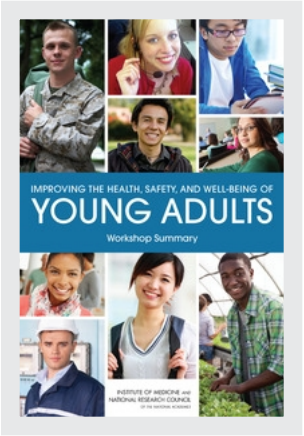

Improving the Health, Safety, and Well-Being of Young Adults: Workshop Summary

DETAILS

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IMPROVING THE HEALTH, SAFETY, AND WELL-BEING OF YOUNG ADULTS

Workshop Summary

Clare Stroud, Tara Mainero, and Steve Olson, *Rapporteurs*

Board on Children, Youth, and Families

INSTITUTE OF MEDICINE *AND*
NATIONAL RESEARCH COUNCIL
OF THE NATIONAL ACADEMIES

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[1] Institute of Medicine and National Research Council planning committees are solely responsible for organizing the workshop, identifying topics, and choosing speakers. The responsibility for the published workshop summary rests with the workshop rapporteurs and the institution.

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This workshop summary has been reviewed in draft form by individuals chosen for their diverse perspectives and technical expertise, in accordance with procedures approved by the National Reserch Council's Report Review Committee. The purpose of this independent review is to provide candid and critical comments that will assist the institution in making its published workshop summary as sound as possible and to ensure that the workshop summary meets institutional standards for objectivity, evidence, and responsiveness to the study charge. The review comments and draft manuscript remain confidential to protect the integrity of the process. We wish to thank the following individuals for their review of this workshop summary:

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Although the reviewers listed above have provided many constructive comments and suggestions, they did not see the final draft of the workshop summary before its release. The review of this workshop summary was overseen by **Elena O. Nightingale,** Institute of Medicine. Appointed by

the Institute of Medicine, she was responsible for making certain that an independent examination of this workshop summary was carried out in accordance with institutional procedures and that all review comments were carefully considered. Responsibility for the final content of this workshop summary rests entirely with the rapporteurs and the institution.

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Part I

Introduction, Development, and Context

1

Introduction[1]

Amy Doherty, who was born legally blind, works in a vision rehabilitation laboratory to test and design devices that help people with vision impairments. She said the transitions from high school to college and from college to the workplace can be difficult for all young adults, but especially for those with disabilities because the loss of previous support systems "can be very challenging [and] isolating."

Figuring out how to become part of a new community can overcome that isolation. "How can I get support, what community resources are there, [how can I] navigate that challenge?" Social media is a "huge advantage," she said, because it can connect young adults to many different communities.

Andrea Vessel, a junior at American University in Washington, DC, grew up in a middle-class family in Cincinnati, Ohio. Throughout her youth, she was often the only black student in her classes or social clubs. Such students can feel isolated, she said, and that they have to prove themselves. "I have to succeed at a higher rate, do more to fit in, and be successful."

Her continuous involvement in 4-H and Girl Scouts and the support

[1] The planning committee's role was limited to planning the workshop, and the workshop summary has been prepared by the workshop rapporteurs as a factual summary of what occurred at the workshop. Statements, recommendations, and opinions expressed are those of individual presenters and participants, and are not necessarily endorsed or verified by the Institute of Medicine or the National Research Council, and they should not be construed as reflecting any group consensus.

of her parents were critical to Vessel's success. Participating in social clubs, even when she was the only black member of those clubs, taught her that "the sky is the limit, there wasn't a glass ceiling. I never thought, 'I couldn't do this.'" High-quality positive youth development programs can provide "skills that can compensate for things related to finances," which are especially important for individuals who are "low-income, or others who don't have positive images to look up to." Consistent access to these types of quality programs "is very important in terms of development into young adulthood."

Eric Lulow spent time in the foster care system in west Detroit and then lived with relatives until he turned 18, at which point he was homeless. But with the support of his community, he was able to put himself through college and get a degree in social work. He now works in the Child, Adolescent, and Family Branch of the Substance Abuse and Mental Health Services Administration as a public health advisor, overseeing grants to communities to provide mental health services for children, youth, and families.

Self-efficacy is the key to resilience, he said. "For myself, struggling with things like not having a job, not having the same level of education as my peers, not having all this stuff, really makes you question yourself and your own abilities." Building self-efficacy among populations at risk, and especially those with social, emotional, or behavioral health needs, is essential for young adults to overcome the barriers they face, he said.

Shanae grew up in a single-parent household in Washington, DC, while her father was incarcerated for 10 years. She is only 19 years younger than her mother. She is an intern with Freddie Mac through the Year Up program, which provides urban young adults with skills, experiences, and support to reach their full potential through professional careers and higher education. "The Year Up Program saved my life." Research on young adults in workforce development programs is important to understand the different perspectives and experiences of nontraditional college students, who are often referred to as the Forgotten Half, "that is me."

Isha-Charlie McNeely, who grew up in the foster care system, is now a case manager for youth in the system. She was adopted at age 16, and the two women who were her adoptive parents provided her with the permanence and stability that she needed to make the transition to adulthood. She now does peer-to-peer mentoring and coaching with youth who are transitioning from foster care to postsecondary education. "It is really important, when youths are transitioning to adulthood, that they transition with permanent connections and stability."

Jackie Malasky recently received a master's degree in public health and now works with the American Association of Blood Banks. She did her master's thesis on how men and women use the Internet differently to access sexual health resources online, which revealed to her the potential for technology to improve the health of young adults.

Technologies today do not just provide information, she said. They are a way for young adults to make their voices heard. "Reading newspapers, reading magazines, we can't get [from that] what we want to say. Using Twitter and Facebook, we feel like we have value."

Jose entered the juvenile justice system when he was 11 years old and is still on probation at age 18. At 14, he was sent to the adult system for committing a serious offense and soon was put in segregation for 30 days for fighting with someone who was older than he was. In segregation, he was in his cell for 23 hours each day and rarely talked with his family. Even when he got out of segregation, "I just sat there, day by day, for 3 years."

The prison made no effort to educate him. "The only thing I learned was how to watch my back." But many juveniles in prison want to be educated, Jose said. He is now working on his General Education Development (GED), even though he "had to learn a lot of this on my own. . . . Why don't you educate those who want to be educated?"

The voices of these seven young adults were a highlight of a workshop titled "Improving the Health, Safety, and Well-Being of Young Adults," which was hosted by the Board on Children, Youth, and Families of the Institute of Medicine (IOM) and the National Research Council (NRC). The workshop was held in Washington, DC, on May 7-8, 2013, and sponsored by the Health Resources and Services Administration (HRSA).[2,3]

Young adults are at a significant and pivotal time of life. They may seek higher education, launch their work lives, develop personal relationships and healthy habits, and pursue other endeavors that help set them on healthy and productive pathways. However, the transition to adulthood also can be a time of increased vulnerability and risk (Brindis, 2013). Young adults may be unemployed and homeless, lack access to health care, suffer from mental health issues or other chronic health conditions, or engage in binge drinking, illicit drug use, or driving under the influence. Young adults are moving out of the services and systems that supported them as children

[2] The young adult speakers at the workshop were identified through organizations that work with young adults and through individual recommendations. Written permission to include their stories, views, and names as they appear was obtained from the young adult speakers. Their stories are not intended to be representative of all young adult experiences and views.

[3] Videos of the workshop presentations and discussions, slides, and other materials are available at http://iom.edu/Activities/Children/ImprovingYoungAdultHealth/2013-MAY-07.aspx.

and adolescents, but adult services and systems—for example, the adult health care system, the labor market, and the justice system—may not be well suited to supporting their needs (Berlin et al., 2010).

The workshop brought together—both in person and via webcast—more than 250 researchers, practitioners, policy makers, and young adults for 2 full days of presentations and discussions. The workshop objective was to highlight research on the development, health, safety, and well-being of young adults.[4] More specifically, workshop presentations and discussions addressed the following questions:

- What are the developmental characteristics and attributes of this age group and its placement in the life course?
- How well are young adults functioning across relevant sectors, including, for example, health and mental health, education, labor, justice, military, and foster care?
- How do the various sectors that intersect with young adults influence their health and well-being?

According to Richard Bonnie, chair of the planning committee for the workshop, the workshop was designed to provide a "sense of the landscape"—what research exists, what gaps and needs in that research exist, and which issues deserve more intensive study. It also was meant to start a conversation aimed at a larger IOM/NRC effort to guide research, practices, and policies affecting young adults. The ultimate objective, said Bonnie, is "to improve the health, safety, and well-being of young adults through policies, research, systems development, and changes to existing service delivery models."

MOTIVATIONS FOR THE WORKSHOP

The HRSA Maternal and Child Health Bureau had several reasons for supporting a workshop on the topic of young adult health, safety, and well-being, explained Trina Anglin, director of adolescent health at the Bureau. She noted that young adults warrant particular attention because they have a worse set of health outcomes than do adolescents. For example, their rates of death from motor vehicle crashes, homicide, and suicide are significantly higher than those of adolescents, and they are more likely to use tobacco,

[4] Workshop participants did not try to specify an exact age range for the term "young adult." Various datasets cover different age ranges, and the issues facing someone just out of high school can differ substantially from those facing people in their mid- to late 20s. However, the end of high school, at about age 18 for those who graduate, is often considered the beginning of young adulthood, with the transition away from young adulthood occurring sometime around age 26.

consume illicit drugs, binge drink, and contract HIV infection. Anglin also noted that young adults are at highest risk to be arrested, with particular groups, such as males of color, at especially high risk. They also are at high risk of homelessness, especially families headed by a single young adult female. Young adults are the workers least likely to be employed, especially those who have not graduated from high school. They have the lowest levels of access to health care, especially among undocumented immigrants and other disadvantaged groups. These issues are discussed in greater detail throughout this summary.

Despite these risks and vulnerabilities, Anglin noted that young adults are in many ways an overlooked population. Young adults do not have any special safety nets (unlike adolescents), and the transition to adult systems and roles may be difficult. As Anglin said, for example, "the pediatric health care system is not quite ready to give them up, and the adult health care system, quite frankly, is not quite ready to accept many of them, especially those who have very complex issues."

Recent policy changes have made a difference in the lives of young adults. The Patient Protection and Affordable Care Act (ACA) has mandated that parents' commercial health insurance plans make coverage available until children reach the age of 26, which has significantly increased the percentage of young adults who are insured. However, Anglin said, no federal or state entity has developed a structure that can address the needs of young adults. The workshop represented an initial step, she said, to have federal and state agencies work together to support this population group. "Our aspiration is [to] turn that tide, and for people to start thinking about the needs of young adults, but to be doing it in a proactive, constructive, and supportive way."

OVERVIEW OF A CHANGING LANDSCAPE AND PROFILE OF YOUNG ADULTS

"Why this population and why now?" asked Claire Brindis, in the opening presentation of the workshop. Brindis is professor of pediatrics and health policy in the Department of Pediatrics, Division of Adolescent Medicine, and the Department of Obstetrics, Gynecology, and Reproductive Health Sciences, at the University of California, San Francisco. She provided a broad introduction to many of the most important issues discussed during the workshop, which subsequent speakers explored in greater depth. In her remarks, she discussed the importance of this time of life and the changing context in which young adults are embarking on their adult lives, both of which indicate the need to pay attention to this age group.

Changing Demographics and Milestones

Between 1990 and 2050, the number of young adults ages 18-24 is projected to increase from 27 million to 34 million (see Figure 1-1), at which point this group will constitute about 13 percent of the U.S. population. The racial and ethnic makeup of this group is becoming much more diverse, with Hispanics and Asians showing particularly large increases and non-Hispanic whites decreasing as a percentage of the population (see Figure 1-2). Young adults of color are now spread much more widely throughout the United States rather than living in concentrated areas, which was common in the past.

Traditionally, said Brindis, the transition to adulthood has been marked by five major milestones (Henig, 2010):

1. Completion of education
2. Leaving home
3. Financial independence
4. Marriage
5. Children

In the 1960s, 77 percent of women and 67 percent of men would have accomplished these five milestones during their young adult years. By the year 2000, fewer than half of young women and about one-third of young men had achieved all five. Given that lifespans are now longer than in the

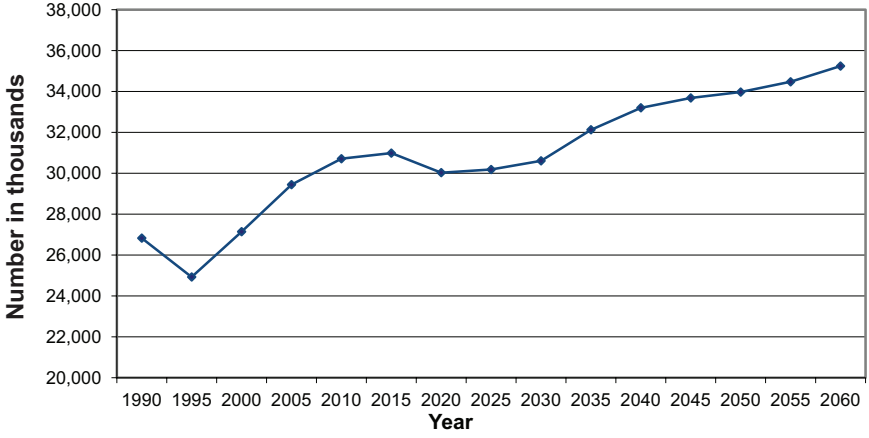

FIGURE 1-1 The number of young adults ages 18-24 in the United States is expected to reach 34 million by 2050.
SOURCE: U.S. Census Bureau, 2013.

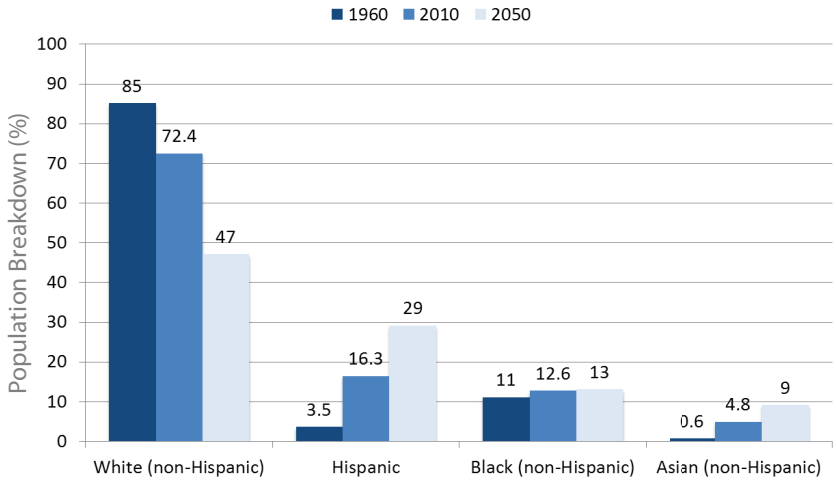

FIGURE 1-2 Racial and ethnic makeup of the United States in 1960-2050.
SOURCE: U.S. Census Bureau, 2013.

past, perhaps young adults will still achieve these milestones later in life, but the concern, said Brindis, is that "they may get off kilter and never accomplish any of these."

Young adults take many different pathways through their late teen years and 20s. People may quit a job, go back to school, enter the military, go to college, or become a parent. In every generation, young adults need the tools to be meaningfully engaged, caring community members, and productively employed to their full potential, said Brindis. This has not changed. However, she noted, the aging of the baby boomers in the United States means the nation will depend even more on the health, well-being, and productivity of young adults. At the same time, young adults face more challenges today than in the past, especially among members of the most vulnerable and marginalized populations. These challenges were examined through the course of the 2-day workshop.

Health Profile of Young Adults

Habits acquired in adolescence and young adulthood can impact the entire life course, noted Brindis, which is an important motivation for focusing on this age group. For example, behaviors in young adulthood can increase the risk of developing chronic disease later in life, such as addiction from binge drinking and heart disease from smoking, poor diet,

and/or inadequate physical activity. Behaviors such as binge drinking and transportation accidents also represent an acute risk during this time period. Finally, the young adult period also marks the peak period for onset of chronic illnesses such as mental health disorders. Brindis asked, "how does health fit into the overall picture of ensuring a very successful transition from adolescence through young adulthood, and from young adulthood to later adulthood?"

Compared with young adults in 16 other high-income countries, U.S. young adults have higher transportation-related mortality among males, higher male mortality from violence, and greater diabetes prevalence (NRC/IOM, 2013). About 20 percent of young people between the ages of 18 and 25 are obese, with the percentage increasing later in life (CDC, 2011b). They have high rates of substance use and mental health disorders, with males overrepresented among the former group and females overrepresented among the latter (SAMHSA, 2010). In 2008, nearly 2 million unmarried women ages 20-29 became pregnant, and 69 percent of these, or 1.3 million, were unplanned, with a higher rate of unplanned pregnancies among the younger women in this cohort (National Campaign to End Teenage and Unplanned Pregnancy, 2012). Among young unmarried women, roughly half of unintended pregnancies ended in abortion.

The current health care system for young adults falls short in several respects, said Brindis, though, as noted above, ACA offers hope for improvement through greater insurance coverage and improved access to services. The health care financing system is difficult to navigate and leaves many out. The system's incentives reward acute care over preventive services and chronic disease management. Providers trained in and comfortable serving adolescents and young adults are in short supply, especially in mental health. Little consensus exists on the health care needs of young adults.

Changing Context: Education and Employment

Before 1960, more than 80 percent of U.S. jobs were in industry and manufacturing. Today, service jobs in education, health, financial activities, and leisure and hospitality are much more common than manufacturing jobs. The traditional pathway to adulthood for young adults with only a high school degree—employment in a well-paying manufacturing job—has largely disappeared.

More jobs today are performed by people with higher education levels than in the past. Reflecting these changing demands, the percentage of adults ages 25-29 who have completed college has risen to 30 percent for men and 37 percent for women (Brindis, 2013). (The college completion rate of women of this age surpassed that of men in 1991—when both were at about 23 percent—and has been rising since then.) The workforce is now

almost half women, compared with slightly more than one-quarter of the workforce in 1950.

High school and college enrollments have increased over time among most students of color. As a result, the percentage of U.S. adults ages 25 and over who have completed 4 or more years of college has risen steadily among these groups (Fry, 2009). However, great disparities among racial and ethnic groups and between genders still exist.

At the same time, economic mobility has become more limited in the United States. Two-thirds of those raised in the bottom of the wealth ladder remain on the bottom two rungs, and a comparable percentage of those raised in the top of the wealth ladder remain on the top two rungs (Pew Charitable Trusts, 2012).

Changing Context: Family Structure

The percentage of all births to women ages 20-24 that were to unmarried women rose from 4.8 percent in 1960 to 63.1 percent in 2010 (Child Trends Data Bank, 2012), with striking increases among all racial and ethnic groups. However, the increase has been especially dramatic among less educated women.

The percentage of 25- to 29-year-old women who have never married has risen from about 30 percent in 1990 to more than 50 percent today, with increases among women at all educational levels. However, the percentage is higher for black and Hispanic women than for white women (Pew Research Center, 2010).

More than 22 million young adults now live at home, compared with 18 million a decade ago, which has earned the current cohort of young adults the somewhat disparaging name of the "boomerang" or "failure to launch" generation. About 40 percent of young adults ages 25-29 say they live at home with their parents because of the economy (Parker, 2012b).

Changing Context: The Role of Social Technology

All age groups in the United States have increased their use of the Internet over the past 10 years, but teens and young adults are at especially high levels—about 95 percent, said Brindis. A large proportion rely on Facebook, Twitter, Instagram, Pinterest, Tumblr, and other social networking sites, with 83 percent reporting some use of social networking (Duggan and Brenner, 2013). Young adults have "a tremendous interest in using social media for communication, for self-definition, [and for] a sense of community," she said.

Implications

Demographic changes will continue to play a critical role in the status of young adults. For example, as Latinos close the education gap with other groups, they will have increased opportunities, though this will be true more for females than males. Age, gender, race and ethnicity, opportunities for education, employment, and health care all interact, said Brindis, and impact the pathways taken by young adults.

Some young adults face what can seem to be a "limitless number of pathways," according to Brindis. "The road not taken can sometimes feel overwhelming. As a result, a lot of young people are frozen in their ability to make decisions about moving forward." At the same time, members of underrepresented racial and ethnic groups and low-income populations may have life options that are narrower in scope than for members of other groups. Educational and employment options may need to be established that enable youth to get on and get off various trajectories as they seek more advanced education and training.

Extended educational and training requirements may affect the progression toward marriage and family formation. In addition, social policies related to training programs (e.g., following service in the military), continued advances in long-distance learning, and increased paternal leave may continue to influence gender roles, which in turn may have an impact on family formation.

A lack of economic opportunities, in spite of educational achievements, will likely continue to impact traditional milestones such as living independently from parents, which may delay marriage or childbearing even more. Given the economic disparities facing major segments of the young adult population, educational and employment opportunities for the underserved, particularly males representing diverse ethnic groups, need to be prioritized, Brindis said.

ORGANIZATION OF THE WORKSHOP SUMMARY

This document is intended to summarize the presentations and discussions that took place at the workshop. In general, speakers' responses to questions posed during the discussion sessions are integrated into the summaries of their talks.

The workshop summary is divided into 4 broad parts and 14 chapters. The remainder of Part I examines the development and context for young adults in greater detail. Chapter 2 describes the presentations of three speakers on the neurobiological, psychological, and social development of young adults. Chapter 3 looks at the economic, cultural, and social land-

scape within which young adults live, which differs in important ways from the landscapes experienced by earlier generations.

Part II contains three chapters based on the presentations given the first day of the workshop, which together create a mosaic of research results on the health and safety of young adults, drawn from a wide range of disciplines. Chapter 4 considers safety- and health-related behaviors among young adults and their contributions to poor health outcomes. Chapters 5 and 6 describe physical health issues and mental health issues, respectively. The chapters in Part II also include comments from the young adults who, in the day's final session, offered reflections on earlier presentations.

Part III contains another six chapters based on the second day's presentations, which together present a more integrated picture of the societal influences, institutions, and service systems that affect young adults. Chapter 7 considers the influence of families, social networks, and media, including the marketing to which young adults are exposed when they use social networks and the media. Chapter 8 looks at the health care system, examines whether the ACA can overcome the difficulties young adults often have in accessing that system, provides an overview of programs targeted at young adults for which there is evidence of effectiveness, and examines particular concerns for vulnerable groups of young adults. Chapter 9 discusses the pathways through education to employment, not only for those who go to college, but for the "forgotten half"—young adults who have just a high school education or have attended some college, but have not earned a 4-year degree. The military is the subject of Chapter 10; young adults who go into the military face many of the same challenges as other young adults, but their lives also differ from those of their peers in many ways. Chapter 11 examines the foster care system, welfare services, and services for homeless young adults, which serve partly overlapping and partly separate populations. Finally, Chapter 12 looks at both the juvenile and adult justice systems, including the health of prisoners and detainees. As in Part II, the concluding reflections of a panel of young adults appear throughout Part III.

Part IV provides an overview of the major themes and individual suggestions from the workshop. Specifically, Chapter 13 provides the major themes and Chapter 14 is a compilation of individual participants' suggestions for future research and other opportunities.

2

Neurobiological, Psychological, and Social Development

Important Points Made by the Speakers

- Brain regions show changes after adolescence that may be related to the needs of young adults and the skills they are developing. Neurobiological changes during the young adult years are not necessarily just a continuation or completion of adolescent brain development; there appear to be some distinct organization developments. (Luna)
- Changes observed in the demography of young adulthood do not necessarily imply that the psychology of young adults has changed. (Steinberg)
- Young adulthood is more about the development of interdependence than about the development of independence. (Settersten)

Adolescence and young adulthood form a continuum for many development processes, but there are also unique aspects of young adulthood. Three speakers at the workshop described these discontinuities and continuities in the areas of neurobiological, psychological, and social development.

NEUROBIOLOGICAL DEVELOPMENT

Scientists who study brain development have spent much more time looking at adolescents than at young adults, said Beatriz Luna, professor of psychiatry and psychology at the University of Pittsburgh. By the time people become young adults, significant aspects of their neurobiology have reached adult levels. However, their brains also continue to change, in part because of continuing brain development, and in part because "behavior is always remodeling the brain."

Brain plasticity is evident throughout the lifespan, Luna said, but different kinds of plasticity come to the fore at different stages. For example, from childhood through adulthood, the gray matter in the brain, which contains neurons, thins as it loses synaptic connections (Gogtay et al., 2004). This is a good thing, said Luna, because it is the method the brain uses to "sculpt itself to its particular environment." Few studies of this process have looked at people older than 21. However, studies of particular brain regions show continued changes after adolescence. For example, the basal ganglia and prefrontal cortex undergo a protracted maturation process (Sowell et al., 1999). The neurotransmitter dopamine in these parts of the brain peaks during adolescence, but remains high in young adults before declining later in life (Luciana et al., 2010).

In another study, the synaptic density in the prefrontal cortex declined through adolescence, but increased between the ages of 20 and 30, according to an analysis by Luna based on data from Huttenlocher and Dabholkar (1997), illustrated in Figure 2-1. This could reflect a shift in the way the young adult brain is being affected by the environment, she said.

Pathways that connect different parts of the brain also change over time. For example, the superior longitudinal fasciculus, which is involved in cognition and executive function, continues to develop throughout the young adult years, which may reflect the greater ability of young adults to make decisions compared with adolescents. Other connectors involved in cognition, the emotional aspects of behavior, impulse control, and the ability to monitor performance and make corrections after errors also continue to mature during young adulthood.

Adolescents have greater brain reactivity to rewards than do young adults, perhaps because of novelty seeking (Chein et al., 2011). During adolescence, the ability to integrate the perspectives of others is reduced (Burnett et al., 2009). Adults are better able to dampen reward reactivity, including peer-related rewards, and they demonstrate greater engagement of executive reward processing. In addition, from adolescence to adulthood, the ability to assess another person's emotions increases (Hare et al., 2008). Brain development that supports habit forming and learning peaks in adolescence, and by young adulthood habits are more established.

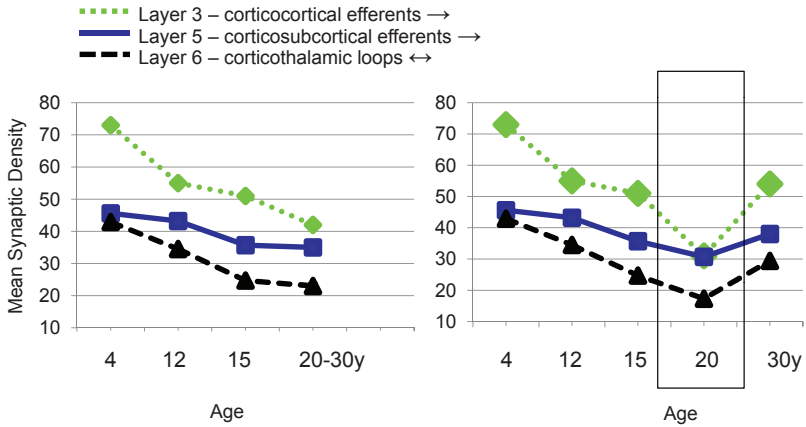

FIGURE 2-1 The density of synapses in some layers of the prefrontal cortex declines during adolescence, but increases again in young adults.
NOTE: Mean synaptic density in synapses/100 μm^3 by cortical layer.
SOURCE: Luna, 2013, created from data from Huttenlocher and Dabholkar, 1997.

Stages of brain development should not be seen simply as impaired versions of the adult brain, Luna concluded. Rather, these stages are suited to what is needed during that period. In that respect, the continued maturation of social and emotional processing in young adults may support a shift in the pursuit of long-term life goals. When "I talk to my kids, 20 and 22, they are really starting to think about this in a way that they never had before. What am I going to be when I grow up?" Luna said.

PSYCHOLOGICAL DEVELOPMENT

Little is known about normative psychological development during young adulthood, said Laurence Steinberg, Laura H. Carnell Professor of Psychology at Temple University. Sociological observations show that young adults take more pathways through this period of life than have earlier cohorts of young adults, but sociological observations should not be conflated with psychological hypotheses. "We don't know . . . whether these changes in the normative timetable of moving into the roles of adulthood are affecting the psychological development of people in this age period, or whether there is something special about psychological development in the current generation of people in this age period that is affecting the timetable." For example, a common hypothesis is that greater economic dependence of young adults on their parents has delayed their progression to employment, marriage, and family formation and has "stunted" their

psychological development. However, whether this is true is unknown, said Steinberg. In fact, a countervailing piece of evidence is that the attitudes toward self of young adults have changed little over time despite these sociological changes. "We need to resist jumping to the conclusion that just because the demography of young adulthood has changed, the psychology of young adulthood has changed," Steinberg said. "I am not persuaded that today's 25-year-olds are any different psychologically than their parents were when they were 25, even though their life circumstances may be very different."

One complication is that the diversity in experiences following high school may make drawing meaningful generalizations nearly impossible. Though adolescents undergo many of the same experiences, young adults have great differences in education, employment, relationships, and so on. "It is going to be more difficult to come up with a general theory of psychological development during young adulthood that is going to apply across the population than it is to come up with a theory about psychological development during adolescence," said Steinberg.

Some general observations are possible, Steinberg observed. As Luna mentioned, executive function, impulse control, planning, and related aspects of psychological functioning continue to mature in young adulthood. Young adults take longer to think about hard problems before taking action, as opposed to easier problems, than do adolescents (Steinberg et al., 2009). They also are less sensitive to rewards, again as noted by Luna, and are more sensitive to costs (Cauffman et al., 2010). Young adults show a decrease over time in risk taking compared with adolescents, as demonstrated by their rates of being involved in violent crime, automobile crashes, unintentional drownings, nonfatal self-inflicted injuries, onset of illicit drug abuse or dependence, and unintended pregnancies, all of which decline over the course of the young adult years. These declines appear to be related to "improvements in impulse control and a diminishment in reward sensitivity," Steinberg said, so that young adults "do not engage in sensation seeking quite as much."

Late adolescence and young adulthood is the most common age for the onset of major psychiatric disorders (Paus et al., 2008). "Almost no serious psychiatric disorders . . . have their age onset before age 10. [And] if you can live until 25 without having a serious psychiatric disorder, you are very unlikely ever to have one," said Steinberg. Given this heightened risk, greater attention needs to be devoted to the needs of this population for mental health services, Steinberg said. Also, brain plasticity cuts both ways. Positive experiences can foster positive brain development, but negative experiences such as exposure to trauma and stress can affect the development of prefrontal systems in ways that may not be manifested until later in life.

The psychosocial research agenda has shifted, Steinberg concluded. In

the past, a major focus of research on young adults was their development of identity and intimacy through milestones such as employment, marriage, and family formation. Sociological changes have pushed these tasks to later in life for many young adults (even as the average age of puberty has decreased, as Steinberg noted in response to a question during the discussion period). The more relevant issues today are changes in role demands such as extended schooling, delayed entrance into career employment, and delayed marriage. These changes call for greater attention to the development of self-regulatory competence, the ability to function successfully, and the renegotiation of relationships with parents.

SOCIAL DEVELOPMENT

The social landscape of early adult life has been radically transformed in recent years, said Richard Settersten, Jr., professor of social and behavioral health sciences at Oregon State University. Demographers and sociologists have been studying the major transitions of young adulthood for decades, which has yielded important insights into the challenges and opportunities of becoming an adult today, how experiences vary across populations, and how the process has changed over time (for foundational research, see Berlin et al., 2010; Danziger and Rouse, 2010; Osgood et al., 2005; Settersten, 2012; Settersten and Ray, 2010a,b; Settersten et al., 2005; Waters et al., 2011).

Public attention has focused on the large and growing numbers of young adults living at home. However, young adults have widely varying living arrangements, only some of which involve coresidence with parents. The more important historical shift in the living arrangements of young adults, Settersten asserted, is that this period of life no longer involves a spouse. Also, living at home is not a new thing. Rather, the recent recession has exacerbated a trend toward coresidence with parents that extends back to the early 1980s. This broader trend appears to reflect changes in both children and their parents. New kinds of parents have brought about new kinds of children, and parent-child relationships have become closer and more connected. Parents and children are renegotiating their relationships anew as children become young adults. Indeed, such renegotiations are occurring at the other end of life too, between middle-aged children and their own aging parents. What it means to be a "child" and a "parent" are being revised in every period of life.

