

## CHAPTER VII

### SUMMARY AND FUTURE DIRECTIONS

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**I**n this report, we have summarized the most rigorous and up-to-date research evidence on the effects of marriage on health. We have focused specifically on the effects of marriage on four health outcome areas: (1) health behaviors; (2) health care access, use, and costs; (3) mental health; and (4) physical health and longevity. In addition, we have reviewed the research evidence on possible intergenerational effects of marriage—focusing in particular on how parental marital status may affect the physical health of their children when they reach adulthood.

The relationship between marriage and health is complex. Marital status can both affect health outcomes and be affected by them. Studies that do not take into account this complex relationship may yield misleading evidence on the influence of marriage on health. Therefore, in our review, we have focused on evidence based on the most rigorous statistical techniques, which take into account the degree to which healthier people are more likely to get and stay married.

In some areas, the evidence of a positive effect of marriage on specific health outcomes is compelling. In particular, there is strong evidence, based on rigorous research methods, that marriage reduces the prevalence of heavy drinking and marijuana use among young adults. Marriage is also linked to improvements in mental health for both men and women. In addition, marriage increases the likelihood of having health insurance coverage, particularly for women. Recent research suggests that marriage may be associated with lower health care costs among older adults, through its effects on the number of doctor visits, the length of hospital stays, and the likelihood of nursing home admissions. There is also substantial evidence that growing up with married parents leads to better long-term physical health, particularly for men.

For other health outcomes, the evidence is less clear and, in some cases, suggests that marriage has negative health-related effects. In particular, marriage appears to encourage a more sedentary lifestyle and is associated with modest weight gain and reduced physical activity. In addition, although several rigorous studies of the effects of marriage on smoking have been conducted, the evidence is mixed, with studies based on the broadest populations pointing to no effect of marital status on smoking. For specific physical health conditions and illnesses, little rigorous research has been conducted, and, therefore, no clear

conclusions can be drawn. Finally, although many studies have pointed to a pattern of married people living longer than the unmarried, methodological issues make it difficult to confirm that this difference demonstrates a true causal relationship.

In the rest of this chapter, we summarize the research evidence in each of the health outcomes areas we examined in our review. We also highlight certain gaps in the existing literature and suggest appropriate avenues for future research.

### **EFFECTS ON HEALTH BEHAVIORS**

One important way in which marriage may influence a person's health is through its effect on health-related behaviors, such as alcohol consumption, drug use, cigarette smoking, diet, and exercise. Recent research suggests that marriage has significant effects on the health behaviors of both men and women. However, the pattern of these effects is mixed. Marriage is associated with healthier behaviors in some cases and less healthy behaviors in others. The effect of marriage on alcohol consumption has been especially well studied, particularly among young adults. These studies consistently indicate that marriage reduces heavy drinking and overall alcohol consumption and that the effects are similar for young men and young women. Moreover, these effects exist for both African Americans and whites. Although the research is less extensive, marriage is also associated with reduced marijuana use for young men; however, it appears to have smaller effects on women's drug use. Less is known about the effects of marriage on the substance use of older adults. Studies of marriage and smoking reveal no consistent pattern of results and suggest that marriage may have little or no influence on this health behavior.

In contrast to the studies of alcohol and drug use, studies of the effect of marriage on weight and physical activity suggest that marriage may have negative effects on healthy behaviors. Several rigorous studies have examined the effects of marriage on body weight. These studies consistently find that marriage leads to modest weight increases for both men and women—with marriage typically associated with a weight increase of less than five pounds. The research on the effects of marriage on physical activity is less extensive and less conclusive. However, the available evidence suggests that marriage may lead to reductions in physical activity, particularly for men.

For certain health behaviors—in particular, substance use among younger adults and weight gain among all adults—the influence of marriage has been well studied and is well understood. For other health behaviors, less is known and additional research is needed before stronger conclusions can be drawn. One useful area for future research is to examine the effects of marriage on the alcohol use of older adults to determine whether the effects observed for young adults would be found in older populations. Additional research using longitudinal data is also needed to examine the effects of marriage on physical activity to determine whether the relationship between marriage and physical activity observed in cross-sectional analyses remains when more rigorous estimation techniques are used.

