

# Building Healthy Children: Evidence-Based Home Visitation Integrated With Pediatric Medical Homes

## abstract

**BACKGROUND AND OBJECTIVES:** The Building Healthy Children (BHC) collaborative has successfully integrated home visitation into medical care of infants born to young, low-income mothers. Patients receive parenting education, and therapy for parent-child trauma and maternal depression through home visitation. The goals are to avoid child maltreatment, improve parent and child health, and enhance family functioning.

**METHODS:** This randomized trial tests combining 3 evidence-based services versus screening and referral to community services only. Patients of 3 primary care practices are screened for eligibility (no previous Child Protective Services indication, maternal age <21 at first delivery, and  $\leq 2$  children younger than age 3). Treatment families receive Parents as Teachers, child-parent psychotherapy, and interpersonal psychotherapy as needed. Outreach workers assist with concrete needs, including transportation to medical visits. Participant evaluations and reviews of pediatric medical charts are performed at regular intervals. Electronic medical record communications and BHC social workers ensure full integration with the medical home.

**RESULTS:** Of all eligible families approached, 75% ( $n = 497$ ) enrolled in BHC and 85% remained enrolled by age 3. At baseline, 37% of mothers were victims of child abuse/neglect, 22% showed significant depressive symptoms, and 59% of children were exposed to domestic violence. Preliminary analyses demonstrate avoidance of indicated Child Protective reports and foster placement and high rates of preventive care for enrolled children.

**CONCLUSIONS:** BHC offers a unique model of evidence-based home visiting services integrated into primary care. This promising program demonstrates high retention rates and addresses the multidimensional needs of young at-risk families. *Pediatrics* 2013;132:S174–S179

**AUTHORS:** Heather A. Paradis, MD, MPH,<sup>a</sup> Mardy Sandler, LMSW,<sup>b</sup> Jody Todd Manly, PhD,<sup>c</sup> and Laurie Valentine<sup>d</sup>

<sup>a</sup>Division of General Pediatrics, and <sup>b</sup>Division of Social Work, University of Rochester School of Medicine and Dentistry, Rochester, New York; <sup>c</sup>Mt. Hope Family Center, University of Rochester, Rochester, New York; and <sup>d</sup>Department of Programming, Society for Protection and Care of Children, Rochester, New York

### KEY WORDS

home visitation, medical home, pediatrics

### ABBREVIATIONS

BHC—Building Healthy Children  
CPS—Child Protective Services  
CPP—child-parent psychotherapy  
ED—Emergency Department  
EMR—Electronic Medical Record  
IPT—interpersonal psychotherapy  
PAT—Parents as Teachers  
URMC—University of Rochester Medical Center

Dr Paradis participated in the design of the data collection, drafted the initial manuscript, reviewed and revised the manuscript; Ms Sandler and Ms Valentine participated in the design and implementation of the project; contributed to, critically reviewed, and edited the manuscript; Dr Manly conceptualized and designed the study, participated in the implementation of the project, directed the data collection, contributed to the Evaluation section and tables of the manuscript, and critically reviewed and edited the manuscript; and all authors approved the final manuscript.

This trial has been registered at [www.clinicaltrials.gov](http://www.clinicaltrials.gov) (identifier NCT01888809).

[www.pediatrics.org/cgi/doi/10.1542/peds.2013-1021R](http://www.pediatrics.org/cgi/doi/10.1542/peds.2013-1021R)

doi:10.1542/peds.2013-1021R

Accepted for publication Aug 26, 2013

Address correspondence to Heather A. Paradis, MD, MPH, University of Rochester School of Medicine and Dentistry, 601 Elmwood Ave, Box 777, Rochester, NY 14642. E-mail: [heather\\_paradis@urmc.rochester.edu](mailto:heather_paradis@urmc.rochester.edu)

PEDIATRICS (ISSN Numbers: Print, 0031-4005; Online, 1098-4275).

Copyright © 2013 by the American Academy of Pediatrics

**FINANCIAL DISCLOSURE:** The authors have indicated they have no financial relationships relevant to this article to disclose.

**FUNDING:** This program and its evaluation are supported by grants from the Monroe County Department of Human Services, the United Way of Greater Rochester, and the Federal Maternal, Infant and Early Childhood Home Visitation funding as administered by the New York State Department of Health.

