FAMILIES, SOCIAL LIFE, AND WELL-BEING AT OLDER AGES*

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As people age, many aspects of their lives tend to change, including the constellation of people with whom they are connected, their social context, their families, and their health—changes that are often interrelated. Wave I of the National Social Life, Health, and Aging Project (NSHAP) has yielded rich information on intimate ties, especially dyads and families, and on social connections generally. Combined with extensive biological and other health measures, NSHAP enables researchers to address key questions on health and aging. We begin with recent findings on intimate dyads, then move to social participation, and finally to elder mistreatment. Among dyads, we find that whereas sexual activity drops sharply with age for both women and men, gender differences in partner loss as well as psychosocial and normative pressures constrain women's sex more than men's. However, surviving partnerships tend to be emotionally and physically satisfying and are marked by relatively frequent sex. In contrast to sex, nonsexual intimacy is highly prevalent at older ages, especially among women. Older adults are also socially resilient—adapting to the loss of social ties by increasing involvement with community and kin networks. Despite these social assets, older adults remain vulnerable to mistreatment. Overall, these findings yield a mixed picture of gender-differentiated vulnerabilities balanced by proactive adaptation and maintenance of social and dyadic assets.

amilies provide an important—perhaps *the* most important—context for aging. Although many older adults do not live in families, very few have no family members. Families bring resources like time, money, goods, and services to their members. Families also bring demands, such as claims on time, money, goods, and services. Family members offer instrumental and emotional support, information, and connections, but also introduce conflict, criticism, demands, and occasionally unhealthy or unhelpful advice or examples. Families offer connections to others in a web of supports and demands. Aging families are most often dyads whose children have grown and departed, or single, widowed individuals. At the same time, social isolation—especially through the lack of a partner—is a reality for many aging individuals and has strong links with both physical and mental health.

Aging is a story of change in individuals and families. It is also a story of loss: loss of physical and mental function, loss of family and friends, and loss of a spouse. These losses take place at different rates for different individuals and groups; people and families often adapt to losses with changes in their behavior or environment, making aging a complex and dynamic process. As we will show, the experience of aging is quite different for women than it is for men for a number of reasons. Racial and ethnic groups also tend to follow divergent paths during later adulthood.

Families provide a key context in which health is produced and challenges to health are met. The health and well-being of each member depends on the health and well-being of the others, since the resources that family members command and the demands they make both depend on their health and functioning.

CONCEPTUAL FRAMEWORK

We define *health* broadly, focusing on well-being and functioning along with illness and disease. Health changes over the life course; evaluations and perceptions of health also change

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as people compare their physical and emotional state not only to their own prior health and expectations but also to the health of others and to societal expectations (McDowell and Newell 1996). We conceptualize health as produced in a social and cultural context, using the resources of the individual, family, and social environment. Figure 1 illustrates this overarching framework. This Interactive Biopsychosocial Model (IBM) comprises (1) an orientation toward health rather than illness; (2) analytic capacity for outcomes of health or illness; (3) parity among the three domains of capital (biophysical, psychocognitive, and social) as factors in an individual's health endowment; (4) consideration of causality and feedback between various types of capital and health; (5) conceptualization of individual health or illness embedded in the intimate dyad, the family, or other social networks; (6) interdependency of social and life course dynamics; and (7) the potential of capital inputs to act as assets or liabilities (Lindau et al. 2003).

Biophysical, psychocognitive, and social capital make up an individual's *health endowment*. *Biophysical capital* includes genetic composition, physiology, physique, sensory function, nourishment, strength, and appearance, all of which affect an individual's physical and physiological capacity for health. *Psychocognitive capital* includes intelligence, emotional well-being, happiness, attitudes, perceptions, and evaluations. *Social capital* refers to the networks of relationships with others (kin, friends, neighbors, physicians), some of whom may themselves be connected, and to the quality of those relationships. Sociocultural context is the broader environment of social locations (ethnic, religious, gender, political, or economic class), which carry social expectations, norms, and differential access to scarce resources that influence health.

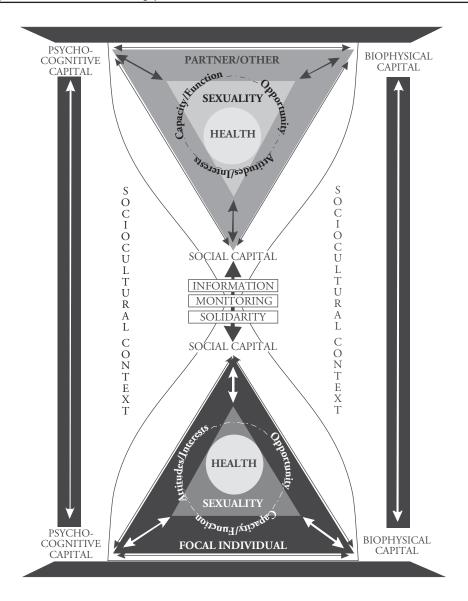
The health endowment of the individual is inextricably linked to socially relevant others (partner, kin, friends) with whom they may pool resources, exchange services, and provide advice and support. In our model, this interdependency allows two healthy individuals acting jointly to generate a surplus greater than each would generate alone. The interdependency occurs through repeated small exchanges and specialization of roles within the relationship and serves to maximize efficiency and efficacy and to perpetuate the interdependency (Lindau et al. 2003).

Sexuality is a key component of health at older ages and is almost always produced in intimate dyads. We broadly define *sexuality* as the dynamic outcome of physical capacity, motivation, attitudes, opportunity for partnership, and sexual conduct (Bullivant et al. 2004; Laumann, Das, and Waite 2008; Lindau et al. 2003). Health, emotional well-being, and physical functioning influence both the opportunity and the capacity for intimate activities. And in our conceptualization, sexual behavior may influence physical health and emotional well-being.

In this article, we discuss three key sets of changes: changes in the health and functioning of individuals, changes in couples, and changes in social connections. We paint this picture of families, social life, and health at older ages using research from the National Social Life, Health, and Aging Project (NSHAP), which interviewed older adults in 2005–2006.

The first wave of NSHAP has provided a broad array of findings on family structure, sexuality, and health. NSHAP was designed to study the crucial intersections between physical and emotional health, behaviors, medication use, and social connectedness, with topics based on the IBM (Lindau et al. 2003). Thus, NSHAP Wave I contains detailed measures of one's egocentric social network; an array of objective biological measures collected during the in-home interview, including some derived from blood and saliva (Gavrilova and Lindau 2009; Williams and McDade 2009); a complete log of prescription, over-the-counter, and alternative medications (Qato et al. 2009); detailed measures of sexual motivations, behaviors, and problems in late life (Waite et al. 2009); quality-of-life and other self-assessments (Shiovitz-Ezra et al. 2009); and measures of connectedness to one's close friends, families, and community (Cornwell et al. 2009). This combination of measures of social connections, physiological and biological health, and perception

Figure 1. The Interactive Biopsychosocial Model (IBM)



Source: Lindau et al. (2003).

of health and relationships has allowed us to begin filling crucial gaps in knowledge of sexuality, well-being, and family life at older ages.

SOCIALITY, SEXUALITY, AND HEALTH

An established literature indicates that both women and men are in better health when they have strong social connections, and especially strong support from their families (Thoits 1995). At older ages, however, individuals experience fundamental changes in the structure

of both their families and their broader social network. Children leave home, retirement uproots individuals from their social networks at work, parents and elders pass away, and health problems begin impeding social interaction (Hughes et al. 2004). During this period, one's strongest source of support is often one's spouse. And yet, individuals—especially women—begin experiencing the devastating event of spousal loss. Establishing trends and patterns in these changes, and their impact on health, was a primary motivation for NSHAP.

With regard to couples, the IBM conceives health as a jointly produced outcome, dependent on each partner's characteristics and on the nature of the partnership itself. For instance, the inception and progression of many adverse health conditions are highly dependent on an individual's behavioral patterns—which, per our model, are shaped in the context of the intimate partnership. A couple's eating habits and physical activity are, for instance, jointly shaped. Obesity, a precursor to a wide spectrum of adverse health conditions, is therefore strongly influenced by each partner's background (educational, ethnic, sociocultural), concerns, and conceptions of health and of health maintenance. Similarly, maintenance of health given preexisting health conditions is dependent on a partner's monitoring, which in turn is contingent on an emotionally and physically satisfying relationship (Umberson 1992). The loss of this array of health-producing social assets may explain the greater mortality rates among those whose partner has died (Christakis and Allison 2008; Elwert and Christakis 2006). More generally, the same dynamic may apply to individuals losing social ties due to the death of close friends, retirement, or weakening of ties to children.

Sexuality constitutes an important avenue of connection between spouses and between romantic partners. Our overarching framework thus conceptualizes sexual behavior as a key feature of the overall relational context within which health is jointly produced. In turn, both physical and mental health have a strong impact on the capacity and motivation for sex (Das, Laumann, and Waite forthcoming; Laumann, Das, and Waite 2008; Lindau, Schumm, et al. 2007; Waite et al. 2009); sexual well-being is not only a key component of healthy aging but also has a mutually constitutive relationship with health. As with other relational factors, this important asset also disappears with the loss of a partner.

