

Introduction: Results From a New National Survey of Children's Health

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ABBREVIATIONS. AAP, American Academy of Pediatrics; NSECH, National Survey of Early Childhood Health; MCHB, Maternal and Child Health Bureau; NIS, National Immunization Survey; PHDS, Promoting Healthy Development Survey; DA, developmental assessment.

Health supervision visits for infants and toddlers are core to the work of primary care pediatricians. Pediatricians provide the majority of the well-child visits to children who are younger than 3 years. Data from the American Academy of Pediatrics (AAP) show that the typical pediatrician provides 35 health supervision visits a week to children 35 months and younger.¹ Increasingly, pediatricians are asked to address not only traditional issues in these visits, such as immunizations and physical growth, but also developmental needs and psychosocial issues in the family. Professional guidelines (AAP Guidelines for Health Supervision III, Bright Futures),^{2,3} innovative programs (eg, Healthy Steps),⁴ and recent policy studies (eg, National Academy of Science's *From Neurons to Neighborhoods*)⁵ point to the importance of anticipatory guidance for child health and development.

Physicians, particularly pediatricians, are the professionals who see virtually all US children in the first few years of life. Through these unique contacts, pediatricians play an important role in identifying potential problems and helping parents to promote their children's healthy development. Despite the importance of these visits, little is known about the process, content, and quality of health supervision, particularly from the perspective of parents. This supplement to *Pediatrics* reports results of a new national survey, the 2000 National Survey of Early Childhood Health (NSECH), which was designed to address this information gap.

The NSECH is a unique survey of parents of infants and toddlers, developed to monitor the health of young children, assess child health service delivery, and inform child health policy. The NSECH provides critical national-level information about the content and quality of preventive health care for young children, as well as parenting practices in early childhood that can affect the cognitive, emo-

tional, and social development of children. Many of the specific measures included in the NSECH have not previously been used in a national survey of child health. The NSECH is a new tool to provide national benchmarks about quality of health supervision provided to children in the context of family needs and their child-rearing environments.

Assessing the content and quality of anticipatory guidance and other services that are part of routine well-child care has always been a difficult task because there have been fewer studies and less conclusive evidence on the effectiveness of interventions than what might be desired. This lack of evidence may be viewed as the glass being half full or half empty. Although the evidence base is deficient, it is growing.^{6,7} In the absence of robust evidence, health care guidelines and quality measurements have relied on expert panels that use best available evidence to make practice recommendations. All of the measures included in the NSECH were derived from guidelines that meet or exceed this latter standard.

The NSECH also responds to the growing interest in parenting and the critical role that well-child care potentially plays in promoting optimal health and development of children. Recent release of the National Academy of Science's report *From Neurons to Neighborhoods* has made assessing and addressing the developmental needs of young children even more salient in the minds of policy makers, health care providers, and parents. Several other recent research studies suggest that parents are in fact not receiving the health care that professional guidelines call for and that parents say that they need. At the same time, pediatricians struggle with deciding, in the limited time available in office visits, which health supervision topics to cover from a growing list of potentially useful topics.

The NSECH project began as a partnership between the AAP and the Center for Healthier Children, Families & Communities at UCLA with primary funding from the Gerber Foundation. Supplemental funding was later obtained from the Maternal and Child Health Bureau (MCHB) and the AAP Friends of Children Fund. As the project evolved, the original 2 partners developed a number of additional strategic partnerships to ensure the highest quality of data and to maximize the application of the information. This project would not have been possible without the substantial contributions of many groups. The National Center for Health Statistics was engaged to produce a methodologically rigorous and high-quality survey. The NSECH was conducted as a survey module of the State and

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Local Area Information Telephone Survey (SLAITS), which uses a sampling frame created to support the periodic National Immunization Survey (NIS) for the Centers for Disease Control and Prevention. By using the SLAITS mechanism, we were able to tap an existing infrastructure and expertise in conducting studies of families with young children. By incorporating NSECH into the SLAITS mechanism, we also created a relationship with the Centers for Disease Control and Prevention's National Immunization Program, the program that has worked closely with states and localities throughout the United States to improve immunization rates for all children. Because the NSECH was administered to some of the NIS families, it became possible to combine information from the NIS with NSECH data for a subset of young children.