**POTENTIAL CONFLICT OF INTEREST:** The authors have indicated they have no potential conflicts of interest to disclose.

The American Academy of Pediatrics and other national, state, and professional organizations recognize the important role of evidence-based home visitation programs in reducing disparities in child health and developmental outcomes.<sup>1</sup> Although there are many home visitation programs, most are not integrated with the child's medical home and not all have demonstrated success in improving family functioning for high-risk families. The Building Healthy Children (BHC) program was designed to fully integrate with pediatric practices, and provide for the multiple and complex needs of young, at-risk families. It uses evidence-based home visitation programs targeting teen and young adult parents of infants and toddlers, and addressing mental health, domestic violence, and relationship challenges that may increase the risk of child maltreatment. BHC is a collaborative, interdisciplinary, comprehensive, tiered service intervention for teen and young adult parents who are at risk for perpetrating child abuse/maltreatment.

### DESCRIPTION OF THE COMMUNITY

BHC serves families residing in Rochester, New York, an ethnically and racially diverse area (population 16.4% Latino, 41.7% black, and 43.7% white, 2010 US Census).<sup>2</sup> According to recent estimates, 43% of children in Rochester live below the poverty level, ranking seventh worst among cities nationwide.<sup>3</sup> Graduation rates for the Rochester City School District remain under 50% and are lowest of the top 5 cities in New York State.<sup>4</sup> In 2008, 74% of Rochester infants were born to unmarried mothers, and Rochester's teen birth rate is 3 times higher than New York State and twice the US rate.<sup>5</sup>

Children born to unmarried teen mothers with less than a high school education are 62% more likely to grow up in poverty.<sup>6</sup> In addition, children of teen parents are at increased risk of poor

birth and early childhood outcomes; adverse childhood events, including abuse/neglect and exposure to violence; insecure attachment; mental health disorders; and poor school readiness.<sup>6,7</sup>

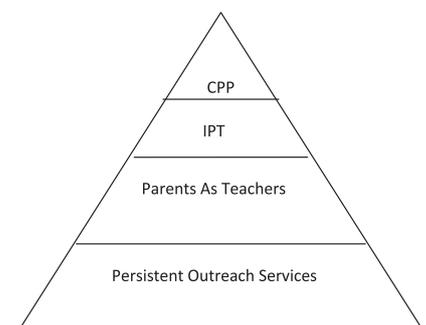
Pediatricians, early childhood educators, and other community leaders have formed alliances to address various needs of this at-risk population. However, efforts have rarely crossed disciplines or agencies. The pediatric office visit offers a unique opportunity to identify children born to teen parents and connect them to needed services, but pediatricians often lack time or knowledge to adequately screen and refer all cases. In response to Rochester's daunting local statistics and with a desire to increase cross-discipline collaboration, the University of Rochester Medical Center (URMC) in partnership with the United Way of Greater Rochester, Monroe County Department of Human Services, and human service organizations with longstanding expertise working with teen parents developed the BHC program as a systematic and comprehensive response to the multiple needs of this patient population.

### PROGRAM DESCRIPTION AND OVERVIEW OF SERVICES

BHC is a collaboration of social service and health care agencies, each providing evidence-based services to treatment families in a seamless package. Low-income parents who gave birth to their first child when they were younger than 21 with no previous involvement as a parent in the child welfare system were targeted as an at-risk group for whom home visitation services would offer optimal preventive and cost-efficiency outcomes. BHC is jointly funded by the Monroe County Department of Human Services, the United Way of Greater Rochester, and the Maternal, Infant and Early Childhood Home Visitation funding administered by the New York State Department of Health. Collaborating

service providers include URMC (for recruitment, screening, referral, care coordination with medical team, and outreach services), Mt. Hope Family Center (interpersonal psychotherapy<sup>8</sup> [IPT] for maternal depression and child-parent psychotherapy<sup>9</sup> [CPP] for maternal-child attachment), and the Society for the Protection and Care of Children (Parents as Teachers<sup>10</sup> [PAT] parenting program, violence prevention, educational/vocational support and other psychosocial services). Families are provided a tiered complement of BHC services based on assessment of current need (Fig 1). Although mothers are the focus of intervention efforts, if present and interested, the entire family unit is encouraged to participate in services. Assigned outreach workers reflective of the ethnicity and culture of BHC participants provide a consistent, nurturing relationship that helps retain families in the program and readies parents for the evidence-based treatments, movement toward goals, and behavior change. Outreach workers help to stabilize families and ensure compliance with medical appointments and recommended care. They consistently provide support to their families throughout involvement in the program.

