



Center on Media and Child Health

www.cmch.tv

Children's Hospital Boston
Harvard Medical School
Harvard School of Public Health



Annual Report
2004

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CHILD HEALTH IN THE INFORMATION AGE— THE MISSION OF CMCH

There is a diffuse, but widespread and growing sense of unease among parents, teachers, and community leaders about the effects of television, video games, movies, music and Internet on children and adolescents. Those who care for children are aware of the increasingly violent content of entertainment targeting young people – and of the aggressive, antisocial talk and behavior that children and adolescents perceive as normal, even attractive. They see children spending more time with media than with parents or teachers, and they worry about the influence of media on young people and their future. Many feel that media choices for youth are inappropriate, even harmful, but they feel helpless against media's pervasive influence and unsure about what to do for children.

Children are exposed to a remarkable amount of media. Young people between eight and 18 years old spend almost eight hours a day, every day, with media, and two-thirds of them have a television in their bedroom. More American homes have five or more televisions than have one. In the Information Age, even children multi-task with two or more media simultaneously. They are awash in images and ideas that even adults would have had difficulty accessing only a few years ago. Parents are concerned, teachers are frustrated, and policy makers want a solution. Unfortunately, however, there has been little access to facts to inform the development of media use strategies that can optimize the healthy and safe development of children.

Given the high level of exposure experienced by children in 2004, media are arguably the most powerful environmental influence on young people's physical, mental and social health. As an innovative response to this environmental health issue, the Center on Media and Child Health (CMCH) was founded in 2002 through the foresight and generosity of The Anschutz Foundation, BBDO Worldwide, Cinemark USA, Hallmark Corporate Foundation and PepsiCo Foundation. Rather than getting bogged down in the values debate, CMCH is bringing the scientific expertise of Children's Hospital Boston, Harvard Medical School, and Harvard School of Public Health to bear on this issue. Solid scientific data on the ways that media affect children can be used to make informed risk-benefit decisions about their media use, just as we use research to make decisions about what to feed, how to educate, and how to protect the children for whom we are responsible.

The mission of the Center on Media and Child Health is to conduct and advance scientific research, develop and evaluate clinical interventions, and educate children, parents, and the public on the subject of media and their effects on the physical, mental, and social health of children and adolescents. CMCH sees media as a powerful tool, which can be used to enhance life and promote health or, when used without thought, can cause harm. As we accelerate into the Information Age, we seek to bring the expertise of multidisciplinary health research to bear on this issue, in collaboration with media producers and other stakeholders, and to offer to the public our findings about the positive and negative effects of media so that we can all enjoy media thoughtfully, safely and in good health.

Major CMCH Accomplishments in 2004

Thanks to the generous financial and “in kind” support of our founding donors, we are proud of accomplishing the following critical CMCH start-up goals in 2004:

- Recruitment of a synergistic team with interdisciplinary expertise in media and child health
- Creation of the only comprehensive database of multidisciplinary research on media and child health and presenting it at www.cmch.tv
- Identification of CMCH research agenda
- Application for research grants and initiation of fundraising for specific projects
- Acquisition of a Congressional direct appropriation to initiate media violence brainmapping research
- Collaboration on the development and introduction of the Children and Media Research Advancement legislation (CAMRA, S. 2447) in the US Senate
- Publication of original CMCH research
- National recognition of CMCH and public dissemination of its findings

Building the CMCH Team

As the sole center of excellence that addresses the effects of media on children’s health through research, intervention, and education, the strength of CMCH lies in the people, ideas, and hard work that drive the CMCH mission. Over the past year, the CMCH team has been developed and structured to perform as a collaborative, productive, and cost-effective unit.

- **Michael Rich, MD, MPH**, Director of CMCH, brought his expertise in pediatrics and public health research together with his years of experience in the film industry to gather a group of talented and motivated individuals who complement each other’s work and synergize well. He has attracted a powerful mix of the best young thinkers and established leaders in the media effects field.
- **Amy Branner** (Communication Studies), Administrative Director, has recently joined CMCH from the Annenberg Public Policy Center at the University of Pennsylvania, where she served as the Research Manager for the Children’s Media Use Study, a major survey for the Centers for Disease Control and Prevention (CDC) and RTI International, which investigated the environmental and psychosocial determinants of children’s media use. Amy brings to CMCH energy and experience in allocating human and capital resources efficiently, organizing disparate elements of complex projects, and keeping researchers and staff productive and on schedule.
- **John P. Murray, PhD** (Developmental Psychology), Visiting Scholar, is a long-established researcher and thinker in media effects. He was one of the authors of the watershed 1972 report on television violence from the US Surgeon General and of “Big World, Small Screen,” the American Psychological Association’s 1982 report that became one of the “bibles” of the media effects field. Dr. Murray and Dr. Rich testified together on Capital Hill regarding the potential of functional MRI brainmapping as a tool for finding biological correlates for behavioral changes observed when young

people watch violent media content, securing a direct Congressional appropriation to advance this research at CMCH. Dr. Murray is one of the editors of the forthcoming *Children and Television: Fifty Years of Research* and will be collaborating with Dr. Rich and Michael Rivkin, MD, a neurologist at Children's, on brainmapping real-time responses of children to different media content.

- **Ronald Slaby, PhD** (Psychology, Education), Senior Scientist, is a long-established expert in the area of youth violence, media effects and violence prevention programs. A long-time member of the Harvard Graduate School of Education faculty, Dr. Slaby is now based at CMCH and the Educational Development Center, a research group in Newton, MA. Dr. Slaby is completing an evaluation of media literacy programs implemented by The Eastern (Massachusetts) District Attorney as a deterrent to crime and will be developing research and intervention programs and their evaluations at CMCH.
- **Marie Evans Schmidt, PhD** (Developmental Psychology), Post-Doctoral Research Fellow, came to CMCH from undergraduate studies with Dr. Sandra Calvert at Georgetown University and doctoral training under Dr. Daniel Anderson at the University of Massachusetts. Dr. Schmidt's interest is in the effects of media in early childhood. The American Academy of Pediatrics has recommended no screen media by children under the age of two years to optimize their brain development. Dr. Schmidt has developed a research project on parents' attitudes and strategies regarding media use by their children from birth to two years. She has written two grants to support this project and, should it receive funding, plans to implement it in the Children's Hospital pediatric clinics during 2005.
- **David Bickham, PhD** (Sociology), Post-Doctoral Research Fellow, recently joined CMCH after completing his doctorate at the University of Texas, under the tutelage of Dr. Elizabeth Vandewater, Dr. Ellen Wartella, and Dr. Aletha Huston. He has special knowledge in structural equation modeling, a statistical technique for determining the strength and direction of various influences on human behavior. He will be analyzing the Panel Study on Income Dynamics, a major dataset that collected media use and outcomes in several waves over more than a decade. In his initial research project, Dr. Bickham will be looking at the associations between media use, social isolation, bullying, and depression.
- **Brandy King, MLIS**, Librarian/Information Specialist, developed and oversees the CMCH Database of Research, a comprehensive, easily accessible library of the existing research, theory, and scholarship on media and their effects, positive and negative, on health. She has worked tirelessly on the design and function of the CMCH website where the library is housed (www.cmch.tv), creating an easily accessed resource for parents, teachers and the general public, as well as researchers and clinicians. Brandy's innovative and perceptive information research has been instrumental to many of the research publications, grant proposals, and educational presentations of CMCH over the past year.

