Hypothesis 8.2. Proposed Core Hypothesis
Family influences on child health and development
Social Environment and Behavioral and Development Working Groups

I. PROPOSED CORE HYPOTHESIS

Families are the epicenters of social-environmental influences on children's health and development (Demo & Cox, 2000; McLoyd, Cauce, Takeuchi, & Wilson, 2000; Moen, Elder, & Luescher, 1995). Most studies of children's health and development hypothesize that family variables have direct, mediating, or moderating influences on a wide range of children's health and developmental outcomes (e.g., obesity, asthma, mental health). A review of the existing research suggests that two major domains: (a) family resources and (b) family processes, are primary influences on children's health and development (see Figure 1). The family resources domain includes *family structure* (i.e., parental unions, household composition, and family living arrangements); *family socioeconomic status* (e.g., parents' and other household members' education, income, wealth, health insurance, and human capital); *social resources (*ties and access to supportive others*); family physical and mental health; and family identity* (e.g., identification with cultural norms, attitudes, and values associated with specific racial, ethnic, religious or other socially defined groups). The family processes domain includes *management* (e.g., decision-making, resource allocation, parental involvement and engagement in children's school and education, seeking medical care, and engaging children in such activities as religious education or sports); *parenting* (e.g., parental practices such as monitoring, nurturance, protection, and guidance; parenting styles; and direct interactions between parents and children); and *family climate* (i.e., family cohesion, family violence). The links between these domains and processes operate and change over time as children grow and pass through different stages of development.

The Social Environment working group, in conjunction with the Behavior and Development working group, propose that the family social environment has profound effects on the health and development of children. In addition, the mental, physical, developmental, and/or biological health problems that children manifest have profound effects on the social and family environment in ways that alter or condition how families manage and cope with a child's particular health problems. In short, the constant interplay between children and their family environments has key implications for their health and developmental well-being. Figure 1 provides a general organizational schema of the interrelationships linking family resources and family processes to each other, to child health and development, and with the broader social and physical environment.

Figure 1. Family and Household Environment Model

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A. Definitions

"*Family*" can be defined narrowly or broadly. The narrow definition refers to all individuals in a single housing unit related by blood, marriage, or adoption (Casper & Bianchi, 2002). The broader definition would include related individuals living outside a housing unit, such as a nonresident father or a grandmother. Some scholars would include unrelated individuals who occupy roles associated with family ties, such as the boyfriend of an unmarried mother who acts "as a father" to her children, or the neighbor or friend who is considered "one of the family" because they provide social, emotional, or instrumental support. These individuals are often referred to as "*fictive"* or *"social"* kin. In either case, "family" incorporates not only mothers and fathers but also others, such as siblings, grandparents, or father-figures, who have a presence in a child's life.

A *household* includes everyone living in the same housing unit, whether related or not.

B. Core Hypothesis:

Pathways to specific child health and development outcomes are directly influenced, mediated, and/or moderated by family resources and processes.

Example Hypotheses: The following hypotheses are examples of the many implied by the role of family resources and processes in child health and development. Specific examples of more general hypotheses are supplied in italics where appropriate.

1. Family structures, including parental unions, household composition, and living arrangements affect child outcomes. The extent to which changes in family structure affect child outcomes stems in part from the nature and stability of family structures. *Example: Over the first three years of life, children born to unmarried or cohabiting parents are more likely than children born to married parents to exhibit sub-optimal functioning of stress-responsive biological regulatory systems, inferior levels of emotional regulation, and behavioral problems in the form of externalizing and internalizing behaviors, in part because of increased instability in family relationships.*

2. Families' social networks may have positive or negative influences on child health and development, by providing (or limiting) access to instrumental and/or emotional support for either child or adult family members, by placing demands on parents' time for helping others, by providing (or limiting) access to information and health-supportive resources, by exposing children to positive or abusive relationships, or by supporting healthy or unhealthy norms for health-related behaviors.

Example: Access to kin resources positively affects asthma management in economically disadvantaged families, thereby reducing the number of visits to emergency rooms for asthma-related illnesses.

3. Family socioeconomic status (e.g., income, wealth, parents' education and occupation and other human capital) influences the health and development of children by ameliorating the effects of risk factors associated with family structure, process, physical and mental health, and family identity.
   Example: The outcomes of prematurity will depend on family SES. Middle-class premature infants face fewer long-term risks and learning problems than do premature infants born into low SES households. Family processes, including factors such as household management, parenting, and family climate, mediate this relationship.

4. Children with less healthy parents are likely to be in poorer health themselves, in part because of shared genetic predispositions but also because of poorer quality parenting and compromised access to resources. The more household family members that are in poor health, the more likely a child is to experience physical and mental health problems.
   Example: Children of depressed mothers will receive parenting that is less warm, supportive, and consistent than children of non-depressed mothers, and will be more likely to exhibit internalizing and externalizing disorders during childhood and adolescence.

5. Racial/ethnic minority families and their children are likely to have higher morbidity and mortality than whites from the same disease conditions, in part because they experience greater disparities in health care and because of differences in acquiring health knowledge and engaging in health-promoting lifestyles. At the same time cultural risk or protective factors associated with minority status (e.g., supports for health-protective behaviors among first-generation immigrants, knowledge and use of alternative medical practices, norms supporting antisocial behaviors or delay of appropriate health care) will contribute to variability in the health experiences of racial/ethnic minorities.
   Example: African American children experience higher diabetes-related morbidity than White children because of lower levels of access to health services, lower levels of information related to the control of diabetes, and greater levels of family stress.

6. Parental investments in health advocacy and help-seeking behaviors on behalf of their children contribute to better physical and mental health outcomes in children.
   Example: Children with early developmental delay fare better when their parents seek early intervention services than do children of parents who do not seek services.

7. Families' interactions with and involvement of their children in community institutions, including child care, schools, and religious organizations, influence children's health and development both directly, and indirectly through the formation of social networks.

Example: Children from families that participate in shared religious activities throughout pre-adolescence are more likely, in adolescence, to have friends who refrain from risk behaviors, and to refrain from such behaviors themselves.

8. Parental monitoring of children's activities will enhance health and development.
   Children whose parents monitor their activities at home and in their neighborhoods will be exposed to fewer toxins in the physical environment and experience fewer injuries and illnesses.

9. Parental promotion of healthy lifestyle behaviors through teaching and modeling will influence children's exposure to toxins and infectious agents, reduce the likelihood of injury, and reduce the level of morbidity from diseases.
   Example: Automobile-related injuries will be lower in families in which parents consistently fasten their own seat belts while driving and ensure that their children are protected by appropriate restraints.

10. Children who are exposed to negative family dynamics will display more problematic health and developmental outcomes.
    Children who experience family violence, maltreatment, and/or neglect are more likely to be victims of severe injury or death and face a higher likelihood of expressing genetic predispositions to depression and schizophrenia.

II. WORKGROUPS: SOCIAL ENVIRONMENT AND DEVELOPMENT AND BEHAVIOR

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IV. PUBLIC HEALTH SIGNIFICANCE

Most children grow up in the context of families. Therefore, the family is a vital conduit through which the effects of the social environment operate in determining the health and well-being of children. For a long-term longitudinal study of the health and well-being of children such as the NCS, it is crucial to accurately measure and estimate the extent to which family characteristics and dynamics mediate and/or moderate the effects of the social and physical environment on children's long term health and development. Understanding the role of the family in promoting healthy child outcomes, protecting against disease, and managing care is also crucial for health interventions and policy initiatives.

The following sections summarize how family characteristics impact some of the key health outcomes that will be investigated in the National Children's Study.

