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DELAWARE HEALTH AND SOCIAL SERVICES
Division of Public Health

Delaware Healthy Mother & Infant Consortium

What is Evidence-Based Home Visiting?

A **home visiting program** is a free program that includes home visiting as a primary service delivery strategy (excluding programs with infrequent or supplemental home visiting), and is offered on a voluntary basis to pregnant women and children birth to age five years ("participants"). Home visiting programs address one or more of the following participant outcomes:

- Improved maternal and child health;
- Prevention of child injuries, child abuse, or maltreatment, and reduction of emergency department visits;
- Improvement in school readiness and achievement;
- Reduction in crime or domestic violence;
- Improvement in family economic self-sufficiency; and
- Improvement in the coordination and referrals for other community resources and supports.

Home visiting program models that address these participant outcomes *and* have rigorous impact studies that show a favorable impact on these outcomes meet the criteria for being an **evidence-based home visiting model**. The Department of Health and Human Services (HHS) launched the Home Visiting Evidence of Effectiveness (HomVEE) group to designate which home visiting program models are evidence-based. All four of Delaware's home visiting programs – Healthy Families America (HFA), Nurse-Family Partnership (NFP), Parents as Teachers (PAT), and Early Head Start (EHS) – have been designated as evidence-based home visiting models.

Why Should Providers Refer Their Pregnant and Parenting Families to Home Visiting?

Dr. James Perrin, Professor of Pediatrics at Massachusetts General Hospital noted, "Primary care clinicians face…problems where teamwork in practice can greatly improve the services families receive. Especially in high-risk communities, many families need access to a wide range of social and other supportive services…services that pediatricians know relatively little about."[1]

Given this background, health care providers should consider referring pregnant women and parenting families to home visiting programs via 2-1-1, for Help Me Grow. Home visitors assist health care providers as follows:

- Home visitors serve as advocates and can enhance a participant's access to health care providers;
- Home visitors can partner with pediatricians and other clinicians by working in the home setting to provide essential education and supportive services to at-risk children;
- Home visitors can assist participants' adherence to medical prevention and treatment regimens; and
- Home visitors have been found to improve the relationship between the family and provider as well as build trust;[2,3,4,5]

Indeed, home visitation programs include a "degree of social support that is difficult to provide in most clinical settings; outreach and liaison between the pediatrician, the family, and the community; involvement with socioeconomic issues that directly affect the wellbeing of the child and family; reinforcement and follow-up of preventive care, peer helper support, as well as encouragement, by the home health visitor who has the advantage of being with the family in its own home – a more accepting, less threatening setting for the family."[2,9]

Home visitation is not intended to replace office-based primary care, but rather to supplement and reinforce it.[2]

What is the Evidence that Shows Home Visiting Programs Work?

Evidence-based home visiting programs have been found to be effective for multiple child and family outcomes, including improving child physical and emotional health and development, improving social skills, reducing child maltreatment, and improving parenting skills;[2,6,7,8]

Specific health outcomes include:

Prenatal Outcomes

- Increased use of prenatal care;[9,10]
- Decreased preterm labor and increased length of gestation;[9,10]
- Increased birth weight;[9,10]
- Improved nutrition during pregnancy;[10]
- Fewer urinary tract infections during pregnancy;[10]
- Increased attendance at childbirth classes.[10]

- Increased use of health and other community resources (e.g., prenatal visits, well-child visits, family planning, programs for women, infants, and children [WIC], and immunizations);[9,10]
- Decrease in maternal smoking;[9,10]
- Greater interest by fathers in the pregnancy;[9,10] and
- Increase in the number of mothers having a labor room companion.[9,10]

Postnatal Outcomes

- Fewer subsequent pregnancies;[11,12]
- Increased spacing between pregnancies;[9,11]
- Increased length of maternal employment;[9,11]
- Increased rate of return to, or retention in, school by mothers;[9]
- Fewer emergency department visits;[13]
- Fewer accidental injuries and poisonings resulting in a visit to the physician;[13]
- Decrease in the number of verified incidents of child abuse and neglect;[9,12,13]
- Decrease in physical punishment and restriction of infants, with an increase in use of appropriate discipline for older children;[11,14]
- Improved maternal–child interaction and maternal satisfaction with parenting;[9,14]
- Increased use of appropriate play materials at home;[13]
- Improved growth in low birth weight infants;[15] and
- Higher developmental quotients in infants visited.[16]

Long-Term Outcomes

A 15-year follow-up study of families who received an average of nine home visits by nurses during pregnancy and 23 home visits up to their child's second birthday has demonstrated the following long-term benefits:

- Fewer subsequent pregnancies;
- Reduced maternal criminal behavior;
- Decrease in use of welfare;
- Decrease in verified incidents of child abuse and neglect; and
- Less maternal behavioral impairment attributable to alcohol and drug abuse.[12]

The observed effect of home-visitation programs tends to be greatest in high-risk populations, such as mothers who are teenagers, unmarried, poor, or have been abused themselves, and in children who are preterm or low birth weight.[2,12]

What is the Evidence that Shows that Delaware's Home Visiting Programs Work?