In addition to forming a center of excellence with a strong internal team, CMCH has fulfilled another goal of becoming a recognized “go to” center for media effects research, developing promising extramural collaborations over the past year. As part of their work for an NIH workgroup convened to design the media research component of the National Children’s Study, Dr. Rich worked with Dr. Daniel Anderson and Dr. Elizabeth Vandewater to develop an intervention arm to the overall epidemiological study of media effects on children from birth to 21. If funded, this arm would be pursued at CMCH, with researchers from the Universities of Texas (Vandewater) and Massachusetts (Anderson) as Co-Investigators. Dr. Vandewater has also asked Dr. Rich to collaborate as a consultant on a five-year research project on the context of media use in the family. Dr. Joanne Cantor, University of Wisconsin, is collaborating with Dr. Rich on a paper for the pediatric literature, examining children’s fear response to violent media and its persistence into young adulthood.

Finally, during the past year, we have invited a group of national leaders to serve CMCH as our Advisory Board. Donald Goldmann, MD, Professor of Pediatrics at Harvard Medical School and internationally renowned expert in health services research will chair the group, whose members include Gary Dixon of the Foundation for a Better Life, S. Jean Emans, MD, Professor of Pediatrics and Chief of the Division of Adolescent Medicine at Children’s Hospital Boston, Michael Flaherty, President and Co-Founder of Walden Media, Carden Johnston, MD, President of the American Academy of Pediatrics, John Nelson, MD, President of the American Medical Association, Steve Reinemund, Chairman and CEO of PepsiCo, Andrew Robertson, Chairman and CEO of BBDO Worldwide, and Ellen Wartella, PhD, Executive Vice Provost of the University of California, Riverside, and a leading media effects researcher. David Wright, Vice President of Governmental Affairs of PepsiCo, is Vice Chair of the Advisory Board, with special focus on outreach to governmental, corporate, and private sectors, while Dr. Goldmann will focus on the medical, public health, and academic communities. The first CMCH Advisory Board meeting, to review progress and discuss future directions, will convene on November 8-9, 2004 at the Harvard Club in Boston.

Development of Web-based CMCH Database of Research

The key initial project of CMCH has been the collection, organization, cataloguing, and systematic review of the extant literature on the subject of media and child health. The first project has focused on media violence, where the strongest and broadest research has been done to date. This “library” is available on the CMCH website (www.cmch.tv), and went live in October, 2004 for use by children, parents, teachers, and policymakers, as well as by researchers, clinicians, educators and other professionals interested in the subject.

The CMCH Database of Research offers exciting possibilities for completely transforming the field of media and child health. Often obscured and discounted in the din of controversy, a large body of scientific evidence on media effects has been generated by a broad range of academic disciplines. The ability to see the extant research data as a whole will allow researchers, clinicians, educators, parents, media producers, and the public to “see the big picture”—determining what we know, how those pieces fit with each other, and what needs to be researched further and better understood.

- *Database Development* – Establishment of a master database for all identified citations in the fields of medicine, psychology, communication, education, public

health, criminal justice, social work, sociology, anthropology and gender studies. This master database currently holds over 7,000 citations of journal articles, books, book chapters, and technical reports. The database has been significantly enhanced since our 2003 annual report, when it was still being piloted and only contained 133 citations.

- *Citation Cataloging Process* – Before a citation can be posted on the website, it undergoes the important process of adding the most information possible to the record:
 - A CMCH Synopsis is written for the general public, providing an overview of the study.
 - A CMCH Abstract is written, providing researchers with a formatted account of the study, detailing methods and results.
 - Keywords/subject headings are added to the record by library staff to allow for more accurate subject searching.
 - Age group categories and study design types are added to help the user narrow a search.
 - The source of funding for the paper is also added to the record, so that researchers may be able to identify which organizations are most likely to fund research in this area.

The Database of Research currently posted on the website contains a selected group of 200 key research articles that have been catalogued, cross-indexed, and had keywords, CMCH Synopses and Abstracts attached.

- *Semantic Search* – The Jarg Corporation has generously donated their time and expertise to partner with CMCH in developing a semantic search mechanism. The first step is to create an ontology comprised of selected terms from both the Unified Medical Language System (UMLS) and CMCH keywords with our unique definitions. The terms are given definitions, assigned to a category, and related terms are identified. As users search the CMCH Database of Research, Jarg technology will reference the ontology and find citations based on the meaning of their question, rather than exact text matches. For example, if a parent entered the question, “Should my 14 year old daughter be playing *Grand Theft Auto*?” a regular search engine would look for citations containing the words: 14, daughter, playing, Grand Theft Auto. The Jarg technology will go into the ontology and find the meaning behind that question. It would search for terms such as: teenager, adolescent, daughter, girl, video game playing, and first-person shooter games. This technology will allow searchers to use their own language to locate research articles of interest to them. The final stages of building the ontology are in process, and the Semantic Search feature will be available on the CMCH website in November 2004. More product information and a demo is available at <http://www.jarg.com/>.
- *Development of CMCH Review Protocol* - Creation of a protocol for the systematic review of all research papers so that they are subject to the same criteria for scientific rigor and validity, thus “leveling the playing field.” For the first time, findings from different disciplines pursuing this field of research can be compared side by side.

Based on the well-established Cochrane Collaborative criteria that are used as the basis for evidence-based medicine, systematic review ratings of each research paper will be reported in the CMCH research database so users will be able to understand the value and strength of any individual piece of research in relation to all others. Development of a web form for data entry is in process; reviewers began examining papers in mid-October, 2004.

CMCH Research Agenda

CMCH has four key research initiatives that include current funded research and plans for research to be initiated.