Health at older ages, then, develops and changes within a social context and within a family and/or intimate partnership that also changes in both form and function. We use research conducted using the National Social Life, Health, and Aging Project to describe key dimensions of the links between social connections, families, and well-being among older adults.

DATA AND MEASURES The NSHAP Data Set

NSHAP is a probability sample of 1,550 women and 1,455 men aged 57 to 85, with an oversampling of blacks, Hispanics, men, and those aged 75 to 85. Screening for the NSHAP survey was carried out in the same field operation as that for the Health and Retirement Survey (HRS). While the target population for NSHAP consists of older U.S. adults within the specified age range, NSHAP is a household survey and thus excludes those living in institutions and the homeless. This complex, multistage sample design consists of (1) a set of area stages, in which areas were selected with probabilities proportional to their sizes; (2) a household selection stage, in which a sample of households was selected from the selected areas; and (3) an individual selection stage, in which the individuals to be approached for interview were selected.

In-home interviews of household-dwelling adults in these age ranges were conducted between July 2005 and March 2006. A self-administered post-interview or "leave-behind" questionnaire was used to obtain supplementary information. A final component of the survey was a set of 13 biomeasures, collected by NSHAP's non-medically trained interviewers during the in-home interview. All questionnaires and survey materials were developed in

English and translated into Spanish (Smith et al. 2009). Most interviewers were experienced personnel who were given further training in conducting interviews by the National Opinion Research Center (NORC) in Chicago and who remained with the project throughout the interview period. Participant consent was obtained prior to the interview. The survey had an unweighted response rate of 74.8% and a weighted response rate of 75.5% (Lindau, Schumm, et al. 2007; O'Muircheartaigh and Smith 2007).

Measures

NSHAP Wave I includes a rich combination of social and biological variables. In addition to standard demographic measures (age, gender, marital status, education, race/ethnicity, income, household assets, employment, and insurance status), the study also obtained information on comorbidities and access to and use of health care. A complete log of currently used medications was collected as well during the in-home interview by direct observation using a computer-based log.

As noted, 13 biomeasures were collected: weight, waist circumference, height, blood pressure, "Get Up and Go" (Williams, Pham-Kanter, and Leitsch 2009), saliva collection (yielding population-based prevalences for testosterone, estradiol, progesterone, DHEA, and cotinine; Gavrilova and Lindau 2009), distance vision, touch, smell, taste (Schumm et al. 2009), a self-administered vaginal swab for female respondents (Lindau et al. 2009), oral mucosal transudate (Orasure®) HIV test, and blood spots (yielding C-reactive protein, Epstein-Barr virus antibody titers, and Hemoglobin A1c levels). Response rates were high for these measures—especially for a population-based study. For instance, the collection of blood spots was modularized—that is, it was asked of a subset of 2,494 respondents. Of these, 2,105 (84.5% unweighted) consented (Williams and McDade 2009). After losses due to technical difficulties, blood spots were collected from 2,048 respondents (82.1% unweighted). Of the key derived measures, C-reactive protein had a weighted mean of 3.19 mg/L, and the mean for Hemoglobin A1c was 6.05. Saliva samples, in contrast, were collected from all consenting respondents (2,722; 90.6% unweighted; Gavrilova and Lindau 2009). Of the key salivary measures, the weighted mean for testosterone was 74.2 pg/mL; for estradiol, 10.2 pg/mL; for progesterone, 54.8 pg/mL; for DHEA, 53.1 pg/mL; and for cotinine, 73.9 ng/mL.

Finally, the data also include several other innovative sets of measures that we rely on in this section. We describe these measures below.

Partnership. Respondents were asked about their current marital status. Those not currently married or cohabiting were also asked whether they had a romantic, intimate, or sexual partner. A respondent's spousal, cohabiting, or other romantic partner was then coded as his/her *current partner*. NSHAP also obtained a complete marital history from all respondents, in the same format as in the 1992 wave of the HRS. Start and end dates (month and year) were queried for each marriage, and respondents were asked how each previous marriage had ended (i.e., divorce, widowhood, or separation). The study also obtained a complete history of cohabitations. There was not sufficient time during the NSHAP interview to a complete sexual partner history. Instead, borrowing from the 1992 National Health and Social Life Survey (NHSLS; Laumann et al. 1994) and the 1995-1997 Chicago Health and Social Life Survey (CHSLS; Laumann et al. 2004), NSHAP focused on sexual relationships within the past five years. This included the current partner as well as either one or two of the next most recent spouses or cohabiting partners within the preceding five years, for a maximum of two partners overall. Data were also collected on up to three additional next most recent sexual partners over the five-year time frame. For each partnership, NSHAP asked the month and year of first sex (except for that within marriages or cohabitations that began more than five years ago) as well as most recent sex, the partner's gender and age relative to the respondent, and whether the respondent expected to have sex with the partner again.

Relationship quality. In addition to partnership patterns, NSHAP also asked about the overall quality of the relationship (Waite et al. 2009). Respondents with current partners were asked the extent to which they liked to spend time with their partner. A set of items queried how often (1) they could open up to their partner about worries; (2) they could rely on him/her; (3) the partner made too many demands; and (4) the partner criticized. Finally, for both past and current partnerships, self-rated emotional and physical satisfaction with the relationship, as well as happiness in the relationship, were also obtained.

Sexuality. All respondents were asked whether they had had partnered sex in the preceding year, and their frequency of masturbation over that period. Those reporting any partnered sex were then asked a series of questions: on the frequency of sex with their current partner; how often sex included vaginal intercourse; condom use during vaginal intercourse; frequency of oral sex; and frequency of hugging, kissing, or other ways of sexual touching during sex. The survey items were borrowed from the 1992 NHSLS. Finally, reasons for not having sex were also queried for those respondents reporting a lack of sexual activity over the preceding three months.

In addition to sexual practices, NSHAP also asked about sexual problems or dysfunctions (Laumann, Das, and Waite 2008). Specifically, in seven dichotomous items, respondents were asked about the presence of a sexual problem for several months or more over the preceding 12 months. These included: (1) lack of interest in sex; (2) arousal problems—trouble maintaining or achieving an erection (men) and trouble lubricating (women); (3) climaxing too early; (4) inability to achieve an orgasm; (5) experiencing pain during sex; (6) not finding sex pleasurable; and (7) anxiety about performance. The time frame of several months or more was deliberately chosen to avoid conflation of occasionally experienced sexual issues with the chronic conditions that might more accurately index an actual dysfunction (Rosen and Laumann 2003; Waite, Laumann, and Das 2008). The questions were asked only for sexually active respondents (those reporting any partnered sex in the preceding 12 months) during the main face-to-face interview. Following the recommendations of a consensus panel on women's sexual dysfunctions (Basson et al. 2000), respondents reporting a problem—other than sexual pain—were asked the extent to which they were bothered by it. We do not report on bother in this study, since inclusion of personal distress into definitions of sexual problems has previously been critiqued. Specifically, it has been demonstrated that personal distress can be poorly correlated with the existence of physical sexual issues and may instead have a tighter linkage with more "global" factors, such as emotional and relationship satisfaction (Rosen and Laumann 2003).

Nonsexual intimacy. Among older adults, many of whom do not have sexual or romantic partners, nonsexual intimacy is likely to be a major form of close physical contact with social alters. NSHAP developed a series of questions specifically to study these patterns. Respondents were asked about the frequency of the following activities over the preceding year: petting or touching a dog, cat, or other pet; greeting someone with an embrace, kiss, or pat on the back; playing or cuddling with a grandchild or other child; hugging, kissing, caressing, or other close physical contact with partner (this item was skipped for respondents without a current partner); and hugging, kissing, caressing, or other close physical contact with another adult. These questions were modularized—that is, they were included either in the self-administered leave-behind questionnaire or in the in-home interview, depending on the path to which the respondent was assigned.

Social isolation and health. Social connections are key to health and to healthy aging, and social isolation constitutes a threat to both (House 2001). NSHAP obtained numerous measures of both social isolation and social connections, which can be divided into objective social connections and subjective social isolation. Information on the social networks of respondents, described below, allows the construction of measures of social connection that reflect the size of the network, the range of relationships in it, the frequency of

contact, and coresidence of network members, all of which tell us to whom the respondent is connected (Cornwell and Waite 2009). NSHAP also contains information on the number of friends the respondent has, volunteering, religious participation, participation in organizations, socializing with friends and neighbors, living arrangements, and the presence of children and grandchildren as indicators of objective social connections. The respondent's evaluation of their connections indexes subjective isolation. NSHAP obtained evaluations of the quality of the current marital or cohabiting relationship or of the most recent past relationship for the single; perceptions of the quality of the relationship with each member of the network; a short scale for measuring loneliness (Hughes et al. 2004); and perceptions of ability to talk about problems with spouse, family, and friends, and of ability to depend on them if a problem occurred.