A. Pregnancy

The social and material resources available to pregnant mothers have important implications for the pre- and postnatal health outcomes of both mothers and infants. Family characteristics and family structure have implications for pregnant mothers' emotional support and psychosocial stress. Pregnancies to unmarried women are at higher risk for poor health outcomes, and family social and instrumental support plays a role in mediating and moderating the effects of stressors on the health of pregnant women (Brooks-Gunn & Chase-Lansdale, 1995). Family resources also affect access to prenatal care.

B. Altered Neurobehavioral Development

Family resources and processes influence neurobehavioral development both directly and indirectly. Family socioeconomic status and family structure are strong predictors of children's cognitive, emotional, and social development (Duncan et al., 1998; McLanahan & Sandefur, 1994), and both access to material resources and parenting processes have been implicated as mediators of these associations. Families characterized by risk factors such as high conflict, aggression, and negative parenting increase the likelihood that children will manifest poor psychosocial functioning (e.g., emotion regulation and social competence), disruptions in biological regulatory systems (e.g., sympathetic-adrenomedullary functioning), poor health behaviors (e.g., substance abuse), school failure, and childhood depression (Bradley & Corwyn, 2002; Cummings & Davies, 2002; Cummings, Davies, & Campbell, 2002; Cummings, Goeke-Morey, Papp, & Dukewich, 2002; Repetti, Taylor, & Seeman, 2002).

The risk of altered neurobehavioral development in children is also associated with pre-existing conditions linked to family characteristics, such as parental psychopathology. Parental depression leads to neglectful behaviors, parental harshness and irritability, and a general sense of instability among parents (Lovejoy, Graczyk, O'Hare, & Neuman, 2000). Family resources and processes also mediate and moderate the degree to which physical hazards such as environmental toxins, and social risks such as violence and drug abuse, alter neurobehavioral development of children. For example, parenting practices including parental monitoring of play activities and regulation of friendship networks, are some of the family processes that limit children's exposure to dangers and risks within a community (Duncan, Brooks-Gunn, & Klebanov, 1994; Furstenberg Jr., Cook, Eccles, Elder, & Sameroff, 1999; Jessor, 1993; Mayer & Jencks, 1989; Repetti et al., 2002).

C. Injury

In order to better understand the causes and consequences of a wide variety of childhood injuries, such as traumatic brain injury (TBI), orthopedic impairments, and permanent disability, further research needs to better assess and examine the role that

families play in limiting or increasing the risk of serious injuries to children. The severity of childhood injuries has been associated with both intra- and extra-familial characteristics.

Intra-familial factors such as family violence, the mental health of parents, and parental abuse or neglect, have been tied to increased risks of childhood injury among low-income, single-parenthood households (Bloom & Dawson, 1991). Factors external to the family, such as neighborhood and community characteristics, are also key mediators or moderators of injury outcomes. Neighborhoods and communities with safe havens, such as parks, schools, and community centers, as well as lower rates of crime, drug abuse, and violence are likely to see fewer incidences of serious injury when compared to children who live in areas without these resources. However, access to and availability of community resources depend on the residential choices made by parents and families—as well as the opportunities or constraints that may influence residential choices.. Non-poor families have the financial and economic means to live in communities with fewer environmental risks for children if they so choose. However, economic restraints limit the ability of poor and low-income families to reside in lower-risk homes and neighborhoods.

D. Asthma

Disparities in the prevalence, severity, and effective management of asthma by race and socioeconomic status are explained, in part, by family factors: family resources and processes influence levels of exposure to physical environmental risk factors, psychosocial stress, and health-related behaviors associated with asthma onset, etiology, and management (Weitzman, Gortmaker, & Sobol, 1990; Wright, Cohen, Carey, Weiss, & Gold, 2002). Family resources have a profound effect on the ability of families to control children's exposure to environmental contaminants, either through access to quality housing or through household management practices that reduce exposure. Family norms and culture also affect household management practices and willingness to seek care promptly when asthma symptoms worsen (Wright & Fisher, Forthcoming).

Stress can trigger asthma symptoms and also complicate effective asthma management by reducing a family's ability to seek care and to comply with preventive measures. Psychosocial stress is higher among economically disadvantaged families (Baum, Garofalo, & Yali, 1997); in turn, stress has been associated with higher levels of wheeze and asthma in families (Wright et al., 2002; Weitzman, Gortmaker, and Sobol, 1990). Exposure to violence has also been linked to asthma etiology (Wright & Steinbach, 2001), and family resources and processes, including family conflict itself, play a critical role in such exposures. Finally, the family's involvement in social support networks can play a positive role in reducing or buffering stress and in supporting asthma treatment and management. Alternatively, family networks can place increased demands on family resources and support health practices that undermine asthma management (Wright, Rodriguez, & Cohen, 1998).

E. Growth/Obesity

The development of obesity from childhood through young adulthood is linked to the resources that exist and processes that operate within families. For example, the economic and financial resources available to families is linked to the amount and quality of food provided for children. In addition, family processes such as cultural norms, social expectations, and family routines can help shape children's nutritional and health behaviors such as eating habits, diet, daily activities, and exercise practices. Family influences on obesity begin prior to birth, via the effects of family resources and structure on pregnancy planning, preconception counseling, maternal nutrition, and prenatal care (Henshaw, 1998; Holing, Beyer, Brown, & Connell, 1998; Janz et al., 1995; Kost, Landry, & Darroch, 1998). They continue with the central role of the family in infant feeding practices (breastfeeding, introduction of solid foods, encouragement of quantity and nature of foods consumed). Family socioeconomic status and maternal social support are both associated with breastfeeding (Goetz & Caron, 1999; Kumanyika, 2002; Neumark-Sztainer, Story, Hannan, & Croll, 2002; Pain, Bailey, & Mowl, 2001; Wardle, Waller, & Jarvis, 2002).

In childhood and adolescence, a large constellation of family influences affect energy balance in children, including feeding practices, consumption of home-prepared vs. restaurant foods, parental monitoring of sedentary activities (e.g., television), encouragement of physical activity in sports, family activities, and transportation, and residential location in settings that encourage or discourage activity (Birch & Davison, 2001; Dietz & Gortmaker, 2001; French, Story, & Jeffery, 2001; Stettler, 2002). Family structure, resources, and parental employment have an important impact on these family processes (Kinsey, 1983; Troiano & Flegal, 1998; Variyam, 2001). Family culture also has an important impact on children's nutrition and on attitudes towards body size and shape (Kumanyika, Wilson, & Guilford-Davenport, 1993).

V. JUSTIFICATION FOR A LARGE, PROSPECTIVE, LONGITUDINAL STUDY

A large prospective longitudinal study that examines family characteristics and resources over time is needed to illuminate family level-effects on child health and development. A *large* nationally representative sample of children is needed in order to better model interactions between family influences and other effects of the social and physical environmental. *Longitudinal, prospective* data are required in order to assess how changes in family resources and processes influence changes in the physical, biological, and emotional development of children over time, and to identify short-term and long-term effects of family characteristics.

Specific arguments include the following:

A. ***Retrospective data on constructs such as family stress, parenting, and cultural beliefs are not reliable.*** These factors must be measured prospectively in order to reduce measurement error and to accurately assess their effects on children.

B. ***A large sample size is necessary to study the impact of the family on child health and development within and across diverse racial, ethnic, and religious communities.*** The United States is experiencing an immense and growing diversity in its population, and norms about family structure and process differ across each group. As such, the factors that promote or hinder positive child health are likely to vary across different ethnic and cultural groups. If the NCS is not able to measure this diversity it may produce results that lead to policies and recommendations that are inappropriate for some groups.