- ***Media's Mechanism of Action – How do media influence health-related attitudes and behaviors in children and teens?***
Brainmapping - A pilot study by CMCH Visiting Scientist, Dr. John Murray, used functional magnetic resonance imaging (*fMRI*) to provide initial evidence that normal children have unique brain responses to viewing violence. Activation of the amygdala, prefrontal cortex, posterior cingulate, hippocampus and parahippocampus areas of the brain that were not active during the viewing of non-violent material, indicated emotional arousal, detection of threat to survival, activation of the pre-motor (action) centers, and long-term memory storage of violent images. With support from a direct Congressional appropriation, resulting in a Department of Health and Human Services grant, Dr. Murray, along with Drs. Michael Rich and Michael Rivkin, are expanding on these initial findings by studying 60 children in three cohorts: typically developing children, those who have diagnoses of aggressive behavior, and those who have been victims of violence. By studying the neurobiological responses of children who have had differing experiences with violence, we anticipate that we will be able to assess the biological bases for the observed behavioral changes of desensitization, anxiety, and increases in aggressive behavior in children after viewing media violence.
- ***Intervention – How can we intervene on negative health outcomes from media exposure?***
Media Literacy as Health Intervention – Pilot studies have indicated that children are able to protect themselves from the negative effects of media exposure when they are media literate, critical consumers of media. Even six weeks of media literacy training with reductions of media use has shown decreases in aggressive behavior between school children and stabilization or decreases in Body Mass Index, a key indicator of obesity. Subject to funding of current grant applications, Dr. Slaby and Dr. Rich will develop, implement, and evaluate a media literacy curriculum for elementary and middle schools as an intervention on the negative health effects of media. They have developed a collaborative relationship with a greater Manchester, NH community coalition consisting of the health department, medical providers, school, police, and after school programs. With a media equivalent of the landmark Framingham Heart Study, they plan a longitudinal, “natural laboratory” study of young people in urban, suburban, and rural settings in which they can investigate the long-term effects of media exposure as well as media literacy interventions.

- **Prevention** – *What tools and techniques can help prevent negative effects from media exposure?*

Developing and Evaluating Interventions by Pediatricians – Experience suggests that parents and children may most effectively change negative health-related behaviors after discussion and advice from the child's pediatrician. For example, when advised to use car seats or bike helmets, most parents do so. CMCH researcher Marie Evans Schmidt, PhD will conduct a pediatric clinic-based study of parents' attitudes and policies toward media exposure for children from birth to four years of age. Determining the level of pediatrician and parent involvement in children's media use, researchers will develop and test pediatric interventions that parents can implement at home. Dr. Rich is working with the American Academy of Pediatrics (AAP) to survey its 55,000 pediatrician members across the United States to determine how much they know about the issue of media exposure and its associations with child health, and how effectively pediatricians implement this knowledge in the clinical setting. Finally, Dr. Rich will continue his surveys of postgraduate clinical training programs in pediatrics ("Child Health in the Information Age" *Pediatrics*, 2001), child psychiatry, family practice and related fields to determine the media education received by clinicians in training.

- **Positive Uses of Media** – *How can we use the power of media in ways that benefit young people and improve their health and well-being?*

In addition to research on the effects of media on child health, CMCH seeks to build on what it learns and develop positive uses of media that promote the well-being of children with these separately funded projects:

Video Intervention/Prevention Assessment (VIA) – Dr. Rich created and implemented VIA, an award-winning, innovative, media-based health research methodology that gives children and adolescents the tools to take control of their medical situations and teach their clinicians what they need (*Journal of Adolescent Health*, 2000; *International Journal of Social Research Methodology*, 2002). Using camcorders, participants create personal illness narratives about their experiences with asthma, obesity, disability, and other conditions. Researchers can then analyze these video narratives from the perspectives of medicine, psychology, clinical social work, and anthropology—gleaning unique insights from the patient's perspective. Publications resulting from VIA research have yielded unique valuable insights related to how children visualize their worlds and life experiences (*Visual Sociology*, 1999), their experiences living with asthma (*Pediatrics*, 2000), illness as a social construct (Joint Commission Journal on Quality Improvement, 2000), and explanatory models of chronic disease (*American Journal of Health Behavior*, 2002). Dr. Rich will continue to develop the research, educational, and advocacy applications of VIA, now in the fifth year of an NIH-funded longitudinal study of young people with chronic medical conditions, spina bifida, sickle cell disease, cystic fibrosis and HIV, and their transition to adulthood and adult-oriented care. He and the VIA research team are analyzing and developing audiovisual materials from completed VIA projects on asthma and obesity as training tools for clinicians and education for patients and parents.

Producing Health-Positive Media for Children – Media represent a pervasive and persuasive presence in the lives of children. CMCH works with media producers to develop concepts, write scripts, and produce film, video, and interactive media products that positively educate and empower kids about their health and enhance their well-being. As an example, Dr. Rich wrote and co-produced “Relieve the Squeeze,” a video with Danny DeVito and Nia Long that teaches young people with asthma how they can take control of their disease. He is currently working with Jonathan Meath, producer of “Zoom” and other educational series for children, to develop future media projects that can enhance and promote the mental and physical health of children.

CMCH Year Three Goals

- Increase national awareness of CMCH and its work through a national symposium, “Media and Child Health: Peril or Promise” planned for Spring, 2005.
- Increase efforts to broaden funding base under the guidance of the Advisory Board.
- Distribute a monthly eNewsletter to CMCH funders, collaborating scientists, and other interested parties (edited by Amy Branner).
- Continue collecting, cataloguing, synopsising, and systematically reviewing research on media and child health, and mounting the literature on the CMCH Database of Research on a monthly basis (supervised by Dr. Schmidt and Dr. Rich). Systematic reviewers, abstract and synopsis writers are graduate students in public health and psychology who are specially trained in CMCH abstract writing and review procedures.
- Pursue four key CMCH research initiatives: 1) Mechanism, 2) Intervention, 3) Prevention, and 4) Positive Uses of Media:
 - Dr. Murray (Principal Investigator) and Dr. Rich (Co-Investigator) will finalize protocol and initiate fMRI brainmapping study.
 - Dr. Slaby (PI) will complete manuscripts for professional journals detailing the results of the Flashpoint media literacy intervention. Based on these findings, Drs. Slaby and Rich will develop a media literacy curriculum that will serve as the basis for the Intervention project to be set in the greater Manchester, NH region. They will develop the Intervention study protocol and prepare an NIH grant proposal (R01), as well as explore funding from the Department of Justice and private foundations.
 - Dr. Schmidt (PI) will implement a baseline survey of media exposure with parents of young children in Children’s Hospital Boston’s primary care clinics.
 - Dr. Bickham (PI) will initiate study examining the relationship between media use and bullying.
 - Dr. Rich will conduct survey of 55,000 AAP pediatricians to investigate their knowledge of and interventions on media effects on child health and complete studies of child psychiatry and family practice training in media education.
 - Dr. Rich will seek additional funding to continue VIA research and to develop other media that promotes and enhances child and adolescent health.

