# Disregarded Disparities? The Truth About Truvada: "PrEP" access & the state of University Health Insurance in Minnesota

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## I. Introduction

In November 2012, Hilary Clinton announced the blueprint for an Acquired Immune Deficiency Syndrome ("AIDS") Free Generation.¹ Though optimistic,² Clinton was not discussing and end to the Human Immunodeficiency Virus ("HIV") pandemic altogether; rather, she was calling for the prevention of most new infections from occurring in the first place and to stop HIV-positive people from developing AIDS.³ These statements were made ignoring a major medical breakthrough in July 2012,⁴ when the Food and Drug Administration ("FDA") approved a combination of drugs, Emtricitabine and Tenofovir Disoproxil Fumarate (under the brand name "Truvada," or more generally termed "Pre-Exposure Prophylaxis" or "PrEP"), for use both in treatment of those with HIV and prevention for those with high-risk exposure to HIV.⁵ Though some have discussed a cure to HIV is in sight,⁶ no cure or vaccine has been approved for human use.⁶ As a result,

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<sup>\*</sup> J.D. Candidate, 2015, XXX, M.P.H. Graduate, 2013, George Washington University. This paper is dedicated to all those who fight against HIV -- from educators to researchers to clinicians -- thank you for your endless work. For those living with HIV, I hope this paper will help end the stigma against you. For those on Truvada, I hope this paper can better educate the public about your plight.

<sup>&</sup>lt;sup>1</sup> See Richard Knox & Michaeleen Doucleff, *Clinton Reveals Blueprint for an 'AIDS-Free-Generation*,' NAT'L PUB. RADIO (Nov. 29, 2012, 3:54 PM), http://www.npr.org/blogs/health/2012/11/29/166154269/clinton-reveals-blueprint-for-an-aids-free-generation ("Clinton's blueprint also involves other types of HIV prevention strategies, including male circumcision, condom distribution and stopping transmission from mother to child.").

<sup>&</sup>lt;sup>2</sup> *Id.* ("'We are still a very long way from that,' [says] Dr. Helen Rees, an HIV specialist at the University of Witwatersrand in South Africa").

<sup>3</sup> *Id* 

<sup>&</sup>lt;sup>4</sup> See Matthew Perrone, FDA approves first pill to help prevent HIV, MINNESOTA PUBLIC RADIO NEWS (Jul. 17, 2012), http://www.mprnews.org/story/2012/07/17/health/hiv-truvada.

<sup>&</sup>lt;sup>5</sup> NAT'L INSTITUTE OF HEALTH, *Emtricitabine / Tenofovir Disoproxil Fumarate*, AIDSINFO DRUG DATABASE (Dec. 2013), http://aidsinfo.nih.gov/drugs/406/emtricitabine---tenofovir-disoproxil-fumarate/0/professional#S1.1 
<sup>6</sup> See Ellie Zolfagharifard, *Scientists 'delete' HIV virus from human DNA for the first time*, DailyMail (July 22, 2014,10:59 AM), http://www.dailymail.co.uk/sciencetech/article-2701304/Scientists-delete-HIV-virus-human-DNA-time.html (describing how in 2014, it was reported that scientists 'deleted' the HIV from Human Deoxyribonucleic Acid (DNA) for the first time); Dana Dovey, *Functional HIV Cure Step Closer To Reality With FDA Approval Of Clinical Human Trials*, MEDICAL DAILY (Mar. 10, 2015, 12:04 PM), http://www.medicaldaily.com/functional-hiv-cure-step-closer-reality-fda-approval-clinical-human-trials-325048 (describing how clinical trials have begun for an HIV cure).

prevention is the only means by which to decrease incidence & prevalence of HIV infections.<sup>8</sup>

The Center of Disease Control (CDC) estimates only 50,000 new HIV infections in the United States in 2015, which is a large decrease from previous years. This HIV-prevention strategy has been lauded as highly successful, and specifically in the Midwest. In 2013, the CDC reported that there were only 6,109 diagnoses in the region, a rate of 9.0 per 100,000 people, which is the lowest regional HIV incidence in the nation. Further, there were 301 new HIV diagnoses reported in Minnesota in 2013, a decrease of 4% from 2012. Some have lauded this figure as a success, while others point to the fact that the 2011 figure was nearly 3% lower.

