

Research Brief



NOVEMBER 2014

Publication # 2014-52

The Family Environment and Adolescent Well-Being

Vanessa Sacks, MPP

Kristin Anderson Moore, PhD

Alyssa Shaw

Paula Mae Cooper

Child Trends
7315 Wisconsin Avenue
Suite 1200 W
Bethesda, MD 20814
Phone 240-223-9200

childtrends.org



INTRODUCTION

Adolescence is an important developmental phase along the path to adulthood, years during which youth become increasingly independent from their families.¹ Yet parents and other family members still play a critical role in the promotion of adolescents' well-being, by providing a positive support system within which youth can explore their changing identity.² There were 25 million children aged 12 to 17 in the United States in 2013, living in diverse family environments. An estimated 66 percent of adolescents live with both parents (biological, step, or adoptive), 25 percent are in single-mother households, while only 5 percent live with a single father. Just over 40 percent of all adolescents and as many as 60 percent of black and Hispanic adolescents live in low-income families.³ Overall, 21 percent of adolescents are Hispanic, 56 percent are white, non-Hispanic, and 15 percent are black, non-Hispanic.⁴ In this brief, we update the findings from the 2006 publication, *The Family Environment and Adolescent Well-being: Exposure to Positive and Negative Family Influences*,⁵ and highlight several key areas of interaction between the family environment and adolescent well-being, using national data sources.

KEY FINDINGS

- 65 percent of adolescents have parents who say they can communicate very well with their child about things that really matter.
- Less than half of adolescents eat meals with their families at least six nights a week, although it is more common among poor families, Hispanic families, and first- or second-generation immigrant families.
- Smoking is more common among single parents (26 percent smoke) than parents in two-parent families (16 percent), particularly among Hispanic families and those with incomes at or above poverty.
- Over 80 percent of adolescents with parents who are married or partnered have parents who report high levels of happiness in their spousal or partner relationship.
- Less than a quarter of adolescents have parents who say they only know a few or even none of their child's friends.
- Almost all 10th-graders (90 percent) say their parents know where they are after school.
- About 65 percent of parents are light drinkers; however, 10 percent of single fathers report being heavy drinkers, compared with less than 5 percent of mothers or married fathers.
- Half of parents in two-parent families and less than 40 percent of single parents exercise vigorously at least once a week.



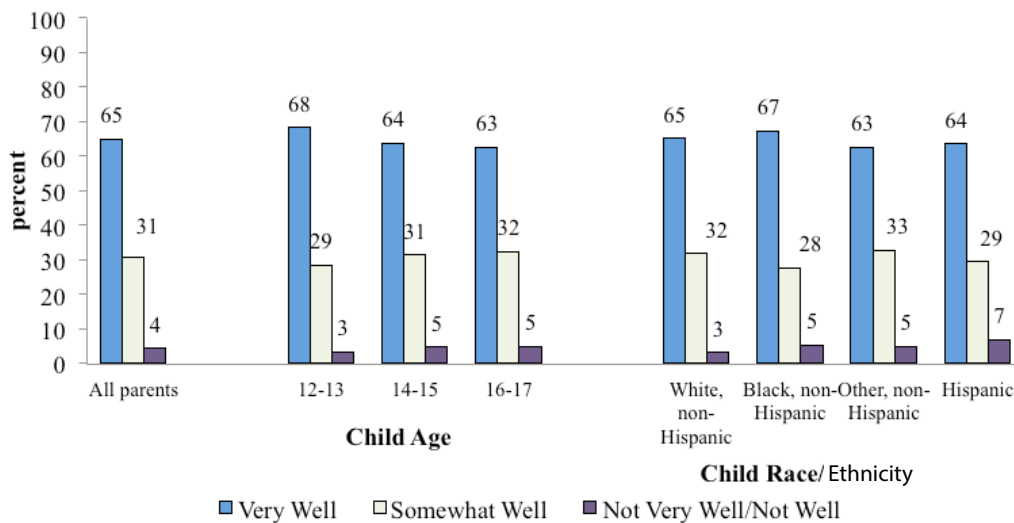
PARENT AND ADOLESCENT CLOSENESS AND COMMUNICATION

Positive relationships with parents, characterized by low conflict, high levels of support, and open communication,⁶ are especially important for teens as they navigate the physical and emotional changes of adolescence. For example, frequent parent-adolescent communication and positive identification with parents are associated with less drug use,⁷ including less drinking and smoking among teens.⁸ Similarly, adolescents who report that they have a good relationship with at least one parent are more likely to report good physical and mental health.⁹ Family arguments during adolescence are to be expected, and may even serve an important developmental purpose.¹⁰ However, teens who experience high levels of conflict with and/or low levels of support from their parents are more likely to engage in risk behaviors, such as early drug use¹¹ or drinking and smoking,¹² and are more likely to struggle with depressive symptoms.¹³

- 65 percent of adolescents have parents who say they can communicate very well with their child about things that really matter.

Overall, most adolescents have parents who say they can talk to their child about things that really matter (Figure 1). As children age, this changes slightly – somewhat fewer older teens’ parents report that they can communicate with their child very well, compared with younger teens. Although differences among racial/ethnic groups are small, a greater percent of Hispanic adolescents have parents who report that they cannot communicate with them very well (seven percent, compared with five percent of blacks and three percent of whites).

