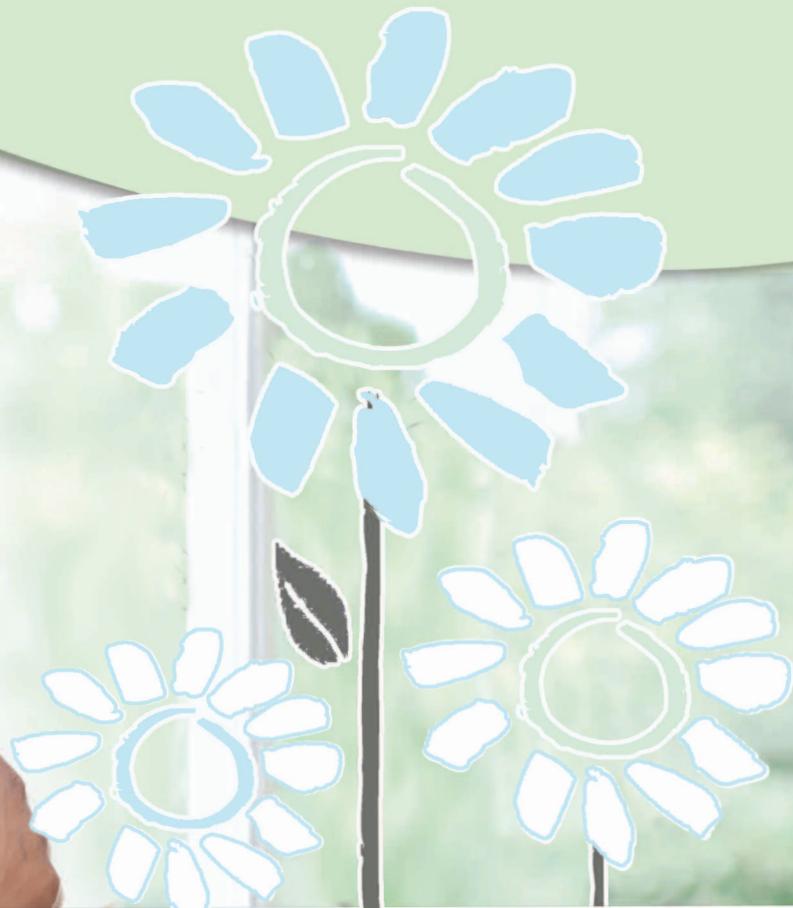




Help me grow

# Home Visiting Program Report



The Ohio Department of Health

2012



[www.ohiohelpmegrow.org](http://www.ohiohelpmegrow.org)



According to a meta-analysis done by RAND Corporation in 2005, home visiting programs are estimated to generate about:

- \$6,000 in net benefits per child, or
- \$2.24 for every dollar invested.

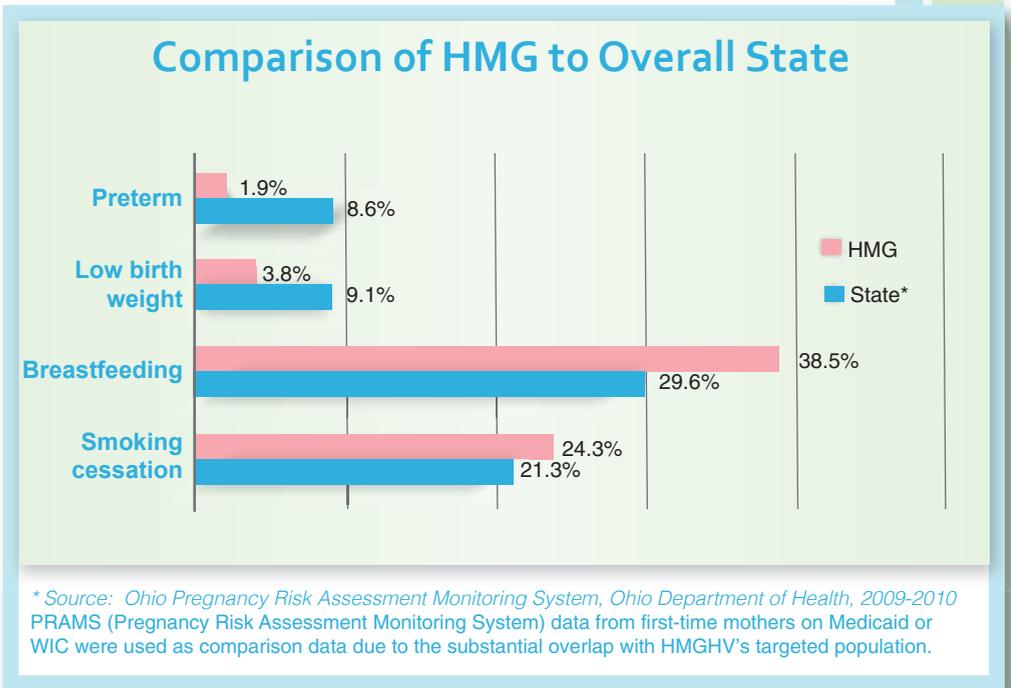
**Help Me Grow™ Home Visiting** realizes that healthy families are critical to ensure that Ohio's infants and toddlers are ready to succeed. In order to accomplish this **Help Me Grow Home Visiting** has set the following four program goals:

- Increase Healthy Pregnancies
- Improve Child Health, Development, and Readiness
- Improve Parenting Confidence and Competence
- Increase Family Connectedness to Community and Social Support

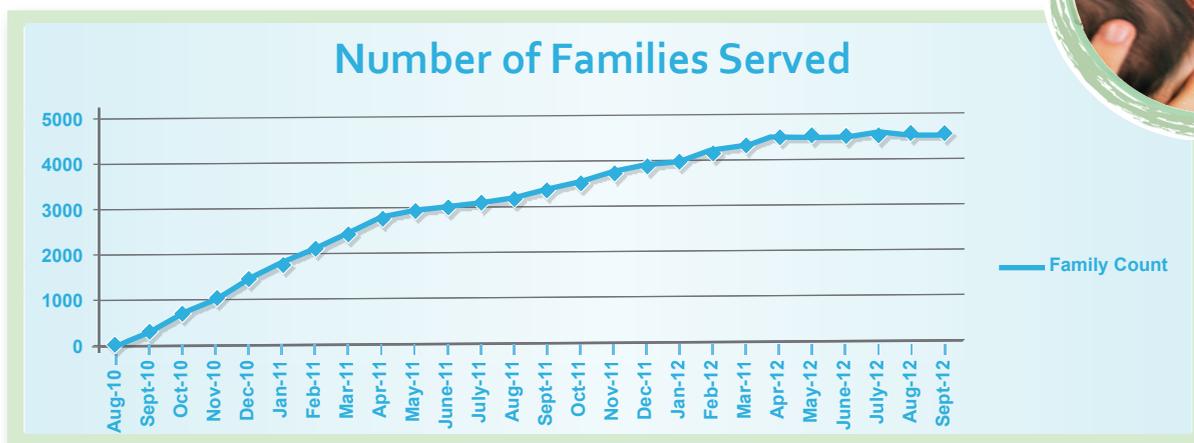
The pages that follow provide an in-depth report of how the **Help Me Grow Home Visiting** program is doing two years after it was launched. A brief overview is presented, followed by specific analyses of each program goal.

The universe of participants examined in this report are those who meet the targeted eligibility criteria for the **Help Me Grow Home Visiting** program (i.e., first-time mothers [or expectant first-time mothers] and their child, when the infant is not yet six months of age at the time of system referral, with a family income not in excess of two hundred percent of federal poverty level). Data is reported for participants who have complete data for each measure.

As this graph demonstrates, there are four key areas that are important early determinants of a child's health and in which **Help Me Grow Home Visiting** participants fair better than the state as a whole. These include: fewer preterm births, fewer low birth weight babies, more smoking cessation among pregnant mothers, and more breastfed babies. These areas focus solely on enrollees who were served starting during their first trimester of pregnancy. The first trimester is a critical stage of prenatal development. Improvements made during this time have the greatest impact on reducing health risks for the baby, setting the stage for healthy child development.



The number of children served in the Ohio **Help Me Grow Home Visiting** Program has consistently increased over time. As of September 2012, there were 4,661 families with an eligible child or a pregnant mother receiving home visiting services – representing a 37 percent increase in the number of families served in September 2011.