The following are examples of outcomes that provide evidence of how each of Delaware's home visiting programs have demonstrated improved participant outcomes when measured against a comparison group. (Note: this is not an exhaustive list of significant outcomes.)

Healthy Families America (HFA) *Known in Delaware as Smart Start*

- Improved maternal and child health.
  - Use of alcohol significantly lower.[17]
  - Use of maternal and child health resources significantly higher.[17]
- Prevention of child injuries, child abuse, or maltreatment, and reduction of emergency department visits.
  - Psychological aggression and mild physical assault reported significantly lower.[18]
  - Serious physical abuse reported significantly lower.[19]
- Improvement in school readiness and achievement.
  - Bayley Scales of Infant Development (BSID) Mental Health Index (MDI) scores significantly higher.[18]
  - Cognitive measure of the BSID significantly higher.[20]
- Reduction in crime or domestic violence.
  - Maternal intimate partner violence significantly lower.[21]
- Improvement in family economic self-sufficiency;
  - Mother attending school significantly higher.[18]
  - Education by year significantly higher.[22]
- Improvement in the coordination and referrals for other community resources and supports.
  - Referral to family planning significantly higher.[22]

Nurse-Family Partnership (NFP)

- Improved maternal and child health.
  - Change in average adequacy of diet (measured through Recommended Dietary Allowance) significantly higher.[10]
  - Subsequent pregnancy within 24 months postpartum significantly lower.[23]
- Prevention of child injuries, child abuse, or maltreatment, and reduction of emergency department visits.
  - Number of emergency room visits for accidents and poisonings significantly lower.[13]

- Substantiated report of child abuse and neglect significantly lower.[12]

- Improvement in school readiness and achievement.
  - Number of children with a language delay reported significantly lower.[24]
  - BSID MDI scores significantly higher.[24]
- Reduction in crime or domestic violence.
  - Domestic violence reported significantly lower.[25]
  - Number of arrests over lifetime significantly lower.[26]
- Improvement in family economic self-sufficiency.
  - Number of months current partner employed significantly higher.[27]

Early Head Start (EHS)

- Prevention of child injuries, child abuse, or maltreatment, and reduction of emergency department visits.
  - Physical punishment reported significantly lower. [28]
- Improvement in school readiness and achievement.
  - BSID MDI scores significantly higher.[29]
  - Number of children with a positive approach to learning significantly higher.[30]
  - Number of children with social behavior problems significantly lower.[30]

Parents as Teachers (PAT)

- Improvement in school readiness and achievement.
  - Developmental Profile II Self-Help Development Scale scores significantly higher.[31]
  - Number of children with a higher mastery motivation (measured as "task competence" by the Born to Learn curriculum) significantly higher.[32]
- Improvement in family economic self-sufficiency.
  - Average hours per week in education or training significantly higher.[33]
  - Monthly income significantly higher.[30]

How Does Home Visiting Link with Health Care Providers and Medical Homes?

