td># and composition of regional coalitions
Description of partnership activities</td><td rowspan="2">Increased number of families accessing appropriate home visiting services</td></tr>
<tr><td>Promote communication among home visiting service providers</td><td>Description of communications pathways developed/ enhanced</td></tr>
<tr><td>Foster linkages with others who serve young children and their families</td><td>Description of systems for linkage developed/ enhanced</td><td rowspan="2">Increased number of families linked with services that improve their child's health, school readiness, and family stability</td></tr>
<tr><td>Pilot a centralized referral system</td><td>Description of referral system
# of participating programs</td></tr>
</table>

The socio-demographic profile outlined in the previous section describes how Arizona is positioned compared to the nation with regards to the growing needs of a zero to five population, a fragmented home visiting system, growing urban population, poverty, and high dependency ratio. An important element of identifying 'needs' prior to the receipt of the MIECHV Supplemental Information Request, was defining a 'community.' The IALT initial discussions centered on whether or not a community was necessarily a geographic unit and/or a race and ethnic group or a sub-group of individuals who are bounded by one or more risk factors. For example, a "community" could mean a community of teen mothers, or a community of children with special health care needs, and so forth. However, such a definition would have not only posed analytic problems of collecting and summarizing data for the purposes of the needs assessment, but it would also confound the problem of effectively and efficiently allocating resources based on other indicators such as geography and capacity.

Typically counties represent the communities of a state well. With only 15 counties and over 60 percent of the population in just one county, this is not a good choice to represent the communities of Arizona. The next step down in the US Census hierarchy of geographic types is Census Tracts, but with 1107 tracts in Arizona this option is far too small. This led the ADHS to create a unit of measure that both represents the communities of the state and provides population numbers conducive to statistical analysis. Arizona utilized Community Health Analysis Area (CHAA) built from US 2000 Census Block Groups to identify a community. The CHAAs can be utilized to monitor trends because their borders remain stable over time. The CHAAs are built from US Census 2000 Block Groups by aggregating them in a way that closely matches existing community boundaries such as cities, planning areas and Indian Reservations. Since CHAAs are built from Census Block Groups all data available at the Block Group level can be aggregated to the CHAA level. In addition any street address or zip code level data can be added to the CHAA layers through a process of geocoding then spatial joining. Geocoding was implemented for all datasets containing address information. A typical CHAA contains approximately 21,500 residents. However, due to the scattered pattern of development in Arizona, CHAAs range widely in population, from 5,000 to 190,000 persons. A CHAA in the highly urbanized areas of Maricopa County contains approximately 100,000 persons while the average rural CHAA contains approximately 10,000 persons. Tribal communities are an exception to the CHAA definition and are each considered an individual CHAA. There are a total of 126 CHAAs in Arizona.

For the purposes of determining "at-risk communities", the CHAA was selected as the geographic unit of analysis. The analytic strategy to identify "at-risk communities" was based on a ranking methodology, [,6,7] and each CHAA on a total of 21 indicators as required by Maternal and Infant Early Childhood Home Visiting, Supplemental Information Request. Each CHAA was ranked on all of the 21 indicators as indicated in table 1 using SAS v 9.2 (2008) statistical software.

[6] Jencks S.F., Cuerdon T., Burwen D.R., et al (2000). Quality of Medical Care Delivered to Medicare Beneficiaries: A Profile at State and National Levels. Journal of American Medical Association, 284(13): 1670-1676.
[7] Cantor J.C., Schoen C., Belloff D., How S.K.H., McCarthy D. (2007). Aiming Higher: Results from a State Scorecard on Health System Performance. The Commonwealth Fund Commission on a High Performance Health System.

Table 1. Indicators utilized to determine "at-risk communities"

#	Indicator	MIECHV SIR Requirement
1	Percent Preterm	●
2	Percent LBW	●
3	IMR rate	●
4	Percent below poverty	●
5	Total Crime Index per 100,000	●
6	Women 15-44 assaults per 100,000	●
7	School dropout rates	●
8	Binge drinking by youth	
9	Rx use by youth in last 30 days	
10	Illicit drug use by youth in last 30 days	
11	Alcohol use by youth	
12	Cigarette use by youth in last 30 days	
13	Marijuana use by youth in last 30 days	
14	Unemployment rate	●
15	Negligence per 1000	●
16	Physical abuse per 1000	●
17	Sexual abuse per 1000	●
18	Child maltreatment per 1000	●
19	Zero to 18 years injuries per 1000	
20	Teen birth rate	●
21	Percent of Women who initiated prenatal care by 1st trimester	

● Indicates required by MIECHV SIR

These indicators were averaged to produce an overall risk score for each CHAA and were displayed as a statistical map as shown in figure 3. The overall risk score was distributed normally (*Mdn* = 62.96; *M* = 62.97; *SD* = 13.79) with a minimum rank score of 29.76 and a maximum of 94.57. The CHAAs were divided into quartiles from low to high-risk based on the overall risk score. Higher scores indicated higher risk with darker shades representing high-risk communities. As evident, many high-risk communities 'clustered' in Pima County (specifically Tucson metro area) and many high-risk communities were also rural and fell within tribal areas of Arizona. Communities who were in the top-quartile for overall risk included 31 CHAAs, covering 12 Arizona counties. These communities had higher overall risk scores with means ranging from 73.17 to 94.58, compared to the overall risk score of 62.97.

Figure 3. Arizona “at-risk” community profile

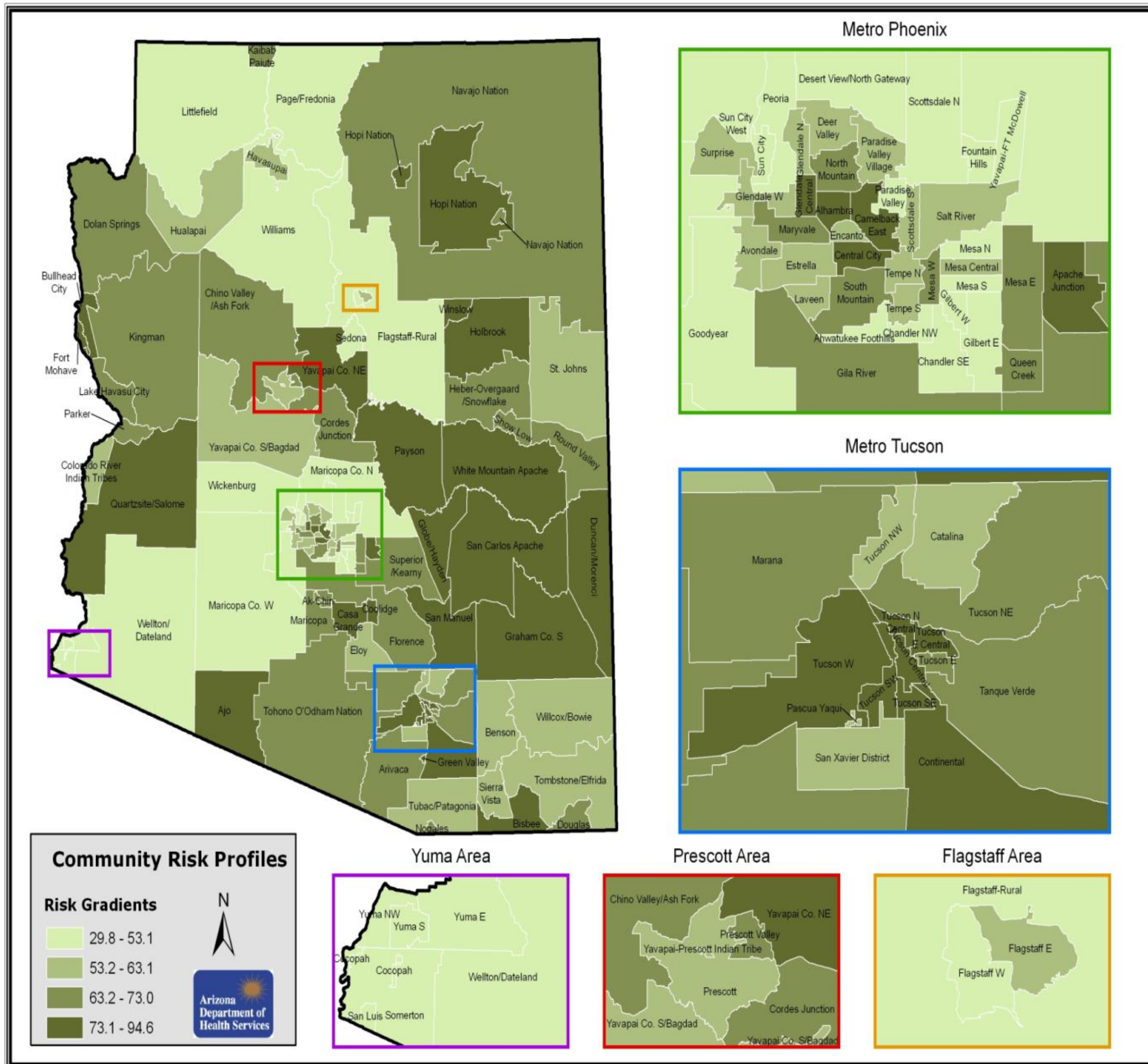
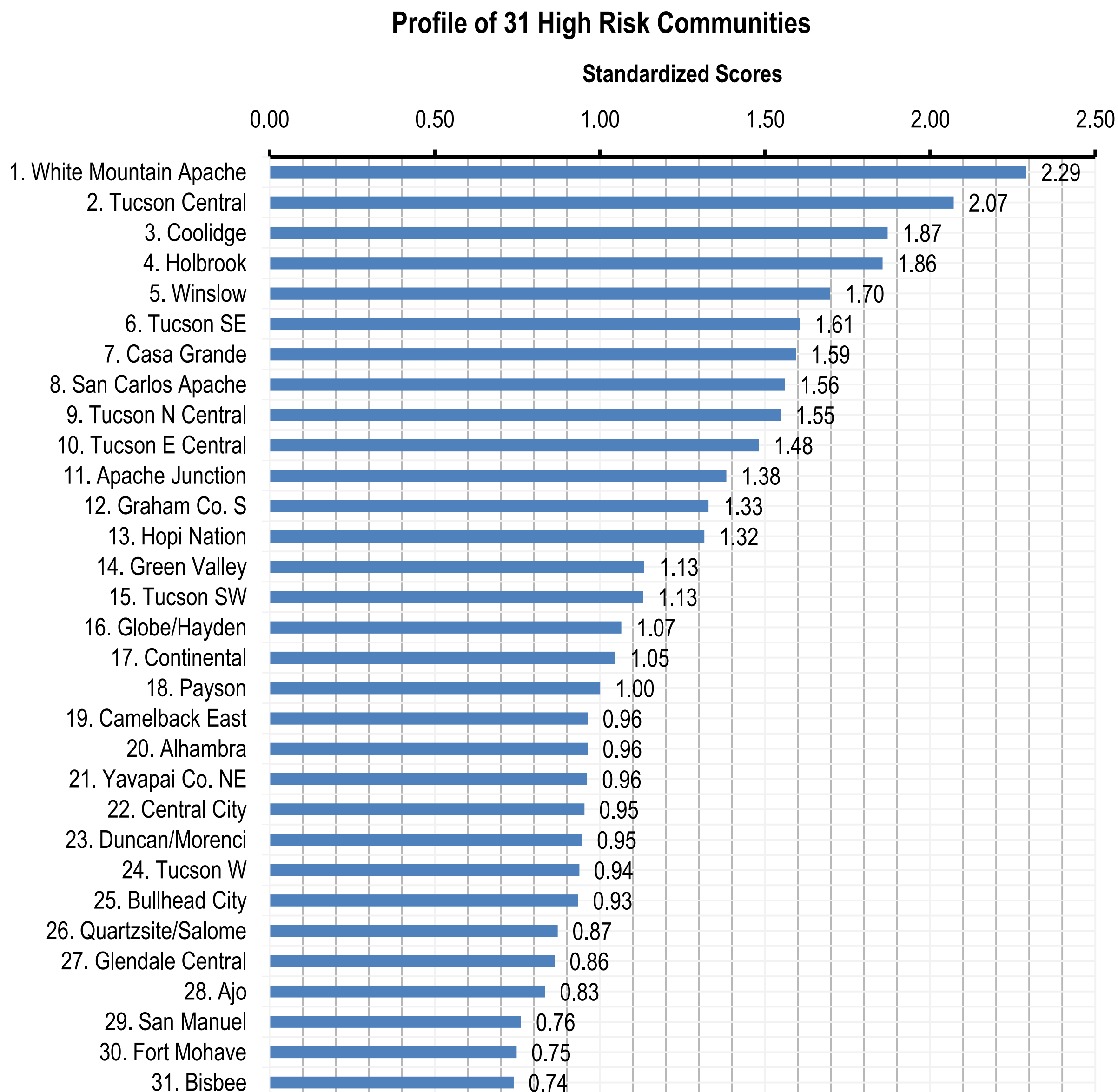


Figure 4 displays the profile of these 31 high-risk communities as a standardized score with a mean of zero and standard deviation of one. The standardized scores indicate how far each CHAA is from the mean zero. From an interpretational point, all positive z-scores are in theory at-risk and/or high-risk. Positive z-scores ranged between 0.74 to 2.29 with Bisbee at the lower-end of high-risk score, and White Mountain Apache at the other end with a standardized score of 2.29, followed by Tucson Central (2.07), Coolidge (1.87), Holbrook (1.86), Winslow (1.70), Tucson SE (1.61) etcetera.