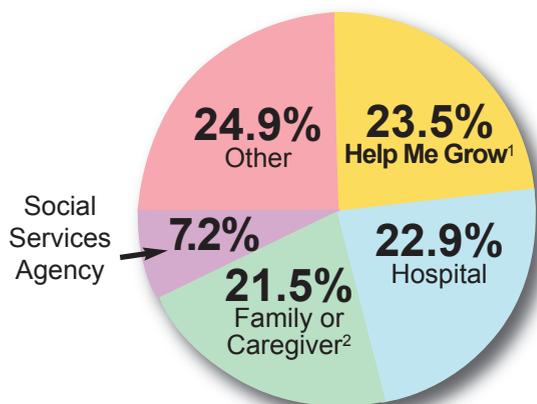


## Referral Source Type

Referral Source	Count	Percentage
Help Me Grow Outreach <sup>1</sup>	2,067	23.5%
Hospital	2,019	22.9%
Family or Caregiver <sup>2</sup>	1,892	21.5%
Social Services Agency	632	7.2%
Child Protective Services	586	6.7%
Public Health	549	6.2%
Physicians	468	5.3%
WIC	403	4.6%
GRADS	100	1.1%
Early Childhood or Child Care Programs	92	1.0%
<b>Total</b>	<b>8,808</b>	<b>100%</b>

Out of 10 referral source categories, the most common referral source is *Help Me Grow* with 2,067 (23.5%) referrals, followed by hospitals with 2,019 (22.9%) referrals. The family or caregiver category represents the third largest referral source with 1,892 (21.5%).

## Referral Source Type Percentage



## Increase Healthy Pregnancies

The universe of participants for this program goal is the 579 families meeting the targeted eligibility criteria and being served starting in the mother's 1<sup>st</sup> trimester of pregnancy, of which 213 had complete data for each of the reported measures.

As mentioned previously, the first four indicators for increased healthy pregnancies are reported for mothers in their 1<sup>st</sup> trimester because this is the period of time having the greatest impact on the child's health.

### Pregnancy risk factors

- Medical risk factors including secondhand smoke exposure, alcohol use, infections, cardiac disease, diabetes, drug use, eclampsia, hypertension, lung disease, risk resulting from assistive reproductive technology, and risk resulting from fertility enhancing drugs were identified through self-report because they are known to put a baby at risk for poor outcomes.

- Though currently there is no state comparison data, ODH is working to ameliorate this gap for future reporting.

33.2% of women served in their 1<sup>st</sup> trimester had at least one pregnancy risk factor.

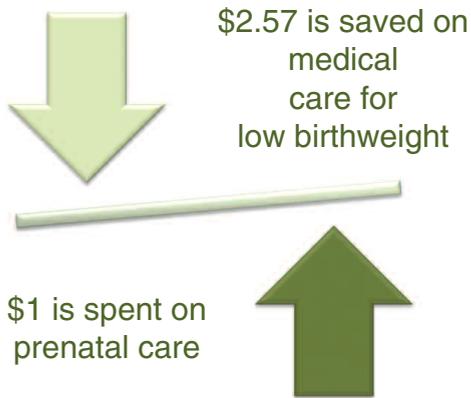
### Increase access to prenatal care

- Women who do not receive prenatal care are three to four times more likely to die of complications and babies are six times more likely to die within the first year of life.<sup>1</sup>

- Though currently there is no state comparison data, ODH is working to ameliorate this gap for future reporting.

28.0% of women who did not receive prenatal care before enrolling in the **Help Me Grow Home Visiting** program during their 1<sup>st</sup> trimester reported receiving prenatal care after enrolling in the **Help Me Grow Home Visiting** program.

- Studies have shown that for every dollar spent on prenatal care, \$2.57 is saved on medical care for a low birth weight baby.<sup>ii</sup> Compared with no prenatal care, any prenatal care saves between \$2,369 and \$3,242 per person, depending on when care is initiated.<sup>iii</sup>



### Increase smoking cessation

- Smoking during pregnancy increases the risk of placenta previa, placental abruption, and SIDS. Infants of smoking mothers are also at an increased risk for prematurity and low birth weight, but mothers who quit smoking reduce these risks.<sup>iv v vi</sup>

- 21.0% of women statewide stop smoking during pregnancy.<sup>vii</sup>

● 24.3% of women who smoked when they began the **Help Me Grow Home Visiting** program in the 1<sup>st</sup> trimester stopped smoking prior to the child's birth.

This indicator measures those women who completely stopped smoking. It is notable that **Help Me Grow Home Visiting** uses the rigorous definition of completely stopped while some programs only measure the number of cigarettes reduced during pregnancy.