URMC's Divisions of General Pediatrics and Social Work have a history of collaborative, community-based initiatives that address maternal-child health disparities and use the pediatric care



**FIGURE 1**  
Conceptual model of tiered services for Building Healthy Children.

provider to link families with human service and behavioral health programs. In addition, the general pediatrics clinic houses 2 full-time social workers as well as an evidence-based immunization outreach program to improve preventive health care rates.<sup>11</sup> Thus, foundational principles supporting the BHC model existed within the medical center, as well as interest in integrating community services with a medical home for vulnerable children. The BHC program is integrated with 3 primary care practices: 2 at URM (pediatric and family medicine) and 1 federally qualified neighborhood health center. Together these practices account for roughly 1000 newborns a year, and care for ~40% of children living in Rochester. Expansion plans are under way at an additional hospital-based pediatric practice adding an additional 700 potentially eligible newborns annually. Integration with the child's medical home is an all-inclusive approach to improve child health and well-being and to achieve desired program outcomes.

## OBJECTIVES

The primary objectives of BHC are to (1) engage eligible families in a unique tiered model of home visitation services; (2) retain enrolled families to allow completion of each evidence-based component; (3) broaden the range of services to address maternal depression, interpersonal violence, and parent-child attachment; (4) improve preventive health measures for at-risk infants and toddlers through integration with their medical home; and (5) evaluate program effectiveness based on child and parent outcomes.

## METHODS

This randomized trial compares families enrolled in BHC versus a comparison group. Universal screening for program eligibility is facilitated by the electronic medical record (EMR).

## ENGAGEMENT AND RETENTION OF FAMILIES

The BHC pediatric social worker reviews medical charts of all newborns through age 2 years to determine potential eligibility. Once identified, families are randomized to either full BHC services or assessment and community referral only. The social worker then contacts families to complete the screening and enrollment process. Families randomized to the control group are referred back to clinic staff to receive community referrals and other support based on identified need. The study protocol was approved by the institutional review board at URM.

Families enrolled in services begin with an extended home visit from the BHC pediatric social worker and assigned outreach worker to complete a baseline needs assessment and develop a service plan. Outreach workers meet with families at least bimonthly and assist with goals related to their individualized service plan. Responsibilities might include but are not limited to the following: assistance with resources, including stable and safe housing, furniture, food, clothing, and children's items; transportation to appointments; help to secure income, health insurance, and quality child care; safety promotion; crisis management; and assistance to negotiate health care and social service systems.

## BROAD RANGE OF EVIDENCE-BASED MODELS

Those families who do not exhibit symptoms of maternal depression or poor parent/child attachment are assigned a PAT educator (master's prepared social worker) soon after program enrollment. In addition to delivering the PAT curriculum, the social worker addresses significant psychosocial issues and supports maternal educational and vocational goals. Weekly home visits continue until the child turns 3 or until familial goals are reached. Group activities geared toward

building social support and healthy relationships are also offered.

To address common barriers and stigma with mental health treatment, BHC provides 2 evidence-based behavioral health models delivered in the mother's home. CPP is child trauma treatment over the course of a year focusing on the parent-child relationship, the impact of mother's trauma history on her parenting, and the child's symptoms of traumatic stress.<sup>9</sup> IPT is brief (12-session) psychotherapy to treat depression.<sup>8</sup> Mothers are screened at intake for depressive symptoms, and ongoing monitoring for depression occurs in the context of home visits. BHC has attempted to reduce the stigma of behavioral health therapies by collocation with outreach and social workers.

## INTEGRATION WITH THE MEDICAL HOME

Linking this home visitation program with the pediatric medical home has been one of the primary goals of BHC. Only primary care practices with established EMRs were selected, to ease communication and care coordination between medical providers and BHC agencies. The BHC pediatric social worker serves as the primary link to the practices. A comprehensive family assessment and service plan is placed in the child's EMR, and quarterly updates are recorded by the BHC social worker. In addition, BHC staff access the pediatric chart to monitor compliance with preventive care and to identify emergency department (ED) visits or hospitalizations. If children develop health or developmental problems, the outreach worker can facilitate attendance at medical appointments, help secure needed medications, and assist families with medical recommendations.

