## Fueled by science, not bias: Supporting the decrease in deferral period for MSM donating blood and other high-risk groups

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## Abstract

This paper was originally written for Jeremy Snyder's Health Science 319W course *Applied Health Ethics*. The assignment asked students to discuss the ethics of current and proposed Canadian Blood Services policy regarding blood donation from men who have sex with men, and discuss additional policy options if they are found to be ethically preferable. The paper uses APA citation style.

In the 1970s and early 1980s, HIV was transmitted to many people in Canada through HIV-infected blood transfusions, leading to increased vigilance in the blood donation screening process and resulting in the forbiddance of blood donation from groups with high HIV prevalence (Wainberg, Shuldiner, Dahl, & Gilmore, 2010). In 1983, men who had had sex with men since 1977 and those from HIV endemic countries were forbidden from donating blood in Canada; a reasonable precaution given that this was two years before the discovery of antibody HIV screening tests (Wainberg et al., 2010). However, given the increase in screening technology and the current need for blood donation in Canada, I believe that the current 1 year deferral for men who have sex with men (MSM) is unnecessarily restrictive and is based on archaic knowledge of HIV transmission and diagnosis. In order to determine the most ethical approach to regulating blood donation from high-risk groups such as MSM, I propose a four-step framework based on theories of utility, Krishnamurthy's political solidarity, and input from Kass' as well as Grill and Dawson's frameworks (Krishnamurthy, 2013; Kass, 2001; Grill & Dawson, 2017). This framework will ultimately provide us with the conclusion that the current 1-year abstinence period for MSM and indefinite deferral for those who have engaged in sex work or intravenous drug

use are overly restrictive, and that a behaviour-based 3-month abstinence period prior to HIV screening for high risk individuals will maximize utility and political solidarity and thus be the ethical policy choice.

The Canadian Blood Services state that "men are eligible to give blood if it has been more than one year since their last sexual contact with another man", and that those who have ever participated in sex work after 1977 or have ever used intravenous drugs are indefinitely deferred, essentially equating to a lifetime blood donation ban. (Canadian Blood Services [CBS], n.d.-a; CBS, n.d.-b). According to national statistics from the Canadian AIDS Treatment Information Exchange (CATIE), such a one-size-fits-all approach does not necessarily align with the HIV distribution in Canada. In 2016, women made up almost a quarter of all People living with HIV (PLWH) in Canada, and only 22% of HIV positive women contracted HIV from intravenous drug use (Challacombe, 2018b). Additionally, while it is true that 51.9% of all HIV infections in Canada are among MSM, 33% of all new HIV infections in 2016 were transmitted by heterosexual sex (Challacombe, 2018a). These statistics do support that idea that certain populations are at higher risk than others for contracting HIV, but more importantly, they suggest that the risk of HIV transmission does not depend solely on the population with which one identifies, but on the activities in which ones partakes.

Since the development of the first HIV antibody test in 1985, there have been massive improvements in our ability to detect HIV infection quickly and effectively (Alexander, 2016). Currently in Canada, all laboratories use fourthgeneration HIV testing when screening individuals, which identifies both antibodies against HIV in individuals' blood as well as the p24 antigens on the actual viral proteins of HIV (Wilton and Knowles, 2018). This type of HIV test is not new; we have had such technology since the late 1990s, but the tests continue to improve in efficiency and efficacy over time (Alexander, 2016). Since p24 antigens are detectable in blood levels during seroconversion when antibodies are not yet present, a fourth-generation test will be able to detect HIV infection as early as two weeks post infection, and be conclusive in 99% of those tested 6weeks post infection (Wilton and Knowles, 2018). According to the CDC, however, some cases of HIV infection might not show up until 3-months post infection, so fourth-generation HIV tests are not 100% conclusively negative until 3 months post-exposure (BC Center for Disease Control and Prevention [BC CDC], 2016). In addition to fourth-generation HIV testing, there is a more advanced, albeit much more expensive, HIV test which screens for HIV RNA,



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called the nucleic acid test (NAT). NATs can identify HIV infection as early as one to two weeks post-infection, well before any antibodies have been formed (Tooley, 2010). However, because of the NAT's high cost and tendency to produce false positive results, they have not been approved for use as a first-line HIV diagnosis tool, and fourth-generation tests remain at the forefront of HIV testing (Branson et al., 2014).