C. ***A large longitudinal sample provides the clearest picture of the impact of public policies on individual families.*** Federal and state-level public policies aimed at children have differential effects across families from different social, economic, and cultural backgrounds. A nationally representative prospective study with longitudinal data can help us better understand how child-focused policies such as WIC and Head Start differentially affect children from different cultural and socioeconomic groups.

D. ***Longitudinal data are required because socioeconomic status may vary over the course of a child's life, having both short-term and cumulative effects on health and development.*** Research suggests that childhood economic disadvantage has lasting effects, observable in the form of health disparities during adulthood and old age. Furthermore, the socioeconomic status of families is not static. Movements of parents into and out of employment and fluctuations in the marital status and living arrangements can produce sharp changes in household incomes, in the environments in which children live, and in their access to medical care. Cross-sectional data provide only a snapshot of both socioeconomic status and health, and therefore are not useful for understanding how health is affected differently by "long run" socioeconomic status versus short-run fluctuations in socioeconomic status.

E. ***A child's health at any point in time reflects the cumulative effects of the child's family experiences.*** A large longitudinal study would allow for a closer examination of potentially sensitive periods in child development (e.g., the prenatal period, children's transition to school, and the transition to adolescence when even transitory income loss may have more profound deleterious effects). Evidence from the Panel Study of Income Dynamics (Case, Lubotsky, & Paxson, 2002) indicates that children's health (as assessed by parents) is strongly associated with long-run average income, and that low income in specific periods has no especially deleterious effects. However, other research (Duncan and Brooks-Gunn, 1997) identifies early childhood as a particularly vulnerable period in which the experience of poverty has disproportionate effects on development.

F. ***A large longitudinal sample is critical to properly estimate the effects of family violence and child abuse on child health outcomes. Currently there is no existing study to estimate prevalence or incidence within a general population.*** All current studies of child maltreatment rely on administrative data or retrospective analyses. Reports of family violence, child abuse, and child maltreatment are rare and difficult to obtain (e.g.,

child homicide rates are low: 9.3 males and 7.6 females per 100,000 children <1 year according to CDC data). Only a nationally representative longitudinal study can provide enough cases to properly estimate the prevalence and the effects of family violence on child outcomes.

VI. SCIENTIFIC MERIT

Research on the family has produced a large scientific literature on changes in family resources and process over time and the consequences of such changes for child well-being and development. Much less attention has been given to consequences for health, although emerging evidence (some examples of which are summarized under "Public Health Significance") indicates that important links to health exist and deserve further study. In this section we summarize the research literature, largely from the social sciences, that examines the consequences of family resources and processes for children's health and development, without reference to specific outcomes. This literature will inform the integration of variables from the family domain into NCS hypotheses that focus on specific health or disease endpoints.

A. Family Resources

1. Family structure. Recent changes in the composition and structure of families have vital implications for how the family unit functions as a child-rearing agent. Estimates as recent as 2000 indicate that 69 percent of children are currently living in two-parent families, down from 77 percent in 1980. One third (33%) of all U.S. births during the 1990s occurred to unmarried women. Forty percent of these births were to women who were cohabiting with the biological father of the newborn child, and two-fifths of all children will live with a parent and a cohabiting partner at some point while they are growing up. Although divorce rates have stabilized since the 1990s, the general acceptability of divorce has also contributed to structural changes in families such that children are more likely to live in a single-parent or cohabiting household at some time in their life. Children's living arrangements have become not only more diverse but also more unstable. This has been especially true for low-income and some minority (e.g., African-American) families (Wu, Bumpuss, & Musick, 2001).

The emergence of different family structures has had important implications for the social and economic resources available to families, and the extent to which they can use their resources to promote and ensure their children's health and development. For example, children in single-parent, minority families are at higher risk of poverty. As indicated below, poverty, in turn, increases rates of poor health outcomes as a result of factors such as limited access to prenatal care, greater exposure to environmental pollutants and contaminants, and greater prevalence of violence in low-income communities.

Changes in the structure and composition of families also affect the resources that families can access in response to children's emotional and physical health problems. Childhood illnesses and environmental risks are exacerbated by the fact that single-parent

households generally have access to fewer social and economic resources that could be used to cope with a child's chronic illness. Therefore, policies and programs designed to reduce children's risk to social and environmental health hazards must take into careful consideration the extent to which family structure may hinder a family's ability to cope with a child's illness.

2. Family Socioeconomic Status. The links between children's health and both household income and parental education are well established (see proposed core hypothesis on the socio-economic gradient). There is a health gradient that persists through all income and education levels. Children from families with higher incomes and more parental education have a higher probability of being healthy and developing to their highest potential. However, it is still the case that 66% of children from the poorest quintile are in excellent or very good health. It is important to understand why and how the latter group thrives despite limited resources.

There is a growing appreciation that family wealth (i.e., accumulated assets) has an effect on child health and psychosocial functioning above and beyond that of income (Bradley & Corwyn, 2002). Moreover, there is an increasing awareness of racial disparities in family wealth; these disparities far exceed differences in income (Conley, 1999, 2001; Cramer, 1995).

The effects of poverty on child health and development are greatest among single-parent families. For instance, rates of low-birthweight and pre-term infant births are higher among African-American single mothers living in poverty (Brooks-Gunn & Chase-Lansdale, 1995). Other important outcomes such as low academic achievement and developmental delays also are higher among children in economically impoverished single-parent households. Further research is needed to understand how specific types of family resources interact, both among themselves and with family processes, in influencing health and developmental outcomes.

3. Social Resources. Social resources involve the social ties that promote and protect children's health through mechanisms such as enhanced material resources (e.g., money, goods and services, information); emotional support (which may buffer the negative appraisal of stressful events); social engagement (connection to productive activities); and social influence (maintenance of healthy norms and behaviors). Few epidemiological studies have tested these mediating pathways directly in children, but a large body of research in epidemiology demonstrates the relevance of social ties to disease pathways in adults (e.g., Cassel, 1976; Stansfield, 1999; Berkman and Glass, 2000; Cohen et al., 2000).

Moreover, a growing body of research links family social resources to child health and development. Parke & Buriel (1998) document that children's social competence and emotional development are fostered by parents and adults who provide children with positive support and assistance with fundamental developmental issues such learning, schoolwork, making friends, and early decision-making. Other research has documented associations between caregiver stress, caregiver social isolation, and child health

outcomes (e.g., Wright et al, 1998; Wright et al, 2002); evidence also documents the significance of social support during pregnancy for fetal growth (Feldman et al., 2000). However, much remains to be learned about the social, psychological, behavioral, and biological pathways involved in these associations.

Family and child social networks constitute an important context in which health care is obtained. Families with better access to broader social networks, which can include other relatives, friends, community advocates, and service providers, can utilize these networks to obtain medical and health-related information and services (i.e., prenatal care, childhood immunizations, and routine medical services). Families and children with smaller or less diverse social networks are less likely to access the range of services that can buffer children against risk.

4. Family Physical and Mental Health. The physical and mental health of parents and other family members can have a direct impact on the health and well-being of children. Physical and/or mental disabilities faced by parents, caregivers, or siblings can compromise the amount of care and nurturing provided to children. Children whose parents suffer from serious mental disabilities or illnesses such as depression or alcoholism are generally at higher risk for neglect, ineffective or inconsistent parenting and both maltreatment and abuse, as well as placement in foster care, and homelessness. Parental disabilities or conditions that go untreated also increase the risk that children may suffer the same or similar types of disabilities and illnesses (Coyne & Downey, 1991; Coyne, Downey, & Boergers, 1992; Downey & Coyne, 1990; Mowbray et al., 2000; Oyserman, Mowbray, Meares, & Firminger, 2000).

