Assessing the Bright Futures for Infants, Children and Adolescents Initiative

Findings from a National Process Evaluation

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Table of Contents

Executive Summary

Overview

In 1990, the Health Resources and Services Administration's Maternal and Child Health Bureau (MCHB), with support from the Health Care Financing Administration's (HCFA, now the Centers for Medicare and Medicaid Services) Medicaid Bureau, launched the Bright Futures for Infants, Children, and Adolescents initiative. This initiative was developed to improve the quality of health services for infants, children, and adolescents through health promotion and disease prevention. Bright Futures uses a developmentally based approach to address children's physical and psychosocial needs within their family and community context. In 2002, MCHB contracted with Health Systems Research, Inc. (HSR) to conduct the first national evaluation of Bright Futures. It included both a process evaluation and an outcome evaluation plan developed with a team of stakeholders. This document summarizes the methods and findings of the process evaluation, including recommendations for the future.

Bright Futures

MISSION

To promote and improve the health, education, and well-being of infants, children, adolescents, families, and communities.

GOALS

- Enhance health professionals' knowledge, skills, and practice of developmentally appropriate health care in the context of family and community
- Promote desired social, developmental, and health outcomes of infants, children, and adolescents
- Foster partnerships between families, health professionals, and communities
- Increase family knowledge, skills, and participation in health-promoting and prevention activities

Background

The centerpiece of Bright Futures is a comprehensive set of health supervision guidelines for children from birth through age 21. The initial guidelines were published in 1994, followed by an updated second edition released in 2000. These guidelines were developed through a unique partnership among multidisciplinary child health experts ranging from providers and researchers to parents and other stakeholders. They were designed to present a single standard of care based on a model of health promotion and disease prevention. The Bright Futures guidelines were a reflection of the growing body of scientific evidence suggesting the potential added value of this model of care for improving health care quality, particularly for children and adolescents. They also represented a shift from a strict medical focus to one with a more expansive view of health – one that addresses children's growth, healthy development, and important psychosocial factors that influence health and development.

The broad nature of Bright Futures is reflected in the encompassing way in which the initiative is described in Bright Futures materials, Web sites, and presentations. Since its release, Bright Futures has frequently been described as a vision, a mission, a set of expert guidelines, and a practical approach to providing quality health supervision for children from birth

through adolescence. Early work by the Bright Futures Health Promotion Workgroup identified three Bright Futures core concepts: (1) prevention works, (2) families matter, and (3) health is everyone's business. In its current Bright Futures work, the American Academy of Pediatrics (AAP) describes Bright Futures as a philosophy and approach dedicated to the idea that every child deserves to be healthy and that optimal health involves a trusting relationship among health professionals, the child, the family, and the community.

All of these definitions are reflected in the original mission and goals of Bright Futures, which are further addressed through the implementation of five objectives. The HSR process evaluation of Bright Futures was based on an analysis of these five objectives.

Bright Futures

OBJECTIVES

1. Develop materials and practical tools for health professionals, families, and communities
2. Disseminate Bright Futures philosophy and materials
3. Train health professionals, families, and communities to work in partnership on behalf of children's health
4. Develop and maintain public-private partnerships
5. Evaluate and refine the efforts

Purpose of the Process Evaluation

The process of developing, disseminating, and putting the Bright Futures concept and materials into practice has been large and complex. It has involved many partnerships, players, trainings, and outreach efforts. It also has spanned a period covering more than a decade. A process evaluation supplies a valuable range of information on the development and dissemination of a broad initiative like Bright Futures. It describes the complicated environment in which the initiative operates, how it has been used to meet public health goals, and how it continues to evolve. The process evaluation shows who and what are involved in using the program and adapting it to local needs. It addresses questions of what works, who benefits, and what resources are required. It also helps explain program experiences and challenges – laying a useful framework for questions to be addressed in the outcome evaluation. The process evaluation supplies information that can be adapted for program monitoring purposes. It also furnishes examples and information that are valuable for individuals or entities interested in replicating aspects of Bright Futures or identifying strategies to improve its use and effectiveness.

Process Evaluation Methodology

The Bright Futures process evaluation was carried out using qualitative research methods to assess the initiative's five objectives. Those methods included key-informant interviews, focus groups, document review, solicitations from key organizations, and other secondary data collection methods. A logic model was devised to represent graphically the inputs, activities, outputs, and long-term outcomes of the program. Research questions were designed

and refined to examine Bright Futures' inputs, activities, and outputs. A second group of questions was developed to explore and identify data sources and measures that could begin to form a framework for the subsequent outcome evaluation plan.

Data for the process evaluation were gathered from numerous sources involved with Bright Futures since its launch in 1990. HSR conducted an extensive primary data collection effort to gather firsthand information from individuals, agencies, and organizations involved in national, State, and local Bright Futures activities. Key informant interviews were conducted with 79 individuals representing Federal, State, and local agencies, grantees, individual contributors, professional organizations, parent organizations, associations of government officials, school-related organizations, and corporate partners. HSR also worked with key organizations to identify additional examples around the country of Bright Futures-related activities beyond those discussed during the key-informant interviews.

HSR conducted three focus groups: one with pediatricians, a second with pediatric nurse practitioners, and a third including grantees of MCHB's Healthy Tomorrows Partnership for Children program, who had been encouraged by MCHB to include use of Bright Futures in their projects.

Extensive secondary data were gathered from existing Bright Futures databases, summaries, published sources, and online literature. HSR developed evaluation databases to analyze the national, State, and local-level data gathered through the process evaluation. Another component of HSR's evaluation activities was the development of an annotated bibliography and a comprehensive compendium of Web sites referencing Bright Futures.

Process Evaluation Findings

The Bright Futures initiative is composed of multiple components, including the development and distribution of the health supervision materials; the provision of training and technical assistance to engage child health stakeholders in the initiative; and the development of partnerships to foster the Bright Futures philosophy and use of its materials. The Bright Futures process evaluation addressed each of these components.

The Development and Dissemination of Bright Futures Materials

The development of Bright Futures materials involved a unique process, based on collaboration and widespread ownership. The National Center for Education in Maternal and Child Health (NCEMCH) at Georgetown University was selected by MCHB to coordinate the initiative, including the development and dissemination of materials, under a cooperative agreement with the Bureau. The first document developed was *Bright Futures Guidelines for Health Supervision of Infants, Children, and Adolescents,* begun in 1990, published in 1994, revised and published as a second edition in 2000, with a subsequent minor update in 2002. As the centerpiece of the Bright Futures initiative, these guidelines were devel-

oped by a group of experts representing a mix of health disciplines and a balance of private, public health, research, and academic perspectives. Drafts of the guidelines were sent to approximately 1,000 reviewers. NCEMCH incorporated each of the comments from reviewers and authors, flagged discrepancies, and helped negotiate solutions. Throughout the process, every attempt was made to ensure the compatibility of the Bright Futures guidelines with the AAP health supervision guidelines. However, an important aspect of this development process was the idea that ownership of Bright Futures belonged not to a single entity but to everyone who cares about improving the health and development of children.

An important strategy that NCEMCH applied to promote the use and awareness of the Bright Futures guidelines was to make the materials attractive, engaging, and user friendly. Thus, the materials were produced using a bright, cheerful logo; pictures of real families; high-quality paper; fold-out tabs; and fun illustrations. As followup materials were produced, those also incorporated these principles as well as creative methods for making them easy to use, understand, and carry around. This approach has been applauded by many health professionals and has earned the Bright Futures publications several prestigious publications awards.

Following the publication and initial dissemination of the Bright Futures guidelines, a second phase of materials development, known as "Building Bright Futures," focused in much greater depth on particular health issues such as oral health, mental health, nutrition, and physical activity. These *Bright Futures in Practice* guides, designed to be practical and user friendly, were developed by panels of multidisciplinary experts who came up with the concepts and content for each new guide or tool. Like the guidelines, drafts were sent out to a wide array of reviewers, whose input was reviewed and incorporated by NCEMCH and MCHB staff.

Other Bright Futures materials, aimed at specific target audiences such as health care

Bright Futures Guidelines and Bright Futures in Practice Guides

KEY INFORMANT PERCEPTIONS

- The graphics, colors, and overall presentation were highly regarded by national, State, and local-level informants.
- These documents were seen as being among the most comprehensive resources available on child health.
- The material was viewed as inclusive and flexible for use by many different disciplines; however, the comprehensiveness of the guidelines can be a barrier, overwhelming providers who face tight time constraints in providing prevention services.
- The one-size-fits-all approach is seen as limiting the value of the materials to certain audiences; more targeted materials are needed.
- The division of information by topic area can limit the comprehensive view of age groups.
- Materials should be appropriate for a wider range of families, especially families with lower reading levels and non-English-speaking families.

Examples of Other Bright Futures Materials

TYPE	NAME	DESCRIPTION
Provider Training Materials	Bright Futures Case Studies for Primary Care Clinicians	This three-volume series of case studies was designed to translate Bright Futures guidelines into practical training for primary care clinicians.
Provider Tools	Anticipatory Guidance Cards	These tabletop, spiral-bound note cards were designed to facilitate discussion between health care providers and families by highlighting key health and safety issues relevant to each developmental stage.
Materials for Families	*Bright Futures Family Pocket Guide: Raising Healthy Infants, Children and Adolescents*	This quick-reference guide for families highlights health topics included in Bright Futures guidelines and is designed to foster parents' active role in the health care of their children.
Communications Tools	*BrightNOTES* Newsletter	This newsletter was produced by NCEMCH between 1996 and 2002 and was widely distributed. It provided information about Bright Futures publications, Bright Futures activities around the country, and issues in building Bright Futures programs.

providers or families, were developed by NCEMCH and national organizations. Examples included provider training materials, anticipatory guidance tools, quick-reference guides for families, and a national newsletter to highlight Bright Futures activities around the country. In addition, several States, organizations, and local entities developed tools and materials based on Bright Futures that were tailored to their own training, outreach, health assessment, or education needs.

One of the major tasks facing the developers of Bright Futures was how to disseminate materials efficiently and effectively. For the initial Bright Futures guidelines, they took advantage of the environment of change represented by national health care reform efforts. NCEMCH staff, with assistance from panel members and MCHB officials, pushed for completion of the *Bright Futures Guidelines for Health Supervision of Infants, Children, and Adolescents* to coincide with this national focus.

The guidelines were officially launched during a national kickoff event that featured Senators Edward Kennedy and Christopher Dodd, who were eager to link Bright Futures with policy efforts to increase health care access for children. NCEMCH followed up on this activity with a mailing of the Bright Futures guidelines to MCH-related organizations, agencies, groups, and individuals identified in collaboration with MCHB. NCEMCH also created a database to track data on the numbers and types of requests for Bright Futures materials, along with information on how they were being used.

Over time, more than 1.2 million copies of Bright Futures materials were disseminated. Numerous national agencies and organizations played important roles in this effort, such as MCHB; HCFA's Medicaid Bureau; the U.S.

Material Dissemination

KEY INFORMANT PERCEPTIONS

- Broad dissemination of the materials among different groups of professionals was an effective way to create an awareness of Bright Futures.
- The provision of free copies of the materials was critical in spreading awareness and utilization of the materials.
- Access to Bright Futures materials through Web sites supplements, but does not replace, the need for dissemination of hard copies.
- Potential dissemination opportunities involving key partners, such as AMCHP or CDC, were not fully utilized.
- There is a need to expand the visibility of Bright Futures in keyword searches using the Internet and on organizational or government Web sites.

Department of Agriculture's Food and Nutrition Service; the President's Council on Physical Fitness; and private partners such as AAP and Family Voices, an organization representing parents of children with special health care needs. Pfizer played a particularly large role in the dissemination of free Bright Futures materials to pediatricians and families. The Region VII Head Start Quality Improvement Center and State health agencies also played major roles in disseminating Bright Futures materials to their constituents. Many of their efforts (including training sessions that used and distributed Bright Futures materials) targeted a wide range of health professionals, including those working in public health departments, local public health agencies, community health clinics, school-based clinics, and home-visiting programs. In addition, States and local organizations also reached out to families, teachers, day care providers, private practitioners, and numerous other individuals concerned with the health and welfare of children and adolescents.

One of the mechanisms used to help disseminate Bright Futures materials was the Internet. Bright Futures materials were made available to be downloaded or ordered online. Web sites sponsored by Federal agencies and national organizations were among the over 280 Web sites found to reference Bright Futures. Also included in this count were 14 State, 30 university, and 30 professional association sites. However, there is evidence that Bright Futures materials are not easily found on commonly used search engine keywords, thus missing important opportunities for dissemination. Information and trainings regarding Bright Futures were also disseminated through videoconferences and Web-based technologies. Other strategies included the presentation of Bright Futures information and materials at large conferences; the promotion of Bright Futures as a standard for Early and Periodic Screening, Diagnosis, and Treatment screenings; and incorporating Bright Futures into guidance for MCHB's grant programs.

A further method by which the Bright Futures philosophy, practices, and materials were widely disseminated was the adoption of Bright Futures guidelines into the standards of care promulgated by certain States and organizational entities. Numerous Federal agencies, including HCFA, the Agency for Healthcare Research and Quality (AHRQ), and the Centers for Disease Control and Prevention

Examples of Bright Futures Dissemination Strategies

STATE BRIGHT FUTURES INITIATIVES

- **Massachusetts** incorporated Bright Futures standards into a variety of State contracts and utilized the guidelines in other programs. A Child Health Diary was developed following the Bright Futures guidelines and was sent to all new parents. More than 80,000 copies were distributed during its first year of publication.
- **Washington** focused its Bright Futures efforts at community-level agencies and families by funding demonstration projects to promote the use of Bright Futures materials and by distributing pocket guides, the Family Encounter Forms, and other materials.
- **Virginia** adopted Bright Futures as the State standard for children's health care in 2000. Efforts have been focused on the dissemination of Bright Futures materials and on the training of health care professionals to promote the use of Bright Futures in health care service delivery.

STATE TRAINING ACTIVITIES

- **Kansas** disseminated *Bright Futures in Practice: Nutrition* and *Bright Futures in Practice: Physical Activity* to public health professionals across the State and conducted videoconference training sessions on how to use the materials.
- **Florida** has sponsored numerous train-the-trainer programs based on Bright Futures nutrition and physical activity materials. A State workgroup used these to help revitalize State nutrition services and the Department of Health conducted three distance-learning trainings on physical activity using telemedicine linkups.
- **Louisiana** used *Bright Futures in Practice: Mental Health* materials to create training sessions on children's mental health and psychosocial issues for public health nurses. They also adopted those materials to help create a new Child Health Record and Checklist for children from birth to age 6.
- **Arizona.** The Arizona Department of Public Health held a 2-day training in Fall 2002 to provide an overview of *Bright Futures in Practice: Nutrition* to nutritionists, child care providers, and other maternal and child health professionals. Small group discussions were held to plan the integration of Bright Futures into the service delivery system.
- **South Carolina.** The South Carolina State Oral Health Coordinator has made extensive use of *Bright Futures in Practice: Oral Health* in developing training sessions for local providers. These training activities have included four regional training conferences for all school nurses on assessing oral health and presentations to perinatal associations. Since the initial training sessions in 2000, the State has held annual training sessions with new school nurses assessing oral health.

(CDC), referenced Bright Futures as a model of care. Many State and Territorial health departments, including the District of Columbia, Florida, Georgia, Kentucky, Maine, Massachusetts, Puerto Rico, Virginia, and Washington, incorporated Bright Futures as standards for well-child visits or for the overall delivery of public health services to infants, children, and adolescents. In some cases, States mandated the application of Bright Futures to health services that received State funding.

Bright Futures in Training

The third objective for Bright Futures involved the training of health professionals, families, and communities as key partners in the promotion of healthy futures for infants, children, and adolescents. In the years since the development and dissemination of Bright Futures, many types of training have taken place across the country to promote the goals and philosophy of Bright Futures. These have been directed at a wide array of audiences, ranging from private practitioners to public health providers, students, teachers, other professionals working with children, professional associations, community organizations, and parents. However, a common goal shared by many of these trainings, regardless of the targeted audience, has remained the promotion of greater communication, understanding, and partnering across these divergent groups to improve the quality of health for infants, children, and adolescents.

Preservice Health Professionals Training. Many key informants indicated that the best way to reach child and adolescent health professionals was by integrating Bright Futures into preservice training. The most widespread dissemination of Bright Futures training has been to pediatric nurse practitioners – according to the National Association of Pediatric Nurse Associates and Practitioners (NAPNAP), all 87 pediatric nurse practitioner programs in the country use Bright Futures in their curricula. Bright Futures also has been incorporated into curricula for pediatric residents, including an electronic case-based curriculum developed by the Bright Futures Center for Pediatric Education at Children's Hospital Boston. Other teaching modules incorporating Bright Futures have been developed for nutrition training programs, adolescent health provider training programs, and other courses within schools of medicine, nursing, public health, and pediatric dentistry.

Training to Promote Bright Futures

KEY INFORMANT PERCEPTIONS

- Bright Futures should be incorporated into the education and training programs of those who will be providing health care to infants, children, and adolescents.
- Training efforts need to be tailored to the particular needs of the target audience.
- Training works best when it focuses on how to apply what is learned in practice.

Continuing Education. Bright Futures has been incorporated into a number of different efforts to provide continuing education to practicing health professionals. With support from MCHB, the NCEMCH provided Bright Futures training to national and State organiza-

tions. Also with Bureau support, academic programs at the University of Alabama-Birmingham, University of North Carolina, University of Tennessee, and Indiana University developed continuing education training programs in nutrition, mental health, and physical activity. The National Parent Consortium on Maternal and Child Health sponsored training for families. State and community-level efforts also targeted public health staff, case managers, home visitors, school health staff, child care providers, and parents. Several initiatives have used videoconferencing, Web-based methods, and other technological solutions to overcome funding or travel constraints and spread their training efforts to a broader audience.

Bright Futures Partnerships

Since its inception, the Bright Futures initiative has been unique for its emphasis and reliance on partnerships. The very concept of Bright Futures was born of a collaborative effort among Federal Agencies (initially MCHB and the Medicaid Bureau of HCFA), and its development was possible only through the coming together of child health experts and stakeholders. For the initial Bright Futures guidelines, the panels of experts developing the guidelines were composed of individuals from multiple disciplines and a range of government, private, academic, family, and research perspectives. Subsequent products also have involved similar collaborations. Although it was MCHB that originally helped mobilize and coordinate the effort, no one entity claimed ownership of Bright Futures. It always has belonged to everyone who cares about the health and development of children.

Partnerships

KEY INFORMANT PERCEPTIONS

- Partnerships at all levels are important in supporting Bright Futures, including with a wide range of professions, organizations, and individuals.
- Public-private partnerships, such as the one among MCHB, NCEMCH, and Pfizer, can do a great deal to boost materials development and dissemination.
- Partnerships with other Federal agencies, such as the CDC, the Bureau of Primary Health Care (BPHC), and the Substance Abuse and Mental Health Services Administration (SAMHSA), could help expand the reach of Bright Futures.
- The endorsement of Bright Futures by partnering experts and organizations can give it greater weight and garner more broad-based support from policymakers.

The Bright Futures philosophy is grounded in partnerships among parents, health care providers, teachers and trainers, community members, and others. Thus, the focus of the Bright Futures guidelines and materials has been on promoting those partnerships with tools to enhance understanding, communications, and connections.

The continual reliance on partnerships and collaboration has added complexities to the task of developing and promoting Bright Futures. However, it also has been critical to the dissemination, expansion, and successes of the initiative. With limited financial resources, much of the development and implementation of Bright Futures has been made possible primarily through the good will, inkind support, and dedication of major stakeholders. For

Value of Bright Futures

ACCORDING TO KEY INFORMANTS

- The comprehensiveness of its approach to infant, child, and adolescent health
- Its developmentally aligned approach to preventive health care
- The inclusion of roles for a wide range of health care professionals, families, and communities
- The extensive review by experts and support from organizations that gives it great credence for child health policy development
- An expanded vision of child development and what children need across different domains
- Its applicability to numerous disciplines

example, the experts who developed and those who reviewed the Bright Futures guidelines and related materials largely donated their knowledge and considerable time. Many organizations have supported Bright Futures either by sharing their staff and expertise or through efforts to help produce and distribute materials. These have ranged from government agencies, such as MCHB and HCFA; to non-governmental organizations, such as Family Voices and AAP; and corporate sponsors, such as Pfizer. Equally important to promoting the translation of Bright Futures into practice have been the numerous partnerships at every level: across national and regional organizations; at the State, Territory, and local levels; within communities and community-level entities; among key stakeholders; and between individual providers and families.

Evaluation

The last Bright Futures objective, to evaluate and refine efforts, was given less precedence than the others due to a sense of urgency ascribed to the development and dissemination of the guidelines and materials. Most evaluation efforts were limited to counting the numbers of distributed materials or training sessions. Other efforts addressed ways in which Bright Futures components were incorporated into care or compliance with the guidelines. However, there was no formalized feedback mechanism for incorporating evaluation findings back into program or materials development.

This national evaluation constitutes the first overall effort to assess the development and application of the Bright Futures philosophy, approach to health promotion and preventive care, and standard of care. For the purposes of this process evaluation, data on this objective were collected from such sources as key informants who shared their own conclusions, information that was extracted from items published in *BrightNOTES* (NCEMCH's Bright Futures newsletter), experiences described in solicited e-mails, and data found in articles.

The evidence from key informants and evaluation materials suggests that Bright Futures is well-received and serves as a gold standard for well-child preventive care, packaged in a practical and well-designed fashion. Respondents appreciate the fact that the guidelines and materials include a broad range of child and adolescent health topics and are accessible to many types of practitioners.

Findings Related to How Bright Futures Was Used

The ways in which Bright Futures was used were analyzed in several key domains. While each of these is discussed separately, it is important to emphasize their overlapping and related nature and to recognize that every domain has an ongoing impact on the others.

Bright Futures in Clinical Practice

Bright Futures is used in many different types of clinical practice sites, ranging from private practices to school-based clinics and inpatient tertiary care facilities. This variety reflects the usefulness of the materials and inherent flexibility of the approach and guidelines. The process evaluation findings suggest that the providers who approach Bright Futures as a philosophy of care or as a tool to support their efforts to provide health supervision services are more likely to translate it into practice than are clinicians who see the guidelines merely as a prescriptive checklist.

Bright Futures in Public Health Practice and Programs

A number of Federal- and State-level strategies promoted the application of Bright Futures in public health practice and programs, including requirements to use the guidelines. Virginia, Massachusetts, and Washington provide examples of extensive State efforts to use Bright Futures in public health efforts, although outcomes of such efforts have not been fully evaluated. MCHB has funded projects related to Bright Futures in several of its grant programs, further extending the reach of the initiative. The Bureau also has, to some extent, integrated Bright Futures language into its requests for proposals, although the extent to which grantees have incorporated Bright Futures into their projects is not clear.

Lessons Learned

REFLECTED IN EVALUATIVE MATERIALS

- Policymakers and Federal agencies must sustain efforts to promote the acceptance and use of the Bright Futures approach and materials.
- Training needs to be sustained and address the nuts and bolts of using *Bright Futures in Practice.*
- There is a need for increased reimbursement for health supervision practices.
- Bright Futures needs to bring added value or efficiencies to the practice setting to be sustainable.
- There is a need for continued development of tools on specific Bright Futures topics.
- Better linkages are needed between dissemination, training, and a positive policy climate.
- Change is a long and arduous process.

Bright Futures in Education and Training

Several States and organizations developed an array of training strategies to accompany Bright Futures materials, but there was no cohesive training strategy to accompany the dissemination of the Bright Futures materials, nor was there any followup assessment of how training sessions affected the integration of Bright Futures into practice. Efforts to include Bright Futures in the preservice education of health professionals has met with mixed results. Challenges include the traditional nature of

Clinical Utilization of Bright Futures

INFLUENCES

- The provider's basic understanding and perception of the Bright Futures initiative
- Exposure to Bright Futures in preservice professional training
- Having a broad view of the practitioner's role that includes involving the family
- Support from policymakers and funding organizations to use Bright Futures
- The presence of a Bright Futures champion who raises awareness and promotes Bright Futures
- The availability of no- or low-cost materials
- The ability or the commitment of the practitioner to adapt and tailor Bright Futures to the structure and demands of the practice setting
- The availability of other child health supervision guidelines (e.g., Guidelines for Adolescent Preventive Services [GAPS]), which may be seen as competing alternatives to Bright Futures.

most health professional education programs, the lack of agreement on the role of prevention among providers, the high priority given to diagnosis and treatment, and the difficulties associated with bringing about change in health professionals training curricula. That said, among pediatric nurse practitioner training programs, use of Bright Futures is widespread.

Bright Futures and Public Policy

To a limited extent, some Federal and State agencies have used policy directives to promote Bright Futures, including adoption of the guidelines as an official or recommended standard. Alternative strategies focusing on legislators or groups such as the National Governors' Association potentially could help disseminate Bright Futures further at the policy level.

Bright Futures and Families

When Bright Futures materials are actually provided to families and used to help build positive relationships between parents and providers, they are seen as valuable. However, this practice is rather sporadic and has declined since Pfizer's corporate sponsorship of Bright Futures ended. Challenges facing the dissemination of materials to families include costs, the limited availability of foreign-language and low-literacy materials, resistance on the part of providers to the concept of increased partnering with families, and the need for a comprehensive plan to disseminate materials to families and support their use.

Bright Futures and Communities

The findings of this evaluation suggest that the focus of efforts to promote Bright Futures has been almost exclusively directed at health care professionals, and parents to a limited extent, rather than to community leaders or community-level organizations. Opportunities exist for using Bright Futures to engage community stakeholders in its approach and practice for bettering infant, child, and adolescent health. National-level efforts that focus on communities could also use Bright Futures as a framework for their efforts.

Recommendations

Overall

- Establish Bright Futures champions at every level (national, State, local, organizational, individual) to generate and sustain enthusiasm for the initiative and further its goals.
- Broaden MCHB efforts to integrate Bright Futures into its own grant programs and to further awareness and utilization of Bright Futures among other Federal programs and agencies.
- Consistently bring Bright Futures to the attention of policymakers, providers, advocates, and families and identify opportunities for applying the Bright Futures philosophy and utilizing materials; one-time efforts are not enough.
- The development of materials is insufficient to effect change in behavior. Materials developed to implement Bright Futures should include tools targeted to specific user groups and should be accompanied by training and strategies to promote adoption and use.

For Clinical Practice

- Integrate Bright Futures into the preservice training programs of health professionals from various disciplines concerned with children's health and well-being.
- Promote the coordination and consolidation of different child and adolescent health supervision guidelines in use.
- Develop tools and practice strategies to promote the adoption of Bright Futures in the clinical care setting.

PROCESS EVALUATION

OVERALL FINDINGS

- Building awareness is not enough to spur the translation of Bright Futures into practice.
- Efforts to refine, link, and promote Bright Futures must be conducted consistently.
- Stakeholders cannot assume, "If we build it, they will come." There must be comprehensive dissemination, education, and training strategies to promote the integration of Bright Futures into clinical care.
- The acceptance, reach, and use of Bright Futures are highly influenced by the existence or absence of service environments that support the philosophy of a holistic, developmentally based, and prevention-focused system of care.

- Promote Bright Futures as a quality improvement tool for clinical practice. Evaluate the effectiveness of these tools and strategies.
- Establish opportunities for peer training among a variety of health care professionals.
- Strengthen the evidence base for guidance included in Bright Futures materials by supporting outcomes research in prevention and health promotion for infants, children and adolescents.
- Promote the use of Bright Futures in programs that access large numbers of clinical providers, such as Community Health Centers and the Indian Health Service.

For Public Health Practice and Program Development

- Establish communication mechanisms to facilitate sharing of best practices pertaining to the utilization of Bright Futures.
- Mobilize and provide resources to States to enable them to initiate and sustain Bright Futures efforts.
- Encourage and support regional and community-based public health programs that promote infant, child, and adolescent health using the Bright Futures approach.
- Use Bright Futures guidelines to direct the planning of public health programs and subsequent monitoring and evaluation.
- Facilitate linkages across programs working with families to promote community-wide use of Bright Futures.

For Education and Training

- Broadly distribute Bright Futures to targeted audiences on a regular, consistent basis.
- Link dissemination of materials with training.
- Tailor training and training materials to target audiences.
- Engage all potential audiences interested in child health in Bright Futures training activities.
- Develop an overarching plan for the continuous dissemination of Bright Futures materials, the conduct of training and followup, and the evaluation of efforts.
- Incorporate Bright Futures into the preservice education of child health professionals from various disciplines.
- Provide education and training for parents regarding the importance of well-child care and prevention, using Bright Futures to help parents participate as partners in their children's preventive health care.
- Refine the review process for new Bright Futures materials.

For Public Policy

- Include Bright Futures as a requirement in MCHB requests for proposals, and conduct appropriate followup activities to monitor the utilization or adaptation of Bright Futures.
- Promote Bright Futures awareness and utilization among existing and new MCHB partners, including organizations representing State and local policymakers.
- Incorporate the use of Bright Futures into Title V and Discretionary Grant Performance Measures. Create and disseminate materials, under the authority of MCHB, designed to facilitate the utilization of Bright Futures in policy development.
- Convene a task force to promote Bright Futures as a standard of care for public and private insurance programs and service delivery systems (e.g., Medicaid, SCHIP, private insurers, managed care organizations) and to draft strategies for promoting adequate reimbursement by third-party payers for the provision of health promotion and preventive services included in the guidelines.

- Consider adopting Bright Futures as the organizing framework and content to guide State policies, programs, and services in health promotion and prevention for infants, children, and adolescents.
- Use existing funding and contract mechanisms to facilitate utilization of Bright Futures.
- Consistently promote awareness and utilization of Bright Futures.
- Use Bright Futures as the foundation for collaboration around child health at the community level.

Conclusion

Over a decade has passed since the initial creation of the Bright Futures initiative. Since that time, numerous socioeconomic shifts have transformed the landscape of health care for America's infants, children, and families. The advent of managed care, changing demographics, efforts to extend health care access, and pressures to increase efficiencies have continued to influence our country's ability to promote healthy families. Throughout this period, a diverse set of public and private partners has invested heavily in the development, promotion, and implementation of the Bright Futures approach to health promotion and prevention and the materials to implement it. As this report reveals, many entities at the national, State, and local levels as well as individuals have adopted *Bright Futures in Practice*. Their efforts have had a ripple effect that has touched the health care attitudes and practices of countless parents, providers, and communities.

The question that challenges Bright Futures today is how to chart a strategic course for the future. The successes and sustained interest in Bright Futures suggest that the program continues to have much to offer. The concept of focusing on the whole child within the broad context of his or her family, community, and environment is as relevant today as it was when Bright Futures was first conceived. The value of parental involvement and partnerships endures. The major threats to the health of children and adolescent remain associated with behavioral and environmental influences – and thus Bright Future's focus on risk reduction, health promotion, and disease prevention is still critical.

This report presents a range of recommendations for furthering the goals of Bright Futures. The hope is that these will provide an important next step in the development of a comprehensive and coordinated strategy to take Bright Futures into the next decade, and beyond.

Evaluation Findings

I. Introduction

In 1990, the Health Resources and Services Administration's Maternal and Child Health Bureau (MCHB), with support from the Medicaid Bureau in the Health Care Financing Administration (HCFA, now renamed the Centers for Medicare and Medicaid Services, or CMS), launched the Bright Futures for Infants, Children, and Adolescents Initiative (Bright Futures). This initiative was developed to foster a developmentally based approach to addressing the preventive and health promotion needs of infants, children, and adolescents, in particular by preventing or ameliorating the impact of the many psychosocial and environmental factors that threaten children's health. Bright Futures addresses health promotion and illness prevention for children in the context of their families and communities.

The overarching mission of Bright Futures is to promote and improve the health, education, and well-being of infants, children, adolescents, families, and communities. The specific goals to accomplish this mission include the following:

- Enhance health professionals' knowledge, skills, and practice of developmentally appropriate health care in the context of family and community
- Promote desired social, developmental, and health outcomes of infants, children, and adolescents
- Foster partnerships among families, health professionals, and communities
- Increase family knowledge, skills, and participation in health promotion and prevention activities.

These goals are designed to be addressed through the implementation of five objectives:

- Develop materials and practical tools for health professionals, families, and communities
- Disseminate Bright Futures philosophy and materials
- Train health professionals, families, and communities to work in partnership on behalf of children's health
- Develop and maintain public private partnerships
- Evaluate and refine the efforts.

These goals and objectives reflect the central role of partnerships in the initiative's philosophical framework. The initiative is founded on the tenet that partnerships among all those who share responsibility for and who can affect children's health – including families, health care providers, schools, and communities – are critical to the realization of children's optimal physical, mental, and social development.

The centerpiece of Bright Futures is a comprehensive set of health supervision guidelines for infants, children, and adolescents from birth through age 21. *Bright Futures Guidelines for Health Supervision of Infants, Children, and Adolescents* was initially published in 1994. A second edition was published in 2000, with

minor revisions made again in 2002. In addition, a complementary set of publications focusing in depth on key child health supervision topics, including nutrition, physical activity, oral health, and mental health, was published between 1995 and 2002, along with various complementary tools and other materials to facilitate their use by different audiences.

Over the years, the Bright Futures approach to health supervision, health supervision guidelines, and related materials appear to have been adopted and utilized by various Federal, State, and local agencies, health care provider associations, universities, and other teaching programs for health and health-related professionals, managed care organizations, community-based organizations, and individual providers and families, among others. However, the nature and extent of the adoption and utilization of Bright Futures has not been clear due to a number of factors, including the lack of systematic evaluations of these activities.

In 2002, MCHB launched the first comprehensive effort to assess and evaluate the Bright Futures initiative. The evaluation approach was conceptualized to include three major phases:

Phase I involved the conduct of a process evaluation to assess the achievement of the initiative's five objectives – that is, to assess the nature and extent of Bright Futures-related dissemination, adoption, and practice activities at the national, State, and community levels to date.

Phase II involved the development, in collaboration with a workgroup of Bright Futures stakeholders, of a plan to evaluate the outcomes of Bright Futures activities.

Phase III, in progress, involves the implementation of certain components of the outcome evaluation plan that address Federal priority areas. Information from all phases of the evaluation will be valuable in informing current and future Bright Futures policy and program activities.

In September 2002, MCHB funded Health Systems Research, Inc. (HSR) to carry out Phases I and II of the Bright Futures evaluation. This report presents the findings of Phase I and is organized as follows:

Section II describes the methodology used to execute this multifaceted process evaluation.

Section III provides a historical overview of the Bright Futures initiative.

Section IV presents the findings of this process evaluation related to the implementation of the Bright Futures initiative at the national, State, and local levels, organized by the five process objectives of the initiative. Additional findings related to other important issues in the implementation of Bright Futures are also presented.

Section V presents an analysis and discussion of evaluation findings and their implications for the ongoing Bright Futures initiative.

Section VI offers recommendations applicable to future activities.

Section VII concludes the report by describing real case examples of how Bright Futures has been put into practice.

II. Methodology

The process evaluation looks at the Bright Futures initiative from its inception in 1990 through early 2002, when new cooperative agreements were awarded by MCHB to continue the initiative. The process evaluation was carried out using qualitative research methods, including key-informant interviews, focus groups, and document review, as well as other methods described in this section. This approach can accomplish many important goals. For example, a process evaluation can describe the program/initiative and the general environment in which it operates, including what has happened and what is currently happening, who was and is involved in delivering various aspects of the program/initiative, who is benefiting from the program/initiative, and what resources are expended. Another key role of the process evaluation is to provide information about program implementation and help explain experiences and findings. This is core to the development and conduct of an outcome evaluation, a subsequent step in the Bright Futures evaluation process. Process evaluation can also function as a form of program/initiative monitoring, and charting progress towards achievement of initial goals and objectives. The information provided from a process evaluation can facilitate replication of the program, or aspects of it, and identify strategies to enhance its effectiveness.[1]

However, there are also limitations to the methods used in this study. Given the scope of its contract with MCHB, HSR could not be entirely inclusive with regard to the key-informant interviews. The goal with the national-level key-informant interviews was to collect information from a large number of people and organizations involved during the initiative's early years – in fact, at this level, it is believed that data have been gathered from a preponderance of the key players. On the State level, HSR purposively sampled States with experience in using Bright Futures; the number of key-informant interviews does not reflect the extent of the activity at the State level but rather the practical realities of this project. On the local level, HSR sought to identify "best practices" with regard to Bright Futures. This approach shows how Bright Futures was developed and disseminated and the types of activities conducted, but it does not capture in a systematic fashion all the data about what went well, what did not, and for whom. The examples cannot be viewed as being representative of any one group. It is important to note that while process evaluation is valuable in being able to convey information about how well the program (in this case, Bright Futures) was implemented, it does not address the question of whether a program has been able to generate the benefits and intended outcomes for the various recipient groups.

A. Identification of Research Questions

Research questions were developed at the outset of the project and refined during the evaluation process to guide the development of the overall Bright Futures evaluation. They

1 Rossi P, Freeman H, Lipsey M. *Evaluation: a systematic approach,* 6th Edition. Thousand Oaks, CA: Sage Publications; 1999:69–70.