An additional important partner for the development, content, and analysis of NSECH is the national Child and Adolescent Health Measurement Initiative, which has pioneered new measures of young children's health care quality, including the Promoting Healthy Development Survey (PHDS). The MCHB of the Health Resources Services Administration also played a key role in the development and analysis of the survey.

Parents were asked about their children's health care utilization; their own perception of pediatric care; interactions with health care providers; family routines, relationships, and interactions; home safety; parental and child health; financial welfare and health insurance; and demographic and household information. Whenever possible, we drew on existing items that had been used and tested in other surveys, thereby improving the quality of NSECH data and enhancing the capacity to compare findings from this survey with others. Because NSECH and Child and Adolescent Health Measurement Initiative's PHDS were developed concurrently, many of the PHDS items used in states that currently receive support from The Commonwealth Fund to improve developmental services were also included in the NSECH.

The articles that have been contributed to this *Pediatrics* supplement represent the first wave of analyses that begin to answer essential questions about the content, process, and quality of health care for young children. Many other analyses are under way by a growing group of investigators who are using the NSECH to answer important research questions.

At the same time that NSECH was in the field, a companion survey was developed and administered to a national sample of US members of the AAP. This survey was the 46th in the series of Periodic Surveys conducted by the AAP on contemporary issues in pediatric care. The Periodic Survey contains parallel content to the NSECH and in addition provides pediatricians' perspectives on factors that facilitate or inhibit provision of services to young children. By comparing these counterpart surveys, we can generate unique policy-relevant information and develop action strategies to address gaps in service provision that are identified by parents and providers simultaneously.

We believe that the information contained in the

NSECH (and complemented by the AAP Periodic Survey) will help to

- Identify and assess differences in preventive care content and quality in relationship to the context and process of health care delivery
- Inform the discussions regarding the future of professional training in pediatrics, appropriate reimbursement policies, and contract agreements
- Raise awareness among public and private insurance purchasers about the importance and content of pediatric preventive care
- Provide national key performance measures to support national- and state-level initiatives to improve the quality of pediatric care and reduce disparities

In recruiting articles for this volume, we sought to capture the breadth of the information contained in the NSECH, as well as address some of the major policy issues the data reflect. The overview article "The National Survey of Early Childhood Health" by Blumberg et al describes the content of the NSECH questionnaire, including sections on health care utilization; perceptions of the quality of the focal child's pediatric care; the level of interaction between the respondent and the health care providers; family interactions and home safety; respondent and child health; financial welfare and health insurance; and demographic information about the focal child, respondent, and household. Data were collected February to July 2000 through a national random-digit-dialed sample of households with children aged 4 to 35 months. Data were collected on 2068 children, including an oversample of households that have an eligible black or Hispanic child. Survey weights include adjustments for factors such as households without telephones and known population characteristics of young families. The data are available as a public use file and provide previously unavailable national, health-related data for this important population.^{8,9}

The second article, "Overview of the Content of Health Supervision for Young Children: Reports From Parents and Pediatricians," by Olson et al shows that parents and pediatricians tend to agree on the relative ranking of which topics are most frequently addressed. Parents and pediatricians both report that the traditional topics of preventive care—immunizations, feeding issues, and sleep patterns—are most frequently discussed, whereas topics more recently introduced into pediatric care related to developmental needs and family context are less commonly addressed. Findings point to additional research needed to understand issues related to specific topic areas as well as the dynamics of personal and system factors that determine what is discussed.

The article "Continuity of Primary Care Clinician in Early Childhood" by Inkelas et al examines continuity of care for young children, an essential aspect of primary care. This article builds on previous research to examine a new measure of continuity: whether there is a particular person who usually sees the child for well-child care. The authors find that, although 98% of parents report a regular place for well-child care, only 46% of parents say that they

have a particular clinician whom their child sees for well-child care. This article also describes how parents choose their child's primary care physician. Having a specific clinician as well as choosing the clinician (rather than being assigned) is less common among nonwhite children and those who receive care in community health centers, showing that many children are not receiving continuous well-child care from a single physician in a medical home.

