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**PHYSICAL AND MENTAL HEALTH STATUS
OF HISPANIC ADOLESCENT GIRLS:
A COMPARATIVE PERSPECTIVE**

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Physical and Mental Health Status of Hispanic Adolescent Girls:

A Comparative Perspective

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Introduction

Adolescence is a time of physical and emotional transition and a crucial period for identity formation as sex roles become differentiated and individual identities, including ethnicity, crystallize. The onset of puberty brings physical changes that require emotional adjustment and impose behavioral challenges for youth, who begin experimenting with adult behaviors even as they have little appreciation for how some actions can affect their health status in later years. Experimentation with adult roles often places adolescents at risk of health-compromising behavior, particularly when drugs, narcotics or tobacco are involved. For girls, unprotected sexual activity not only increases the risk of contracting sexually transmitted diseases, but also the likelihood of unintended pregnancy. Eating disorders and early initiation into sexual activity also jeopardize long-term health prospects of youth. Peer pressures, parental absence during formative years, and living in dangerous neighborhoods places an increasing number of adolescents at great physical risk. Experiences with physical or sexual abuse lead to high levels of stress, low self-esteem and suicidal ideation – all indicators of poor mental health.

Recently the Commonwealth Fund (1999) reported that girls, compared to boys, are at higher risk of psychological distress and are more uncertain that they will fully realize themselves and their ambitions. Low self-esteem, which is highly influenced by peer groups during adolescence, is a particularly salient aspect of mental wellbeing. To the extent that self-esteem is tied to social or cultural identity, minority adolescents may be particularly vulnerable to low self-esteem, especially if their differences are made conspicuous by language difficulties or phenotypic markers, as among many Hispanic girls. Social class differences between

minority and nonminority youth complicate the task of disentangling differences in health status and behavior due to group membership from that due to social and economic circumstances. Therefore, it is important not only to document the range of variation in the health status of Hispanic adolescents, but also to consider whether such differences persist when they are compared to whites with similar characteristics that affect health status and care-seeking behaviors.

Race and ethnic differences in the risks of health-compromising behavior emerge during adolescence not only because minority teens are more likely to be poor, which implies more limited access to preventive health care and greater exposure to risky social environments, but possibly also because of group-specific differences in tolerance for physical abuse, early sexual activity, and trust in the medical system. For Hispanics, especially recent immigrants or children of immigrants, distrust and/or lack of familiarity with the medical system may further hamper their efforts to seek preventive health care, including access to contraception. Unfortunately, compared to black and white girls, much less is known about the health status of Hispanic adolescents.

As one of the fastest growing population subgroups, Hispanics will pose special challenges for the health system. High levels of immigration combined with high fertility rates yield a growth rate for Hispanics that is seven times that of the non-Hispanic population (U.S. Department of Commerce, 1993). According to U.S. Census Bureau estimates, Hispanics numbered just under 30 million in 1997, representing approximately 11 percent of the total population (U.S. Department of Commerce, 1998). Current trends in fertility and immigration suggest higher growth of Hispanics well into the 21st century. Hispanics are projected to surpass blacks as the largest minority by 2003—perhaps sooner, depending on the volume of legal and

undocumented immigration from Central and South America and the Spanish-speaking Caribbean. By the year 2020, the U.S. Hispanic population is projected to reach 52.6 million, representing approximately 16 percent of the national total (U.S. Department of Commerce, 1996).

Not only are Hispanics growing rapidly as a share of the U.S. population, but they are appreciably younger than blacks, Asians or non-Hispanic whites. Two-thirds of the Hispanic population are immigrants or children of immigrants (del Pinal and Singer, 1997), and by 1998, Hispanic children outnumbered black children. The youthful age structure also means that Hispanic school enrollment rates will remain high and preventive health needs will be relatively higher than curative needs for the short to median term. Mexican Americans, the largest of the Hispanic subgroups, appear to enjoy better health than their socioeconomic status would indicate, which may partly explain their relatively low utilization rates for health care services. Although relatively little is known about the health care utilization patterns of Hispanic subgroups, compared to whites, Hispanics are generally more obese, less physically active, and less likely to participate in lifestyles that promote cardiovascular health (Office of Research on Women's Health, 1998). That less acculturated groups tend to be healthier and to engage in less risky behaviors than their more acculturated national counterparts poses a challenging puzzle for health care researchers.

Trends in income and poverty indicate that many Hispanics are unable to afford basic necessities, including preventive health care. To complicate matters, Hispanic poverty rates rose during the 1980s and 1990s – a period of rapid demographic growth. By 1995 black and Hispanic family poverty rates had converged, and for single-parent families and children, Hispanic poverty rates exceeded those of blacks for the first time (del Pinal and Singer, 1997).

Also, the high immigrant composition of the population means that many parents have not had the opportunity to acquire a U.S. education, or much education at all, which has important implications for their understanding of and access to the increasingly complex U.S. healthcare system. Finally, because of their concentration in low-wage jobs, Hispanics have the lowest insurance coverage of any population group – a meager 30 percent in 1995. Combined, the stresses of poverty, lack of health insurance, limited access to health care providers, and for many, also noncitizen status, place large segments of the Hispanic population at risk of poor physical and mental health problems (Office of Research on Women’s Health, 1998).

In this chapter we examine the physical and mental health status of Hispanic adolescent girls from a comparative perspective. Because there are relatively few studies of Hispanic girls' health, it is difficult to know whether and which aspects of health status or risk-taking and health-seeking behavior are unique to them. Therefore, we compare Hispanic adolescent girls to mature Hispanic women, and to black and white adolescent girls and Hispanic boys on various indicators of physical and mental health status. Comparisons with black and white adolescent girls help identify possible cultural differences; comparisons with Hispanic boys isolate sex differences within a common culture; and comparisons with mature women illustrate standards set by their mothers and other adult role models, but also signal possible futures if adolescents behave as their mothers.

Using the *Commonwealth Fund Survey of the Health of Adolescent Girls*, this chapter considers two dimensions of health status, namely physical and mental wellbeing, and several behavioral indicators that either compromise or enhance health status. To characterize the mental health status of Hispanic adolescent girls we examine measures of self-esteem, depression, stress, and suicidal ideation. Because most of these psychiatric disorders are inter-

correlated, youth who fare poorly on one outcome will most likely fare poorly in one or more of the others, and our results provide confirming evidence. Among the indicators of physical wellbeing we examine are exposure to physical and sexual abuse, experiences with violence, and perceived safety. Consideration of risky and health-compromising behavior by adolescents, namely the prevalence and correlates of substance abuse, eating disorders, lack of exercise, and health-seeking behavior provides some leverage for making recommendations about possible policy interventions.

Our approach to characterizing the health status of Hispanic girls is largely descriptive, but with due attention to the statistical significance of differences among groups compared. These differences are assessed using bivariate contrasts between Hispanic boys and girls, comparisons to white and black adolescent girls do well as with mature women. Because demographic groups differ in socioeconomic and other characteristics that are systematically related to health status, physical wellbeing, and propensity to seek preventive care, we also use multivariate techniques to determine whether, in what ways, and to what extent Hispanic adolescents differ from their black and white age counterparts.

The chapter is organized along the three domains of health status examined plus a section on health-seeking behavior. Each section is prefaced by a selective review of previous studies which helps situate results from the *Fund Survey* against a backdrop of existing empirical evidence. Before proceeding with the empirical results, we first provide a brief description of the measurement of the core constructs we analyze (Section II). The concluding section provides a general appraisal of Hispanic girls' health status, highlighting whether and in what ways they differ from other adolescents, and identifying ways policy intervention may enhance prevention.

Data and Measurement

The *Commonwealth Fund Survey of the Health of Adolescent Girls* is a nationally representative sample of adolescent girls (N=3586) and boys (N=3162) enrolled in grades five through twelve during the 1996-97 school year (Commonwealth Fund, 1997). Adolescents were selected (and interviewed in) classrooms from 265 schools drawn from a nationally representative cross-section of public, private and parochial schools. Approximately half of respondents were enrolled in middle school and the other half in high school. Because the sampling involved a stratified design that ensured representation of black, white and Hispanic adolescents from urban, suburban and rural schools, weights inverse to the probability of selection are applied to reach national representativeness. We restrict our analysis to 2,833 girls (353 Hispanic; 1947 white; and 533 black) and 2353 boys (269 Hispanic; 1668 white; and 416 black) who provided valid data about their race and ethnic origin.

We also draw on the *Commonwealth Fund Survey of Women's Health*, which was conducted in 1993 by Louis Harris and Associates, Inc (Falik and Scott Collins, 1996: 3-4). This nationally representative survey of adult women and men (ages 18 and over) includes oversamples of black (N= 407) and Hispanic (N= 405) women. With appropriate weights, the survey results are representative of the U.S. adult population. Appendix Table A-1 reports weighted and unweighted sample sizes for both the adolescent and mature adult surveys. Although many of the items included in the health surveys of adolescent girls and mature women are comparable, there are notable differences in several key items that warrant further discussion, as elaborated below.

Operational Definitions

The dependent variables examined fall into three general categories, namely mental health, physical wellbeing, and risk-taking behaviors that compromise health status and various indicators of health-seeking behavior, including differences in access to care. We also discuss key independent variables that are not directly comparable across surveys, particularly socioeconomic status, family structure, and race and ethnic origin.

Mental Health Status.

We analyze four indicators of mental health status using both the adolescent girls and adult women health surveys. These include: *self-esteem*, *depression*, *reports of suicidal thoughts*, and *stress*. In the adolescent survey, self-esteem is measured using Rosenberg's 10-item self-esteem scale (Rosenberg, 1965). Each item is coded on a Likert-type scale indicating how strongly respondents agree or disagree with specific items. Low scale values represent low self-esteem on a scale ranging from a minimum value of 10 to a high of 40. For tabular analyses, values are coded into an ordinal scale where scores under 25 represent low esteem, scores from 25-34 represent moderate esteem, and values in excess of 34 represent high esteem. Observations missing data for one item were assigned the mean of the other 9 items, but those missing responses on more than one item were excluded from the analysis. In the survey of mature women, self-esteem also was constructed from ten survey items. We used a similar procedure to create the scale, including the treatment of missing data, and adopted the same cutpoints in the construction of the ordinal measure.

In the adolescent survey, *depression* was based on the Children's Depression Inventory (Kovaks and Beck, 1977) using 14 of the 27 items in the original scale. Item-specific values ranged from 1 to 3, but responses were recoded with values ranging from 0 (low) to 2 (high), and

summed. The minimum and maximum values were 0 and 28, representing low and high depression, respectively. We coded a maximum of two missing responses, substituting the mean of other values for the nonresponses. In the few instances where multiple answers were provided, the most conservative was used. For tabular analyses, we constructed an ordinal scale where scores of 8 or less represented low or no depression, scores of 9-12 moderate depression, and in excess of 12 high depression.

For the mature women, the depression scale was constructed from six survey items taken from the Center for Epidemiological Studies Depression (CES-D) Scale (Radloff, 1977), which we attempted to make comparable with that of adolescents. Responses ranging from 0 to 3 on each item were summed to form a scale, where low scores indicated no or low depressive symptoms. We observed the same recoding guidelines as with the adolescents. With a range of 0 to 18 for mature women, low depression was represented by scores of 5 or under, moderate depression with scores from 6 to 11, and high depression with scores of 12 or over.

Suicidal ideation in both surveys was measured differently, but responses were recoded to maximize comparability. In the adolescent survey, respondents who reported they had thought of suicide (both those who think about suicide but would not do it, and those who reported they wanted to kill themselves) were classified as suicidal. Among adults, suicidal disposition is based on a single item indicating whether respondents thought of ending their life in the past year. The lack of comparability of these items stems from differences in timeframe as well as differences in question wording. However, the general question intent was quite similar, providing strong face validity between items for mature and adolescent women.

Stress was constructed as a 17-item scale with item values from 0 to 2 where 2 indicates high stress and 0 no stress. Respondents were grouped into three categories reflecting high,

moderate or low stress. Adolescents with composite average scores of 1.2 or greater, or who had at least six items with a score of 2, were classified as *high stress*; those with average composite scores ranging from .6 to 1.2 were classified as *moderate stress*; and those with average scores under .6 and no single item with a score of 2 were grouped into the *low stress* category.

Finally, adolescents were asked about the number of stressful life events experienced in the last year. These included: moving to a new home; a new family member; a new school; a serious family illness; parental separation/divorce; parental job loss; death of a close family member; death of a close friend; parents experiencing legal difficulties; or other highly stressful events. Of these events, four are considered the most *negative* stressful life events: parental separation/divorce; parental job loss; death of a close friend; and family experiencing legal difficulties. These items were not asked of the adult women. For adolescent girls, we simply tally the number of negative events. For this index, values range from a minimum of 0 to a maximum of 4.

Health Status and Physical Wellbeing

We analyze several indicators of overall health status and physical wellbeing, beginning with a commonly used self-reported measure of health status. Respondents in both surveys were asked to describe their own *health status* as excellent, good, fair or poor. We also examine race and ethnic differences in *physical and sexual abuse*. In separate questions, adolescents were asked whether they were ever physically abused or sexually abused. For those who responded affirmatively, several follow-up questions inquired about the location and perpetrator of the abuse. From these two items, we created a composite variable with four categories, namely: no abuse; both sexual and physical abuse; sexual abuse only; and physical abuse only. There was very little missing data on these items (about 3 percent). For adult women, experiences of sexual

abuse refer to abuse experienced when growing up. A similar procedure of combining physical and sexual abuse into four categories was used to maintain comparability with the adolescent sample.

Finally, the adolescent survey, but not the adult women's health survey, asked several questions about physical safety and violence. Respondents were queried about experiences with violence at home and whether they feel safe at home, at school, and in their neighborhood. Because safety is a fundamental aspect of physical as well as emotional wellbeing, and several recent studies have shown that domestic violence is far more prevalent than previously acknowledged, we examine whether domestic violence was a serious problem for adolescents. To indicate severe domestic violence, adolescents were asked whether violence in the home, or the threat of domestic violence, ever made them want to leave home. This variable contains two categories indicating affirmative (nearly 25 percent of adolescent girls responded yes) or negative responses.

Risky and Unhealthy Behaviors

Behaviors that compromise future health status and emotional wellbeing include the incidence of eating disorders, and use of alcohol, tobacco and drugs. To identify eating disorders, adolescents were asked whether they had ever binged and purged. However, only adult women whose self-reported weight was under 120 lbs were asked about binging and purging. Therefore, these items are not strictly comparable across surveys. Items measuring drug and alcohol use are not also comparable across surveys. Adolescents were asked about the frequency of their cigarette use. Regular cigarette smokers reported having smoked several cigarettes or more last week, and included self-designated smokers who did not specify a frequency of use. Similarly, for alcohol consumption, respondents were asked to describe their

use of alcohol based on several possibilities, including: never used; tried once or twice; occasional drinker; monthly drinker; weekly drinker or drinker (frequency unspecified). Regular drinkers are those who at least drank monthly, including drinkers of unspecified frequency.

Drug use refers to use during the past month.

Adult women who reported they currently smoke are classified as regular smokers.

Women were also asked whether they ever drink alcohol and among those who responded affirmatively, how many days in the past two weeks they had consumed alcohol. Women who reported drinking three or more times in the past two weeks were classified as regular drinkers. Finally, adults were asked whether they ever used drugs, and if so, whether they had done so in the past month.

Health Seeking Behavior and Access to Care

Most indicators reported above characterize health status or behaviors that compromise physical or mental wellbeing. Both the adolescent and adult surveys inquired about protective behaviors. Because previous studies document race and ethnic differences in utilization of the health care system, we also investigate whether Hispanic girls confront different constraints from other adolescents in accessing the health care system. Both adolescents and adults were asked if they had a regular health care provider and the usual source of care (i.e., physician, clinic, school nurse). Responses for the adolescents were collapsed into five categories: physician, clinic (non-school based), school nurse or clinic, emergency room and other. The “other” category includes a variety of sources, such as: parents, pharmacy, hospital, military medical service provider, home and any other provider. Women’s responses included physician, clinic, emergency room and other, which included HMO, midwife and nurse practitioner.

