Equal Protection: Why the HPV Vaccine Should be Mandated for Both Boys and Girls[†]

Elizabeth J. Chen[*]

INTRODUCTION

Human papillomavirus ("HPV") is the most common sexually transmitted disease in the United States.[1] If left untreated, it can cause cervical, penile, anal, mouth, and throat cancers, as well as genital warts.[2] The new HPV vaccines eliminate two of the most common strains of the virus, which are known to cause 70% of cervical cancer.[3] Cervical cancer is unique to women and the second most common cause of death from cancer among women worldwide.[4] The disease disproportionately affects those in poverty[5] and results in higher rates of cancer in Black and Hispanic women.[6] Given the rates of cervical cancer and the effectiveness of the vaccine, many states now require female students in public schools to receive vaccination for HPV by the sixth grade. While public schools have long played a role in public health initiatives by requiring students to receive vaccination at a number of different junctures before permitting them to

---

† The work presented here will be published as a student Note by the Washington University Journal of Law & Policy (forthcoming 2012).

* J.D. Candidate, Washington University School of Law; A.B., University of Chicago. Many thanks to Professor Laura Rosenbury, Professor Rebecca Hollander-Blumoff, Elizabeth Fehder, and Jane Kim for their guidance and support.

1 *HPV-Associated Cancers Statistics*, CTRS. FOR DISEASE CONTROL & PREVENTION, http://www.cdc.gov/cancer/hpv/statistics/ (last updated June 1, 2010).

2 *Id*.

3 The strains are HPV16 and HPV18. *See* D. Maxwell Parkin & Freddie Bray, *Chapter 2: The Burden of HPV-related Cancers*, 24 VACCINE S11, S17 tbl.1 (Supp. III 2006) (finding that 344,900 of 429,800 instances of cervical cancers are attributable to HPV16 and HPV18).

4 *See* Douglas R. Lowy & John T. Schiller, *Prophylactic Human Papillomavirus Vaccines*, 116 J. CLINICAL INVESTIGATION 1167, 1167 (2006). Cervical cancer is unique to women because only women have cervixes, and thus only women can be affected by it. The HPV vaccine is unique because it is only the second vaccine able to eradicate viruses that cause cancer. The first cancer prevention vaccine was developed in 1981 and prevents hepatitis B, a virus that can lead to liver cancer. Nat'l Cancer Inst., *Cancer Vaccines*, U.S. NAT'L INST. HEALTH, http://www.cancer.gov/cancertopics/factsheet/Therapy/cancer-vaccines (last updated Aug. 4, 2010).

5 Vicki B. Benard, et al., *Examining the Association Between Socioeconomic Status and Potential Human Papillomavirus-associated Cancers*, 113 CANCER 2910, 2913 tbl.1 (Supp. 2008).

6 Meg Watson et al., *Burden of Cervical Cancer in the United States*, 113 CANCER 2855, 2857 tbl.2 (Supp. X 2008) [hereinafter Watson et al, *Burden of Cervical Cancer*].

enroll in classes,[7] the introduction of the HPV vaccine has brought new controversy to the debate surrounding mandatory vaccination.[8] Many parents and commentators fear that the requirement implicitly condones sex before marriage or sex with multiple sexual partners.[9] Generally left out of the debate is the fact that men transmit the vast majority of HPV infections both to women and other men,[10] yet states require only vaccination for girls. Indeed, studies report "more than half of American men will get HPV infections at some point in their lives."[11] Additionally, 30% of the cancers caused by HPV affect men, and include penile and anal cancers.[12] By requiring vaccination of girls only, states are both inefficiently curtailing transmission to women and inadequately protecting men from the effects of the virus.

Beyond harming individual women and men, a sex-specific vaccination raises an important equal protection concern. Legal scholars have considered the constitutionality of the

[7] *See generally* James G. Hodge, Jr. & Lawrence O. Gostin, *School Vaccination Requirements: Historical, Social, and Legal Perspectives*, 90 KY. L.J. 831 (2002). States force public schools to require vaccination for a variety of reasons, including reducing transmission of communicable diseases between students who are in close proximity for extended periods of time. This permits the state to ensure that compliance with public health preventive measures is high as the vast majority of children take part in public education. *See, e.g.*, *id.* at 869-73 tbl.2, 879-82 (including table with vaccine mandates by state; summarizing studies showing that for the most part school vaccinations have reduced disease and met their public health aims); James C. King, Jr. et al., *Effectiveness of School-Based Influenza Vaccination*, 355 NEW ENG. J. MED. 2523 (2006) ("school-based vaccination intervention resulted in a reduction in influenza-related outcomes in household members of children attending intervention schools"); Ctrs. for Disease Control & Prevention, *Measles and School Immunization Requirements – United States, 1978*, 27 MORBIDITY & MORTALITY WKLY. REP. 303 (1978) (finding that states that strictly enforced vaccination laws had 50% lower incidence of measles than those that did not enforce those law strictly).

[8] The debate ranges in perspectives from those who vehemently oppose vaccination to those that vigorously advocate for it. Vaccine advocates highlight the fact that the rate of fully vaccinated school-age children in the United States is as high or higher than that in most other developed countries, leading to significant decline of common childhood illnesses in the United States. Those who oppose vaccination do so for to a variety of reasons, including: doubts about efficacy of the vaccines and their necessity, fears of adverse effects, and desire to retain autonomy for parents to make medical decisions for their children. *See* Hodge & Gostin, *supra* note 7, at 875-89.

[9] *See, e.g.*, Meghan O'Rourke, *Cancer Sluts: Does the HPV Vaccine "Promote" Promiscuity?*, SLATE.COM (September 27, 2007), http://www.slate.com/id/2174850/; Nancy Gibbs, *Defusing the War Over the "Promiscuity" Vaccine*, TIME (June 21, 2006), *available at* http://www.time.com/time/nation/article/0,8599,1206813,00.html.

[10] Ann N. Burchell et al., *Chapter 6: Epidemiology and Transmission Dynamics of Genital HPV Infection*, 24 VACCINE S52, S57-S58 (Supp. III 2006).

[11] SHOBHA S. KRISHNAN, THE HPV VACCINE CONTROVERSY: SEX, CANCER, GOD, AND POLITICS: A GUIDE FOR PARENTS, WOMEN, MEN AND TEENAGERS 118 (2008).

[12] *HPV-Associated Cancer Statistics*, *supra* note 1.

HPV vaccine in varied contexts, including the constitutionality of a requirement that immigrants receive vaccination prior to entering the country and the constitutionality of a vaccine mandate that eliminates a sexually transmitted infection in the school context. A few scholars have also considered whether a sex-specific HPV vaccination requirement violates the privacy and liberty interests of girls and their parents. This Note, in contrast, considers whether gendered mandates can withstand constitutional scrutiny under equal protection analysis and in the process examines the legal and public health implications of mandating female HPV vaccination for women only.

States violate the equal protection guarantee when they fail to include boys in HPV vaccination mandates. A girls-only requirement is based on false, gendered, heteronormative stereotypes and assumptions, which presume that women alone are responsible for limiting or eradicating HPV transmission and contraction. By requiring the vaccine for girls alone, states will not achieve their public health goal of eliminating the virus that causes cervical cancer, and will continue to perpetuate inequality through sex stereotypes. States are taking the wrong approach to eliminating HPV and its adverse effects on society because the method they have chosen to eliminate HPV is under-inclusive. In order to address HPV in a more closely tailored manner, states should confront the virus from available angles, including mandating it for boys.

Part I examines HPV and its vaccine, existing and proposed mandates, and legal frameworks for assessing HPV vaccine mandates. Part II applies the framework of equal protection jurisprudence to examine whether gender discriminatory vaccination mandates in the context of the HPV vaccine can withstand intermediate scrutiny. Part II also examines the public health impact of current gender discriminatory mandates as compared to proposed gender-neutral mandates. Finally, Part III proposes suggestions for implementing gender-neutral mandates,

methods for remedying the sex discrimination inherent in the existing mandates, and ideas for addressing inequality more broadly through the HPV vaccine.

I. Background & History of the Vaccine Mandates

A. Human Papillomavirus and Gardasil

Human Papillomavirus ("HPV") is the most common sexually transmitted infection in the United States.[13] HPV is transmitted through skin contact.[14] At least half of sexually active men and women will contract HPV during the course of their lifetimes.[15] The virus can cause cervical and vaginal cancer in women,[16] mouth and throat cancers and genital warts in men and women,[17] and penile and anal cancers in men.[18] A study covering over 80% of the United States population estimated that 24,900 instances of HPV-related cancer occur each year; and while 70% of HPV-related cancers occur in women, the remaining 30% occur in men.[19] Researchers

[13] *See generally* Willard Cates, Jr., *Estimates of the Incidence and Prevalence of Sexually Transmitted Diseases in the United States*, 26 Sexually Transmitted Diseases S2 (1999); Eileen F. Dunne et al., *Prevalence of HPV Infection Among Females in the United States*, 297 JAMA 813 (2007).

[14] Adina Nack, Damaged Goods: Women Living with Incurable Sexually Transmitted Diseases 3 (2008). Because the virus is transmitted through skin contact, the use of latex condoms is only partially effective at preventing its transmission because genital contact can occur beyond the surface area covered by condoms. *See* Krishnan, *supra* note 11, at 119. *But see* Krishnan, *supra*, at 120 (finding in a meta-analysis of studies that "condom use reduces HPV transmission by 70%").

[15] The Nat'l Women's Health Info. Ctr., *Human Papillomavirus (HPV) and Genital Warts*, womenshealth.gov The Fed. Gov't Source for Women's Health Info., http://womenshealth.gov/faq/human-papillomavirus.cfm (last updated Jan. 1, 2009).

[16] Studies have found that HPV strains cause 100% of cervical cancers and between 40-70% of vaginal cancers. *See* Parkin & Bray, *supra* note 3, at S17 tbl.1 (providing statistics on percentage of cervical cancers caused by HPV); Hugo De Vuyst et al., *Prevalence and Type Distribution of Human Papillomavirus in Carcinoma and Intraepithelial Neoplasia of the Vulva, Vagina and Anus: A Meta-analysis*, 124 Int'l J. Cancer 1626, 1627 (2009) (providing statistics on percentage of vaginal cancers caused by HPV).

[17] *HPV-Associated Cancer Statistics*, *supra* note 1 (providing statistics regarding mouth and throat cancer). CDC reports that 25% of mouth cancers and 35% of throat cancers are caused by HPV. *Id*. Other studies have found that two of the HPV strains targeted by Gardasil, HPV6 and HPV11, cause 90% of genital warts. *See* Hillard Weinstock et al., *Sexually Transmitted Diseases Among American Youth: Incidence and Prevalence Estimates, 2000*, 36 Persp. on Sexual & Reprod. Health 6, 8 (2004); *Should HPV Vaccines be Mandatory for All Adolescents?*, 368 Lancet 1212, 1212 (2007) [hereinafter *Mandatory HPV Vaccines*].