Social networks. An innovative feature of the NSHAP data set is its wide range of social network indicators (Cornwell et al. 2009). The inclusion of these measures was motivated by a lack of nationally representative social network data on older adults. To extract each respondent's *egocentric social network*, NSHAP used a "name generator" approach—a standard technique in social network research that allows survey participants to identify individuals in their network based on attributes of the corresponding relationships. Specifically, the NSHAP network module began with the following statement: "Now we are going to ask you some questions about your relationships with other people. We will begin by identifying some of the people you interact with on a regular basis." Following the General Social Survey (1985, 2004), respondents were then asked to enumerate individuals *with whom they discussed important matters*—a standard name generator in social network studies (Burt 1987; Deng and Bonacich 1991; Knoke 1990; Marin 2004; Marsden 1987; McPherson, Smith-Lovin, and Brashears 2006; Moore 1990; Ruan 1998; Straits 1996). The network roster allowed up to five people to be named, but respondents were also asked to indicate if they had more than five network partners.

In addition, several items on community involvement were also included in the interview. These were the frequency of engagement in four types of activities: socializing with neighbors, attending religious services, doing volunteer work, and attending meetings of organized groups.

Elder mistreatment. Literature on social life among older adults mainly affirms the positive aspects of sociality. However, relationships can also impact an individual negatively—as is the case with mistreatment by family or close friends. Late life is a time of greater physical, mental, and financial vulnerability. Heightened health care needs may cause friction with caregivers and/or other network members. A weakening of short-term memory may enhance vulnerability to financial abuse. NSHAP directly queried experiences of three types of mistreatment over the preceding 12 months. These items were adapted from two validated screens: the Hwalek-Sengstock Elder Abuse Screening Test (Hwalek and Sengstock 1986) and the Vulnerability to Abuse Screening Scale (Schofield and Mishra 2003). Specifically, respondents were asked, "Is there anyone who insults you or puts you down?" (verbal mistreatment); "Is there anyone who has taken your money or belongings without your OK or prevented you from getting them even when you ask?" (financial mistreatment); "Is there anyone who hits, kicks, slaps, or throws things at you?" (physical mistreatment). A final question asked, "Is there anyone who you feel is too controlling over your daily decisions and life?" Given the ambiguity and generality of this last question, we acknowledge that it may or may not tap abuse per se. To identify their relationship with the perpetrator, respondents were asked, "Is this someone you identified earlier [in the network roster]?" (Cornwell et al. 2009; Laumann, Leitsch, and Waite 2008). Most respondents answered these questions during the in-home interview. For a subset, however, the questions were asked through the leave-behind questionnaire and, to avoid overburdening the respondent, included an abbreviated set of categories for one's relationship to one's mistreater.

NSHAP WAVE II

The second wave of the survey, funded by the Behavioral and Social Science Branch of the National Institute on Aging, with data collection scheduled for 2010, will introduce a dyadic component, conducting interviews with spouses or coresidential partners (if available), for each participant interviewed in Wave I. This wave will also add new biomeasures, including genetic material through buccal swabs, hip circumference, cytokines, and basal cortisol. With the added genetic component, NSHAP will have a set of targeted genes for variants in the receptors for stress hormones, which are key to studying stress-metabolic pathways. Finally, a leave-behind instrument will also collect a range of measures of neighborhood quality, including indicators of social capital, collective efficacy, and perceived risk.

In the sections that follow, we present evidence from the National Social Life, Health, and Aging Project on the links between family, social connections, and health.

FINDINGS

Partnership

Figure 2 depicts the likelihood of having a current partner, as a function of gender, age, and self-rated physical health. As is evident, the likelihood of being partnered drops sharply with age, due primarily to a drop in the proportion of those married (Bramlett and Mosher 2002; Lindau, Schumm, et al. 2007; Waite et al. 2009). More intriguingly, at all ages, men are more likely than women to have a current partner, with the largest difference among the "oldest old." This gender difference is largely due to the rise in women's—but not men's—widowhood with age (Das et al. forthcoming). In turn, gender differences in latelife widowhood stem from two factors. First, for reasons not yet fully understood, gender differences in longevity are an established fact: women, on average, live longer than men (Felder 2006; OECD 2002). Even among couples of roughly the same age, therefore, it is women who are especially likely to experience partner loss. Moreover, especially among less recent cohorts, similarity in age is uncommon: men, on average, partner with women who are several years younger than themselves—a pattern known as age hypergamy (Presser 1975). Finally, as Figure 2 shows, taking age into account, those in poor physical health are less likely than healthier adults to have a partner. This may be due to a correlation in the health of spouses and to relatively low remarriage rates among those in poor health. NSHAP analyses also reveal that among those with marital or cohabiting partners, there is a trend toward long-term monogamous relationships with age (Das et al. forthcoming). Less than 1% of all NSHAP women have had more than one partner in the preceding 12 months, and this prevalence is only slightly higher, at 3%, among men. In contrast, in the 1992 NHSLS, 34% of men and 22% of women between ages 18 and 29 had had more than one partner in the preceding year (reanalysis of NHSLS raw data). As with lower remarriage rates, this increase in monogamy is also arguably due to a lowering of sexual capacity and motivation with age and health problems.

To summarize, then, sexual careers are channeled into two main pathways in late life: monogamous partnership with a long-term partner; and the disappearance of sexual opportunities with partner loss. The latter pattern is especially prevalent among older women because of sex differences in longevity, age hypergamy, and/or lower repartnering rates of older women than older men.

In addition to the presence of a partner, the overall quality of a relationship may also strongly influence both sexuality and well-being in general.

Relationship Quality

Table 1 contains descriptive statistics for the key indicators of relationship quality in NSHAP. For most older women and men, the overall quality of the relationship is high.

Men:

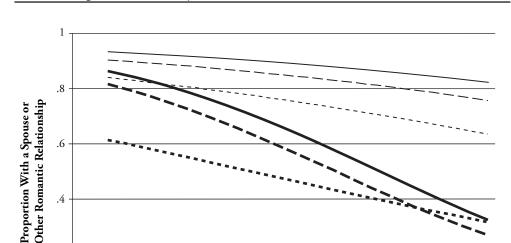
Good

Poor/fair

60

Very good/excellent

65



Women:

Poor/fair

Good

70

Age

Very good/excellent

75

80

85

Figure 2. Probability of Having a Current Marital, Cohabiting, or Romantic Partner, by Gender, Age, and Self-rated Physical Health

Most respondents of both genders receive adequate support from their partner, as indicated by the high prevalences for being able to open up to one's partner about worries and to rely on one's partner. The "negative" indicators—too many demands or criticism from one's partner—are correspondingly low. Few respondents rate their current or last relationship as unhappy or emotionally or physically unsatisfying. The lack of an age trend for any of our indicators of relationship quality also suggests that age-related incident health burdens do not adversely impact the general quality of this most important relationship.

As noted, NSHAP included a wide range of items on sexual practices, attitudes, and problems. Several NSHAP publications have addressed this set of factors as a key indicator or determinant of well-being in late life (Laumann, Das, and Waite 2008; Lindau et al. 2008; Lindau, Laumann, and Levinson 2007; Lindau et al. 2007; Waite et al. 2009; Waite et al. 2008). Other analysis remains ongoing. In the next section, then, we report on some of these findings.

Sexuality

.2

0

55

Basic patterns. Table 2 contains basic descriptive statistics on sexuality among NSHAP respondents (Waite et al. 2009). Among those aged 57–64—the youngest age group in NSHAP—84% of men and 62% of women report having sex with a partner in the preceding year. In the oldest group, those aged 75–85, this prevalence drops to only 38% among men and 17% among women—arguably due to declines in health and functionality. Among the small proportion of older adults who do remain sexually active, however, sex

| Table 1. | Prevalence of Relationship Quality Indicators, by Age and Gender |
|----------|--|
| ' | Women |

| | | Wo | men | | | | | |
|--|-------------------------|---------------|---------------|----------------------------|-------------------------|---------------|---------------|----------------------------|
| | Percentage ^a | | | | Percentage ^a | | | |
| Variable | Age 57–64 | Age 65–74 | Age 75–85 | Trend Test ^c | Age 57–64 | Age 65–74 | Age 75–85 | Trend Test ^c |
| Current Relationship ^b | | | | | | | | |
| Likes to spend time with partner | 51.3 (3.5) | 40.3 (3.8) | 47.7 (4.6) | .241 | 51.6 (3.2) | 50.2 (3.1) | 59.1 (2.9) | .130 |
| Can often open up to partner about worries | 75.0 (2.6) | 80.0 (2.6) | 69.4 (3.1) | .159 | 80.5 (2.2) | 78.1 (2.3) | 70.7 (3.2) | .021 |
| Can rely on partner often | 85.6 (1.8) | 83.5 (2.5) | 79.4 (3.2) | .088 | 89.4 (2.6) | 89.4 (1.9) | 87.7 (2.2) | .321 |
| Partner makes too many demands often | 7.9 (1.6) | 11.6 (2.9) | 12.2 (2.9) | .463 | 9.6 (1.6) | 11.0 (1.7) | 11.7 (2.6) | .380 |
| Partner criticizes often | 5.3 (1.4) | 6.4 (1.7) | 7.0 (2.0) | .759 | 10.0 (2.4) | 10.8 (1.9) | 11.7 (2.1) | .625 |
| Most Recent Relationship | | | | | | | | |
| Relationship unhappy | 5.2 (0.9) | 7.8 (1.4) | 5.4 (1.0) | .315 | 3.1 (1.1) | 2.4 (0.8) | 2.6 (0.9) | .916 |
| Not emotionally satisfying ^d | 13.1 (1.7) | 11.3 (1.2) | 10.4 (1.9) | .333 | 4.2 (1.0) | 5.2 (1.1) | 3.9 (1.1) | .800 |
| Not physically satisfying ^d | 11.0 (1.6) | 12.6 (1.7) | 11.1 (1.7) | .934 | 3.5 (1.1) | 5.3 (1.2) | 4.9 (1.2) | .273 |

Source: Waite et al. (2009).

is fairly frequent and declines only marginally with age. For instance, even at the oldest ages (75–85), more than half of sexually active women and men have sex two to three times a month or more.