Both adolescents and adult women were asked how many times they had seen a physician during the past 12 months, and we designated those who had seen a physician at least once during the past year. Adolescents, but not adult women were asked whether they had seen a mental health professional during the past 12 months. Reports of health insurance coverage differs across surveys because adolescents were asked whether they had health insurance, but adult women were asked about insurance coverage from a variety of sources, including employer or spouse provided, Medicaid or Medicare, private insurer, or an HMO. Both adolescents and mature women were asked whether there was a time that they needed care but not received it. However, adolescents were asked if they had ever gone without needed health care, while adult women were only asked if they had not received necessary care in the past year. Because of differences in reference periods, these indicators are not strictly comparable. Finally, adolescents were asked whether there were some topics which they were either too embarrassed or uncomfortable to discuss with their health care providers, but adult women were asked only whether they had a problem they wanted to discuss with their doctor but felt uncomfortable doing so. This question is important to evaluate claims that cultural factors are responsible group differences in health-seeking behavior.

Independent Variables

Our main interest is in the health status of Hispanic adolescent girls, but we draw comparisons with boys and also compare Hispanic girls with their black and white adolescent counterparts. For these comparisons respondents were asked to report their race or ethnic

background based on a set of pre-specified categories.¹ In the survey of mature women, race and ethnic background was ascertained by separate questions inquiring about race and Hispanic origin. Hispanics can be of any race in either survey, but we do not analyze these racial subgroups owing to small sample sizes.

Only 4 to 5 percent of girls and boys, respectively, reported that they did not know their race or ethnic background, but this low nonresponse rate is based on the subset of youth who actually answered the question. Because this item was placed at the end of the adolescent survey, a nontrivial share of students did not answer, most likely because they ran out of time. This is consistent with diagnostic analyses showing that students who did not respond to the race/ethnic item also failed to provide answers to several items located at the end of the survey instrument. Our focus requires restricting all analyses to respondents with valid data on the race and ethnic identifier. We also excluded adolescents who reported Asian or Native American origin.²

1. Socioeconomic Status

In general, it is difficult for youth to provide accurate information about their parents' income and socioeconomic status. Therefore, socioeconomic status is assessed using responses

¹ These categories are: White (not Hispanic); Black or African-American (not Hispanic), Hispanic/Latino—white, Hispanic/Latino—black; Hispanic/Latino—Unspecified; Asian, Asian Indian or Pacific Islander; Native American or Alaskan Native; and Other. We exclude the latter three because they are comparatively smaller and to produce a more manageable set of comparisons.

² We have conducted extensive sensitivity analyses of the missing responses on the race and ethnic item. These results showed that students who failed to provide their race and ethnic origin were in lower grades (7th grade or below), of low socioeconomic status and attended urban public schools compared to their counterparts whose race and ethnic status was provided. For mature women, missing race and ethnic origin was higher among separated and those who did not report a work status.

to questions about mother's education and a qualitative evaluation of income adequacy.³

Respondents who reported that their families had a difficult time meeting basic living costs were classified as low socioeconomic status, as were youth whose mother had a high school education or less and could barely meet basic needs. Youth from families with college-educated mothers who could just meet basic needs are classified as lower middle class, while those who experienced no difficulties meeting basic needs are classified as middle class, irrespective of parental educational status. Finally, youth whose families experienced no financial difficulties and were able to purchase extras are labeled as upper middle class if their mother had high school or some college education. The parents of affluent youth were college graduates who experienced no difficulty meeting needs or providing for special things. For the adult women, socioeconomic status is a composite of family income and education level and is measured with greater precision because it derives from two objective measures (education and income) rather than subjective assessments of financial wellbeing.

Given these very different operationalizations, it is not surprising that the socioeconomic profile of the adult and adolescent female samples shows large differences (reported in Appendix Table A-2). Whereas over one-third of adult women were classified as low socioeconomic status, only 12 percent of adolescent girls were so classified. At the opposite end of the spectrum, just over one in five mature women were classified as upper middle class (or higher), compared to nearly 50 percent of adolescent girls. Either these social class metrics tap very different status dimensions, or they are measured with very different levels of error. We suspect both factors

³ Respondents were asked to select among four responses indicating family financial status: family has a hard time getting enough money for food, clothing, and basic living costs; family has just enough money for food, clothing and basic living costs; family has few problems buying what your family needs; family has no problems buying what your family needs and is able to buy special things.

operate to produce these highly discrepant distributions of economic wellbeing, but particularly the latter.

Nevertheless, both metrics of socioeconomic status are directly associated with minority group status and in comparable ways. That is, Hispanics and blacks are more highly represented at the lower end of the socioeconomic hierarchy and whites are disproportionately represented among the upper middle and the upper strata, as obtains for the general population. Although the contrasts are sharper for the mature women, who can report their class standing with greater accuracy, the overall pattern of association (and its statistical significance) is similar. For adolescent women, there is relatively little differentiation among those who self-identify as middle class, except that blacks are slightly less represented in this category compared to whites or Hispanics. Surprisingly, blacks and whites are about equally likely to be classified as upper class, but Hispanics are less well represented in this category. These differences could influence race and ethnic variation in health-related behaviors and outcomes, but mostly they indicate caution in comparing mature and adolescent women's social class.

Sample Characteristics

Table 1 reports the age composition and family characteristics of adolescent boys and girls. There were no sex differences in the age composition of the sample, although Hispanic girls were slightly more highly represented at the lower ages than their black and white counterparts. Because Hispanic girls (and boys) also had higher rates of nonresponse to all questions reported in this table, it is conceivable that the observed age differences partly reflect the nonrandom character of missing data. In general, the socioeconomic profiles of adolescent boys resemble those of adolescent girls, with the noteworthy exception that white and Hispanic boys were more likely than girls to be classified in the upper socioeconomic group. Also,

whereas 8 percent of Hispanic girls failed to answer questions about their parents' education and/or their income shortfalls, only 4 percent of Hispanic boys did so. These discrepancies in nonresponse may contribute to sex differences in socioeconomic status.

Table 1 About Here

The largest race and ethnic differences in background characteristics obtain for family structure. Whites are most likely to reside with two parents—80 and 84 percent for girls and boys, respectively. Consistent with national data, black youth are more than twice as likely as whites to live with one parent. Among Hispanics, slightly higher shares of adolescent women compared to men reported they lived with a single parent—24 versus 21 percent, respectively—and girls were slightly more likely than boys to live with neither parent—5.1 versus 3.9 percent, respectively. Family structure is important for health outcomes because it is associated with risks of violence and abuse, with stress, and lower levels of parental supervision that in turn influence the likelihood that youth will engage in health-compromising risk behaviors. The key message from Table 1 is that race and ethnic differences in health status must consider group variation in socioeconomic status and family structure in order to draw inferences about group-specific behavior and outcomes. We turn to these matters next.

Mental Health Status of Hispanic Adolescents

Although research about the mental health status of minority populations has increased appreciably since the release of several national surveys containing both race and Hispanic identifiers, compared to black and white youth, there remains a dearth of information about the mental health status of Hispanic adolescents. During their teen years, minority youth are subjected to the difficulties and pressures associated with the cognitive, social and emotional

changes that accompany puberty, as well as the compounding effects of minority group status. Not surprisingly, between the ages of 14 and 18, the co-incidence of psychiatric disorders, such as depression, low self-esteem, stress and suicidal thoughts peaks (Millstein and Litt, 1990; Institute of Medicine, 1989). These include issues of social identity, cultural integration and discrimination—all of which have mental health implications that are particularly salient among Hispanics (Porter, 1993).

Because adolescents see themselves as they believe their age-mates perceive them, peers exert a powerful influence on adolescents' self-esteem, but this is especially so among girls (Brown, 1990: 191). The importance of self-esteem to general mental health resides in its high association with depression, suicidal behavior and a myriad of conduct disorders (Harter, 1990; Knight, 1994). Feelings of worthlessness, an aspect of low self-esteem, are also a symptom of depression (Lennon, 1996). Self-esteem influences (and is influenced by) identity formation, which in turn shapes adult aspirations. Thus, promoting high self-esteem among adolescents is an important goal to prevent low mental health status among adults.

Using the *Commonwealth Fund Survey of Women's Health*, Lennon (1996) found that income and education were both associated with higher self-esteem. Age had a nonlinear effect on self-esteem in that both younger and older women had lower self-esteem than middle-aged women. Hispanic women (of all races) expressed lower self-esteem than non-Hispanics. However, from this study it is not possible to establish the reasons for low self-esteem, or why levels may be lower for Hispanic than for non-Hispanic women. Some evidence indicates that adult self-esteem is related to childhood abuse (McCauley et al., 1997), and sexual abuse in particular (Beitchman et al., 1992; Green, 1993). However, Romans (1996) found that only the most severe abuse was associated with low self-esteem in women. Walitzer (1996) and Geller

(1998) trace low self-esteem to alcohol problems, psychiatric disorders and eating disorders, but their analysis does not address adequately issues of causal order, namely whether low esteem leads to alcohol, psychiatric, and eating disorders, or whether the latter produce low esteem. Most likely the relationship is reciprocal and self-reinforcing, but the key triggers may differ over the life cycle and among population subgroups.

Stress often leads to depression and poor mental wellbeing (Burnam et al., 1987). Among Hispanics, stress appears to be managed differently by the native- and foreign-born (Cervantes and Castro, 1985; Burnam et al., 1987). Native-born Mexican Americans have higher rates of mental disorders and substance use disorders than do their foreign-born peers, even though the foreign-born have likely experienced greater stress from immigration and adaptation to a new culture (Burnam et al., 1987). Most of the research with a specific focus on Hispanics has taken for granted that they experience language differences, cultural differences and migration experiences produce high levels of stress. Moreover, group differences are assumed to capture cultural differences and exposure to stressful experiences (Vega, 1984; Burnam et al., 1987). Such tautological reasoning ignores the straightforward question as to whether Hispanic adolescents actually experience a higher level of stress than non-Hispanic girls. Our analyses provide relatively weak evidence.

Several studies show that depression is more prevalent in girls compared to boys (Millstein and Litt, 1990; Brooks-Gunn, 1990). Although the highest rates of depression are found among women aged 25-44, Horton (1992) claims that the peak age of onset appears to be declining. Also, recent study by Bifulco (1998) reveals that depressive episodes during adolescence predicted depression in mature women. Specifically, she finds that two-thirds of adult women with depressive symptoms experienced a previous depressive episode, with the

largest effect among those who endured an event before age 20. In this light, recent evidence that significant depressive disorders marked by suicide and suicidal thoughts have been rising among adolescents is cause for concern (Millstein and Litt, 1990; Horton 1992). Clinical depression significantly increases the risk of suicide, even more so than do other mental disorders (Millstein and Litt, 1990), but especially when combined with low self-esteem (Harter, 1990).

Vega and associates (1984) find that Spanish-speaking Hispanic adult women are subject to higher rates of depression than their English-speaking counterparts. The youngest ages included in Vega's study are 18 and 19 year olds, who show differences in depression by language use. Vega finds that among Spanish speakers, 18 and 19 year olds had the highest average for depression scores. Comparable research focusing on younger adolescents is lacking, but depression among adolescent females has been correlated with family life, body image, rejection by boys and sexual abuse (Horton, 1992). If Vega's findings are robust, we should expect similar differentials among younger adolescents.

Suicide is a powerful indicator of a wide range of mental problems. Because depression is highly correlated with suicidal ideation, attempts at suicide, or suicidal thoughts are often used as a proxy for depression. Among women, serious depression is a primary factor predicting over half of all suicides (Murphy, 1998). Although suicide is most common among elders, it has been rising among adolescents. Young females are more likely than adolescent males to attempt suicide, but young men are more successful completing suicides than girls, which largely explains the rise in adolescent suicides.

Race and ethnic differences in mental health status also exist. For example, Robert and Chen (1997) find that lifetime suicidal ideation among Mexican Americans is among the highest

of 9 ethnic groups examined. In another study (1995), these authors find that the highest rates of suicidal ideation among Mexican American girls who attended middle school. A recent CDC (1998) study reports that 23 percent of Hispanic high school students admitted to having contemplated suicide, compared with 16 percent of black students and 20 percent of whites. Again, Hispanic females were most likely to have suicidal thoughts, with approximately one-in-three reporting such thoughts in the past year compared to one-in-four white females and 22 percent of black girls (CDC, 1998). Further, Hispanic girls are the most likely to report having made a suicide plan, having attempted suicide, and experiencing a suicide attempt requiring medical attention (CDC, 1998).

In sum, these studies suggest that Hispanic adolescent girls exhibit poorer mental health than other groups, but similar differentials should obtain also for Hispanic women if cultural factors are largely responsible for the observed differences. Therefore, we compare adolescents' mental health to adult Hispanic women, and subsequently to black and white adolescents and to Hispanic adolescent boys. Specifically we compare levels of self-esteem, the prevalence of depressive symptoms, and the incidence of suicidal ideation between mature and adolescent women. Comparisons with adolescent boys also consider levels of stress and experiences of negative life events, which were not obtained in the adult survey. Because social class is associated with poor mental health and because Hispanics are more highly represented among lower socioeconomic strata than their white age-mates, we reconsider the observed differentials in whether their mental health status after adjusting for socioeconomic and family structure characteristics.

Table 2 compares adult and adolescent Hispanic women on three indicators of mental health, namely self-esteem, depression, and suicidal ideation. This comparison is important

because adult mental health is related to adolescent experiences. The X^2 statistics indicate a strong association between self-esteem and minority group status for adolescent girls, but a weak association for mature women.⁴ However, differences in levels of self-esteem between adolescent and mature women are quite pronounced. Hispanic adolescents are over three times as likely as mature Hispanic women to report low self-esteem, but they are quite similar to white adolescents in their level of self-esteem. Both white and Hispanic adolescents report lower self-esteem compared to their black age mates. Whereas over half of black adolescent girls report high self-esteem, only two in five white or Hispanic girls do so.

Table 2 About Here

By contrast, depressive symptoms are far more prevalent among mature women compared to their adolescent counterparts. Also, the association between group membership and depression is significant for mature women, but not for adolescents. Partly this may reflect more sophisticated understanding of depression among mature women compared to teenagers, who are learning and experiencing a range of new feelings as they come to terms with their adult roles. Still, these tabulations are consistent with prior studies in showing that adolescent and mature Hispanics experience a higher incidence of depression than their white and black age counterparts. Specifically, 10 percent of mature Hispanic women reported a high level of depressive symptoms, which is quite similar to the 11 percent reported by Hispanic adolescent girls. The major difference between mature and adolescent Hispanic women is in the shares

⁴ The test of independence that is displayed by default is based on the usual Pearson X^2 statistic for two-way tables. To account for the survey design, the statistic is turned into an f statistic with non-integer degrees of freedom using a second order Rao and Scott correction. Although the theory behind Rao Scott is complicated, the p-value for the corrected F-statistic can be interpreted in the same way as a p-value for the Pearson X^2 for “ordinary” data. These statistics take into account the sample design, which is why some large X^2 statistics are not significant statistically, i.e., have low p-values.

reporting low or moderate depressive symptoms. Almost three in four Hispanic girls report low depression compared to approximately half of mature Hispanic (and also black) women. Among adolescent girls, race and ethnic differences in reported depressive symptoms are consistent with the patterns observed for self-esteem. That is, the lower levels of depression among black teens are consistent with their higher levels of self-esteem.

Low self-esteem and high levels of depression are associated with suicidal thoughts or attempts. Both adult and adolescent Hispanic women exhibit slightly higher levels of suicidal ideation than either black or white women, but the apparent differences are not statistically significant. Among both adult and adolescent women, the highest levels of suicidal ideation correspond to Hispanics and the lowest to blacks. On all three indicators considered, the mental health status of Hispanic adolescents is worse than black adolescents, and this pattern appears to carry over into adulthood. Whereas low self-esteem is the key marker of poor mental health status for Hispanic adolescents, among adult Hispanic women depressive symptoms are the more salient indicators of poor mental health. Of course, these conditions are interrelated.