For many young people, living at home can actually be a smart decision, Settersten said. Young adults living at home can devote their time and resources to education, take low-pay or no-pay internships and apprenticeships to build skills, or create a nest egg that gives them a stronger launch when they do leave home. Moreover, living at home keeps many

young adults out of poverty. Because "adulthood" is equated with "independence" in the United States, and being "independent" means not living at home, there are growing concerns about young adults who live at home longer or return home later on. However, in other countries where rates of coresidence are high, we do not see the same concerns.

The young adult years also involve the pursuit of higher education, which is generally needed to achieve a decent standard of living. Yet, greater rates of college going have generated concerns about retention, graduation, and the accumulation of debt, especially among young people who already are the most vulnerable. Declining wages for many jobs exacerbate concerns about debts incurred from education. These are important topics that need further study, said Settersten.

Securing a full-time job and living independently, takes longer today, along with raising a family. Young adults also are having a much greater range of employment experiences getting to a full-time job. The recession has not created a new set of problems; it has heightened a set of existing problems that young people have been experiencing for some time. Hard economic times have brought attention to these problems and also offered a culturally acceptable explanation for young people and their parents to rationalize their circumstances.

Marriage and parenting now come significantly later in life. Today, marriage and parenting culminate the process of becoming adults rather than starting adulthood. The delay in marriage and parenting has dramatically changed the nature of young adulthood by freeing up years in which people now actually live more, not less, independently. How the young adult years are experienced is very different depending on whether and when one begins to parent. Becoming a parent changes everything about how young people relate to social institutions.

Young adults have very different options and experiences depending on their family backgrounds. In addition, the greater racial and ethnic diversity of young adults today raises concerns about the limited and fragile connections that many young people have to mainstream social institutions.

In the United States, so much of the well-being of young people is linked to the resources that parents or extended family members provide. Recent data show that parents are now spending about 10 percent of their annual household incomes to support their young adult children through their early 20s (Settersten et al., 2010b). The support of parents to young adult children is also not a new phenomenon. What is new is that low-income parents are also trying to do it. At the same time, the idea that young adulthood is about freedom and exploration is mainly an experience of the privileged. "This is not a 'problem' that most young people in our society face," Settersten said. Yet it is clear that some exploration in education, work, and relationships can result in positive outcomes rather

than being a detriment. "I am not sure that the point is that we want young people to go faster."

The norms to which society holds young adults are often drawn from the middle of the 20th century. But in the larger historical picture, the post-World War II model for becoming an adult was an aberration. In some ways, young people today look more like their peers from a century ago than like their peers from the 1950s.

Because families are so important to how young adults fare, the resources of families need to be studied. Higher education is also an important area to study, especially the connection between higher education and workplaces, neighborhoods, and social networks. The effects of college go well beyond jobs and wages and include health, civic engagement, and parenting. Also, the crisis stories of the period are about men much more than women, Settersten observed. High school and college dropout, unemployment, being completely "disconnected" (not in school, work, or the military), and other negative outcomes all affect men more than women. Men who are not college bound no longer have visible pathways to productive roles. Issues of gender and the problems afflicting males need renewed attention.

Every period of life is being reworked today, from childhood through old age. Everyone is "struggling with the fact that we are trying to create a life for ourselves against a new set of conditions, against a new set of expectations, against a new set of potentials and dangers" in every life period, said Settersten. "Young adults aren't any different." The old model of education at the beginning of life, work throughout adulthood, and then retirement "is dead," Settersten added, but this model still is entrenched in people's thinking and in public policies. A person's 20s are "terribly consequential" for what happens to that person later in life. By not reshaping policies to support young adults, risks for bad outcomes are heightened.

Success in young adulthood is not really about establishing independence, Settersten concluded. It is about the development of interdependence. "It is about the ties we form with other people, and the ways in which those ties fuel us and also hold us back. We don't act in autonomous ways. We act in ways that are heavily conditioned by relationships with other people."

During the presentations by the young adults at the end of the day, Amy Doherty commented on this interdependence as a way of helping young adults to navigate challenges. She is board president of the National Youth Leadership Network—a group of young adults from across the country working to break isolation and build community among young adults with disabilities. For example, many young adults know little about financial management, even though all have to deal with financial issues. Self-defense can be another problem area for young adults, she said, especially for those with disabilities.

Andrea Vessel also pointed to the importance of clubs like Girl Scouts and 4-H as major influences on a young person's decisions and outlook on life. Young adults make consequential choices involving religion, culture, relationships, and risky behaviors, and a young adult's affiliations can powerfully shape these choices. "I have talked to a lot of guys . . . who said that they think it is okay to have kids and not be married," Vessel said. "Their outlook is to get a job, get a career, have money, and then it is okay to have children and not be connected to anyone. . . . My outlook is, 'That is not okay.'" Having continuous access to programs and to other people who are making good choices creates positive images and helps young adults when they have to make tough choices themselves, even if they have few other resources on which they can draw.

3

The Economic, Cultural, and Social Landscape

Important Points Made by the Speakers

- The effects of the Great Recession that started in 2008 have caused a major loss of opportunities for young adults. (Shierholz)
- Adolescents and young adults ultimately will live in a plurality with a racial and ethnic makeup closer to that of their own cohort. (Rivas-Drake)
- Virtually constant connectivity, combined with the ability to identify one's location in real time and rapidly evolving social media, make it possible for young adults to curate and manage their life on the go. (Lenhart)

Young adults today seem to confront a different economic, cultural, and social landscape than did earlier cohorts. They are coming of age at a time of reduced job opportunities, increasing diversity, and rapid technological change. Three speakers discussed these changes and their effects on the lives of young adults.

THE ECONOMIC LANDSCAPE

Young workers continue to face a difficult labor market as they make the transition from school to the workforce, said Heidi Shierholz, a labor

market economist with the Economic Policy Institute in Washington, DC. At the time of the workshop, the overall unemployment rate was about 7.5 percent, down from a peak of 10 percent at the end of 2009 (BLS, 2013). However, part of this improvement has occurred because an estimated 4 million people have dropped out of or have never entered the labor force because of weak job opportunities, said Shierholz. If these people were included in the jobless statistics, the unemployment rate would be 9.7 percent (Shierholz, 2013). (As pointed out during the discussion period, the high incarceration rate in the United States contributes to weak labor market outcomes of some groups, given the difficulty people with criminal records have finding jobs.) Furthermore, about 30 percent of those 4 million missing workers are under the age of 25, Shierholz added.

The unemployment rate for those under the age of 25 has always been about twice as high as the overall rate (see Figure 3-1). Furthermore, the "safety net of federal and state assistance often does not cover young workers due to eligibility requirements such as significant prior work experience" (Shierholz et al., 2012, p. 2). (For example, unemployment insurance requires that a person have a significant work history.) As a result, many young workers who cannot find jobs have turned to their families for assistance, which may themselves have been hit hard by the recession.

Shierholz discussed the labor market prospects of three particular groups, chosen partly because data are available on those groups: Ameri-

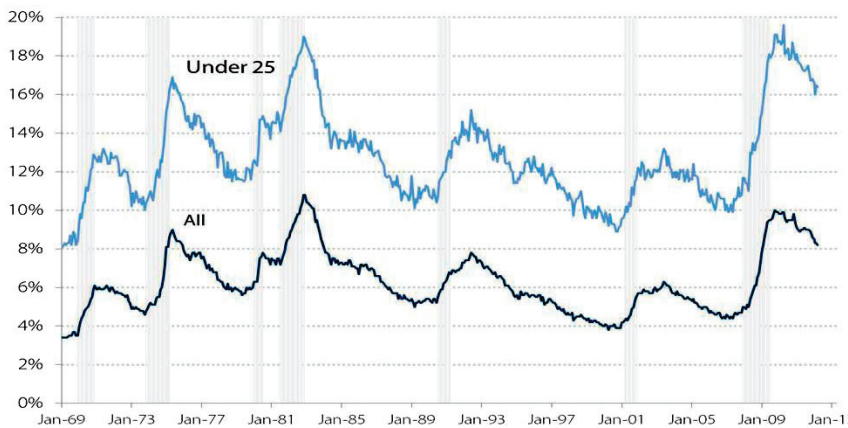

FIGURE 3-1 Unemployment rate for young workers always about twice as high as overall.
NOTE: Shaded areas denote recessions. Data are not seasonally adjusted.
SOURCE: Shierholz, 2013 (author's analysis of Current Population Survey public data series).

cans ages 19-24 without a high school degree and not enrolled in school; high school graduates ages 17-20 who are not enrolled in college; and college graduates ages 21-24 who are not enrolled in graduate school.

The unemployment rates for all three of these groups vary markedly with race and ethnicity. For example, the unemployment rate is more than 50 percent for black workers ages 19-24 without a high school diploma, nearly twice that of the white rate (Shierholz et al., 2013). Moreover, said Shierholz, the unemployment rates for blacks and Hispanics have improved less in the past few years than they have for whites.

Young workers with more education have lower unemployment rates than those with less education. But the rates for all groups are significantly elevated compared to the rates before the Great Recession. "Even though young workers with higher levels of education are better off, they are still much worse off than their older brothers and sisters who graduated before the Great Recession hit," said Shierholz.

Many young workers are not unemployed but are "underemployed," which includes people who are unemployed, jobless but discouraged and no longer seeking work, or working part-time but looking for full-time jobs. Again, this rate rose precipitously during the Great Recession and has come down very slowly. Furthermore, this rate does not include people who are working at a job that does not use their skills or experience—such as the college graduate working as a coffee shop barista. Many of these people have been hired for jobs that could be filled by someone without a college degree, which further reduces the job prospects of those with less education.

Some young workers may have responded to the Great Recession by staying in or returning to school, which could help their job prospects in the long run. But Shierholz pointed out that the percentage of young high school graduates enrolled in a college or university has not changed in recent years from the long-term increasing trend. Although some students may have been able to shelter in school from the bad labor market, others may not have been able to enter college because of a lack of jobs or adequate financial aid to support their education (Shierholz et al., 2012). The net result, said Shierholz, is "a huge loss of opportunities for this young generation that will follow them for the rest of their lives."

For those young high school and college graduates fortunate enough to get jobs, wages have been declining in recent years (see Figure 3-2). Not since the tight labor markets of the late 1990s have wages for this group improved substantially (Shierholz, 2013). "Young workers' outcomes really depend on the state of the labor market when they enter," Shierholz observed. "If they are lucky enough to enter when the labor market is strong, they do much better than if they have the misfortune, through no fault of their own, to enter at a time when the labor market is weak."

The share of young adults with employer-provided health insurance

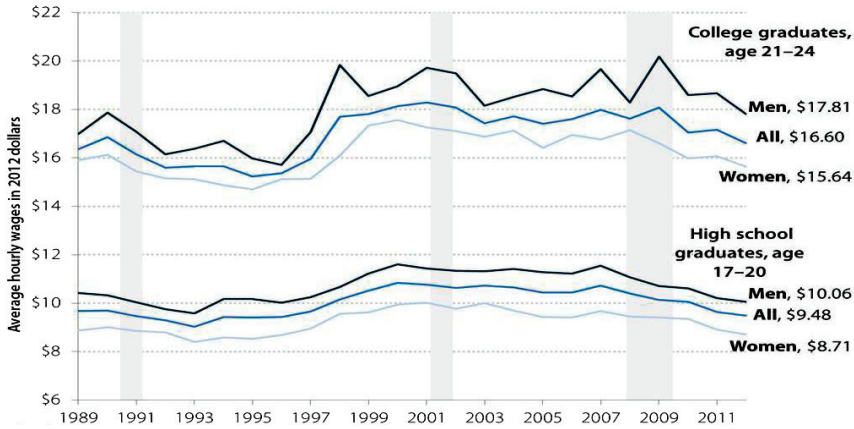

FIGURE 3-2 The real average hourly wages of young high school and college graduates have been steady or falling for more than a decade.
NOTE: Data are for college graduates ages 21-24 and high school graduates ages 17-20 who are not enrolled in further schooling. Shaded areas denote recessions.
SOURCE: Shierholz, 2013 (author's analysis of Current Population Survey Outgoing Rotations Group microdata).

has also declined, said Shierholz. In 1989, 60 percent of college graduates ages 21-24 had employer-provided health insurance, but in 2011 this had dropped to 31 percent (Shierholz, 2013). Over the same period, the share of high school graduates ages 17-20 with such coverage dropped from 24 to 7 percent, and those ages 19-24 with less than high school dropped from 16 percent to 5 percent. Health insurance is discussed in greater detail in Chapter 8.

Several young adults who spoke at the workshop emphasized the importance of being on trajectories leading toward employment. Shanae said her internship with Freddie Mac, which was organized through the Year Up program, "saved my life." Year Up is a program for urban disadvantaged students who cannot afford to go to 4-year universities. It requires attendance at courses and strict adherence to a code of conduct, providing a model program for socioeconomically disadvantaged students. "When they said today, 'the forgotten half,' that is me," said Shanae.

Jose, in recounting his experiences in both the juvenile and adult justice systems, said that when he was in prison, he mostly sat around and watched violent shows and movies on television. "What are we getting out of watching TV? What are we getting out of just fighting every day?" Prisons have to offer some opportunity for education for those who want it. Teachers can

become frustrated working with juveniles, he said. They can give up when too many of their students act up. But other inmates want to be educated. Prisons need to figure out something else for those who do not want to be taught and help those who do.

At 18, Jose now lives by himself and is struggling to pay the rent. What he wants now is to get an education, but he needs help to do so. Scholarships are difficult to get for students who do not have a record of educational achievement. Loans are available, but often only for students who are already doing well, and financial burdens can be a major reason for dropping out.

Young adults, and especially those with criminal records, can have a very hard time finding a job, he said. Working at fast food restaurants, for example, could help young adults who are unemployed or homeless. "We should have more jobs for those teenagers. They are going to be the future."

CULTURE, ETHNICITY, AND RACE

Adolescents and young adults in the United States are becoming more ethnically and racially diverse, noted Deborah Rivas-Drake, assistant professor of education and human development at Brown University. Nonwhite ethnic and racial groups comprise 40 percent of young adults ages 18-24 (U.S. Census Bureau, 2013), and this percentage is poised to increase, given that more than 50 percent of births in 2011 were to nonwhite women.

Hispanics and Latinos[1] in particular have contributed substantially to this increasing diversification. Furthermore, Hispanics and Latinos, along with other groups, have become a larger percentage of the overall population in most parts of the country, not just in areas where they have historically been concentrated, such as large cities and the Southwest (Massey, 2008).

This diversification will continue. By the year 2060, according to the U.S. Census Bureau, non-Hispanic whites will be 43 percent of the population, compared with 63 percent today (U.S. Census Bureau, 2013). Hispanics will increase from 17 percent of the population to 31 percent, and Asians will increase from 5.1 percent to 8.2 percent. "Adolescents and

[1] The terms "Hispanics" and "Latinos" used in this section refer to the following 2010 Census Bureau definition: "People who identify with the terms 'Hispanic' or 'Latino' are those who classify themselves in one of the specific Hispanic or Latino categories listed on the decennial census questionnaire and various Census Bureau survey questionnaires—'Mexican, Mexican Am., Chicano' or 'Puerto Rican' or 'Cuban'—as well as those who indicate that they are'"another Hispanic, Latino, or Spanish origin.' Origin can be viewed as the heritage, nationality group, lineage, or country of birth of the person or the person's ancestors before their arrival in the United States. People who identify their origin as Hispanic, Latino, or Spanish may be of any race" (U.S. Census Bureau, 2010).

young adults will ultimately live in a plurality that looks more and more like they do—white, Latino, black, Asian, American Indian, and multiracial, among others," said Rivas-Drake.

This increasing diversity presents both opportunities and challenges, said Rivas-Drake. In particular, diversification "holds great potential for increasing these minorities' participation and contribution to the social, political, and economic well-being of this country." Realizing this potential depends on micro-level processes (which involve individuals), meso-level processes (which involve social interactions), and macro-level processes (which involve social structures) (Deaux, 2006; Pettigrew, 1997).

At the micro level, how young people identify themselves in terms of race and ethnicity can have important social and psychological consequences (Rivas-Drake, 2012; Syed et al., 2013). For example, self-identification as biracial or multiracial has had important implications for how young people are counted and classified, as well as for how people experience race in a more flexible manner. Young people often make decisions about self-identification during the transition to adulthood, Rivas-Drake noted. "What are the sorts of meanings that young people ascribe to their membership in these groups?"

At the meso level, the interpersonal relationships of young adults can exert a strong influence on their life course, and researchers need to continue to expand their knowledge of these relationships, said Rivas-Drake. In particular, the existing literature suggests that the right conditions can foster intercultural understanding, appreciation, respect, and collaboration (Killen et al., 2011).

At the macro level, young adults have varying capacities to participate in the education, labor, and political systems of the nation. For example, disparities in the educational outcomes of different groups foreshadow a continued bifurcation in the life trajectories of these groups. Today, said Rivas-Drake, Hispanics are less likely to reach the levels of education attained by other groups, which means they will continue to be at an occupational and economic disadvantage in the future. Young adults also can experience ethnic or racial discrimination in education, employment, and other settings. According to survey results, 50 percent of Latinos ages 18-24 report experiencing discrimination (Perez et al., 2008), along with 87 percent of African American adolescents ages 13-17 (Seaton et al., 2008). Similar findings from other groups underscore the prevalence of social exclusion among diverse groups.

Given the links among education, socioeconomic status, social marginalization, and health, more research is needed to reveal the experiences of underrepresented racial and ethnic groups and the kinds of signals they get that can affect their future trajectories, Rivas-Drake concluded. Researchers also need to look at protective factors that buffer young people from nega-

tive experiences and processes. Socially inclusive systems that enable youth to participate fully in society can build "engaged, healthy, and productive individuals and communities."

As America becomes more diverse, Andrea Vessel said during the presentations by young adults, students of color may no longer be as isolated as she has often been. She mentioned a recent posting on Facebook about "27 things you had to deal with as the only black kid in your class." Vessel often felt that she had to represent her culture and prove herself. "Everyone is laughing around me, and I am just sitting here, like this is not fun." At the same time, blacks who have not had the opportunities she has had can feel isolated from people, whether black or white, who have been successful. Today, people remain segregated by socioeconomic status, even if they are members of different races or ethnic groups. Perhaps greater diversity will ease some of these barriers among groups, she said.

THE USE OF TECHNOLOGY AND SOCIAL MEDIA

Young adults have come of age in a time of radical technological change, observed Amanda Lenhart, senior researcher and director of teens and technology at the Pew Research Center's Internet Project. In the year 2000, connectivity to the Internet was slow and stationary. It relied on desktop computers, wired connections, and low data rates, so that use of video was uncommon. Only about half of U.S. adults had cell phones, and less than half used the Internet. "You got information from other people. It wasn't an exchange of information. You weren't creating information, and you weren't in a position to have your voice be heard."

Today, said Lenhart, 85 percent of adults in the United States use the Internet (Pew Research Center, 2013c), and 65 percent have a broadband connection at home (Pew Research Center, 2013a). Eighty-eight percent have a cell phone, and 55 percent are smartphone users (Smith, 2012). Two-thirds of adults use the Internet wirelessly, and 64 percent of online adults use social networking sites.[2] "The fact that we are now untethered from that desk, and can connect to information and people wherever we go, is a huge innovation."

Nearly all young adults use the Internet, said Lenhart, and most of them use social networking sites, which have become "a seamless part of how they expect to interact with people." They also have virtually unlimited mobile access through their cell phones, so they can reach relatives or friends at any time. Among 18- to 29-year-olds, 93 percent have a cell phone and 65 percent have a smartphone, with black and Hispanic groups

[2] For continuing analyses of these and related datasets, see The Pew Internet and American Life Project, http://www.pewinternet.org.

just as likely or more likely to use these devices as whites (Lenhart, 2013; Pew Research Center, 2013a,b,c). These are about the same percentages as for 30- to 49-year-olds, but young adults are in many cases the most enthusiastic users of these devices. For example, said Lenhart, 18- to 24-year-olds with cell phones send an average of 110 text messages a day, in comparison to 41 by an average adult. Of course, most young adults still like spending time with people, Lenhart said, but "absent that opportunity, text messaging is probably the way you are going to reach most young adults."

About three-quarters of cell phone owners ages 18-29 have accessed the Internet from their mobile phones, and about 45 percent of this group access the Internet primarily from their mobile phones (Smith, 2012). This has implications for how they get information, said Lenhart. They are mostly using a small screen and accessing information on the go. Most phones may also be hooked into positioning systems so that the information can be keyed to where they are. Technology allows all phones to be tracked based on cell phone towers unless users specifically turn it off, but GPS enables more fine-grained tracking and does (generally) need to be enabled (or not disabled) by the user.

"They can find the closest McDonald's, they can find the nearest ATM, they can find the nearest health clinic to get information about the condom that broke last night. There are all sorts of ways in which having the Internet in your pocket and having mobile access to information is radically changing how these teens and young adults go about getting access to information in their lives."

A particular use of connectivity is to access social media. Young adults are not a monolith, given that 17 percent of them do not use social networking sites, but for the majority, social media are an important part of their lives (Lenhart, 2013). Facebook is the dominant platform for young adults, but other sites have also become popular, such as Twitter, Pinterest, Instagram, and Tumblr. Lenhart mentioned Snapchat as an example, which allows users to post a message or photograph that will disappear a few seconds later and not be stored on a computer.

Young adults use these sites, in part, to present themselves to the world. Whether a gang member, a college applicant, or a 14-year-old teenager with a large network of friends, a user of social media needs to decide how to portray his or her persona to the world. "It is a very complicated set of negotiations that young adults are having to go through, in terms of how to present themselves in those spaces and how to navigate the different audiences that are in each of these spaces," said Lenhart. Some tend to use Twitter because of its simplicity, character limit, and the site's on/off privacy setting (to reduce the size of communications). Others just post photos. With geolocation on phones, young adults can use these social sites to create their social life on the go. "This allows you to say, 'Hey, I am at the

coffee shop down the road. Other people come and hang out with me.'" As an example, Lenhart described a site called Grindr, a dating website used by gay men that can be merged with social media to find and meet other gay men in the area.

These technologies give teens and young adults an opportunity to have their voices be heard, said Lenhart. They are recording and documenting their lives with the tools in their pocket, whether through photos, videos, or e-mail. Lenhart compared their phones to a Swiss Army knife that can do many different things, and young adults are more likely to use these capabilities than other adults (Smith, 2012).

New technologies also create a place where the missteps and mistakes of adolescents and young adults can be available publicly and for extended periods. Young adults may not "have the opportunity to get away from some of the things that they have done in their past," said Lenhart. Young adults are often judged through the lens of adulthood, even though their brains are still developing and they are doing many things for the first time. In addition, social networking sites have been designed specifically to get users to share more information—in part so the sites can mine that information and profit from it. "It is a challenging environment for young adults," said Lenhart.

An interesting topic that arose in the discussion session is the use of mobile technologies to record aspects of daily life that infringe on personal privacy. Larry Neinstein, professor of pediatrics and medicine at the University of Southern California Keck School of Medicine, mentioned a college student with a contract to record her entire first year, including parties, and make that information public. He also mentioned the problems posed by Google Glass, which can record any encounter with a person. "It is a new world we live in, and sometimes we don't have good answers or good policies." Young adults themselves can be frustrated by the constant sense of surveillance and never knowing when they might be photographed or videotaped. Photographs taken by others of underage students drinking have caused them to be suspended from school or disciplined in other ways, and facial recognition technologies could eventually make it possible to identify people almost anywhere. There are "a lot more challenges ahead," Lenhart said. The relationship between social media and young adults' health, safety, and well-being is explored further in Chapter 7.

Part II

Health and Safety of Young Adults

4

Safety- and Health-Related Behaviors

Important Points Made by the Speakers

- Interventions during the treatment of injuries caused by intentional violence can interrupt a cycle of violence that causes many young adults to end up in prison or dead. (Corbin)
- Research on the factors contributing to unintended pregnancy, HIV infection, and other sexually transmitted infections can better bring science to bear on the threats facing young adults. (Jaccard)
- Interventions need to be available to all young adults to prevent problem drinking and drug use. (White)

Many of the safety- and health-related behaviors of greatest consequence for young adults are also behaviors seen during adolescence, including intentional and unintentional injuries, violence, suicides, substance use and abuse, risky sexual behaviors, and motor vehicle accidents. Three speakers at the workshop looked in detail at three of these behaviors: intentional injuries, risky sexual behaviors, and substance use.

VIOLENCE AND VICTIMIZATION

Violent injury (excluding suicide) is the number one cause of death among African Americans ages 15-34, the second leading cause of

death among Hispanics this age, and the number five cause of death among young non-Hispanic whites (CDC, 2011a). More than 150,000 incidents of violence against African American males ages 15-34 were treated in hospitals in 2011, representing about 1 of every 41 men in this demographic group. The numbers are "staggering," said Theodore Corbin, an emergency room physician and associate professor in the Department of Emergency Medicine at the Drexel University College of Medicine.

Emergency departments have become extremely skilled at addressing the corporeal consequences of violence, said Corbin, but not the psychological consequences, even though they result from the same event. In urban community settings, 15 to 23 percent of victims of assaultive violence have a lifetime history of posttraumatic stress disorder (PTSD) (Corbin, 2013). In urban hospital settings, 27 percent of victims had PTSD 3 months after the violent injury and 18 percent were similarly affected a year later. Forty-one percent had acute stress disorder within a month of the violent injury (Corbin, 2013).

These traumas can compound prior traumas, abuse, and neglect. "There is a very high rate of exposure to adverse childhood experiences in the general population," said Corbin. Moreover, the number of such experiences was strongly correlated with the development of smoking, chronic obstructive pulmonary disease, heart disease, diabetes, obesity, hepatitis, alcoholism, depression, attempted suicide, teen pregnancy, promiscuity, sexually transmitted infections, and other bad health outcomes.

Many trauma sufferers do not seek mental health services because of associated stigma and a lack of trust in mental health services and providers. Many are uninsured and unaware of the services that are available. They can become caught up in a cycle of violence that leads in the end to death or jail (see Figure 4-1).

Corbin and his colleagues have tried to take advantage of a particular point in this cycle to break the chain—the point where the victims of violence are treated in the hospital. The program with which Corbin is involved, known as Healing Hurt People, began in 2008 at Hahnemann University Hospital in Philadelphia. It currently reaches about 90 clients annually, and the children's hospital sees about 70 clients, though both programs could do more if they had more capacity. The program is based on the twin concepts of teachable moments and trauma theory. During teachable moments, individuals are particularly receptive to interventions that promote positive behavior change, and many victims of violence are in this receptive state. Trauma theory, in turn, shifts thinking from the supposition that people who have experienced psychological trauma are sick, are deficient in moral character, or need to be punished to a perspective that they are injured and need healing.

Healing Hurt People provides assessment, case management and navi-

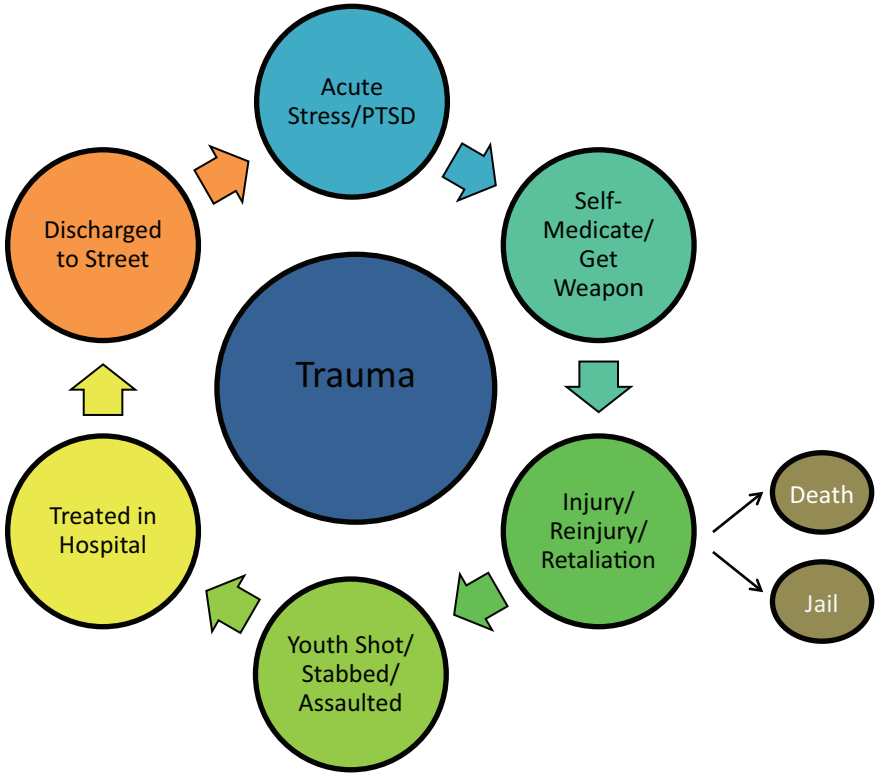

FIGURE 4-1 The Healing Hurt People program seeks to break the cycle of violence at the point where the victims of violence are treated in the hospital.
NOTE: PTSD = posttraumatic stress disorder.
SOURCE: Corbin, 2013.

gation, and mentoring to clients who are enrolled in the program. It uses psychoeducational groups to help young people learn how to feel safe, manage their emotions, deal with loss, and envision a positive future. It identifies PTSD and connects clients to mental health services, health services, and whatever other services they are assessed to need.

The program is comparing people who participate in Healing Hurt People with a control group at another hospital to determine whether participation decreases such indicators as PTSD, depression, and sleep quantity and quality that lead to poor health outcomes when not addressed. Corbin also suggested that additional research is needed to study the impact of trauma on boys and men of color over the lifespan and to support the movement from practice-based evidence to evidence-based practice.

UNINTENDED PREGNANCY, HIV INFECTION, AND OTHER SEXUALLY TRANSMITTED INFECTIONS

The rates of unintended pregnancy, HIV infection, and other sexually transmitted infections (STIs) among young adults are "far too high," said James Jaccard, professor of social work in the New York University Silver School of Social Work. The 1 million unplanned pregnancies among unmarried women in their 20s represent a rate of more than 2,700 pregnancies per day, with unmarried women between ages 20 and 24 accounting for about two-thirds of these (Jaccard, 2013). About half of all abortions are to women in their 20s—a rate of about 1,600 abortions per day. Rates of unplanned pregnancy among teenagers have been declining in recent years, but the declines for women in their 20s have been much more modest, said Jaccard.

About 50,000 new HIV infections are diagnosed each year in the United States, with the rates of new infections highest in the 20- to 29-year-old age group (Jaccard, 2013). The risk is greatest for white and black men who have sex with men, followed by different heterosexual groups and injection drug users (Jaccard, 2013). About 20 million STIs occur each year in the United States, with 15- to 24-year-olds accounting for about half, representing about 27,000 infections per day divided more or less evenly between men and women—"staggering," said Jaccard (see Figure 4-2). About 10 percent of young adults in their 20s have genital herpes infections, a rate that increases to 30 percent for black, non-Hispanic youth. Several major types of infection can go undetected because they have no immediate symptoms, even though they can be treated with antibiotics. Left untreated, they can have major health complications. "We have our work cut out for us in all of these areas," said Jaccard.

