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Coordination of early childhood home visiting and health care providers

Heather A. Paradis[a,*,1], Amanda Belknap[b], Kay M.G. O'Neill[b], Sally Baggett[c,2], Cynthia S. Minkovitz[b]

[a] Division of Community Services, Children's Hospital of Wisconsin, Box 1997, Suite C650, Milwaukee, WI 53201-1997, United States
[b] Department of Population, Family and Reproductive Health, Johns Hopkins Bloomberg School of Public Health, 615 N. Wolfe St., Baltimore, MD 21205, United States
[c] EDC, Inc., 43 Foundry Ave, Waltham, MA 02453, United States

ABSTRACT

Although early childhood home visiting (HV) programs and primary care often have overlapping goals for child health and family well-being, little is known about the extent of coordination between HV and medical providers for women and children. The current study sought to measure coordination between HV and primary care medical providers, and to identify factors that influence its achievement. We developed and administered a web-based survey of HV providers who are members of the Home Visiting Applied Research Collaborative (HARC), a voluntary national network of HV programs, networks, and researchers. Program managers reported on coordination activities, health outcomes of the HV program, and supports for coordination. The 80 respondents indicated that nearly all HV programs ask whether and where participants receive primary medical care. However, less than half hold memoranda of understanding (MOU) agreements or regularly communicate with medical providers. Regular communication of HV programs with medical providers for women or children was positively associated with selected eligibility requirements (teenage mother, low-income family), having performance standards for one or more health related outcomes, favorable coordination perspectives by HV supervisors, and HV program supports for coordination (policies for training and supervision regarding coordination, MOU, and participation in medical visits) (all $p < 0.05$). Despite recent efforts to improve coordination between HV and medical providers, the extent of coordination remains limited.

1. Introduction

Early childhood home visiting (HV) is a national priority in the United States and an important public health strategy to improve maternal and child health. The federal government has invested nearly $2.7 billion in home visiting since the establishment of the Maternal Infant and Early Childhood Home Visiting (MIECHV) Program (The Federal Home Visiting Program) in 2010 and the subsequent one year extension followed by a two year reauthorization through fiscal year 2017 (First Focus, 2015b; HRSA: Maternal and Child Health Bureau, 2015; Medicare Access and CHIP Reauthorization Act, 2015; Patient Protection and Affordable Care Act, 2010). Evidence-based home visiting programs have been shown to enhance family self-sufficiency, improve health for mothers and children, increase school readiness, and prevent child abuse and neglect (Council on Community Pediatrics, 2009; Finello, Terteryan, & Riewertz, 2016; Minkovitz, O'Neill, & Duggan, 2016; Sama-Miller et al., 2017).

Coordination of early childhood home visiting with other community services for families is a required Federal benchmark and priority of the national Home Visiting Research Agenda (Duggan et al., 2013; Home Visiting Applied Research Collaborative, 2017; Home Visiting Research Network, 2013; HRSA, 2016). Most federal HV support is for expansion of evidence-based home visiting in at-risk communities and for strengthening infrastructure to promote service quality and collaborations across early childhood systems, programs, and communities (Alliance for Early Success, 2014; Johnson, 2009; Willis, 2013). Similarly, primary care health providers for both mothers and children striving to attain medical home certification emphasize coordination and collaboration with community-based programs and supports for the families they serve (Medical Home Advisory Committee, 2002).

Several recent publications emphasize the importance of consistent communication between HV programs and primary care providers to ensure effective collaboration (Duffee et al., 2017; Minkovitz, West, & Korfmacher, 2016; Toomey, Cheng, & APA-AAP Workgroup on the

* Corresponding author at: Children's Hospital of Wisconsin, P.O. Box 1997, Suite C650, Milwaukee, WI 53201-1997, United States.
E-mail address: hparadis@chw.org (H.A. Paradis).
[1] Previously, Department of Pediatrics, University of Rochester, Rochester, New York, United States.
[2] Previously, Carolina Health Centers, Inc., 113 Liner Drive, Greenwood, SC 29646, United States.

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Family-Centered Medical Home, 2013; Tschudy, Toomey, & Cheng, 2013; Willis, 2013). Possible benefits to greater coordination of services across sectors include facilitating referrals to community resources and supports, jointly addressing social conditions important to health and safety, and reducing unnecessary duplication of services (Council on Community Pediatrics, 2009; Duffee et al., 2017; Sides & Baggett, 2014). In addition, greater coordination offers the opportunity for health providers and home visitors to align to reinforce messaging and advice, and may strengthen HV program impacts Minkovitz, O'Neill, et al., 2016). However, early research also has shown that coordinated communication between these systems will likely require explicit strategies (Barnet, Liu, DeVoe, Alperovitz-Bichell, & Duggan, 2007; Brown, Perkins, Blust, & Kahn, 2015).

Although limited to date, research specific to collaboration between HV and medical providers is consistent with themes identified across child welfare and other human service settings. For example, long-standing efforts have addressed the need to coordinate efforts between juvenile justice and child welfare agencies (Wiig et al., 2013), among early care and education providers (Chien et al., 2013), between mental health and child welfare providers (Collins & Marshall, 2006; He, Lim, Lecklitner, Olson, & Traube, 2015; Smith, Fluke, Fallon, Mishna, & Pierce, 2017), and between welfare and workforce development agencies (Pindus, Koralek, Martinson, & Trutko, 2000). Some of the goals of improved coordination across sectors highlighted in these examples included simplifying and improving information sharing, decision making, and case management processes for shared clients and families; increasing referrals; and improving family engagement. Efforts across these sectors highlight variation in the extent and scope of coordination, facilitators and barriers to its achievement, the role of contextual factors in influencing coordination, and work needed to advance collaborative relationships across sectors (Collins & Marshall, 2006; He, 2015; He et al., 2015).

