

MCH RESEARCH EXCHANGE

THE MCH RESEARCH EXCHANGE IS BACK

FY 1999 represented a time of change for the Maternal and Child Health Bureau (MCHB) and thus for its research program. A new director took the helm of the Bureau, and a new administrator assumed control at the Health Resources and Services Administration (HRSA), the umbrella organization under which the Bureau operates. The division of MCHB that includes the MCHB Research Program was reorganized in conjunction with a Bureau-wide restructuring. The division reorganization led to the creation of a research branch, where the administrative offices of the research program are now located.

Concurrent with the Bureau-wide reorganization came a series of program actions, including the setting of new research priorities. Reassessing research priorities and determining new directions for the program was an involved and time-consuming process, and required postponing this newsletter until new program directions had been agreed upon. Now that these assessments have been made, the newsletter is back.

Although new research program priorities have been put into place (see "From the Research Program Director" on page 2), the two main purposes guiding this newsletter remain the same. The first is to inform the MCH community about the MCHB Research Program. Topics covered include how program priorities are determined, how the grant review process operates, what research the program has funded, and what findings have resulted from active and completed research projects. The second purpose is to foster an open dialogue among members of the MCH community.

This issue of the newsletter retains many of the features of previous ones—for example, thoughts from the Research Program Director, a description of articles recently published by grantees, and a description of the newly funded grants. The issue also includes several new features, one of which is a principal investigator (PI) profile. The goal of the profile is to demonstrate how MCHB-funded research enhances the careers of the researchers. This issue's principal investigator profile highlights Dr. Maureen M. Black. In addition, the issue includes an interview with Brenda A. Allen, Ph.D.; Keith Crnic, Ph.D.; and Cheryl Mattingly, Ph.D. All are members of the MCHB Research Grants Review Committee.

We encourage you to comment on the content of this publication, and we welcome suggestions about topics of interest for future *Research Exchange* issues. Comments and suggestions may be forwarded to Jolene Bertness at jb Bertness@ncemch.org. ○

Contran Lamberty, Dr.P.H.

THE MATERNAL AND CHILD HEALTH BUREAU PARTNERS WITH THE CENTERS FOR DISEASE CONTROL TO BROADCAST ROUNDTABLES TO STATE HEALTH DEPARTMENTS

The Maternal and Child Health Bureau (MCHB), in partnership with the Centers for Disease Control and Prevention's (CDC's) National Center for Chronic Disease Prevention and Health Promotion, has begun broadcasting MCHB's Research Roundtable seminars to state health departments on a selective basis. First held in 1992, these seminars initially

sought to inform MCHB central office professionals about the findings from completed applied research projects supported by Title V funds. For the most part, the findings are published in peer-reviewed journals before they are presented at MCH Research Roundtable seminars. After the principal research

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TWENTY NEW RESEARCH PROJECTS FUNDED BY THE MATERNAL AND CHILD HEALTH BUREAU IN FY 1998 AND FY 1999

Of the 147 new research applications reviewed by the MCH Research Review Committee in FY 1998 and FY 1999, 22 were recommended for approval: 20 of the 22 were funded, 1 withdrew from consideration, and 1 was not funded.

A short description of each new project follows.

Welfare Reform and the Perinatal Health of Immigrants. A 4-year study to assess the impact of recent federal welfare legislation (which places new restrictions on access to Medicaid) on the health of immigrant mothers and their infants in

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NEW PRIORITY RESEARCH ISSUES AND QUESTIONS ESTABLISHED FOR FY 2000-03

The Maternal and Child Health Bureau (MCHB) periodically reexamines its applied research agenda by convening advisory groups that broadly represent the national MCH community. The most recent meeting, which took place in June 1994, generated a research agenda composed of 266 issues and questions identified as critically important to MCHB's mission in the year 2000 and beyond. The agenda was first published in 1996 in *Proceedings of the Fourth National Title V Maternal and Child Health Research Priority Conference*.

The issues and questions contained in the 1994 research agenda were evaluated in early FY 1999, and underlying themes were identified and extracted. The extracted themes were supplemented by (1) recommendations of the *1999 Special Projects of Regional and National Significance (SPRANS) Report*; (2) known program areas for which various MCHB divisions have responsibility; (3) Health Resources and Services Administration (HRSA), MCHB, and the Nation's Year 2010 goals and objectives as declared in their respective strategic plans; and (4) assumed state Title V program needs and concerns (e.g., needs assessment, performance evaluation, etc.). In view of the extracted themes and supplemental considerations, a set of broadly demarcated research agenda areas was constructed, keyed to HRSA, MCHB, and the Nation's Year 2010 goals and objectives. Each of the 11 broadly demarcated areas was further explicated using issues and questions derived from the original research agenda. An MCHB advisory committee composed of division and office representatives scrutinized these issues and questions further. From the larger array of issues and questions, this committee selected a subset of 15 to be considered a first priority during FY

2000-03. These are presented on page 3. If a project application that is recommended for approval by the Maternal and Child Health Research Review Committee addresses one of the 15 priorities, a 0.5-point adjustment is applied to the funding score, which raises the chances of its being funded. The issues and questions remaining under the 11 broadly demarcated areas have also been designated as critical to HRSA and MCHB. Field-initiated applications addressing this larger array of issues and questions will be accepted for review and considered for funding but will not be given the special funding consideration mentioned above. In summary, the 15 priority issues and questions selected represent a balance of competing programmatic needs and concerns as expressed by MCHB

offices and divisions and articulated by the HRSA and MCHB strategic plans.

Individuals interested in examining the entire array of issues and questions are encouraged to request the new research application guidance material from the HRSA Grants Application Center, (CFDA#93.110RS), 1815 North Fort Myer Drive, Suite 300, Arlington, VA 22209, tel: (877) 477-2123, e-mail: Hrsagac@hrsa.gov. The material can be viewed at and downloaded from the MCHB Web site: <http://www.mchb.hrsa.gov>.

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MCH RESEARCH EXCHANGE

This newsletter was produced jointly by the Maternal and Child Health Bureau (MCHB) and the National Center for Education in Maternal and Child Health (NCEMCH) under its cooperative agreement MCU-119301. MCHB is a component of the Health Resources and Services Administration, U.S. Department of Health and Human Services.

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I. Quality, Cost, Organization, Access to, and Use of Primary Care, Specialty Care, and Public Health Services.

5.2.5. Study alternatives for the organization, regionalization, and delivery of comprehensive, continuous health services for typically developing and for special health care needs children, including ways that the primary health care needs of these children can be integrated with the provision of specialized services as exemplified under the concept of “medical home.”

6.3.2. Investigate the factors, from both the micro and the macro levels, that promote adolescents’ timely access to and utilization of health services, with attention to understanding what modifications in service delivery systems, provider training, and youth health education would help adolescents engage the health care system more appropriately.

II. Response of State Governments and State MCH Units to Federal and State Legislation Creating, Expanding, or Reducing Services.

8.1.3. Study the processes and complexities involved in having states, communities, and individuals within states take full advantage of Medicaid and Balanced Budget Act provisions, including those of the State Children’s Health Insurance Program (CHIP) and the authorization for 12 months of continuous eligibility for Medicaid and CHIP.

8.1.7. Study how changes in federal and state welfare laws and in states’ interpretation and implementation of these laws affects immigrants’ access to and use of MCH services. How does the implementation of these laws in turn affect trends in the use of services (e.g., trimester when prenatal care started) and trends in morbidity and mortality rates (e.g., neonatal death rates) for high-immigrant states and specific immigrant groups within states?

III. Development, Testing, and Validation of Screening and Diagnostic

Instruments, Including Generic Methodologies to Conduct Needs Assessments and Evaluate Performance by States.

2.6.5. Develop and evaluate new screening and diagnostic technologies for diseases and conditions newly identified as “genetic.”

8.1.8. Develop and test generic methodologies to perform needs assessments and evaluate performance at the state and community levels.

IV. Causes of Class, Ethnic, Racial, and Urban-Rural Disparities in Physical, Mental, and Dental Health; Developmental Competencies; and Access to and Use of Services.

3.1.3. Examine the effects of barriers such as racism, prejudice, and residential segregation on infant, child, and adolescent health status and health services.

V. Determinants of Behaviors Associated with Positive and Negative Maternal and Child Health Outcomes and with Preventive, Health Enhancement, and Curative Health Actions.

2.1.3. Conduct population-based studies on how women decide to seek prenatal care and how this process is arrested or delayed in women who do not receive prenatal care or start later than medically recommended.

VI. Longitudinal Studies of Health and Normative Development in Minority Children, Children with Special Health Care Needs, and Children of Low Socioeconomic Rural, Migrant, and Homeless Backgrounds.

4.3.2. Conduct longitudinal studies on the normative development of children in minority and other at-risk population groups.

VII. Child, Parent, and Family Coping and Resilience Associated with Significant Injuries and Chronic and Catastrophic Disease Conditions.

1.11.2. Conduct studies on how parents adapt to having a child with a disability, taking into consideration specific features of the disability as well as parent and family factors existing before and after the birth of the affected child.

VIII. Effects of Family, Community, and Service Systems Contexts on Children’s Physical and Mental Health and Development.

8.1.11. Investigate the processes involved in the transition to employment and adult health care for typically developing adolescents and for adolescents with special health care needs, with particular emphasis on the role that the health care system may play in facilitating or hindering such transitions.

IX. Development, Evaluation, and Validation of MCH Clinical Treatments, Outreach Strategies, Program Interventions, Care Guidelines, and Case Management Approaches.

9.1.12. Support randomized controlled studies of the efficacy and cost-effectiveness of the various MCHB-developed and promoted Bright Futures guidelines.

X. Pregnancy, Low Birthweight, Nutrition, and Breastfeeding.

2.4.11. Continue to investigate the suspected connection between infections and preterm onset of labor.

3.8.2. Investigate the determinants of breastfeeding in groups classified according to race, ethnicity, and social class.

XI. Intentional and Unintentional Injuries, Child Neglect and Abuse, Family Violence, Suicide, and Emergency Medical Services.