Figure 4. Profile of 31 High-Risk Communities identified by Arizona's MIECHV 2010 Needs Assessment



2.1 Targeted high-risk communities: The 31 high-risk communities (see figure 4) identified in Arizona's 2010 MIECHV Needs Assessment formed the initial basis for prioritizing and identifying the state's targeted communities discussed in this document. Some of the criteria were:

- Analyses of these 31 highest risk communities;
- Efficiency/Economies of Scale (0 to 4 population, geographic proximity, start-up costs, capacity, need);
- Appropriateness of high-risk indicators to home visiting indicators (e.g. child maltreatment, school dropout, IMR, domestic violence, crime) and benchmark;
- Relevance and applicability of evidence-based programs (EBPs) to the targeted at-risk community; and

- Existing home visiting programs in the community and the percent of young children served by current home visiting programs.

Table 2 presents the cross-walk of risks, presence and/or absence of any existing home visiting program and existing licensed behavioral health facilities 31 high risk communities.

Table 2. Cross-walk of risk factors, home visiting programs, and number of behavioral health facilities

31 High-ranking CHAAs	Indicator	Within-group z-score	# children 0-4	Current HV	NFP	HF	HIPPY	EHS	Parent-Child Home	PAT	ESSS	Licensed Behavioral Health Facilities
White Mountain Apache	Poverty	2.32	1,347	Yes	No	No	No	No	No	Yes	No	0
	Teen birthrate	2.22										
Tucson Central	Crime	2.06	4,816	Yes	Yes	Yes	No	No	No	Yes	No	34
	Negligence	1.58										
Coolidge	Sexual Abuse	3.28	959	Yes	No	Yes	No	Yes	No	Yes	No	3
	MCH	1.15										
Holbrook	Substance abuse	2.49	640	Yes	No	Yes	No	Yes	No	No	No	2
	Unemployment	1.69										
Winslow	Women 15-44 Assaults	3.89	765	Yes	No	Yes	No	No	No	Yes	No	3
	Substance Abuse											
Tucson SE	Substance Abuse	1.21	7,801	Yes	Yes	Yes	No	No	No	Yes	No	7
	Injuries	1.14										
Casa Grande	Crime	1.09	4,476	Yes	No	Yes	No	Yes	No	No	No	29
	Substance abuse	1.08										
San Carlos Apache	Poverty	2.85	1,006	Yes	No	No	No	No	No	No	Yes	0
	Substance abuse	2.24										
Tucson N Central	Negligence	3.69	3,912	Yes	Yes	Yes	No	No	No	Yes	No	20
	Child Maltreatment	3.32										
Tucson E Central	Crime	2.32	4,839	Yes	Yes	Yes	No	No	No	No	No	38
	Negligence	0.65										
Apache Junction	Substance abuse	<2	2,702	Yes	No	Yes	No	Yes	No	No	No	13
Graham Co. S	Preterm Birth	1.35	1,942	Yes	No	Yes	No	No	No	No	NO	2
	Unemployment	1.34										
Hopi Nation	Substance Abuse	2	590	Yes	No	Yes	No	No	No	Yes	No	0
Green Valley	MCH	3.35	84	Yes	No	Yes	No	No	No	Yes	No	1
	Physical abuse	2.68										
Tucson SW	Injuries	1.32	8,074	Yes	Yes	Yes	No	No	No	Yes	No	7
Globe/Hayden	Substance abuse	+/-1	1,464	Yes	No	No	No	Yes	No	No	No	6
Continental	School dropout	1.98	1,926	Yes	No	Yes	No	No	No	Yes	No	4
	Sexual abuse	1.38										
Payson	Substance Abuse	> 1	1,502	Yes	No	No	No	Yes	No	No	No	6
Camelback East	Injuries	2.4	11,889	Yes	Yes	Yes	No	No	No	Yes	No	29
	MCH	<1										
Alhambra	Injuries	2.77	13,600	Yes	Yes	Yes	No	Yes	No	Yes	No	30
	Teen birth	1.24										
Yavapai Co. NE	Sexual Abuse	0.69	3,021	Yes	Yes	Yes	No	Yes	No	Yes	No	12
Central City	Poverty	2.03	8,227	Yes	Yes	Yes	No	Yes	Yes	Yes	No	43
	Crime	1.75										
Duncan/Morenci	Substance abuse	>2	537	Yes	No	No	No	Yes	No	No	No	1
Tucson W	School Dropout	3.55	3,582	Yes	No	Yes	No	No	No	Yes	No	11
Bullhead City	Substance abuse	<2	3,556	Yes	No	Yes	No	No	No	No	No	9
Quartzsite/Salome	Physical Abuse	3.87	340	Yes	No	Yes	No	No	No	No	No	1
	Child maltreatment	2.18										
Glendale Central	Injuries	1.53	9,016	Yes	Yes	Yes	No	Yes	No	Yes	No	20
	Crime	<1										
Ajo	Maternal/Child Health	>3	225	Yes	No	No	No	No	No	No	No	2
San Manuel	Substance Abuse	>2	1,125	Yes	No	Yes	No	Yes	No	No	No	3
	MCH	1.37										
Fort Mohave	Substance abuse	>1	491	Yes	No	No	No	No	No	No	No	0
Bisbee	School dropout	1.73	842	Yes	No	Yes	No	No	No	No	No	3
	Substance abuse	<1										

An important criterion for the IALT was to identify the efficiency and economies of scale. Because of limited funding available to Arizona, it was important to further narrow down the list of 31 identified high-risk communities. The development of this criterion was based on within-group analyses of high-risk communities. The within-group analyses was based on the logic of identifying 'risk clusters' that could be targeted through specific EBP, which subsequently appeared in Mathematica's review of home visiting programs as having met the evidence criteria. The within-group analyses utilized the top-quartile of at-risk and/or high-risk communities (i.e. CHAAs) and ranked them across indicators and within each of the high-risk indicators. Each indicator was then grouped into specific domain (benchmark) area. Analyses of the risk factors indicated that the top risk factor was childhood negligence, maltreatment, and injuries with 55 percent of the high-risk CHAAs having this risk factor, followed by substance use and abuse (39%), maternal and child health (26%), domestic violence (20%), economic self-sufficiency (16%), and school dropout rate (10%). While within-group analyses provided information on the 'risk clusters,' it was also important to understand what home visiting programs served these at-risk and/or high-risk communities.

Prior to Mathematica's review of evidence-based programs on home visiting, the Office of Assessment and Evaluation at ADHS had reviewed home visiting programs at the California Evidence-Based Clearinghouse for Child Welfare (CEBC) and SAMHSA's National Registry of Evidence-Based Programs and Practices (NREPP).

Arizona's 2010 MIECHV Needs Assessment had identified several home visiting programs that not only included 'home grown' programs but also evidenced-based home visiting programs that were later vetted through Mathematica's formal analysis of evidence-based programs. Although the data was not available by CHAA, IALT utilized county-level data on home visiting programs to assess if any of the home visiting programs served the identified 31 high-risk communities. Some of these programs were Nurse-Family Partnership (NFP), Healthy Families America (HFA), Home Instruction for Parents of Preschool Youngsters (HIPPY), Parents as Teachers, Parent-Child Home (PCH), Early Head Start (EHS), and Early Steps to School Success (ESSS). While each could have multiple home visiting programs, out of the 31 at-risk and/or high-risk CHAAs, 77 percent (n = 24) of the CHAAs had Healthy Families America home visiting program, 50 percent (n = 16) of the CHAAs were being served by Parents as Teachers, 39 percent (n = 12) of the CHAAs were served by early Head Start, and both Parent-Child Home (PCH) and Early Steps to School Success (ESSS) in only two CHAAs.

The next important element in the within-group analyses was to select communities with higher standardized scores (z-scores) that were typically one-standard deviation or more. This led to further narrowing the number of communities from 31 at-risk and/or high-risk CHAAs to 15 high-risk CHAAs. Upon consideration of the resources likely to be available in the first year of the grant and the average cost of a home visitation program, the IALT estimated that approximately 400 children could be served.

The benefits of a geographic cluster were noted, as some CHAAs did not have the requisite population density. A map of the state was set up with dots representing the high-risk CHAAs to assess 'risk clusters'. There was clearly a clustering of CHAAs in the Tucson area. Accordingly, this area was selected for a community meeting to determine the level of community support, adequacy of an early childhood workforce, and the possibility of community partnerships for purposes of referrals. While it could have been easy to have selected the top 15 CHAAs, it was important for the IALT to see if the communities would be receptive to the home visiting programs, and also if the EBPs could be scaled-up to serve as many families (400 families based on $3500 per family) as possible during the life of the grant, keeping in view attrition in the program and current percent of young children served.

The other communities identified include Casa Grande and Coolidge, two distinct CHAAs representing communities located in close proximity to one another in Pinal County. While these areas are not as populous

as the Tucson cluster, they have a sufficient number of young children and an even lower rate of existing services. A community meeting was also planned for this area.

The area with the highest risk score was the White Mountain Apache CHAA. The number of children ages 0-4 is relatively low, but the need is quite high. Historically, there have been challenges associated with setting up programs in tribal areas due to historical trauma. Meetings were held with Tribal members and the White Mountain Apache Health Department in Whiteriver, which has been piloting an early childhood home visiting model. As a result, this CHAA was designated as the area for further consideration for a promising approach using the set-aside funding. Family Spirit was developed by Johns Hopkins University and has undergone randomized trials in Whiteriver as well as on the Navajo Nation. There was a great deal of interest in narrowing the focus of a future trial as data has identified substance abuse as a grave concern.

Casa Grande, Coolidge, Tucson Central, Tucson North Central, Tucson South East and White-Mountain Apache were finally selected for targeted EBP home visiting intervention. These communities were selected based on the criteria discussed earlier and most importantly through engaging the various community stakeholders. Table 3 gives an overview of the socio-demographic data including overall risk scores (z-scores) comparing to the state.

Table 3. Socio-demographic characteristics of targeted communities for EBPs in Arizona

Demographic characteristics	Selected High Risk Communities						State[†]
	Casa Grande	Coolidge	Tucson Central	Tucson N Central	Tucson SE	White-Mountain Apache	
Overall risk score*	1.59	1.87	2.07	1.55	1.61	2.29	0
Population	58,596	11,945	69,793	57,325	69,393	13,657	6,446,544
Population density	212.31	163.01	4242.14	4751.70	5445.05	5.18	56.5
Population female	30,603	6,248	34,473	28,993	35,255	7,110	3,227,747
Population 0 to 4 years	4,476	959	4,816	3,912	7,801	1,347	505,052
Population 0 to 18 years	17,007	3,750	18,730	13,375	25,013	5,511	1,789,302
Dependency ratio[1]	56.06	56.72	38.50	46.84	57.13	57.55	54.3
Crude Death Rates[2]	6.5	9.13	6.32	8.32	5.52	6.52	6.97
Average family size	3.22	3.43	3.41	2.94	3.72	4.38	3.15
% below poverty[3]	12	20	25	17	27	42	14.7
Average family income	$53,460.40	$51,248.89	$42,609.39	$47,209.79	$37,781.01	$33,608.09	$66,207.57
Number of non-profits[δ]	26	4	177	61	12	4	5063
% Black	5.12	12.19	4.39	3.05	2.25	0.31	3.4
% Hispanic	33.67	35.08	51.13	29.75	80.97	0.81	30.7
% Native American	3.75	2.98	3.50	3.01	4.31	94.59	4.6
% Other[‡]	4.06	3.33	6.48	5.97	1.43	1.29	5.93
% White	53.39	46.42	34.49	58.22	11.03	3.00	55.37

*Overall risk score is a standardized z-score ($M = 0$; $SD = 1$). Scores above the mean indicate high risk and below the mean indicate lower risk. Overall risk score was distributed normally ($Mdn = 62.96$; $M = 62.97$; $SD = 13.79$) with a minimum rank score of 29.76 and a maximum of 94.57. Further, Shapiro-Wilks test did not indicate that the distribution of the overall risk score was non-normal ($W = 0.99$; $p = 0.57$).

[†]State data is based on 2008 Census estimates produced by NIELSEN Claritas, and estimates are slightly conservative than Census.

[δ]Non-profit data was based on National Center for Charitable Statistics (NCCS) Circa 2008 data

[1]Dependency ratios indicate the potential effects of changes in population age structures for social and economic development, pointing out broad trends in social support needs. A high dependency ratio indicates that the economically active population and the overall economy face a greater burden to support and provide the social services needed by children and by older persons who are often economically dependent. A high youth dependency ratio, for instance, implies that higher investments need to be made in schooling and child-care.

[2]Crude deaths rates were expressed per 1000 as opposed to the traditional per 100,000.

