

# Clinical Pediatrics

<http://cpj.sagepub.com/>

---

## Addressing Families' Unmet Social Needs Within Pediatric Primary Care: The Health Leads Model

Arvin Garg, Mark Marino, Ami R. Vikani and Barry S. Solomon

*CLIN PEDIATR* published online 2 March 2012

DOI: 10.1177/0009922812437930

The online version of this article can be found at:

<http://cpj.sagepub.com/content/early/2012/02/22/0009922812437930.citation>

---

Published by:



<http://www.sagepublications.com>

Additional services and information for *Clinical Pediatrics* can be found at:

**Email Alerts:** <http://cpj.sagepub.com/cgi/alerts>

**Subscriptions:** <http://cpj.sagepub.com/subscriptions>

**Reprints:** <http://www.sagepub.com/journalsReprints.nav>

**Permissions:** <http://www.sagepub.com/journalsPermissions.nav>

>> [OnlineFirst Version of Record](#) - Mar 2, 2012

[What is This?](#)

# Addressing Families' Unmet Social Needs Within Pediatric Primary Care: The Health Leads Model

Clinical Pediatrics  
XX(X) 1-3  
© The Author(s) 2012  
Reprints and permission:  
sagepub.com/journalsPermissions.nav  
DOI: 10.1177/0009922812437930  
http://cpj.sagepub.com  


Arvin Garg, MD, MPH<sup>1</sup>, Mark Marino, MPH<sup>2</sup>, Ami R. Vikani, MPH<sup>3</sup>,  
and Barry S. Solomon, MD, MPH<sup>4</sup>

## Introduction

The Institute of Medicine has stated that “practicing in the context of family and community” is a fundamental tenet of primary care.<sup>1</sup> This is particularly important in pediatrics, where social determinants of health powerfully shape children’s well-being. Prior studies have demonstrated the impact that family psychosocial issues (eg, poverty, food insecurity, and housing instability) can have on children’s health and development. Pediatric professional guidelines including the *Bright Futures* health supervision guidelines recommend that primary care providers address the social milieu of their patients<sup>2</sup>; however, few routinely do so.<sup>3</sup> Provider barriers include lack of time, professional training, and knowledge of community resources.<sup>4</sup>

Within the medical home, innovative multidisciplinary team-based approaches are needed to assist providers with identifying social problems and referring families with unmet needs to available community-based resources, particularly for low-income populations where basic material needs are common. Nonmedical team members have traditionally included social workers, community outreach workers, patient navigators, and lawyers. This report describes a new management approach to addressing families’ unmet social needs within pediatric primary care, namely, using volunteer undergraduate students to assist providers with their patients’ social needs.

Health Leads (HL; formerly Project HEALTH) is a nonprofit organization, founded in 1996 at Boston Medical Center (formerly Boston City Hospital), that places undergraduate students in urban clinics to assist impoverished families with their social needs.<sup>5</sup> Currently, HL operates 21 help desks at urban medical homes across the United States; approximately 800 students from 12 universities serve 9000 families annually. We describe the impact of the HL model on families’ receipt of community-based resources at an urban pediatric clinic. This integrated care model includes (a) parents completing a brief previsit

screening survey for social issues (eg, food, housing, employment, etc) at well-child care visits, (b) providers referring to the HL desk located in the clinic, and (c) HL students connecting families to community-based resources through in-person meetings and telephone follow-up. HL students then update referring providers about outcomes (see Figure 1).

## Methods

This was a prospective cohort study conducted at the Harriet Lane Clinic of the Johns Hopkins Children’s Center, which serves as a medical home to ~8500 low-income children in Baltimore, MD. HL was established by a joint venture with Johns Hopkins University and the Baltimore City Health Department in 2006. We report on data from July 1, 2008, to January 20, 2011, during which time the HL model became the standard of care; this time frame also allows us to report on a complete 6-month follow-up data. Data on referrals, families’ needs, receipt of resources, and provider updates were recorded by the volunteers and stored in the HL database.

Descriptive statistics were used. We excluded any missing or unknown data. Frequencies of the outcomes were calculated using Microsoft Excel.

The study was approved by the institutional review board at Johns Hopkins School of Medicine.