5. Family Identity. Race, ethnicity, and gender account for significant variation in child health outcomes. These status variables represent important cultural and structural factors that impact families, and in turn, children. As such, it is important that we assess the variation in family-health linkages across race, ethnic group, and gender if we are to have an accurate understanding of the factors contributing to children's health and developmental outcomes. At the same time, children actively attempt to understand and integrate their social identity into their own definitions of self. The results of these attempts lead to the development of racial, ethnic, and gender identity attitudes. Children vary within these categories with regard to the significance and meaning that they attribute to these social categories. For instance, two girls may differ both with regard to how important being a girl is to them as well as what they think it means to be a girl. This variation in racial, ethnic, and gender identity attitudes plays an important role in understanding the variation in the healthy development of children. For instance, identity attitudes have been linked to children's outcomes in a variety of domains including self-esteem (e.g., Rowley, Sellers, Chavous, & Smith, 1998; Smith, Walker, Fields, Brookins, & Seay, 1999) academic beliefs and performance (e.g.,Witherspoon, Speight, & Thomas, 1997), friendship selections (e.g., Hamm, 2000), substance use and abuse (e.g., Caldwell, Sellers, Hilkene, & Zimmerman, in press; Marsiglia, Kulis and Hecht, 2001; Scheier, Botvin, Diaz, & Ifill-Williams, 1997), engaging in risky sexual behaviors (e.g., Belgrave,

Van Oss Marin, & Chambers, 2000), and violence (e.g., Arborna, Jackson, McCoy, & Blakely, 1999). In addition to these direct links, an increasing amount of research is demonstrating that these social identities play an important role in buffering the deleterious impact of experiencing racial, ethnic, and gender discrimination (e.g., Branscombe, Schmitt, & Harvey, 1999; Sellers & Shelton, in press; Williams, Spencer, & Jackson, 1999). Thus, it is important to also study the within-group variation in the way in which children define themselves in the context of race, ethnicity, and gender.

Children's racial, ethnic, and gender identities do not develop in a vacuum: the family plays an important role in determining children's attitudes and beliefs regarding the role that race, ethnicity and gender play in their lives (e.g., Boykin & Toms, 1985; Hughes & Chen, 1997; Sanders Thompson, 1994; Spencer, 1983). Family socialization practices can be both indirect and direct. Indirect socialization around race, ethnicity, and gender may be the result of the child watching and learning vicariously from the parents' actions and the home environment. More direct socialization may occur in the form of instruction or discussions about race, ethnicity, or gender. Most often, children receive both forms of socialization, and the family is an important initial source for this information. These socialization practices provide important information to children regarding who they are, what role they play in society, and what to expect from others as a result of who they are. Socialization processes also play an important role in providing children with coping skills to deal with potential adversity, pride or shame in their heritage and gender, as well as beliefs about how strange others are likely to treat them as a result of their gender or racial and ethnic group (Stevenson, 1994).

B. Family Processes

The relationships, interactions, and exchanges between children and other family members (i.e., parents, grandparents, siblings, fictive kin) are important mechanisms that can have direct effects on health as well as condition children's exposure or vulnerability to a variety of social and environmental health risk factors. Altering family resources (e.g., SES, family structure) is not always a practical focus for intervention. In contrast, family processes (such as parenting practices) can be modified through intervention and often mediate the links between family resources and child outcomes. As such, better understanding of family process is essential to developing family-level psycho-social interventions promoting child health and development.

1. Household management. Parental management of family resources and activities is an under-studied, but clearly important, influence on the health and well-being of children. Examples include parental management of children's diets (selection and preparation of foods, in-home vs. out-of-home preparation of food), transportation, and child care; parents' roles in obtaining health-related knowledge and critical services for their children; and parents' engagement of children in religious, athletic, and community activities. These management practices and skills are critical for all children, but particularly so for children who either are born with or acquire childhood illnesses or developmental disabilities, and for children growing up in disadvantaged circumstances.

They are one means through which family resources have an impact on child outcomes and they may do so directly or in interaction with other family processes.

2. Parenting. Several aspects of parenting are important for children's health and developmental outcomes. Parent's disciplinary practices are one aspect. A substantial body of research documents that "authoritative" parenting styles are linked to children's social competence, achievement, and self-regulation abilities (see Parke and Buriel, 1998).

Another body of work documents links between parental monitoring and well-being outcomes in childhood and adolescence, including school grades, association with deviant peers and involvement in delinquent activities and conduct problems (Crowder and Head, 2002). The conditions under which parents are more or less effective at monitoring their children are less well understood, but the significance of children's own role in this process (i.e., children's tendency to self-disclose) has been highlighted (Stattin and Kerr, 2000). This work suggests that the emotional quality of the parent-child relationship (i.e., level of warmth, trust) is an important factor in open communication between parents and children. Parents' social connections also matter: parents often learn about their children's activities, whereabouts, and companions through direct interaction with their children, but spouses, siblings, teachers, and neighbors also may be important sources of information (Crouter and Head, 2002). Enhancing parents' knowledge of their children's activities may be an important mediating process linking parents' social networks with child health and developmental outcomes.

Models of parenting highlight the centrality of the emotional quality of the parent-child relationship in determining, for example, whether parents are effective in disciplining their children, learning about their children's everyday activities, serving in the role of advisor and confidant, and conveying their beliefs and values (Darling and Steinberg, 1993). When relationships are high in warmth and trust, children are much more likely to respond in a positive way to socialization efforts. In addition to parental warmth and nurturance, effective parenting also requires that children be perceived by children as having power and status because children are more likely to identify with and model adults they perceive as powerful. Parental power may come in such forms as parents' access to resources, their ability to protect their child from illness or danger, and their ability to solve everyday life problems. Social policies and practices that undermine parents' credibility with their children can alter the family climate in ways that undermine parents' effectiveness in their socialization role. Parents' socialization effectiveness also can be enhanced or undermined by other adults who play a role in children's lives: "co-parenting" practices of mothers and fathers – including mutual support and consistency of rules and expectations – for example, are associated with more positive well-being in children (Parke and Buriel, 1998).

3. Family Climate. The family environment is a vital factor that conditions the emotional, biological, and behavioral health of children. Family environments that are

characterized by high conflict, aggression, poor cognitive stimulation, violence, and poverty adversely affect health outcomes. By contrast, families high in warmth enhance children's physiological functioning, emotional regulation, and social competence. The combination of family characteristics and biological vulnerabilities or genetic predispositions in children increases the risk for poor psychosocial functioning, negative biological stress-responses, and poor health (Repetti et al., 2002).

Family violence is a critical dimension of the family climate; it is a serious problem that affects large numbers of adults and children (NRC, 1993, 1996, 2002). Conservative estimates suggest that up to 25% of the U.S. population are victims of child abuse and neglect, intimate partner violence, and elder maltreatment (NRC, 2002). Effects of child abuse and neglect range from negligible to serious injury and even death (Feldman, 1997; Rosenberg and Krugman, 1991). Sexual abuse during childhood has long-standing consequences for later mental health and family behaviors.

C. Cross-cutting example: Religion and child health.

A significant body of research on adults demonstrates linkages between religiosity and health (Hummer et al., 1999; Strawbridge et al., 2001; Ellison and Levin, 1998, Johnson et al., 2002). Religiosity also has been linked to health and to avoidance of risk behaviors in adolescence. Compared to their non-religious counterparts, religious adolescents (those that attend services regularly and say religion is important to them) are more likely to use seat belts; to have healthy diet, exercise, and sleep habits; and to have greater self-esteem. They and are also less likely to initiate sex at an early age, drink, smoke, and engage in delinquency. (Regnerus, Smith, & Fritsch, 2002; Wallace & Forman, 1998). An exhaustive review of research on the association between religion and health and well-being, however, reported only one study involving pre-adolescent children (Johnson et al., 2002).