Table II-1.
Bright Futures Process Evaluation

RESEARCH QUESTIONS

1. Who is conducting efforts to disseminate, adapt, utilize, or implement Bright Futures materials?
2. How are these organizations/agencies utilizing Bright Futures materials?
3. What groups are these efforts targeting?
4. What are the desired outcomes of these efforts?
5. How is the success of these efforts being measured? What data are available to measure the success of these efforts?
6. What is the perceived value of Bright Futures?

include questions central to the process evaluation (Phase I) as well as those to inform the development of the outcome evaluation plan (Phase II). Presented in Table II-1, these research questions may be divided into two major categories. Questions 1–3 examine the Bright Futures inputs, activities, and outputs, the major foci of the process evaluation. Questions 4–6, which explore issues related to the identification of potential data sources and measures and the assessment of the perceived value of the Bright Futures initiative, address issues for the process evaluation but also begin to move into the realm of issues relevant to the outcome evaluation.

B. Development of a Bright Futures Logic Model

Development of a Bright Futures logic model was an early step in the evaluation process. A logic model is a graphic representation of a chain of relationships and actions. Logic models are an ideal way to map assumptions about how an intervention leads to particular outcomes. Additionally, logic models can serve to keep evaluation activities on track by pointing to appropriate evaluation questions and corresponding data needs.[2]

The Bright Futures logic model developed by HSR lays out a conceptual framework for how the Bright Futures initiative has been implemented and the sequential outcomes that are intended to result from the initiative. It also lays out a framework for evaluation by providing a rational bridge between Phases I and II of this evaluation. Whereas the process evaluation (Phase I) focuses on the first half of the logic model – the inputs, activities, and outputs – the second half of the logic model (immediate, intermediate, and sustained long-term outcomes) are the areas that will be addressed by an outcome evaluation.

As shown in Appendix A, the logic model identifies the inputs to the Bright Futures initiative represented by the contributions of public and private partners to fund and develop the Bright Futures initiative and materials. According to the model, these inputs led to the conduct of a range of activities (corresponding to the Bright Futures project objectives noted previously) to implement Bright Futures. The identified outputs of these activities (e.g., the materials produced and disseminated, the training programs delivered, the policies and partnerships developed) are, in turn, tied to numerous short-term outcomes, such as increased awareness of Bright Futures; adoption/adaptation of Bright Futures materials and

2 Centers for Disease Control and Prevention. Framework for program evaluation in public health. MMWR. September 17, 1999;48(RR11):1–40.

philosophy; the enhancement of health professionals' knowledge and skills related to developmentally appropriate care in the context of the community; and the utilization of Bright Futures by clinicians, families, and community partners. The longer-term outcomes identified in the logic model correspond to the Bright Futures project goals regarding partnerships, health outcomes, families, and providers previously noted. The mission of Bright Futures – to promote and improve the health, education, and well-being of infants, children, adolescents, families, and communities – encompasses the intended ultimate results of the initiative, represented as the overarching goal in the project logic model.

This framework is consistent with the "diffusion of innovation theory" developed by Everett Rogers.[3] According to this theory, the diffusion process involves four main steps. The innovation is first created; in this case, the innovation is the Bright Futures philosophy, approach, and materials. The second step in the diffusion process is the dissemination of the innovation, including the dissemination of the Bright Futures guidelines and other materials, as well as the sharing of the philosophy and approach through the delivery of presentations and trainings. The innovation is then adopted and/or adapted, as Bright Futures has been by Federal and State agencies and organizations that have utilized Bright Futures in their policy and programmatic activities. Finally, the innovation is implemented, as Bright Futures has been, for example, by health providers, families, and community organizations at the local level.

Table II-2.
Data Collection Methods

PRIMARY DATA COLLECTION	
Key-informant Interviews	▪ National-level key informants: 36 ▪ State-level key informants: 30 ▪ Local-level key informants: 13
Focus Groups	▪ Pediatricians: 8 participants ▪ Pediatric Nurse Practitioners: 13 participants ▪ Healthy Tomorrows Grantees: 11 participants
Solicitations for Information about Bright Futures Activities	Various organizations invited their members to provide examples of how Bright Futures is being used (e.g., American Academy of Family Physicians, Association of Maternal and Child Health Programs [AMCHP], Association of Teachers of Maternal and Child Health)
SECONDARY DATA COLLECTION	
Existing Databases and Summaries	▪ National Center for Education in Maternal and Child Health (NCEMCH) database ▪ NCEMCH *BrightNOTES newsletter* and summary documents ▪ Title V Block Grant summary (FY 2003) ▪ MCHB Training Grant summaries ▪ State newsletters (Washington)
Literature Review	Search of PubMed, MEDLINE, NLM Gateway, Lexis/Nexis, PsycINFO, ProQuest, ERIC, ISI Web of Science/Web of Knowledge, CINAHL, and Google databases, and review of the bibliography included in the RFP for this Bright Futures evaluation
Web Site Review	Comprehensive search and review of Web sites, including Bright Futures references

C. Data Collection

Data for the process evaluation were gathered from numerous sources. An extensive primary data collection effort was conducted to gather

3 Rogers, EM. *Diffusion of innovations,* 4th ed. New York: The Free Press; 1995.

firsthand information from individuals, agencies, and organizations involved in national, State, and local Bright Futures activities. This information was supplemented by review of numerous secondary data sources to ensure that information that has been collected and documented over the years regarding Bright Futures activities was utilized in this evaluation. An overview of the data collection methods is presented in Table II-2.

1. Primary Data Collection

Primary data for the evaluation was collected through the conduct of interviews with key informants, three focus groups, and e-mail solicitations to identify Bright Futures-related activities.

a. Key-informant Interviews

The major source of primary data was key-informant interviews, which were conducted with 79 individuals involved in Bright Futures at varying points between the initiative's launch in 1990 through the start of the evaluation in 2002. A complete list of key informants is included as Appendix B.

The sample of key informants was drawn through a purposive process. That is, interviews were conducted with individuals and organizations who had taken some active role in developing or implementing Bright Futures. This strategy was chosen to elucidate how the Bright Futures diffusion process has occurred.

To select national-level key informants, HSR first developed a matrix identifying eight categories of Bright Futures partners, including:

- Federal agencies
- Federal partners/grantees
- Individual contributors
- Professional organizations
- Advocacy organizations
- Associations of government officials/programs and government-funded providers
- School-related associations/organizations
- Corporate partners.

This matrix, included in Appendix C, was used to guide the selection of a group of national-level key informants that included representation from each of the major categories. Some categories (namely, Federal agencies and Federal partners/grantees) were more heavily represented than others due to their central role in the development and implementation of the Bright Futures initiative. The group of national-level key informants who were interviewed included a range of public agencies, private organizations, and individuals involved with launching the Bright Futures initiative and conducting early implementation activities. Given the critical nature of the many national-level players in the initiative who were continually identified over the course of the evaluation, the number of key-informant interviews conducted far exceeded the number originally planned.

State-level key informants were identified based on suggestions provided by national-level key informants; HSR's review of existing Bright Futures materials and databases; and inquiries made to members of national associations via e-mail, which helped to identify additional

individuals and organizations utilizing Bright Futures. The group of State-level key informants included in the evaluation were dominated by State public health departments, including Women, Infants, and Children (WIC) agencies, that were involved in promoting Bright Futures to their staff through such activities as dissemination of materials, conduct of presentations and trainings, and incorporation of Bright Futures guidelines as a standard of care in their programs. Also included among State-level key informants were universities involved in tracking or promoting the use of Bright Futures and health plans with providers using Bright Futures.

Local-level key informants were identified by State-level key informants, literature review, and solicitations from the field and were selected to ensure that a range of local provider types and organizations were represented. These key informants included local health departments, Head Start agencies, private practice providers, WIC clinics, and school-based health centers.

To help guide the interviews with key informants, HSR developed three template discussion guides for each of the three sets of respondents – those at the national, State, and local levels. The development of the template discussion guides, which were guided by the research questions, explored several key activity areas: development of Bright Futures materials, dissemination of materials, conduct of presentations and trainings related to Bright Futures, and activities to promote the use of Bright Futures as a standard for clinical practice or policy development. Information also was gathered regarding the organization or agency, the target audiences of their efforts, implementation issues encountered, intended outcomes of Bright Futures activities, efforts to measure success, the perceived value of the Bright Futures materials and the overall initiative, and suggestions for enhancing their effectiveness. In all cases, while promoting the collection of a consistent set of data across various interviewers and key informants, the discussion guides were tailored to the particular key informant and used flexibly to ensure that the most appropriate information was gathered from each person.

b. Focus Groups

HSR conducted three focus groups as part of the process evaluation. Groups were conducted to supplement the information obtained through key-informant interviews and, in particular, as a means to obtain broader input from providers working at the local level. One focus group was conducted with pediatricians, one with pediatric nurse practitioners, and one with grantees of MCHB's Healthy Tomorrows Partnership for Children program that encourages grantees to utilize Bright Futures.

Focus group protocols were developed to elicit the groups' input on several key topics, including the delivery of health supervision services, sources of their knowledge on health supervision, challenges they face in providing health supervision, awareness of the Bright Futures materials, use of the materials, opinions about Bright Futures, and steps that could be taken to increase utilization among similar providers.

As a supplement to the focus group conducted with pediatric nurse practitioners, and with the

help of the National Association of Pediatric Nurse Practitioners (NAPNAP), HSR used e-mail to solicit input from faculties of pediatric nurse practitioner training programs regarding their use of Bright Futures in these training programs. In addition, HSR took the opportunity presented by the focus group setting – the NAPNAP annual meeting – to meet in person with a group of approximately 70 faculty members of pediatric nurse practitioner training programs across the country to gain input from this broader group.

c. Solicitations for Information About Bright Futures Activities

Another method used by HSR to supplement the key-informant interviews, which could be conducted only with a limited number of people, was to work with key organizations to identify additional examples around the country of Bright Futures-related activities. Several organizations[4] sent out an announcement to their members notifying them of the national Bright Futures evaluation and HSR's interest in learning about how Bright Futures was being implemented, with a request that they contact HSR by e-mail or phone to share information about these activities. In addition, one State WIC program (Florida) sent a similar announcement to its local agencies. HSR used information gained through these means to identify key informants and to supplement its database of Bright Futures activities.

4 These organizations included the American Academy of Family Physicians, the Association of Maternal and Child Health Programs, the Association of Teachers of Maternal and Child Health, the American Association of Public Health Dentistry, CitymatCH, and the Society for Adolescent Medicine.

2. Secondary Data Collection

Primary data collection methods were supplemented by secondary data collection, including review of existing Bright Futures databases and summaries, the published and online literature, and Web sites referencing Bright Futures. Data collected from these sources helped in the process of identifying key informants and were also used to expand HSR's database documenting examples of how Bright Futures has been used.

D. Analysis of Data

Data were entered into Microsoft Access databases to facilitate analysis. Three databases were developed, one each for national, State, and local-level data. Each database was structured in accordance with the components of the interview protocol.

Data collected through key-informant interviews and focus groups were analyzed to identify cross-cutting themes. In addition to this content analysis, each Bright Futures-related activity (i.e., activities related to development and dissemination of Bright Futures materials, conduct of presentations and trainings, use of Bright Futures as a standard, etc.) identified through either primary or secondary data sources was coded to identify the Bright Futures process objective(s) that it addressed. This analysis was used to facilitate discussion of evaluation results in terms of the degree to which the initiative's five process objectives have been addressed.

E. Development of Annotated Bibliography

Another component of HSR's evaluation contract was to develop an annotated bibliography of Bright Futures materials. HSR identified materials for inclusion in the bibliography through key-informant interviews as well as through the extensive secondary data reviews conducted for the evaluation. The complete bibliography, presented under separate covers, organizes materials into nine categories:

- **Bright Futures guidelines.** This category includes the Bright Futures guidelines and *Bright Futures in Practice* series, as well as related materials that were developed under the direction of the National Center for Education in Maternal and Child Health (NCEMCH).
- **Pocket guides.** Pocket guides are the summary versions of the larger Bright Futures guidelines books.
- **Bright Futures newsletters.** This category includes newsletters of campaigns and projects focused entirely or largely on Bright Futures.
- **Bright Futures Web sites.** Web sites focused exclusively or largely on Bright Futures are included.
- **Family materials.** This category includes materials developed for parents and children on child health topics, partnering with health care providers and others around child health, and being an advocate for their child's health.
- **General articles/fact sheets.** This category includes articles summarizing the Bright Futures initiative and applications to various settings, as well as fact sheets highlighting information on key topics addressed in Bright Futures materials.
- **Presentations/training materials.** The largest of the bibliography categories, this section includes numerous PowerPoint presentations on the overall Bright Futures initiative, as well as specific components, along with training agendas, tools, and manuals.
- **Provider tools.** Materials based on Bright Futures designed to facilitate child health screening and the provision of health supervision are included in this section.
- **Studies/findings.** This category includes journal articles and reports describing the success of efforts to implement and utilize Bright Futures in clinical, programmatic, and community-based settings. A summary of the findings presented in this section is included in Section IV (Part E) on Bright Futures evaluation activities.

Appendix D includes an overview of the number of entries included in each category of the annotated bibliography.

F. Review of Web Sites Referencing Bright Futures

HSR also conducted an extensive review of the Internet for Web sites referencing Bright Futures and identified approximately 300 of these sites. A detailed document describing each of these sites is presented under separate cover, with a summary table included in Appendix E. The sites are categorized into those with national-level, State-level, and local-level sponsors, with additional descriptive

breakdowns included within each of these categories. For each of these sites, HSR provided the following information:

- The name of the Web site
- A description of the site's sponsor
- The Web address for the site
- The context for the Bright Futures reference
- An indication of whether or not the site describes the Bright Futures initiative
- Any specific Bright Futures materials that are identified and whether or not these materials are described
- Whether or not the site has a link to the Bright Futures web site maintained by the NCEMCH.

The next section provides a historical overview of the development and implementation of the Bright Futures initiative.

III. Bright Futures: An Historical Overview

A. Bright Futures: The Idea

Several factors converged to stimulate the development of the Bright Futures approach to child health supervision. These included a growing interest in promoting a single standard of care for children, concerns raised in the professional literature about the actual value of preventive health services for children, as well as the growing recognition of the effects of psychosocial issues on children's health, the "new morbidities."

Background. In the mid-1980s, State Maternal and Child Health (MCH) Directors, MCHB, and HCFA engaged in discussions regarding the potential value of developing a national set of health supervision guidelines. It was envisioned that all health insurance payers could adopt these guidelines for use in any practice setting where preventive and health promotion services were provided to children and adolescents.

HCFA had promulgated child health care guidance for State Medicaid programs in 1974 and dental care guidelines between 1976 and 1978. Federal and State officials felt that it was timely to review these guidelines given increasing interest in national health care reform. These officials recognized the importance of the Medicaid program as a major payer of health services for children in the development of a new and unified approach to child health supervision.

About the same time, questions about the effectiveness of preventive care were raised in a 1988 study commissioned by a Congressional committee and conducted by the Office of Technology Assessment (OTA), entitled *Healthy Children, Investing in the Future.* The study, essentially a literature review, indicated that while immunization as a component of preventive care was found to be effective, "researchers have yet to be able to document the effectiveness of the non-immunization aspects of well-child care in terms of improved health outcomes."[5] As described by Dr. Woodie Kessel, an MCHB official instrumental in the creation of the Bright Futures initiative, another important study was one conducted by Rand, a research organization, that attempted to evaluate the effectiveness of well-child care by examining health outcomes of children in different health delivery systems. The study explored the assumption that if extensive well care is provided to children and subsequently health outcomes improve, then well care can generally be construed as effective. The findings of this study revealed no statistical difference in health outcomes for children enrolled in a variety of health insurance plans, including those plans that provided unlimited free care.[6] The dissemination of findings from these studies led some child health policymakers and practitioners to conclude that preventive services for children were ineffective and therefore not needed.

5 Office of Technology Assessment. Well-child care. In *Healthy Children, Investing in the Future,* chapter 6. Washington: Government Printing Office; February 1988:144.

6 Valdez ROB, Ware JE, Manning WG, et al. *Prepaid group practice effects on the utilization of medical services and health outcomes for children: Results from a controlled trial.* N-3116-HHS. 1990.

Other child health experts, however, suggested that a different conclusion could be reached based on an alternative interpretation of the term "evidence." Did the OTA study find no evidence of the effectiveness of well care because the topic had not been studied and therefore there was no evidence to be found, or did the study find actual evidence that well care was not effective? Similarly, the Rand study indicated that providing more care did not improve outcomes. However, the care that was provided was traditional well care services offered in large quantities and may or may not have been the services that are actually needed to improve outcomes.

Nevertheless, the interpretation of study findings suggesting that preventive services as currently delivered had little impact on health outcomes influenced policy changes in the provision of well care services for children. For example, Oregon subsequently reduced the level of well care services provided to children enrolled in the State's Medicaid program. Policy discussions based on a belief that preventive services for children were not effective greatly concerned the officials of MCHB and the leadership of the American Academy of Pediatrics (AAP). This concern led them to recognition of the need to explore, in depth, what is empirically known about child health supervision and to use this information to develop a single set of guidelines with widespread applicability.

Initiation. As a consequence, MCHB convened a meeting of an array of child health experts to discuss well care issues and the boundaries of health supervision for children. The group was comprised of government officials, researchers, clinicians, and health insurers. Participants were challenged by MCHB to explore the essence of health supervision. They were asked to consider: "Are the roots of health supervision based on tradition (do we do it this way because we have always done it this way), or, is health supervision based on evidence of its effectiveness in promoting desired health outcomes?"

As a result of extensive discussion and an awareness of emerging scientific evidence indicating the importance of looking at the whole child within the context of the child's family and community, meeting participants became convinced of two things:

- A thorough examination of the existing empirical evidence on the components of well care impacting better health outcomes should be conducted
- The scope of child health supervision should be shifted from a strict medical focus to a more expansive health focus addressing growth and development and social/emotional factors within the context of the child's family and community.

MCHB, the AAP, and other partners believed that despite the ongoing need for more research into preventive care and its effectiveness, it was both possible and critical to achieve consensus about what was known. This consensus effort became known as Bright Futures.

B. Getting Organized

Once the Bright Futures idea was born, the next step was to develop a process to nurture the idea into a concrete entity that would be meaningful and useful. This step was particularly challenging given the complexity of the task and the need to make the process inclusive of many different points of view.

To organize the process, MCHB acted in a convening capacity to mobilize an initial multidisciplinary group of talented and committed child health experts, including parents, to develop a health supervision guide based on what was known about preventive services for children. MCHB officials, Drs. David Heppel and Woodie Kessel, with the support of Dr. Vince Hutchins, MCHB Director, sought out Dr. Morris Green, a recognized leader in ambulatory and contextual pediatrics, to engage him as chairperson of the effort.

Under the guidance of MCHB and with the leadership of Dr. Green, organization of a Bright Futures Board of Directors began. This group was chaired by Dr. Otis Bowen, at that time the MCH Director in Indiana. All agreed on the importance of putting in place a diverse and broad-based group to provide oversight to the Bright Futures initiative. At this stage of the process, Board members included representatives from academic pediatrics, dentistry, national groups such as the Child Welfare League of America, the AAP, AMCHP, and many others. Federal agency liaisons included representatives from MCHB, the Medicaid program, and the National Institutes of Health. This group was given the responsibility of providing direction and oversight to the project.

C. Developing the Bright Futures Concept

To develop the Bright Futures concept fully and inform the research and development of the guidelines, Federal officials and the Bright Futures Board of Directors identified several principles to focus the process and keep it on track.

Bright Futures was envisioned as a "system" of preventive care for children.

It was agreed that the health supervision guidelines would be designed as a guide rather than as a textbook; that is, the guidelines would suggest an approach to care rather than act as a text that prescribes the care to be given. It also would be:

- Targeted to a variety of audiences
- Designed to promote an expanded view of child health supervision
- Focused on a wide array of domains and disciplines involved in health supervision activities
- Evidence driven
- Easy to use
- Built upon a primary care model of continuous care.

In addition, it would be important to create a document that would promote innovative strategies, including the use of trigger questions to engage families in discussions of their child's health, and assist the provider in handling issues that surfaced during the well-child visit.

It was envisioned that, once the document was developed, various professional groups, dentists, nutritionists, pediatricians, and nurses would use Bright Futures. These providers then would be asked to identify the aspects of child health supervision services contained in the document appropriate to their professional discipline. From this process would come a "map" displaying the totality of health supervision activities and the discipline(s) responsible for the implementation of specific activities. Having determined the "what" and the "who" of the guidelines, the question of "where" then could be addressed. It was believed that the Bright Futures guidelines could be used in a variety of venues, including clinicians' offices, schools, public health, and other community settings.

Bright Futures was intended to guide clinical care and to inform program and reimbursement policies.

In addition to utilization in clinical care settings, the guidelines also would serve as a policy reference for those planning, providing, evaluating, and paying for care. The goal was to obtain consensus on the guidelines as the embodiment of state-of-the-art, evidence-driven child health supervision and then to work through a number of agencies, organizations, and professional associations to encourage the utilization of the guidelines in a variety of policy, program, and clinical arenas. This included adoption as the Early and Periodic Screening, Diagnosis and Treatment (EPSDT) Program guidelines and as the AAP guidelines for health supervision.

Implementation of the Bright Futures initiative was conceptualized as a three-part project:

Part I involved the development and distribution of the health supervision guidelines.

Part II focused on the provision of training and technical assistance to promote utilization of the guidelines.

Part III emphasized the formation of partnerships to promote and institutionalize utilization of the guidelines.

At this time, the need to select an entity to organize and manage the actual development of the health supervision guidelines was identified. A critical consideration in the identification of this entity was recognition of the importance of the document being seen as "belonging" to the child health community and not to any one agency or discipline. Therefore, NCEMCH was identified as a neutral entity with the skills and experience to manage the project. In addition, this arrangement would allow for the ongoing involvement of MCHB staff members in the project.

A cooperative agreement between NCEMCH and MCHB was already in place and served as a mechanism to support Bright Futures activities. MCHB initially earmarked $500,000 for this effort with $100,000 contributed by HCFA.[7] The NCEMCH provided the infrastructure for the project and brought on additional staff members to direct and conduct the work. From 1990 through 1996, Bright Futures was the major focus of work done by the NCEMCH.

7 A portion of these initial Bright Futures funds were provided to The George Washington University to conduct background research to inform the development of the Bright Futures guidelines.

D. Implementation

This section provides an overview of the implementation activities involved in each of the three components of the Bright Futures initiative noted previously.

Part I: Developing and Distributing the Bright Futures Guidelines

1. Initial Health Supervision Guidelines

Once the NCEMCH was identified as the organization responsible for spearheading the development of Bright Futures, the Project Director, Pam Mangu, worked with Dr. Green to finalize the membership of the Bright Futures Board of Directors (see Appendix F). It was determined that four multidisciplinary panels of experts would be established to develop the actual guidelines. The panels were organized by developmental periods and focused on infancy, early childhood, middle childhood, and adolescence.

With the assistance of Board members, and an array of professional organizations, the MCHB and NCEMCH staffs began to identify additional child health experts to serve on the four panels. Also included was a parent who was asked to be the voice of families in the process.

MCHB is a champion but not the "owner" of Bright Futures. It belongs to everyone who cares about the health and development of children.

Panel members are listed in Appendix G. Since Bright Futures was intended for use by a variety of audiences, organizers of the process were adamant that the guidelines be developed by a variety of experts. Therefore, every attempt was made to obtain a mix of disciplines – including physicians, dentists, nutritionists, nurses, public health professionals, and others with expertise in behavioral health issues – on each panel as well as a balance of private sector, public health, and academic perspectives.

Dr. Green reviewed with each panel the rationale for and purpose of the Bright Futures initiative. He charged the groups with creating health supervision guidelines for their area that were evidence driven, extended beyond traditional medical preventive services, and grounded in child development and would be useful to a range of disciplines providing health supervision care in a variety of settings. The NCEMCH staff assisted the panels by helping to keep the work on track and focused and also by gathering and integrating the content. The Center staff also played a role in facilitating relationships and promoting cross-disciplinary work. Those interviewed for the process evaluation almost unanimously agreed that, despite the complexity of the task and the disciplinary differences among panel members, a strong ethic of cooperation and collaboration pervaded the entire process.

Once each panel completed an acceptable draft of its section of the guidelines, the draft was sent out to another cross-disciplinary group of reviewers to obtain comments and suggestions. The draft guidelines were sent out to approximately 1,000 reviewers. The NCEMCH Bright Futures staff subsequently reviewed every comment received for potential areas of

disagreement and negotiated each to acceptable closure.

Throughout the process, every attempt was made to assure the compatibility of the Bright Futures guidelines with the existing AAP health supervision guidelines.

A goal of the Bright Futures initiative was to prepare guidelines that were user friendly and accessible to a range of disciplines and interest groups. To that end, the Director of the NCEMCH, Dr. Rochelle Mayer, and the Bright Futures staff stressed the importance of packaging the guidelines to make them attractive, appealing, and engaging. Therefore, the guidelines were colorfully illustrated using pictures of real families and printed on high-quality paper.

Bright Futures was designed to be accessible to a wide range of disciplines and child health stakeholders.

As described later in this document, many health care professionals have applauded this approach. Furthermore, the Bright Futures materials have received several prestigious awards, as detailed in Appendix H.

The NCEMCH staff, with the assistance of panel members and MCHB officials, pushed for completion of the Bright Futures guidelines to coincide with the work initiated by the Clinton Administration on health care reform. A national kickoff event for Bright Futures was held in September 1994; Senators Edward Kennedy and Christopher Dodd participated, which garnered nationwide press coverage. The Senators were eager to link Bright Futures to their efforts to gather support for a children's health insurance program.

While extensive efforts were made to bring on organizations and agencies to endorse Bright Futures, it was not seen as appropriate for governmental agencies such as HRSA and HCFA to endorse the effort. Bright Futures Board of Directors members sought, and successfully obtained in most instances, the endorsement of their respective organizations. One exception was the AAP, which, despite NCEMCH's efforts to address all AAP comments, did not initially endorse the guidelines. This occurred for several reasons. The membership of the AAP is very broad, and not all members concurred with the Bright Futures approach to health supervision. There was also tension related to the role of the AAP health supervision guidelines and that of Bright Futures. The endorsement of the American Academy of Family Physicians, a group not included in the initial development of the Bright Futures initiative, was also not forthcoming at this time.

As with the development process, the NCEMCH played a key role in dissemination of the *Bright Futures Guidelines for Health Supervision of Infants, Children, and Adolescents.* This began early in 1995 with a mailing of the guidelines book to organizations, agencies, groups, and individuals identified in collaboration with MCHB. A database was developed by the NCEMCH to gather information about the number and nature of requests for the document and how the guidelines were being used.

Revisions to the basic guidelines were made in 2000 to integrate new evidence-driven information into a second edition of the document. The second edition was further revised in 2002 to add updated immunization schedules and growth charts.

2. Building Bright Futures: The Bright Futures in Practice Series and Other Materials

Following the rollout of the guidelines, members of the Bright Futures Board of Directors and other stakeholders encouraged the development of additional materials that focused on particular health supervision needs and issues in significant depth. This activity was viewed as taking Bright Futures to "the next level." This second phase of the Bright Futures initiative was called "Building Bright Futures" and was under the leadership of pediatrician Judith S. Palfrey, M.D. MCHB staff member Dr. Ann Drum played a guiding role in this phase of the initiative as the Bureau's project officer for the NCEMCH cooperative agreement.

The focus for this phase was to foster partnerships among families, health professionals, and communities and to promote desired social, developmental, and health outcomes of infants, children, and adolescents. In addition, increasing family knowledge and skills and participation in health education and preventive activities was emphasized. A final objective for this phase was to enhance the way health professionals practice.

To promote these objectives, and with the assistance of the NCEMCH, panels of experts were assembled to develop the concepts and content for each guide. Each draft guide was then sent out to a wide array of experts for review and comment. These comments were reviewed and assessed by the NCEMCH staff in collaboration with the editor of the particular guide and MCHB staff.

The first of the *Bright Futures in Practice* publications focused on oral health (1996) and was spearheaded by the pediatric dental leadership from the original Bright Futures expert panels, who identified a need for this material. Other guides in the series were initiated in an attempt to meet the need for information on topics seen as particularly important in the health supervision of children. The second, initiated with the involvement of the WIC community, focused on nutrition (2000). The third focused on physical activity (2001). Key players in the development of the nutrition and physical activity guides were nutritionists Denise Sofka of MCHB and Katrina Holt of the NCEMCH. The fourth volume in the series addressed mental health (2002). MCHB's Dr. Trina Anglin and NCEMCH's Dr. Mary Froehle, along with Bright Futures Board member Dr. Michael Jellinek, were instrumental in the development of the mental health publication and its accompanying toolkit. Also published in 2002 were the second editions of *Bright Futures in Practice: Nutrition* and *Bright Futures Guidelines for Health Supervision of Infants, Children, and Adolescents.* Initial development was also undertaken for a publication to address health promotion for children with special health care needs.

Other companion materials to facilitate the use of the Bright Futures content were developed as well. These included pocket guides, encounter forms for providers and families, and educational materials for parents.

The NCEMCH, in collaboration with MCHB, played an active role in the dissemination of the *Bright Futures in Practice* guides and related materials. NCEMCH also developed a Bright Futures newsletter entitled *BrightNOTES.* Approximately 7,000 copies of this newsletter were distributed semiannually to agencies, organizations, and individuals with an interest in child health, with an extra 5,000 copies distributed at special events throughout the year.

Additional information about the development and distribution of Bright Futures materials is provided in Section IV, Parts A and B.

Part II: Promoting Bright Futures

A key aim of the Bright Futures initiative was to promote and enable the actual use of the materials in clinical practice. Again, the NCEMCH was instrumental in these efforts. From 1996 to 2001, the NCEMCH participated in an array of activities to promote awareness and utilization of the *Bright Futures Guidelines for Health Supervision of Infants, Children, and Adolescents.* These included:

- Exhibiting Bright Futures at national conferences
- Conducting regional and State-based training
- Presenting at national, regional, and State-level conferences and meetings
- Providing technical assistance to States and other entities
- Conducting ongoing distribution of materials and offering followup technical assistance to those requesting Bright Futures materials.

The resources available for the tasks determined the breadth and depth of the actual conduct of these activities. Unfortunately, all too often, the demand for these activities frequently exceeded available resources, and NCEMCH staff members were not able to provide the degree of support they wished to provide.

However, Bright Futures was exhibited in an array of venues, including professional associations and organizations focused on medicine, nursing, nutrition, and oral health. In addition, information about the initiative was exhibited at family/community conferences sponsored by groups such as the Children's Defense Fund and the National Parent Teacher Association. The Bright Futures exhibit was also featured at several meetings targeting managed care organizations and at a variety of government-sponsored national and regional conferences.

Training focused on the purpose and use of Bright Futures was conducted by the NCEMCH staff at several national conferences and in an array of States. Presentations to showcase Bright Futures and share information about strategies for the utilization of the materials were conducted by NCEMCH in a variety of venues across the country. A detailed description of presentations and trainings conducted is provided in Section IV, C.

Part III: Partnering to Promote the Utilization of Bright Futures

From its inception, a focus on inclusiveness and partnering was seen as central to the success of the Bright Futures initiative. Early discussions to conceptualize the project were designed to include a wide array of child health stakeholders from a range of organizations and disciplines. The process to develop the guidelines was structured to be inclusive of many points of view, and extensive work was done to obtain official endorsement of Bright Futures by a wide range of partners. Finally, the guidelines themselves emphasize the importance of provider/family/community partnering to foster health and well-being of children.

The development of partnerships was seen as a critical strategy to promote Bright Futures.

Understanding that not one group, discipline, or agency alone was responsible for the promotion of Bright Futures, MCHB and NCEMCH sought opportunities to partner with others to broaden the influence of Bright Futures on the conduct of health supervision for children and adolescents.

The partnership strategies used to promote Bright Futures were varied and far-reaching and included Federal agencies and professional organizations. As the funder of a range of MCH programs and activities, MCHB sought to weave the Bright Futures philosophy, approach, and content into many of its grant programs and cooperative agreements. MCHB also used its Policy Centers as mechanisms to promote Bright Futures. Grant guidance for programs such as the Community Integrated Services System (CISS) initiative and Healthy Tomorrows cited Bright Futures as a framework for child health supervision activities. Training and education grants were also used by MCHB as mechanisms to promote Bright Futures. The national organizations funded through MCHB's Partners in Communication (PIC) grant program also integrated Bright Futures into many of their activities.

To further facilitate communication among MCHB-funded partners, a partners meeting entitled "Seeing the Big Picture" was held in 1998. The purpose of the meeting was to bring together all of the Bureau's Bright Future partners to take a look at the big picture for the project. At the meeting, each of the partners described their work in relation to Bright Futures and discussed issues and opportunities to be addressed in the ongoing building of Bright Futures. In addition, the conference attendees developed strategies to promote coordination among the projects.

HCFA was a key partner in the early formulation of the Bright Futures concept and contributed funds to the development of the initial guidelines. However, with the death of the Bright Futures "champion" at HCFA, William Hiscock, in 1994 and a number of other factors within the HCFA Office of Medical Assistance related to an array of budgetary and political considerations, HCFA became less involved in the project over time.

However, in 1998, CMS publicly cited Bright Futures as an excellent example of pediatric

standards. Moreover, in April 1999, CMS recommended Bright Futures as one of three acceptable sets of guidelines for States to use in the development of their State Children's Health Insurance Programs (SCHIP).

A very different partnering opportunity to promote awareness and utilization of Bright Futures began in 1996. Dr. Randall Kaye, a Vice President of Pfizer as well as a pediatrician, became aware of the initiative via an NCEMCH Bright Futures exhibit at a medical conference and became a champion for the initiative. Subsequently, Pfizer worked with the NCEMCH to develop a range of strategies to facilitate utilization of Bright Futures by the pediatric community. For example, Pfizer contributed funds and expertise to the development and maintenance of a Bright Futures Web site and several activities directly targeted to physicians. These included financing the distribution of Bright Futures materials to pediatric residents and sponsoring training in the use of the guidelines. Section IV, Part D contains an indepth description of Bright Futures partnerships.

In summary, Bright Futures was envisioned as a new approach to child and adolescent health supervision that would reflect the "best" of what was known about quality preventive care and health promotion, along with a thoughtful integration of state-of-the-art knowledge of growth and development. In addition, Bright Futures was designed with a focus on the infant, child, and adolescent within the context of the child's family and community. The Bright Futures founders created a process to realize this vision that was broad-based and inclusive of a wide array of child health stakeholders.

E. Recent Developments

In 2001, MCHB decided to put out for open competition two cooperative agreements through which to continue the Bureau's support for the Bright Futures initiative. The AAP successfully competed for both of these projects, which began in early 2002. The first of these supports a Bright Futures Health Promotion/Prevention Education Center. The goal of this Center is to promote the implementation of *Bright Futures Guidelines for Health Supervision of Infants, Children, and Adolescents* among health care professionals, public/private partners with key child health constituencies, communities, and families. Activities being conducted under this project include development of the third edition of *Bright Futures Guidelines for Health Supervision of Infants, Children, and Adolescents* as well as Web-based continuing education resources for health professionals on the use of Bright Futures in clinical practice. The second cooperative agreement supports the Bright Futures Pediatric Implementation Project. The goal of this initiative is to improve health promotion and prevention practices through the implementation of the Bright Futures guidelines among pediatric health providers. Under this project, the AAP is analyzing obstacles to the delivery of health promotion and prevention services by pediatric providers and developing strategies and tools to overcome these obstacles.

With the establishment of these projects, the AAP assumed the leadership position held by NCEMCH for the first 12 years of Bright Futures. This change will have important implications for the Bright Futures initiative in the coming years.

IV. Findings

As described in the previous section, Bright Futures was conceptualized as a multicomponent initiative. The components included the development and subsequent distribution of the guidelines and other health supervision materials, the provision of training and technical assistance to engage child health stakeholders in the initiative, and the development of partnerships to foster the Bright Futures philosophy and use of materials. These activities, along with those related to evaluation of Bright Futures, correspond with the objectives of the initiative as outlined in this report's introduction.

Development of materials has been the major focus of the Bright Futures initiative.

This section discusses the core findings of the process evaluation. First, findings with regard to activities related to each of the initiative's five objectives are presented. This is followed by a discussion of other related findings based on feedback obtained from the key-informant interviews, focus groups, and Bright Futures documents.

A. Findings Related to Process Objectives

1. Objective #1: Develop Materials and Practical Tools for Health Professionals, Families, and Communities

Materials development has been the major activity of Bright Futures, especially in the initiative's early stages. Most of the Bright Futures materials have been developed at the national level, with the NCEMCH playing a central role in the development of the core Bright Futures materials. National organizations funded by MCHB also developed additional materials targeting key audiences, including managed care providers and families, while the U.S. Department of Agriculture (USDA) developed training materials to assist States in applying Bright Futures to WIC programs.