Stress often leads to depression depending on how it is managed (Burnam, et al., 1987). Among Hispanics, stress appears to be managed differently by the native- and foreign-born (Cervantes and Castro, 1985; Burnam, et al., 1987). Native-born Mexican Americans have higher rates of mental disorders and substance use disorders compared to their foreign-born peers, even though the foreign-born have likely experienced greater stress from immigration and adaptation to a new culture (Burnam, et al. 1987). Acculturation levels, previous exposure to stressful events, and stress induced by life events of close friends and relatives, all mediate whether of stress presents as depressive symptoms (Cervantes and Castro, 1985).

Comparisons with Hispanic adolescent boys revealed additional dimensions of disadvantage in Hispanic girls' mental health status. Relative to their male counterparts, Hispanic girls are significantly more likely to report low self-esteem, higher levels of depressive symptoms, and higher stress levels (see Appendix Table A-3). Hispanic girls also reported significantly more negative life events than their male age counterparts. However, the association between minority group status and each of the mental health status is not uniformly significant across all indicators.⁵ Thus, while there appear to be large sex differences in the sources of poor mental health status, differences between Hispanics and whites are modest to negligible. This conclusion is bolstered by a multivariate analysis that simultaneously considers various correlates of mental health status in addition to minority group status, including social class, family structure, urban residence and school type.

Socioeconomic correlates of mental health status are well documented – if poorly understood – as is parent absence (McLanahan and Sandefur, 1996). Urban residence, particularly in poor inner city neighborhoods, is associated with exposure to unsafe and stressful environments (Kotlowitz, 1991; Furstenburg, et al., 1999). Growing up in such circumstances is highly stressful for adolescents, who also are navigating numerous daily challenges in their personal and social lives. Finally, school type may be related to levels of stress and general wellbeing because of differences in expectations for success. Especially important in this connection is the difference between public and private schools, but often these contrasts are wiped out by social class variation of the respective student bodies.

⁵ That is, for girls, the association between self-esteem and group membership was statistically significant, but not for adolescent boys, while the obverse was true for stress. Group differences in depression levels and suicidal ideation were not statistically significant,

Multivariate results reported in Table 3 indicate that most of the observed differences between Hispanic and white adolescent girls in reported levels of self-esteem, depression and stress are due to other factors that are systematically correlated both with group membership and mental status, but particularly socioeconomic status.⁶ Although the predictive power of the models is tiny, mainly because the variance in the response outcomes is also small, the results basically corroborate inferences based on the bivariate tabulations. That is, black adolescent girls *are more* likely than whites to experience high self-esteem and *less likely* to experience high levels of depression, but Hispanic girls are as likely as whites to report low self-esteem and high depression. That the race differences obtain among girls with similar socioeconomic backgrounds, family structure, urban residence and who attend similar types of schools attests to their robustness. However, these results challenge prior claims that Hispanic adolescents have worse mental health than their white age counterparts. If they do, it is because they are more likely to be from low socioeconomic families, to live in cities, and to live with a single parent or no parent. For both girls and boys, the main influence on mental health status is socioeconomic status and the effects are in the expected direction. Low status predicts high stress and depression, and low self-esteem.

Table 3 About Here

Auxiliary analyses based on combined analyses of boys and girls (not reported) confirm that girls have significantly lower self-esteem than boys, and they reaffirm the higher reported self-esteem of blacks. The difference in self-esteem is driven by the positive self-images of

⁶ We use the interval composite scores of self-esteem, depression and stress as dependent variables for each case rather than the categories described in Table 2, which are derived from the continuous measure. In such cases, OLS regression techniques are appropriate. We use the SVYREG command in the Stata statistical package to execute the analysis, which is the linear regression command for stratified samples requiring weighting of observations. This command produces the appropriate standard errors.

black girls because there are no significant differences in reported self-esteem among adolescent boys. Analyses based on the pooled sample of adolescent boys and girls confirmed the monotonic association between socioeconomic status and self-esteem, with the highest levels corresponding to the most affluent youth. Finally, it appears that self-esteem plummets during middle adolescence, especially for young girls, but rebounds to levels comparable to 9 and 10 year olds.

In summary, the analyses reported in Table 3 provide no evidence that Hispanic adolescents experience poorer mental health than whites, but there is consistent evidence that black youth are in better mental health than their white counterparts. Thus, it is not clear that there is any *direct* connection between the mental health status of adolescent and adult Hispanic women, even if the latter have more depressive symptoms than mature white women. However, we offer this as a tentative conclusion because the measured differences in selected indicators of mental health status are not large between Hispanics and either whites or blacks, or between Hispanic boys and girls. If anything, the mental health status differences between boys and girls appear to be larger than those among race and ethnic groups. Because adolescents, particularly the very young, are less reliable observers of their subjective health status than mature adults, the reported mental health status indicators may be subject to high levels of reporting error. Therefore, our tentative conclusion about weak to trivial differences in mental health status between Hispanic and white adolescent girls requires further empirical scrutiny using objective measures of mental health. If our suppositions about adolescents' limited ability to represent accurately their emotional wellbeing are correct, then we would expect more pronounced race and ethnic differences in objective indicators of health status—namely, physical wellbeing. We turn to this subject next.

Physical Wellbeing of Hispanic Adolescents

Adolescents are generally in good physical health compared to other population groups, such as the elderly, farmworkers or adults working in hazardous occupations. Therefore, teenagers have less contact with health care providers, on average, than either young children or most adults. Nevertheless, adolescence as a developmental period poses formidable challenges for girls, particularly those from disadvantaged backgrounds. These challenges often are related to teens' health-compromising behavior. For example, high rates of unprotected sex among teenagers are responsible for adolescent girls experiencing the highest rates of sexually transmitted diseases and the highest complication rates for these diseases (Commonwealth Fund, 1999: 5). Involuntary pregnancy further jeopardizes the physical wellbeing of adolescent girls well into adulthood, and minority girls are at particularly high risk of unintended childbirth. Impoverished social and physical environments also pose formidable health risks for adolescents by exposing them to violence, abuse, and varied opportunities for transgressive behavior. We describe each of these indicators of physical wellbeing address whether, and in what ways, the health status of Hispanic teens differs from black and white teens, as well as from Hispanic women and teenage boys.

Table 4 confirms that adolescent girls are generally healthier than adult women, as only 16 percent of girls reported fair or poor health compared to 41 percent of adult women. Identical shares of women and girls reported excellent health – approximately one in five. And, while there are no race and ethnic differences in self-reported health status among adolescent girls (p -value=0.377), among adult women, blacks and Hispanics are significantly more likely than whites to report fair to poor health (approximately 50 versus 39 percent).

Table 4 About Here

Among adolescents, boys report better health status than girls, as 36 percent claim to be in excellent health compared to only 23 percent of girls (see Appendix Table A-4). Moreover, and in contrast to girls, there are significant race and ethnic differences in boys' self-reported health status. Hispanic boys are significantly less likely to report excellent health compared to white and black boys, yet approximately similar shares of Hispanic boys and girls report only fair to good health. These sex and ethno-racial differences in self-reported physical wellbeing can be traced partly to low rates of insurance, restricted access to health care, residence in high-risk environments and exposure to violence and abuse during adolescence, discussed in the final section.

Abuse and Violence

Violence and abuse pose very serious physical and mental health risks for women in general, and adolescents in particular. Several studies have demonstrated that sexual abuse is associated with numerous psychological problems, including depression, suicidal behavior, low self-esteem and anxiety, eating disorders, and substance abuse (Mennen, 1994; Coble et al., 1993; Nelson, 1995; Silverman, 1996; Flisher, 1997). There is also emerging consensus that childhood and adolescent sexual abuse has lasting consequences for women's emotional and physical wellbeing. According to McCauley and associates (1997), women reporting both physical and sexual childhood abuse have worse physical health, higher levels of depression and lower self-esteem, and they are more likely to abuse drugs, alcohol, and to attempt suicide. Moreover, women abused as youth and again as adults fared worse than those who only endured abuse during adolescence, although the risk of experiencing both is high (McCauley et al., 1997).

Several studies have documented race, ethnic and sex differences in the risk of physical abuse. Specifically, female children are more likely to be abused than males (Silverman, 1996;

Straus, 1994), and black children are more often victims of severe physical abuse than whites (Hampton and Gelles, 1991). However, some research indicates that sex differences in the risk of abuse depend on race and ethnicity. Lindholm (1986) shows that black boys and girls are equally likely to suffer abuse, but that Hispanic and Anglo females are more likely than their male peers to be victims of physical or sexual abuse. Adolescents are at greater risk of physical abuse compared to young children, partly because their cognitive development places them in confrontational situations more frequently than younger children, and partly because their physical development makes them more attractive targets (Straus, 1994; Coble et al., 1993). Perpetrators of physical and sexual violence also differ along race and ethnic lines. According to Hammond and Yung (1993) blacks are more likely to be victims of family/friends, whereas Hispanics are mainly victims of gang violence.

Table 4 shows that adult minority women experience higher rates of physical and sexual abuse than whites, and Hispanic women report slightly higher rates of both sexual and physical abuse than either white or black women (Table 4). Although there is suggestive evidence that Hispanic adolescents experience higher rates of abuse than white or black girls (20 percent versus 18 and 15 percent, respectively), the overall association between group membership and reported experiences of abuse is not statistically significant. What is striking, nonetheless, are the high rates of physical and sexual abuse reported *both* by adolescent and mature women. As reported by other studies, Hispanic women experience high rates of abuse by family members, but among adolescents, friends and other persons also perpetrate the high rates of physical and sexual abuse.⁷

⁷ These tabulations are available from the authors upon request.

Consistent with most studies showing sex differences in sources and levels of physical violence and abuse, the survey of adolescent health reveals a higher incidence of sexual and physical abuse among girls compared to boys (see Appendix Table A-4). Approximately 10 percent of adolescent boys reported experiencing physical or sexual abuse (mainly physical abuse), compared to nearly 18 percent of young girls. The majority of abused girls claimed to have been sexually abused. Among boys, Hispanics are significantly more likely than whites or blacks to experience both physical and sexual abuse—84 versus 90 percent, respectively. Although the tabular results indicate that Hispanic girls experience higher rates of physical and sexual abuse than black or white adolescents, the observed differences are not statistically different ($X^2 = 14.4$, $p = .338$). Thus, based on the bivariate tabulations reported in Table 4, we tentatively conclude that Hispanic girls are as likely as white and black teens to experience one or more episodes of abuse.

This inference is plausible because research on ethnic differences in abuse and its consequences is mixed. Noting that Hispanic women reported the most trauma from the abuse they suffered, Russell (1986) concludes that the effects of sexual abuse among them are worse than for non-Hispanics. Similarly, Stein and associates (1988) claim that among Hispanics, experiences of childhood sexual abuse frequently lead to adult mental health problems and alcohol abuse. However, Mennen (1994) finds trivial differences in abuse among whites, blacks and Hispanics, except that among abused youth whites endure violence for a longer period of time than their minority counterparts. Arroyo (1997) claims that Hispanic college women experience more abuse by extended family members compared to non-Hispanic whites, although clinical reports indicate high rates of father-daughter abuse among Hispanic families.

Violence is also common among urban youth living in impoverished environments, and its constant threat places many at risk of psychological problems (Kotlowitz, 1991). Boys experience higher risk of injury and death from firearms than do girls. According to Schwab-Stone (1995), over 40 percent of urban youths witnessed a stabbing or shooting in the past year, and the Children's Defense Fund (1997) reports that 1.6 million adolescents ages 12-17 years old were victims of violent crime in 1994. Schwab-Stone (1995) claims that three out of four urban adolescents reported feeling unsafe in one or more of their common social environments. Results in Table 4 show that girls are more likely than boys to report that they feel unsafe at home, but boys perceived less safety in school. Similar shares of Hispanic and black girls claim they felt unsafe at home, but black girls are more apt to report feeling unsafe at school and in their neighborhoods compared to other groups. Although Schwab-Stone (1995) finds trivial race and ethnic differences in domestic violence among young girls, Hispanic teenage boys report significantly higher levels of domestic violence than black and white adolescents.

Family and neighborhood poverty is a significant correlate of violence and abuse, and because minorities, and especially blacks, are disproportionately concentrated in poor urban neighborhoods, race and ethnic differences in abuse may simply reflect group differences in social environments. This suggests that black and Hispanic children are more likely than whites be victims of violence because they are poor and live in dangerous neighborhoods, and not because of group-specific proclivities to engage in violent behavior (Children's Defense Fund, 1997; Strauss, 1994; Hammond and Yung, 1993; American Psychological Association, 1993). To investigate this possibility, we computed several logistic regressions for each of the physical health status measures using the same covariates used to predict mental health status. *Good health* includes youth who reported excellent or good health. *Abuse* denotes youth who were

ever physically or sexually abused, and *violence* refers to experiences with domestic violence severe enough to make youth want to leave home.

Table 5 About Here

Table 5, which reports the multivariate results for boys and girls separately, indicates that self-reported health status of adolescent girls does *not* differ among blacks, whites or Hispanics, as suggested by the tabular analyses. Results from an analysis that combines boy and girls shows that girls are *less likely* than boys to report good to excellent health even after taking into account variation in socioeconomic status and family structure. For boys, there is no significant age variation in perceived health status, but a significant nonlinear association between reported health status and age obtains for girls. Specifically, during middle adolescence (ages 13-15) and late adolescence (ages 16 and 17) girls are less likely to report that they have good or excellent health compared to pre-adolescent girls (ages 9-10). The largest differences in self-reported health status correspond to socioeconomic status. Girls from high status families are 2.6 times as likely as those from low status families to report excellent to good health, and the comparable odds ratio for boys is 3.2. Similarly, youth from middle status families are approximately 1.7 times as likely as those from low status families to see themselves as in excellent to good health. That health status differentials widen at higher levels of socioeconomic status suggests that unequal access to health care services may undergird the observed inequities. We address this point in the final section.

The multivariate analyses confirm significantly higher odds of abuse among girls compared to boys (pooled results, not reported), with girls almost two times (odds ratio=1.91) as likely as boys to report having ever been physically or sexually abused. However, the sex-specific analyses reported in Table 5 reveal trivial race and ethnic differences in experiences of

physical and sexual abuse among girls of comparable socioeconomic status. It is conceivable that understandings of what constitutes abuse differ among black, white and Hispanic youth. If so, then the lack of apparent absence of ethno-racial differences merely reflects unequal conceptions of and tolerance for physical abuse, if not sexual abuse (Hampton and Gelles, 1991).⁸ Unfortunately, there is no straightforward way of addressing this issue with the available data, and an equally plausible hypothesis – one supported by results reported in Table 5 – is that the average group differences observed in Table 4 reflect *group* variation in socioeconomic circumstances that are conducive to abuse. In fact, the statistical results show large socioeconomic differences in the odds of abuse, with lower status girls at significantly higher risk of experiencing abuse compared to girls from higher status families. Specifically, the odds of physical or sexual abuse are only half as likely for low to low-middle socioeconomic status girls compared to their counterparts from the lowest status group.

Race and ethnic differences in girls' experiences with physical and sexual abuse also stem from the weaker protections they receive in disrupted families. Specifically, adolescent girls residing in single parent homes are 1.4 times as likely, and girls who live with neither parent are 2.2 times as likely, to experience physical and/or sexual abuse compared to their statistical counterparts living in two-parent families. Girls attending Catholic schools were only half as likely as public school students to report one or more episodes of abuse. Thus, to the extent that minority girls are more likely to reside in parent-absent families, have parents with low socioeconomic status, and attend public schools, the risk of experiencing physical or sexual abuse is greatly compounded. These circumstances, rather than minority group status *per se* or

⁸ This interpretation is consistent with focus groups conducted with adolescents at a multi-ethnic high school in the Midwest where white, black and Hispanic students alike reported that physical discipline was far more common

differing conceptions of abuse, largely explain why Hispanic girls experience higher average rates of abuse.

