Alternative Science and Human Reproduction
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Human reproduction has become the victim of alternative science, rife with alternative definitions of well-understood medical conditions and characterized by rejection of the scientific method as the standard for generating and evaluating evidence. Alternative science begins with alternative facts of the sort pronounced by the Trump administration and its appointees, including Health and Human Services (HHS) Secretary Tom Price, who has claimed that “there’s not one” woman who can’t afford birth control on her own (despite the high up-front cost of the most reliable contraceptives). Alternative science is similarly embraced by recent executive-branch appointees Valerie Huber, Teresa Manning, Charmaine Yoest, and Katy Talento.

As the new deputy assistant secretary of HHS for population affairs, Manning, formerly a lobbyist for the National Right to Life Committee, will help to shape federal programs for family planning, despite her stated opposition to such a governmental role. She insists that contraception is ineffective, despite evidence that hormonal methods are 91% effective and long-acting reversible contraceptives such as intrauterine devices (IUDs) are 99% effective at preventing pregnancy.

Yoest, former head of the antiabortion advocacy group Americans United for Life, helped to develop the strategy for a Texas statute that was so filled with obstacles to abortion services, presented in the guise of protections for women’s health, that the U.S. Supreme Court abandoned its usual degree of deference to state legislatures and struck down the law because its underlying factual claims were patently false. Now Yoest will serve as assistant secretary for public affairs at HHS. She asserts that condoms (whose use reduces the risk of HIV transmission by at least 70%) do not protect against HIV or other sexually transmitted infections. Yoest also claims contraception does not reduce the number of abortions and says that to accept this argument “would be, frankly, carrying water for the other side to allow them to redefine the issue in that way.”

Yoest and Manning are joined by Katy Talento, who has been named to the Domestic Policy Council, in claiming that the most effective types of contraceptives cause infertility and miscarriages. Talento has published some particularly outlandish articles on this topic, mis-citing a 2012 study whose author disavowed her description of his work as stating that contraceptives are “breaking your uterus.” Facts matter.
The new appointees are also known for a disregard for rigorous research. Huber, recently named to an HHS position in which she will help run programs on adolescent health, was the head of Ascend, formerly the National Abstinence Education Association, which asserts a causal connection between abstinence-only sex education and reduction in poverty. But though it is true that teen pregnancy is associated with poverty, abstinence-only programs have repeatedly been shown to be ineffective at preventing those pregnancies.

Even worse, Yoest continues to cite long-discredited studies that used retrospective reporting to support her assertion that abortion causes breast cancer, despite the overwhelming evidence to the contrary from properly constructed prospective studies. Such statements by the person now in charge of public affairs at HHS will only encourage the alarming pattern of state legislation requiring physicians to provide this misinformation in the name of “informed consent.” Nor, as she has claimed, does abortion cause mental illness; in fact, a long-term study that compared women who were able to obtain them revealed that it is being forced to carry an unwanted pregnancy to term that is associated with near-term adverse psychological outcomes. Scientific method matters.

Various misrepresentations related to human reproduction have been used to support abortion restrictions. Some state legislatures have tried to redefine pregnancy dating, shifting from the standard measure of time since last menses to time since probable fertilization. Such a definition falsely enhances the viability statistics for lower gestational ages and helps to bolster arguments for 20-week limits on abortion rights. Other legislatures have continued to cite fetal pain for the same purpose, even though the fetus does not have the physiological (let alone psychological) capacity to experience pain until at least 24 weeks of gestation (as properly estimated from last menses).4

Perhaps the most insidious and politically potent assertion by these appointees is that common forms of contraception are actually abortifacients. This is not a new claim. It has been around for decades, but it has taken on enormous importance with the rise of “conscience clause” refusals by physicians, nurses, and pharmacists to prescribe or provide hormonal contraceptives, emergency contraceptives, and IUDs because they oppose abortion.

To make this syllogism work, one must begin by rejecting longstanding medical knowledge. Pregnancy does not begin until implantation has occurred, a fact recognized not only by physicians, but also by the federal government in regulations (45 C.F.R. § 46.202) that define pregnancy as “the period of time from implantation to delivery.” An abortion terminates an ongoing pregnancy. Roughly half of all blastocysts naturally fail to implant, but getting one’s menstrual period is not having a miscarriage.