To enhance the medical home linkage and pass the value of home visiting to trainees, pediatrics and family medicine residents frequently accompany BHC

staff on home visits during their community health rotation. Medical providers are also invited to participate in team discussions about their families. Weekly team conferences are held with staff from each collaborative partner to discuss goals and treatment plans for BHC families. Families are discussed every 3 months to ensure that providers are not duplicating services and are communicating effectively regarding clients' needs. Biannual celebrations recognize accomplishments of the treatment families.

**EVALUATION**

BHC-enrolled families (both those randomized to services and comparison families) are evaluated at baseline and at 12, 24, 36, and 48 months of the index child's chronologic age. Measures include validated scales of socioemotional and familial functioning, child development, and parent-child interaction. All evaluations occur within the family's home by researchers unaware of treatment group assignment or study hypotheses, and participants receive a gift card on completion of research visits. In addition, children's medical charts are reviewed to assess compliance with well-child care and immunizations based on current standards, and frequency and type of ED visits are recorded.<sup>12,13</sup>

Evaluation is ongoing for this randomized trial. Results presented here represent a portion of total measures, as data collection and analyses allow. Of the total sample of 497 families with baseline data, to date 215 families have completed postprogram assessments. Reviews of medical record data for these families are complete through the 24-month assessment.

**RESULTS**

Of 679 families potentially eligible for the program, 497 (75%) of the families who were approached to participate enrolled in the project and 121 (17.8%)

declined participation (additional families are continually being recruited). An additional 48 (7.1%) families have not yet completed baseline assessment. Risk factors assessed during screening visits highlight the multiple challenges faced by teen parents and their children. At baseline, 37% of mothers had documented histories of abuse/neglect in their own childhood, 22% had elevated depressive symptoms, and 59% of children were exposed to domestic violence (Table 1). The high rates of domestic violence included bidirectional violence involving both mothers and fathers, based on maternal report. Table 1 shows additional maternal and child baseline demographics.

In 2012, BHC had 151 treatment and 125 comparison families that were active throughout the year. To prevent overwhelming young parents, BHC evidenced-based services are typically delivered sequentially to treatment families, prioritized by the most acute need. According to our research, maternal depression can result in significantly lower rates of secure attachment relationships for such parent-child dyads<sup>14</sup>; therefore, we engage mothers who screen positively for depressive symptoms into IPT depression treatment as

soon as possible. Once depressive symptoms improve, families are transitioned into PAT or CPP services. Those parents who are initially unwilling to engage in behavioral health modalities begin participating in PAT, a more universal evidence-based model, and then are transitioned into IPT or CPP as trust is developed. Of treatment families receiving multiple services, ~25% were referred to IPT, 91% were referred to PAT, and 14% were referred for CPP services. Since program inception, the 128 participants who exhibited depressive symptoms were referred to IPT. Of these, 60% were engaged in therapy and achieved treatment goals and reduced their depressive symptoms. Fifty-six families were referred to CPP, and 79% connected with services and achieved their treatment goals. Since the start of BHC, we have maintained an overall program retention rate of 85% by age 3.

The BHC model of outreach and home visitation demonstrates effectiveness in connecting families with preventive care. Our 2012 data revealed that of 215 BHC children (118 treatment, 97 control) assessed for compliance with well-child visits, treatment children had a significantly higher (98%) visit completion rate (compared with 90% for

**TABLE 1** Baseline Demographics for BHC Participants at Intake

Category	Overall, n = 497	Treatment, n = 270	Comparison, n = 227
<b>Maternal demographics</b>			
Mean maternal age, y (range 14–23 y)	18.9	18.9	19.1
Mean annual income, in thousands	10.9	10.4	11.6
Education, n (%)			
High school degree or GED	188 (39)	94 (35)	94 (43)
Older than 18 without degree	120 (25)	70 (26)	50 (23)
Younger than 18	174 (36)	101 (38)	73 (34)
Race, n (%)			
White	101 (20)	46 (17)	55 (24) <sup>a</sup>
African American	337 (68)	199 (74)	138 (61) <sup>a</sup>
Biracial or Other	55 (11)	25 (9)	30 (13)
Hispanic ethnicity, n (%)	94 (19)	41 (15)	53 (23) <sup>a</sup>
Victim of child abuse/neglect, n (%)	183 (37)	98 (36)	85 (37)
Domestic violence in family, n (%)	258 (59)	152 (61)	106 (57)
Depressive symptoms, n (%)	105 (22)	57 (22)	48 (23)
<b>Child demographics</b>			
Female gender, n (%)	239 (48)	118 (44)	121 (53) <sup>a</sup>
Age at enrollment, mo (range 1–26 mo)	6.34	6.29	6.40

<sup>a</sup> P < .05.

children in the control group), based on American Academy of Pediatrics Recommendations for Preventive Health Care schedule of well-child visits<sup>15</sup> by 24 months of age ( $\chi^2 = 7.49, P < .006$ ; see Table 2).

