

Reducing the Impact of Unintended Pregnancies (UIPs) on the US Health System

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Bayer HealthCare Pharmaceuticals is committed to women's health and reducing the rate of unintended pregnancies (UIPs) in the US. Seeking education from leaders within the industry, Bayer held an advisory panel in April 2013 aimed at understanding challenges and trends in patient management, as well as identifying existing tools and resources available that aim to reduce the impact of UIPs. In an ongoing commitment to education and research, Bayer consulted with 3 key thought leaders to discuss the burden of UIPs on the US health system. Their opinions are presented in this article.

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The Burden of Unintended Pregnancies (UIPs) in the US

UIPs represent a significant public health issue and economic burden on the US healthcare system.^{1,2} Premature labor is significantly more common among women experiencing an unintended vs intended pregnancy.³ The cost in the US of preterm births, which may result from both unintended and intended pregnancies, is more than \$26 billion each year.⁴

Whether *mistimed* (occurring earlier than desired) or *unwanted* (occurring when no children are desired) at the time of conception, UIPs represent nearly half of all pregnancies in the US.^{5,6} Approximately 50% of women who have had a UIP were using some form of FDA-approved contraception.⁷ However, they were either using it incorrectly or inconsistently, or the contraceptive failed.^{5,8}

According to Jeff Levine, MD, MPH, “there are a lot of myths about who those women are and misunderstandings about how significant a public health problem this is. Women throughout the reproductive life cycle—women in their 30s and 40s—are still having unintended pregnancies. I think there’s also an assumption that a lot of [women with UIPs] never had a child and that’s not true.”

Despite the current statistics regarding UIPs in the US, lack of a consistent definition suggests that UIPs may be under-reported. While the Centers for Disease Control and Prevention (CDC) have attempted to create a universal definition for UIPs, professionals across various fields tend to define it differently, according to Diana Ramos, MD, MPH, Medical Director for Reproductive Health, Los Angeles Public Health Department. These varying definitions of UIP make it difficult to accurately estimate the number of UIPs that occur each year.

According to Ramos, the impact of UIPs reaches far beyond the economic burden on the health system. “Unintended pregnancies play into what is called the ‘social determinants of health.’^{9,10}

What happens to the health of this child as a result of a pregnancy where there may have been domestic violence, financial issues, relationship issues, depression?”

Citing the Adverse Childhood Experiences (ACE) study, which is an ongoing collaborative research study conducted by the CDC and Kaiser Permanente, Ramos explains that patients with the worst health outcomes (ischemic heart disease, liver disease, UIPs) have certain social determinants of health.¹¹

Increasing Awareness of UIPs

“I think there’s a little ignorance about how great a public health issue this is,” says Levine. “By age 45, almost half of all women will have an unintended pregnancy;⁶ 1 in 3 will have an elective abortion.”¹²

Joan Slager, DNP, CNM, Director, Nurse-Midwifery, Bronson Methodist Hospital, agrees. As a frequent speaker on the topic of UIPs, she states that many healthcare professionals in her audience are shocked by the rate of UIPs and the percentage that occur in women using contraception. She notes that healthcare providers may not be adequately quantifying the problem. “While you know it’s out there, I think the enormity of the problem just hasn’t been something that people have looked at. From a healthcare provider standpoint, you’re seeing one patient at a time. It takes someone to take a step back and say, ‘Wow this is a bigger problem than I realized.’”

To help increase awareness about the impact of UIPs, Ramos suggests that both national and regional campaign initiatives can address the issue head on. “The awareness would include not just the consequences of an unintended pregnancy, but it would also include the fact that now you actually have the opportunity for access to contraception to prevent that.”

In terms of creating awareness about UIPs, Levine indicates that it is important to step aside

Approximately 50% of women who have had a UIP were using some form of FDA-approved contraception.⁷

from political debates about abortion and focus on effective strategies to improve access to long-acting reversible contraception (LARC) to help reduce UIPs. Levine's plan focuses on raising awareness, starting with educating the public about LARC methods, while training healthcare providers to perform effective contraceptive counseling, LARC procedures, and adverse effects management. "That would go a long way to changing the focus away from abortion and more to unintended pregnancy reduction."