- Smoking has attributed an increase of \$279 in neonatal costs per maternal smoker.<sup>viii</sup> Potential neonatal cost savings that could be accrued from women who quit smoking during pregnancy were estimated at \$881 per maternal smoker.<sup>ix</sup>

### Preterm births

- Preterm babies are at an increased risk for developmental delays, neuromotor disability, blindness, hearing loss, oral defects, chronic lung disease, cardiovascular disorders, metabolic disorders and death.<sup>x</sup>

xi xii xiii

- 9.0% of births statewide are preterm births.<sup>xiv</sup>

● 1.9% of participants served in their 1<sup>st</sup> trimester had preterm births.

- According to Pediatrics in 2007, "Preterm/low birth weight infant (hospital) stays averaged \$15,100, with a mean length of stay of 12.9 days versus \$600 and 1.9 days for uncomplicated newborns." For an infant born before 28 weeks of gestation, the average cost was \$65,600.<sup>xv</sup> The average cost for the first year of life, including inpatient and outpatient care, is ten times more for a preterm infant (\$32,325) than for a full term infant (\$3,325).<sup>xvi</sup>

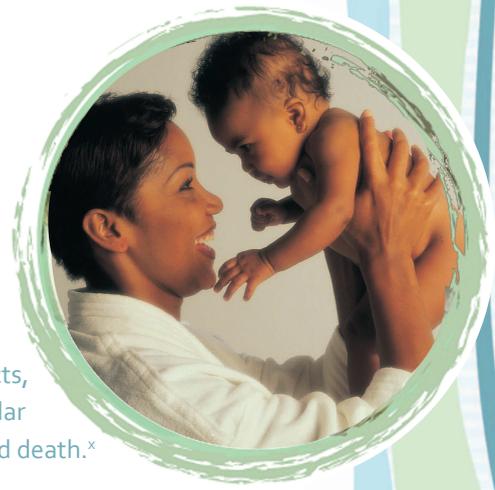
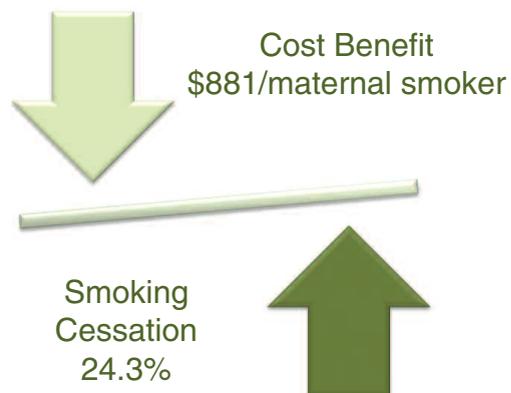
### Low birth weight births

- Low birth weight increases the baby's risk for infection and sepsis which can lead to poor neurodevelopmental and growth outcomes in early childhood and can also lead to death.<sup>xvii xviii</sup>

- 9.0% of births statewide are of low birth weight.<sup>xix</sup>

● 3.8% of **Help Me Grow Home Visiting** participants served in their 1<sup>st</sup> trimester had low birth weight babies.

- Each low birth weight baby can cost states between \$28,000 and \$40,000.<sup>xx</sup>



## Improve Parenting Confidence and Competence

The universe of participants for this program goal is the 3,266 families meeting the targeted eligibility criteria with children served more than six months after birth regardless of time of entry (pre/postnatal), of which 667 had complete data for each of the reported measures.

Helping a child learn and grow is a critical and potentially challenging job for a new parent. **Help Me Grow Home Visiting** offers new parents the tools, knowledge and support in identifying and setting obtainable goals. Parenting education is offered to families at every home visit so that parents become more confident and competent in their abilities to be a great parent and to face the challenges of parenting.

### Parenting stress

- Parenting stress is associated with maladaptive child rearing as well as disruptive behavioral problems. Increased parental stress can be a risk factor for child maltreatment.<sup>xxi</sup>
- Though currently there is no state comparison data, ODH is working to ameliorate this gap for future reporting.

- 77.6% of those who were determined to be at high risk following program assessment showed improvement in parenting stress; 73.5% who were initially at high risk showed substantial improvement.

- In 2010, according to the Journal of Child Abuse and Neglect, the average lifetime cost for one case of child maltreatment was \$201,012<sup>xxii</sup>. This included factors such as childhood medical treatment, adult medical treatment, productivity loss, child welfare cost, and special education costs.

### Maternal depression

- Maternal depression is associated with negative parenting practices, disengagement from the child, and development of psychopathology in the child.
- Though currently there is no state comparison data, ODH is working to ameliorate this gap for future reporting.