## OTHER OUTCOMES

Preliminary analyses demonstrate successful avoidance of indicated Child Protective Services (CPS) reports and foster placement, and educational and employment gains for treatment parents. An independent review of CPS reports for the sample to date has shown that 98% of the treatment group and 95% of the comparison group has avoided indicated CPS reports. Although that difference between groups is not statistically significant, it suggests that an overwhelming majority of treatment families avoided the child welfare system despite much closer surveillance that comes with participating in home visiting. On recent follow-up of initial program graduates, 97% of BHC treatment graduates continued to avoid CPS indications after services ended. Only 1 participant, who did not complete the program, had an out-of-home placement.

## DISCUSSION

BHC is a unique home visitation collaboration project that demonstrates integration with pediatric medical homes, has enrolled and retained at-risk families in evidence-based home

visitation, and based on preliminary data shows promise in improving family functioning, mental health outcomes, and pediatric health measures for its participants. Baseline data of maternal risk factors demonstrate the high level of need in young families. High enrollment and retention rates support the effectiveness of universal screening within pediatric practices to connect high-risk families with evidence-based home visitation. Clinically engaging high-risk, low-income, minority populations is challenging, and participation rates in traditional outpatient mental health services are often low. The rates of participation and symptom reduction for this prevention project were considered very high, and support the importance of persistent outreach and nontraditional methods of delivering treatment to engage and retain a non-help-seeking population.

To date, 98% of BHC treatment families avoided CPS involvement despite elevated risk for these adverse outcomes. Ongoing follow-up of CPS involvement after BHC services have ended is occurring and will allow for further assessment of the model's effectiveness in preventing child abuse/neglect. In addition, 98% of BHC treatment families kept all of their well-child visits in the first 24 months of life. These impressive rates exceed those of the comparison group and ensure that children, at risk for health and developmental concerns, are assessed as early as possible and that essential anticipatory guidance is provided.

BHC has successfully engaged and retained young, high-risk families with 85% of enrolled families continuing involvement through their child's third birthday. This retention rate exceeds published rates from other evidence-based home visitation models, and is a noteworthy success of the BHC model.<sup>16,17</sup> Ongoing participant engagement in treatment and services is critical to providing evidence-based programs with fidelity and a core influence for achieving desired outcomes as we continue this program.

## COLLABORATION AND INTEGRATION OF SERVICES

BHC services are colocated at Mt. Hope Family Center, thus allowing for ease of communication among the collaborating agency staff. A number of procedures and activities were developed to facilitate communication and continuum of service delivery, including regular treatment team meetings, team-building activities, and inclusive staff training. Barriers that prevent families from participating fully in the multitiered model of services are discussed as a team with focus on developing an agreed strategy for better family engagement. Such strategy often relies on the outreach workers' ability to find transient families or reengage those with low participation.

## CHALLENGES

The combination of multiple evidenced-based programs under 1 umbrella and integration with the pediatric medical home does, however, present challenges. The team of providers must have a solid understanding of and respect for each other's methods and skills and continuously work through any confusion or conflict around service plans, team member expectations or methods, and staff performance problems. Time is regularly devoted to team building and to resolving tensions or miscommunications among participating agencies and

**TABLE 2** Health Information for BHC Participants Completing the Program To Date

Category <sup>a</sup>	Overall, <i>n</i> = 215	Treatment, <i>n</i> = 119	Comparison, <i>n</i> = 97
Up-to-date well-child care	203 (94)	116 (98)	87 (90) <sup>a</sup>
Families with 9 visits completed by 24 mo of age, <i>n</i> (%)			
Up-to-date immunizations	193 (90)	110 (93)	83 (86)
Families up to date on immunizations by 24 mo of age, <i>n</i> (%)			
Absence of ED visits for injury	144 (67)	75 (64)	69 (71)
Number of ED visits for any reason	2.6 (3.0)	2.6 (2.4)	2.7 (3.6)

Reported as *n* (%) or mean (SD).  
<sup>a</sup>  $P < .01, \chi^2 = 7.50$ , all others NS.

staff. The evaluation design is complex because of the combination of multiple evidence-based models and the “real-world” incorporation of a menu of service options for families presenting with a variety of concerns and challenges.