Compared to girls, analyses for boys reveal weaker socioeconomic and age effects on the likelihood of abuse, as only two of the four socioeconomic coefficients reach statistical significance and all age differences are trivial. However, for girls, the odds of experiencing physical or sexual abuse increase monotonically with age, such that girls ages 18 and above are over 4 times as likely as 9-to-10 year olds to have experienced one or more episodes of physical or sexual abuse. By age 14, girls were over twice as likely to have been physically or sexually abused compared to pre-adolescent girls from comparable socioeconomic and family background. Residence in nonfamily arrangements placed adolescent boys at particularly high risk of abuse.

The descriptive tabulations reported in Table 4 (and Appendix Table A-4) indicate that white and black girls are more likely than white and black boys to report experiences of violence in the home, but that white and Hispanic youth are equally likely to experience violence. Statistical analyses based boys and girls combined (not reported) confirm that girls are 20 percent more likely than boys to report experiences of domestic violence. The sex-specific analyses reported in Table 5 show that Hispanic boys (but not girls) report more experiences with domestic violence than their black and white age peers. Whereas Hispanic boys were 1.4 times as likely as their white statistical counterparts to report having experienced severe violence at home, blacks were no more likely than whites to do so. Family structure differences in the likelihood of domestic violence obtain for girls but not boys. Adolescent girls residing in parent absent families were 1.4 times as likely, and those residing in non-family living arrangements

among Hispanics and blacks, especially the latter, compared to whites. However, experiences of sexual abuse were

were over twice as likely to witness extreme violence at home as their counterparts living with both parents to witness severe violence at home. This points to another deleterious consequence of the rise of single-parent families – one that has received less attention than teenage parenting, poor educational outcomes and deviance. For both boys and girls domestic violence is also significantly associated with low socioeconomic status. Specifically, adolescent girls from high status families are only 40 percent as likely as those from low status families to witness domestic violence. For boys, the risk is half as great.

In summary, the two factors that place girls at highest risk of domestic violence are parent absence and low socioeconomic background. To the extent that Hispanic girls are more likely to reside in low-income families with one, but especially both parents absent, their likelihood of witnessing domestic violence is more than doubled. Although adolescents seldom have much control over their family arrangements and virtually no control over their socioeconomic status, these circumstances compromise their health in myriad ways. Not only do they expose youth to risky environments, but they are conducive to risky behaviors, such as substance abuse or unprotected sex. The next section considers whether and how much Hispanic girls may differ from other adolescent girls and boys in these respects.

Risky and Unhealthy Behavior among Hispanic Adolescents

Although the previous sections illustrate how social and environmental circumstances place teenager at risk of unhealthy outcomes, most data on adolescent health focuses on their high-risk and problem behaviors, such as unprotected sex, reckless driving, and substance abuse (Office of Research on Women's Health, 1998). In this section we discuss race and ethnic

not discussed. See Hampton and Gelles, 1991.

differences in substance abuse to determine whether Hispanic adolescent girls differ from white girls and from Hispanic boys in their propensity to use alcohol, cigarettes or drugs. We also consider the prevalence of unhealthy eating practices as a weight control strategy. ults.

Unhealthy Eating Behavior

Adolescent Hispanic girls are reportedly less satisfied with their bodies than whites, which puts them at higher risk of eating disorders (Rew, 1998). Bulimia, a disorder characterized by binge eating and vomiting or using laxatives for weight control, generally begins in late adolescence, but it also presents among junior high students (Herzog and Copeland, 1985; Horton, 1992). Low self-esteem and depression, typically more common among Hispanics than blacks or whites, are both a cause and consequence of bulimia. However, the causal direction is difficult to establish because of its high co-morbidity with other psychiatric conditions (Herzog et al., 1992). Herzog and associates (1992) find that 63 percent of bulimics were given a lifetime diagnosis of major depression. This finding links eating disorders directly with long-term mental health.

As a group, Hispanics were as likely as whites but more likely than blacks to report attempting weight loss, and they were most likely to use a variety of methods to do so (CDC, 1998). According to the Centers for Disease Control, 61 percent of Hispanic adolescent girls reported current attempts at weight loss (vs. 62 percent whites and 51 percent of blacks), compared to 33 percent of Hispanic males (vs. 22 percent of whites and 20 percent of blacks). Hispanic teens also report the highest rates of bulimic behavior (10 percent), and the highest use of diet pills to lose weight. Both are unhealthy and dangerous methods of weight loss (CDC, 1998).

Table 6 About Here

Table 6, which is based on the adult and adolescent Commonwealth surveys, confirms the CDC findings in that higher shares of Hispanic adult and adolescent women reported bingeing and purging behavior compared to blacks and whites, respectively. Not only is bulimic behavior more common among adolescents compared to adults, but the magnitude of race and ethnic differences also is larger for young women. Among adults, only 3.2 percent of Hispanic women reported that they binged and purged to control weight, and race/ethnic differences were not statistically significant. However, among adolescent girls, approximately one-in-five Hispanics admitted to bingeing and purging behavior compared to 15 percent of whites and 13 percent of black girls. In contrast to adult women, race and ethnic differences in bulimic behavior are statistically significant for adolescents. Minority boys also exhibit a high incidence of bingeing and purging behavior, most likely in relation to sports activities. Both Hispanic and black boys are significantly more likely than whites to acknowledge bulimic behavior, 14 to 15 percent versus 5 percent, respectively (Appendix Table A-5).

A multivariate analysis based on a model that combines girls and boys confirmed that girls are 2.5 times as likely as boys to binge and purge as a means of controlling weight, and that Hispanics were significantly more likely to do so than either whites or blacks to do so (results not reported). Moreover, the sex-specific analyses (Table 7) reaffirmed the persistence of race and ethnic differences in the likelihood of bingeing and purging. Among boys, both blacks and Hispanics were more likely to report bingeing and purging behavior. For them, participation in competitive sports based on weight classes are probably the main circumstances producing unhealthy eating behavior. However, for girls self-images that place a high value on slenderness and are bundled with self-esteem are largely responsible for dangerous eating practices. Race and ethnic differences in bulimic behavior were more pronounced for boys compared to girls, as

Hispanic males were 3.5 times as likely as whites, and blacks 2.6 times as likely, to binge and purge in order to regulate their weight. Hispanic girls are approximately 1.5 times as likely as their white peers to engage in unhealthy behavior to control their weight, but there were no significant race differences.

Alcohol, Cigarette and Drug Use

Substance use by teenage girls is widespread, but there is some disagreement about whether use of specific substances is rising or falling, and whether use is higher among boys or girls (see Commonwealth Fund, 1999; CDC, 1998; Office of Women's Health, 1998:25). In the main, these disagreements revolve around whether measures of substance use focus on current, regular or lifetime use. Because adolescence is a time of experimentation and risk-taking, most teens report that they have tried alcohol, cigarettes, and drugs. However, only a small subset persist and become regular users (The Commonwealth Fund, 1999). Measures of ever use neither discriminate the problematic aspects of substance abuse, nor indicate whether race and ethnic differences in consumption of tobacco, alcohol and drugs carry over into problematic use patterns.

There is a striking lack of consensus about race and ethnic differences in substance abuse. Horton (1992) reports that about one in four teenage girls (ages 12-17 years) acknowledge using alcohol in the past month. The Office of Research on Women's Health (1998) shows that alcohol use is higher among white compared to minority teenage girls, despite the stresses associated with pervasive minority poverty. Based on a 1997 sample of high schools, the Centers for Disease Control (1998) report that 83 percent of Hispanics ever used alcohol and girls were about as likely (82 percent) as boys (84 percent) to do so. A recent study finds that alcohol use among Hispanic teens is highly correlated with stress, anxiety and depression (Alva,

1995). According to the CDC, Hispanics report the highest levels of lifetime alcohol use, which suggests that alcohol consumption during adolescence may eventuate into problem behavior during adulthood.

Horton (1992) reports that adolescent girls are more likely to smoke than boys, and teen smokers are more likely to use alcohol and illicit drugs. In 1997, Hispanic high school students reported the highest levels of lifetime cigarette use, with 75 percent admitting having ever smoked in their lifetime. In general, girls use drugs less often boys males at every age (Horton, 1992). Still, almost one-in-five teenage girls (ages 12-17) report having ever used illicit drugs, and almost 7 percent reported doing so in the past month (Horton, 1992). Black youth are the least likely to use illicit drugs, while Hispanics are the most likely to do so based on lifetime, annual and past month usage patterns (Johnston, O'Malley and Bachman, 1994; CDC, 1998). Morgan (1984) claims that Hispanic youth tend to use multiple drugs, including marijuana and cocaine, along with alcohol. In 1998, Hispanic high school students were more likely to report trying alcohol, marijuana and cocaine before age 13 in comparison to whites and blacks. It is only in the initiation of cigarette use before age 13 that Hispanic youth did not fare the worst, with white students reporting highest rates of cigarette smoking before age 13 (CDC, 1998). The surveillance surveys conducted by the Centers for Disease Control (1998) show that approximately one-in-eight Hispanic females (vs. 7.5 percent of whites and 1.0 percent of blacks) reported lifetime cocaine use, and 5.3 percent admitted to current use of cocaine (vs. 2.3 percent and .2 percent of whites and blacks).

Although it is not possible to establish which adolescents who experiment early with drugs, tobacco and alcohol will become lifetime substance abusers, the tabulations reported in Table 6 show similar race and ethnic patterns of regular alcohol use among adult and adolescent

women. Because these measures are less directly comparable than others considered above, we focus on the race and ethnic differences *within* age groups rather than between them. Especially noteworthy is the higher regular alcohol use among adult white women compared to minority women, 12 percent versus less than four percent, respectively. These differences are both substantively and statistically significant. Consistent with the assessment of the Office of Research in Women's Health (1998) white teens are more likely than minority adolescents to report regular alcohol use, 12 percent compared to about 7-8 percent. The similar race and ethnic differences in female alcohol use does suggest a link between adolescent and adult behavior. In contrast to the CDC survey, which shows about equal use of alcohol by teenage boys and girls, the Commonwealth Fund adolescent survey shows appreciable sex differences in regular alcohol use, with the rate of teenage regular alcohol use nearly twice that of minority girls (see Appendix Table A-5). A statistical test confirms that girls are only .74 times as likely as boys with similar characteristics to use alcohol on a regular basis.⁹

Table 7 reports the multivariate analyses of alcohol use based on regular use, which helps discriminate the problematic aspects of adolescent drinking from experimentation. For this analysis students who drink at least once a month, at least weekly, or an unspecified regular frequency are designated as regular drinkers. Analyses reported in Table 7 show that the odds of regular alcohol use among Hispanic girls are half (.52) those of white adolescents of comparable family background, and for black girls the comparable odds are approximately one-third as high (.39). There are no race differences in regular drinking for boys, but Hispanic boys are 1.5 times as likely as whites to report regular alcohol use. Thus, among Hispanics adolescents, boys are

⁹ According to Appendix Table A-6, Hispanic males report the highest levels of regular alcohol use and blacks the lowest rates, but the race and ethnic differences are not statistically significant.

more likely and girls are less likely to engage in regular alcohol use. An analysis based on ever use showed no significant differences between Hispanic and white girls, indicating that the former are as likely as whites to experiment with alcohol, but they are less likely to become regular users during adolescence. The age coefficients indicate that regular alcohol use increases dramatically throughout adolescence. Regular use begins as early as 14 years of age among girls, when they are 6 times as likely as 9-10 year olds to drink regularly, and a year later for boys. Auxiliary analyses of ever use reveal that experimentation begins at very young ages because the significant age coefficients begin at age 13 for both boys and girls.

Table 7 About Here

Not surprisingly, regular teen alcohol use is associated with lack of parental supervision, but there is some indication that this effect is stronger for girls residing in a parent-absent family which significantly increases the risk of regular alcohol use. Only when boys reside with neither parent is their alcohol consumption problematic. In contrast, girls who reside in single-parent families are about 2 times as likely, and those in non-family arrangements 2.6 times as likely to drink regularly compared to girls from two parent families. That there are no significant socioeconomic status differences in regular alcohol use attests to the widespread nature of this behavior among adolescents, which appears to be independent of income, net of parental supervision.

Like alcohol, tobacco use differs among race and ethnic groups, but not uniformly between adults and adolescents, or between boys and girls. As revealed in Table 6, just over a quarter of white women are current smokers compared to one-in-five black women and only 14 percent of Hispanics. These differences are highly significant, and conform with findings of previous studies. For adolescents, regular use is defined as smoking several cigarettes or more

the week before the survey. About 11 to 13 percent of Hispanic and white girls reported regular tobacco use compared to approximately 6 percent of black teenagers. These differentials are at variance with those observed among adult women, which suggests less inter-temporal continuity in smoking than alcohol use.

In contrast to Horton (1992), who claims that girls are more likely than boys to smoke, we find no sex differences in either ever use or regular use of tobacco. Regular cigarette use increases appreciably with age, as shown in Table 7, with 14 to 15 year-old girls over 8.5 times as likely as pre-teens (9-10 year olds) to use tobacco regularly. Among boys, 13 to 14 year olds are about 4.5 times as likely as pre-teens to smoke on a regular basis. Because of the widespread use of tobacco and its relatively easy access to youth, there are no socioeconomic differences in the propensity of youth to become regular smokers during adolescence. However, black girls are only .34 times as likely as whites to become regular smokers as adolescents, which is consistent with the descriptive tabulations reported in Table 6. Hispanic girls are as likely as whites to smoke during adolescence.

Although girls' smoking behavior is not influenced by their family structure, that of boys is highly responsive to the amount of parental supervision. Teenage boys who live with one parent are 1.4 times as likely to smoke as their age counterparts with two parents. Moreover, adolescent males who live with neither parent are almost three times as likely to use tobacco regularly compared to boys reared with an intact family. Like most prior research, we find no differences in regular tobacco use by place of residence or type of school attended – probably because peers are more decisive than adults in shaping this behavior.

Finally, illegal drug use shows some differentiation along race and ethnic lines, but not uniformly for boys and girls. The descriptive tabulations reported in Table 6 show that the

highest rates of illegal drug use during the month prior to the survey corresponds to white youth (15 percent), the lowest rate to blacks (9 percent), with Hispanics between the extremes at 13 percent. Sex differences in drug use reveal even larger race and ethnic variation, with nearly one in four Hispanic males claiming to have used illegal drugs in the previous month, compared with 14 to 16 percent of white and black males, respectively (Appendix Table A-5). Based on these comparisons, Hispanic boys use illegal drugs at twice the rate of Hispanic girls, black boys do so at just under twice the rate of black girls, but there are only trivial sex differences for white teens.

The multivariate analysis reported in Table 7 confirms the lower rates of drug use among black girls compared to whites of comparable socioeconomic status, but no significant differences obtain between Hispanics and whites. Black teenage girls are only .4 times as likely as white teens to have used illegal drugs in the month before the survey. Unlike tobacco and alcohol use, which is relatively pervasive among adolescents and therefore less influenced by social class, girls' drug use is highly variable by socioeconomic status, but (surprisingly) not for boys. Girls from high status families are only .5 to .6 times as likely as those from poor families to use drugs, and their risk of drug use is highly sensitive to parental supervision. Specifically, adolescent girls residing with only one parent are 1.7 times as likely as those with two parents to report using illegal drugs in the previous month, and those with no parent present are even more likely to do so. Even stronger family structure effects obtain for adolescent boys inasmuch as those who reside with neither parent are about three times as likely as boys with two parents present to use illegal drugs, and those with one parent are 1.7 times as likely to use drugs compared to boys from intact families.