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## **EFFECTS ON HEALTH CARE ACCESS, USE, AND COSTS**

Marriage may also influence overall physical health through its effects on health care access and use. Studies of the links between marriage and health insurance coverage suggest that—by offering access to insurance through a spouse’s insurance policy—marriage increases the likelihood of having health insurance and reduces the likelihood of becoming uninsured after a job loss or other major life event. The effect of marriage on insurance coverage is larger for women than men. Recent research also finds a link between marriage and several aspects of health care use. In particular, these studies show that marriage is associated with shorter average hospital stays, fewer doctor’s visits, and reduced risk of nursing home admission. Limited evidence also suggests that marriage is associated with increased use of preventive health services such as cancer screenings.

In part because of these effects on health care use, marriage is also associated with lower health care costs. For example, studies show that, because marriage reduces the risk of nursing home admission, marriage may also lead to reduced costs associated with nursing home care. The effect of marriage on reducing the length of average hospital stays may also lead to reductions in health care costs. This research evidence indicates that the effect of marriage on health care costs exists independent of the effect of marriage on health. Specifically, marriage may lead to reductions in health care costs because married people often rely on their spouses for informal care and, thus, require fewer long hospital stays and nursing home admissions—even if married and unmarried older adults are equally likely to get sick. These studies find that wives are especially likely to provide informal care for their spouses at home, suggesting that this effect on health care costs may be larger for men.

Although studies have examined the effects of marriage on a range of important health care outcomes, many other important outcomes have received little attention in marriage research. In particular, additional research is needed to directly link marriage with health care costs, because most previous research provides only indirect evidence based on an examination of the effect of marriage on high-cost health services, such as nursing home care. Other outcomes ripe for future research include quality of care, use of prescription medications, receipt of high-tech medical exams and treatments, patient adherence to prescribed treatment regimens, and use of preventive health services other than cancer screenings.

## **EFFECTS ON MENTAL HEALTH**

Marriage may affect many aspects of mental health. In our review, we have focused on its influence on one particular aspect—the prevalence of depressive symptoms. The most recent rigorous research suggests that marriage reduces depressive symptoms for both men and women. In particular, these studies find that marital entry decreases depressive symptoms, while marital dissolution increases them. Studies also find that increases in depressive symptoms after divorce are long-lasting and that the prevalence of these symptoms remains elevated years after the marital breakup. In addition, studies that compare the mental health of stably married adults to those who are stably unmarried find that those who remain stably married have fewer depressive symptoms (and smaller

increases in these symptoms as they grow older) than do similar adults who remain stably unmarried, even after controlling for baseline mental health. Moreover, studies based on national data find little evidence that those with fewer depressive symptoms are more likely to marry, suggesting that studies comparing the depressive symptoms of the stably married to the stably unmarried should produce reasonable estimates of the effect of marriage on depressive symptoms.

Currently available research consistently shows that, for both men and women, being married reduces depression. However, the existing evidence has limitations that future research should address. In particular, much of the research examining the effects of marriage on depressive symptoms using nationally representative data has been conducted using only one data set. Future research should seek to confirm the link between marriage and depressive symptoms by using other national data sets.

In addition, the most rigorous research in this area typically estimates the effect of marriage and marital transitions by comparing the prevalence of depressive symptoms in the period just before a marital transition to the prevalence of such symptoms in the period just after the transition. This method adjusts for background differences between those who marry and those who do not, thus controlling for the selection of those with fewer depressive symptoms into marriage when estimating this effect. However, this technique may introduce other sources of bias into the estimates of the effect of marriage and the direction of this bias is uncertain.

For example, it is possible that the prevalence of depressive symptoms may change in anticipation of an impending marital status change. If so, comparing someone's depressive symptoms during the period just before a marital transition to the period immediately after may underestimate the effect of this transition. Conversely, if depressive symptoms are reduced for only a short time after marriage or are elevated for only a short time after a marital dissolution and then return to their pre-transition levels, then comparisons of depressive symptoms just before and just after the marital transition would overestimate the long-term effect. To address these limitations and to obtain a more precise understanding of the relationship between marriage and depression, longitudinal data sets are needed that offer more detailed mental health histories and more information on changes in mental health status than are available in currently existing national data sets.

## **EFFECTS ON PHYSICAL HEALTH AND LONGEVITY**

Although central to the overall assessment of the link between marriage and health, rigorous research evidence concerning the effect of marriage on specific physical health outcomes is limited, and few solid conclusions can be drawn. It is well established by many research studies that those who marry live longer than those who do not. However methodological issues require caution in interpreting this pattern, because most of the research in this area relies on descriptive methods that do not adequately control for the possible selection of healthier people into marriage. As discussed throughout this report, estimating the effect of marriage by examining the effects of marital transitions is one useful

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strategy for addressing selection. However, measures of physical health generally do not lend themselves well to this technique.