For the vast majority of NSHAP respondents, sex usually or always involves vaginal intercourse. Among those aged 57–64, for instance, this prevalence is 87% among women and 91% among men. However, among those in the oldest group, aged 75–85, vaginal intercourse is less frequently a part of partnered sex, with 75% of these women and 84% of their male counterparts reporting this activity. In contrast, sexual "foreplay"—that is, hugging, kissing, or other sexual touching—remains highly prevalent right up to the oldest ages. For the majority of older adults, partnered sex comprises mainly foreplay and vaginal intercourse, with the latter somewhat less common at the oldest ages.

Although it seemed possible that individuals might use oral sex as a substitute for health-related declines in vaginal intercourse, this turns out not to be the case. As with intercourse, the likelihood of any oral sex (giving or receiving) also declines with age and is lower than that of intercourse at all ages. For instance, in the youngest NSHAP group—aged 57 to 64—only 62% of men and 53% of women report any oral sex, and this prevalence drops in the oldest group (75–85) to only 28% for men and 36% for women. Since oral sex is less likely than intercourse to be vulnerable to health constraints, we argue that these

^aAll estimates are weighted to account for differential probabilities of selection and differential nonresponse. Design-based standard errors are given in parentheses.

^bSample is restricted to those married, cohabiting, or with an intimate partner in the preceding year.

^cp value for a Wald test (using design-based standard error) of the age coefficient for logistic regression on age (in years).

^dBased on responses of "slightly" or "not at all" when asked how satisfying the relationship is/was.

Table 2. Prevalence of Selected Sexual Practices in Preceding Year, by Age and Gender

| | | Wo | men | | | N | len | |
|--|-------------------------|---------------|---------------|----------------------------|-------------------------|---------------|---------------|----------------------------|
| | Percentage ^a | | | | Percentage ^a | | | |
| Variable | Age 57–64 | Age 65–74 | Age 75–85 | Trend Test ^c | Age 57–64 | Age 65–74 | Age 75–85 | Trend Test ^c |
| Any Sex in Preceding Year | | | | | | | | |
| Full sample | 61.6 (2.4) | 39.5 (2.4) | 16.7 (2.1) | <.001 | 83.7 (3.0) | 67.0 (2.5) | 38.5 (2.5) | <.001 |
| Subsample with partners ^b | 80.7 (2.4) | 62.8 (2.9) | 41.4 (4.8) | <.001 | 90.5 (2.4) | 74.7 (2.3) | 47.3 (3.0) | <.001 |
| Sex Frequency in Preceding | Year ^d | | | | | | | |
| Two/three or more times per month | 62.6 (3.6) | 65.4 (4.4) | 54.1 (6.2) | .126 | 67.5 (3.3) | 65.4 (3.2) | 54.2 (5.0) | .094 |
| Once/twice or more per week | 34.4 (3.6) | 30.9 (3.8) | 23.6 (6.2) | .052 | 39.7 (2.3) | 31.2 (2.9) | 22.9 (3.6) | .001 |
| Vaginal sex usually/ always ^d | 86.8 (2.3) | 85.4 (3.0) | 74.4 (6.9) | .112 | 91.1 (1.4) | 78.5 (2.7) | 83.5 (3.4) | <.001 |
| Foreplay usually/always ^d | 88.8 (1.7) | 88.5 (2.4) | 88.7 (5.9) | .959 | 94.3 (1.2) | 90.2 (2.1) | 92.2 (2.3) | .067 |
| Any oral sex ^{d,e} | 52.7 (3.8) | 46.5 (4.4) | 35.6 (6.2) | .024 | 62.2 (3.2) | 48.2 (2.6) | 28.3 (5.3) | <.001 |
| Used a condom usually/always ^f | 2.1 (0.7) | 4.8 (1.8) | 2.8 (1.9) | .262 | 4.3 (1.1) | 3.5 (0.8) | 0.8 (0.6) | .124 |
| Masturbated in preceding year | 31.6 (2.6) | 21.9 (2.1) | 16.4 (2.3) | <.001 | 63.4 (3.2) | 53.0 (2.5) | 27.9 (2.2) | <.001 |

Source: Waite et al. (2009).

age-related declines could indicate cohort patterns. Specifically, the youngest NSHAP group (those aged 57–64) reached maturity during the Sexual Revolution of the 1960s and may have absorbed a different set of cultural values than those 75 to 85 years old, who came of age in the more sexually conservative 1940s (Joyner and Laumann 2001).

Finally, we conceptualize masturbation as a more direct indicator of baseline sexual interest than either intercourse or oral sex since, unlike the latter, masturbation is not constrained by one's lack of a partner. As Table 2 demonstrates, age patterns in masturbation track those for oral sex, especially among men. We argue that as with oral sex, masturbation is not a compensation for a lack of partnered sex or for unsatisfying sex—conjectures consistent with previous studies on younger age groups in both the United States (Das 2007) and other countries (Das, Parish, and Laumann 2009; Dekker and Schmidt 2002; Kontula and Haavio-Mannila 1995). Among NSHAP men, 63% of those aged 57–64 (i.e., those most likely to have had partnered sex) report any masturbation in the preceding 12 months, compared with 28% of those aged 75–85 (i.e., the men least likely to have had sex). Among

^aAll estimates are weighted to account for differential probabilities of selection and differential nonresponse. Design-based standard errors are given in parentheses.

^bSample is restricted to those reporting a spouse, cohabiting, or romantic partner in the preceding year.

^cp value for a Wald test (using design-based standard error) of the age coefficient for logistic regression on age (in years).

^dAsked only of participants reporting any sex in the preceding year.

^eIndicates ever giving or receiving oral sex in the preceding year.

findicates condom use during vaginal sex. Asked only if the participant reported any vaginal sex in the preceding year.

women, the analogous prevalences are 32% and 16%, respectively. As with oral sex, the sharp break in the likelihood of masturbation between the "Sexual Revolution generation" and older age groups arguably indexes cohort effects, which is again consistent with previous studies on younger age groups (Das 2007; Kontula and Haavio-Mannila 2002; Laumann et al. 1994; Laumann and Youm 2001).

Sexual dysfunctions. As noted, NSHAP also asked respondents about sexual problems or dysfunctions. Among those who are sexually active, results suggest that increasing age does not result in more sexual problems for either women or men—with the exception of men's erectile problems and inorgasmia, which do increase sharply with age (Laumann, Das, and Waite 2008). Overall, rather than being an inevitable consequence of growing older, sexual problems in late life seem more a response to stressors in multiple domains of life, ranging from poor physical health to attributes of the relationship. For instance, greater overall satisfaction with the relationship is associated with a lower likelihood of multiple sexual dysfunctions among both genders but has a more consistent impact among women. These results suggest that, consistent with the IBM, sexual health is relational and jointly produced within the partnership rather than simply an outcome for the individual. The key mechanism mediating the linkage between these stressors and sexual problems appears to be poor mental health. NSHAP findings clearly demonstrate a consistently strong relationship between stress, anxiety, and depression, as well as "global" poor mental health on the one hand and women's sexual problems on the other. Among men, these associations are less consistent, suggesting a smaller role of psychosocial factors for men's than for women's sexual response and health.

Newer and unpublished analyses also suggests that this gender pattern is reversed with physical health. Specifically, men's sexual problems are more consistently associated than women's with a wide range of common health conditions, such as diabetes, which increases men's erectile problems and their lack of sexual interest, but only increases women's inorgasmia; and cardiovascular problems, cirrhosis, and emphysema, which broadly impact men's sexual problems. In addition, we also find that a wide variety of medications predict sexual dysfunctions—again, especially among men. These include not just SSRI antidepressants (previously suspected of causing erectile dysfunction) but also cardiovascular, respiratory, gastrointestinal, central nervous system, and topical agents, as well as coagulation modifiers. Overall, men's erectile problems are the single most consistently impacted sexual problem.