An important difference between boys and girls is that Hispanic boys are twice as likely as whites to use illegal drugs, while there were no ethnic differences among girls. Rather, for

girls parental supervision is the most decisive influence on this and other health compromising behaviors. In fact, a common theme based on the analyses of risk-taking behavior is that parent absence rather than membership in an ethno-racial group, renders adolescents vulnerable to participation in activities that compromise their health. And as we show below, parental absence also influences health-seeking behavior.

Health Seeking Behavior and Access to Care

A recent study by the American College of Physicians-American Society of Internal Medicine (ACP-ASIM) reports that Hispanics are highly vulnerable to poor health outcomes because a large share of the population lacks health insurance, which lowers the likelihood they will have regular health care providers and timely screening and diagnosis of serious illnesses (Current Topics, 2000). Although we do not find many significant differences in health status and risk-taking behaviors between adolescent Hispanics and white or black teenagers of comparable socioeconomic status and environmental circumstances, Schoen and associates (1997) claim that the neediest girls, namely those who suffer from abuse, who lack health insurance, and who are poor are least likely to receive needed medical care.

Because Hispanic girls are more likely to be poor than whites, it is conceivable that they encounter greater difficulties accessing the health care system—even when their medical needs are great. This reasoning implies that ethno-racial differences in access to health services reflect socioeconomic differences rather than group-specific differences in health-seeking behavior. However, Flores, et al. (1999) emphasize that race and ethnic differences in health-seeking behavior persist among groups of comparable socioeconomic status, particularly when pan-ethnic groups are separated into their national subgroups. They conclude that nonfinancial

factors — such as cultural beliefs, language differences, and provider practices — are responsible for the disparities in health status and use of medical services among similarly situated groups. Given the diversity of opinion regarding ethno-racial differences in health-seeking behavior of youth, in this section we examine whether Hispanic teenagers are less likely than whites or blacks to access needed medical services, and evaluate whether observed inequities reflect group-specific behavior or underlying differences in financial circumstances that affect health care utilization.

For these analyses, we examined several measures representing both access to services and health-seeking behavior. Both adult and teenage women were asked whether they had a regular health care provider and the usual source of care (i.e., physician, clinic, school nurse). Responses for the adolescents were collapsed into five categories: physician, clinic (non-school based), school nurse or clinic, emergency room and other. The latter category represents various sources that include parents, pharmacy, hospital (ER), and others, such as traditional healers. Women’s responses are physician, clinic, emergency room, and other, which also include HMOs, midwife, and nurse practitioner.¹⁰

Both teenage and adult women were asked the number of times they had seen a physician in the past 12 months, and this information was used to designate two groups—those who reported at least one visit in the prior year and those who had not.¹¹ Adolescents were also asked if they had a check-up during the prior 12 months, and those who responded affirmatively were also classified as having a doctor visit within the previous year. Regarding health insurance

¹⁰ Thus, the main difference between the adult and adolescent response choices is the inclusion of school clinic or nurse response category for the girls, and the composition of the ‘other’ category.

¹¹ Teenage girls were asked whether they had seen a mental health professional within the past 12 months, but no comparable question was asked of mature women, so we do not consider this measure.

coverage, teenagers answered a general question about health insurance coverage, but adult women were asked specifically whether they were covered by health insurance provided through their employer, from their spouse's employer, from Medicaid or Medicare, from a private insurer or an HMO. Women who reported one or more of these sources were coded as having insurance coverage. To assess group differences in constraints to medical care, both adolescents and mature women were asked about unmet need for medical services, but the questions were worded somewhat differently. Teenagers were asked if they had ever needed medical care and not received it, but adult women were asked if they had not received necessary medical care in the past year. The differing temporal reference periods for these two questions impairs comparability to some extent, but they are similar enough to generate meaningful differentials within age groups, if not between mature and teenage women. Finally, to tap possible cultural differences in approaching health care providers, adolescents and mature women were asked whether they felt uncomfortable discussing some problems with their providers.¹²

Table 8 About Here

With caveats about comparability in mind, Table 8 presents tabular data comparing the health-care seeking behavior of Hispanic, white and black women and teenagers. Consistent with numerous prior studies, minority women and girls are less likely to have a regular health care provider. Among adults, over one-in-four Hispanics lack a regular provider, compared to one in five whites and 22 percent of blacks. Approximately one-in-five minority adolescent girls lack a regular health care provider, and for boys, these shares are higher still—almost 30 percent for Hispanic boys and 26 percent for blacks (see Appendix Table A-6). As shown in Table 9, the

¹² Again, these questions are similar, but not identical. Adolescents were asked whether there were topics they were too embarrassed or uncomfortable discussing with their health care providers; adult women were asked if they had a problem they wanted to discuss with their doctor but felt uncomfortable doing so. The main difference between the questions is in referencing a specific problem rather than general issues.

Hispanic-white differential in lack of a regular provider persists once controls are introduced for socioeconomic status, family structure, and social environment (i.e., residence and school type), but the racial gap disappears once these compositional differences are taken into account. This means that female racial differences in access to a regular health care provider reflect socioeconomic differences between black and white teen girls and not differences in group-specific access, but this is not so for Hispanics. Table 9 shows that Hispanic girls are only .67 times as likely as whites to have a regular health care provider, but black teens are as likely as whites to do so if they share the same family background and family structure. Minority teenage boys are only half as likely as white teens to have a regular provider. Adolescent girls from high status families are 1.8 to 2.2 times as likely as those from low status families to have a regular health care provider. Moreover, those who reside with neither parent are only half as likely as their counterparts living in two-parent families to report having a regular provider.

Table 9 About Here

In general, women who lack a regular health-care provider are less likely to seek preventive care, as revealed by the race and ethnic differences in annual doctor visits. Among teens, approximately one-in-four Hispanic and white girls did not visit a health-care practitioner for a 12-month period compared to almost one-third of black girls. Despite the fact that black teenage girls are as likely as whites to have a regular provider, the multivariate results reported in Table 9 reveal that they are only .71 times as likely as whites to have made a doctor visit during the 12 months preceding the survey. Hispanic teen girls are less likely than whites to report having a regular provider, but they are as likely as white teens of similar socioeconomic circumstances to visit a physician. Similar differentials obtain among adult women and teenage boys, though these group differences are not statistically significant. Therefore, these findings

suggest that socioeconomic circumstances and family structure are more decisive than group membership in shaping health-seeking behavior, although race differences persist for teenage girls. Adolescents who live with neither parent are especially vulnerable to receive inadequate care.

Minority and nonminority females also differ in the provider of their health care. In general, both adult and teenage minority women are significantly less likely than white females to receive their health care in a physician's office. This means that they rely less on the private medical system than their white counterparts. Only half of all Hispanic and black girls report that they usually receive their health care in a doctor's office, compared to 72 percent of whites, and the shares of teenage boys is lower still (Appendix Table A-6). Nearly one-third of minority teenage girls receive their health care in a general clinic, as do approximately similar shares of teen minority boys, compared to only 20 percent of white girls.¹³ Between 3 and 5 percent of minority teenage girls receive their health care in the emergency room, which is an expensive fallback for the absence of a regular provider. School clinics provide medical services for less than 1 percent of white and Hispanic girls, but nearly 3 percent of black teens. Results reported in Table 9 indicate that ethno-racial differences in sources of care do not simply mirror class differences in ability to pay. Minority youth are only .4 to .5 times as likely as comparably situated whites to receive care in a private physician's office. Also, teen girls who reside with

¹³ It is conceivable that poor minority women receive their health care in community clinics, many of which offer services based on ability to pay. However, neither survey asked whether services were obtained on a fee basis.

neither parent are only half as likely as girls who live with both parents to receive care in a physician's office.

The availability of a regular health care provider and the freedom to seek medical services from private providers often is tied to availability of health insurance. In fact, Hispanic women are about twice as likely as whites to be uninsured: 22 versus 11 percent for adult women and 16 versus 8.6 percent for teenagers. Differentials for black women are less pronounced, but also reveal their lower access to health insurance: 15 percent of adult women are uninsured compared to 9.5 percent of black teenagers. Similar ethno-racial differentials in access to health insurance obtain among teenage boys, except that the inequities are more pronounced (see Appendix Table A-6). Table 9 reveals that Hispanic youth are only .53 (girls) to .34 (boys) times as likely as white youth to have access to health insurance even when their socioeconomic and social circumstances are similar. However, the racial differences observed in Table 8 derive largely from black-white differences in social class, family structure and social environments.

Given these differentials in health insurance coverage, it is unsurprising that minority women are more likely to report not having received needed health care on at least one occasion. Group differences in unmet medical service needs are not statistically significant for adult women, but for teenagers the levels of unmet health care needs are both substantially higher and statistically significant. Moreover, unmet service needs are greatest for minority youth—35 percent for black girls and 30 percent for Hispanics, compared to 27 percent for white teenagers. However, the multivariate analyses indicate that the ethno-racial differences in unmet medical needs are due largely to differences in social class and family structure rather than differences in

propensity to seek and receive needed medical care. The only exception is black teenage boys, who are 46 percent more likely than whites to go without necessary medical care.

Reasons for underserved medical needs vary widely, but lack of health insurance, financial difficulties, as well as discomfort in discussing problems with medical care practitioners, contribute to unmet health care. Minority women are more likely than whites to feel embarrassed about discussing a problem with their physician. Among adult women, 16 percent of Hispanics admitted they were uncomfortable discussing a problem with their physician, but only half as many whites did so. Over two in five black and Hispanic teenagers report they are embarrassed to discuss some medical or personal problems with their physician. Apparently these difficulties stem from social class differences rather than group membership because the effects for group membership do not persist once these background characteristics are taken into account. Although these difficulties in communication with medical practitioners subside as girls mature, it is noteworthy that these race and ethnic differentials persist among adult women.

In summary, these findings on access to health care and health care seeking behavior reaffirm Hispanics' unequal access to the medical system because they are significantly more likely to be uninsured, to lack a regular provider, and to receive their medical care outside of the private health care delivery system. Because access to health insurance limits access to health care services, these differences portend ill for the ability of young girls, but especially Hispanics, to obtain needed preventive services. Differences in access to a regular provider suggest that Hispanic girls and minority boys most likely receive inadequate preventive care than their white counterparts. To the extent that teenagers' access to health care shapes lifelong physical and

mental well-being, the inequities in access among young women portend poorer health for these groups in the future – as their population shares increase.

Conclusions and Implications for Further Research

Our main objectives in this chapter were to document the physical and mental health status of Hispanic teenage girls, including behavior that compromises or enhances their health status, and to ascertain whether these differences are “real,” that is, whether they represent group-specific differences in mental and physical well-being, or whether they proxy for variation in social class, family structure and social environments conducive to poorer health. Because the Hispanic population is growing rapidly and is relatively young by comparison to other demographic groups, the health status of youth is an important barometer of the health of future adult cohorts. We build this argument by drawing comparisons with adult Hispanic women to illustrate health continuities over the life course. Comparisons between Hispanic teenagers with black and white age peers and Hispanic boys help establish claims about statuses and behaviors that are unique to Hispanic adolescent girls.

On balance, we find relatively few differences between Hispanic and white teenagers on various indicators of mental health once comparisons are restricted to girls of similar socioeconomic status and family structure. However, racial differences in self-esteem, depression and stress reveal that white rather than black teens experience worse mental health outcomes. As important, we show that adolescents who reside either with a single parent or with no parent are especially vulnerable to poor mental health. That both black and Hispanic girls are appreciably more likely than white adolescents to live with one or neither parent places them at very high risk of poor mental health, as measured by self-esteem, depressive symptoms, episodes

of stress, and suicidal ideation. No similar mental health consequences of family structure obtain for teenage boys.

Although indicators of average physical well-being of adolescent girls reveal that Hispanics and blacks are more disadvantaged than their white age peers, particularly in their experiences with abuse and violence, these differences are nonexistent among girls of comparable social class, family structure and social environments. That is, the multivariate analyses indicate trivial race and ethnic differences in health status, physical and/or sexual abuse, and experiences with domestic violence among girls with similar social circumstances. While informative about ultimate causes, the fact remains that minority and nonminority girls do not share similar social environments, which is why both black and Hispanic teenagers experience higher risk of abuse and violence than their white counterparts. This is particularly so for those who do not live with either parent, who are over twice as likely to experience physical or sexual abuse compared to their age-mates who reside with two parents. Family structure emerges as an important protective factor for adolescent girls, yet secular trends indicate that the share of Hispanic girls who reside with a single parent (or no parent) is increasing, thereby exposing increasing numbers to the risk of violence and abuse. This insight has important policy implications and challenges youth advocates to craft ways to provide support and protection for young girls whose living arrangements impair their safety.

We also find limited evidence that Hispanic girls are more likely than white teens to engage in behaviors that compromise their health status, except for bingeing as a weight control strategy. Once comparisons are restricted to girls of comparable socioeconomic status and family structure, Hispanic girls are no more or less likely than other teenage girls (or boys) to use alcohol regularly, to smoke regularly, or to use drugs. However, we find very strong evidence

that lack of parental supervision increases adolescents' propensity to engage in substance abuse. In fact, family structure effects on alcohol, tobacco and drug use were generally larger than those of social class, which reveals the vulnerability of youth to transgressive behavior when parental supervision is weak or absent. The only noteworthy exception is drug use, which is more prevalent among lower status girls (but not boys). These findings reinforce the conclusion about the need for policy alternatives to protect girls reared in parent-absent homes, particularly those where neither parent is present.

Our analyses of access to health care do show some differences among Hispanic, white and black teens of comparable social class and family structure. Especially noteworthy is the lower health insurance rate of Hispanic teens relative to their black and white peers, which limits their access to the health care system. In fact, Hispanic youth (both boys and girls) as well as black teens are significantly less able to access the private health care system, as indicated by the significantly lower shares of minority adolescents who usually receive their health care in a physician's office. Equally striking are the strong family structure effects on teenage girls ability to access private medical care. Specifically, adolescents who do not reside with both parents—disproportionately minority youth—are least likely to receive health care in a physician's office. More importantly, these girls are also much more likely to report that they have not visited a physician in the past year and even have gone without needed care. Again, these results underscore the high vulnerability of adolescents who reside with single parents, or no parents.

In conclusion, we offer two policy recommendations for enhancing the health status of Hispanic girls, and protecting their physical and mental well-being as adults. First, expansion of health care insurance must become a national priority. Although the Children's Health Insurance Program technically extends health care insurance to economically disadvantaged youth, either

lack of information, the complexities of enrollment, and/or the legal status of parents have limited the shares of Hispanics who avail themselves to these benefits. Equally important are the pronounced effects on various health status outcomes and behaviors produced by the weak or absent parental supervision available to teenagers who reside in “broken homes”. Conceivably community strategies can be devised to reduce the vulnerability of teenagers raised by single parents, but especially those not living with either parent. The current national emphasis on mentoring programs is an important stride in that direction, but organized institutional strategies are also warranted.

The very young age structure of the Hispanic population implies that preventive care needs are much greater than curative needs compared to other populations, and in light of the rapid growth of U.S. Hispanics, investments in the health status of young people will yield good returns in the future. These are urgently needed at a time of rapidly escalating health care costs and rising numbers of uninsured.

We close by outlining suggestions for further research. In particular, we heed the admonition of Flores and his associates, (1999), who recommend conducting separate analyses for Hispanic subgroups. Although this was not possible with the Commonwealth surveys owing to sample sizes and the difficulty of soliciting ethnic origin data from youth, it is worthwhile to consider whether the vulnerabilities of Hispanic adolescent girls are greater or lesser depending on their immigrant status (and if foreign-born, their length of U.S. residence), their national origin, and other social circumstances that influence health status and behavior.