[18] Studies have found that HPV strains cause between 85-90% of anal cancers and around 40% of penile cancers. *See* Parkin & Bray, *supra* note 3, at S17 (providing findings for penile and anal cancers); De Vuyst et al., *supra* note 16, at 1627 (providing findings for anal cancer).

[19] *HPV-Associated Cancer Statistics*, *supra* note 1.

claim that the cancers associated with HPV had an impact of $3.7 billion in 2003 alone, based on the number of lives lost from the cancers associated with the virus and their years of potential life lost, as well as the overall loss of productivity due to the virus and the cancers associated with it.[20]

HPV disproportionately impacts individuals based on race, geography, and class. Black and Hispanic women face a disparity in cervical cancer morbidity, and they tend to receive less aggressive treatment for cervical cancer as compared to white women,[21] following general patterns of uneven distribution of health care services in the United States.[22] Cervical cancers caused by HPV are more prevalent in largely Southern states, including: District of Columbia, Florida, Kentucky, Louisiana, West Virginia, Arkansas, and Texas, as well as Illinois.[23] Researchers have found that lower median income in a state is correlative of lower levels of vaccination.[24]

Currently, there are two vaccines that target strains of HPV. Merck Pharmaceuticals developed Gardasil and in 2006, the Food and Drug Administration ("FDA") licensed its use to prevent four strains of HPV (two strains cause 70% of cervical cancers; the other two strains cause genital warts) in women ages 9–26.[25] In May 2010, FDA extended its approval for

---

[20] *See* Donatus U. Ekwueme et al., *Years of Potential Life Lost and Productivity Costs Because of Cancer Mortality and for Specific Cancer Sites Where Human Papillomavirus May Be a Risk Factor for Carcinogenesis – United States, 2003*, 113 CANCER 2936, 2936 (2008).

[21] Watson et al., *Burden of Cervical Cancer*, *supra* note 6, at 2862.

[22] Peter B. Bach, *Gardasil: From Bench, to Bedside, to Blunder*, 375 LANCET 963, 964 (2010).

[23] Meg Watson, et al., *Using Population-based Cancer Registry Data to Assess the Burden of Human Papillomavirus-associated Cancers in the United States: Overview of Methods*, 113 CANCER 2841 (Supp. 2008).

[24] *Id.*

[25] *See* Lauri E. Markowitz et al., *Quadrivalent Human Papillomavirus Vaccine: Recommendations of the Advisory Committee on Immunization Practices (ACIP)*, 56 MORBIDITY & MORTALITY WKLY. RPTS. (RECOMMENDATIONS & RPTS.) 1, 1 (Mar. 23, 2007), *available at* http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5602a1.htm.

Gardasil to men ages 9-29,[26] and for GlaxoSmithKline's Cervarix to women.[27] Cervarix targets the same two strains of HPV that cause 70% of cervical cancers that Gardasil targets.[28] The Centers for Disease Control & Prevention ("CDC") has recommended, through its Advisory Committee for Immunization Practices ("ACIP"), that states should mandate vaccination for "females 11-12 years" with "catch-up . . . vaccination recommended for females ages 13-26 who have not previously been vaccinated."[29] Vaccination is predicted to be a highly cost-effective intervention.[30] Researchers have found a correlation between increased vaccination coverage and decreased cervical cancer mortality.[31]

---

[26] So far, the vaccine has only been approved to prevent genital warts in men; FDA has not yet extended approval for use to prevent HPV transmission. *See FDA Approves New Indication for Gardasil to Prevent Genital Warts in Men and Boys*, U.S. FOOD & DRUG ADMINISTRATION (Oct. 16, 2009), http://www.fda.gov/NewsEvents/Newsroom/PressAnnouncements/ucm187003.htm; Ctrs. for Disease Control & Prevention, *FDA Licensure of Quadrivalent Human Papillomavirus Vaccine (HPV4, Gardasil) for Use in Males and Guidance from the Advisory Committee on Immunization Practices (ACIP)*, 59 MORBIDITY & MORTALITY WKLY. REP. 630 (2010) [hereinafter CDC Report on Men], *available at* http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5920a5.htm?s_cid=mm5920a5_e. FDA has, however, approved the vaccine to prevent anal cancers caused by HPV. *See Gardasil Approved to Prevent Anal Cancer*, U.S. FOOD & DRUG ADMIN. (Dec. 22, 2010), http://www.fda.gov/NewsEvents/Newsroom/PressAnnouncements/ucm237941.htm. Merck has also conducted studies in boys to determine the vaccine's efficacy in establishing immunity in that population, and "found a high level of immunity in boys, similar to that found in girls." KRISHNAN, *supra* note 11, at 130.

[27] *See* Ctrs. for Disease Control & Prevention, *FDA Licensure of Bivalent Human Papillomavirus Vaccine (HPV2, Cervarix) for Use in Females and Updated HPV Vaccination Recommendations from the Advisory Committee on Immunization Practices (ACIP)*, 69 MORBIDITY & MORTALITY WKLY. REP. 626 (2010), *available at* http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5920a4.htm.

[28] *Id.*

[29] *See* Markowitz et al., *supra* note 25, at 1. The recommendations target women as young as the age of 12 because statistic modeling has shown that it is most cost-effective to vaccinate prior to exposure to the virus, prior to commencing sexual activity. *See* Jane J. Kim & Sue J. Goldie, *Health and Economic Implications of HPV Vaccination in the United States*, 359 NEW ENG. J. MED. 821, 821 (2008). According to news sources, the American Academy of Pediatrics, a children's health advocacy organization for physicians and pediatricians, has added the HPV vaccine its recommended vaccines for boys. *See* Lynne Peeples, *HPV Vaccine Effective in Men*, CNN HEALTH (Feb. 3, 2011), http://www.cnn.com/2011/HEALTH/02/02/hpv.vaccine.men.health/index.html.

The ACIP is a group of fifteen vaccine experts selected by the Secretary of the U.S. Department of Health and Human Services to provide advice regarding vaccination for preventable diseases. The group provides advice about whether vaccines should be offered and mandated through written recommendations, and is the only federal entity to provide such advice. Nat'l Ctr. for Immunization & Respiratory Diseases, *Advisory Committee on Immunization Practices (ACIP)*, CENTERS FOR DISEASE CONTROL VACCINES: RECOMMENDATIONS & GUIDELINES, http://www.cdc.gov/vaccines/recs/acip/default.htm#about (last updated Feb. 3, 2011).

[30] Gary Michael Ginsberg et al., *Screening, Prevention & Treatment of Cervical Cancer—A Global and Regional Generalized Cost-Effectiveness Analysis*, 27 VACCINE 6060, 6060 (2009). The authors find that in "regions of high

Researchers found that the HPV vaccine is effective in men to prevent contraction of the virus.[32] *The Lancet*, a British medical journal, recommends that the HPV vaccine be mandated for both sexes, based on "[m]odelling studies [that] have shown that a female-specific approach would be only 60–75% as effective at reducing HPV prevalence in women as strategies that target both sexes."[33] Physicians have also argued that "[n]ot only can vaccination of boys and men bolster and expedite health benefits in girls and women (i.e., by contributing to reduced HPV prevalence among men and therefore reduced transmission to their sexual partners), but there is now clear evidence that boys and men themselves can benefit directly."[34]

B. States that mandate girls' vaccination for school enrollment

States rely heavily on the recommendations of the ACIP to inform whether they will mandate certain vaccines.[35] As early as 2007, ACIP advised routine HPV vaccination for females aged 11 or 12 years, and recommended vaccination for females 13 through 26 years of age.[36] In 2010, it updated those recommendations to include the second version of the vaccine.[37]

Almost immediately after ACIP released its recommendations, legislators and state policymakers began to propose legislation to increase education and funding for the HPV

---

income, low mortality and high existing treatment coverage" such as a developed nation like the United States, "vaccination is the most cost-effective intervention." *Id*.

[31] Bach, *supra* note 22, at 963 fig.1.

[32] Anna R. Giuliano et al., *Efficacy of Quadrivalent HPV Vaccine Against HPV Infection and Disease in Males*, 364 NEW ENG. J. MED. 401, 409 (2011) ("Our findings point to the efficacy of the quadrivalent HPV vaccine in preventing HPV infection and related diseases in men.").

[33] *See Mandatory HPV Vaccines*, *supra* note 17.

[34] Jane J. Kim, *Weighing the Benefits and Costs of HPV Vaccination of Young Men*, 364 NEW ENG. J. MED. 393, 394 (2011).

[35] *See supra* note 29 for description of ACIP and its function.

[36] Markowitz et al., *supra* note 25, at 1 and accompanying text.

[37] *See id*.

vaccine, as well as to mandate it as a condition for girls' school entrance.[38] None of the states that have passed statutes have yet officially considered vaccination for boys. Below are descriptions of existing governmental action regarding mandated HPV vaccination.

1. Virginia

Virginia was the first state to enact a statute mandating immunization of girls against HPV before the girls enter the sixth grade.[39] The statute includes provisions that permit parents to object to the vaccination and not vaccinate their daughters,[40] which ensures more compliance and less resistance.[41]

2. Texas

Texas's mandate originally came from an executive order in early 2007.[42] The governor provided extensive findings noting death rates from HPV-caused cancers both nationally and in

---

[38] *HPV Vaccine*, NAT'L CONFERENCE OF STATE LEGISLATURES, http://www.ncsl.org/default.aspx?tabid=14381 (last updated Jan. 2011).

[39] VA. CODE ANN. § 32.1-46 (2011). The statute provides, in relevant part:

> A. The parent . . . of each child within this Commonwealth shall cause such child to be immunized in accordance with the Immunization Schedule developed and published by the Centers for Disease Control and Prevention (CDC), Advisory Committee on Immunization Practices (ACIP), the American Academy of Pediatrics (AAP), and the American Academy of Family Physicians (AAFP). . . . The Board's regulations shall at a minimum require:
>
> . . . .
>
> > 12. Three doses of properly spaced human papillomavirus (HPV) vaccine for females. The first dose shall be administered before the child enters the sixth grade.

Id.

[40] *See id*.

[41] Opt-out provisions add legitimacy to required provisions by ensuring flexibility in administration and ensuring that the provision does not seem oppressive or rigid. These provisions originally developed to provide those with religious objections the means to continue abiding by the law, while also partaking in public education. *See generally*, Emily Buss, *The Adolescent's Stake in the Allocation of Educational Control Between Parent and State*, 67 U. CHI. L. REV. 1233 (2000) (arguing that if denied an opportunity to opt-out from educational policies that they do not agree with, parents may just remove their children from the system altogether); *but cf.* Sylvia Law, *Human Papillomavirus Vaccination, Private Choice, and Public Health*, 41 U.C. DAVIS L. REV. 1731, 1768-1769 (2008) (noting that while the Constitution permits states to "mandate vaccinations without making allowance for religious or conscientious objections by parents," states are free to make such allowances at the risk of harming the level of vaccination).