Religion is a domain separate from family yet shaped by it (Regnerus et al., 2002). Families create their own religious environments and are in turn influenced by them. We propose that children's religious beliefs and practice are shaped through their experience in the family, and that religious practice has (largely) health-enhancing effects on family resources and processes.

Religious practice affects family resources through effects on family structure, social ties, and identity. For example, religious practice is strongly linked to marital stability (Mahoney et al., 2001). In addition, family religious attendance engages parents and children alike in social networks comprised of children and adults who share similar beliefs and values, and who can provide instrumental and emotional support. On the other hand, religious groups can increase family stress through ostracism, social pressures, and excessive demands on congregants (Ellison and Levin, 1998). Religious participation can also foster development of a shared family identity that embraces religious values, beliefs, and meanings. These may facilitate health by providing stress-buffering psychological resources (faith, hope) and by discouraging health-damaging behaviors; however, they may also reinforce gendered expectations of family and parenting roles (Mahoney et al., 2001).

A few studies have examined family processes in relation to family religion and religiosity. Most of these studies have focused on the greater use of corporal punishment and emphasis on obedience among conservative Protestant families (Mahoney, et al., 2001; Ellison et al., 1996). Some studies have also shown that these groups are also more likely to hug and praise their children and are less likely to yell at them (Wilcox, 1998; Bartkowski and Wilcox, 2000). Other research has linked religiosity with the use authoritative styles of parenting (Gunnoe, et al., 1999), warm family relationships (Pearce and Axinn, 1998), and father's involvement in parenting (Roggman et al., 2002). Family religious participation can provide an important "secondary socialization influence" (Wallace and Williams, 1997); religious institutions are a setting in which emotional regulation, social competence, and pro-social values can be reinforced. Private family religious practices such as prayer and religious ritual can reinforce specific values and moral lessons imparted by religious teaching (Regnerus et al., 2002). On the other hand, Asser and Swan (1998) provide evidence that religion can negatively affect aspects of household management; they documented that failure to obtain medical treatment motivated by religious beliefs resulted in unnecessary child deaths.

Effects of religion are likely to be moderated by sex, race/ethnicity, immigrant status, neighborhood poverty, and characteristics of the religious organization. Girls tend to be higher in religiosity and more affected by religious influences (Regnerus et al., 2002). African American girls are more likely to "inherit" their parents' religiosity than girls of other races and ethnicity (Heath et al., 1999). Among immigrants and the residents of poor neighborhoods, religious organizations may play an especially important role because of the lack of other institutions available to engage and support families. Finally, when families participate in religious organizations that are more socially cohesive, and to the extent that their participation provides a range of activities that sustains children's involvement in the organization through adolescence, their participation will have greater effects on child health and development.

VII. POTENTIAL FOR INNOVATIVE RESEARCH

The National Children's Study has the potential to provide an innovative and unprecedented body of longitudinal data that unites information on health outcomes with information on family resources and processes. No such data resources currently exist. The development of such a resource would permit research to answer countless questions linking family factors to specific health outcomes. A few examples of such questions are provided below.

A. What family characteristics protect children from health problems such as asthma and obesity, after controlling for biological or environmental triggers? In the case of obesity, for example, the links between family factors and food choices are not well understood. Some research shows that diet quality of children and adults is positively related to family income, but dining out also increases with income, (Kinsey, 1983), exposing individuals to larger portion sizes (Kinsey, 1994). More information on these processes is essential if rising rates of childhood obesity are to be stemmed.

B. What family resources and processes contribute to asthma and reduce the effectiveness of asthma management, e.g., by influencing exposure to physical environmental risk factors, psychosocial stress, and health-related behaviors? What are some of the processes and/or resources that promote families' abilities to follow physicians' advice on treating children with asthma?
C. What family resources and processes account for higher levels of child maltreatment in disadvantaged populations? Much research in this area relies on case studies and qualitative reports that document the stresses involved in raising young children. In the absence of data drawn from scientific research, policy and practice in the field of child abuse and neglect are driven largely by ideology, anecdotal reports, and best guesses. The NCS represents an opportunity to conduct systematic prospective research about the complex links between economic assets, family structure, and child care-giving practices. This knowledge also can contribute to many other fields of inquiry.
D. What are the effects of multiple morbidities in families (e.g., maternal depression and child's asthma) on family functioning and, in turn, the health and development of children?
E. The NCS study presents an opportunity to determine how and when parents who experience stress in caring for young children engage in formal and informal help-seeking behaviors and the extent to which discrete elements in the social environment (educational campaigns, medical guidance, religious affiliations, family support centers, etc.) contribute to the likelihood of those behaviors.

VIII. FEASIBILITY

A. Critical periods: Family resources and processes are operative in child health and development outcomes throughout childhood and adolescence. There is some evidence that the experience of family poverty is most detrimental to children during the first few years of life. The relevance of specific family processes will vary across childhood and adolescence. For example, parental control over children's activities, diet, and hygiene declines with age. However, neighborhood context and family resources moderate this decline. Parents adapt family processes to meet the challenges of their environments (for example, extending parental control to later ages in dangerous neighborhoods).
B. Sampling needs: See the Social Environment's "Integrated Document" for a full description of needs and options.
C. Contact:
    1. Ideally the NCS should collect essential information on family structure, income, parental employment, child care arrangements, residence and reasons for moves, immigration status, and other important and variable family factors on an annual basis. If this is not possible, the information should be collected as often as the family is contacted.

2. Family factors that relate to fewer hypotheses and/or are relatively stable could be collected at less frequent intervals than factors that change often. For example, wealth, religious practice, specific parenting practices, family climate, and family social resources might be included in this set. Specific measurement schedules will depend on the final set of outcomes identified for the study and should be informed by existing research on family processes and resources.
3. Relatively fixed information on the family (e.g., race, ethnicity, education of grandparents, religious affiliation) can be measured once or twice during the study period.

D. Burden – Families routinely provide information such as that described above in existing studies, but no study has ever combined comprehensive measurement of both health and family dynamics. Clearly, burden on families must be considered in setting limits to the scope of measurement.

E. Ethical Considerations - general issues include need to protect privacy of individuals and families and when to intervene in families to protect children's health and well-being. Detected instances of child abuse and neglect must be reported to authorities.

F. Nature of measurement – Most family resources and processes can be measured with existing instruments administered through household surveys. In many cases, these instruments have been successfully adapted to fit within the time constraints of comprehensive studies. Clearly, the range of relevant variables that *could* be measured within the family domain is virtually unlimited. Final decisions about measures to include in the NCS will need to reflect selected outcomes and hard decisions balancing measurement needs and study constraints. Below is a list of relevant variables that could be included in household interviews. This list is also found in the Social Environment Working Group's "Integrated Document". Note that some information could also be obtained from administrative records.