- 56.8% of those who were determined to be at high risk following program assessment received a community resource referral for maternal depression.

- A study in Minnesota showed that every untreated case of maternal depression was estimated to cost society at a minimum \$23,000 per year in terms of lost productivity for both mother and child.<sup>xxiii</sup>

### Improve parent-child interactions

- A positive parenting attitude, appropriate parent-child expectations, demonstrating sensitivity to infant cues, and providing age-appropriate play material are all important indicators of effective parenting and evidence of infant health promotion.
- Though currently there is no state comparison data, ODH is working to ameliorate this gap for future reporting.

- 55.6% of those who were determined to be at high risk following program assessment showed improvement in their parenting attitudes and expectations; 33.8% of those who were initially high risk showed substantial improvement.

- 60.0% of those who were determined to be at high risk following program assessment showed improvement in stimulation and support available to the child through the home; 100.0% of those who were initially high risk showed substantial improvement.



## Children's emergency room and urgent care visits

- In addition to health ailments, children are often brought to the emergency room either because of abuse, neglect or because the parent is unsure how to access proper care for simple health ailments.

- Though currently there is no state comparison data, ODH is working to ameliorate this gap for future reporting.

- ER visits: 8.8% were seen in an emergency room or an urgent care clinic.

- In 2009, 21,444 ER visits across the U.S. were made for those under the age of four. 54.7% were paid by private insurance, 15.8% were paid by Medicaid or Medicare. Per person, this costs \$1,320.<sup>xxiv</sup>

## Improve Child Health, Development, and Readiness

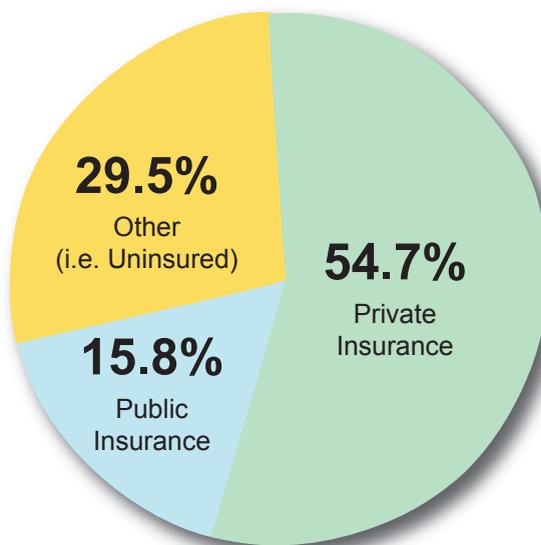
The universe of participants for this program goal is the 3,266 families meeting the targeted eligibility criteria, of which 667 had complete data for each of the reported measures.

In the natural environment of the home, parents learn how to support their child's health, development and learning during every day experiences. **Help Me Grow Home Visiting** offers early and on-going screening and assessment to assist home visitors and families in identifying potential concerns and the resources available for support. When a child's health and development are on track, parents are able to focus on the resources children need to be successful as they grow.

### Feeding intentions

- The universe for this breastfeeding measure is only those served both prenatally and postnatally.

## Payment Methods for Childhood ER Visits in 2009



*ER visits: 8.8% were seen in an emergency room or an urgent care clinic.*

- Breastfeeding provides antibodies to the baby protecting against diarrhea and pneumonia, which are two of the leading causes of infant mortality. In addition, breastfeeding has historically been seen to reduce the incidence of bacterial meningitis, bacteremia, death of intestinal tissues, middle ear infections, leukemia, lymphoma, late onset sepsis and sudden infant death syndrome.<sup>xxv</sup> Recent research has shown that breastfeeding also contributes to a modest reduction in the risk for overweight and obese adolescents.<sup>xxvi</sup>

- 30.0% of women statewide use breast milk.<sup>xxvii</sup>

- Among those served prenatally, 42.5% use breast milk; moreover, 23.7% who did not initially intend to breastfeed before birth, used at least some breast milk after birth.