<sup>1</sup>Boston University, Boston, MA, USA

<sup>2</sup>Health Leads, Boston, MA, USA

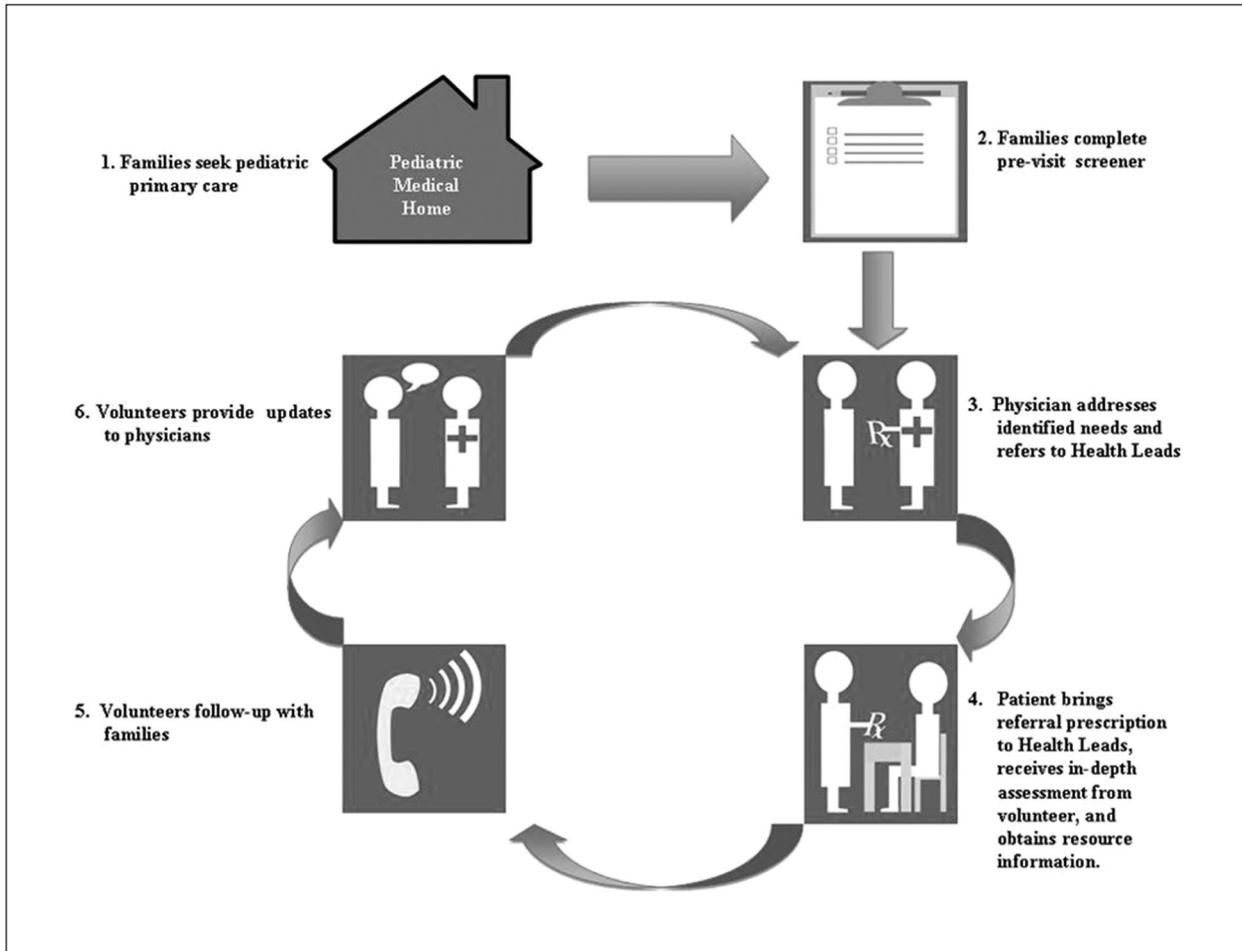
<sup>3</sup>The George Washington University, Washington, DC, USA

<sup>4</sup>Johns Hopkins University, Baltimore, MD, USA

### Corresponding Author:

Arvin Garg, MD, MPH, Boston University School of Medicine, Boston Medical Center, Department of Pediatrics, Division of General Pediatrics, 88 East Newton Street, Vose Hall 3rd Floor, Boston, MA 02118, USA

Email: arvin.garg@bmc.org



**Figure 1.** Flow diagram of Health Leads Model for addressing families' unmet social needs

## Results

During this 2½ year time period, 1059 families used the HL desk. The majority of families (87%) were referred by clinic staff members (eg, physicians, nurse practitioners, nurses, social workers, and front desk personnel); 71% were referred by their child's pediatric primary care provider.

Overall, a total of 2265 family needs were identified. Each family had a mean of 2.1 needs. The most prevalent needs were employment (25%), housing (14%), child care (13%), health insurance (11%), and food (10%; see Table 1).

Within 6 months of accessing the HL desk, 50% of families had enrolled in at least 1 community-based resource. Families most frequently enrolled in resources for employment, health insurance, and food.

Almost 85% of pediatric primary care providers who made a referral to HL received at least 1 update on their referred family's progress from the HL volunteers.