In parallel with federal priorities aimed at improving maternal-child health, the Institute of Medicine (IOM, 2012) provided guidance to promote integration of primary care and public health. The IOM continuum of integration spans from working in isolation to mutual awareness, cooperation, collaboration, partnership, and finally merger, increasing in connectedness between the two extremes (Fig. 1). Although neither extreme (isolation or full merger) is considered ideal, the authors provide a range of actions to advance along this continuum of increased integration to achieve better health for the nation. Consistent with the existing literature on service coordination across other sectors (Collins & Marshall, 2016), the IOM document defines each step along the continuum and examples of each. Mutual awareness involves each entity knowing of the other entity and services provided. Cooperation comprises sharing of resources such as space or personnel, whereas coordination involves more purposeful joint planning and co-management. True partnerships or collaborations rely on programmatic integration and often appear as a unified program. Examples of fully integrated partnerships between home visiting programs and health systems do exist, but few have been described in the literature (Paradis, Sandler, Manly, & Valentine, 2013; Sides & Baggett, 2014). For example, Paradis et al. (2013) describe a home visiting program that is fully integrated into pediatric primary care. This model leveraged shared documentation in the electronic health record, transportation to medical appointments, and case conferencing to accomplish goals and

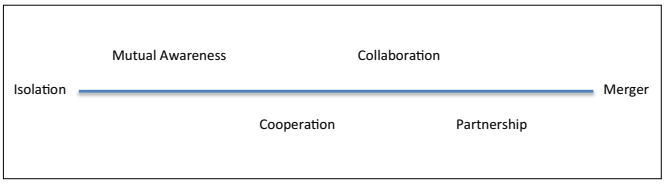

Fig. 1. Institute of Medicine Degrees of Primary Care and Public Health Integration*.
*Institute of Medicine of the National Academies, 2012.

achieve shared health outcome measures. Moving health systems and home visiting programs further along the IOM continuum from mutual awareness towards merged systems of care could decrease waste and duplication while strengthening impacts on a broad range of outcomes. Coordination requires purposeful efforts to improve services through shared goals, delegated responsibility, accountability, communication, aligned resources and the exchange of information (Institute of Medicine of the National Academies, 2012; McDonald et al., 2014). As illustrated in the South Carolina example (Sides & Baggett, 2014; First Focus, 2015a), The Children's Center underwent a multi-step process over several years to move from isolation to complete integration of home visiting and primary care medical services.

Despite some early successes, multiple barriers to widespread adoption of these types of collaborations have been recognized; these include communication hurdles, conflicting goals and priorities, and lack of understanding of the roles of other providers serving families and how to access their services (Margolis et al., 2001; Roberts, Behl, & Akers, 1996; Schmied et al., 2010; Tschudy et al., 2016). Additionally, given the proliferation of home visiting models and variability in operating characteristics (eligibility requirements, duration of services, focus of program, desired outcomes), it is possible that wide variation also exists regarding communication and coordination with other services such as health care providers (Sama-Miller et al., 2017).

HV models also vary in the extent to which they report explicit outcomes related to maternal and child health. Of the 20 HV models designated as evidence-based and included in the national report on HV program effectiveness (Sama-Miller et al., 2017), only 10 models showed a positive outcome related to child health as measured by direct observation, with one additional model showing positive child health outcomes by self-report. Of the 9 remaining models in the report, 3 showed no effect on child health outcomes and 6 HV programs did not measure child health outcomes as part of their program model. Similarly, 11 of the 20 highlighted programs showed positive maternal health outcomes (5 by direct report and 6 by maternal self-report) while 6 programs showed no effect on maternal health measures and 3 did not measure maternal health outcomes. The variation in is not unexpected since the models vary in their target populations, intended outcomes, providers, services, and underlying theories of change (Minkovitz, O'Neill, et al., 2016). Given the variability in program outcomes related to maternal and child health, it is likely that coordination and communication between HV programs and medical providers for mothers and children varies by HV model. While the potential benefits to integration of primary care services for mothers and children and home visiting programs have been recognized, little is known about the current extent of coordination between these providers.

This study was designed to understand activities, views, and supports for coordination between home visiting programs and medical providers for women and children by surveying home visiting programs participating in a national research network. Specifically, we sought to answer the following questions: *Question 1*: What is the current extent and types of communication between home visiting programs and medical providers for mothers and children? *Question 2*: How do home visiting program outcomes, supports, and views related to coordination vary? *Question 3*: What factors are associated with coordination between home visiting programs and medical providers for women and children? *Question 4*: What topics are of importance to HV programs for coordination between HV and medical providers?

2. Methods

2.1. Setting

This study was conducted in collaboration with the Home Visiting Applied Research Collaborative (HARC), which was established in 2013 to promote innovative research to address national home visiting research priorities. HARC is a voluntary network of persons involved with