Figure 1. Percent of adolescents whose parents report they can talk to their teen about things that really matter, 2011/2012



Source: Child Trends’ analyses of the 2011/12 National Survey of Children’s Health



Good communication does not eliminate conflict between parents and adolescents. Researchers have found that frequent, high-intensity conflict is not the norm among adolescents and their parents, but that as adolescents develop reasoning and critical thinking skills, they may increasingly challenge their parents' authority, and bickering and arguments are more common. In one measure of conflict, about two out of three female 12th-graders and half of male 12th-graders report that they fought or argued with their parents more than twice in the past year.¹⁴ White 12th-graders are more likely to have fought with their parents at least twice in the past year than black or Hispanic 12th-graders.

PARENTAL RELATIONSHIPS

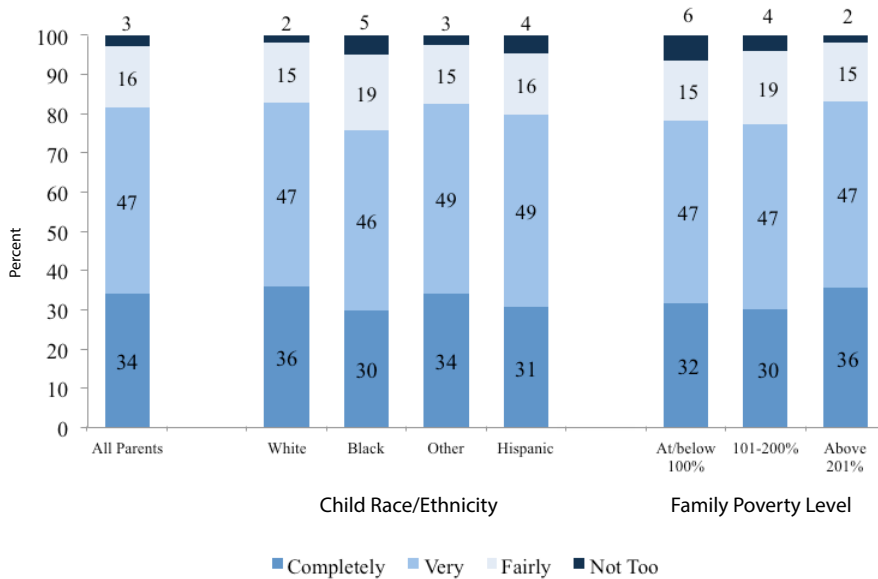
Increasingly, research indicates that the role of the family context in adolescent well-being goes beyond the importance of the direct relationship between a parent and a child. Other factors, such as family members' levels of engagement with each other, how much hostility or how many negative interactions are part of family interactions, and satisfaction with relationships between parents all play a role.¹⁵ For example, parents with high levels of marital satisfaction are more likely to demonstrate good parenting practices, such as warmth, responsiveness, and affection, which in turn can positively affect adolescent well-being.¹⁶

- Over 80 percent of adolescents with partnered parents have parents who report high levels of happiness in their spousal or partner relationship.

Among adolescents with partnered parents, the majority have parents who say their relationship with their partner or spouse is very happy or completely happy (Figure 2). Slightly more white, non-Hispanic and Hispanic adolescents have parents who report being completely/very happy compared with black, non-Hispanic adolescents' parents. Low ratings of parental happiness are also more common among adolescents in low-income households. About one in five adolescents in poor families and families with incomes between 100 and 200 percent of poverty have parents who say they are fairly or not too happy, compared with about one in six adolescents in families with incomes above 200 percent of poverty.



Figure 2. Percent of adolescents whose parents say their relationship with their partners is completely, fairly, very, or not too happy, 2011/2012



Source: Child Trends' analyses of the 2011/12 National Survey of Children's Health

PARENTAL MONITORING

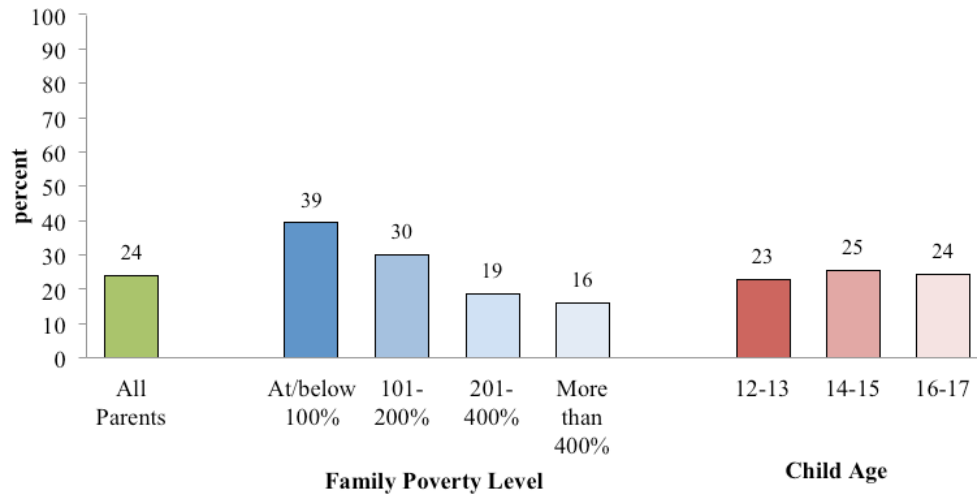
Parental monitoring includes knowing one's child's friends and daily activities, as well as where they are spending their time after school. As adolescents become more independent, parents may have less influence over how, and with whom, their children spend their time. Research has shown that when parents pair frequent monitoring with other positive parenting practices like support and good communication, teens are less likely to engage in risk taking,¹⁷ substance use¹⁸ including alcohol and marijuana,¹⁹ and criminal behavior.²⁰ Among ethnic minority families, combined frequent parental monitoring and warmth has also been associated with academic success for teens.²¹ Another important practice is maintaining an organized and structured home environment, for example, by establishing routines and setting limits on adolescents' time spent watching television or playing video games, and knowing the child's friends.²²