Jaccard described four broad research areas that cut across these risk categories where we can focus increased efforts to "bring science to bear" on the threats facing young adults. The first is building a science of tailored and targeted intervention strategies. Most interventions involve communication of some form; there are seven facets of communication that can be tailored to individuals and groups:

1. Who delivers the message (the source of communication)
2. What is said (the content of communication)
3. How it is said (the style of communication)
4. When it is said (communication timing)
5. Where it is said (communication context)
6. How often it is said (communication frequency)
7. Over what channel it is said (communication channel)

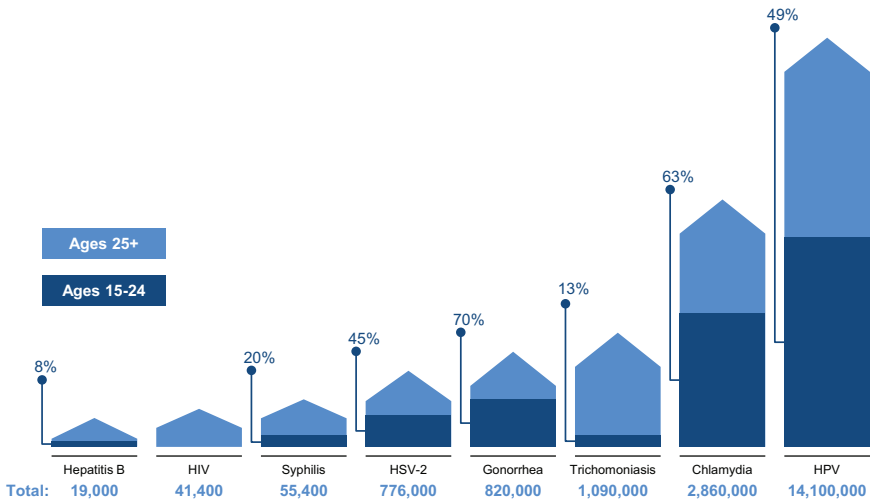

FIGURE 4-2 About 20 million new sexually transmitted infections occur in the United States per year, with about half among 15- to 24-year-olds.
NOTE: HPV = human papilloma virus; HSV = herpes simplex virus.
SOURCE: Jaccard, 2013, adapted from CDC, 2013.

Research is needed on how to make choices in each of these seven categories when designing tailored interventions, Jaccard said. If such research results were available, computer and digital media could be used to deliver tailored messages to millions of people in cost-efficient ways. People could provide background information in interactive sessions with computers, including their demographics, personalities, lifestyles, beliefs, norms, sexual orientations, and so on. Communications then could be individualized based on that background information.

The second area where Jaccard recommended that research be pursued involves the integration and elaboration of design principles for behavior-specific intervention strategies with common-cause intervention strategies. At present, interventions tend to focus either on behavior-specific outcomes paying particular attention to, for example, sex and alcohol. Other interventions focus on more broadly based outcomes that are not behavior specific and that are thought to be common causes of multiple problem behaviors, such as positive youth development or emotion regulation interventions. Research to integrate these two different approaches could show how common-cause intervention strategies interact with behavior-specific intervention strategies and, together, form a more impactful package for fostering youth development. Although it is true that problem behaviors are correlated to some extent, each behavior also has large amounts of unique

variance, underscoring the need to take into account unique determinants, not just common causes. At present, common-cause interventionists tend to work independently of behavior-specific interventionists; greater collaboration between them is needed, said Jaccard.

The third area of needed research involves advancing a science of split-second decision making. Usually people do what they say they are going to do. But in some cases people intend to do something and then do not do it. Various theories have been developed to explain this disconnect between intended behavior and actual behavior. A major source of the disconnect is that people change their minds at the last second, a phenomenon known as decision instability. These last-moment, split-second decisions to act in ways other than originally planned need to be better understood, said Jaccard. In any given situation, people make cognitive and affective appraisals of the operative dynamics and these appraisals affect what enters their working memory and short-term memory as they contemplate how to behave. How and what information enters working and short-term memory in high-risk situations needs to be better understood. Current research tends not to appreciate such dynamic appraisal and memory processes. Such research has "many important implications for the way we develop our interventions," said Jaccard.

The fourth and final area he highlighted involves LOVE—left out variable error. This is a modeling term from statistics that underscores the biased inferences that can result from leaving important variables out of the equations implied by a model. LOVE problems are particularly important in the sexual domain. For example, nearly all research in this area focuses on a given individual's attitudes, orientations, cognitions, normative pressures, and emotions. But intercourse is a two-person enterprise and studying only one member of that couple potentially leaves out 50 percent of the important variables, that is, those of the partner. "It is so important that we do more research on couples, where both couple members are interviewed rather than just one of them" said Jaccard. The cognitions, norms, emotions, self-efficacy, and so on of each couple member are blended together to reach a joint decision to engage in protected or unprotected sex. Researchers need to develop models that respect such couple dynamics, Jaccard said.

SUBSTANCE USE

The transition to young adulthood is marked by large increases in substance use. Many reasons are behind these changes, including movement away from parents, initiation of new and varied friendships, new roles, more choices and opportunities, greater independence, identity exploration, reduced social control, and the use of substances for fun and for self-medication, noted Helene Raskin White, Professor II (Distinguished

Professor) in the Center of Alcohol Studies and Sociology Department at Rutgers University. Young adulthood also can be a period of heightened instability, and many young adults may turn to alcohol or drugs to deal with the stresses of this instability.

Binge drinking, defined as drinking five or more drinks on one occasion for men and four or more for women, peaks during young adulthood and declines over time (see Figure 4-3). The use of marijuana and other illicit drugs peaks slightly earlier, in the 18- to 20-year-old age group. White presented that a higher percentage of males than females ages 19-30 drink alcohol and use marijuana, and a higher percentage of whites ages 18-25 use alcohol and illicit drugs than blacks or Hispanics. However, White said, after age 26, African Americans are more likely to report illicit drug use than whites.

Psychosocial characteristics also place individuals at risk for substance use. Youth who are more impulsive and high risk takers are more likely to be involved in drug use and heavy drinking than their peers. Similarly, those who are depressed and anxious are more likely to be involved in drug use. Peer substance use is the best predictor of a young adult's substance use, but parents continue to have an influence, even during young adulthood.

Eighteen-year-olds who are out of college are more likely to smoke, drink, and smoke marijuana than their peers who are still in high school (White et al., 2005). However, as these students are followed over time, different patterns emerge. Cigarette use is consistently higher among non-

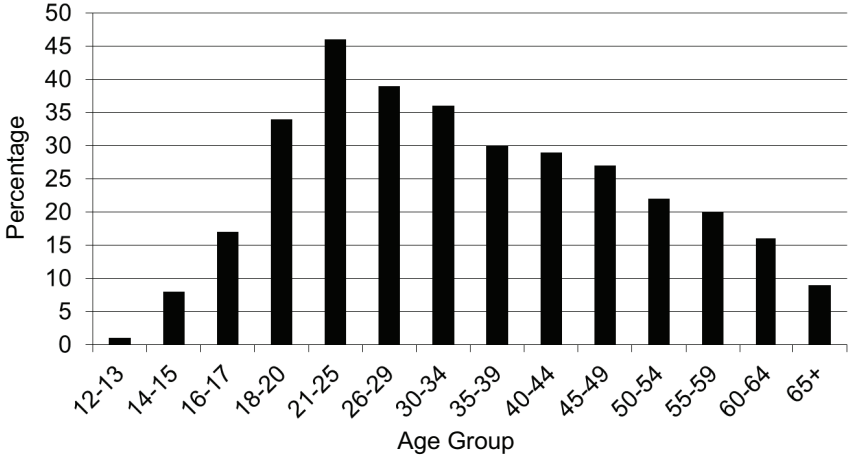

FIGURE 4-3 Binge drinking during the past month peaks at ages 21-25.
SOURCE: White, 2013; adapted from SAMHSA, 2010.

student males and females. Marijuana use is consistently higher among nonstudent males. Alcohol use is not related to college status even during the college years. In addition, alcohol and marijuana problems are consistently highest among nonstudent males. However, this research was done predominantly with white middle- and working-class samples. Schensul and Burkholder (2005) argue that low-income and youth of color are an even more important target for prevention for substance abuse. Not only do they have the same risk factors that come with the transition from adolescence to young adulthood as their white middle- and upper-class counterparts, but they also experience many other risk factors, including lack of job opportunities, lack of good role models, and discrimination.

Not all youth are equally likely to use drugs or drink heavily. For example, young adults who are married are less likely to engage in these behaviors than their peers who are dating or single, said White. Those who live at home with their parents, especially college students, are protected from heavy drinking, but not necessarily from drug use. Those who work full-time in a satisfying job are less likely to drink heavily and use drugs than those who are unemployed or those working full-time in a menial job. Also, many young adults mature out of their substance use, even as others go on to develop alcohol and drug disorders.

Interventions need to be available for all youth, White said, but some youth are at higher risk of increased substance use in young adulthood. Heavy drinkers in college are an important target group for these interventions. Noncollege youth are also an important target group for alcohol use interventions and for cigarette and illicit drug use prevention programs.

One promising type of intervention involves personalized feedback, where information is tailored to the individual. For example, personalized feedback could include a student's drinking compared with college averages, the negative consequences of use, and risk factors for later use, such as a family history of alcoholism or high levels of depression, blood alcohol concentrations and what those levels mean, the amount of money spent on alcohol, or the number of calories gained from drinking. By heightening an individual's awareness of personal patterns of use in relation to that of peers, he or she can create greater awareness of risks, which can lead to changes in behavior. These types of interventions have proven very effective on college campuses, said White, especially when delivered in the context of a brief motivational interview. These approaches also are being adopted for marijuana use on college campuses, although research on this use is more limited. Also, the effects tend to dissipate over time, which may underscore the need for booster sessions.

New interventions for drug and alcohol use for both college and noncollege students are still needed. For example, accessing or recruiting

noncollege students has become a major issue. Also, delays in achieving traditional milestones of young adulthood may extend the period for problem behaviors to later ages than in the past. "If we can begin to move some of these interventions outside of the college campus, we will be able to reduce the problems associated with substance use for all young adults," White concluded.

5

Physical Health

Important Points Made by the Speaker

- The combination of risky behaviors, a low awareness of risk, and limited access to health care and insurance poses threats to the health of young adults. (Neinstein)
- Prevention and early intervention for health problems that often have an onset in young adulthood, such as high blood pressure, provides an opportunity to prevent significant longer-term health problems. (Neinstein)

Young adults are often considered to be America's healthiest age group, but their actual health status is more complicated. The health challenges they face may affect their long-term future. Children with chronic diseases are more often surviving to adulthood. Prominent health disparities affect underrepresented racial and ethnic groups. Physical health encompasses a wide range of issues, and is impacted by emotional health, a person's developmental stage, community health, and health promotion and prevention. Many of these issues pose special challenges to young adults.

For many health problems, young adults are at higher risk than 12- to 17-year-olds or 26- to 34-year-olds. Young adults also tend to have the lowest awareness of risk and the least access to health care and insurance. "You throw those three things together, and that is a problem, i.e., a 'perfect storm,'" said Larry Neinstein, professor of pediatrics and medicine at

the University of Southern California Keck School of Medicine. The information in this section is from his recent paper, "The New Adolescents: An Analysis of Health Conditions, Behaviors, Risks, and Access to Services Among Emerging Young Adults" (Neinstein, 2013b). The paper extends beyond physical health issues. This chapter, however, focuses primarily on those concerns that may be considered to fall under the category of physical health; safety and health-related behaviors are the focus of Chapter 4, mental health is the focus of Chapter 6, and the health system is the focus of Chapter 8.

Neinstein listed the leading causes of mortality for 12- to 17-year-olds and for 18- to 25-year-olds (see Table 5-1), with the latter group having more than 2.5 times more deaths. The leading causes of death among 18- to 25-year-olds are unintentional injury (primarily motor vehicle accidents), homicide, and suicide (Neinstein, 2013b). Common morbidities include mental conditions, eating disorders, chronic diseases, substance abuse, back pain, allergies, sinus infections, strep throat, asthma, ear infections, carpal tunnel, fractures, high blood pressure, high cholesterol, chronic fatigue,

TABLE 5-1 Leading Causes of Death, Rates (per 100,000), United States

	12-17		18-25	
Rank	Cause of Death		Cause of Death	
1	Unintentional injuries	11.9	Unintentional injuries	39.1
2	Homicide	4	Homicide	14.5
3	Suicide	3.8	Suicide	12
4	Malignant neoplasms	2.7	Malignant neoplasms	4.4
5	Heart disease	1.1	Heart disease	3.2
6	Congenital anomalies	0.9	Congenital anomalies	1.1
7	Cerebrovascular	0.3	Diabetes mellitus	0.6
8	Chronic lower respiratory disease	0.3	HIV	0.6
9	Influenza and pneumonia	0.3	Influenza and pneumonia	0.6
10	Benign neoplasms	0.2	Cerebrovascular	0.5

NOTE: This table was created using data from Centers for Disease Control and Prevention (CDC), National Center for Health Statistics, Underlying Causes of Death 1999-2008, on CDC WONDER Online Database, released 2011. These data are periodically updated by the CDC and posted to its website, http://wonder.cdc.gov.
SOURCE: Neinstein, 2013b.

warts, sexually transmitted infections, and many other conditions that can develop during young adulthood.

More than 10 percent of young adults ages 18-24 are disabled due to a physical, mental, or emotional condition (Neinstein, 2013b). The prevalence of being obese or overweight also increases from adolescence to young adulthood, said Neinstein. Young adults ages 18-25 eat an average of only about two fruits and vegetables per day, compared with the recommendation of five. They do better in meeting recommended physical activity guidelines, but about 40 percent still do not meet the recommendation (Neinstein, 2013a).

Diagnoses of diabetes rose from less than 1 percent for 18- to 25-year-olds to 2 percent for 26- to 34-year-olds (Neinstein, 2013a). Others have laboratory results that point toward diabetes but are undiagnosed. About 6 percent of 20- to 24-year-olds have high cholesterol, a number that jumps to 16 percent for 25- to 44-year-olds (Neinstein, 2013a). The prevalence of hypertension also increases across the young adult years, pointing to opportunities to intervene in young adults to prevent later health problems.

The incidence rates of certain malignancies are increased in young adults compared with those of other age-groups, said Neinstein. Cancer is the fourth leading cause of death among young adults ages 18-25, following unintentional injury, homicide, and suicide (Neinstein, 2013b). The most common forms of cancer among individuals ages 18-25 include lymphoma, leukemia, melanoma of the skin, and brain (NCI, 2012; Neinstein, 2013a). The National Institutes of Health and National Cancer Institute published recommendations that apply to adolescent young adults diagnosed with cancer, including identifying unique characteristics among this age group, improving awareness and prevention, ensuring excellence in service delivery, and supporting the patients (NCI, 2012).

Many different sets of guidelines recommend screening of young adults in areas such as immunizations, substance use, reproductive health, mental health, exercise and nutrition, and safety and violence. But the guidelines are "all over the map" and need to be coordinated, said Neinstein. Challenges and opportunities in the provision of health care for young adults, including the impact of the Patient Protection and Affordable Care Act, are examined in Chapter 8.

6

Mental Health

Important Points Made by the Speakers

- In young adulthood, unlike later in life, the primary public health burden is disability, not mortality. Among females, the greatest burden due to disability comes from mental health disorders. Among males, the greatest burden comes from substance use. (Davis)
- More than 60 percent of young adults have had experience with some kind of well-defined psychiatric disorder at some point in their life by the age of 25. (Copeland)
- The disconnect between child and adult mental health systems inhibits good quality and continuous mental health care. (Davis)
- Only about a quarter of the young adults with a psychiatric disorder are receiving services. (Copeland)
- Interventions that empower young adults, involve their peers, balance young adults and their families, and recognize the in-between status of young adults can overcome the fragmentation of many current services. (Davis)
- Even with schizophrenia and other psychotic disorders, potential precursors to psychosis provide an opportunity for intervention. (Seidman)

Mental health and substance use disorders are collectively the most impairing health conditions of young adulthood, yet the services young adults can access to counter these disorders are fragmented and uncoordinated. Three speakers at the workshop looked at mental health conditions, from those experienced by large percentages of young adults to much less common but severely disabling cases of schizophrenia and other psychotic disorders.

MENTAL HEALTH IN YOUNG ADULTS

Young adults are disproportionately affected by mental health conditions, observed Maryann Davis, research associate professor with the Center for Mental Health Services Research in the University of Massachusetts Medical School's Department of Psychiatry. In 2004 the World Health Organization published a global burden of disease study, which Gore et al. (2011) analyzed to characterize the burden of disease in young people ages 10-24 around the world. They found that in young adulthood, unlike later in life, the primary public health burden is disability, not mortality. In high-income countries like the United States, more than 80 percent of the total disease burden among young adults is attributable to disability.

Davis has further analyzed these data to look at females and males ages 15-19 and 20-24 in the United States. Among females, the greatest burden due to disability comes from mental health disorders, primarily bipolar disorder, major depressive disorder, and schizophrenia. Among males, the greatest burden comes from substance use.

For most mental health disorders, the best treatment is a combination of psychopharmacology and psychotherapy, Davis said. Psychotherapy is a psychosocial intervention—an exchange between a counselor and a young person, or a counselor, a young person, and that person's family. But the unique cognitive and psychosocial development of young adults and their life circumstances can render either "child" or "adult" interventions inappropriate. Young adults are different than either young adolescents or mature adults. "It is a unique stage of life," said Davis. "There is a very delicate dance going on between developing independence, interdependence, self-determination, being related to your family, taking advantage of the resources they can provide to you, while also trying to find yourself and your own independent means."

Davis used suicide as an example of how interventions in young adults differ from those in adults. Young veterans who committed suicide had higher levels of nonalcohol substance problems, higher blood alcohol levels at the time of suicide, and a greater likelihood of relationship problems, whereas older veterans had more financial and medical problems (Kaplan et al., 2012). Suicide also is more likely to be associated with impulsive and

aggressive behaviors in younger adults (McGirr et al., 2008). Interventions need to reflect these differences to be most effective, said Davis.

Davis noted that young adults are more likely to drop out of mental health treatment compared with all adults. People ages 16-30 drop out of treatment more frequently than younger children or older adults (Davis, 2013). Individuals who drop out give a variety of reasons for leaving, such as loss of health care coverage or a feeling that the treatment is not relevant to their lives, but no research exists on how to develop interventions to help young adults stay in treatment long enough for it to have an effect.

Clinical trials typically lump adults from 18 to 55 together and do not break out results for young adults. Many trials have few young adult participants, which means that analyses to detect age differences cannot be done. Furthermore, interventions for young adults often are tested among college students, even though these students may not represent all young adults.

Davis listed several themes that are common in interventions being developed for young adults and their mental health conditions, though she emphasized that research on these themes is still in its early stages:

- **Youth voice.** All models put youth front and center and provide tools to support that role.
- **Involvement of peers.** Several interventions try to build on the strength of peer influence to produce better outcomes.
- **Struggle to balance young person and family.** No clear guidelines yet exist about how to involve parents or other family members in programs.
- **Emphasize their in-between status.** Many young adults are simultaneously working and going to school, living with their families and striving for independence, finishing schooling and beginning parenting, and so on.

Systems for juveniles and for adults are not well coordinated, Davis noted. For example, child mental health target population, definitions, and eligibility criteria are different from those of adult mental health systems, which tend to be much narrower. Even some young people who have been receiving intensive children's mental health services as an adolescent will not get in the door of adult services once they age out of the juvenile system. "Nothing has changed about their need or their condition, but they no longer qualify," Davis explained.

In addition, professionals have been trained to provide either child care or adult care. No professional training system exists for working with young adults. This lack of trained professionals provides another systemic barrier to delivering good mental health care for this population, along with

the fragmentation and discontinuity of care across the juvenile and adult health care systems.

The Patient Protection and Affordable Care Act has been designed to simplify enrollment in insurance plans and features outreach to underserved populations such as homeless youth. However, Davis expressed concern about whether young adults with mental health problems are going to be well served. Those who have well-developed safety net systems will be covered, "but for those who don't, they are still going to be running out of health care."

Research can help demonstrate how best to reach young adults. What are the interventions that appeal to them, get them into treatment, and help them stay in treatment? The use of social media or text messaging may be one way to encourage young people to seek treatment, Davis said. Raising awareness on college campuses and home-based treatments are other promising approaches. As part of a general improvement in their mental health literacy, young adults need to be able to recognize the initial stages of a mental health condition. Furthermore, tailored interventions and services need to be tested on a large scale, said Davis.

EPIDEMIOLOGY OF MENTAL HEALTH DISORDERS IN YOUNG ADULTHOOD

William Copeland, assistant professor at the Center for Developmental Epidemiology in the Department of Psychiatry and Behavioral Sciences at Duke University Medical Center, has been working on a study that has tracked 1,400 children for 20 years, from childhood into their 30s. Using these valuable data, he and his colleagues have been able to answer critical questions about the magnitude of mental health issues in young adulthood.

At the broadest level, they have found that, across any 3-month interval, about 20 percent of the individuals in the study have met criteria for a well-defined psychiatric disorder. Of this 20 percent, 9 percent have met the criteria for one disorder, 6 percent have met the criteria for two disorders—for example, both an emotional disorder, either depression or anxiety, and a substance disorder—and 5 percent have met the criteria for three or more disorders.

The rate of 3-month incidence varies by age and disorder (see Figure 6-1). Disorders involving alcohol and marijuana use jump dramatically after age 16, though nonsubstance-related disorders also undergo significant changes. Panic disorders go up dramatically at the end of the teen years and are still rising at 25. The incidence of depression increases in puberty, particularly with girls. Disruptive behavior disorders of childhood such as attention deficit hyperactivity disorder, conduct disorder, and oppositional defiant disorder disappear in adulthood because of the way they

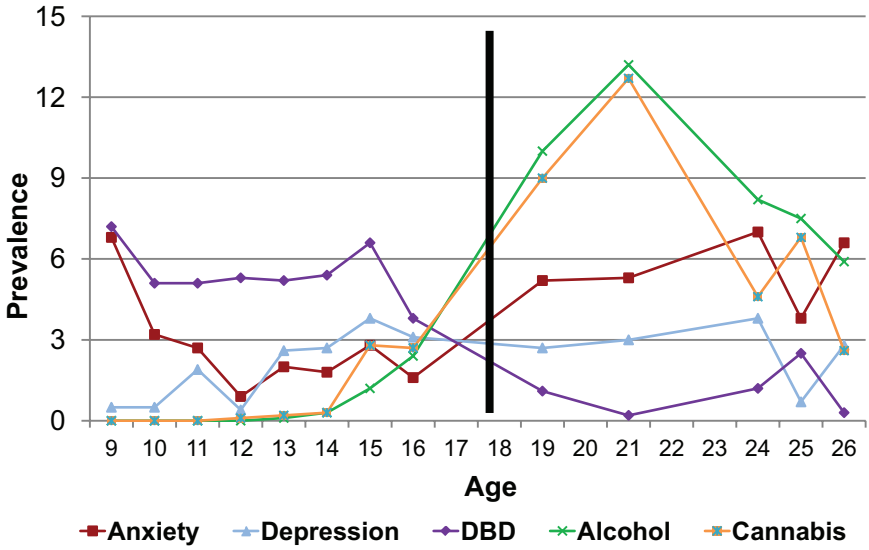

FIGURE 6-1 Disorders due to alcohol and cannabis use peak in the early 20s.
NOTE: DBD = disruptive behavior disorder.
SOURCE: Copeland, 2013.

are defined, but the people with these disorders move into other systems that define disorders differently.

More than 60 percent of young adults have had experience with some kind of well-defined psychiatric disorder at some point in their life by the age of 25 (Copeland et al., 2011), with an even higher percentage having psychiatric symptoms and impairment that fall below the threshold for what constitutes a disorder. "It is normative for young adults to have had an experience with mental illness," said Copeland.

Copeland's group developed four scales of functioning in the areas of physical health, risky and criminal behavior, education and employment, and social functioning. They then compared young adults with no psychiatric disorder, those with a nonsubstance-related psychiatric disorder, and those with a substance-related disorder. Both of the groups with psychiatric disorders fared much worse than the no-disorder group across all four domains. For example, young adults with a disorder were twice as likely to report regular smoking, four times as likely to report police contact, twice as likely to have been fired from a job, three times as likely to have defaulted on a financial obligation, and four times as likely to be in a violent relationship. This constellation of problems can make it much more difficult for these individuals to achieve the customary milestones of young adulthood.

Of the young adults with a psychiatric disorder, 53 percent had some sort of disorder in childhood, and 24 percent had a subclinical problem, providing strong evidence for continuity of psychiatric problems. But the disorders of childhood do not necessarily predict those of adulthood, Copeland observed. "This isn't just a case where depression in childhood predicts depression in young adulthood. It is anxiety predicting later depression, depression predicting later anxiety, conduct disorder predicting later depression, and so forth."

Finally, Copeland described the service usage rates in 39 different areas for both children and young adults (see Figure 6-2). For both services and conditional services—which is the use of a service by someone who has a disorder—the usage rates fell after adolescence. By the time people reach young adulthood, only about a quarter of the individuals with a psychiatric disorder are receiving services—half the rate as in childhood. The greatest drops are in specialty psychiatric services, educational and job services, and informal services, such as those offered by mentors, an Alcoholic Anonymous group, a Big Brother, or a spiritual advisor.

Young adults are transitioning out of their childhood homes, which explains part of this drop in services, because their parents are no longer

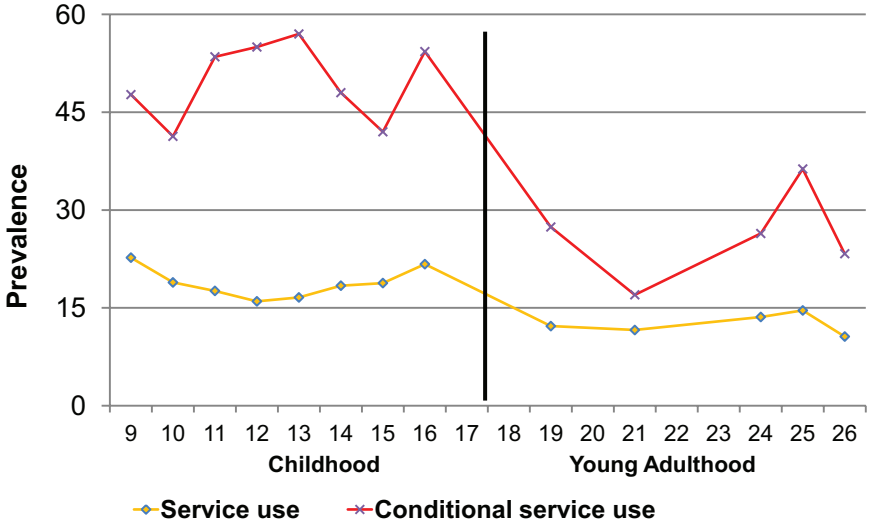

FIGURE 6-2 The use of services by those with mental health conditions falls from approximately 50 percent to about 25 percent when adolescents become young adults.
SOURCE: Copeland, 2013.

seeking services for them. On the other hand, as more children live with their parents into young adulthood, perhaps their use of services will increase, Copeland said.

Young adults are a group that "we absolutely need to prioritize," he concluded. Rates of mental illness overall increase during young adulthood, yet only one in four young adults in need of services receives them, regardless of the quality of those services. "These folks are falling off of a bit of a cliff as they enter young adulthood."

SCHIZOPHRENIA AND OTHER PSYCHOTIC DISORDERS

Larry Seidman, professor of psychology in the Department of Psychiatry at Harvard Medical School, discussed a particular set of mental health disorders to demonstrate their effects on young adults: schizophrenia and other psychotic disorders. Schizophrenia has occurred throughout history in all countries. Prevalence rates vary somewhat—from 0.5 percent to 3 percent—with an average lifetime prevalence of a little less than 1 per 100. Though rarer than some mental health disorders, its effects can be devastating, and it is among the greatest contributors to the global burden of disease.

Schizophrenia is more common in males than females, with a typical age of onset for males of roughly 22 and for females of 27. The peak ages of onset are between 16 and 30, which is also the case for the major affective psychoses—bipolar disorder and major depressive disorder with psychotic features—which have about a 2 percent lifetime prevalence in total. The paucity of tools to identify who might progress to schizophrenia can lead to extended periods where psychotic symptoms go untreated—often years—during which people are fighting the disorder without assistance.

Careful interviews reveal that psychotic symptoms such as hallucinations and delusions occur more often that is usually presumed—in about 5 to 15 percent of children and adolescents. These symptoms do not always herald an impending psychotic disorder, but they are associated with higher rates of transition to psychosis. In the "premorbid period" for psychosis, which can be marked by a waxing and waning of symptoms, social and neurocognitive impairments are frequently present. For example, people who later develop schizophrenia may initially have cognitive or attention problems that progress to anxiety or flattened affect, withdrawal, educational failures, and attenuated psychotic symptoms.

Treatment outcome is better in first-episode patients the sooner antipsychotic drug treatments are initiated (Wyatt, 1991). Also, time to remission is a function of the prior untreated duration of psychosis (Lieberman et al., 1996). Cognitive enhancement therapy over 2 years has been shown to improve neurocognition modestly, improve social cognition substantially,

and reduce gray-matter loss in people in the early phase of schizophrenia (Eack et al., 2010). This treatment has also been shown to result in higher rates of return to school and work.

In rare cases, psychoses can lead to extreme violence, as in several recent shootings in the United States. Violence is significantly elevated in the first episode of psychosis, especially if it is untreated, ranging from any violence (in 34.5 percent of cases), to serious violence (16.6 percent), to severe violence leading to bodily harm to others (0.6 percent). The untreated psychotic period is the period of greatest risk to self and to others. While rare, homicides during first-episode psychosis occurred at a rate of 1.6 homicides per 1,000, which is equivalent to 1 in 629 presentations (Nielssen and Large, 2010). In contrast, the annual rate of homicide after treatment for psychosis was 1/15th the rate for first episodes, pointing again to the need for early intervention.

The potential precursors to psychosis provide an opportunity for intervention, said Seidman. The view that the progression to schizophrenia is inexorable is "wrong and outmoded," he said. Structured instruments now can be used to diagnose a high-risk period before psychosis begins, but when it is clearly brewing. Antipsychotic medications and cognitive behavior therapy during the clinical high-risk period may attenuate the symptoms or delay the onset of psychosis. More research is clearly needed, but the results to date suggest a 10 percent conversion rate to psychosis in treated subjects compared with 30 percent in untreated subjects. "There is a beginning sense that we could actually prevent psychoses and certainly reduce disability."

Mental health literacy about schizophrenia and other psychotic disorders is very low. Patients and families tend to engage in denial and ignore symptoms, and many mental health providers have limited knowledge of schizophrenia. In addition, the United States has a lack of access to treatment and very limited services for prodromal and first-episode psychosis—roughly 10 to 20 programs nationwide, compared with 50 to 100 programs in the United Kingdom.

Young adults get much of their information from the Internet. Websites where they can answer questions about symptoms they might have can be extremely valuable. Hospitalization is important and can save lives, but earlier intervention may avoid the trauma and expense of hospitalization and help provide continuity of care with an outpatient clinician.

Community awareness of warning signs and early referral are critical to reach those who can benefit, and early intervention may prevent cognitive loss and violence to self or others, Seidman said. For example, screening items for a pediatrician or primary care provider may be the best way to reach the maximum number of people. The earlier psychosis is detected and treated, the better the prognosis.

During the presentations by the young adults, Shanae recounted the story of a man who was in her high school graduating class and committed suicide in a Washington, DC, correctional facility. He had schizophrenia, but was not given a mental examination, even though his father requested one. "With schizophrenia, someone should be watching you," she said. "You leave someone with schizophrenia in a cell with sheets, with anything they could possibly hang themselves with, that means you weren't doing your job."

Part III

The Systems and Institutions That Affect Young Adults

7

Families, Social Networks, and the Media

Important Points Made by the Speakers

- The relationships between parents and their children change between adolescence and young adulthood, but few studies have examined these changes. (Conger)
- Much more information is needed on the "forgotten half"—children with some or no college education. (Conger)
- New media enable practices not possible in the past, but also can generate tensions. (Clark)
- Individual and collective storytelling enabled by online platforms may provide an avenue for enhanced well-being. (Clark)
- Public policies on marketing need to focus on the images being conveyed, restrict misleading ads, and pursue other regulatory efforts such as countermarketing because the same techniques used to advertise products to young adults can be used to deliver health-promoting information. (Halpern-Felsher)

Part III of this report examines some of the major societal institutions in which young adults are making the transitions to adulthood. This chapter looks at families, social networks, and the media. Future chapters consider the health care system, the education system, the military, foster care, the welfare system, and the justice system.