**Table 1.** Types of Identified Family Needs (N = 2265)

Employment	25%
Housing	14%
Child care	13%
Health insurance	11%
Food	10%
Adult education	9%
Utilities	6%
Other (eg, transportation, financial assistance)	8%
Commodities (eg, crib, furniture)	5%

## Discussion

In this program evaluation, we found that the HL model had a positive impact on reducing unmet social needs for low-income families. This innovative multidisciplinary team-based model was able to connect the medical home with community-based resources, often a daunting task within the current primary care model. The HL model is consistent with the principles of com-

munity pediatrics, resulting in a true “synthesis of clinical practice and public health principles” aimed at promoting the overall health of children within the context of their families and communities.<sup>6</sup> It is also consistent with a core theme of the *Bright Futures* health supervision guidelines for children and adolescents, specifically, promoting community relationships and resources at health supervision visits.<sup>2</sup>

Since the initial Whitehall studies,<sup>7,8</sup> it is evident that social determinants, particularly during childhood, have a strong influence on health. Novel research findings have demonstrated how cumulative risk exposures can lead to toxic stress altering important neurocognitive pathways and physiological pathways in early childhood.<sup>9</sup> Pediatricians have the opportunity to address patients’ social needs given their unique longitudinal relationship with families. This is especially true in the first 3 years of life when well-child care visits are frequent<sup>2</sup>; it is particularly important then since the effects of poverty are more deleterious during this sensitive time.<sup>10</sup> However, addressing social problems during the average 17-minute well-child care visit is challenging for pediatricians. Other significant barriers that providers face include lack of knowledge of community resources, inadequate professional training on how to address these issues, and low self-efficacy. Having volunteer students work in partnership with providers on these complex social issues may be one potential solution for large urban pediatric practices. We believe that the HL model is an innovative, time efficient, and effective system of care to address families’ social problems at well-child care visits.

Overall, more than 10% of families attending this urban clinic used the HL desk; approximately half of these families had one of their unmet basic needs resolved. These numbers may appear modest; however, on a public health scale these numbers are robust—more than 1000 families used the HL desk to get their social needs addressed.

A few limitations to the study should be mentioned. We report the experience at 1 clinic; therefore, our findings may not generalize to other health care settings. Parental self-report was used to measure many of our outcomes that may have introduced recall and social desirability biases. Despite these limitations, we believe that our findings are novel and promising.

The HL model integrates primary care with the existing public health infrastructure (ie, community-based resources) and may promote greater health equity by addressing the unmet basic needs that low-income families disproportionately face. Further longitudinal studies are needed to assess the potential impact of this care model on child health and development. We suggest that the HL model may serve as a primary care model for addressing the unmet social needs of impoverished families.

## Acknowledgment

We would like to gratefully acknowledge Rebecca Onie, Founder and CEO of Health Leads (HL), and Josh Sharfstein, MD, former Commissioner of Health for the City of Baltimore, for their instrumental roles in bringing HL to urban Baltimore clinics, including the Harriet Lane Clinic.

## Declaration of Conflicting Interests

The author(s) declared the following potential conflicts of interest with respect to the research, authorship, and/or publication of this article: Arvin Garg is a member of the Health Leads (HL) Clinical Advisory Board. Mark Marino is employed by HL and was the Executive Director for HL in Baltimore during the time the data was collected. Ami Vikani was a former HL volunteer in New York, NY. Barry Solomon is Chair of the HL Clinical Advisory Board and receives salary support from the organization for his work with the national HL program.

## Funding

The author(s) received no financial support for the research, authorship, and/or publication of this article.

## References

1. Institute of Medicine Committee on the Future of Primary Care. *Defining Primary Care: An Interim Report*. Washington, DC: National Academies Press; 1994.
2. Hagan JF, Shaw JS, Duncan PM. *Bright Futures: Guidelines for Health Supervision of Infants, Children, and Adolescents*. 3rd ed. Elk Grove Village, IL: American Academy of Pediatrics; 2008.
3. Garg A, Butz AM, Dworkin PH, Lewis RA, Serwint JR. Screening for basic social needs at a medical home for low-income children. *Clin Pediatr (Phila)*. 2009;48:32-36.
4. Hochstein M, Sareen H, Olson L, O’Connor K, Inkelas M, Halfon N. A comparison of barriers to the provision of developmental assessments and psychosocial screenings during pediatric health supervision. *Pediatr Res*. 2001;49:24a.
5. Health Leads. <http://www.healthleadsusa.org>. Accessed November 14, 2011.
6. American Academy of Pediatrics Committee on Community Health Services. The pediatrician’s role in community pediatrics. *Pediatrics*. 2005;115:1092-1094.
7. Marmot MG, Rose G, Shipley M, Hamilton PJ. Employment grade and coronary heart disease in British civil servants. *J Epidemiol Community Health*. 1978;32:244-249.
8. Marmot MG, Smith GD, Stansfeld S, et al. Health inequalities among British civil servants: the Whitehall II study. *Lancet*. 1991;337:1387-1393.
9. Shonkoff JP, Boyce WT, McEwen BS. Neuroscience, molecular biology, and the childhood roots of health disparities: building a new framework for health promotion and disease prevention. *JAMA*. 2009;301:2252-2259.
10. Duncan GJ, Brooks-Gunn J. *Consequences of Growing Up Poor*. New York, NY: Russell Sage Foundation; 1997.