The proposed four step framework begins with a clear analysis of the goals of the program, stated as, "what are the primary public health goals of the program and the barriers to achieving them?". This first step echoes Kass' framework (2001), which I believe is useful since it encourages one to take a step back from current political discussions and identify the population health aims of the program in question without bias. In this case, the first public health goal of blood services is to provide a safe source of blood for those who are in need of transfusions. The main barrier to achieving this goal is the obvious potential of blood donations to be given from individuals with blood-borne illnesses such as HIV. The safety of recipients should be prioritized as a primary goal since, as argued by Arora, "there is no clear right to donate [blood], whereas recipients of blood transfusions do have a right to a safe blood supply in keeping with the ethical principles of beneficence and non-maleficence" (Arora, 2017). The second primary goal of blood donation services is to receive enough blood to sustain the transfusion activities that are required in the public health setting. Barriers to this include a lack of individuals who are willing or motivated to donate blood, or overly strict regulations which inhibit a large proportion of the population from donating blood.

The second step of this framework is to think through all alternative policy options for achieving these goals, and the benefits and harms associated with each. This is essentially a combination of the first and second step of Grill and Dawson's framework, which I believe is a useful creative exercise to approach the situation from multiple viewpoints, ideally including input from various stakeholders (Grill and Dawson, 2015). While Grill and Dawson use this as the primary steps of their framework, I believe that thinking through policy options after identifying key public health goals will lead to a more focused and productive discussion. On one end of the scale, an extremely strict policy approach for blood donation would be similar to those in the past where MSM, those who have participated in sex work of injection drug use, and those from HIV endemic countries are not eligible to donate blood under any circumstances. This would likely increase the safety of those receiving blood by eliminating high risk donor



populations, but would continue to segregate certain marginalized groups from the rest of the population, and likely decrease the blood supply available for transfusions. This also disregards the obvious fact that not all of those in a highrisk population are HIV positive as well as the effectiveness of current screening technologies. Intermediate policy options which are still regulation-heavy would be both the current 1-year sexual abstinence rule for MSM prior to HIV testing and donation and indefinite deferral for those who have participated in sex work of injection drug use, or the proposed reduction of abstinence period for MSM to 3 months while retaining indefinite deferrals for other groups such as those who have engaged in sex work or used intravenous drugs. These options increase the number of HIV-negative MSM eligible to donate blood while maintaining a thorough screening process, but do not apply the same scientific data to all highrisk groups and prohibits those in high-risk groups from donating when they themselves may not be at any risk for contracting HIV, again decreasing the donor pool. A final policy option would be to remove all indefinite deferrals on blood donation for high-risk populations and instead require a 3-month abstinence period from sex and intravenous drug use for any individual who has used injection drugs, engaged in sex work, had unprotected sex with any partner of unknown HIV status, or engaged in other risky behaviour before HIV testing and blood donation. This rigorous screening process might increase financial burden due to a higher number of HIV tests being performed, but would ensure that HIV+ individuals would not be donating blood and would increase the potential donor pool.

The third part of this framework is to apply Utilitarian theory to find the policy options which attain all goals with the highest possible degree of utility. A classical Utilitarian approach is often viewed as inadequate for public health initiatives since it tends to support heavy-handed state involvement and disregard individual values and opinions; however, this issue is not a public health intervention but is instead a discussion about how to regulate public blood donation to efficiently provide a high quantity and quality of goods (Holland, 2015). In such a case, I argue that a Utilitarian view is appropriate and will help guide us to the most ethical policy. Utility is defined by Bentham as pleasure, good, or happiness, and if we agree that having sufficient blood available necessary transfusions and that decreasing the number of transfusion transmitted HIV cases will increase good and happiness, then the goals outlined above are consistent with this definition (Driver, 2009). In this case, I argue that the final policy option presented, which includes a 3-month abstinence period for any



