



HUMAN
RIGHTS
WATCH

“They’re Chasing Us Away from Sport”

Human Rights Violations in Sex Testing of Elite Women Athletes



“They’re Chasing Us Away from Sport”

Human Rights Violations in Sex Testing of Elite Women Athletes

Copyright © 2020 Human Rights Watch

All rights reserved.

Printed in the United States of America

ISBN: 978-1-62313-880-6

Cover design by Rafael Jimenez

Human Rights Watch defends the rights of people worldwide. We scrupulously investigate abuses, expose the facts widely, and pressure those with power to respect rights and secure justice. Human Rights Watch is an independent, international organization that works as part of a vibrant movement to uphold human dignity and advance the cause of human rights for all.

Human Rights Watch is an international organization with staff in more than 40 countries, and offices in Amsterdam, Beirut, Berlin, Brussels, Chicago, Geneva, Goma, Johannesburg, London, Los Angeles, Moscow, Nairobi, New York, Paris, San Francisco, Sydney, Tokyo, Toronto, Tunis, Washington DC, and Zurich.

For more information, please visit our website: <http://www.hrw.org>



“They’re Chasing Us Away from Sport”

Human Rights Violations in Sex Testing of Elite Women Athletes

- Summary 1**
- Recommendations 12**
 - To World Athletics 12
 - To the International Olympic Committee 12
 - To the World Anti-Doping Agency 14
 - To Governments 14
 - To National Ministries of Sports 15
 - To National Ministries of Health 16
- Methodology17**
- I. Background 19**
- II. Privacy and Dignity 37**
 - Test Results Exposed 43
 - Public and Media Scrutiny 46
- III. The Right to Health 49**
 - Interventions Not Medically Necessary, Carry Risk of Harm 50
 - Compromised Medical Ethics 54
 - Dual Loyalty 56
 - Coercion 57
 - “D.B.” 58
 - “M.L.” 61
 - “P.H.” 64
 - Denial of Information Necessary for Informed Consent 66
 - Athletes’ Limited Knowledge of Regulations 67
 - Athletes’ Perceptions of Regulation-Mandated Medical Interventions 69
 - “Impossible Choices” for Athletes 70
 - French Government Investigation 74
- IV. Discrimination 77**

Athletes Profiled and Targeted	80
Doping Suspicion, Tests, and Discrimination	82
Athletes Harassed and Ostracized	85
Public Humiliation at Athletic Events	88
Gender Stereotyping	89
Dangers of Public Disclosure	92
V. Lives and Livelihoods Harmed	93
Psychological Impact on Athletes	98
VI. International Legal Obligations.....	102
Right to Privacy	104
Right to Health	104
Children’s Rights Concerns.....	105
Lack of Informed Consent	107
Medically Unnecessary Interventions.....	109
Physicians Compromised	111
Non-Discrimination	112
Human Rights Responsibilities of Sports Governing Bodies	114
World Athletics’ Exclusive Grip on Power	115
Inadequacy of the Court of Arbitration for Sport	115
Employment Rights	117
Acknowledgments	119
Appendix: World Athletics Ineligibility Letter	120

Summary

Annet Negesa, a middle-distance runner from Uganda, does not know when she first caught the attention of athletics officials, but the testing began in 2011.

First, in May, there was a routine urine doping test at the African Junior Championships in Botswana. In August, when she reached the semi-finals at the World Championships in South Korea, she had blood tests: “I was wondering, Why me? I didn’t see anyone else giving six bottles of blood like me,” she said.

She never got the test results, and continued to train for the 800 and 1500-meter races, traveling to Europe in early 2012. Then in July 2012, while Negesa was in the final stages of preparing to run at the London Olympics, her manager called her and informed her that she could not attend the Games. “He told me that they took [my] samples and they think they found [in] mine that the level of men’s hormones are high,” she told Human Rights Watch. “And for that reason they can’t accept me to run.” Negesa was both confused and devastated by the news. Her manager told her that doctors from the International Association of Athletics Federations (IAAF, now World Athletics) had said she needed to go to France for a medical appointment. Negesa said: “He asked me, ‘You still want to run?’ I told him, ‘Yes.’ He said: ‘Then we need to do this....They need us to do this and this.’”

Initially, Negesa understood that possible medical steps would involve taking medication. It was when she traveled to France in July 2012 that she learned about the surgery.

A few days later, a national athletics federation official contacted Negesa. The official warned her to be discreet: “She said don’t move around, just stay at home because they were fearing of the news people coming to me and asking me why I didn’t go to the Olympics.” Negesa said she stayed alone, depressed, for months.

