



In the Literature

A PRACTICE-BASED INTERVENTION TO ENHANCE QUALITY OF CARE IN THE FIRST 3 YEARS OF LIFE

C. S. Minkovitz, M.D., M.P.P.
N. Hughart, B.S.N., M.P.H.
D. Strobino, Ph.D.
D. Scharfstein, Sc.D.
H. Grason, M.A.
W. Hou, M.S.
T. Miller, Dr.P.H.
D. Bishai, M.D., Ph.D.
M. Augustyn, M.D.
K. T. McLearn, Ph.D.
B. Guyer, M.D., M.P.H.

*Journal of the American
Medical Association*
December 17, 2003
290 (23): 3081–91

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For more information about
these studies, contact:

C. S. Minkovitz, M.D., M.P.P.
Associate Professor
Johns Hopkins Bloomberg
School of Public Health
E-MAIL cminkovi@jhspsh.edu

or

Mary Mahon
Public Information Officer
The Commonwealth Fund
TEL 212-606-3853
E-MAIL mm@cmwf.org

Commonwealth Fund Pub. #697
December 2003

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THE COMMONWEALTH FUND
ONE EAST 75TH STREET
NEW YORK, NY 10021-2692
TEL 212.606.3800
FAX 212.606.3500
E-MAIL cmwf@cmwf.org
<http://www.cmwf.org>

The nation's first, large clinical trial designed to improve delivery of developmental and behavioral services to young children has improved quality of care, enhanced communications between pediatricians and parents, and helped children receive appropriate preventive services, according to a national evaluation of the Healthy Steps for Young Children Program supported by The Commonwealth Fund.

In "A Practice-Based Intervention to Enhance Quality of Care in the First 3 Years of Life" (*JAMA*, Dec. 17), researchers at the Johns Hopkins Bloomberg School of Public Health report that physician practices with childhood developmental specialists on staff showed "significant improvements" in parental satisfaction with the services they received; timelier preventive care such as immunizations; and receipt of more developmental services. In fact, Healthy Steps families were found to be four to 20 times more likely to receive developmentally oriented care than families not in the program.

The study, conducted when children were 30 to 33 months old, corroborates the findings of an [earlier evaluation of Healthy Steps](#) undertaken when its participants were 2 to 4 months old (Minkovitz et al., 2001). Healthy Steps was developed with funding from The Commonwealth Fund, the Robert Wood Johnson Foundation, and more than 100 funding partners.

Why Healthy Steps?

Deficiencies in American children's health care are known to be common. These include low rates of preventive service delivery as well as inadequate attention to behavioral and developmental problems. With respect to child development and behavior during the first three years of life, the disparity between recommended services and the ones actually delivered has been particularly wide.

The Healthy Steps Approach

Healthy Steps' key proposition is that deficiencies in children's health care, particularly those centered on early childhood development and behavior, can be remedied at the ideal sites for care delivery—the pediatric practices—with changes to practice organization, staffing, and procedures. Healthy Steps added two nurses, nurse practitioners, early childhood educators, or social workers (all with training and experience in child development and each carrying a caseload of approximately 100 families) to the staffs of 15 pediatric practices in 14 states. "Healthy Steps is unique among early child interventions in that it was based in pediatric practices, took a 'universal' approach to addressing families' needs, and introduced a new developmental specialist into pediatric practices," say the authors. By a host of widely accepted criteria of health care quality, the successes among the groups who received the attention of the Healthy Steps Specialists were substantial.

Applying the Healthy Steps Method

For the study's intervention groups (of the 5,565 originally enrolled families, the *JAMA* article reports results for 2,021 in the intervention groups and 1,716 in the control groups), the Healthy Steps Specialists met with physicians and parents during office visits, made home visits, staffed call-in child-development phone lines to answer parents' questions, performed developmental assessments, provided written materials for parents that emphasized prevention and health promotion, helped to organize parent groups where support and learning could occur, and provided some targeted referrals to community resources. Three annual training sessions enhanced the skills of the Healthy Steps Specialists.

Healthy Steps sought to improve four particular domains of health care quality: *effectiveness*,

patient-centeredness, timeliness, and efficiency. Some examples of the criteria for each domain are:

Effectiveness: Receiving four or more services, discussing with someone at the practice six or more topics related to child development and behavior, receiving books about child development, or receiving home visits.

