Press Release
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Major New Report:

Hardwired to Connect:
The New Scientific Case for Authoritative Communities

New Scientific Findings Shed Light on Why Large Numbers of
American Children Suffer from Emotional and Behavioral Problems

Symposium to discuss report’s findings on Tuesday, September 9 (Dirksen SOB, Room G50,
Washington, D.C., begins 9:00 a.m) — speakers include U.S. Surgeon General Dr. Richard
Carmona, U.S. Assistant Secretary of HHS Dr. Wade Horn.

The Commission on Children at Risk, a panel of leading children’s doctors, research scientists
and youth service professionals, has issued a report to the nation about new strategies to reduce
the currently high numbers of U.S. children who are suffering from emotional and behavioral
problems such as depression, anxiety, attention deficit, conduct disorders, and thoughts of suicide.
The Commission is basing its recommendations on recent scientific findings suggesting that chil-
dren are biologically “hardwired” for close attachments to other people and for moral and spiri-
tual meaning. Meeting children’s needs for close attachments and for moral and spiritual meaning
is the best way to ensure their healthy development, according to the Commission’s report.

Said Dr. Kenneth L. Gladish, National Executive Director, YMCA of the USA:

“The basic conclusion of this report is that children are hardwired for enduring connec-
tions to others and for moral and spiritual meaning. The report challenges all of us to
strengthen those groups in our society that promote this type of connectedness. Here at the
Y, we have been working for children and families since 1851 and we intend to be a part
of that solution.”

The Commission on Children at Risk is sponsored by YMCA of the USA, Dartmouth Medical School
and the Institute for American Values. Commission members include Steven Suomi of the National
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Institute of Child Health and Human Development, T. Berry Brazelton, Harvard Medical School, Allan Schore of UCLA Medical School, Alvin Poussaint of Harvard Medical School, Robert Coles of Harvard Medical School; James P. Comer of Yale Medical School; the developmental psychobiologist Linda Spear of Binghampton University; the author and clinical psychologist Judith Wallerstein of the Center for the Family in Transition; and Thomas Insel, who was at Emory University at the time of the study, but has recently been appointed director of the National Institute of Mental Health.

Despite a decade of unprecedented economic growth that resulted in fewer children living in poverty, large and growing numbers of American children and adolescents are suffering from mental health problems. Scholars at the National Research Council in 2002 estimated that at least one of every four adolescents in the U.S. is currently at serious risk of not achieving productive adulthood. Twenty-one percent of U.S. children ages 9 to 17 have a diagnosable mental disorder or addiction; 8 percent of high school students suffer from clinical depression, and about 20 percent of students report seriously having considered suicide in the past year. By the 1980s, U.S. children as a group were reporting more anxiety than did children who were psychiatric patients in the 1950s, according to one study.

The Commission is calling upon all U.S. citizens to help strengthen what it calls “authoritative communities” as likely to be the best strategy for improving children’s lives, in its report, Hardwired to Connect: The Case for Authoritative Communities. Authoritative communities are groups of people who are committed to one another over time and who exhibit and are able to pass on what it means to be a good person. These groups provide the types of connectedness our children increasingly lack.

Authoritative communities can be families with children and all civic, educational, recreational, community service, business, culture, and religious groups that serve or include persons under the age of 18 that exhibit certain characteristics. These characteristics are that: 1) it is a social institution that includes children and youth; 2) it treats children as ends in themselves; 3) it is warm and nurturing; 4) it establishes clear boundaries and limits; 5) it is defined and guided at least partly by non-specialists; 6) it is multi-generational; 7) it has a long-term focus; 8) it encourages spiritual and religious development; 9) it reflects and transmits a shared understanding of what it means to be a good person; 10) it is philosophically oriented to the equal dignity of all persons and to the principle of love of neighbor.

The Commission’s report represents the first time that neuroscientists have collaborated with social scientists who study civil society to improve outcomes for children. It is also represents the first time that a diverse group of scientists and leading children’s doctors are publicly recommending that our society pay considerably more attention to young people’s moral and spiritual needs.

Said child psychiatrist Dr. Kathleen Kovner Kline of Dartmouth Medical School, the report’s principal investigator:

“As children’s doctors, we began this project because our waiting lists are too long. Our challenge today is to shift from treatment alone to treatment plus prevention. Broad social changes are required. We need to become environmental advocates for childhood.”

The report and its recommendations will be discussed at a symposium, involving youth service professionals from around the country and others, starting at 9:00 a.m. on September 9 in the Dirksen
Senate Office Building, Room G50 (corner 1st and C Streets, N.E., Washington, D.C.). Scheduled speakers include the U.S. Surgeon General, Vice Admiral Richard H. Carmona; the Assistant Secretary for Families and Children at the U.S. Department of Health and Human Services, Dr. Wade Horn; Dr. Stephen Suomi of the National Institute of Child Health and Human Development; Dr. Kenneth L. Gladish, National Executive Director, YMCA of the USA; the report’s Principal Investigator, Dr. Kathleen Kovner Kline of the Dartmouth Medical School; and other members of the Commission on Children at Risk.