PARENTING

The roles and expectations of young adulthood are being redefined. Young adults no longer go through certain milestones in a set order. They take on new roles depending on their life experiences. Despite these changes, young adults and their parents still need to address certain personal characteristics and social processes during this period, said Katherine Conger, associate professor of human development and family studies at the University of California, Davis. Parents tend to be interested in norm compliance, personal responsibility, and their relationships with their children. Adolescents and young adults, in contrast, are more interested in autonomy from their parents and in financial independence, though they, too, express interest in norm compliance, such as not driving while drunk.

Conger prepared a background paper on parenting for the workshop with three colleagues—Rand Conger, Stephen Russell, and Nicole Hollis—that appears in Appendix E of this report. In her presentation at the workshop, she drew several points from the paper to illustrate how the redefinition of young adulthood is changing parenting.

Despite the variety of paths young adults can take through these years, parents are expected to guide their children through the transitions to adulthood. Young adults count on their parents to provide warmth and support, have clear expectations, establish reasonable consequences for violations of norms, meet physical needs, and help make social connections. Given this continuity, parenting that works well with adolescents applies as well to young adults, Conger observed.

At the same time, the relationships between parents and their children change between adolescence and young adulthood, though few studies have examined these changes. Conger and her coauthors identified five themes that come to prominence during the young adult years:

1. Communication
2. Social support
3. Personal responsibility and independence
4. Economics
5. Mutual respect

Though built on the relationship between parents and children in adolescence, these elements of the relationship inform the parenting of young adults. For example, parents can communicate with their young adult children about health issues, but young adults also are protected by legal issues related to privacy. Similarly, parents may still offer financial support for their young adult children, but they have to make decisions about whether, for example, to pay for college tuition or save money for retirement. “That

becomes a real issue and something that family members have to discuss," said Conger.

A major challenge for parents is that they are advising 21st-century children with 20th-century knowledge and experience. Parents often struggle to keep up with new technologies and social media. The economy is also different now than it was for earlier generations, requiring much more flexibility of both parents and children. The incomes of many families have been flat or going down, and social mobility in the United States is less than in many other countries.

Many resources exist that offer guidance to the parents of children who are going to college, but far less exists for children who do not go to college, Conger observed. Also, many parents have to deal with their own issues that can affect their interactions with children, such as a divorce or physical or mental health problems. Some youth are homeless or may not have parents; for these youth, the involvement of adult mentors can have substantial benefits.

Conger mentioned several future directions for research and policy. Much more information is needed on the "forgotten half"—children with some or no college education. Many immigrant youth confront issues that other young adults do not, such as language preferences within a family (see, e.g., Rumbaut and Komaie, 2010). The roles of race, ethnicity, culture, and religion in parenting need further investigation. Furthermore, the effects of the Great Recession on the parenting of young adults remain poorly understood.

Parents cannot succeed entirely on their own, Conger concluded. Public, civic, and religious institutions should work collaboratively with parents and young adults to prepare the next generation of adults.

SOCIAL NETWORKS AND SOCIAL MEDIA

New media enable practices that have not been possible in the past, observed Lynn Schofield Clark, associate professor in the Department of Media, Film, and Journalism Studies at the University of Denver, who has been working in a high school that serves at-risk young people and studying how social media help them make connections with parents, peer groups, and other sources of support. For example, Nick Couldry (2012) has identified six capabilities that new media enable:

1. Searching and search enabling
2. Showing and being shown

3. Presencing[1]
4. Archiving
5. Commentary
6. Continuous connectivity

New media also can generate tensions, said Clark. A digital trail follows the users of new media, which can be a source of tension between parents and young people (Clark, 2012). Also, a digital tether can exist that binds parents tightly to their children. "I have had students walk out of class and receive a text from their parents right after the class asking how they did on their test." New rules may need to be learned, such as teaching parents to text a child or grandchild before they call if they want that person to answer the phone. Social media can raise issues for vulnerable populations such as undocumented immigrants or families in which abuse has occurred.

Little formal research has been done on young adults in the field of media studies, just as in other fields discussed at the workshop. The research that has been done tends to take either a protectionist or emancipatory perspective on young adulthood. For example, in the former category, Rezvani (2013) has looked at how the use of social media can exacerbate mental health problems among young adults, and Turkle (2011) has uncovered evidence that social network sites and other forms of digital media may be making relationships less intimate. In the latter category, Chan-Olmsted et al. (2013) have shown that social media play a role in political socialization and that most young adults get news from social media; Hargittai and Hsieh (2012) have demonstrated that social media do not detract from or improve grade-point averages; and Madianou and Miller (2012) have investigated how immigrant young adults use digital technologies to keep in touch with family in their countries of origin.

Clark also pointed to several areas of research that are conspicuously absent. Research on social media use in young adults who are not in college or college-bound is missing. Studies of social media in the lives of young parents employed full- or part-time also are lacking, as is research on unmarried working mothers or unmarried working men with limited education and varied workforce experiences. "We need to be able to explore the ways in which young people are experiencing their lives," she said.

An area Clark emphasized is the link between social media storytelling

[1] Presencing is defined as "media-enhanced ways in which individuals, groups, and institutions put into circulation information about, and representations of, themselves for the wider purpose of *sustaining a public presence*." Social media sites are examples of public spaces that provide opportunities for creating and displaying oneself "beyond one's bodily presence" (Couldry, 2012, p. 50).

and the role of narrative in enhancing well-being, as in the case of identity formation among communities. Young people use social media to tell stories about themselves, and positive comments from others on those narratives can enhance the legitimacy of these stories. Can young adults use these media to construct anchoring narratives about themselves and others that bolster their resilience in tough times? "When you are able to encourage young people to produce their own narrative, they can use that as a way to educate and inspire others in their community. Their own story of difficulty becomes a story that . . . is encouraging for other people."

Clark concluded by expressing the hope that future research could look at the role of storytelling in creating self-identity and enhancing well-being. Storytelling is an "underexplored resource," she said, especially among those who do not go on to college. "Exploring connections between individual and collective storytelling afforded in online platforms may provide an avenue for enhanced well-being."

Young adult Jackie Malasky also highlighted the role of technology in the systems that serve young adults. Though new media can harm young people if they do not think carefully about what they are posting, young people also are developing their identities using two-way media. Social networks, text messaging, and other electronic forms of communication have created capabilities that previous generations did not have, she said. For example, edutainment—the combination of education and entertainment—can take new forms with electronic technologies. The combination can be "a really good way to get messages across." But what the media say has to make sense and be correct.

MARKETING AND MEDIA

Marketing can take place through old media, such as television or print media, or through new media, including the Internet. However, the new media have a much greater reach and relevance among young adults, said Bonnie Halpern-Felsher, professor in the Division of Adolescent and Young Adult Medicine, Department of Pediatrics, at the University of California, San Francisco. In particular, marketing through new media is instant and almost always available. It is also interactive, in that young adults can share it and change it in real time. "You will see something happen in the news, and suddenly somebody will be sending it off by Twitter," she said.

In addition, marketing can be direct, in which case it is obvious that a particular product is being advertised, or it can be indirect, in which case a product may be displayed in a movie or on television, for example, in an effort to change behavior. Marketing also can occur through promotions such as free samples, low prices, sales, or the distribution of hats, t-shirts, and other product-related materials.

Adolescents' and young adults' exposure to the media has changed dramatically in recent years, Halpern-Felsher noted. Among Americans ages 12-24, 74 percent listened to the radio in 2000, compared with just 41 percent in 2010 (Edison Research, 2010). Television watching increased slightly—from 38 to 42 percent—but newspaper reading plummeted from 29 to 8 percent. Internet use, meanwhile, increased from 16 to 42 percent (Edison Research, 2010).

Halpern-Felsher explained that the money spent on marketing in 2009 included approximately $13 billion on tobacco ads and promotional materials, $5 billion on alcohol ads, and $4 billion on prescription drugs. Further, market research is conducted and utilized by industries to develop marketing strategies that are most relevant to young adults. According to Fischer et al. (2011), this marketing shapes young adults' perceptions of the benefits of a product, increases their belief in the acceptability of the product, and increases their likelihood of initiation and continued engagement. In addition, some groups are more likely to be the targets of marketing, such as African American or Latino populations for tobacco products.

Young adults themselves engage in reciprocal peer-to-peer marketing. For example, about 85 percent of young adults put images of substances or sexual behavior on their publicly visible social networking sites (Halpern-Felsher, 2013). It may be an ad, or it might be a picture of themselves or of friends using a product, but either provides a marketing tool for companies. At the same time, such images can increase the risk of cyber bullying, harm a person's reputation, or influence career or educational opportunities, as companies and universities often review personal social networking sites before making acceptance decisions, said Halpern-Felsher.

Industries do their own marketing research and in certain respects are well ahead of the social sciences in looking at behavior change. They examine young adults' attitudes, social groups, values, aspirations, and role models, which they then use to develop marketing strategies that are relevant to young adults. For example, Halpern-Felsher cited a 1985 Philip Morris presentation in which key tobacco marketing messages were listed as: "Tell me it is all right for a person like me to smoke" and "Tell me I am not different from everyone else just because I smoke." She cited another ad, for e-cigarettes, that states, "We're all adults here. It's time to take our freedom back." Halpern-Felsher added, "This absolutely parallels what we know about young adult development, identity development, and what they are going through."

The alcohol industry has volunteered to refrain from marketing when more than 30 percent of the audience for an ad is expected to be less than 18 years old, but nothing restricts advertisement to those over 18, even though young adults are still highly susceptible to marketing, said Halpern-Felsher. Similarly, the 1998 Master Settlement Agreement with the tobacco

industry prohibits tobacco marketing targeted to youth below age 18, and the 2009 Family Smoking Prevention and Tobacco Control Act[2] restricts marketing and dictates aspects of packaging such as warning labels, but, again, no restrictions apply specifically to young adults.

On the positive side, 42 percent of young adults ages 18-29 look up health information on their mobile phones (Fox and Duggan, 2012). Exercise, diet, and weight apps are particularly popular on mobile phones, and smoking cessation, first aid, and many other apps are available, said Halpern-Felsher. However, few young adults receive text updates regarding health or medical issues (Fox and Duggan, 2012).

Research specifically on marketing to young adults is needed, said Halpern-Felsher, including subgroups such as underrepresented racial and ethnic groups and rural young adults. In the policy arena, future steps need to focus on the images being conveyed, restrict misleading ads, and pursue other regulatory efforts such as countermarketing. "How can we take the same research that the tobacco industry is using . . . and instead be able to use it in another way to counter some of those ads?" Halpern-Felsher noted that it is difficult to restrict ads to young adults because of the First Amendment and they are over age 18.

[2] 2009 Family Smoking Prevention and Tobacco Control Act, Public Law 111-31, 21 U.S.C. § 387.

8

Health Care

Important Points Made by the Speakers

- Young adults need developmentally based services and systems, which today are rare or nonexistent. (Irwin)
- Social media can enhance health care delivery, health promotion, and prevention. (Irwin)
- The Patient Protection and Affordable Care Act (ACA) addresses the health needs of young adults through the broadening of private insurance coverage, expansion of Medicaid, and the provision of essential health benefits, but gaps in health care for young adults will remain. (English)
- The effects of the ACA need to be closely monitored to inform policy makers and advocates about additional needed steps. (English)
- Many subgroups of young adults face particular health challenges. To reduce health disparities among young adults, all young adults need better access to health care and the provision of necessary services. (Coyne-Beasley)
- A culturally competent health care system that provides access to at least annual visits and medical homes for all young adults should include transition care to help young adults navigate the health care system. (Coyne-Beasley)
- Early prevention is important because trajectories are, to a large extent, established in childhood and adolescence. (Oesterle)

- The number of programs that target young adults is limited, many interventions need further development, and there is a need to think about programs that are useful for noncollege populations. (Oesterle)

Young adults often have more difficulty accessing health services than do the members of other groups. They traditionally have the lowest rates of insurance coverage of any group, with the poor and near poor most affected. Preventive services and primary care management are scarce for this group, as they are throughout the health care system. Few health-related guidelines are directed specifically at young adults. In the session on health care issues, one presentation described these problems, while a subsequent talk focused on ways in which the ACA addresses them. This chapter also summarizes a presentation about subgroups of young adults that face particular challenges and a presentation on effective preventive and development-promoting interventions for young adults. (These two presentations were not part of the workshop session on access to health care, but are included here because they are thematically related.)

During the presentations by the young adults, Amy Doherty commented on the difficulty young adults can have accessing the health care system even when they have insurance. The system is complicated, and many young people have never learned how to navigate it, especially when they transition from pediatric to adult care. "How do you go about finding a doctor? How do you plan for what you might need to ask? How do you tell your doctor, 'Well, maybe this isn't the best, maybe I really don't want you to do this test?'" Young adults need to be their own advocates, she said, which may require that they specifically receive self-advocacy training in dealing with the health care system.

Eric Lulow, also a member of the young adult panel, also emphasized the problems that a lack of insurance can cause for young adults, not all of whom are covered by their parents' policies. "I went without health insurance from 18 to 24, so I know what that is like and how difficult it is to get your needs met when that is the case," he explained.

HEALTH SERVICES

The major problems of early adulthood are largely preventable, said Charles Irwin, distinguished professor of pediatrics, director of the Division of Adolescent and Young Adult Medicine, and director of Health Policy in the Department of Pediatrics at the University of California, San Francisco (UCSF), School of Medicine and the UCSF Benioff Children's Hospital.

Irwin identified three areas in which young adults especially need health care services:

1. Preventive services
2. Sexual health services
3. Care for chronic conditions

In the preventive services area, Ozer et al. (2012) found evidence-based guidelines directed toward young adults in the following areas:

- Mental health/depression safety
- Nutrition/exercise/obesity
- Iillicit drug use
- Alcohol/tobacco
- Reproductive health
- Infectious diseases/immunizations
- Domestic violence

They also found consensus statements about safety and illicit drug use. Bright Futures, which many pediatricians use for preventive services during early childhood and adolescence, has some recommendations for 18- to 21-year-olds, and some professional guidelines for specific diseases, such as diabetes or asthma, and specialties, such as obstetrics and gynecology, that apply to young adults (Hagan et al., 2008). In general, however, guidelines for young adults that are developmentally based are rare and nonexistent in some areas, Irwin noted.

In the area of chronic conditions, according to the 2011 National Health Interview Survey, about 15 percent of young women had limitations in their daily functioning, whereas about 12 percent of males reported limitations. Asthma, obesity, and hypertension are the leading causes of limitations, with heart conditions and diseases, diabetes, cancer, and ulcers making smaller contributions (CDC, 2011b). In addition, as noted by earlier speakers, mental health and substance use disorders are major contributors to limitations in daily functioning for young adults, said Irwin.

Several professional organizations have developed recommendations covering the transition from pediatric to young adult care for those with chronic conditions. However, according to the National Survey of Children with Special Health Care Needs, only 39 percent of families report that their children ages 15 to 17 receive the necessary services to transition to adult health care, work, and independence (CDC, 2010). Developmentally based services and systems are rare, Irwin said. A recommendation Irwin made to address this deficiency is that future clinicians should have a discipline-specific young adult rotation, so they know how caring for a 41-year-old is

different than caring for a 21-year-old. In addition, young adults should be taught what to expect when they enter into a system of care.

Only about 5 percent of all adolescents ages 10-17 have no usual source of health care, but 31 percent of males and 20 percent of females ages 18-25 do not (Irwin, 2013). Males ages 20-29 use ambulatory care an average of only 1.1 times per year, while females average 2.3 visits per year (Fortuna et al., 2009). Few young adults come in for preventive health care—just 0.1 annual visits by males and 0.4 visits by females. Young adults are the age group least likely to use any health care services, said Irwin. However, they are just as likely or more likely than other groups below age 65 to use emergency departments.

Average health care expenditures on young adults ages 18-25 are about $2,000 per year, which is about the same as for adolescents, but less than for older groups (Irwin, 2013). About 17 percent of their costs were out of pocket, which is similar to the percentage for other adults and adolescents. However, even this amount can place a significant challenge on those who do not have assistance from family members.

Insurance status has a major effect on the health care of young adults, with those who are uninsured less likely to fill a prescription, skip a test or treatment, or forgo specialist care (see Figure 8-1). In addition, among

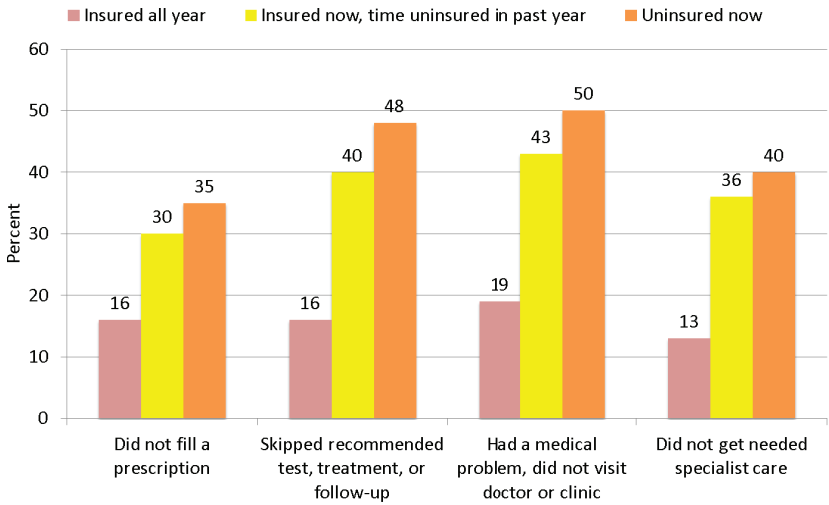

FIGURE 8-1 Young adults who were uninsured at some point in the past year or are currently uninsured are less likely to have access to health services than young adults who are continuously insured.
SOURCE: Collins et al., 2012.

those with mental health or substance use problems, many did not receive treatment, especially among vulnerable populations (Irwin, 2013).

Young adults and their parents are not prepared for the changes in health care systems following adolescence, said Irwin. (An exception, he said, is the Children and Youth with Special Health Care Needs program, which has guidelines to help manage this transition.) In addition, the diversity of trajectories through the young adult years complicates health care for this group. While some groups may have sources of care—such as those in college, the military, or prison—others do not—such as those who are homeless, are leaving foster care or the justice system, or have chronic conditions. Furthermore, "carve-out" arrangements—in both public and private insurance—separate the mental health and physical health delivery systems, which impedes referral or care coordination and often precludes reimbursement for primary care clinicians. The poor coverage of mental health services in private insurance plans also can cap the number of visits or cause high copays, said Irwin.

On the positive front, more than two-thirds of primary care physicians reported use of electronic medical records in 2012 (Schoen, 2012), which provides an opportunity to improve communication with young adults because many of them are avid users of electronic technologies.

IMPACT OF THE AFFORDABLE CARE ACT

Abigail English, director of the Center for Adolescent Health & the Law, also pointed out that young adults are insured at lower rates than are children or adolescents. In 2011, only two-thirds of young adults had continuous coverage, compared with about 90 percent of adolescents (English and Park, 2012). Only about half of young adults were covered by private insurance, with an additional 15 percent having public coverage, primarily through Medicaid (English and Park, 2012).

A major component of ACA was its expansion of insurance coverage. As of 2010, young adults could remain on their parents' insurance plans until they reach the age of 26. This provision added about 3 million young people to insurance rolls between September 2010 and December 2011, which has been "a big advance for that age group," said English. (However, as was pointed out during the discussion session, the decline in the numbers of uninsured young adults has stalled more recently.) In addition, the act provides for the creation of health insurance exchanges and subsidies starting in 2014; requires that individuals be covered by insurance or be subject to financial penalties; and sought to expand public health insurance, largely through the expansion of Medicaid (English, 2013).

The health exchanges will offer platinum, gold, silver, and bronze insurance plans, along with catastrophic plans for young adults up to age 30. To

encourage people to enroll for insurance through the exchanges, subsidies are available both for cost sharing and for premium tax credits—up to 250 percent of poverty for cost-sharing assistance or 400 percent of poverty for premium tax credits. However, as English observed, the benefits, costs, and other details of health plans can vary greatly by state.

Prior to ACA, Medicaid was required to cover children and pregnant women at income levels up to at least 133 percent of the federal poverty level, and adolescents up to at least 100 percent, but the income eligibility levels for single adults, including young adults, were very low in the vast majority of states. ACA increases the income eligibility level for adolescents, requires the states to at least maintain their past efforts in Medicaid, and provides for expansion of Medicaid starting in 2014; originally it was a requirement, but it became an option subsequent to the Supreme Court's ACA decision in 2012 (English and Park, 2012). However, many states have stated that they do not plan to expand Medicaid, and even if Medicaid is expanded, some groups will continue to be left out, including undocumented immigrants, and legal immigrants who have been in the United States less than 5 years. Former foster youth must be covered by Medicaid in all states up to age 26, in parallel with private insurance.

ACA requires that plans offered through the exchanges cover 10 essential health benefits, several of which are important for young adults:

1. Ambulatory patient services
2. Emergency services
3. Hospitalization
4. Maternity and newborn care
5. Mental health and substance abuse disorder services, including behavioral health treatment
6. Prescription drugs
7. Rehabilitative and habilitative services and devices
8. Laboratory services
9. Preventive and wellness services and chronic disease management
10. Pediatric services, including oral and vision care

These benefits also must be available in the Medicaid expansion states for the newly eligible populations.

Some prominent services are left out of this list, English noted. Oral and vision care is covered only for the pediatric population, not for young adults. Preventive services must be covered without cost sharing in private health plans, but only if they are obtained through in-network providers.

Some sexual and reproductive health services must be covered without cost sharing as preventive services, but this coverage has limitations. Screening is covered, but that may not cover follow-up diagnosis and treatment.

Maternity care is covered, but abortion coverage has significant limitations. All methods approved by the Food and Drug Administration for contraception are supposed to be covered, but health insurers are excluding coverage of some brands within a method. Religious exemptions and accommodations for religious institutions will continue to be controversial, said English.

The provisions of ACA pose other challenges to young adults, English observed, though many questions remain about exactly how the law will affect young adults specifically. The individual mandate is enforceable by financial penalties except if a person's income is below the income tax filing threshold, which is currently between $9,000 and $10,000 a year. However, the penalties are less than the cost of the premium, even factoring in subsidies. Because many young adults are already reluctant to purchase health insurance coverage, their compliance with the mandate remains uncertain, which may affect the costs of premiums for others. National enrollment levels among young adults will need to be monitored carefully, English said.

At the time of the workshop, 25 states had indicated that they were planning to expand Medicaid, while the remainder were demonstrating a reluctance to do so.[1] In addition, some of the states that are not planning to expand Medicaid include ones that have very low income eligibility levels for young adults. The expansion is critical for young adults, said English, because they lag behind adolescents and other adults in public health insurance coverage.

Also, young adults who are below 100 percent of the federal poverty level will not be eligible for subsidies to purchase private insurance in the exchanges. If they are in a state that does not expand Medicaid and has a Medicaid eligibility level below the federal poverty level, those between this level and the federal poverty level will fall through the cracks.

ACA requires states to engage in outreach to vulnerable populations, including "unaccompanied homeless youth, children with special health care needs, pregnant women, racial and ethnic minorities, rural populations, and individuals with HIV/AIDS"[2] to help them enroll in Medicaid and the Children's Health Insurance Program (CHIP). However, some groups still will be at risk of not getting the health insurance coverage they need or of being able to access needed health care services. In general, outreach is needed so that young people know where to go for care, who will accept their insurance, and what they can expect from providers. "This is

[1] Current information on how many states are planning to expand Medicaid is available at http://kff.org/health-reform/state-indicator/state-decisions-for-creating-health-insurance-exchanges-and-expanding-medicaid.

[2] Patient Protection and Affordable Care Act, Public Law 111-148, 42 U.S.C. § 2201(b) (amending 42 U.S.C. § 1397aa).

where social media strategies . . . become extremely useful, since this is a population that can be reached that way."

ACA requires the states to have streamlined application procedures, and an application that was originally 21 pages has been reduced to 3 for single adults who are not applying for family coverage. "We have to see how that will work, but it should be an improvement over some of the extensive applications that young people have had to contend with in the past," said English.

Privacy concerns can be pressing for young adults. For example, when young adults remain on their parents' insurance plans, the billing and insurance claims process can significantly jeopardize confidentiality for that age group (English et al., 2012).

Many of the effects of ACA will depend on the details of its implementation, English said. These effects should be examined closely to inform policy makers about changes that are needed and to inform advocates about what additional steps are needed to meet the legislation's promise.

YOUNG ADULTS FACING PARTICULAR ISSUES

Many groups of young adults face particular health challenges, said Tamera Coyne-Beasley, professor in the Departments of Pediatrics and Internal Medicine at the University of North Carolina, Chapel Hill, including

- Young adults who have been in the juvenile justice system
- Immigrants
- Members of the military
- Young adults with special health care needs
- Rural young adults
- **Young adults who have been in the foster care system**
- **LGBTQ (lesbian, gay, bisexual, transgender, and queer/questioning) young adults**
- **Homeless young adults**
- **Young adults with chronic diseases**
- **Young adults who are unemployed**
- **Young adults in poverty**
- **Young adults of color**

In her talk, Coyne-Beasley focused on the final seven groups in this list (in bold), as other groups were the focus of other sessions. She first described particular concerns and risks associated with these groups. She then discussed changes to the health system that would help reduce health disparities and improve health care for all young adults.

Health disparities among young adults arise in many ways, including

differential access to care, differences in the quality of care received within the health care system, differences in life opportunities, and exposures to racism, discrimination, and stress that undermine health status (IOM, 2002). Furthermore, many of the challenges these groups face are multifactorial: A young adult may have graduated out of foster care; be unemployed, poverty stricken, and homeless; and have a chronic disease. Coyne-Beasley focused on three of these factors: race, poverty, and employment.

Race is one of the most frequently measured social determinants of health, despite the difficulty in many cases of defining a person's race. It is considered a "marker" for certain health problems, but of course race or ethnicity per se does not cause a particular health problem or status. Rather, such factors as income, education, access to care, and stress are related to poor health outcomes. Nevertheless, these factors also can be associated with race and with perceptions of race. As Coyne-Beasley noted in the discussion session, for example, the health outcomes of fair-skinned Latinos and blacks may be worse than whites due to unequal treatment (IOM, 2002).

Poverty is a particularly influential social determinant of health. In 2011, more than one in four young adults ages 18-24 lived in poverty (Kids Count Data Center, 2013), up from one in six in 2003 (Park et al., 2006). Furthermore, youth of color are more likely to be economically deprived. About 26 percent of American Indians live in poverty, as do about 24 percent of African Americans, about 23 percent of Hispanics, and about 11 percent of Asian Americans and Pacific Islanders, compared with just 8 percent of whites (NASW, 2001).

Poverty is closely related to employment. Unemployed young adults report higher levels of risky drinking and lack of physical activity in their leisure time, though employed individuals have higher levels of smoking, higher french fry consumption, and low fruit and vegetable consumption (Caban-Martinez et al., 2011). Indeed, no broad group of young adults eats well, Coyne-Beasley noted.

Drawing on data from Park and colleagues (2006), Coyne-Beasley described how many health indicators for young adults vary by racial and ethnic group. For example, American Indians and Alaskan Natives have the highest rates of motor vehicle fatalities. Homicides are more common among blacks, and suicides are more common among whites. American Indians and Alaskan Natives report the highest levels of cigarette use, illicit drug use, and drug dependence, while binge drinking and heavy alcohol use are more common among white males. Young adults score worse on all of these indicators than do adolescents.

Seventy-three percent of pregnancies among black women ages 20-29 are unintended, compared with 70 percent among whites and 59 percent among Hispanics (Kaye et al., 2009). Among young adults ages 18-29 who

do not intend to get pregnant, only about two-thirds said it was very likely that they will use contraception in their next act of sexual intercourse (Kaye et al., 2009). Twenty-six percent of Hispanics ages 18-29 (31 percent of men and 21 percent of women) either strongly agreed or somewhat agreed that using birth control is morally wrong, compared with 11 percent of non-Hispanic whites and 8 percent of blacks, with the percentage gradually lowering as people get older. More than 40 percent of blacks and Hispanics strongly or somewhat agree with the following three statements:

1. The government and public health institutions use people of color and the poor as guinea pigs to try out new birth control methods.
2. The government is trying to limit underrepresented racial and ethnic groups by encouraging the use of birth control.
3. Drug companies don't care if birth control is safe—they just want people to use it so they can make money (Kaye et al., 2009).

Given the history of government support for sterilization techniques used disproportionately with minorities, such beliefs are not surprising, Coyne-Beasley said.

"Youth in the foster care system are more likely to suffer poor health and have a greater likelihood of chronic conditions and mental health disorders" (NASW, 2001). In addition, children of color make up a majority of youths represented in the foster care population—approximately 42 percent are African American and 36 percent are Hispanic (Child Welfare League of America, 2001; Clark, 2001). Among young adults leaving foster care, a quarter suffer from posttraumatic stress disorder, and most are at high risk of losing Medicaid or other forms of insurance coverage when they age out.

Among the LGBTQ community, less than 50 percent report having at least one adult family member to whom they can turn for help (Ryan et al., 2009). LGBTQ young adults ages 21-25 who report "family rejection were 8.4 times more likely to report having attempted suicide, 5.9 times more likely to report high levels of depression, 3.4 times more likely to use illegal drugs, and 3.4 times more likely to report having engaged in unprotected sexual intercourse" (Reardon et al., 2009). In addition, LGBTQ youth are disproportionately represented among homeless populations. Nationally, 44 percent of homeless LGBTQ youth are black and 26 percent are Hispanic (HRSA, 2001). This disparity is even greater among transgender homeless youth (62 percent black and 20 percent Hispanic), said Coyne-Beasley.

Homeless young adults are more likely to engage in high-risk behaviors such as unprotected sex with multiple partners, drug use, and exposure to and participation in violence, said Coyne-Beasley. In addition, they have many barriers to accessing health care, such as a lack of insurance, difficulty

navigating the health system, no address or means of contact, and attitudes of health staff.

During the discussion session, Coyne-Beasley also briefly discussed young adults in rural areas. Some things taken for granted in urban areas, such as cell phone and Internet access, are more limited in rural areas, which can require that interventions be adapted for the technologies available. Inhabitants of rural areas also can have somewhat different attitudes toward such issues as community and privacy, said Coyne-Beasley. A useful guideline is to engage all communities as much as possible in the design of research and interventions, she said.

To improve the safety and well-being of young adults, their psychosocial needs and social supports should be assessed so that they can be better connected to a trusted adult or community. They also need help with tobacco cessation and obesity prevention. They need better access to health care, including screening for diseases, for mental health issues, and for risk behaviors, and the provision of necessary services. Coyne-Beasley focused specifically on vaccinations because of their potential to reduce health disparities. No other therapeutic devices or medication have been able to eradicate disease in the United States the way vaccines have. Examples include smallpox and polio. Vaccines offer many opportunities to greatly reduce the incidence of such cancers as those in the cervix, anus, and vulva. However, disparities exist in vaccine uptake.

A culturally competent health care system that provides access to at least annual visits and medical homes for all young adults must include transition care to help young adults navigate the health care system, Coyne-Beasley said. It also must engage more multidisciplinary providers, family and community members, and young adults in prevention.[3] Also, more research is needed on community engagement, the life course, and resiliency and protective factors. "A majority of young adults make it fine, even those with particular challenges. What is it that they have?" Answering this question would require longitudinal data from adolescence and earlier in a person's life, but such an effort could be extremely useful. Finally, evidence- and policy-based interventions and systems are needed to address the social determinants of health, including policies to dismantle racism, sexism, classism, and other "isms," Coyne-Beasley said.

[3] For additional information about the psychology of immigration, including the importance of culturally sensitive, systemic care, see APA (2012).

