Learn the Signs. Act Early—Phase II:
Promising Results from the WIC Developmental Milestones Program

Executive Summary

Background
Early identification and intervention is the key to an improved quality of life for children with developmental delays. Children from low income groups, such as those served by WIC, often miss the opportunity to benefit from early intervention services. The WIC Development Milestones Program, a partnership between the University of Missouri (MU) and the Missouri Women, Infants and Children (WIC) nutrition program, was developed and refined from 2010-2016 to help address these disparities and facilitate healthy development for all children (funded by Centers for Disease Control & Prevention--CDC #5U01DD001007).

Summary of Previous Work
The WIC Developmental Milestones Program is based on the CDC’s “Learn the Signs. Act Early.” (LTSAE) public health campaign, which is designed to educate parents about early child development. The campaign’s primary messages to parents are: (1) learn the signs of healthy child development; (2) act early if there is a concern; and (3) talk to your child’s doctor. During LTSAE-Phase I, which was the program’s pilot project (2010-2012), we learned that the objectives of the LTSAE campaign and the mission of the WIC nutrition program are well-aligned. Both programs focus on the healthy development of young children and support families through referral for needed services. MU staff worked with WIC staff in St. Louis City to integrate LTSAE messages and materials with information that families receive during certification visits for food voucher eligibility. By the end of the pilot project, solid relationships had been forged with Missouri WIC staff at the state and local levels, and core materials and implementation processes were established. The core program materials included the age-specific LTSAE developmental checklists (2 mos-4 years); colorful, family-friendly graphics on the walls and floors of the WIC clinic to introduce key concepts of early child development; and an envelope for use by WIC staff to refer the child to the doctor if the checklist indicates a possible developmental concern.
19,000) were exposed to LTSAE messages through environmental graphics installed in WIC offices and related materials. More than 8600 parents were informed about their children’s development using LTSAE checklists, asked to talk with their doctors about development, and immediately referred for further screening if a child’s checklist indicated possible developmental concerns. Program acceptance by staff and parents was high. Nearly all staff (96%) referred one or more children for further assessment, and parental awareness of developmental milestones improved.

**LTSAE-Phase II: Expansion and Replication**

Because of this initial success, MU sought and was awarded additional funding for Phase II of the WIC Developmental Milestones Program (2013-2016). Its purpose was to replicate and refine the program in four counties surrounding St. Louis City in eastern Missouri and to assess its feasibility, impact and sustainability. During the 1-year program, WIC nutritionists asked parents to complete an age-appropriate checklist for their child at 6-month certification visits, and then reviewed the checklist with the parent. If staff noted potential developmental concerns on the checklist, the parent was referred to the child’s doctor for screening and further assessment. WIC staff also noted the referral in their WIC electronic records so they could follow up at a subsequent visit, just as they do with other referrals.

Approximately 6,000 families receiving services at 9 WIC clinics in eastern Missouri completed checklists, and an estimated 400 children were referred to their doctor because of potential developmental concerns. WIC staff helped collect data for the three evaluation studies. Results are summarized below.

**Study 1: Parent Survey**

- 119 parents of children aged 12 to 48 months completed a survey about the Checklist Program before and after program implementation
- 99% said they spent time looking at the graphics
- 41% said they filled out a checklist, and of these, 98% talked with WIC staff about the checklist and their child’s development
- 86% had seen or heard recently about developmental milestones (vs. 78% prior to program)
- 97% said graphics helped them learn about their child’s development
- 97% learned new information about child development from the checklist

**Study 2: Referral Outcomes Tracking**

- 122 children aged 12 to 48 months were referred to their primary care doctor for possible developmental concerns during the first 6 months.
- 84 children returned to WIC clinics during the next 6-10 months, and parents reported what happened after the referral.
- 61% of these children were seen by their doctor because of the WIC referral
- Of those children seen by their doctor, 41% were referred on for additional testing by another professional and 29% accessed intervention services.

**Study 3: WIC Staff Survey**

- WIC staff members indicated this program was easy to implement (80% said program takes 5 minutes or less)
- 90% of WIC staff said the program helps them learn when to refer and how to support parents
- 95% said they referred one or more children
- 95% reported that the program promotes healthy development
- All 9 WIC clinics plan to continue the Developmental Milestones Program
The continuing success of this program has led to requests for statewide and national expansion. MU has been awarded CDC funding to develop, implement and evaluate a statewide model for adoption of the WIC Developmental Milestones Program in Missouri and across the nation (2016-2017). State WIC leaders support this expansion and will provide LTSAE materials to participating clinics.

For more information, contact:
Janet E. Farmer, Ph.D., Principal Investigator, farmerje@health.missouri.edu