- About a quarter of adolescents have parents who say they only know some or even none of their child's friends.

Adolescents in lower-income families are more likely to report that their parents do not know their friends. Almost 40 percent of youth in poor families say their parents know some or none of their friends (rather than knowing most or all), while only 16 percent of youth in families with household income that is at least 400 percent of the poverty line say so (Figure 3).



Figure 3. Percent of adolescents whose parents say they know some or none of their child's friends, 2011/2012



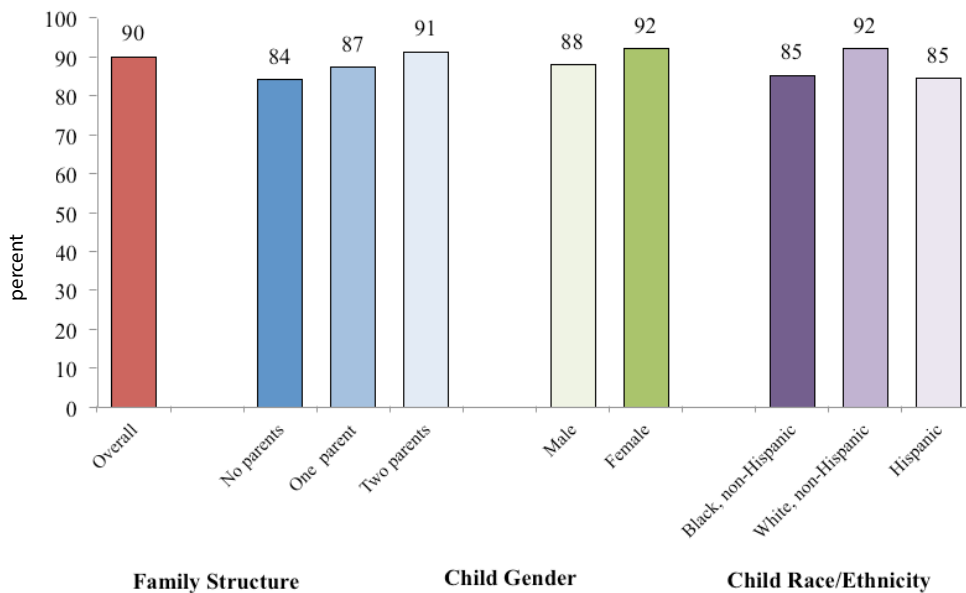
Source: Child Trends' analyses of the 2011/12 National Survey of Children's Health

- Almost all 10th-graders (90 percent) say their parents know where they are after school.

The vast majority of 10th graders, regardless of gender, race, or whether they live in a single-parent or two-parent home, report that their parents know where they are after school all or most of the time (Figure 4). This kind of monitoring is slightly more common for female adolescents (92 percent) than males (88 percent), and for white, non-Hispanic adolescents (92 percent) than black non-Hispanic (85 percent) or Hispanic adolescents (85 percent).



Figure 4. Percent of 10th-graders who report that their parents know where they are after school most of the time or always, 2012



Source: Child Trends’ analyses of Monitoring the Future, 2012

Note: Children who live with “no parents” live either independently or with a guardian, such as a grandparent or foster parent. The question specified that such guardians should be included as “parents” when answering.

- Less than half of eighth- and 10th-graders say their parents rarely or never allow them to go out on school nights.

Although the majority of parents are keeping track of where their adolescents are after school, social activity still takes place on school nights. Only about a third of 10th graders say their parents rarely or never allow them to go out with friends on school nights.²³ A greater percentage of 8th graders – closer to 50 percent – report that their parents keep them home school nights. Among both 8th and 10th graders, fewer white students report such restrictions than black or Hispanic students.