[42] R.P. Exec. Order No. 65 (Tex. Feb. 2, 2007), *available at* http://governor.state.tx.us/news/executive-order/3455/. Relevant portions of the executive order are reproduced below. The preamble of the executive order includes the

Texas, and the efficacy of the vaccine in preventing HPV.[43] The mandate applied to girls entering the sixth grade in public schools, and included provisions ensuring access to the vaccine, public awareness, and allowances for parents to object and not vaccinate their daughters.[44] The executive order was overruled by the legislature through a bill that revoked the vaccination part of the mandate, but retained the part of the mandate that provided educational materials about vaccination.[45] In 2009, the Texas legislature considered a bill that would have permitted an agency head to require HPV immunization, but the bill did not pass.[46] On January 11, 2011, however, the vaccine mandate was reinstated because the bill that originally revoked the mandate contained an expiration provision.[47]

---

following facts: "HPV is the most common sexually transmitted infection-causing cancer in females in the United States" and "the Texas Cancer Registry estimates there were 1,169 new cases and 391 deaths from cervical cancer in Texas in 2006." *Id*. Some relevant provisions from the statute include the mandate itself, and also the right for parents to object to vaccination:

> *Rules.* The Health and Human Services Executive Commissioner shall adopt rules that mandate the age appropriate vaccination of all female children for HPV prior to admission to the sixth grade.
> *Parents' Rights.* The Department of State Health Services will, in order to protect the right of parents to be the final authority on their children's health care, modify the current process in order to allow parents to submit a request for a conscientious objection affidavit form via the Internet while maintaining privacy safeguards under current law.

Id.

[43] *Id*.

[44] *Id.*

[45] TEX. EDUC. CODE ANN. § 38.001 (Vernon 2007). The text of the HPV provision is as follows:

> (b-1) Immunization against human papillomavirus is not required for a person's admission to any elementary or secondary school; however, by using existing resources, the Health and Human Services Commission shall provide educational material about the human papillomavirus vaccine. . . . This subsection expires January 11, 2011.

Id.

[46] H.B. 2220, 81st Sess. (Tex. 2009), *available at* http://www.legis.state.tx.us/tlodocs/81R/billtext/html/HB02220I.htm. The text of the proposed legislation, in relevant part, is as follows:

> (b) [T]he executive commissioner of the Health and Human Services Commission . . . may modify or delete any of the immunizations in Subsection (a) or may require immunizations against additional diseases as a requirement for admission to any elementary or secondary school.

Id.

[47] For the expiration language, see *supra* note 45.

3. Washington D.C.

The legislature passed a bill mandating the vaccination for sixth grade school enrollment for girls.[48] The bill includes broad opt-out provisions for parents, with available objections ranging from religious to medical to general lack of desire.[49]

4. Pending Legislation

Legislation is currently pending in New York to require routine immunization against HPV for school attendance for all students born after January 1, 1996.[50] The New York legislation is unique because it speaks in gender-neutral terms, and does not leave room for parents to object to vaccination.[51]

---

[48] D.C. CODE § 7–1651.04 (2010). The statute states in relevant part:

> (b)(1) By the beginning of the 2009 school year, and of every school year thereafter, the parent or legal guardian of a female child enrolling in grade 6 for the first time at a school in the District of Columbia shall be required to submit certification:
>
> (A) That the child has received the HPV vaccine; or
>
> (B) That the child has not received the HPV vaccine because:
>
> (i) The parent or legal guardian has objected in good faith and in writing to the chief official of the school that the vaccination would violate his or her religious beliefs;
>
> (ii) The child's private physician, his or her representative, or the public health authority has provided the school written certification that the vaccination is medically inadvisable; or
>
> (iii) The parent or legal guardian, in his or her discretion, has elected to opt out of the HPV vaccination program, for any reason, by signing a form prepared by the Department of Health that states the parent or legal guardian has been informed of the HPV vaccination requirement and has elected not to participate.

Id.

[49] *Id*. at § 7-1651.04(b)(1)(B)(i)-(iii).

[50] A. 699, 234th Sess. (N.Y. 2011), *available at* http://assembly.state.ny.us/leg/?default_fld=&bn=+A00699%09%09&Summary=Y&Text=Y.

The text of the proposed bill is as follows: "Provides for the immunization of all children born after January 1, 1996 with the human papillomavirus (HPV)."

[51] *See id.*

In the 2010-2011 legislative term, 19 additional states proposed legislation to mandate the HPV vaccine as a condition of girls' public school attendance.[52] As of January 2011, two states have proposed laws regarding the HPV vaccine.[53]

C. Existing Legal Frameworks

1. Prior scholarship

    i. Constitutionality of the HPV vaccine, generally

Scholarship to date has considered the constitutionality of the vaccine as a matter of general vaccination policy, highlighting arguments that scientists have not studied its effects substantially enough.[54] Scholars such as Sylvia Law have assessed the validity of the HPV vaccine as an "ethical, political, medical, and constitutional issue[]."[55] Law elected not to engage in constitutional analysis of gender-based nature of mandates. She asserted that states should mandate that boys, as well as girls, receive the vaccine in order to achieve a high level of immunity to HPV in the overall population, focusing on the public health grounds.[56]

    ii. Immigration context

Some scholarship has considered the constitutionality of the now-retracted Citizenship and Immigration Services regulation[57] that mandated the HPV vaccine for female immigrants as

---

[52] The following states have previously considered passing a mandate: California, Colorado, Connecticut, Florida, Georgia, Illinois, Kansas, Maryland, Massachusetts, Michigan, Missouri, Minnesota, Mississippi, New Mexico, Ohio, Oklahoma, South Carolina, Vermont, West Virginia. *See HPV Vaccine*, *supra* note 38.

[53] *See id*. Virginia's legislators are proposing a repeal of their vaccine mandate. H.B. No. 1419, 2011 Sess. (Va. 2011), *available at* http://leg1.state.va.us/cgi-bin/legp504.exe?111+ful+HB1419. New York's legislators have proposed the bill described in the text above. A. 699, 234th Sess. (N.Y. 2011), *available at* http://assembly.state.ny.us/leg/?default_fld=&bn=+A00699%09%09&Summary=Y&Text=Y.

[54] *See, e.g.*, Micah Globerson, *Protecting Women: A Feminist Legal Analysis of the HPV Vaccine, Gardasil*, 17 TEX. J. WOMEN & L. 67 (2007); James Colgrove et al., *HPV Vaccination Mandates – Lawmaking amid Political & Scientific Controversy*, 363 NEW ENG. J. MED. 785 (2010).

[55] Law, *supra* note 41, at 1731.

[56] *Id*. at 1761-62.

[57] Citizenship & Immigration Services retracted the requirement that permanent resident (green card) applicants receive the HPV vaccine when CDC made its criteria for deciding whether vaccination would be required

part of their vaccine schedules as a condition of entry into the country.[58] The analyses largely concluded that such requirements were unconstitutional, against international law, and generally ill-advised because the vaccine is untested and is not mandated equally for citizens and non-citizens alike.[59] Because FDA had not yet approved a HPV vaccine for men at the time the regulation was passed,[60] mandates for male immigrants are largely not discussed in this scholarship.[61]

iii. Constitutionality of mandating vaccine for men

A few law students have discussed the constitutionality of a potential HPV vaccine mandate for men. One student uses an economic analysis to assert that any HPV vaccine

---

vaccination more stringent. The constraints include a requirement that the vaccine either "protect against a disease that has the potential to cause an outbreak" or "protect against a disease that has been eliminated in the United States or is in the process for elimination in the United States." This language substantially limits the types of prophylactic vaccines that can be mandated. Criteria for Vaccination Requirements for U.S. Immigration Purposes, 74 Fed. Reg. 58634 (Nov. 13, 2009) (codified at 8 U.S.C. § 1182(a)(1)(A)(ii) (2010)) (explaining the change to the statute). CDC addressed the HPV vaccine in the context of immigration in greater depth, stating:

> CDC has applied the criteria and determined that . . . the HPV vaccine will not be required for aliens seeking admission as an immigrant. . . . Because HPV infection is common in the general US population, is asymptomatic, and because it is not possible to distinguish infections which resolve spontaneously from those that result in cervical cancer, HPV is not the target of outbreak control. Rather a routine vaccination program is recommended to prevent infection . . . . Further, HPV has not been eliminated, nor is in the process of elimination, in the United States.

Id.

[58] Elizabeth Sheyn has written two articles about HPV vaccine mandates in immigration law. She concludes that HPV vaccine mandates contravene the U.N.'s Universal Declaration of Human Rights and other international laws designed to protect human rights because they discriminate on the basis of gender and nationality, and are not scientifically studied substantially enough; her analysis on the sex-discriminatory nature of the mandate is not substantial. *See* Elizabeth R. Sheyn, *An Accidental Violation: How Required Gardasil Vaccinations for Female Immigrants to the United States Contravene International Law*, 88 NEB. L. REV. 524, 551-59 (2010) [hereinafter Sheyn, *International Law*]. In addition, she argues that the vaccine mandate is unconstitutional for immigrant women on equal protection based on nationality grounds and due process grounds. *See* Elizabeth R. Sheyn, *Putting an End to an Unconstitutional Result: Equal Protection and Due Process Analyses of the Requirement that Female Immigrants Receive the Gardasil Vaccine Prior to Becoming Permanent Residents of the United States*, 44 VAL. U. L. REV. 1 (2009). In addition, a student note suggests that a vaccination requirement for immigrants should be better supported with scientific evidence prior to mandating it. *See* Christie V. Canales, Note, *HPV Vaccination Requirement for Female Immigrants: An Example of Discrimination*, 13 J. GENDER RACE & JUST. 779 (2010).

[59] Id.

[60] *See* CDC Report on Men, *supra* note 26 and accompanying text.

[61] *See* Sheyn, *International Law*, *supra* note 58, at 558 (very briefly concluding that one of the grounds on which the immigration mandate contravenes international law is because it is applied disparately to women).

mandate for men would be unconstitutional based on costs and benefits.[62] His analysis is limited in large part because it relies significantly on statistics that underestimate both the health impacts of HPV on men, and the impact that vaccinating men would have on diminishing HPV prevalence in women.[63] Another student briefly examines the constitutionality of the vaccine mandate in Virginia and concludes that the discriminatory means employed failed to meet the intermediate scrutiny burden based on an assumption that public health rationales will not be enough to meet the burden.[64] Few other scholars have touched on this topic at length.[65]

---

[62] Benjamin Lemke, *Why Mandatory Vaccination of Males against HPV is Unconstitutional: Offering a New Approach to an Old Problem*, 19 B.U. PUB. INT. L.J. 261, 280-81 (2010).