Education, Outreach, and Translation of Research into Policy

An important part of the CMCH mission is to share our research on media and child health with those who can affect change: clinicians, researchers, policy-makers, business leaders, teachers, and parents. This will be done through meeting with individuals and organizations that are critical to communicating and implementing CMCH research, including the American Medical Association, the American Academy of Pediatrics, the American Psychological Association, the Writer's Guild of America, the Federal Trade Commission, and the US Department of Health and Human Services. CMCH is planning a research symposium and monographs for Spring 2005 to present the current state of research on media and child health. CMCH staff have presented at Congressional briefings as well as to various stakeholder groups on the subject of media and child health—networking with individuals and organizations that can affect change for children and adolescents.

CMCH Funding Initiatives

The focus of CMCH's early efforts was to broaden its base of financial support and seek funding for specific research projects. Working closely with the Children's Hospital Trust, the hospital's department responsible for philanthropic support, CHMC has sought foundation, corporate and individual support. To that end, Dr. Rich worked with the Trust to write a "case for support" of CMCH (see Appendix). Dr. Rich has also given a number of presentations on CMCH (see CMCH Publications and Presentations) to promote knowledge of and value in the work, and to solicit further support.

In February 2004, Dr. Rich and CMCH staff prepared a major grant proposal to the National Institutes of Health (NIH) for Interdisciplinary Research Center funding. We are awaiting the results of that proposal. CMCH prepared two proposals to the Centers for Disease Control and Prevention (CDC) for cooperative projects with the CDC on media violence, one for the brainmapping study and another for a media ratings study. These grants were not funded. To support the research on pediatricians' and parents' roles in preventing negative effects of media exposure, Dr. Marie Evans Schmidt submitted "Predicting Infant Media Use from Parent's Health Beliefs" to NIH on August 5, 2004, as an F32, Postdoctoral Fellowship application, with Dr. Rich as her mentor, and submitted "Parents' Health Beliefs and Infant Media Use" to NIH on October 1, 2004, as an R03 grant application.

Dr. Rich played a prominent role in developing the Children and Media Research Advancement (CAMRA) bill with its sponsors, Senators Joe Lieberman, Sam Brownback and Hillary Clinton. He was one of the key speakers at the introduction of the CAMRA bill on May 19, 2004. This bill authorizes \$90 million in grant funding from the National Institute of Child Health and Human Development over five years to assess the status of our knowledge on media and child health and to support important new research in this field. As CMCH is the only research group dedicated to the subject of media and child health, the CAMRA legislation has particular applicability to our work and will therefore be followed closely.

At the request of Senator Sam Brownback, Dr. Rich prepared requests for direct appropriations from the Congress to support two CMCH research projects. In collaboration with Dr. John P. Murray, CMCH requested \$1 million for the initial phases of the CMCH brainmapping project. This request was successful in acquiring \$500,000 to start this study. Directed through the Maternal and Child Health Bureau, \$492,080 was sent to Kansas State University on September 30, 2004. Part of Dr. Murray's salary will be paid from this funding and the remainder is expected to be forwarded to CMCH to initiate this project. CMCH has directed a letter to Dr. Murray requesting \$385,504 as a minimum research subcontract to start this work, recognizing that this represents one-half of the funding necessary to complete this research project. Senator Brownback remains confident that the additional \$500,000 will be forthcoming during the next Congressional session.

At Senator Brownback's request, Dr. Rich also requested \$1.7 million to develop, implement and evaluate an elementary and middle school-based media literacy intervention to be piloted and evaluated in Manchester, NH. Once piloted and tested, this program may be implemented on a national basis. This request will be addressed during the next government budget cycle. Tom Crawford of the C2 Group in Washington, DC has generously offered his services in facilitating our efforts to ensure passage of the CAMRA bill and to obtain further appropriations for our work.

Finally, it is the long-term goal of CMCH to achieve sustainability and stability. Once our start-up period is secured and initial projects are funded, we must focus on strategies for developing an endowment to ensure the future of CMCH and its work.

CMCH STAFF BIOGRAPHIES

Director: Michael Rich, MD, MPH

Dr. Michael Rich, Assistant Professor of Pediatrics at Harvard Medical School and Assistant Professor of Society, Human Development and Health at Harvard School of Public Health, came to medicine after a twelve-year career as a filmmaker (including serving as assistant director to Akira Kurosawa on *Kagemusha*). His current areas of health research and clinical work bring together his experience and expertise in medicine and media. Cognizant of the potency of the image and the primacy of media as a source of information and influence, Dr. Rich studies media as a force that powerfully affects child health and health behavior and uses it as a tool for medical research, education, health care policy, and patient advocacy.

Graduating from Pomona College where he double majored in English and Film in 1977, he attended Harvard Medical School (MD, 1991) and Harvard School of Public Health (MPH, 1997). Bringing his media expertise to bear on the issue of child health, Dr. Rich developed and directs Video Intervention/Prevention Assessment (VIA), a research methodology in which patients who share a medical diagnosis or health risk factor make video diaries of their lives, visual illness narratives that are studied for factors in their day-to-day activities and environments that contribute to their condition. Based on studies using VIA to research how children really experience asthma and obesity, Dr. Rich has authored numerous papers including the first video-illustrated research paper ever published by *Pediatrics*.

Dr. Rich received the New Investigator Award from the Society for Adolescent Medicine for his development of VIA and the research resulting from it. He received five years of funding

from the National Institute of Child Health and Human Development (NICHD) to further refine the VIA method in a longitudinal study of young people with disabling conditions as they transition to the adult health care system. In addition, Dr. Rich wrote and co-produced a short film starring Danny DeVito and Nia Long that used humor and drama to educate and empower children and adolescents to take control of asthma. Dr. Rich has an established reputation for investigating the negative health effects of media exposure, having authored research papers examining the portrayals of interpersonal violence and substance use in music videos, and several chapters in key texts. He has been elected a member of the prestigious Society for Pediatric Research, a Fellow of the Society for Adolescent Medicine, and a Fellow of the American Academy of Pediatrics (AAP). He has authored communications to the AAP membership on media issues, including policy statements on media violence and a well-publicized 1999 AAP policy statement on media education as a public health intervention. Dr. Rich has served as a member of the AAP media leadership group, the Committee on Public Education, and has authored and presented testimony to the US Congress and other legislative bodies. He was a contributing author of the Children and Media Research Advancement (CAMRA) bill introduced by Senators Hillary Clinton, Sam Brownback, and Joe Lieberman in May, 2004.