So all news regarding HIV/AIDS in Minnesota is good news, correct? Not quite. Specifically, 248 of the new cases (over 82%) are in the Seven-County Metro Area. Worse, the age demographics that represent the highest HIV incidence (creeping toward close to half of all new cases) is represented in three age groups; the highest rates of HIV incidence are in 20-24 years olds, followed by 25-29 year-olds and then 30-34 year-olds. The average age of students in college is around 25 years of age (with the University of Minnesota having the highest percentage of students over 25 in the U.S.), and the average age of graduate students centers around the low 30's. Thus, since the twin cities area has over 15 colleges and universities, this issue seems to disproportionally impact students in this area.

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    <sup>7</sup> See CENTERS FOR DISEASE CONTROL & PREVENTION, PrEP (Jan. 16, 2015), http://www.cdc.gov/hiv/basics/prep.html.
    <sup>8</sup> Id.
    <sup>9</sup> Id.
    <sup>10</sup> See CENTER OF DISEASE CONTROL, Today's HIV/AIDS Epidemic (Mar. 2015), http://www.cdc.gov/nchhstp/newsroom/docs/hivfactsheets/todaysepidemic-508.pdf.
    <sup>11</sup> See CENTER OF DISEASE CONTROL, supra note 7.
    <sup>12</sup> See MINNESOTA DEP. OF HEALTH, HIV/AIDS Surveillance Reports - 2013 (Apr. 28, 2014, 12:34 PM),
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http://www.health.state.mn.us/divs/idepc/diseases/hiv/hivsurvrpts.html#newslides.

13 See MINN. DEP. OF HEALTH, HIV/AIDS Surveillance Reports - 2011 (Apr. 24, 2014, 3:54 PM), http://www.health.state.mn.us/divs/idepc/diseases/hiv/stats/2011/hivsurvrpts2011.html.

<sup>&</sup>lt;sup>14</sup> See MINN. DEP. OF HEALTH, New HIV Infections in 2013 (Apr. 28, 2014, 12:34 PM), http://www.health.state.mn.us/divs/idepc/diseases/hiv/hivsurvrpts.html#newslides.

<sup>16.</sup> See Most Students Over Age 25, U.S. News & World Report (2014), http://colleges.usnews.rankingsandreviews.com/best-colleges/rankings/most-over-25 (showing that the University of

Minnesota – Twin Cities has the highest percentage of students over the age of 25 in the U.S.).

17 See Council of Graduate Schools, Data Sources: Non-Traditional Students in Graduate Education, COUNCIL OF GRADUATE SCHOOLS COMMUNICATOR (Dec. 2009),

http://www.cgsnet.org/ckfinder/userfiles/files/DataSources 2009 12.pdf.

<sup>&</sup>lt;sup>18</sup> See MINN. OFFICE OF MANAGEMENT & BUDGET, Living in Minnesota (2015), http://mn.gov/mmb/careers/why\_work\_for\_us/living\_in\_MN/.

Further, data regarding younger populations is worse. New infections among men aged 13-24 quadrupled from 2001 to 2009. These young Minnesotans account for 1 in 4 new cases. 20

#### II. Problem

So, colleges and universities in the Seven-Counties Metro Area are aware of this trend and are addressing it, correct? Not quite. Universities seem to be systematically ignoring recent breakthroughs in HIV-medication with some universities primarily promulgating generally negative views of the treatment.<sup>21</sup>

Almost all Minnesota colleges provide confidential, peer HIV testing free of charge, <sup>22</sup> which helps students take the next steps regarding their respective treatment and transmission. <sup>23</sup> That said, these steps minimally comport with recently updated, CDC guidelines. <sup>24</sup> Though universities promote less risky sexual behaviors <sup>25</sup> (though these efforts have been found to be highly ineffectual and only stigmatize homosexual behaviors; men admitting to having anal sex with men without condoms rose 20 percent between 2005 and 2011), <sup>26</sup> HIV testing, and condom usage as methods to mitigate transmission, <sup>27</sup> universities have failed to

<sup>&</sup>lt;sup>19</sup> See Sheila Regan, 'Shame' for using an HIV prevention drug that works? Twin Cities men confront the Truvada conundrum, MINNPOST (Jul. 14, 2014), https://www.minnpost.com/health/2014/07/shame-using-hiv-prevention-drug-works-twin-cities-men-confront-truvada-conundrum.