[63] *See id*. at 280-84. Lemke relies extensively on a formula he develops and dubs the "Modified Hand Formula" and studies that only address the cancer burdens of HPV on women – the only gender affected by existing mandates. He ignores the broader scope of those affected by HPV and its transmission, resulting in an artificially high economic burden on men to receive vaccination. He makes an assumption – that while one population, women, is disproportionately affected by the virus, the one responsible for transmission, men, should have no role in preventing transmission. Lemke compares the number of women contracting HPV and getting cervical cancer with the number of men contracting HPV and getting anal or penile cancers. This comparison has two fundamental flaws: (1) it ignores the fact that vaccinating men curtails transmission of the virus to women, and (2) it assumes that cancer in women only affects women in society, and that cancer for men only affects men in society. These assumptions lead to his calculation of disproportionately high economic burden on men and give rise to his conclusion that a mandate for men would be unconstitutional because of the discrepancy of costs calculated. Some physicians have argued, however, that because there has been relatively low uptake of HPV vaccination among women, vaccinating men and boys would in fact be a cost effective way to reach the population more fully. *See* Kim, *supra* note 34, at 394.

[64] Lindsey Heinz asserts that the Virginia mandate fails intermediate scrutiny because the sex discriminatory nature of the provision does not do enough to meet the public health objectives of eliminating HPV. Her analysis is relatively conclusory, however, because it assumes the Court's ruling without further analysis of why it would do so rule. Lindsey Heinz, Comment, "*Please, Don't Shot My Daughter!" Is There Legal Support for State-Compelled HPV Vaccination Laws? Why Ethical, Moral, and Religious Opposition to These Laws May be Jumping the Gun*, 56 U. KAN. L. REV. 913, 932-34 (2008).

[65] *See* Globerson, *supra* note 54, at 105. Globerson includes a single brief conclusory paragraph on this issue, stating that Gardasil could not be mandated for men based on earlier arguments regarding women's sexuality, and how and why women should be protected. He performs a "switching the parties" analysis, similar to the one David A. Strauss creates as a framework for analyzing race discrimination. David A. Strauss, *Discriminatory Intent and the Taming of Brown*, 56 U. CHI. L. REV. 935, 956-59 (1989). Strauss argues that the key question in determining whether a law can withstand constitutional scrutiny is whether the legislature would have enacted the same statute were the groups reversed. *Id*. at 957. Using Strauss's framework, the key question is whether the mostly male legislature would have passed the HPV vaccination statute had the vast majority of those affected by the statute been men. If not, then sex discrimination should be considered the but-for cause of the statute. Globerson uses a similar analysis to conclude that if the groups for the HPV vaccination mandate were switched, that is, if the vaccination program targeted boys instead of girls, Texas's HPV vaccination mandate would not have elicited the same response because of "commoditization of female sexuality, virginity-oriented abstinence efforts, gendered policies such as military service, the lasting conceptualization of woman as temptress, the focus on nominal rather than real gender equality, and the battle to restrict women's reproductive rights all describ[ing] a prejudice specifically directed toward women and girls." Globerson, *supra*, at 105.

2. Equal protection sex discrimination doctrine

Beginning in the 1970s, the Supreme Court began recognizing sex discrimination claims under the Equal Protection Clause of the Fourteenth Amendment.[66] The Court developed an intermediate scrutiny standard to assess whether sex-based classifications were permissible.[67] That standard, articulated in *Craig v. Boren*, required that "classifications by gender . . . serve important governmental objectives and . . . be substantially related to achievement of those objectives."[68] In *United States v. Virginia* ("VMI"), the Virginia Military Institute's policy of sex-discriminatory admissions practices was challenged under the Equal Protection Clause; the Court found that in order to uphold a sex-based classification, the government, in addition to meeting the intermediate scrutiny standard, needed to "establish an 'exceedingly persuasive justification' for the classification."[69] The effect of an intermediate scrutiny standard is that the judiciary must balance important governmental interests in regulation and the use of

---

[66] U.S. CONST. amend. XIV. The text of the Equal Protection Clause is as follows: "No state shall make or enforce any law which shall . . . deny to any person within its jurisdiction the equal protection of the laws." *Id.* at § 1.

[67] The strict scrutiny standard developed in race discrimination cases under the Equal Protection Clause, striking down laws in which the government did not use the least restrictive means to accomplish its ends when race-based classifications were used. The Supreme Court first articulated the "strict scrutiny" standard in *Korematsu v. United States*, 323 U.S. 214 (1944). The standard was developed for assessing whether racial classifications were valid, and the Court held that "all legal restrictions which curtail the civil rights of a single racial group are immediately suspect. . . .[C]ourts must subject them to the most rigid scrutiny." Korematsu, 323 U.S. at 216. The Court added in *Loving v. Virginia*, 388 U.S. 1 (1967), that "if [the classifications] are ever to be upheld, they must be shown to be necessary to the accomplishment of some permissible state objective, independent of the racial discrimination which it was the object of the Fourteenth Amendment to eliminate." *Id.* at 11. The development of the standard in sex-based classifications was much more convoluted, however, as it evolved from a rational basis-like standard to one of intermediate scrutiny during a series of cases. The first case to use equal protection to secure sex equality was *Reed v. Reed*, 404 U.S. 71 (1971), in which the Supreme Court held a sex-based classification unconstitutional, but without reaching a heightened scrutiny standard. Next, the Court decided in *Frontiero v. Richardson*, 411 U.S. 677 (1973) (plurality opinion), that a sex-based classification was unconstitutional, but did not agree upon a standard. Finally, in *Craig v. Boren*, 429 U.S. 190, 197 (1976), the Supreme Court created an intermediate scrutiny standard for sex-based classifications.

[68] Craig v. Boren, 429 U.S. at 197. This case struck down a sex classification that made it lawful for women to buy 3.5% beer at age 18, while men could not purchase it until the age of 21, treating them differently because of their sex. In invalidating the law, the Supreme Court articulated the intermediate scrutiny standard now used in cases involving challenges to sex-based classifications.

[69] United States v. Virginia, 518 U.S. 515, 524 (1996) (quoting Mississippi Univ. for Women v. Hogan, 458 U.S. 718, 724 (1982)). In *VMI*, the Supreme Court held that the school's policy of excluding women was unconstitutional based on the standard quoted in the text.

classification within it against the constitutional interest in preserving individual rights. The intermediate scrutiny standard can fall anywhere between fatal-in-fact strict scrutiny[70] and any-rational-reason rational basis review.[71]

Several rationales govern equal protection analysis of sex-based classifications. The Supreme Court is generally willing to uphold sex-discriminatory statutes that rely on sex-based classifications when the Court sees biological "real differences" between men and women.[72] These differences tend to involve pregnancy and parentage because of the biology of birth.[73] Some scholars have argued against the principle, asserting that real differences do not truly exist,[74] and if they do, they are fictive means of maintaining hierarchy.[75] The Court is also

---

[70] *See* Gerald Gunther, *Foreword: In Search of Evolving Doctrine on a Changing Court: A Model for a Newer Equal Protection*, 86 HARV. L. REV. 1, 8 (1972) (describing the strict scrutiny standard as "'strict' in theory and fatal in fact"). *But see* Adam Winkler, *Fatal in Theory and Strict in Fact: An Empirical Analysis of Strict Scrutiny in the Federal Courts*, 59 VAND. L. REV. 793, 796 (2006) (empirically evaluating strict scrutiny and finding that between 1990 and 2003, 27% of applications of strict scrutiny to race-based classifications survived review, and thus arguing that the standard is less fatal than originally believed).

[71] Rational basis, as defined by the Court in *Carolene Products*, provides that "the existence of facts supporting the legislative judgment is to be presumed, for regulatory legislation affecting ordinary commercial transactions is not to be pronounced unconstitutional unless in the light of the facts made known or generally assumed it is of such a character as to preclude the assumption that it rests upon some rational basis within the knowledge and experience of the legislators." United States v. Carolene Prods. Co., 304 U.S. 144, 152 (1938). Most legislation scrutinized under rational basis review survives because the standard of review is highly deferential to legislatures.

[72] *E.g.*, Geduldig v. Aiello, 417 U.S. 484 (1974) (holding that a woman's ability to become pregnant is a constitutionally valid basis for classification because it is grounded in a biological difference between women and men), General Elec. Co. v. Gilbert, 429 U.S. 125 (1976) (finding that lack of health coverage for pregnancy-related disabilities was not sex discrimination); Nguyen v. INS, 533 U.S. 53 (2001) (holding that the necessity of a mother being present at childbirth is a biological difference that warrants differential classification to meet the governmental ends of ensuring that citizen parents of out-of-wedlock children are their biological parents). The Supreme Court currently has the opportunity to re-evaluate the "real differences" principle through *Flores-Villar v. United States*. United States v. Flores-Villar, 536 F.3d 990 (9th Cir. 2008), *cert. granted sub. nom*, Flores-Villar v. United States, __ U.S. __, 129 S. Ct. 1878 (2010). The Court heard oral argument on November 10, 2010. Flores-Villar has claimed that an immigration statute is unconstitutional because it relies on an impermissible sex classification that imposes more stringent residence requirements on United States citizen fathers than on mothers who wish to transmit citizenship to their children. The decision in this case is pending as of the writing of this Note.

[73] *See id*.

[74] *See* Sunstein, *infra* note 93 (arguing against existence of real differences).

[75] *See infra* text accompanying notes 93-95 for scholars' perspectives on hierarchy and how it is supported through differentiating, even biologically.

unwilling to use sex stereotypes as justification for sex classifications.[76] Scholars have laid significant groundwork in the realm of pregnancy stereotyping establishing the ways in which sex stereotyping more generally reinforces gender norms.[77]

Finally, in assessing the constitutionality of provisions under the equal protection clause, the Court has limited government use of classifications and considered any legislative use of classification inherently suspect.[78] Anti-classification has been described as it being "inappropriate [for the state] to treat individuals differently on the basis of a particular normative view about race or sex."[79] Scholars have suggested, however, that an anti-subordination approach that focuses more on remedying structural inequality, rather than individual instances of discrimination, might better address disparities.[80] Anti-subordination focuses on substantive rather than formal equality, finding it "inappropriate for certain groups in society to have subordinated status because of their lack of power in society as a whole."[81] The theories were articulated by scholars in an attempt to better understand how the courts were conceptualizing

---

[76] *See generally* Cary Franklin, *The Anti-Stereotyping Principle in Constitutional Sex Discrimination Law*, 85 N.Y.U. L. REV. 83 (2010).

[77] *See generally* Neil S. Siegel & Reva B. Siegel, *Pregnancy and Sex Role Stereotyping from* Struck *to* Carhart, 70 OHIO ST. L.J. 1095 (2009) [hereinafter Siegel & Siegel, *Pregnancy Stereotyping*].