The rigorous research that is currently available provides some limited evidence of an effect of marriage on physical health. In particular, recent studies find a significant positive effect of marriage on how men rate their overall physical health status. In addition, researchers find a positive effect for women on physical health as measured by basic counts of specific health conditions and illnesses. However, these studies find no effect of marriage on women's self-ratings of physical health. Moreover, no recent, rigorous studies based on U.S. samples have examined the effect of marriage on counts of health conditions or illnesses among men. Similarly, little evidence exists on the links between marriage and specific health conditions or diseases. One exception is a recent study that suggests a possible link between marriage and the risk of cardiovascular disease for women; however, the study finds no such effect for men. Overall, the existing research evidence on the links between marriage and physical health is limited to a narrow range of health measures and, therefore, does not offer a complete picture of how marriage influences these outcomes.

Many studies have pointed to a strong relationship between marriage and longevity, but this research has several weaknesses. These studies are generally limited to simple descriptive comparisons that do not adequately distinguish the effect of marriage from the possible effects of healthier people selecting into marriage. This limitation of the current research evidence is due in large part to the fact that the methods researchers have developed to separate the influence of selection into marriage from the true protective effects of marriage do not easily transfer to studies that examine the effects of marriage on longevity. In particular, some of the most compelling research on the effects of marriage on other health-related outcomes uses marital transitions to identify the effect of marriage, controlling for background characteristics. However, because longevity is determined only at the end of life, it is not possible to observe how a marital transition changes a person's longevity. Some studies have attempted to address selection using other techniques. Although these studies still find evidence of an effect of marriage on longevity, they all suffer from other limitations that make it difficult to draw firm conclusions from the results. For this reason, the strongest evidence of a positive effect of marriage on longevity comes more from the robustness of this relationship across many studies than from the particular results of any single study.

A more definitive test of the effect of marriage on physical health and longevity will require very long-term longitudinal data that afford the opportunity to control for differences in initial health status measured before sample members begin to marry. With data of this type, researchers can examine how differing marital histories affect physical health, controlling for any initial health differences that may exist between those who marry and remain married and those who do not.

## **INTERGENERATIONAL EFFECTS**

An emerging research literature on the possible intergenerational health effects of marriage suggests that marriage also has potential long-term consequences for the physical

health of a couple's children. In particular, studies show that growing up with married parents is associated with better physical health in adulthood and increased longevity. Research suggests that such intergenerational health effects are especially strong for men and operate equally for both African American and white men. There is less evidence examining possible differences in this relationship for African American and white women.

There are many possible reasons why parental marital status may have long-term health consequences for children. However, the existing research in this area provides fairly limited evidence on the pathways by which childhood family structure affects adult physical health and longevity. Several studies suggest that the effects work mostly through the role of childhood family structure in shaping children's future socioeconomic attainment and adult health risk behaviors (such as smoking and heavy drinking). On average, children raised in two-parent families obtain more education and exhibit healthier adult behaviors than children from other types of families. These differences, in turn, have consequences for adult health and longevity. The relationship between childhood family structure and adult health outcomes may also partly reflect the more immediate impacts of parental marital status on physical health in childhood; however, there is little current research evidence on the long-term effects of childhood family structure operating through effects on childhood physical health.

It is important to note that research in this area has focused largely on trends among people born in the late 19th and early 20th centuries, a period when patterns of marriage, divorce, and single-parenthood were much different than they are today. It is possible that the apparent benefits of marriage for children's health have weakened as single-parenthood and divorce have become more common and less stigmatizing. In addition, much of the research evidence in this area is limited to data for small nonrepresentative samples. Moreover, the nationally representative evidence that is available is based on data sets that began tracking sample members as adults, which limits the ability of these studies to control for differences in the background characteristics of those who grew up in a two-parent family and those who did not.

Future research in this area should focus on (1) replicating the results of existing research with long-term longitudinal data (following sample members from childhood into adulthood) for nationally representative samples, (2) distinguishing more clearly the effect of parental marital status from the effects of other related family characteristics, (3) identifying more precise mechanisms by which childhood family structure might influence adult physical health, and (4) examining whether the relationships observed in earlier generations also apply to a younger cohort of children coming of age in a period when divorce and single-parenthood are increasingly common.