[3]Percent below poverty data is from Census 2000

[‡]Other category includes Asian/Pacific Islanders and two or more races

It is evident that all the targeted communities were 1.5 to 2.5 standard deviations above the mean in terms of their risk-profile. Except for White Mountain Apache, all communities had higher population density, with the Tucson CHAAs relatively more dense than Coolidge and Casa Grande. The percent of females was slightly higher compared to the state except for Tucson Central (34,473/69,793 = 49%). The zero to four population for the Tucson South East CHAA was 11.2 percent compared to the state 7.8 percent. All CHAAs except Casa Grande had a large percentage of population below poverty compared to the state average. Data on average family income further supported income disparity in these high-risk communities. The state average family income in 2008 was $66,207.57 while White Mountain Apache had the lowest average family income ($33,608.09), followed by Tucson South East, Tucson Central, Tucson North Central, Coolidge, and Casa Grande. The number of non-profits reflect both supply of services and the degree of social capital in a given community.[9,10,11] Per capita number of non-profits was highest in Tucson Central (2.53), i.e. two non-profits per 1000 people, followed by Tucson North Central (1.06) with one per 1000 population compared to state average (0.78) with lowest per capita non-profits in Tucson South East (0.17), followed by White Mountain Apache (0.29), Coolidge (0.33), and Casa Grande (0.44).

While within-group analyses formed a critical step in identifying the six communities described above, it is important to note that the most critical element was community engagement. Community meetings were planned for all of the identified communities above and these meetings were facilitated by a contracted consultant. Invitees included family members, community leaders, and representatives from the child welfare agency, county health departments, court system, early childhood programs, school districts, existing home visitation programs, parent support programs, universities, behavioral health agencies, and other community resources. Family member participation was supported through the ADHS, Office for Children with Special Health Care Needs. The purpose of engaging the communities was multi-fold. We discussed data from the needs assessment, community readiness for 'acceptance' and implementation of evidence-based home visiting programs, assessment of community assets and feedback on strengths and barriers.

The 2010 Home Visiting Needs Assessment provided risk factor information for all 126 CHAAs and initially identified the 31 in the quartile with the highest overall risk factor scores for further consideration. The other CHAAs in this quartile were: Holbrook, Winslow, San Carlos Apache, Apache Junction, Graham County South, Hopi Nation, Green Valley, Globe/Hayden, Continental, Payson, Camelback East, Alhambra, Yavapai County Northeast, Central City, Duncan/Morenci, Bullhead City, Quartzsite/Salome, Glendale Central, Ajo, San Manuel, Fort Mohave, and Bisbee.

With grant funding, Arizona intends to expand evidence-based home visiting to the remaining 25 CHAAs. The IALT will again develop a prioritization of those 25 CHAAs based on the same methodology described above and engage the communities through a series of community meetings at each CHAA in priority order. The meetings will follow the format that the original meeting did: an overview of the grant, introducing the findings of the Needs Analysis and a presentation of the Mathematica findings about evidence-based home visiting and facilitated small group discussion about what the community's perception of its needs and strengths.

2.2 Community Profile and Rationale: The competitive funds, if received, will be utilized to develop detailed community profile that will contain data from community meetings and mapping of home visiting programs, community capacity, community strengths and assets, apart from feedback on feasibility of implementing home

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[9] Gronbjerg, K.A. & Paalberg, L. (2001). Community Variations in the Size and Scope of the Nonprofit Sector: Theory and Preliminary Findings. *Nonprofit and Voluntary Sector Quarterly, 30,* 684-706.
[10] Hillemeier, M.M., Lynch, J., Harper, S., & Casper, M. (2003). Measuring Contextual Characteristics for Community Health. *Health Services Research, 38*(6), Part II 1645-1717.
[11] Saxton, G.D., & Benson, M.A. (2005). Social Capital and the Growth of the Nonprofit Sector. *Social Science Quarterly, 86*(1)

visiting programs for the remainder of the 25 high risk communities. The socio-demographic characteristics similar to those outlined in table 3 earlier are presented in table 4 for the remainder 25 high-risk communities.

Table 4. Socio-demographic profile of the remainder 25 high-risk communities

		Overall Risk Score*	Population	Population density	Population female	Population 0 to 4 years	Population 0 to 18 years	Dependency ratio[1]	Crude Death Rates[2]	Average family size	% below poverty[3]	Average family income	Number of non-profits[δ]	% Black	% Hispanic	% Native American	% Other[‡]	% White
	State[†]	**0**	**6,446,544**	**56.5**	**3,227,747**	**505,052**	**1,789,302**	**54.3**	**6.97**	**3.15**	**14.7**	**$66,207.57**	**5,063**	**3.4**	**30.7**	**4.6**	**5.93**	**55.37**
1	Ajo	0.83	3,845	2.50	1,995	225	846	94.094	14.56	2.73	15.97	$45,239.78	5	0.34	33.52	5.77	2.44	57.92
2	Alhambra	0.96	143,460	7506.80	70,635	13,600	43939	53.451	6.42	3.38	15.54	$63,365.28	102	6.31	46.73	4.26	6.26	36.45
3	Apache Junction	1.38	53,074	654.70	27,973	2,702	10482	70.755	10.8	2.68	6.90	$65,918.05	14	0.95	6.98	0.69	3.07	88.32
4	Bisbee	0.74	13,367	23.83	6,908	842	3319	60.372	11	2.98	10.97	$68,078.05	24	0.90	29.56	1.35	3.16	65.03
5	Bullhead City	0.93	56,906	262.64	28,870	3,556	13439	61.945	12.92	2.86	10.49	$53,356.19	10	1.64	22.52	1.48	3.40	70.97
6	Camelback East	0.96	152,728	4134.30	75,125	11,889	39625	49.111	6.87	3.09	10.74	$84,125.35	286	4.61	39.33	3.33	4.13	48.60
7	Central City	0.95	73,088	3084.72	32,468	8,227	24917	52.092	5.62	4.14	38.93	$33,864.61	342	6.22	76.49	3.01	1.60	12.68
8	Continental	1.05	33,926	50.57	15,451	1,926	7538	52.175	9.61	3.05	8.26	$70,732.35	17	2.89	32.78	2.31	2.02	60.01
9	Duncan/Morenci	0.95	8,167	4.41	3,903	537	2436	50.572	6.24	3.26	7.95	$62,572.32	3	0.66	44.83	2.22	1.75	50.54
10	Fort Mohave	0.75	8,573	119.59	4,316	491	1933	61.907	12.36	2.88	8.32	$50,439.98	1	0.72	12.31	7.01	2.71	77.25
11	Glendale Central	0.86	96,720	6487.12	48,380	9,016	29539	53.251	7.13	3.37	13.81	$52,637.92	34	7.05	44.08	2.77	4.75	41.34
12	Globe/Hayden	1.07	19,193	22.71	9,777	1,464	5218	62.185	12.19	3.07	11.59	$54,321.80	17	1.17	35.84	3.24	2.15	57.61
13	Graham Co. S	1.33	30,086	10.21	14,005	1,942	7957	51.628	9.01	3.30	14.01	$56,058.66	19	2.29	31.47	1.05	1.91	63.28
14	Green Valley	1.13	12,138	1419.07	6,787	84	334	369.374	24.55	2.09	1.98	$63,126.25	10	0.26	3.73	0.23	1.21	94.57
15	Holbrook	1.86	7,775	4.86	4,040	640	2678	55.159	9	3.50	15.84	$53,450.47	10	2.62	19.47	26.97	3.67	47.27
16	Hopi Nation	1.32	6,704	2.65	3,429	590	2307	58.263	13.57	4.07	35.13	$39,843.09	6	0.33	1.07	94.44	1.04	3.12
17	Payson	1.00	29,199	13.86	14,991	1,502	5820	72.479	13.63	2.70	7.36	$66,142.15	44	0.35	6.10	2.34	2.02	89.20
18	Quartzsite/Salome	0.87	9,735	2.46	4,873	340	1297	129.383	11.3	2.47	11.91	$40,797.16	5	0.49	15.00	2.46	1.85	80.21
19	San Carlos Apache	1.56	10,242	3.50	5,223	1,006	4198	61.775	10.06	4.52	48.15	$35,031.06	1	0.09	0.63	94.21	2.03	3.04
20	San Manuel	0.76	24,604	24.17	12,960	1,125	4484	73.341	7.56	2.81	7.37	$81,112.29	9	0.43	28.21	1.03	2.43	67.89
21	Tucson E Central	1.48	78,994	4892.81	40,993	4,839	16861	49.559	10.98	2.76	13.11	$55,762.17	203	4.40	22.30	1.76	6.08	65.46
22	Tucson SW	1.13	86,442	2778.58	44,911	8,074	27173	55.421	6.42	3.46	14.81	$50,926.86	43	3.30	67.85	4.97	2.21	21.67
23	Tucson W	0.94	56,432	222.14	28,947	3,582	13761	52.128	7.53	3.01	7.77	$72,425.50	25	2.15	43.42	2.52	2.98	48.92
24	Winslow	1.70	10,650	62.05	4,854	765	3054	46.211	6.76	3.38	18.37	$52,188.46	12	5.77	25.92	27.80	3.72	36.80
25	Yavapai Co. NE	0.96	53,286	43.65	27,414	3,021	11941	63.409	12.01	2.87	8.17	$60,762.75	65	0.78	15.99	2.95	2.40	77.88

*Overall risk score is a standardized z-score (M = 0; SD = 1). Scores above the mean indicate high risk and below the mean indicate lower risk. Overall risk score was distributed normally (Mdn = 62.96; M = 62.97; SD = 13.79) with a minimum rank score of 29.76 and a maximum of 94.57. Further, Shapiro-Wilks test did not indicate that the distribution of the overall risk score was non-normal (W = 0.99; p = 0.57).

[†] State data is based on 2008 Census estimates produced by NIELSEN Claritas, and estimates are slightly conservative than Census.

[δ] Non-profit data was based on National Center for Charitable Statistics (NCCS) Circa 2008 data

[1] Dependency ratios indicate the potential effects of changes in population age structures for social and economic development, pointing out broad trends in social support needs. A high dependency ratio indicates that the economically active population and the overall economy face a greater burden to support and provide the social services needed by children and by older persons who are often economically dependent. A high youth dependency ratio, for instance, implies that higher investments need to be made in schooling and child-care.

[2] Crude deaths rates were expressed per 1000 as opposed to the traditional per 100,000.

[3] Percent below poverty data is from Census 2000

[‡] Other category includes Asian/Pacific Islanders and two or more races

The underlying rationale to select the remaining 25 high-risk communities is not only based on the risk criteria, but also its potential impact on overall improvement in legislatively mandated benchmark areas. Further, implementation of evidence-based programs in high-risk areas will provide information on the feasibility of replication and scaling-up of home visiting services across the state; in addition, will also inform us about the pros and cons of implementing home visiting in communities with the most challenging needs.

2.3 Projected Estimates for Targeted Families: From table 4, the total zero to four for all of the 25 high-risk CHAAs is estimated to be around 82,000. Assuming that competitive funds are awarded at a nine million dollar ceiling and the average cost of an evidence-based home visiting program is $3,500, it is estimated that at a minimum Arizona could serve 2,000 children, ages zero to five, per year in these high-risk communities.

The previous section identified the details of the need assessment methods and selection of at-risk communities. This section provides details about evidence-based models Arizona has selected and the process of identifying communities.

3.1 Evidence-based Models and the Selection Process: The Inter-Agency Leadership Team met to collaboratively decide on the models to be supported by the competitive funding. Based on the information from the HomVEE site, and the need to make improvements in the benchmarks, the group decided to continue to fund both Nurse-Family Partnership and Healthy Families.

The selection of the proposed home visiting models was primarily based on the 'evidence' criteria outlined in the MIECHV review of home visiting programs by Mathematica. In particular, the home visiting models:

- conform to a clear consistent home visitation model that has been in existence for at least 3 years;
- are research-based;
- are grounded in relevant empirically-based knowledge;
- are linked to program determined outcomes;
- are associated with a national organization or institution of higher education that has comprehensive home visitation program standards that ensure high quality service delivery and continuous program quality improvement; and
- have demonstrated significant, positive outcomes.

Arizona selected Nurse-Family Partnership (NFP) and Healthy Families America (HFA). The following paragraphs detail the methodology in selecting the proposed evidence-based home visiting models. This includes a description of the state's current and prior experience in implementing the proposed models and the capacity to support the model. The state's overall approach to home visiting quality assurance, program assessment and support of model fidelity will be a part of the MIECHV Program Manager's responsibilities. Additionally, the Program Manager will be well versed in all aspects of each of the models, will work closely with the regional managers of the models, will develop a site visit monitoring tool and monitor both process and outcome reports as well as work closely with the External Evaluator.

The Office of Assessment and Evaluation at the Bureau of Women's and Children's Health utilized the evidence criteria and review of evidence-based models proposed by Mathematica to create a cross-walk of primary and secondary outcomes and within-group analyses of risk factors for the identified CHAAs. Table 3 and table 4 provide the crosswalk of EBPs by primary and secondary outcome. Figure 4 gives the percentage of favorable outcomes by EBP. Based on the information from table 3, table 4 and figure 4, it was evident that both NFP and HFA met most of the evidence criteria outlined by Mathematica. While the evidence suggested that these models met the 'primary' criterion it was also important to assess whether or not NFP and HFA also addressed specific risk factors that emerged in Arizona's 2010 MIECHV Needs Assessment and within-group analyses. Further, it was also important for the IALT to know if the state had a history of implementing these programs, apart from assessing identified communities' experience (i.e. CHAAs) with both NFP and HFA.