[78] *See*, *e.g.*, Parents Involved in Cmty. Sch. v. Seattle Sch. Dist. No. 1, 551 U.S. 701, 733-35 (2007) (holding that racial classifications in the public school non-higher-education context failed strict scrutiny standard and are generally disfavored).

[79] Ruth Colker, *Anti-Subordination Above All: Sex, Race, and Equal Protection*, 61 N.Y.U. L. REV. 1003, 1005 (1986) [hereinafter Colker, *Anti-Subordination Above All*]. *See also* Ruth Colker, *The Anti-Subordination Principle: Applications*, 3 WIS. WOMEN'S L.J. 59, 63-64 (1987) ("The evil is the differentiation rather than who is acted upon.").

[80] *See* Colker, *Anti-Subordination Above All*, *supra* note 79; *see also infra* Part II.C.1 for further development of these theories of equality.

[81] *See* Colker, *Anti-Subordination Above All*, *supra* note 79, at 1007. Colker further elaborates on the principle as follows:

> This approach seeks to eliminate the power disparities between men and women, and between whites and non-whites, through the development of laws and policies that directly redress those disparities. From an anti-subordination perspective, both facially differentiating and facially neutral policies are invidious only if they perpetuate racial or sexual hierarchy.

Id. at 1007-08 (footnotes omitted).

equality, in an anti-classification manner,[82] and how courts could do so better, using anti-subordination as a goal.[83] These frameworks will be discussed in greater depth in Part II below.

II. Constitutional Scrutiny of the Vaccine Mandates

HPV vaccine mandates that discriminate on the basis of sex fail the equal protection guarantee. Laws involving classifications on the basis of sex undergo intermediate scrutiny.[84] HPV vaccine mandates use classifications to differentiate between the category of individuals required to receive the vaccine, women, and the category of individuals under no such mandate, men.[85] For a law to survive intermediate scrutiny, the classification the government makes must serve an important governmental interest, be substantially related to achievement of that goal, and the government must have an exceedingly persuasive justification for using the classification in the statute.[86]

Here, the strongest "important governmental interest" is a health- or welfare-based one – ensuring that all cancers caused by HPV are curtailed through prophylactic vaccination.[87] To meet that interest, states have chosen the means of state law that mandates vaccination for the population most at risk for getting cancer from HPV: women.[88] Whether a state's classification is

[82] The courts currently conceive of equality as color-blindness or gender-blindness, ideas that scholars identify as the anti-classification theory. *See supra* note 78; *see also infra* notes 79-141 (providing summaries of the theory from the literature).

[83] Scholars such as Ruth Colker, Reva Siegel, and Robin West argue that anti-subordination goals can better address inequality because it looks at systems rather than individuals. *See infra* notes 81-145.

[84] *See* Craig v. Boren, 429 U.S. 190, 197 (1967).

[85] *See supra* Part I.B.1-3, discussing various forms of HPV vaccination mandates in the states that have them. All of the existing mandates only require vaccination of girls; none require vaccination of boys.

[86] *See supra* notes 68-69 and accompanying text for cases articulating the standard.

[87] *See supra* notes 37, 42. The Texas and Washington D.C. laws both included findings that expressed that the statutes' purpose for requiring vaccination was to prevent HPV in girls, thereby reducing cancer burdens. While the scope of the governmental interest could be narrowed to only include curtailing cervical cancer, the vaccines have been shown to be effective at preventing HPV in men. *See* Giuliano et al., *supra* note 32, and accompanying text. For the purposes of the intermediate scrutiny analysis in this Note, because the vaccine is capable of preventing many forms of cancer, all of those forms are targeted.

[88] *See supra* notes 39, 42, and 48. Virginia, Texas, and Washington D.C. all have gender-discriminatory mandates.

substantially related to the achievement of the goal or the state has provided an exceedingly persuasive justification for the classification to meet that goal is debatable based on current case law and available public health information, but when examined in the context of the available rationales and theories for intermediate scrutiny holdings, it cannot meet that burden.

The application of intermediate scrutiny does not necessarily predict a result either way. In the modern sex-based classification cases, the Court has overturned roughly an equal number of sex-specific provisions as it has upheld.[89] A few major principles drive equal protection assessments: (1) using biological or "real differences" between men and women to justify classifications, (2) the Supreme Court's increasing unwillingness to use sex stereotypes as a basis for upholding sex classifications, (3) the current Court's disfavor of classifications as a basis for upholding provisions, and (4) taking an anti-subordination approach to classification.[90] These principles may prove more helpful than merely examining the standard through case law in determining whether the sex classifications in these vaccination mandates generally withstand equal protection scrutiny.

A. "Real Differences"

In the pregnancy and parentage cases, the Court has held that "real differences" between men and women justify the differential classification and treatment of men and women in state and federal law.[91] The biology of pregnancy, in which only individuals with uteruses – women –

---

[89] *See* CYNTHIA GRANT BOWMAN ET AL., FEMINIST JURISPRUDENCE: CASES AND MATERIALS 81-86 tbl. (4th ed. 2010) (noting that in the cases challenging sex discriminatory state action on equal protection grounds, 16 provisions were invalidated, while 13 were upheld).

[90] *See supra* notes 72-83 and accompanying text.

[91] *See, e.g.*, Nguyen v. INS, 533 U.S. 53, 61-63 (2001) (upholding a statute with a sex-based classification distinguishing between a parent who gives birth and parent who does not give birth because of the biological difference between mothers and fathers at the time of birth); Geduldig v. Aiello, 417 U.S. 484, 494-95 (1974) (upholding sex-based classification of pregnant and non-pregnant persons because it is grounded in the fact that only women are included in the former category, and both men and women are in the latter). *But see* Nev. Dep't of Hum. Res. v. Hibbs, 538 U.S. 721, 735 (2003) (holding the Family and Medical Leave Act constitutional in spite of gender neutral pregnancy leave because states had history of perpetuating gender discrimination in administration of leave

can give birth, seems to be the type of "difference" that the Court is willing to permit as an acceptable use of classification.[92]

Scholars, however, have argued against the conceptualization and use of real differences. They question both the types of differences that fall within the category of "real differences" and the fundamental notion of differences themselves, and dispute the foundations of the normative prescriptions that the Supreme Court has made in distinguishing biological differences from other classifications. Cass Sunstein has suggested that many "real differences" are merely byproducts of structural inequality, and as such, should not be proffered as justification for differential treatment.[93] Zillah Eisenstein builds on this conceptualization, asserting that for a female body, "being 'different' is the same as being unequal."[94] Martha Minow describes the

---

benefits); Cal. Fed. Sav. & Loan Ass'n. v. Guerra, 479 U.S. 272 (1987) (upholding a California employment benefits statute that gave pregnant women qualified reinstatement, in spite of challenges arguing that the statute gave preferential treatment to women in a sex-discriminatory fashion).

[92] *See* SUSAN GLUCK MEZEY, ELUSIVE EQUALITY: WOMEN'S RIGHTS, PUBLIC POLICY, AND THE LAW 32 (2003) ("Although many had assumed constitutional sex equality had been attained, the high court's most recent decisions indicate that biological sex differences remain an acceptable justification for laws in the United States.").

[93] While the overall chapter discusses homosexuality and the Constitution more broadly, this particular section cited to questions whether women are truly different from men, and whether it matters if they are. Sunstein argues:

> Differences between men and women – especially those involving sexuality and reproduction – are often said to explain sex inequality, indeed to be the origin of inequality. But it might be better to think that at least some such differences are an outcome of inequality, or its product. . . . I suggest only that many of the sex differences that are said to justify inequality – physical, psychological, and more – are really a product of inequality. . . .[W]e know enough to suggest that nature is not responsible for anything like all of what we see.

Cass R. Sunstein, *Homosexuality and the Constitution*, *in* SEX, PREFERENCE, AND FAMILY 217-19 (David M. Estlund & Martha C. Nussbaum eds., 1997). He suggests that sex inequality can be better addressed by constitutional jurisprudence as a matter of dismantling a gender-based caste system instead of permitting the system to continue because of alleged differences. *Id*. at 219.

[94] ZILLAH EISENSTEIN, THE FEMALE BODY AND THE LAW 79 (1988). Eisenstein finds sex difference particularly problematic because "[t]he woman's body . . . is inevitably associated with the mother's body, which is more than female because it embodies institutionalized gender 'difference.'" *Id*. at 80. She further argues that:

> Sex is the realm of biological raw material, and gender reflects human social intervention. But we need to recognize that even what is thought of as raw biology is socially constructed. This ambiguity makes it difficult to distinguish between the institutionalized notions of gender and their nongendered components because the two are never completely separate. This is true of the distinctions between woman's biological particularity and her sex "difference": between the pregnant body and the woman's body and between the institution of motherhood and biological motherhood.

danger of differentiation as follows: "[A] difference assigned by someone with power over a more vulnerable person will become endowed with an apparent reality, despite powerful competing views."[95] These scholars' arguments undermine the rigid nature of "real differences," and open space for dialogue about which "differences" warrant different treatment.

The concept of "real differences" can be used to support or thwart sex-based classifications in HPV vaccine mandates. On one hand, one could claim that the HPV vaccine mandates are analogous to the "real differences" inherent in pregnancy because only women can contract cervical cancer. Legislators and others focus on cervical cancer as the perceived sole consequence of HPV.[96] Since cervical cancer is the type of cancer that is most commonly caused by HPV,[97] the use of biological difference – only women have cervixes – can be a permissible sex-based classification analogous to the biological difference of pregnancy and laws using such classifications may be upheld on these grounds.

On the other hand, relying on "real differences" leads to a highly under-inclusive result. Men can develop a number of cancers from HPV;[98] they also transmit the virus to other men and to women.[99] HPV adversely affects both men and women because they are both at risk of transmitting the virus and developing cancer from it, so mandating the vaccine in a sex-discriminatory fashion is unwarranted. By restricting coverage of vaccination mandates, states are likewise not addressing the health disparities in the populations most affected by the cancers

---

Id. at 81.

[95] Martha Minow, *Justice Engendered*, *in* FEMINIST JURISPRUDENCE 217 (Patricia Smith ed., 1993).

[96] *See supra* Part I.B for language of HPV vaccination mandates emphasizing cervical cancer as a consequence of HPV to the exclusion of the many other possible negative effects.

[97] *See* Parkin & Bray, *supra* note 3 and accompanying text.

[98] *See HPV-Associated Cancer Statistics*, *supra* note 1.