EFFECTIVE INTERVENTIONS AND PROGRAMS TARGETING YOUNG ADULTS

Sabrina Oesterle, research associate professor in the School of Social Work at the University of Washington, discussed her review of existing programs targeted specifically at young adults to identify those that have been tested and demonstrated to be effective. This presentation is summarized only briefly here because the full results of her research appear in a background paper that was developed for the workshop, which can be found in Appendix D. Drawing on eight established inventories of tested-effective programs and policies, she identified 26 programs in these five topic areas:

1. Substance use (14)
1. Sexually transmitted infection/HIV prevention, risky sexual behavior (5)
2. Educational and vocational skills (3)
3. Suicide prevention and mental health (2)
4. Crime and antisocial behavior (2)

These five categories make sense, Oesterle observed, in that they correspond with areas of heightened vulnerability for young adults. She added, however, that a prominent missing category is parenting for young adults, who are most likely to have preschool-aged children. Several more broadly based parenting programs for children of this age have strong evidence and could be readily applied to young adults.

Overall, the number of programs that target young adults is still limited, and many interventions need further development. Programs also tend to be focused more on college students, even though rates of some problems, such as substance use, are higher among noncollege populations. "Let's not forget the noncollege population," said Oesterle. "That is one theme that has come out very strongly in my research."

Programs that help young adults make major transitions also are scarce, such as programs on relationship skills or managing finances. Young adults themselves recognize the need for more programs to help them develop life skills. Universal preventive programming could help all young adults avoid problems, while a closer matching of programs to young adult health risks and subpopulations could target those groups at greatest risk. As an example, Oesterle mentioned programs focused on obesity for young adults.

More research on turning points and on the potential to intervene in young adulthood would enable the design of more effective programs, said Oesterle. In addition, tested-effective programs directed toward all adults could be applied specifically to young adult populations in well-designed studies, such as randomized trials. Finally, as was noted during the discus-

sion period, existing research could be reanalyzed to derive the effects of programs specifically on young adults.

Once effective programs have been identified, widespread dissemination with high-quality implementation is critical. Applying and adapting successful programs could bring widespread public health impacts, Oesterle concluded.

9

Education and Employment

Important Points Made by the Speakers

- Young adults take different pathways through high school and college and into the workplace, and several of these pathways have received little attention from researchers. (Schneider)
- Longitudinal cohort studies are needed that allow for the analyses of pathways from school to work and of subgroups, including subgroups defined by social class. (Schneider)
- More randomized trials of health-related interventions are needed to evaluate their effects. (Schneider)
- Many college students with substance abuse or mental health problems do not receive the services they need to remain healthy. (Bailie)
- Screening programs can identify students who need services and are not accessing them on their own. (Bailie)

The transition from school to work can have relevance throughout a person's life. Whether this transition occurs after high school or after college, it establishes a direction for all subsequent work experiences. It also places a focus on schools and colleges as the last major institutions that group a large number of people together in one place, which provides an opportunity for prevention and intervention efforts. Two speakers examined schools and universities in this context—one focusing on several

alternate pathways from school to work, and the other on the health and safety of the college population.

SCHOOLING AND HEALTH

Educational attainment can have a strong effect on the health and well-being of young adults, observed Barbara Schneider, John A. Hannah University Distinguished Professor in the College of Education and Department of Sociology at Michigan State University. This effect is partly due to occupational choice and income. But increasing levels of education lead to different thinking and decision-making patterns, improve critical thinking skills, and provide individuals with better access to information. For example, education increases understanding of the nature of scientific inquiry and trust in scientific evidence, which is important for the prevention of health problems, said Schneider.

Schneider looked in turn at high school graduates and dropouts, certificate holders, 2-year college students, and 4-year college students.

The high school graduation rate in the United States is highly uneven among schools. In some suburban districts, the graduation rate exceeds 90 percent, and in some urban districts it can be as low as 50 percent (Schneider, 2013). Schneider said the overall dropout rate has declined from 12 percent in 1990 to 7 percent in 2010. However, the situation for some groups, such as Hispanics, blacks, and American Indians, is dire. Nearly 70 percent of black male dropouts, for example, will spend time in prison by their mid-30s.

Several other populations that tend to be overlooked in high schools need greater attention, said Schneider. Refugees and undocumented immigrants have needs that are often unmet in high schools. Lesbian, gay, bisexual, transgender, and queer/questioning youth, said Schneider, can be the victims of bullying in high school and in college. In general, school violence continues to be a problem, particularly in urban areas.

Another group that is often overlooked consists of certificate holders. These are young adults who might or might not have graduated from high school and go on to earn certificates to work in fields such as wholesale and retail trade, manufacturing, construction, and hotels and restaurants. These jobs tend to be temporary, part-time, or informal—a trend that has been exacerbated by the Great Recession, said Schneider. They typically do not provide health insurance, and they may lead to frustration, discontent, and an inability to formulate successful pathways into more stable employment, training, and intimate relationships. "This is a population that I feel we need to spend a lot more time on, especially given the kinds of jobs that they are likely to have."

When they are in high school, most students think they are going to

college. Among high school seniors, more than 70 percent said they expected to finish college, and more than half of those students expected to go to graduate school (Schneider and Stevenson, 1999). But many of these students will never achieve those ambitions. Schneider noted that they may have an inconsistent knowledge base and understanding about educational expectations and career plans. They and their parents may be uninformed about the types of academic preparation, credentials, and degrees needed for certain types of jobs, which is especially the case among low-income and students of color.

Nevertheless, nearly half of the nation's young adults do attend an institution of higher education part- or full-time. Health services are present on many college and university campuses, but little information is available about the scope and usage of health services beyond what is self-reported. Verifying self-reports with existing administrative data would provide a much more complete picture of the health services provided to students and enable better campus health service planning and administration, Schneider said.

Many students who are less well prepared and from lower socioeconomic backgrounds attend 2-year institutions with the expectation of eventually earning a bachelor's degree, Schneider said. But within a 6-year period, only about 12 percent of them earn a 2-year degree, much less a 4-year degree (Schneider, 2013). Because of their lack of preparation, many find themselves in remedial courses, said Schneider. Two-year students also may be working, have families, or be uninsured, and the health care facilities at 2-year institutions tend to be worse than those at not only 4-year institutions, but high schools. Many of these students also take out loans to support their education, and many then have trouble paying back. Programs are being put in place to help 2-year students achieve their degrees, but getting students through 2-year colleges remains "a big problem," according to Schneider.

In 4-year institutions, the number of slots for students at higher ranking universities has remained more or less constant while the number of college-eligible students has risen, creating increased competition at many schools. Many young adults in 4-year institutions do not know how to achieve their academic goals or make successful occupational choices, said Schneider. Of course, some college students are motivated, directed, do well in school, and graduate on time, but "the spectrum of [students] in 4-year institutions is quite large," said Schneider.

One in five 4-year college students will not graduate within a 6-year period, which can leave them with severe financial difficulties. Those who do graduate can face their own sets of problems. They may have difficulty finding full-time work that pays a decent wage, even though many have debts to pay off. "It is very hard to get a very well-paying job when you

are 22 years old," Schneider observed. Many are unclear about what they want to do. They may take unpaid internships or plan to return to school, perhaps even to get a certificate in an area where jobs are more available. It can be a vulnerable and anxious time for both young adults and their parents, Schneider observed. Schneider identified several areas in need of further research; these were included in Chapter 14.

HEALTH AND SAFETY OF YOUNG ADULTS IN HIGHER EDUCATION SETTINGS

College is a time of testing limits, which can include engaging in risky behaviors, often while under the influence of alcohol and other drugs. Shannon Bailie, director of health and wellness in the Division of Student Life at the University of Washington, focused on three issues associated with these behaviors: alcohol use, mental health disorders, and sexual violence.

To the statistics on alcohol use and mental health disorders summarized in Part II of this report, Bailie added several data points on sexual violence. According to estimates, nearly 20 percent of women and 6 percent of men are victims of sexual assault during their college careers (Krebs et al., 2007). Among college women surveyed, only about 12 percent of rapes were reported to law enforcement (Kilpatrick et al., 2007). Victims of drug-facilitated or incapacitated rape were less likely than victims of forcible rape to go to authorities, said Bailie.

A number of studies provide evidence for gender-specific interventions and education for sexual assault (Morrison et al., 2004). When the audience is younger and the curriculum content is more focused on healthy relationships than on avoiding rape, mixed-gender groups may be more appropriate, Bailie said. Interventions that spend more time exposing students to material seem to be more effective than shorter interventions in altering rape-related attitudes (Anderson and Whiston, 2005). The content of programming, the type of presenter (professional as opposed to peer), the gender of the audience, and the type of audience also may be associated with greater program effectiveness, said Bailie.

The University of Washington often conducts outreach on sexual assault at group-specific locations, said Bailie, such as residence halls, fraternities and sororities, athletics, and student government. General education on the topic is made available to all students through orientation, "but we recognize that we have a lot more engagement and impact when we are talking to those specific groups."

Identifying gaps in health services is an important issue on college campuses. For example, almost 80 percent of suicides on college campuses involve students who were never clients in campus counseling centers (Gallagher, 2012). Approximately three-quarters of students with depres-

sion feel that they need help, but only one-third of the students meeting criteria for depression actually receive help (Eisenberg et al., 2007). Nearly all (96 percent) of students with an alcohol use disorder receive no alcohol services of any kind (Wu et al., 2007).

These gaps emphasize the fact that screening is essential, said Bailie. Screening in health centers and mental health centers can catch students who might not otherwise be identified. In addition, "brief interventions with college students, including skills-based interventions, motivational interviewing, and personalized normative feedback, are effective methods for reducing drinking by college students" (Blanco et al., 2008; Cronce and Larimer, 2011).

One effective strategy is known as Brief Alcohol Screening and Intervention for College Students (BASICS), which is a harm reduction approach using motivational interviewing to elicit personally relevant reasons to change and reduce harms of drinking. "What do [students] like about drinking, and what don't they like?" Bailie said. You then let students identify strategies for drinking in a less dangerous or less risky way. High-risk drinkers who participated in the BASICS program significantly reduced both drinking problems and alcohol consumption rates, compared with control group participants, at both the 2-year follow-up (Marlatt et al., 1998) and 4-year outcome assessment periods (Baer et al., 2001).

Another program Bailie described is the National College Depression Partnership. In an application of this program at New York University, more than 58,000 students in 8 different schools were screened and 801 students were identified, more than 35 percent of whom were students from underrepresented racial and ethnic groups (Klein and Chung, 2008). The program improved clinical outcomes for at-risk, underserved college students by early detection, coordinated proactive follow-up, and better adherence to outcomes-based treatment.

The health and wellness program at the University of Washington seeks to reach students not caught by screening or those not accessing services on their own. The program utilizes outreach to connect to students who come to the attention of faculty, staff, or other students. Health and wellness gives students an access point for a wide range of services on and off campus that are different from the services offered by the health center, the judicial system, or the police. Health and wellness programs include a student care program, which is linked with its consultation and assessment team; a suicide prevention program; a sexual assault and relationship violence information service; and an alcohol and other drug education and intervention service.

Eric Lulow, during the presentations by young adults, noted that programs at colleges and universities that identify and support young people with special challenges can make the difference between success and fail-

ure in college. Such programs can help students adjust to college life and provide them with supports both on and off campus. Youth peer-to-peer workers also can achieve a buy-in, trust, and rapport hard to achieve in any other way. Three of the major reasons why students do not succeed in college are stress, anxiety, and depression, he said, and these programs can help students overcome those problems. In turn, successful programs could be replicated elsewhere to increase the number of students who benefit from them.

Another valuable approach both on college campuses and elsewhere is asset mapping, where youth study their communities and the services available in those communities. "They are telling police officers, 'Hey, this is where, if you come into contact with a young person at 3:00 a.m., these are places where they can get services if they are in a mental health crisis.'" This kind of information also can be adapted for technology, so that, for example, an emergency department doctor could pull out a smartphone and learn about services that are available right at that moment rather than releasing a young person back to the street. "Where can they take young people, where are the resources that are available, who are the right people they can call to get them linked up with services? So this trend of cycling through the system doesn't continue."

Jackie Malasky emphasized not punishing people for bad behavior, but rewarding them for good behavior. Many colleges now have rules that if someone helps a person who is in trouble because of drinking or drug use, the person offering help will not get in trouble. "It shouldn't be about punishing people. It should be about making sure that they are getting access to health care." Young people need to learn that when they see others engaging in risky behaviors, the reason may be depression. Young adults are not psychologists, but they need to be able to provide resources to their friends.

10

The Military

Important Points Made by the Speakers

- Young adults in the military face some unique challenges as well as challenges common to all young adults. (Adelman)
- The military health care system is moving from a focus on acute care toward patient-centered care oriented around medical homes. (Hutchinson)
- The "long war" that began following the terrorist attacks of 2001 has left many soldiers with injuries and stress-related disorders. (Ritchie)
- Mitigating strategies for stress-related disorders and suicide can reduce the incidence of these outcomes. (Ritchie)

The military is an organization composed largely of young adults. As William Adelman, adolescent medicine consultant to the Army Surgeon General, pointed out, young adults ages 20-24 make up the largest cohort of both active duty and reserve military personnel (see Figure 10-1). Among active duty officers, 25- to 29-year-olds represent the largest cohort. Young adults make up the smallest proportion of the civilian workforce, Adelman observed, but they make up the largest proportion of the military. Some of the issues other young adults face are not factors in the military. Young adults in the military are fully employed, are 100 percent insured, and have access to comprehensive medical benefits for themselves and their

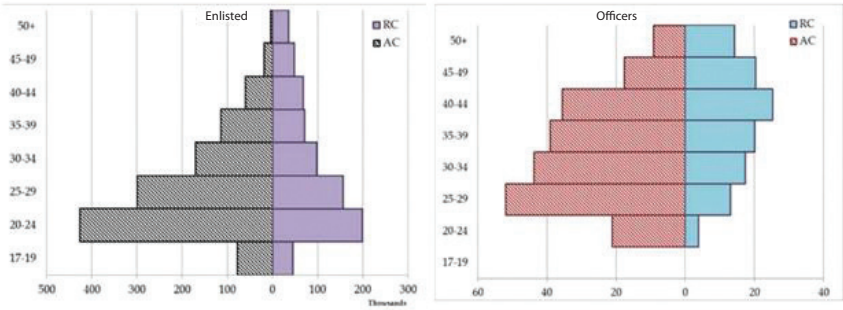

FIGURE 10-1 Department of Defense active component and reserve component age distributions, fiscal year 2011.
SOURCE: DoD, 2011.

families (Adelman, 2013). However, they face some unique challenges, said Adelman, as well as challenges that are common to all young adults.

Two members of the military explored these challenges at the workshop, the first from a general perspective, the second from the perspective of military members who have been in war.

MILITARY SERVICE AMONG YOUNG ADULTS

Common myths about the military are that its members are often uneducated, out of shape, or in the military because of previous legal problems. All of these myths are false, said Jeffrey Hutchinson, chief of the Adolescent Medicine Service at Walter Reed National Military Medical Center.

Ninety percent of those who join the military have a high school diploma. Being obese is the number one reason for not being qualified to be in the military, said Hutchinson. Having a felony is a disqualifying factor in joining the military.

"Unlike other countries where military service is required, in the United States, military service is a privilege," said Hutchinson. "It is the military's job to try and find people who have the most likely chance of succeeding in the military." Some health conditions, such as seizures, asthma, or cancer, are disqualifying, but applicants can apply for a waiver to enlist. A board decides whether someone's condition is compatible with military service. A person may need to pass a test, lose weight, or go without a medication taken previously, but if successful, that person can be allowed to join.

Everyone who wants to enlist in the military takes an armed forces qualification exam, which is similar to the SAT. One out of five people with a high school diploma still do not score high enough to join the military,

which points to the need for the education system to meet the educational needs of young adults, Hutchinson observed.

The Department of Defense's Health-Related Survey, which is conducted every 3 years, looks at high-risk behaviors such as drinking and drug use. Compared with civilians, members of the military use illicit drugs less but drink alcohol more, even though the price of alcohol has been raised in the military commissary system to discourage heavy drinking (DoD, 2011). More men in the military binge drink than women, and men in the Marines binge drink more often than men in the Air Force (DoD, 2011).

The military health care system is free and comprehensive. All of the military services require annual health assessments, though the assessments are self-reported, so that members of the military afraid of losing a job are unlikely to report disqualifying conditions, said Hutchinson. Every service also tests each member physically, either with strength or conditioning, to make sure that minimal standards are met.

The military health care system is moving from a focus on acute care toward patient-centered care oriented around medical homes, Hutchinson said. In addition, annual training, including suicide awareness, is incorporated into military service. The military also is beginning to take advantage of new technologies to gather and disseminate health information.

Hutchinson explained that only about 17 percent of people who join the military stay in long enough to retire. The GI Bill pays for higher education leading to a 2- or 4-year degree. The Veterans Administration covers health conditions that developed or worsened during military service. Programs for veterans such as Hiring Our Heroes work in partnership with the services to help young adults assimilate into the civilian workforce. Yet veterans' unemployment rate is about 20 percent for 18- to 24-year-olds compared with 16 percent for nonveterans. "That statistic is puzzling," said Hutchinson. "You would imagine that someone with the discipline and work experience of being a veteran would be a great person to hire. Why are they not hired as often? That is an area ripe for research." Hutchinson cited several other questions that research should address; these can be found in the compilation of suggestions for future research in Chapter 14.

PSYCHOLOGICAL EFFECTS OF THE LONG WAR

Every war produces psychological reactions, whether called shell shock, battle fatigue, or posttraumatic stress disorder (PTSD). In the past, the military has tried to screen recruits to reduce problems, but "it doesn't work that way," said Elspeth Cameron Ritchie, chief clinical officer in the District of Columbia Department of Mental Health. "We don't yet know who is going to develop PTSD." Similarly, the military does not accept recruits who have had suicide attempts, but suicide also is hard to predict.

The terrorist attacks of 2001 marked the beginning of what Ritchie called the long war. Deployments in the Middle East and elsewhere have been marked by numerous stressors, including multiple and extended deployments, improvised explosive devices, sleep deprivation, and experiences with severely wounded soldiers and civilians. But soldiers in those wars have received strong support from the American people, and the military has developed a behavioral health focus and numerous new programs designed to support service members.

Several features have characterized the military during the long war, said Ritchie. It is a volunteer army, and soldiers know they are going to war. The suicide rate among soldiers and among veterans has been elevated (Ritchie, 2013). Tens of thousands of soldiers have traumatic brain injury (TBI), amputations, or other injuries. People with amputations tend to get publicity, said Ritchie, but "what you don't hear about so much are people with their faces blown off from bombs. . . . That is much harder to deal with."

Families have been affected by continuous deployments and by the injuries and deaths of family members. "We have many teenage brothers and sisters who have lost their 21-year-old brother and they are 14," said Ritchie. "How do they make sense of that?" Wounded veterans can become completely dependent on their parents again, even if they joined the military to get away from their parents. In addition, many veterans face challenges with employment in an uncertain economy.

Deployment-related stress reactions can range from mild to moderate to severe. Symptoms of combat stress, operational stress, posttraumatic stress, and PTSD can include irritability, bad dreams, and sleeplessness, Ritchie said. Family, relationship, or behavioral difficulties can arise, along with alcohol abuse. Medical care providers, chaplains, or mortuary workers can experience compassion fatigue or provider fatigue. Veterans also can exhibit increased risk behaviors, leading, for example, to greater rates of motor vehicle accidents. Depression, alcohol dependency, and suicide all can follow combat experiences.

Ritchie described several mitigating strategies for PTSD. Evidence-based treatments include psychotherapy and medications. An evidence-informed strategy she mentioned involves virtual reality therapy, where soldiers who may be unwilling to undergo psychotherapy will interact with a therapist through a virtual world. Many soldiers respond well to service dogs (Ritchie, 2013).

Mitigating factors for suicide include unit cohesion, reintegration, reduction of pain and disability, structure, easy access to care, and stigma reduction (Ritchie, 2013). Ritchie particularly emphasized means reduction. "We really need to talk about the use of firearms," she said. "If you go down to Fort Stewart, there are billboards everywhere saying don't drink

and drive. You don't have any billboards that say don't drink and play Russian roulette."

The military often uses group therapy, Ritchie said, especially because soldiers are always eager and willing to help their buddies. Officers are often separated from the troops that they lead in such therapy. Older and younger veterans can have difficulty relating to each other, but older veterans also can help younger veterans avoid difficulties, said Ritchie.

Congress has funded research on PSTD and TBI, usually through academic consortiums. Remaining gaps include studies of treatments, collection of longitudinal data, and studies of female service members. "Women have been in combat for a long time," said Ritchie, noting that she wears three different combat badges from Somalia and Iraq.

11

Foster Care, Welfare Services, and Services for Homeless Young Adults

Important Points Made by the Speakers

- Many different factors acting alone or in combination can result in homelessness for young adults, and little research has been done to evaluate interventions that address these factors among this population. (Courtney)
- Remaining family ties among young adults aging out of foster care can exert a powerful influence on the renegotiation of family relationships. (Samuels)
- The negative experiences that young adults had in their families of origin and while in foster care need to be considered to help this population achieve well-being. (Samuels)
- Young adults without children are not eligible for many of the welfare services provided in the United States. (Lower-Basch)
- If programs serving young adults and welfare programs worked more closely together, more young adults could receive the kinds of skills and supports they need for success in the workplace. (Lower-Basch)

A variety of public systems exist to assist vulnerable populations, including populations of young adults. This chapter summarizes presentations on three of those systems: services for homeless young adults, foster care, and welfare services.

SERVICES FOR HOMELESS YOUNG ADULTS

According to data from the National Incidence Studies of Missing, Abducted, Runaway, and Throwaway Children, about 1.7 million children have spent at least one night homeless, said Mark Courtney, professor in the School of Social Service Administration at the University of Chicago. More than 99 percent of those minors went home again, but approximately 380,000 remained away for a week, and 131,000 remained away for a month.

The Homeless Management Information System identifies about 150,000 young adults ages 18-24 as having been homeless. As with children, most are homeless for short periods, but 13,000 have experienced episodic homelessness and 15,000 chronic homelessness.

Homelessness typically results from a "constellation of challenges," said Courtney. Research has shown that homeless populations tend to have strained or nonexistent relations with family, high self-reported rates of parental maltreatment, and disproportionate involvement with the foster care system and the juvenile and adult justice systems. They also tend to have low educational attainment, limited work experience, and limited human capital on which they can draw. People who are homeless often engage in risky behaviors or are victimized physically or sexually. Many of the homeless are parents: Households headed by a young adult under the age of 25 make up more than 25 percent of homeless families in the homelessness assistance system.

U.S. policy on homeless young adults includes a focus on prevention. The Runaway and Homeless Youth Act,[1] which is currently funded at slightly more than $100 million, includes three programs. The Street Outreach Program sends workers into the community to connect youth with services. The Basic Center Program funds drop-in centers for sheltering for up to 21 days and a variety of other services. The Transitional Living Program houses young people between ages 16 and 21 for up to 18 months with employment, education, mental health, and other services (ACF, 2013).

Little research has been done to compare the effectiveness of these interventions. Even less research exists on the comparative effectiveness of these programs for subpopulations such as homeless young people with significant mental health problems or homeless young parents. In general, Courtney, concluded, "there is clear mismatch between the resources provided . . . and the need" for homeless young adults.

[1] The Runaway and Homeless Youth Act, Public Law 110-378, 42 U.S.C. § 5601.

YOUNG ADULTS WHO HAVE BEEN IN THE FOSTER CARE SYSTEM

About 400,000 children are in foster care on any given day. Most of these children will return home to their biological parents. "That is the way we want it," said Gina Miranda Samuels, associate professor in the School of Social Service Administration at the University of Chicago. "We want to see kids have the opportunity to be returned to the families they were originally removed from." About 60,000 children in the foster care system are available for adoption, she said. Those children who are not placed with permanent families age out of the system at 18, but this group represents only 11 percent of all the young people who exit from the foster care system.

In 2011, approximately 26,000 youth aged out of care, said Samuels. Youth in foster care often have highly complicated or fractured family networks, but even youth who age out typically retain family ties. These ties can be a major consideration as these young adults renegotiate, generally with intervention from a caseworker or institution, their own family relationships.

The Foster Care Independence Act of 1999,[2] which built on 1986 amendments to the Social Security Act, provides states with a dedicated funding stream for transitional services for older youth in foster care. Its main component is the John H. Chafee Foster Care Independence Living program, which is funded at about $140 million annually, said Samuels. It provides funding for education training, employment, life skills, and financial support services for youth up to age 21. In addition, education and training vouchers are authorized for $5,000 per year for postsecondary education and training.

The Fostering Connections to Success and Increasing Adoptions Act of 2008[3] provides federal matching funds under Title IV-E to reimburse states for out-of-home care up to 21 (including relative care). It requires educational continuity, unless it is not in the best interest of a young adult to do so, and reimburses for associated transportation expenses. It also requires the development of a transition plan 90 days prior to youth exiting from care. Some states have laws requiring agencies to make diligent family-finding efforts to retain and build important connections, though, as Samuels pointed out, finding connections as young adults can seem counterintuitive. "Usually we want attachment to happen in infancy."

Former foster youth tend to have poor outcomes in several key domains, Samuels observed. About one-quarter of former foster youth ages

[2] The Foster Care Independence Act of 1999, Public Law 106-169, 42 U.S.C. § 1305.

[3] The Fostering Connections to Success and Increasing Adoptions Act of 2008, Public Law 110-351.

23-24 do not have a high school diploma, compared with just 7 percent of nonfoster youth (Courtney et al., 2011; Golonka, 2010). Just 2.5 percent have a college degree, compared with 19.4 percent of others, and their median yearly earnings from employment are just $8,000, compared with $18,300 for nonfoster youth. They have higher rates of homelessness, pregnancy, receiving counseling or psychotropic medications, and substance abuse treatment (Courtney et al., 2011; Golonka, 2010).

Helping this population achieve well-being requires consideration of the negative experiences they had in their family of origin and while in foster care, said Samuels. Relational trauma and childhood adversity can have lifetime genetic, cognitive, physical, social, and emotional effects, Samuels said. Experiences as seemingly minor as changing schools repeatedly to major trauma, abuse, and neglect can cause major disruptions in the lives of young adults.

Neuroscience research also indicates that relationships during adolescence can either correct and restore neurological growth or deeply reinforce earlier disruptions caused by negative relational histories, Samuels said. Recent results about brain plasticity "provide both hope and some worry about what we are doing and not doing during adolescence."

Finally, grief work and narrative construction can directly address maltreatment, losses, and relational disruptions. Without this kind of work on relational skills and healing, said Samuels, youth who age out of the foster system can flounder. Samuels quoted a young woman she interviewed in a study about the transition to adulthood: "Being in the system they'll . . . teach you how to go to work, they'll try to teach you how to go to school, how to do hygiene. But they don't never teach you how to really grow up and deal with what you've been through so you don't just crack up somewhere."

Samuels pointed to several empirical and theoretical gaps in understanding well-being from a relational and developmental perspective:

- What is healthy and "normative development" for this population? What does it look like when young adults come through the foster system and are still resilient, healthy, and hopeful?
- What practices support healing from adverse family dynamics and enhance abilities to retain and create meaningful and mutually growth-fostering relationships into adulthood? These practices can occur within birth families, cultures of origin, foster families, adoptive families, or other settings.
- What are the processes of "returning home" for purposes such as identity work, family belonging, and connectedness? "Many of these young people return in various forms and shapes to the very people who we spent a whole lot of energy, money, and time

keeping them from. How do we help them to make sense of these multiple parent figures and family identities in ways that serve them into adulthood?"

- What are the relational and emotional health components to outcomes such as unemployment, homelessness, crime, and educational attainment? "When I talk to young people who have not kept a job for long or [have moved] to seven places since the last time I talked to them, a lot of what they describe are relational issues that impair their ability to deal with a difficult boss, or whatever it may be."
- What are the other risk and protective factors beyond those of the individual, such as familial, societal, policy, and practice factors, and how do all of these factors interact as dynamic intersecting processes?

Maltreatment and foster care are two distinct factors that can independently shape outcomes among foster youth, said Samuels. But research on these factors suffers from selection bias. Are outcomes primarily due to aging out, or does aging out complicate or exacerbate preexisting risks? Also, interventions that facilitate specific outcomes for young adults in care are lacking.

Finally, Samuels concluded, what is well-being for this group? It is not necessarily the absence of risk or negative outcomes, nor is it just the presence of jobs, assets, and social capital. Yet these things factor into considerations of well-being. "How do we employ methods and ways of thinking that are more complex . . . with the goal of having an integrated science and empirical base that allows us to make informed decisions to support the well-being of children and families?"

During the presentations by the young adults at the workshop, Isha-Charlie McNeely emphasized the importance of youth working with youth. In her counseling work with youth transitioning from foster care to post-secondary education, the young people she mentors tell her things that they will not tell an older counselor. "I tell them I was in foster care, and that rapport is already there. . . . I have a different credibility because I lived those experiences. There definitely needs to be more funding and support around peer-to-peer mentoring and being able to relate."

McNeely has four siblings from the same parents, all of whom were put in the foster care system, yet she is the only one who graduated. Multiple factors gave her an advantage, she said, including the stability afforded by her adopted parents, strong relationships with others, and being able to communicate with people from different backgrounds. Without these skills, adolescents can be stuck in the transition to young adulthood forever.

McNeely also drew a distinction between grieving and trauma. When

she entered foster care, she was told to go to counseling, and based on one evaluation she was diagnosed with a mental health disorder and placed on medication. But she was grieving, not sick, she said. "I had a loss. I lost my family. Because I was put into a system and institutionalized, my case was medicalized instead of looking at it as me acting out. . . . Mental health is not a constant state. It is fluid. . . . I don't think that any youth should be given a diagnosis off of one evaluation or one active behavior that they did. The whole circumstance, the whole case, their life, and where they are at that time needs to be taken into perspective."

WELFARE SERVICES

Many young adults are poor, observed Elizabeth Lower-Basch, policy coordinator at CLASP. The official poverty rate for adults ages 18-24 is 20.6 percent, but it would be much higher if the rate included the approximately one-third of young adults who are living with roommates or with their parents (DeNavas-Walt et al., 2012). Many young adults are still in school, which is generally considered a good thing, though they can still lack enough income to achieve well-being. But many young adults are neither in school nor employed, and these rates are especially high among vulnerable groups.

The safety net in the United States varies greatly by family status. Parents can receive cash assistance and services under the Temporary Assistance for Needy Families (TANF) program, but nonparents cannot, said Lower-Basch (with the exception of some services for youth up to age 24 and noncustodial parents). The Supplemental Nutrition Assistance Program (SNAP), historically known as food stamps, is available to both parents and nonparents, except that able-bodied adults ages 18-50 without children generally are limited to 3 months of receipt in a 36-month period unless working or in a work activity for at least 20 hours per week or unless they are exempt, with additional rules applying for college students. Medicaid is more available to parents than to nonparents. However, beginning in 2014, low-income adults without children will be eligible for Medicaid in every state without need for a waiver, and additional benefits will be available in the states that adopt the Medicaid expansion (CMS, 2013). The earned income tax credit is a larger subsidy for people who have children than for people who do not, and childless workers under age 25 are not eligible for the earned income tax credit at all.

According to estimates prepared by CLASP, only about 40 percent of poor young adults ages 18-25 receive food stamps—the most widely available benefit (Lower-Basch, 2013). Only 4 percent of poor young adults receive welfare under TANF or Supplemental Security Income. Looking at absolute numbers, in 2010 about 302,000 teens ages 16-19 received case

assistance through TANF, along with 86,000 parents under age 20 and 557,000 parents ages 20-29 (ACF, 2010). Also, in 2011, SNAP served more than 6 million young adults ages 18-25. These benefits were not limited to parents, had higher income limits than other forms of assistance, and often were not subject to time limits, many of which were suspended during the recession.