Most State-level activities have focused on promoting the use of the nationally produced Bright Futures materials. Several States, however, have developed additional Bright Futures materials as part of their statewide initiatives to promote Bright Futures information and concepts or to train staff members to provide services consistent with Bright Futures. Local-level activities have generally not focused on development of new materials, with the exception of an occasional tool or fact sheet targeting families. However, several local-level providers indicated that the Bright Futures guidelines were used as a reference in modifying their own clinical encounter forms.

The Bright Futures health supervision guidelines were developed by a diverse group of experts in infancy, early childhood, middle childhood, and adolescents.

Several different types of Bright Futures materials have been produced. These are summarized on the next page.

a. Bright Futures Guidelines and Related Materials

The development of *Bright Futures Guidelines for Health Supervision of Infants, Children, and Adolescents,* which included a comprehensive set of health supervision guidelines for children and adolescents from birth through age 21, was the central focus of the Bright Futures initiative during its first several years. As described earlier, the NCEMCH spearheaded the development of this initial publication. The first step was the development of a Bright Futures Board of Directors to oversee the initiative. Subsequently, at the direction of this Board, four expert panels were developed to write chapters on the four developmental periods to be addressed in the guidelines: infancy, early childhood, middle childhood, and adolescence. In order to ensure that the document would be useful to a broad audience, NCEMCH worked to include a diverse mix of disciplines on each panel. The panel members drafted the chapters for each of their developmental periods, and the NCEMCH staff played an important role in editing and coordinating them into a cohesive document. The document was refined based on comments received by a broad spectrum of organizations and individuals representing child health experts, health care professionals, educators, and advocates. The effort to respond to comments provided by numerous organizations reflected the NCEMCH's interest in having as many organizations as possible sign on to each book as Bright Futures supporters. *Bright Futures Guidelines for Health Supervision of Infants, Children, and Adolescents* was published in 1994 under the editorial leadership of Dr. Morris Green. A second edition of *Bright Futures Guidelines for Health Supervision,* edited by Drs. Green and Palfrey, was published in 2000 (a CD-ROM version was also produced).[8]

Coinciding with the outset of the effort to develop the initial Bright Futures guidelines in the early 1990s, MCHB funded The George Washington University Center for Health Policy Research to conduct an indepth analysis summarizing existing knowledge regarding the financing, delivery, and cost-effectiveness of child health supervision services. This effort informed the discussion of the participants involved in the guidelines development process.

Following the publication of the initial Bright Futures guidelines in 1994, pediatric dentists involved with the development of the guidelines expressed interest in developing a similar book focusing on the issue of oral health, an area that the MCH community had also identified as needing more attention. *Bright Futures in Practice: Oral Health,* published in 1996, became the first of several subsequent publications – known as the *Bright Futures in Practice* series – building on the initial guidelines and focusing in more depth on key areas of interest among the MCH community. *Bright Futures in Practice: Nutrition* was published in 2000 (and revised in 2002), *Bright Futures in Practice: Physical Activity* was published in 2001, and *Bright Futures in Practice: Mental Health* was published in 2002. A time-

8 The second edition reflected an updated immunization schedule and other updates in scientific knowledge and expert opinion regarding health promotion and disease prevention. The second edition was further revised in 2002 to include an updated immunization schedule and growth charts.

line for publication of these core Bright Future publications is included in Table IV-1.

Table IV-1.
Timeline for Publication of Bright Futures Guidelines and Bright Futures in Practice Series

1994	Bright Futures Guidelines for Health Supervision of Infants, Children, and Adolescents
1996	Bright Futures in Practice: Oral Health
2000	Bright Futures in Practice: Nutrition
	Bright Futures Guidelines for Health Supervision of Infants, Children, and Adolescents, Second Edition
2001	Bright Futures in Practice: Physical Activity
2002	Bright Futures in Practice: Mental Health
	Bright Futures in Practice: Nutrition, Second Edition
	Bright Futures Guidelines for Health Supervision of Infants, Children, and Adolescents, Second Edition, Revised

The process for developing the *Bright Futures in Practice* guides was similar to that used to develop the initial guidelines. A workgroup was established to guide the product's overall development, and four developmental subcommittees were developed (infancy, early childhood, middle childhood, and adolescence) to write these chapters. As with the initial publication of the Bright Futures guidelines, the NCEMCH staff played a critical role in coordinating and editing the pieces into comprehensive products and responding to comments from reviewers.

In addition to these similarities in the processes used to develop the Bright Futures guidelines and the subsequent *Bright Futures in Practice* guides, each of which generally took 2–4 years to produce, workgroup members contributing to all of these core publications were guided by the Bright Futures Children's Health Charter, a set of principles developed at the outset of the initiative to shape Bright Futures' work to improve children's well-being and meet the unique needs of children and families in the 21st century (see Appendix I). In addition to being driven by these principles, the publications share several key attributes in their organization and design:

- **Organization by developmental stages.** Consistent with the initiative's focus on promoting developmentally based care for children, the publications are structured around four key developmental phases – infancy, early childhood, middle childhood, and adolescence.

- **Written to a broad audience.** To inform and promote partnerships among health care providers, families, and broader communities working to improve child and adolescent health outcomes, the books were written to a broad-based audience, facilitating the availability of a standard set of guidelines for the various individuals, agencies, and organizations with responsibility for children's health.

- **Inclusive of practical tools and examples.** In addition to laying out guidance regarding the delivery of well-child services, the books include various examples and tools to illustrate how the information can be applied in various settings. The *Bright Futures in Practice* books on nutrition and mental health include entire sections of tools to facilitate application of the concepts and approaches presented in these publications.

The *Bright Futures Guidelines for Health Supervision of Infants, Children, and Adolescents* and the subsequent *Bright Futures in Practice* publications were comprehensive and lengthy documents. Recognizing the need to make the information contained in these books more accessible to busy providers, MCHB supported the development of "pocket guides," small condensed versions of the material contained within the larger books. The two pocket guides developed for the initial guidelines book – one for providers and one, developed by Family Voices, for families – as well as the pocket guide developed for the *Bright Futures in Practice: Nutrition* book received widespread praise from key informants interviewed for this evaluation. Other types of Bright Futures materials developed to facilitate implementation and utilization of the Bright Futures guidelines and *Bright Futures in Practice* are described below.

Brief "pocket guides" helped to make the information in the full publications more accessible to busy professionals and families.

b. Development of Provider Training Materials and Tools

In line with Bright Futures' focus on the delivery of high-quality health supervision and overall well-child care, numerous publications also have been developed to facilitate the goal of training providers in Bright Futures and the utilization of the guidance in practice settings. A variety of training materials were produced with MCHB funding. For example, through two continuing education/distance learning grants to Children's Hospital Boston, MCHB has funded the development of training materials for primary care clinicians in the application of Bright Futures in clinical practice. The USDA also funded the development of two Bright Futures training manuals to assist States in applying the information in *Bright Futures in Practice: Nutrition* to their WIC programs.

Several States have developed materials to assist in their goals of training staff members to provide services consistent with Bright Futures guidelines. For example, Virginia developed a Bright Futures training manual for community health workers, and Washington developed one for child care health consultants. In addition, with support from MCHB, several universities have developed training materials to be used with State professionals. For example, MCHB funded the University of Alabama at Birmingham to develop a training package to orient nutrition and health professionals with the Bright Futures publications on nutrition and physical activity and demonstrate how promotion of nutrition and physical activity can be applied at the community/family levels. These and other training materials are highlighted in Table IV-2 (training activities are discussed in more detail under Objective #3).

In addition to training materials, a variety of tools have been produced to facilitate providers' use of Bright Futures in the clinical setting. The NCEMCH developed several of these, including Encounter Forms for Health Professionals, which identify key health supervision topics for the different well-child visits.

Health care providers and researchers also have created tools to facilitate the delivery of health supervision services that reflect the Bright Futures concepts and information. These include the Bright Systems approach to health supervision used throughout Kaiser Permanente's Northern California clinics, as well as in adapted form in other Kaiser Permanente clinics throughout the country and in local health departments in Monterey and San Francisco counties.

Another tool that has been developed using Bright Futures materials is EnterVue, a system for collecting information electronically from parents in the waiting room in order to guide the focus of the health supervision services to be provided at that visit. A preliminary evaluation of EnterVue indicates that doctors who use the system report a substantial increase in the number of health supervision topics discussed at each visit, and patients report higher levels of satisfaction regarding their conversations with doctors than before EnterVue began being used. These and other examples of provider tools are summarized in Table IV-3.

c. Materials for Families

A variety of Bright Futures materials targeting parents and families have been developed by several different organizations. Most of these were created by national-level Bright Futures partners receiving MCHB funding. For example, the NCEMCH developed the *Bright Futures Encounter Forms for Families,* which provide guidance to parents regarding each

Table IV-2.
Examples of Bright Futures Provider Training Materials

NAME	DESCRIPTION	DEVELOPER
Bright Futures Case Studies for Primary Care Clinicians (Volumes I-III)	Three-volume series of case studies designed to transform Bright Futures guidelines into practical training for primary care clinicians. Developed with MCHB funding.	The Bright Futures Center for Pediatric Education in Growth and Development, Behavior, and Adolescent Health (based at Children's Hospital Boston)
Bright Futures for WIC Nutrition Services	Training manual to assist States in applying Bright Futures to WIC, with a focus on utilizing a developmental approach to nutrition services.	USDA
Bright Futures for Babies	Training manual to assist States in applying Bright Futures to WIC, with a focus on feeding practices in the early years.	USDA
Health Supervision of Infants, Children, and Adolescents: Part of the Bright Futures Health Promotion Curriculum	Video that provides an overview of the Bright Futures Initiative, the content of the Bright Futures Health Promotion Curriculum which presents several "Bright Futures core concepts," and examples showing how aspects of Bright Futures have been incorporated into clinical practice. The Workgroup developing the curriculum is funded by MCHB.	The Bright Futures Health Promotion Workgroup (based at Children's Hospital Boston)
Applying Bright Futures in Practice: Nutrition and Physical Activity Training Package and CD-ROM	Training package developed with MCHB funding to orient nutrition and health professionals with the Bright Futures publications on nutrition and physical activity and demonstrate how nutrition and physical activities promotion can be applied at the community/family levels.	University of Alabama at Birmingham

well-child visit, as well as an activity book for children, fact sheets on key child health topics addressed by Bright Futures, and a health record for parents to record information about their child's health visits from birth to age six. Family Voices developed a pocket guide based on *Bright Futures Guidelines for Health Supervision* geared to families, and the National Parent Consortium developed educational booklets on several preventable child health issues, including protecting children from lead poisoning and preventing violence, as well as one with tips for parents on partnering with others to promote their child's health.

Although most local key informants did not report developing any Bright Futures materials, one local Bright Futures effort – the Whatcom County Bright Futures project in Washington State – developed a Bright Futures Health Organizer to assist families in organizing their child's health records. This consists of an accordion file folder with labels for key subjects in different languages. The folders are distributed

Table IV-3.
Examples of Bright Futures Provider Tools

NAME OF TOOL	DEVELOPER	DESCRIPTION OF MATERIAL
Anticipatory Guidance Cards	NCEMCH	Table-top spiral-bound note cards designed to facilitate discussion between health care providers and families by highlighting key health and safety issues relevant to each developmental stage.
Bright Futures Encounter Forms for Health Professionals*	NCEMCH	Forms addressing physical, social, cognitive, and emotional aspects of health designed to serve as a detailed outline for health professionals to follow for each of the 29 recommended well-child visits.
Bright Futures in Practice: Oral Health Quick Reference Cards	NCEMCH	Set of cards that highlights key concepts in *Bright Futures In Practice: Oral Health* designed to be used as a tool for providers during oral health supervision visits.
Bright Systems	Kaiser Permanente of Northern California	The Bright Systems approach to health supervision in the office setting consists of encounter forms, health questionnaires, safety questionnaires, and parental handouts for each recommended well-child visit from birth to age 18.**
EnterVue	Physician group led by Kelly Kelleher, MD	EnterVue is an electronic system utilizing wireless web technology that can be installed in the waiting rooms of health care providers. Parents complete a series of age and visit-specific questions (developed using Bright Futures materials) regarding health supervision issues and the doctor receives a printout of their answers prior to visiting with the parent and child. The questions asked can be varied based on answers given in previous visits or on particular issues of concern in the community. ***

*These forms have not been updated since the publication of the revised Bright Futures for Infants, Children, and Adolescents book was published in 2000 and thus are out of date. While not printed any longer, they remain available on the Bright Futures Web site operated by NCEMCH.

**The development of Bright Systems began in 1991. As the system was revised and enhanced over time, Bright Futures materials were used in developing the content for the physician counseling and parent information materials.

***The system has been implemented in three large pediatric practices in the Pittsburgh area. An additional 12 offices are utilizing specific components in research studies that target topics such as injury prevention, domestic violence, and depression.

along with the *Bright Futures Encounter Forms for Families* and represent an important part of their efforts to empower families to be active members of their children's health care teams.

These and other examples of key Bright Futures materials for families are presented in Table IV-4.

d. Bright Futures Communications Tools

In order to share information about the Bright Futures initiative and its various publications and activities, several national-level newsletters have been produced over the years. The *BrightNOTES* newsletter, produced by NCEMCH between 1996 and 2002 and distributed widely, provided information about Bright Futures publications, Bright Futures

Table IV-4.
Examples of Bright Futures Materials for Families

NAME	DEVELOPER	DESCRIPTION
Encounter Forms for Families	NCEMCH	These forms, covering health visits starting in the prenatal period through the child's late adolescence, provide information about what families can expect at each health visit, how to prepare for future visits, and tasks they can complete at home and in their communities to promote their children's health.
Family Tip Sheets	NCEMCH	This booklet provides a six-page overview of key topics for each development phase, from infancy to adolescence.
Bright Futures for Families: Partnering for Your Child's Good Health	National Parent Consortium	One of several educational booklets (others were written on lead poisoning prevention and violence) developed for families. This booklet provides guidance to parents on how to partner with others in making health care decisions for their children.
Health Care Visit Checklists	Family Voices	A two-page checklist to help families prepare for their child's health visits and develop a good relationship with their child's health care provider. A separate checklist was designed for children with special health care needs.
Bright Futures Family Pocket Guide: Raising Healthy Infants, Children and Adolescents	Family Voices	Quick-reference guide for families highlighting health topics included in Bright Futures guidelines and designed to foster parents' active role in the health care of their children.
Growing Up Healthy	Massachusetts Bright Futures Campaign	Based on the Bright Futures guidelines, this diary promotes age-appropriate access to and utilization of primary care and includes information on a range of important child health topics including immunizations, child passenger safety, nutrition, oral health, and health insurance coverage.
Baby's First Year Calendar	Virginia Department of Health	Calendar developed using the Bright Futures materials (available in English and Spanish) to be distributed to parents of all newborns in Virginia as part of the Governor's new parent initiative.
Bright Futures Health Organizer	Whatcom County Bright Futures	Tool to assist families in organizing their child's health records.

activities around the country, and issues in building Bright Futures programs. Through its PIC grants, MCHB also funded the National Institute for Health Care Management to produce ongoing *Action Briefs* and *Updates* to promote Bright Futures to managed care providers and systems. Family Voices, also with PIC funding from MCHB, has produced an electronic newsletter since 2001 now called the *Bright Futures: Family Matters* newsletter,[9] which covers topical issues relating to Bright Futures and other MCH issues and is geared to a broad audience of families, family organizations, and professionals working in the MCH field.

More recently, the AAP, as the recipient of two Bright Futures cooperative agreements from MCHB in early 2002, began publishing *Bright Ideas: The Bright Futures Newsletter* to share information about its activities to further develop the Bright Futures initiative, as well as to highlight examples of how Bright Futures is being implemented in various settings. The first edition was published in January 2003.

The evaluation also identified one ongoing State-level newsletter produced by Washington's Bright Futures initiative. This newsletter, *Bright Ideas for Washington State Bright Futures,* provides information to stakeholders in Washington State about the national Bright Futures initiative and shares updates about Bright Futures activities being conducted by local organizations around Washington.

This section has provided an overview of the variety of Bright Futures materials that have been developed, including the *Bright Futures Guidelines for Health Supervision of Infants, Children, and Adolescents,* the *Bright Futures in Practice* guides, training materials, and tools for providers and families. The next section discusses strategies that have been used to disseminate these.

2. Objective #2: Disseminate Bright Futures Philosophy and Materials

Dissemination activities have been a major focus of Bright Futures efforts over the last decade. Many organizations have played a role in the dissemination of Bright Futures materials and philosophy, including public health and related agencies at the national, State, and local levels, organizations funded by MCHB through grants and cooperative agreements, and the Bright Futures corporate partner, Pfizer. Dissemination activities have included widespread distribution of Bright Futures publications; promotion of the Bright Futures initiative and philosophy through presentations, exhibits, and other means; and incorporation of Bright Futures into standards of care adopted by Federal, State, and local agencies.

Bright Futures materials have been extensively disseminated, but the cost of publications remains a major barrier to their more widespread distribution and use.

While extensive dissemination activities were conducted, especially through mailings of the Bright Futures guidelines and *Bright Futures in Practice* guides, there was no overarching mas-

9 The original title of this newsletter was "PICture This."

ter plan developed to guide the distribution of Bright Futures materials and the conduct of other dissemination activities to promote the initiative. There are a number of reasons why dissemination activities were conducted in this manner. First, the focus of the initiative was clearly on the development of the Bright Futures guidelines and other materials rather than on how they would be disseminated once developed. Second, the amount of resources available to devote to dissemination activities and subsequent training was limited. A factor that has challenged dissemination of Bright Futures materials over the past decade has been the cost of publications, which many informants noted is prohibitive, especially for public programs operating on very limited budgets. Pfizer's role in dissemination (discussed below) has allowed significantly wider distribution of Bright Futures materials than would otherwise have been possible without this corporate support.

This section describes three major types of dissemination activities: dissemination of Bright Futures publications, other activities to promote the Bright Futures initiative, and efforts related to incorporating Bright Futures into standards of practice.

a. Dissemination of Bright Futures Publications

Distribution of the Bright Futures guidelines and related materials was extensive, with approximately 1.2 million copies of various Bright Futures materials disseminated over the course of the initiative (see Table IV-5). Dissemination efforts were conducted most actively at the national level, with efforts led by the NCEMCH.[10] The role of NCEMCH and other important players at the national, State, and local levels in disseminating Bright Futures publications is discussed below.

NCEMCH. After the Bright Futures guidelines and each of the *Bright Futures in Practice* guides were produced, NCEMCH organized mass mailings to distribute complementary copies of the publications to members of key target audiences (see Appendix J for details on the dissemination activities for each of these publications). In addition to the distribution of complementary hard copies of Bright Futures publications, electronic versions of the materials were made available free of charge through the Bright Futures Web site. Information provided by the NCEMCH, though limited, indicate that Bright Futures materials were frequently downloaded from the Web site.[11] Key informants interviewed for the evaluation indicated that the Internet was an important means of disseminating Bright Futures materials free of charge.

The sale of Bright Futures publications was another important avenue for dissemination by NCEMCH, although key informants routinely noted that the cost of publications was too high and a barrier to wider dissemination. The NCEMCH worked to institute a cost recovery effort which raised approximately $360,000

10 This count, based mostly on data provided by NCEMCH, is likely to be an underestimate, as copies of materials published prior to March 2001 but distributed after this time are not included.

11 From July 1 to December 31, 2001, the "Tools" section of *Bright Futures in Practice: Physical Activity* guide was downloaded 3,837 times, the infancy chapter 3,709 times, the "Special Issues and Concerns" chapters 3,014 times, the early childhood chapter 2,521 times, and the middle childhood chapter 1,961 times. Downloading of the *Bright Futures in Practice: Nutrition* guide fluctuated on a monthly basis. For example the "Infancy Developmental" chapter was downloaded 1,049 times in October 2000 but only 128 times in May 2001. Each of the two parts of the "Special Issues and Concerns" chapters were downloaded over 900 times in February 2001, but only around 100 times in September 2000 and May 2001.

Table IV-5.
Dissemination of Bright Futures Materials

	NCEMCH/ CLEARINGHOUSE	PFIZER	OTHER ORGS.*
Bright Futures Guidelines for Health Supervision of Infants, Children, and Adolescents	50,000		
Bright Futures Guidelines for Health Supervision of Infants, Children, and Adolescents, 2nd ed.	10,000		
Bright Futures Guidelines for Health Supervision of Infants, Children, and Adolescents. 2nd ed., CD-ROM	5,000	45,000	
Bright Futures Pocket Guide	30,000	270,000	
Bright Futures Pocket Guide, 2nd ed.	5,000	45,000	
Family Pocket Guide: Raising Healthy Infants, Children, and Adolescents			45,000
Bright Futures in Practice: Nutrition	10,000		4,000
Bright Futures in Practice: Nutrition Users Guide	10,000		4,000
Bright Futures in Practice: Oral Health	20,000		
Bright Futures in Practice: Oral Health Quick Reference Cards	10,000		
Bright Futures Encounter Forms for Families	7,500	67,500	
Bright Futures Encounter Forms for Families (Spanish)	4,000	36,000	
Bright Futures Encounter Forms for Families, 2nd ed.	5,000	45,000	
Bright Futures Encounter Forms for Health Professionals	7,500	67,500	
Bright Futures Anticipatory Guidance Cards	10,000	90,000	
Bright Futures Activity Book	20,000	180,000	
Bright Futures Activity Book (Spanish)	7,500	67,500	
Bright Futures in Practice: Nutrition, 2nd ed.	23,000		
Bright Futures In Practice: Physical Activity	10,695		
Bright Futures in Practice: Mental Health	500		
Thinking Ahead, Early Childhood and Thinking Ahead, Middle Childhood fact sheets			40,000
Subtotals	**245,890**	**913,000**	**93,000**
GRAND TOTAL		**1,212,930**	

Note: Most figures included in this table cover only through March 2001.

*The additional organizations include Family Voices (Family Pocket Guide), the USDA (nutrition publications), and Toys R Us (distributed Thinking Ahead fact sheets, developed by Family Voices, as part of child safety campaign).

through March 2001 and was an important MCHB strategy for supporting dissemination activities during that time.

Pfizer. Through its partnership with MCHB and NCEMCH, Pfizer played a major role in the distribution of Bright Futures materials. The company's national network of sales representatives distributed materials to pediatricians within their sales regions. Attempts were made to broaden this effort to include family physicians and primary care doctors, but this proved to be unsuccessful, because these sales representatives were not as committed to the effort as those who worked with pediatricians. At its height, Pfizer sales representatives were distributing Bright Futures materials to over 30,000 physicians.

Pfizer was the major distributor of Bright Futures materials, shared free of charge, to providers and families.

Data provided by NCEMCH showing dissemination of Bright Futures publications through March 2001 indicate that the bulk of several Bright Futures publications were distributed by Pfizer. As shown in Table IV-5, the company distributed 90 percent of provider-oriented publications: 315,000 of the 350,000 pocket guides for the Bright Futures guidelines book distributed during this time, 45,000 of the 50,000 copies of the Bright Futures guidelines CD-ROM (2nd edition), 67,500 of the 75,000 copies of the Encounter Forms for Health Professionals, and 90,000 of the 100,000 copies of the Anticipatory Guidance Cards. Pfizer also distributed 90 percent of family materials, including both the English and Spanish versions of the Encounter Forms for Families and Bright Futures Activity Book. Several State and local informants interviewed for this evaluation noted that Pfizer's distribution of free materials, especially those for families, was and remains critical to their efforts to promote use of Bright Futures materials.

Pfizer also funded the development of the Bright Futures Web site managed by NCEMCH and thus afforded the initiative the means to make Bright Futures materials available online free of charge. Several local providers noted that they access materials for use with clients through the Bright Futures Web site.

Federal agencies/offices. Several Federal agencies/offices were involved in disseminating Bright Futures materials to key audiences.

- **HRSA.** Two bureaus within HRSA disseminated the Bright Futures guidelines broadly. Following the publication of *Bright Futures Guidelines for Health Supervision of Infants, Children, and Adolescents* in 1994, the Bureau of Primary Health Care distributed copies of the guidelines to the approximately 4,000 Community Health Centers across the country. In addition, after SCHIP was authorized in 1997, MCHB sought to encourage the use of Bright Futures as a model of coverage and care. The HRSA Associate Administrator for MCH sent a letter and a copy of the guidelines to 4,000 State Medicaid and MCH Directors, regional offices, and SCHIP partners for their consideration in developing child health policies and practices related to SCHIP.

- **HCFA.** HCFA mailed copies of the general guidelines to State Medicaid agencies. The guidelines were accompanied by a letter indicating that the standards represented state-of-the-art consensus guidelines and suggested that States consider their use in shaping their State Medicaid programs and when working with providers. HCFA, now CMS, is unable to require States to meet particular medical standards, so providing a copy to the States and referring to the document as state-of-the-art was a strong statement to States.

- **The USDA.** The Food and Nutrition Service (FNS) within the USDA distributed 300 copies of the *Bright Futures in Practice: Nutrition* guide to State and local WIC agencies. They mailed copies to State WIC directors and included a letter encouraging use of the Bright Futures guidance.

- **The President's Council on Physical Fitness and Sports.** MCHB provided the President's Council with 500 free copies of the *Bright Futures in Practice: Physical Fitness* guide. The Council distributed 300 copies of these at meetings and mailed the remainder to its State contacts and organizations that requested copies.

Other national/regional organizations. There were also other organizations playing an important role in the dissemination of Bright Futures materials:

- **The AAP.** After the initial release of *Bright Futures Guidelines for Health Supervision of Infants, Children, and Adolescents,* the AAP mailed approximately 50,000 copies of the guidelines to their membership; this matched the total copy distribution of the initial NCEMCH/MCHB mailing.

- **Head Start Quality Improvement Center.** The Region VII Quality Improvement Center purchased and distributed *Bright Futures in Practice: Oral Health* and *Bright Futures in Practice: Nutrition* to its 80 Head Start and Early Head Start programs.

- **Family Voices.** Family Voices has played a lead role in distributing materials for families. Since the publication of the *Family Pocket Guide: Raising Healthy Infants, Children, and Adolescents* in late 2000, the organization has given away or sold 45,000 copies, including 1,000 provided free to the HRSA Clearinghouse; they offer bulk copies of this material at under $3 per copy, which is well below the production cost. Family Voices also developed fact sheets based on its pocket guide for families for distribution; 40,000 copies of these informational fact sheets were distributed by several Toys R Us stores as part of a child safety campaign.

State agencies. States have played an important role in distributing Bright Futures materials to health professionals, an activity that is central to efforts to promote their use in clinical and other settings where families and children receive services. Health professionals working for public health departments, in community health clinics, and in schools all have been targets of State-level Bright Futures dissemination

States have played an important role in distributing Bright Futures materials to health professionals.

activities. Alaska, Colorado, Delaware, Illinois, Louisiana, Missouri, Pennsylvania, South Dakota, Texas, Virginia, and Wisconsin have widely distributed the *Bright Futures Guidelines for Health Supervision for Infants, Children, and Adolescents* to public health nurses and/or local public health agencies in their State. Some States have distributed one of more of the *Bright Futures in Practice* guides. For example:

- **Illinois** distributed copies and promoted use of the *Bright Futures in Practice: Mental Health* guide throughout the State in fiscal year 2003.
- **Montana** distributed *Bright Futures in Practice: Oral Health* to public health providers around the State.
- In addition to distributing the Bright Futures guidelines, **New York** has distributed *Bright Futures in Practice: Nutrition* to all WIC agencies in the State and is using this guide in a statewide childhood obesity prevention initiative.
- The **Utah** Department of Health distributed *Bright Futures in Practice: Oral Health* to all school nurses and migrant education program nurses as a reference guide for referrals, screening, and parent education.

Table IV-6.
Examples of State Activities to Distribute Bright Futures Publications

Delaware. Bright Futures guidelines and pocket guides were distributed to all school nurses in 1996 and 1997. In addition, all school guidance counselors were sent pocket guides.

Georgia. When Georgia adopted Bright Futures as its State guidelines for children's health care, the State sent over 200 copies of the guidelines to 159 counties for use by district health directors, clinical coordinators, child health coordinators, and nurse managers. In addition, at least three copies of *Bright Futures in Practice: Mental Health* were provided to all 19 district health departments to use as a resource.

Illinois. Copies of the guidelines were distributed to school-based health centers.

Montana. A copy of Bright Futures was sent to every county health department with a grant for home health visiting. Some of the guidelines have been incorporated into State standards for home visiting of high-risk women and children.

Virginia. In 2000, at the time that Bright Futures was adopted as the State standard for child health care, the Virginia Department of Health's Bright Futures initiative sent 1,300 copies of the Bright Futures guidelines book to private pediatricians across the State. Bright Futures materials – including the initial guidelines book, *Bright Futures in Practice: Nutrition, Bright Futures in Practice: Physical Activity,* and the nutrition pocket guide – have been broadly disseminated to health departments, nutritionists, school health coordinators, and nurses. In 2001, 10,000 copies of the *Bright Futures Health Record* were shared with health departments and WIC agencies, and 125,000 more have been ordered for distribution to all new parents in the State as part of a new Governor's initiative.

Other examples of States that have distributed Bright Futures materials are included in Table IV-6.

Training efforts conducted by States also typically have included distribution of materials. These are discussed under Objective #3.

Local agencies/organizations. In general, local organizations and agencies were more likely to be the targets of dissemination by national and State agencies and organizations than to engage in extensive dissemination activities themselves, especially given that most local agencies do not have the financial resources that would allow them to purchase materials. This is particularly true of the Bright Futures guidelines and *Bright Futures in Practice* guides. However, Pfizer's donation of materials for families, as well as the availability of these on the Web, has facilitated the distribution of these materials at

the local level. In some cases, local agencies have been able to engage in significant dissemination activities:

- **Washington.** Two local efforts in Washington State have conducted extensive outreach to staff members of organizations working with families (e.g., Head Start, local health departments, Indian Health Center). The Whatcom County Bright Futures project and the Puget Sound Educational Service District's Early Head Start Program both provide pocket guides to staff members who work directly with families to help them feel more comfortable in discussing the range of health issues of concern to families. In addition, the *Encounter Forms for Families* are distributed along with accordion folder-style health organizers to help families become more informed and engaged partners in their children's health care.

- **Florida.** All of the WIC nutritionists in the Orange County Health Department in Orlando, Florida have received copies of the *Bright Futures in Practice: Nutrition* and *Bright Futures in Practice: Physical Activity* guides and received training on how to use them in nutritional counseling with clients.

b. Other Efforts to Disseminate Information About Bright Futures

To complement the dissemination of Bright Futures publications, various other efforts were conducted to promote awareness about the Bright Futures initiative and utilization of Bright Futures in the delivery of services to children and families.

Presentations and exhibits. NCEMCH promoted Bright Futures and disseminated materials through many conference exhibits and presentations. Summary materials from NCEMCH indicate that between 1996 and 2001, NCEMCH conducted 70 Bright Futures exhibits[12] and 33 presentations.[13] Many key informants also indicated conducting presentations to promote awareness about Bright Futures. MCHB officials, for example, have conducted presentations on Bright Futures over the course of the initiative. In 2000 and 2001, USDA officials did presentations on Bright Futures at the National WIC Association meetings to publicize the Bright Futures training manuals developed by the USDA. National organizations funded by MCHB also conducted activities to share information about Bright Futures with key audiences; for example, the National Institute for Health Care Management conducted forums on Bright Futures to promote its use by managed care organizations.

At the State level, Alaska highlighted *Bright Futures in Practice: Mental Health* at a statewide conference addressing mental health services for children, the Rhode Island Department of Health staff conducted numerous presentations around the State to raise awareness about the initiative, and officials from Wyoming's Children's Health Services

12 Exhibits were presented at meetings organized by such organizations as the AAP, the American Public Health Association (APHA), the National PTA, the Children's Defense Fund, HRSA's National Primary Care Conference, the American Association of Health Plans, the American College of Nurse-Midwives, the Society of Teachers of Family Medicine, the National Student Nurses' Association, and many others.

13 Presentations were conducted at meetings including a Youth Violence Prevention Conference, Early Childhood Nutrition Conference, National Institute for Health Care Management Bright Futures Forum, and meetings of American School Health Association, the Association for Care of Children's Health, the Ambulatory Pediatric Association, MCH Consortium, the Child Welfare League, Society for Adolescent Medicine, CityMatCH, and the Washington Association of Local WIC Agencies, among others.

department conducted a presentation at the State pediatric update conference in fall 1995 that showcased Bright Futures as a model for well-child care. Officials from Virginia also have conducted presentations about their State's Bright Futures activities at several national MCH, community health, and Head Start meetings.

Incorporation of Bright Futures into grant programs. Another strategy for promoting Bright Futures was the incorporation of Bright Futures into grant programs. MCHB did this in various ways:

- **PIC grantees.** Four organizations with MCHB-funded Partnership in Communication (PIC) grants included a specific focus on Bright Futures dissemination activities. Two of these were organizations working with the managed care industry: the American Association of Health Plans (AAHP) and the National Institute for Health Care Management. The other two were organizations working with families, especially those with children with special health care needs: Family Voices and the National Parent Network on Disabilities. Other PIC grantees were exposed to Bright Futures through the NCEMCH, which coordinated communication among the PIC grantees who in turn shared information with their constituencies about Bright Futures.

Other grant programs. Other programs funded by MCHB included guidance in the grant applications encouraging the incorporation of Bright Futures in proposed projects. These grant programs include Healthy Start, the CISS initiative, and the Healthy Tomorrows program.

- **Statewide Bright Futures initiatives.** At the State level, three States – Massachusetts, Washington, and Virginia – have undertaken statewide Bright Futures initiatives to promote the use of Bright Futures philosophy and materials. In these States, significant staff resources were dedicated to these efforts, typically through the identification and funding of a Bright Futures Coordinator. Massachusetts was the first to embrace Bright Futures in a comprehensive way, beginning in the mid-1990s, although recent budget difficulties have limited many health agency activities, including those related to Bright Futures. Washington began its statewide work around Bright Futures in the late 1990s. The Virginia Bright Futures campaign was initiated in 2000. An overview of each of these States' activities is included in Table IV-7.

Internet-based promotion of Bright Futures. A thorough Internet search conducted as part of this evaluation identified 13 Web sites focused on Bright Futures activities (examples are included in Table IV-8). For the most part, these Web sites relate to Bright Futures-related activities funded by MCHB or State- or local-sponsored Bright Futures initiatives. In

Nearly 300 Web sites reference Bright Futures, most of which identify specific Bright Futures materials.

14 Numerous organizations sponsor more than one of the Web sites included in the 282 figure.

addition to these sites, an additional 282 Web sites[14] were found that reference Bright Futures. Sponsors of these Web sites represent a very diverse range of national, State, and local organizations including government agencies, resource centers, advocacy organizations, foundations, county health departments, hospitals, clinics, libraries, and a range of other organization types. For example, Bright Futures is referenced on the Web sites of:

- **State agencies** in at least 14 States
- Over 30 **university-sponsored** Web sites
- More than 30 **professional association** Web sites.

A full list of these sponsoring organizations, organized by category, is included in Appendix E.

Of the 282 Web sites identified as referencing Bright Futures, 85 include a description of the Bright Futures initiative, 224 identify or reference specific Bright Futures materials, most commonly the *Bright Futures Guidelines for Health Supervision of Infants, Children, and Adolescents* (88 sites), the Bright Futures Web site (48 sites), and *Bright Futures in Practice: Nutrition* and *Bright Futures in Practice: Physical Activity* (37 sites each); 118 describe the specific Bright Futures material(s) referenced; and 171 include a link to the Bright Futures Web site. More detailed information is included in Appendix E.

c. Standard Setting Efforts

A third category of dissemination activity is referencing and/or incorporation of Bright Futures in standards of care. The evaluation

Table IV-7.
Overview of State Bright Futures Initiatives

Massachusetts. In Massachusetts, public agencies and private organizations with an interest in child health, including the Department of Public Health, the Medicaid agency, the State AAP chapter, academicians, and local providers, came together to explore how Bright Futures could be utilized as the foundation for delivery of comprehensive children's services. A statewide meeting was held to introduce Bright Futures to stakeholders, and a committee was developed to integrate Bright Futures into State programs. The State incorporated Bright Futures standards into a variety of State contracts, including those with Medicaid providers and school-based health centers, and utilized the guidelines in other programs serving children, including WIC and early intervention. The campaign's most noted accomplishment is the development of a child health diary based on the Bright Futures guidelines that was sent to all new parents. During 2000, the first year it was published, 80,000 copies were distributed. Distribution was continued through June 2002, after which time budget cuts eliminated funding for this distribution effort.

Virginia. Upon the recommendation of the Nursing Council, in 2000 the State Commissioner of Health adopted Bright Futures as the State standard for children's health care. An advisory committee was then convened to oversee training in the new State standard, and a new statewide Bright Futures campaign, including a Virginia Bright Futures Web site, was officially launched in June 2001. Campaign efforts are focused on dissemination of Bright Futures materials and training of health professionals (including Healthy Start, Resource Mothers, school nurses, WIC nutritionists, and the nurse child care consultants), in the incorporation of Bright Futures into the delivery of services to children and families.