[99] *See* Burchell et al., *supra* note 10 and accompanying text (discussing the transmission of HPV).

caused by HPV, Black and Hispanic women.[100] The biological difference of having a cervix is neither predictive of adverse effects of HPV nor of the benefits of the HPV vaccine. Studies show that as currently conceived, gender-discriminatory HPV vaccine mandates are less effective at protecting women against HPV-induced cervical cancers than if the vaccine were made mandatory for all individuals, instead of just women.[101] In addition, women-only mandates completely leave out the risks posed to men who have sex with men. If the goal of state legislatures is to eradicate the cancers caused by HPV, the most effective means possible is a gender-neutral mandate. Sunstein's assessment regarding inequality, that "real differences" are byproducts of structural inequality,[102] is reflected in the perceived "real difference" of having a cervix as a justification for differential treatment. In drawing distinctions between men and women, especially in the context of biology, men have traditionally used sex stereotypes about gender roles to retain their superior status, regardless of whether it is warranted or not. Here, having a penis is correlative of permissive sexuality, while having a cervix instead implies requiring protection and paternalistic measures such as vaccination.[103] The differentiation is unwarranted and particularly dangerous because it disparately impacts the poor and those with restricted access to the HPV vaccine.[104] Based on the discussion below on sex stereotypes, the differentiation also only reinforces sex inequality. Vaccine mandates, if they exist for young women, should likewise be extended to young men.

---

[100] *See supra* notes 21-22 and accompanying text.

[101] *See* V. Brown & K.A.J. White, *The HPV Vaccination Strategy: Could Male Vaccination Have a Significant Impact?*, 11 COMPUTATIONAL & MATHEMATICAL METHODS MED. 223 (2010). Brown and White find in their study that including males in the vaccination process allows "eradication of infection possible for a wider range of parameter values," or increases the chance of infection eradication under a greater variety of conditions. *Id*. at 228-230. They also calculate that including males in vaccination programs "actually leads to a slight decrease in the total prevalence of infection at steady state." *Id*. at 232. *See also Mandatory HPV Vaccines*, *supra* note 17.

[102] *See* Sunstein, *supra* note 93 and accompanying text.

[103] *See infra* Part II.B (discussing sex stereotypes regarding sexuality).

[104] Bach, *supra* note 22, at 963.

B. Sex Stereotypes

Sex stereotypes writ large have been identified as impermissible bases for making sex-based classifications to further government ends.[105] The Court has established that it will not use outmoded sex stereotypes as a justification for upholding sex-based classifications,[106] and commentators agree that the Court has taken an anti-stereotyping approach to cases involving equal protection sex classification.[107] Sex stereotyping has been identified as particularly dangerous because it relies on societal assumptions not grounded in fact.[108] It is also worth noting that sex stereotypes do not stand in isolation of racialized, class-formulated assumptions, but interwoven within them.[109] Scholars such as Cary Franklin argue that the principle of anti-stereotyping applies regardless of "whether . . . 'real' differences are involved."[110] Franklin sees a development of case law where "real differences" began as a check on anti-stereotyping, but

[105] The Court stated: "[W]omen still face pervasive, although at times more subtle, discrimination in our educational institutions, in the job market and, perhaps most conspicuously, in the political arena." Frontiero v. Richardson, 411 U.S. 677, 686 (1973) (citations omitted). It has also found that based on data before Congress at the time the Family & Medical Leave Act was passed, "States continue[d] to rely on invalid gender stereotypes in the employment context, specifically in the administration of leave benefits," which provided a justification for upholding the statute, because its provisions attempted to address those invalid gender stereotypes. Nev. Dep't of Hum. Res. v. Hibbs, 538 U.S. 721, 730 (2003).

[106] In *Mississippi University for Women v. Hogan*, the Court, in discussing impermissible sex stereotypes, stated: "[T]he test for determining the validity of a gender-based classification . . . must be applied free of fixed notions concerning the roles and abilities of males and females. Care must be taken in ascertaining whether the statutory objective itself reflects archaic and stereotypic notions." Miss. Univ. for Women v. Hogan, 458 U.S. 718, 724–25 (1982). The Court in *VMI* stated that: "[the government] must not rely on overbroad generalizations about the different talents, capacities, or preferences of males and females." United States Virginia, 518 U.S. 515, 533 (1996) (citing Weinberger v. Wiesenfeld, 420 U.S. 636, 643, 648 (1975); Califano v. Goldfarb, 430 U.S. 199, 223–24 (1977)). Finally, in *Nevada Department of Human Resources v. Hibbs*, the Court permitted countering impermissible stereotyping as acceptable ends for enacting and upholding the Family & Medical Leave Act. Hibbs, 538 U.S. at 734 ("Congress could reasonably conclude that [existing] discretionary family-leave programs would do little to combat the stereotypes about the roles of male and female employees that Congress sought to eliminate.").

[107] *See* Franklin, *supra* note 76.

[108] *See, e.g.*, Craig v. Boren, 429 U.S. 190, 214 (1976) (denouncing the use of unthinking stereotypes to support sex-based classifications).

[109] *See generally* Patricia A. Cain, *Feminist Jurisprudence: Grounding the Theories*, 4 BERKELEY WOMEN'S L.J. 191, 209 (1989) ("The problem with current feminist theory is that the more abstract and universal it is, the more it fails to relate to the lived reality of many women."). In particular, Trina Grillo questions why "woman unmodified" necessarily implicates the stereotypical, assumed "white, middle class" woman. Trina Grillo, *Anti-Essentialism and Intersectionality: Tools to Dismantle the Master's House*, 10 BERKELEY WOMEN'S L.J. 16, 19, 21 (1995).

[110] *See* Franklin, *supra* note 76, at 146.

over time, the roles of the principles were reversed, with the Court using anti-stereotyping principles to limit the scope of exceptions created by "real differences."[111]

Sex stereotypes in the context of the HPV vaccine mandates operate on at least two levels: first, they are analogous to the protectionist treatment found in pregnancy stereotypes, and second, in the context of teenage sexuality, they reinforce gender norms. An undercurrent of all of these stereotypes is that they are being applied to some universal woman, one for whom the risk of contracting HPV is equally common. Pregnancy as a means of sex stereotyping against women is a particularly apt analogy to make to HPV. Pregnancy biologically only affects women, and likewise, HPV is framed as having a much larger impact on women than on men.[112] Pregnancy is generally caused by contact with male genitalia,[113] and HPV is largely transmitted through such contact as well.[114] Finally, both pregnancy and HPV have been targeted as "real differences" warranting classification and differential treatment.[115]

Historically, pregnancy has been seen as a bastion of sex-role stereotyping.[116] Differential treatment because of pregnancy was justified by the stereotype of separate spheres,[117] where

---

[111] *Id*. Franklin goes as far as to say that "the Court's opinion suggests that equal protection law should be particularly alert to the possibility of sex stereotyping in contexts where 'real' differences are involved, because these are the contexts in which sex classifications have most often been used to perpetuate sex-based inequality." *Id.*

[112] *See, e.g.*, *supra* notes 15, 16, and 29 for examples of focus on HPV in women.

[113] While there are some pregnancies that does not require such contact, such as those that involve assisted reproduction, the vast majority of pregnancy still occurs as a result of vaginal intercourse.

[114] *See* Burchell et al., *supra* note 10.

[115] *See supra* text accompanying notes 91-92, 96-97 for pregnancy "real differences" cases and HPV vaccination requirements classifying on basis of sex.

[116] *See* Siegel & Siegel, *Pregnancy Stereotyping*, *supra* note 77, at 1097-98 nn.13-15. The authors discuss how in *Michael M. v. Superior Court*, 450 U.S. 464 (1981); *Geduldig v. Aiello*, 417 U.S. 484 (1974); and *Roe v. Wade*, 410 U.S. 113 (1973), the Supreme Court assumes that pregnancy is a fundamental sex difference warranting differential treatment and thus "[t]he cases do not seriously explore the possibility that traditional sex-role stereotyping shapes judgments about functional rationality or altruism where matters of pregnancy are concerned." Siegel & Siegel, *Pregnancy Stereotyping*, *supra*, at 1098.

[117] *See* NANCY F. COTT, THE GROUNDING OF MODERN FEMINISM 210 (1987) ("Private employers discriminating against married women typically reasoned that wives, by definition, did not need to work because their husbands were legally bound to support them. That understanding came . . . from the longstanding economic concept of

women warranted "protection" because they were expected to perform the role of economically dependent caretakers.[118] Recently, scholars have claimed that the Supreme Court has been decreasing the role sex stereotyping has in maintaining subordination because of pregnancy. They see *Hibbs*,[119] *Casey*,[120] and Justice Ginsburg's dissent in *Carhart*[121] as affirmation of how "even though the Court initially had difficulty seeing that sex role stereotypes were sometimes implicated in cases concerning the regulation of pregnancy, the Court's constitutional decisions have increasingly come to recognize the relationship between pregnancy discrimination and sex discrimination."[122] As applied to the HPV vaccine and its differential application to girls and boys, the stereotypical view of girls as needing protection and the different treatment of girls through mandated vaccination policies is a form of sex discrimination just as pregnancy discrimination was also sex discrimination. Both are equally impermissible because they are based on outmoded perceptions of the roles of women in society.

The school-based nature of HPV vaccine mandates necessarily involves a discussion of the normative expectations states are communicating through the policies surrounding the vaccine. The presence of a vaccine mandate for some–girls–and not others–boys–signals to

marriage itself—enshrined in common law and custom—requiring the husband's support and the wife's service to him.").

[118] Martha Minow describes the inherent dilemma raised by pregnancy as sex role stereotyping: "[T]he issue of stereotypes was unavoidable: The dilemma in [Cal. Fed. Sav. & Loan Ass'n. v. Guerra, 479 U.S. 272 (1987)] . . . was whether women could secure a benefit that would eliminate a burden connected with their gender, without at the same time reactivating negative meanings about their gender." *See* Minow, *supra* note 95, at 221. Wendy Williams also makes a compelling argument for the equality approach, rather than the "special treatment" one. *See* Wendy W. Williams, *The Equality Crisis: Some Reflections On Culture, Courts, and Feminism*, 14 WOMEN'S RTS. L. REP. 151, 170 (1992). Williams describes the detrimental costs of the special treatment approach, including (1) permitting both favorable and unfavorable treatment of pregnancy, (2) increasing political division in advocating for change, (3) the double-edged sword nature of protectionist legislation, and (4) giving the state too much sway in women's "procreational capabilities." Williams, *supra*, at 170.

[119] Nev. Dep't of Hum. Res. v. Hibbs, 538 U.S. 721 (2003).

[120] Planned Parenthood of Southeastern Penn. v. Casey, 505 U.S. 833 (1992).

[121] Gonzales v. Carhart, 550 U.S. 124, 169 (2007) (Ginsburg, J., dissenting).