Continual education about the benefits of home visitation and awareness of the BHC program within participating medical practices is essential to maintain a core of enthusiastic and supportive providers. In addition, because BHC does not have a physical presence within the medical practices, the quarterly updates and EMR messages are essential to maintain a “virtual” presence. Local funding for BHC has remained consistent since inception, allowing for continuous service delivery. However, federal funding has fluctuated significantly, necessitating several modifications to the

research design. Each transition has challenged the evaluation of BHC by changing the number of families and measures that could be included.

## CONCLUSIONS/ RECOMMENDATIONS

BHC is an innovative, multiservice, evidence-based, home visitation program fully integrated with the pediatric medical home. This unique model extends both the breadth and scope of known primary prevention strategies for young at-risk families. Although evaluation is preliminary because only a subset of participants has completed the program, BHC has demonstrated high retention rates, capacity to integrate with the medical home, and promise to improve the health and well-being of participants. Ongoing evaluations and

plans for expansion to additional medical home sites will be necessary to understand the program’s full impact on these fragile families and the capacity for replication to other communities.

## ACKNOWLEDGMENTS

We thank Robin Sturm for overseeing participant enrollment and managing daily operations of the BHC program, Terri Marchetti for collating the data for this manuscript, and Drs Sheree Toth and Fred Rogosch for their thoughtful review and support of this manuscript. We particularly appreciate the support of the United Way of Greater Rochester and the Monroe County Department of Human Services, and in particular Patricia Davis and Cindy Lewis, for their conceptualization of the treatment model and their financial support for the project.

## REFERENCES

1. Council on Community Pediatrics. The role of preschool home-visiting programs in improving children’s developmental and health outcomes. *Pediatrics*. 2009;123(2):598–603
2. US Census Bureau. 2010 Census Data. Available at: <http://quickfacts.census.gov/qfd/states/36/3663000.html/>. Accessed September 23, 2013
3. Monroe County Health Action Maternal/Child Health Report Card. February 2011. Available at: <http://www2.monroecounty.gov/health-healthdata.php>. Accessed December 28, 2012
4. New York State Education Department. Education Department releases high school graduation rates; overall rates improve slightly, but are still too low for our students to be competitive. Released June 11, 2012. Available at: [www.oms.nysed.gov/press/](http://www.oms.nysed.gov/press/). Accessed December 31, 2012
5. New York State Department of Health Vital Statistics. Vital statistics of New York State 2008. Available at: [www.health.ny.gov/statistics/vital\\_statistics/2008/](http://www.health.ny.gov/statistics/vital_statistics/2008/). Accessed December 28, 2012
6. Schuyler Center for Analysis and Advocacy. Teenage births: outcomes for young parents and their children. December 2008. Available at: [www.scaany.org/resources/publications.php](http://www.scaany.org/resources/publications.php). Accessed December 28, 2012
7. Terry-Humen E, Manlove J, Moore KA. Playing catch-up: how children born to teen mothers fare. The National Campaign to Prevent Teen Pregnancy, January 2005. Available at: [www.thenationalcampaign.org/resources/pdf/pubs/PlayingCatchUp.pdf](http://www.thenationalcampaign.org/resources/pdf/pubs/PlayingCatchUp.pdf). Accessed December 31, 2012
8. International Society for Interpersonal Psychotherapy. Home page. Available at: <http://interpersonalpsychotherapy.org/>. Accessed December 31, 2012
9. Substance Abuse and Mental Health Services Administration. National Registry of Evidence-based Programs and Practices. Child-parent psychotherapy (CPP). Available at: [www.nrepp.samhsa.gov/ViewIntervention.aspx?id=194](http://www.nrepp.samhsa.gov/ViewIntervention.aspx?id=194). Accessed December 31, 2012
10. Parents as Teachers. Home page. Available at: [www.parentsasteachers.org/](http://www.parentsasteachers.org/). Accessed December 31, 2012
11. Szilagyi PG, Bordley C, Vann JC, et al. Effect of patient reminder/recall interventions on immunization rates: A review. *JAMA*. 2000;284(14):1820–1827
12. Hagan JF, Shaw JS, Duncan PM, eds. *Bright Futures: Guidelines for Health Supervision of Infants, Children, and Adolescents*. 3rd ed. Elk Grove Village, IL: American Academy of Pediatrics; 2008
13. Akinsanya-Beysolow I, Jenkins H, Meissner HC. Recommended immunization schedules for persons aged 0 through 18 Years — United States, 2012 [published correction appears in *MMWR Morb Mortal Wkly Rep*. 2012;61(8):147]. *MMWR Morb Mortal Wkly Rep*. 2012;61(5):1–4 [Also available at: <http://www.cdc.gov/vaccines/schedules/downloads/child/mmwr-0-18yrs-catchup-schedule.pdf>]. Accessed September 22, 2013
14. Toth SL, Rogosch FA, Sturge-Apple M, Cicchetti D. Maternal depression, children’s attachment security, and representational development: an organizational perspective. *Child Dev*. 2009;80(1):192–208
15. Bright Futures. Recommendations for preventive pediatric health care. Available at: <https://www.pediatriccareonline.org/pco/ub/view/Bright-Futures/135183/all/>. Accessed June 28, 2013
16. The David and Lucille Packard Foundation. *The Future of Children. Home Visiting: Recent Program Evaluations*. Richard E. Behrman, editor. 1999;9(1):195–223. Also available at: [www.futureofchildren.org/futureofchildren/publications/docs/09\\_01\\_FullJournal.pdf](http://www.futureofchildren.org/futureofchildren/publications/docs/09_01_FullJournal.pdf). Accessed December 31, 2012
17. O’Brien RA, Moritz P, Luckey DW, McClatchey MW, Ingoldsby EM, Olds DL. Mixed methods analysis of participant attrition in the nurse-family partnership. *Prev Sci*. 2012;13(3):219–228