In actuality, Arizona has a rich history with implementing both programs. The Arizona Department of Economic Security (DES), Division of Children, Youth and Families established the Healthy Families Arizona (HFAz) program in 1991, and has continuously administered the program through the Office of Prevention and Family

Support for 20 years. Nurse-Family Partnership, while not in as many communities as Healthy Families has been successfully implemented in Arizona since 2006.

Table 5 and table 6 displays the impact of EBPs on specific outcomes (i.e. primary versus secondary outcome) by constructs and benchmarks and a 'dot' indicated that the EBP addressed the specific outcome in the hypothesized direction, 'N/A' indicated that the EBP did not target the specific construct and those without a 'dot' indicated that the specific construct was a null effect and/or unfavorable effect by the EBP. The details of specific effects and the effect sizes for each of the EBPs on different constructs and domains are noted in detail by Mathematica.

Table 5. MIECHV evidence of effectiveness by primary outcome and benchmarks

Primary Outcomes	BenchMarks	Early Head Start	Family Checkup	HFA	Healthy Steps	HIPPY	NFP	PAT
1. Child health	1			●	●	N/A	●	
2. Child development and school readiness	3	●	●	●	●	●	●	●
3. Improvements in family economic self-sufficiency	5		N/A		N/A	N/A	●	
4. Improvements in the coordination and referrals for other community resources and supports	6	N/A	N/A	●	N/A	N/A	●	N/A
5. Maternal health	1					N/A	●	N/A
6. Parenting skills	3	●	●	●	●	●	●	n
7. Prevention of child injuries and maltreatment	2		N/A			N/A	●	N/A
8. Reductions in crime or domestic violence	4	N/A	N/A			N/A		N/A
TOTALS		**2**	**2**	**4**	**3**	**2**	**6**	**2**

Primary measures were defined as outcomes measured through direct observation, direct assessment, administrative data, or self-report data collected using a standardized (normed) instrument.

Table 6. MIECHV evidence of effectiveness by secondary outcome and benchmarks

Secondary Outcomes	BenchMarks	Early Head Start	Family Checkup	HFA	Healthy Steps	HIPPY	NFP	PAT
1. Child health	1			●		N/A	●	
2. Child development and school readiness	3	●		●		●	●	
3. Improvements in family economic self-sufficiency	5	●	N/A	●	N/A	N/A	●	
4. Improvements in the coordination and referrals for other community resources and supports	6	N/A	N/A	●	N/A	N/A	●	N/A
5. Maternal health	1		●	●		N/A	●	
6. Parenting skills	3	●		●	●	●	●	
7. Prevention of child injuries and maltreatment	2		N/A	●		N/A	●	N/A
8. Reductions in crime or domestic violence	4	N/A	N/A	●		N/A	●	N/A
TOTALS		**3**	**1**	**5**	**1**	**2**	**6**	**0**

Secondary measures included other self-report measures.

A major concern underlying Mathematica's assessment of 'effectiveness' was a lack of clarity and distinction of primary and secondary measures as both primary and secondary measures included 'self-reported' data, and the concern was whether a 'primary measure' implied more reliable and valid and therefore 'better' than secondary measure.[8] Attachment 1 provides an overview of Arizona's 25 at-risk and/or high risk communities

[8] This concern was also directed to the Principal Investigator at Mathematica through personal communication.

proposed for expansion in this application and the within-group analyses of specific risk factors along with EBPs that specifically address these risks.

Although NFP and HFA met the primary 'evidence' of effectiveness criteria; as discussed earlier, it was also important to assess whether NFP and HFA would align with identified risk profiles found in the identified CHAAs. Review of evidence for the Needs Assessment relied mostly on existing local home visiting programs specifically implemented among the population and available documentation of evaluation reports and/or program information.

3.2 Goals of the Competitive Funding Opportunity: In preparing for this funding opportunity we were most determined to maintain and build on our original home visiting vision of an accessible high quality statewide system. The goals and objectives of the original Home Visiting plan and the Updated Plan focused on the provision of high quality home visiting services, ensuring that each family is referred to the home visiting service that best meets their needs, improving families' access to community services that will support children's health, enhancing family stability and parenting skills, and strengthening the statewide system and ensuring its integration into the greater early childhood system.

The first and primary goal of the competitively funded Maternal, Infant and Early Childhood Home Visiting Program will focus on the improvement of maternal and child health and welfare outcomes and strengthening of the capacity of the enrolled families to realize school readiness and economic stability through the expansion of evidence-based home visiting services. This will be accomplished by implementation of two different evidence-based models; Nurse-Family Partnership and Healthy Families in the identified high-risk areas of Arizona not served by the MIECHV formula grant. The process will include the Program Manager reconvening the IALT to prioritize the remaining at-risk CHAAs. From there, community meetings will be scheduled. After meeting with the communities and upon determination of the model to be implemented, the Program Manager will begin the procurement process in order to begin services. The Interagency Service Agreement or Request for Proposals (RFP) will include language specifically asking for a plan to ensure fidelity to the model including quality assurance and monitoring activities. Process outcomes and findings will be disseminated in a timely fashion to determine that benchmarks are being reached, to provide feedback to the home visitors and providers and to afford the opportunity for rapid change in process, when indicated. Dissemination of the goal outcomes will also seek to educate the public of the benefits of evidence-based home visiting supported by the positive outcomes that will be realized. It is anticipated that this awareness will foster sustainability.

The second goal will be to use this competitive funding opportunity to enhance the statewide system of home visiting as it fits into Arizona's early childhood system. Activities will include reconvening the Home Visiting Task Force that formed the basis of the MIECHV grant Inter-Agency Leadership Team by October, 2011. Again, the Program Manager will be responsible for reconvening the Task Force. The Task Force will develop cross model program standards, core competencies for home visitors and supervisors, common benchmarks across models, work to integrate home visiting services with other medical and community family support services, and expand professional development opportunities for home visitors. The state Task Force will work to include home visitors in existing and future early childhood workforce and professional development opportunities. The Task Force will also work to identify mechanisms and procedures related to continuous quality improvement related to systems building. This statewide Task Force will be responsible for ensuring that the agencies and organizations who provide services for young children and their families understand the continuum and availability of home visitation services.

The third goal will focus on enhancing the local system, as it relates to the larger statewide system in order to ensure that providers refer eligible pregnant women and children to home visiting services and each family is linked to the home visiting program that best fits their needs and preferences. It will also seek to ensure that families are receiving appropriate quality services.

The strategies utilized will include the Statewide Home Visiting Coordinator working with the local early childhood community to enhance or establish linkages and referral protocols among home visiting programs and community based providers; develop a comprehensive list of available home visiting and family support services, including their characteristics and strengths, and target populations; ensure that the agencies and organizations who provide services for young children and their families (WIC, Pediatricians, obstetricians, Child Protective Services, behavioral health, community-based early care and education programs, etc.) understand the continuum and availability of local home visitation services and refer pregnant women, young children and families to home visiting programs. The strength of the existing services and collaborations and training opportunities available in some areas, coupled with the opportunities provided through the funding of this grant will enhance this robust system of quality home visiting services.

3.2.1 Goals and Objectives

Goal 1: Expand high quality home visiting services to identified high-risk communities across the State of Arizona.

Objective 1.1: By 12/31/2011, ADHS will have conducted a minimum of six (6) regional meetings geared towards expanding evidence-based home visiting programs into the high-risk Community Health Analysis Areas (CHAA) not currently served by the MIECHV formula grant.

Objective 1.2: By 9/29/2012, 50% of the high-risk Community Health Analysis Areas not currently served by the MIECHV formula grant will implement evidence-based home visiting.

Goal 2: Strengthen the state infrastructure to support evidence-based home visiting programs through professional development and training.

Objective 2.1: By 09/29/2015, a professional development system for home visitors will be in place for the State of Arizona.

Goal 3: Establish mechanisms for systems of coordination and collaboration of home visitation services at the local level.

Objective 3.1 By 09/29/2015, the infrastructure of participating CHAAs will be enhanced by the development of comprehensive, systematic, sustainable, and evidence-based approaches to home visiting through partnerships, collaboratives, coalitions, and communication.

Objective 3.2: By 09/29/2015, pilot a centralized referral system at 50% of the MIECHV supported sites to improve linkages to medical and community support services among families with young children.

3.3 Arizona's Theory of Change: The underlying theory of change is based on two broad frameworks that include risk and protective factors at the individual-level and social determinants at the system level. The individual-level change is based on the risk and protective approach to prevention that seeks to reduce risk factors and enhance protective factors in individuals and families.[9] The principal components in the individual and family domains are specifically targeted through use of evidence-based practices. Because many of the high-risk communities identified have adolescent substance use as a major issue and that no specific EBP specifically addresses this issue, the use of risk and protective factor framework, in general, can address several overlapping issues that relate to family and the individual (see attachment 1). For instance, family

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[9] Hawkins, J.D., Catalano, R.F., & Arthur M.W. (2002). Promoting science-based prevention in communities. *Addictive Behaviors, 27,* 951-976.

history of problem behaviors, family management problems, family conflict, favorable parental attitudes and involvement in problem behaviors are also related to adolescent substance use, delinquency, teen pregnancy, school drop-out, and violence.

Assuming that evidence-based home visiting programs when implemented with full fidelity will also target these risk areas within the family domain, it is important to accentuate that the proposed application seeks to expand services and bring to 'scale' the use and adoption of EBPs. Scaling-up does not necessarily equate to expansion on a large-scale but effective implementation is; scaling-up relates to "increase the depth of a program by offering new and different services and/or," "increasing the number of participants in the program."[10] As such, there is no theory of change for expanding home visiting services other than the fact that implementation science suggests in scaling up it is important to bring "…more quality benefits to more people over a wider geographical area more quickly, more equitably, and more lastingly "it is a strategy to influence or change the prevailing system (in this case, the health system)…for a widespread achievement of impact at [an] affordable cost."[11]

At the system level, it is important to understand that social inequities play a critical role in determining well-being and this has popularly been known to be defined as social determinants.[12] Expansion of evidence-based home visiting programs to these identified high-risk communities at a system-level is expected to provide 'buffer zones' for individuals and families in these high-risk communities to maintain resilience under the current economic circumstances, as these groups may face disproportionately higher burden of disease compared to other groups. Lack of expansion of these services may push these communities farther in the process of 'recovery,' compared to other groups; thus, eroding any existing 'capital' they may possess.[13]

[10] Fixsen, D. L., Naoom, S. F., Blase, K. A., Friedman, R. M., & Wallace, F. (2005). Implementation Research: A Synthesis of the Literature. Tampa, FL: University of South Florida, Louis de la Parte Florida Mental Health Institute, *The National Implementation Research Network (FMHI Publication #231).*

[11] CORE Group. (2005). Scale and Scaling-Up: A CORE group background paper on scaling-up maternal, newborn, and child health services. New York, NY.

[12] The theory underlying social determinants of health is that inequities in health and/or avoidable health inequalities arise due to "the circumstances in which people grow, live, work, and age, and the systems put in place to deal with illness. The conditions in which people live and die are, in turn, shaped by political, social, and economic forces" (Commission on Social Determinants of Health [CSDH], 2008)

[13] Capital is used in the broadest sense of human, social, and cultural capital, which are all related to health and well-being.

4.1 Steps to Achieve Activities: There will be several steps taken concurrently to implement the competitive funding MIECHV Program. A work plan can be found in Attachment 1. The process will include reconvening the IALT to prioritize the remaining at-risk CHAAs. The Program Manager will schedule the meetings in the communities and with input from the IALT, invite other appropriate community members. The dates and location of the meetings will also be posted on the Maternal, Infant and Early Childhood Home Visiting website. The Program Manager, the Statewide Home Visiting Coordinator and other ADHS personnel will go to the communities to present the findings of the Needs Assessment and through a series of focused questions, will determine the communities' desire to implement evidence-based home visiting and if they so desire, to select a model.

Upon the determination of the model to be implemented, the Program Manager will begin the procurement process in order to begin services. If Healthy Families is chosen the Program will initiate an Interagency Service Agreement. If Nurse-Family Partnership is chosen a competitive bid process will be initiated or an interagency agreement can be put in place if there is a county agency implementing NFP in the CHAA.

The second goal is to enhance the state infrastructure to support evidence-based home visiting programs. This will be accomplished by reconvening the Home Visiting Task Force in partnership with First Things First. The group will develop cross model standards, benchmarks, and core competencies. They will determine a process to assess training needs among home visitors in the participating CHAAs. They will also develop a standardized training curriculum for home visitors, and provide training opportunities that are specific to the adopted standards, benchmarks, core competencies and identified needs.

As a means of increasing the quality of home visiting and building capacity of the home visitors, the Task Force will work to incorporate learning objectives for home visitors into local early childhood conference agenda(s). The Task Force will work to identify currently offered and planned early childhood development training opportunities for home visitors, and increase participation in continuing education for home visitors through funding scholarships.

The third strategy will include working with the local early childhood community to enhance or establish linkages and referral protocols among home visiting programs and community based providers. The Statewide Home Visiting Coordinator will also work with existing local coalitions to develop a comprehensive list of available home visiting and family support services, including their characteristics and strengths, and target populations; ensure that the agencies and organizations who provide services for young children and their families (WIC, pediatricians, obstetricians, Child Protective Services, behavioral health, community based early care and education programs, etc.) understand the continuum and availability of local home visitation services and refer pregnant women, young children and families to home visiting programs. If there is not a local coalition, the Coordinator will work with the contracted providers to initiate such a group.