[122] *See* Siegel & Siegel, *Pregnancy Stereotyping*, *supra* note 77, at 1098. The authors argue that in each of these cases, the Court applies an anti-stereotyping approach to explain why it upholds provisions that attempt to diminish pregnancy discrimination.

students that women are responsible for contracting HPV, while men bear no responsibility for contracting or transmitting it. By not mandating vaccination for boys, schools are reinforcing the stereotype that the sex acts of men have fewer consequences and are less normatively proscribed than those of women.[123] Sex stereotypes in the context of school-based vaccination are being applied to adolescents, which is complicated in part because social conservatives are wary of any inference of sexual activity in this population.[124] They are also troubling because they are being applied without regard to race or class, which are both correlative of differential impact by HPV.[125] As a result, the populations that already have limited access to treatment for cancers related to HPV[126] are, based on outmoded perceptions of proper sex roles, having their access to prophylactic vaccination limited. When such stereotyping is inculcated through the school system, it becomes coterminous with students' education more generally – learning "proper sex roles" is given the same normative valence as mastering algebra.[127] As a result, legislators should be exceedingly cautious when relying upon such stereotypes to justify their educationally-based

[123] *See* NACK, *supra* note 14, at 6 ("Most Americans subscribe to a gender ideology in which girls and women are morally and socially demeaned by non-marital sexual encounters, whereas these same behaviors serve to elevate the social statuses of boys and men.").

[124] *See, e.g.,* O'Rourke, *supra* note 9; Gibbs, *supra* note 9. The wariness noted in the mass media raises further questions about sex stereotyping in youth.

[125] *See supra* notes 5-6. These sources describe how poverty, being Black, or being Hispanic are all correlative of worse HPV-related outcomes.

[126] Bach, *supra* note 22, at 963.

[127] Adolescent sex education is another school-based source of communicating sex stereotyping. Sex stereotyping in the context of adolescent sex education is particularly delicate because of the immense influence that schools have in their students' psychosocial development and perceptions of sexuality and their gender roles within it. In an analysis of sex education in schools, Jennifer Hendricks and Dawn Howerton note that a large proportion of sex education curricula involve pervasive sex stereotypes that link sexual activity to "motherhood . . . and paternal financial obligation," which "teaches teens to associate sex with traditional gender roles," and also that the curricula emphasize "associations between sex and fear." Jennifer S. Hendricks & Dawn Marie Howerton, *Teaching Values, Teaching Stereotypes: Sex Ed and Indoctrination in Public Schools*, 13 U. PA. CONST. L. (forthcoming 2011) (manuscript at 18) (on file with author), *available at* http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1590627. The authors call for an end to normative privileging of sex stereotypes and traditional sex roles as conveyed through sex education curricula. *Id*. at 7. Hendricks and Howerton argue, however, that the best way to address gendered and sex stereotyping sex education is through the First Amendment, and not the Equal Protection Clause because they perceive First Amendment doctrine to be more sensitive to eliminating government imposition of values. *Id*. at 41.

sex-discriminatory vaccine policies because youth rarely have the opportunity to challenge such policies while they are still within educational systems.[128]

A further assumption made in tandem with these sex stereotypes is that pregnancy and gender norms globally affect women in the same ways, and thus the women are affected by HPV in the exact same ways. Anti-essentialist scholars such as Angela P. Harris argue against gender-essentialism and claim that feminists "should challenge not only law's content but its tendency to privilege the abstract and unitary voice."[129] Empirical research shows that Black and Hispanic women, as well as women in poverty tend to be affected by HPV at greater rates than those not in those categories.[130] It is tempting to essentialize these groups and single them out for "increased" protection. Doing so, however, ignores the sources of transmission, other men and women,[131] and the fact that women, regardless of their race or class, contract HPV from other individuals, and thus are at risk, regardless of whether they fall within certain classifications. While increasing health care accessibility to these particular groups might be helpful, it does not sufficiently curtail the risk of inter-group transmission of HPV. Viewing races, genders, sexual orientations, and other categorizations in isolation is problematic because these groups intermingle sexually and otherwise. Anti-essentialism would therefore call for HPV mandates to be race-, class-, and gender-neutral in order to better protect individuals against the unique subordination that might be overlooked by privileging members of certain privileged classifications over others.

---

[128] Sex stereotyping that involves youth is particularly troubling because youth have a limited opportunity to counter the systemic inequality they face through the stereotyping because their access to courts is limited. There are, of course, always lawsuits filed by parents on behalf of their children challenging educational policies, *id.* at 28 (citing Montiero v. Temple Union High Sch. Dist., 138 F.3d 1022 (9th Cir. 1998)), but those types of lawsuits presume that parents also oppose the policy at issue.

[129] Angela P. Harris, *Race and Essentialism in Feminist Legal Theory*, 42 STAN. L. REV. 581, 585 (1990).

[130] *See supra* notes 5-6.

[131] Burchell, *supra* note 10.

The sex-based classification in which women are differentiated from men based on the biological difference of having cervixes is discriminatory because it creates a false dichotomy between men and women. This dichotomy affects the level of public health protection men and women receive. While it is true that women have cervixes and men do not, and therefore only women are susceptible to developing cervical cancer from HPV, the stereotyping at issue is damaging because it perpetuates both individual and systemic oppression by codifying the assumption that women alone are responsible for contracting communicable sexually transmitted infections.[132] This assumption blatantly ignores the primary means of transmission of HPV to women, namely genital contact with a man.[133] This type of stereotyping is parallel to that assumed in the context of pregnancy, namely that women "should" be held responsible for pregnancy—despite the fact that, but for the role that men play in pregnancy, women would not get pregnant. By only requiring female vaccination, women are likewise held responsible for preventing contraction of HPV, regardless of the fact that they most likely contracted it from a man. Pregnancy-related stereotyping remained permissible until Congress passed the Pregnancy Discrimination Act of 1978.[134] While gendered vaccination mandates do not have similar anti-discrimination legislation to explicitly prohibit their existence, the law can draw analogues between the progression of pregnancy discrimination law and HPV vaccination laws and use gender-neutral mandates instead of perpetuating stereotypes that the Supreme Court has taken years to slowly dismantle.

C. Anti-Classification and Anti-Subordination Approaches

[132] *See supra* note 127.

[133] *See* Burchell et al., *supra* note 10 and accompanying text.

[134] Pregnancy Discrimination Act (PDA) of 1978, Pub. L. No. 95-555, 92 Stat. 2076 (codified as amending 42 U.S.C. § 2000e(k) (2011)).

Under sex discrimination equal protection doctrine, real differences and anti-stereotyping are rationales for either upholding or invalidating provisions. Anti-classification and anti-subordination are the underlying theories of equality that inform the results that courts reach. Examining them is useful for understanding how courts reach and apply real differences and anti-stereotyping. While traditionally anti-classification and anti-subordination have been seen as divergent means of achieving equality, in the context of the particular classification at issue here, the two approaches dovetail neatly to point to the same result: making vaccination mandates gender-neutral. As such, the HPV vaccine context provides an opportunity to examine some of the overlapping features of each theory of equality.

1. Two Theories of Equality

Anti-classification[135] opposes differential treatment on the basis of prohibited classifications such as race or sex.[136] This theory focuses on the discrimination perpetuated by individual institutions, as perpetuated on individuals within those institutions.[137] In *Parents Involved*,[138] the Court refused to uphold a race-based classification to accomplish affirmative action in public high school districting on the grounds that racial classifications are suspect and should be subject to strict scrutiny. The Court stated: "This Court has recently reiterated . . . that '*all* racial classifications [imposed by the state] . . . must be analyzed by a reviewing court under

[135] Anti-classification is also sometimes referred to as anti-differentiation in the literature.

[136] *See supra* notes 78-79 and accompanying text.

[137] Ruth Colker further develops the definition in stating:

> Race- and sex-specific policies or actions are invalid under this perspective because they reflect invidious motivation and result in dissimilar treatment for similarly situated individuals. It is equally invidious for white men to be treated differently from black women as for black women to be treated differently from white men under this perspective, because both situations violate the preeminent norm of equal treatment. Anti-differentiation advocates therefore argue for 'color-blindness' or 'sex-blindness' in the development and analysis of legislative and institutional policies . . . .

Colker, *Anti-Subordination Above All*, *supra* note 79, at 1005. (footnotes omitted). This definition is fairly standard, and is heavily supported by case law. *See infra* notes 139-140.

[138] Parents Involved in Cmty. Sch. v. Seattle Sch. Dist. No. 1, 551 U.S. 701 (2007).

strict scrutiny.'"[139] The Court found the provisions invalid, relying on *Rice v. Cayetano*, in which it declared: "'[o]ne of the principal reasons race is treated as a forbidden classification is that it demeans the dignity and worth of a person to be judged by ancestry instead of by his or her own merit and essential qualities.'"[140] Commentators are quick to point to the inadequacies of anti-classification as a rationale for striking down laws that benefit protected classes.[141]

Anti-subordination, in contrast, is defined by its goal of dismantling structural inequality through whatever means necessary.[142] While the Court has not been formally recognized the theory in the context of equal protection jurisprudence, scholars have developed the theory to articulate a means that better addresses and remedies structural inequality.[143] In the context of sex discrimination, Robin West defines anti-subordination as determining "not whether the

[139] *Id.* at 741 (emphasis in original) (citations omitted).

[140] *Id*. at 746 (quoting Rice v. Cayetano, 528 U.S. 495, 517 (2000)).

[141] Reva Siegel finds that "[t]he fundamentality of the anticlassification principle . . . explains various features of our equal protection tradition, foremost among them its commitment to protect individuals against all forms of racial classification, including 'benign' or 'reverse' discrimination." Reva B. Siegel, *Equality Talk: Antisubordination and Anticlassification Values in Constitutional Struggles over* Brown, 117 HARV. L. REV. 1470, 1473 (2004) [hereinafter Siegel*, Equality Talk*]. Siegel argues that anti-classification as a governing principle has been used in conflicting ways in the past, and its history and precedential value is less straightforward than the Court suggests.

> The record suggests that, at some points in our history, courts have employed claims about the wrongs of racial classification to express and to mask constitutional concerns about practices that enforce second-class citizenship for members of relatively powerless social groups – and at other points in our history, courts have employed claims about the wrongs of racial classification to block, diffuse, and limit constitutional expression of such concerns. The debates over *Brown*'s implementation show the complex ways in which concerns about legitimacy have moved courts to mask and to limit a constitutional regime that would intervene in the affairs of the powerful on behalf of the powerless.

Id.

[142] *See supra* note 81.