Dr. Rich oversees all aspects of CMCH work – research, education, and media production. He is Principal Investigator (PI) of Video Intervention/Prevention Assessment (VIA), funded by the National Institutes of Health (NIH) and Co-Investigator (Co-I) on the Media Literacy Intervention and Brainmapping studies.

Administrative Director: Amy Branner

Amy Branner developed her interest in media content, production and effects at the University of Missouri-Columbia. Under the guidance of Dr. Mary Jo Neitz and Dr. Peter Hall, she examined the content and production of mainstream and feminist print media since the women's movement. After receiving B.A.'s in Sociology and Interdisciplinary Studies, and an M.A. in Sociology, she moved to the Annenberg School for Communication at the University of Pennsylvania to pursue her doctorate in media and culture under Dr. Larry Gross. Since that time, her interests have continued to expand. She began conducting evaluations of youth development programs at Public/Private Ventures in Philadelphia. She then moved toward investigating media effects on children while working on several studies with Dr. Amy Jordan at the Annenberg Public Policy Center. Most recently, she served as Research Manager for the Children's Media Use Study. The project, a collaborative effort with RTI International and the Centers for Disease Control and Prevention, examined the psycho-social factors that contribute to children's television, video game and computer use in three U.S. communities and considers options for interventions that could reduce this sedentary behavior.

Visiting Scientist: John P. Murray, PhD

Dr. John Murray is a Professor of Developmental Psychology and the former Associate Vice Provost for Research and Director of the School of Family Studies and Human Services at Kansas State University. He is a Fellow of the American Psychological Association and recent President of its Division of Child Youth and Family Services. Dr. Murray's interest in television and society is reflected in nearly 30 years of research, teaching and public policy concerning children, youth and families. In the late 1960's and early 70's, Dr. Murray served

as Research Coordinator for the Surgeon General's Scientific Advisory Committee on Television and Social Behavior at the National Institute of Mental Health. This work resulted in the first Surgeon General's report on television violence in 1972. Subsequently, he taught in the School of Behavioral Sciences at Macquarie University in Sydney where he conducted research on the effects of the introduction of television in the Australian "outback." His concern about the impact of television has continued during appointments at the University of Michigan, the Boys Town Center for the Study of Youth Development, and Kansas State University. Over the years, Dr. Murray has produced 10 books and more than 80 articles on children's television, including the 1980 reference book, *Television and Youth: 25 Years of Research and Controversy*, the 1992 American Psychological Association review, *Big World, Small Screen: The Role of Television in American Society*, and a 1994 overview of television violence research published in the *Hofstra Law Review*, as well as an encyclopedia entry on Media Effects in the new American Psychological Association *Encyclopedia of Psychology*. Forthcoming is *Children and Television: Fifty Years of Research*, a comprehensive overview of a half century of research on our most pervasive media form, which he co-edited with Ellen Wartella and Norma Pecora. His continuing research on TV and children is focused on neuroimaging of children's brain activations while watching televised violence, work that he is advancing during his year as CMCH Visiting Scholar. Finally, in addition to his interests in media and children, Dr. Murray has published two recent books on the role of public policy training in graduate education in the human services: *Applied Developmental Science: Graduate Training for Diverse Disciplines and Educational Settings* and *Social Change, Public Policy and Community Collaborations: Training Human Development Professionals for the 21st Century*.

Post-Doctoral Research Fellow: Marie Evans Schmidt, PhD

Dr. Marie Evans Schmidt began studying the effects of media on children as an undergraduate at Georgetown University, where she worked with Dr. Sandra Calvert. After graduating magna cum laude from Georgetown with a BA in Psychology and English, she received a PhD in developmental psychology from the University of Massachusetts at Amherst, under the mentorship of Dr. Dan Anderson. She has served as an assistant professor of cognitive development at Hampshire College and as a consultant to Sesame Workshop. Her research interests include: preschoolers' understanding and use of symbolic media; the effects of television on infants and toddlers' cognitive development; how environmental factors like media exposure influence the development of attention in children; and the development of interventions on unhealthy media use by very young children. Dr. Schmidt is Program Coordinator for the systematic review of the research papers in the CMCH database. She is completing a research manuscript on media effects in early childhood and is developing an intervention for young children in primary care clinics at Children's Hospital Boston.

Post-Doctoral Research Fellow: David Bickham, PhD

Since Dr. David Bickham's first empirical endeavors as an undergraduate at Haverford College, his research has focused on the changing effects of media throughout the course of children's development. His research agenda was thoroughly developed through his training at the Center for Research on Interactive Technology, Television and Children at the University of Texas, where he studied with Drs. Aletha Huston, John Wright, Ellen Wartella, and Elizabeth Vandewater. His work to date ranges from an examination of the

effects of television rating systems on children's viewing preferences to an exploration of the academic outcomes linked to children's educational and non-educational media use. Currently, he is developing an integrated model of the social effects of media use that posits the relations between exposure to violent and non-violent television and video games and successful peer integration as well as maladjusted social behaviors, such as bullying, isolation, and depression.

Senior Scientist: Ronald G. Slaby, PhD

Dr. Ron Slaby is a developmental psychologist who has served Harvard University for 25 years as Associate Professor, Lecturer on Education and Pediatrics, and National Merit Fellow. He has developed and taught innovative courses, including "Growing Up in a Media World" and "Preventing Violence in America." He currently serves as Research Associate at Harvard Medical School and Senior Scientist at Education Development Center. Through his research, Dr. Slaby has made major contributions to our understanding of media influences on children, gender role development, and the prevention of youth violence. He has led media research in new directions through his pioneering investigations of television effects on infants, the influence of children's gender concept on their media behavior, sponsors of television violence, and media literacy interventions with juvenile offenders. Dr. Slaby has coauthored national reports on violence prevention for the Centers for Disease Control and Prevention and the American Psychological Association. He has presented testimony to the US Senate on the prevention of youth violence, to the Federal Trade Commission on television advertising effects on children, and to the US House of Representatives on television violence effects and remedies. Having worked with several of the creators of Sesame Street, Dr. Slaby has expertise with strategies for enhancing the educational value of children's media. He has served on children's media panels for the National Endowments for the Humanities and the Arts, the Corporation for Public Broadcasting, and the American Children's Television Council. As an educational media advisor, Dr. Slaby has contributed to the design, production, and content of many highly acclaimed television program series, family films, videos, and CD-ROMs, including: Shining Time Station (with Ringo Starr & George Carlin); Thomas and the Magic Railroad (with Peter Fonda & Alec Baldwin); Noddy; The Longhouse Tales; Zoboomafo; CNN Newsroom; Parenting Works; Think -- Violence is for People Who Don't; Bullying: Bystanders Can Make a Difference; and Long Ago & Far Away (with James Earl Jones). For his distinguished contributions to the field of educational psychology, Dr. Slaby was elected Fellow by the American Psychological Association. Dr. Slaby is Principal Investigator of program evaluation for the Eastern District Attorney's Flashpoint media literacy initiative and a lead investigator of the CMCH Media Literacy Intervention project.