<sup>&</sup>lt;sup>21</sup> See University of Minnesota College of Pharmacy Online Courses, Facebook (July. 12, 2012), https://www.facebook.com/onlinepharmacycourses/posts/265811250198250 (positing "What are your thoughts about Truvada?" overtop an article stating "Truvada, new HIV prevention drug, not for everyone").

<sup>&</sup>lt;sup>22</sup> See Boynton Health Services, HIV Testing & Counseling, U. OF MINN. (2015), http://www.bhs.umn.edu/east-bank-clinic/hiv-testing.htm; AIDS Saint John, Anonymous HIV Testing, SAINT JOHN UNIVERSITY (2015), http://www.aidssaintjohn.com/education/anonymous-hiv-testing/; Hamline University, Get Yourself Tested!, HAMLINE EVENTS (2014), http://www.hamline.edu/HUEventsDetail.aspx?id=4294999905; Dean of Students, Sexual Violence and Harrasment, St. Thomas University (2015),

http://www.stthomas.edu/deanofstudents/students/policiesprocedures/faqsv/.

<sup>&</sup>lt;sup>23</sup> See Medwiser, *HIV Testing* (2013), http://www.medwiser.org/hiv-testing/ (stating 20% of individuals living with HIV do not know they are infected, 49% of new HIV transmission are infected by people who do not know they have the disease, and that early diagnosis and treatment can decrease transmissibility by those with HIV by greater than 95%).

<sup>&</sup>lt;sup>24</sup> See CENTER FOR DISEASE CONTROL, *Prevention* (Jan. 16, 2015), http://www.cdc.gov/hiv/basics/prevention.html. <sup>25</sup> See id.; Center for Sexual Health, *HIV Counseling*, U. OF MINN. (Feb, 24, 2015),

http://www.umphysicians.org/Clinics/center-for-sexual-health/specialty-areas/HIVCounseling/index.htm.

<sup>26</sup> See David J. Landry, Lisa Kaeser & Cory L. Richards, Abstinence Promotion and the Provision of Information About Contraception in Public School District Sexuality Education Policies, 31 FAMILY PLANNING PERSPECTIVES (Dec, 1999), https://www.guttmacher.org/pubs/journals/3128099.html; John Santelli, Mary A. Ott, Maureen Lyon, Jennifer Rogers, Daniel Summers, & Rebecca Schleifer, Abstinence and abstinence-only education: A review of U.S. policies and programs, 38 J. ADOLESCENT HEALTH 38 72–81 (2006); Regan, supra note 19.

<sup>27</sup> See Regan, supra note 22 and accompanying text.

incorporate PrEP into the discussion of reducing sexual mitigation,<sup>28</sup> focusing more on new social means by which persons are contracting HIV.<sup>29</sup>

A great example is the University of Minnesota, which represents the largest enrollment in Minnesota. For these students, access to PrEP is not available on university health insurance, even though it is available on a separate insurance plan for Professors and University workers. This trend is not uncommon nationwide as the Affordable Care Act exempted University Health Plans from the full requirements of the Affordable Care Act ("ACA"). As a result, even treatments dictated by physicians as "medical necessities" are barred from coverage.