More than half of the adults who receive TANF benefits are younger than age 30 (Falk, 2012). Under the program's rules, teen parents under age 18 must live in an adult-supervised setting and attend school. Teen parents can be counted as engaged in work if they maintain satisfactory attendance at secondary school or the equivalent or participate in education directly related to employment for at least 20 hours per week. Education is much less emphasized for adults, who must average 30 hours per week of work participation or 20 hours per week if a single parent of a child under age 6. Vocational educational training can count as full-time activity for 12 months in a lifetime. Otherwise, education can be counted toward the rate only when combined with 20 hours per week of "core activities"—that is, work or work experience (HHS, 2013).

These statistics raise some interesting questions regarding young adults, Lower-Basch pointed out. First, how might TANF work programs change if they took into account the educational and developmental needs of young adults? Today, with the exception of a small amount of funding for employment and training services, neither TANF nor SNAP provides young adults with the kinds of skills and supports they need to succeed in the workplace. Given that it now takes longer than in the past to complete enough education to get a good job, TANF might have different features if it were more oriented toward young adults.

Second, how can programs serving youth and programs serving TANF recipients work more effectively together? Welfare programs and youth programs tend to be separated and not communicate with each other, even when someone is eligible to participate in both. (In the discussion session, Courtney and Samuels both pointed to some states and counties that have made progress in coordinating programs, including some states that have extended foster care to age 21 to better integrate education, workforce development, and health and mental health services.)

Finally, does the exclusion of young adults under age 25 from the childless worker earned income tax credit make sense? This provision was designed primarily to exclude students working part-time who were being supported by their parents, but it has the effect of excluding many others. "Given the low labor force participation rates for many young adults, this is precisely the group that you would like to see have more work incentives."

12

The Justice System

Important Points Made by the Speakers

- The juvenile justice system has become more systematic in identifying juveniles with mental health disorders and diverting them into alternate trajectories. (Mulvey)
- The United States incarcerates an "immense" number of people, and many of these people are young adults. (Mulvey)
- Increased research into pathways out of the juvenile and adult justice systems could help reduce the risk that previous offenders will reenter those systems. (Mulvey)
- More research is needed on incarcerated young adults to inform health care policy in the context of the criminal justice system. (Greifinger)

Millions of young adults are involved in the juvenile or adult justice systems in the United States each year, and this involvement can have dramatic impacts on their lives. Two speakers explored these and other impacts of the justice system on the lives of young adults.

TRAJECTORIES THROUGH THE JUVENILE AND ADULT JUSTICE SYSTEMS

The juvenile justice system is "basically a sorting system," said Edward Mulvey, professor of psychiatry at the University of Pittsburgh School of Medicine and currently a visiting scholar at the Russell Sage Foundation in New York. It tries to identify the right people to get out of the system, "and if they don't come back, that is a success." The juvenile system has recently focused on a developmental framework. It has become more attuned to the needs of adolescents, how they are different from adults, what they might need at different times, and the importance of accountability for the juveniles in the system (NRC, 2012).

The juvenile system also has become more systematic in its identification of juveniles with mental health disorders and in its use of evidence-based practice. It uses more structured risk assessments to identify those at risk of reoffending and to divert groups into different trajectories (Mulvey, 2013). However, it also continues to rely heavily on placement of juveniles into institutions, Mulvey noted.

One of the toughest problems the system faces is the overrepresentation of juveniles of color in the system. This disproportionate representation of young people of color begins at arrest and detention and progresses throughout the entire system. "There has been a lot of work" on the problem, said Mulvey, "but it is a continuing issue."

Turning to the adult system, the incarceration rate of inmates under state and federal jurisdiction has risen from about 100 per 100,000 population in the early 1970s to about 500 per 100,000 population today, with the incarceration rate for males an order of magnitude greater than for females (Carson and Sabol, 2012). The United States has about 2.3 million people locked up (Glaze and Parks, 2012). This is an "immense" number that imposes "immense" costs, Mulvey said.

Many of the people in the adult justice system are young adults (West, 2010). "Crime is the province of the young." Social scientists know very little about why crime drops off so rapidly during the young adult years, though obvious factors include maturation and a decline in impulsivity. "We all have stories of people we knew or ourselves and how stupid we were when we were younger and how we got smarter. We have talked also about a lot of the regular life changes that occur—peers changing groups, moving, and that sort of thing."

Mulvey is the principal investigator for Pathways to Desistance, a study of 1,354 serious adolescent offenders who have been followed for 7 years.[1]

[1] Additional information about the Pathways to Desistance Study is available at http://www.pathwaysstudy.pitt.edu.

Their average age was 16 when they entered the system, they all were found guilty of a serious offense (almost exclusively felonies) in Philadelphia or Phoenix, and they were 23 when the study quit collecting data. The study found, first, that most adolescents greatly reduce or stop criminal offending. With each subsequent release from the system, an offender is on the street longer with less likelihood of being rearrested. Their crimes also tend to become less serious over time.

Even at the "deep" end of the system where adolescents are committing felonies, they exhibit great variability. About 10 percent self-report serious and relatively stable rates of offending. About a fifth of the group begins by committing serious offenses, but drops to a low rate over the follow-up period (in their late teens and early 20s). Other groups start low and then rise or remain at a low level of offending through the period studied (Monahan et al., 2009; Mulvey et al., 2010b; Piquero et al., 2013). "These map on to the arrest data very neatly," Mulvey said.

His group has found a strong association between crime and alcohol and other drug use. Those who drink more alcohol and use more drugs report higher levels of offending. Many of the subjects in their study had diagnosable substance use problems (Mulvey et al., 2010a).

By the time the subjects in the study turned 23, their status on several life course indicators had changed. More than 50 percent were parents, and 40 percent were living on their own. They were locked up less and were more likely to have been involved in a romantic relationship. Forty-five study subjects—3.3 percent of the total—died before age 23.

By combining the characteristics of study subjects through a technique called latent class analysis, Mulvey and his colleagues identified four groups:

1. "Stalled out" (28 percent of the sample). These adolescents had gotten out of high school or had their GED, but they had little else in terms of positive outcomes. They had spent more time in institutional care over the past year and were less likely to be working.
2. "Anchored by a child, but unstable" (10 percent of the sample). This group was more likely to be parenting, have a stable romantic partner and some steady work, but no stable living arrangement.
3. "Independent, but transient" (35 percent of the sample). This group was more likely to be working in the community, with a romantic partner and a child, but limited residential stability.
4. "Stable, with limited responsibilities" (27 percent of the sample). These individuals were working steadily and were stable in their living arrangements.

A large number of the study subjects reported that they either had biological children or were responsible for children—more than 70 percent of females by age 23 and nearly 60 percent of males. "These kids have kids at a reasonably high rate," said Mulvey. Eighty-seven percent said they had spent time in an institutional placement either as a juvenile or an adult over the 7 years of the study. The average number of unique stays at juvenile facilities was 2.4, and the average at adult facilities was 4.9. "The complexity of these kids' lives in terms of institutional care is overwhelming when you start to look at it."

Of the 44 percent of adolescents in the study with a diagnosed substance use problem, 55 percent received substance use services in an adult setting, 61 percent in a juvenile setting, and only 30 percent in the community (Schubert and Mulvey, in press). However, the rate at which they got services was low, especially in the adult setting and in the community. "We know their substance use is related to offending," said Mulvey, yet many never or rarely get care.

Juveniles involved in the justice system do tend to go on to the adult system, but not uniformly so. They went through different paths, with a large amount of activity consisting of transitions at the level of jail and probation. The challenge, said Mulvey, is dealing with recurrent reentry into the community as a young adult. Currently, community-based services for serious offenders who have been found guilty of committing a felony are scarce. "These are the kids that most people don't want in their services," Mulvey said.

Family involvement is an unexplored asset for this group, Mulvey said. When adolescents leave institutions, about 80 percent of them go home to a biological mother. Many "are still connected to their families," even though they are often having families themselves.

More work is needed on pathways out of the justice systems during adolescence and young adulthood, said Mulvey. How can these systems assess the ongoing risk an individual poses for continued criminality and then intervene to reduce that risk? The role of psychosocial development is also a major unanswered question, as is the continuity and discontinuity of care afforded to young offenders as they transition in and out of institutions.

HEALTH AND SAFETY IN THE JUSTICE SYSTEM

Health care policy in the justice system is informed by few data about the characteristics or needs of prisoners, said Robert Greifinger, adjunct professor of health and criminal justice and Distinguished Research Fellow at John Jay College of Criminal Justice in New York City. Prisoners, whether young or old, tend to be treated the same way, regardless of developmental needs in younger inmates and cognitive and sensory deficits in

older inmates. Individuals are incarcerated for retribution, not rehabilitation, so "there is not a lot of thought about what we need to do to make a difference" in the health of inmates, said Greifinger. In his presentation, Greifinger described his views on the major health and safety concerns impacting young adults in the justice system.

Health care in prisons is driven by the constitutional right to medical care under the Eighth Amendment of the U.S. Constitution, which prohibits cruel and unusual punishment. For detainees in jails, the Fourteenth Amendment of the Constitution provides equal protection for detainees as it does for prisoners. This constitutional right requires timely access to care, access to an appropriate level of care, and treatment as prescribed by a physician, said Greifinger. If that does not happen, it constitutes deliberate indifference to serious medical needs and is grounds for litigation.

About 15 percent of adult prisoners overall have a serious mental illness, even using very strict criteria (Greifinger, 2013; Steadman et al., 2009). A high proportion of women and a lower percentage of men have posttraumatic stress disorder. Eighty percent of the adolescents in juvenile detention centers are medicated for mental illness, and many may be overmedicated. Alcohol and drug use and addictive disorders are common (Greifinger, 2013). Suicides are common in prisons and jails, though age-adjusted suicide data are not available, Greifinger said.

Prisoners who display symptoms of mental illness, such as agitation, may be placed in segregation as punishment for acting out, rather than receive an evaluation and medical treatment for the mental health condition causing the behavior. According to Greifinger, "the overuse of segregation in prisons as punishment for minor infractions is becoming a major issue of attention right now." One rule infraction, such as a fight, can put an 18- or 19-year-old in segregation for 6 to 12 months—23 hours per day in the cell, with no social contact, rarely a book, and limitations on visitations, said Greifinger. The prison environment is "isolating and alienating" for incarcerated young adults.

Violence and victimization occur in prisons, as does adverse mentoring from other inmates. Nutrition and exercise for prisoners are not "as good as they would be for energetic young folks in the community," said Greifinger.

Convicted first felony offenders are often poor, undereducated, and black or Hispanic, said Greifinger. Many prisoners have unstable relationships in the community and with families. They then enter into a highly disciplined environment with a command and control organizational structure that lacks any hope for achievement, promotion, or job skills. "The only thing to look forward to for a young person behind bars is getting out," said Greifinger.

Most incarcerated people come from just a few communities in each

city, which decimates the social capital of those communities. Low-income people are less likely to be married when they have their first child, in part "because a lot of the men are locked up." About 8 percent of incoming women are pregnant, and most women who come to state prison have at least one child, as do many of the men. The limited data available shows there is a negative impact on children of incarcerated parents. "We need to think about the impact on kids of parental incarceration."

Finally, reentry can be a great challenge. Ex-prisoners often have trouble finding jobs and can face stigma associated with being labeled as criminals. Their health care typically has little continuity as they exit the system, though the Patient Protection and Affordable Care Act could lead to the better coordination and transfer of medical information.

Greifinger identified several research and policy challenges. Much more data are needed on young adults behind bars. What are their rates of sexually transmitted infections, risk behaviors, and mental illness? Their suicide rates, nutrition, immunity, and chronic diseases all need to be monitored. Data are needed on the effectiveness of risk reduction, the minimization of harm, and the continuity of care on release.

In addition, public policies are needed that will reduce the rate of incarceration, Greifinger said. The mass incarceration of Americans is detrimental to the public health of young people in the United States. "It is so important that we can't avoid it." Greifinger added, "the low-hanging fruit . . . would be the provision of better mental health care in the community and better options for prevention, identification, and treatment of drug abuse." If that is done first, said Greifinger, it is likely the demand for prison beds will "go down dramatically."

During the discussion session, Richard Bonnie noted that this is a complicated issue and highlighted several factors that may contribute to the high incarceration rate in the United States, including economic interests inherent in the justice system, the justice system's objectives of retribution and deterrence, the role incarceration may play in lowering the crime rate, and the dispersion of costs across many entities.

Part IV

Themes and Future Research

13

Themes of the Workshop

At the end of the workshop, planning committee chair Richard Bonnie and Patrick Tolan, director of Youth-Nex (the Center to Promote Effective Youth Development) at the University of Virginia, provided an overview of important topics discussed at the workshop. In this chapter, the rapporteurs have drawn on their presentations and on the summary of the workshop to identify the workshop's major themes. The final chapter of this summary contains a compilation of individual suggestions made by speakers for future research, policy development, and changes to systems and organizations.

DIVERSITY OF YOUNG ADULTS' LIVES IN A CHANGING WORLD

Young adults traditionally have been expected to achieve an education, employment, financial independence, marriage, and children. Today the achievement of those milestones is much more variable. The young adult years are more fluid and flexible than in the past. In addition, young adults do not have a single age of majority or rite of passage. Rather, they undergo a variety of transitions to adult roles and enhanced autonomy. Young people can drive at 16, vote at 18, drink at 21, and stay on their parents' insurance until reaching the age of 26.

Young adults take many different paths through these years, although evidence reveals certain patterns in the paths taken. They develop differently, face different circumstances and opportunities, and make different choices. Also, major differences exist among subgroups of young adults.

Race and ethnicity, social class, immigrant status, family background, and many other factors affect their options and experiences.

The social landscape of life has changed markedly in recent years. More young adults are going to college, more are living at home with their parents, and more are members of underrepresented racial and ethnic groups. In addition, rapid changes in technology both facilitate self-expression and provide opportunities to support health and social services. Today, information is not so much passed from elders to youth as it is transferred horizontally among young adults. This "horizontaling," as Tolan called it, is premised on the idea that the information someone needs to know exists somewhere—it just needs to be accessed.

The nature of work has changed dramatically. High unemployment rates, especially among disadvantaged groups, have put a premium on education and have worsened the prospects of those with just a high school or some college education—a group referred to during the workshop as the "forgotten half." Social class distinctions are sharpening, and discrepancies in opportunities and resources are growing. Social mobility and income inequality are increasing in the United States, and these trends are affecting the lives of young adults.

CONTINUING DEVELOPMENT OF YOUNG ADULTS

Brain development is continuing in young adults, but this development is not a simple extrapolation of what occurs in adolescence. Executive function, impulse control, planning, and related aspects of psychological functioning continue to mature. Young adults also face particular challenges, and the plasticity of the brain allows it to respond to those challenges. Young adults show a decline in risk taking over the course of the young adult years.

During this time period, young adults are working to achieve self-regulation, responsibility, connection, and identity. Although achieving independence is often discussed, interdependence, connection to others, and successful transitions to new roles are critical.

OPPORTUNITIES FOR AND RISKS TO THE HEALTH AND SAFETY OF YOUNG ADULTS

The young adult years may provide an opportunity to make healthy rather than unhealthy behaviors into habits. This is a time when health habits with long-term implications are being set, and also a time when many chronic diseases are first evident.

Young adulthood is also a time of heightened risk for dangerous substance use, unintentional injuries, violence, unintended pregnancy, sexually transmitted infections, and suicide. Much research and attention have fo-

cused on these risks; perhaps less attention has been paid to opportunities to develop healthy habits and promote positive development.

Mental health is a particular concern for this age group because this is the time when symptoms of major chronic mental illness often first emerge, although some research suggests that there are prodromal signs and some childhood symptoms of these adult-onset disorders evident earlier (e.g., adolescence and late childhood).

Many health risks disproportionately affect particular groups, including young adults of color and young adults who are poor, unemployed, and/or homeless.

Summarizing the findings on young adult health and safety concerns, Tolan said, "This is a clear, critical, immediate health crisis that we should be focusing on." He pointed out, however, that most young adults are doing fairly well. Even young adults with one or more problems may be doing well in other areas. They should not be pathologized because of the challenges they face. But they are living in a changing world, which requires that young people and the institutions that serve them be flexible and adaptable. They need to figure out how to lead a good life, not the right life (i.e., efficiently and completely accomplishing the many life tasks traditionally expected for this age).

ENHANCING YOUNG ADULTS' HEALTH, SAFETY, AND WELL-BEING THROUGH SYSTEMS AND INSTITUTIONS

Supports, interventions, and systems and organizations designed with young adults in mind could help young adults to develop the skills and capabilities they need to manage their health, build skills, and avoid problems. But much remains to be learned about how societal systems and institutions can best promote young adults' safety, health, and well-being.

Young adults often have more difficulty accessing health services than do the members of other age groups because of low insurance rates, the medical system's focus on acute care, and a lack of guidelines and providers directed specifically at this age group. Young adults and their parents also are not well prepared for the transition from adolescent to adult health care. The Patient Protection and Affordable Care Act (ACA) has been designed to simplify and expand enrollment in insurance plans and the provision of services and information to young adults, but implementation of the act will vary from state to state and some groups may not be well served.

Although young adults are disproportionately affected by mental health conditions, the services they access are often fragmented and uncoordinated. Young adults may not be served well by either "child" or "adult" interventions. Increased coordination, the development of approaches appropriate for this age group, and enhanced training for professionals may help improve mental health care for young adults.

Young adults have new ways of using media for self-management, connection, and health, and the use of media extends across social groups. New media also have enhanced the marketing of products that can be harmful to young adults, including alcohol and tobacco products. Harnessing media and technology to promote healthy behaviors and provide information seems promising.

Educational attainment can have a strong effect on the health and well-being of young adults, but the quality of the schooling that adolescents and young adults receive is highly variable. In high schools, many groups tend to be overlooked, including underrepresented racial and ethnic groups, undocumented immigrants, and lesbian, gay, bisexual, transgender, and queer/questioning youth, and the resulting lack of preparation can cause problems for these students in college. High school dropouts and students who take on large amounts of debt in failed efforts to earn 2- or 4-year degrees can be placed in especially dire circumstances.

Colleges provide an opportunity for interventions and counseling of young adults. Screening programs can identify students who need services and are not accessing them on their own. Skills-based interventions, motivational interviewing, and personalized feedback can help reduce problems with alcohol and illegal drugs in college. Increasing mental health awareness among students can facilitate crisis interventions for young adults. These efforts may be helpful for students at a broad range of educational institutions, not just 4-year residential colleges.

Young adults in the military are fully employed and have access to comprehensive medical benefits for themselves and their families, yet they also face challenges that other young adults do not, including the physical and psychological consequences of being in combat. Mitigating strategies can reduce stress-related conditions and suicides. In addition, the broader military health care system is moving toward an emphasis on patient-centered care oriented around medical homes.

The foster care, welfare, and homelessness systems all influence the lives of young adults, but little research has been done to compare the effectiveness of different interventions for this age group. Young adults aging out of the foster care system are at risk of poor outcomes, including homelessness. Also, young adults are not eligible for many of the social services provided to others in the United States, though these services could help them gain the skills and supports they need for success in the workplace.

Finally, many young adults either have been or are involved with the justice system. The juvenile justice system has become more systematic in identifying juveniles with mental health disorders and diverting them into alternate trajectories, but the adult justice system does little more than warehouse offenders until release.

14

Future Research and Other Opportunities

The presentations and discussions summarized throughout this document attest to the research that exists on the health, safety, and well-being of young adults, but many participants also discussed future research in this area. A sound, critically formulated framework for research is needed, said Patrick Tolan of the University of Virginia in his closing remarks. Presentations at the workshop illustrated the complexity of the factors that are relevant to research aimed at understanding and improving the lives, health, safety, and well-being of young adults, including

- Age considerations, for example, considerations general to young adults, and differences within this group (e.g., age 18 versus 26);
- The different trajectories that young adults are on, for example, employment, unemployment, 2- or 4-year college education, the military, the justice system, homelessness;
- Factors such as race, ethnicity, culture, lesbian, gay, bisexual, transgender, and queer/questioning status, and immigration status; and
- The diversity of opportunities and support structures available to young adults.

Young adults fall into multiple groups on this list. To advance scientific understanding of the nature of problems, of needs, and of risk and response in this age group, Tolan suggested the development of a framework that has a *developmental within context* orientation.

The speakers at the workshop identified many questions for future research. Although it was not a central focus of the workshop, participants

also highlighted some areas where changes to policies, programs, and systems would be beneficial. These are compiled here to illustrate the range of suggestions made. The suggestions have been grouped by categories to provide a sense of the areas that participants raised as deserving attention, but suggestions may fit appropriately into multiple categories. This list does not represent a prioritized list of research questions or a comprehensive research agenda. The suggestions are identified with the speaker who made them and should not be construed as reflecting consensus from the workshop or endorsement by the National Academies.

UNDERSTANDING THE VARIED EXPERIENCES AND TRAJECTORIES OF YOUNG ADULTS

Researchers, policy makers, and others need to understand more about young adults' experiences, lives, and trajectories to inform policies, programs, and systems development, said some participants. Specific suggestions included the following:

- Researchers need to develop a basic developmental and contextual understanding of the young adult years, focusing on youth as active in directing their development. They need to understand the nature of young adults' needs, the risks they take, and the responses they use to challenges. (Tolan)
- Longitudinal cohort studies of young adults making the transition from school to work are needed that allow for the analyses of subgroups, including subgroups defined by social class. (Schneider)
- More research is needed to reveal the experiences of underrepresented racial and ethnic groups and the kinds of signals they get that can affect their future trajectories. (Rivas-Drake)
- Issues of gender and the problems that disproportionately affect males need renewed attention. (Settersten)
- Additional research is needed to study the impact of trauma on boys and men of color over the lifespan. (Corbin)
- Additional research should be done on turning points, on the potential to intervene in young adulthood, and on whether effective existing programs aimed at adults in general are effective specifically among young adults. (Oesterle)
- Researchers need to look specifically at the "missing half"—those students who do not go on to 4-year colleges, including those who drop out of high school, get only a high school degree, or receive some college education, perhaps earning a certificate or a 2-year degree. (Bonnie)

- College retention and graduation rates, the debt incurred in pursuing college degrees, and the connection between higher education and workplaces, neighborhoods, and social networks need further study. (Settersten)
- Increased research into pathways out of the juvenile and adult justice systems could help reduce the risk that previous offenders will reenter those systems. (Mulvey)
- How research on brain development should impact policy choices, including age lines in policy, should be considered. (Bonnie)

RESILIENCE, PROTECTIVE FACTORS, AND WELL-BEING

In thinking about young adults' health, safety, and well-being, it is important to examine and emphasize positive factors and areas of success, said some participants. Specific suggestions included the following:

- The protective factors that buffer young people from negative experiences and processes should be investigated. (Rivas-Drake)
- More research is needed on community engagement, the life course, and resiliency and protective factors. (Coyne-Beasley)
- Psychosocial research should look at the development of self-regulatory competence, the ability to function successfully, and the renegotiation of relationships with adults. (Steinberg)
- The psychosocial needs and social supports of young adults should be assessed so they can be better connected to a trusted adult or community. (Coyne-Beasley)
- Researchers need to investigate the practices and the relational and emotional health components that enable young adults to emerge from the foster care system as resilient, healthy, and hopeful. (Samuels)
- Researchers should investigate the role of storytelling in creating self-identity and enhancing well-being. (Clark)

MENTAL HEALTH CARE, MENTAL HEALTH INTERVENTIONS, AND SUBSTANCE ABUSE

Additional research is needed on mental health and substance abuse, particularly in the areas of intervention and service delivery, said some participants. Their specific suggestions included the following:

- Researchers should investigate how interventions for mental health disorders can appeal to young adults, how to get young adults into treatment, and how to help them stay in treatment. (Davis)

- Tailored interventions and services need to be tested on a large scale. (Davis)
- Health care and mental health care systems for juveniles and adults need to be better coordinated. (Davis)
- Young adults should be prioritized for mental health services. (Copeland)
- Awareness of the warning signs of schizophrenia, early referral, and intervention can prevent cognitive loss and violence. (Seidman)
- New interventions for drug and alcohol use are needed for both college and noncollege students. (White)

HEALTH CARE

Enhancing access to health care, ensuring appropriate insurance, improving coordination of care, and providing care that is culturally competent and effective for young adults were emphasized by a number of speakers. Specific suggestions included the following:

- Young adults need better access to health care, including screening for diseases, for mental health issues, and for risk behaviors, and the provision of necessary services. (Coyne-Beasley)
- The health care system should engage more multidisciplinary providers, family and community members, and young adults in prevention. (Coyne-Beasley)
- Health care and mental health care systems for juveniles and for adults need to be better coordinated. (Davis, repeated from above)
- Health care guidelines and protocols for young adults that are developmentally based need to be developed. (Irwin, Tolan)
- Future clinicians should have a discipline-specific young adult rotation. (Irwin)
- The implementation of the ACA should be closely monitored to inform policy makers and advocates about future steps needed. (English)
- Insurance for young adults needs to be comprehensive rather than focused on catastrophic events. (Neinstein)

FAMILIES, PARENTS, AND RELATIONSHIPS

The influence and roles of families, parents, and relationships in young adults' lives needs additional study, said some participants. Their suggestions included the following:

- The roles of race, ethnicity, culture, immigration status, and religion in parenting need further investigation. (Conger)
- The resources families devote to young adults need to be studied. (Settersten)
- The effects of the Great Recession on the parenting of young adults needs to be better understood. (Conger)

COMMUNICATIONS, MEDIA, AND DECISION MAKING

Communications, media, and decision making are important areas for future research and policy making to improve young adults' health, noted some participants. Their suggestions included the following:

- Studies are needed on the effects of social media on the lives of parents employed full- or part-time. (Clark)
- Research on marketing to young adults is needed, including subgroups such as underrepresented racial and ethnic groups and rural young adults. (Halpern-Felsher)
- Policies on marketing need to focus on the images being conveyed, restrict misleading ads, and pursue regulatory efforts such as countermarketing. (Halpern-Felsher)
- Better development of the science of split-second decision making is needed to inform health-related messages. (Jaccard)

YOUNG ADULTS' HEALTH, SAFETY, AND WELL-BEING WITHIN SYSTEMS AND ORGANIZATIONS

More research is needed on how young adults are functioning within various systems and organizations and how these systems and organizations could better support young adults' health, safety, and well-being. Specific suggestions highlighted by some participants included the following:

- Gaps in health services on college campuses need to be identified and addressed. (Bailie)
- Researchers should investigate how alcohol abuse in the military can be reduced and prevented. (Hutchinson)
- The effects of military service and of the military health care system on the health of young adults should be studied. (Hutchinson)
- How the education levels and physical fitness of young adults can be increased so that more people are eligible to join the military should be studied. (Hutchinson)

- The success rates for people in the military who receive waivers for physical conditions should be investigated. (Hutchinson)
- Whether some people who are denied the chance to enlist succeed in the military despite a health condition should be studied. (Hutchinson)
- Treatments for stress-related disorders among members of the military, including female service members, need to be studied further. (Ritchie)
- Research is needed on the comparative effectiveness of interventions to prevent and reduce homelessness, including interventions aimed at such subgroups as young adults with mental health problems or homeless young parents. (Courtney)
- Researchers need to investigate how welfare programs and services for young adults can work together more effectively to provide them with needed skills and supports. (Lower-Basch)
- The continuity and discontinuity of care afforded to young offenders as they transition in and out of institutions need to be studied. (Mulvey)
- Much more information is needed on the health status and care of prisoners. For example, what are their rates of sexually transmitted infections, risk behaviors, and mental illness? Their suicide rates, nutrition, immunity, and chronic diseases all need to be monitored, and data are needed on the effectiveness of risk reduction, the minimization of harm, and the continuity of care upon release. (Greifinger)

RESEARCH METHODS AND APPROACHES

The methods used to study young adults' health, safety, and well-being need careful consideration, emphasized some participants. Their suggestions for research methodology included the following:

- New studies on young adults are needed, including multiple cohort historical tracking, cross-national comparisons, longitudinal trajectory/pathway studies, collapsed cohort age-graded comparisons, intervention studies, and cost/service system analyses. The reanalysis of existing longitudinal datasets would also be valuable. (Tolan)
- Longitudinal cohort studies of young adults making the transition from school to work are needed that allow for the analyses of subgroups, including subgroups defined by social class. (Schneider)
- More randomized trials of health-related interventions should be conducted to evaluate the effects of interventions. (Schneider)

- Self-reports of health services need to be verified and supplemented through administrative records and other kinds of information. (Schneider)
- Technologies such as smartphones should be used to learn more about subjective well-being and physical health. (Schneider)
- The individualization of health-related messages and the integration of behavior-specific and common-cause intervention design principles need to be studied. (Jaccard)
- Research, policy, and applications need to be linked as much as possible. (Conger)

Appendixes

A

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B

Agenda

A WORKSHOP ON IMPROVING THE HEALTH, SAFETY, AND WELL-BEING OF YOUNG ADULTS

May 7 and 8, 2013

National Academy of Sciences Building, Room 120
2101 Constitution Ave., NW, Washington, DC

and

Webcast: http://iom.edu/Activities/Children/ImprovingYoungAdultHealth/2013-MAY-07.aspx

***Workshop Objective*:** Highlight research on the development, health, safety, and well-being of young adults. More specifically, workshop presentations and discussions will address the following questions:

- What are the developmental characteristics and attributes of this age group and its placement in the life course?
- How well are young adults functioning across relevant sectors, including, for example, health and mental health, education, labor, justice, military, and foster care?
- How do the various sectors that intersect with young adults influence their health and well-being?

May 7, 2013

8:30–8:45 am **Welcome and Introductions**
Richard Bonnie, University of Virginia, *Planning Committee Chair*

Goals and Objectives of the Workshop
Trina Anglin, Health Resources and Services Administration

8:45–9:10 am **Overview and Cross-Cutting Workshop Themes**
Session Objectives:
- Provide an overview of young adults' trajectories and issues relevant to the health, safety, and well-being of young adults.
- Introduce the themes for the workshop:
  - The complexity, heterogeneity, and non-traditional nature of young adults' trajectories
  - The changing environment, demographics, and family and social structure
  - The role of social media
  - The changing health care system

Claire Brindis, University of California, San Francisco

PART ONE: DOMAINS OF DEVELOPMENT, FUNCTIONING, HEALTH, SAFETY, AND WELL-BEING

9:10–10:30 am **Session 1: Neurobiological, Psychological, and Social Development**
Session Objectives:
- Highlight current research on the neurobiological, psychological, and social development of young adults.
- Discuss the unique aspects as well as the gradual transitions in this period of life.

Moderator: John Schulenberg, University of Michigan
Neurobiological development: Beatriz Luna, University of Pittsburgh
Psychological development: Laurence Steinberg, Temple University
Social development: Richard Settersten, Jr., Oregon State University

10:30–10:45 am Break

10:45 am–12:00 pm **Session 2: Economic, Cultural, and Social Landscape**

Session Objectives:

- Provide an overview of the economic landscape in which the transition to adulthood is occurring.
- Discuss social and cultural issues relevant to the transition to adulthood.

Moderator: Robert Crosnoe, University of Texas at Austin

Economic landscape: Heidi Shierholz, Economic Policy Institute

Culture, ethnicity, and race: Deborah Rivas-Drake, Brown University

Social media: Amanda Lenhart, Pew Research Center

12:00–1:00 pm Lunch

1:00–2:15 pm **Session 3: Safety and Health-Related Behaviors**

Session Objectives:

- Provide an overview of issues relevant to the safety of young adults, including intentional and non-intentional injury, violence, crime, victimization, sexual risk-taking behavior, HIV and sexually transmitted infections, substance use, and driving.
- Discuss where additional research is needed.
- Identify subpopulations of young adults that may face particular challenges and/or be underserved and discuss policies, programs, and other services that may provide additional supports.

Moderator: Velma McBride Murry, Vanderbilt University

Violence and victimization: Theodore Corbin, Drexel University

Sex and relationships: James Jaccard, New York University

Substance use: Helene Raskin White, Rutgers University

2:15–3:15 pm **Session 4: Physical Health Issues**

Session Objectives:

- Provide an overview of issues relevant to the physical health of young adults, including

  - Conditions which tend to have onset in young adulthood and for which prevention and early intervention could be appropriate;
  - Conditions related to wellness, such as nutrition, obesity, and reproductive health; and
  - The transition to adulthood for young adults with chronic conditions and disabilities.
- Discuss where additional research is needed.
- Identify subpopulations of young adults that may face particular challenges and/or be underserved and discuss policies, programs, and other services that may provide additional supports.