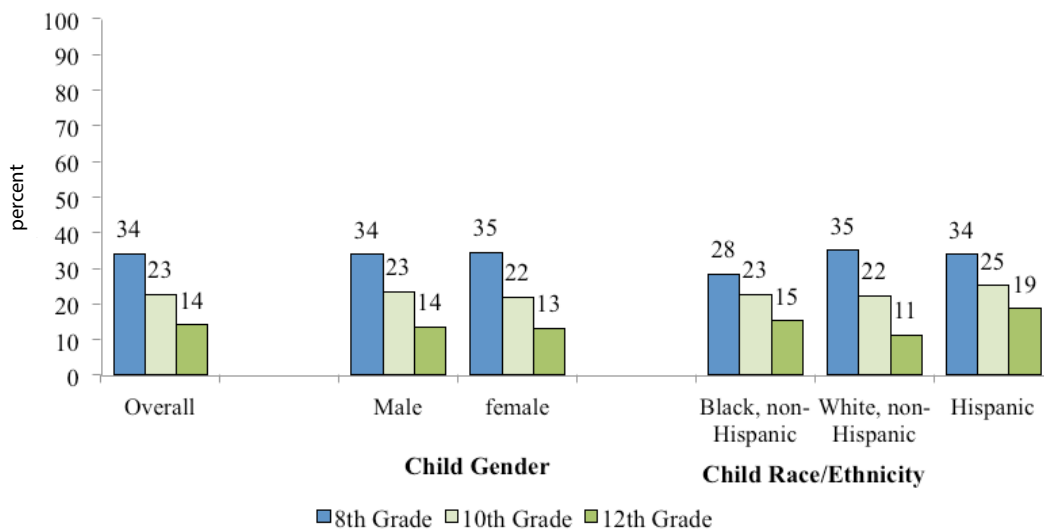
- Adolescents’ parents infrequently limit their television watching, particularly among older adolescents.

About a third of eighth-graders, a quarter of 10th-graders, and just one-seventh of 12th-graders report that their parents sometimes or often limit time spent watching television (Figure 5). This pattern holds for all adolescents, regardless of gender or race/ethnicity. Some research has found a correlation between the amount of time spent watching TV and poor health outcomes, such as obesity and diabetes.²⁴ It may be that screen time replaces physical activity, that exposure to



advertising influences poor nutritional choices, or that there is some other connection between television-watching and poor health outcomes.²⁵ At least one study indicates that about a third of high school students report watching at least three hours of TV a day and spending at least three hours a day using a computer for recreation.²⁶

Figure 5: Percent of eighth-,10th-, and 12-graders who report that their parents sometimes or often limit time spent watching television, 2012



Source: Child Trends' analyses of Monitoring the Future, 2012

EATING MEALS TOGETHER

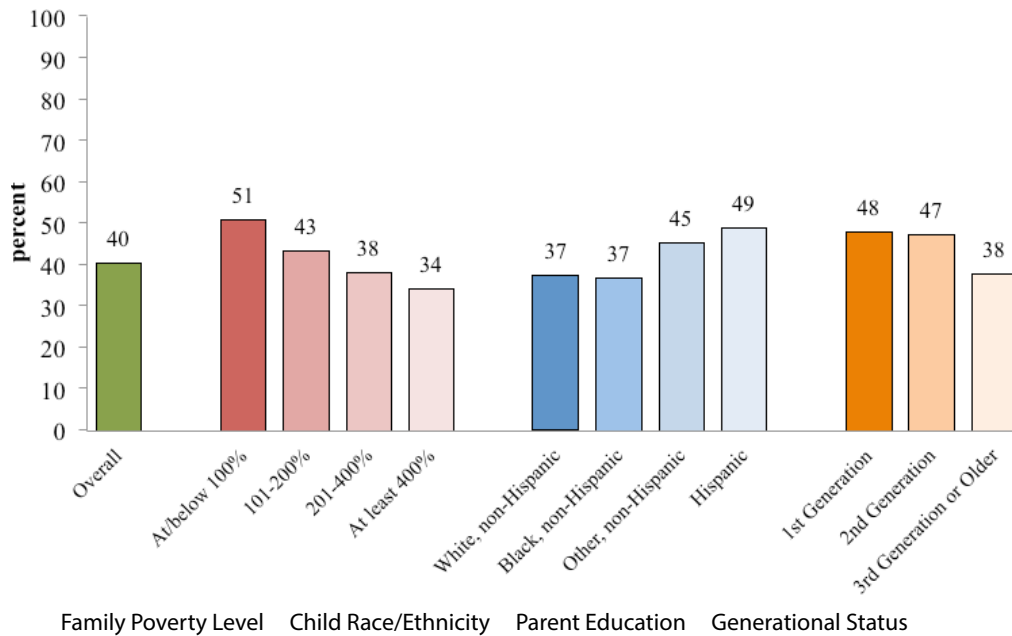
Family meals are an important way for adolescents and their parents to communicate and spend time together, and have been linked to a number of positive outcomes for adolescents. Namely, frequent or regular family meals are associated with better dietary intake,²⁷ healthy eating habits throughout adolescence,²⁸ and lower substance use and abuse among teens.^{29,30}

- Less than half of adolescents eat meals with their families at least six nights a week, although it is more common among poor families, Hispanic families, and first- or second-generation immigrant families.

As Figure 6 shows, less than half of adolescents eat meals with their family six or seven nights a week. However, regular family meals are more common in some families than others. Over half of families in poverty eat a meal together six or seven times a week, compared with 34 percent of families with incomes at or above 400 percent of the poverty line. Hispanic adolescents (49 percent) are more likely to have regular family meals than non-Hispanic white (37 percent) or black (37 percent) adolescents. More adolescents who are first- (48 percent) or second-generation immigrants (47 percent) eat meals with their families regularly than those who are third-generation or later (38 percent).