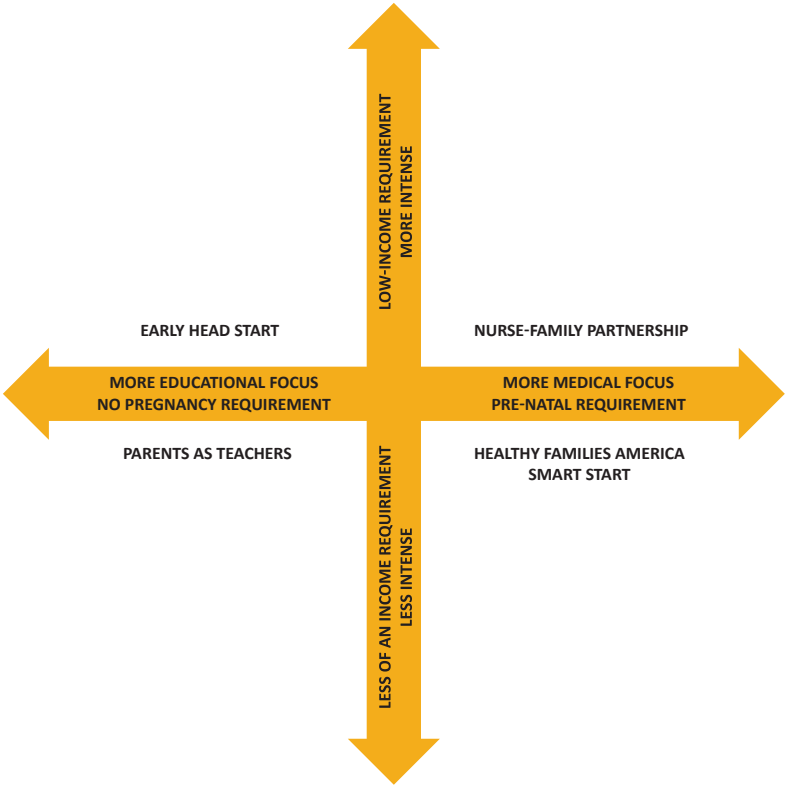
Evidence suggests that health care providers and medical homes that link with home visitors may be able to achieve the following benefits, if not more:

- Sharing of information to identify child and family needs; collaborating in educating families, and "referring" to each other;
- Assisting families in care coordination;
- Facilitating referrals to community resources (e.g., early intervention), medical evaluations (e.g., audiology) and community supports (e.g., parenting groups, nutrition services, and social work);
- Identifying community needs that are important in managing population health;
- Assisting transition across multiple settings, (e.g., early intervention, health care, and education);
- Assisting parents and patients in communicating with health care providers and preparing for provider visits;
- Reinforcing advice and anticipatory guidance given by medical homes;
- Monitoring of up-to-date immunizations as part of a participant's medical home;
- Fostering cultural and linguistic competence for families and patients;
- Identifying nutrition/living condition needs and performing environmental and safety assessments;
- Reinforcing injury prevention strategies;
- Improving identification, treatment, and prevention of parental depression; and
- Overseeing and assisting provision of complex health care by home visitors in the home of children with serious ongoing health conditions and helping to balance the needs of the affected child with those of other family members. [34,35,36]

What Evidence-Based Home Visiting Programs are Available in Delaware?

Although the four home visiting programs are quite similar in the outcomes that they seek to achieve, the content, intensity, and participant type differ, as shown below:

Delaware Home-Visiting Program Matrix



HOME VISITING TARGETS FAMILIES FACING THESE TYPES OF CHALLENGES:

LOW-INCOME: up to 250% Federal Poverty Guidelines

BASIC NEEDS: Healthcare system navigation

MEDICAL RISK FACTORS: Hypertension, weight gain, diabetes and heart disease, chronic illness, illness exacerbated by pregnancy, previous pregnancy risk factors such as baby with low birth weight, baby born premature, infant mortality, pre-eclampsia, gestational diabetes and incompetent cervix.

NUTRITION RISK FACTORS: Anemia, overweight, low-pregnancy weight, lactose intolerance, pica, PKU, inadequate diet.

PSYCHOSOCIAL RISK FACTORS: Teen parent, mental health issues (including depression), substance abuse, domestic violence, homelessness, suspected child maltreatment, and mother in foster care system.

EDUCATIONAL/ DEVELOPMENTAL RISK FACTORS: Parent's low educational achievement, concerns about infant/toddler development (delayed speech, motor skills), and child disability.

How Can You Refer?

It is recommended that Home Visiting begins during pregnancy. Health care providers can refer pregnant or post-partum clients for free home visiting services. It is fast and easy. Simply have your patients call 2-1-1 for Help Me Grow and ask for home visiting. A Help Me Grow Specialist will ask them a series of questions to determine which home visiting program is right for them. Once a home visiting program is selected the client will receive a call from a representative from the program for intake information and the first visit with the nurse or parent specialist will take place, usually within two weeks of the initial referral.

All clients in home visiting programs will be asked to consent to release information back to the primary care provider. If they agree, you will receive regular updates from the home visiting program along with contact information for the assigned home visitor.

Home visiting is a program to help your patients with the support, education and resources they need to have a healthy pregnancy and healthy baby. Please contact the Division of Public Health, Maternal & Child Health Program at **302-744-4779** if you have additional questions about the home visiting program.

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