Database Librarian/Information Specialist: Brandy King, MLIS

Brandy King became interested in the study of media effects through her undergraduate coursework in Women's Studies at Smith College, where she attended lectures by Jean Kilbourne and Sut Jhally, both of whom have examined media's portrayal of gender. By combining majors in English and Women's Studies, she was able to examine the portrayal of women in literature across cultures and time periods. Ms. King went on to earn a Masters of Library and Information Science from Simmons College. She began working in the field of consumer health information through an internship at Brigham and Women's Hospital, where she provided reference services to patients and families at the Kessler Library. She is

currently combining her interests in digital libraries and consumer health by managing the Research Literature Database at the Center on Media and Child Health. Ms. King oversees the comprehensive literature search and information retrieval for the CMCH Database of Research and supervises the website/library interns.

Collaborating Scientist: Alison E. Field, ScD

Dr. Alison Field is an Assistant Professor at Harvard Medical School, with academic appointments in the Departments of Medicine and Psychiatry at Children's Hospital Boston and the Department of Medicine at Brigham and Women's Hospital, where she is a part of the Channing Laboratory. Dr. Field's research focuses on the causes, correlates, consequences, and course of overweight and disordered eating among children, adolescents, and adult women. Dr. Field has published over 40 journal articles and three book chapters. At present, her research bases are the approximately 116,000 adult women in the Nurses' Health Study II and 16,800 of their children who comprise the Growing Up Today Study. As part of her career development award from NIH, she assessed the consequences and correlates of weight cycling among women in the Nurses' Health Study II. Now, the majority of her research is focused on children and adolescents. She is a co-founder of the Growing Up Today Study, which was established in 1996 to assess the predictors of dietary intake, activity, and weight gain during a four-year period. Her research within the study is primarily related to the epidemiology of weight gain, weight concerns, weight control practices, and bulimic behaviors. She has published several papers on the role of the media in the development of weight concerns and weight control practices among preadolescent and adolescent girls and boys. She is the principal investigator on the NIH grant to continue following the Growing Up Today Study cohort from 2002 to 2007 to investigate determinants, including media influences of binge eating, purging (i.e., use of vomiting or laxatives) and eating disorders of at least subsyndromal severity. In addition, Dr. Field is the principal investigator of a NIH grant to assess the relationship between weight control behaviors and weight change among young adults in the National Longitudinal Study of Adolescent Health. In collaboration with CMCH, Dr. Field is developing media and health research projects relating to body image and eating disorders.

Collaborating Scientist: Richard Chalfen, PhD

Dr. Richard Chalfen is Emeritus Professor of Anthropology at Temple University in Philadelphia. Previously, he served as Chair of the Anthropology Department, earned an appointment as a Teaching Fellow in the College of Liberal Arts, and served as Adjunct Professor of Asian Studies and American Studies at Temple. Dr. Chalfen was appointed the William Valentine Cole Visiting Professor of Sociology/Anthropology at Wheaton College in Norton, MA. He is best known for his cross-cultural work in indigenous media, specifically for developing the field of Home Media Studies, integrating interests in visual culture, personal communication, and cultural anthropology. Dr. Chalfen has authored three books and 90 scholarly papers on visual anthropology and the uses and meaning of media in people's lives. He has undertaken fieldwork with the Navajo in Arizona, African American and Anglo American teenagers in Philadelphia, and Japanese American families in Los Angeles and Gallup, New Mexico. He has collaborated closely with Michael Rich, MD, MPH, since Video Intervention/Prevention Assessment (VIA) was started and will be a key collaborator on future VIA projects now that he will be in the Boston area full time. Currently, he is working with Japanese families living in Tokyo, Japan and contributing to the

emergence of an applied visual anthropology. He continues to lecture internationally and currently is on the summer faculty at Temple University Japan.

Chair, Advisory Board: Donald A. Goldmann, MD

Dr. Donald Goldmann is Professor of Pediatrics at Harvard Medical School and Professor of Immunology and Infectious Diseases at the Harvard School of Public Health. Dr. Goldmann's background in the epidemiology of health risk, pediatric patient safety, and his award-winning training programs in health services research have led him to his interest in media and its effects on health. Dr. Goldmann has more than 30 years of experience in infectious disease epidemiology and quality of care research. He serves as Medical Director of Health Outcomes in the Department of Medicine and Medical Director of Quality Improvement and Infection Control as well as a senior faculty member in the Center for Biopreparedness at Children's Hospital Boston. At the Centers for Disease Control and Prevention (CDC), he developed and refined methods for detecting and monitoring nosocomial infections and participated in the development of NNIS, a national surveillance system and database which serves as an international model for voluntary reporting of adverse events of hospitalization. Dr. Goldmann served on CDC's Hospital Infection Control Practices Advisory Committee and chaired the task force that developed national guidelines for vancomycin use. Using infection control as a model for quality assessment and improvement in developing countries, Dr. Goldmann and his colleagues have performed infection control training and research in diverse countries and cultures, including Russia, the Ukraine, Poland, Hungary, Brazil, Colombia, Mexico, Thailand, Indonesia, and the Philippines. He has an extensive publication and grants record in the area of hospital-based outcomes research. Dr. Goldmann is a co-investigator on the Harvard Centers of Excellence for Patient Safety Research (AHRQ PO1) and Center for Patient Safety in Neonatal Care (AHRQ DCERPS) and has played an important role in the Institute for Healthcare Improvement's "Breakthrough Series," serving as co-chair of the Medical Errors and Adverse Events collaborative, which involved more than 40 institutions. He is Program Director for the Harvard-wide Pediatric Health Services Research Fellowship, which includes both HRSA and AHRQ T32 NRSA Institutional Training Grants. This fellowship received the Outstanding Teaching Award of the Ambulatory Pediatric Association in 2003—the first research training program to receive this recognition. He is on the Executive Committee and serves as Chair of the Admissions Committee for the Harvard Medical School Scholars in Clinical Science K30 Training Program. He developed a Harvard Continuing Education Program in Nosocomial Infections and Hospital Epidemiology, which was ranked in the top 10 percent of Harvard continuing medical education courses. He has served on residency training committees at Children's Hospital for 20 years, has mentored more than 45 infectious diseases and health services research fellows (including three current K08 and K23 awardees), and has received the Charles Janeway Teaching Award at Children's Hospital Boston.