A project timeline can be found in Attachment 7.

4.2 Meaningful Support and Collaboration with Key Stakeholders: Each step of the development of this plan has been made in conjunction with the other members of the IALT, which includes the Title V agency and the state's Single State Agency for Substance Abuse which in Arizona is housed within the Arizona Department of Health Services, the state's Head Start Collaboration Director from the Arizona Department of Education, a representative from the state's Title II agency, the Arizona Department of Economic Security, which serves as

the state's child care and child welfare agency, and senior management from Arizona's Early Childhood Development and Health Board, more commonly known as First Things First.

Upon issuance of the FOA, the IALT met to discuss whether or not to apply for this opportunity. Upon making the decision that we would apply, the group began to develop the goals and objectives of the project based on the goals and objectives from the Updated Plan. During the writing of the plan, numerous emails have circulated among team members to further develop a consensus on the goals, objectives and implementation plans. Beyond the original group there have been discussions with the Department of Economic Security Child Care Fund Administrator about developing a partnership for early childhood professional development opportunities for home visitors. As well, the Domestic Violence Coalition and Injury Prevention will work with the Task Force to ensure their expertise and resources are incorporated.

First Things First, the Early Childhood Development and Health agency, has been an important part of this process as well. They, along with the Department of Economic Security, have been partners in writing, have offered suggestions on design and implementation, and have offered support for professional development opportunities for home visitors.

4.3 Implementation of Models: As referenced earlier, the program will set meetings with each of the communities or CHAAs identified as high-risk. The IALT will identify local stakeholders and will send email announcements and post the meeting dates on our website. Once the community has decided on a model, the Program will initiate the procurement process to contract with eligible model providers in the respective communities.

The new Program Manager for the MIECHV Program has been identified and hired for the position. She will begin July 11, 2011. The Program Manager will begin the procurement process by developing the Scope of Work for an RFP and an Interagency Agreement. The Scope of Work, the Tasks and the Deliverables will reflect the requirements of the SIR and the Legislation including all the information required for the Updated plan: a plan for working with the national model developer and a description of the technical assistance and support to be provided through the national model; a timeline for obtaining the curriculum or other materials needed; a description of how and what types of initial and ongoing training and professional development activities will be provided by the implementing agency; a plan for recruiting, hiring, and retaining appropriate staff for all positions; a plan to ensure high quality clinical supervision and reflective practice for all home visitors and supervisors; the estimated number of families served; a plan for identifying and recruiting participants; a plan for minimizing the attrition rates for participants enrolled in the program; an estimated timeline to reach maximum caseload in each location; an operational plan for the coordination between the proposed home visiting program and other existing programs and resources in those communities, especially regarding health, mental health, early childhood development, substance abuse, domestic violence prevention, child maltreatment prevention, child welfare, education, and other social and health services; a plan for obtaining or modifying data systems for ongoing continuous quality improvement (CQI); and finally a discussion of anticipated challenges to maintaining quality and fidelity, and the proposed response to the issues identified.

ADHS will begin the process to hire the Statewide Home Visiting Coordinator. The responsibilities of that position will include experience and knowledge of public health and early childhood administration and state, county and local health care delivery systems. The candidate will need to have solid experience in community development; program planning and development principles including quality assurance, budget development and resource allocation principles; procurement and contract policies; maternal and child health topics to include public health best practices related to early childhood health and development. The successful applicant should have a minimum of three years' experience in administration/budget management; or two years in public health or child welfare programs and preferably a Master's degree in public health, behavioral health, education, social

work, nursing or related field, or a Bachelor's with at least three years of combined work experience in a relevant field.

The Program Manager, working with the evaluator, will develop contract oversight/management tools to monitor, assess and support implementation with fidelity to the model.

4.4 Continuous Quality Improvement: We will continue to use the evaluator that we selected for the formula funded MIECHV grant. She has the capacity to expand evaluation to the additional sites. The CQI plan for the expansion sites will mirror the MIECHV formula funded plan. It will include a Continuous Quality Improvement (CQI) plan that will advance efficient, effective program delivery and achievement of strategic and program goals. The CQI plan serves as a part of the foundation of the commitment of the ADHS to continuously improve the quality of its Maternal, Infant and Early Childhood Home Visiting Program. The ADHS promotes evidence-based home visiting models to meet the unique needs of the communities being served.

The CQI Plan incorporates three key actions to build a culture of quality. First, data will be shared. To build a culture of quality, everyone needs to be receiving data, down to the home visitor level. The CQI Plan for the MIECHV Program will provide the means for data to be shared – data that is meaningful and important and that reflects the work that the home visitor is doing, all of which are embedded in the benchmarks. The second action is ensuring the transparency of data – sharing data that is good as well as sharing data that highlights key problem areas. The third aspect of building a culture of quality is having everyone involved in the effort. The Plan will provide the means in which home visitors can receive data that is important to them to see how they are doing on a regular basis and how their site is doing.

The ADHS will continuously strive to ensure that the MIECHV Program provides quality services in a safe, effective, recipient-centered, timely, and equitable fashion and that:

- The services provided incorporate evidence-based, effective practices;
- The services are appropriate to the unique needs of the community;
- The services develop and incorporate new knowledge and practices in a data-driven manner;
- The fidelity of program implementation is monitored; and
- Home visitors and program administrators are empowered to seek information about their own practices through regular feedback on process and outcome indicators.

Responsibility for Oversight of CQI: The key to success of the continuous quality improvement process is leadership. The following describes how the leaders of the ADHS and the MIECHV Program will provide support to quality improvement activities and the oversight of CQI.

The MIECHV Continuous Quality Improvement Team will be established. This Team will provide ongoing operational leadership of continuous quality improvement activities. It will meet quarterly or more frequently as needed. The CQI team will be challenged to guide the state and local organizations to a point where people feel comfortable receiving data, sharing data, using data, and seeing it as something that is important and key to their work, rather than something that is punitive and designed to identify who's not doing their job well. The CQI Team will consist of the MIECHV Program Manager, the Chiefs of the Office of Assessment and Evaluation and Children's Health, the External Evaluator and representatives from the local models once contracts are awarded

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The responsibilities of the CQI Team will include:

- Establishing measurable objectives based upon established benchmarks and constructs
- Developing and updating the CQI plan ensuring inclusion and expansion of fidelity indicators as the CQI process matures.
- Identifying indicators of quality on a priority basis (starting small, focused on individual topics).
- Reviewing regular reports which the MIECHV Program Manager will then share with local program administrators, which summarize performance on the key indicators associated with their processes and outcomes.

The ADHS will also provide leadership for the CQI process by supporting and guiding implementation of quality improvement activities of the MIECHV Program and reviewing, evaluating and approving the CQI plan annually.

The MIECHV Program Manager will be responsible for ensuring:

- A culture that promotes excellence and continual improvement;
- Implementation of a statewide CQI framework;
- Data systems are compatible and support ongoing CQI;
- Collection and constructive use of data is used to promote a high-learning, high-performance, results-oriented MIECHV Program;
- Rapid information on a small scale reaches local program managers to facilitate change as needed; and
- Quarterly summary reports of gains are made against benchmarks and program goals.

MIECHV local model Program Managers will be responsible at their individual sites for:

- Promoting a culture of quality using short-term/annual plans that support long-term strategic quality goals;
- Monitoring fidelity of program implementation;
- Encouraging service delivery processes that have been shown to contribute to good outcomes;
- Implementing and maintaining local data systems that support ongoing CQI; and
- Reporting on participant satisfaction and outcomes.

The leaders will support CQI activities through the planned coordination and communication of the results of measurement activities related to CQI initiatives and overall efforts to continually improve the quality of the MIECHV Programs. This sharing of data and information with staff, families, community, funders and other stakeholders is an important leadership function. Leaders, through a planned and shared communication approach, ensure that all involved have knowledge of and input into ongoing CQI initiatives as a means of continually improving performance.

Overview of the CQI Process and Data System: The methodology used to develop the CQI plan will include a planning process as well as a cycle of assessment, analysis and improvement, including recognition and corrective action, which promote excellence and continuous improvement. The planning phase involves the identification of specific standards of program delivery, process indicators, outcome measures of programs, and coordination of efforts and communication among the ADHS, local MIECHV Program staff, families, community, and stakeholders.

Coordinated Data System: A fundamental element of the CQI process is using data to drive CQI. To this end, the CQI Team will examine the existing data systems in use by the local home visiting programs and determine interface with other local and state programs and databases. The Team will determine scalability and

extensibility as well as interface needs. The assessment process will include interviews with local users to determine needs and challenges with current reporting systems as well as ways to leverage existing data systems.

Internal CQI Assessment Processes: The CQI Team will engage in the local assessment phase, which includes a coordinated system of ongoing record reviews of programmatic and administrative functions in order to address organizational performance, service delivery, and participant outcomes. This work will include internal system reviews as well as conducting surveys of participant satisfaction, site visits by the External Evaluator and focus groups. Information from the assessment phase will undergo analysis, done by the External Evaluator.

Stakeholder Involvement in CQI: MIECHV Program stakeholders will include representatives from home visiting model regional directors, home visiting personnel, program participants (parents/caregivers), community members, and community partners, state agency partners, and external consultants. The ADHS defines a stakeholder as anyone who is affected by, or can influence, a program or organizational decision or action. Stakeholder groups will be involved as appropriate in providing input through focus groups, surveys, feedback on draft reports, and advisory groups.

Long-term Strategic Goals and Objectives: The CQI Team will identify and define goals and specific objectives to be accomplished each year within the context of the MIECHV Programs' Quality Expectations. The goals include training of program and administrative staff regarding both continuous quality improvement principles and specific quality improvement initiative(s). Progress in meeting these goals and objectives will be an important part of the annual evaluation of quality improvement activities.

The External Evaluator will work with the CQI Team to establish the CQI Data Collection Process Matrix consisting of the following elements: What is being measured?; Why is it being measured?; What is the data source?; Who is responsible?; How often will data be collected (Frequency)?; How will data be collected? How/Who will data be aggregated and reports generated?; In what format?; Who/When will results be reviewed and interpreted?; To whom will recommendations be made/timeframe?;and Who will implement/oversee recommended changes?

The following are expectations and long-term strategic goals of high performance to which the MIECHV Program aspires and will continually monitor.

Documentation: As a quality-driven organization, the ADHS will seek to implement consistent rules and methods for documentation throughout the MIECHV Program sites. Documentation will be used at several levels, ranging from financial records to family applications to program-specific forms. Documentation will follow "standards of practice" as appropriate for state and federally funded programs.

Data and Information: The MIECHV Program sites and personnel will seek and use data and information to assess current capacities, and measure performance realistically. Staff and administrators will track progress toward benchmarks concretely and consistently, and use performance results to set ambitious but attainable targets that increase and improve its capability to achieve benchmarks and families' needs and expectations.

Satisfaction: As a quality-driven Program, the ADHS and its partners will conduct open, honest, transparent and ongoing assessments of stakeholder confidence in its ability to serve the community. The MIECHV Program will earn the trust, confidence, and loyalty of its current and potential families and other stakeholders, both external and internal, including staff and administrators, by actively developing and regularly employing means to gather and understanding their diverse and distinctive perspectives.

Best Practices: As a quality-driven organization, the ADHS dedicates itself to continuously examine its practices to make certain it is following best practices for state departments of health services, specifically maternal, infant, and early childhood home visiting including governance, legal compliance, fiduciary responsibility, responsible stewardship, communication, accessibility, and disclosure.

Strategic Planning for Sustainability: As a quality-driven organization, the ADHS uses strategic planning as a management tool to focus its energy, to ensure that all stakeholders are working toward the same goals, to assess and adjust its direction in response to a changing environment. The planning process involves intentionally setting goals (i.e., choosing a desired future) and developing an approach to achieving those goals. In being strategic, the ADHS will work with its partners in the MIECHV Program to ensure all stakeholders are clear about objectives, aware of resources, and incorporate both into being consciously responsive to their dynamic community environments. The ADHS' strategic planning will support three key requirements: a definite purpose in mind; an understanding of the environment, particularly of the forces that affect or impede the fulfillment of that purpose; and creativity in developing effective responses to those forces.

The following will be considered as goals for the CQI Plan are developed:

1. To implement quantitative measurement to assess key processes and outcomes
2. To bring home visiting Program Managers and staff together to review quantitative data and major challenges to identify problems
3. To carefully prioritize identified problems and set goals for their resolution
4. To achieve measurable improvement in the highest priority areas
5. To meet internal and external reporting requirements

Program/Service Delivery Effectiveness: **Quality of Service Delivery:** The MIECHV Program Manager will have responsibility for managing the statewide program. The Model Program Managers (MPM) at each partner site will be responsible for oversight of the home visiting programs at the local level; home visitor training/development; program planning and oversight (including recruitment, retention, and alignment of program to meet community needs); managing the Memorandum of Understanding with the ADHS (including reporting); evaluation oversight; department staff training plan oversight; partnership development/advancement. Program fidelity will be measured to ensure programs are being delivered with fidelity to program design.