Negesa told Human Rights Watch that a team of white male doctors and a woman nurse assessed her at a hospital in Nice. Her European manager accompanied her. She described hospital procedures consistent with a physical exam, an ultrasound, a blood test, and an MRI. Negesa did not receive any documents at the appointment; she was told to visit a doctor in Kampala for surgery.

In November, a local federation official and her local manager took Negesa to the Women’s Hospital International & Fertility Centre in Kampala, where a doctor told her he would perform “a simple surgery—like an injection,” she said. But she woke up from anesthesia with scars on her abdomen, and discharge papers mentioned an orchiectomy (removal of internal testes) and listed a prescription for post-surgical antibiotics. Negesa suffered headaches and achy joints in the years after.

In a January 9, 2013 letter Human Rights Watch reviewed, an official at the hospital where Negesa had surgery said she “now complains of body weakness which we attribute to the withdrawal symptoms of the gonadectomy.”¹ The letter also said they had been “restrained from starting her on estrogen therapy awaiting further discussions” with IAAF’s medical advisor and the surgeon who performed Negesa’s gonadectomy.

After a painful, months-long recovery, Negesa began training again at university. But she never regained her fitness levels, and the university cancelled her scholarship at the end of 2013. Her international manager ceased contacting her in 2016. Today, she lives in Germany, where the government granted her asylum in 2019.

For decades, sport governing bodies have regulated women’s participation in sport through “sex testing:” practices that violate fundamental rights to privacy and dignity. Through their policies, sport governing bodies have created environments that coerce some women into invasive and unnecessary medical interventions as a condition to compete in certain events, and sports officials have engaged in vitriolic public criticism

¹ The surgical removal of gonads.

that has ruined careers and lives. Women from the Global South have been disproportionately affected. There have never been analogous regulations for men.

The body that enforces these practices for athletics—the group of sporting events that involves competitive running, jumping, throwing, and walking—is not a government or multilateral body, but a private one, World Athletics. This entity (known prior to 2019 as the International Association of Athletics Federations, or IAAF) is the body that governs international athletics, and the regulations it has promulgated have resulted in the profiling and targeting of women according to gender stereotypes. Women perceived to be “too masculine” may become targets of suspicion and gossip, and may have their careers ended prematurely. The standards of femininity applied are often deeply racially biased.

Sex testing regulations, including the World Athletics 2019 regulations and its precursors, and the manner in which they are implemented—including their repercussions—discriminate against women on the basis of their sex, their sex characteristics, and their gender expression. Sex testing violates a range of internationally protected fundamental rights including to privacy, dignity, health, non-discrimination, freedom from ill-treatment, and employment rights. These punitive regulations push them into unnecessary medical procedures that are conducted in coercive environments in which humiliated women are forced to choose between their careers and their basic rights.

The policies also put physicians, sporting bodies, and governments in precarious positions of being implicated in violations of privacy, dignity, health, and non-discrimination protections.

This report provides an overview of the nearly century-long history of sex testing of women athletes, details how and where such testing continues today, and identifies the human rights issues at stake. It draws on more than a dozen first-hand accounts from affected athletes to illustrate the deep and lasting negative impact this abuse is having on women’s lives.

This report finds that the human rights violations that such testing involves have taken place under the veneer of purportedly evidence-based policies that sport governing bodies have presented as necessary to ensure fairness in competition, even though the science behind them is contested. Athletics officials identified testosterone as the primary driver

of athleticism, selected a scientifically specious threshold for functional endogenous testosterone that they deemed confers a performance advantage, and ascribed an unfair advantage to women with natural testosterone above this level. They deemed this level within the “normal male range,” ignoring the variability of women’s and men’s testosterone levels, and the overlap between normal ranges for women and men. The World Medical Association; the United Nations Human Rights Council; and health, bioethics, medical, and human rights experts, among others, have sharply criticized World Athletics’ application of arbitrary testing based on stereotypical gender norms and using flawed science to coerce healthy athletes into medically unnecessary interventions in order to compete. They have condemned these practices as unscientific, unethical, and violations of domestic and international human rights laws.