Measures from Household Surveys

Demographic variables: age, gender, marital status, relationship to child of each household member (family structure)
Race, ethnicity, and migration: race, ethnic and gender identity, place of birth, migration history (including residence 5 years prior to initial interview), legal immigration status (if born outside of the U.S.); language spoken.
Religious affiliation, beliefs, attitudes, practices
Education levels of household members: Highest grade attained, whether currently in school or a job training program.
Employment status of household members

Job characteristics of household members: work hours, annual earnings and bonuses, occupation, industry, benefits (health insurance, maternity/paternity leave, breastfeeding supports, child care, flextime), perceptions of job stress.
Household division of labor, time use (time spent in child care, meal preparation, housekeeping, outdoor maintenance, etc. by primary caretakers of child)
Characteristics of parents living out of the household: age, gender, education, employment status, job characteristics, frequency and nature of contact with child
Unearned income of each household member: cash and in-kind public transfers (TANF, WIC, food stamps), child support receipt, other private transfers (gifts from relatives and friends), asset income, other income.
Food Expenditure (Panel Study of income Dynamics measure)
Housing Expenditure. Monthly expenditures on owned or rented housing and utilities.
Medical Care Expenditure. Out-of-pocket expenses for medical and dental care.
Child Care Expenditure. Monthly expenditure on child care for sample child and other children in the household.
Assets: Financial assets, home equity, ownership of major durables
Housing characteristics: Type of structure (single-family, duplex, townhouse, apartment, trailer); age of structure, number of rooms; quality of housing (safety of environment for children, crowding, noise levels, cleanliness of home); whether publicly provided or subsidized housing.
Mobility: Number of moves during past year; reasons for moves; locations of places lived in the past year.
Economic stress: Utility shut-offs; debt problems and bankruptcy; food security (CPS measure).

Current mental health of household members: stress, depression and anxiety, drug and alcohol use
Mental health history of household members:: history of mental health disorders, drug and alcohol use.
Current physical health of household members: body weight and height, current self-assessed health status, reports of current physical health problems and chronic conditions; current pregnancy
Physical health history of household members: history of health problems and onset of chronic conditions.
Relationships among household adults: domestic violence and measures of family conflict; co-parenting; support between care-givers
Parental discipline
Monitoring and supervision
Cognitive stimulation: selected items from HOME and other scales.
Family warmth, closeness
Family meal environments: meals eaten at home or away from home; parenting practices directed at eating; child feeding questionnaire (Birch, et al., 2001)
Breastfeeding practices: Frequency, problems with.
Parenting practices related to physical activity: Frequency of television viewing, video and computer use, outdoor play.
Health management behaviors: Whether child receives regular medical checkups; whether child receives proper dental care (checkups, toothbrushing, put to bed with bottle); use of age-appropriate car restraints (seat belts or car seats); exposure to second-hand smoke; put to sleep on back (for infants)

Parents' social networks and social support: Some subset of the following scales: the Social Network Index (Berkman and Syme, 1979); New Haven EPESE Network Assessment (Seeman and Berkman, 1988), Glass et. Al. 1997); Social support scale (Lin et.al. 1979); Perceived Social Support Scale (Blumenthal et.al. 1987); Medical Outcomes Study Social Support (Sherbourne and Stewart, 1991); Interpersonal Support Evaluation List (Cohen and Hoberman, 1983).
Parent's knowledge of social services: Knowledge about local social service programs (visiting nurse programs, breastfeeding support programs, parenting programs, nutrition counseling.) Knowledge of eligibility for WIC, Medicaid and SCHIP, TANF.
Use of local programs: Use of local social service programs (visiting nurse programs, breastfeeding support programs, parenting programs, nutrition counseling.)
Participation with local institutions: Affiliation and participation with religious institutions, religious education programs, voluntary associations (e.g., PTA, civic groups).
Child Care: Frequency and duration of time child spends in child care, by setting. Kinds of child care used (care provided by relatives, friends, in a home-based or center-based daycare) over the past year. Child care expenses; use of public subsidies. Satisfaction with child care and relationship between family and caregivers.

References

Arborna, C., Jackson, R. H., McCoy, A. & Blakely, C. (1999). Ethnic identity as a predictor of attitudes of adolescents toward fighting. Journal of Early Adolescence, 19 (3), 323 –340.

Asser SM, Swan R. Child fatalities from religion-motivated medical neglect. Pediatrics. 1998; 101: 625-629.

Bartkowski JP, Wilcox WB. Conservative protestant child discipline: The case of parental yelling. Social Forces. 200; 79:265-290.

Baum, A., Garofalo, J. P., & Yali, A. M. (1997). Socioeconomic status and chronic stress: Does stress account for SES effects on health? *Annals of the New York Academy of Sciences, 896*, 131-144.

Belgrave, F. Z., Van Oss Marin, B., & Chambers, D. B. (2000). Culture, contextual, and intrapersonal predictors of risky sexual attitudes among urban African American girls in early adolescence. Cultural Diversity & Ethnic Minority Psychology, 6 (3), 309-322.

Berkman LF, Glass T. Social integration, social networks, social support, and health. In: Berkman LF and Kawachi I (eds). *Social Epidemiology*. New York: Oxford University Press, 2000: pp. 137-73.

Birch, L. L., & Davison, K. K. (2001). Family environmental factors influencing the developing behavioral controls of food intake and child overweight. *Pediatric Clinics of North America, 48*(4), 893-907.

Bloom, B., & Dawson, D. (1991). Family structure and child health. *Am J Public Health, 81*(11), 1526-1528.

Boykin, A. W., & Toms, F. D. (1985). Black child socialization: A conceptual framework. In M. H. P. & M. J. (Eds.), Black Children: Social, educational, and parental environments (pp. 33-51). Newbury Park: Sage.

Bradley, R. H., & Corwyn, R. F. (2002). Socioeconomic status and child development. *Annual Review of Psychology, 53*(1), 371-399.

Branscombe, N., Schmitt, M., & Harvey, R. (1999). Perceiving pervasive discrimination among African Americans: Implications for group identification and well-being. Journal of Personality and Social Psychology, 77(1), 135-149.

Brooks-Gunn, J., & Chase-Lansdale, P. L. (1995). Adolescent parenthood. In M. H. Bornstein (Ed.), *Handbook of Parenting, Volume 3, Status and Social Conditions of Parenting* (Vol. 3, pp. 113-149). Mahwah, New Jersey: Lawrence Erlbaum Associates.

Caldwell, C. H., Sellers, R. M., Hilkene, D. L., & Zimmerman, M. A. (In Press). Racial identity and alcohol use in a sample of academically at-risk African American high school students. American Journal of Community Psychology.

Case, A., Lubotsky, D., & Paxson, C. (2002). Economic status and health in childhood: The Origins of the gradient. *American Economic Review, 92*(5), 1308-1334.

Casper, L. M., & Bianchi, S. (2002). *Continuity and change in the American family*. Thousand Oaks, CA: Sage Publications.

Cassel J. The contribution of the social environment to host resistance. Am J Epidemiol 1976;104:107-23.

Cohen S, Underwood LG, Gottlieb BH. *Social support measurement and intervention*. New York: Oxford University Press, 2000.

Conley, D. (1999). *Being black, living in the red: Race, wealth, and social policy in America*: University of California Press: Berkeley, CA.

Conley, D. (2001). Decomposing the Black-White wealth gap: The Role of parental resources, inheritance, and investment dynamics. *Sociological Inquiry, 71*, 39-66.

Coyne, J. C., & Downey, G. (1991). Social factors and psychopathology: Stress, social support, and coping processes, *Rosenzweig, Mark R. (Ed); Porter, Lyman W. (Ed). (1991). Annual review of psychology, Vol. 42. Annual review of psychology. (pp. 401-425). vii, 600pp.*

Coyne, J. C., Downey, G., & Boergers, J. (1992). Depression in families: A systems perspective, *Cicchetti, Dante (Ed); Toth, Sheree L. (Ed). (1992). Developmental perspectives on depression. Rochester symposium on developmental psychopathology, Vol. 4. (pp. 211-249). xix, 396pp.*

Cramer, J. C. (1995). Racial and ethnic differences in birthweight: The Role of income and financial assistance. *Demography, 32*, 231-247.