Though MinnesotaCare allows students who are state residents to access this medication,<sup>34</sup> relying on state public assistance programs alone to provide this sort of care for students is short-sighted. This access fails to provide out-of-state residents with access to the drug necessary for proper mandatory treatment; since 33% of matriculants to the University of Minnesota are considered out-of-state residents,<sup>35</sup> this bars access to those who need it. Further, though private insurance may cover the medication, full-time students with no income have no means by which to afford these options; private insurance is unaffordable to students (even

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<sup>&</sup>lt;sup>28</sup> See CENTER FOR DISEASE CONTROL, supra note 24 ("Talk to your doctor about pre-exposure prophylaxis (PrEP), taking HIV medicine daily to prevent HIV infection, if you are at substantial risk for HIV. PrEP should be considered if you are HIV-negative and in an ongoing sexual relationship with an HIV-positive partner. PrEP also should be considered if you are not in an exclusive relationship with a recently tested, HIV-negative partner and are a: gay or bisexual man who has had anal sex without a condom or been diagnosed with an STD in the past 6 months; or heterosexual man or woman who does not regularly use condoms during sex with partners of unknown HIV status who are at substantial risk of HIV infection (e.g., people who inject drugs or have bisexual male partners).").

<sup>29</sup> See Research Uncovers Connection between Craigslist Personals, HIV Trends, U. OF MINN. (Jan. 30, 2015), http://discover.umn.edu/news/business-law/research-uncovers-connection-between-craigslist-personals-hiv-trends.

<sup>30</sup> See Office of Institutional Research, All Enrollment Data for Fall 2014, UNIVERSITY OF MINNESOTA (2014), http://www.oir.umn.edu/student/enrollment/term/1149/current/show\_all.

<sup>&</sup>lt;sup>31</sup> See Office of Student Health Benefits, Blue Cross and Blue Shield of Minnesota FlexRx Drug Formulary for the University of Minnesota Student Health Benefit Plan, U. OF MINN. (2014), http://www.shb.umn.edu/downloads/2014-

<sup>2015/</sup>SHBP/July%202014%20MN\_Alpha\_Drug\_List%20for%20U%20of%20M%20Students.pdf.

<sup>&</sup>lt;sup>32</sup> See Office of Student Health Benefits, *University of Minnesota UPlan Formulary*, U. OF MINN. (2014), https://www.myprime.com/MyRx/MyRxHealth/forms/UMN\_Alpha\_Drug\_List.pdf.

<sup>&</sup>lt;sup>33</sup> See American College Health Association, *Frequently Asked Questions*, AFFORDABLE CARE ACT & STUDENT HEALTH INSURANCE (Apr. 21, 2014),

http://www.acha.org/topics/affordable\_care\_act/faqs\_for\_individualcoverageclassification.cfm; Greater Than Aids, For people who are HIV negative, will my insurance pay for Truvada as pre-exposure prophylaxis (PrEP)? (2015), http://greaterthan.org/health-coverage-hiv-and-you-faq/people-hiv-negative-will-insurance-pay-truvada-pre-exposure-prophylaxis-prep/.

<sup>&</sup>lt;sup>34</sup> See MNSURE, Medical Assistance & MinnesotaCare (2015), https://www.mnsure.org/individual-family/cost/mamncare.jsp; MEDICA, List of Covered Drugs (Formulary) for MEDICA CHOICE CARE / MEDICA MINNESOTACARE & MEDICA Accessability Solutions Plans (2015),

 $https://www.medica.com/{\sim}/media/documents/pharmacy/medicaid/list\_of\_covered\_drugs\_perpetual\_formulary\_spp. \\ pdf.$ 

<sup>&</sup>lt;sup>35</sup> See Office of Institutional Research, supra note 30.

with federal subsidies) because the cheapest exchange plans still require significant cost-sharing for benefits utilization via an annual deductible, 36 thus making coverage of Truvada a financial hardship. Since the CDC connects two major social factors (poverty and prevalence of HIV)<sup>37</sup> to the disproportionate presence of HIV in younger communities, mitigation strategies need to be focused on this age group in this area.<sup>38</sup> Since Truvada is most effective when taken daily (and has a much lower efficacy if not done this way),<sup>39</sup> these sorts of systemic barriers directly lead to impairment of patient healthcare for the most "at risk" individuals. 40

Worse, though students could gain access to this drug through parental coverage until they are twenty-six, 41 two issues arise. First, students, based on the average age at matriculation, 42 are aging out of their coverage. 43 Second, even if students were not aging out of coverage, stigma regarding use of the drug has been mired in controversy, with some Minnesota physicians being accused of "slut shaming" patients on the medication. 44 The CDC state discrimination, stigma and homophobia are factors that may discourage individuals from seeking testing, prevention, and treatment services. 45 Despite the medical breakthrough in prevention, with drug (with PrEP has been shown to reduce the risk of HIV infection in people who are at high risk by up to 92%)46 and strict physician criteria