individuals who have engaged in risky behaviour prior to blood testing, is the most efficient option which fulfills both of the outlined goals of this program. Many individuals who are in designated high-risk populations may not actually partake in high-risk activities and may in fact be exposed to HIV less frequently than those in designated low-risk populations. By removing the automatic donation deferrals from designated high-risk populations and implementing a behaviour-based screening policy, there would be utility increases in terms of increasing the number of eligible blood donors and ideally increasing the available supply of blood. By ensuring that the abstinence period is as short as reasonably possible given our current technological ability to screen for HIV, we are increasing the likelihood that individuals who do partake in risky behaviour will be able to reasonably abstain from these risky behaviours prior to a blood test, increasing the accessibility of blood donation for these groups as well. Last but not least, this policy would continue to ensure that those who have blood-borne illnesses will be identified through a thorough screening process, which will maintain a high quality of blood available for transfusions and minimize HIV transmission.

The fourth point of the framework asks us, "does the suggested policy maximize political solidarity?". In addition to utility alone, I include discussion of political solidarity in this framework, since, as Krishnamurthy argues, political solidarity among citizens increases actions and sacrifices on behalf of others in the population, which will likely lead to more individuals being motivated to donate blood for the good of the public, additionally increasing the utility of this program (Krishnamurthy, 2013). Two pertinent criteria for Krishnamurphy's political solidarity are that all individuals must feel respected as an equal part in society, coined 'mutual respect', and that these individuals must trust that other citizens in society will promote their interests, coined 'mutual trust and support' (Krishnamurthy, 2013). In order to promote these criteria, discrimination against and segregation of certain populations in society should be minimized, and burdens and benefits of the program should not unnecessarily affect certain parts of the population over others. I believe that the proposed policy option does in fact maximize solidarity by not unnecessarily applying increased screening regulations to certain marginalized groups than others. For example, the suggested policy would require 3-month abstinence and screening for a man who has had unprotected sex with a man of unknown HIV status since last being tested for HIV, but would also require this of anyone who has had unprotected sex with a partner of unknown status, regardless of gender or sexual orientation. The policy



LIBRARY DIGITAL PUBLISHING would also allow those who have used injection drugs or participated in sex work in the past to be subject to the same screening processes as others in society and to give blood if they are not carrying any blood-borne infections. This may help to lessen the stigma associated with these groups and reduce their portrayal as "dirty" or "unclean" individuals in public policy.

A key critique of this conclusion is regarding the use of Utilitarian theory in a public health framework. Even if, as previously argued, the use of utility is warranted in the current discussion of blood donation regulation, this application of utilitarian theory maintains the potential to support decisions which favour the efficiency of attaining public health goals over the opinions of lay-people and the general public. In this case, the opposing opinions of the public might be a lack of confidence or understanding in HIV testing methods, a lack of understanding of the blood donation screening process, or an overall fear of HIV infection increasing the public's perception of risk. This weakness of Utilitarianism can manifest in policy decisions which do not adequately address public concerns or which neglect to inform the public of their reasoning, potentially eroding the general public's trust in policymakers. I agree that maintaining the public's trust is of paramount importance in public health, and amend my framework to include a final point stated as, "maximizing transparency". Including transparency in this framework acknowledges that the public has a right to be well-informed about public health decisions and that the public's trust is essential for an effective rollout of policy change. In this case, maximizing transparency could consist of a public health campaign to increase awareness of the upcoming changes to blood donation regulation, the sensitivity and effectiveness of HIV testing, and policymakers' continued dedication to the safety of all blood transfusion recipients.

The cases of HIV transmission through blood transfusion in the late 20<sup>th</sup> century rightfully sparked fear among the Canadian population. However, this fear became embedded in public policy and unfortunately continues to this day despite technological and scientific advances in our knowledge of HIV transmission and detection. Using the proposed framework based on theories of utility and political solidarity to support my arguments, I conclude that the most ethical approach to screening potential blood donors for HIV is to abolish both the indefinite deferrals for those who have ever engaged in sex work or used intravenous drugs and the arbitrary 1-year abstinence periods for all MSM, and instead use a behaviour-based 3-month abstinence period prior to screening and blood donation for those who have engaged in risky behaviours. Public policy



which is rooted in scientific fact rather than outdated preconceptions encourages continuous re-evaluation and amelioration of policy and movement towards a more equitable future for all Canadians.

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