Washington. The Department of Health and Medicaid agencies in Washington State came together in 1998 to host a Bright Futures forum with a range of stakeholders to explore how Bright Futures could be used to improve child health. The State subsequently contracted with the University of Washington, which is advised by a Bright Futures Advisory Group, to work on a statewide basis to promote Bright Futures to various programs and providers, as well as promote incorporation of Bright Futures materials and principles into the university's academic training programs for health professionals. The thrust of the State's efforts to date have been to promote the use of Bright Futures in community-level agencies, including local health departments and Head Start agencies, especially through the distribution of pocket guides, the *Bright Futures Family Encounter Forms,* and other Bright Futures materials for providers and families that have been donated by Pfizer. In 2002, the campaign funded seven small ($500–$1,000) demonstration projects to promote the use of Bright Futures materials in their programs. As part of its Bright Futures work, the University of Washington provides support to these local project coordinators.

identified numerous examples of ways in which Bright Futures has been utilized in standard-setting efforts. At the Federal level for example:

The Agency for Healthcare Research and Quality includes Bright Futures as one of several guidelines referenced in U.S. Preventive Services Task Force recommendations on various topics, including behavioral counseling in primary care to promote physical activity; and screening for hypertension, obesity, and hearing and visual impairment.

HCFA/CMS identified Bright Futures as a model for child health standards that States could use in developing their SCHIP programs.

The Centers for Disease Control and Prevention (CDC) referenced Bright Futures in a Web-based training module on how to screen and assess overweight children. CDC officials noted that the screening recommendations in Bright Futures were "the best that they found."

In addition, health departments in many States use Bright Futures guidelines as standards for well-child visits and/or public health delivery in general. Among these States are the District of Columbia, Florida, Georgia, Kentucky, Maine, Montana, Oklahoma, Rhode Island, Texas, Virginia, and Wisconsin. A number of States either endorse or use Bright Futures as a reference or suggested model in developing standards for EPSDT screenings. These include Alabama, Colorado, the District of Columbia,

Many State health department use Bright Futures guidelines as standards for well-child visits, including EPSDT screenings.

Table IV-8.
Examples of Bright Futures Web Sites

SPONSORING ORGANIZATION	DESCRIPTION IF SITE	WEB ADDRESS
NCEMCH	Provides information about the Bright Futures initiative, online versions of Bright Futures publications, and related resources	http://www.brightfutures.org
AAP	Describes the AAP's Bright Futures initiative and ordering information for selected Bright Futures publications	http://brightfutures.aap.org
Bright Futures Center for Pediatric Education in Growth and Development (based at Children's Hospital Boston)	Provides case-based teaching materials based on the Bright Futures guidelines for pediatric training programs	http://www.pedicases.org
Family Voices	Describes the Bright Futures for Families initiative, materials, and resources	http://www.brightfuturesforfamilies.org
Virginia Department of Health	Describes the Bright Futures Virginia campaign, as well as the national Bright Futures initiative	http://www.vahealth.org/brightfutures
Riley Child Development Center, Indiana University School of Medicine	Web site hosts interactive distance learning continuing education modules, videoconferences, and curriculum resources for *Bright Futures in Practice: Mental Health* developed through the LENDlinks project, which trains graduate level health professionals in caring for children with special health needs	http://www.lendlinks.net

Illinois, Florida, Maine, Nebraska, New Jersey, New York, North Dakota, Puerto Rico, Rhode Island, Texas, the Virgin Islands, and Virginia.

However, a study by the University of Rochester presented in 2001[15] explored the extent to which SCHIP policies for uninsured adolescents were based upon the *Bright Futures Guidelines for Health Supervision of Infants, Children, and Adolescents.* It found that less than one-third of State SCHIP policies had incorporated the health guidance, screening, or quality measures to implement the Bright Futures guidelines among uninsured adolescents.

This evaluation found several examples of local providers using Bright Futures as a standard of care, often at the initiation of a State mandate:

Detroit. A school-based health center in Detroit adopted Bright Futures, as mandated by the State of Michigan, when it obtained health department funding for its service delivery activities. The staff has found Bright Futures to be a very useful tool for promoting comprehensive and consistent health supervision services. Based on this positive experience, the St. John's Health System is expanding the use of Bright Futures to its other school-based health centers as part of its efforts to provide high-quality health supervision services system-wide.

Arlington County, VA. Spurred by Virginia's mandate to use Bright Futures as the new child health standard, the Arlington County Health Department embraced Bright Futures across many of its programs. Bright Futures is used by the staff in the child health clinic as well as those who conduct home visits as the standard for health supervision services. Efforts to promote the use of Bright Futures to WIC staffs and in schools, however, appear not to have advanced far.

Several other local-level providers indicated that they have modified their clinical encounter forms to be consistent with the Bright Futures guidelines. This approach in particular is being used to provide more consistent and comprehensive, developmentally appropriate anticipatory guidance to the families in their care.

3. Objective #3: Training Health Professionals, Families, and Communities to Work in Partnership on Behalf of Children's Health

Many training activities related to Bright Futures have taken place over the years and across the country. The training efforts described below are divided into preservice training efforts that are designed to provide health professions students with the credentials and skills required to practice a profession, and those conducted as continuing education efforts for practicing health professionals.

a. Preservice Health Professionals Training

Many key informants indicated that the best way to reach child health professions was by incorporating Bright Futures into preservice training. For example, the physicians who took part in the focus group conducted as part of this evaluation at the Community Access to Child Health conference in South Carolina

15 Findings of this study, authored by Molly McNulty, J.D., were presented in a poster session at the APHA Annual Meeting in October 2001

indicated that it is often difficult for established professionals to accept and adopt new approaches to care once they are in practice. However, they felt that medical students are much more open to new ideas and the use of new tools such as those associated with Bright Futures. The same point may hold true for many other professionals. The following information summarizes what was found on the topic of preservice training activities:

Key informants stressed the importance of incorporating Bright Futures into the curricula of child health professional training programs.

Pediatrician training activities. A component of the national-level Bright Futures work was the development of curricula to be delivered to pediatric residents. MCHB has funded two grants to develop Bright Futures training materials targeting pediatricians:

The Bright Futures Center for Pediatric Education Case-Based Curriculum. Physicians at Children's Hospital Boston formed the Bright Futures Center for Pediatric Education using funding from MCHB and the Genentech Foundation. They sought to develop a curriculum that would reflect the emphasis on health supervision and preventive care that is at the core of the Bright Futures guidelines. They developed a case-based teaching curriculum for clinicians and residents utilizing the Bright Futures guidelines. Twenty-nine separate modules covering a wide range of topics, including child development, behavioral pediatrics, adolescent mental health, adolescent sexuality, school issues, and abuse and neglect, have been developed. Each module includes a case narrative, handouts, an annotated bibliography, a teacher's guide, and evaluation forms. The training materials, organized into a three-volume series, are available at no charge over the Internet.[16] The Web site has recorded over 7,000 total downloads. There are 1,103 registered users, and 300 cases are downloaded each month. One of the case study developers wrote an article[17] demonstrating that residents (who completed evaluation forms as part of their participation in pilot trainings) liked the case studies, reported that their comfort increased using the case discussion method, and demonstrated that they were able to interpret developmental screening tests and growth charts accurately after case discussion.

The Bright Futures Health Promotion Workgroup. This workgroup was formed in 1998 with funding from MCHB and is comprised of a group of educators and directors of pediatric residency programs. The goal of the group is to identify key skills, knowledge, and attitudes needed by child health professionals to integrate health promotion successfully into clinical practice and then to use these to develop a training curriculum for pediatric residents and others training to provide pediatric care. The group has identified six core concepts needed to

16 The materials remain available over the Internet. However, the end of funding for this specific project has limited the ability to publicize or publish paper copies of the materials.

17 Knight JR, et al. Development of a Bright Futures curriculum for pediatric residents. *Ambulatory Pediatrics.* 2001;1(3):136–40.

implement a Bright Futures approach into patient visits. These include partnership, communication, health promotion/illness prevention, time management, education, and advocacy. The group has completed a video that introduces the curriculum and the core concepts that have been incorporated into the Bright Futures pocket guide. Various teaching modules have been developed and pilot tested at several residency training programs. The curriculum became available online in 2004 (http://www.pediatricsinpractice.org) and currently is being published.

Findings from a survey conducted of pediatric residency training programs regarding approaches for teaching adolescent medicine (AM) were published in 1998 in an article entitled "Adolescent Medicine Training in Pediatric Residency Programs: Are We Doing a Good Job?"[18] In this study, Emans et al. found that Bright Futures was used in the training curricula of 52 percent of programs, with 48 percent using Guidelines for Adolescent Preventive Services (GAPS). Overall, 72 percent of programs were familiar with Bright Futures, 57 percent reported that interns had a copy of the guidelines, and 76 percent had a copy available as a resource. Programs that used Bright Futures were more likely to feel that preventive services were adequately covered in their programs than those who did not (78 percent versus 57 percent).

18 Emans JS, Bravander T, Knight J, et al. Adolescent medicine training in pediatric residency programs: are we doing a good job? *Pediatrics.* 1998;102(3 Pt 1):588–595

Pediatric Nurse Practitioner (PNP) training programs. NAPNAP reported that all 87 pediatric nurse practitioner training programs in the country have incorporated Bright Futures into their curricula. NAPNAP has been involved with the development of Bright Futures since the beginning and has embraced the use of the materials.

To learn more about faculty attitudes regarding Bright Futures in the curriculum, HSR gathered information through an e-mail solicitation to PNP faculty members regarding their use of Bright Futures. Eleven faculty members responded from universities throughout the country, and all reported using Bright Futures in classroom and clinical teaching. At the national NAPNAP conference, HSR held a meeting with PNP faculty members. The meeting included 70 faculty participants from over 19 States, including some States with two or more universities represented. The faculty reported valuing Bright Futures for its comprehensiveness and thoroughness, with several citing it as the "gold standard" for child preventive, health promotion care. A small percent thought it was too time consuming to try and incorporate Bright Futures into clinical practice, but the overwhelming majority indicated that good health supervision takes time and requires the comprehensive approach, which Bright Futures exemplifies.

All 87 pediatric nurse practitioner training programs around the country have incorporated Bright Futures into their curricula.

Further evidence of the pervasiveness of the use of Bright Futures in PNP training programs

and subsequently in clinical practice was gathered from a focus group that HSR conducted at the national NAPNAP conference with 10 pediatric nurse practitioners. All of the participants in the group were familiar with Bright Futures and most of them learned about it while in training. The participants continued to make use of Bright Futures once they began to practice.

Nutrition Training Programs/Leadership Education Excellence Program. MCHB is providing funding to seven academic training programs in nutrition. Six of these programs indicated that they have incorporated Bright Futures into their curricula. These include the School of Public Health at the University of California Los Angeles, the Department of Pediatrics at the University of Alabama at Birmingham, the Nutrition and Dietetics Program at Indiana University in Indianapolis, the School of Public Health at the University of Minnesota, the Nutrition Program at the University of New Mexico, and the School of Public Health at the University of North Carolina and its subcontractor, the University of Tennessee. Interviews with key informants suggest that incorporation of Bright Futures into the curriculum generally means that Bright Futures material is used in some classes and the general philosophy of Bright Futures pervades the academic training that is provided.

Adolescent Health Provider Training Programs/Leadership Education in Adolescent Health (LEAH). MCHB funds LEAH grantees who provide training in a variety of disciplines including medicine, nursing, nutrition, psychology, public health, and social work. Three of these grantees indicated that they have incorporated Bright Futures into their interdisciplinary curriculums. These are the University of Rochester, Children's Hospital in Boston, and Baylor College of Medicine. The faculty from Children's Hospital report using the case-based teaching curriculum that incorporates Bright Futures that was described previously.

Other student training activities. The NCEMCH database on Bright Futures activity lists dozens of examples where instructors have incorporated Bright Futures materials into their classes serving a variety of health professionals. These include courses in medical schools, nursing schools, public health classes, courses in nutrition, and pediatric dentistry.

b. Continuing Education

Bright Futures also has been incorporated into a number of different efforts to provide continuing education to practicing health professionals. A wide variety of examples of this were found in key-informant interviews and a review of the *BrightNOTES* newsletter.

NCEMCH. In general, NCEMCH focused its resources on the enormous tasks of developing materials and dissemination. To the degree that resources were available for supplementary activities, NCEMCH also provided trainings upon request in how to use Bright Futures. Trainings were provided to State-specific audiences including the New Jersey Nurses Institute, the Louisiana Office of Public Health Training, the Children's Health Insurance Program of Virginia, the Montana Department of Public Health and Health Services Nutrition Meeting, the Pennsylvania Department of Health Family Health Council Conference, and the Virginia Department of

Health Division of Chronic Disease Prevention/ Nutrition Conference. National organizations receiving trainings by NCEMCH included the Society of Public Health Educators, the Child and Adult Care Food Program, the National Association of WIC Directors (including at a special breastfeeding promotion conference), and the Special Olympics 2001 World Winter Games Special Athletes.

Federal funding also supported the conduct of numerous other trainings targeting health professionals as well as families.

Training efforts conducted by universities. Most of the additional MCHB-funded training activities were conducted through universities. Examples of these types of trainings are described in Table IV-9.

National Parent Consortium on Maternal and Child Health. Through a PIC grant with MCHB, the National Parent Network on Disabilities (NPND) coordinated the National Parent Consortium on Maternal and Child Health. The consortium consisted of a working group representing 14 organizations including NCEMCH, NPND, Family Voices, Family Services America, and the National Coalition of Title I/Chapter I Parents. The consortium sponsored Bright Futures-related training targeted at families. Several satellite broadcasts were conducted on such topics as lead poisoning prevention, violence prevention, and children's mental health. For the violence prevention broadcast held in October 1998, there were over 110 downlink sites around the country. Facilitators provided

Table IV-9.
Examples of Training Conducted by Universities

THE UNIVERSITY OF ALABAMA AT BIRMINGHAM (UAB)

Through a continuing education grant, MCHB provided funds to UAB to conduct a one-time training session entitled *Applying Bright Futures in Practice: Nutrition and Physical Activity* for State WIC staff members and public health nutritionists. Although funding for travel expenses was offered to all States, only about 31 sent staff members. State-imposed travel restrictions were cited as a factor for this lower-than-expected attendance. Attendees were required to perform a training in their own States for local or regional WIC staff members or public health nutritionists after completing the UAB training.

THE UNIVERSITY OF NORTH CAROLINA AND THE UNIVERSITY OF TENNESSEE

Under the auspices of a public health nutrition training grant from MCHB,* these university-based projects developed a training manual and other materials titled *Maximizing Resources for Results: Extending Bright Futures through Community-based Nutrition Planning.* This was a train-the-trainer resource that introduced the *Bright Futures in Practice: Nutrition* guide, which was then incorporated into a model for planning nutrition services. This training was offered to the States in HRSA Region IV (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, and Tennessee). Each State was provided with 25 free copies of the *Bright Futures in Practice: Nutrition* guide. The States were then expected to provide training sessions to local WIC and public health nutrition staff members.

INDIANA UNIVERSITY

The Riley Child Development Center at Indiana University with support from a Leadership Education in Neurodevelopmental Disabilities grant from MCHB has created a distance learning program to promote the use of *Bright Futures in Practice: Mental Health.* The project, known as *LENDlinks,* is targeted to States in HRSA Regions V and VI (Illinois, Indiana, Michigan, Minnesota, Ohio, Wisconsin, Arkansas, Louisiana, New Mexico, Oklahoma, and Texas). The project targets professionals in rural, underserved areas who otherwise might not have access to continuing education. In addition to the Riley Child Development Center site, there are six other distance learning sites located throughout the region, used by individuals to participate in the program via videoconferencing. The material is targeted to broad audiences, including State and local MCH staff members, early intervention program providers, Head Start agencies, child care providers, and social workers. Two videoconferences have been held in recent years: one in March 2003 focused on infant mental health, while the second in April 2003 focused on using Bright Futures to address the entire early childhood period. The videoconferences are archived on the LENDlinks Web site along with PowerPoint slides and handouts and are therefore widely available.

*The grant is held by the University of North Carolina, which then subcontracts with the University of Tennessee.

Table IV-10.
Examples of State Bright Futures Training Activities

Arizona. The Arizona Department of Public Health held a 2-day training in fall 2002 to provide an overview of *Bright Futures in Practice: Nutrition* to nutritionists, child care providers, and other MCH professionals. Small group discussions were held to plan the integration of Bright Futures into the service delivery system.

Florida. The Bureau of WIC and Nutrition Services in the Florida Department of Health has conducted training sessions with regional and local WIC staff members to introduce Bright Futures. State staff members developed their own train-the-trainer training material after participating in the *Maximizing Resources for Results* training and determining that the focus on community planning was not geared to the needs of their local staff. Florida's *Bright Futures in Practice: Nutrition Facilitator's Training Guide* included information on community-based planning but had a stronger focus on learning about Bright Futures and then utilizing it in counseling and the preparation of care plans.

Kentucky. Nurses, nutritionists, and health educators in local health departments and WIC agencies have been trained by the State public health nutritionist in using *Bright Futures in Practice: Nutrition* and *Bright Futures in Practice: Physical Activity* to work with clients on health supervision issues. The training utilizes the *Maximizing Resources for Results* training package described above. In addition, the State public health staff conducted a training session using *Bright Futures in Practice: Physical Activity* for child care health consultants who work with child care providers around the State.

Louisiana. The Louisiana Department of Health conducted numerous training sessions around the state to introduce Bright Futures to all state public health nurses and to provide them with information on how they could use it in practice. Approximately 500 nurses were trained over a 2-year period. The key informant with the Department of Health indicated that the State felt the training was successful in helping nurses provide comprehensive care to their patients and families.

Washington. Under a contract with the Washington State Department of Health, the University of Washington has conducted a videoconference with school nurses to introduce them to Bright Futures and did a training session for the Head Start staff in spring 2003. The University of Washington Center on Human Development and Disability uses Bright Futures as a reference and resource in training community providers and community feeding teams that address the nutritional and developmental concerns of children with special health care needs.

Wisconsin. Wisconsin used the State's Educational Teleconference Network to conduct training sessions designed to strengthen health supervision for children. Bright Futures materials were the focus of the training targeted to local health departments, early intervention programs, the WIC staff, and the Head Start staff. The sessions were held shortly after the State adopted Bright Futures as the standard of care for ensuring public health services for children.

by the Children's Safety Network and NPND helped lead discussions on how to prevent violence within communities. State agencies also have conducted training activities involving Bright Futures.

State training activities have utilized a variety of methods, including videoconferencing and other forms of distance learning, as illustrated in the following examples and in Table IV-10.

Kansas. Using videoconference sites around the State available through the Area Health Education Center, the Kansas Department of Health and Environment in September 2001 conducted a one-time training session primarily focused on the *Bright Futures in Practice: Nutrition* book as well as related physical activity issues. The training primarily targeted the local health department staff but also included other interested nutritionists, school nurses, and dieticians. A total of approximately 165 people were reached through the six videoconference locations around the State, each of which had a facilitator to lead exercises to help people become familiar with the nutrition guidelines book.

South Carolina. The State Oral Health Coordinator has made extensive use of *Bright Futures in Practice: Oral Health* material in developing training sessions for local providers. These training activities included four regional training conferences for all school nurses on assessing oral health and four regional presentations to perinatal associations. Since the initial training ses-

sions provided to all school nurses in 2000, the State conducts annual training sessions with new school nurses in assessing oral health.

Virginia. The Commonwealth held a number of training activities that were set in motion by the State Bright Futures campaign. Training was conducted in 2001 for all health districts, with participants being subsequently responsible for returning to their districts and conducting Bright Futures training with the local staff. Training on *Bright Futures in Practice: Nutrition* was conducted for 370 staff members from WIC and from Healthy Start and other home visiting programs. Virginia also used the *Bright Futures in Practice: Oral Health* guide to train Head Start staff members on baby bottle tooth decay and oral health screening and to provide general training for health district dental staff members. Child Care Health Consultants, as well as community health workers in the State's three major home visiting programs for high-risk families, have received basic training in Bright Futures, and more advanced training has been provided for nurses and nutritionists.

Usually, local-level entities are the participants in training programs conducted by State or sometimes national-level organizations. However, there are some notable examples of local efforts to organize and conduct training to promote Bright Futures:

Saline County, KS. Having participated in the State-sponsored videoconference on Bright Futures focusing on nutrition and physical activity, the Saline County health department in Kansas sponsored a similar training for a 10-county group of WIC agencies.

Whatcom County, WA. Whatcom County, using a combination of public and private funding (discussed under Objective #4, local level), sponsored a series of five trainings for the staffs of several local agencies contracted to incorporate Bright Futures into their work with families. Topics addressed during the trainings included EPSDT visits, developmental screening, and partnerships, among others.

Arlington County, VA. This local health department conducted Bright Futures trainings for clinic staff members, nurse case managers, home visitors, and school health staff members to demonstrate how Bright Futures could be used to support health supervision activities.

In sum, the evaluation has identified a range of training activities focused on implementation of Bright Futures, both in preservice training programs of health professionals as well as through continuing education programs aimed at practicing professionals. For the most part, these have been funded by MCHB, although numerous States and some local-level programs have instituted their own training efforts to extend the reach of Bright Futures training to public health professionals in the field.

4. Objective #4: Develop and Maintain Partnerships

Bright Futures is applicable to a wide range of professions and practice areas. Successful dissemination and use of the materials required partnerships at many different levels. This section examines how those partnerships were developed, maintained, and utilized at the national, State, and local levels.

a. National-level Partnerships

There were several partnerships that played a central role in the development and implementation of Bright Futures at the national level.

MCHB and the Medicaid Bureau of HCFA. The partnership between MCHB and the Medicaid Bureau of HCFA played an important role in the development of the Bright Futures initiative. HCFA had issued Medicaid guidance for children's health care and dental care in the 1970s. There was interest within HCFA for establishing a single standard. However, there were mixed opinions within HCFA about whether they were in a position to participate. In FY 1991, HCFA contributed $100,000 of $500,000 for the cooperative agreements granted to NCEMCH and for the studies of child health carried out by The George Washington University. In FY 1992, they contributed $90,000 to the Bright Futures effort, and in 1993 and 1994, they provided $75,000 for each year. After that, HCFA no longer provided financial support. The agency was not entirely comfortable with the effort to establish standards. There were concerns about cost issues related to what the standards implied needed to be included in Medicaid coverage. However, HCFA did not disassociate itself completely from Bright Futures. The agency did request that its name stay on the second edition of the guidelines and cited Bright Futures as an excellent example of pediatric standards in an agency Q and A in 1998.

MCHB and Medicaid jointly funded the Bright Futures initiative in its early years.

MCHB and NCEMCH. The cooperative agreement granted from MCHB to the NCEMCH was integral to the development of Bright Futures material. NCEMCH organized the process for developing the guidelines and *Bright Futures in Practice* guides. NCEMCH provided a support staff to the committees responsible for drafting the material. In addition, it played an important role in the overall development of partnerships by ensuring that Bright Futures was not seen as a standard just for physicians, pediatricians, or any other single group, but instead for preventive health care in general. NCEMCH also played a central role in disseminating Bright Futures materials and providing technical assistance to States and organizations interested in using the documents.

Pfizer, MCHB, and NCEMCH. The partnership with Pfizer was the major Bright Futures corporate partnership and one of the most important overall resources for the dissemination of Bright Futures materials. While this was a pivotal partnership, it developed almost serendipitously. Pfizer was interested in improving its reputation in the pediatric community. The company had gone through a period where it had not been marketing many pediatric drugs but had a number of new products coming to market and wanted to gain respect among pediatric health providers. A company representative attended a meeting where Bright

Pfizer's interest in promoting its reputation in the pediatric community led to a major sponsorship role in Bright Futures.

Futures was exhibited and was very impressed. This representative talked to a NCEMCH representative about forming a partnership. Pfizer's role developed into a very substantial one. The company funded the development of various Bright Futures materials including the Bright Futures Guidelines pocket guide, the CD-ROM version of the guidelines, the activity book, and Spanish-language materials, and its sales representatives provided free copies to pediatricians' offices and pediatric residents. Pfizer also funded the development and support of the Bright Futures Web site, sponsored Bright Futures meetings including a New England Bright Futures Summit, and development of promotional materials. The company reported investing several million dollars in the Bright Futures effort.

This relationship was not free of tensions. Government and other informants indicated that there were concerns over too much corporate influence, putting Pfizer's name on Bright Future materials, and worries over what Pfizer was looking to obtain from the relationship. Despite these concerns, there was general agreement that this was a productive relationship. One of Pfizer's main goals was to improve its reputation and visibility among pediatric providers, and the company had tremendous success in this regard. A longitudinal image survey conducted by Scott-Levin on a regular basis showed that Pfizer moved from being ranked 21st in pediatrics among its peers ultimately to being ranked 1st. Pfizer attributed this to their sales representatives' distribution of Bright Futures materials to physicians; it was felt that this activity shifted the perception of Pfizer as a drug firm only to a partner in the medical arena. Through debriefing of sales representatives and feedback cards from doctors, Pfizer concluded that Bright Futures materials were viewed very favorably.

With the goal of enhancing Pfizer's reputation among pediatric providers accomplished, the company's corporate leadership made it clear to their staff in charge of Bright Futures that they needed to justify continued participation. From Pfizer's perspective, both NCEMCH and MCHB seemed to be devoting less energy to Bright Futures and the relationship eventually began to erode. The partners never developed an agenda for continuing the partnership. These factors, combined with corporate cost-cutting moves, led Pfizer to drop its involvement with Bright Futures. Despite this ending the Pfizer representative, who has since left Pfizer, saw it as a very successful partnership that accomplished its goal for the company and resulted in the development and distribution of high-quality Bright Futures publications.

MCHB and other key national partners. MCHB has worked closely with several other organizations throughout the Bright Futures effort. Two of these in particular have played a central role in the ongoing development of Bright Futures:

- **Family Voices.** Since its initial funding from MCHB in 1995 to work on Bright Futures, Family Voices has been an active partner in Bright Futures. In addition to reflecting the parent perspective in large-scale planning and brainstorming meetings, the group also played a major role in conceptualizing and developing materials geared to families.

Family Voices representatives remain actively involved in ongoing efforts to disseminate and further develop Bright Futures messages and materials.

- **The AAP.** The AAP has been involved with Bright Futures from the beginning, including being involved in the initial discussions surrounding the creation of Bright Futures and the direction it should take. In 2002, however, the AAP moved to the center of the national Bright Futures effort when it was selected by MCHB to develop and implement next steps for Bright Futures. The AAP has two 5-year grants from MCHB to support the ongoing development of the initiative, including a special focus on encouraging the use of Bright Futures by pediatricians.

b. State-level Partnerships

Much of the State activity with regard to developing partnerships was undertaken in those States that developed Bright Future campaigns. These efforts – in Massachusetts, Washington, and Virginia – were described under Objective #2, State-level Activities. In all three States, a broad base of support for Bright Futures from partners in the public and private sectors has been important to their efforts:

Massachusetts. The Massachusetts Bright Futures initiative, focused on developing a coherent approach to delivering children's preventive services across service settings, was founded with the involvement of the State Department of Public Health, the Medical Assistance Program (i.e., Medicaid), the Massachusetts AAP chapter, representatives from various academic institutions, Children's Hospital Boston, and city health departments. This broad base of support led to the inclusion of Bright Futures as a reference for the delivery of comprehensive care in Medicaid, public health programs, and school-based health centers.

Virginia. Support of the Virginia AAP chapter was integral to the adoption of Bright Futures as Virginia's standard for children's health care and dissemination of the Bright Futures guidelines book to pediatricians around the State. The Department of Health's partnership with and support from other State departments, including the Departments of Social Services, Education, Medicaid, and Mental Health, Mental Retardation and Substance Abuse, also helped to move the Bright Futures agenda forward.

Washington. The Bright Futures Advisory Group for Washington was created with members representing public programs. Recognizing the importance of private-sector involvement for more widespread promotion of Bright Futures, Washington expanded its group to include members representing the private sector. Virginia Bright Futures staff members indicated that they have had a similar experience with their Advisory Group and also worked to expand its base of membership.

A broad base of support helped to launch Bright Futures campaigns in Massachusetts, Washington, and Virginia

The importance of strong partnerships between partners at the State and local levels was also highlighted. Washington's community-based

approach to promoting and expanding the use of Bright Futures depends on these partnerships. The State supports communities through sharing of information about national and statewide Bright Futures activities, the provision of training and technical assistance, and limited funding of several community Bright Futures efforts. Community partners work closely with the State Bright Futures staff to share community-level experiences and, in turn, encourage other communities to get involved in Bright Futures activities.

The benefit of partnerships was also noted by other States. In both New York and Kansas, for example, the State health departments partnered with the Area Health Education Center (AHEC) in their States to conduct Bright Futures training sessions using AHEC videoconference resources. The States highlighted the benefits of working with their AHECs to facilitate this type of distance learning; AHECs have the people, equipment, and locations around the State to facilitate training that would otherwise be very difficult for State agencies to carry out.

c. Local-level Partnerships

The partnership between States and localities was also referenced by local-level key informants as being critical in their Bright Futures efforts. For example, local-level informants in Washington credited the importance of the State Bright Futures staff in encouraging and supporting activities to incorporate Bright Futures into community-based programs that work with families with children. The ability of local health departments to incorporate Bright Futures into their training activities of local staff members was often credited to the State's leadership in this area.

However, local-level key informants also stressed the need for States to play a bigger role in facilitating information sharing and promoting partnership building at the local level. For example, although Virginia has a statewide Bright Futures campaign with active local players, these local players were often not informed about each other's activities and did not feel very connected to the statewide effort. State officials also noted that limited funding and constraints on staff members at both the State and local levels who have multiple responsibilities in addition to Bright Futures implementation have presented major challenges to local implementation of Bright Futures.

Others noted the importance of State leadership in identifying and involving nontraditional partners in efforts to promote children's health. The Children's Museum of Richmond, which participated on the Virginia Bright Futures Advisory Committee, noted that children's museums are focused on children and families and should be engaged in Bright Futures activities around the country. Children's museums can play an important role in educating adults who care for children; the Children's Museum of Richmond has conducted several professional forums for people working with children, as well as family resource fairs, through which Bright Futures information has been shared. In addition, children's museums offer a more neutral setting than medical offices to share information about children's health.

In Washington State's Whatcom County, a public-private partnership formed the cornerstone of a major Bright Futures promotion effort. The State of Washington received a grant from the Commonwealth Fund to improve Medicaid/EPSDT services for children from birth through age 5. Whatcom County applied for and received funding through this grant to implement the Whatcom County Bright Futures Project, through which several pilot sites with staff members who work directly with families were funded to incorporate Bright Futures. Specifically, staff members were trained in the use of Bright Futures pocket guides and the *Encounter Forms for Families* were distributed to families. The project was guided by an advisory committee including stakeholders from the public and private sectors. In addition to support from the Commonwealth Fund, this project was supported with funding from a local hospital and Medicaid matching funds, as well as inkind contributions (including a project coordinator) from the local health department. Unfortunately, with the end of the grant in March 2003, the project was officially ended, although much of the community-based activities with families were expected to continue now that they have been integrated into the pilot sites' approach to care.

In Whatcom County and in other localities, the challenge of engaging private pediatricians was noted. When Whatcom County was first exploring establishing its Bright Futures project, local pediatricians indicated that, given the time constraints of medical visits, it would be preferable to build the project into community-based activities that could support parents' role as active partners in their children's health care. This guidance was a critical factor in determining the model that was ultimately chosen for this community project.

In summary, partnerships have been an important means through which Bright Futures activities have been conducted at the national, State, and local levels. Opportunities to further develop partnership opportunities are discussed later in this report.

5. Objective #5: Evaluate and Refine the Efforts

One of the critical phases in any project, including Bright Futures, is the phase during which the project activities are evaluated. This is critical because it should be done with an eye to refining efforts and making changes to appropriate programmatic elements. Appropriately then for the Bright Futures process evaluation conducted by HSR was the examination of what Bright Futures elements had been evaluated over the 12 years of the initiative, the design and focus of these evaluations, their findings, and how findings were used.

Key informants at the national, State, and local levels were asked about their evaluation activities as part of their interviews. Specifically, information was requested about:

- The level of success that the activities achieved with regard to accomplishing the desired outcomes
- Any data that measured the accomplishment of these goals

- Factors that fostered the accomplishment of the desired outcomes
- Factors that hindered the accomplishment of the desired outcomes
- The degree to which success varied across the various activities undertaken, as well as how the variations manifested themselves and what accounted for the variation.

Very little formal evaluation was planned for and therefore conducted. Most formal evaluation efforts were built into projects undertaken at either the health care system level or the community level. These evaluation efforts were planned for from the inception of the projects, a quality assurance and program improvement role was ascribed to them, and the activities were directly funded; that is, they had a distinct budget.

Very little formal evaluation of Bright Futures efforts was conducted over the course of the initiative, but individual reports of Bright Futures experiences have been overwhelmingly positive.

"Evaluative" information, whatever the source – conclusions of the people included in key-informant interviews, information that was extracted from items published in *BrightNOTES,* experiences described in solicited emails, and data found in articles – overwhelmingly indicates that the experience of using Bright Futures and Bright Futures-based programs and approaches has been very positive.

Key informants were directly asked to comment on the value of Bright Futures, with most indicating that Bright Futures was of immense value – with some of that value already realized and some of it not yet realized. The perceived value of Bright Futures was framed in two distinct ways by national-level key informants. Its value was discussed in terms of what it is and does.

Bright Futures was described by key informants as being:

- A very comprehensive set of documents that promote a comprehensive, developmentally aligned approach to preventive health care, defining and including roles for a wide range of health care professionals, families, and communities
- Documents that are more accessible to a broader range of professionals than the AAP health supervision guidelines
- An authoritative source of information for families that synthesizes scientific information and puts it into lay terms
- A major contribution to the effort to expand the vision of child development and what children need across different domains
- A holistic approach to child health
- An appealing balance between the cold facts of a textbook and warm and fuzzy parent-oriented "how to raise a kid" books

- A set of documents that:
  - > Is appropriate for a number of disciplines, colorful, and easy to read
  - > Is well-put together (well-designed)
  - > Is a good resource of information and approach for health professionals
  - > Helps families work collaboratively with health care professionals, helping them to better understand their role.

Bright Futures was described as doing the following:

- Increasing the awareness of the core importance to preventive health care of physical activity, nutrition, oral health, mental health, and other topics that can be marginalized and give providers information/resources on new areas
- Helping people realize what health promotion and health supervision are all about and helping them know when they are doing it
- Helping everyone have access to the same level of care.

On the State and local levels too, Bright Futures' predominant value is seen as being a gold standard for care that is packaged in a practical and well-designed fashion. It is very inclusive of topics and is accessible for many types of practitioners. These conclusions and the desire to work with Bright Futures, or to adapt it to State and local needs, reinforce the observations that Bright Futures, if not living up to all expectations with regard to breadth and depth of adoption, is a product worth maintaining and making as useful as possible.

Bright Futures has helped to further a comprehensive approach to child health.

This section details the status of evaluation work and findings from evaluations of the different elements of Bright Futures described earlier in this section. The section is structured to look separately at national-, State-, and local-level activities. Also provided is an overview of additional evaluation-focused information about programs that used Bright Futures. This was collected as part of the literature review portion of the Bright Futures process evaluation.

a. National-level Evaluation Activities

A wide range of activities occurred at the national level with regard to the Bright Futures initiative, all of which have been discussed at some length in the earlier sections of this report. These activities included:

- Developing background information to frame the initiative (The George Washington University Center for Health Policy Research)
- Establishing a structure for and managing the process of document development (NCEMCH)
- Writing, reviewing, and editing documents (e.g., AAP, NAPNAP)
- Disseminating and promoting documents and philosophy (e.g., Family Voices, the President's Council on Physical Fitness, the

National Institute for Health Care Management, Pfizer, the AAHP, the National Parent Network on Disabilities, the Association of State and Territorial Health Officials, the American Association of Pediatric Dentistry [AAPD], NCEMCH, the FNS)

- Incorporating Bright Futures into preservice curricula (e.g., NAPNAP)
- Creating training materials from documents and conducting training (e.g., Children's Hospital Boston, the University of Alabama at Birmingham)
- Adapting documents to meet audience needs (e.g., Family Voices).

If the national-level organizations cited above were to have undertaken evaluations of their Bright Futures efforts, the varied nature of these activities would have necessitated a variety of evaluation approaches and activities. Appropriate evaluation strategies might have included the following:

- A needs assessment with a followup process assessment to frame the activities
- A process evaluation of the writing, reviewing, and editing process
- A process evaluation to look at dissemination and promotion, and an outcome evaluation to look at adoption and integration
- A process evaluation to look at the reach of training programs, along with outcome evaluations to look at the comparative outcomes of training health care providers in the use of Bright Futures.

In order to carry out these activities, funds would have to have been available for evaluation. However, there were no monies made specifically available for evaluation before 2002. It is, therefore, not surprising that there was little systematic evaluation of the efforts discussed by national-level key informants; the partners focused their limited resources on development and promotion activities instead of evaluation. Although formal evaluations were limited, national-level key informants provided evaluative data based on several sources of information: personal or organizational perception, surveys of organization members, comments on conference calls, and counts of activities such as Web site hits. These are summarized below.