<sup>&</sup>lt;sup>36</sup> See generally Ryan Lore, Jon R. Gabel, Roland McDevitt, & Michael Slover, Choosing the "Best" Plan in a Health Insurance Exchange: Actuarial Value Tells Only Part of the Story, 23 COMMONWEALTH FUND (Aug. 2012), http://www.commonwealthfund.org/~/media/Files/Publications/Issue%20Brief/2012/Aug/1626 Lore choosing best \_plan\_HIE\_actuarial\_ib\_v2.pdf.

See CENTER FOR DISEASE CONTROL, supra note 10.

<sup>&</sup>lt;sup>38</sup> See Rod Mccullom, Lowering the Age for HIV Prevention, THE ATLANTIC (Feb. 11, 2015, 1:00 PM), http://www.theatlantic.com/health/archive/2015/02/lowering-the-age-for-hiv-prevention/385303/.

<sup>&</sup>lt;sup>39</sup> See Gilead, Taking Truvada Every Day As Prescribed (2014), http://www.truvada.com/hiv-medicine.

<sup>&</sup>lt;sup>40</sup> As a personal, emotional aside, the author admits that he has been on Truvada for nearly 8 months, as he is in a happy, monogamous, and fruitful relationship with someone who is HIV+. In order to access this medication, as he is twenty-six years of age and an out-of-state resident at the University of Minnesota, he has had to bike (since he owns no car) nearly 2 miles to the public health clinic (even in the subzero, double digit days), to receive subsidized medication from the manufacturer of the medication in Gilead's free medication assistance program for low income individuals. Gaps in medication can be commonplace, so scheduling a drop-off and picking up of the medication is necessary. Further, regular testing to ensure health is necessary to be on the medication, thereby removing time from my education. Though gaps in the insurance program have been brought to the Office of Student Health Benefits and Law School Dean of Students, absolutely nothing has been done to rectify or remedy barriers to access.

<sup>&</sup>lt;sup>41</sup> See U. S. DEP. OF LABOR, Young Adults and the Affordable Care Act: Protecting Young Adults and Eliminating Burdens on Businesses and Families (2015), http://www.dol.gov/ebsa/faqs/faq-dependentcoverage.html.

<sup>&</sup>lt;sup>42</sup> See supra notes Error! Bookmark not defined.-17 and accompanying text.

<sup>&</sup>lt;sup>43</sup> See U. S. DEP. OF LABOR, supra note 41 and accompanying text.

<sup>&</sup>lt;sup>44</sup> See Regan, supra note 22 ("One reason why Artley suspects his doctor may have steered him away from the drug: "slut-shaming," the perception that somehow a Truyada user is more promiscuous, rather than simply taking extra precautions. It's a dilemma that straight women who use birth control know well. Just Google 'truvadawhore.'"). <sup>45</sup> See CENTER FOR DISEASE CONTROL, supra note 10.

<sup>&</sup>lt;sup>46</sup> See CENTER FOR DISEASE CONTROL, Pre-Exposure Prophylaxis (PrEP) (Sept. 30, 2015), http://www.cdc.gov/hiv/prevention/research/prep/.

regarding patient access to Truvada, 47 the drug has been mired in controversy, with speculation that this pill is "a party drug" by terming those that take the drug, regardless of rationale, "Truvada whores." 48 This is despite the fact that studies have shown that there is no link between Truvada and increased sexual risks.<sup>49</sup> While it is true that Truvada is not for all persons that are at high risk of catching HIV.50 is it also true that these sorts of decisions should be made between a patient and a physician, and not be mandated by a university through barriers to pharmaceutical access.