In addition to health and relationship features, sexual practices and problems may also be affected by a partner's attributes and by cultural and social constraints. In the next section, we turn to these structuring factors.

Dyadic and social constraints. As noted, NSHAP also asked respondents the reasons for sexual inactivity for those reporting no sex over the preceding three months (Table 3). We demonstrated that the lack of a partner in late life functions as a strong constraint on sexual opportunities, especially among women. As Table 3 demonstrates, this factor also strongly affects women's baseline sexual interest; even in the youngest age group (ages 57–64), fully 43% of women without a current partner cite their lack of sexual interest as a reason for their sexual inactivity. Among their partnered age-peers, however, this prevalence drops by almost half, to approximately 24%. Among men, in contrast, both the prevalence and differential are much lower, suggesting perhaps that "sexual plasticity" may play a bigger role in women's than in men's erotic drive (Baumeister 2000, 2004; Waite et al. 2009). More intriguingly, while one's own health problems stand out as the major reason for sexual inactivity among men, among women, the *partner's* health problems drive inactivity. Among older couples, the male partner's health-related sexual incapacities appear to most strongly influence the likelihood of sex.

We also note a gender-differentiated impact of social and cultural constraints. For instance, among respondents without a current partner, and at all ages, women are more

Table 3. Prevalence of Primary Reasons for Not Having Sex, by Age and Gender

| | Women | | | | Men | | | |
|---|-------------------------|---------------|---------------|----------------------------|-------------------------|---------------|---------------|----------------------------|
| | Percentage ^a | | | | Percentage ^a | | | |
| Variable | Age 57–64 | Age 65–74 | Age 75–85 | Trend Test ^b | Age 57–64 | Age 65–74 | Age 75–85 | Trend Test ^b |
| Sample With Partners | | | | | | | | |
| Not interested | 23.8 (5.0) | 25.0 (4.6) | 24.9 (4.4) | .799 | 13.5 (3.7) | 11.7 (2.8) | 19.1 (3.7) | .174 |
| Partner not interested | 19.2 (4.2) | 19.8 (4.5) | 15.8 (4.1) | .384 | 29.5 (8.5) | 10.3 (2.5) | 16.8 (3.6) | .127 |
| Health problems/ limitations | 16.8 (4.0) | 16.7 (3.9) | 24.8 (4.7) | .310 | 40.3 (7.3) | 56.6 (4.3) | 61.4 (5.5) | .018 |
| Partner's health problems/limitations | 63.2 (6.3) | 63.4 (6.9) | 64.8 (6.3) | .815 | 20.1 (5.8) | 31.3 (4.7) | 22.7 (5.0) | .920 |
| Sample Without Partners | | | | | | | | |
| Not interested | 43.0 (5.1) | 47.0 (4.3) | 60.3 (3.4) | .002 | 18.3 (8.5) | 22.0 (5.7) | 32.1 (5.6) | .221 |
| Haven't met the right person | 47.0 (5.8) | 35.9 (5.4) | 28.8 (4.4) | .021 | 23.8 (8.6) | 52.1 (9.0) | 24.6 (5.5) | .879 |
| Religious beliefs prohibit sex outside marriage | 20.3 (4.8) | 22.6 (3.3) | 14.6 (1.8) | .134 | 12.3 (6.2) | 10.1 (4.4) | 12.1 (4.0) | .745 |
| Have not had an opportunity | 15.5 (3.5) | 20.3 (3.8) | 7.7 (1.5) | .016 | 28.1 (6.3) | 16.7 (5.1) | 17.3 (5.0) | .414 |

Note: These questions were asked only for participants reporting no sex in the preceding three months.

Source: Waite et al. (2009).

likely than men to cite religious beliefs that prohibit sex outside marriage as a reason for their sexual inactivity (Table 3). Moreover, NSHAP data suggest that sex may also be constrained by greater embeddedness in kin networks (Das et al. forthcoming). A growing literature supports the notion that age-related health declines may increase one's dependency on close friends and family members, who may become indispensable sources of caregiving and social support (Antonucci and Akiyama 1995; Hurlbert, Haines, and Beggs 2000). For instance, studies on the social networks of older adults indicate that these networks tend to become more kin-centered with age (Cornwell, Laumann, and Schumm 2008; Marsden 1987; McPherson et al. 2006). We argue that this increased reliance may in turn increase the social-control potential of one's key network alters, who may not approve of an older person's sexual needs and behaviors.

These arguments receive strong support from NSHAP data. For instance, only 22% of currently unmarried respondents (13% of women; 43% of men) report any partnered sex over the preceding 12 months. Interestingly, these prevalences vary by reliance on family. Among those able to rely on their family "hardly ever (or never)" or "some of the time," approximately 27% report sexual activity. Among those reporting "often" being able to rely on family, however, this prevalence drops to under 20%. In addition, this discrepancy is almost completely accounted for by women's patterns, consistent with a patriarchal double standard regarding elderly women's sexuality. Specifically, among unmarried men,

^aAll estimates are weighted to account for differential probabilities of selection and differential nonresponse. Design-based standard errors are given in parentheses.

^bρ value for a Wald test (using design-based standard error) of the age coefficient for logistic regression on age (in years).

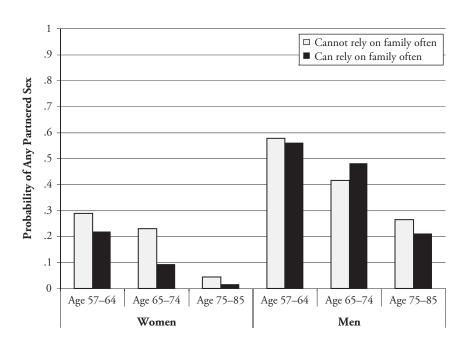


Figure 3. Probability of Any Partnered Sex in the Preceding Year Among Currently Unmarried Respondents, by Gender, Age, and Embeddedness in Family

Source: Das, Laumann, and Waite (forthcoming).

the prevalence of sex is roughly the same for those who can (45%) and those who cannot (44%) rely on family. In contrast, 18% of unmarried women without strong family dependencies report being sexually active, and this prevalence drops to only 10% among those with strong family ties.

We graph these differentials by age group in Figure 3. Among currently unmarried women, family reliance becomes a major sexual constraint only for those aged 65 or older. For instance, among women aged 65–74, the likelihood of partnered sex is more than twice as great for those who cannot rely on family as for those with family dependencies—consistent with the conjecture that women's nonmarital sex becomes increasingly counternormative with age. Separate analysis of subsamples reporting good or better physical health yields analogous patterns, indicating that these are not determined by health differences among those who are and those who are not reliant on family. Among currently unmarried men, in contrast, these patterns are both weaker and less inconsistent, again suggesting a gender-differentiated imposition of social norms.

To summarize, then, the likelihood of partnered sex declines with age among both genders. Elderly individuals who continue to have sex, however, do so fairly regularly. For the most part, the sexual event in late life is centered on vaginal intercourse and foreplay. Practices like oral sex and masturbation are much less prevalent and do not function as compensations for a lack of "real" sex. Particularly with these less conventional practices, we note strong cohort effects, with those who came of age during the Sexual Revolution more likely to engage in them. Sexual dysfunctions are highly prevalent among both elderly women and men and are affected more by psychosocial factors among women and by

physical health and medication use among men. Among factors structuring sexual activity in general, the male partner's physical health and capacity stand out as the major correlates for both women and men. However, social norms and constraints are linked to sex, and this association is gender-differentiated, with women's sexual activity more socially constrained than men's.

Although a sizeable minority of older men and a substantial majority of older women do not have a spouse or cohabiting or romantic partner, all people have a need for close social relations (Cacioppo and Patrick 2008). How do older adults meet their needs for intimacy?