Figure 6. Percent of adolescents whose family members ate a meal together 6-7 times in the past week, 2011-2012



Source: Child Trends' analyses of the 2011/12 National Survey of Children's Health

PARENTAL HEALTHY BEHAVIORS

Many habits related to later health, both good and bad, are established during adolescence.³¹ Parental health can influence adolescent health through the modeling of healthy behaviors, effective monitoring of adolescents' behavior, and the creation of a healthy home environment.³² Smoking represents a particularly harmful habit that is often established in adolescence. Parental smoking has been associated with poorer academic outcomes for children, even if children were not exposed in the womb,³³ and increases the risk that teens will smoke and will start smoking young.³⁴ Moreover, teens with single parents who smoke are at greater risk of smoking than teens in two-parent families with only one parent who smokes.³⁵

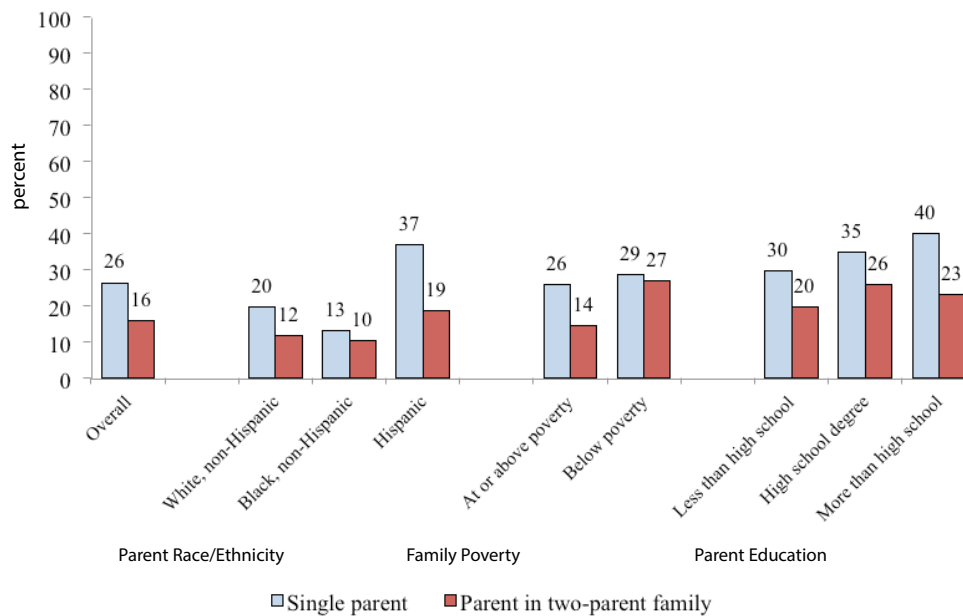
- Smoking is more common among single parents (26 percent) than parents in two-parent families (16 percent), particularly among Hispanic families and those with incomes at or above poverty.

A greater percentage of single parents than parents in two-parent families smoke, though most of the disparity is among parents with incomes at or above poverty (Figure 7).ⁱ Parents with more education are less likely to currently smoke: five percent of parents in two-parent families with a bachelor's degree smoke, compared with 26 percent among those with only a high school diploma.

ⁱThe data source for Figures 9 through 11, the National Health Interview Survey, was designed to be representative of all adults, rather than all parents. Estimates of the prevalence of health behaviors are therefore presented separately for single parents and parents in two-parent families.



Figure 7. Percent of parents or adolescents who currently smoke, 2012



Source: Child Trends' analyses of the 2012 National Health Interview Survey

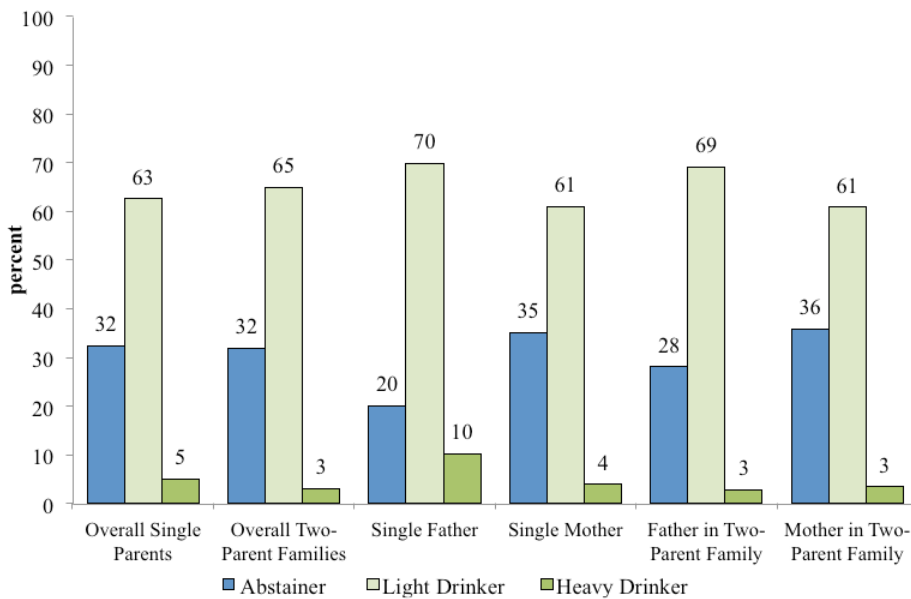
When parents drink frequently and heavily, their ability to parent well suffers. Heavy drinking among parents is associated with low family cohesion and poor organization,³⁶ as well as greater marital conflict,³⁷ and poor parenting behaviors.³⁸ Heavy parental alcohol consumption is consistently linked with adolescent drinking.^{39,40} However, strong bonds with parents and strict rules against use both mediate the effect of parental drinking.^{41, 42}

- About 65 percent of parents are light drinkers, however, 10 percent of single fathers report being heavy drinkers, compared to less than five percent of mothers or married fathers.