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Rich M. (October 2003). *Media and child health: peril or promise?* Second International Congress on Media, Mexico City, Mexico.

Jordan A, **Branner A**. (October 2003). *Representations of teenage girls in mainstream media*. Police Athletic League, Philadelphia, PA.

Chalfen R. (April 2004). *VIA as applied visual anthropology*. Visual Anthropology Seminar, Temple University, Philadelphia, PA.

Slaby R. (April 2004). *Bullying prevention*. Invited 3-Hour Seminar for SAMHSA Grantees, National Conference on Strengthening Our Future: Developing Healthy Children and Youth, Strong Families, and Safe Communities, U. S. Department of Health & Human Services, Kansas City, MO.

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Slaby R. (May 2004). *Youth development in Latin America and the Caribbean.* Invited Symposium Presentation, World Bank, Washington, D.C., May 2004.

Jordan A, Branner A. (May 2004). *Children and media: the good, the bad and the alternatives.* Penn Alexander School, Philadelphia, PA.

Rich M (June 2004). *Why we need research on the effects of media on child health.* Congressional briefing sponsored by CMCH in collaboration with the Kaiser Family Foundation, Washington, DC.

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Bickham DS (June 2004). *Children's media use and their social interactions.* Panel leader at the annual meeting of the International Communications Association, New Orleans, LA.

Murray JP (June 2004). *Children and televised violence: neuroimaging violence viewing.* The 7th Annual National Head Start Research Conference, Washington, DC.

Bickham DS (July 2004). *Differences in children's electronic game play and computer use across ethnic groups.* Panelist at the annual meeting of the American Psychological Association, Honolulu, HI.

Rich M (August 2004). *The effects of media exposure on sexual behavior: what we know, what we don't know*. Centers for Disease Control and Prevention and The Medical Institute for Sexual Health, Washington, DC.

Slaby R. (August 2004). *Aggressors, victims, and bystanders: thinking and acting to prevent violence*. Invited 2-day training workshop, Anchorage School District, Anchorage, AK.

Chalfen R (August 2004). *Looking a Japanese society: Hashiguchi George as visual sociologist*. Paper given at the IVSA (International Visual Sociology Association) Conference, San Francisco, CA.

Rich M. (September 2004). Health Media, Healthy Children Conference (panelist). Washington, DC.

Rich M (September 2004). *Media and child health: peril or promise*. World Congress on Mass Media and Mental Health. International Society of Psychopathology of Expression, World Psychiatric Association, Belmont, MA.

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[*These are unique stories only. Associated Press and Reuters articles that were published in papers nationwide are only listed once.*]

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MacPherson, K. (2003, October 30). Parents need to be savvier about media exposure, experts say. *Post-Gazette*.

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Bowman, L. (2004, Feb 18). Video game ratings don't tell whole story. *KnoxNews*.

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Wen, P. (2003, October 29). Over a third of youngsters found to have a TV in their room. *Boston Globe*.

Wetzstein, C. (2003, October 29). "Tuned in" toddlers need a TV timeout. *The Washington Times*.

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Flaim, D. (2004, July 19, 2004). Babies love TV, but that doesn't make it OK. *Newsday*.

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Meltz, B. (2004, May 13, 2004). What to say to kids about Iraq images. *Boston Globe*.

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Thorsen, T. (2004, Feb 18). Study: Teen-rated games feature mature content. *Gamespot*.

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Children's Hospital Boston

CENTER ON MEDIA AND CHILD HEALTH

Responding to a National Epidemic of Violence and Health-Risk Behaviors

VIOLENCE is the number one health threat for young Americans — trauma, homicide and suicide are three of the top five causes of death among teenagers. Acquired behaviors such as substance abuse, risky sex and poor nutritional habits also pose major risks to the physical and mental health of children and adolescents.

Powerful evidence points to popular media—TV, movies, video games, the Internet and music—as a major contributor to this national epidemic of violence and health-risk behaviors, whose roots develop in early childhood. In multiple surveys, children and teens indicate that media are among their most important teachers of what the world is like and how they should behave. When attractive role models in the media portray violence and other high-risk behaviors as “normal,” they are shaping the knowledge, attitudes and behaviors of young people. Initial research indicates strong associations between children’s exposure to media violence and anxiety, fears and sleep disturbances, increased aggressive thoughts and behaviors, and desensitization to the pain of others.

Children’s Hospital Boston, our nation’s premier pediatric facility and the primary pediatric teaching hospital of Harvard Medical School, has established the Center on Media and Child Health (CMCH) to lead the response to this national health crisis. With the start-up support of national and corporate leaders, the mission of the Center is to provide children, parents, health care professionals, educators and policy makers with preventive and interventional tools to counter violence and health-risk behaviors.

The Disturbing Facts

- The average American child 8-18 years old spends 6 hours, 43 minutes with media each day, more time than they spend in school or with parents.
- National TV Violence Study 1995-97: 61% of all programming contained violence, children’s programs were the most violent.
- The majority of children in 4th-8th grades chose violent video games as their favorites.
- The most popular video game this past holiday season was *Grand Theft Auto: Vice City*, which rewards players for paying a prostitute for sex, then killing her to get the money back.
- Eight year-olds exposed to high levels of TV violence were the most likely to be aggressive at age 18 and to have increased history of

A concentrated effort is now under way to attract significant funding to speed CMCH's pioneering efforts to protect the safety and wellbeing of our children.

CMCH—A Profile

Founded by Dr. Michael Rich, a leading specialist in pediatrics and adolescent medicine at Children's Hospital Boston, the Center on Media and Child Health is the nation's first academic center dedicated to *research, education* and *interventions* on health risks inherent in what children learn from media.

Research—pioneering discoveries to improve child health

Based at Children's Hospital, the Center will engage faculty at Harvard School of Public Health, Harvard Medical School, Harvard Graduate School of Education and other leading institutions. Using these resources, CMCH's research goals are to:

- Create a comprehensive evidence base that will aid in the development of interventions and public health initiatives.
- Devise a valid and consistent standard for defining violence so that content can be compared reliably and findings can be quantified and analyzed.
- Address important questions about how media affects the minds of young people and places them at risk for violence and other detrimental behaviors.