What Recent Research Suggests

In searching for strategies to improve outcomes for children, the Commission reviewed research on the brain and human behavior from the last two to five years. Among the main scientific findings on which the Commission has based its recommendations are:

• The mechanisms by which we become and stay attached to others have a biological basis and are increasingly discernible in the basic structure of the brain.

• Nurturing environments, or the lack of them, influence the development of brain circuitry and the way genes affect behavior.

• The old “nature versus nurture” debate — focusing on whether heredity or environment is the main determinant of human conduct — is no longer relevant to serious discussions of child well-being and youth programming. New scientific findings are teaching us to marvel at how nature and nurture interact. These findings suggest that strong nurturing can reduce or eliminate the harmful effects of genes that are associated with aggression, anxiety, depression or substance abuse.

• Primary nurturing relationships influence early spiritual development, and spiritual development can influence us biologically in the same ways that primary nurturing relationships do. For instance, spirituality and religiosity can be associated with lower levels of stress hormone (cortisol), more optimism, and commitment to helping others.

• Religiosity and spirituality significantly influence well-being.

• The human brain appears to be organized to ask ultimate questions and seek ultimate answers.

These findings are described in detail in the attached copy of the Commission’s report.

Hardwired to Connect

The Commission was particularly impressed by mounting scientific evidence suggesting that in two basic ways the human child is hardwired to connect. First, children are hardwired for close attach-
ments to other people, beginning with their mothers, fathers, and other relatives, and then extending out to the broader community.

Recent animal studies show that our ability and need to become and stay attached to others is biologically “programmed” and increasingly discernible in the basic structure of the brain. For instance, recent animal studies have shown the role the neuropeptides, oxytocin and vasopressin in male-female bonding. In the area of parental care, in several animal species it has been shown that attachment hormones help to trigger parental care, which in turn helps to trigger the release of more attachment hormones. For example, as male marmosets begin to care for their offspring, their levels of prolactin increase, which likely reinforces the bonding process. Other studies implicate numerous other neurotransmitters and hormones in the human bonding process.

Recent animal studies are also underscoring the powerful effects of strong nurturing on genetic transcription1 and brain circuitry, improving outcomes for offspring and helping in ways that are measurable at the cellular level. Animal studies show that high levels of maternal stimulation can change brain functioning and reduce genetic risks for anxiety, aggression, depression and substance abuse in infant animals. It can even turn genetic risks into an advantage.

Steve Suomi of the National Institute of Child Health and Human Development and member of the Commission has done extensive research with rhesus monkeys showing how nurturing and genes interact. He has found that strong mothering not only eliminates the negative impact of risky genes, it even appears that it can turn certain of those genes into an advantage.

For instance, in some rhesus monkeys, a variation in one of their genes seems to predispose them towards aggression and poor impulse control. These aggressive monkeys also drink a lot of alcohol at monkey happy hour, and they are more likely than other monkeys to engage in “binge drinking.” Typically, these aggressive young monkeys are not well-liked or accepted by the other monkeys. But when these genetically “at risk” monkeys are raised in supportive environments, the harmfully aggressive behavior disappears, as does the excessive and binge drinking. But there is more. These potentially “at risk” monkeys not only survive. They flourish. They do very well. They appear to be especially successful in making their way to or near the top of the rhesus monkey social hierarchy. What has happened? An improved social environment has changed an inherited vulnerability into a positive behavioral asset.

**Hardwired for Meaning**

A smaller but still significant body of research also shows that people are “hardwired” for meaning, born with a built-in capacity and drive to ask the ultimate questions about life’s purpose: Why am I here? What is the purpose of my life? How should I live? What will happen when I die? Across time

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1. Genetic transcription refers to the way the body uses or "transcribes" genes. Neuroscientist Michael Meaney describes genetic transcription this way: "To use an analogy, if we imagine genes as an alphabet, social environments can affect which letters of this alphabet are transcribed [or copied], how often they are transcribed, and in what order they are transcribed, which in turn will help to determine the make-up or content of the "words" which are the biochemical messengers in our nervous system." The genes are themselves are not changed, but the way the body uses the genes has changed.
and cultures, this distinctively human pursuit has been closely connected to spiritual seeking and experience and to religious belief and practice. Using brain imaging, neuroscientists Eugene d’Aquili and Andrew B. Newberg’s have found that the same part of the brain that underlies the human need to seek answers to what is true about life’s deepest questions also underlies many spiritual and religious experiences. In other words, the pursuit of meaning appears to be physiologically linked to spiritual and religious seeking.