References

- Alva, Sylvia Alatorre. 1995. "Psychological Distress and Alcohol Use in Hispanic Adolescents." *Journal of Youth and Adolescence* 24(4):481-498.
- American Psychological Association. 1993. "Commission on Youth and Violence Summary Report. Volume 1: Violence and Youth: Psychology's Response." American Psychological Association.
- Angel, Ronald, and Peter J. Guarnaccia. 1989. "Mind, Body and Culture: Somatization Among Hispanics." *Social Science and Medicine* 28(12):1229-1238.
- Arellano, Annette B. Ramirez de. 1996. "Latino Women: Health Status and Access to Health Care." Pp. 123-144 in *Women's Health: The Commonwealth Fund Survey*, edited by Marilyn M. Falk, and Karen Scott Collins. The Johns Hopkins University Press.
- Arroyo, Judith A. 1997. "Childhood Sexual Abuse among Hispanic and Non-Hispanic College Women." *Hispanic Journal of Behavioral Sciences* 19(1):57-69.
- Beitchman, J.H., K.J. Zucker, J.E. Hood, and et al. 1992. "A Review of the Long Term Effects of Child Sexual Abuse." *Child Abuse and Neglect* 16:101-118.
- Berton, Margaret Wright, and Sally D. Stabb. 1996. "Exposure to Violence and Post-Traumatic Stress Disorder in Urban Adolescents." *Adolescence* 31(122):489-498.
- Bifulco, A., G.W. Brown, P. Moran, C. Ball, and C. Campbell. 1998. "Predicting Depression in Women: The Role of Past and Present Vulnerability." *Psychological Medicine* 28(1):39-50.
- Brooks-Gunn, Jeanne, and Edward O. Reiter. 1990. "The Role of Pubertal Processes." Pp. 16-53 in *At the Threshold: The Developing Adolescent*, edited by S. Shirley Feldman, and Glen R. Elliot. Harvard University Press.
- Brown, B. Bradford. 1990. "Peer Groups and Peer Cultures." Pp. 171-196 in *At the Threshold: The Developing Adolescent*, edited by S. Shirley Feldman, and Glen R. Elliott. Harvard University Press.
- Burnam, M. Audrey, Richard L. Hough, Marvin Karno, Javier I. Escobar, and Cynthia A. Telles. 1987. "Acculturation and Lifetime Prevalence of Psychiatric Disorders among Mexican Immigrants." *Journal of Health and Social Behavior* 28(1):89-102.
- Caetano, Raul. 1994. "Drinking and Alcohol-Related Problems among Minority Women." *Alcohol Health and Research World* 18(3):233-242.
- Castaneda, Donna M. 1994. "A Research Agenda for Mexican-American Adolescent Mental Health." *Adolescence* 29(113):225-240.
- Centers for Disease Control and Prevention. 1998. "CDC Surveillance Summaries." *Morbidity and Mortality Weekly Reports* 47(SS-3).

- Cervantes, Richard C., and Felipe G. Castro. 1985. "Stress, Coing and Mexican American Mental Health: A Systematic Review." *Hispanic Journal of Behavioral Sciences* 7(1):1-73.
- Children's Defense Fund. 1997. "The State of America's Children: Yearbook 1997." . Children's Defense Fund.
- Coble, Y.D., E.H. Estes, C.A. Head, M.S. Karlan, W.R. Kennedy, P.J. Numann, K.A. Scheider, W.C. Scott, W.D. Skelton, R.M. Steinhilber, J.P. Strong, H.N. Wagner, J.M. Loeb, R.C. Rinaldi, B. Stewart, and K. Voegtle. 1993. "Adolescents as Victims of Family Violence." *JAMA-Journal of the American Medical Association* 270(15):1850-1856.
- Commonwealth Fund, The. 1997. "The Commonwealth Fund Survey of the Health of Adolescent Girls." Louis Harris and Associates, Inc.
- Commonwealth Fund, The. 1999. "Improving the Health of Adolescent Girls." . The Commonwealth Fund.
- Coulson, N.S., C. Elser and J.R. Elser. 1997. "Diet, Smoking and Exercise: Interrelationships between Adolescent Health Behaviours." 23(3):207-216.
- Current Topics. 2000. "Pan American Journal of Public Health." 7(4):275-277.
- del Pinal, Jorge, and Audrey Singer. 1997. "Generations of Diversity: Latinos in the United States." *Population Bulletin* 52(3):2-48.
- Falik, Marilyn M., and Karen Scott Collins (eds.). 1996. *Women's Health: The Commonwealth Fund Survey*. Johns Hopkins University Press.
- Fergusson, David M., and L. John Horwood. 1998. "Exposure to Interparental Violence in Childhood and Psychological Adjustment in Young Adulthood." *Child Abuse and Neglect* 22(5):339-357.
- Flisher, Alan J., Rachel A. Kramer, Christina W. Hoven, Steven Greenwald, Maragrta Alegria, Hector R. Bird, Glorisa Canino, Roxanne Connell, and Robert E. Moore. 1997. "Psychosocial Characteristics of Physically Abused Children and Adolescents." *Journal of the American Academy of Child and Adolescent Psychiatry* 36(1):123-131.
- Flores, Glen, Howard Bauchner, Alvan R. Feinstein and Uyen-Sa D.T. Nguyen. 1999. "The Impact of Ethnicity, Family Income, and Parental Education on Children's Health and Use of Health Services." *American Journal of Public Health* 89(7): 1066-1071.
- Furstenberg, Frank F., Thomas D. Cook, Jacquelynne Eccles, and Arnold J. Sameroff (eds.). 1999. *Managing to Make It: Urban Families and Adolescent Success*. University of Chicago Press.
- Geller, Josie, Charlotte Johnston, Kellianne Madsen, Elliot M. Goldner, Ronald A. Remick, and C. Laird Birmingham. 1998. "Shape- and Weight-Based Self-Esteem and the Eating Disorders." *International Journal of Eating Disorders* 24(3):285-298.
- Green, A.H. 1993. "Child Sexual Abuse: Immediate and Long-Term Effects and Intervention." *Journal of the American Academy of Adolescent Psychiatry* 32:890-902.

- Hammond, Rodney W., and Betty Yung. 1993. "Psychology's Role in the Public Health Response to Assaultive Violence among Young African-American Men." *American Psychologist* 48(2):142-154.
- Hampton, Robert L. 1994. "Violence Toward Black Women in a Nationally Representative Sample of Black Families." *Journal of Comparative Family Studies* 25(1):105-120.
- Harter, Susan. 1990. "Self Identity and Development." Pp. 352-387 in *At the Threshold: The Developing Adolescent*, edited by S. Shirley Feldman, and Glen R. Elliott. Harvard University Press.
- Heath, G.W., M. Pratt, C.W. Warren, and L. Kann. 1994. "Physical Activity Patterns in American High School Students." *Archives of Pediatrics and Adolescent Medicine* 148:1131-1136.
- Herzog, D.B., and P.M. Copeland. 1985. "Eating Disorders." *New England Journal of Medicine* 318:295-303.
- Herzog, David B., Martin B. Keller, Natalie R. Sacks, Christine J. Yeh, and Philip W. Lavori. 1992. "Psychiatric Comorbidity in Treatment-Seeking Anorexics and Bulimics." *Journal of the American Academy of Child and Adolescent Psychiatry* 31(5):810-818.
- Horton, Jacqueline A. 1992. "The Women's Health Data Book." Elsevier.
- Idler, Ellen L., and Ronald J. Angel. 1990. "Self-Rated Health and Mortality in the NHANES-I Epidemiologic Follow-up Study." *American Journal of Public Health* 80(4):448-52.
- Institute of Medicine: Division of Mental Health and Behavioral Medicine. 1989. *Research on Children and Adolescents with Mental, Behavioral, and Developmental Disorders: Mobilizing a National Initiative*. National Academy Press.
- Johnston, L.D., P.M. O'Malley, and J.G. Bachman. 1994. "National Survey Results on Drug Use from the Monitoring the Future Study, 1975-1993: Volume I. Secondary School Students." U.S. Department of Health and Human Services.
- Keney, Janet W., Cindy Reinholtz, and Patti Jo Angelini. 1997. "Ethnic Differences in Childhood and Adolescent Sexual Abuse and Teenage Pregnancy." *Journal of Adolescent Health* 21(1):3-10.
- Knight, George P. 1994. "An Examination of the Cross Ethnic Equivalence of Measures of Negative Life Events and Mental Health among Hispanic and Anglo-American Children." *American Journal of Community Psychology* 22(6):767-784.
- Kornblit, Ana Lia. 1994. "Domestic Violence- An Emerging Health Issue." *Social Science and Medicine* 39(9):1181-1188.
- Kotlowitz, Alex. 1991. *There Are No Children Here: The Story of Two Boys Growing Up in the Other America*, 1st ed. Doubleday.

- Kovacs, Maria, and Aaron T. Beck. 1977. "An Empirical-Clinical Approach Toward a Definition of Childhood Depression." Pp. 1-25 in *Depression in Childhood: Diagnosis, Treatment, and Conceptual Models*, edited by J.G. Schulerbrandt, and A. Raskin. Raven.
- Krishnan, Satya P., Judith C. Hilbert, Dawn VanLeeuwen, and Raiza Kolia. 1997. "Documenting Domestic Violence among Ethnically Diverse Populations: Results from a Preliminary Study." *Family and Community Health* 20(3):32-48.
- Langeland, W., and C. Hartgers. 1998. "Child Sexual and Physical Abuse and Alcoholism: A Review." *Journal of Studies on Alcohol* 59(3):336-348.
- Lennon, Mary Clare. 1996. "Depression and Self-Esteem among Women." Pp. 207-236 in *Women's Health: The Commonwealth Fund Survey*, edited by Marilyn M. Falk, and Karen Scott Collins. The Johns Hopkins University Press.
- Lindholm, Kathryn, and Richard Willey. 1986. "Ethnic Differences in Child Abuse and Sexual Abuse." *Hispanic Journal of Behavioral Sciences* 8(2):111-125.
- Lipton, Robert. 1997. "The Relationship between Alcohol, Stress and Depression in Mexican Americans and non-Hispanic Whites." *Behavioral Medicine* 23(3):101-112.
- Markward, Martha J. 1997. "The Impact of Domestic Violence on Children." *Families in Society: The Journal of Contemporary Human Services* 78(1):66-70.
- McCauley, J., D.E. Kern, K. Kolodner, L. Dill, A.F. Schroeder, H.K. DeChant, J. Ryden, L.R. Derogatis, and E.B. Bass. 1997. "Clinical Characteristics of Women with a History of Child Abuse-Unhealed Wounds." *JAMA- Journal of the American Medical Association* 277(17):1362-1368.
- McLanahan, Sara, and Gary Sandefur. 1994. *Growing Up with a Single Parent: What Hurts, What Helps*. Harvard University Press.
- Melzer-Lange, Marlene D. 1998. "Violence and Associated High-Risk Health Behavior in Adolescents." *Pediatric Clinics of North America* 45(2):307-317.
- Mennen, Ferol E. 1994. "Sexual Abuse in Latina Girls: Their Functioning and a Comparison with White and African American Girls." *Hispanic Journal of Behavioral Sciences* 16(4):475-486.
- Millstein, Susan G., and Iris F. Litt. 1990. "Adolescent Health." Pp. 431-456 in *At the Threshold: The Developing Adolescent*, edited by S. Shirley Feldman, and Glen R. Elliott. Harvard University Press.
- Morgan, M.C., D.L. Wingard, and M.E. Felice. 1984. "Subcultural Differences in Alcohol Use among Youth." *Journal of Adolescent Health Care* 5(3):191-195.
- Murphy, George E. 1998. "Why Women Are Less Likely than Men to Commit Suicide." *Comprehensive Psychiatry* 39(4):165-175.
- Nelson, D.E., G.K. Higginson, and J.A. Grantworley. 1995. "Physical Abuse among High-School Students--Prevalence and Correlation with Other Health Behaviors." *Archives of*

- Pediatrics and Adolescent Medicine* 149(11):1254-1258.
- Office of Research on Women's Health. 1998. *Women of Color Health Data Book: Adolescents to Seniors*. National Institutes of Health.
- Porter, J.R., and R.E. Washington. 1993. "Minority Identity and Self-esteem." *Annual Review of Sociology* 19:139-162.
- Rew, Lynn. 1998. "Access to Health Care for Latina Adolescents." *Journal of Adolescent Health* 23:194-204.
- Roberts, R.E., Y.R. Chen, and C.R. Roberts. 1997. "Ethnocultural Differences in Prevalence of Adolescent Suicidal Behaviors." *Suicide and Life-Threatening Behavior* 27(2):208-217.
- Roberts, Robert E., and Yuan-Who Chen. 1995. "Depressive Symptoms and Suicidal Ideation among Mexican-Origin and Anglo Adolescents." *Journal of the American Academy of Child and Adolescent Psychiatry* 34(1):81-90.
- Romans, Sarah E., Judy Martin, and Paul Mullen. 1996. "Women's Self-Esteem: A Community Study of Women Who Report and Do Not Report Childhood Sexual Abuse." *British Journal of Psychiatry* 169:696-704.
- Rosenberg, Morris. 1965. *Society and the Adolescent Self-Image*. Princeton University Press.
- Rowland, T.W. 1990. *Exercise and Children's Health*. Human Kinetics.
- Russell, D.E.H. 1986. *The Secret Trauma: Incest in the Lives of Girls and Women*. Basic Books.
- Sallis, J.F., P.R. Nader, S.L. Broyles, C.C. Berry, J.P. Elder, T.L. McKenzie, and J.A. Nelson. 1993. "Correlates of Physical Activity at Home in Mexican-American and Anglo-American Preschool Children." *Health Psychology* 12:390-398.
- Schoen, Cathy, Karen Davis, Karen Scott Collins, Linda Greenberg, Catherine Des Roches, and Melinda Abrams. 1997. "The Commonwealth Fund Survey of the Health of Adolescent Girls." The Commonwealth Fund.
- Schwab-Stone, Mary E., Tim S. Ayers, Wesley Kaspro, Charlene Voyce, Charles Barone, Timothy Shriver, and Roger P. Weissberg. 1995. "No Safe Haven: A Study of Violence Exposure in an Urban Community." *Journal of the American Academy of Child and Adolescent Psychiatry* 34(10):1343-1352.
- Silverman, Amy B., Helen Z. Reinherz, and Rose M. Giaconia. 1996. "The Long-Term Sequelae of Child and Adolescent Abuse: A Longitudinal Community Study." *Child Abuse and Neglect* 20(8):709-723.
- Stein, J.A., J.M. Golding, J.M. Siegel, M.A. Burnam, and S.B. Sorenson. 1988. "Long-term Psychological Sequelae of Child Sexual Abuse: The Los Angeles Epidemiological Catchment Area Study." in *Lasting Effects of Child Sexual Abuse*, edited by G.E. Wyatt, and G.J. Powell. Sage.

- Straus, Martha B. 1994. *Violence in the Lives of Adolescents*. W.W. Norton and Co.
- Taylor, Wendell C., Bettina M. Beech, and Sharon S. Cummings. 1997. "Increasing Physical Activity Levels among Youth: A Public Health Challenge." Pp. 107-128 in *Health-Promoting and Health-Compromising Behaviors Among Minority Adolescents*, edited by Dawn K. Wilson, James R. Rodrigue, and Wendell C. Taylor. American Psychological Association.
- U.S. Department of Commerce. 1993. "We Are the American Hispanics." Bureau of the Census, Economics and Statistics Administration.
- U.S. Department of Commerce. 1996. "Current Population Reports." Pp. 25-1130 in *Population Projections of the United States by Age, Sex, Race and Hispanic Origin: 1995-2050*. Bureau of the Census, Economic and Statistics Administration.
- U.S. Department of Commerce. 1998. "The Hispanic Population in the United States: March, 1997. Detailed Tables for Current Population Reports." Pp. 20-511. Bureau of the 1998. Census, Ethnic and Hispanic Statistics Branch.
- Vega, Willaim, and Ruben Rumbaut. 1991. "Ethnic Minorities and Mental Health." *Annual Review Of Sociology* 17:351-383.
- Vega, William, George Warheit, Joanne Buhl-Auth, and Kenneth Meinhardt. 1984. "The Prevalence of Depressive Symptoms Among Mexican Americans and Anglos." *American Journal of Epidemiology* 120(4):592-607.
- Walitzer, K.S., and K.J. Sher. 1996. "A Prospective Study of Self-Esteem and Alcohol Use Disorders in Early Adulthood: Evidence for Gender Differences." *Alcoholism-Clinical and Experimental Research* 20(6):1118-1124.
- Walker, Lynn S., and John W. Greene. 1986. "The Social Context of Adolescent Self-Esteem." *Journal of Youth and Adolescence* 15(4):315-322.
- Weisman, Carol S. 1998. *Women's Health Care*. The Johns Hopkins University Press.
- Wolf, A.M., S.L. Gortmaker, L. Cheung, H.M. Gray, D.B. Herzog, and G.A. Colditz. 1993. "Activity, Inactivity, and Obesity: Racial, Ethnic and Age Differences among Schoolgirls." *American Journal of Public Health* 83:1625-1627.
- Youngs, George A Jr., Richard Rathge, Ron Mullis, and Ann Mullis. 1990. "Adolescent Stress and Self-Esteem." *Adolescence* 25(98):333-341.
- Zakarain, J.M., M.F. Hovell, C.R. Hofstetter, J.F. Sallis, and K.J. Keating. 1994. "Correlates of Vigorous Exercise in a Predominately Low SES and Minority High School Population." *Preventive Medicine* 23(314-321).