Documentation Reviews: Each local site will designate a person to be responsible for oversight of the completion, quality control, and filing of program documentation forms. Incomplete or missing information or data will be reported through the use of a strategy binder checklist used to monitor the accuracy of sign-in sheets and other participant documentation. This person will be responsible for filing the documentation review reports monthly with the MPM and External Evaluator. Follow-up reports on any recommended changes will be made by the MPM to the CQI Team.

Family Satisfaction: Satisfaction surveys will be administered annually to families involved in the home visiting programs in order to measure their satisfaction with program(s) and identification of additional needs. The MPM will be responsible for oversight of the administration of satisfaction surveys.

Program Fidelity: There are many challenges when implementing evidence-based programs in community settings that must be met to achieve outcomes similar to those found in research studies. One such challenge is to achieve and maintain fidelity to the program model. There is clear evidence that program effectiveness is related to fidelity of implementation such that the more a program is implemented as designed, the stronger the program outcomes. Therefore, program effectiveness may be compromised without consistent implementation and monitoring to ensure fidelity. The quality of MIECHV Program implementation/delivery and the level of

fidelity will be measured through a program fidelity checklist form, parent satisfaction survey items focused on process items such as parent's rapport and alliance with the home visitor and any model specific tools. A fidelity report will be generated on a quarterly basis.

Reporting CQI Data

1. Process for Aggregating Data

Data collected through various forms will be aggregated or summarized using tables that sum or average the data, whichever is appropriate for the type of data being collected. For example, frequency tables will be established for demographic data and the total number of families by ethnicity/race will be summed and a percentage of each ethnic/racial groups will be provided based on the total. Frequencies and averages (means) will be calculated for individual survey items on program and satisfaction surveys. Again, a table will be established for the survey data and summarized (aggregated) according to the variables being measured. For example, individual ratings on survey items will be averaged and a mean reported. Aggregated data can be reviewed to identify patterns, including: Quarterly home visitation record reports, Annual family satisfaction data, Annual family / child outcome data and annual evaluations of evidence-based programs. Data collected via surveys, observation forms, and other report forms will be entered into databases on a regular basis.

2. Report Formats

The quarterly report format for the CQI Team will follow a standard form. Results will be presented in narrative form with chart work done so everyone can see a picture of the results. The findings will be documented and the next steps that come out of the analyses will be listed.

The Quality Improvement quarterly reports are intended to reflect the status of established QI activities. Additionally, certain established QI activities are intended to monitor operational activities and identify other areas for improvement. Initiatives begun to address newly identified areas become an integral part of the QI processes and should be reflected in the quarterly report. Quarterly QI reports should be reflective of this dynamic process. In order to organize the reporting on this process the ADHS developed a standard outline for reporting. This format allows for standard sections, as well as Plan specific ongoing initiatives.

CQI Data Review and Analysis Process

1. Review Data/Reports

   Each program site will complete a CQI data collection process form that is specific to their home visiting activities. These plans and the reports generated by the plans will be reviewed on cycles specified in the site-based program implementation plan. The External Evaluator and the MIECHV Program Manager will review and discuss the CQI reports to identify areas of needed improvement and set priorities for improvement. .

2. Analyze and Interpret Data/Reports

   Data will be collected and analyzed according to the CQI Data Collection Process Plan. Collection methods will be consistent with accepted quality improvement methodology, i.e., surveys, observations, audit forms, interviews, etc. are used as appropriate. Data collection points will be specified in the Plan and occur no less than annually. Data will be entered into a data repository to build, over time, a database that is useful for benchmarking.

3. Determine Need for Change

   The CQI Team will assess the information collected on the Quality indicator and review the reports submitted during the review cycle. Using the performance indicator (the criterion set in the definition or the goal set by the CQI Team), the need for change will be determined.

4. Re-establish Benchmarks

   The first year of collecting data is considered the baseline assessment and will be used to establish the first set of CQI benchmarks. The CQI Team will review the established CQI benchmarks for quality improvement areas and determine the need to re-establish benchmarks as improvements are made.

5. Communicating Results

   The results of CQI Team's work will be shared through minutes of the CQI meetings with team members, program staff, and key stakeholders. CQI efforts and achievements will be noted in the quarterly report and will include the results of improvement efforts being undertaken.

6. Using Data for Implementing Improvement

   Once the performance of a selected process has been measured, assessed and analyzed, the information gathered by the above performance indicators will be used to identify a continuous quality improvement initiative to be undertaken. The decision to undertake the initiative will be based on priorities. The purpose for an initiative is to improve the performance of existing operations and/or programs or to design new ones. The model utilized is called Plan-Do-Check-Act (PDCA).

Assessment of the Effectiveness of the CQI Process: The External Evaluator and Model Program Manager will compile a CQI Effectiveness Report at the end of each calendar year unless the Program is advised otherwise by HRSA. The report will be submitted to the MIECHV Program Manager and kept on file by the ADHS, along with the CQI Plan.

The Report will summarize the goals and objectives of the CQI Plan, the quality improvement activities conducted during the past year, including the targeted process, systems and outcomes, the performance indicators utilized, the findings of the measurement, data aggregation, assessment and analysis processes, and the quality improvement initiatives taken in response to the findings.

Below are the specific implementation plans for the two models we have identified as being most likely to meet the benchmarks set out in the initial enabling legislation.

4.5 Nurse-Family Partnership

The ADHS will issue a Request for Proposals to implement Nurse-Family Partnership (NFP) in the CHAAs that wish to implement NFP. The ADHS will ask for an implementation plan that addresses each of the elements required in the Supplemental Information Request as well as an operational plan for how the model will coordinate with other existing programs in the community.

In exploring how the local contractor will work with the developer, we learned Nurse-Family Partnership has an extensive Implementation Plan process that each prospective implementing agency must complete.

NFP provides extensive support to the local contractor as they develop their plan which must be approved by NFP. The ADHS will work closely with NFP to ensure the successful bidder meets the requirements of NFP.

Arizona has already begun a relationship with the local Program Developer. The following represents some of the technical assistance offered to contractors through NFP: program development, ongoing clinical consultation and marketing and communication materials.

This plan requires a new contractor to establish the need for NFP in a community and to identify the characteristics of the population to be served, including the number to be served. It is clear from the Implementation Plan that nurses need to be free to visit during nontraditional hours (outside of 8 am-5 pm). This promotes the clients school attendance or employment and engagement with the client, thereby reducing attrition.

As part of NFP requirements, the applicant must describe the other programs already serving the area and how the applicant plans to integrate and coordinate with the other programs. There is quite a bit of discussion in NFP's literature for prospective contractors about meeting with the other programs in the area to explain the need for NFP and to explain how NFP might add to the continuum of services. The prospective contractor must describe their agency's mission and culture as well as the capacity of the organization to implement NFP with fidelity to the model.

Data for monitoring and Quality Assurance is collected through a web based software system, Efforts to Outcomes ™ (ETO). NFP has added to the data collection forms and will provide a special report that addresses each of the benchmark areas required. Results of these reports will be analyzed and used for quality improvement activities.

The NFP NSO Program Quality staff and Nurse Consultants are regionally assigned, and are responsible for monitoring critical aspects of program performance based on reports from the Efforts to Outcomes data system and for providing consultation directly to local nursing team supervisors to assist them in making necessary program improvements.

Contractors will be expected to adhere to the Implementation Plan recommendations pertaining to staff recruitment. NFP advises the prospective agency to contact the state nursing board among other things to assess the pool of BSNs in the area. The implementation plan suggests hiring slowly so the supervisor does not have to vet a new group of nurses all at once. There is also detail about looking at comparable compensation packages in the area.

Once hired, each new nurse is required to go to a week of training in Denver after completing at least 40 hours of self study. Nurses can only begin to see clients after they have been to the weeklong training in Denver. Each nurse home visitor will build a caseload slowly over 9 months and then strive to keep the caseload at 25 families.

4.6 Healthy Families

The Arizona Department of Health Services plans to utilize an Interagency Service Agreement (ISA) with the Arizona Department of Economic Security (ADES) to implement Healthy Families in the communities where Healthy Families is a fit. The Arizona Department of Economic Security has a 20 year history implementing Healthy Families. In the ISA, the ADHS will require an implementation plan that addresses each of the elements required in the FOA, as well as an operational plan for how the model will coordinate with other existing programs in the community.

The decision to affiliate a new Healthy Families Arizona (HFAz) program is a function of the Central Administration of HFAz. A program must first apply to Healthy Families America (HFA) to receive preliminary

permission to deliver home visiting services as a credentialed Healthy Families program. The program must provide a statement regarding their intention to deliver services, per the HFA 12 Critical Elements.

Following the submission of the application, the program must submit a full program plan to the HFAz Central Administration. Together, the program and Central Administration work to build a viable system for service delivery consistent with the HFA National Accreditation Standards.

Healthy Families monitors quality assurance and fidelity through its accreditation process. The 12 Critical Elements are operationalized by a set of best practice standards. Each HFA program completes a self study that assesses and offers continuous quality improvement related to each of the 120 best practice standards. Once the self study is completed, a peer team (usually two nationally trained peers from different states) completes a three day on-site visit. They review family records and documentation, conduct interviews with direct service staff, advisory group members, parents, supervisors and program managers, and they assign ratings to each of the 120 standards. The site receives a report of the findings which is reviewed individually with each program by the regional directors who offer technical assistance. The program must meet a threshold of standards in adherence to be accredited. The site may be asked to respond to the panel by improving practice for standards out of adherence. Then, the site visit report and the program's response are submitted to the HFA Accreditation Panel which reviews any responses and determines if the standard(s) may be upgraded based on new practice. The HFA Panel is comprised of two researchers, two trainers, two program managers, two state leaders, and one at-large representative. Additionally each program (as part of the standards) is required to monitor progress of the program towards meeting its goals and the quality of the work.

The Central Administration will provide regular technical assistance and training for the new program to assure that the program is implementing services with fidelity to the HFA model. All accredited HFAz programs are subject to the HFAz Quality Assurance Plan which requires a minimum of yearly quality assurance site visits, internal quality assurance processes at the program level, and regular analysis of data to inform program improvement opportunities.

As Arizona has been implementing Healthy Families for years, there is a very well established relationship with the national model developer. Because the Arizona Department of Economic Security (DES) is a multi-site accredited affiliate, the state has its own in-state trainers. As well, DES is a member of the Inter-Agency Leadership Team.

The Healthy Families America model requires that all supervisors, assessment workers and home visits attend a continuum of introductory, core, specialized and advanced training to increase their skills, knowledge and abilities in the delivery of home visitation services. Core training must be delivered by a certified trainer who utilizes authorized role-specific curriculum to train new supervisors, assessment workers and home visitors within six month of hire. Specialized training in relevant topic areas is provided by Healthy Families America on-line and must be completed by all supervisors, assessment workers and home visitors within twelve months of hire. HFA also has annual training requirements, including cultural diversity training, to assure that staff continue to improve their skills and knowledge in working with families and young children.

HFA establishes staffing ratios to assure that all assessment workers and home visitors receive weekly reflective supervision and have access to a supervisor at all times to discuss issues and challenges facing their work with families. Subcontracting of services is addressed in the DES contract with HFAz providers and can only be provided following State of Arizona Procurement rules.

Healthy Families adheres to best practice standards regarding hiring and training. They offer a web portal that allows new staff to receive all of the 12 required trainings through distance learning at no additional costs for the

training (it is included in annual fees). This training also evens the playing field as it allows for assurance that all staff who uses the web portal is receiving high quality training.

Supervision is required in the best practice standards which include weekly individual supervision for all direct services staff of a minimum of 1.5 hours per FTE. Healthy Families is an infant mental health promotion program and reflective practice is a requirement of supervision.

A home visitor may serve a maximum of 15 families when families are receiving the most intensive services (weekly). As families progress and become stronger and develop more protective factors there is a home visit level system that allows for the reduction of the intensity from weekly to every other week, to monthly, and finally a safety net for families as they transition to preschool or kindergarten of quarterly visits. Then a home visitor may serve up to 25 families.

One of the goals of Healthy Families is to increase access to those families with the greatest needs. Several mechanisms are in place where Healthy Families is implemented to identify high-need families including arrangements to receive referrals from birthing hospitals, and a screening and assessment process for accessing families.

Healthy Families has a strategy entitled, Creative Outreach which is unique to the program - if families do not "show" for visits they are not simply closed. There is a period of at least 3 months to reach out to those families to encourage participation. It has been determined that often families that are hard to reach are often families with the highest scores on the Parent Survey. Additionally, all programs are required to conduct a family retention analysis every two years to identify patterns and trends of families that drop out of services including factors impacting participation, demographics, social, and cultural factors. Programs are required to develop and implement a plan for improving retention.

HFAz is required to undergo a rigorous accreditation process every five years to demonstrate the program's adherence to the Healthy Families America model. HFAz has successfully completed this accreditation process three times and was the first state system in the country to be successfully accredited. In March 2011, HFAz was again successfully accredited by Prevent Child Abuse America/Healthy Families America. Arizona achieved a milestone by having all sites visited by the HFAz peers pass their accreditation site visit without a requirement for further response or evidence to demonstrate adherence to the model. No other HFA state-system has had 100% of sites visited achieve this distinction.

