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Effective Contraception Use by Usual Source of Care: An Opportunity for Prevention

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A B S T R A C T

Introduction: Women using emergency departments (ED) or urgent care facilities for their usual care may lack access to contraception. This study examined the relationship between effectiveness of current contraception use (highly effective/effective methods vs. less effective/no method) and usual source of care in the clinic (referent group), urgent care, ED or none among U.S. reproductive-aged females at risk for unintended pregnancy.
Methods: Using the National Survey of Family Growth, we conducted logistic regression analyses using pooled, as well as age- and insurance-stratified data.
Results: Less effective/no contraception was associated with ED (odds ratio [OR] = 1.9 [95% CI = 1.3, 3]) and no usual source of care (OR = 1.5 [95% CI = 1.3, 1.8]) in the unadjusted logistic regression. Adjusting for confounders, no usual care source was marginally associated with less effective/no contraception use (OR = 1.2 [95% CI = 1.0, 1.4]; $p = .041$). Adjusted age- and insurance-stratified analyses revealed that less effective/no contraception was associated with the following: no usual care source for 15 to 19-year-olds (OR = 2.5, [95% CI = 1.5, 4.1]); ED usual care source for 20 to 25-year-olds (OR = 2.2, [95% CI = 1.0, 4.5]; $p = .038$); ED usual care source for Medicaid/Children's Health Insurance Program-insured (OR = 2.0, [95% CI = 1.0, 3.7]; $p = .042$); and ED usual care source for any publicly-funded insurance (adjusted OR = 2.1, [95% CI = 1.1, 3.8]).
Conclusion: Overall, use of less effective/no contraception did not vary substantially by usual source of care. Stratified analyses showed some groups of women with ED usual source of care (20 to 25-year-olds, Medicaid/Children's Health Insurance Program insurance, or any publicly-funded insurance) and no usual care source (15 to 19-year-olds) had higher odds of using less effective/no contraception.

Unintended pregnancies, defined as mistimed or unwanted at the time of conception, have considerable health, social, and monetary costs (Finer & Zolna, 2011; 2014; 2016; Hoffman & Maynard, 2008; Logan, Holcombe, Manlove, & Ryan, 2007; Nuevo-Chiquero, 2014; Sonfield & Kost, 2015). Black, Hispanic, low-income, and 15- to 24-year-old females are still disproportionately affected, despite recent decreases in the proportion of pregnancies that are unintended from 51% in 2008 to 45% in 2011 (Finer & Zolna, 2016). Contraception is a safe and effective form of prevention for unintended pregnancy (Curtis, Jatlaoui, et al., 2016; Curtis, Tepper, et al., 2016). Yet, contraceptive nonuse and inconsistent use, low uptake of highly effective methods such as intrauterine devices and implants, and limited access to family planning contribute to inequities in unintended pregnancy (Branum & Jones, 2015; Frost, Singh, & Finer, 2007; Grindlay & Grossman, 2016).

Having a usual care source is an important marker of health care access associated with increased likelihood of receiving preventive service, better health outcomes, and lower health

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care costs, including for women's health (Blewett, Johnson, Lee, & Scal, 2008; DeVoe, Petering, & Krois, 2008; Ettner, 1996; Jetty, Green, Bazemore, & Petterson, 2015; Lau, Adams, Irwin, & Ozer, 2013; Merzel & Moon-Howard, 2002; Phillips et al., 2009; VanGompel, Jerant, & Franks, 2015). However, acute care settings like the emergency departments (ED) and urgent care facilities differ from primary care clinics as usual sources of care because they generally lack preventive and continuity of care services, resulting in unmet health needs (Castilla, Cho, Smith, Hochhalter, & Ory, 2013; Corbie-Smith, Flagg, Doyle, & O'Brien, 2002; Grumbach, Keane, & Bindman, 1993; Janke et al., 2015; Shi, Nie, & Wang, 2013). Although few report urgent care or ED usual care sources (Centers for Disease Control and Prevention, 2014; Hennepin County Public Health Department, 2016a; 2016b; Sebastian & Fairbrother, 2012; Walls, Rhodes, & Kennedy, 2002), individuals with no usual care source often reflect two distinct populations that may intersect with the ED or urgent care: 1) those with poor access to health care who may primarily use acute care settings when they do seek health care, and 2) healthy populations who do not often use medical services, except for unexpected injury or illness for which they obtain care in the acute care settings (Liaw, Petterson, Rabin, & Bazemore, 2014; Pancholi, 2004). In either circumstance, the ED or urgent care may be a woman's only access to effective contraception to prevent unintended pregnancy.