8.1.13. Study the extent to which children who need emergency medical services receive them, with particular attention to care received (or not received) in hospital emergency departments. ○

Gontran Lamberty, Dr.P.H.

Continued from page 1

Twenty New Projects Funded

New York and California. The study will assess the relationship between the new federal legislation, the differing means of applying it, and the health of immigrant women and their newborns.

Principal Investigator: Howard L. Minkoff, SUNY Health Science Center at Brooklyn, Brooklyn, NY. (Grant No. R40 MC 00126)

Life Around Newborn Discharge.

A 3-year investigation of the circumstances and decisions that lead the mother-infant pair to be discharged after delivery, and the effects of these circumstances and decisions on the mother's and infant's subsequent health. The study argues that little is known about the short-term adaptation of both mothers and infants under a variety of discharge conditions, and that such research is required to determine the circumstances likely to result in successful adaptation.

Principal Investigator: Henry H. Bernstein, Children's Hospital Pediatric Associates, Boston, MA. (Grant No. R40 MC 00117)

Maternal Health and Pregnancy Outcomes Among Hispanics.

A 3-year prospective, community-based study of a cohort of 700 Hispanic (86 percent of whom are Mexican-American) pregnant women and their infants in southwest Detroit. The study is to focus on the tendency of Hispanic women of childbearing age to have a substantially higher incidence of obesity, impaired glucose tolerance, and diabetes. Mothers with these conditions are more likely to have labor and delivery complications, cesarean sections, and diabetes after pregnancy. Their gestationally exposed infants are subject to fetal overgrowth, birth injuries, obesity, and metabolic abnormalities later in life.

Principal Investigator: Edith Chana Kieffer, University of Michigan, Ann Arbor, MI. (Grant No. R40 MC 00115)

Biomarkers of Infection and Risk of Pre-Term Delivery.

A 3-year study to investigate the relationship of maternal serum ferritin (SF) levels and amniotic fluid (AF) interleukin-6 (IL-6) levels in the second trimester of pregnancy, both to

each other and to subsequent risk of preterm delivery (PTD). Recent work suggests that biomarkers such as SF and AF IL-6 may be valuable predictors of PTD.

Principal Investigator: Michelle A. Williams, Swedish Medical Center, Seattle, WA. (Grant No. R40 MC 00113-01)

Evaluation of Hawaii's Healthy Start Program. Phase II—Fatherhood Component.

A 2-year study to assess the effectiveness of early home visitation in promoting effective parenting by fathers. The study will be an expanded continuation of an ongoing 5-year randomized trial of Hawaii's Healthy Start Program.

Principal Investigator: Anne K. Duggan, Johns Hopkins School of Medicine, Baltimore, MD. (Grant No. R40 MC 00123)

American Indian Fatherhood in Two Oklahoma Communities.

A 2-year study that will (1) interview Native American men and women about their views of what constitutes the role of a father and (2) investigate the community context in which Native American fathering roles are defined and communicated via participant observation and focus groups. The interviews and community investigations will occur in two Native American communities: one with a matrilineal tradition and the other with a patrilineal tradition.

Principal Investigator: Lisa J. Lefler, University of Oklahoma, Norman, OK. (Grant No. R40 MC 00110-02)

Neighborhood and Family Effects on Adolescent Health Behaviors.

A 3-year investigation to examine the relationships among neighborhood factors, family characteristics, and adolescent problem behaviors. The investigators propose to study a national longitudinal data set and to interview a sample of families from Baltimore, MD. The goal is to test models of adolescent problem behavior outcome as they are associated with neighborhood and family characteristics as well as with adolescents' and parents' perceptions of those characteristics.

Principal Investigator: Cheryl Alexander, Johns Hopkins University, Baltimore, MD. (Grant No. R40 MC 00111)

Adolescent Risk Adjustment: Diagnoses, Health Status, and Behavioral Risk.

A 2-year study that proposes a comparative analysis of the effectiveness of five

major diagnostic-based risk adjustment systems in predicting adolescents' (ages 12 through 18 years) current and future health care use and charges. Study subjects will come from three payer groups: Medicaid enrollees, adolescents with low incomes who are enrolled in a special health insurance program designed to provide coverage for children whose parents do not qualify for Medicaid and cannot afford private insurance, and commercially insured adolescents. The study will apply the diagnostic-based risk adjustment models to each group of adolescents and to a subset of adolescents who have special health care needs.

Principal Investigator: Elizabeth A. Shenkman, University of Florida, Gainesville, FL. (Grant No. R40 MC 00121)

Adolescent Attitudes About Pregnancy.

A 3-year study to develop a screening instrument that can identify those teens who are at greatest risk of becoming pregnant in the crucial months following a negative pregnancy test, and to develop interventions to reduce the risk.

Principal Investigator: Catherine Stevens-Simon, Children's Hospital, Denver, CO. (Grant No. R40 MC 00112)

Comprehensive Elementary School AIDS Education.

A 4-year study to investigate the effects of a randomized controlled trial of a prevention intervention program for AIDS education that is embedded in a social development program for elementary school children. The conceptual base driving the social development program is an amalgam of social cognitive and social influence theories. The study will be implemented in a New Haven, CT, community in which nearly 25 percent of all children are sexually active. The study includes youth with limited English proficiency and involves multiple sectors of this urban community. The preventive model guiding the study is developmental in its approaches.

Principal Investigator: David J. Schonfeld, Yale University School of Medicine, New Haven, CT. (Grant No. R40 MC 00109)

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Twenty New Projects Funded

Increasing Safety Seat Use Among Preschoolers. A 3-year study to implement and evaluate a comprehensive, scientifically validated passenger safety program. The program is based on factors that have been identified by parents of preschoolers as hindering or facilitating the use of safety seats. The design is a pretest-posttest control group study. Social Learning Theory and the Health Belief Model provide the theoretical framework. Minority and economically disadvantaged families will be overrepresented to permit evaluation of the program within racial, ethnic, and socioeconomic groups.

Principal Investigator: Victor Franco Garcia, Children's Hospital Medical Center, Cincinnati OH. (Grant No. R40 MC 00116)

EICS Phase IV: Adolescence. A 4-year continuation study of the Early Intervention Collaborative Study (EICS). This study has followed a sample of children with developmental delays or disabilities and their families since they entered early intervention programs in Massachusetts and New Hampshire between 1985 and 1991. The broad goals of the new phase are to (1) locate key points of change and potential points of intervention in the developmental trajectories of children between early childhood and adolescence and their families; (2) focus on the different impacts of the intervention on maternal and paternal well-being and on the particular roles of fathers in parenting an adolescent with disabilities; and (3) examine the relationship between adolescents with disabilities and the health care sys-

tem. Data will be gathered through home-based interviews and assessments and from teacher ratings of the adolescents' social competence.

Principal Investigator: Penny Hauser-Cram, Boston College, Chestnut Hill, MA. (Grant No. R40 MC 0013)

Prenatal Antecedents of Infant

Outcome. A study that will attempt to fully understand the ontogeny (beginning after birth) and the origins of individual differences in behavior. The study uses recent technological advances in measuring fetal neurobehavioral development. Results from this research have implications for both early detection of atypical development and the role of prenatal maternal stress as a potential developmental teratogen.

Principal Investigator: Janet A. DiPietro, Johns Hopkins University, Baltimore, MD. (Grant No. R40 MC 00136)

Assessment of Enhanced Prenatal Care

for Ethnically Diverse Women. A study to determine whether enhanced perinatal services that include nutrition, psychosocial, and health education services are associated with measurable benefits as perceived by women enrolled in Medicaid managed care plans, and whether those benefits differ for African-American, Hispanic, and white (non-Hispanic) women.

Principal Investigator: Carol C. Korenbrot, Regents of the University of California, San Francisco, CA. (Grant No. R40 MC 00137)

Posttraumatic Stress Disorder After

Pediatric Traffic-Related Injury. A study to test the assumptions that the prevalence of psychological distress (including post-traumatic stress disorder [PTSD]) in children after crashes is significant and warrants clinical attention, and that those at

risk for developing PTSD can be identified in the acute phase of care.

Principal Investigator: Flaura Koplin Winston, Children's Hospital of Philadelphia, Philadelphia, PA. (Grant No. R40 MC 00138)

An Intervention for the Transition to

Fatherhood. A study to determine whether intervention increases fathers' involvement with children, enhances the quality of father-child relationships, promotes the coparenting partnership, and decreases parenting stress.

Principal Investigator: William J. Doherty, University of Minnesota, St. Paul, MN. (Grant No. R40 MC 00142)

Predicting African-American Children's School Competence.

A 4-year investigation focusing on factors that predict and mediate the elementary school competence of a cohort of 75 African-American children who have been studied since birth. The specific objectives of the study are to (1) describe the developmental trajectory of African-American children's language skills, social skills, and school competence from infancy through middle childhood; (2) determine the multiple predictors of school competence, including academic achievement and school adjustment within an ecological model of child development; and (3) identify the extent to which children's social knowledge, social behavior, race-specific and social coping strategies, language skills, and peer adjustment mediate the relationships between child, family, school, and neighborhood background factors and school competence.

Principal Investigator: Joanne E. Roberts, University of North Carolina at Chapel Hill, Chapel Hill, NC. (Grant No. R40 MC 00145)

Young Puerto Rican Fathers' Involvement with Their Children.

A multi-method, longitudinal, prospective study of mainland Puerto Rican adolescents and young adults to investigate the transition to fatherhood and the roles that fathers play in nurturing the health and development of their children.

Principal Investigator: Sumru Erkut, Wellesley College, Wellesley, MA. (Grant No. R40 MC 00161)

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NEW MATERNAL AND CHILD HEALTH RESEARCH PROGRAM WEB SITE

In an effort to keep pace with the rapidly changing information age, the Maternal and Child Health Bureau (MCHB) is working with the National Center for Education in Maternal and Child Health (NCEMCH) to create a prototype Web site for the MCH research program. One component of the prototype, which is concerned with the dissemination of research findings, is almost complete and soon will be available as a test site. More information will be forthcoming on the status of the prototype in future issues of this newsletter.