Table 2: Mental Health Indicators of Mature Women & Adolescent Girls by Race and Hispanic Origin
(Percents)

	Adult Women			Adolescent Girls				
	Hispanic	White	Black	Total	Hispanic	White	Black	Total
Self-Esteem								
Low	3.5	2.4	2.6	2.5	11.0	11.8	7.2	11.0
Moderate	37.7	29.4	33.4	30.5	47.6	49.0	40.6	47.6
High	58.8	68.2	64.0	66.9	41.4	39.2	52.2	41.4
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Mean	34.6	35.7	35.3	35.6	32.2	32.0	33.7	32.3
N	186	1936	292	2414	289	1749	371	2409
% Missing	3.7	2.2	2.8	2.4	10.4	5.5	13.8	7.5
	$\chi^2_{(4)}=8.21$ p=0.056				$\chi^2_{(4)}=45.41$ p=0.001			
Depression								
Low	46.7	63.5	51.9	60.8	73.8	78.1	82.7	78.3
Moderate	43.5	34.1	41.1	35.7	15.4	12.8	11.5	12.9
High	9.9	2.4	7.1	3.6	10.8	9.2	5.8	8.8
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Mean	5.9	4.5	5.5	4.8	5.7	5.2	4.6	5.2
N	192	1969	297	2457	311	1785	391	2487
% Missing	0.7	0.5	1.2	0.7	3.4	3.6	9.2	4.5
	$\chi^2_{(4)}=58.76$ p=0.000				$\chi^2_{(4)}=18.92$ p=0.064			
Suicidal Ideation								
Yes	7.3	6.1	3.6	5.9	3.1	2.6	1.2	2.5
No	92.7	93.9	96.4	94.1	96.9	97.4	98.8	97.5
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
N	193	1981	300	2474	319	1825	412	2556
% Missing	0.0	0.0	0.0	0.0	1.0	1.4	4.4	1.9
	$\chi^2_{(2)}=3.75$ p=0.092				$\chi^2_{(2)}=7.08$ p=0.140			

Table 3: Correlates of Mental Health of Adolescent Girls and Boys
(coefficients)

	Self-esteem		Depression		Stress	
	Girls	Boys	Girls	Boys	Girls	Boys
Age						
11-12	-0.96 (0.63)	-0.99 (0.57)	1.03* (0.42)	0.99* (0.41)	0.04 (0.08)	0.08 (0.07)
13	-0.33 (0.57)	-0.70 (0.60)	1.03* (0.45)	1.16* (0.50)	-0.02 (0.08)	0.07 (0.07)
14	-0.79 (0.63)	-1.23* (0.64)	1.72*** (0.47)	1.14* (0.47)	0.06 (0.08)	0.04 (0.08)
15	-1.95 ** (0.64)	-0.49 (0.62)	2.23*** (0.50)	1.38** (0.52)	0.02 (0.08)	0.00 (0.08)
16	-1.15 * (0.58)	0.04 (0.62)	1.80*** (0.47)	1.44** (0.52)	0.08 (0.08)	0.02 (0.07)
17	-1.05 (0.61)	0.47 (0.63)	1.99*** (0.48)	0.75 (0.47)	0.04 (0.08)	0.00 (0.08)
18+	-0.01 (0.76)	-0.74 (0.66)	0.91 (0.52)	1.1* (0.50)	0.01 (0.08)	-0.02 (0.08)
Race/Ethnicity						
Hispanic	0.25 (0.36)	-0.31 (0.54)	0.23 (0.32)	0.43 (0.38)	0.02 (0.03)	-0.02 (0.04)
Black	1.56 *** (0.45)	0.53 (0.35)	-0.83** (0.32)	-0.55* (0.26)	-0.07** (0.03)	0.02 (0.03)
Socioeconomic Status						
Low Middle	2.05 *** (0.55)	0.42 (0.61)	-1.53*** (0.47)	-1.24** (0.47)	-0.05 (0.04)	-0.10 (0.06)
Middle	1.93 *** (0.48)	0.91 (0.50)	-1.67*** (0.38)	-1.07** (0.41)	-0.05 (0.03)	-0.15*** (0.04)
High Middle	2.90 *** (0.46)	2.92*** (0.44)	-2.39*** (0.37)	-2.33*** (0.36)	-0.11*** (0.03)	-0.24*** (0.04)
High	30.87 *** (0.48)	30.00*** (0.48)	-30.26*** (0.36)	-2.68*** (0.38)	-0.16*** (0.03)	-0.24*** (0.04)
Family Structure						
Single parent	-0.01 (0.32)	-0.48 (0.36)	0.09 (0.24)	0.57* (0.28)	0.00 (0.02)	0.02 (0.03)
Non-family living	-0.21 (0.69)	-1.31 (1.02)	1.00 (0.54)	1.31* (0.58)	0.03 (0.05)	0.10 (0.08)
Residence						
Suburban	-0.27 (0.38)	-0.42 (0.32)	-0.12 (0.30)	0.06 (0.28)	0.04 (0.03)	0.00 (0.03)
Rural	-0.32 (0.37)	-0.44 (0.33)	-0.24 (0.26)	0.17 (0.26)	0.05* (0.03)	0.00 (0.02)
School Type						
Private	-1.31 (0.78)	-0.36 (0.50)	0.32 (0.50)	0.07 (0.36)	0.01 (0.05)	0.03 (0.06)
Catholic	-0.41 (0.60)	-0.30 (0.63)	0.32 (0.40)	0.45 (0.44)	0.12* (0.06)	0.03 (0.05)
R-Squared	0.06	0.06	0.07	0.06	0.03	0.04
N	2,298	2,140	2,378	2,240	2,241	22

* $p \leq .05$

** $p \leq .01$

*** $p \leq .001$

Table 4: Indicators of Physical Well Being of Mature Women and Adolescent Girls by Race and Hispanic Origin
(Percents)

Health Status	Adult Women			Adolescent Girls			
	Hispanic	White	Black	Hispanic	White	Black	Total
Excellent	20.6	22.7	19.0	23.3	22.9	24.5	23.2
Good	28.9	38.4	28.3	61.6	61.7	56.2	60.8
Fair	29.9	28.9	36.1	14.9	14.5	18.2	15.1
Poor	20.5	10.0	16.6	0.3	0.9	1.1	0.9
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
N	184	1918	277	310	1800	404	2514
% Missing	4.9	3.2	7.8	3.8	2.8	66.2	3.5
	X² (6)=39.07 p=0.000			X² (6)=13.28 p=0.377			
Abuse							
Sexual Only	2.9	2.7	5.5	5.9	4.7	4.3	4.8
Physical Only	5.0	6.4	4.6	9.6	8.2	5.1	7.9
Sexual and Physical	9.5	6.4	6.1	4.7	5.1	5.6	5.1
No Abuse	82.7	84.5	83.8	79.8	82.0	84.9	82.2
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
N	191	1975	299	304	1741	404	2450
% Missing	1.0	0.3	0.3	5.7	6.0	6.1	6.0
	X² (6)=11.65 p=0.024			X² (6)=14.42 p=0.338			

Table 5: Correlates of Physical Well-Being of Adolescent Girls and Boys
(odds ratios)

	Good Health		Ever Abused		Experienced Violence	
	Girls	Boys	Girls	Boys	Girls	Boys
Age						
11-12	0.61	0.85	1.07	2.14	1.54	1.25
13	0.54	0.73	1.61	1.95	1.50	1.60
14	0.38**	0.72	2.22*	1.72	2.51***	1.09
15	0.37**	0.92	2.89**	2.51	2.22**	0.91
16	0.41**	0.64	2.47**	1.93	1.81*	1.16
17	0.37**	0.78	2.97**	3.18	2.03**	0.96
18+	0.55	0.48	4.32***	2.77	1.71	1.18
Race/Ethnicity						
Hispanic	1.02	0.90	1.09	1.51	1.14	1.43*
Black	0.79	1.01	0.71	0.88	0.80	0.83
Socioeconomic Status						
Low Middle	1.65*	1.26	0.50***	0.58	0.62**	0.51**
Middle	1.68**	1.77**	0.60**	0.63	0.58***	0.46***
High Middle	2.24***	2.92***	0.50***	0.41**	0.48***	0.30***
High	2.64***	3.23***	0.41***	0.22***	0.26***	0.25***
Family Structure						
Single parent	1.00	0.74	1.41**	1.40	1.36*	1.13
Non-family living	0.97	1.56	2.20***	2.71*	2.20***	1.64
Residence						
Suburban	1.07	1.15	0.89	1.00	1.00	0.67*
Rural	0.93	0.90	0.85	0.86	0.93	0.78
School Type						
Private	0.74	0.64	0.74	1.03	0.51*	0.67
Catholic	1.24	0.48***	0.54*	0.39	0.73	0.70
N	2,394	2,296	2,329	2,270	2,273	2,194

* p ≤ .05

** p ≤ .01

*** p ≤ .001

Table 6: Health Compromising Behavior of Adult Women and Adolescent Girls by Race and Hispanic Origin
(Percentis)

	Adult Women				Adolescent Girls			
	Hispanic	White	Black	Total	Hispanic	White	Black	Total
Binge/Purge^a								
Yes	3.2	1.3	0.0	1.4	20.7	15.1	12.6	15.4
No	96.8	98.7	100.0	98.6	79.3	84.9	87.5	84.6
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
N	30	259	18	307	298	1691	392	2381
% Inapplicable/Missing	84.4	86.9	98.0	87.6	7.6	8.7	9.0	8.6
	$X^2_{(2)}=98 \quad p=0.547$				$X^2_{(2)}=18.35 \quad p=0.020$			
Regular Alcohol Use^b								
Yes	3.5	11.6	3.8	10.0	8.0	12.4	6.7	11.0
No	96.5	88.4	96.2	90.0	92.0	87.6	93.3	89.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
N	193	1981	300	2471	312	1814	414	2540
% Missing	0.0	0.0	0.0	0.0	3.2	2.0	3.9	2.5
	$X^2_{(2)}=27.79 \quad p=0.000$				$X^2_{(2)}=28.78 \quad p=0.002$			
Regular Cigarette Smoking^c								
Yes	14.4	26.6	20.6	24.9	11.0	13.2	5.8	11.7
No	85.7	73.4	79.4	75.1	89.0	86.8	94.2	88.3
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
N	193	1981	300	2474	315	1824	425	2564
% Missing	0.0	0.0	0.0	0.0	2.2	1.5	1.4	1.6
	$X^2_{(2)}=17.63 \quad p=0.0001$				$X^2_{(2)}=36.00 \quad p=0.000$			

^a Based on a filtered response. Only women weighing under 120 lbs. were asked about bingeing and purging. All adolescents were queried about bingeing and purging.

^b Adult women who drank 3 or more times in the past two weeks and adolescent girls who usually drink once a month or more often.

^c Present use for adult women and frequent use (smoked at least several cigarettes last week) for adolescent girls.

Table 7: Correlates of Health Compromising Behaviors of Adolescent Girls and Boys
(odds ratios)

	Bingeing		Regular Alcohol Use		Regular Cigarette Use		Drug Use	
	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys
Age								
11-12	0.92	0.99	1.07	0.83	1.92	2.43	1.42	2.69
13	0.83	0.57	2.73	2.15	4.67 **	4.40 *	5.45 *	4.77 **
14	1.60	0.59	6.13 **	2.27	8.80 ***	4.48 *	13.03 ***	6.86 **
15	1.85	0.34 *	6.57 ***	2.93 *	8.58 ***	5.39 **	14.69 ***	11.49 ***
16	1.46	1.04	8.87 ***	4.81 ***	14.27 ***	10.88 ***	18.90 ***	11.32 ***
17	2.11 *	0.28 *	11.15 ***	5.96 ***	14.77 ***	11.28 ***	20.10 ***	11.24 ***
18+	1.53	0.41	12.02 ***	5.04 **	19.08 ***	12.95 ***	17.91 ***	23.84 ***
Race/Ethnicity								
Hispanic	1.48 *	3.49 ***	0.52 **	1.56 *	0.73	1.36	0.67	2.18 ***
Black	0.83	2.63 **	0.39 ***	0.76	0.34 ***	0.74	0.41 ***	0.87
Socioeconomic Status								
Low Middle	0.93	0.38 *	0.82	0.92	0.75	0.77	0.69	0.70
Middle	0.74	0.53	0.89	1.23	1.07	0.95	0.62 **	0.84
High Middle	0.68	0.59	0.78	1.31	0.95	1.18	0.62 **	0.93
High	.61 *	0.73	1.12	1.22	0.67	0.71	0.54 **	0.90
Family Structure								
Single parent	0.97	1.14	1.92 ***	1.13	1.25	1.40 *	1.70 ***	1.69 **
Non-family living	1.43	2.66 ***	2.56 **	2.76 ***	1.46	2.97 **	1.83 *	3.04 **
Residence								
Suburban	0.97	0.63	0.92	0.74	0.71	0.66	0.84	0.90
Rural	1.20	1.25	1.01	1.25	0.98	1.06	0.81	1.07
School Type								
Private	0.76	0.68	0.67	1.44	0.68	1.10	0.54	1.42
Catholic	0.95	1.12	0.94	0.92	1.38	0.80	0.67	0.47
N	2272	2303	2417	2321	2440	2358	2394	2286

* significant at $p \leq 0.05$

** significant at $p < 0.01$

*** significant at $p < 0.001$

**Table 8: Access to Health Care and Health-Seeking Behavior of Adult Women and Adolescent Girls
by Race and Hispanic Origin
(Percents)**

