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Increasing Delivery of Preventive Services to Adolescents and Young Adults: Does the Preventive Visit Help?

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A B S T R A C T

Purpose: Despite decades of emphasizing the delivery of adolescent preventive care visits and evidence that many preventive services reduce risk, little evidence links preventive visits to increased preventive service delivery. This study examined whether a preventive healthcare visit versus any nonpreventive healthcare visit was associated with higher rates of adolescent and young adult preventive services.

Methods: Analyzed Medical Expenditure Panel Survey data (2013–2015) to determine whether those with a preventive versus nonpreventive healthcare visit had higher rates of past-year preventive services receipt; adolescents (N = 8,474, ages 10–17) and young adults (N = 5,732, ages 18–25). Bivariable and multivariable analyses adjusting for personal/sociodemographic covariates tested for differences in preventive services rates between preventive versus nonpreventive care groups. Adolescent services were blood pressure, height and weight measured, and all three measured; and guidance given regarding healthy eating, physical activity, seatbelts and helmets, secondhand smoke, dental care, all six topics received, and time alone with provider. Young adult services were blood pressure and cholesterol checked, received influenza immunization, and all three services received.

Results: All preventive services rates were significantly higher in those attending preventive visits versus those with nonpreventive visits. Adolescent services increase ranged from 7% to 19% and young adults increase from 9% to 14% (all bivariable and multivariable analyses, $p < .001$). However, most rates were low overall.

Conclusions: Higher rates of preventive services associated with preventive visits support its clinical care value. However, low preventive services rates overall highlight necessary increased efforts to promote preventive care and improve the provider delivery of prevention for both age groups.

IMPLICATIONS AND CONTRIBUTION

This study demonstrates a strong association between receiving a preventive visit and higher rates of receiving preventive services among adolescents and young adults. These findings support the preventive visit's value as an important strategy for increasing receipt of preventive services and can guide policy and clinical decision making.

Abbreviations: FPL, federal poverty level; MEPS, Medical Expenditure Panel Survey; USPSTF, United States Preventive Services Task Force

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Adolescence and young adulthood present important opportunities to improve health across the lifespan through prevention and early intervention. The adolescent health field has long emphasized clinical preventive services, among other preventive interventions. Evidence points to the effectiveness of these services in improving adolescent health outcomes. The U.S. Preventive Services Task Force (USPSTF) recommends screening for tobacco use, depression, and obesity, among other areas [1]. Studies

support the effectiveness of preventive services in additional areas, including nutrition, suicide risk, substance use, and physical activity [2–5]. Despite this evidence, receipt of preventive services remains low [6,7]. Roughly half of adolescents who received healthcare in the past year, for example, did not receive guidance about physical activity (55%) or healthy eating (46%), according to national data from 2012 to 2014 [8]. Research also underscores the need for confidential care with evidence suggesting that adolescents will forego needed care when confidentiality is not assured [9–13]. National data from 2012 to 2014 suggest that only 31% of adolescents had time alone with a clinician, making it unlikely that confidential care was provided [8].

Since the early 1990s, professional health organizations have recommended that adolescents attend an annual preventive visit as an important strategy for assuring receipt of clinical preventive services [14]. This visit was reaffirmed in *Bright Futures: Guidelines for Health Supervision of Infants, Children, and Adolescents, 4rd edition*, issued in 2017 by the American Academy of Pediatrics; Bright Futures' recommendations cover youth through age 21 [15]. National estimates of adolescents' receipt of an annual preventive visit ranges widely, from 43% to 81% [16]. Despite the longstanding focus on the adolescent preventive visit, there is no published literature, to our knowledge, showing that preventive visits are associated with greater receipt of preventive services.