INTERVIEWS WITH MATERNAL AND CHILD HEALTH BUREAU RESEARCH GRANTS REVIEW COMMITTEE MEMBERS

National Center for Education in Maternal and Child Health staff interviewed three Maternal and Child Health Bureau (MCHB) Research Grants Review Committee members—Brenda A. Allen, Ph.D.; Keith Crnic, Ph.D.; and Cheryl Mattingly, Ph.D.—to learn about their experiences as committee members. The three scientists bring to their review responsibilities a wealth of expertise and experience as well as a desire to make their reviews fair and constructive. The interviews are summarized below.

Describe your background and training, including how long you have been a member of the research grant review committee.

Dr. Allen: I have a Ph.D. in developmental psychology. I have been on the review committee for 2 years.

Dr. Crnic: I have a B.A. in psychology from the University of Southern California and a Ph.D. in psychology from the University of Washington. I was trained as a child clinical psychologist with a developmental emphasis. I worked in the Department of Psychiatry and Behavioral Sciences at the University of Washington from 1976 until 1987, when I left to take a faculty position in the Department of Psychology at Penn State. I am currently a professor of psychology and head of the department.

I have been a reviewer for MCH off and on for several years and became an appointed member and chair of the committee in June 1998.

Dr. Mattingly: I am a cultural anthropologist specializing in medical anthropology. My Ph.D. is from Massachusetts Institute of Technology, where I got a joint doctoral degree in anthropology and urban studies. I also did a postdoctorate at Harvard Medical School in the Department of Social Medicine. (This was through an NIH-funded program in clinically relevant anthropology.) I am currently an associate professor with a joint appointment in the Department of Anthropology and the Department of Occupational Therapy at the University of Southern California.

I have been a member of the Research Grants Review Committee since 1997.

What have you enjoyed most about being a committee member?

Dr. Allen: The thing that I have enjoyed the most about being on the committee is the discussions. Although I have extensive training in research and statistics, I have learned so much more sitting around the grants table with people from so many different backgrounds. The biostatisticians and epidemiologists concern themselves with aspects of research design that I have never really considered in the past but will always pay attention to in the future. Moreover, the interdisciplinary nature of the committee has exposed me to areas of research that I would never come across in my small corner of academia.

Dr. Crnic: What I enjoy most is the unique atmosphere of the review meetings. The multidisciplinary nature of the committee comes forth from the initial review, and the opportunity to learn about the work of colleagues from around the country is especially exciting. The committee members are outstanding scholars from whom I learn an incredible amount each time we meet. It's a challenging and stimulating atmosphere and a great opportunity to enhance research on the critical issues involving MCH.

Dr. Mattingly: I have enjoyed getting to know other committee members. They're a terrific group. Although, as an anthropologist, my background is different from many on the committee, there is an atmosphere of mutual respect and a willingness to listen to alternative opinions that is essential for an interdisciplinary committee such as this.

What has been the greatest challenge?

Dr. Allen: The greatest challenge thus far has been to continually raise questions regarding the limitations in many of the conceptualizations of culture and ethnicity inherent in many of the grants proposing to use minority populations. On the one hand it is good to see that efforts by agencies such as MCH and NIH have led researchers to consider diversity. However,

my experience thus far suggests that we are still some ways away from a good generalized understanding of issues of culture and ethnicity, especially with regard to how such factors influence the psychological lives of individuals.

Dr. Crnic: There are several. One great challenge is to promote more outstanding MCH-related research that produces a greater demand on the research program. We continue to seek outstanding research applications. But it's also a challenge to stay focused on great ideas when methodologies may be challenged or lag behind the idea to some extent. Recognizing when it may be time to take a risk is something we need to do better.

Dr. Mattingly: The sheer range of kinds of grants and research methodologies means that it is sometimes quite difficult to muster an intelligent opinion about some of the grant proposals. Also, the reading time for these grants is enormous, and the standards of the committee are very high, so one must work extremely hard in preparing feedback for researchers on their proposals.

Collaborative efforts involving a representative research team from the academic, field, and research communities are commonly thought to go a long way toward advancing the field of maternal and child health research. Do you think the applications submitted reflect "good" collaborative efforts?

Dr. Allen: My experience is limited, but thus far I have seen very few grants that do a good job of bringing the university together with the community in a truly collaborative way. Indeed, it seems to me that some of the best efforts to do this type of collaboration are the least-developed grants. This suggests that the researchers most likely to work collaboratively with the community are not the most established. It may be beneficial to provide more grant-writing support for individuals who are truly interested in bringing the community more meaningfully into their research efforts.

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Interviews with Maternal and Child Health Bureau Research Grants Review Committee Members

Dr. Crnic: This is an interesting question. In general, I think that we see very few applications that represent true collaborative efforts between academics and applied professionals in the field. I think we would like to see more, but it would be especially important to show how the collaboration is apparent, rather than using one as window dressing for the other. This is a challenge for the investigators, but the funding available for the right kind of research could be very generous.

Dr. Mattingly: I agree with the notion of interdisciplinary research, and some of the applications clearly show the capacity for doing thoughtful interdisciplinary work. However, I think that applicants still have quite a way to go in this direction. It is one of the greatest challenges facing researchers, since it flies in the face of narrow specialist approaches to research, which are often easier to fit into a traditional academic model. Also, interdisciplinary research efforts can be very tricky, especially when they involve mixed methodologies. For example, it is very, very difficult to put together a thorough study combining both quantitative and qualitative or ethnographic methods.

Do you feel that child development research and child health research complement each other? If yes, why? If no, what could be done to build a stronger connection between the two research areas?

Dr. Allen: I would answer with a qualified “no.” My response links back to my response about challenges. Many of the grants that I read are concerned with health and development issues facing minority populations. In thinking about minority health and development issues, it seems paramount that we understand real contextual issues such as culture, poverty, and racism. How do these factors interact to influence development or impose upon health? So much of the research only considers a single factor—usually poverty—and as such misses some very crucial information in its conceptualization of problems. For example, we read many grants about minorities and low birthweight, breastfeeding, health care utilization, et cetera. Most only consider poverty as a

major mediating factor. Few consider the beliefs, values, and behaviors of the populations as dictated by cultural background or experiences with oppressive forces. If poverty only tells part of the story, such grants will yield only part of the answer to its problems. I think that the field of child development is in the throes of a paradigm shift—a shift toward a deeper structural understanding of the effects of culture on human development. I think that how this information comes to inform our conceptions of child health will undergo great change in the near future.

Dr. Crnic: There can be no question that child development research and child health research complement each other. If anything, MCH-sponsored research has demonstrated this without a doubt. There are so many examples that to begin to list even a few will leave out others equally meritorious. But, as just one example, even a cursory look at the literature on high-risk births and their outcomes is replete with investigations funded by MCH that demonstrate the clear connection between infant health outcomes and developmental processes. That said, we haven't nearly done all that we can to promote the connection between the two. Continued collaborative efforts across relevant disciplines, which include academic and applied professionals alike, are needed to identify the development-health connections that affect child and family functioning. I don't think it's possible to disassociate developmental processes from health processes, nor would it be desirable.

Dr. Mattingly: Yes, very definitely. A great many issues which are health issues for children are connected to broader questions about what places children at risk, what kinds of family and larger social environments they are being raised in, even how mothers, fathers, and other parenting figures are supported in trying to raise their children. A narrow attention to health as a bodily matter simply blinds us to the economic, social, and cultural issues which are deeply intertwined with both child development and children's health. I also happen to think that child development research is getting very interesting these days and has a great deal to con-

tribute to our understanding of why some children are at greater health risks than others, or what ingredients help build resilience in children.

Do you foresee any trends in the type of MCH research that will be conducted over the next 5 years? Or are there any topical areas in which you would like to see more applications?

Dr. Allen: Application of new research to educational programs.

Dr. Crnic: MCH is changing, and new areas of emphasis are emerging, so it's likely that we will indeed be seeing some new trends in the research. It would not be surprising to see work that is focused more on targeted areas identified by MCH, as opposed to all field-initiated proposals, as is currently the case. Effective service provision to particularly needy populations may be one emerging area, as may be barriers to such care. How such processes are affected by culture, race, and ethnicity is also likely to be of ongoing interest. It's a risky business to predict such trends, but high-quality research in the identified areas of MCH priorities is what we hope to see.

Dr. Mattingly: This is more a hope than a prediction. I truly hope that MCH will continue to support and encourage research that integrates approaches from such social sciences as anthropology and sociology, which have historically had a strong focus on social, cultural, environmental, and economic factors. While psychology has a great deal to offer, I'm happy to see that MCH seems to be opening its doors to some of the other social sciences as well. I also hope (and expect) that applications will reflect a greater range of research methods, including stronger qualitative and ethnographic proposals, which are better suited to looking at matters that are complex and defy any simple cause-and-effect logic. I believe there is increasing recognition that many matters influencing the health of children fall into this category—for instance, the roles of racism and poverty in the health of many minority children and their parents. ○

Rosalind Johnson, Ph.D.

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MCHB Partners with CDC

investigator presents the project, an area discussant who is either a subject matter expert, a clinician, or a program administrator responds to the presentation. Under the CDC/MCHB agreement, CDC's Division of Nutrition and Physical Activity provides the states with proctors who choose broadcast sites, promote the seminars, and distribute accompanying materials in advance of the seminars to the state's chronic disease; health education;

and women, infants, and children programs and to MCH directors and nutritionists.

The pilot broadcast, "Maternal Factors Determining Birth Weight," aired on July 8, 1999, from New York City. This was a repeat presentation of a seminar first delivered at MCHB headquarters in Rockville, MD, on March 12, 1999. Dr. Sally Lederman of Columbia University, the principal investigator of the research, was the presenter. Close to 40 broadcast sites representing 30 states participated.