## Building Healthy Children: Evidence-Based Home Visitation Integrated With Pediatric Medical Homes

Heather A. Paradis, Mardy Sandler, Jody Todd Manly and Laurie Valentine

*Pediatrics* 2013;132;S174

DOI: 10.1542/peds.2013-1021R

### Updated Information & Services

including high resolution figures, can be found at:  
[http://pediatrics.aappublications.org/content/132/Supplement\\_2/S174](http://pediatrics.aappublications.org/content/132/Supplement_2/S174)

### References

This article cites 5 articles, 1 of which you can access for free at:  
[http://pediatrics.aappublications.org/content/132/Supplement\\_2/S174#BIBL](http://pediatrics.aappublications.org/content/132/Supplement_2/S174#BIBL)

### Permissions & Licensing

Information about reproducing this article in parts (figures, tables) or in its entirety can be found online at:  
<http://www.aappublications.org/site/misc/Permissions.xhtml>

### Reprints

Information about ordering reprints can be found online:  
<http://www.aappublications.org/site/misc/reprints.xhtml>

# American Academy of Pediatrics

DEDICATED TO THE HEALTH OF ALL CHILDREN®



# PEDIATRICS<sup>®</sup>

OFFICIAL JOURNAL OF THE AMERICAN ACADEMY OF PEDIATRICS

## **Building Healthy Children: Evidence-Based Home Visitation Integrated With Pediatric Medical Homes**

Heather A. Paradis, Mardy Sandler, Jody Todd Manly and Laurie Valentine

*Pediatrics* 2013;132;S174

DOI: 10.1542/peds.2013-1021R

The online version of this article, along with updated information and services, is located on the World Wide Web at:

[http://pediatrics.aappublications.org/content/132/Supplement\\_2/S174](http://pediatrics.aappublications.org/content/132/Supplement_2/S174)

Pediatrics is the official journal of the American Academy of Pediatrics. A monthly publication, it has been published continuously since 1948. Pediatrics is owned, published, and trademarked by the American Academy of Pediatrics, 345 Park Avenue, Itasca, Illinois, 60143. Copyright © 2013 by the American Academy of Pediatrics. All rights reserved. Print ISSN: 1073-0397.

American Academy of Pediatrics

DEDICATED TO THE HEALTH OF ALL CHILDREN<sup>®</sup>