Crouter, A.C. & Head, M.R. (2002). Parental monitoring: What are we really measuring and what does it mean? In M.H. Bornstein (Ed.) *The Handbook on Parenting*. Mahwah, NJ: Ehrlbaum.

Cummings, E. M., & Davies, P. T. (2002). Effects of marital conflict on children: Recent advances and emerging themes in process-oriented research. *Journal of Child Psychology & Psychiatry & Allied Disciplines, 43*(1), 31-63.

Cummings, E. M., Davies, P. T., & Campbell, S. B. (2002). Developmental psychopathology and family process: Theory, research, and clinical implications. *Journal of the American Academy of Child & Adolescent Psychiatry, 41*(7).

Cummings, E. M., Goeke-Morey, M. C., Papp, L. M., & Dukewich, T. L. (2002). Children's responses to mothers' and fathers' emotionality and tactics in marital conflict in the home. *Journal of Family Psychology, 16*(4), 478-492.

Darling, N. & Steinberg, L. (1993). Parenting style as context: An integrative model. *Psychological Bulletin*, 113: 487-496.

Demo, D., & Cox, M. (2000). Families with young children: A Review of the research in the 1990s. *Journal of Marriage & the Family, 62*, 876-895.

Dietz, W. H., & Gortmaker, S. (2001). Preventing obesity in children and adolescents. *annual Review of Public Health, 22*, 337-353.

Downey, G., & Coyne, J. C. (1990). Children of depressed parents: An integrative review. *Psychological Bulletin, 108*(1), 50-76.

Duncan, G. J., Brooks-Gunn, J., & Klebanov, P. K. (1994). Economic deprivation and early childhood development. *Child Development, 65*(2), 296-318.

Duncan, G. and Brooks-Gunn, J. (1997) *Consequences of Growing Up Poor.* New York: Russell Sage Foundation.

Duncan, G. J., Yeung, W. J., Brooks-Gunn, J., & Smith, J. R. (1998). How much does childhood poverty affect the life chances of children? *American Sociological Review, 63*(3), 406-423.

Ellison CG, Bartkowski JP, Segal ML. Conservative Protestantism and the parental use of corporal punishment. Social Forces. 1996; 74:1003-1028.
Ellison CG, Levin JS. The religion-health connection: Evidence, theory, and future directions. Health Education and Behavior 1998; 25: 700-720.
Feldman PJ, Dunkel-Schetter C, Sandman CA, Wadhwa PD. Maternal social support predicts birth weight and fetal growth in human pregnancy. Psychosomatic Medicine 2000; 62:715-725.
Feldman CM. (1997) Childhood precursors of adult interpartner violence. Clinical Psychology-Science and Practice 4 (4): 307-334.
Furstenberg Jr., F. F., Cook, T., Eccles, J., Elder, G. H., & Sameroff, A. (1999). *Managing to make it: Urban families in high-risk neighborhoods*. Chicago: University of Chicago Press.
Goetz, D. R., & Caron, W. (1999). A Biopsychosocial model for youth obesity: Consideration of an ecosystemic collaboration. *International Journal of Obesity, 23*(Supp. 2), S58 - S64.
Gunnoe ML, Heatherington EM, Reiss D. Parental religiosity, parenting style, and adolescent social responsibility. Journal of Early Adolescence. 1999; 19:199-225.
Hamm, J. V. (2000). Do birds of a feather flock together? The variable bases for African American, Asian American, and European American adolescents' selection of similar friends. Developmental Psychology, 36 (2), 209-219.French, S. A., Story, M., & Jeffery, R. W. (2001). Environmental influences on eating and physical activity. *annual Review of Public Health, 22*, 309-335.
Heath A, Madden P, Grant JD, McLaughlin TL, Todorov AA, Bucholz KK. Resiliency factors protecting against teenage alcohol use and smoking: Influences of religion, religious involvement and values, and ethnicity in the Missouri Adolescent Female Twin Study. Twin Research. 1999; 2:145-155.
Holing, E. V., Beyer, C. S., Brown, Z. A., & Connell, F. A. (1998). Why don't women with diabetes plan their pregnancies? *Diabetes Care, 21*, 889-895.
Hughes, D., & Chen, L. (1997). When and what parents tell children about race: An examination of race-related socialization among African American families. Applied Developmental Science, 1(4), 200-214.
Hummer RA, Rogers RG, Nam CB, Ellison CG. Religious involvement and U.S. adult mortality. Demography 1999; 36: 273-285.
Janz, N. K., Herman, W. H., Becker, M. P., Carron-Prochownik, D., Shayna, V. L., Lesnick, T. G., Jacober, S. J., Fachnie, J. D., Kruger, D. F., & Sanfield, J. A. (1995). Diabetes and pregnancy: Factors associated with seeking pre-conception care. *Diabetes Care, 18*, 157-165.
Jessor, R. (1993). Successful adolescent development among youth in high-risk settings. *American Psychologist, 48*(2), 117-126.
Johnson BR, Tompkins RB, Webb D. Objective Hope. Assessing the Effectiveness of Faith-Based Organizations: A Review of the Literature. Philadelphia: Center for ---Mahoney A, Pargament KI, Tarakeshwar N, Swank AB. Religion in the home in the 1980s and 1990s: A meta-analytic review and conceptual analysis of links between religion, marriage, and parenting. Journal of Family Psychology. 2001; 15:559-596.Henshaw, S.

K. (1998). Unintended pregnancy in the United States. *Family Planning Perspectives, 30*(1), 24-46.
Kinsey, J. (1983). Working wives and the marginal propensity to consume food away from home. *American Journal of Agricultural Economics, 65*, 10-19.
Kinsey, J. (1994). Food, families, and socioeconomic status. *Journal of Nutrition Education, 124*, 1878-1885.
Kost, K., Landry, D. J., & Darroch, J. E. (1998). Predicting maternal behaviors during pregnancy: Does intention status matter? *Family Planning Perspectives, 30*(2), 79-88.
Kumanyika, S. K. (2002). Obesity prevention: The Case for action. *International Journal of Obesity, 26*, 425-436.
Kumanyika, S. K., Wilson, J. F., & Guilford-Davenport, M. (1993). Weight-related attitudes and behaviors of black women. *American Journal of the Dietetic Association, 93*, 416-422.
Lovejoy, M. C., Graczyk, P. A., O'Hare, E., & Neuman, G. (2000). Maternal depression and parenting behavior: A meta-analytic review. *Clinical Psychology Review, 20*(5), 561-592.
Marsiglia, F. F., Kulis, S., & Hecht, M. L. (2001). Journal of Research on Adolescence 11(1), 21-48.
McLanahan, S. S., & Sandefur, G. (1994). *Growing up with a single parent: What helps, and what hurts*. Cambridge, MA: Harvard University Press.
McLoyd, V. C., Cauce, A. M., Takeuchi, D., & Wilson, L. (2000). Marital processes and parental socialization in families of color: A decade review of research. *Journal of Marriage & the Family, 62*(4), 1070-1093.
Moen, P., Elder, G. H., Jr., & Luescher, K. (Eds.). (1995). *Examining lives in context: Perspectives on the ecology of human development*. Washington, D.C.: American Psychological Association.
Mowbray, C., Schwartz, S., Bybee, D., Spang, J., Rueda-Riedle, A., & Oyserman, D. (2000). Mothers with a mental illness: Stressors and resources for parenting and living. *Families in Society, 81*(2), 118-129.
National Research Council.(1993). *Understanding Child Abuse and Neglect.* Panel on Research on Child Abuse and Neglect, National Research Council. Washington, D.C.: National Academies Press.
National Research Council.(2002). *Confronting Chronic Neglect: The Education and Training of Health Professionals on Family Violence.* Felicia Cohn, Marla E. Salmon, and John D. Stobo, Editors. Board on Children, Youth, and Families, National Research Council. Washington, D.C.: National Academies Press.
National Research Council.(1996). *Understanding Violence Against Women.* Nancy A. Crowell and Ann W. Burgess, Editors; Panel on Research on Violence Against Women, National Research Council. Washington, D.C.: National Academies Press. Mayer, S. E., & Jencks, C. (1989, March 17, 1989). Growing up in poor neighborhoods: How much does it matter? *Science,* 1441-1444.
Neumark-Sztainer, D., Story, M., Hannan, P. J., & Croll, J. (2002). Overweight status and eating patterns among adolescents: Where do youths stand in comparison with the Healthy People 2010 objectives? *American Journal of Public Health, 92*(5), 844-851.