He added, "We need to get our young learners— young family medicine residents, OB-GYN residents, medical students—to understand how important reducing unintended pregnancy is. An important component of this education should include necessary information about access to all contraceptive methods, including LARCs."

Improving Outcomes with Targeted Patient Education

In terms of contraceptive use, it is critical that providers inform patients about all their options. "It shocks me when I hear talk around the country about how many offices are inadvertently limiting women access to effective and timely contraception," says Levine.

Patient communication and education are factors toward reducing UIPs.^{13,14} "Old-fashioned communication is no longer effective," says Ramos. "To be able to use social media—Twitter, Instagram, Facebook—I think that would be another way to really speak to all women in the ways they are already communicating. Communication can't be through traditional ways only. Changing this may help change outcomes."

According to Ramos, healthcare providers need to understand best practices for having effective conversations. For example, "pediatricians need to be concerned with UIPs because they see patients as they enter their teen years—a period when prevention programs could be useful to deter UIPs."

However, conversations about contraception should not be limited to patients who do not have children. It is important to have discussions about contraception after a pregnancy as well. "Unfortunately, I can count on one hand the number of women that I have seen in my career who come in before they become pregnant to try and plan," says Ramos. "I think the most critical piece is not so much preventing the first unintended pregnancy, but [also] preventing the next unintended pregnancy and helping provide the right contraception for women so they can plan."

While primary care and women's healthcare providers are considered key stakeholders in educating patients about contraception, Ramos believes the responsibility extends to everyone in healthcare. "If you have a reproductive-aged woman coming in for chest pain, she's somebody that you might want to make sure is using effective contraception. She would be a high-risk pregnancy right off the bat; but we just tend to work in silos and not think of the others."

Patient education about UIPs may also be provided by public health workers, community health nurses, or child protective services professionals. Additionally, because nurse practitioners and midwives see the impact of UIPs on women first hand, they take an interest in educating their patients about UIPs and helping them select an appropriate contraceptive method. "We are definitely more preventive health-oriented," says Slager. "We try to mitigate risk by anticipating problems. I think nurse providers are much more tuned in to wanting to have women self-actualized and independent and not a victim of their own fertility."

Programs Making an Impact

Although there is still a need for increased awareness about UIPs, there are several programs that currently have an impact. For example, Levine references his involvement in



the Reproductive Health Education in Family Medicine (RHEDI) program, which provides free contraceptive options, including LARCs, to patients and training to residents. “Our patients now have access to free, effective contraception. They’re getting it at point of care. I can literally put it in the same day they request it. I don’t have to wait for it to come in.”

Slager describes the effectiveness of her hospital’s program for postpartum depression as a model for developing UIP awareness and prevention campaigns. The hospital supported depression screenings because they saw it as a public health issue; in this case, a policy was developed for screening for depression that uses an established tool. The tool was incorporated into the electronic health record system to capture questions and identify those at risk. A similar approach could be applied to a UIP program.

In another example, Ramos cites the reproductive life planning assessment questionnaire from the Planned Parenthood Family Planning, Access, Care, and Treatment (PACT) program in California. “They ask the patients ‘When do you want to get pregnant?’ and ‘What are you doing about not getting pregnant?’ It starts a conversation. They make it part of their intake assessment for all their patients. So I think that’s something easy, straightforward, and could be easily replicated.”

Government Initiatives to Reduce UIPs

Several government departments have UIPs on their radar, including the Department of Health and Human Services and its Office of Adolescent Health. As a result, there are a variety of programs that are provided in an effort to reduce the rate of UIPs.

These include:^{15,16}

- Abstinence education programs
- Clinic-based programs
- Sexuality education
- Youth development programs
- Programs for special populations, including youth in the juvenile justice system, and pregnant and parenting teens

Medicaid has also made strides against UIPs through eligibility for family planning services.¹⁷ The military—for example, the Navy—has focused on it as well.^{18,19}

The CDC has led efforts to reduce UIPs, supporting access to contraception, and promoting education regarding its correct and consistent use.⁸ The CDC also partnered with the Federal Office of the Assistant Secretary for Health to reduce teenage pregnancy and address disparities in teen pregnancy and birth rates.²⁰

However, the government’s most significant contribution to addressing UIPs may have been in passing the Affordable Care Act (ACA), which provides women with access to contraception at no cost. “A coverage change with the Affordable Care Act is likely the best thing the government can do,” says Ramos.