The second broadcast, "Methods to Monitor Perinatal Outcomes in States,

Cities, and Smaller Subdivisions," was aired live on September 9, 1999, from MCHB headquarters in Rockville, MD. Patricia O'Campo, Ph.D., of Johns Hopkins University was the presenter. Frances Mather, Ph.D., of Tulane University commented on the presentation and launched a question-and-answer session in which on-site and health department officials took part. Forty-two broadcast sites representing 32 states participated in the broadcast. ○

Jolene Bertness, M.Ed., C.H.E.S.

ARTICLES PUBLISHED BY RESEARCH GRANTEES

The findings of a number of research studies supported by the Maternal and Child Health Bureau (MCHB) have been published in peer-reviewed journals since the last issue of the *MCH Research Exchange*. Six of these articles are summarized below to reflect the range of MCHB research projects; the remaining articles are listed in citation format so that readers may retrieve items of interest.

Determinants of Behavior in Homeless and Low-Income Housed Preschool Children

Bassuk et al. described the characteristics of homeless and low-income preschool-age children and identified family and environmental determinants of their behavior. The researchers used an unmatched case-control design to recruit a sample of sheltered homeless families and a comparison group of low-income housed families who had never been homeless in Worcester, MA. Seventy-seven sheltered homeless and 90 low-income housed mothers with preschool-age children were assessed with a comprehensive interview protocol. Both homeless and low-income children experienced significant adversity in their lives, with homeless children facing more stress. However, differences in behavior were minimal. Mothers' emotional status, in addition to various stressors, strongly predicted children's negative outcomes. These findings emphasize the importance of preventive family-oriented interventions that address the needs of preschool-age children and their mothers. *Pediatrics* 100(1):92-100. MCJ-250809

Explaining Variation in Birth Outcomes of Medicaid-Eligible Women with Variation in the Adequacy of Prenatal Support Services

Korenbrodt et al. examined the contribution of the adequacy of nutrition education, psychosocial education, and health education support service delivery to explaining variations in (1) birth outcomes among Medicaid-eligible women, (2) their provider sites, and (3) the providers' practice settings. Models for low-birthweight and preterm birth outcomes were fitted with medical record data on maternal risks and use of prenatal visits for more than 3,485 women receiving care at 27 ambulatory sites. Providing at least one nutrition, psychosocial, and health education service session during each trimester of care correlated significantly with better birth outcomes when compared with providing fewer sessions. However, adequacy of service delivery did not help to explain differences in outcomes for women who used different provider sites or settings. Providing repeated support service sessions during pregnancy makes it less likely that women with low incomes will have poor birth outcomes. Further adjustments for other differences between women or service delivery need to be made in order to explain variation in outcomes at different sites and practice settings.

Medical Care 36:190-201. MCJ-060647

Posttraumatic Stress Symptoms in Children Following Orthopedic or Traumatic Brain Injury

Levi et al. examined posttraumatic stress (PTS) symptoms in children following pediatric traumatic brain injury (TBI). Children ages 6 to 12 with (1) severe TBI, (2) moderate TBI, and (3) moderate orthopedic injury (OI) were assessed 6 and 12 months after the injury occurred. Parents of children with severe TBI reported higher levels of child PTS symptoms than did parents of children with moderate TBI or OI at the 6- and 12-month follow-ups. Group differences in child-reported PTS symptoms emerged at the 12-month follow-up, with higher symptom levels reported by children with severe TBI than by those with moderate TBI or OI. At both follow-ups, rates of clinically significant symptom levels were higher in the severe TBI group than in the moderate TBI or OI groups. The group differences in both parent and child reports were significant even after taking ethnicity, social disadvantage, and age at injury into account. Parent and child reports of child PTS symptoms were related to family socioeconomic status. The research suggests that identifying factors that place children at risk for developing high levels of PTS symptoms is an important first step toward implementing interventions (e.g., education, identification of coping mechanisms to deal with stress reactions) aimed at minimizing the adverse sequelae of traumatic childhood

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Articles Published by Research Grantees

injuries. The researchers also suggested that routine screening for PTS symptoms might be considered for children following traumatic injury.

Journal of Clinical Child Psychology 28(2):232–243. MCJ-390611

Maternal Psychological Distress and Parenting Stress After the Birth of a Very-Low-Birthweight Infant

Singer et al. noted that, despite societal concerns about the ethics and justification of intensive care for very-low-birthweight (VLBW) (i.e., < 1,500 gm) infants, few studies document parents' response to having given birth to such an infant. The researchers sought to determine the degree and type of stress experienced over time by mothers whose VLBW infants varied in degree of prematurity and medical and developmental risk. The researchers conducted a longitudinal prospective follow-up study of a cohort of mothers of high- and low-risk VLBW and term infants from birth to age 3. The setting was all the level-III neonatal intensive care units in Cleveland, OH. The main outcome measures included standardized normative self-report measures of maternal psychological distress, parenting stress, family impact, and life stressors. The authors concluded that the impact of VLBW births varied with child medical risk status, age, and developmental outcome. Follow-up programs should incorporate psychological screening and support services for mothers of VLBW infants in the immediate postnatal period, and monitoring of mothers of high-risk VLBW infants.

Journal of the American Medical Association 281(9):799–805. MCJ-290592

Pre-Injury Family Environment as a Determinant of Recovery from Traumatic Brain Injuries in School-Age Children

Taylor et al. noted that previous studies of childhood traumatic brain injury (TBI) emphasize injury-related variables rather than environmental factors as predictors of recovery. The researchers addressed this concern using data collected during a prospective study of children with either

TBI or OI and their families. Participants included 53 children with severe TBI, 56 with moderate TBI, and 80 with moderate OI, all from 6 to 12 years of age at the time of injury. Measures of the pre-injury family environment (the baseline) were collected shortly after the injury occurred. Child cognitive and behavioral outcomes were assessed at baseline and at 6- and 12-month follow-ups. Individual growth curve analyses show that measures of the pre-injury family environment consistently predict both the level of cognitive and behavioral functioning at 12 months post-injury and the rate of intra-individual change during the 12-month follow-up period, even after taking into account group membership and injury severity. In some cases the pre-injury family environment was a significant moderator of TBI's effect, buffering its impact in high-functioning families and exacerbating it in low-functioning ones. Thus pre-injury environmental factors predict recovery following TBI in children, even after accounting for injury-related variables.

Journal of the International Neuropsychological Society 3(6):617–630. MCJ-390611

Determinants of Health and Human Service Use Patterns in Homeless and Low-Income Housed Children

Weinreb et al. noted that previous studies of homeless children suggest that they have more health problems and use health and human services more than housed children, but the studies fail to control for potential confounding factors that may differ between these children. This observational study examined the relationship of homelessness and other determinants with health status and service use patterns in 627 homeless and low-income housed children. Standardized instruments were administered to assess children's health. Main outcome measures included health status, acute illness morbidity, emergency department visits, and outpatient medical visits. Multivariable regression analyses were used to examine the association of family and environmental determinants, including homelessness, with health status and service use outcomes. Mothers of

homeless children were more likely than housed counterparts to report their children as being in fair or poor health. The authors concluded that homelessness is an independent predictor of poor health status and high service use among children. The present findings highlight the importance of preventive interventions and efforts to increase access to primary care among homeless children.

Pediatrics 102(3):554–562. MCJ-250809

Bassuk EL, Buckner JC, Perloff JN, Bassuk SS. 1998.

Prevalence of mental health and substance use disorders among homeless and low-income housed mothers.

American Journal of Psychiatry 155(11):1561–1564.

Black MM, Danseco ER, Krishnakumar A. 1998.

Understanding child health in a social context: A review of intervention research.

Children's Social Policy Research and Practice 1:111–126.

Black MM, Krishnakumar A. 1999.

Predicting height and weight longitudinal growth curves using ecological factors for children with and without early growth deficiency.

Journal of Nutrition 129 (Suppl. 2S):539S–543S.

Black MM, Krishnakumar A. 1998.

Children in low-income, urban settings: Interventions to promote mental health and well-being.

American Psychologist 53(6):635–646.

Booth CL, Kelly JF. 1999.

Child care and employment in relation to infants' disabilities and risk factors.

American Journal of Mental Retardation 104(2):117–130.

Brooks-Gunn J, McCormick MC, Klibanov PK, McCarton C. 1998.

Health care use of 3-year-old low birth weight premature children: Effects of family and neighborhood poverty.

Journal of Pediatrics 132(6):971–975.

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AN ANALYSIS OF SELECTED PERFORMANCE INDICATORS FOR THE MATERNAL AND CHILD HEALTH BUREAU RESEARCH PROGRAM: ACTIVE PROJECTS FY 1996-97

Applications Reviewed and Approved

The MCHB Research Program reviewed a total of 201 applications during the FY 1996 and FY 1997 review cycles. Twenty of these applications were classified as noncompeting (i.e., continuations) and 144 as competing. Of the 144 competing applications, 137 were new and 7 were competing extensions. The new-applications category comprises four subcategories: (1) applications submitted to the MCHB Research Program for the first time; (2) new applications from the previous cycle, for which the review committee deferred recommendation for action; (3) revisions of previously disapproved new applications; and (4) revisions of previously approved applications that were not funded because their priority score was too low. Competing extension applications are requests for additional funds to extend the time period of an ongoing project.

Of all the new applications combined, 16.8 percent were approved. The approval rate was lowest for applications submitted for the first time (7.1 percent) and highest for competing extension applications (42.9 percent). In general, the gross approval rate of 16.8 percent (the number of new applications recommended for approval by the committee, divided by the total number of new applications reviewed) is relatively low when compared to the gross approval rate of National Institutes of Health (NIH) and other federal research programs. The net approval rate (the number of new applications actually funded, divided by the total number of new applications reviewed) compares quite well with the net approval rate of NIH and other federal programs.

Of all new applications accepted for review during FY 1996 and FY 1997, 12.1 percent addressed medical concerns; 16.7 percent addressed behavioral health concerns; 19.5 percent addressed health services organization, use, and delivery concerns; and 19.0 percent addressed epidemiological issues. This distribution mirrors the MCHB's programmatic emphases on prevention, treatment, remediation, program evaluation, and problem definition.