- "If 90% of families could comply with the medical recommendations to breastfeed exclusively for six months, the United States could save \$13 billion/year and prevent an

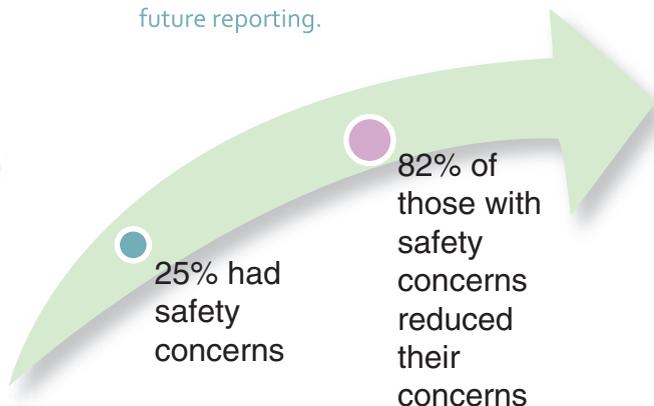




excess of 91 deaths annually.<sup>xxviii</sup> Research also points to differences in managed care health costs among children, as children who were never breastfed cost between \$331 - \$475 more in their first year of life.<sup>xxix</sup> Additionally, total WIC feeding for exclusive formula costs \$80,085,869 compared with partial breastfeeding costs of \$10,953,651.<sup>xxx</sup>

### Home safety

- Accidental and preventable injuries in the home among children range from falling down staircases to getting electrocuted by uncovered outlets. Deficits in information, handling stress, and parenting practices are a major cause of home safety related injuries.<sup>xxxi</sup>
- Though currently there is no state comparison data, ODH is working to ameliorate this gap for future reporting.

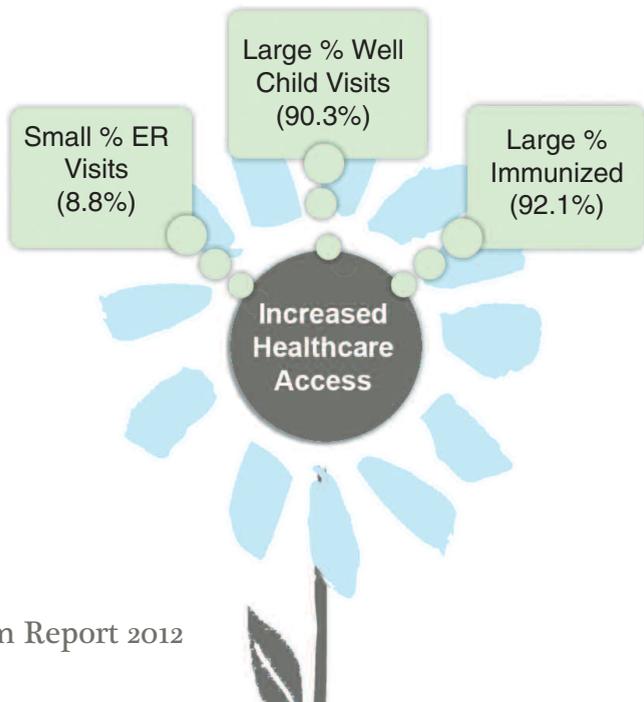
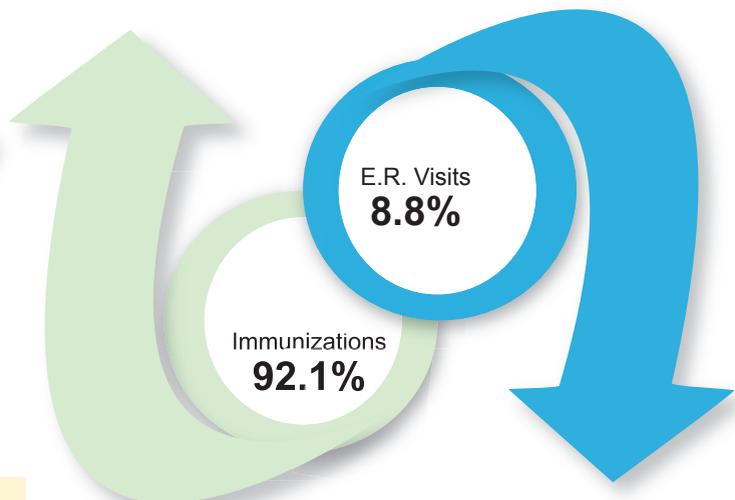


- Improve home environment
  - 25.0% expressed safety concerns of varied significance at their initial visit; 82.1% of those with initial safety concerns following program assessment reduced their number of concerns. Examples of safety concerns addressed include:
    - electrical concerns, 87.5% remedied
    - chemicals concerns, 89.7% remedied
    - smoke detector concerns, 87.5% remedied
- According to a study reported in the Journal of Pediatrics, a basic home visit providing home safety information has significantly reduced the number of childhood injuries and showed that the cost per injury prevented was around \$372.<sup>xxxii</sup>

### Increase access to medical home / primary health care provider

- Well-child visits have been shown to significantly increase the number of immunized children and decrease the number of outpatient and emergency department sick visits.<sup>xxxiii</sup>
- Though currently there is no state comparison data, ODH is working to ameliorate this gap for future reporting.