1. Conclusions Drawn Without Formal Evaluation

Informed opinions rather than systematic formal evaluation results constituted most of the data about the quality and impact of Bright Futures activities on the national level. Opinions were shared about what these key informants felt was the response of their target audiences and of Bright Futures' acceptability in general. Most of the opinions expressed were strongly held.

In general, organizations' perceptions of their efforts and Bright Futures' acceptability were positive. These opinions were based on both informal positive feedback from a few sources as well as a perceived lack of negative feedback. Some of these personal "evaluations" did reach less positive conclusions about the impact of Bright Futures activities. Because these were not formal evaluation activities, issues that rose

to the attention of these key informants were not directly dealt with. For example, the Association of State and Territorial Health Officials felt that while they had been tasked with informing their constituency about Bright Futures, simply sharing information was not sufficient to move members of the association to acceptance or adoption of Bright Futures. They felt that a more focused effort on policymakers needed to occur, but they did not pursue this, as it was not a task they were asked to perform.

Some organizations did attempt more formal evaluation efforts, often to gauge the receptivity of their constituents to the Bright Futures materials. Tear-off surveys included with some of the Bright Futures materials were provided, and short mail surveys were attempted, but with little to no followup due to funding. Predictably, then, response rates were generally very low, making the responses nongeneralizable. The *Bright Futures in Practice: Nutrition* guides included an evaluation tear-off survey. Of the approximately 14,000 distributed, 272 evaluation forms were returned. Seventy-eight percent of these respondents found the information in this publication to be "more useful than most guidelines." Table IV-11 includes information on why national key informants felt that Bright Futures was successful and how they formed their opinions.

2. Evaluation Using Counting Techniques

The most common form of evaluation, where evaluation was conducted, was process evaluation using a counting technique, such as Web site hits or orders received, as their evaluation methodology. Measuring the level of dissemination was important to many groups: it let them know that their efforts were known to others and in demand. Organizations that conducted this type of evaluation activity went on to, in several cases, develop other summaries, such as articles, that described their work and nonrigorously demonstrated its acceptability. Among these organizations were the following:

The Bright Futures Center for Pediatric Education and Growth and Development, Behavior and Adolescent Health, based at Children's Hospital Boston (developed case-based physician training modules that are accessible on the Internet)

- Approximately 7,000 downloads and 1,103 registered users from all over the world
- Hits have remained stable even after funding and publicity ended, and about 300 cases are downloaded each month

Pfizer

- A longitudinal image survey conducted by Scott-Levin on a regular basis showed that Pfizer moved from being ranked 21st in pediatrics among their peers ultimately to being ranked 1st
- Through debriefing of sales representatives and feedback cards from doctors, Pfizer concluded that Bright Futures materials were viewed very favorably

The National Parent Network on Disabilities

- Felt that it had reached a large audience through satellite broadcasts on key child health topics addressed by Bright Futures
- Included discussions of and from the Bright Futures guidelines in its *Friday Fax*

newsletter shared with approximately 10,000 people weekly

NCEMCH

- Bright Futures Web site received over 10,000 visitors per month, with a 73 percent increase in usage from 1999 to 2000. It also reported that the average length of stay on the Web site was 10 minutes, as compared to the industry standard average of 2 minutes per visit.

Table IV-11.
Examples of Evaluative Conclusions Not Based on Formal Evaluation

ORGANIZATION	EVALUATIVE ASSESSMENTS	OTHER
Family Voices	Felt successful at getting materials to families and felt that people liked them.	Tried to conduct some surveys but got very low response rates.
National Association of Pediatric Nurse Practitioners	Felt that the guidelines are well-organized, comprehensive, age specific, and easy to use, even though so many topics are covered.	Conducted an "on-the-fly" survey at their 2002 conference. The response rate was "not good."
The President's Council on Physical Fitness	Providers it had spoken with liked the pocket guides. Heard nothing negative and took that as a positive.	
The National Institute for Health Care Management	Felt forums were popular (based on attendance) as were the newsletters containing Bright Futures-related information. Heard that there were major barriers to plans' adoption of Bright Futures; chief among these was the need to follow dictates for accreditation by the National Committee on Quality Assurance and meet HEDIS standards. Heard that doctors felt that Bright Futures was too comprehensive to be easily implemented.	
AAHP	Felt that it did a good job of dissemination. Noted that it had never measured implementation or acceptance of the products. Saw health plans as being "inundated" with guidelines and not able to adopt everything so tending to stick to the recommendations of the U.S. Preventive Services Task Force.	Conducted a literature review *(Bright Futures, Managed Care, and Child and Adolescent Health: Review and Analysis of the Literature).* Concluded that managed care representatives and providers viewed Bright Futures as providing significant benefits, particularly as a training manual and guide for practitioners. Used survey to attempt to assess members' reactions to Bright Futures – 200 surveys mailed, 25% response rate. Of respondents, 43.9% had heard of Bright Futures and 9.8% reported using Bright Futures. Best practice guidelines and promotion of family/provider partnerships were felt to be the most useful features of the materials.
AAPD	Felt that Bright Futures was very good and was "ahead of its time" in meeting the needs of providers. Felt that the development of *Bright Futures in Practice: Oral Health* has helped to encourage pediatricians to include oral health as a core component of preventive health care screenings.	
University of Alabama at Birmingham	Concluded that there are many positive indicators of success, including getting many requests for more information.	Planning for a 6-month followup survey to see how those trained have used Bright Futures in their States.
Association of State and Territorial Health Officials	Felt that its informing task was fulfilled but that the initial efforts on behalf of Bright Futures were not particularly successful in targeting policymakers to actively support this material.	

A tear-out survey that was included with the Bright Futures guidelines. Of the limited number of people who returned these to NCEMCH, 86 percent felt that Bright Futures was more useful than other guidelines. NCEMCH also included tear-out surveys in the oral health guidelines (16 respondents) and the nutrition guidelines (272 respondents).

3. Structured Evaluation Efforts

Among the key informants on the national level, there was only one discussion of a rigorous evaluation of the effectiveness of the Bright Futures activity. The Health Promotion Workgroup based at Children's Hospital Boston did a randomized controlled trial of the Bright Futures Health Promotion Curriculum with 3rd-year pediatric residents using the Objective Structured Clinical Exam method (using actors trained to be patients, presenting the same situations to those who had been taught with the Bright Futures training curriculum as compared to those who had been taught with the standard curriculum). Results showed that the residents that had been taught using the Bright Futures curriculum practiced more patient-centered preventive medicine. Interviews done a year later with the intervention group found that participants still liked what and how they had been taught and affirmed attitudes that were in the curriculum. An article describing the findings has been accepted for publication in *Medical Teacher.*

b. State-level Evaluation Activities

State-level key informants discussed diverse activities that ranged from Bright Futures being used in training programs to having multifaceted State-level initiatives developed to support the integration of Bright Futures in public health activities. Because of the range of activities, if evaluation efforts had been undertaken, the methods used would have been very different in order to match the type of activities being evaluated. State efforts centered on taking the nationally developed products and disseminating them to agencies, organizations, and systems within their States.

Despite the range of activities, evaluation activities were very limited. Monies for the State-level programs were spent to obtain the Bright Futures materials, make them known within the State, and to train people in their use; they were not spent to evaluate the extent to which State-programs met stated objectives with regard to Bright Futures adoption, implementation, and adaptation. As with the national-level key informants, conclusions about State programs associated with Bright Futures were predominantly drawn from personal perceptions.

In general, States' perceptions of the programs that featured Bright Futures were positive. People liked the materials, appreciating both their look and content. General frustrations expressed related to the cost of obtaining the materials for use within their State. Some of the perceptions expressed are presented in Table IV-12 on the next page.

There were some State programs that have conducted evaluations. These evaluations have had very different foci and reflect the variety of State activities and the potential for evaluation. Evaluation efforts have been used for material

improvement, program monitoring, and determination of program efficacy. Examples are:

Material improvement. As part of its State Bright Futures campaign, Massachusetts developed a Child Health Diary. An exploratory pilot evaluation was conducted to assess parents' satisfaction with and perceived usefulness of the tool. Findings suggested that the diary would need to be altered to meet the unique needs of adolescent parents. While the findings were not

Table IV-12.
Summary of State Agency Perceptions of Bright Futures Materials

STATE/AGENCY	EVALUATIVE RESPONSES	OTHER PLANS
Illinois Department of Human Services **Georgia Department of Human Resources** **Kentucky Department for Public Health**	**Expressed** that Bright Futures trainings had been very successful and that no one had anything negative to say about the trainings or their content. Continues to be a demand for Bright Futures trainings.	Georgia - based on the response, expanded its use of Bright Futures.
Rhode Island Department of Health	**Noted** that Bright Futures has been well received despite initial protests from the family medicine community, which saw this initiative as being too closely tied to the AAP.	
Wisconsin Division of Public Health	**Felt** that its dissemination of Bright Futures had been successful. Local agencies requested additional *Bright Futures in Practice* documents for reference.	
Florida Department of Health	**Used** the *Bright Futures in Practice: Mental Health* guidelines to revise its guidance regarding behavioral and mental health. Noted that having Bright Futures helped them to accomplish this task easily and that it would have been far more difficult if they had used the Diagnostic and Statistical Manual of Mental Disorders as a reference. Have gotten very positive feedback, mainly in the form of requests for additional copies.	
Virginia Department of Health	**Endorsed** Bright Futures as the standard for child health care in the State. Statewide campaign to increase awareness and utilization of Bright Futures among health professionals. Narrative information was collected from the health districts about their Bright Futures activities in the first 6 months after receiving Bright Futures training from the State – information has not been systematically examined.	Contracts with local health departments contain a requirement for evaluation.
South Carolina Department of Health and Environmental Control	**Reports** heard about the positive value of Bright Futures as a reference; have additionally heard that the classification system presented in *Bright Futures in Practice: Oral Health* guide is useful for coding the severity of children's oral health problems.	Moving toward some evaluation of implementation and adoption of its use of *Bright Futures in Practice: Oral Health* as a tool for training school nurses in assessing and addressing children's oral health problems. Will be measuring performance against guidelines that they have developed based on Bright Futures and AAP guidelines beginning in the summer of 2003.
Louisiana Department of Health	**Shared** Bright Futures with public health nurses and provided training. Nurses have expressed some frustration that they are expected to deliver so much information.	

incorporated, the diary was sent out to families with newborns (along with a letter and information packet) across the State.

Program monitoring. The Texas Department of Health's child health guidelines reflect Bright Futures and AAP guidelines. During FY 2001, the health department staff conducted 28 Title V quality assurance reviews and found the contractors to be in compliance with service delivery policies and procedures. During this year, Title V providers delivered well-child care to approximately 12,000 eligible children.

Determination of program efficacy. The Kaiser Permanente Medical Group of Northern California used Bright Futures in its development of an approach, called Bright Systems, to facilitate the delivery of comprehensive health supervision for children seen in its clinics. Kaiser representatives have found their system to be practical and low cost but also difficult to evaluate; staff members have experienced great difficulty in collecting questionnaires from parents. Data collected from pediatricians indicate that these providers were more likely to discuss particular topics after the implementation of Bright Systems and would recommend the system to other providers. Parents also showed some improved parent safety behaviors.

c. Local-level Evaluation Activities

Several of the local-level programs that used Bright Futures did have evaluation components that were part of the initial plans. These ranged from the use of quality assurance activities to monitoring compliance with Bright Futures-related policies to the use of comment logs located in clinics and community agencies.

Local entities were more likely to conduct evaluations than national- or State-level entities for a number of reasons. First, the scope of the activities to be evaluated was smaller and therefore more manageable. Second, local entities are more immediately accountable for what they do and how resources are used. In some cases, separate funding for evaluation activities was obtained.

As in the case of the national-and State-level activities discussed, some of the local programs' evaluative information was drawn from perceptions of the success and impact of their Bright Futures efforts:

Renaissance Pediatrics, a private practice in Virginia, felt that its use of the Bright Futures helps staff to stay organized in how they deliver well-child care and that, although it has not been measured, this greater organization saves time in the overall process. The staff also believes that there is greater involvement from, and a stronger sense of partnership with, families who were reported to look forward to getting the Bright Futures materials.

The Orange County Health Department in California has trained staff members in Bright Futures. While no objective measures have been taken, officials reported receiving good feedback from the staff on the materials.

Some programs used procedures already in place to evaluate the use and integration of Bright Futures:

In **Detroit,** a school-based health center has adopted Bright Futures as its standard of care. To the St. John's Health System, the organiza-

tion sponsoring the health center, using Bright Futures as its standard of care has meant following the guidelines and using the periodicity schedule to make appointments and schedule callbacks. The staff feels that the integration has been very successful and that using Bright Futures has strengthened the quality and consistency of health supervision services. They use their quality assurance activities to monitor compliance with Bright Futures and to measure health outcomes.

Other sites have used surveys, log books, and other evaluation tools to assess the success of their use of Bright Futures:

In **Washington State,** the Puget Sound Educational Service District has used the Bright Futures materials and encounter forms to help its Early Head Start staff to feel more confident and competent in speaking with families about health and nutrition issues. The use of Bright Futures materials to facilitate these interactions has helped families to feel more confident in speaking with their children's health care providers and in knowing what to expect from well-child visits. These findings were obtained through the use of surveys administered to both staff members and families. Additionally, the organization monitors the use of Bright Futures materials by their staff through biannual chart reviews.

Whatcom County's Health Department in Washington State spearheaded an integrated approach to the use of Bright Futures by involving health care providers; community organizations, including a local education agency; and families. In a project that received funding from multiple partners, including funding for extensive evaluation, many positive outcomes were identified as being associated with the use of Bright Futures.

The evaluation was conducted using surveys with all of the respondent groups, holding focus groups, and having a log book in the clinics for comments. All clinic staff members were using Bright Futures and found it easy to use, and particularly appreciated the increased interaction with parents. They also liked the topics that Bright Futures had them address. Initially there was concern about the amount of time that would be needed for clinic visits but that fear was mitigated with experience. The evaluation also determined that staff members were more consistent in their health supervision practices.

Program staff and families involved in Washington's Whatcom County Bright Futures effort felt that the Bright Futures materials improved discussion around health topics.

In addition, families reported feeling more engaged and empowered, although they did not embrace all of the components developed for this community trial. Parents used health organizers and found encounter books helpful but did not plan, prepare for, and attend well-child visits as hypothesized (although concern was expressed about the accuracy of the data obtained through a tracking system created for this project). A value was seen in Bright Futures being a format around which to discuss health care, especially in educational settings. It

was found that Bright Futures was easier to implement in health versus educational settings and that one-on-one worked better than group settings for working with families using Bright Futures materials. This evaluation had dedicated funding, and this project had a coordinator to make it possible.

d. Evaluations of Bright Futures in Published Studies

While Bright Futures is frequently mentioned in published studies, these studies include very few evaluations. This should not be surprising given the pragmatic orientation of Bright Futures and the programmatic uses to which it has been put. Additionally, there has been little funding for evaluation and Bright Futures has been implemented by individuals who have many demands on their time.

1. Bright Futures as a Standard of Care

Rather than being evaluations, many articles have drawn on utilization data or national health surveys to demonstrate that services being offered either do or do not meet the standards laid out in the various pediatric guidelines, including Bright Futures. An example of this type of literature is a study entitled *National Estimates of Preventive Health Care Quality for Young Children.*[19] The study examined performance and quality indicators of preventive care for young children less than 3 years old through the National Survey on Early Childhood Health. Measures of quality included whether health care providers:

- Discussed topics with parents recommended in Bright Futures and the AAP guidelines for health supervision
- Administered developmental assessments
- Addressed psychosocial well being and safety within the family.

According to the study's findings, less than 25 percent of children received all the components of preventive care and about 40 percent of parents reported concerns with their child's development. Quality scores were highest in the areas of anticipatory guidance and lowest in the areas of psychosocial and risk assessments within the family. Abstracts of other articles of this type can be found in the annotated bibliography.

As recently as 2002, articles have been published that attempt to establish the evidence of the effectiveness of the current guideline recommendations. In an article entitled "Well-Child Care: Effectiveness of Current Recommendations," [20] the authors reviewed the evidence for the effectiveness of current recommendations for well-child care. Using the AAP's *Health Supervision Guidelines III* (1993) and NCEMCH's *Bright Futures: Guidelines for Health Supervision of Infants, Children, and Adolescents* (2000), the article examined:

- The guidelines for the number of visits
- History and physical examination as a screening technique
- Observation of parent-child interaction

19 Bethell C, Peck C, Inkelas M, Blumberg S, Olsen L, Halfon N, The Foundation for Accountability (FACCT), 2002.

20 Dinkevich E, Ozuah PO. Well-child care: effectiveness of current recommendations. Clinical Pediatrics. 2002;41(4):211–217.

- The recommendation for provision of anticipatory guidance.

According to the authors, while some aspects of well-child care are backed by evidence, others have been shaped by tradition. The article concludes that there is a great need for future research to refine the practice of well-child care.

Some work has been done to prepare and validate instrumentation necessary to evaluate implementation and utilization of guidelines, including Bright Futures. An article entitled "Assessing Health System Provision of Well-Child Care: The Promoting Healthy Development Survey" looked at the predominant efforts in this area.[21] The article discusses the attempt to develop a feasible, valid, and reliable methodology for evaluating health care system performance in providing family-centered anticipatory guidance and child and family assessment services on behalf of children from birth through 48 months old. The Promoting Healthy Development Survey, a 36-item parent survey, was developed to assess whether health care providers talk with parents about topics recommended in Bright Futures and the AAP guidelines for health supervision, provide followup for children who may be at risk for developmental problems, and address psychosocial well-being and safety within the family.

.21 Bethell C, Peck C, Schor E. Assessing health system provision of well-child care: the promoting healthy development survey. Pediatrics. May 2001;107(5):1084–1094. Available at: http://pediatrics.aappublications.org/cgi/content/full/107/5/1084. Accessed October 19, 2005.

The study found that parents reporting positive parenting behaviors had significantly higher scores on the anticipatory guidance quality measure compared with parents not reporting positive behaviors. Parents who reported that their questions on specific anticipatory guidance topics were answered were more likely to report higher confidence in related parenting activities and were less likely to report concerns about their child's development in related areas compared with parents who reported they wished they had talked more with their child's doctor about these topics.

2. Validation of the Bright Futures Approach

One study appears to validate at least part of the Bright Futures approach – making parents partners. In a study entitled "The Importance of Discussing Parents' Concerns About Development," [22] the author details a survey-based study that examined the implications of parent-provider discussions about children's developmental concerns, since pediatricians are encouraged by national recommendations (e.g., the AAP and Bright Futures guidelines) to elicit and respond to parents' psychosocial concerns. Specifically, the study looked at three questions: (a) How likely are parents to engage in discussions of psychosocial concerns with providers? (b) Do providers use parents' concerns to base decisions about which families to counsel versus refer? (c) Finally, do family characteristics influence which parents discuss concerns? The study found that most parents discuss their concerns, but tend to reveal concerns only related to expressive language and

22 Glascoe FP. The importance of discussing parents' concerns about development. Ambulatory Child Health. 1996;2:349–356.

only when they perceive the child to have health problems. The author therefore recommended implementing routine standardized questions into visits to ensure that all parents discuss their developmental concerns, consistent with Bright Futures recommendations.

3. Evaluation of Bright Futures Adaptation and Use

Literature does exist that evaluates some aspects of the Bright Futures materials development process – or at least some of the materials and approaches themselves. Among these articles is the one by Knight et al. entitled "Development of a Bright Futures Curriculum for Pediatric Residents."[23] The article describes the development of the 29 case-teaching modules for the Bright Futures Center for Pediatric Education in Growth and Development, Behavior, and Adolescent Health.

According to the article, the project sought to develop a standardized case-based curriculum for pediatric residents on child growth, development, behavior, and adolescent medicine (AM) incorporating the Bright Futures health supervision guidelines. The project design included a needs assessment, development of a list of important topics, writing and revising of standardized cases, formative evaluation of cases, and efficacy pilot testing of two cases. Results indicated that students liked the format and were able to learn the material presented.

Another part of the national-level Bright Futures work was the development of curricula to be delivered to pediatric residents. In the article, "Adolescent Medicine Training in Pediatric Residency Programs: Are We Doing a Good Job?," the authors discuss how pediatric residency programs are responding to the new challenges of teaching AM to residents by assessing whether manpower is adequate for training, whether AM curricula and skills are adequately covered by training programs, what types of teaching methodologies are used to train residents in AM, and the needs for new curricular materials to teach AM. Results demonstrated that programs that used Bright Futures felt more strongly that preventive services were adequately covered.

4. Bright Futures and Managed Care

It was anticipated that Bright Futures would fit quite naturally into the prevention-oriented environment of managed care organizations. A literature review that looked into the use of Bright Futures in managed care organizations is cited in the national-level portion of this section. A study that examined this fit was also identified. Looking specifically at care for adolescents, "Improving Adolescent Preventive Services Through State, Managed Care, and Community Partnerships" by Klein et al.[24] evaluated the feasibility and effectiveness of a 1-year, three-pronged, guideline-based intervention to improve the quality of adolescent preventive care. Based on the GAPS, Bright Futures, and materials developed by the New York State Department of Health Office of Managed Care Adolescent Preventive Care Quality Initiative, the intervention emphasized

23 Knight JR, Frazer CH, Goodman E, et al. Development of a Bright Futures curriculum for pediatric residents. Ambulatory Pediatrics. 2001;1(3):136–140.

24 Dlein JD, Sesselberg TS, Gawronski B, et al. Improving adolescent preventive services through State, managed care, and community partnerships. Journal of Adolescent Health. 2003;32S:91–97.

increasing the use of screener and trigger questionnaires and providing confidential care. The three-pronged approach included continuing education opportunities for clinicians, academic detailing during HEDIS chart review visits by nurse reviewers, and establishment of community partnerships to increase parent advocacy for improved adolescent preventive services.

Among its findings, the study found an increase in screening or counseling for HIV, tobacco use, and substance use among commercially insured and Medicaid populations; that 47 percent of the practices visited by nurse reviewers were utilizing screener or trigger questionnaires; and that 87 percent of the practices visited by nurse reviewers had positive attitudes toward screener or trigger questionnaires, while 88 percent reported positive attitudes toward providing confidential care.

5. Interventions Based on Bright Futures

Only a few articles look at interventions that are based on Bright Futures. One of these, a pre-post study without a control group, examines the effectiveness of a broad-spectrum health intervention program for homeless and runaway youth that incorporated Bright Futures guidelines and educational materials. In "A Program Description of Health Care Interventions for Homeless Teenagers,"[25] the authors describe a program that provided diagnosis, treatment, and counseling for drug use, STDs, and other health issues upon admissions to a residential care facility for homeless and runaway youth. Education based on Bright Futures (including educational materials for middle and late adolescence) occurred over a 9-month period. The study found that drug dependence was reduced from 41 percent to 3 percent, and 42 percent of participants achieved full- or part-time employment.

In summary, some evaluation work has been done at different levels using varied methodologies. Many of the evaluation activities have focused on an informal rather than a more structured formal approach. This is due to a number of factors including resource limitations, the difficulty in determining outcomes that can be measured and are meaningful, and the complexity of the field of child health supervision. The driving focus of the Bright Futures initiative was the development of child health materials and their distribution, not evaluation.

The next portion of this section of the report contains an analysis of findings and a review of utilization themes and issues.

B. Perceptions of Key Informants Regarding Bright Futures Activities, Materials, and Processes

The information that follows describes the perceptions of key informants (both those interviewed individually or in small groups and those participating in the focus groups) of the activities, materials, and processes described in the previous section. Individuals provided feedback on their perceptions about the following topics:

25 Steele RW, O'Keefe MA, Clinical Pediatrics, 2001:40(5):259-263.

- The process used to develop the Bright Futures materials
- The Bright Futures materials
- Dissemination strategies
- Training activities
- The role of partnerships
- Effect of Bright Futures on policy development, standard setting, and clinical practice.

1. Process Used to Develop the Bright Futures Materials

Information in this section describes perceptions related to the interviewees' assessment of the process developed by MCHB and implemented by the NCEMCH to create the *Bright Futures Guidelines for Health Supervision of Infants, Children, and Adolescents* and the *Bright Futures in Practice* guides. Overall, those interviewed indicated that they thought:

- The process used to develop the guidelines was well organized and executed
- The utilization of a "neutral" organization at the center of the process facilitated the involvement and support of diverse organizations
- The inclusive nature of the workgroups were critical in promoting acceptance of the guidelines by various professional organizations
- The significant and uncompensated contributions to the initiative by committed professionals maximized project resources
- The development of the Bright Futures guidelines was a resource-intensive and time-consuming process.

The process used to develop the guidelines was well organized and executed. National-level key informants, who included many individuals who were involved in the development of one or more of the guidelines and/or *Bright Futures in Practice* books, overwhelmingly described the process in very positive terms. Significant credit was given to the dedicated staff of the NCEMCH for expertly coordinating all aspects of a challenging process and for nurturing the consensus needed to develop the publications. Informants routinely noted how much they enjoyed being a part of the process for developing Bright Futures guidelines and their satisfaction with the products that were developed.

The utilization of a neutral organization at the center of the process facilitated the involvement and support of diverse organizations. MCHB leadership purposefully chose a neutral party, the NCEMCH, to facilitate the development of the Bright Futures materials that could be supported by many different parties and professionals. Many key informants noted the NCEMCH's neutrality as a strong component of the structure for creating the Bright Futures guidelines.

The inclusive nature of the workgroups was critical in promoting acceptance of the guidelines by various professional organizations. In order to minimize the political challenges inherent in developing and promoting health care guidelines, key informants stressed the importance of creating workgroups that are inclusive of different disciplines, including not only different types of physicians (e.g., pediatricians, family medicine physicians) but also nurse practitioners, social workers, nutrition-

ists, and other professionals who play an important role in providing health supervision services. Furthermore, informants noted that the various disciplines represented on the workgroups had equitable roles with respect to the guidelines development processes that were undertaken.

Significant and uncompensated contributions to the initiative by committed professionals maximized project resources. While the NCEMCH was paid for its extensive support of the guidelines development process, the writing of the guidelines themselves was done through the largely uncompensated contributions of workgroup members. Generally paid only nominal honoraria[26] for their roles in writing and reviewing text, participants often described their role in the guidelines development process as a "labor of love." This high level of personal and professional commitment on the part of workgroup members allowed these major products to be developed at much lower cost than would otherwise be possible.

Development of materials was a resource-intensive and time-consuming process. Informants who were involved with the materials development process noted the significant staffing requirements associated with an undertaking of this nature. One of the critical functions of the staff noted by informants, which was noted as being inadequately supported during the development of the Bright Futures publications, was conducting extensive background research to inform workgroup deliberations. The time-consuming nature of the process was also noted, with some expressing frustration at the long time it took to develop some of the Bright Futures materials and others viewing the time involved as integral to a complicated process of this type.

In addition to feedback provided about the process, many of those interviewed also suggested that authorship credit should be considered for those who were major contributors to the writing of the materials. While few informants raised concerns about the low level of monetary compensation paid to contributors, several took issue with the decision not to list authors on the books. This decision was noted as being particularly problematic for academicians who must publish as part of their professional responsibilities.

However, overall, those interviewed indicated that the process worked well. This was due in part to the decision to utilize a "neutral" organizational entity for the day-to-day management of the project and the willingness of so many experts to contribute their time to the project.

2. The Bright Futures Materials

In seeking feedback regarding key informants' assessments of the materials, evaluators asked specifically about the materials developed at the national level. These included the initial Bright Futures guidelines; the subsequent *Bright Futures in Practice* series of guides on specific topics; the pocket guides;

The Bright Futures materials have won numerous publication awards.

26 The one exception was the development of the *Bright Futures in Practice: Mental Health* book, which was written largely under a subcontract with the Harvard School of Public Health.

and materials for families, including the encounter forms, activity books, and the anticipatory guidance cards produced by NCEMCH for providers.

Overall, feedback received from informants (including key informants and focus group participants) at the national, State, and local levels about the Bright Futures materials was very positive. The Bright Futures publications are highly regarded in the field and have won numerous publications awards (see Appendix H).

Findings described here focus on the *Bright Futures Guidelines for Health Supervision of Infants, Children, and Adolescents,* the *Bright Futures in Practice* guides, and materials for families.

a. Feedback on the Bright Futures Guidelines and the Bright Futures in Practice Guides

Comments on the format and content of the guidelines and the guides, as well as on their overall usefulness, reflected that:

- The format of the Bright Futures materials was highly praised
- The Bright Futures guidelines and *Bright Futures in Practice* guides were perceived by key informants as being among the most comprehensive resources available on child health
- The Bright Futures materials are viewed as inclusive and flexible
- The "one size fits all" approach is seen as limiting the value of the materials to certain audiences
- The division of information by topic area can limit a comprehensive view of age groups.

Additional comments on how the material content could be strengthened are also included.

The format of Bright Futures materials was highly praised. Many positive comments were received from national-, State-, and local-level key informants regarding the attractiveness of the Bright Futures guidelines books, in particular regarding the graphics, colors, and overall presentation. While having access to electronic versions of the materials was noted as being very important, the "look and feel" of the hardcopy documents were central to people's favorable responses to Bright Futures.

The Bright Futures Health Supervision Guidelines were perceived by key informants as among the most comprehensive resources available on child health. Most everyone noted that the materials are extremely comprehensive, with many people describing the *Bright Futures in Practice* guides as the most comprehensive resources available on the topics covered (e.g., mental health, nutrition). For this reason, the Bright Futures materials are highly valued as reference documents. In fact, many State- and local-level key informants noted that the guidelines have been used to revise their policy and practice manuals and child health record forms. The tools included in some of the books, especially the guide on

The Bright Futures materials are valued for their comprehensiveness and for their holistic portrayal of the health care team.

mental health, were noted by key informants as being particularly helpful.

The Bright Futures materials are viewed as inclusive and flexible. Many informants praised the Bright Futures holistic portrayal of the child health care team and the identification of roles for providers, families, and communities in promoting child health. As noted earlier, the Bright Futures materials were intentionally written for a broad audience to facilitate their use among the many people sharing responsibility for children's health. More specifically, informants noted that the materials can be used flexibly by people with different backgrounds and areas of focus. Several informants, for example, noted that the guidelines contain information that providers can copy directly out of the book for families interested in a particular topic.

The "one size fits all" approach is seen as limiting the value of the materials to certain audiences. While many positive comments were received regarding Bright Futures' broad appeal and flexibility, many also noted the limitations of having such a broad target audience. Ironically, physicians tended to report that the guidelines were written too simply for physicians, while nonphysician providers often noted that the guidelines were too oriented to physicians. Numerous State-level key informants indicated that the Bright Futures materials are not well-designed for staff members working directly with clients; in fact, as noted above, several States developed their own training materials to help front-line staff members utilize the information during client interactions. Numerous informants suggested that the Bright Futures materials should be tailored for different audiences.

The division of information by topic area can limit a comprehensive view of age groups. The separation of the different aspects of overall child health (mental health, nutrition, etc.) into different books makes it challenging to gather all the information for a given age group. More broadly, this format seems to contradict the holistic approach to well-child care embraced and promoted by Bright Futures. Adding an index to each book was suggested as an additional step for making information in each book easier to find.

Materials should reflect evidence-based research and be kept current. In the early planning of the Bright Futures initiative, planners agreed that while it was important that health supervision guidelines be evidence based, it was also important to meet the immediate need for a comprehensive set of guidelines via the development of a consensus-based document; that is, using what is currently known about best practices in child and adolescent health supervision. However, since the outset of the Bright Futures initiative, there has been a strong tension between the recognition that materials should be grounded in evidence-based research and the limited amount of that research that exists with respect to preventive care. That tension remains today, as reflected in the many comments received by evaluators regarding the importance of strengthening Bright Futures' reliance on evidence-based data. Strengthening the evidence-based foundation of the materials was

> There is broad agreement that the Bright Futures materials should be grounded as much as possible in evidence-based research.

noted as a critical step toward the goal of promoting physicians' use of Bright Futures.

The importance of keeping the materials current was also identified by key informants. Many noted that some of the Bright Futures documents are outdated, particularly the *Bright Futures in Practice: Oral Health* book published in 1996.

Increased attention should be paid to addressing cultural diversity issues. Local providers in particular, including physicians, nurse practitioners, and health department staff members, indicated that the Bright Futures guidelines should provide more guidance in how to provide culturally appropriate care to their diverse clientele. Calls for guidance on addressing client diversity related not only to clients' different ethnic backgrounds but also to their different living environments (e.g., cities, rural areas, Indian reservations). While informants recognized that specific guidance cannot be given for every situation, they felt that general guidance in this area could greatly assist providers facing the challenges of working with families from diverse backgrounds.

Develop additional materials focused on topics of high interest. While respondents emphasized the importance of promoting the use of the existing Bright Futures materials as a top priority, some indicated a need for additional focus on certain topics, including child abuse, children with special health care needs, injury prevention, and the psychosocial dynamics of families.

b. Feedback Related to Materials for Families

Overall, Bright Futures materials that have been developed for family audiences were perceived by key informants as an important resource to both families and clinicians. The availability of materials on well care that speak to families as respected partners in their child's health care were highly praised by several clinician informants. *The Bright Futures Encounter Forms for Families,* in particular, were noted as being helpful to parents as preparation for upcoming well-child visits. They were also noted as being a useful tool for community health workers, such as home visitors, who work over a period of time with families of young children and provide important health supervision services and encouragement to families to be advocates for their children's health.

Key informants also provided feedback on the family materials in the form of several suggestions to strengthen the materials for families. These include:

- Modify the materials to make them more appropriate for a wider range of families
- Prepare the materials in Spanish and other languages
- Consider alternative forms of communicating Bright Futures messages to families.

Modify the materials for families to make them more appropriate for a wider range of families. There was strong consensus that the Bright Futures materials for families could be made more appropriate for use with a broader array

There is a great need for Bright Futures materials for families who speak Spanish and other languages.

of families, especially those with lower reading levels, if they were streamlined to highlight a more limited number of key points. The *Family Tip Sheets,* in particular, were noted as being too dense and complex for easy consumption by busy parents. Providers indicated a desire to have Bright Futures handouts to give to families on developmental milestones or specific child health topics.

Prepare Bright Futures family materials in Spanish and other languages. Since the Spanish-speaking population is the largest minority group in the country, providers expressed a great need for more of the family materials to be made available in Spanish and other languages. Without this, providers serving diverse populations will be limited in their ability to promote the information and messages encompassed in Bright Futures to their clients.

Consider alternative forms of communicating Bright Futures messages to families. Finally, some informants noted that, given the growing role of nonwritten forms of communication in modern society, consideration should be given to using alternative means for sharing Bright Futures messages with families. One suggestion given was to create a media campaign that markets well-child care and health supervision messages directly to consumers, similar to consumer-focused campaigns conducted by drug companies to promote use of particular medications.

We now turn to a discussion of findings related to activities used to implement the second objective of the Bright Futures campaign, dissemination of materials.

3. Dissemination of Bright Futures Materials

Key informants provided extensive feedback on their perceptions of the dissemination activities for Bright Futures, describing dissemination activities they assessed as successful and offering insights regarding the dynamics of dissemination. Overall, key informants indicated that:

- Broad dissemination of the materials among different groups of professionals was an effective way to create an awareness of Bright Futures
- The provision of free copies of the materials was critical in spreading awareness of the materials
- Access to Bright Futures materials through Web sites supplements, but does not replace, the need for dissemination of hard copies
- Potential dissemination opportunities involving key partners were not fully utilized.

Broad dissemination among different groups of professionals was an effective way to create an awareness of Bright Futures. The broad scope of the dissemination effort was clearly an important factor in getting the documents used. Efforts that reached beyond medical practitioners seemed to be particularly effective. In a focus group of pediatric nurse practitioners, all of the participants were aware of Bright

Futures and many of them had been responsible for initiating the use of the material within their clinical setting. Most of them learned about the material while in graduate school but others heard about it from Pfizer representatives, through the mail, or at an AAP conference. Local-level nutritionists who had access to copies of Bright Futures had many good things to say about the usefulness of the document.

The provision of free copies of the materials spread awareness of Bright Futures. Many respondents indicated that the cost of the materials was often prohibitive. The free dissemination of the guidelines was cited as an effective way to get the materials into the hands of practitioners. For example, almost all of the pediatricians in a focus group convened in South Carolina were familiar with the general guidelines and many attributed their initial exposure to AAP's mass mailing of the materials. At the local level, the distribution of materials by States to local WIC agencies and public health agencies was an important step in getting practitioners to use the materials. Many of those most likely to utilize Bright Futures materials could not afford the cost of the materials.

The free dissemination of Bright Futures materials was seen as critical, since the cost of the materials is often prohibitive.

Often mentioned by key informants was the opportunity to use the Internet to distribute materials. This was identified as an effective way to promote broad and continuous distribution of the materials. However, Web access was seen as having limitations (see next paragraph).