Three general rationales/misconceptions have been promoted for this lack of access. First, has been the cost of the regime.<sup>51</sup> Ironically, the cost of an HIVnegative individual on Truvada is far less<sup>52</sup> than the costs of antiretroviral treatment for HIV+ individuals;<sup>53</sup> further, the cost of Truvada is far less than treatment or care for AIDS patients. Second is the fear of drug resistance.<sup>54</sup> Though these claims can come to fruition, the fear is minimal at best.<sup>55</sup> Generally, these fears seem to stem from the pandemic of the 1980's, they tend to further stigmatize usage of these sorts of medications.<sup>56</sup> Third, the medications have been lauded as "unsafe" or "ineffective." <sup>57</sup> Truvada was approved to be distributed in connection with a Truvada Medication Guide with each prescription in accordance with 21 C.F.R. 208.24.58 Admittedly, the medication has a host of common side effects like increased lactic acid in your blood (lactic acidosis) or liver issues.<sup>59</sup> Other health

<sup>&</sup>lt;sup>47</sup> See U.S. PUBLIC HEALTH SERVICE, Pre-Exposure ProphylaxisFor the Prevention of HIV Infection in the United States - 2014: A Clinical Practice Guideline (2014), http://www.cdc.gov/hiv/pdf/PrEPguidelines2014.pdf. <sup>48</sup>See David Duran, Truvada Whores?, HUFFINGTON POST (Jan. 12, 2013, 5:12 AM),

http://www.huffingtonpost.com/david-duran/truvada-whores\_b\_2113588.html; Julia Belluz, 10 things vou need to know about the pill to prevent HIV, Vox (Dec. 1, 2014), http://www.vox.com/2014/7/14/5896887/explainer-aboutthe-pill-to-prevent-hiv-aids-Truvada.

<sup>&</sup>lt;sup>49</sup> U. OF CAL., SAN FRANCISCO, No Link between HIV-Prevention Pill Truvada and Increased Sexual Risk Behavior, Study Finds (Dec. 18, 2013), http://www.ucsf.edu/news/2013/12/110831/no-link-between-hiv-prevention-pilltruvada-and-increased-sexual-risk-behavior.

<sup>&</sup>lt;sup>50</sup> See Belluz, supra note 48.

<sup>&</sup>lt;sup>51</sup> See Tim Murphy, Is This the New Condom?, OUT MAGAZINE (Sept. 9, 2013, 9:52 AM), http://www.out.com/news-opinion/2013/09/09/hiv-prevention-new-condom-truvada-pill-prep.

<sup>&</sup>lt;sup>52</sup> See Good Rx, Truvada (2015), http://www.goodrx.com/truvada (stating the cost of truvada is around \$1300/month).

<sup>&</sup>lt;sup>53</sup> See Good Rx, Atripla (2015), http://www.goodrx.com/atripla (stating the cost of atripla is around \$2100/month).

<sup>&</sup>lt;sup>54</sup> See Murphy, supra note 51.

<sup>55</sup> http://jid.oxfordjournals.org/content/early/2015/01/13/infdis.jiu677.full (showing that of 4,747 participants, and 25 who contracted HIV while on Truvada, four showed evidence of the virus "mutating" over several years). <sup>56</sup> See Murphy, supra note 51.

<sup>&</sup>lt;sup>57</sup> See Belluz, supra note 48.

<sup>&</sup>lt;sup>58</sup>FOOD & DRUG ADMIN., Initial REMS Approval Nucleoside/Nucleotide Analog Human Immunodeficiency Virus-1 Reverse Transcriptase Inhibitors (July 16, 2012),

http://www.fda.gov/downloads/DrugSafety/PostmarketDrugSafetyInformationforPatientsandProviders/UCM 312304.pdf.

<sup>&</sup>lt;sup>59</sup> *Id*.

issues, such as renal changes,<sup>60</sup> have been disproven. Further, the U.S. Public Health Service released physician guidelines in 2014 addressing both of these issues,<sup>61</sup> through mandating blood tests every few months as the standard of care to ensure patient safety and drug efficacy of the treatment.<sup>62</sup> Though less common side effects,<sup>63</sup> healthcare providers closely monitor patients for several months to ensure symptoms are not abnormal.

### III. Solution

In response to the issues surrounding Truvada, a two-pronged approach seems necessary.