Nonsexual Intimacy

Previous studies have found nonsexual interactions with others in late life to have a demonstrable effect on mortality and morbidity (Rasulo, Christensen, and Tomassini 2005). Table 4 presents descriptive statistics for NSHAP's nonsexual intimacy indicators, by age and gender (Waite et al. 2009). The vast majority of NSHAP respondents report greeting someone with a hug or kiss at least once a month, and this activity is the most prevalent form of nonsexual intimacy. At all ages, women are more likely than men to report such interaction, though this prevalence does decline with age for women. Other common forms of nonsexual intimacy include touching a pet and playing or cuddling with a grandchild or another child, with both activities also becoming less common with age. We note the same age pattern for hugging or holding an adult other than one's partner, but only among women, perhaps because this interactional form is less common among men at any age. Finally, age patterns for hugging or holding one's partner mirror those for partnered sexual activity; among those with current partners, this form of nonsexual intimacy is highly

Table 4. Prevalence of Nonsexual Intimacy Indicators in Preceding Year, by Age and Gender

| _ | | Wo | men | | Men | | | |
|--|-------------------------|---------------|---------------|----------------------------|-------------------------|---------------|---------------|----------------------------|
| | Percentage ^a | | | | Percentage ^a | | | |
| Variable | Age 57–64 | Age 65–74 | Age 75–85 | Trend Test ^c | Age 57–64 | Age 65–74 | Age 75–85 | Trend Test ^c |
| Touched a Pet ≥ 1/Month | 71.1 (2.4) | 65.1 (3.0) | 57.0 (2.3) | <.001 | 77.7 (2.2) | 69.0 (2.6) | 60.1 (2.7) | <.001 |
| Greeted Someone With Embrace, Kiss, or Pat on the Back ≥ 1/Month | 94.7 (1.1) | 93.1 (1.2) | 86.5 (1.5) | .001 | 83.3 (2.2) | 84.4 (1.9) | 83.6 (2.7) | .993 |
| Played or Cuddled With a Grandchild or Other Child ≥ 1/Month | 77.5 (2.1) | 69.4 (2.5) | 53.8 (2.8) | <.001 | 60.4 (3.6) | 60.3 (2.8) | 54.9 (3.6) | .125 |
| Hugged/Held Partner ≥ 1/M | lonth | | | | | | | |
| Full sample | 69.8 (2.0) | 53.8 (2.4) | 35.7 (2.3) | <.001 | 84.6 (2.4) | 79.0 (1.9) | 69.1 (2.8) | <.001 |
| Subsample with partners ^b | 95.8 (0.9) | 89.7 (2.1) | 90.0 (3.0) | .001 | 95.6 (1.1) | 94.3 (1.1) | 90.4 (2.3) | .025 |
| Hugged/Held Another Adult ≥ 1/Month | 64.8 (2.8) | 60.0 (2.3) | 54.1 (2.7) | .007 | 46.7 (3.5) | 47.9 (2.9) | 45.1 (3.3) | .501 |

Source: Waite et al. (2009).

^aAll estimates are weighted to account for differential probabilities of selection and differential nonresponse. Design-based standard errors are given in parentheses.

^bSample restricted to those reporting a spouse, cohabiting, or romantic partner in the preceding year.

^cp value for a Wald test (using design-based standard error) of the age coefficient for logistic regression on age (in years).

prevalent and declines only mildly with age. In the full sample, however, this prevalence drops substantially with age for men and dramatically so among women—again indexing the effects of partner loss.

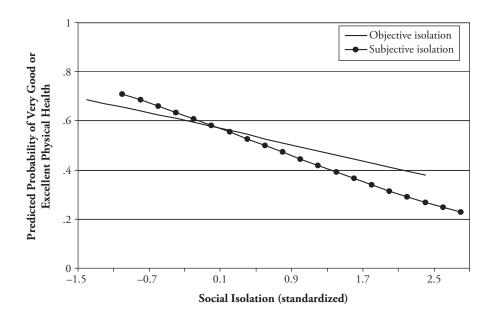
Social Isolation and Health

Older adults' perceptions of their social resources are often surprisingly decoupled from their actual levels of social connectedness. Both the perception of social isolation and an objective lack of social connections pose health risks, especially for older adults, but these two forms of isolation are rarely studied together. Cornwell and Waite (2009) combined multiple indicators of social isolation into scales assessing objective isolation (i.e., a lack of social connectedness or integration) and subjective isolation (i.e., a perceived lack of social resources) and examined the extent to which objective and subjective isolation have distinct associations with physical and mental health among older adults. They found that objective and subjective isolation are independently associated with lower levels of self-rated physical health (Figure 4), while the association between objective isolation and mental health may operate through the strong relationship between subjective isolation and mental health. Social disconnectedness does not vary across age groups, but the oldest-old feel more isolated than the young-old. Social disconnectedness and perceived isolation are greater among those who have worse health.

Social Networks

NSHAP's egocentric network data, collected through a tried-and-tested name generator approach, has yielded much information on the enfolding webs of ties within which older individuals live. Extant literature had been based on the assumption that increasing age

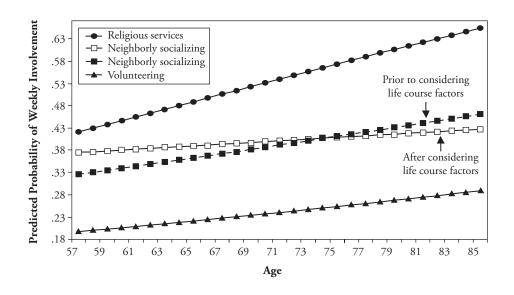
Figure 4. Predicted Probability of Very Good or Excellent Physical Health, by Levels of Objective and Subjective Isolation



leads inevitably to social disengagement—a progressive abandonment of old social roles and relationships (Cumming and Henry 1961). In recent pathbreaking analysis, however, Cornwell et al. (2008) used NSHAP data to unearth a much more complex and nuanced story about social life among older adults. Consistent with the social disengagement literature, they found that increasing age leads to smaller social networks, less closeness to network alters, and fewer non-primary-group ties (i.e., those other than to one's spouse, partner, children, or stepchildren). However, age also has a curvilinear relationship with volume of contact with one's remaining alters: such engagement drops in one's late 50s to mid-60s, flattens out among those in their late 60s to early 70s, and actually increases among those in their mid-70s to mid-80s. The authors argued that this pattern may index proactive adaptation by respondents to the loss of social roles, friends, and family members. In another sign of social resiliency, the study also found positive associations between increasing age and various forms of community involvement. Figure 5 illustrates these patterns. Specifically, older adults are *more* likely than their younger counterparts to socialize frequently with their neighbors, to attend religious services, and to do volunteer work.

Among moderators, black respondents, Hispanic respondents, those who never married, and those who are widowed are likely to have small networks; retirees, those with a college education, and those with children have larger networks. Volume of contact with social alters is greater among respondents who are women, ethnic minorities (blacks and Hispanics), less educated, still employed, widowed, or in poor health, as well as those whose partners are in their network. Closeness to alters is greater among women, individuals embedded in smaller networks, and those coresiding with many of their network alters. Retirees, those ever married, and those in better health also report more closeness to network members. Finally, older adults' social networks are more likely to be composed of kin (spouses,

Figure 5. Older Adults' Predicted Probability of Weekly Involvement in Three Community-Oriented Social Activities, by Age



partners, and children) than are younger individuals' social networks. This linkage holds even when life-course and health issues are controlled, arguably indicating that it is not an indicator of obligatory caregiving by family members. Those with children and those ever married have more kin relationships, while women, blacks, and those widowed have fewer.

But not all family ties or other social connections bring benefits. Some are sources of conflict or abuse.

Elder Mistreatment

Mistreatment strongly impacts well-being in late life, increasing psychological distress (Comijs et al. 1999) as well as mortality rates (Lachs et al. 1998). Prior to NSHAP, however, researchers knew very little about the prevalence of elder mistreatment in the general population. Most information had come from small convenience samples, the criminal justice system, and agency or caregiver reports (Acierno 2003). As described earlier, in the NSHAP interview, three forms of mistreatment over the preceding year—verbal, financial, and physical—were queried through simple yes/no questions (Laumann, Leitsch, and Waite 2008). Respondents reporting mistreatment were also asked about their relationship to the mistreater.

Among elderly individuals, by far the most prevalent form of mistreatment is verbal, which may potentially conflate simple arguments with actual abuse (reanalysis of NSHAP raw data). Fifteen percent of all respondents (12% of men and about 18% of women) report this form of negative interaction. The next most common form is financial abuse, reported by less than 6% of all respondents (about 6% of men and 5% of women). Interestingly, physical abuse—cited as having the most profound health consequences—is reported by less than 1% of both women and men. As noted, NSHAP's elder mistreatment module also queried the perception that a network member was being too controlling over one's daily decisions and life, a broad item that may not tap abuse *per se*. About 11% of all respondents (11% of women, 10% of men) report this form of negative interaction.

Among those reporting mistreatment, data on the relationship to one's mistreater indicate that family members are not the main perpetrators. Combining data from both the in-home interview and the leave-behind questionnaire, 57.3% of those reporting verbal mistreatment indicate someone other than their spouse, parent, or child as a source (Laumann, Leitsch, and Waite 2008). The corresponding figures are 56.4% for financial mistreatment and 55.6% for physical mistreatment. Parents, as might be expected for this age range, represent a negligible source of mistreatment. Not surprisingly, only 9.6% of those reporting financial abuse indicate their spouse/partner—with whom they share household assets and expenses—as a source. However, the corresponding figures for verbal and physical mistreatment are 26.2% and 19.6%, respectively. In contrast, children are more frequently named as a source of both financial (34%) and physical (24.8%) mistreatment, but less commonly of verbal abuse (14.5%).