Patient-centeredness: Reporting that someone in the practice went out of their way or that a pediatrician or nurse provided support, listened, or respected the parent.

Timeliness: Making age-appropriate well-child care visits to the practice and receiving the proper vaccinations.

Efficiency: Continuing receipt of care at same practice for 20 months.

But vaccinations and office visits tell only part of the story. The Healthy Steps Specialists helped parents identify and address sleep problems and aggression. Healthy Steps improved the quality of child rearing at home by helping the participating parents develop their child-rearing skills, such as reading to children and following regular routines. The use of negative disciplinary strategies (e.g., yelling in anger, slapping, spanking with an object) was lower for Healthy Steps parents, who were more likely to use favorable discipline techniques (e.g., negotiation and timeouts), than parents in the control groups.

Help for Depressed Mothers

Nor did Healthy Steps practices ignore maternal health, particularly in the problematic area of emotional difficulty. Staff at intervention practices were alert to, and encouraged mothers to discuss, feelings of sadness or depression and were trained to address these as well as child behavior and development. In fact, mothers in the intervention

groups were twice as likely to discuss their own feelings of sadness with someone in the pediatric practice as mothers in the control groups.

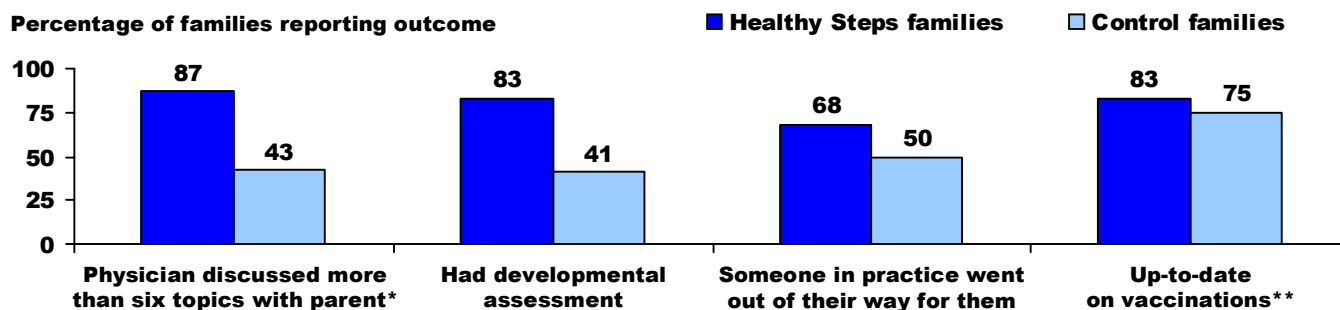
Conclusions

In the United States today, where a preoccupation with rising medical costs has hamstrung efforts to improve the health care system, Healthy Steps may be an especially useful signpost. Although Healthy Steps is not as intensive a program as such alternatives as Early Head Start and the Infant Health and Development Program, it achieves its positive results at far lower cost: a range of \$402–\$933 per patient per year versus an average of \$4,500 per patient per year for Early Head Start and \$10,000 per patient per year for Infant Health and Development. Even 18 months after the end of The Commonwealth Fund’s demonstration funding, 11 of the 15 participating practices continued to provide all or some of the Healthy Steps components.

Facts and Figures

- The odds of receiving developmentally oriented care were four to 20 times greater among Healthy Steps families than among control families not enrolled in the program.
- Parents in the Healthy Steps groups had reduced odds of slapping their child in the face or spanking with an object compared with control parents, while they had increased odds of using negotiation and timeouts as a disciplinary technique.
- Children who received Healthy Steps had better continuity of care, with increased odds of having a visit with the practice after 20 months and decreased odds of having an emergency department visit in the past year for injury-related causes.

Measuring Healthy Steps’ Success: Selected Quality-of-Care Outcomes



* Topics included: importance of regular routines, sleep problems, discipline, language development, toilet training, sibling rivalry home safety child’s development, child’s temperament, ways of helping child learn. ** All vaccines due by 24 months of age.

Source: Minkovitz et al., “A Practice-Based Intervention to Enhance Quality of Care in the First 3 Years of Life,” *Journal of the American Medical Association* 290 (Dec. 17, 2003): 3081–91.