	Adult Women				Adolescent Girls			
	Hispanic	White	Black	Total	Hispanic	White	Black	Total
Regular Provider								
Yes	72.9	79.9	77.6	79.0	78.8	86.0	78.3	83.8
No	27.1	20.1	22.4	21.0	21.2	14.0	21.7	16.2
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
N	193	1973	298	2464	302	1763	402	2467
% Missing	0.3	0.4	0.5	0.4	6.4	4.8	6.6	5.3
	$X^2_{(2)}=5.60$ p=0.042				$X^2_{(2)}=41.25$ p=0.0002			
Any Doctor Visits in Past 12 mos.								
Yes	87.0	90.9	91.8	90.7	75.1	76.8	68.4	75.2
No	13.0	9.1	8.2	9.3	24.9	23.2	31.6	24.8
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
N	191	1971	296	2458	319	1840	428	2587
% Missing	1.2	0.5	1.5	0.6	0.9	0.6	0.7	0.7
	$X^2_{(2)}=3.67$ p=0.1308				$X^2_{(2)}=26.29$ p=0.0046			
Where is Usual Source of Care								
Doctor's Office	63.0	78.5	64.8	75.7	50.3	72.5	50.5	66.2
Clinic (Non-School)	21.7	15.8	20.1	16.7	34.2	19.8	31.5	23.5
ER	11.5	3.3	13.2	5.1	4.6	3.4	7.4	4.2
School Clinic or Nurse					0.8	0.8	2.6	1.1
Other	3.8	2.4	1.9	2.5	12.2	6.3	15.9	8.6
Total	100.0	100.0	100.0	100.0	102.1	102.8	107.9	103.5
N	140	1556	231	1926	304	1785	406	2495
% Missing	27.8	21.5	23.2	22.2	5.8	3.6	5.6	4.2
	$X^2_{(6)}=66.05$ p=0.0000				$X^2_{(8)}=31.14$ p=0.085			
Have Insurance								
Yes	77.6	88.2	85.1	87.0	84.0	91.4	90.5	90.4
No	22.4	11.8	14.9	13.0	16.0	8.6	9.5	9.6
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
N	193	1981	300	2474	232	1484	331	2047
% Missing	0.0	0.0	0.0	0.0	28.1	19.9	23.1	21.4
	$X^2_{(2)}=18.53$ p=0.0005				$X^2_{(2)}=25.38$ p=0.0025			
Ever Needed Care But Not Gotten It								
Yes	16.7	12.4	14.2	13.0	29.8	26.8	34.7	28.5
No	83.3	87.6	85.8	87.0	70.2	73.2	65.3	71.6
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
N	193	1976	300	2469	297	1683	390	2371
% Missing	0.0	0.2	0.3	0.2	7.8	9.1	9.5	9.0
	$X^2_{(2)}=3.24$ p=0.1547				$X^2_{(2)}=20.16$ p=0.0212			
Ever too Embarrassed to Talk to MD about Problem								
Yes	16.1	8.6	12.9	9.6	41.5	35.7	41.7	37.4
No	83.9	91.4	87.1	90.4	58.5	64.3	58.3	62.6
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
N	152	1762	242	2157	264	1530	348	2143
% Missing	21.2	11.0	19.3	12.8	18.1	17.3	19.2	17.7
	$X^2_{(2)}=12.43$ p=0.0014				$X^2_{(2)}=13.05$ p=0.0419			

Table 9: Correlates of Help-seeking Behaviors of Adolescent Girls and Boys
(odds ratios)

	Regular Provider		Doctor Visit in past Year		Usual Source is MD Office		Has Insurance		Needed but not Received Care		Too Embarrassed Talk to MD	
	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys
Age												
11-12	0.67	1.99	0.78	1.22	1.09	1.01	0.89	0.36	1.62*	1.22	1.81**	1.06
13	0.50	1.18	0.84	1.49	1.24	1.08	0.97	0.45	1.14	1.53	1.29	0.90
14	0.68	0.65	0.97	1.26	1.29	1.21	0.83	0.62	1.75*	1.22	1.58*	0.91
15	0.42*	0.72	1.27	1.50	1.08	1.20	1.16	0.54	1.60**	1.53	1.23	0.73
16	0.51	0.66	1.25	1.34	1.41	1.33	0.78	0.70	1.90**	1.36	1.43	0.55
17	0.58	0.55	1.28	1.00	1.77	1.37	0.73	0.60	2.28***	1.26	1.57	0.58
18+	0.54	0.39*	1.21	1.27	1.61	1.12	0.34*	0.32	1.98**	2.05	1.35	0.61
Race/Ethnicity												
Hispanic	0.67*	0.49***	0.94	0.84	0.44***	0.41***	0.53**	0.34***	1.19	1.34	1.10	1.42
Black	0.71	0.53**	0.71**	0.91	0.50***	0.44***	1.17	0.72	1.22	1.46*	1.03	1.19
Socioeconomic Status												
Low Middle	1.66*	0.97	1.36	1.08	1.44*	1.21	2.16**	2.62**	0.85	0.51**	0.85	0.76
Middle	1.42*	1.54*	1.31	1.50*	1.40*	1.71**	2.57***	2.23**	0.72*	0.50***	0.76	0.93
High Middle	1.87***	1.54*	1.58**	1.54*	1.77***	1.57*	4.48***	3.89***	0.46***	0.40***	0.54***	0.52**
High	2.17***	1.86**	1.63**	1.78**	1.92***	1.98***	8.55***	5.17***	0.40***	0.29***	0.52***	0.71
Family Structure												
Single parent	0.82	0.99	0.80	0.83	0.82	0.78	0.78	0.78	1.28*	1.16	0.97	0.78
Non-family living	0.48**	0.75	0.55**	0.65	0.47***	0.80	0.40**	0.62	1.45	1.96*	1.45	1.36
Residence												
Suburban	1.28	0.85	0.94	1.03	1.22	1.23	1.26	1.14	0.89	0.81	0.68**	1.17
Rural	1.06	0.88	1.09	0.99	0.91	0.74	0.96	1.19	1.04	0.96	0.73*	0.87
School Type												
Private	1.14	1.05	0.84	0.67	1.80*	2.07**	1.66	1.73	0.77	1.10	0.99	1.71**
Catholic	1.06	0.69	0.88	0.74	1.10	0.88	1.78	1.10	0.68*	1.10	1.04	0.75
N	2352	2244	2461	2393	2368	2253	1964	1833	2257	2133	2040	1911

* significant at p<= 0.05

** significant at p<=0.01

*** significant at p<=0.001

Appendix Table A-2
Social and Family Characteristics of Mature & Adolescent Women by Race and Hispanic Origin
(Percents)

Socio-Economic Status	Adult Women			Adolescent Girls			
	Hispanic	White	Black	Hispanic	White	Black	Total
Low	51.7	33.9	51.9	16.4	11.5	13.4	12.4
Lower Middle	8.3	10.5	12.7	15.1	10.8	20.0	12.9
Middle	27.9	32.8	24.1	25.8	26.2	22.1	25.4
Upper Middle	11.2	19.8	9.1	26.9	26.1	20.4	25.3
Upper	1.0	3.1	2.2	15.8	25.3	24.1	24.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
N=	173	1807	267	297	1801	419	2516
% Missing	10.6	8.7	11.1	8.0	2.7	2.9	3.4
	$\chi^2(8)=62.98$ p=0.000			$\chi^2(8)=90.78$ p=0.000			
Sample share	7.8	80.1	12.1	12.4	71.1	16.5	50.1
Sample N	193	1981	300	322	1852	431	2605

Appendix Table A-3
Mental Health Indicators of Adolescent Boys by Race and Hispanic Origin
(Means or Percents)

	Adolescent Boys			
	Hispanic	White	Black	Total
Self-Esteem				
Low	9.0	6.5	4.1	6.4
Moderate	43.6	38.8	40.9	39.6
High	47.5	54.8	55.1	54.0
Total	100.0	100.0	100.0	100.0
Mean	32.9	33.9	34.0	33.8
N	255	1693	325	2274
% Missing	18.5	10.4	16.6	12.3
	$X^2_{(4)}=18.85$ $p=0.160$			
Depression				
Low	81.4	86.0	86.5	85.5
Moderate	12.4	8.0	7.3	8.4
High	6.2	6.0	6.2	6.0
Total	100.0	100.0	100.0	100.0
Mean	4.7	4.0	3.8	4.0
N	288	1767	339	2394
% Missing	7.9	6.5	13.1	7.7
	$X^2_{(4)}=14.54$ $p=0.257$			
Suicidal Ideation				
Yes	2.6	3.2	2.0	2.9
No	97.4	96.8	98.0	97.1
Total	100.0	100.0	100.0	100.0
N	299	1805	358	2462
% Missing	4.4	4.5	8.2	5.1
	$X^2_{(2)}=2.99$ $p=0.585$			
Stress				
None/Low	15.1	17.0	14.1	16.4
Moderate	51.3	55.8	47.0	54.1
High	33.5	27.2	38.9	29.5
Total	100.0	100.0	100.0	100.0
Mean	0.8	0.8	0.9	0.8
N	259	1668	310	2237
% Missing	17.4	11.7	20.6	13.7
	$X^2_{(4)}=14.87$ $p=0.005$			
Negative Life Events				
0	62.5	63.1	45.6	60.4
1	24.3	25.4	32.0	26.2
2	8.7	7.5	16.7	9.0
3	2.8	2.6	4.4	2.9
4	1.7	1.4	1.3	1.4
Total	100.0	100.0	100.0	100.0
Mean	0.6	0.5	0.8	0.6
N	307	1824	374	2505
% Missing	1.9	3.5	4.1	3.4
	$X^2_{(8)}=111.4$ $p=0.000$			

Appendix Table A-4
Indicators of Physical Well Being of Adolescent Boys by Race and Hispanic Origin
(Percents)

	Adolescent Boys			Total
	Hispanic	White	Black	
Health Status				
Excellent	29.1	36.1	39.2	35.8
Good	56.9	51.3	45.6	51.1
Fair	11.5	12.1	14.6	12.4
Poor	2.6	0.5	0.5	0.8
Total	100.0	100.0	100.0	100.0
N	285	1819	375	2478
% Missing	9.1	3.7	3.9	4.4
	$X^2_{(6)}=50.36 \quad p=0.004$			
Abuse				
Sexual Only	2.9	1.4	0.6	1.5
Physical Only	8.8	6.7	8.4	7.2
Sexual and Physical	4.4	1.4	1.9	1.8
No Abuse	83.9	90.5	89.1	89.5
Total	100.0	100.0	100.0	100.0
N	284	1766	365	2415
% Missing	9.2	6.6	6.4	6.9
	$X^2_{(6)}=43.61 \quad p=0.051$			
Who Committed Sexual or Physical Abuse				
Family	65.1	68.7	76.9	69.4
N	22	98	26	146
Friend	23.4	11.8	10.96	13.6
N	8	17	4	29
Other Person	19.4	22.9	22.4	19.4
N	7	33	8	47
Don't Know Who	19.5	2.4	6.5	6.3
N	8	4	2	14
Total Ever Abused=	46	167	40	253
Frequency of Abuse				
Once	3.9	3.9	3.6	3.9
> Once	11.8	4.5	6.4	5.7
No Abuse	84.3	91.6	90.0	90.5
Total	100.0	100.0	100.0	100.0
N	283	1745	361	2389
%Missing	9.6	7.7	7.4	7.8
	$X^2_{(2)}=50.60 \quad p=0.003$			
Violence at Home Made You Want to Leave				
Yes	32.0	21.1	22.7	22.6
No	68.0	78.9	77.3	77.4
Total	100.0	100.0	100.0	100.0
N	274	1724	341	2338
% Missing	12.6	8.8	12.7	9.8
	$X^2_{(2)}=32.65 \quad p=0.003$			
Percent Rarely or Never Feel Safe				
At Home	2.4	1.4	2.1	1.6
N	7.0	24.2	7.7	38.9
At School	8.7	3.3	12.2	5.3
N	26.0	60.1	45.2	131.3
In Neighborhood	6.9	3.0	9.5	4.4
N	20.1	54.6	34.8	109.4

Appendix Table A-5
Health Compromising Behavior of Adolescent Girls and Boys by Race and Hispanic Origin
(Percents)

	Adolescent Boys			
	Hispanic	White	Black	Total
Binge/Purge				
Yes	13.9	4.6	14.8	7.2
No	86.1	95.5	85.2	92.8
Total	100.0	100.0	100.0	100.0
N	295	1813	365	2474
% Missing	5.7	4.0	6.4	4.6
	$X^2_{(2)}=139.64 \quad p=0.000$			
Regular Alcohol Use				
Yes	19.1	14.6	13.6	71.1
No	80.9	85.4	86.4	28.9
Total	100.0	100.0	100.0	100.0
N	304	1828	364	2495
% Missing	2.8	3.3	6.8	3.8
	$X^2_{(2)}=9.70 \quad p=0.170$			
Regular Cigarette Smoking				
Yes	14.0	12.2	11.6	12.3
No	86.0	87.9	88.4	87.7
Total	100.0	100.0	100.0	100.0
N	306	1861	373	2540
% Missing	2.3	1.5	4.3	2.0
	$X^2_{(2)}=2.14 \quad p=0.733$			
Drug Use-Past Month				
Yes	25.0	14.4	15.6	15.9
No	75.0	85.6	84.4	84.2
Total	100.0	100.0	100.0	100.0
N	303	1790	350	2443
% Missing	3.4	5.3	10.2	5.8
	$X^2_{(2)}=44.42 \quad p=0.001$			

Appendix Table A-6
Help-seeking Behavior and Access to Health Care and Health-Seeking Behavior Boys of Adolescent Girls
by Race and Hispanic Origin
(Percents)

	Adolescent Girls				Adolescent Boys			
	Hispanic	White	Black	Total	Hispanic	White	Black	Total
Regular Provider								
Yes	78.8	86.0	78.3	83.8	70.8	82.1	73.9	79.5
No	21.2	14.0	21.7	16.2	29.2	17.9	26.1	20.5
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
N	302	1763	402	2467	290	1759	367	2417
% Missing	6.4	4.8	6.6	5.3	7.4	6.9	5.8	6.8
	$X^2_{(2)}=41.25$ $p=0.0002$				$X^2_{(2)}=56.56$ $p=0.0003$			
Any Doctor Visits in Past 12 mos.								
Yes	75.1	76.8	68.4	75.2	70.6	74.7	69.4	73.4
No	24.9	23.2	31.6	24.8	29.4	25.3	30.6	26.6
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
N	319	1840	428	2587	313	1885	385	2583
% Missing	0.9	0.6	0.7	0.7	0.0	0.2	1.3	0.4
	$X^2_{(2)}=26.29$ $p=0.0046$				$X^2_{(2)}=12.25$ $p=0.0983$			
Where is Usual Source of Care								
Doctor's Office	50.3	72.5	50.5	66.2	47.1	67.9	45.4	62.1
Clinic (Non-School)	34.2	19.8	31.5	23.5	35.0	20.7	27.7	23.4
ER	4.6	3.4	7.4	4.2	5.7	4.9	11.4	6.0
School Clinic or Nurse	0.8	0.8	2.6	1.1	1.7	0.9	2.8	1.3
Other	12.2	6.3	15.9	8.6	11.6	7.8	16.3	9.5
Total	102.1	102.8	107.9	103.5	101.1	102.2	103.6	102.3
N	304	1785	406	2495	281	1783	371	2435
% Missing	5.8	3.6	5.6	4.2	10.3	5.7	4.8	6.1
	$X^2_{(2)}= 13.05$ $p=0.0419$				$X^2_{(2)}= 32.26$ $p=0.0042$			
Have Insurance								
Yes	84.0	91.4	90.5	90.4	78.5	93.3	86.5	84.2
No	16.0	8.6	9.5	9.6	21.5	6.7	13.5	15.8
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
N	232	1484	331	2047	237	1448	281	1966
% Missing	28.1	19.9	23.1	21.4	24.5	23.4	27.9	24.2
	$X^2_{(2)}=25.38$ $p=0.0025$				$X^2_{(2)}=120.47$ $p=0.0000$			
Ever Needed Care But Not Gotten It								
Yes	29.8	26.8	34.7	28.5	27.2	19.7	29.3	22.0
No	70.2	73.2	65.3	71.6	72.8	80.3	70.7	78.1
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.1
N	297	1683	390	2371	265	1687	345	2296
% Missing	7.8	9.1	9.5	9.0	15.3	10.8	11.6	11.4
	$X^2_{(2)}=20.16$ $p=0.0212$				$X^2_{(2)}=41.60$ $p=0.0002$			
Ever too Embarrassed to Talk to MD about Problem								
Yes	41.5	35.7	41.7	37.4	30.9	19.9	23.0	21.7
No	58.5	64.3	58.3	62.6	69.1	80.1	77.0	78.3
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
N	264	1530	348	2143	252	1501	296	2049
% Missing	18.1	17.3	19.2	17.7	19.4	20.6	24.0	21.0
	$X^2_{(2)}=13.05$ $p=0.0419$				$X^2_{(2)}=32.26$ $p=0.0042$			