Approval rates by type of research ranged from a low of 12.1 percent to a high of 19.5 percent. Applications addressing health service concerns had the highest approval rate (19.5 percent); they were followed by those addressing epidemiological (19.0 percent), behavioral (16.7 percent), and medical issues (12.1 percent). Overall, the variation in rates of approval by type of research, though sizable, does not necessarily suggest bias in the review process. Rather, the variation probably reflects differences in applicants' experience and capability. For example, applications addressing medical issues may have come from service organizations with less documented research experience and capability than those addressing health service concerns.

Characteristics of Active Research Projects

Most recipients of MCHB research grants in FY 1996 and FY 1997 were institutions of higher learning (70.6 percent). Schools of public health received the largest number of all grants awarded (25.4 percent), and schools of medicine and other academic schools and departments received 19.6 percent. The remaining grant recipients were children's hospitals and other research hospitals (13.7 percent) and other grantees (15.7 percent). There were no active projects being conducted by state, county, or city health

departments; this reflects the small number of applications that these governmental units submitted. It is clear that much needs to be done to increase the level of participation of state, county, and city health departments in the MCHB Research Program.

Approximately 53.2 percent of the principal investigators (PIs) funded through the MCHB Research Program during FY 1996 and FY 1997 had Ph.D. degrees, and 38.3 percent had M.D. degrees. One investigator had earned a joint M.D./Ph.D. degree. (The M.D./Ph.D. disparity is typical of federal extramural research programs in biomedical and health services.) About 6 percent of the PIs held Sc.D. and Dr.P.H. degrees. The low percentage of traditional public health degrees among grant recipients is due, at least in part, to the relatively small number of these degrees awarded nationally.

In total, 47 PIs have undertaken the research described in the 51 projects mentioned in this article. More women (61.7 percent) than men (38.3 percent) were recipients of MCHB research grants in FY 1996 and FY 1997.

Figure 1 organizes the 51 projects according to three study-design characteristics—experimental, quasi-experimental, and observational. The experimental category includes randomized clinical control trials; the quasi-experimental category includes case/matched control, case/unmatched control, case/historical control, and interrupted time-series studies. The observational design studies are purely descriptive or correlational. Slightly more than half (51 percent) of the active projects employ either an experimental or a quasi-experimental study design; the remaining 49 percent are observational. During the FY 1994 and FY 1995 study cycle, 28 percent of the projects used an experimental study design and 24 percent used a quasi-experimental design. The remaining 48 percent employed an observational study design. These percentages indicate a high degree of scientific rigor in the research supported by the MCHB Research Program.

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GUIDANCE AND APPLICATION KITS NOW ON THE WEB

Interested applicants can download the research program's grants guidance and application kits electronically. These materials can be accessed through the MCHB home page at www.mchb.hrsa.gov. Hard copies can be obtained from the Health Resources and Services Administration (HRSA) Grants Application Center at (887) 477-2123.

Figure 1

Study Design

Experimental	21 projects	41.2%
Quasi-experimental	5 projects	9.8%
Observational	25 projects	49%

The study designs' time dimension also suggests scientific rigor. As Figure 2 indicates, the research projects currently being funded by the MCHB Research Program are, overwhelmingly, short-term and long-term longitudinal studies (78.4 percent). This research, for the most part, is concerned with characterizing, defining, and measuring risk factors for unwelcome outcomes. This type of research requires that the agent or exposure thought to define risk precede the outcome of concern. During the FY 1994 and FY 1995 cycles, 76 percent of the projects were longitudinal and 9 percent were cross-sectional.

Figure 2

Time Design

Longitudinal	40 projects	78.4%
Cross-sectional	5 projects	9.8%
Mixed	6 projects	11.8%

Figure 3 shows the 51 active projects according to care emphasis. The care emphasis distinguishes projects that are interventional in nature from those that are noninterventional. In medicine and public health, intervention is used for a variety of activities designed to prevent, limit, or improve conditions in order to better the health of individuals and groups. As a group, intervention studies address a variety of MCH problems and represent an inadequately tapped resource of tested approaches to solving MCH problems at the state and community levels. Slightly less than half (46.2 percent) of the studies funded during the FY 1996 and FY 1997 cycles are interventional in nature, compared to 33 percent funded during the FY 1994 and FY 1995 cycle. The majority of the interventional studies presented in this issue are preventive rather than remedial or curative in intention; most use experimental designs with blind measurements and employ standardized protocols to deliver and monitor the array of services constituting the interventions.

Figure 3

Care Emphasis

Interventional	23 projects	45.1%
Noninterventional	28 projects	54.9%

Many of the active projects focus on more than one population (e.g., infants and toddlers). Of the 51 active projects, 24 (47.1 percent) focus on infants. Twenty-two projects (43.1 percent) study parents, mothers, or fathers. One project focuses on adolescents.

Research grants are routinely tracked to determine whether they have a racial or ethnic focus. Projects are classified as having such a focus if the investigators have stated that they seek to elucidate some aspect of the health of minority women and children using either a within-group or a between-group study design. Of the 51 active projects, 29 (56.9 percent) have a racial or ethnic focus; this represents a 10 percent increase over the number of such studies approved in FY 1994 and FY 1995 (45.7 percent). Of the 29 active projects with a racial and ethnic focus, 18 use a group-specific study design and 11 use a between-group study design.

Most of the research projects that have a racial or ethnic focus are studying African-American populations. Twenty-four of the 29 projects with a racial or ethnic focus have African Americans as one or more of their minority study populations. Nine of the projects focus on Mexican Americans and 7 focus on Puerto Ricans. More research needs to be conducted to elucidate MCH problems among Alaskan Native, Chinese, Japanese, Pacific Islander, and Hawaiian Native populations.

Summary and Conclusions

It is clear that the MCHB Research Program supports highly rigorous scientific research. The large number of publications per project and the quality of the peer-reviewed journals in which findings are published confirm this. The number of intervention projects MCHB funds suggests that it is fulfilling its responsibility to develop new program components. Efforts to increase the awareness and adoption of these research-tested interventions at the state, county, and local levels should be expanded.

Data on the racial or ethnic focus of the active projects support the conclusion that the MCHB Research Program has made progress in addressing the health of minority mothers and children, particularly African Americans. The distribution of the various populations being studied indicates that the program is funding a broad portfolio of research. The researchers that the program supports are studying populations all along the developmental continuum, and the projects cover a broad spectrum of maternal and women's health issues. Nevertheless more research is needed to address the needs of minority populations other than African Americans, but this should not obscure the fact that the MCHB Research Program is a crucial supporter of research on minority health issues. ○

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PRODUCTS GENERATED BY RESEARCH PROJECTS COMPLETED IN FY 1992-96

As part of its routine program-monitoring activities, the Maternal and Child Health Bureau (MCHB) Research Program asks principal investigators (PIs) to report on the number and types of products (e.g., presentations at professional meetings; articles published in peer-reviewed journals; published abstracts, books, or chapters; or completed doctoral dissertations) generated by each completed research project. This first report on such dissemination of information is part of the final report, which all PIs receiving federal research grant awards are obligated to produce. Since 1 to 5 years must go by before the data generated by a completed investigation can be fully analyzed, the program conducts a special follow-up query 5 years after the study is completed to ensure that all the products it produced are accounted for.

PIs are also asked to provide the titles and publication dates of the journals in which their peer-reviewed articles were published. The review process involves locating a sample of the publications the PI reported and then reading the articles to determine whether the content corresponds to the research questions on record for the project. Although imperfect, indicators such as the number and types of products generated and the types of journals in which research findings were published provide valuable information about the quantity and quality of the products produced as a result of MCHB Research Program funding. Table 1 presents the number and types of products reported as of 1998 by research projects completed from FY 1992 to FY 1996.

Table 1 shows that the projects in the program's completed portfolio had reported 839 products. Of these, 43.4 percent

were presentations at professional meetings and conferences, 25.0 percent were articles published in peer-reviewed journals, and 17.6 percent were abstracts. There were 210 articles in peer-reviewed journals—slightly more than 4 journal articles per project. There were 148 abstracts—an average of 2.8 per project. The project PIs made 364 presentations on their research, an average of 7 presentations per project. Sixteen books and reports and 51 chapters in published books were developed as a result of MCHB-funded research. Four PIs reported that their research generated dissertations, and there were 46 other products such as newsletters and editorials. These data indicate that information gathered as a result of MCHB-funded research has been disseminated in a variety of ways. In particular, publication of products in

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TABLE 1
**Type and Number of Products Generated by MCHB-Supported Research,
Based on Final Reports and Follow-Up Queries, FY 1992-96**

TYPE OF PRODUCTS	1992	1993	1994	1995	1996	TOTAL
Presentations	55	60	73	114	62	364
Peer-Reviewed Published Articles	43	32	49	53	33	210
Chapters in Books	7	10	—	23	11	51
Books/Reports	3	6	2	4	1	16
Abstracts	28	26	18	44	32	148
Dissertations	1	0	1	0	2	4
Other Products	32	3	3	6	2	46
Total Number of Products	169	137	146	244	143	839
Number of Projects	12	6	9	19	6	52
Average Number of Products per Project	14.1	22.8	16.2	12.8	23.8	16.1
Average Number of Peer-Reviewed Published Articles per Project	3.6	5.3	5.4	2.8	5.5	4.0

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Products

peer-reviewed journals shows that the research is scientifically rigorous and of high quality.

The type of journals in which MCHB-supported research findings have been published is also important. Of the 210 peer-reviewed articles, 81 (38.6 percent) appeared in medical journals. Of these articles, 10 appeared in general medical journals, 66 in pediatric medical journals, and 5 in OB/GYN journals. Fifty-one articles were published in journals with a behavioral focus; 24 appeared in general behavioral journals and 27 in pediatric behavioral journals. Thirty-nine articles were published in basic, laboratory, and clinical sciences journals representing a broad spectrum of disciplines and focuses. In general, grantees published their results in highly acclaimed journals with rigorous peer-review procedures. *Pediatrics* published the largest number of articles (25) written by MCHB grantees. Grantees also authored 13 articles published in the *Journal of Pediatrics*.