Access to Bright Futures materials through Web sites supplements, but does not replace, the need for dissemination of hard copies. While Web access increases availability of Bright Futures materials, it does not substitute for actually placing the materials into the hands of providers who are less likely to download the documents until they have access to a hard copy and see their value. In addition, material that is printed from downloaded Internet copies loses many of the features that make the Bright Futures materials so appealing. Free and widespread distribution clearly is important for getting the document into the hands of potential users. Many key informants stated that if they could obtain more copies of the materials they could put them in the hands of practitioners who would put them to use.

A number of key informants reported problems with ordering materials in recent years. The exact reason for this is unclear, but a change in addresses and organizational responsibilities that took place in 2000 seems to have been associated with some of these problems.

Potential dissemination opportunities involving key partners were not fully realized. There were potential partners who might have played a role in dissemination but, for various reasons, did not. The Pfizer partnership was extremely productive in terms of both funding Bright Futures efforts and disseminating Bright Futures materials to physicians. However, additional corporate partners were not recruited. In addition, AMCHP had the potential to serve a key role in disseminating both the philosophy

and materials to State agencies, but this was not actively pursued. While there were Bright Futures exhibits and presentations at AMCHP conferences, the organization itself was not enlisted in dissemination efforts.

4. Training to Promote Bright Futures

Key informants at all levels – national, State, and local – strongly encouraged the use of training to promote Bright Futures. Many respondents commented that while the materials were excellent, simply sending them out was not enough to get Bright Futures used.

Distribution of materials needs to be followed with training in how to use the materials.

Training, even if limited to a review of the materials with policymakers and providers and discussing the various ways they can be used, was cited as a strategy that would promote utilization of Bright Futures.

Cited frequently by respondents was the effectiveness of exposing health professionals to Bright Futures as early in their careers as possible. Those interviewed provided several suggestions to promote the utilization of Bright Futures through a strengthening of training efforts. Suggestions included:

- Bright Futures should be incorporated into the education and training programs for those who will be providing health care to infants, children, and adolescents
- Training efforts need to be developed based on the needs of the target audience
- Training works best when it focuses on the application of what is learned.

Bright Futures should be incorporated into the education and training programs for those who will be providing health care to children and adolescents. A number of key informants cited the incorporation of Bright Futures into medical school curricula and residency training as an optimal opportunity for increasing the use of Bright Futures by physicians. Participants in the physician focus group indicated that once the physician enters practice, he or she is much less likely to make major changes in practice behavior, and therefore, reaching medical students is essential. Key informants from the PNP community pointed out that Bright Futures is incorporated into all PNP programs as suggested guidelines for the provision of health supervision and many reported this as the reason for their continued use of the materials. According to NAPNAP, there are 87 PNP training programs in the country.

Those interviewed also cited specific strategies for the conduct of training. In particular, informants indicated the importance of tailoring of Bright Futures trainings to the specific needs of the intended audiences.

Training efforts need to be developed based on the needs of the target audience. A successful training effort must clearly define and understand the target audience and how training best can be implemented for them. Input from the intended

Training efforts should be tailored to the needs of the audience and focused on how to apply what is learned in practice.

audience should be sought during the design of training material. Feedback from various participants in Bright Futures training efforts indicates that training sessions did not always provide clear agendas for translating training into practice.

Training works best when it focuses on the application of what is learned. Train-the-trainer sessions were reported to be an important vehicle in encouraging the use of Bright Futures. Whether traditional training or a train-the-trainer approach is used, it is essential that those being trained understand how to apply what they learned in their particular work settings following completion of the training session. A number of key informants indicated that they attended training sessions where they were unsure what to do once the training was completed.

5. Partnerships to Support Bright Futures

Key informants reported that they felt that partnerships played an important role in the development of Bright Futures. Key informants noted both the strengths of many of the partnerships as well as concerns about some partnership issues. Key informants cited many examples to illustrate their position that partnering made things happen in Bright Futures. This included the development of the Bright Futures idea from discussions and concerns shared by MCHB, the Medicaid Bureau, and the AAP; the crucial role played by the partnership among MCHB, NCEMCH, and Pfizer in developing and disseminating the material; and the State and local partnerships that have fostered the use of the material. Respondents view Bright Futures as a comprehensive, broad approach to promoting healthy behaviors that requires the participation of a broad range of players from different agencies, professions, and disciplines acting in partnership.

Partnerships at all levels are important in supporting Bright Futures.

Those interviewed also suggested additional opportunities for partnering to promote Bright Futures that could be pursued. These included seeking out corporate partners and creating stronger links with AMCHP.

Also described by key informants was a need for stronger partnerships between MCHB and other Federal agencies to promote Bright Futures. A partnership with the CDC could have helped to disseminate Bright Futures materials to the State health agencies with which the CDC works closely. The Bureau of Primary Health Care reported remaining very interested in working with MCHB to implement strategies to promote Bright Futures in federally funded Community Health Centers. SAMHSA was also cited as an important partner in efforts to promote the use of *Bright Futures in Practice: Mental Health.*

Key informants furthermore expressed the need for care with regard to the new role of the AAP in Bright Futures and the effect of this partnership on the future of the initiative. Reactions of key informants to the new relationship between the AAP and Bright Futures were mixed. Physicians were especially encouraged by the potential benefits of this strengthened partnership, as were some local health organiza-

tions who have struggled to engage private providers in community efforts to promote Bright Futures. Concern has been expressed among other nonphysician health professionals that the AAP partnership has the potential to weaken the emphasis on disseminating Bright Futures to the full range of health professionals, who often appear to be more receptive and able to incorporate Bright Futures into their work than are physicians. Finally, several State agencies expressed their concern that the AAP may not be focused on providing the technical assistance and support to States that are needed to strengthen further the dissemination and adoption of Bright Futures at the State and community levels.

6. Role of Bright Futures in Policy Development, Standard Setting, and Clinical Practice

Key informants were asked to share their perceptions of the role and potential impact of Bright Futures on policy, standards of care, and clinical practice.

While many key informants felt that the inclusion of a recommendation or requirement to use Bright Futures in Federal and State requests for proposal guidelines can open the door for utilization, they also indicated that without followup by the funding agency to assess the extent of utilization by successful applicants, the opportunity may be lost. It was clear from both the focus group and reviews of grant guidance recommending use of Bright Futures that the level of subsequent utilization varies tremendously. While some applicants clearly feel an obligation to mention Bright Futures in their proposal and subsequent program materials, actual utilization often appears limited. More rigorous followup of grantees regarding the implementation of the Bright Futures recommendation not only would promote use of the materials but also would bring to light training and application issues to be addressed.

Followup with grantees of Federal and State programs that recommend or require the use of Bright Futures is needed to assess the degree of actual use and identify ways to facilitate use by funded programs.

Several States noted that Bright Futures can be a valuable tool for child health policy development because the Bright Futures materials have been exhaustively reviewed by experts and are supported by multiple organizations. Key informants in Virginia noted, for example, that the broad-based support needed to promote the Commonwealth's acceptance of Bright Futures as the statewide standard of care for child health was generated because the materials had been reviewed so extensively by experts and endorsed by multiple organizations.

However, those interviewed were quick to point out that establishing Bright Futures as a standard of care does not ensure the utilization of the standards automatically. Among providers, utilization depends largely on individuals' acceptance of Bright Futures as a good standard of care in the context of their own views and experiences. Some providers cited concerns about the lack of "evidence" supporting the Bright Futures guidelines. Some believe it is important to take a comprehensive, ecological approach to health supervision for children, while others lean toward use of a

medical checklist approach. Other stakeholders are happy to stay with what they were taught in their professional training, and if this did not include Bright Futures, they are not inclined to change.

Overall, key informants applauded the process used to develop the Bright Futures materials and praised the broad distribution of free materials. They also valued the comprehensiveness of the materials and provided many thoughtful suggestions regarding (1) the content and format of the materials and (2) strategies for training to promote utilization. Also stressed by key informants was the need to nurture and expand partnerships as a vehicle for the promotion of Bright Futures.

V. Analysis and Discussion

This section presents an analysis of the findings gathered from key-informant interviews and focus groups and from the review of relevant materials. It begins with an assessment of efforts to address each of the five Bright Futures objectives. This is followed by an analysis of Bright Futures findings in several domains of importance to the achievement of the initiative's overall goals – clinical practice, public health practice and programs, education and training, and public policy – as well as discussion of the use of Bright Futures by families and communities, respectively.

While each of the domains will be discussed separately, it is important to emphasize the overlapping and related nature of these and to recognize that each has an ongoing impact on the others. For example, the role of Bright Futures in clinical practice is influenced by its use in the training of clinical practitioners as well as the policy environment in which they practice. The use of Bright Futures by families is dependent on the development and distribution of materials that resonate with them and also is influenced by the incorporation of Bright Futures into the clinical, public health, and community settings with which families interact.

To set the stage for the discussion, the following is a brief description of each of the domains to be analyzed.

Bright Futures in clinical practice. These are activities that promote utilization of the Bright Futures materials in direct care settings. These activities also influence the quality of care delivered by providers in a direct-care clinical setting.

Bright Futures in public health practice and program development. These are activities that promote the adoption of Bright Futures by specific public health programs, agencies, and systems of child health care, and incorporation of Bright Futures into their services and programs.

Bright Futures in education and training. These are activities to promote the awareness of Bright Futures and its utilization among health and other professionals, both during their professional training periods as well as once they are in practice.

Bright Futures in public policy. These are activities to encourage the adoption of national, State, or local policies that support, integrate, or utilize Bright Futures, including the adoption of Bright Futures as the standard of care for quality health care services.

Bright Futures and families. These are activities to encourage the use of Bright Futures in ways that assist families in the supervision of their child's health and to work in partnership with their child's health care provider.

Bright Futures and communities. These are activities that promote and support the integration and use of Bright Futures on a community-wide basis through the development of partnerships between consumers, health care and public health professionals, policymakers, and other programs and organizations across the community.

After assessing these domains, the section concludes with a discussion of the analysis and issues affecting the utilization of Bright Futures.

A. Meeting the Bright Futures Objectives

It is clear from the findings that, overall, the Bright Futures objectives have been largely addressed. Materials were developed and disseminated, health professionals were trained, and partnerships were formed. Evaluation has not been addressed extensively; nonetheless, some evaluation activities have taken place. The following is an analysis of the findings specific to each of the Bright Futures objectives.

Objective 1: Develop materials and practical tools for health professionals, families, and communities. As detailed previously, an array of materials and practical tools for health professionals, families, and communities were developed successfully. Although the format and comprehensiveness of the materials generally received high praise, some key informants found the format and comprehensiveness of the materials to be overwhelming. Whether these characteristics were praised or criticized seemed to depend on how the person making the assessment visualized using the materials. For example, if the materials were viewed as a guide to policymaking or as a resource for clinical practice, the comprehensiveness of the materials was seen as positive. If on the other hand, the materials were perceived to be used to prescribe the direct delivery of care in the clinical setting, they were seen as too comprehensive and unwieldy. This suggests the need for training that focuses on how to use the materials and for the development of Bright Futures tools tailored to specific groups of users.[27]

The process to develop the materials was generally inclusive, although some political tensions did arise as a result of particular key groups not being involved at the onset of the initiative. NCEMCH's efforts to be as inclusive as possible were seen as critical to the success of the initiative. Some key informants spoke about the significant time commitment required to develop materials, indicating a need for future efforts of this nature to provide more support and additional professional recognition of those who directly participate in this process.

Objective 2: Disseminate Bright Futures philosophy and materials. Large numbers of materials were distributed to a broad array of audiences. However, there was no overarching dissemination plan developed to guide and monitor the process.

It is important to consider what is meant by "dissemination" in discussing this objective. Some individuals may understand dissemination as distribution; i.e., providing materials to agencies or groups via mass mailings or meetings. Others may view dissemination as not only providing materials but also conducting activities to orient members of target audiences to the initiative's philosophy and approach, as well as ensuring that the materials actually come into the possession of the targeted audiences.

27 It should be noted that the majority of those interviewed were not the end users of the materials.

Much of the dissemination of Bright Futures was focused on distribution, the first interpretation. An issue to consider regarding the effectiveness of distribution of materials is the extent to which distribution penetrates an entire intended audience. For example, while materials were distributed to pediatricians and other health professionals, it is not known what proportion of these practitioners actually received the Bright Futures materials.

While the NCEMCH staff did conduct dissemination activities beyond distribution of materials (for example, exhibiting at conferences and conducting State-based presentations), these activities were limited by the lack of available resources. Furthermore, while there were instances in which the distribution of materials was followed by activities to either orient or train the recipients of materials in how to use them, this did not always occur; therefore, the potential of these efforts to influence clinical and public health practice as well as the development of policies related to child health was diminished.

One notable indepth dissemination strategy was the one developed through the NCEMCH and Pfizer partnership. Pfizer representatives working in the field physically put the materials into the hands of pediatricians.

Objective 3: Train health professionals, families, and communities to work in partnership on behalf of children's health. Various training strategies were used to share Bright Futures information and to promote its utilization. These ranged from presentations to groups of health professionals by the NCEMCH to statewide meetings to describe and discuss Bright Futures. Much of what was viewed as training was focused on general audiences and not tailored sufficiently to particular audiences – for example, to physicians and public health practitioners. Many key informants viewed this as diluting the impact of the training experience.

MCHB invested resources in several training grants designed to promote the use of Bright Futures. These were mostly university-based continuing education/distance learning grantees with projects that ranged from a focus on the development of preservice training curricula for physicians to regional efforts to promote an understanding of the use of Bright Futures mental health materials. It is unclear, however, to what extent Bright Futures has been adopted and utilized by the large network of MCHB-supported interdisciplinary and unidisciplinary long-term training programs.

Practicing providers are likely to use the guidelines with which they became familiar during preservice training.

Bright Futures information appears to have been integrated successfully into the preservice training curricula of PNPs, with less success reported in the integration of Bright Futures into physician training. Given feedback from the key informants and an assessment of the current utilization of Bright Futures, it will be important to continue to promote the integration of Bright Futures into the preservice training of all health and health-related professionals who care for children.

Objective 4: Develop and maintain partnerships. MCHB was very successful in identifying and working with an array of partners at various points in the process. MCHB's commitment to the development of partnerships was particularly strong in the early stages of the Bright Futures initiative. The focus on partnering seems to have diminished over time, however. In many cases, the NCEMCH, acting on behalf of the Bureau, assumed responsibility for developing and nurturing partnerships helpful to the Bright Futures initiative.

One especially important and productive partnership was that developed by the NCEMCH in collaboration with MCHB with Pfizer. This was an outstanding example of the effectiveness of public/private partnering, and garnered extensive resources that contributed substantially to the overall initiative. Despite this success, there is no evidence of a coordinated effort to develop additional partnerships along these lines.

However some obvious partners, for example the HRSA Bureau of Primary Health Care and AMCHP, were very minimally involved in the initiative. The Bureau of Primary Health Care, as the funder for Federally Qualified Health Centers across the country, and AMCHP, with its direct organizational links to State maternal and child programs, can play important roles in the promotion and utilization of Bright Futures.

Objective 5: Evaluate and refine the efforts. Efforts to evaluate Bright Futures were limited. Most evaluation activities ranged from counting the number of publications distributed to tallying the number of training sessions conducted using Bright Futures materials. Other efforts focused on the utilization of components of Bright Futures as a standard of care and measuring compliance with aspects of Bright Futures.

Evaluation efforts conducted were rarely used to refine Bright Futures efforts.[28] Evaluation findings indicate the strengths and weaknesses of a project and should be used to maintain the project's strengths and eliminate weaknesses. The Bright Futures initiative lacked an evaluation feedback loop to utilize evaluation findings in this way.

Finally, before this national evaluation effort funded in 2002, there was no overall evaluation of the Bright Futures initiative looking at the development and distribution of materials; training related to the materials; and the application of the Bright Futures philosophy, approach to care, and standard of care. As with many public programs, the lack of up-front attention to evaluation represents a missed opportunity to assess and improve the project as it progressed.

Next, we will focus on an analysis of the utilization of Bright Futures in the key domains described above.

B. Bright Futures in Clinical Practice

Bright Futures is being used in many different types of clinical practice sites, ranging from private-sector group practices to school-based

28 NCEMCH's emphasis in later Bright Futures publications on including tools and indices was influenced by feedback received on earlier publications.

health centers to inpatient tertiary care facilities. This indicates not only the usefulness of the materials but the inherent flexibility of the philosophy and the materials and suggests that Bright Futures can be used effectively to guide the provision of direct clinical care.

One factor influencing clinical utilization is the provider's basic understanding and perception of the Bright Futures initiative. Some may understand Bright Futures as a philosophy of care and a mindset regarding the approach to care and conduct their practices accordingly. Some may perceive Bright Futures as a resource document to guide or support their approach to providing health supervision services. Findings suggest that those with the aforementioned views are more likely to make use of Bright Futures than others who perceive health supervision guidelines as a prescriptive checklist for the provision of care.

The findings also suggest that the use of Bright Futures in clinical care is influenced by several other factors. These include becoming familiar with Bright Futures in the practitioners' preservice professional training, possession of a broad view of the role of the practitioner in caring for the child and the importance of involving the family in that care, and support from policymakers and funding sources to use Bright Futures.

The presence of a "champion" also has a direct and positive effect on the adoption of Bright Futures in the direct provision of care. This is illustrated by the following example. The primary owner of a pediatric group practice in Virginia is a Bright Futures champion. Her office uses Bright Futures as the standard of care and every new partner to the practice is required to adhere to Bright Futures. Other factors affecting the use of Bright Futures in clinical care are the availability of no- or low-cost materials and the ability or the commitment of the practitioner to adapt and tailor Bright Futures to the structure and demands of the practice setting.

An additional factor complicating the use of Bright Futures in clinical practice is the availability of other child health supervision guidelines including the AAP's and the AMA's child health guidelines and the GAPS. A provider is most likely to use whichever guideline or guidelines (s)he became familiar with during preservice training.

C. Bright Futures in Public Health Practice and Programs

At both the Federal and State governmental levels, a number of strategies have been used to promote the application of the Bright Futures philosophy and materials to an array of public health practices and programs. These strategies included citing Bright Futures in policy and program guidance and recommending its utilization, conducting meetings or conferences to create an awareness of Bright Futures, and organizing initiatives to promote utilization of Bright Futures.

While there are numerous examples at both the national and State levels of Bright Futures being cited and recommended in an array of policy and program descriptions, little is known about the outcomes of these recom-

mendations. Much of this is related to the lack of followup and monitoring and to the lack of sustained commitment on the part of those at the national and State levels.

Also contributing to the lack of knowledge about the outcomes of suggested use of Bright Futures may be confusion on the part of those who successfully respond to requests for proposals that include references to Bright Futures in the guidance materials. For example, the Healthy Tomorrows grantees who participated in this evaluation's focus group to discuss Bright Futures reported that they interpreted the grant guidance to incorporate Bright Futures to mean that they would be familiar with Bright Futures materials and that the Bright Futures philosophy would be incorporated into their program. The few concrete examples of how these grantees were using Bright Futures included use of the Bright Futures pocket guides by medical residents working with one of the Healthy Tomorrows projects and plans to explore the use of the *Bright Futures in Practice: Mental Health* guide by social workers in another project. This may or may not be what the developers of the grant guidance intended.

D. Bright Futures in Education and Training

Several States developed an array of training strategies to follow the distribution of materials and promote utilization of Bright Futures. These strategies included statewide conferences, regional trainings, and videoconferencing, among other strategies. However, training was not always provided to complement the distribution of materials and, when training did occur, followup was not always forthcoming to assess the extent of application of the training or to determine additional training needs.

While efforts were made to include Bright Futures in the preservice education of health professionals, these have resulted in less than complete success. While the reasons for this requires further investigation, findings suggest that the traditional nature of most physician education programs, the lack of agreement among physicians regarding the role of prevention and promotion in child health, the high priority given to diagnosis and treatment of illness and disease, and the difficulty of bringing about change in medical training curricula may all contribute. MCHB has supported several efforts to influence the integration of Bright Futures into the training of physicians.

More successful, however, has been the integration of Bright Futures into the preservice education of PNPs. Findings suggest that those responsible for the training of PNPs view comprehensive child health supervision as a major component of PNP practice and are therefore eager for tools to help them implement this role fully. The factors accounting for the differential adoption of Bright Futures by training programs for different types of health professionals should be explored further.

An overall plan for comprehensive dissemination of Bright Futures is needed.

E. Bright Futures and Public Policy

Federal and State organizations have encouraged the use of Bright Futures philosophy and materials through implied policy directives; i.e. Bright Futures use is recommended or suggested. Several States indicated that they have adopted Bright Futures as the State's official standard for infant, child, and adolescent health supervision and have supported this standard in ways ranging from the distribution of Bright Futures materials to local public health nurses to the enforced requirement that Bright Futures standards are used to conduct school physicals. However, it is difficult to know exactly what adoption of a Bright Futures standard means in these and other States.

There is also an issue of how strongly a Federal or State agency or other organization can promote Bright Futures. Mandating and enforcing its use is not always politically or financially feasible. Other strategies, therefore, may be necessary to promote the utilization of Bright Futures in the public policy arena. These other strategies could include a focus on legislators and their respective associations. So, too, entities representing policymakers, such as the National Governor's Association, could play a more active role in promoting Bright Futures to States as a tool for driving policies and programs around children's health and school success.

F. Bright Futures and Families

Findings indicate that when Bright Futures materials are actually provided to families and used to promote a positive interactive relationship between the family and those who provide health care to their children, they are seen as valuable. However, this practice appears to be sporadic rather than routine.

This gap may be due in part to the paucity of materials that are specifically developed to promote provider/parent interaction and the variability among providers in welcoming this kind of interaction. Other factors include the cost of the materials and the limited availability of materials in languages other than English, especially Spanish.[29] Key informants also indicated that the materials are not always appropriate to the literacy level of many families, which is often quite low. Although the evaluation revealed that the Bright Futures materials overall were highly praised, opportunities to improve the accessibility of the family materials in the aforementioned ways were frequently noted.

MCHB funded NPND to plan and develop several Web-based satellite broadcasts targeted to families and focused on topics relevant to Bright Futures. While these were well-publicized, as evidenced by media releases put out by the Department of Health and Human Services, reports indicate that attendance was greater among professionals than among families and that organizational and technical challenges were encountered. Family Voices, as a PIC partner, also targeted all families, not just those with children with special health care needs, through the development of family-oriented Bright Futures materials produced in

29 A Spanish version of Family Voices' Bright Futures for Families Pocket Guide, including the Health Visit Checklist, is now available.

cooperation with NCEMCH. Family Voices asked for assistance from MCHB in marketing these materials to families without special needs children, as this was not the usual audience for Family Voices, but such assistance was not available.

These two examples illustrate again how important it is to develop, and most importantly to monitor and adjust, an overall plan for the comprehensive dissemination of Bright Futures.

G. Bright Futures and Communities

While there are examples of Bright Futures being used by and with communities (e.g., Whatcom County, WA), they are scarce. The findings suggest that the focus of efforts to promote Bright Futures has been directed at traditional health care professionals and providers and not at community leaders or organizations. Community officials, in concert with health care policymakers and providers, could use Bright Futures to engage all community stakeholders – including those from the education, faith, business and human services communities – in efforts to promote infant, child, and adolescent health and well-being. By the same token, national-level efforts focused on communities, such as the Coalition for Healthier Cities and Communities, which is comprised of local communities working to improve the health and well-being of residents, could also use Bright Futures as a framework for their efforts.

Bright Futures can be used by communities to engage a broad range of stakeholders around child health.

H. Discussion

Overall, an analysis of the findings indicates the following:

- **The initiative was driven by a focus on the development and dissemination of materials.** States became aware of the Bright Futures initiative through the support of the Federal MCHB and NCEMCH. Subsequently, although some States actively moved to distribute this information to child health stakeholders within their State, many others did not. A significant amount of materials was distributed, but in many cases it is not certain if and how those materials were used. While MCHB clearly intended for the materials to be used in public health programs and clinical practice, the emphasis of the initiative was on the development and distribution of materials.

- **It was assumed that awareness would lead directly to utilization.** The efforts at the national level were targeted to creating an awareness of Bright Futures by MCHB through collaboration with NCEMCH and with partner agencies and organizations and by offering Bright Futures as a model for a standard of prevention and health promotion services to their constituents. While the outcomes of some of the efforts to create awareness and subsequently to spur utilization are known, the full nature and extent of awareness and utilization are not easy to capture and thus are not known.

- **Efforts to refine, link, and promote Bright Futures activities are seen as essential to ongoing successful implementation but were not consistently conducted.** The findings suggest the importance of a sustained effort to keep Bright Futures consistently in front of intended audiences. Overall, national Bright Futures partners and State agencies have been unable, over time, to sustain a consistent, focused emphasis on Bright Futures, either through the direct promotion of the materials or the integration of Bright Futures into their individual programs or systems.

A sustained effort to promote Bright Futures is needed to promote utilization of the materials.

- **Development of materials needs to be followed by comprehensive, well-planned dissemination of materials accompanied by orientation and education regarding how to use the materials.** This needs to occur within a policy environment that supports utilization of Bright Futures. A breakdown between these components and/or the absence of a supportive policy environment has negative effects on the acceptance and utilization of Bright Futures.

Several themes emerged from a review of findings related to utilization of Bright Futures collected at the national, State, and local levels. As discussed in detail throughout this report, these include the following:

- A broad range of entities is using Bright Futures at the national, State, and local levels
- A variety of disciplines, including physicians, nurses, nutritionists, mental health providers, families, uses Bright Futures
- Bright Futures is used in an array of settings, including Federal and State agencies responsible for public policy and public health programs, academic institutions training the next generation of health care professionals, and a variety of clinical care settings serving children and families.

Much has been learned through this evaluation about the influences that can promote or impede the implementation of Bright Futures. The experiences of the entities that have moved toward implementation and those that have found this process difficult were useful to our understanding of what needs to be done in the future to facilitate the application of Bright Futures.

It is clear from the findings that the availability of comprehensive, evidence-driven child health supervision guidelines that incorporate a developmental approach, while necessary, is not sufficient to ensure utilization. The assumption "If we build it, they will come" did not apply to Bright Futures, and there was no overarching national/State/local plan developed to promote the utilization of the materials that had been developed and distributed.

While the broad distribution of the materials was successful, actual utilization of the materials to drive policy and practice changes has proven to be more difficult. Key informants reported that although the materials actually may get into the hands of the appropriate people, they can easily be put aside and ultimately

forgotten due to pressures to address more urgent issues and priorities. The majority of those interviewed stressed the importance of a sustained effort to keep Bright Futures consistently in front of its intended audiences. Without this, the audiences are more likely than not to put off thinking about how to use the materials in their particular work environment. As a result, utilization has been sporadic and hit-or-miss.

Reasons for this include:

Lack of sustained policy commitment and support. Priorities change at both the Federal and State levels. Although MCHB has provided sustained support to Bright Futures since 1990, the implementation of what for many is a "new way of doing business" in the area of child health supervision requires the sustained commitment of partners beyond MCHB, including policy-makers at all levels, professional organizations, and academic institutions, if change is to occur and become institutionalized on a broad scale.

Insufficient or inadequate training and followup. Training cannot be a one time-only event and, to be most effective, needs to be tailored to the background and needs of the groups and individuals participating in the training. Many of those interviewed indicated the need not only for more training to promote utilization, but also for training that addresses the "nuts and bolts" of using the Bright Futures guidelines in their practice setting.

Inadequate compensation for health supervision providers. Many but not all of those interviewed indicated a need for increased reimbursement for those providing health supervision using the Bright Futures approach and materials. While some felt that Bright Futures helped them streamline their care, making them more efficient, others felt using Bright Futures consumed more of their time and that they and their practices could not afford this.

Lack of appropriate tools for use in practice. While many cite Bright Futures as an excellent resource document, its very comprehensiveness sometimes works against its utilization. Positive feedback on the *Bright Futures in Practice* guides indicates that additional tools to assist health practitioners in prioritizing care would be welcomed. This also applies to the need for tools to aid implementation of Bright Futures in the policy arena, in the education and training of health professionals, and in public health.

Need for links between dissemination of materials, provision of training, and a positive policy climate. The existence of linkages between efforts to promote utilization of Bright Futures helps to sustain an awareness of Bright Futures. The presence of complementary efforts – for example, following up the distribution of materials with training – tends to promote continued interest in Bright Futures and utilization possibilities. A positive and supportive policy environment supports the linkages between these components.

Reluctance to change. Much has been written about the difficulty in changing health care practice styles and altering practice patterns. Some providers still view preventive and health promotion care as either unnecessary or outside the scope of their practice.

This assessment of the development and utilization of the Bright Futures initiative has yielded a great deal of information regarding progress to date and the many issues that remain to be resolved. The next and final section of this report will present recommendations and potential directions for the future of Bright Futures.

VI. Recommendations for the Future of Bright Futures

The successful development of Bright Futures materials attests to the emphasis placed on inclusiveness in creating guidelines designed to promote the health and wellness of infants, children, and adolescents. The utilization of Bright Futures by a wide variety of professionals, agencies, and organizations indicates its flexibility and suggests that there are untapped opportunities for application of the philosophy and materials in efforts to promote the well-being of infants, children, and adolescents.

This evaluation has been able to draw some general conclusions and generate recommendations that can apply to all child health stakeholders. First of all and very important is a need for "champions" of Bright Futures at the national, State, and local levels. These can be particular individuals, agencies, or organizations that are committed to furthering the goals of Bright Futures. Without champions, it is easy for the initiative to be eclipsed by other pressing issues and initiatives and ultimately lost in a sea of competing priorities. Strong champions generate and sustain enthusiasm and also work to build partnerships with others who support the philosophy and goals of Bright Futures. Training and dissemination efforts should be targeted at identifying and creating champions.

Bright Futures "champions" can generate and sustain enthusiasm for the initiative and further its goals.

MCHB has provided continuing leadership and considerable resources to support the Bright Futures initiative over 15 years. This has undoubtedly been a key factor in sustaining the initiative and leveraging the continuing interest and support of its partners. In addition to direct support for Bright Futures through its cooperative agreements with NCEMCH and now the AAP, MCHB has encouraged its grantees and sister Federal agencies to adopt and implement Bright Futures. While there have been some successes in this area, such as using Training grants and PIC grants to expand the scope of Bright Futures activities and the adoption of Bright Futures by the USDA for use by the WIC program, there is considerable untapped potential as well. MCHB should integrate Bright Futures more extensively into its own grant programs and work more closely with other Federal programs, such as the Community Health Centers, and with sister agencies, such as the CDC and the Indian Health Service, to further the awareness and implementation of Bright Futures.

It is also important that opportunities to use the Bright Futures philosophy and materials are consistently brought to the attention of child health policymakers, providers, advocates, and families. One-time-only or intermittent efforts at the national, State, or local levels to familiarize stakeholders with the materials and opportunities for utilization have not been found to be as effective as sustained, ongoing efforts. Furthermore, these efforts must go beyond development of materials to effect change in behavior. Practical tools and training

targeted to specific user groups are needed to promote the adoption and use of Bright Futures.

In addition, to promote the utilization of information gathered and analyzed through this evaluation, HSR has developed recommendations to strengthen future Bright Futures efforts that are inclusive of a broad range of child health stakeholders. The recommendations are categorized into four areas:

- Clinical practice
- Public health practice and program development
- Education and training
- Public policy

These are the areas, identified by MCHB, in which Bright Futures is seen as having an impact on the promotion of health and wellness for infants, children, and adolescents. For some of the categories, recommendations targeted to the national, State, and local levels are detailed.

A. Clinical Practice

Those providers currently using Bright Futures in some capacity in their clinical practices find it both appropriate to their needs and the needs of their patients and effective in providing high-quality preventive care to children and adolescents. These providers, as well as those not currently using Bright Futures who participated in this study, offered useful suggestions as to how to promote the utilization of Bright Futures by a variety of clinicians.

Integrate Bright Futures into the preservice training programs of health professionals from various disciplines concerned with children's health and well being. Many of those interviewed for the evaluation who reported an awareness of Bright Futures and/or using Bright Futures indicated that they learned about Bright Futures in their professional training programs. It is within the context of training programs that individuals, whether they are physicians, nurses, nutritionists, dentists, counselors, psychologists, social workers, or therapists, develop the foundation for their future practice styles and approaches to the delivery of care. Practice patterns established in training tend to remain with the practitioner, and it is often difficult for a practitioner to change their practice pattern once it is established.

Integration of Bright Futures into the curricula of training programs can be facilitated through collaboration with individual professional organizations and higher education associations as well as the training programs themselves. The partnership with Pfizer was a unique strategy that was instrumental in raising awareness and use of Bright Futures among pediatric trainees. Strategies include identifying best practices using Bright Futures in the educational setting, supporting development of model curricula and tools for integrating Bright Futures into training programs, supporting evaluation and research to assess the outcomes of Bright Futures training, and establishing Bright Futures as the recognized standard of care for which training must be provided. These efforts could be further supported through collaboration with the HRSA Bureau of Health Professions and other entities focused

on the provision of quality training for health care professionals.

Promote the coordination and consolidation of the multiple child and adolescent health supervision guidelines in use. There are several different health supervision guidelines in use today, and that can create confusion among clinicians and discourage their utilization. Opportunities to promote improved coordination or integration of the guidelines should be pursued.

Develop tools and practice strategies to promote the adoption of Bright Futures in clinical settings. Tools could include those designed to streamline the process of providing direct care using Bright Futures. Strategies are also needed to assist providers in establishing priorities in using Bright Futures to meet the needs of particular patient population groups or communities best within the constraints of the practice setting. The Bright Futures approach to health promotion and disease prevention can be utilized as a response to increasing attention to chronic conditions such as childhood obesity.

Promote Bright Futures as a quality improvement tool for clinical practice. The recommendations included in Bright Futures reflect a broad consensus regarding best-practice approaches to child health supervision. Its comprehensive nature offers guidance on many aspects of care that can be improved through its application, such as providing more consistent and developmentally appropriate anticipatory guidance, helping the parent and the child or adolescent prepare for well-child visits, and detecting problems early to ensure that therapeutic interventions are provided in a timely manner. This guidance can help practitioners improve the quality of the health promotion and disease prevention services they provide in their office or clinic. Approaches that are implemented should be evaluated as part of quality improvement efforts.

Establish opportunities for peer training among a variety of health care professionals. Health care providers generally are more receptive to new ideas and practice approaches when these are presented to them by their peers. Colleagues who have integrated Bright Futures into their clinical practices and are pleased with the outcomes of this integration are in the most favorable position to encourage and support the use of Bright Futures by their counterparts. Those being trained are ensured that the peer trainer does indeed understand their situation and are therefore more amenable to the introduction of different ideas and practice strategies.

Strengthen the evidence base for guidance included in the Bright Futures materials. Since the beginning of the Bright Futures initiative, the need for more evidence-based research supporting health supervision recommendations was recognized. Although limited evidence remains today, this evaluation has documented the ongoing need for efforts to strengthen the evidence base for Bright Futures guidance. This is particularly important to efforts to promote the use of Bright Futures by health care systems, managed care organizations, and third-party payers as well as individual providers, especially physicians. Federal agencies and other funders of health care research should prioritize support of research into the effectiveness of health promotion and preventive care services for children and adolescents.

Promote the use of Bright Futures in programs that utilize large numbers of clinical providers. Bright Futures materials offer a ready resource for the large network of clinical providers that care for our Nation's children and their families. Federally supported programs and systems, including Community Health Centers and the Indian Health Service in particular, can benefit from the long-term investment that MCHB has made in developing and supporting the Bright Futures philosophy and materials.

B. Public Health Practice and Program Development

Establish communication mechanisms to facilitate sharing of best practices pertaining to the utilization of Bright Futures. As national organizations, State and local agencies, and an array of public- and private-sector entities develop creative and effective uses for Bright Futures, it will be important to have mechanisms in place to identify best practices and share information about these ideas and the strategies used to operationalize them. In addition, these mechanisms should be used to lessen the isolation experienced by stakeholders as they plan and conduct Bright Futures activities in the public health arena. Promoting a sense that stakeholders are participating in a nationwide effort can act to nurture and sustain their interest and energy.

Mobilize and provide resources to States and communities to enable them to initiate and sustain Bright Futures efforts. Because the Bright Futures approach can be helpful in the support of the agendas of several Federal agencies, MCHB could pursue strategies to develop joint ventures among these agencies to fund and support State efforts to promote child health and wellness. MCHB also could consider the more effective use of the MCH Block Grant and Special Projects of Regional and National Significance and CISS grants as mechanisms to provide support to States and communities to focus on prevention and health promotion using Bright Futures. Developing corporate partnerships at the national level modeled after the successful Pfizer partnership is another approach to the provision of resources to initiate and sustain Bright Futures activities.

Encourage and support regional and/or community-based public health programs that promote infant, child, and adolescent health using the Bright Futures approach. This can be done by sharing potential models of public health practice; fostering public- and private -sector partnerships to support these practices and programs; and using the media to create public awareness and interest in the Bright Futures approach, thereby engendering public support for these efforts.

Use Bright Futures guidelines and materials to direct the planning of public health programs and subsequent monitoring and evaluation. Encouraging all sectors of the infant, child, and adolescent health system to use the same general guidelines as a standard for program development will facilitate a system of care that is responsive to the needs of children and their families, coordinated across public health and medical practice, and consistent in its delivery of care and that can assure providers, consumers, and payers of its quality. Bright Futures can provide a common "language" among stakeholders that can facilitate collabo-

ration to address the preventive health needs of children and families.