Moderator: Leslie Walker, Seattle Children's Hospital
Overview: Larry Neinstein, University of Southern California
Young adults facing particular challenges: Tamera Coyne-Beasley, University of North Carolina, Chapel Hill

3:15–3:30 pm Break

3:30–4:30 pm **Session 5: Mental Health**

Session Objectives:

- Provide an overview of issues relevant to the mental health of young adults, including stigma.
- Discuss where additional research is needed.
- Identify subpopulations of young adults that may face particular challenges and/or be underserved and discuss policies, programs, and other services that may provide additional supports.

Moderator and overview: Maryann Davis, University of Massachusetts
Epidemiology: William Copeland, Duke University
Psychotic disorders: Larry Seidman, Harvard Medical School

4:30–5:00 pm **Young Adult Discussants**

Session Objective: Comment on the day's presentations and discussions, including

- What seemed particularly important and/or useful?
- What important issues were missing from the day's discussion?

- What additional supports and services would help improve young adults' health, safety, and well-being?

Moderator: Leslie Walker, Seattle Children's Hospital
Amy Doherty, National Youth Leadership Network
Jeovanny Paz, Mary's Center
Eric Lulow, Substance Abuse and Mental Health Services Administration
Andrea Vessel, National 4-H Council

May 8, 2013

8:30–8:40 am **Welcome**
Richard Bonnie, University of Virginia, *Planning Committee Chair*

PART TWO: IMPACT OF SOCIETAL INFLUENCES, INSTITUTIONS, AND SERVICE SYSTEMS ON THE TRAJECTORIES, HEALTH, SAFETY, AND WELL-BEING OF YOUNG ADULTS

8:40–9:00 am **Overview of Interventions and Preventive Services Targeted at Young Adults**
Sabrina Oesterle, University of Washington

9:00–10:00 am **Session 6: Families, Social Networks, and Media**
Session Objective: Explore the impact of parenting and families, social networks, and marketing and media on young adults' health, safety, and well-being, including identifying any areas in which there is a need for further research or translation of existing knowledge into policy or practice?
Moderator: Zizi Papacharissi, University of Illinois at Chicago
Parenting: Katherine Conger, University of California, Davis
Social networks and social media: Lynn Schofield Clark, University of Denver
Marketing and media: Bonnie Halpern-Felsher, University of California, San Francisco

10:00–10:15 am Break

10:15–11:15 am **Session 7: Access to Health Care**

Session Objectives:

- Discuss young adults' access to healthcare. What is the impact of the Patient Protection and Affordable Care Act? What barriers continue to exist?
- Identify subpopulations of young adults that may face particular challenges in accessing healthcare and discuss policies, programs, and other services that may provide additional supports.

Moderator: Claire Brindis, University of California, San Francisco

Health services issues: Charles Irwin, University of California, San Francisco

Impact of the Affordable Care Act: Abigail English, Center for Adolescent Health and the Law

11:15 am–12:15 pm **Session 8: Trajectories, Health, Safety, and Well-Being of Young Adults in Education and Employment**

Session Objective: Discuss whether institutions—including colleges, universities, employers, and job-training programs—are adequately responding to the health, safety, and well-being needs of young adults.

Moderator: Robert Crosnoe, University of Texas at Austin

Education and work trajectories: Barbara Schneider, Michigan State University

College health and safety: Shannon Bailie, University of Washington

12:15–1:00 pm Lunch

1:00–1:45 pm **Session 9: Trajectories, Health, Safety, and Well-Being of Young Adults in the Military**

Session Objective: Explore the relationship between the military and young adults' health, safety, and well-being, including

- How do young adults' health and functioning impact their fitness to serve and their trajectories during and after military service?
- Is the military adequately responding to the health, safety, and well-being needs of young adults?

- How are preventive health services organized within, and between, branches of the military?
- In what areas, if any, is there a need for further research and what military lessons may translate to the nonmilitary context?

Moderator: William Adelman, U.S. Army
Overview: Jeffrey Hutchinson, Walter Reed National Military Medical Center
Psychological effects of war: Elspeth Cameron Ritchie, District of Columbia Department of Mental Health

1:45–2:30 pm **Session 10: Trajectories, Health, Safety, and Well-Being of Homeless Young Adults and Young Adults Involved in Foster Care and Welfare Services**

Session Objective: Discuss whether the foster care system, welfare services, and systems for homeless young adults are adequately responding to the health, safety, and well-being needs of young adults.
Moderator: Mark Courtney, University of Chicago
Foster care: Gina Samuels, University of Chicago
Welfare services: Elizabeth Lower-Basch, CLASP

2:30–2:45 pm Break

2:45–3:45 pm **Session 11: Trajectories, Health, Safety, and Well-Being of Young Adults Involved in the Justice System**

Session Objective: Discuss whether the justice systems are adequately responding to the health, safety, and well-being needs of young adults.
Moderator: Richard Bonnie, University of Virginia
Trajectories: Edward Mulvey, University of Pittsburgh
Health and safety: Robert Greifinger, John Jay College of Criminal Justice

3:45–4:15 pm **Young Adult Discussants**

Session Objective: Comment on the day's presentations and discussions, including

- What seemed particularly important and/or useful?
- What important issues were missing from the day's discussion?

- What additional supports and services would help improve young adults' health, safety, and well-being?

Moderator: Maryann Davis, University of Massachusetts
Shanae, Freddie Mac/Year Up
Jackie Malasky, AABB
Isha-Charlie McNeely, Young Adult Training and Technical Assistance (YATTA) Network
Jose, Montgomery County Department Health and Human Services

4:15–5:00 pm **Future Directions**

Session Objectives:

- Highlight important themes from the workshop presentations and discussions.
- Discuss key domains where attention is warranted for further research or translation of existing knowledge into policy or practice.
- Identify key opportunities for changes to policy and service delivery systems, including immediate, "low-hanging fruit" opportunities.

Moderator: Richard Bonnie, University of Virginia, *Planning Committee Chair*
Discussant: Patrick Tolan, University of Virginia

C

Registered Workshop Attendees

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Kabson Consulting

Yolanda Anyon
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Stefanie Boltz
The National Campaign to Prevent Teen and Unplanned Pregnancy

Katrina Brooks
Johns Hopkins University Center for Adolescent Health

Jorge Cabrera
Latin American Youth Center

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Background Paper: Pathways to Young Adulthood and Preventive Interventions Targeting Young Adults

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INTRODUCTION

The transition to adulthood is an important period in life that links development in childhood and adolescence with development in adulthood (McLeod and Almazan, 2003; Settersten, 2007). In the United States, the young adult period begins for most with high school graduation around age 18 and can last into the late 20s and early 30s. The way in which young adults move from ages 18 to 30 has potentially important implications for health, well-being, and quality of life in later adulthood (Arnett, 2000; George, 1993; Hogan and Astone, 1986; Macmillan and Eliason, 2003; Shanahan, 2000). Most often, times of transition between two stages of life encourage continuity and reinforce developmental and behavioral patterns already established earlier in life (Elder and Caspi, 1988). However, transition periods also can function as turning points, providing opportunities for change from negative to more positive life pathways, but also the reverse, interrupting and disrupting healthy trajectories (Elder, 1985, 1998; Feinstein and Bynner, 2004; Maughan and Rutter, 1998; Nagin et al., 2003; Rutter, 1996; Schulenberg and Maggs, 2002; Schulenberg et al., 2003; Wheaton, 1990). Young adulthood deserves special attention because it is a period of risk as well as opportunity. Although much evidence suggests that preventive interventions early in life are crucial for later health and well-being, less is known about the possibly unique opportunities to intervene during the transition to adulthood. The goals of this paper are to summarize the character of the transition to young adulthood for contemporary young adults; survey what tested and effective preventive interventions are available that specifically target young adults; and identify areas of need for future attention and research.

WHAT IS YOUNG ADULTHOOD?

Moving into adulthood is characterized by the adoption of new roles and statuses. Completing school, moving into full-time employment, leaving the parental home to establish one's own residence, forming romantic relationships, getting married, and becoming a parent are key normative developmental tasks in young adulthood that are expected to be completed during this life period (Booth et al., 1999; Cohen et al., 2003; George, 1993; Macmillan and Eliason, 2003; Modell, 1989; Neugarten et al., 1965; Roisman et al., 2004; Shanahan, 2000). A sense of independence, autonomy, and responsibility are often associated with these role transitions and can be markers of young adulthood in and of themselves (Arnett, 1998, 2000). However, studies of young people's own perceptions of when adolescence ends and young adulthood begins have indicated that role transitions,

particularly into parenting, continue to be important markers of young adulthood (Johnson et al., 2007; Shanahan et al., 2005).

Since the middle of the 20th century, the transition to adulthood has become much more diverse, individualized, and destandardized in Western societies (Arnett, 2000; Buchmann, 1989; Elzinga and Liefbroer, 2007; Settersten, 2007; Shanahan, 2000). Age norms have weakened and no longer clearly prescribe the timing and sequencing of transitions into adult roles. Although some young adults still follow a pathway into young adulthood that is characterized by sequencing high school completion with work or college attendance in the early 20s, and family formation during the mid- to late 20s, this previously normative sequence is less common for contemporary young adults. Some young adults do not attend college, but move into both work and family roles simultaneously or in more rapid succession during their early 20s. Some become parents as teenagers. Others take on adult roles more slowly, living with parents into their late 20s or returning to the parental home and limiting involvement in adult roles beyond work (Cherlin et al., 1997; De Marco and Berzin, 2008; Hill and Holzer, 2007; Seiffge-Krenke, 2013). Also, more young people than ever delay marriage and parenthood into their 30s or forgo these roles entirely (Blackstone and Stewart, 2012; Hagestad and Call, 2007; Umberson et al., 2010; Waren and Pals, 2013).

Weakening age norms and less prescribed and more individualized pathways to young adulthood increase the freedom for exploration, experimentation, and self-expression and create a period of "emerging adulthood" (Arnett, 2000), which may ease the transition into adult life. However, less structure and direction can also create more serious stresses and restricted opportunities to develop important skills and resources. This may limit opportunities for positive social development and negatively affect later health, well-being, and functioning in adulthood (Jackson, 2004; Mouw, 2005; Schulenberg et al., 2005).

HEALTH, SAFETY, AND WELL-BEING VULNERABILITIES AND RISKS DURING YOUNG ADULTHOOD

The transition to adult roles occurs in the context of fewer social controls than are in place in adolescence, including laws that make certain behaviors legal. For example, in the United States, purchasing and consuming alcohol becomes legal at age 21, and tobacco becomes legal at 18. Also, several behavioral and mental disorders (e.g., substance abuse and dependence and certain anxiety and mood disorders) begin to emerge during this time period and may be increasing in prevalence for more recent cohorts (Kessler et al., 2005). Some of the new freedoms during young adulthood encourage exploration and experimentation and have been found to be

associated with increased substance use and health-risking behaviors, including sexual behaviors that contribute to sexually transmitted infections (STIs) and HIV/AIDS (CDC, 2010; Cooper, 2002; Hall et al., 2008). Other transitions, especially taking on family roles, such as marriage and raising children, increase adult responsibilities and conventionality and have been found to be associated with decreased substance use, criminal activities, and fewer risky behaviors (Arnett, 2000; Bachman et al., 1997; Oesterle et al., 2011; White et al., 2006). Because there is variability in the timing of transitions into adult roles, some young adults will be more vulnerable to the health, safety, and well-being risks than others and at different times in their life course. This variability is important to consider when planning preventive services targeting young adults.

Several recent reports describe the unique health, safety, and well-being risks during the young adult years (Jiang et al., 2011; Lau et al., 2013; Mulye et al., 2009; Neinstein, 2013; NRC, 2009; Park et al., 2006; Office of Disease Prevention and Health Promotion, HHS, 2010). Some of the most notable risks are

- Substance use, abuse, and dependence peak during young adulthood.
- Unintentional injuries, particularly motor vehicle accidents, are the leading cause of death for young adults. Homicide (mostly related to firearms) and suicide are the second and third leading causes of death in this age group.
- Several mental health problems begin to emerge at this age.
- Young adults have the highest rates of STIs, including HIV.
- Young adults are the most uninsured age group in the United States.
- Rates of overweight and obesity have greatly increased in this age group (as they have for other segments of the population).
- Young adults receive few preventive services (including vaccinations and counseling for substance abuse, mental health, reproductive health, and physical activity and nutrition).
- Young adults have the highest rates of behavioral problems, but the lowest perception of risk and least access to preventive care and treatment.
- Although children and adolescents have consistent professional medical guidelines, young adults do not.
- Many disparities are present in health, safety, and well-being by gender, race/ethnicity, and socioeconomic status at this age.

Some commentators have argued that we need to pay more attention to young adults because they tend to fare worse than adolescents (Furstenberg,

2006; Irwin, 2010). Several subpopulations of young adults have especially few institutional supports during the transition to adulthood and may be at even greater risk for worse health, safety, and well-being outcomes than young adults in general (Foster and Gifford, 2005; Osgood et al., 2005a). Some of the most vulnerable subgroups of young adults include

- Youth transitioning out of foster care (Courtney and Heuring, 2005);
- Juvenile justice-involved youth (Chung et al., 2005; Uggen and Wakefield, 2005);
- Homeless youth (Hagan and McCarthy, 2005);
- Young adults with physical disabilities/chronic illnesses (Blum, 2005; White and Gallay, 2005);
- Youth involved in the mental health system (Gralinski-Bakker et al., 2005);
- Youth in special education (Levine and Wagner, 2005);
- Rural young adults (Carr and Kefalas, 2009; Snyder et al., 2009);
- Sexual minority youth (Needham, 2012); and
- Immigrant youth, particularly those who are undocumented (Gonzales, 2011; Rumbaut and Komaie, 2010).

While young adulthood is a time of risk for all young adults, these subgroups of young adults are especially vulnerable and need special support to ensure that they will manage the transition to adulthood well. Discussing the literature on these vulnerable groups in depth is beyond the scope of this background paper. However, Osgood et al. (2005a, 2010), and Foster and Gifford (2005) provide excellent treatments of the issues associated with the transition to adulthood for many of these vulnerable populations.

DIVERSE PATHWAYS TO ADULTHOOD

To understand pathways to young adulthood and their consequences for health, safety, and well-being, it is important to consider transitions to adult roles simultaneously across different salient domains, such as work, education, and family, because they are interdependent within and across time (Elder, 1998, p. 941). For example, participation in postsecondary education is associated with delaying the transition to a parenting role; (Mortimer et al., 2004; Oesterle et al., 2010; Rindfuss et al., 1987); conversely, individuals who have children very young are less likely to enter postsecondary education (Haggstrom et al., 1986; Oesterle et al., 2010; Upchurch, 1993).

Although the pathways to adulthood have become more diverse, several distinct pathways characterize the transition to adulthood for the ma-

jority of today's young adults. These pathways are differentiated primarily by the timing of family formation (marriage and parenthood) and participation in postsecondary education (Macmillan and Copher, 2005; Oesterle et al., 2010; Osgood et al., 2005b; Sandefur et al., 2005). Three primary pathways are common for women and men, with some notable gender differences (Amato et al., 2008; Hawkins et al., 2008; Macmillan and Eliason, 2003; Oesterle et al., 2010; Sandefur et al., 2005):

1. College attendance during the 20s with postponed family formation (including marriage, but especially child rearing) until at least the late 20s.
2. Family formation by age 30 (both marriage and children) with full-time (more likely for men) or part-time (more likely for women) employment, sometimes preceded by college attendance.
3. Unmarried working mothers (most have children by age 21) and unmarried working men (most do not have children) with very limited postsecondary education and varied attachments to the workforce.

Because nationally representative longitudinal data on transitions into multiple young adult roles are rare, studies of pathways to adulthood often have to rely on regional and community studies, which make it difficult to provide exact estimates of the prevalence of each pathway among young adults nationally. However, proportions found in pathway studies appear comparable to national rates of individual transitions (Rumbaut and Komaie, 2007); many results from studies of pathways to adulthood are comparable to each other (Amato et al., 2008; Macmillan and Eliason, 2003; Oesterle et al., 2010; Osgood et al., 2005b; Sandefur et al., 2005). Roughly speaking, about 40-45 percent of young adult men and women attend college and postpone family formation (pathway 1); about one-third of young adult men and women become married parents in their 20s (pathway 2); and about 25-30 percent are unmarried working mothers and working men (pathway 3).

Studies of multidimensional pathways to young adulthood illustrate how comparing young adults in one domain and at only one point in time could be misleading (Macmillan and Copher, 2005). For example, in Oesterle and colleagues' study (2010), young men who were on a pathway of "married fathers" and those men who remained "unmarried with limited postsecondary education" had about the same probability of living with children at age 21 (about 30 percent) and both were unlikely to be married at that age. However, by age 30 these pathways looked very different. The majority of the "married fathers" had married (76 percent) or were divorced (24 percent) by age 30, 71 percent lived with children, and 87 percent worked full-time. In contrast, only 13 percent of the "unmarried

men" had married by age 30; 34 percent lived with children; and only 57 percent worked full-time.

Gender Differences in Pathways to Adulthood

Overall, these three pathways to adulthood are about equally prevalent among men and women. Increasing gender equality in some transitional roles, including educational and professional roles, has created similarities in the pathways men and women take into adulthood (Fussell and Furstenberg, 2005; Johnson et al., 2001; Oesterle et al., 2010; Spain and Bianchi, 1996). In the domains of marriage and parenting, however, men's and women's life courses still differ (Moen, 2001; Oesterle et al., 2010; Williams and Umberson, 2004). For example, women marry and have children younger than men. Women are also more likely than men to raise children outside the context of marriage, and are much more likely to live with and have primary responsibility for raising their children (Cohen et al., 2003; Coltrane, 2000; Hochschild and Machung, 1989; Oesterle et al., 2010; Seltzer, 2000; Woodward et al., 2006). This appears to be the case particularly among those young adults on pathways with limited postsecondary education (Oesterle et al., 2010; Sandefur et al., 2005), suggesting that parenting is less tied to marriage for women than for men among noncollege young adults. The relatively large proportion of young adult women who raise children outside of marriage (while most young adult men who live with children are married) suggests that unmarried young adult mothers may need greater supports to successfully manage the transition to adulthood. More than men at this age, young unmarried mothers may need to take on multiple adult roles simultaneously to support their children, combining school, work, and parenting responsibilities. If no familial or partner support is available, this may create considerable stress for the young adult mothers, and may also put their children at risk for growing up in poverty (Bianchi and Milkie, 2010; Brandon and Bumpass, 2001; Falci et al., 2010). For men, the pathway of the "unmarried working men" is probably of greatest concern as they have the lowest probability of being employed full-time, but are also not attending college. They may have the fewest resources and supports to make a successful transition into young adult roles, exacerbated by the fact that men's economic position, especially for men with little education, is continuing to decline.

Race Differences in Pathways to Adulthood

Pathways to adulthood vary considerably by race. One of the major differences is that African American young adults (in particular, women) tend to be on a track of early parenting more so than whites and Asian

Americans, and they are less likely to marry or they tend to marry later (Macmillan and Copher, 2005; Mollenkopf et al., 2005; Schoen et al., 2009). Hispanic and Native Americans are also more likely than whites and Asian Americans to become parents early, that is, in late adolescence; however, African American early parents (and, in particular, mothers) are much less likely to have children in the context of marriage compared to Hispanic and Native American and other young adults (Macmillan and Copher, 2005; Sandefur et al., 2005). Oesterle et al. (2010) found that, in their community study of a cohort born in 1975 and beginning their transition to adulthood in 1993 when they were age 18, "African American women were 2.5 times more likely than white women to be on the 'Unmarried Early Mothers' pathway than on the 'Postsecondary-Educated Without Children'" pathway (p. 1449). Race was not associated with men's pathways to adulthood in this study after controlling for other sociodemographic factors and adolescent experiences such as parental education, family income, school performance, family disruptions such as parental divorce or death, and having been born to a teenage mother.

These findings are supported by results of Sandefur et al.'s study (2005) of two national cohorts (High School and Beyond cohort born in 1964 and National Educational Longitudinal Study cohort born in 1974). They found significant racial differences not only with respect to family aspects of pathways to adulthood, but also in terms of involvement in postsecondary education. African American, Hispanic, and Native American young adults tend to be the least likely to follow a pathway to young adulthood that involves college attendance compared to white and Asian American young adults. It is important to remember that, like in the Oesterle et al. (2010) study, these associations were found independent of other factors such as parental education and family structure. Furthermore, pathways to adulthood of nonwhite young adults also tend to involve less participation in the labor force (Fussell and Furstenberg, 2005). These racial patterns in family formation, education, and work participation during the transition to adulthood suggest that nonwhite young adults face a considerably greater risk of not making a successful transition to adulthood. Young African American women seem to have the greatest need for support during young adulthood because they face a particularly vulnerable situation with a high likelihood of raising children outside of marriage combined with lower employment and less participation in postsecondary education (Macmillan and Copher, 2005).

Childhood and Adolescent Predictors of Pathways to Adulthood

The timing of transitions into adult roles is greatly influenced by a person's social location, experiences of early adversity, and adolescent experi-

ences and behaviors. Sociodemographic characteristics, "including gender and race/ethnicity (as discussed above), socioeconomic status and family structure in childhood, and adolescent experiences such as academic performance and involvement in substance use and crime" significantly influence the acquisition of adult roles (Oesterle et al., 2010, p. 1438).

The evidence is very clear. Young adults from socioeconomically advantaged families (higher family income and more highly educated parents) are more likely to invest in postsecondary education, and because the two role transitions are closely tied to each other, they are also more likely to postpone family formation during the young adult years (Amato et al., 2008; Guldi et al., 2007; Oesterle et al., 2010; Osgood et al., 2005b; Sandefur et al., 2005). Other characteristics of the family of origin, such as family structure (two-parent vs. single-parent household), family disruptions (e.g., parental divorce or death), and having been born to a teenage mother are also associated with less educational participation during the transition to adulthood, early family formation, and having children outside of marriage (Barber, 2001; Oesterle et al., 2010; Ross et al., 2009; Sandefur et al., 2005; Wolfinger, 2003).

Although strongly associated with parental education, young adults' own academic performance in adolescence appears to independently increase the likelihood that they will go to college and delay family formation (Amato et al., 2008; Oesterle et al., 2010; Sandefur et al., 2005). Youth with less academic talent and motivation in adolescence are less likely to attend college and move into family roles earlier.

Drug use and delinquency in adolescence have been linked with precocious transitions to adult roles, including early and risky sexual behavior, teenage parenthood, and leaving high school early, as well as problems with the assumption of adult roles and less socioeconomic success, such as unemployment, single parenthood, lower educational attainment, and welfare receipt (Brook et al., 1999; Krohn et al., 1997; Newcomb and Bentler, 1988). Oesterle et al.'s (2010) pathway study found that more frequent substance use in adolescence and having been arrested in adolescence were significantly associated with a lower probability of being on a pathway to adulthood characterized by investment in postsecondary education and postponed family formation when these factors were considered by themselves. However, because youth from more disadvantaged families are more likely to engage in these behaviors, adolescent substance use and arrest did not uniquely predict different pathways to adulthood once family resources and family structural factors were considered at the same time.

Family background seems to be an important selection factor that is a source of important resources and the socialization and modeling processes that shape different life trajectories. For that reason, it makes sense to target the mediating processes through which family background influences path-

ways to adulthood with childhood and adolescent interventions. Early prevention is clearly important because it has the potential to redirect young people into healthier and more successful life paths. Much less is known about the potential of interventions during young adulthood.

Health, Safety, and Well-Being Consequences of Pathways to Adulthood

Different pathways to adulthood have the potential to be an expression of agency that matches the individual's needs, desires, values, and strengths to their situation, providing a good person–environment fit (Roberts and Robins, 2004; Schulenberg et al., 2003). It would be difficult to assume that certain pathways necessarily lead to better or worse health and well-being. However, research has shown that those who move into adulthood quickly and early, especially with respect to early parenthood, seem to fare worse in adulthood than those who are college bound and delay family formation (Amato and Kane, 2011). The risk of precocious transitions is that they are often accompanied by a lack of appropriate skills, resources, and social support (Harnish et al., 2000; Jackson, 2004; Newcomb, 1996; Pearlin, 1989; Pearlin and Lieberman, 1979; Pearlin et al., 2005). Off-time transitions, which are those that depart from normative age sequences and violate age norms, can have negative consequences because of social sanctions such as stigma and lack of support (Elder and Rockwell, 1976; Hogan, 1978; Jackson, 2004; Marini, 1984; Mortimer et al., 2004; Neugarten et al., 1965; Newcomb, 1996; Settersten, 1998).

Earlier ages at which transitions are made have been found to increase the likelihood of drug use, criminal behavior, unemployment, divorce, limited physical activity, anxiety, and decreased socioeconomic status (Bell and Lee, 2006; Newcomb, 1996). In particular, earlier timing of financial autonomy, independent living, and involvement in intimate relationships was later associated with poorer adult health and functioning (Newcomb, 1996). Delaying first parenthood can be more positive for a parent's health the longer it is delayed, up to about age 34, after which the health benefits begin to decline (Mirowsky, 2005).

Stalled or slow transitions to adulthood (e.g., living with parents for an extended period of time or returning to live with parents) also may be detrimental to later functioning and well-being. Bell and Lee (2006) found that completing full-time education at an older age was related to more stress. The "slow starters" in Osgood et al.'s (2005b) study, who had made no or only few transitions to adult roles by age 24, had the highest involvement in criminal behaviors at age 24 and did "not seem to be engaged in positive exploration or on a forward-looking path of any kind" (Osgood et al., 2005b, p. 31). Similarly, Schulenberg et al. (2005) found that having made fewer transitions by age 24 in education, work, family formation, and

living situations was related to lower well-being at that age as measured by self-esteem, self-efficacy, and social support.

However, few of these studies account for selection effects and it is unclear whether the reported differences in outcomes are due to choosing different pathways to adulthood or due to preexisting differences in health and well-being during adolescence (often tied to family background) that are also associated with different life paths. Several studies suggest that it is, for the most part, not the chosen transition path per se that determines later health and well-being, but earlier preexisting differences in health and well-being. For example, Amato and Kane (2011) found that college-bound women who delayed family formation rated their health higher, were less depressed, and had higher self-esteem in their mid-20s than women on other pathways; single mothers ranked the lowest on all of these measures. However, the same was true already 7 years earlier in adolescence before they even began their transition to adulthood.

For other outcomes, such as substance use, the results are more mixed, suggesting that in some instances more proximal experiences during the transition to adulthood may be important. In the Amato and Kane (2011) study, women who attended college and postponed family formation experienced a significantly greater increase in heavy drinking than women on other pathways, controlling for their drinking behavior in adolescence. This is consistent with findings from other studies that showed that family roles, and in particular normatively timed (not teenage) parenthood, decreased involvement in substance use, especially for women (Bailey et al., 2008; Oesterle et al., 2011; Staff et al., 2010).

Oesterle et al. (2011) found differences by pathways to adulthood in alcohol, tobacco, and marijuana misuse. Adolescent substance use was associated with, but did not fully explain, pathway differences in tobacco and marijuana misuse. Daily smoking and nicotine dependence were the most prevalent among "unmarried early mothers" and "unmarried men with little educational involvement" during young adulthood. These men were also the most likely to use marijuana. Different mechanisms associated with adult role changes (e.g., assortative mating) may be at work for tobacco and marijuana misuse as compared to alcohol misuse (Merline et al., 2008).

In sum, what these studies suggest is that experiences in childhood and adolescence appear to select and socialize young people into pathways that are predictive of later health and well-being and that more proximal experiences associated with transition pathways are not directly responsible for differences in some health and well-being outcomes in young adulthood. This phenomenon may be a form of "anticipatory socialization" (Yamaguchi and Kandel, 1985), in which those who initiate drug use early, for example, are more likely to abuse substances or become dependent later

in life (Guo et al., 2000; Hingson et al., 2006) and are also more likely to make precocious transitions into adult roles (including teenage parenting).

More research is needed to clarify which health and well-being outcomes are consequences of pathways to adulthood and which outcomes are best explained by selection effects due to earlier experiences and behavioral patterns established in childhood and adolescence. If family background and early socialization are indeed the most important factors in determining later health and well-being (regardless of pathways to adulthood), efforts to prevent problems in young adulthood should include a focus on early prevention. However, transition periods also can function as turning points, providing opportunities for change and intervention. If mastering new developmental tasks can provide experiences of competence and create a better match between person and context, earlier difficulties or negative experiences and behaviors may have less of a continued influence (Schulenberg and Maggs, 2002; Schulenberg et al., 2003, 2004).

EVIDENCE-BASED INTERVENTIONS TARGETING YOUNG ADULTS

Most of the health risks faced by young adults (unintentional injuries, violence, drug use, risky sexual behaviors and associated STIs, mental health problems, and overweight and obesity) are among the leading preventable causes of disease and death in the United States and have large costs to society (Catalano et al., in press; HHS, 2001; McCollister et al., 2010; Mokdad et al., 2004; Woolf, 2006). The good news is that much progress has been made in understanding the risk and protective factors associated with these health-risking behaviors, and a growing number of tested and effective programs and policies for preventing these behaviors have been identified. Furthermore, choosing appropriate evidence-based preventive programs is easier than ever since the creation of several inventories that compile tested and effective programs and policies and the quality of evidence for their efficacy. This information is accessible online and free of charge. However, despite the availability of these inventories, widespread dissemination and high-quality implementation of these effective programs and policies in communities have not been achieved (Ennett et al., 2003; Gottfredson and Gottfredson, 2002; Hallfors and Godette, 2002; Ringwalt et al., 2002, 2011; Wandersman and Florin, 2003). Prevention systems designed to facilitate a science-based approach to decision making around prevention and to choosing and implementing appropriate tested-effective programs may be necessary to achieve community-wide public health impacts. Prevention systems such as Communities That Care (CTC) (Hawkins et al., 2008) and Promoting School–University Partnerships to Enhance

Resilience (PROSPER) (Spoth et al., 2011) have been tested in randomized trials with promising results.

For the purposes of the current paper, we reviewed eight inventories (shown in Table D-1) to identify tested and effective programs that are specifically designed or adapted to target young adults (ages 18-30). We did not include any programs or policies that target youth only up to age 18 or those that are aimed at adults in general. A more comprehensive review would be required to identify programs that were designed for adults in general, but have been tested and shown to be effective also for young adults (Hadley et al., 2010).

A few additional inventories of tested and effective programs exist, but were not included in Table D-1 because they draw on several of the reviewed databases in the table and, therefore, do not provide any additional information (e.g., Child Trends' LINKS database [www.childtrends.org/Links] and FindYouthInfo.gov's Program Directory [www.findyouthinfo.gov/program-directory]). Other inventories were not included here because they do not list programs targeting young adults (e.g., the Institute of Education Sciences' What Works Clearinghouse, or WWC [ies.ed.gov/ncee/wwc], the National Secondary Transition Technical Assistance Center's Evidence-Based Practices [www.nsttac.org/content/evidence-based-practices], and the Promising Practices Network's Programs That Work [www.promisingpractices.net/programs.asp]).

The inventories listed in Table D-1 include hundreds of tested-effective programs and policies. However, only a few of the programs and policies specifically target young adults (Hadley et al., 2010). Our review identified 26 programs across five major topic areas (see Table D-2). Although a more comprehensive review may identify a few more programs and policies, the results from this initial review suggest that young adult interventions are an underdeveloped area and warrant further attention.

Each inventory uses somewhat different criteria for evaluating and categorizing the level of available evidence for the efficacy of a program. The last column in Table D-1 includes the efficacy categorization used by each inventory, starting with the highest category indicating the strongest evidence. Table D-2 identifies the level of evidence given for each program by an inventory. A description and comparison of the different rating systems is beyond the scope of this paper. Details on how each inventory rated the quality of available evidence can be found on each inventory's webpage (see Table D-1).