The growing field of young adult health recognizes that many markers of preventable "adolescent" health issues worsen in young adulthood [17,18], leading to a similar emphasis on clinical preventive services for this population. In 2012, researchers identified a set of USPSTF and consensus recommendations for preventive services for young adults that are similar to many recommendations issued for adolescents [19]. A 2014 report from the Institute of Medicine (renamed the National Academy of Medicine in 2015) includes research recommendations focused on preventive care guidelines and a comprehensive behavioral health screen [20]. As with adolescents, receipt of preventive services among young adults is low: in 2011 only two thirds received blood pressure screening (68%) and about a quarter received cholesterol screening (29%), according to national data [21]. The authors were unable to locate guidelines or recommendations related to preventive visits, or any visit, as a strategy for increasing receipt of preventive services. As with adolescents, receipt of a past-year preventive visit among young adults varies across national surveys; 26% to 58% among young adults. [16].

In short, the adolescent health field has long emphasized the need for preventive services and an annual preventive visit and the nascent field of youth adult health recognizes the importance of preventive services. As with adolescents, there is little or no evidence showing that young adults who attend a preventive visit are more likely to receive preventive services than young adults utilizing nonpreventive healthcare. In this context, the overall goal of this study is to examine the value of a preventive visit for adolescents and young adults who have used the healthcare system in the past year. Using nationally representative data, the present study aims to assess—for adolescents and for young adults—whether receipt of a preventive visit is associated with greater receipt of preventive services, comparing those who received a past-year preventive visit to those who had at least one healthcare visit in the past year, but not a preventive visit. Analyses utilized the Medical Expenditure Panel Survey (MEPS) from years 2013 to 2015. MEPS preventive service measures, while not entirely conforming to published guidelines, provide monitoring on important protective health factors. If results show that preventive service measures analyzed in MEPS are higher for those attending a preventive visit versus a nonpreventive visit, it would indicate support for the preventive visit as a venue for emphasizing preventive care for these age groups.

Methods

Study design and sampling

MEPS is an annual survey sponsored by the Agency for Healthcare Research and Quality that consists of a set of household surveys of health, insurance coverage, and healthcare utilization and expenditures of the United States civilian noninstitutionalized population. It uses an overlapping panel design in which a new cohort is recruited annually to complete face-to-face interviews at five-time periods across 2 years [22]. The present analysis utilized three MEPS data sets: the Full-Year Consolidated Data; the Office-Based Medical Provider Visits; and the Outpatient Visits files. The study protocol was approved by the Committee on Human Research at the University of California, San Francisco under the exempt status.

Participants

The analyses utilized subsamples for adolescents (ages 10–17) and young adults (18–25 years). To ensure adequate sample sizes, we pooled data from years 2013 to 2015 for adolescents (N = 12,832) and young adults (N = 11,055). To examine differences in preventive services received between those with a past-year preventive care visit and those with any healthcare visit but not a preventive care visit (the referent group), we utilized further subsamples of adolescents (N = 8,474) and young adults (N = 5,732) who had received at least one healthcare visit in the past year (total analytic sample, N = 14,206). For adolescents, adult caregivers (most frequently a parent) answered questions about health, insurance, and healthcare utilization and associated expenditures. For young adults, the household member with the most knowledge about the family's healthcare utilization, most frequently a parent, served as the respondent. Analyses were conducted separately for the adolescent and the young adult samples.

Objectives and measures

Study objectives were the following: To determine whether rates of preventive services for adolescents and young adults were higher for those with a past-year preventive visit compared to those who had any healthcare visit excluding a preventive visit.

Outcome variables were reports of adolescents' and young adults' receipt of preventive services in the past year. Preventive service variables in the MEPS data set differed for adolescents and young adults. For adolescents, past-year services assessed included physical parameters (height, weight, and blood pressure), and all three parameters measured, anticipatory guidance in six areas (healthy eating, physical activity, seatbelt use, helmet use, secondhand smoke, and dental visits), and all six areas covered. Caregivers (primarily parents) were asked if their adolescent had the physical parameters assessed, if they or their adolescent received advice in the six anticipatory guidance areas, and if yes (for both the physical parameters and anticipatory guidance areas), whether these had taken place within the past year. Past-year time alone with a provider was also assessed for adolescents 12–17 years of age; for these youth, caregivers were asked if their child had time