Less than five percent of single mothers or parents in two-parent families are heavy drinkers, defined as drinking more than 14 drinks per week (for males) or more than seven drinks per week (for females) in the past year (Figure 8). Ten percent of single fathers are heavy drinkers.



Figure 8. Percent of parents of adolescents who drink alcohol, by family type and gender of parent, 2012



Source: Child Trends' analyses of the 2012 National Health Interview Survey

Note: Abstainers had no drinks in past year. Light drinkers had up to 14 drinks per week for males and up to 7 drinks per week for females in the past year. Heavy drinkers had more than 14 drinks per week for males, more than 7 drinks per week for females in past year.

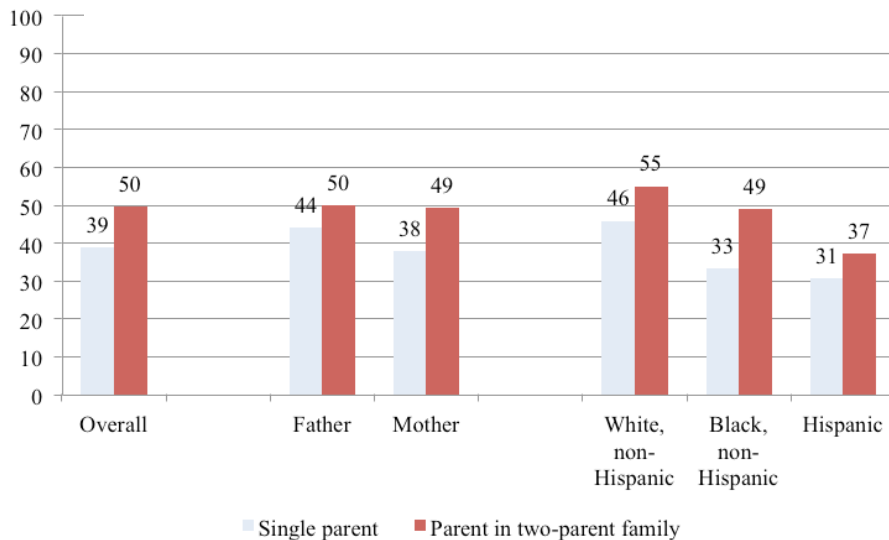
Many studies have found that there is a strong connection between parental physical activity and children's physical activity.^{43,44} For example, children of parents with high levels of physical activity are more likely to spend time in independent activity outdoors.⁴⁵

- Only half of parents in two-parent families and less than 40 percent of single parents exercise vigorously at least once a week.

The majority of parents of adolescents do not exercise vigorously (i.e., activity that causes heavy sweating or large increases in heart rate) for at least 10 minutes at least once a week (Figure 9). Parents in two-parent families are more likely to exercise at least once a week, although more single fathers exercise weekly than single mothers (44 percent of single fathers vs. 38 percent of single mothers). White, non-Hispanic parents in two-parent families are the most likely to exercise weekly, compared with parents of other races/ethnicities. Less than 40 percent of Hispanic parents in two-parent families exercise at least once a week.



Figure 9. Percent of parents of adolescents who exercise vigorously for at least 10 minutes, at least once a week



Source: Child Trends' analyses of the 2012 National Health Interview Survey

- Most adolescents exercise regularly; however, more males than females and fewer Hispanic than non-Hispanic teens exercise at least four times a week.

Between 59 and 66 percent of teens get some kind of physical exercise for 20 minutes or more at least four times a week.⁴⁶ About one in six Hispanic adolescents get no exercise, compared with one in seven black adolescents, and one in 10 white adolescents. Males are more likely to get regular exercise than females – 66 percent of male adolescents and 53 percent of female adolescents participate in physical activity at least four times a week.



CONCLUSION

Despite the stereotype of adolescence as a turbulent, conflict-filled period of development, research indicates that most adolescents and their families get along and are doing quite well. Most parents report that they communicate well with their adolescent children, they are happy in their spousal or partner relationship, they use alcohol in moderation, they are not smokers, and/or their children exercise regularly. Also, most adolescents report that their parents know where they are after school and know their friends.

However, most adolescents do not eat dinner with their families six or seven nights a week or have limits on television-watching, and the majority of parents report exercising infrequently. Further, and importantly, there is a significant minority of families of adolescents that are not doing well – who report high levels of conflict, where parents do not monitor their children’s whereabouts or friends, and/or where parents drink heavily – and there are often striking differences in the prevalence of the positive and negative family factors we analyzed, between single parent and two-parent families, families at different income levels, and families of different races/ethnicities.

Given the limits of available data from large national surveys, we know little about whether the same youth face multiple of these negative family factors. Research indicates that the cumulative risk of experiencing numerous disadvantages in childhood can have long-lasting consequences. Increasingly, though, survey designers are incorporating a “whole child” perspective and including measures across developmental domains, which include measures of physical health and safety, education, emotional well-being, and behavior.⁴⁷ Moreover, the number of evidence-based programs that help improve the family environment to bolster the well-being of adolescents is increasing, creating opportunities to present or address these challenges.