Table 5 presents risk factors solely for mistreatment by a family member. Intriguingly, increasing age brings with it a reduced risk of verbal as well as financial mistreatment by family. Those with more physical vulnerabilities (more functional and mobility problems and sensory impairment) report significantly more verbal mistreatment—consistent with the notion that heightened health care needs cause friction with caregivers or other kin. Less intuitively, more education has the same effect, potentially indicating an artifact of differential reporting patterns. Women also report more verbal abuse, although whether this is because male partners are more abusive or because women are more likely than men to code the same interaction patterns as verbal mistreatment remains underexplored. Next, the presence of a partner reduces the risk of financial abuse, perhaps by providing more social support and monitoring. Finally, financial mistreatment by family is alarmingly more likely among black than among white respondents; both forms of negative interactions are significantly lower among Hispanics, arguably because densely

| Predictors | Verbal Mistreatment | Financial Mistreatment |
|---|------------------------|---------------------------|
| Age | 0.98* | 0.95* |
| Gender = Female | 2.14* | |
| Race/Ethnicity (ref. = white) Black | _ | 1.77* |
| Hispanic | 0.51* | 0.22* |
| Other | | |
| Has Current Partner | _ | 0.31* |
| Education (high school or more) | 1.70* | |
| Physical Vulnerability (1 or more vulnerabilities | 1.13* | _ |

Table 5. Risk Factors for Elder Mistreatment: Odds Ratios

Notes: Entire sample is used for the analysis (N = 3,005). Mistreatment includes only cases for which the mistreater was a family member (i.e., parent, child, or spouse/romantic partner; or additionally, in the case of the in-person interview, ex-spouse, sibling, stepchild, in-law, or other relative).

Source: Laumann, Leitsch, and Waite (2008).

interconnected or "closed" kin networks among the latter lead to increased monitoring of potential mistreaters (Coleman 1988).

CONCLUSION

Families matter—especially in old age, when they function as indispensable sources of social and emotional support. And yet, shifts in family patterns over the life course leave older adults in structurally vulnerable positions. With retirement, and with children leaving home, the partner often becomes the main source of support. However, women in particular become increasingly vulnerable to partner loss as they grow older. Among adults who do have partners, there is a trend toward long-term monogamous relationships with age. Reassuringly, these partnerships tend to be marked by relatively high levels of emotional and physical satisfaction and of overall happiness.

We conceptualize sexual health as a key component of healthy aging, with a mutually constitutive relationship with physical and emotional well-being. NSHAP data demonstrate that while the proportion of sexually active individuals drops sharply with age, those who continue to have sex do so fairly often. In addition, sexual encounters in late life tend to center mainly on vaginal intercourse and foreplay. Oral sex and masturbation are relatively rare and, even among the oldest old, do not function as compensations for a lack of "real" sex. With both of these less conventional practices, however, we also note strong potential cohort effects, such that the Sexual Revolution cohort in NSHAP (those coming of age in the 1960s) has sharply higher rates of both oral sex and masturbation than those in older age groups. Next, sexual dysfunctions are highly prevalent in late life and are driven more by physical health and medication use among men and by psychosocial factors among women. Similarly, social and normative constraints also impact women's sexual patterns more than men's.

In contrast with sex, nonsexual physical contact with social alters—demonstrably important to well-being—is highly prevalent at older ages. These forms of positive interaction are more common among women than men. In general, older adults are also surprisingly resilient, proactively adapting to a loss of network ties by becoming more socially involved in their communities and their kin networks. Despite these social assets, however, these older individuals face a nontrivial likelihood of being mistreated.

^{*}p < .05

The first wave of NSHAP yields a mixed picture on the health-producing social and familial assets of older adults, with patterns of increasing vulnerability with age coexisting with resiliency and continued social contact. These are cross-sectional results, making it difficult to infer causality and segregate feedback effects. The recent funding of Wave II of the survey offers the possibility of corroborating and greatly extending the present set of results. As before, we remain guided by our overarching conceptual framework of health as a socially constructed outcome, contingent not simply on internal biological factors, but also on the family and the social environment.

REFERENCES

- Acierno, R. 2003. "Elder Mistreatment: Epidemiological Assessment Methodology." Pp. 261–302 in *Elder Mistreatment: Abuse, Neglect and Exploitation in an Aging America. Panel to Review Risk and Prevalence of Elder Abuse and Neglect,* edited by R.J. Bonnie and R.B. Wallace. Committee on National Statistics and Committee on Law and Justice, Division of Behavioral and Social Sciences and Education. Washington, DC: The National Academies Press.
- Antonucci, T.C. and H. Akiyama. 1995. "Convoys of Social Relations: Family and Friendships Within a Life Span Context." Pp. 355–71 in *Handbook of Aging and the Family*, edited by R. Blieszner and V. H. Bedford. Westport, CT: Greenwood.
- Basson, R., J. Berman, A. Burnett, L. Derogatis, D. Ferguson, J. Fourcroy, I. Goldstein, et al. 2000. "Report of the International Consensus Development Conference on Female Sexual Dysfunction: Definitions and Classifications." *Journal of Urology* 163:888–93.
- Baumeister, R.F. 2000. "Gender Differences in Erotic Plasticity: The Female Sex Drive as Socially Flexible and Responsive." *Psychological Bulletin* 126:347–74.
- ——. 2004. "Gender and Erotic Plasticity: Sociocultural Influences on the Sex Drive." Sex and Relationship Therapy 19:133–39.
- Bramlett, M.D. and W.D. Mosher. 2002. "Cohabitation, Marriage, Divorce and Remarriage in the United States." *Vital and Health Statistics*, Series 23, No. 22. Hyattsville, MD: National Center for Health Statistics.
- Bullivant, S.B., S.A. Sellergren, K. Stern, N.A. Spencer, and S. Jacob. 2004. "Women's Sexual Experience During the Menstrual Cycle: Identification of the Sexual Phase by Noninvasive Measurement of Luteinizing Hormone." *Journal of Sex Research* 41:82–93.
- Burt, R. 1987. "A Note on Strangers, Friends and Happiness." Social Networks 9:311-31.
- Cacioppo, J.T. and W. Patrick. 2008. Loneliness: Human Nature and the Need for Social Connection. New York: Norton.
- Christakis, N.A. and P.D. Allison. 2008. "Inter-Spousal Mortality Effects: Caregiver Burden Across the Spectrum of Disabling Diseases." Pp. 455–78 in *Health at Older Ages: The Causes and Consequences of Declining Disability Among the Elderly*, edited by D. Cutler, D.A. Wise, and R.G. Woodbury, Chicago: University of Chicago Press.
- Coleman, J.S. 1988. "Social Capital in the Creation of Human Capital." American Journal of Sociology 94:S95–S120.
- Comijs, H.C., B.W.J.H. Penninx, K.P.M. Knipscheer, and W. van Tilburg. 1999. "Psychological Distress in Victims of Elder Mistreatment: The Effects of Social Support and Coping." *The Journals of Gerontology: Series B* 54B:P240–P245.
- Cornwell, B., E.O. Laumann, and L.P. Schumm. 2008. "The Social Connectedness of Older Adults: A National Profile." American Sociological Review 73:185–203.
- Cornwell, B., L.P. Schumm, E.O. Laumann, and J. Graber. 2009. "Social Networks in the NSHAP Study: Rationale, Measurement, and Preliminary Findings." *The Journals of Gerontology: Series B* 64B(Suppl. 1):i47–i55.
- Cornwell, E.Y., and L.J. Waite. 2009. "Measuring Objective and Subjective Isolation Using Multiple Indicators From the NSHAP Study." *The Journals of Gerontology: Series B* 64B(Suppl. 1):i38–i46.
- Cumming, E. and W.E. Henry. 1961. *Growing Old, The Process of Disengagement*. New York: Basic Books.