Access to Contraception and the ACA

The ACA requires that most health plans and insurance policies cover recommended preventive services at no additional cost, including FDA-approved methods of contraception.²¹ “The passage of the Affordable Care Act—what the benefits are for all women—is an attempt to really try and change the approach to medical care so it is preventive and no longer reactive,” says Ramos.

“Healthcare providers need to understand best practices for having effective conversations [about UIPs].” - Dr. Ramos

Although it is a significant change within the healthcare system, not everyone is fully convinced it will have the impact desired. “Even if we make all contraceptive methods available at no cost to women,” says Levine, “clinicians still need to be able to accurately communicate the facts about their safety and efficacy.”

Levine adds, “We have to make sure that these policies not only make LARC options affordable, but easily accessible as well. Pre-authorization paperwork and ordering delays will remain significant barriers to clinician recommendation of LARC methods over less effective but easier to prescribe options. Delays in LARC availability at time of insertion in the office can also lead to missed opportunities to prevent an unintended pregnancy.”

Ramos agrees that it is important to educate healthcare providers about available contraceptive options such as LARCs and ensure they are adequately trained on the insertion and removal procedures of these methods. Additionally, information about how healthcare providers will be reimbursed for their time and services will be key. In terms of patient education about the ACA, Ramos emphasizes the importance of communicating that women now have access to contraception.

While there are currently no national quality measures in place to encourage patient education about contraceptives, Ramos notes that the timing is right for such a measure. By developing and implementing a measure through a quality organization such as the Agency for Healthcare Research and Quality (AHRQ), National Committee for Quality Assurance (NCQA), or The Joint Commission (TJC), providers can be encouraged to discuss contraception at every visit.

The Role of Managed Care

Under the ACA, patients are entitled to preconception health counseling as well as contraception at no cost. However, according to Ramos, physicians are frequently unaware that they can be reimbursed for the time spent counseling or for the time spent inserting a LARC.

Ramos sees a role for managed care organizations in interconception care (i.e., postpartum care). Health plan case managers, especially those who work with high-risk pregnancies, can play an important role in interconception care by making sure patients go to their postpartum check-ups where contraception may be provided. According to Slager, managed care organizations can also help reduce the rate of UIPs by ensuring that every patient of childbearing age receives contraceptive information that is comprehensive, including information about LARC. If this requirement were tied to a quality measure or reimbursement, she believes it would be something that could be readily embraced.

“We have several health insurance programs that reward our practice for meeting certain quality metrics,” says Levine. “None of those quality metrics have anything to do with reducing unintended pregnancy. I don’t think that any managed care program has made reducing unintended pregnancy rates a priority quality improvement initiative.”

Recommendations for the Future

To help reduce the rate of UIPs in the US, Levine believes that it is important to “bring contraception to the patient, rather than the other way around.” He added, “Some populations—the



poor, people with no transportation, people for whom English is a second language, and teenagers—are less likely to start the conversation...the onus should be on the physician.”

Levine suggests there is value in developing practice “champions” to address UIPs, but recognizes that it may require an additional staffing expense and the involvement of insurance companies. He uses the role of a certified diabetes educator as an example of a champion within that therapeutic category. “The positive impact they can have on measurable patient outcomes,” he points out, “is far greater than the initial investment.”

The cost of UIPs is not just economic, but also societal. Ramos, Levine, and Slager agree that overall awareness about the impact of UIPs is lacking, feeding into the problem rather than identifying it as a public health crisis. By acknowledging the burden of UIPs and addressing the root causes, actions can be taken across many fronts to reduce the burden on the health system.