© Child Trends 2014. May be reprinted with citation.

We gratefully acknowledge funding for this brief from the Maternal and Child Health Bureau at the Health Resources and Services Administration (primary grant number: U45 MC00002), and the University of California, San Francisco – UCSF (subcontract number: 5831sc). We also thank Jane Park at UCSF for reviewing this brief and offering helpful guidance.

Child Trends is a nonprofit, nonpartisan research center that studies children at all stages of development. Our mission is to improve the lives and prospects of children and youth by conducting high-quality research and sharing the resulting knowledge with practitioners and policymakers. For additional information, including publications available to download, visit our website at childtrends.org.



REFERENCES

- ¹Santrock, J.W. (2014). *Adolescence* (15th Edition). New York, NY: McGraw-Hill Education.
- ²Ibid.
- ³Jiang, Y., Ekono, M., Skinner, C. (2014). *Basic Facts about Low-Income Children: Children 12 through 17 years, 2012. Fact Sheet*. New York, NY: National Center for Children in Poverty Columbia University, Mailman School of Public Health.
- ⁴Child Trends analysis of Census data: Annual Estimates of the Resident Population by Sex, Single Year of Age, Race, and Hispanic Origin for the United States: April 1, 2010 to July 1, 2013
- ⁵Augseeser, D., Jekielek, S., & Brown, B. (2006). *The Family Environment and Adolescent Well-being: Exposure to Positive and Negative Family Influences*. Joint Child Trends and National Adolescent and Young Adult Health Information Center brief. Available here: <http://www.childtrends.org/wp-content/uploads/2014/08/2006-43FamEnvironBrief.pdf>
- ⁶Hair, E., Kaye, K., Day, R., & Orthner, D. (2009). Parent marital quality and the parent-adolescent relationship: Profiles of relationship quality. *Marriage and Family Review*, 45(2-3), 189-217.
- ⁷Tobler, A. L., & Komro, K. A. (2010). Trajectories of parental monitoring and communication and effects on drug use among urban young adolescents. *Journal of Adolescent Health*, 46(6), 560-568.
- ⁸Dodge, K. A., Malone, P. S., Lansford, J. E., Miller-Johnson, S., Pettit, C. S., & Bates, J. E. (2006). Toward a dynamic developmental model of the role of parents and peers in early onset substance use. *Families Count: Effects on Child and Adolescent Development*, 104-131.
- ⁹Hair, E., Moore, K., Kaye, K., Day, R., & Orthner, D. (2009) Parent marital quality and the parent-adolescent relationship: Effects on adolescent and young adult health outcomes. *Marriage & Family Review*, 45(2-3), 218-248.
- ¹⁰Santrock, J.W. (2014). *Adolescence* (15th Edition). New York, NY: McGraw-Hill Education.
- ¹¹Dodge, K. A., Malone, P. S., Lansford, J. E., Miller-Johnson, S., Pettit, C. S., & Bates, J. E. (2006). Toward a dynamic developmental model of the role of parents and peers in early onset substance use. *Families Count: Effects on Child and Adolescent Development*, 104-131.
- ¹²Gutman, L. M., Eccles, J. S., Peck, S., & Malanchuk, O. (2011). The influence of family relations on trajectories of cigarette and alcohol use from early to late adolescence. *Journal of Adolescence*, 34(1), 119-128.
- ¹³Shieber, L. B., Davis, B., Leve, C., Hops, H., & Tildesley, E. (2007). Adolescents' relationships with their mothers and fathers: associations with depressive disorder and subdiagnostic symptomatology. *Journal of Abnormal Psychology*, 116(1), 144.
- ¹⁴Child Trends Analyses of Monitoring the Future, 2011
- ¹⁵Ackerman, R.A., Kashy, D.A., Donnellan, M.B., Neppl, T., Lorenz, F.O., & Conger, R.D. (2013). The Interpersonal Legacy of a Positive Family Climate in Adolescence. *Psychological Science*, 24(3): 243-250.
- ¹⁶Santrock, J.W. (2014). *Adolescence* (15th Edition). New York, NY: McGraw-Hill Education.
- ¹⁷Chen, M. J., Grube, J. W., Nygaard, P. & Miller, B. A. (2008). Identifying social mechanisms for the prevention of adolescent drinking and driving. *Accident Analysis and Prevention*, 40, 576-585.
- ¹⁸Tobler, A. L., & Komro, K. A. (2010). Trajectories of parental monitoring and communication and effects on drug use among urban young adolescents. *Journal of Adolescent Health*, 46(6), 560-568.
- ¹⁹Dever, B. V., Schulenberg, J. E., Dworkin, J. B., O'Malley, P. M., Kloska, D. D., & Bachman, J. C. (2012). Predicting risk-taking with and without substance use: The effects of parental monitoring, school bonding, and sports participation. *Prevention Science*, 13(6), 605-615.
- ²⁰Johnson, W. L., Giordano, P. C., Manning, W. D., & Longmore, M. A. (2011). Parent-child relations and offending during young adulthood. *Journal of Youth and Adolescence*, 40(7), 786-799.
- ²¹Lowe, K., & Dotterer, A. M. (2013). Parental monitoring, parental warmth, and minority youths' academic outcomes: Exploring the integrative model of parenting. *Journal of youth and adolescence*, 42(9), 1413-1425.
- ²²Santrock, J.W. (2014). *Adolescence* (15th Edition). New York, NY: McGraw-Hill Education.
- ²³Child Trends' analyses of Monitoring the Future, 2012



²⁴Strasberger, V.C. (2011). Policy Statement—Children, Adolescents, Obesity, and the Media. *Pediatrics*, 128(1): 201-208.