Hormonal contraceptives work primarily by preventing ovulation and thereby preventing fertilization. Even in cases in which they affect the endometrium, studies more recent than those used for the initial Food and Drug Administration–approved labeling have shown they do not interrupt an established pregnancy. As to IUDs, the most commonly requested devices inhibit fertilization by altering the uterine environment in a manner that is hostile to sperm. At times they can also prevent implantation, but again, they do not interrupt pregnancy, and a drug or device that prevents fertilization or implantation is a contraceptive, not an abortifacient.

Despite these medical facts, legislatures and even the Supreme Court have tolerated individuals’ making up their own definitions for abortifacient and pregnancy and then using them to justify refusals to fill prescriptions or offer insurance coverage for contraceptives. People who accord moral status to the fertilized egg prior to implantation should argue their case openly and on its own merits. Framing these refusals as opposition to abortion is a tactic to garner more public sympathy than one could by properly framing them as opposition to contraception. Medical terminology matters.

For too long, we have seen alternative science used to convince the public that there is no need to face difficult policy choices. This tactic was used 20 years ago, when opponents of embryonic stem-cell research misrepresented the uses of other kinds of stem cells, in efforts to convince the public that embryonic stem cells weren’t needed and that research and patient care would be unaffected if we banned their use. The same tactic is used today, when opponents of fetal-tissue research either deny its value or claim that crucial studies can be done just as well with other tissues, so that the needs of patients will not have
to be factored into legislative efforts to block the work. Good policy requires that we confront these choices, not redefine reality or scientific method to avoid them.

Reasonable people may disagree about how to interpret data, but they do not ignore scientific method by giving credence to flawed, fraudulent, or misrepresented studies. They may disagree about the moral significance of fertilization, but they do not delete implantation from the stages of pregnancy and do not confuse the public debate by conflating opposition to abortion with opposition to contraception. They may disagree about the morality of using cadaveric fetal tissue for research, but they do not claim that it is useless. Ignoring, denying, or reimagining reality has real consequences for public policy and human health. Whether in the debates regarding climate change, evolutionary theory, or human reproduction, alternative facts are just fiction, and alternative science is just bad policy.

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The Price of Crossing the Border for Medications

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Canadians are used to paying more for identical products sold south of the border. Hockey equipment, perhaps paradoxically, can sometimes cost up to 18% more up north; and there are similar price differences for toiletries, books, and electronics. There are many reasons why goods cost more in Canada than in the United States, regardless of the value of the Canadian dollar, including higher costs of doing business (Canada has a higher minimum wage), lower purchasing power, and tariffs, among others.

Prescription medications, however, don’t usually follow this pattern. According to a 2015 report from the Organization for Economic Cooperation and Development (OECD), in 2013 per capita prescription-drug spending in the United States (approximately $1,026 [U.S.]) exceeded that in all other countries, including Canada (approximately $713 [U.S.]) and was nearly twice the OECD average (approximately $515 [U.S.]). The high spending is related to two factors: market exclusivity and negotiating power.1 In the United States, new drugs receive about 12 to 15 years of market exclusivity, on average, after being approved by the Food and Drug Administration (FDA), and biologic drugs can be free of direct competition for even longer. During the market-exclusivity period, the brand-name medication is protected against competition from generics, the manufacturer sets prices at whatever level the market will bear, and there is no limit on how much the price can increase each year. U.S. government payers are restricted in negotiating drug prices by various rules, such as those requiring coverage for many FDA-approved drugs (nearly all of them, in the case of Medicaid, and all in certain categories, in the case of Medicare Part D).

In Canada, as in other countries with a national health insurance system, government agencies or independent organizations negotiate drug prices with manufacturers and can recommend that coverage be rejected on the basis of a drug’s cost, cost-effectiveness, or comparative effectiveness. The price of brand-name medications is also not allowed to increase more than the Consumer Price Index. Countries with a national drug-coverage system like those

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