“I don’t think that any managed care program has made reducing unintended pregnancy rates a priority quality improvement initiative.” - Dr. Levine

References

1. Sonfield A, Kost K, Benson Gold R, Finer LB. The public costs of births resulting from unintended pregnancies: national and state-level estimates. *Perspect Sex Reprod Health*. 2011;43(2):94-102.
2. Trussell J. The cost of unintended pregnancy in the United States. *Contraception*. 2007;75(3):168-170.
3. Shah PS, Balkhair T, Ohlsson A, et al. Intention to become pregnant and low birth weight and preterm birth: a systematic review. *Matern Child Health J*. 2011;15(2):205-216.
4. Centers for Disease Control. Preterm birth. <http://www.cdc.gov/reproductivehealth/MaternalInfantHealth/PretermBirth.htm>. Accessed October 30, 2013.
5. Santelli J, et al. The Measurement and Meaning of Unintended Pregnancy. *Perspect Sex Reprod Health*. 2003; 35(2):94-101.
6. Finer LB, Zolna MR. Unintended pregnancy in the United States: incidence and disparities, 2006. *Contraception*. 2011;84(5):478-485.
7. Finer LB, Henshaw SK. Disparities in rates of unintended pregnancy in the United States, 1994 and 2001. *Perspect Sex Reprod Health*. 2006;38(2):90-96.
8. Centers for Disease Control and Prevention. Unintended Pregnancy Prevention. <http://www.cdc.gov/reproductivehealth/unintendedpregnancy/>. Accessed November 7, 2013.
9. Wisconsin Department of Health Services. Reproductive and sexual health. July 2010. <http://www.dhs.wisconsin.gov/hw2020/pdf/reproductive.pdf>. Accessed January 9, 2014.
10. Closing the gap in a generation: health equity through action on the social determinants of health. Final Report of the Commission on Social Determinants of Health. Geneva, World Health Organization, 2008. http://whqlibdoc.who.int/publications/2008/9789241563703_eng.pdf. Accessed February 12, 2014.
11. Centers for Disease Control and Prevention. Adverse Childhood Experiences (ACE) Study. <http://www.cdc.gov/ace/>. Accessed November 18, 2013.
12. Jones RK, Kavanaugh ML. Changes in abortion rates between 2000 and 2008 and lifetime incidence of abortion. *Obstet Gynecol*. 2011;117(6):1358-1366.
13. Paluzzi P, Holmes S. Providers, patients and communication the keys to health teens and reducing teen pregnancy rates. *Contraception*. 2007;76(1):1-3.
14. Nettleman MD, Brewer K, Ayoola A. Why women risk unintended pregnancy. *J Fam Pract*. 2009;58(4):E1-E5.
15. U.S. Department of Health & Human Services: Office of Adolescent Health. Teen Pregnancy Prevention Programs. http://www.hhs.gov/ash/oah/oah-initiatives/teen_pregnancy/db/tpp-searchable.html. Accessed October 30, 2013.
16. U.S. Department of Health & Human Services: Office of Adolescent Health. Engaging Select Populations. http://www.hhs.gov/ash/oah/oah-initiatives/teen_pregnancy/training/engaging-select-populations.html. Accessed November 7, 2013.
17. Guttmacher Institute. State Policies in Brief: Medicaid Family Planning Eligibility Expansions. January 1, 2014. http://www.guttmacher.org/statecenter/spibs/spib_SMFPE.pdf. Accessed January 9, 2014.
18. Navy Marine Corps Public Health Center. Sexual Health and Responsibility Program. <http://www.med.navy.mil/sites/nmcphc/health-promotion/reproductive-sexual-health/Pages/sharp.aspx>. Accessed November 7, 2013.
19. Silva C. Navy seeks to combat high rate of unplanned pregnancies. <http://www.stripes.com/news/navy-seeks-to-combat-high-rate-of-unplanned-pregnancies-1.203122>. Accessed October 30, 2013.
20. Centers for Disease Control. Teen Pregnancy Prevention. <http://www.cdc.gov/teenpregnancy/PreventTeenPreg.htm>. Accessed October 30, 2013.
21. U.S. Department of Health and Human Services: Health Resources and Services Administration. Women's Preventive Services Guidelines. <http://www.hrsa.gov/womensguidelines/>. Accessed December 17, 2013.

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