Selected Project Highlights

Although all the completed projects provided important information about MCH, six are of particular interest. A brief description of the findings of these projects follows.

1. "Reducing the Nation's Pediatric Intensive Care," a study by Murray Pollack, M.D., shows that risk-adjusted mortality is influenced by a hospital's teaching status and by the presence of a pediatric intensivist. This study also shows that the characteristics indicative of overall hospital quality may not be associated or may be negatively associated with quality of care in specialized care areas, including the pediatric intensive care unit.
2. "A Telephone Educational Intervention for Rural Children with Asthma," by Shirley Murphy, M.D., is a study of an educational intervention for rural children with asthma. It shows that a structured self-management education program can help decrease asthma morbidity and use of health care. The study indicates that the telephone follow-up intervention to the educational

program resulted in no significant advantages. This is valuable information for hospitals, communities, and states considering intervention programs in this area.

3. The sample in Sally Ann Lederman's study on body composition in pregnancy, entitled "Body Composition in Pregnant Women," was large enough to allow conclusions to be drawn about the relationship between a woman's weight gain and fat gain and the outcome of pregnancy as reflected in her infant's birthweight. Dr. Lederman was able to show that her research subjects who gained the recommended amount of weight did not place themselves or their infants at a disadvantage. These findings strongly support current guidelines for weight gain during pregnancy. This project also generated data on African-American and Hispanic women; pregnancy weight gain data for these ethnic groups have been scarce.
4. In her study entitled "Otitis Media in Children and Later Language Learning," Joanne Erwick Roberts, Ph.D., determined that there was a direct association between otitis media with effusion and associated hearing loss, and measures of children's language and cognition at ages 1 and 2 years. However, these relationships were no longer significant when the quality of home and child care environments were taken into account. Further analyses examined the way other factors, including the quality of child care and the level of stimulation within the home environment, influenced children's cognitive and language development during early childhood.
5. "Early Cortisol Deficiency and Bronchopulmonary Dysplasia," by Kristi Watterberg, strongly supports the hypothesis that decreased cortisol effect during the first week of life is causally linked with an adverse respiratory outcome. This study provides a theoretical basis to support a clinical trial evaluating the effectiveness of low-dose replacement therapy.

6. In her study entitled "Infant Temperament: Stability and Change in Rural Appalachia," Margaret Fish successfully identifies infant, mother, and caregiving environment factors that are significant determinants of infants' stable and changing temperaments, secure and insecure attachment relationships, and high and low verbal communication skills. This study also provides valuable information about parent-child interaction in an understudied population—Appalachian families with low incomes. ○

Gontran Lamberty, Dr.P.H.
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Twenty New Projects Funded

Responsiveness of CHIP to Children with Special Health Care Needs. A 3-year study to examine the implications of how states structure their freestanding (non-Medicaid) State Children's Health Insurance Programs (CHIPs) for children's access to care generally, and for children with chronic illnesses and disabilities in particular. The overall focus of the study is the group of 25 states that, as of April 1999, had Health Care Financing

Administration (HCFA) approval to establish freestanding CHIP programs for some or all targeted children.

Principal Investigator: Sara Rosenbaum, George Washington University Medical Center, Washington, DC. (Grant No. R40 MC 00165)

Maternal PKU Resource Mothers Program. A 5-year randomized trial to assess the feasibility and efficacy of a home visitation program designed to improve metabolic control of phenylketonuria (PKU) during pregnancy.

Principal Investigator: Susan E. Waisbren, Children's Hospital, Boston, MA. (Grant No. R40 MC 00162)

A more detailed description of each of the 20 projects can be viewed at or downloaded from the MCHB Web site: <http://www.mchb.hrsa.gov>. ○

Contran Lamberty, Dr.P.H.

PRINCIPAL INVESTIGATOR PROFILE: MAUREEN BLACK

The Principal Investigator Profile is a new feature of the *MCH Research Exchange*. The goal of the profile is to demonstrate how research funded by the Maternal and Child Health Bureau (MCHB) enhances the researchers' careers. Each profile will feature one PI whose research has been supported by MCHB.

Maureen Black, Ph.D., is a professor in the Department of Pediatrics at the University of Maryland School of Medicine and director of the Growth and Nutrition Clinic, a multidisciplinary family-focused clinic for children with failure to thrive (FTT). Dr. Black has received three MCHB grants to pursue three different projects: (1) Home Visitation for Infants with Failure to Thrive, (2) Growth and Development: Longitudinal Follow-up, and (3) Three-Generation Intervention Among Adolescent Mothers. She has a doctorate in psychology from Emory University, and she trained at the Neuropsychiatric Institute of the University of California at Los Angeles. Dr. Black is a fellow of the American Psychological Association (APA), president of the Society of Pediatric Psychology, and a past president of the Division of Child, Youth, and Family Services of the APA. Her clinical and research interests involve nutritional and family-focused interventions with children and families from low-income, urban communities to promote growth and development; follow-up of children exposed to substances prenatally; and evaluation of multigenerational programs to promote adolescent development and adoles-

cent mothers' and fathers' parenting skills.

In a recent interview, Dr. Black was asked how MCHB funding had helped her in her research and in her career. She responded that MCHB's emphasis on intervention research had enabled her to develop her career on a scientist-practitioner model. Her first grant from MCHB was to develop, implement, and evaluate a home-visiting curriculum for children with FTT. The research findings of this project were used to convince the state of Maryland to establish the Growth and Nutrition Clinic, which provides clinical services and home visiting to children with FTT throughout the state.

The following publications were generated from Dr. Black's MCHB research grants:

Black M. 1993.

Early intervention to promote health development for children and families.

The Child, Youth and Family Services Quarterly 16:1-2.

Black M. 1993.

Editorial on poverty and children.

The Child, Youth and Family Services Quarterly 16:17-18.

Black M. 1991.

Early intervention services for infants and toddlers: A focus on families.

Journal of Clinical Child Psychology 20:51-57.

Black M. 1991.

Longitudinal studies in child maltreatment: Methodological considerations. Current Research on Child Abuse and Neglect.

New York, NY: Guildford Publications.

Black MM, Dubowitz H, Hutcheson J, Berenson-Howard J, Starr RH. 1995.

A randomized clinical trial of home intervention for children with failure to thrive.

Pediatrics 95:807-814.

Black M, Dubowitz H. 1991.

Non-organic failure to thrive: Lessons from animal models and international studies.

Journal of Developmental and Behavioral Pediatrics 12:259-267.

Black MM, Krishnakumar A. 1998.

Children in low income, urban settings: Interventions to promote mental health and well being.

American Psychologist 53:635-646.

Black MM, Teti L. 1997.

Videotape: A culturally sensitive strategy to promote communication and healthy nutrition between adolescent mothers and infants.

Pediatrics 99:432-437. ○

Rosalind Johnson, Ph.D.

Articles Published by Research Grantees

Caulfield LE, Gross SM, Bentley ME, Bronner Y, Kessler L, Jensen J, Weathers B, Paige DM. 1998.

WIC-based interventions to promote breastfeeding among African-American women in Baltimore: Effects on breastfeeding initiation and continuation.

Journal of Human Lactation 14(1):15–22.

Coll CG, Buckner JC, Brooks MG, Weinreb LF, Bassuk EL. 1998.

The developmental status and adaptive behavior of homeless and low-income housed infants and toddlers.

American Journal of Public Health 88(9):1371–1374.

Daar ES, Lynn H, Donfield S, Gomperts E, Hilgartner MW, Hoots K, Chernoff D, Winkler C, O'Brien SJ. 1999.

Effects of plasma HIV RNA, CD4+ T lymphocytes, and the chemokine receptors CCR5 and CCR2b on HIV disease progression in hemophiliacs.

Journal of Acquired Immune Deficiency Syndrome 21(4):317–325.

DeVet KA, Ireys HT. 1998.

Psychometric properties of the maternal worry scale for children with chronic illness.

Journal of Pediatric Psychology 23(4):257–266.

Donfield SM, Mahoney EM, Maeder MA, Hawk SM, Sirois PA, Pearson SK, Goldberg IA, Richard SK, Baird-Cox KA, Hoel LN, Cool VA. 1998.

Comparability of absolute/percent CD4+ T-lymphocytes completed locally and centrally.

Controlled Clinical Trials 19(5):451–460.

Falkner B, Michel S. 1997.

Blood pressure response to sodium in children and adolescents.

Journal of Clinical Nutrition 65:618S–621S.

Fiscella K, Kitzman HJ, Cole RE, Sidora K, Olds D. 1998.

Delayed first pregnancy among African-American adolescent smokers.

Journal of Adolescent Health 98(23):232–237.

Fiscella K, Kitzman HJ, Cole RE, Sidora KJ, Olds D. 1998.

Does child abuse predict adolescent pregnancy?

Pediatrics 101(4):620–624.

Harrington D, Black MM, Dubowitz H, Starr RN. 1998.

Child neglect: A model of temperament and family context.

American Journal of Orthopsychiatry 68:108–116.

Homan RK, Korenbrot CC. 1998.

Explaining variation in birth outcomes of Medicaid-eligible women with variation in the adequacy of prenatal support services.

Medical Care 36(2):190–201.

Hoots WK, Mahoney E, Donfield S, Bale J, Stehbins J, Meader M, Loveland K, Contant C. 1998.

Are there clinical and laboratory predictors of 5-year mortality in HIV-infected children and adolescents with hemophilia?

Journal of Acquired Immune Deficiency Syndrome and Human Retrovirology 18:349–357.

Hutcheson JJ, Black MM, Talley M, Dubowitz H, Berenson-Howard J, Starr RH, Thompson BS. 1997.

Risk status and home intervention among children with failure to thrive: Follow-up at age 4.

Journal of Pediatric Psychology 22:651–688.

Klerman LV, Cliver SP, Goldenberg RL. 1998.

The impact of short interpregnancy intervals on pregnancy outcomes in a low-income population.