4.7 Fit with State Administrative Structure

The methodology selected to implement this program will meld nicely with the statewide administrative structure which consists of the program being a part of the Office of Children's Health which has a long history of early childhood home visitation implementation.

The Task Force will set statewide core competencies, standards, benchmarks, and professional development opportunities. The models chosen have already been reviewed nationally and found to have solid evidence to support their methodology. It is anticipated that the statewide core standards will incorporate the standards and competencies of the models chosen for this project.

Resolution of Challenges

While Arizona is confident of the success of the plan we have laid out we anticipate there could be challenges encountered.

A significant strength of our plan is the collaboration of the different agencies. The Inter-Agency Leadership Team has agreed in principle to the idea of shared decision making in developing common standards, competencies and benchmarks. As each member of the team will come to the table with their own organization's culture, it is anticipated that reaching consensus could become a challenge. We will continue to use an independent facilitator to guide the decision making process to ensure that there is no suggestion of one agency forcing a decision that does not have consensus.

Coalition building at the local level could also prove to be problematic. There have been times in some areas of the state when home visiting program managers have felt they were in 'competition' with the other programs for clients. The Program Manager and State Home Visiting Coordinator will continue to emphasize the continuum of services. The State Home Visiting Coordinator will help the local communities understand the continuum with the different program eligibility and goals.

Arizona is well-equipped to evaluate the efforts of implementing evidence-based programs and has the needed expertise to provide ongoing support and feedback to all the stakeholders involved. Participatory planning, implementation, and evaluation have been the core philosophy of the department. This is evidenced through the numerous grant evaluations the department has conducted and also its efforts in planning for the home visiting MIECHV application. Because Arizona, through this application intends to expand evidence-based home visiting programs, the core evaluation component involves monitoring the fidelity of implementation and collection of data on all benchmarks. In essence, the evaluation centers around collecting process level data for implementing an evidence-based program (fidelity measures that include adherence, dosage, and quality of delivery, participant responsiveness, program participation, and implementation challenges). Another important component of the evaluation comprises of assessing the impact of system development for expanding evidence-based home visiting programs in Arizona. This 'system evaluation' will document the scope conditions in which evidence-based home visiting programs can be expanded. The scope conditions detail the necessary elements such as the extent of participation of members in the State Home Visiting Task Force to develop policies and procedures to expand and adopt evidence-based home visiting standards.

The technical assistance anticipated for this grant involves fulfilling grant requirements and expectations as outlined in the FOA and working with cross-site evaluators to consistently update and provide feedback on on-going monitoring activities of implementation. Arizona also intends to utilize wherever feasible any available expertise in system building and evaluation efforts in addition to relying on the local contracted expertise. The following paragraphs detail the organizational and individual experience in evaluation, proposed evaluation plan, framework and program theory, design, evaluation contract and technical support, and Arizona's evaluation logic model.

6.1 Organizational and individual evaluative experience: The Office of Assessment and Evaluation (OA&E) within the Bureau of Women and Children's Health where Title V Maternal and Child Health Block Grant (MCHBG) and the MIECHV grant is housed, provides technical support on all matters concerning needs assessment, evaluation, data analyses, factsheets, reports, research briefs, and manuscripts relating to maternal and child health. The Chief of OA&E, Dr. Khaleel S. Hussaini, and three epidemiologists provide support to the bureau on all activities relating to MCHBG. The most recent evaluation assessing the efficacy of a state-funded program (Health Start) on birth outcomes was evaluated by this office and appeared as a peer-reviewed journal article.[14] The Office Chief is also the principal investigator for evaluations relating to other federally funded grants such as First-Time Motherhood Initiative, Fetal Alcohol Spectrum Disorder, and Project LAUNCH. The Office Chief provides overall guidance for evaluation and is involved in sub-contracting specific evaluation components through procuring services from local evaluators available on state contract. The Updated MIECHV Plan included procured services of one such contractor and will also be involved if funds are secured through this application. The biographical sketch of the Chief of OA&E and the current local evaluator of MIECHV is enclosed in attachment. In addition, to procuring the services of the current local evaluator of MIECHV the OA&E is exploring an inter-governmental agreement for contracting 'system evaluation' component to Arizona State University. Further development on the proposal is contingent upon securing the funds and the evaluation budget for the 'system evaluation' component is therefore, tentative.

[14] Hussaini, S.K., Holley, P., & Ritenour, D. (2011). Reducing low birth weight infancy: assessing the effectiveness of the Health Start program in Arizona. *Maternal and Child Health Journal, 15*(2), 225-33.

6.2 Proposed Evaluation Plan and Evaluation Questions: The guiding framework for the evaluation in Arizona is participatory. The purpose of the evaluation is to monitor the fidelity of implementation and collection of data on all benchmarks apart from assessing the impact of home visiting 'system' in expanding evidence-based home visiting programs in Arizona. In developing the 'system' the ultimate objective is to strengthen the state infrastructure to support evidence-based home visiting programs through professional development and training, and this task rests with Arizona's Home Visiting Task Force.

Evaluation questions outlining the plan are categorized into three strata and each strata is a subset of the other. Loosely based on the ecological framework, the strata are categorized into the macrosystem (state-level) designated as "S"; meso-system (the community level) designated as "C"; and the micro-system (the family level) designated as "F".

Macro-system essentially reflects state's initiative in building a state-level infrastructure to promote use and expansion of evidence-based home visiting programs, which in turn promotes the overall of vision of 'wellness' not just for the individual concerned but for all families in Arizona. Building of state-level infrastructure that facilitates use and expansion of evidence-based programs relies on several strategies that include: re-convening the Home Visiting Taskforce; developing cross model standards, benchmarks, and core competencies; assessing training needs, developing a standardized training curriculum for home visitors, and provide training; supporting regional coalitions in developing sustainable partnerships; promoting communication among home visiting service providers; and fostering linkages with others who serve young children and their families. The key evaluation questions at the macro-system level (state-level) are:

S1: What is the extent of members' participation in the State's Home Visiting Taskforce?
S2: What are Taskforce members' perceptions on the levels of collaboration and coordination among home visiting service providers in Arizona?
S3: How effective has State's Home Visiting Taskforce in promoting use of evidence-based home visiting programs?
S4: To what extent has State's Home Visiting Taskforce facilitated the development of cross model standards, benchmarks, and core competencies for home visitors in Arizona?
S5: What efforts has the State Home Visiting Taskforce made to ensure sustainability of evidence-based home visiting programs?

At the meso-system level (i.e. community level) the key evaluation question addresses issues relating to collaboration, coordination, and development of local regional home visiting coalitions. Specific evaluation questions are:

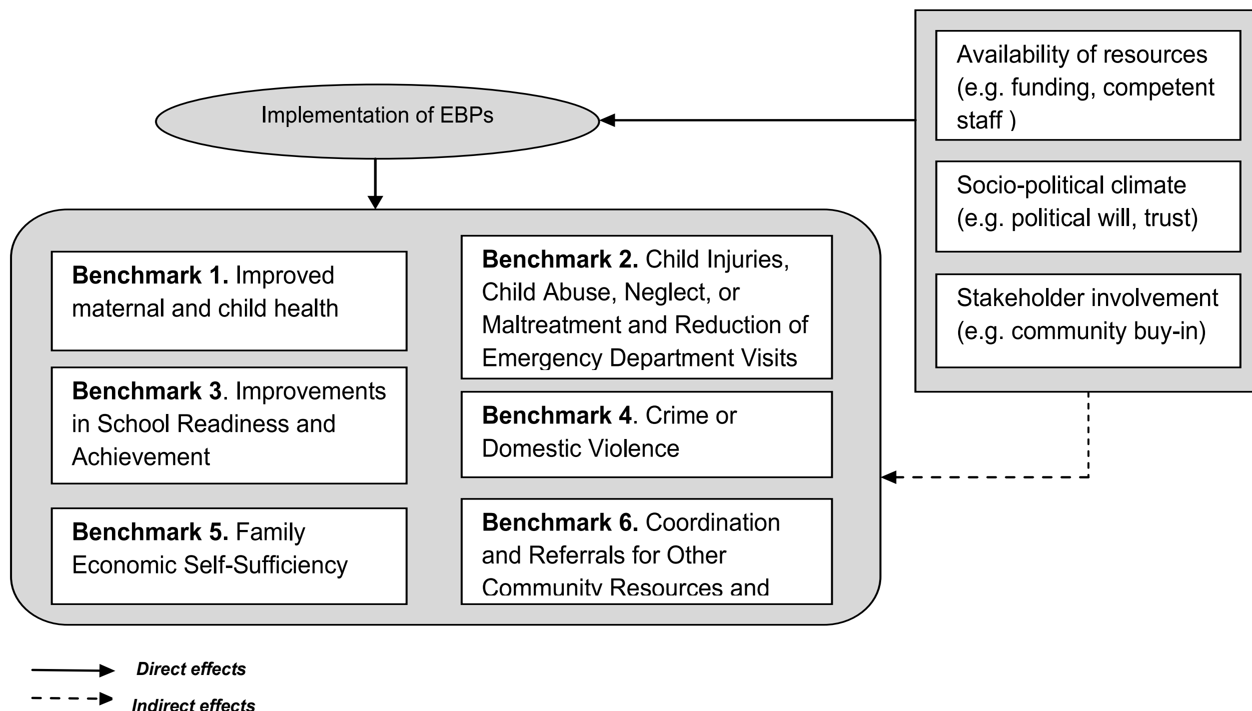
C1: How many regional home visiting coalitions are in place in the identified high-risk communities?
C2: What is the composition of the regional home visiting coalitions and what is the extent of member participation in these coalitions?
C3: What is the extent of family involvement (i.e. family representation) in the regional home visiting coalitions?
C4: How effective are the regional home visiting coalitions in engaging service providers to ensure high-quality service delivery?
C5: How effective are the regional home visiting coalitions in collaborating, coordinating, and communicating issues relevant to home visiting to State's Home Visiting Taskforce?

At the micro-system (family-level) evaluation questions are concerned with direct outputs (i.e. services provided) to families and the benefits derived thereof:

F1: Who is being served by the MIECHV programs? (the question essentially assesses if the high risk populations and other special eligible populations are being served as mandated by legislation)
F2: How are families enrolled and what is the extent of time involved in enrollment and receipt of services?
F3: How satisfied are parents and care-providers with the services and specific EBPs?
F4: How effective are specific EBPs in reducing the risk factors and increasing risk factors for each enrolled family? (this question essentially assesses improvements in the identified benchmark and specific constructs that is reported to grantee)

While the questions at the system level are not exhaustive these will be further vetted during the entire life of the grant to ensure relevancy, appropriateness, and most importantly utility to various stakeholders. The underlying logic of how evidence-based home visiting program is 'intended' to impact the benchmarks is shown below in figure 5.

Figure 5. Path analytic model of EBPs and its impact on benchmarks



Improvements in benchmark areas are influenced directly by 'how well' the EBPs are implemented and this is typically referred to as fidelity of implementation (FOI). FOI in the evaluation comprise of the process level measures and contains four critical components: adherence, dosage, quality of delivery, and participant responsiveness.[15,16] Cross-model fidelity checklists will be developed to ensure strong adherence to implementation and dosage requirements. Adherence is the degree to which implementers teach the required program objectives and/or fulfill the core components, while dosage measures the essential number of

[15] Dusenbury, L., Brannigan, R., Falco, M., & Hansen,W. B. (2003). A review of research on fidelity of implementation: Implications for drug abuse prevention in school settings. *Health Education Research, 18,* 237-256.
[16] Fagan, A. A., Hawkins, J. D., Hanson, K., & Arthur, M. W. (2008). Implementation fidelity of prevention programs replicated in the Community Youth Development Study. *American Journal of Community Psychology, 41,* 235-249.

sessions, length, and frequency delivered that is documented on the fidelity assessment checklist for each session. Quality of delivery reflects the home visitor's skills in teaching the material to parents, and participant responsiveness indicates the ratings of independent observers on the degree to which participants (i.e. parents) understand the session material as well as participate in the session activities. For the purposes of Arizona's home visitation, cross-model Fidelity Assessment Checklists (FACs) will be developed in consultation with national models, community stakeholders, home visiting task force members to ensure both adoption of these standards as well as replication. The primary mechanism to ensure fidelity monitoring and assessment for evaluating the process level measures and collection of data on benchmarks will be carried out within the overall CQI framework described in the section on CQI.

Benchmarks are also influenced indirectly by 'environmental' context such as availability of resources, socio-political climate, and the level of involvement of various stakeholders, particularly, community involvement. The latter component was specifically addressed in the needs assessment section where MIECHV Updated Plan utilized community input, apart from assessment of risks to match appropriate EBPs to each community. The proposed evaluation plan will assess these contextual characteristics through a similar process.

Table 7 identifies the evaluation questions specifically for macro, meso and micro-system level measures, the data sources, and the time-line.