"Feeding Our Children's Minds"

"We protect our children by understanding and disclosing what we feed their bodies – we should bring the same level of scientific scrutiny to what we feed their minds," says CMCH's co-founder Dr. Michael Rich, a parent of teenagers who was a filmmaker for 12 years before starting his medical career. In addition to his clinical role at Children's Hospital, Dr. Rich is an Assistant Professor at Harvard Medical School and the Harvard School of Public Health

Intervention—developing a national model to empower children and families

Early research indicates that media literacy training can reduce school violence, from devastating school shootings to everyday bullying on playgrounds. By giving young people skills in critical media consumption, they were able to protect themselves from the negative effects of media violence, and schoolyard aggression was reduced by 25%. One of the Center's top priorities is the development of media education for youngsters of all ages and developmental stages, creating a model media literacy curriculum that can be replicated nationally.

Education—disseminating new knowledge and tools to protect our children

The Center will train those who educate, guide and care for young people—parents, health care providers, teachers and other professionals. CMCH staff will present their research findings at an annual symposium and at professional meetings, pediatric hospitals, educational

organizations and community groups; publish in professional journals and the popular press; and develop policy statements to help inform legislators and government agencies. Center staff will also develop media education curricula and train faculty of various graduate programs, including pediatrics, child and adolescent psychiatry, social work and education.

The Center's Progress

At its founding in 2002, a start-up fund was created to establish a research infrastructure that will generate results quickly. These funds are being used to meet the Center's immediate goals: to collect and catalog existing research on the relationship between media exposure and violence; organize the research in a comprehensive database; establish a website as the first definitive library of research for use by scholars, educators, parents, and advocates; and present a national symposium each year, reviewing the current state of knowledge about media violence and setting a future research agenda in media and child health.

To ensure the Center's immediate and long-term success, two volunteer boards are being established: a *Scientific Advisory Board* of nationally recognized researchers to oversee and advise on research decision-making and a *Governing Board* of national leaders to provide business and policy-making expertise.

Top Priority Projects

Thanks to previous studies, researchers have a reasonable grasp of children's exposure to media and how that exposure affects them. What is not fully understood are the biobehavioral mechanisms that link media influence and health-related attitudes and behaviors, and how to prevent and intervene in negative health outcomes.

Three major projects that top CMCH's program agenda are:

- Research - Using "Brain Mapping" to Understand Biobehavioral Responses to Media Content
- Intervention - Developing Protective Media Literacy in Children Ages 6-14
- Education - Devising an Objective, Scientifically Valid Media Rating System

Using "Brain Mapping" to Understand Biobehavioral Responses to Media Content

A pilot study conducted by a CMCH-affiliated researcher provided initial evidence—using functional magnetic resonance imaging (fMRI) brain scans—that normal children have unique brain responses to viewing violence. Violent content activates primitive "fight or flight" responses, providing a biological basis for the cumulative effects of anxiety, aggression and desensitization. CMCH proposes to expand these initial findings by using this fMRI-based "brain mapping" technique.

The proposed study will include 60 children ages 8-12 in three groupings: normal controls; aggressive/violent; and victims of violence. Participating children will view violent, nonviolent and control videos while their brains are fMRI-scanned.

This study will lead to a deeper understanding of the effects of media violence on normal and more vulnerable children. Comparing young people's brain activation patterns in response to media, researchers will assess the effects of violence on the developing brain. Their findings will open the door to the development of critical means of prevention and intervention.

Developing Protective Media Literacy in Children Ages 6-14

The Center plans to develop and implement a school-based intervention on the negative health effects of media among children 6-14 years old. This project will be conducted in collaboration with the Harvard Graduate School of Education. The ultimate goal is to devise a media literacy curriculum that can be replicated in schools across the nation.

In the proposed study, two sets of three schools (an "intervention set" and "control set") will be matched for demographic features such as race, ethnicity, academic achievement, location (urban, suburban, rural) and socioeconomic status. All students will be studied at the outset for the ways they use media (type, exposure time and content) and health risks (violence, substance use attitudes and behaviors, nutritional habits, activity level, etc.)

The intervention schools will receive a specially designed media literacy curriculum that teaches children to use media critically, limits their exposure to media content that may adversely affect their physical and mental health and recognizes positive, educational uses of media. Parents of children in the intervention schools will be offered educational sessions on media, the effects of media exposure on child health and positive interventions that can be implemented in the home. The control schools will receive a single media education assembly, an educational brochure for children and their parents about the effects of media on health, and standardized health education on the health outcomes of concern.

At the end of one school year, the students will be reassessed to determine the literacy program's short-term effectiveness. Recognizing that early media exposure affects physical and mental health outcomes that may manifest themselves years later, such as sexual or substance abuse behaviors, CMCH will follow up with continuing intervention and outcome assessments.

Responding to a Call to Action

In July 2000, the American Medical Association, the American Academy of Pediatrics, the American Psychological Association, and the American Academy of Child and Adolescent Psychiatry concluded that exposure to media violence was a significant cause of increased violent behavior among children and adolescents and called for interventions to protect the health of our young people. CMCH's media literacy program has great potential to head off violence and other health-risk behaviors among children and teens.

Devising an Objective, Scientifically Valid Media Rating System

Presently, there are separate ratings systems for each type of entertainment media (television, movies, video games, and music). Parents have called these systems an "incomprehensible alphabet soup" and many feel that "ratings creep" has resulted in increasingly worse content receiving the same rating. Currently, ratings are assigned by individuals who sell these materials to children and use the ratings as marketing tools rather than as a helpful guide for

parents. There are no child development or health experts on the ratings boards, and they do not use established social science measurement tools in rating media. As a result, today's rating systems are not easily understood, nor scientifically valid.

To address this problem, CMCH will assess the current ratings systems. Each will be tested for objectivity, consistency, validity with current knowledge of child development, and usability by parents, educators, clinicians and children.

Findings from the assessment will be used to develop a universal system for all media that is understandable, simple to use, content-based and consistent with child development theory and practice. Focus groups will be convened across the country to test the system. Once the system is created, a centralized database will be developed to provide content ratings of all entertainment media. A network of independent media-raters will code material for child health issues, and the ratings will be available for parents and child care providers to make "real time" decisions about children's media use. This Media Impact Tracking System (MITS) will serve as the first comprehensive rating system based on research-proven child health outcomes.

An Investment Benefiting Millions

What do media teach children about themselves and about their health? How can media be used to promote child health? CMCH was created to provide thoughtful, evidence-based answers to these questions. An investment in the Center's research program will have a profound impact on the health and wellbeing of millions of children for years to come.

To help CMCH speed its critical research agenda, Children's Hospital is making a concentrated effort to attract new sources of revenue from concerned individuals and foundations, as well as industry and government sources.

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