American Journal of Public Health 88(8):1182–1185.

Kuhlthau K, Perrin JM, Ettner SL, McLaughlin TJ, Gortmaker SL. 1998.

High-expenditure children with supplemental security income.

Pediatrics 102(3):610–615.

Lederman SA, Paxton A, Heysfield SB, Wang J, Thornton J, Pierson RN. 1997.

Body fat and water changes during pregnancy in women with different body weight and weight gain.

Obstetrics and Gynecology 90(4):483–488.

Mackner LM, Starr RH, Black MM. 1997.

The cumulative effect of neglect and failure to thrive on cognitive functioning.

Child Abuse and Neglect 21(7):691–700.

Mahoney EM, Donfield SM, Howard C, Kaufman F, Gertner JM. 1999.

HIV-associated immune dysfunction and delayed pubertal development in a cohort of young hemophiliacs.

Journal of Acquired Immune Deficiency Syndrome and Human Retrovirology 21(4):333–337.

Neumark-Sztainer D, Story M, Perry C, Casey MA. 1999.

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RESEARCH ROUNDTABLE PRESENTATIONS DISSEMINATE THE RESULTS OF FUNDED PROJECTS

The purpose of the Research Roundtable Series is to disseminate the results of MCHB-funded research to policymakers, researchers, and practitioners in the public and private sectors. The Research Roundtables give researchers an opportunity to discuss their findings with MCH professionals and others interested in the field. These seminars, which take place at the Parklawn Building in Rockville, MD, cover a wide range of topics critical to the delivery of services to mothers and children everywhere. Ten Research Roundtables have been held since the last issue of the *MCH Research Exchange*. Eight of the presentations are summarized below.

Research Roundtable #19

Free- β and hCG in Screening for Down Syndrome

January 30, 1998

*Presenter: George Knight, Ph.D.
Director, Prenatal Screening Laboratory
Foundation for Blood Research*

*Reactor: Carole Meyers, M.D.
Director, Genetics Center
Mercy Medical Center*

The goals of this study were to (1) define how effectively the free β -subunit of hCG measurements, as compared to conventional hCG assays, (2) determine the effect of time and temperature on the free β -subunit in stored blood samples; (3) determine the effect of race and ethnicity, maternal weight, maternal smoking, and method of gestational dating on the free β -subunit measurements; and (4) define a set of parameters that will allow laboratories to calculate risks using free β -subunit measurements and other markers.

Results from this study, in combination with those from other published studies, indicate that substitution of the free β -subunit for hCG measurements in either a double or triple marker combination provides equivalent screening performance. However, as stability data indicate that increases in the free β -subunit concentrations can be significant for samples exposed to elevated temperatures or long shipping times, laboratories need to be

aware that special precautions are necessary if free β -subunit is to be used for screening.

Research Roundtable #20

Impact of Maternal Lead Stores on Fetal Lead Exposure

June 30, 1998

*Presenter: Morri E. Markowitz, M.D.
Professor of Pediatrics, Albert Einstein
College of Medicine*

*Reactor: Cecilia T. Davoli, M.D.
Medical Director, Lead Poisoning Prevention Program, Kennedy Krieger Institute*

The goal of this study was to establish the primary source of lead that reaches the fetus.

The study used an observational, prospective, longitudinal design. Maternal bone lead was measured for the first time by using the L-line x-ray fluorescence (LXRF) technique, a noninvasive, extremely low-dose radiation technique. This technique, together with a biochemical profile of the mother and an assessment of lead in the home environment, was used to determine the relative contributions of maternal bone lead and ongoing maternal lead absorption to the accumulation of lead in the fetus.

The study focused on African-American pregnant women ages 18 to 45 years who were recruited at the North Central Bronx Hospital. Nulliparous African-American women of a comparable age who visited the gynecology clinic for routine care were to be recruited to serve as controls.

It was hypothesized that the LXRF measures would decrease from the first to the second time points in the pregnant women only and would remain stable thereafter (except possibly in breastfeeding mothers). Findings are pending on the (1) relationship between changes in LXRF and changes in blood lead in the pregnant women, (2) relationship between fetal blood lead and the endogenous and exogenous sources of lead, and (3) extent to which the effects of environmental exposure and endogenous lead were mediated by maternal blood lead.

Research Roundtable #21

Infants After Divorce: Overnight Visitation and Family Relationships

September 24, 1998

*Presenter: Judith A. Solomon, Ph.D.
Developmental Psychologist, Judith Wallerstein Center for the Family in Transition*

*Reactor: Mari L. Clements, Ph.D.
Assistant Professor, Department of Clinical Psychology, Pennsylvania State University*

This research study was undertaken to address some of the most critical and controversial issues involving divorce and young children: (1) do parenting schedules in separated and divorced families that include overnight stays with the father pose a threat to the infant-mother attachment relationship; (2) do schedules that include overnights promote more secure infant-father relationships; (3) what are the factors that appear either to buffer the infant's attachment to its parents or to place this attachment at greater risk?

Current findings highlight the complexity of factors that must be addressed when considering residential schedules for very young children in separated and divorced families. Evidence emphasizes the concept that although separation from attachment figures is inherently stressful, such separations do not appear to interfere with a child's long-term basic security if the parents focus on the child's reactions and console and support him or her adequately when he or she is under higher levels of stress.

Research Roundtable #22

Maternal Factors Determining Birthweight

January 14, 1999

*Presenter: Sally Lederman, Ph.D.
Research Scientist, School of Public Health and Institute of Human Nutrition, Columbia University*

*Reactor: Roy Pitkin, M.D.
Professor Emeritus, School of Medicine
University of California, Los Angeles*

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Research Roundtable Presentations

The aim of this study was to identify which components of maternal weight are responsible for the associations among a woman's maternal prepregnancy weight, her pregnancy weight gain, and her own birthweight. The researchers examined the influence that gains in maternal weight and net weight, fat and net fat, and water and net water have on birthweight. They also examined the possible influences of maternal pelvic size and the timing of gestational weight gain on birthweight.

A key finding was that maternal fat gain is not positively associated with birthweight but that maternal body water gain is so associated. The researchers also noted that pregnancy weight gain is due to increases in both fat and nonfat tissues. Results from the study's analysis of the effect on birthweight of maternal weight and net weight in early and late pregnancy were consistent with data reported in previous studies.

Research Roundtable #23

Early Intervention Collaborative Study: Age 10 Follow-Up

March 5, 1999

Presenter: Penny Hauser-Cram, Ed.D.
Associate Professor, Developmental and Educational Psychology, School of Education, Boston College

Reactor: Rebecca Fewell, Ph.D.
Professor, School of Medicine and Debbie Institute, University of Miami

The findings of the infant and toddler period of the Early Intervention Collaborative Study (EICS) were reported in a monograph published by the Society for Research in Child Development and discussed at the fifth Research Roundtable (1993). The aim of this most recent phase of the EICS was to determine which factors assessed during the earlier investigation predict the well-being of parents and the positive functioning of children during middle childhood.

In summary, the findings point to areas of strength and vulnerability within families. Like all children, children with disabilities live in multiple systems; the family system in particular appears to be cen-

tral in nurturing their development. Early intervention (EI) services, when of sufficient duration and intensity, appear to be related to positive changes in family cohesion. A higher degree of family cohesion at the termination of EI, in turn, predicts lower levels of parenting stress for both mothers and fathers 7 years later. Families who report being more cohesive at the termination of EI also have children who report higher levels of peer acceptance and lower levels of loneliness at age 10 years.

Along with areas of family strength, however, the study noted two areas of vulnerability that deserve careful examination. Fathers have an important but neglected story to tell and appear to be vulnerable to stress related to attachment to their child and to their own social isolation. And finally, children in this sample reported high levels of loneliness during the middle childhood years.

These findings have important implications for future programs, research, and policy. It may be necessary to reconceptualize who should be the primary recipient of early intervention services, what measurable goals should be, and how to optimize outcomes.

Research Roundtable #24

The Washington State Intergenerational Study of Birth Outcomes: Methodology and Some Comparisons of Maternal Birthweight and Infant Birthweight and Gestation in Four Ethnic Groups

May 20, 1999

Presenter: Irvin Emanuel, M.D.
Professor of Epidemiology, School of Medicine, University of Washington

Reactor: Mark Klenbanoff, M.D.
Acting Director, Division of Epidemiology, Statistics, and Prevention Research National Institute of Child Health and Human Development

The aim of this study was to investigate how a mother's birthweight and other maternal factors were associated with maternal complications of pregnancy and birth outcomes. It was possible to study four racial and ethnic groups: non-His-

panic whites, African Americans, Native Americans, and Hispanics.

The study found that there were inverse associations between a mother's birthweight and her child's risk for low birthweight (LBW), preterm birth, very LBW, very preterm birth (less than 34 weeks), and being small for gestational age. In addition, maternal birthweight was associated with complications of pregnancy and delivery.

These results provide additional evidence to support the concept that the quality of birth outcomes is influenced by the quality of growth of mothers-to-be from one generation to the next. The presence of important risk factors before a woman becomes pregnant suggests that interventions—particularly those that might help optimize prepregnancy weight and influence child growth and health—need to take place before she conceives. These results open the door to research on the association between early-life characteristics and the development of chronic diseases during adulthood.

Further research is needed to determine the mechanisms (i.e., genetics, environment, or an interaction between the two) by which these maternal factors affect birth outcomes. Ascertaining which mechanism is operating will present possibilities for preventing both LBW and chronic diseases of adulthood. Finally, there is a need for more research that includes the influence of paternal intergenerational factors. Future research needs to focus on testing theories of how intergenerational factors of both parents impact birth outcomes.