Facilitate linkages across programs working with families to promote community-wide use of Bright Futures. Many of these groups not only share the same goals but are focused on the same or similar population groups. Links between programs would reinforce the messages of Bright Futures and would work to operationalize outcomes related to personal health status and to the health and sustainability of the community.

C. Education and Training

A consistent theme of those interviewed for this evaluation was the need for education and training to promote Bright Futures awareness, knowledge, and utilization. Education and training, as they relate to Bright Futures, span the spectrum from activities to raise public and professional awareness to in-service training of working professionals and the preservice education of a range of health and other professionals who work with children, adolescents, and families. The following are recommendations regarding education and training:

Distribute Bright Futures on a regular, consistent basis. Policy, program, and clinical professionals, along with families and other private- and public-sector stakeholders, need to be consistently and continually made aware of and have ready access to Bright Futures materials. It is often easy to put aside a good idea or intention to act if not reminded on a regular basis of the availability of resources to implement these good ideas and intentions. It will be important as part of this process to address cost issues, as cost was consistently identified in the evaluation as a barrier to accessing and using the materials. A range of innovative strategies and technology, tailored to the needs of different types of users, should be supported to foster the dissemination and implementation of Bright Futures.

Link dissemination of materials with training. While the consistent and broad dissemination of Bright Futures is necessary, it is not sufficient to ensure the actual utilization of the philosophy and materials. Child health stakeholders require assistance in how to adopt or adapt the materials to their particular policy, program, or clinical setting. Followup training and support are also needed to sustain efforts to use Bright Futures in improving the health status of infants, children, and adolescents.

Tailor training tools and other materials to target audiences. A very positive feature of Bright Futures is its comprehensiveness and flexibility. However, because of these characteristics and the need to assist audiences in linking Bright Futures to their particular needs and objectives, it is important to tailor the training activities and materials to the audiences participating in training. One size does not fit all, and the more direct and visible the link is between the Bright Futures philosophy and materials and the interests of the audience, the more likely it is that the philosophy and materials will be used. Audience input should be solicited as training materials are developed and as part of the evaluation process when training is conducted. Training experiences for health professionals also should be designed to meet their continuing education requirements.

Engage all potential audiences interested in child health in Bright Futures training activities. Bright Futures can be used in a variety of ways in a range of settings. Therefore, training should not be limited to traditional audiences. Business and civic leaders, State and local community and advocacy groups, and the various professionals who work with children and families are among those with a potential interest in learning about Bright Futures and how it can be used to strengthen systems of care for infants, children, and adolescents.

Develop an overarching plan for the continuous dissemination of Bright Futures materials, the conduct of training and followup, and the evaluation of efforts. These efforts should be strategic and focus on coordination among national, State, and local levels. These responsibilities can be contracted out and conducted under the guidance of MCHB and an advisory group representing the various constituencies with the potential to use Bright Futures.

Incorporate Bright Futures into the preservice education of child health professionals. Because health care providers tend to practice the way they were trained, it will be crucial to integrate the content, approach, materials, and tools of Bright Futures into preservice education and training programs for clinicians, maternal and child public health professionals, and other professionals who work with children and families. A broad, sustained, multidisciplinary effort targeting programs that train these professionals is required.

Provide education and training for parents regarding the importance of well-child care and prevention. A core focus of Bright Futures is emphasizing and strengthening the partnership between families and health professionals. In developing approaches for engaging the range of key audiences, consideration must be given to incorporating educational and training strategies to help parents participate as active partners in their children's health care.

Refine the review process for new Bright Futures materials. Bright Futures materials need to continue to evolve to incorporate new knowledge and best practices and to meet the changing needs of those using them. While currently developed guidelines were distributed to a broad array of organizations for review, those interviewed for this evaluation suggested that, for future publications, a more structured review process be put in place to obtain input and engender support for the materials. Approaches for accomplishing this include a more deliberative process to identify individuals and organizations to act as expert reviewers, monitoring feedback to assure that comments are obtained from a broad spectrum of groups identified as critical reviewers, soliciting feedback from reviewers earlier in the process, and establishing and sharing criteria to be used in assessing the materials.

D. Public Policy

Setting policy to establish a context for practice and programs and to guide stakeholders' thinking about needs and solutions is an important role for those responsible for child health and well-being at the national, State, and local levels. The following are recommendations for Bright Futures policy development activities at each of these levels.

1. National Level

Include Bright Futures as a requirement in MCHB requests for proposals and conduct appropriate followup activities to monitor the utilization or adaptation of Bright Futures. Significant efforts have been made at the national level to promote the utilization of Bright Futures in the development of policy, such as through the inclusion of Bright Futures in grant guidance as a suggested standard of care. However, this approach to promoting Bright Futures could be strengthened by using Bright Futures as an explicit review criterion or by awarding additional review points to applicants proposing to use Bright Futures. In addition, followup with successful applicants regarding their actual application of these standards would be useful. For example, grantees can be required to report regularly on their use of Bright Futures within the context of the program supported by MCHB. Bright Futures also could be incorporated into performance standards developed for individual initiatives and reported on through MCHB's discretionary grant information system. The provision of training and technical assistance to grantees regarding the utilization of Bright Futures materials also would facilitate their adoption. These activities would promote the use of a consistent standard of preventive and health promotion care across MCHB-supported programs.

Promote Bright futures awareness and utilization among existing and new MCHB partners, including organizations representing State and local policymakers. MCHB has formal and informal relationships, and the opportunity to develop new relationships, with an array of agencies and organizations with important roles in shaping policy around child and family health and well-being. These partners include other Federal agencies with a mandate to promote health and family well-being (e.g., Community Health Centers, Indian Health Service), national associations representing State and local policymakers and health officials, organizations that are concerned with the needs of children and families, foundations, and the media. This will require the presence in MCHB of a Bright Futures liaison with the skills and time to focus on Bright Futures collaborations and the promotion of Bright Futures both internally at HRSA/MCHB and more broadly.

Incorporate the use of Bright Futures in Title V Performance Measures. MCHB has made significant gains in the development of Title V performance measures and the promotion of the use of these measures by States through extensive training and the monitoring of annual Title V reports and applications. The inclusion of a requirement to use Bright Futures in the attainment of identified Federal- and State-developed performance measures would support the creation of a single and shared standard of child health prevention and health promotion care across the States.

Create and disseminate materials under the authority of MCHB designed to facilitate the utilization of Bright Futures in policy development. These materials could include the development of model policies for States to use that are based on the Bright Futures philosophy and content. Case studies detailing strategies also could be created to facilitate the successful adoption of Bright Futures-oriented policies. These could be widely disseminated and used

by States and local entities as a blueprint for the development of their policies to promote child health and wellness.

Convene a task force to promote Bright Futures as a standard for public and private insurance programs and to draft strategies for promoting adequate reimbursement by third party payers for the provision of preventive and health promotion services included in the guidelines. MCHB and its Bright Futures partners should work with CMS and State Medicaid and SCHIP programs, as well as private-sector insurers and managed care organizations, to promote Bright Futures as the standard of care for children's health promotion and preventive services. The task force should be comprised of representatives from MCHB, CMS, the Administration for Children and Families, the CDC, State Medicaid Directors, provider associations, and health insurance and managed care organizations. The purpose of the task force is to identify and prioritize components of the guidelines for which enhanced reimbursement would be most effective and appropriate and for which payment standards could be determined.

2. State Level

States should consider adopting Bright Futures as the organizing framework and content to guide their policies, programs, and services in health promotion and prevention for infants, children, and adolescents. While individual State agencies may adopt Bright Futures or aspects of Bright Futures for their individual programs at various points in time, the effectiveness of this approach would be increased if the Bright Futures philosophy was adopted across State agencies and institutionalized statewide as the context for State initiatives focused on child health and well-being. This action would facilitate the coming together of disparate groups with a common mission under the umbrella of the Bright Futures philosophy.

Use existing funding and contract mechanisms to facilitate utilization of Bright Futures. Similar to the recommendation at the national level, States have the ability to use the request for proposal, application review, reporting and monitoring processes to facilitate the adoption of Bright Futures in support of child health and wellness. States could use the assistance of MCHB's Bright Futures liaison in the development and implementation of these efforts.

Consistently promote awareness and utilization of Bright Futures. This evaluation has demonstrated the importance of Bright Futures champions and of consistency in the promotion of Bright Futures. The States are well-positioned to assume these roles, as well as that of a connector of the wide array of disciplines, agencies, organizations, and groups who can use Bright Futures to improve the health and well-being of children and adolescents.

3. Local Level

Use Bright Futures as the foundation for collaboration on child health at the community level. Local health departments and other local child health stakeholders can adopt Bright Futures as the context for efforts to mobilize the community on efforts to promote infant, child, and adolescent health. Bright Futures can be adapted to address the particular needs of individual communities. Bright Futures' broad-based approach can be useful in engaging a wide vari-

ety of organizations caring for and serving children in a range of settings. Stakeholders in these efforts range from health providers to elected officials to the faith community to those involved in education and recreation programs.

Clearly, the most effective strategy is to foster collaboration on Bright Futures among the national, State, and local levels, with each level supporting the others.

The Bright Futures initiative has accomplished a great deal over the years. The materials are used by a wide range of health professionals and a diverse set of agencies and organizations. However, there is still much to be done to promote wider adoption of the Bright Futures philosophy and approach. To accomplish this, there is a need for a comprehensive, coordinated, and strategic approach to the next steps for Bright Futures, including the review and possible implementation of these recommendations. Such an approach will help to ensure that the extensive investment of all of the public and private sector partners engaged in the development, dissemination, and utilization of Bright Futures culminates in the availability of accessible, high-quality health care for infants, children, and adolescents, as well as in the provision of information and support needed by parents to nurture the optimal growth and development of their children.

VII. Case Examples

As stated at the beginning of this report, Bright Futures has four goals involved in the promotion of its mission to improve the health of our nation's children, families, and communities. These goals involve shifting the practice and understanding of health providers to be more prevention-based, family-focused, and developmentally appropriate; improving health, social, and developmental outcomes for infants, children, and adolescents; fostering partnerships between families, providers, and communities; and empowering families with the skills and knowledge to be active participants in their children's healthy development.

The following section describes real case examples of how Bright Futures has been put into practice. The focus of these cases ranges from provider training to parental education, community involvement, creative partnerships, and health systems applications. However, what they illustrate is the interrelatedness of the program's goals and the extent to which the diverse applications of Bright Futures are cross-cutting. These cases also demonstrate the creative ways in which groups and individuals have integrated Bright Futures into practice in an environment of shifting health care trends, funding constraints, and diverse health care needs. They are just a few examples, but they are the stories of Bright Futures.

Translating Bright Futures Guidelines into Clinical Practice through Training Curricula

The Residency Review Committee in Pediatrics requires rotations in behavioral pediatrics and adolescent medicine. However, with the advent of managed care and changes in health care delivery, clinical faculty are having to take on increasingly greater patient loads – with more pressure to see patients efficiently and less time to devote to teaching and training. Faced with these constraints, the Bright Futures Center for Pediatric Education in Growth and Development, Behavior, and Adolescent Health at Children's Hospital in Boston developed a three-volume series of case studies to be used as part of the residency training curriculum. The goal was to create teaching materials that could address the realities of time constraints in academic health centers and the variations in faculty expertise concerning required training topics. The case studies were designed as self-contained modules that could be taught by non-specialists and used in small group training sessions.

In developing the case studies, the authors turned to the Bright Futures model – with its emphasis on health promotion, disease prevention, and children's psychosocial development. Similar to the Bright Futures guidance, the case studies were designed to span different ages from early childhood through adolescence. They address topics covering a range of physical and mental health issues, such as growth, behavior, learning, and adolescent health. Each

one begins with a case narrative that includes the child's history, followed by guiding questions, additional information, and an epilogue describing the patient's outcome. The case studies are designed to be discussion based and highly interactive – simulating real life encounters and fostering partnerships between the patients, providers, parents, and school or other community representatives. Evaluations from residents participating in the pilot development of the case studies indicate that this is an effective training tool – increasing residents' ability to speak with patients and to use the developmental screening and anticipatory guidance.

The use of Bright Futures as a curriculum design tool has facilitated in the formation of a cadre of health care faculty and clinicians versed in its prevention-based, whole-child-focused, and family-centered philosophy.

Further information is available at **www.pedicases.org** or send email to **cases@childrens.harvard.edu**

Bright Futures as a Model for Tools to Enhance Patient-Provider Communications

Many patients spend as much or more time in the health office waiting room as they do speaking with their health care provider. For their part, providers face increasing patient loads and a need to maximize the efficiency of the time that they do spend face to face with patients. A group of Pittsburgh-area physicians from Children's Hospital and the University of Pittsburgh, led by Dr. Kelly Kelleher, responded to this challenge by creating an electronic questionnaire that parents can complete in the waiting room. The team surveyed 24,000 patients from 44 States, Puerto Rico, and Canada across more than 400 physicians offices to prepare this tool. Its content was based on the anticipatory guidance and health supervision materials from Bright Futures, with a special focus on childhood safety and psychosocial issues. The questionnaire is written at a fourth grade reading level and is easy to follow. It invites parents to complete a series of questions specific to the child's age and reason for his or her visit. The system has also been designed to be flexible enough so that it can be tailored to each patient, based on previous office visits or on issues of particular concern in the community.

Called Entervue, this patient-provider communication tool relies on a wireless Web technology. Once parents have completed the form, the practitioner receives a print-out that can be discussed during the office visit. This system has the effect of encouraging parents to become active participants in their child's health care visit. The questions not only serve to clarify the reason for the child's visit but also to

> "Entervue provides individualized advice to the parent, and it gives them an action plan for how they can address the potential problems of their child... It bolsters the doctor's relationship with the family when you can spend more time focused on the child's problem rather than asking a laundry list of questions."
>
> –Entervue Representative

stimulate discussion; jog parents' memories regarding concerns they may have about their child's health or development; and introduce age-appropriate issues of health promotion and disease prevention. It helps clinicians by reducing anticipatory guidance costs, providing a way to track and document patient cases over time, and increasing both patient and provider satisfaction.

Entervue has adopted Bright Futures not only as a resource document for improving patient-provider communications, but also as a philosophy of care for the health providers. The system initially spread to other large pediatric practices in Pennsylvania, and now is broadly available through the Internet.

Further information is available at:
www.entervue.com

Creative Community Partners: A Children's Museum Promotes Bright Futures

The Children's Museum of Richmond (CMOR) is dedicated to enriching the lives of children and families through interactive educational experiences. Their goal is to help children, and the adults in their lives, improve kids' school readiness and their ability to become competent, creative learners. The museum's approach targets the *whole child* with methods to stimulate discovery, development, and understanding in ways that address both physical and mental health, within the context of children's families and environments. Intrigued by the strong match between this approach and the philosophy of Bright Futures, CMOR enthusiastically signed on as a community partner in the Commonwealth of Virginia's Bright Futures campaign.

CMOR supported the State's Bright Futures efforts in several ways. The museum provided trainings for professionals working with children and families on child development issues. It sponsored family resource fairs with the Virginia Department of Health where they distributed Bright Futures information and materials. The Bright Futures materials also were made available in the museum's Family Resource Center. A CMOR representative was a member of the Virginia Bright Futures advisory board and offered important insight into ways that community partnerships around Bright Futures could be strengthened.

With their broad focus on families and education, museums can serve as an excellent terrain for health information sharing – one that may feel less threatening than a medical environment. As this model demonstrates, children's museums can serve as an excellent example of creative community partners for Bright Futures.

Reaching Out to Local Health Professionals with Videoconference Training

One of the lessons of Bright Futures is the importance of getting materials into the hands of its intended users and teaching them how to use them effectively. However, funding and logistic constraints can hinder efforts to disseminate Bright Futures materials. When nutrition staff in the Kansas State Department of Health saw the *Bright Futures in Practice: Nutrition* and *Bright Futures in Practice:*

Physical Activity guides, they knew these would be important resources for dieticians, nurses, and other health professionals working in community health settings. However, they faced a dilemma: how to introduce and distribute these materials in a way that was efficient and engaging in spite of important time and travel constraints faced by local-level staff. Their solution: videoconference training.

The State Health Department staff partnered with the local Area Health Education Centers (AHEC) to broadcast a training session at six videoconference sites across the State. Using this method they were able to provide training to approximately 175 local health professionals. The sessions were highly interactive. Participants were given copies of the Bright Futures materials, which they were able to explore and discuss with the conference presenters. In addition, a facilitator at each site used case studies and games to help familiarize participants with the resources. The feedback from the participants was very positive. They appreciated this convenient mode of training and the opportunity to learn how the materials could enhance their work with clients.

Using Bright Futures as a Model for Community Case Management with Preschoolers

The Bright Futures health supervision guidelines were designed to be flexible enough that they could be tailored to the needs of local communities, providers, and families. In West Allis, Wisconsin the local health department has used Bright Futures as a model to create a four-tiered case management program for every family in the community with pre-school-aged children. Called *Helping Kids Grow,* the program offers timely reminders, age-appropriate information, and periodic developmental screenings for children from birth through age four. The program and materials were developed using the Bright Futures guidelines. They follow the age-appropriate milestones of Bright Futures across a four-year series of products and services:

One for the Money targets infants through their first year with periodic mailings on safety, immunizations, lead screening, nutrition, growth, and development.

Two for the Road is aimed at 2-year-olds and uses a creative screening approach to identify potential development or learning delays.

Three to Get Ready has parents screen their children for developmental milestones and then consult with their health care professional.

Four to Go focuses on the social and emotional development of 4-year-olds through play and active learning.

Following the Bright Futures model, the *Helping Kids Grow* materials are designed to be concise, complete, and user-friendly. A multi-faceted evaluation of the program has provided compelling evidence of the usefulness of the anticipatory guidance and parental involvement. Results have shown positive outcome measures, including significant improvements in immunization rates, reduced rates of lead poisoning, increased school readiness, and earlier identification and intervention for learning and developmental deficits.

Putting Bright Futures into the Hands of Families and Community Health Providers

Primary health care providers have limited time for well-child exams, and yet there are other important professionals who are poised to interact with children and their families to promote early screening, health promotion, and disease prevention. The Whatcom County Health and Human Services department in the State of Washington addressed this fact by launching a 3-year Bright Futures Pilot Project targeting health promotion specialists outside of the primary health care environment. These included public health nurses, early childhood educators, and parents.

The project was aimed at increasing well-child exams and developmental services for 500 Medicaid-eligible children aged six years and under. The nurses and educators worked in partnership as a well-child health care team. They were trained to encourage parents to prepare for and attend well-child visits and given materials, such as pocket guides, to help them feel more comfortable discussing a range of health and developmental issues with families. The professionals worked with parents to emphasize the value of well-child exams, reinforce anticipatory guidance using the *Bright Futures Family Encounter Forms,* and prepare for well-child visits. As part of this effort, the Whatcom County Bright Futures Project developed a Family Health Organizer – an accordion file folder with labels in different languages where families could organize their child's health records and concerns.

Quotes from Bright Futures Parents

"They gave me this great plastic folder. I store all my baby's medical papers in it... Now I know where things are... All families should have one!"

"I use the book that was in the folder... it helps me know what questions to ask my doctor."

The pilot project helped parents to take a more active role in their children's health care. The Bright Futures project and materials became useful tools for not only for enhancing provider and parental communications but also for increasing parental involvement and empowerment with regard to their children's health and development. The hope is that the philosophy and lessons of Bright Futures will be integrated into the practices of the participating nurses, educators, and parents so that their influence continues beyond the funding period and range of this project.

Using Bright Futures as a Foundation for Public-Private Collaborations

Numerous public and private agencies have an interest in promoting the principles and elements of Bright Futures such as wellness, parental involvement, and public health education. In Massachusetts, the Department of Public Health teamed with a variety of public and private partners to introduce Bright Futures to stakeholders. They sponsored a State meeting and formed a committee to integrate Bright Futures into programs and practices within the Commonwealth. Bright Futures standards were also incorporated into a variety

of State contracts, including those with Medicaid providers and school-based health services.

One of this partnerships' most successful initiatives involved a collaboration with the State Medicaid Department, State AAP chapters, providers, and the United Way which all came together to develop an early childhood health diary. Called *Growing Up Healthy,* this diary focused on children from birth to age five years. To address the diverse populations of Massachusetts it was published in English, Spanish, and Portuguese, and it was written at a fifth-grade reading level. The diary provided information on well-child care, such as immunizations; encouraged parents to take an active involvement in their child's health care; identified resources for families; and created a longitudinal record of the child's health history.

More than 80,000 copies of the *Growing Up Healthy* diary were distributed during its first year of publication, and over 500,000 were distributed overall. A large training program also introduced 200 of the State's largest pediatric practices to the diary. A survey of 250 women indicated that the Spanish and Portuguese versions of the diary were especially valuable, due to the dearth of heath education materials available in those languages. Although the funding for this initiative was finite, the value of this collaborative effort was enduring, not only for the families involved but also for other public and private agencies interested in promoting effective health education tools in their States and localities.

Promoting a New Model of Care and Efficiency in a Private Health Maintenance Organization

Private organizations can be instrumental in promoting Bright Futures within localities and even across State lines. In 1991, Scott Gee, M.D., a California pediatrician working as Associate Director for Preventive Medicine with Kaiser Permanente of Northern California, began pilot testing a new program called Bright Systems. Based in part on Bright Futures guidelines and materials, this system included health risk assessment questionnaires, structured provider encounter forms, written parent information, physician and staff training, and continual quality improvement. The goal of the pilot program was to condense routine well-visit components, increase consistency, improve parent-provider interactions, and reduce charting time for providers.

The Bright Systems materials were designed to complement each other. The pilot materials were adapted and changed over time to reflect feedback from physicians. The materials ultimately comprised a Physician Practice Survey, a spreadsheet of practice guidelines, a Speed Chart, age-based forms for physicians, Healthy Kids-Healthy Futures materials, age-based information for families, Health Questionnaires, an age-based risk assessment tool, Safety Questionnaires, and a data collection tool. The system was voluntarily adopted by more than 1,000 physicians over a five-year period. The materials are updated every two years by a Bright Systems Team to reflect the most up-to-date clinical information available.

Program evaluations have demonstrated improvements in physician counseling, parent safety behaviors, and physician and parent satisfaction. Feedback from practitioners has also indicated that the system saves time, improves office documentation, and leads to higher quality service provision for well-child visits.

Bright Systems staff has provided training for pediatricians and some family practice providers interested in adopting this system within the Kaiser Permanente network. It has also expanded beyond the network to train and offer technical assistance to community clinics interested in the Bright Systems model. The program won the James A.Vohs Award for Quality in 2001 and is now implemented in Kaiser Permanente's Northern California, Southern California, and Mid-Atlantic regions. Bright Systems is a shining example of ways in which both business and public health strategies can be combined to improve health promotion and disease prevention across a broad health care system.

A Bright Futures Public-Private Partnership is Good for Business

One of the most unique stories from Bright Futures concerned its partnership with Pfizer. In 1996, Pfizer was interested in developing its reputation within the pediatric community as it prepared to launch several new medications for children. When a Pfizer representative discovered the Bright Futures materials at a national conference, this set in motion a new partnership that would help meet the needs of both public and private interests. Pfizer funded the development and dissemination of numerous Bright Futures products. In return, the company received increased visibility and credibility.

Pfizer spent several million dollars to support the production and distribution of the following Bright Futures materials and activities:

- The Bright Futures pocket guide
- The CD-ROM version of the Bright Futures guidelines
- The Bright Futures Activity Book
- Encounter forms for health professionals
- Encounter forms for families
- Family tip sheets
- The Web site
- Spanish-language materials
- A New England Summit on Bright Futures
- A Symposia series
- Promotional items; including a child growth chart, lapel pin, mouse pad, picture frame magnet, tape measure, and health record.

Through Bright Futures, Pfizer was able to reach more than 35,000 pediatricians and pediatric residents; hundreds of managed care organizations; and a million consumers. It successfully elevated its image from 21st place to 1st place among pediatric providers.

The sustainability of this partnership was put to the test, however, once the company had met its business objective. Lacking new goals

or committed champions, the partnership eventually dissolved.

Bridging the Knowledge Gap in Children's Mental Health through Distance Learning

One of this report's recommendations for the promotion of Bright Futures within the clinical setting is to integrate its philosophy and practice into health care training. At the Indiana University School of Medicine's Riley Child Development Center, the LENDLinks program is using Bright Futures in training rural and underserved communities to address the mental health care needs of children through videoconferences and distance learning. The training targets health care professionals, public health professionals, psychology interns, pediatric residents, and members of the community in rural and underserved areas. These may include Head Start staff, child care workers, physicians, social workers, psychologists, parents, and others.

The LENDLinks training is based on *Bright Futures in Practice: Mental Health* and focuses on Public Health Regions V and VIII (encompassing the upper Midwest and Rocky Mountains). One of the goals of the LENDLinks program is to allow rural communities to identify high risk children more quickly and improve the system of care available to children with mental health needs. Topics of discussion range from childhood resilience to behavioral problems, infant assessment tools for mental health, and violence and young children.

The videoconference sessions are offered twice a year and can be downloaded for individual viewing at any time. Five distance learning modules are being developed and contained on the LENDLinks site as well. They are packaged and delivered using a variety of technological formats such as CD-ROM, DVD, and real-time interactive videoconferencing. There are seven distance learning sights across the Regions V and VIII that take part in a LENDLinks consortium to promote collaboration, communication, and continuing education. In addition, students and residents on site at the Riley Child Development Center are trained to use the Bright Futures Mental Health Tool Kit materials. Bright Futures materials are also used for parent training sessions that address such issues as learning to spot the signs of depression in children, self-esteem, television viewing, and body image. The hope is that these resources will help address the growing need for mental health services that has been observed among children in the rural and underserved communities of these Regions.

Further information is available at:
www.LENDLinks.net

Championing Bright Futures in Virginia

The adoption of Bright Futures into clinical practice requires important institutional and philosophical shifts from a disease-based system to one focused on wellness, prevention, and the whole child. In Virginia, this process has benefited from the existence of Bright Futures champions – institutions and individuals dedicated to translating its goals into practice.

Two important Bright Futures champions are the Virginia Department of Health and the State AAP Chapter, which worked together to promote the adoption of Bright Futures as the standard for child health care throughout the Commonwealth of Virginia. This was formally instituted in 2000, and copies of the Bright Futures guidelines were distributed to 1,300 private pediatricians across the State. In addition, the guidelines and other Bright Futures materials (i.e. *Bright Futures in Practice: Nutrition, Bright Futures in Practice: Physical Activity, Nutrition Pocket Guides, Bright Futures Health Record)* were broadly distributed to public health departments, nurses, nutritionists, and school health coordinators. The Health Department also worked with the State's Medical Assistance Services and its Department of Education to provide training for Early and Periodic Screening, Diagnosis, and Treatment Program (EPSDT) providers and school nurses on using Bright Futures materials and the anticipatory guidance.

An example of an individual Bright Futures champion is the principal partner at Renaissance Pediatrics, a private practice group in Virginia. The practice is comprised of 4 pediatricians and 4 pediatric nurse practitioners, who see about 3,000 patients each year. The practice has instituted Bright Futures as its standard of care, and each new partner who joins the practice is required to adhere to the Bright Futures guidelines and philosophy. The practice has been able to sustain this effort thanks to the value added that Bright Futures brings. Using Bright Futures has improved the organization and coordination of well-child care, resulting in time savings and increased efficiencies. Another benefit that staff members have reported is the greater involvement on the part of families as partners in the health care and development of their children.

Other examples of institutional champions include two local health districts. The Arlington Health District uses the Bright Futures guidelines across all of its pediatric, prenatal, and home visiting programs. Bright Futures has been used as a basis for changing medical records and home visiting forms to be more consistent and to improve quality management. The Henrico Health District uses the Bright Futures Guidelines Pocket Guide and the Child Health Record as tools for public health nurses. They have also partnered with a local hospital to develop a plastic passport-type folder that parents can use to keep track of their children's medical and immunization records.

Many individuals and organizations have championed the development of Bright Futures. Clearly, for it to further add efficiencies and improve child health practices, Bright Futures will continue to need champions at all levels – be they individuals, institutions, or other entities concerned with the health and well-being of our nation's children.

Further information is available at:
www.vahealth.org/brightfutures

A Mandate for Change in Michigan

While many efforts to adopt and implement Bright Futures have involved voluntary changes, in some cases change has come through the use of mandates. The State of

Michigan, for example, made it a requirement that school health services receiving public funds from the State Health Department adopt some form of preventive service guidelines. Thus a school-based health clinic in Detroit, Michigan, supported by the St. John's Health System, began to use Bright Futures as its standard of care. They adapted the Bright Futures periodicity schedule to make appointments and schedule call-backs. Staff members report that the integration has been very successful and that using Bright Futures has strengthened the quality and consistency of health supervision services. They use their quality assurance activities to monitor compliance with Bright Futures and to measure health outcomes.

St. John's manages several school-based health centers, which offer a broad range of medical services, counseling, social development programs, health education services, and career development. Based on their positive experience with implementing Bright Futures in one school-based clinic, the St. John's Health System has expanded the practice to its other school-based health centers as part of ongoing efforts to implement high-quality health supervision services to elementary, middle, and high school students system-wide.

Adopting Bright Futures Training and Practice to Fit Local Needs

The process of change from philosophy to practice has taken different forms, even in States that have adopted Bright Futures as a standard. In Louisiana, this process began with training sessions for public health care providers, and was ultimately translated into practice through program development that could adapt to local needs.

After participating in a national Bright Futures training session, representatives from the Louisiana Department of Health and Hospitals decided to adopt the Bright Futures materials and training to the needs of public health nurses across their State. The focus of the Louisiana training sessions was not merely on information sharing, but also on addressing ways in which public health nurses could relate health issues to the social and environmental realities of their clients' lives. The sessions were also designed to improve counseling techniques, listening skills, and the nurses' level of comfort for discussions on sensitive topics. Virtually all of the State's public health nurses (more than 400) received the training, which focused on anticipatory guidance, parenting issues, and interview skills. The participants were supplied with tools and resources for communicating with their clients about difficult issues, such as domestic violence, and where to obtain further help.

> **"Bright Futures came along at the right time, providing a needed emphasis on social history and family context, especially parental concerns."**
>
> **–State Health Department Official**

Following the trainings, the Department of Health translated Bright Futures into practice with families across the State. Using Bright Futures materials, anticipatory guidance, and trigger questions, they created new approaches to identify children at risk for poor health out-

comes. This involved the development of a new Child Health Record and Checklist that includes age-specific screening and assessment forms that incorporate psychosocial and development issues for children from birth to age 6. The forms were designed to be user-friendly and adaptable. They come with a set of instructions to guide health providers through assessments of family and environmental risk factors, including issues such as mental health and domestic violence. Thus in Louisiana, the ripple effect of a national training effort for Bright Futures has led to training and practice programs suited to local needs.

Partnering for Change... and for Brighter Futures

From its inception the Bright Futures initiative was unique due to its emphasis and reliance on partnerships. Indeed, the very concept of Bright Futures was born of a collaborative effort among Federal Agencies, and its development was possible only through the coming together of child health experts and stakeholders. For the initial Bright Futures guidelines, the panel of authors was composed of individuals from a mix of disciplines and representing a range of government, private, academic, family, and research perspectives. Subsequent products have also resulted from similar cross-boundary collaborations. Although it was the Maternal and Child Health Bureau that originally helped mobilize and coordinate the effort, no one entity claimed ownership of Bright Futures. It has always belonged to everyone who cares about the health and development of children.

The Bright Futures philosophy itself is grounded in partnerships – partnerships that unite parents, providers, teachers and trainers, community members, and others. The focus of the Bright Futures guidance and materials is on promoting those partnerships with tools to enhance understanding, communications, and connections. Similarly, training and program efforts that encourage the use of Bright Futures also incorporate collaboration and exchange as a major underpinning.

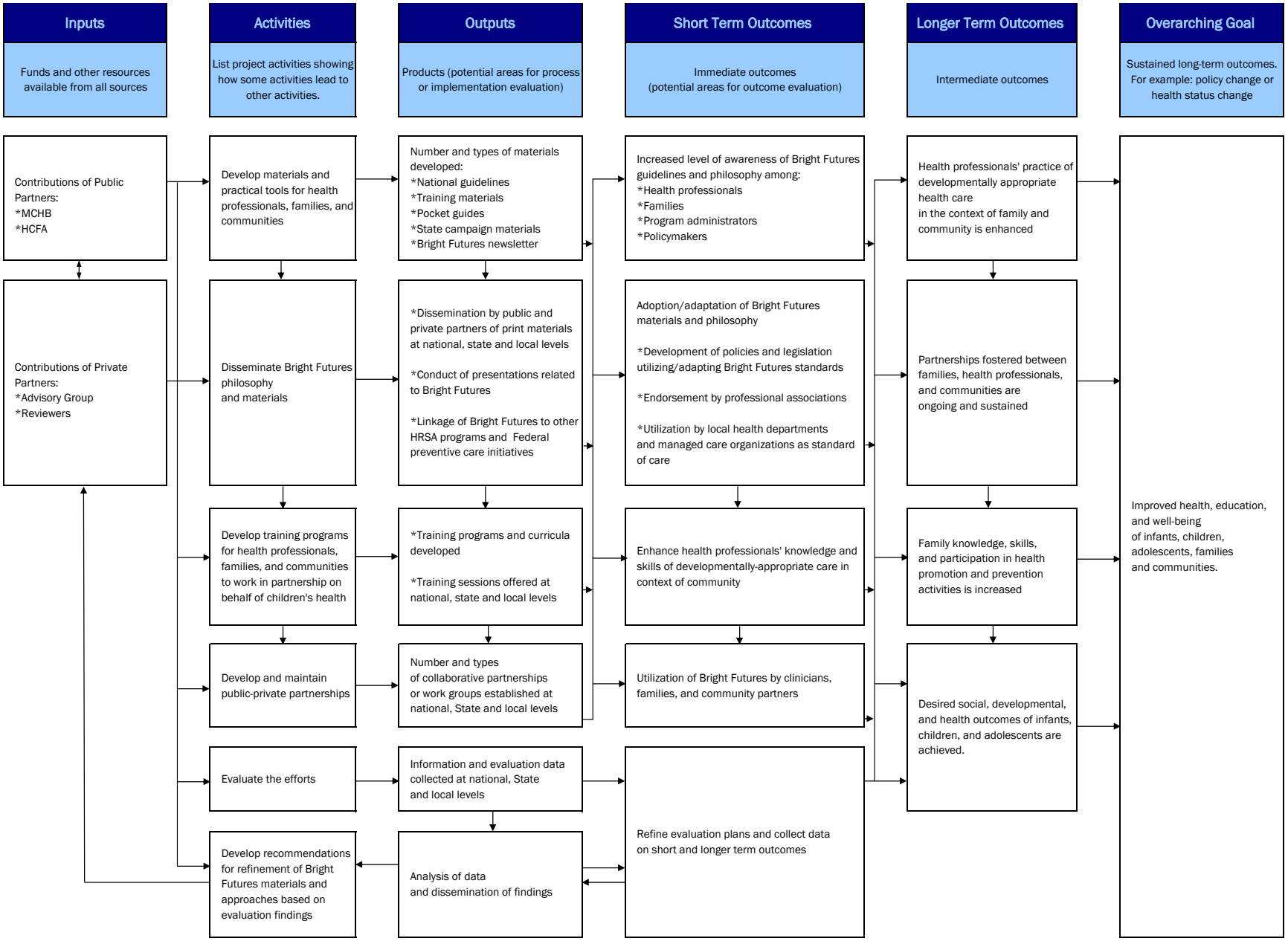
The continual reliance on partnerships and collaboration has added complexities to the task of developing and promoting Bright Futures. However, it has also been critical to the dissemination, expansion, and successes of the initiative. With limited financial resources, much of the development of Bright Futures was made possible thanks primarily to the good will, in-kind support, and dedication of major stakeholders. For example, the authors of the Bright Futures guidelines and materials donated their knowledge and considerable time free of charge. Many organizations supported Bright Futures either by sharing their staff and expertise or through efforts to help produce and distribute materials. These ranged from government agencies, such as MCHB and HCFA/CMS to private organizations, such as Family Voices, AAP, and Pfizer. Equally important in promoting the translation of Bright Futures into practice have been the numerous partnerships at every level: across national and regional organizations; at the State, Territory, and local levels; within communities and among community-level entities; and between individual providers and families.

The development and implementation of Bright Futures has been a dynamic and ever-changing process. The partnerships that form the underpinnings of the Bright Futures philosophy and efforts have thus also varied and evolved. It is their critical importance to the program that remains unchanged.