Oyserman, D., Mowbray, C. T., Meares, P. A., & Firminger, K. B. (2000). Parenting among mothers with a serious mental illness. *American Journal of Orthopsychiatry, 70*(3), 296-315.

Pain, R., Bailey, C., & Mowl, G. (2001). Infant feeding in North East England: Contested spaces of reproduction. *Area, 33*(3), 361-272.

Parke, R. D., & Buriel, R. (1998). Socialization in the family: Ethnic and ecological perspectives. In W. Damon (Ed.), *Handbook of Child Psychology* (pp. 463-552). New York, NY: Wiley.

Pearce LD, Axinn WG. The impact of family religious life on the quality of mother-child relations. American Sociological Review. 1998; 63: 810-828.

Regnerus M, Smith C, Fritsch M. Religion in the lives of American adolescents: A review of the literature. Unpublished manuscript, 2002.

Repetti, R. L., Taylor, S. E., & Seeman, T. E. (2002). Risky families: Family social environments and the mental and physical health of offspring. *Psychological Bulletin, 128*(2), 330-366.

Roggman LA, Boyce LK, Cook GA, Cook J. Getting dads involved: Predictors of father involvement in Early Head Start and their children. Infant Mental Health Journal. 2002; 23: 62-78.

Rosenberg DA, Krugman RD. (1991). Epidemiology And Outcome Of Child-Abuse. Annual Review Of Medicine 42: 217-224.

Rowley, S. A. J., Sellers, R. M., Chavous, T. M., & Smith, M. (1998). The relationship between racial identity and self-esteem in African American college and high school students. Journal of Personality and Social Psychology. 74 (3), 715-724.Regnerus, M., Smith, C., & Fritsch, M. (2002). *Religion in the lives of American adolescents: A Review of the literature*.Unpublished manuscript.

Sanders Thompson, V. L. (1994). Socialization to race and its relationship to racial identification among African Americans. Journal of Black Psychology, 20(2), 175-188.

Scheier, L. M., Botvin, G. J., Diaz, T., & Ifill-Williams, M. (1997). Ethnic identity as a moderator of psychosocial risk and adolescent alcohol and marijuana use: Concurrent and longitudinal analyses. Journal of Child & Adolescent Substance Abuse, 6(1), 21-47.

Sellers, R. M. & Shelton, J. N. (In Press). Racial identity, discrimination, and mental health among African Americans. Journal of Personality and Social Psychology.

Smith, E. P., Walker, K., Fields, L., Brookins, C. C., & Seay, R. C. (1999). Ethnic identity and its relationship to self-esteem, perceived efficacy and prosocial attitudes in early adolescence. Journal of Adolescence, 22 (6), 867-880.

Spencer, M. B. (1983). Children's cultural values and parental child rearing strategies. Developmental Review, 3(4), 351-370.

Stansfeld SA. Social support and social cohesion. In: Marmot M and Wilkinson RG (eds). *Social determinants of health.* Oxford: Oxford University Press, 1999.

Stattin H & Kerr M. (2000). Parental monitoring: A reinterpretation. *Child Development* 71: 1070-1083.

Stettler, N. (2002). Environmental facotrs in the etiology of obesity in adolescents. *Ethnicity and Disease, 12*, S1. 41-44.

Stevenson, H. C. (1994). Validation of the Scale of Racial Socialization for African American adolescents: Steps toward multidimensionality. Journal of Black Psychology, 20(4), 445-468.

Strawbridge WJ, Shema SJ, Cohen RD, Kaplan GA. Religious attendance increases survival by improving and maintaining good health behaviors, mental health, and social relationships. Ann Behav Med 2001; 23(1): 68-74.

Troiano, R. P., & Flegal, K. M. (1998). Overweight children and adolescents: Descrption, epidemiology, and demographics. *Pediatrics, 101*, 497-504.

Variyam, J. N. (2001). Overweight children: Is parental nutrition knowledge a factor? *Food Review, 24*(2), 18-22.

Wallace, J. M. J., & Forman, T. A. (1998). Religion's role in promoting health and reducing risk among American youth. *Health Education and Behavior, 25*(6), 721-741.

Wallace, J. M. J., & Williams, D. R. (1997). Religion and adolescent health-compromising behavior. In J. Schulenberg & J. L. Maggs & K. Hurrelmann (Eds.), *Health risks and developmental transitions during adolescence* (pp. 444-468). Cambridge, MA: Cambridge University Press.

Wardle, J., Waller, J., & Jarvis, M. J. (2002). Sex differences in the association of socioeconomic status with obesity. *American Journal of Public Health, 92*(8), 1299-1304.

Weitzman, M., Gortmaker, S., & Sobol, A. (1990). Racial, social, and environmental risks for childhood asthma. *AJDC, 144*, 1189-1194.

Williams, D. R., Spencer, M. S., & Jackson, J. S., (1999). Race, stress, and physical health: The role of group identity. In R. J. Contrada (ed.), Self, social Identity and Physical Health: Interdisciplinary explorations (pp: 71 –100), New York: Oxford University Press.

Wilcox WB. Conservative Protestant childrearing: Authoritarian or authoritative? American Sociological Review. 1998; 63:796-809.

Witherspoon, K. M., Speight, S. L., & Thomas, A. J. (1997). Racial identity attitudes, school achievement, and academic self-efficacy among African American high school students. Journal of Black Psychology, 23 (4), 344-357.

Wright, R., Cohen, S., Carey, V., Weiss, S. T., & Gold, D. R. (2002). Parental stress as a predictor of wheezing in infancy. *American Journal of Respiratory Critical Care Medicine, 165*, 358-365.

Wright, R., & Fisher, E. B., Jr. (Forthcoming). Putting asthma in context: Community influences on risk, behavior, and intervention. In I. Kawachi & L. F. Berkman (Eds.), *Neighborhoods and health*. New York, NY: Oxford University Press.

Wright, R., Rodriguez, M., & Cohen, S. (1998). Review of psychosocial stress and asthma: An Integrated biopsychosocial approach. *Thorax, 1998*, 1066-1074.

Wright, R., & Steinbach, S. F. (2001). Violence: An Unrecognized environmental exposure that may contribute to greater asthma morbidity in high risk inner-city populations. *Environmental Health Perspectives, 109*, 1085-1089.

Wu, L. L., Bumpuss, L., & Musick, K. (2001). Historical and life course trajectories of nonmarital childbearing. In L. L. Wu & B. Wolfe (Eds.), *Out of Wedlock: Causes and consequences of nonmarital fertility* (pp. 3-48). NY, New York: Russell Sage Foundation.