- Das, A. 2007. "Masturbation in the United States." Journal of Sex & Marital Therapy 33:301–17.
- Das, A., E.O. Laumann, and L.J Waite. Forthcoming. "Sexual Expression Over the Life Course: Results From Three Landmark Surveys." In *Sexualities Over the Life Course* edited by L. Carpenter and J. Delamater. New York: New York University Press.
- Das, A., W.L. Parish, and E.O. Laumann. 2009. "Masturbation in Urban China." *Archives of Sexual Behavior* 38:108–20.
- Dekker, A. and G. Schmidt. 2002. "Patterns of Masturbatory Behavior: Changes Between the Sixties and the Nineties." Pp. 35–49 in *Masturbation as a Means of Achieving Sexual Health*, edited by W.O. Bockting and E. Coleman. Binghamton, NY: Haworth.
- Deng, Z. and D. Bonacich. 1991. "Some Effects of Urbanism on Black Networks." *Social Networks* 13:35–50.
- Elwert, F. and N.A. Christakis. 2006. "Widowhood and Race." *American Sociological Review* 71:16–41.
- Felder, S. 2006. "The Gender Longevity Gap: Explaining the Difference Between Singles and Couples." *Journal of Population Economics* 19:543–57.
- Gavrilova, N. and S.T. Lindau. 2009. "Salivary Sex Hormone Measurement in a National, Population-Based Study of Older Adults." *The Journals of Gerontology: Series B* 64B(Suppl. 1):i94–i105.
- House, J.S. 2001. "Social Isolation Kills, but How and Why?" *Psychosomatic Medicine* 63: 273–74.
- Hughes, M.E., L.J. Waite, J. Cacioppo, and L.C. Hawkley. 2004. "A Short Scale for Measuring Loneliness in Large Surveys: Results From Two Population-Based Studies." *Research on Aging* 26:655–72.
- Hurlbert, J.S., V.A. Haines, and J.J. Beggs. 2000. "Core Networks and Tie Activation: What Kinds of Routine Networks Allocate Resources in Nonroutine Situations?" *American Sociological Review* 65:598–618.
- Hwalek, M. and M.C. Sengstock. 1986. "Assessing the Probability of Abuse of the Elderly: Toward the Development of a Clinical Screening Instrument." *Journal of Applied Gerontology* 5: 153-73.
- Joyner, K. and E.O. Laumann. 2001. "Teenage Sex and Sexual Revolution." Pp. 41–71 in Sex, Love and Health in America: Private Choices and Public Policies, edited by E.O. Laumann and R.T. Michael. Chicago: University of Chicago Press.
- Knoke, D. 1990. "Networks of Political Action: Toward Theory Construction." Social Forces 68:1041–63.
- Kontula, O. and E. Haavio-Mannila. 1995. Sexual Pleasures: Enhancement of Sex Life in Finland, 1971–1992. Aldershot: Dartmouth.
- 2002. "Masturbation in a Generational Perspective." Pp. 49–83 in Masturbation as a Means of Achieving Sexual Health, edited by W.O. Bockting and E. Coleman. Binghamton, NY: Haworth.
- Lachs, M.S., C.S. Williams, S. O'Brien, K.A. Pillemer, and M.E. Charlson. 1998. "The Mortality of Elder Mistreatment." *Journal of the American Medical Association* 280:428–32.
- Laumann, E.O., A. Das, and L.J. Waite. 2008. "Sexual Dysfunction Among Older Adults: Prevalence and Risk Factors From a Nationally Representative U.S. Probability Sample of Men and Women 57 to 85 Years of Age." *Journal of Sexual Medicine* 5:2300–11.
- Laumann, E.O., S. Ellingson, J. Mahay, and A. Paik. 2004. *The Sexual Organization of the City*. Chicago: University of Chicago Press.
- Laumann, E.O., J.H. Gagnon, R.T. Michael, and S. Michaels. 1994. *The Social Organization of Sexuality: Sexual Practices in the United States*. Chicago: University of Chicago.
- Laumann, E.O., S. Leitsch, and L.J. Waite. 2008. "Elder Mistreatment in the United States: Prevalence Estimates From a Nationally Representative Study." *The Journals of Gerontology: Series B63B:S248–S254*.
- Laumann, E.O. and Y. Youm. 2001. "Sexual Expression in America." Pp. 109–48 in Sex, Love, and Health in America: Private Choices and Public Policies, edited by E.O. Laumann and R.T. Michael. Chicago: University of Chicago Press.

- Lindau, S.T., M. Drum, E. Gaumer, H. Surawaska, and J. Jordan. 2008. "Prevalence of High-Risk HPV Infection Among Older Women in the United States." Obstetrics and Gynecology 112: 979–89.
- Lindau, S.T., J.N. Hoffmann, K. Lundeen, A. Jaszczak, M.K. McClintock, and J.A. Jordan. 2009. "Vaginal Self-Swab Specimen Collection in a Home-Based Survey of Older Women: Method and Applications." *The Journals of Gerontology: Series B* 64B:i106–i119.
- Lindau, S.T., E.O. Laumann, and W. Levinson. 2007. "Reply to the Editor: Prevalence of Sexual Activity, Behaviors and Problems Among Older Adults in the United States: A National, Population-Based Study." New England Journal of Medicine 357:2732–33.
- Lindau, S.T., E.O. Laumann, W. Levinson, and L.J. Waite. 2003. "Synthesis of Scientific Disciplines in Pursuit of Health: The Interactive Biopsychosocial Model." *Perspectives in Biology and Medi*cine 46:S74–S86.
- Lindau, S.T., P. Schumm, E.O. Laumann, W. Levinson, C.A. O'Muircheartaigh, and L.J. Waite. 2007. "A National Study of Sexuality and Health Among Older Adults in the U.S." New England Journal of Medicine 357:762–74.
- Marin, A. 2004. "Are Respondents More Likely to List Alters With Certain Characteristics? Implications for Name Generator Data." Social Networks 26:289–307.
- Marsden, P. 1987. "Core Discussion Networks of Americans." *American Sociological Review* 52:122–31.
- McDowell, I. and C. Newell. 1996. *Measuring Health: A Guide to Rating Scales and Questionnaires*. Oxford: Oxford University Press.
- McPherson, M., L. Smith-Lovin, and M. Brashears. 2006. "Social Isolation in America: Changes in Core Discussion Networks Over Two Decades." *American Sociological Review* 71:353–75.
- Moore, G. 1990. "Structural Determinants of Men's and Women's Personal Networks." *American Sociological Review* 55:726–35.
- O'Muircheartaigh, C.O. and S.N. Smith. 2007. "NSHAP (National Social Life, Health, and Aging Project) Wave 1 Methodology Report." National Opinion Research Center, Chicago.
- Organisation for Economic Co-operation and Development. 2002. "OECD Health Data 2010." Organisation for Economic Co-operation and Development, Paris.
- Presser, H.B. 1975. "Age Differences Between Spouses." *American Behavioral Scientist* 19:190–205. Qato, D.M., L.P. Schumm, M. Johnson, A. Mihai, and S.T. Lindau. 2009. "Medication Data Collection and Collins in a Harry Board Surgery of Older Adults." *The Learning of Computations of Computations of Computations of Computations of Computations of Computations and Conference of Computations of Co*
- tion and Coding in a Home-Based Survey of Older Adults." *The Journals of Gerontology: Series B* 64B(Suppl. 1):i86–i93.
- Rasulo, D., K. Christensen, and C. Tomassini. 2005. "The Influence of Social Relations on Mortality in Later Life: A Study on Elderly Danish Twins." *The Gerontologist* 45:601–608.
- Rosen, R.C. and E.O. Laumann. 2003. "The Prevalence of Sexual Problems in Women: How Valid Are Comparisons Across Studies?" *Archives of Sexual Behavior* 32:209–11.
- Ruan, D. 1998. "The Content of the General Social Survey Discussion Networks: An Exploration of the General Social Survey Discussion Name Generator in a Chinese Context." Social Networks 20:247–64.
- Schofield, M.J. and G.D. Mishra. 2003. "Validity of Self-report Screening Scale for Elder Abuse: Women's Health Australia Study." *Gerontologist* 43:110–20.
- Schumm, L.P., M. McClintock, S. Williams, S. Leitsch, J. Lundstrom, T. Hummel, and S.T. Lindau. 2009. "Assessment of Sensory Function in the National Social Life, Health, and Aging Project." *The Journals of Gerontology: Series B* 64B(Suppl. 1):i76–i85.
- Shiovitz-Ezra, S., S. Leitsch, J. Graber, and A. Karraker. 2009. "Quality of Life and Psychological Health Indicators in the National Social Life, Health, and Aging Project." *The Journals of Gerontology: Series B* 64B(Suppl. 1):i30–i37.
- Smith, S., A. Jaszczak, J. Graber, K. Lundeen, S. Leitsch, E. Wargo, and C. O'Muircheartaigh. 2009. "Instrument Development, Study Design Implementation, and Survey Conduct for the National Social Life, Health, and Aging Project." *The Journals of Gerontology: Series B* 64B(Suppl. 1): i20–i29.

- Straits, B.C. 1996. "Ego-net Diversity: Same- and Cross-Sex Coworker Ties." *Social Networks* 18:29–45.
- Thoits, P.A. 1995. "Stress, Coping, and Social Support Processes: Where Are We? What Next?" *Journal of Health and Social Behavior* 35:53–79.
- Umberson, D. 1992. "Gender, Marital Status and the Social Control of Health Behavior." *Social Science and Medicine* 34:907–17.
- Waite, L.J., E.O. Laumann, and A. Das. 2008. "Sexual Activity, Older Age." Pp. 362–66 in *Encyclopedia of the Life Course and Human Development*, Vol. 3, edited by D. Carr, R. Crosnoe, M.E. Hughes, and A. Pienta. Farmington Hills, MI: Thomson/Gale.
- Waite, L.J., E.O. Laumann, A. Das, and L.P. Schumm. 2009. "Sexuality: Measures of Partnerships, Practices, Attitudes, and Problems in the National Social Life, Health, and Aging Study." *The Journals of Gerontology: Series B* 64B(Suppl. 1):i56–i66.
- Williams, S.R. and T.W. McDade. 2009. "The Use of Dried Blood Spot Sampling in the National Social Life, Health, and Aging Project." *The Journals of Gerontology: Series B* 64B(Suppl. 1):i131–i136.
- Williams, S.R., G. Pham-Kanter, and S.A. Leitsch. 2009. "Measures of Chronic Conditions and Diseases Associated With Aging in the National Social Life, Health, and Aging Project." *The Journals of Gerontology: Series B* 64B(Suppl. 1):i67–i75.