- Well-child visits: 90.3% reported completing well-child visits during their enrollment.
- 92.1% had up-to-date immunizations
  - There is a net saving of \$80.75 per case prevented among infants immunized just against the rotavirus.<sup>xxxiv xxxv</sup>



# Increase Family Connectedness to Community and Social Support

The universe of participants for this program goal is the 3,744 families meeting the targeted eligibility criteria (served more than six months regardless of time of entry (pre/postnatal)), of which 1,031 had complete data for each of the reported measures.

Through goal setting, home visitors work with families to promote the meaningful connections within families and communities to support the development of each child and family. Parents are empowered to ask for help and given the tools to find community and social supports. With the help of **Help Me Grow Home Visiting**, families become more independent and successful.

## Community referral resources

- Community resources can reduce parental stress and potential information deficits that may lead to child safety issues later on and help enhance parental employment, family housing, and meet family health needs.
- Though currently there is no state comparison data, ODH is working to ameliorate this gap for future reporting.

● Family need-based referral/resource linkage: 90.9% had at least one community referral, including:

- Mental Health
- Health
- Housing
- Medical
- Department of Job and Family Services

## Social support

- Maternal support reduces the negative impacts of maternal stress and has a positive impact on the mother's attitude and infant's interactive behaviors.
- Though currently there is no state comparison data, ODH is working to ameliorate this gap for future reporting.

● Increase family support / Increase community connectedness.

- When examining two different measures, we note that 42.6% had a measurable improved social support result via standard assessment, and among those who did not indicate improvement via standard assessment, 90.7% had a referral to a community resource; in total, 94.7% had an improved most recent social support result measured via standard assessment or a referral to a community resource

● 42.6% had improved social support result

● Of those who didn't, 90.7% received a referral

● In total, 94.7% had either an improved social support or received a referral





In conclusion, **Help Me Grow Home Visiting** has demonstrated significant achievements over the past two years. The data are showing progress in all four program goals. Each program goal focuses on improving the health and success of the child, and each assessment sets the standard to ensure all participants are receiving optimal support. In addition, the work and effort that go into seeing these improved measurements are not only beneficial for the child, but for the State of Ohio with significant financial savings on healthcare. The early achievements of this program are promising, and **Help Me Grow Home Visiting** looks forward to enrolling more families and improving the lives of more Ohio children.

<sup>1</sup> The **Help Me Grow** referral source includes referrals made by the **Help Me Grow** Early Intervention Services Program as well as if a sibling was previously enrolled in the program.

<sup>2</sup> While family members and caregivers may self-refer, a physician or social services agency may have recommended **Help Me Grow** to the family member or caregiver.

<sup>i</sup> (2010). Prenatal Care Issue Brief. Nebraska: Voices for Children.

<sup>ii</sup> (2010). Prenatal Care Issue Brief. Nebraska: Voices for Children.

<sup>iii</sup> Hueston, William J, MD, Robert G. Quattlebaum, MD, MPH and Joseph J. Benich, MD. 2008. How Much Money Can Early Prenatal Care for Teen Pregnancies Save? : A Cost Benefit Analysis. The Journal of American Board of Family Medicine. 21 (3): 184-90.

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<sup>vi</sup> Donna S. Lambers, Kenneth E. Clark. (1996). The Maternal and Fetal Physiologic Effects of Nicotine. Seminars in Perinatology, 115-126.

<sup>vii</sup> Ohio Pregnancy Risk Assessment Monitoring System, Ohio Department of Health, 2009-2010. This includes first time mothers on WIC or Medicaid.

<sup>viii</sup> E. Kathleen Adams, Vincent P. Miller, Carla Ernst, Brenda K. Nishimura, Cathy Melvin, Robert Merritt. (2002). Neonatal health care costs related to smoking during pregnancy. Health Economics, 193-206.