²⁵Ibid.

²⁶Garber, A.K., Park, J., Brindis, C., Vaughn, B., Barry, B., Guzman, L. & Berger, A. (2013). *Physical development and daily health habits*. Child Trends and the National Adolescent and Young Adult Health Information Center at the University of California, San Francisco. Available online: <http://www.childtrends.org/wp-content/uploads/2013/10/2013-09HealthyHabits.pdf>.

²⁷Woodruff, S. J., Hannings, R. M., McColdrick, K., & Brown, K. S. (2010). Healthy eating index-C is positively associated with family dinner frequency among students in grades 6-8 from Southern Ontario, Canada. *European Journal of Clinical Nutrition*, 65, 454-460.

²⁸Burgess-Champoux, T. L., Larson, N., Neumark-Sztainer, D., Hannan, P. J., & Story, M. (2009). Are family meal patterns associated with overall diet quality during the transition from early to middle adolescence?. *Journal of Nutrition Education and Behavior*, 41(2), 79-86.

²⁹National Center on Addiction and Substance Use (CASA). (2011). The importance of family dinners VII. New York: Columbia University.

³⁰Sen, B. (2010). The relationship between frequency of family dinner and adolescent problem behaviors after adjusting for other family characteristics. *Journal of Adolescence*, 33(1), 187-196.

³¹Santrock, J.W. (2014). *Adolescence* (15th Edition). New York, NY: McGraw-Hill Education.

³²Ibid.

³³Collins, B.N., Wileyto, E.P., Murphy, M.F.G., & Munafo, M.R. (2007). Adolescent Environmental Tobacco Smoke Exposure Predicts Academic Achievement Test Failure. *Journal of Adolescent Health*, 41(4): 363-370.

³⁴Mays, D., Gilman, S.E., Rende, R., Luta, G., Tercyak, K.P., & Niaura, R.S. (2014). Parental Smoking Exposure and Adolescent Smoking Trajectories. *Pediatrics*, 133(6): 983-991.

³⁵Otten, R., Engels, R.C.M.E., van de Ven, M.O.M., & Bricker, J.B. (2007). Parental Smoking and Adolescent Smoking Stages: The Role of Parents' Current and Former Smoking, and Family Structure. *Journal of Behavioral Medicine*, 30(2): 143-154.

³⁶Bijttebier, P., Goethals, E., & Ansoms, S. (2006). Parental Drinking as a Risk Factor for Children's Maladjustment: The Mediating Role of Family Environment. *Psychology of Addictive Behaviors*, 20(2): 126-130.

³⁷Keller, P.S., Cummings, E.M., Davies, P.T., & Mitchell, P.M. (2008). Longitudinal relations between parental drinking problems, family functioning, and child adjustment. *Development and Psychopathology*, 20(1): 195-212.

³⁸Ibid

³⁹Handley, E.D. & Chassin, L. (2013). Alcohol-Specific Parenting as a Mechanism of Parental Drinking and Alcohol Use Disorder Risk on Adolescent Alcohol Use Onset. *Journal of Studies on Alcohol and Drugs*, 74(5): 684-693. 2013.

⁴⁰Haugland, S.H., Holmen, T.L., Ravndal, E. & Bratberg, C.H. (2013). Parental alcohol misuse and hazardous drinking among offspring in a general teenage population: gender-specific findings from the Young-HUNT 3 study. *BMC Public Health*, 13: 1140.

⁴¹Kuendig, H. & Kuntsche, E. (2006). Family Bonding and Adolescent Alcohol Use: Moderating Effect of Living with Excessive Drinking Parents. *Alcohol & Alcoholism*, 41(4): 464-471.

⁴²Van der Vorst, H., Engels, R.C.M.E., Meeus, W., & Dekovic, M. (2006). The impact of alcohol-specific rules, parental norms about early drinking and parental alcohol use on adolescents' drinking behavior. *Journal of Child Psychology and Psychiatry*, 47(12): 1299-1306.

⁴³Edwardson, C.L. & Gorely, T. (2010). Parental influences on different types of intensities of physical activity in youth: A systematic review. *Psychology of Sport and Exercise*, 11(6): 522-535.

⁴⁴Pugliese, J. & Tinsley, B. (2007). Parental Socialization of Child and Adolescent Physical Activity: A Meta-Analysis. *Journal of Family Psychology*, 21(3): 331-343.

⁴⁵Santos, M.P., Pizarro, A.N., Mota, J., & Marques, E.A. (2013). Parental physical activity, safety perceptions and children's independent mobility. *BMC Public Health*, 13: 584.

⁴⁶Child Trends' analyses of the National Survey of Children's Health, 2011/12

⁴⁷Moore, K.A., Murphey, D., Bandy, T., and Lawner, E. (2014) Indices of Child Well-Being and Developmental Contexts. Ben-Arieh, Ahser, Casas, F., Frønes, I., Korbin, J.E. *Handbook of Child Well-Being*. New York: Springer Reference.