Although standards for health supervision suggest that the pediatric provider advise on family, social, and community issues, few studies have examined the actual practice of pediatric providers in addressing issues such as family economic hardship, emotional support in parenting, and community violence. Authors Kogan et al in "Routine Assessment of Family and Community Health Risks: Parent Views and What They Receive" describe parent views on physician discussion of these topics and examine differences in the care received according to child, family, and health system factors. The authors report that parents generally support discussion of these topics but find that with the exception of household smoking, fewer than half of parents of young children report that the specified family and community topics were discussed.

Guidelines from the AAP and Bright Futures recommend that all young children's growth and development be assessed periodically, not only for those who are or seem to be at greater risk for developmental problems.^{2,3} Timely and effective developmental assessments (DAs) have the potential to identify, prevent, and/or treat vulnerabilities at an early stage of the child's life. Authors Halfon et al use the first national data on a new parent self-report measure of receiving DAs in "Assessing Development in the Pediatric Office." The authors report that only 57% of parents of young children recall the child's ever receiving a DA. Parent report of receipt of a DA is not associated with health insurance or usual source of pediatric care. Receiving a DA is associated with higher ratings of family-centered care and greater overall satisfaction. The authors conclude that the lack of specificity of standards for the provision of DAs may result in wide variation in how DAs are conducted. Many pediatricians may use observational methods for DA and "eyeball" their young patients, rather than use formal assessment methods that are more likely to identify potential problems.

Family context and routines are important for emergent literacy in children. In "Parent Report of Reading to Young Children," Kuo et al examine the frequency of book-sharing activities in families with young children, the child and family factors that are related to reading, and the extent to which children's health providers encourage literacy activities. They find that race, ethnicity, and maternal education are associated with positive reading behavior and that a large percentage of parents with young children who do not read daily would find it helpful to discuss reading with their pediatric provider. Combined with the positive results from recent evaluations of practice-based literacy promotion, the findings support a conclusion that greater and more targeted

pediatrician involvement might help more parents to develop a stronger orientation toward literacy activities in early childhood.

Pediatric guidelines suggest that pediatricians discuss use of discipline at health supervision visits and encourage use of nonaversive discipline techniques rather than aversive techniques such as corporal punishment. In "Parents' Discipline of Young Children: Results From the National Survey of Early Childhood Health," Regalado et al examine patterns of discipline that parents use with their young children and identify child and family factors associated with different discipline practices. Child age and developmental risk and parents' race/ethnicity, emotions, and frustration levels are closely associated with discipline practices in the first 3 years of life. The authors conclude that it is important to understand factors related to parents' use of discipline strategies so that pediatric providers can identify families who are most likely to benefit from anticipatory guidance.

The discussion and provision of immunizations is a foundation of primary care visits in the first years of life. In "Insurance Status and Vaccination Coverage Among US Preschool Children," authors Santoli et al take advantage of the linkage between the NSECH and the NIS to examine disparities in immunization status by insurance status. The linkage of NSECH and the NIS provides multiple possible predictors of up-to-date status using the provider-verified vaccination data that the NIS provides for NSECH children 19 to 35 months of age who participated in both the NIS and NSECH. Using the linked NSECH-NIS data, these authors find a large disparity in vaccination by insurance status. This disparity did not remain in multivariate analyses, but bivariate vaccination coverage differences suggest the importance of targeting Medicaid/State Child Health Insurance Program participants and uninsured children to improve immunization delivery and enhance, for all children, this core aspect of pediatric preventive care.