Research Roundtable #25

Emergency Department Screening for Urinary Tract Infection in Febrile Children

June 10, 1999

Presenter: Kathy Shaw, M.D.
Professor, Joseph Stokes Research Institute, School of Medicine, University of Pennsylvania

Reactor: Alejandro Hoberman, M.D.
Associate Professor, Children's Hospital, Pittsburgh

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The study attempts to answer four research questions: (1) What is the prevalence of urinary tract infection (UTI) among febrile boys under 1 year and girls under 4 years in a high-volume pediatric emergency department (ED)? (2) What are the sensitivity, specificity, and predictive values of rapid screening tests (enhanced urinalysis [UA], conventional UA, dipstick) for UTI in young febrile ED patients without a documented source of fever? (3) Can clinical predictors be identified and a clinical predictive model used in the ED to stratify those febrile young children without a documented source of fever for risk of UTI? (4) What is the cost-effectiveness of alternative management strategies for screening for suspected UTI in the evaluation of febrile young children in the ED?

Overall UTI prevalence in febrile babies under age 2 in the ED was 3.3 percent (95 percent confidence intervals [CIs], 2.6–4.0). The highest prevalence rates were in white females at 16.1 percent (95 percent equals 10.6 minus 21.6). Sensitivity, specificity, and predictive values of the screening tests for UTI were determined at different definitions of a positive result. The enhanced UA was most sensitive at predicting UTI (97 percent [83, 99]) but had lower (84 percent [82, 86]) specificity and positive predicting value than the urine dipstick or Gram stain. Analysis revealed five clinical predictors and factors independently associated with UTI in febrile girls under 2 years: race, temperature less than 39°C, age under 1 year, fever history 2 days or less, and absence of an alternative source for the fever.

A model with four predictive factors was identified for boys under 1 year: age under 6 months, no circumcision, absence of alternative source of fever, and temperature 39°C or less and had an area under the curve of 0.84. The presence of any one risk factor predicted UTI with sensitivity of 1.00 and false positive rate of 0.47.

Finally, the study compared the cost-effectiveness of several alternative management strategies for diagnosing and treating UTI in febrile young children. For

girls, the most cost-effective strategy was the use of the clinical decision rule—that is, cultures are sent to a laboratory on all girls with any two or more risk factors, and no further testing is done for those with fewer than two risk factors. In the baseline analysis meant to apply to an ED setting where loss to follow-up occurs, this strategy would result in the treatment of 3,640 children with UTI, or 85 percent of all the children with UTI expected in the cohort, at an average cost of \$865 per UTI treated.

In an office practice setting, where loss to follow-up is not a problem, the clinical decision rule leads to successful treatment of 94 percent of all UTIs at a cost of \$850 per UTI. For boys, use of the clinical decision rule to identify children needing culture (those with any of three risk factors present) leads to successful treatment of almost 90 percent of the UTIs expected in the cohort, at an average cost of \$955 per case treated.

The evaluation and management of infants and young children who have fever without an apparent source is controversial. UTI, however, remains the most common serious bacterial illness among febrile infants and young children and can contribute to permanent renal damage. This study adds to a body of information gathered on UTI in young children during past years. Increased awareness of the condition and more aggressive and early screening will lead to prompt treatment and reduced long-term morbidity.

Research Roundtable #26

Watchful Waiting Versus Antibiotics As Soon As Possible

July 16, 1999

*Presenter: Gabriel Escobar, M.D.
Director, Division of Research
Kaiser Permanente of California*

*Reactor: Renee Jenkins, M.D.
Chair, Department of Pediatrics
Howard University*

This study had two aims. The first was to characterize the neonatal “sepsis work-up” during the birth hospitalization. The

second was to clearly define which predictors should be employed in evidence-based guidelines suitable for use by clinicians. This population-based study is the first to provide maternal and neonatal data on all babies ever evaluated and is also the first to provide information on postdischarge follow-up.

A baby was considered to have been evaluated for sepsis if a physician suspected the condition and obtained a complete blood count (CBC) and/or blood culture. Of the infants included in the study and tracked to 1 week post-discharge, 91.2 percent were identified as being at risk of sepsis by the time they were 12 hours old.

Maternal fever, chorioamnionitis, low neonatal absolute neutrophil count (ANC) for age, and presence of neonatal clinical signs were associated with infection. There were 1,217 infants whose mothers received intrapartum antibiotics and 1,568 whose mothers did not. Compared to infants whose mothers were not treated, infants of treated mothers were more likely to be asymptomatic and less likely to be critically ill within 6 hours after birth.

It was also found that (1) use of epidural anesthesia is associated with a 0.5°F increase in maternal temperature, even after controlling for the presence of chorioamnionitis; (2) published ANC norms misclassify almost half of babies with infections; (3) increased risk of infection is seen when time of rupture of membranes exceeds 12 hours; and (4) widespread practice variation exists with respect to maternal and neonatal antibiotic treatment.

The data highlight the protective effect of maternal intrapartum antibiotics. In light of these data, current guidelines need to be revised. Evidence-based approaches should emphasize (1) careful assessment of infants in the first 24 hours after birth, (2) close attention to maternal risk factors, and (3) modification of ANC norms used to categorize infants as being at high risk for sepsis.

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NEWSLETTER IS LAUNCHED TO PROMOTE THE APPLICATION OF FINDINGS FROM MATERNAL AND CHILD HEALTH BUREAU-SUPPORTED RESEARCH

The first issue of a newsletter entitled *MCH Research to Practice* was published and distributed in September 1999. The newsletter's main objectives are (1) to foster the application of findings from research projects supported by the Maternal and Child Health Bureau (MCHB) to MCH practice, and (2) to explicate selected concepts in health services delivery that influence the organization and delivery of MCH services. The intended audience is primarily, but not exclusively, the state, county, and city directors of MCH programs and special health care needs programs. Each issue of the newsletter will consist of an article on a completed MCHB-supported research project or a concept paper.

The featured completed projects will be selected from those that have already been presented or that will be presented as part of the MCH Research Roundtables. Usually these completed research projects are published in peer-reviewed journals before being presented at MCH Research Roundtables. The Roundtable presentations are made by the principal research investigators, and the discussants are either subject matter experts, clinicians, or administrators.

The papers address new or rediscovered concepts that relate to the effective organization and delivery of MCH services. Because these concepts make intuitive sense, the approaches to health care delivery they advocate skyrocket in popularity

before there is scientific evidence that supports their use. By publishing these concept papers, *MCH Research to Practice* hopes to infuse a healthy dose of skepticism into a sometimes uncritical acceptance process. Some of the papers will be written by MCHB Research Branch staff or by National Center for Education in Maternal and Child Health staff. Others will be commissioned. ○

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Jolene Bertness, M.Ed., C.H.E.S.

RESEARCH PROJECTS TO BE PART OF CRISP BIOMEDICAL DATABASE

Arrangements have been concluded to place information on research projects funded by the Maternal and Child Health Bureau (MCHB), beginning with those funded in FY 2000, in the Computer Retrieval of Information on Scientific Projects (CRISP) Biomedical Database. Retrieval is expected to be fully operational in early FY 2001.

CRISP is a large, searchable database of information on federally funded biomedical research projects conducted at universities, hospitals, and other research institutions. Anyone with access to the Internet

can use CRISP to search for scientific concepts or emerging trends and techniques, or to identify specific projects and/or investigators. CRISP is updated weekly.

CRISP hosts two databases, one containing current awards and the other historical awards. Both can be searched by keyword with a number of modifiers. Records include grant number, PI name and title, project title, abstract, institution, and project period dates. The database, maintained by the Office of Extramural Research at the National Institutes

of Health (NIH), includes projects funded by NIH, Substance Abuse and Mental Health Services Administration (SAMHSA), Health Resources and Services Administration (HRSA), Food and Drug Administration (FDA), Centers for Disease Control and Prevention (CDC), Agency for Health Care Research and Quality (AHRQ), and the Office of Assistant Secretary for Health (OASH). The CRISP Web site address is <http://www.commonscit.nih.gov/crisp/>.

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Research Roundtable Presentations

Research Roundtable #27

Development of Monitoring Methods for Perinatal Outcomes

September 9, 1999

Presenter: Patricia O'Campo, Ph.D., Associate Director, Department of Maternal and Child Health, Johns Hopkins School of Hygiene and Public Health Reactor: Frances Mather, Ph.D.

Assistant Dean of Academic Information Systems and Associate Professor, Department of Biostatistics, Tulane University School of Public Health and Tropical Medicine

Research Roundtable (special presentation)

African-American Adolescent Mothers, Their Babies, and Their Babies' Fathers

January 27, 2000

Presenter: Maureen Black, Ph.D., Professor, Department of Pediatrics, University of Maryland School of Medicine

Reactors: Charletta Ayers, M.D., M.P.H., Assistant Professor, Department of Obstetrics, Gynecology, and Reproductive Sciences, University of Medicine and Dentistry of New Jersey, Robert Wood Johnson Medical School, and Yvonne Bronner, Sc.D., R.D.,

L.D., Director, M.P.H. and Dr.P.H. Program, Morgan State University

The National Center for Education in Maternal and Child Health (NCEMCH) at Georgetown University works through a cooperative agreement with MCHB to coordinate the Research Roundtable Series. Summaries of these and other past Research Roundtables may be downloaded as PDF documents from NCEMCH's Web site at www.ncemch.org/research/roundtable. If you wish to receive announcements about upcoming Research Roundtables, please contact Jolene Bertness by phone: (703) 524-7802; fax: (703) 524-9335; or e-mail: jbortness@ncemch.org.

Jolene Bertness, M.Ed., C.H.E.S.

NEW RESEARCH PUBLICATIONS

Maternal and Child Health Research Program: Completed Projects 1994-96 is currently available. This publication features abstracts of projects for which investigators submitted final reports in 1994-96, as well as a description of the publications, presentations, and abstracts generated by each project.

A companion volume, *Maternal and Child Health Research Program: Active Projects FY 1996 and FY 1997*, is also now available. This book contains summaries of research projects funded in FY 1996-97 as well as a pre-award evaluation synopsis of each project newly approved during those years.

These publications are available at no charge. To order, please contact the National Maternal and Child Health Clearinghouse (NMCHC) at phone: (888) 434-4MCH or (703) 356-1964; fax: (703) 821-2098; or e-mail: nmchc@circsol.com. The publications may also be ordered from the NMCHC Web site at www.nmchc.org.