Appendix A

Bright Futures Logic Model

Evaluation to Assess the Attainment of the Goals and Objectives of the HSRA/MCHB Bright Futures for Infants, Children and Adolescents Initiative: Logic Model



Appendix B

Key Informants List

Bright Futures Process Evaluation: Key Informants List

Respondent Category*	Agency/Organization	Informants**
National Key Informants		
Federal Agency/Office	Maternal and Child Health Bureau, Health Resources and Services Administration	David Heppel Ann Drum Trina Anglin Denise Sofka Laura Kavanagh
Federal Agency/Office	Department of Health and Human Services	Woodie Kessel
Federal Agency/Office	Centers for Medicare and Medicaid Services (Formerly Health Care Financing Administration)	David Greenberg
Federal Agency/Office	United States Department of Agriculture, Food and Nutrition Service	Anne Bartholomew
Federal Agency/Office	Bureau of Primary Health Care, Health Resources and Services Administration	Rita Goodman
Federal Agency/Office	Centers for Disease Control and Prevention ▪ Division of Nutrition and Physical Activity ▪ Maternal and Child Health Nutrition Branch	David Brown Diane Thompson
Federal Agency/Office *and* School-Related Organization	President's Council on Physical Fitness	Christine Spain
Federal Bright Futures Partner/Contractor	National Center for Education in Maternal and Child Health	Rochelle Mayer Katrina Holt Eileen Clark Pam Mangu Mary Froehle
Federal Bright Futures Partner/Contractor	National Institute for Health Care Management	Therese Finan
Federal Bright Futures Partner/Contractor	George Washington University, Center for Health Policy Research	Michelle Solloway
Federal Bright Futures Partner/Contractor	Bright Futures Health Promotion Work Group (Children's Hospital Boston)	Henry Bernstein
Federal Bright Futures Partner/Contractor	University of Alabama at Birmingham	Bonnie Spear
Federal Bright Futures Partner/Contractor *and* Advocacy Organization	Family Voices/Federation for Children with Special Needs	Betsy Anderson
Federal Bright Futures Partner/Contractor *and* Advocacy Organization	National Parent Network on Disabilities	Patty McGill Smith

* Some respondents fall into more than one category.

** Each informant's affiliation with the agency/organization listed is reflective of the time in which he or she was engaged in Bright Futures activities and may not necessarily be current.

National Key Informants continued		
Federal Bright Futures Partner/Contractor *and* Professional Organization	American Association of Health Plans	Anne Cahill
Professional Organization	American Academy of Pediatric Dentistry	Paul Casamassimo
Professional Organization	National Association of Pediatric Nurse Practitioners	Ardy Dunn Linda Jonides
Professional Organization	American Academy of Family Physicians	Jacquelyn Admire-Borgelt Joyce Haas
Professional Organization	American Academy of Pediatrics	Joseph Sanders, Jr.
Association of Government Officials/Programs	Association of State and Territorial Health Officials	Lauren Raskin
Association of Government Officials/Programs	Association of Maternal and Child Health Programs	Catherine Hess
School-Related Organization	National PTA	Gabriella Hayes
Corporate Partner	Pfizer	Randall Kaye
Individual Contributor	Harvard School of Public Health/Children's Hospital Boston	Judith Palfrey
Individual Contributor	Riley Hospital for Children	Morris Green
State Key Informants		
State Agency	Virginia Department of Health, Division of Women's and Infant's Health, Office of Family Health	Cathy Bodkin Carol Pollock
State Agency	Illinois Department of Human Services, Office of Family Health	Stephen Saunders Beverly English
State Agency	Kentucky Department for Public Health	Emma Walters
State Agency	Massachusetts Department of Public Health	Sally Fogerty Barbara Ferrer
State Agency	Iowa Department of Health	Jan Steffen
State Agency	South Carolina Department of Health and Environmental Control	Raymond Lala
State Agency	Florida Department of Health	Charlotte Curtis Mary Heinz Tricia Mann Susan Potts
State Agency	Louisiana Department of Health	Jean Takenaka
State Agency	Georgia Office of Infant and Child Health, Division of Public Health, Department of Human Resources	Georgia Chen
State Agency	Rhode Island Department of Health	William Hollinshead
State Agency	Wisconsin Department of Health and Family Services, Division of Public Health	Ann Stueck Sharon Lidberg

State Key Informants continued		
State Agency	Florida Department of Health, Bureau of Women Infants and Children Nutrition Services	Sondra Cornett Sue Wilson
State Agency	Michigan Medicaid Program	Vernon Smith
State Agency	Kansas Department of Health and Environment	Patrician Dunavan
State Agency and University	Vermont Child Health Improvement Program, University of Vermont	Paula Duncan
Provider Organization/ Managed Care Plan	Blue Cross of California	Lakshmi Dhavanthri
Provider Organization/ Managed Care Plan	Kaiser Permanente Medical Group Northern California	Amanda Wylie
University	Riley Child Development Center, University of Indiana	Angela Tomlin
University	University of California at San Francisco, National Adolescent Health Information Center	Claire Brindis
University	University of Rochester, Community of Preventive Medicine, New York	Molly McNulty
University	Ohio State University	Kelly Kelleher
University	University of Washington, Center on Human Development and Disability	Jean Myers Sue Wendel
Local Key Informants		
Local Health Department	Southeast District Health Department, Georgia	Diane Watson
Local Health Department	Arlington County Health Department, Virginia	Virginia Salb Pam King Pat Woollard
Local Health Department	Rockcastle County Health Department, Kentucky	Nancy Keber
Local Health Department	Whatcom County Health Department, Washington	Gail Bodenmiller
WIC	Saline County Health Department, Kansas	Nada Schroeder
WIC	Orange County Health Department, Florida	Debbie Amoedo
Head Start	Puget Sound Educational Service District, Washington	Diane Uphoff
Private Clinic/ Private Practice	Renaissance Pediatrics, Virginia	Jennifer McMurray
School-Based Health Clinic	St. John's Health System, Michigan	Jonnie Hamilton
Community-Based Clinic	Indian Health Service, Inscription House Health Center (Navaho Reservation), Arizona	William Flood
Community-Based Organization	Children's Museum of Richmond, Virginia	Randee Humphrey

Appendix C

Sampling Matrix for National-Level Key Informants

Bright Futures for Infants, Children, and Adolescents Evaluation
Sampling for National-Level Key Informant Interviews

Overview of Matrix and Guidelines for Sampling

The following matrix includes a majority of organizations included on the Bright Futures list of supporting organizations, as well as organizations identified in a summary of Bright Futures activities developed by the National Center for Education in Maternal and Child Health. These organizations have been classified into eight categories: Federal agencies, Federal grantees, individual contributors, professional organizations, advocacy organizations, associations of government officials/programs and government-funded providers, school-related associations/organizations, and corporate partners. This matrix was developed to facilitate identification of a sample of national-level key informants that represent diversity across these major categories.

In addition to diversity across these categories, other factors across which diversity was considered to be important included level of MCHB funding (which was limited) as well as:

Level of involvement in Bright Futures. The organizations were rated as having a high, medium, or low level of involvement in Bright Futures. This facilitated sampling across organizations with different levels of involvement.

Timing of initial involvement. Diversity in timing of initial involvement was sought among those chosen as key informants. Groups that got involved at early, mid, or late points across the past 12 years were sought to help to ensure diversity on this measure. The classification used was: Early=1988 (or year development of guidelines/initiative began)-1992; Mid=1993-1997; Late=1998-2002.

HSR's proposal called for interviewing 15-20 national-level key informant (although 36 were ultimately interviewed). Group interviews including several key informants were sometimes conducted to obtain multiple perspectives from individuals representing the same organization.

Bright Futures for Infants, Children, and Adolescents Evaluation Sampling for National-Level Key Informant Interviews, continued			
Federal Agencies	Federal Grantees	Individual Contributors	Professional Organizations (not an exhaustive list)
Maternal and Child Health Bureau Medicaid Bureau/HCFA (now CMS) U.S. Department of Agriculture Center for Mental Health Services/ SAMHSA Agency for Health Care Research and Quality Centers for Disease Control and Prevention Bureau of Primary Health Care/HRSA	National Center for Education in MCH Family Voices Bright Futures Pediatric Education Center Bright Futures Health Promotion Work Group National Parent Network on Disabilities National Institute for Health Care Management University of Minnesota Nurse Training Program University of Alabama American Academy of Pediatrics (as of 2002)	Board members Panel members Contributors Expert reviewer	American Academy of Pediatrics American Academy of Family Physicians American Dietetic American Association American Academy of Pediatric Dentists American Association of Health Plans National Association of Pediatric Nurse Associates and Practitioners American Academy of Child and Adolescent Psychiatry American Academy of Physician Assistants American Association for Health Education American Association of Public Health Dentistry American College of Nurse Midwives American Dental Hygienists' Association American Medical Association American Association of Health Education National Association of Social Workers American Nurses Association American Occupational Therapy Association American Public Health Association American Mental Health Counselors Association American Medical Women's Association American Psychoanalytic Association

Bright Futures for Infants, Children, and Adolescents Evaluation Sampling for National-Level Key Informant Interviews, continued			
Advocacy Organizations	Associations of Government Officials/Programs and Government-Funded Providers	School-Related Associations/ Organizations	Corporate Partners
March of Dimes Federation of Families for Children's Mental Health Federation for Children with Special Needs National Alliance for the Mentally Ill National Mental Health Association Child Welfare League of America Learning Disabilities Association of America	Association of Maternal and Child Health Programs Association of State and Territorial Health Officials Association of State and Territorial Public Health Nutrition Directors National Association of County and City Health Officials National Association of WIC Directors National Association of State Mental Health Program Directors CityMatCH National Association of Community Health Centers	American School Health Association National PTA National Assembly on School-Based Health Care National Association of Elementary School Principals National Association of School Nurses, Inc. National Association of School Psychologists National Association of State Boards of Education National Middle School Association National Association for Sport and Physical Education Center for School Mental Health Assistance National Center for Health Education ACCESS (Achievement in Content and Curriculum for Every Student's Success) Center for Mental Health Services in Schools, UCLA	Pfizer Genentech

Appendix D

Overview of Bright Futures Annotated Bibliography Contents

Bright Futures Annotated Bibliography: Overview of Contents				
Category	Totals			
	Materials	English Materials	Spanish Materials	Other Language
Bright Futures Guidelines	11	10	2	1
Bright Futures Newsletters	6	6	0	0
Bright Futures Web Sites	13	13	1	0
Family Materials	21	21	5	1
General Articles/ Fact Sheets	29	29	1	0
Pocket Guides	3	3	1	0
Presentations/ Training Materials	53	53	0	0
Provider Tools	15	15	3	0
Studies/Findings	39	39	0	0
TOTAL	**190***	**189**	**13**	**2**

*This figure double counts a small number of materials that were included in more than one category.

Appendix E

Overview of Web Sites Referencing Bright Futures

Sponsors of Web Sites Referencing Bright Futures

National Level

Federal Agencies/Task Forces/Programs

Agency for Healthcare Research and Quality (AHRQ)

Centers for Disease Control and Prevention (CDC)

Maternal Child Health Information Resource Center

Maternal Child Health Bureau (MCHB)

Health Resources and Services Administration (HRSA)

U.S. Department of Health and Human Services

Emergency Medical Services for Children (EMSC)

Federal Interagency Coordinating Council (FICC)

U.S. Preventive Services Task Force (USPSTF)

Head Start

Healthfinder

National Child Care Information Center (NCCIC)

Child Care Bureau

Administration for Children and Families (ACF)

Indian Health Service

Office of the Surgeon General

U.S. Department of Agriculture (USDA)

National Agricultural Library (NAL)

Food and Nutrition Information Center (FNIC)

WIC

Virtual Naval Hospital, U.S. Department of Defense

Information Resource Centers/Search Engines

About.com

BabyBoo

Center for Health and Health Care in Schools (CHHCS)

Early Childhood Care and Education Resources (Web Site of Peggy Riehl, Early Childhood Specialist)

General Pediatrics.com

Head Start National Maternal and Child Oral Health Resource Center (OHRC)

Head Start Information and Publication Center (HSIPC)

KidsGrowth.com

KinderStart Search Engine

Linkopedia.com

Maternal and Child Health Library, National Center for Education in Maternal and Child Health (NCEMCH)

myHq.com

National Children's Center for Rural and Agricultural Health and Safety

The Nurse-friendly Nationwide Directory

Ovid Bibliographic Records

Virtual Children's Library

WebMD Health

Professional Organizations

Ambulatory Pediatric Association (APA)

American Academy of Family Physicians (AAFP)

American Academy of Pediatrics (AAP)

American Academy of Pediatric Dentistry (AAPD)

American Association of Health Plans (AAHP)

American Dietetic Association (ADA)

American Institutes of Research (AIR)

American Nurses Association (ANA)
Athealth.com

The Complete Practitioner

Institute for Family-Centered Care

National Assembly on School-Based Health Care

Sponsors of Web Sites Referencing Bright Futures, continued	
Professional Organizations continued	
National Association of Children's Hospitals and Related Institutions (NACHRI)	Pediatric Nutrition Practice Group (PNPG)
National Association of Pediatric Nurse Practitioners (NAPNAP)	The Society for Adolescent Medicine
National Health Care for the Homeless Council	
Foundations	
Foundation for Accountability (FACCT)	Grantmakers in Health (GIH)
The Child and Adolescent Health Measurement Initiative	Magic Johnson Foundation
Association of Government Officials	
Association of State and Territorial Public Health Nutrition Directors (PITC)	
Advocacy Organizations	
The Alan Guttmacher Institute	Family Voices
Children Now	Great Kids, Inc. (GKI)
Children's Environmental Health Network (CEHN)	Join Together Online (JTO)
City MatCH	National Health Law Program (NheLP)
The Families and Advocates Partnership for Education	The Program for Infant Toddler Caregivers
Corporate Partners	
Pfizer, Inc.	Pfizer Kids
Other	
Parents.com	
State Level	
Agencies	
Colorado Department of Education (CDE)	Iowa Department of Human Services
Colorado Department of Public Health and Environment, Division of Prevention and Intervention Services for Children and Youth	Iowa Early and Periodic Screening, Diagnosis, and Treatment (EPSDT)
Idaho Department of Health and Welfare	Kansas Department of Health and Environment
Illinois Division of Specialized Care for Children	Maine Department of Education
(DSCC), University of Illinois at Chicago	Maine Department of Human Services
Indiana Office of Medicaid Policy and Planning (OMPP)	Massachusetts Department of Public Health (MDPH)
Iowa Department of Public Health	Nebraska Department of Health & Human Services
	New York State Department of Health

Sponsors of Web Sites Referencing Bright Futures, continued	
Agencies, continued	
New York State Bureau of Emergency Medical Services	Oregon Department of Education
NY State Emergency Medical Services for Children	South Dakota Department of Health
North Dakota Department of Health	Texas Department of Health
Universities	
The Boston University Maternal and Child Health Center for Leadership in Pediatric Occupational Therapy (OT)	University of Illinois at Chicago, The National Center on Physical Activity and Disability (NCPAD),
University of California, Berkeley, College of Natural Resources, Center for Weight and Health	University of Illinois at Urbana-Champaign, School of Social Work, Children and Family Research Center
UCLA Center for Healthier Children, Families and Communities	University of Iowa Health Care, Department of Pediatrics
UCLA Center for Mental Health in Schools	The Johns Hopkins University School of Hygiene and Public Health, Child & Adolescent Health Policy Center
UCSF School of Medicine	University of Maine, Early Childhood Education On Line
Case Western Reserve University, Frances Payne Bolton School of Nursing	University of Maryland Baltimore, School of Social Work, Center for Maternal and Child Health Social Work Education
University of Colorado, Colorado Parent Information and Resource Center (CPIRC)	Michigan State University Extension, Children Youth and Family, Food Nutrition and Health Programs Unit
University of Colorado, Center for Human Investment Policy (CHIP)	University of Minnesota School of Public Health, Div of Epidemiology
Columbia University, Mailman School of Public Health	Penn State University, Department of Food Science, Nutrition Information and Resource Center
University of Florida Health Science Center Libraries	Southern Connecticut State University
Georgetown University	University of Texas Medical Branch (UTMB)
Harvard University, The Harvard Children's Initiative	
Universities, continued	
The University of Texas Southwestern Medical Center at Dallas Library	University of Washington, Pediatric Nutrition Consultation On-Line
Vanderbilt University, John F. Kennedy Center for Research on Human Development	University of Wisconsin-Madison, Waisman Center, Wisconsin Maternal and Child Health (MCH)
Tufts University, Child & Family Web Guide	University of Wyoming, Center for Rural Health Research and Education
Foundations	
Foundation for Early Learning (Washington)	

Sponsors of Web Sites Referencing Bright Futures, continued	
Advocacy / Parent Organizations	
CAUSE (Citizens Alliance to Uphold Special Education), Michigan	Midwest Dairy Association (MDA)
Connecticut Birth to Three System (Early Intervention)	New Hampshire State Library
Family Voices New Jersey, Statewide Parent Advocacy Network (SPAN)	Pathfinder Family Center
Massachusetts Family Voices	Project PERFORM (Parent Experience and Resources: Family Outreach and Referral Model), Michigan
Professional & Provider-Related Organizations / Listservs	
Access to Baby and Child Dentistry (ABCD), Washington	Nebraska Dietetic Association (NDA)
AIDS Resource Center of Wisconsin (ARCW)	New Jersey Association of Mental Health Agencies, Inc.
Alabama Rural Health Association (ARHA)	School Nurse Corps (SNC) Resource Library, Washington
Community Health Association of Mountains/Plains States (CHAMPS)	Massachusetts Prevention Center (MPC)
Hawaii Chapter of American Academy of Pediatrics	Virginia Chapter of NAPNAP
The Iowa Family Physician (Winter 2000), Iowa Academy of Family Physicians	Washington Association of Local WIC Agencies
Missouri Public Health Nursing Listserv	Wisconsin Association for Perinatal Care (WAPC)
Other	
Prevention First, Inc. (Illinois)	United Way of Massachusetts Bay
Local-Level	
Public Health Agencies / Organizations	
Baltimore HealthCare Access, Inc. (BHCA)	National Association of Local Boards of Health
Baltimore City Health Department	Whatcom County Health Department (Washington)
Jefferson County Department of Health, Birmingham, AL	
Hospitals / Clinics	
Children's Hospital Boston, Child Development Unit, Brazelton Touchpoints Center (BTC)	Riley Hospital for Children, Indianapolis, Indiana
Massachusetts General Hospital for Children (MGH)	Southern Maine Emergency Medical Services (EMS)
Northside Pediatrics, Atlanta and Woodstock, Georgia	

Sponsors of Web Sites Referencing Bright Futures, continued	
Community-Based Organizations	
Boston LEAH (Leadership Education in Adolescent Health) Program	Children's Futures, Trenton, New Jersey
Child Development Associates, Inc. (CDA)	New England Clinicians Forum
Family / Parent Groups or Advocacy Groups	
First 5 Santa Cruz, Santa Cruz County, California	"The Parent Place" Page, Middletown Middle School Web Site (California)
Institute for Community Inclusion (ICI)	
MedMall	
Foundations	
Cumberland Pediatric Foundation (CPF)	
Other	
Carnegie Library of Pittsburgh, Resource Guide: "Child Nutrition"	Cankdeska Cikana Community College (Fort Totten, North Dakota)
City of Boise, Office of the City Clerk	West Shore School District (WSSD), Pennsylvania
International Level	
Sponsors	
Diariomedico.com, Spain	OMNI (Organizing Medical Networked Information), UK
Nursing, Midwifery and Allied Health Professions (NMAP)	Thames Valley Children's Centre, Ontario, Canada

Summary of Web Sites that Reference the Bright Futures for Infants, Children, and Adolescents Initiative

Sponsors	Total Number of Web Sites	Total Number that Describe Bright Futures Initiative	Total Number that Identify or Reference Specific Bright Futures Materials	Total Number that Provide Description of Specific Materials	Total Number with Link to Bright Futures Web Site
NATIONAL-LEVEL	172	43	136	66	89
Federal Agencies/Task Forces/Programs	75	9	71	24	24
Information Resource Centers/Search Engines	50	21	30	21	37
Professional Organizations	22	5	17	9	11
Foundations	6	1	3	1	3
Association of Government Officials	1	0	1	1	1
Advocacy Organizations	15	6	12	8	10
Corporate Partners	2	1	1	1	2
Other (National-Level)	1	0	1	1	1

State-, local- and international-level sponsors continued on next page.

Summary of Web Sites that Reference the Bright Futures for Infants, Children, and Adolescents Initiative, continued					
STATE-LEVEL	81	28	71	39	57
State Agencies	24	9	19	8	16
Universities	32	11	30	18	22
Foundations	1	0	0	0	1
Advocacy / Parent Organizations	8	2	8	3	5
Professional & Provider-Related Organizations / Listservs	14	5	12	8	12
Other (State-Level)	2	1	2	2	1
LOCAL-LEVEL	29	14	17	13	25
Local Public Health Agencies / Organizations	5	5	4	2	5
Hospitals / Clinics	6	1	1	0	4
Community-Based Organizations	5	2	2	3	4
Family / Parent Groups or Advocacy Groups	4	2	3	2	3
Foundations	1	1	1	1	1
Other (Local-Level)	4	1	2	2	4
INTERNATIONAL-LEVEL	4	2	4	3	4
TOTAL	**282**	**85**	**224**	**118**	**171**

Frequency of Bright Futures Materials Mentioned on Web Sites	
Bright Futures Material	Number of References
Bright Futures Web Site	48
Bright Futures: Guidelines for Health Supervision of Infants, Children, and Adolescents	88
Bright Futures Pocket Guide	6
Bright Futures in Practice: Nutrition	37
Bright Futures in Practice: Nutrition Pocket Guide	7
Bright Futures Nutrition Family Fact Sheets	5
Bright Futures in Practice: Physical Activity	37
Bright Futures in Practice: Oral Health	16
Bright Futures in Practice: Oral Health Quick Reference Card	3
Bright Futures in Practice: Mental Health	21
Bright Futures in Practice [Series]	1
Bright Futures Anticipatory Guidance Cards	3
Bright Futures Encounter Forms for Professionals	6
Bright Futures Encounter Forms for Families	8
Bright Futures Activity Guide	6
Bright Futures in Spanish	7
Bright Futures for Families Web Site	4
Bright Futures Family Pocket Guide	6
Bright Futures Family Tip Sheets	6
Bright Futures Family Tip Sheet: Infancy	1
Bright Futures Family Tip Sheet: Early Childhood	2
Bright Futures Health Record	2

Frequency of Bright Futures Materials Mentioned on Web Sites, continued	
Bright Futures Material	Number of References
Bright Futures, Managed Care, and Child & Adolescent Health: A Review and Analysis of the Literature	1
Bright Futures Case Studies for Primary Care Clinicians	2
Bright Futures for Families: What You Can Do to Prevent Violence	5
Bright Futures CD-ROM, Guidelines for Health Supervision of Infants, Children and Adolescents	1
Bright Futures Growth Chart	3
Bright Futures Quick Reference Sheet for Using the Bright Futures Web Site	1
Bright Futures Fomularios de Visita para Familias	1
Bright Futures for Children with Special Health Care Needs (*has not been developed yet)	1
Bright Futures Middle Childhood Development Chart	1
Bright Futures Children's Health Charter	2
Bright Futures Publication	2
Bright Futures Poster (1998)	1
BrightNOTES	1
Bright Futures for Families: Partnering for your Child's Good Health (2000 ed.)	1
Bright Futures for Families: Lead Poisoning... Still an Environmental Problem for Children and Families (2000 ed.)	1
Bright Futures for Babies: Three Appropriate Feeding Practices in Early Infancy	3
Bright Futures for WIC Nutrition Services	2
Bright Futures Family Talk Cards	2
Bright Futures Health Visit Checklist	1
Bright Futures Tools for Professionals	1
Massachusetts Bright Futures/United Way of Massachusetts Bay Growing Up Healthy and Creciendo Sano Child Health Diary Booklets	3
Bright Futures Center for Pediatric Education in Growth and Development, Behavior and Adolescent Health (www.pedicases.org)	3
Bright Futures Order Form	1
Bright Futures Project	1

Appendix F

Bright Futures Board of Directors

Bright Futures Board of Directors

Morris Green, M.D., Chair Perry W. Lesh Professor Emeritus of Pediatrics, James Whitcomb Riley Hospital for Children, Indiana University School of Medicine	**Robert Haggerty, M.D.** Professor of Pediatrics Emeritus, University of Rochester Medical Center	**Howard Pearson, M.D.** Past President, American Academy of Pediatrics, Professor of Pediatrics, Yale University School of Medicine
Polly Arango Parent, Family Voices	**Birt Harvey, M.D.** Professor of Pediatrics, Stanford University School of Medicine, Past President, American Academy of Pediatrics	**Julius Richmond, M.D.** Professor of Health Policy Emeritus, Harvard Medical School
Richard Behrman, M.D. Managing Director, Center for The Future of Children, David and Lucile Packard Foundation	**Jennifer Howse, Ph.D.** President, March of Dimes Birth Defects Foundation	**Joe M. Sanders, Jr., M.D.** Executive Director, American Academy of Pediatrics
John Bogert, D.D.S. Executive Director, American Academy of Pediatric Dentistry	**Michael Jellinek, M.D.** Chief of Child Psychiatry Service, Massachusetts General Hospital	**Daniel Shea, M.D.** Past President, American Academy of Pediatrics
Oits Bowen, M.D. Former Secretary of the Department of Health and Human Services, Former Governor of Indiana	**H. Raymond Klein, D.D.S.** President, American Academy of Pediatric Dentistry, Private Dental Practice, Florida	**Vernon Smith, Ph.D.** Director, Medical Services Administration, Michigan Department of Social Services
Robert Brodell, M.D. Chairman, American Academy of Pediatrics Task Force on Preventive Health Services, Children's Medical Group, Cumberland, Maryland	**David S. Liederman** Executive Director, Child Welfare League of America	**James Strain, M.D.** Immediate Past Executive Director, American Academy of Pediatrics, Clinical Professor of Pediatrics, University of Colorado, Denver
Larry Culpepper, M.D., M.P.H. Director of Research and Professor of Family Medicine, Memorial Hospital of Rhode Island/Brown University	**Richard Nelson, M.D.** Past President, Association of Maternal and Child Health Programs, Professor of Pediatrics, University of Iowa	**David Sundwall, M.D.** President, American Political Laboratories Association
Juanita Fleming, R.N., Ph.D. Professor of Nursing and Special Assistant to the President for Academic Affairs, University of Kentucky	**Roselyn Payne Epps, M.D., M.P.H., M.A.** Expert, Public Health Applications Research Branch, National Cancer Institute, National Institutes of Health, Professor of Pediatrics and Child Health, Howard University College of Medicine	**James Williams, M.Ed.** Executive Director, National Education Association, Health Information Network

Appendix G

Panel Members for Initial Bright Futures Guidelines Development

Panel Members for Initial Bright Futures Guidelines Development

Infancy Panel

Barry S. Zuckerman, M.D., Chair
Boston City Hospital

Kathryn E. Barnard, R.N., Ph.D.
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Evelyn Davis, M.D.
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Neal Halfon, M.D., M.P.H.
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Barbara Jo Howard, M.D.
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Kathi Kemper, M.D., M.P.H.
Swedish Medical Center, University of Washington

Sanford R. Kimmel, M.D.
Medical College of Ohio

Howard S. King, M.D., M.P.H.
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Arthur Nowak, D.M.D.
University of Iowa Colleges of Dentistry and Medicine

Lucy Osborn, M.D.
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Ohio Department of Public Health

Craig T. Ramey, Ph.D.
University of Alabama at Birmingham

Wilma J. Smith, R.N., P.N.P.
Multnomah County Health Department, Portland, Oregon

Early Childhood Panel

George G. Sterne, M.D., Chair
Private Practice, Louisiana

Gil Buchanan, M.D.
Arkansas Pediatric Clinic

Albert Chang, M.D., M.P.H.
San Diego State University

Iris Marie Graville, R.N., M.N.
Whatcom County Health Department, Washington

David Johnsen, D.D.S.
Case Western Reserve
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Barbara M. Korsch, M.D.
Children's Hospital of Los Angeles

Bruce Meyer, M.D.
Administrative Medical Director, Columbus Children's Hospital, Private Practice, Ohio

Lucy Osborn, M.D.
University of Utah Medical Center

Ellyn Satter, R.D., A.C.S.W.
Family Therapy Center of Madison, Wisconsin

Jack P. Shonkoff, M.D.
University of Massachusetts Medical Center

Panel Members for Initial Bright Futures Guidelines Development, continued	
Middle Childhood Panel	
Judith S. Palfrey, M.D., Chair Children's Hospital, Boston	Judith S. Palfrey, M.D., Chair Children's Hospital, Boston
Elaine Brainerd, R.N., M.A., C.S.N. State Department of Education, Connecticut	Elaine Brainerd, R.N., M.A., C.S.N. State Department of Education, Connecticut
Christopher DeGraw, M.D., M.P.H. Center for Health Policy Research, Washington, DC	Christopher DeGraw, M.D., M.P.H. Center for Health Policy Research, Washington, DC
Paul H. Dworkin, M.D. St. Francis Hospital and Medical Center, Connecticut	Paul H. Dworkin, M.D. St. Francis Hospital and Medical Center, Connecticut
Leonard S. Krassner, M.D. Choate Rosemary Hall, Connecticut	Leonard S. Krassner, M.D. Choate Rosemary Hall, Connecticut
Adolescence Panel	
Elizabeth McAnarney, M.D., Chair University of Rochester Medical Center	Renee R. Jenkins, M.D. Howard University College of Medicine
Robin K. Beach, M.D., M.P.H. Denver Department of Health and Hospitals	Donald P. Orr, M.D. James Whitcomb Riley Hospital for Children, Indiana University School of Medicine
Paul Casamassimo, D.D.S. Children's Hospital, Columbus, Ohio	Sue Panzarine, Ph.D., R.N. University of Missouri at St. Louis
Arthur B. Elster, M.D. American Medical Association	Mary Story, Ph.D., R.D. University of Minnesota

Appendix H

Bright Futures Publications/Initiative Awards

Bright Futures Publications/Initiative Awards

Materials Category	Name	Awards Received	Date
Bright Futures Guidelines	Bright Futures: Guidelines for Health Supervision of Infants, Children, and Adolescents (1st Ed.)	Honorable Mention–Washington Express Excellence in Print Materials; and Gold Award–Printing Industries Association of Northern Ohio (PIANO) North Coast Print Awards	1995
Bright Futures Guidelines	Bright Futures: Guidelines for Health Supervision of Infants, Children, and Adolescents (2nd Ed.)	APEX Award of Excellence; and Association Trends Excellence in Association Publications Award	2000 2001
Bright Futures Newsletters	BrightNotes Newsletter	APEX Award of Excellence for "Newsletter Design"	1996
Bright Futures Websites	Bright Futures: A National Initiative to Promote and Improve the Health and Well-Being of Infants, Children, and Adolescents Website	Adoption.com "Great Site of the Day Award;" USA Today "Hot Site for the Weekend;" USA Today "Cool Site of the Hour;" and "Excellent" and "Very Good" ratings by the Tufts University Child and Family WebGuide	Nov 1997 2003
Family Materials	Bright Futures Guidelines for Health Supervision of Infants, Children, and Adolescents: Encounter Forms for Families (1st Ed.)	APEX Award for Publications Excellence	1999
Provider Tools	Bright Systems® Quality Management Project	Bright Systems Project received a James A. Vohs Award for Quality	2000
Provider Tools	Bright Futures Encounter Forms for Health Professionals	APEX Award for Publications Excellence	1999
Provider Tools	Bright Futures Guidelines for Health Supervision of Infants, Children, and Adolescents Anticipatory Guidance Cards	"One-of-a-Kind Print Publications" –APEX Award of Excellence; and Washington Edpress Excellence in Print Award	1997
Studies/ Findings	A Program Description of Health Care Interventions for Homeless Teenagers	Intervention project (which is based on Bright Futures Guidelines) received a Freedom Foundation Award	1999
General Awards	Bright Futures Initiative	Award of Recognition, The American Society of Dentistry for Children	1995
General Awards	Bright Futures Initiative/National Center for Education in Maternal and Child Health	Certificate of Recognition for Outstanding Contribution to The National Association of Pediatric Nurse Associates and Practitioners, Inc. (NAPNAP)	1995

Appendix I

Bright Futures Children's Health Charter

Bright Futures Children's Health Charter

Throughout this century, principles developed by advocates for children have been the foundation for initiatives to improve children's lives. Bright Futures participants have adopted these principles in order to guide their work and meet the unique needs of children and families in the 21st century.

- Every child deserves to be born well, to be physically fit, and to achieve self-responsibility for good health habits.
- Every child and adolescent deserves ready access to coordinated and comprehensive preventive, health-promoting, therapeutic, and rehabilitative medical, mental health, and oral health care. Such care is best provided through a continuing relationship with a primary health professional or team, and ready access to secondary and tertiary levels of care.
- Every child and adolescent deserves a nurturing family and supportive relationships with other significant persons who provide security, positive role models, warmth, love, and unconditional acceptance. A child's health begins with the health of his parents.
- Every child and adolescent deserves to grow and develop in a physically and psychologically safe home and school environment free of undue risk of injury, abuse, violence, or exposure to environmental toxins.
- Every child and adolescent deserves satisfactory housing, good nutrition, a quality education, an adequate family income, a supportive social network, and access to community resources.
- Every child deserves quality child care when her parents are working outside the home.
- Every child and adolescent deserves the opportunity to develop ways to cope with stressful life experiences.
- Every child and adolescent deserves the opportunity to be prepared for parenthood.
- Every child and adolescent deserves the opportunity to develop positive values and become a responsible citizen in his community.
- Every child and adolescent deserves to experience joy, have high self-esteem, have friends, acquire a sense of efficacy, and believe that she can succeed in life. She should help the next generation develop the motivation and habits necessary for similar achievement.

Source: Green M. (Ed.). 1994. Bright Futures: Guidelines for Health Supervision of Infants, Children, and Adolescents. Arlington, VA: National Center for Education in Maternal and Child Health.

Appendix J

Dissemination of Bright Futures Guidelines and Bright Futures in Practice Guides

Additional Information Regarding Dissemination of Bright Futures Guidelines and Bright Futures In Practice Guides

Guidelines for Health Supervision of Infants, Children and Adolescents. Copies of the first edition of the guidelines were mailed in 1995 by the NCEMCH to a broad array of organizations identified in partnership with MCHB. While information was not available to identify the specific recipients of this initial mailing, data indicate that over 50,000 copies of the guidelines were mailed during this period. The second edition of the guidelines was available in both a printed and CD-ROM version. A total of 10,000 copies of the printed version and 5,000 copies of the electronic version were distributed. Pfizer played a key role in distributing the CD-ROM versions to pediatricians in the field.

Bright Futures In Practice: Nutrition. The production of this publication was completed in February 2000. Subsequently, 14,000 copies were printed, with 10,000 copies distributed and 4,000 purchased by MCHB-supported nutrition training programs, Indian Health Service, USDA, and other groups at a special introductory rate. USDA purchased the bulk of the copies (3,000) made available at a special rate. Copies were provided to State and Territorial MCH Directors, Public Health Nutrition Directors, Nurse Directors, and EPSDT Coordinators. Copies were also sent to Federal regional offices including regional MCH consultants, nutrition consultants, nurse consultants, and dental consultants. The American Dietetic Association Nutrition Training Program received 300 copies. In addition, copies were sent to chairs of 124 pediatric departments, 200 pediatric residency programs, 34 directors of graduate programs in community health, 69 to the Association of Faculties of Pediatric Nurse Practitioners, and 10 directors of MCH nurse training programs. When a second edition of *Bright Futures in Practice: Nutrition* was published in 2002 over 23,000 complimentary copies were distributed. The list of recipients included many Federal grantees from a variety of agencies, all Community and Migrant Health Centers, over 4,000 birthing hospitals, and a wide variety of other public and private agencies.

Bright Futures In Practice: Physical Activity. This document was completed in June 2001. Over 10,000 complimentary copies were sent to many of the same academic training programs that received copies of the previously published guides. State and Territorial administrators, Federal regional offices, and various Federal grantees were also sent copies. Another 695 copies were purchased at a special rate by recipients of MCH training grants, the CDC, and the AAP.

Bright Futures In Practice: Mental Health. The last Bright Futures In Practice publication to be developed to date, addressing the area of mental health, was disseminated in April 2002. Data available on the initial distribution of this publication indicate that it was far more limited than the previous publications in the Bright Futures in Practice series. Five hundred complimentary copies were distributed to a range of groups. These included State MCH and CSHCN Directors,

Additional Information Regarding Dissemination of Bright Futures Guidelines and Bright Futures In Practice Guides, continued

State EPSDT Directors, Regional MCH Program Coordinators, health professional training programs, and each of the organizations that signed on as supporters of the book. In addition, copies were sent to a number of other Federal agencies and professional associations identified with children's mental health. These included the American Psychological Association, the American School Counselor Association, the National Association for the Education of Young Children, and the National Association of Social Workers, among others, as well as Federal agencies including the Agency for Health Care Research and Quality, HRSA's Bureau of Primary Health Care, the CDC, and the Head Start Bureau.

Pocket Guides. Distribution of the pocket guide for the *Bright Futures Guidelines for Health Supervision of Infants, Children and Adolescents,* including the first and second editions, totaled 35,000 as of March 2001. The bulk of these were distributed by Pfizer.