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<sup>xiv</sup> Ohio Pregnancy Risk Assessment Monitoring System, Ohio Department of Health, 2009-2010. This includes first time mothers on WIC or Medicaid.



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- <sup>xix</sup> Ohio Pregnancy Risk Assessment Monitoring System, Ohio Department of Health, 2009-2010. This includes first time mothers on WIC or Medicaid.
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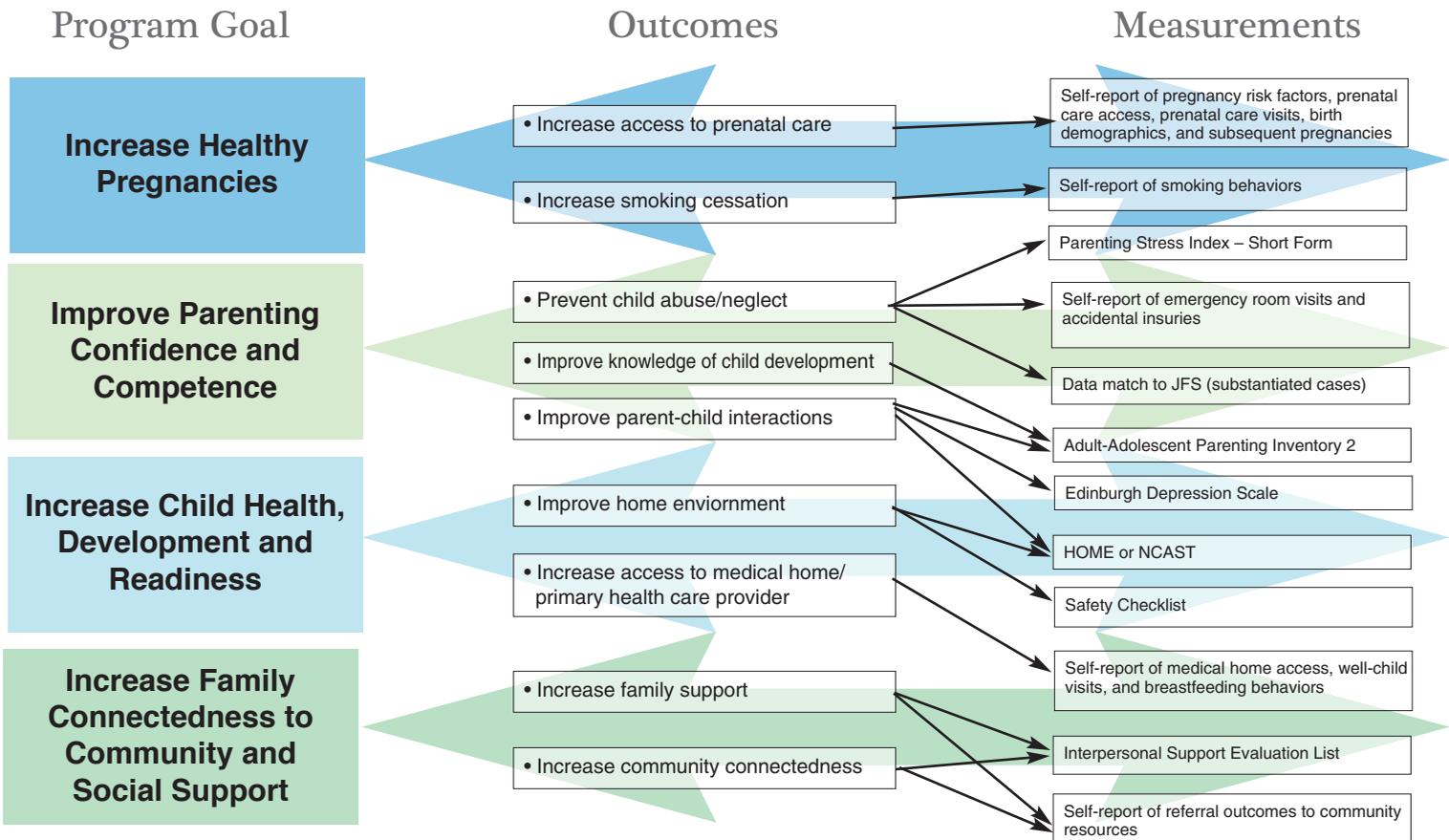
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<sup>xxxv</sup> (2013). Every Child By Two. *Economic Values of Vaccines*.

Appendix A: Help Me Grow Home Visiting Logic Model



# Home Visiting Program







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