To date the influence of religion on U.S. young people has been “grossly understudied,” according to Byron Johnson of the University of Pennsylvania. However, existing research is highly suggestive. For adolescents, religiosity is significantly associated with a reduced likelihood of both unintentional and intentional injury (both of which are leading causes of death for teenagers. Homicides, suicides and accidents account for 85 percent of all deaths among early to late adolescents). Religious teenagers are safer drivers and are more likely to wear seatbelts than their less religious peers. They are less likely to become juvenile delinquents or adult criminals. They are less prone to substance abuse. They are less likely to endorse engaging in high-risk behavior or the idea of enjoying danger.

On the positive side of the coin, religiously committed teenagers are more likely to volunteer in the community, to participate in sports and student government, to have high self-esteem and more positive attitudes about life. Much of this research is based on large national studies.

One religious quality that appears to be especially beneficial, in terms of mental health and lifestyle consequences, is what some scholars call personal devotion, or the young person’s sense of participating in a “direct personal relationship with the Divine.” Personal devotion among adolescents in associated with reduced risk-taking, more effectively resolving feelings of loneliness, greater regard for self and for others, and a stronger sense that life has meaning and purpose. These protective effects of personal devotion are twice as great for adolescents as they are for adults. This last finding clearly reinforces the idea, found in many cross-national studies, that adolescence is a time of particularly intense searching for, and openness to, the transcendent. Here is how Lisa Miller of Columbia University puts it: “A search for spiritual relationship with the Creator may be an inherent developmental process in adolescence.”

For this reason, the Commission is recommending that our society as a whole, and youth advocates and youth service professionals in particular, should pay greater attention to this aspect of youth development. This task will not be easy, the Commission’s warns in its report. Because we are a philosophically diverse and religiously plural society, many of our youth-serving programs and social environments for young people will need to find ways respectfully to reflect that diversity and pluralism. But that is a challenge to be embraced, not avoided. One of the many problems with the avoidance strategy is that denying or ignoring the spiritual needs of adolescents may end up creating a void in their lives that either devolves into depression or is filled by other forms of questing and challenge, such as drinking, unbridled consumerism, petty crime, sexual precocity, or flirtations with violence.

**The Link Between Social Connectedness and Child Well-being**

In recent years, authoritative communities have gotten significantly weaker in the United States. Consider the family, for children, the first and typically most important authoritative community.
From the mid 1960s to the mid 1990s, U.S. families overall have gotten steadily weaker. Today, more than half of all children in the U.S. will spend a significant part of their childhood in a single-parent home, usually a father-absent home, due to high rates of divorce and unmarried childbearing. One particularly harmful aspect of this trend is the widespread absence of fathers in children’s lives.

Today there is also a rough scholarly consensus that other authoritative communities, such as civic and community groups, houses of worship, political clubs, and workplace associations have deteriorated significantly in recent decades.

The idea that the decline in social connectedness is contributing significantly to a range of childhood problems is supported by numerous studies. For instance, a recent analysis of 269 studies, dating back to the 1950s, links steady increases in self-reported anxiety and depression among U.S. young people primarily to the decline of “social connectedness.” A major population-based study from Sweden — that is, a study focusing on all Swedish children — concludes that children living in one-parent homes have more than double the risk of psychiatric disease, suicide or attempted suicide, and alcohol-related disease, and more than three times the risk of drug-related disease, compared to Swedish children living in two-parent homes. These findings emerge after the scholars controlled for a wide range of demographic and socioeconomic variables.

The Swedish study is important not only because of its large scale and rigorous controls, but also because Sweden has long been a world leader in developing social policies that ameliorate the economic and material consequences of growing up in one-parent homes. As a result, the higher rates of mental and emotional problems experienced by Swedish children in one-parent homes would appear less likely to stem solely or even primarily from economic circumstances. Obviously the lack of money can be a critical problem. But another obviously important — and partially independent — problem is the fracturing of the child’s primary authoritative community.

In 1999, the prominent sociologist Robert Putnam and his colleagues carried out a small but fascinating experiment reported in Putnam’s book, *Bowling Alone: The Collapse and Revival of American Community*, to test the hypothesis that higher levels of social connectedness mean better outcomes for children and youth. Putnam and his colleagues developed a list of fourteen leading indicators of social connectedness, which they called the Social Capital Index, and applied it on a state-by-state basis. He then compared the Annie E. Casey Foundation’s state rankings on child well-being with his own state rankings for social connectedness. He found that: “Statistically, the correlation between high social capital and positive child development is as close to perfect as social scientists ever find in data analyses of this sort.” This robust correlation held true even after Putnam controlled for a range of socioeconomic and demographic characteristics.

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Commission on Children At Risk

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3. As of 8/11/03. Additional persons may be invited to join the commission as signatories to this report.