First, colleges, like all other health insurance post-ACA, need to be mandated to cover Truvada for those at high risk of contracting HIV. Not only do Minnesota student insurance policies work counter to the public policies focused on reduction of HIV incidence, but these policies work to stigmatize those on the medication and marginalize those living with HIV. Either the Universities, some which conduct internal appeals to deal with health appeal issues, 64 could voluntarily pass these measures. Alternatively, universities could be mandated to comply with these provisions.

Legally, public health officials in executive agencies could aide in this effort. Since these student insurance plans are under the Department of Labor regulation, <sup>65</sup> a regulation could be enacted mandating that student university health insurance policies cover Truvada (or other HIV-preventative medications and treatments) in order to address gaps in health benefits. In conjunction, the Minnesota state legislature and executive agencies could work with Universities to prioritize this action; regulations could be crafted for "medical necessity" and state reporting systems can craft in order to ensure there is little exploitation of this new

<sup>63</sup> See FOOD & DRUG ADMIN., supra note 58 (stating that less common side effects "include[e]: weakness, exhaustion, muscle pain, shortness of breath, nausea, vomiting, and stomach-area pain, dizziness, or fast/abnormal heartbeats").

<sup>&</sup>lt;sup>60</sup> Kenneth K. Mugwanya, Christina Wyatt, Connie Celum, Deborah Donnell, Nelly R. Mugo, Jordan Tappero, James Kiarie, Allan Ronald, Jared M. Baeten, *Changes in Glomerular Kidney Function Among HIV-1–Uninfected Men and Women Receiving Emtricitabine–Tenofovir Disoproxil Fumarate Preexposure Prophylaxis - A Randomized Clinical Trial*, 175 J. Am. MED. ASS'N INTERNAL MED. (2015), http://archinte.jamanetwork.com/article.aspx?articleid=2038980

<sup>&</sup>lt;sup>61</sup> See U.S. PUBLIC HEALTH SERVICE, supra note 47.

 $<sup>^{62}</sup>$  Id

<sup>&</sup>lt;sup>64</sup> See Office of Student Health Benefits, Comprehensive Student Health Benefit Plan, U. OF MINN. (2014), http://www.shb.umn.edu/downloads/2014-2015/SHBP/SHBP\_SPD14\_R.pdf.
<sup>65</sup> Id.

mandate, and to ensure optimal cost-effective measures are undergone to decrease the further spread of the epidemic.

Second, general education concerning HIV treatment needs to be increased. Many programs have been proposed to target younger populations in order to better control the epidemic of younger HIV-infections. 66 Not only do existing programs in Minnesota need to be updated to educate the masses on the general safety and efficacy of this treatment, but existing programs also need to ensure that they do not endorse prejudicial attitudes toward those on the drug. 67 Since the CDC asserts that prejudice and marginalization result in increased risk of HIV transmission, discussion and education to higher risk communities, like programs in Chicago, 68 would greatly benefit Minnesota. Though programs exist now, like the Minnesota AIDS project, which educate at risk members in Minnesota, 69 increasing both public funding and outreach for at risk youth is not only necessary in the fight against this epidemic, 70 but mandatory to raise public awareness and acceptance; Minnesota cannot rely on yesterday's methods to combat today's epidemic.

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<sup>&</sup>lt;sup>66</sup> See Mccullom, supra note 38.

<sup>&</sup>lt;sup>67</sup> Associated Press, *Gay Men Divided Over Use of HIV Prevention Drug*, MINN. PUB. RADIO NEWS (Apr. 6, 2014), http://www.mprnews.org/story/2014/04/06/gay-men-divided-over-use-of-hiv-prevention-drug-.

<sup>68</sup> AIDS Foundation of Chicago, 15 ways we're changing the HIV epidemic in 2015 (2015), http://www.aidschicago.org/page/pews/incide\_story/fifteen\_ways\_were\_changing\_the\_hiv\_epidemic

http://www.aidschicago.org/page/news/inside-story/fifteen-ways-were-changing-the-hiv-epidemic-in-2015.

<sup>&</sup>lt;sup>69</sup> Minnesota AIDS Project, *PrEP* (2015), http://www.mnaidsproject.org/community/prep.php. <sup>70</sup> *See* Mccullom, supra note 38.