Table 7. Evaluation Questions, Data Sources and Time-line

Evaluation Question	Data Source	Time
State-level (S1-S5)	Online state home visiting task force member surveys, attendance sheets, meeting minutes, key informant interviews and participant observations.	Baseline Annual
Community level (C1-C5)	Online regional coalition member surveys, attendance sheets, meeting minutes, key informant interviews and participant observations.	Annual
Family level (F1, F2)	Enrollment and intake data.	Monthly
Family level (F3)	Client satisfaction surveys for a random sample of clients enrolled in each cohort using appropriate EBP specific tools.	Annual
Family level (F4)	Cross-model fidelity assessment checklists, EBP-specific checklists, EBP-specific tools, and client surveys for a random sample of clients enrolled in each cohort.	Baseline, bi-annually, and EBP-specific time lines

Macro-system level questions S1 to S5 directly relate to re-convening the State Home Visiting Taskforce. A Task Force is similar to developing an 'advisory council' and is one among several methods to ensure 'public participation.' These councils are typically characterized by small groups working over a period of time (or in some cases to the life of the grant) and deal with one or two issues.[17] Hence, measuring the extent of member participation is critical; as from an evaluation perspective, it is important to determine "*what results of a participation exercise constitute "good" outcomes and what processes contribute toward these (and are thus desirable).*"[18] To evaluate the extent of participation at the state-level two specific criteria are chosen: a) acceptance criteria; b) procedure criteria.

[17] Rowe, G. & Frewer, L.J. (2000). Public Participation Methods: A Framework for Evaluation. *Science, Technology, & Human Values, 25*(1), 3-29.
[18] Ibid. p. 10.

A. Acceptance Criteria comprises of:
    - Criterion of representativeness (examines the diversity of advisory of council members and/or stakeholders);
    - Criterion of independence (participation process is facilitated and conducted in unbiased way, incorporation of neutral skilled facilitators);
    - Criterion of early involvement (examines how early the members are involved in different stages of planning, strategizing, and implementing policies);
    - Criterion of influence (examines the level of impact the task force members have on policy);
    - Criterion of transparency (examines whether decision-making process is transparent);

B. Procedure Criteria comprises of:
    - Criterion of resource accessibility (examines the availability of resources to task force members to fully participate);
    - Criterion of task-definition (examines how clearly the roles and responsibilities of the task force members are defined to perform tasks related to decision-making);
    - Criterion of structured decision-making (examines how decisions and actions are related and the manner in which decisions are displayed)

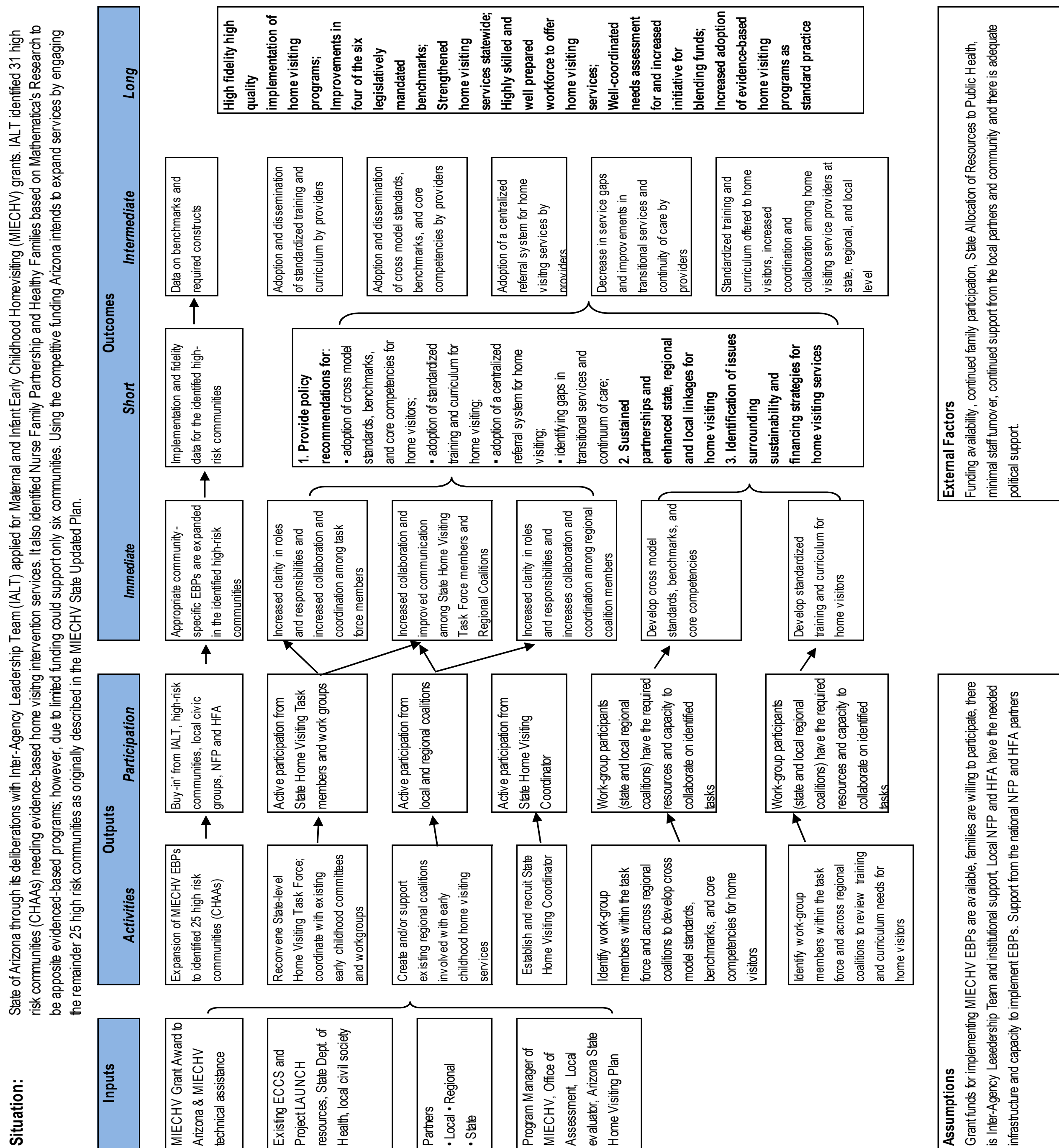
In addition to measuring the extent of participation using the criteria discussed above an online survey for State Home Visiting Task Force members will be conducted at baseline once the task force is reconvened using a collaboration scale.[19]

Extent of participation at meso-system level (C1, C2, C4, and C5) regional coalitions will also be measured using the same criteria discussed above apart from direct observations of regional coalition meetings after its initiation. To assess family involvement key informant interviews with regional coalition members and volunteer family members will be conducted on as need basis.

6.3 Arizona's Evaluation Logic Model: The logic model presented in figure 6 is aligned to the proposed State Logic Model for Home Visiting earlier; however, it builds in the evaluation logic outlined in the sections above to assess and measure specific immediate, short-term, intermediate, and long-term outcomes. The evaluation logic model addresses mostly the macro and the meso system outcomes and the actual expansion and implementation of EBPs in theory is captured through fidelity monitoring as well as improvements in the legislatively mandated benchmarks.

[19] Frey, B., Lohmeier, J.H., Lee, S.W. & Tollefson, N. (2006). Measuring collaboration among grant partners. *American Journal of Evaluation, 27*(3), 383-392.

Figure 6. Arizona's Evaluation Logic Model



For instance, evaluation questions S1 to S5 relate to immediate outcomes (measured through collaboration and coordination online survey) as well as short-term and intermediate outcomes (measured through key informant interviews, acceptance and procedure criteria, document reviews, and participant observations). Similarly, evaluation questions C1 to C5 also overlap with immediate, short-term, and intermediate outcomes measured similarly as described above. Evaluation questions that pertain to micro-system (F1 to F4) are captured through EBP specific tools consistent with MIECHV Updated State Plan requirements. The details of these tools and measurement are enclosed in the attachment.

The mission of the Public Health Prevention Service within the Arizona Department of Health Services is to protect and improve the public's health through prevention and control of disease and disability. The Public Health Prevention Service is comprised of four bureaus: Nutrition and Physical Activity, Tobacco and Chronic Diseases, Health Systems Development and Women's and Children's Health.

The Bureau of Women's and Children's Health (BWCH), within the Arizona Department of Health Services, supports efforts to improve the health of Arizona women and children. Activities focus on assessment of health status and identification of health issues, development of partnerships and planning to address health issues, and provision of "safety net" services. Our Vision is Healthy Women...Healthy Children...Healthy Tomorrow. Our Mission is to strengthen the family and the community by promoting and improving the health and safety of women, infants, and children.

The Bureau consists of five offices and one section. The Office of Children's Health supports the increased focus within the state and nation on the importance of early childhood programs. The Office also supports enhanced integration of existing children's programs within the Arizona Department of Health Services; among other state and federal agencies; communities; and other partners. The Office facilitates systems development, encourages best practices, and through contractors, provides community-based services. The various programs in this office manage and distribute funding that provides services to reduce the mortality and morbidity among women of child-bearing years, infants, and children; increase access to health care; and reduce health disparities.

The High Risk Perinatal Program/Newborn Intensive Care Program (HRPP/ NICP), started over 40 years ago and managed from the Office of Children's Health, is a comprehensive, statewide system of services dedicated to reducing maternal and infant mortality and morbidity. The program provides a safety net for Arizona families, to ensure the most appropriate level of care surrounding birth as well as early identification and support for the child's developmental needs. After the infant is discharged from the NICU, Community Nursing Services facilitate the transition of the child and family from the Newborn Intensive Care Unit to their home and community. Periodic monitoring of the child's medical and developmental needs identifies infants who would benefit from referral to other early intervention programs. Through these home visits, the family receives support and education as well as referral to appropriate community resources.

The programs in the Office of Women's Health focus on issues that impact the health of adolescents and women by providing funding for local community-based prevention and intervention activities. The Office also coordinates with internal and external partners to promote policies that foster effective systems of care for women. The Office promotes preconception health for all women of childbearing age and community involvement in public health program policies and operational activities.

The mission of the Office of Oral Health is to promote oral health for the well-being of all Arizona residents. The Office of Oral Health has three primary focus areas: Prevention Programs, Community Development, and Research and Analysis.

The Office of Assessment and Evaluation is responsible for supporting research and evaluation related to women's and children's health, including statewide performance, outcome, and health status indicators. The office evaluates the BWCH programs' effectiveness through designing studies as well as providing technical assistance to the BWCH program managers as they design and implement evaluation studies. The office also supports evaluation design, data collection, management, analysis and reporting for the BWCH programs.

The Injury Prevention and Child Fatality Review Section is responsible for coordinating and building state infrastructure for community injury prevention. The Child Fatality Review Program and the Unexplained Infant Death Council coordinate statewide efforts to help understand why children die and how such deaths can be prevented. The mission of the Office of Children with Special Health Care Needs is to continuously improve comprehensive systems of care that enhances the health, future and quality of life for children and youth with special health care needs and their families.

The offices and section provide a strong platform from which to support a statewide system of home visiting. The two early childhood home visiting program have been operating for many years; the High Risk Perinatal Program for over 30 years and Health Start almost 20 years. There is capacity in the Bureau to monitor, manage and evaluate the current programs.

As the Title V agency, the Bureau has a long history of assessing the health status of women and children in Arizona. The Bureau develops a strategic plan every five years based on the findings and priorities identified during the Title V Needs Assessment process. This process includes among other things a review of the data and public input sessions. The strategic plan based on the 2010 Title V application identified the need to improve access to and the quality of preventive health services for children as one of the 2010 priorities. The ADHS staff has been charged with developing objectives and strategies to address this priority which ranked highest of any other priority during the Title V assessment period. Home visiting is a significant part of the identified strategies to address this priority.

The Office of Children's Health will be the administrative home for the Maternal, Infant and Early Childhood Home Visiting Program. The Program will be managed by a Program Manager and the system piece will be managed by the new MIECHV Coordinator. External evaluation for both the models and system will be conducted by outside contractors.

The entire process of applying for the MIECHV grant has been a collaborative process with our sister agencies. The Department of Economic Security (DES), Division of Children, Youth and Families established the Healthy Families Arizona (HFAz) program in 1991, and have continuously administered the program through the Office of Prevention and Family Support for 20 years. Today the program has 36 sites and is supported through evaluation by LeCroy & Milligan, Associates.

The Department of Education, Early Childhood Education has been an integral partner in this home visiting process. First Things First has been actively involved in the development of Arizona's Infant Toddler Developmental Guidelines in conjunction with the Head Start Collaboration Office. This document will serve as a resource for the home visitors. Both agencies along with the Division of Children, Youth and Families of DES have contributed to the planning and writing of this grant application, and more importantly, the formulation of the plan for early childhood home visiting for Arizona.

The ADHS commits to continue to fund High Risk Perinatal Program nurse home visitation with Title V funds. The Lottery funds that support Health Start are not subject to legislative appropriation and are dedicated to Health Start, as long as the Lottery continues to produce revenue. It is important to note that the Lottery revenue has not decreased during the economic downturn of the last few years. Healthy Families is also a dedicated Lottery recipient. Finally, First Things First has a dedicated funding stream of tobacco tax as a result of an initiative put to the ballot in 2006. Eighty cents of tax on each dollar's worth of tobacco product sold in Arizona is dedicated to FTF. Because 80% of this funding, which averages over $100 million a year is, by statute directed to the 31 regions, home visiting will continue to be funded as long as it is a priority of the various regions. In SFY 2010, total funding for early childhood home visiting was over $51 million dollars; of that almost 30 percent was funded by First Things First.