As Table D-2 shows, more than half of the identified programs targeting young adults (14 out of 26 programs total) are aimed at reducing alcohol and other substance use and related problems, such as drinking and driving and related injuries. Furthermore, most of these programs are designed for college students. Although a focus on college students is ad-

TABLE D-1 Reviewed Inventories of Tested, Effective Interventions and Programs

Name of Inventory	Organization	Topic Area	Rating System
Blueprints for Healthy Youth Development	Maintained by the Center for the Study and Prevention of Violence (CSPV) at the Institute of Behavioral Science, University of Colorado, Boulder; funded by the Annie E. Casey Foundation www.blueprintsprograms.com	Mental, physical, and behavioral health; education	Model program Promising program
The National Registry of Evidence-based Programs and Practices (NREPP)	Substance Abuse and Mental Health Services Administration (SAMHSA), U.S. Department of Health and Human Services, www.nrepp.samhsa.gov	Mental health and substance use/abuse	Quality of research rated on a scale from 0 to 4 (higher scores indicate better quality)
The Guide to Community Preventive Services	Centers for Disease Control and Prevention (CDC) www.thecommunityguide.org	Mental, physical, and behavioral health	Strongly recommended Recommended Insufficient evidence Discouraged
CrimeSolutions.gov	Office of Justice Programs (OJP), U.S. Department of Justice, www.crimesolutions.gov	Crime, delinquency, victimization, justice system processes	Effective Promising No effects
OJJDP Model Programs Guide	Office of Juvenile Justice and Delinquency Prevention (OJJDP), OJP, U.S. Department of Justice http://www.ojjdp.gov/mpg	Delinquency	Exemplary Effective Promising
Office of Adolescent Health Evidence-Based Programs	Office of Adolescent Health (OAH), U.S. Department of Health and Human Services www.hhs.gov/ash/oah/oah-initiatives/tpp/tpp-database.html	Teen pregnancy, sexually transmitted infections, sexual risk behaviors	High study rating Moderate study rating Low study rating

TABLE D-1 Continued

Name of Inventory	Organization	Topic Area	Rating System
Social Programs That Work	Coalition for Evidence-Based Policy; funded by the MacArthur Foundation www.evidencebasedprograms.org	Education, job training, crime	Top tier Near top tier Promising
Communities That Care (CTC) Prevention Strategies Guide	SAMHSA, U.S. Department of Health and Human Services www.sdrg.org/ctcresource/Prevention%20Strategies%20Guide/introduction.pdf	Substance use, delinquency, teen pregnancy, school dropout, violence	Program inclusion criteria: (1) Addresses risk/protective factors (2) Positive effect found in high-quality evaluation (3) Available for implementation

vised because binge drinking and heavy or excessive drinking is a problem on college campuses (Neinstein, 2013), a lack of programs targeting non-college-bound young adults is concerning. Among 18- to 22-year-olds in 2011, college students have only slightly higher rates of past-month binge drinking than non-enrolled young adults (39 percent versus 35 percent, respectively), whereas cigarette smoking is more prevalent among young adults not attending college (Neinstein, 2013). In fact, with the exception of alcohol and marijuana use, rates of past-year use of most illicit drugs are higher among young adults not in college compared to college students (Neinstein, 2013, Table 5.3A). Not only do young adults not attending college have about a similar or a higher risk of substance use than college students, they also represent are larger proportion of the U.S. young adult population. As studies of pathways to adulthood indicate, half to two-thirds of young adults are taking a pathway to adulthood that does not involve college attendance or only to a limited extent. Most recent data from the U.S. Census indicate that only 42 percent of all 18- to 24-year-olds were enrolled in college in 2011 (U.S. Bureau of the Census, 2011). Twenty-five years ago, a report by the W.T. Grant Foundation (1988) already tried to bring attention to the vulnerability of non-college-bound young adults by calling them the "forgotten half." Apparently young adults who do not go to college are still the "forgotten half." A focus on substance use prevention programs seems advisable for all young adults.

Four identified young adult programs are aimed at risky sexual behav-

TABLE D-2 Evidence-Based Programs Targeting Young Adults

Program Name	Target Population	Outcomes	Setting	Level of Evidence
Substance Use				
Brief Alcohol Screening and Intervention for College Students (BASICS)	College students who drink heavily (ages 18-24)	Alcohol use	College	Blueprints: Model Crime Solutions: Effective OJJDP: Exemplary NREPP: 3.1-3.3 CTC Guide
InShape	College students (ages 18-25)	Alcohol use Substance use Physical health Mental health	College	Blueprints: Promising NREPP: 2.5-2.7
Motivational Interviewing	Ages 18-25	Alcohol use Drinking and driving Alcohol-related injuries	College Health clinics Community	NREPP: 3.4-3.5
Motivational Enhancement Therapy	College students	Alcohol use	College	NREPP: 3.3
Training for Intervention ProcedureS (TIPS) for the University	College students	Alcohol use Drinking and driving	College	NREPP: 3.2
College Drinker's Check-up (CDCU)	College students who drink heavily (ages 18-24)	Alcohol use	College	NREPP: 3.1
Challenging College Alcohol Abuse (CCAA)	College students (ages 18-24)	Alcohol use	College	NREPP: 2.5
MyStudentBody.com (based on BASICS)	College students who drink heavily (ages 18-24)	Alcohol use	College	NREPP: 1.7-2.1

Alcohol Skills Training Program (ASTP)	College students who are social drinkers	Alcohol use	College	CTC Guide
Electronic Screening and Brief Interventions (e-SBI)	College students	Alcohol use	College Health clinics Community	CDC Community Guide: Recommended
Project ASSERT (Alcohol and Substance Abuse Services, Education, and Referral to Treatment)	Young adults visiting ED for acute care (ages 18-25)	Marijuana use	Health clinics Emergency departments	NREPP: 3.3
The Adolescent Community Reinforcement Approach (A-CRA)	Ages 18-25	Substance use Physical health Mental health	Health clinics Community	Crime Solutions: Effective
Communities Mobilizing for Change on Alcohol (CMCA)	Ages 18-25	Alcohol use	Community	OJJDP: Exemplary NREPP: 2.7-2.9 Guide
Communities That Care (CTC)	Birth to age 22	Substance use Delinquency Violence	Community	Blueprints: Promising Crime Solutions: Promising
Crime and Antisocial Behavior				
Operation New Hope	Chronic, high-risk juvenile offenders (ages 16-22)	Reintegration Life skills	Community	Crime Solutions: Promising
Nutritional Supplements for Young Adult Prisoners	Incarcerated men (ages 18-25)	Violence prevention	Correctional facility	Crime Solutions: Promising

continued

TABLE D-2 Continued

Program Name	Target Population	Outcomes	Setting	Level of Evidence
Suicide Prevention, Mental Health				
CARE (Care, Assess, Respond, Empower)	Ages 20-24	Suicidal behavior Personal and social assets	College Health clinic Community	NREPP: 3.4-3.6
Team Resilience	Young adult (restaurant) workers (ages 18-25)	Mental health (resilience) Substance use	Workplace (restaurants)	NREPP: 2.3-2.8
Sexually Transmitted Infections (STIs) and HIV Prevention, Sexual Behavior				
Bringing in the Bystander	College students (ages 18-23)	Sexual violence prevention	College	Crime Solutions: Promising
Horizons	African American girls and women (ages 15-21)	HIV/STI prevention	Health clinic	OAH: High study rating
Teens Linked to Care (TLC)	HIV-positive young adults (ages 13-24)	HIV education and prevention	Health clinic Community	CTC Guide
FOCUS: Preventing Sexually Transmitted Infections and Unwanted Pregnancies in Young Women	Young adult women (16 years and older)	STI prevention Unintended pregnancies	Military College Health clinics Community	OAH: High study rating
Respeto/Proteger	Young adult Latino parents	Parenting skills HIV prevention	Health clinic Community	OAH: Moderate study rating

Educational and Vocational Skills

InsideTrack College Coaching	College students	College attendance, persistence, and graduation	College	Coalition for Evidence-Based Policy: One RCT only
Job Corps	At-risk young adults (ages 16-24)	Vocational skills Employment	Community	OJJDP: Exemplary Crime Solutions: Promising CTC Guide
H&R Block College Financial Aid Application Assistance	Low- and moderate-income families with college-age child	College attendance and persistence	Community	Coalition for Evidence-Based Policy: Top Tier

ior and related consequences, such as unintended pregnancies and sexually transmitted infections, including HIV (see Table D-2). However, most of these programs target only specific or indicated populations such as African American women or young adults diagnosed with HIV. Given the general increase in sexual activity during this age, which often co-occurs with substance use—increasing the risk for unprotected sex, STIs, and sexual violence (Patrick et al., 2012)—there seems to be a need for broader preventive programming aimed at the general population of young adults.

We identified a few evidence-based programs aimed at other outcomes in the areas of suicide prevention, mental health, educational and vocational skills, and crime or antisocial behavior. What is striking, however, is that few young adult programs are focused specifically on building the life skills required to transition into and successfully navigate new adult roles, such as relationship skills, financial management, and parenting skills. That being said, many tested and effective parenting programs exist, but were not flagged in our search of the inventories because they are not specifically aimed at young adult parents. However, because most first-time parents are young adults, parenting programs (especially for preschool-aged children) should be applicable to young adults, despite not having been tested specifically in this population.

Table D-3 lists some of the tested and effective parenting programs for parents with preschool-aged children. Most of the reviewed inventories recommend four parenting programs based on the strength of the evidence:

- Nurse–Family Partnership
- Triple P–Positive Parenting Program
- Incredible Years
- Parent–Child Interaction Therapy

Details for each of these programs can be found on the websites of the inventories listed in Table D-1. In addition, there are several tested and effective parenting programs for parents of older children and adolescents. They were not listed here because they seemed less clearly relevant to young adult parents.

SUMMARY AND CONCLUSIONS

This paper focused on the most common pathways to young adulthood, which are differentiated primarily by the timing of family formation and participation in postsecondary education. Pathways defined by very early parenting and those characterized by not attending college seem to carry the most risk for poor health and well-being. Pathways are associated with race, gender, and socioeconomic factors in the family of origin. Women, and

TABLE D-3 Evidence-Based Parenting Programs for Parents of Preschool-Aged Children

Program Name	Ages	Level of Evidence
Nurse–Family Partnership	0-2	Blueprints: Model Crime Solutions: Effective OJJDP: Effective NREPP: 3.2-3.5 Coalition: Top Tier CTC Guide
Incredible Years	3-8	Blueprints: Promising Crime Solutions: Effective OJJDP: Effective NREPP: 3.2-3.8 CTC Guide
Parent–Child Interaction Therapy (PCIT)	2-12	Blueprints: Promising Crime Solutions: Effective NREPP: 3.1-3.9
Triple P System	0-12	Blueprints: Promising Crime Solutions: Effective OJJDP: Effective NREPP: 2.9-3.0 Coalition: Near Top Tier
DARE to Be You	2-5	NREPP: 2.7-2.8 Crime Solutions: Promising
Parenting Wisely	3-18	NREPP: 2.7-2.8 OJJDP
HighScope Preschool	3-5	Blueprints: Promising CTC Guide
Families And Schools Together (FAST)	4-9	Crime Solutions: Effective
Healthy Families America	0-5	Crime Solutions: Promising
Child FIRST	6-36 months	Coalition: Near Top Tier
Family Foundations	Prenatal	NREPP: 3.6-3.7
ParentCorps	3-6	NREPP: 3.2-3.6
Chicago Parent Program	2-5	NREPP: 3.3-3.5
Active Parenting Now	2-12	NREPP: 3.1-3.2
Parents as Teachers	0-5	NREPP: 3.0-3.4
Parenting Fundamentals	0-7	NREPP: 3.0-3.3
Systematic Training for Effective Parenting (STEP)	0-12	NREPP: 2.1-3.2

especially African American women, are more likely to be on a trajectory of early parenthood, often outside the context of marriage, more so than men and other racial groups. Young adults from disadvantaged families (in terms of parental income, education, and family disruptions such as divorce that can lead to single-parent households) are less likely to choose or be able to follow a pathway to adulthood that involves college attendance. Some of the most vulnerable subgroups of young adults—such as youth transitioning out of foster care, youth leaving the juvenile justice system, or young adults with physical disabilities or mental health problems—may require special support to manage the transition to adulthood successfully because they have few institutional supports.

Much of the variation in health and well-being outcomes during young adulthood may be less a function of particular transition pathways than family resources, family background, and experiences during childhood and adolescence that put youth on specific trajectories. However, more research is needed on a greater range of important outcomes related to health, safety, and well-being of young adults; importantly, this research needs to take into account important selection factors that may be associated with both transition pathways and the outcome of interest to better understand the proximal and distal developmental factors at play.

The fact that early experiences during childhood and adolescence seem to play such an important role in determining pathways to adulthood underscores the importance of early preventive interventions. However, transition times also allow for change and discontinuity. But much less is understood about processes of discontinuity and turning points and the potential to intervene during young adulthood to achieve better outcomes. The survey of available tested-effective programs presented in this paper suggests that only a limited number of current programs, often narrowly focused on college students, specifically target young adults. Good young adult programs may already exist, but may not have accumulated enough evidence to be listed as promising or evidence based. Prioritizing the testing of such interventions in well-designed studies (e.g., randomized trials) is highly recommended. Many of the existing evidence-based programs for adults in general may be suitable for young adults as well, but would need to be evaluated (and possibly adapted) specifically for that population. Furthermore, with the exception of parenting programs, there seems to be a lack of preventive interventions that focus on building the life skills required to make a successful transition to adulthood (e.g., relationship skills, financial skills, workplace-related skills). Program development and evaluation may need to be matched more closely to indicators of young adult problems, especially for the most vulnerable subpopulations of young adults, to provide more tested-effective solutions. For example, no programs addressing overweight and obesity and healthy living were identified.

Finally, existing programs that work need more widespread dissemination and high-quality implementation to achieve community-wide public health impacts.

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Background Paper: Parenting During the Transitions to Adulthood

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This paper was commissioned by the Institute of Medicine (IOM) and the National Research Council (NRC) to provide background for the May 7-8, 2013, Workshop on "Improving the Health, Safety, and Well-Being of Young Adults," hosted by the IOM/NRC Board on Children, Youth, and Families. The authors are responsible for the content of this paper, which does not necessarily represent the views of the IOM or the NRC.

> When I was a boy of 14, my father was so ignorant I could hardly stand to have the old man around. But when I got to be 21, I was astonished at how much the old man had learned in 7 years.
>
> —Mark Twain, 1939 (Sherrin, 208, p. 142)

As a society, the closest thing we have to a rite of passage that signals the beginning of adulthood is graduation from high school and turning 18. Congratulations, you are now legally responsible for everything you do; you can now vote, get married, and join the military; but you cannot have a drink for 3 more years, and you cannot rent a car until age 25—so not quite an adult (Sachs, 2010; Settersten and Ray, 2010). We also used to have societal expectations about the orderly acquisition of adult roles: complete high school, go to college or get a job or join the military, get established in the workforce, find a romantic partner, get married, get your own place to live, and then have children (Mouw, 2005). Now, however, young adults (YAs) and their parents agree (mostly) that becoming an adult is not defined by the number of roles you assume, but the experiences and transitions that signal independence from parents and acceptance of personal responsibility (Arnett, 2004; Cote, 2000; Nelson et al., 2007). Indeed, Mouw (2005) found multiple pathways to adulthood based on five common transitions experienced by American youth: completing education, leaving home, becoming employed, childbearing, and getting married (see also Furstenberg, 2008, 2010; Settersten, 2012; Shanahan et al., 2005). These changing expectations for young adults have also impacted their parents and families; parents are increasingly expected to provide the knowledge and the resources to enable their young adult offspring to become established as a self-supporting, self-reliant, well-functioning adult. In other words, parental involvement does not end when children leave home, whether it's for college, a job, or the military. Thus, parents have the task of providing social, emotional, psychological, and financial support until their children are safely and securely launched, whenever that may be.

PARENTING DURING THE TRANSITION TO YOUNG ADULTHOOD

The challenge to parents of YA children during this time of change is to provide support, but to do so without blunting the development of independence and self-reliance. A review of the literature (e.g., Aquilino, 2006; Nelson et al., 2007; Savage, 2003; Settersten and Ray, 2010) revealed five repeated themes regarding the successful parenting of YA children: communication, social support, finances, personal responsibility, and connections to other adults and resources. Prior research also suggests that these themes and parenting of young adults have their roots in childhood and adoles-

cence (e.g., Aquilino, 2006). Other important factors for the parents of the current generation of young adults (ages 18-29) are that the playing field is uneven and the economy is nearly unrecognizable compared to what it was like 20-30 years ago, even 5 years ago. These economic changes increase the challenges faced by parents. Simply put, how do parents go about advising and assisting their 21st-century children as they move into the arenas of education, work, relationships, and beyond based on knowledge and experience parents gained during the 20th century?

Based on what we know about parenting in childhood and adolescence, and to quote Larry Steinberg (2001), "we know some things," good parenting of children and adolescents involves warmth and support, clear expectations and limits, and reasonable consequences for when children fail to meet expectations for appropriate behavior, along with the provision of adequate food, health care, shelter, and clothing. A central question for present purposes involves the degree to which we can identify similarly effective parental behaviors for young adults. As we shall see, some behaviors are quite similar across developmental periods, such as social support; other behaviors change, such as control. This paper is designed to briefly summarize key findings from research on parenting this age group, identify gaps that need attention, make recommendations based on what we know, and discuss implications for social and public policy.

POSITIVE PARENTING OF YOUNG ADULTS

There appears to be general agreement that good parenting of young adults is built on a foundation of communication and contains elements of mutual respect, social support, financial knowledge and assistance, and recognition of changing expectations and relationships (e.g., Aquilino, 2006; Nelson et al., 2007; Savage, 2003; Settersten and Ray, 2010). That is, parents and young adults alike need to acknowledge that their relationship will change on multiple levels and both parties need to be open to new ways of thinking and talking about the multiple transitions of young adulthood (see Tsai et al., 2013). In this atmosphere of change, however, certain dimensions of positive parenting can be identified. We consider these dimensions by beginning with communication.

The Foundation of Communication

Parent–child communication is not new territory for families, but the dynamics of the parent–child relationship during young adulthood can present new challenges, especially for parents used to being in charge or in control (Aquilino, 2006; Savage, 2003). For example, reminders about homework assignments viewed as helpful during high school now may be

viewed as unwelcome intrusions during college. Similarly, reminders to YA children about doctor/dentist appointments also may be seen as intrusive—even an invasion of privacy by some—and this view is supported by privacy laws (FERPA and HIPAA[1]) that do not allow parents unfettered access to educational and medical records once their children turn 18. Once children leave the natal home for work or school, there are no more daily chats over breakfast or in the car that keep parents informed, and young adults now can more easily control the amount and type of information that is shared. However, this control of information may be more difficult for those young adults who are living at home while attending technical school or college, or who have moved back home for a variety of reasons, and those who co-reside as they get established in a first job.

Unlike previous cohorts of college students, many of today's YA students want input from their parents on many issues and report texting or talking with parents frequently (Savage, 2003; Settersten and Ray, 2010). Even with close relationships, parents and young adults readily acknowledge that these transition years can be challenging from both sides. Based on communication research, parent–adolescent relationships appear to function best when communication is reciprocal, respectful, responsive (i.e., sensitive), and restrained (Laursen and Collins, 2004). Parents and children with positive relationships during adolescence may have an easier time of tweaking their communication style to fit the more egalitarian relations that develop during young adulthood. For young adults who experienced poor parent–child relationships during adolescence, some separation may provide an opportunity to reestablish lines of communication and create positive connections during young adulthood. Some parents and young adults may involve siblings and other family members to serve as intermediaries to keep lines of communication open and functional during this time of transition (Conger and Little, 2010).

Parenting and Money: Everyone's Least Favorite Topic

The economics of parenting during the transition to adulthood is twofold: financial support and financial socialization. First, parents increasingly are the primary source of money for college and other training after high school. This expectation can be problematic if parents do not have the resources to send one or more children to college, yet feel the need to support the new American norm—a college degree (e.g., Chen and Berdan, 2006). Does it make sense for parents entering middle age to invest heavily in their YA children with an uncertain return, or should they invest in their

[1] FERPA: Family Educational Rights and Privacy Act; HIPAA: Health Insurance Portability and Accountability Act.

own retirement? Settersten and Ray (2010) raise the issue of "smart debt" for young adults as they invest in their own education with the prospect of paying it off; they also suggest that smart debt may include getting a good degree from a public university instead of a gold-plated degree from an expensive private school that may compromise the future financial health of parents and young adults alike. Similarly, for some parents and YA children, co-residence during the college years or a first job may set the stage for a successful transition to independent living in young adulthood (e.g., Goldscheider et al., 2001; Settersten, 2012).

Researchers also need to keep in mind that most parents have more than one child. Thus when we consider family economics during young adulthood, we need to think about siblings (see Conger and Little, 2010). There can be uncomfortable competition within families for scarce resources for education; parental favoritism about money issues can promote conflict between siblings, with the potential for long-lasting effects (e.g., Conley, 2004). For example, older, more established parents may have more resources to support the education of younger siblings, which can foster hurt feelings among older siblings who entered the family when their parents were just getting started (Steelman and Powell, 1989). On the other hand, YA siblings who complete a degree can serve as role models and may even be in a position to provide social and financial support for younger siblings (Conger and Little, 2010).

A second economic issue concerns parents as providers of financial socialization for their YA children. Our review uncovered a small, but growing literature on this neglected area (e.g., Jorgensen and Salva, 2010; Serido et al., 2010; Shim et al., 2009). Research in childhood and adolescence focuses primarily on how parents socialize their children to become socially or academically competent; however, finances are rarely mentioned. Many young adults report that an important goal is to be financially independent from parents (Nelson et al., 2007). How do young adults go about achieving this independence? How do parents prepare their children for assuming financial responsibility for themselves and for obtaining basic financial literacy? Parents also help YA children to gain an understanding of the implications of short-term decisions for long-term financial health and well-being. Economic decisions can be particularly important during times of economic hardship and uncertainty when the consequences of economic missteps can alter the pathway throughout adulthood (Conger et al., 2012). Some of the ways parents socialize their children is through modeling responsible financial management and decision making and by including adolescents during discussions of family finances. Thus, while parents are viewed as the primary source of knowledge with regard to finances, those who have conflict around finances are more likely to have YA children who avoid money-related discussions, thereby decreasing their opportunities to

learn about financial decision making firsthand (see Jorgensen and Salva, 2010).

In addition to the economics of parenting, differences due to social class in childhood and adolescence can be compounded as YA children of low-income/underprivileged parents move into education after high school without the supports and resources common to young adults with access to financial and social resources that prepare them for higher education (see Danziger and Rouse, 2007; Swartz, 2008). These social class differences have been exacerbated as the economic landscape for poor and working-class families has stalled or steadily declined over the past three decades, with even more dramatic differences during the past 5 years due to the 2007-2008 Great Recession (Redd et al., 2011).

Social Support, Responsibility, and Independence

In addition to financial support, another central task of parenting during the transition to young adulthood is the provision of social-emotional support. YA children work on establishing personal autonomy without severing ties with parents and siblings (except under severe conditions like abuse and neglect, alcoholism and drug abuse, parental mental illness, etc.) (see Aquilino, 2006; Conger and Little, 2010). Settersten and Ray (2010) suggest that parents and youth alike need to develop a relationship based on "interdependence" rather than independence. Ultimately, strong parental social support creates the possibility for the development of autonomy in conjunction with connectedness.

Furthermore, parents of young adults can encourage the development of personal responsibility in a framework of "relational maturity" (see Nelson et al., 2007). That is, parents teach the social norms of adulthood along with the consequences of violating social norms. Relational maturity also includes becoming less self-oriented and developing more consideration of others, which are important attributes when making decisions about social and romantic relationships. These lessons in societal expectations and consequences of norm violations can be especially important in the rapidly changing age of social media. In addition, parents can model and teach planning skills and responsibility. For YA children living at home, "good" parenting also includes assigning some adult roles that contribute to the household. In addition, parents can encourage health-promoting behaviors and the avoidance of health risk behaviors such as smoking and excessive use of alcohol (Schulenberg and Zarrett, 2006; Schulenberg et al., 2005).

PROMOTING POSITIVE PARENTING

The bookstores and the Internet are full of self-help books for parents from infancy through adolescence, but when you get to young adulthood, advice seems to be limited to parents of college-bound youth. Numerous books on the market offer practical advice on negotiating all aspects of the transition from high school to college, starting with the application process and moving to parenting long distance, and from finding a major to helping with the eventual job search and beyond (e.g., Sachs, 2010; Savage, 2003). Parents of young adults who do not take the college route are left to make their own way without institutional or cultural supports (see Aquilino, 2006; Settersten, 2012). What about those young adults who could benefit from college, but do not have the resources to tackle college right out of high school (see Aronson, 2008; Mortimer et al., 2008; Settersten and Ray, 2010)? They are especially vulnerable to truncated life opportunities in an increasingly high-tech world.

What if your parents did not attend college, are non-native English speakers, are undocumented immigrants, or just don't see the value of higher education? How do we, as researchers and policy makers, start gathering information that provides meaning to the aggregate data available from demographers and economists? Although focused on a college population, Konstam (2007) provides a method for starting to gain information on understudied populations by using interviews to gain individual insights on issues important to young adults, their parents, and their employers from diverse groups and perspectives. One idea that emerged was that of "thoughtful scaffolding" that provides emerging adults with individual and systemic support for negotiating the multiple opportunities of early adulthood; this concept could apply to all parents and social institutions interested in supporting a successful transition to young adulthood (see also Flanagan and Levine, 2010; Settersten, 2005, 2012).

Barriers and Constraints to Good Parenting

Good parenting faces a number of barriers—from both the perspectives of parents as well as YAs. First, nearly all parents want the best for their children—health, wealth, and happiness—but not all of them have the capacity or the resources to provide the best possible route to health, safety, and well-being of their YA offspring. Providing a detailed discussion of all of the barriers and constraints is beyond the scope of this paper, but we provide a short list of factors that may interfere with the capacity to provide good parenting. Barriers and constraints may include marital conflict, separation and divorce, death of a parent, physical and mental illness of parents or other family members, incarceration, parental unemployment, or

poverty, which may render parents unable to help out financially or emotionally. Furthermore, many adolescents come to this transitional period either without parents (e.g., homeless or foster youth) or with parents who are unwilling or unable to provide support due to their own problems. A number of scholars have written about these issues (e.g., Aronson, 2008; Courtney and Heruing, 2005; Chapter 6 in Settersten and Ray, 2010).

Young adults who have limited or no access to a parent and youth who are members of vulnerable populations may be particularly at risk for experiencing a bumpy ride through this transition (see Osgood et al., 2005). These vulnerable youth include homeless youth, youth aged out of the foster care system, incarcerated youth, and youth with mental illness and chronic physical illness. There is no easy answer for young adults in these situations, but researchers have started to recognize the challenges these youth face and are trying to design programs that can assist these youth during their often more precarious transition to adulthood. For example, Dang and colleagues (2013) have interviewed homeless youth and found those who report having a supportive relationship with a nonparental adult mentor are more willing to seek health care, to talk to shelter staff, and in some cases to make contact with parents or relatives. Is connecting with and maintaining a relationship with a caring adult a skill that can be taught? Can youth with mentors then serve as mentors for other homeless youth? Detailed research by Whitbeck (2009) illustrates the numerous challenges faced by homeless youth (e.g., mental and physical health problems) and discusses approaches to working with this high-risk, transient population, their families, and their social networks. These types of interventions may prove worthwhile as these youth make the transition to young adulthood.

Another unique population is sexual minority youth (lesbian, gay, bisexual, transgender, and queer/questioning as well as sexual minority parents. YAs who are "out" to their family and friends may have support from parents and family. Those who are not out to parents and family may have a challenging time negotiating transitions of young adulthood given typical concerns about forming relationships and navigating new settings of young adulthood, such as school and work, that may be exacerbated by concerns of sexual prejudice and homophobia (Russell et al., 2012). Recent research by Goldberg and colleagues (2012) also raise the issue of young adults with sexual minority parents: What happens when they leave home and enter other social networks? These young adults are viewed as living on the borders of two communities: the communities of their parents during childhood and adolescence and the mainstream heterosexual community. They identify some of the difficulties these young adults face as they negotiate the transition to young adulthood at the same time they must negotiate the challenges of leaving home, completing their education, entering the workforce, and establishing their own romantic relationships.

FINAL THOUGHTS AND FUTURE DIRECTIONS

Our review has shown that researchers have been collecting data on the transition to adulthood during the past three decades. However, conclusions are incomplete because the research in this area has focused primarily on young adults who are enrolled in 4-year colleges and universities (for an exception see Osgood et al., 2005). Research is needed on representative, noncollege populations to understand the family dynamics of those young adults not on the college track (i.e., the "forgotten half" identified by the W.T. Grant Foundation, 1988). Our own research bears this out; nearly 90 percent of high school seniors in our longitudinal study of 559 families in Iowa said they were planning to attend college, but by age 27 only about 60 percent had completed a 4-year degree (Conger et al., 2013). Researchers, clinicians, and policy makers need information from a wide range of noncollege young adults and their families to gain insights on the family and social relationships of youth who are in the workforce, in the military, and taking on multiple adult roles that affect their health and well-being. Future research also needs to consider the experiences of young adults from immigrant families (see Rumbaut and Komaie, 2010) as well as the roles of race, ethnicity, and culture in understanding parent and child relationships during the transition to adulthood (e.g., Mollenkopf et al., 2005).

Furthermore, we need systematic research on individuals who are making this transition without the support of family, such as youth aging out of foster care, homeless youth, or YA with parents who have no resources to help. "As a society, we pay too little attention to the fates of young people whose parents are unable or unwilling to provide the guidance and support that they so desperately need," wrote Settersten and Ray (2010, p. 143). For more on these issues, see Osgood et al. (2005) and Goldscheider et al. (2001).

In addition, a discussion of the parenting of young adults, especially during a time of economic uncertainty, provides an opportunity for all concerned to engage in the ongoing debate about the competing interests of research, policy development, and service delivery, and what steps we might take to bridge the gaps among these three distinct cultures. Shonkoff (2000) summarizes the issues of the debate succinctly: "Science is focused on what we do not know. Social policy and the delivery of health and human services are focused on what we should do" (p. 182). Researchers want to take time and gather information on all of the issues from multiple perspectives; programs and policy makers need practical, actionable information now—or yesterday. Our challenge then is to examine what is being done in light of what we think we know, and how the two inform each other. A thorough review of the linkages between research and policy is beyond the scope of this paper, and we refer readers to the following for more informa-

tion: Bogenschneider and Corbett (2010); Heckman and Krueger (2005); and Settersten (2005, 2012). Our job as researchers and policy makers is to keep the health, safety, and well-being of young adults in mind as we make recommendations for programs and policies. For young adults and their families—and society at large—succeeding in this endeavor is important.

We end by suggesting that we build on what constitutes good parenting of adolescents and recognize that offspring of all ages benefit from parent–child relationships that are based on warmth and support, reciprocal communication, clear expectations, financial advice and support, and a sense of personal responsibility. Countless studies demonstrate the salutary effects of these dimensions of positive parenting during adolescence (see reviews by Holmbeck et al., 1995; Steinberg, 2001). A growing body of research shows that young adults also benefit from positive parenting during the transition to adulthood (see Aquilino, 2006; Booth et al., 2012). For example, aspects of positive parenting have been related to competence in young adult romantic relationships (Donnellan et al., 2005; Meier and Allen, 2008), to educational attainment (Swartz, 2008; Wintre and Yaffe, 2000), and to investments in the next generation (Conger et al., 2012). These dimensions of positive parenting help promote the health, safety, happiness, and well-being of parents and their YA children. The "how" of this supportive relationship changes with age and maturity, but the fundamental principles remain the same. Although parents may feel that they are on their own in "launching" their YA children into the next stage of adulthood, social and public institutions need to recognize that healthy, happy, successful young adults benefit themselves, their families, and all of society.

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