[143] Proponents of anti-classification claim that the legacy and original intent of *Brown v. Board of Education of Topeka, Shawnee County, Kansas*, 347 U.S. 483 (1954), which held that "in the field of education, the doctrine of 'separate but equal' has no place," *id*. at 495, was that racial equality would be achieved through equal protection on an individualized level by removing classifications and through a colorblind Constitution. More recently, scholars have shown that *Brown*'s intent was instead to work against subordination more broadly of African Americans. Reva Siegel argues that "the anticlassification principle was not the ground of the Brown decision but instead emerged from struggles over the decision's enforcement." Seigel, *Equality Talk*, *supra* note 141, at 1547. Through her research, Siegel finds that the decision actually "teaches that concerns about group subordination are at the heart of the modern equal protection tradition – and, at the same time, suggests important reasons why such concerns have been persistently disguised, qualified, and bounded." *Id.* at 1547.

legislative classification 'fits' a pre-existing reality, but rather whether the classification furthers the subordination of women vis-à-vis men or attempts to end their subordination."[144] Under this theory, "Sex-based state action offends the Equal Protection Clause in those circumstances where it perpetuates the status inferiority of women."[145]

2. Reconciling the theories in the context of the HPV vaccine

While most constitutional scholars argue for the Equal Protection Clause to be governed by either anti-classification or anti-subordination, the choice between the two theories need not be irreconcilable.[146] Because anti-classification can be seen as a means of achieving anti-subordination goals in situations where the act of classifying is the cause of subordination, there exist ways for group equality can be achieved even when the focus is on remedying individual wrongs.

Vaccination mandate classifications exist to achieve a governmental end, eliminating cervical cancer, that runs afoul of a protected classification, women.[147] As a result, the Court is likely to be inherently suspicious of the role those classifications play in the mandates. The classification on the basis of sex will be examined under intermediate scrutiny, and, like the

---

[144] Robin L. West, *Equality Theory, Marital Rape, and the Promise of the Fourteenth Amendment*, 42 FLA. L. REV. 45, 60 (1990). West distinguishes anti-subordination from other models:

> In sharp contrast to the rationality model, the antisubordination model rests not on a universalist vision of our "shared" human nature, but on a political vision of our present unequal social reality. For constitutional purposes, the relevant issue is decidedly not that women are "the same" as men but are treated differently or that women are different from men and are treated the same. . . .Thus, the aim of the equal protection clause should be to highlight and rectify that political reality and not to highlight and mirror similarities or differences between men and women.

Id. at 61 (footnotes omitted).

[145] Reva B. Seigel, *Gender and the United States Constitution*, *in* THE GENDER OF CONSTITUTIONAL JURISPRUDENCE 306, 317 (Beverley Baines & Ruth Rabio-Marin eds., 2005).

[146] Ruth Colker argues that "the courts have made their choices between the anti-differentiation and anti-subordination perspectives without a sound theoretical basis the anti-differentiation perspective developed pragmatically as a means of redressing subordination, rather than as a theoretical response to the core problem with race or sex discrimination—differentiation or subordination." Colker, *Anti-Subordination Above All*, *supra* note 79, at 1014.

[147] *See supra* notes 87-88 and accompanying text.

provisions at issue in *Parents Involved*, should not withstand that scrutiny. While the provision at issue in *Parents Involved* included a racial classification, the analysis of its validity is analogous. The question in gender cases is whether the classification is grounded in stereotypes, or real differences; if the former, it will be found invalid, and if the latter, there are strong arguments for it being found to be invalid as well. The larger issue in the context of the theory of anti-classification is whether the classification at issue is in fact necessary to achieving the state's ends. In the gendered statutes discussed above,[148] the stated purpose of enacting vaccination mandates is to reduce the incidence of cervical cancer and HPV. This purpose presumes that the most effective way of diminishing the rate of cervical cancer is by vaccinating only women against HPV.

Some of the same dangers in classifying on the basis of race can be seen in the context of classifying on the basis of sex. The Court pointed to damaging assumptions when eliminating race-based classifications,[149] and those same concerns are inherent in the gendered vaccination mandates. Sex-discriminatory assumptions here might include that (1) HPV only affects women, (2) women alone are responsible for contracting HPV, and (3) society has decided that the burden of the consequences of HPV should lie solely on women. Each of these conclusions is detrimental to women because they reinforce negative stereotypes regarding women's sexuality, and consequently contributes to their inferior status in society.[150] By rendering the statutory provisions gender-neutral, the risks inherent in classification can be eliminated.

---

[148] *See supra* Part I.B and accompanying text and notes for discussion of the statutory language used in the vaccination mandates at issue.

[149] Parents Involved in Cmty. Sch. v. Seattle Sch. Dist. No. 1, 551 U.S. 701, 746 (2007).

[150] *See supra* Part II.B and accompanying text and notes for discussion of dangers of sex stereotyping in the context of HPV vaccination mandates.

Anti-subordination goals would ensure that women as a group do not continue to be subjugated through unequal treatment by means of gendered vaccination mandates. The group oppression at issue here is found in perceptions of difference and stereotyping. As applied to challenges to these mandates, anti-subordination would call for dismantling structural inequality created by detrimental stereotypes and perceptions of differences that might justify the use of classifications. The gender-discriminatory provisions contribute to subordination of women because of the ways in which they treat women's sexuality in stereotyped manners.

In calling for gender-neutral mandates, anti-classification and anti-subordination goals are not at odds. Both the individual-focused anti-classification and the group-focused anti-subordination theories of equality support a gender-neutral mandate. This integration of theories begs the question of what other equal protection violations might benefit from such analysis.[151]

III. Next Steps: Proposals

In light of the forgoing equal protection analysis, some of these proposals for addressing the issues raised by sex-discriminatory mandatory HPV vaccines may seem obvious, but the analysis can be applied more broadly to the sex education context to combat sex discrimination on a more macroscopic level.

A. Increase research support

There is a shortfall of knowledge of the costs and benefits of the HPV vaccine in men. While some studies have found that the vaccine is effective at preventing HPV related cancers in men[152] and it has been widely postulated that immunization against strains of HPV will curtail

[151] Serena Mayeri suggests reconstructing the analogy between race and sex so that affirmative action programs in either context have a greater chance of surviving scrutiny, ostensibly under intermediate scrutiny. Serena Mayeri, *Reconstructing the Race-Sex Analogy*, 49 Wm. & Mary L. Rev 1789 (2008). Her argument is grounded in the history of how race and sex came to be analogized; I argue here that equal protection

[152] *See* Giuliano, *supra* note 32, at 409.

transmission of HPV,[153] it is essential to obtain additional research support and findings so that ACIP and other regulatory and policymaking bodies can make scientifically backed recommendations.

B. ACIP should add a recommendation that the vaccine be mandated for males

A recommendation from ACIP that states should mandate HPV vaccinations for boys would increase the number of states adopting gender-neutral mandates and increase the ability of states to adequately justify these mandates. States rely heavily on ACIP recommendations as driving forces for their own laws mandating school vaccinations. One key way to meet the public health goals of eliminating cancers caused by HPV is through an ACIP recommendation that covers men to build on the current one that covers women.

C. Mandate gender-neutral vaccination

Based on the nature of equal protection jurisprudence in relation to gender discrimination, it seems unlikely that if challenged, mandates directed solely at girls can withstand constitutional scrutiny. Given the foregoing analysis, states have two options: (1) make their mandates gender-neutral, or (2) eliminate mandates altogether. Because the latter would defeat the purpose of the public health ends, this proposal focuses on the former.[154]

If public health efficacy is the primary concern of lawmakers and administrators, they should opt to create gender-neutral mandates. When state legislatures consider vaccination schedules for school entrance, they should rely on concrete scientific evidence and not outmoded

[153] *See* Kim, *supra* note 34, at 394.

[154] While it is true that if the sex discriminatory vaccination mandates are contested and found unconstitutional, institutional inertia might convince states that promoting school-based vaccination is no longer worth the expenditure of their resources. Based on the statistics on the prevalence of HPV in the United States and the ready availability of the drug, states are likely to continue to consider a gender-neutral HPV vaccination mandate.

gender stereotypes as the basis for the laws that protect their constituents.[155] They should not focus merely on those who are perceived to be at increased risk, but ensure maximal coverage in order to target the virus from all possible angles.[156]

D. Use sex education as a vehicle for addressing sex discrimination

Sex education provides a vehicle for addressing many of the issues that sex discriminatory HPV vaccine mandates raise. It can be a means of challenging problematic issues such as the concepts of real differences and sex stereotyping explored above. States can confront the problem of sex discrimination from a systemic, anti-subordination standpoint by addressing sex classifications, and the broader policies within which they fit. Making changes in sex education, such as removing normative prescriptions about gender, could meet anti-classification goals by distributing responsibility for sex to all parties, instead of differentially to men and women.[157] By not classifying individuals based on their sex and by presumed gender roles, education policy can help address the issues raised by sex stereotyping identified in this Note.

When states require curricula that focus on the science of sexually transmitted infections, sex education can be a means to address sex inequalities. This way, students will have a better understanding of how different sexually transmitted infections are transmitted,[158] instead of distributing responsibility disproportionately to women. Increasing information provision is especially important in light of the fact that those in a position lacking privilege are unlikely to

---

[155] While many states have considered a vaccine mandate, few have enacted statutes requiring vaccination for girls as a condition for entry into public school, in part because of a reluctance to address sexually transmitted infections. Legislatures fear backlash from constituents who may promote abstinence-only education and who believe that their daughters are sexually inactive. These legislatures may then enact statutes according to outmoded sex stereotypes regarding female sexuality, rather than with the purpose of protecting girls from a preventable disease.

[156] *See supra* notes 129-131 and accompanying text.

[157] *See generally* Hendricks & Howerton, *supra* note 127 (arguing that sex education needs to prescribe fewer stereotypes as normative values).

[158] Condoms are not entirely effective at preventing HPV, but do protect against a variety of other sexually transmitted infections, as well as pregnancy. *See supra* note 14 and accompanying text (describing condom effectiveness at preventing HPV).

be able to access the information on their own.[159] States must also more broadly address HPV within the context of other sexually transmitted infections, and educate students that even though vaccinated students may have immunity against HPV, they can still contract other sexually transmitted infections.[160]

Conclusion

This Note calls into question the constitutionality, pragmatism, and efficacy of gender-discriminatory HPV vaccine mandates as created by states. This preliminary analysis reveals that in the specific context of gender-based laws that rely on outmoded stereotypes formulating the role of women in sexuality and sexually transmitted infections, the vaccination mandates are unconstitutional. In addition, the normative values privileged by the gender-discriminatory vaccination mandates are dangerous because they act to the detriment of the public health goal of eradicating that particular disease, reinforce gender role oppression, and maintain hierarchical health-care disparities based on race and class. If lawmakers, public health officials, and scholars want to address HPV more comprehensively and effectively, they should look to anti-classification means to meet anti-subordination goals.

[159] *See* Trina Grillo, *supra* note 109, at 27 (". . . those of us who are middle-class, or members of otherwise privileged elites, can be used as unwitting perpetuators of the subordination of others.") (citing to Regina Austin, *Sapphire Bound!*, 1989 WIS. L. REV. 539, 554).

[160] The HPV vaccine only covers, as one would expect, HPV. Other sexually transmitted infections are unaffected by the vaccine, and students should be made aware of that fact so that they can take adequate precautions, even if post-vaccination they no longer have to worry about contracting HPV.