Population-based measures of satisfaction that focus on well-child care have not been available nationally. In "Satisfaction With Health Care for Young Children," Halfon et al assess parent satisfaction with well-child care for their young child and identify how global satisfaction ratings and parent reports on the processes of care vary with child and family characteristics, health care received, and health system factors. Authors find that Hispanic mothers of young children have lower odds than non-Hispanic white mothers of satisfaction with ability to ask questions and with visit length, and they are less likely to recommend their child's regular provider. Parents of children in excellent or very good health are more likely to report satisfaction, whereas those whose child had missed or delayed health care report lower satisfaction. Length of well-child visits is consistently associated with greater satisfaction across all measures used.

Comprehensive preventive care guidelines for young children include parent education and counseling, developmental assessment, and screening for parent and family psychosocial and safety risks. Un-

til now, validated methods to assess preventive care quality for young children have not been available. In "Measuring the Quality of Preventive and Developmental Services for Young Children: National Estimates and Patterns of Clinicians' Performance," Bethell et al generate a comprehensive national picture of performance for preventive care for young children. Alternative composite measures of quality developed for the PHDS and used in NSECH are presented, which take into account parents' perceived needs for guidance and views on whether care is family centered. Results of psychometric analyses on the reliability and validity of the composite measures also are provided. These composite measures provide an assessment of how well the health system in the United States is promoting the healthy development of young children. The authors find that scores on 4 composite quality measures range from 13% to 60% of children receiving recommended care when alternative scoring methods are used. This article shows how reports from parents can be used to set priorities and improve practice delivery around health supervision.

For providing perspective on NSECH findings, commentaries on 3 of the major policy implications that arise from NSECH data are also included. The first by Joel Alpert, MD, FAAP, professor and chairman emeritus of pediatrics at Boston University School of Medicine and a past president of the AAP; Pamela M. Zuckerman, MD, FAAP, pediatrician in private practice; and Barry Zuckerman, MD, FAAP, professor and chair of pediatrics at Boston University, addresses the questions raised about the importance of continuity of care and the NSECH finding that only 46% of parents can identify a regular person who provides well-child care to their child. Alpert et al address the implications of that finding in their commentary. Peter Margolis, MD, PhD, FAAP, professor of pediatrics and epidemiology at the University of North Carolina and the North Carolina Center for Children's Healthcare Improvement, comments on the implications of the findings from NSECH on improving the quality of early childhood health services. Margolis creates a context for how the NSECH data might be used to inform the national quality improvement agenda for children. Last, Stephen Berman, MD, FAAP, professor of pediatrics at the University of Colorado and a past president of the AAP and former chair of the AAP Committee on Child Health Financing, addresses the cost implications of the data presented by NSECH—especially given the finding across several analyses that the amount of time that parents report spending with the pediatric provider in well-child care visits is related to reports of content, quality, and satisfaction with care. These and other findings from the NSECH speak to the important nexus between access, quality, and reimbursement in pediatric care.

Along with a diverse multidisciplinary team, the AAP is currently spearheading the revision of Bright Futures. These new guidelines, which will be merged with those from the AAP, will set the new standards and expectations for preventive pediatric care. At the same time, the connection of early childhood expe-

riences to US education goals is evolving rapidly on the national policy agenda. Initiatives such as "Leave No Child Behind" and the recently launched MCHB State Early Childhood Comprehensive Systems Initiative are 2 examples of federal initiatives that can be informed by the information contained in the NSECH. Recently, the state of California adopted a new master plan for education that includes not only a plan for K-12 education but for the first time a plan for early childhood education that calls for the routine provision of quality pediatric care and developmental services to promote optimal healthy development and school readiness. As other national- and state-level initiatives for young children develop, the role of the pediatrician in assessing and advancing early childhood health and development is likely to become even more important, not only from the perspective of families but also from the perspective of other systems, providers, and policy makers. The data provided in this volume could help to inform the initiatives that develop in response to the growing national interest in improving early childhood health and development. Ideally, the NSECH will become part of the national system to measure health and health care for children, including expansions and adaptations of the NSECH to permit state and local estimates on health care needs and quality for young children. We hope that the new information from NSECH will prove useful to parents, pediatricians, policy makers, and other stakeholders as they seek to improve the provision of early childhood health care services.

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