Literature supports the acceptability and early feasibility of contraception services in acute care settings (American College of Obstetricians and Gynecologists' Committee on Health Care for Underserved Women, 2016; Chernick et al., 2015; 2016; Merchant et al., 2007; Miller, Randell, Barral, Sherman, & Miller, 2016; Schwarz et al., 2013). Yet, data exploring the magnitude of contraception needs among women who rely on the ED or urgent care facilities are limited (Chernick, Kharbanda, Santelli, & Dayan, 2012; Todd, Mountvarner, & Lichenstein, 2005). The purpose of this study is to examine the relationship between usual source of care (clinic, urgent care, ED, or none) and effective contraception use among U.S. females age 15 to 44 years. We also aim to understand how insurance and age moderate this association. We hypothesized that the ED, urgent care, and no usual source of care groups would have increased odds of using less effective/no contraception compared with clinic users. We also hypothesized that this association would be particularly strong among 15 to 25-year-old and uninsured women.

Methods

This cross-sectional study analyzed data from the National Survey of Family Growth (NSFG), a publicly available data set from the Centers for Disease Control and Prevention (National Center for Health Statistics & Centers for Disease Control and Prevention, 2011). The NSFG primarily gathers reproductive health information via in-person, computer-assisted interviews from a nationally representative sample of men and women. Because these data are de-identified and publicly available, the institutional review board designated this study not regulated.

The NSFG randomly sampled noninstitutionalized women aged 15 to 44 years living in households in the United States, oversampling Black, Hispanic, and adolescent participants. We excluded women who were pregnant, seeking pregnancy, or never sexually active because they are not at risk for unintended pregnancy. We also excluded women who reported their usual care source as hospital regular room or other (Figure 1). We

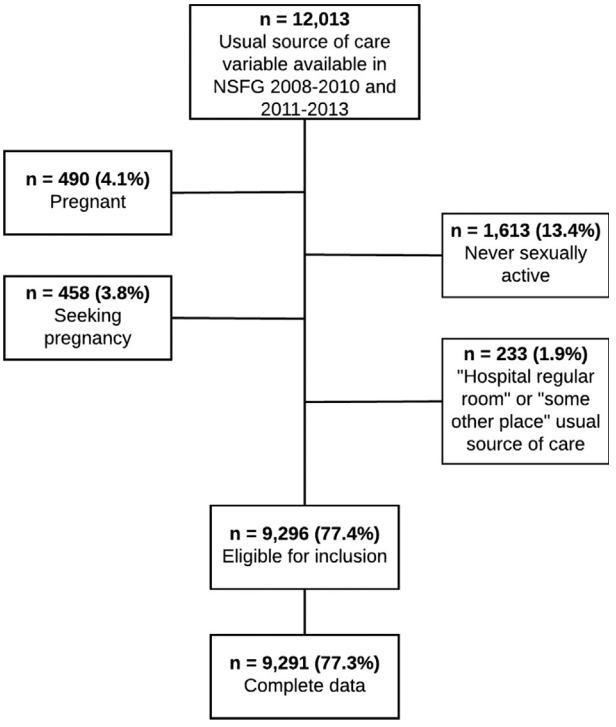

Figure 1. Study sample diagram. NSFG, National Survey of Family Growth.

combined two consecutive waves of data, 2006 to 2010 and 2011 to 2013, for this analysis. The 2006 to 2010 database contained responses from 12,279 female respondents, and the 2011 to 2013 database contained responses from 5,601 female respondents. Further information about sampling techniques is found elsewhere (National Center for Health Statistics & Centers for Disease Control and Prevention, 2011, 2014).

The main predictor was usual source of care, which was measured by combining two questions: "Is there a place that you usually go to when you are sick or need advice about health?", to which positive responses were asked "What kind of place is it?" We categorized usual source of care into four groups: 1) clinic, 2) urgent care, 3) ED, and 4) none. The clinic group included private doctor's office, hospital outpatient clinic, community health clinic, family planning clinic, employer- or school-based clinic, or sexually transmitted disease clinic, which reflect outpatient continuity of care or specialty reproductive health settings. We maintained urgent care as an independent category because comparative analysis showed that urgent care and clinic demographics were similar, despite urgent care facilities functioning as episodic health care settings like the ED. "Emergency room" responses were placed in the ED category and those with no usual care source were maintained as a separate group.

We evaluated age at the time of interview, self-identified race or ethnicity, highest educational year completed, insurance type, and poverty status as potential confounders. We combined Medicaid and Children's Health Insurance Program (CHIP) into one insurance category. We created an other government insurance category that combined Medicare, military, and other government-funded insurance types because these plans are publicly funded, but the eligibility requirements are substantially different from Medicaid/CHIP programs and reflect different populations. We categorized poverty status by percent poverty level based on thresholds set by the U.S. Census Bureau.