In 2018, for example, the special rapporteur on the right to health; the special rapporteur on torture and other cruel, inhuman or degrading treatment or punishment; and the Working Group on the issue of discrimination against women in law wrote a letter to IAAF condemning their new regulations. The experts wrote:

The regulations reinforce negative stereotypes and stigma that women in the targeted category are not women—and that they either need to be “fixed” through medically unnecessary treatment with negative health impacts or compete with men, or compete in “any applicable intersex or similar classification,” which can call into question their very definition of self. Women who do not conform to culturally constructed notions of womanhood are particularly at risk of discrimination, violence, and criminalization. By singling out a certain group of athletes and denying them membership in the “female” category, IAAF puts these women at risk of repercussions far beyond the inability to compete.²

Sport governing bodies have been unmoved by these critiques and have continued to develop and apply sex testing policies that violate fundamental rights. In advance of the

² Mandates of the Special Rapporteur on the Right of Everyone to the Enjoyment of the Highest Attainable Standard of Physical and Mental Health; the Special Rapporteur on Torture and Other Cruel, Inhuman or Degrading Treatment or Punishment; and the Working Group on the Issue of Discrimination Against Women in Law and in Practice, “Special Procedures Communication to the IAAF,” September 18, 2018, OL OTH 62/2018, https://www.ohchr.org/Documents/Issues/Health/Letter_IAAF_Sept2018.pdf (accessed October 28, 2020).

delayed 2020 Tokyo Olympics, the International Olympic Committee (IOC)—the supreme authority in international sports—said it was planning to “reflect further on new guidelines for athletes’ inclusion on the basis of sex characteristics and gender identity,” and make significant changes ahead of future Games.³ The postponement of the Tokyo Games to 2021 provides a valuable window for the IOC to develop guidelines in line with international human rights standards and medical ethics.

Sport Governing Bodies and Human Rights

The global sporting industry is regulated by a complex system of local, national, regional, and international governmental and nongovernmental entities—including sport governing bodies—that have different relationships with official human rights mechanisms. Sport governing bodies have a particularly prominent role in regulating sport around the world. Governments are obligated to protect the rights of athletes representing their countries and competing on their soil. Human rights standards apply to all of the relevant actors.

The failure of these governing entities to recognize, much less incorporate, human rights protections in their policy-making and enforcement processes has resulted in fragmented and inadequate protection for women athletes. The insularity of the global sporting industry does not exempt its brokers from human rights standards. The governing bodies are engaged in commercial activities, and are therefore expected to follow the UN Guiding Principles on Business and Human Rights. Governments that host sporting events are responsible to protect against human rights violations on their soil, and to protect the athletes they send to international competitions run by sport governing bodies.

What is more, instituting and enforcing policies that are inherently discriminatory—such as sex testing regulations—flies in the face of the Olympic movement’s commitments to dignity and equality for all. Regulating fair play is a valid undertaking for sport authorities; committing human rights violations in the process is not.

³ International Olympic Committee, “IOC Executive Board Opens Second Meeting of the Year,” March 3, 2020, <https://www.olympic.org/news/ioc-executive-board-opens-second-meeting-of-the-year> (accessed October 28, 2020).

Discrimination

Ensuring that each athlete is qualified to compete in the appropriate category in sports competitions may be legitimate, but any such regulation designed to achieve this end must be justified as reasonable, necessary, and proportionate. As this report shows, the vague language of the regulations combined with World Athletics' exclusive control over their implementation and application creates enormous opportunities for abuse. The regulations create extensive burdens for women athletes both within and outside sport. The fact that there is only such a regulation for women—and none for men—means the regulations are intrinsically discriminatory against women. Athletics regulations have resulted in profiling and targeting women according to often racialized gender stereotypes, which has a deleterious impact on all women. As the UN special rapporteur on contemporary forms of racism, racial discrimination, xenophobia and related intolerance said in 2014: “Racism in sports is only one manifestation of discrimination and exclusion directed at persons and groups on the basis of their race, ethnicity, gender, sexual orientation or other characteristics.”⁴ A 2020 report from the Office of the High Commissioner for Human Rights on race and gender discrimination in sport amplified this concern specifically regarding these regulations.

Privacy and Dignity

The basic strategy of World Athletics is to regulate women's testosterone levels to be within an arbitrary and largely unscientific range. A policy that calls for scrutiny of women's naturally-occurring hormone levels—and, in practice, their bodies for signs of perceived “masculinity” ascribed to testosterone—is a form of policing women's bodies, and passing judgment on their “femininity” as well as on their sex and gender identity.

The processes involved in assessing an athlete's sex characteristics, including testosterone levels, are inherently subjective and degrading. For example, examining the size of a woman's clitoris or her pubic hair patterns for signs of “virilization” due to testosterone levels both exposes her to degrading scrutiny, and relies on arbitrary determinations based on gender stereotypes. The mandated exams, tests, and procedures

⁴ The Office of the United Nations High Commissioner for Human Rights, “Combating Racism, Racial Discrimination, Xenophobia and Related Intolerance and the Comprehensive Implementation of the Follow-up to the Durban Declaration and Programme of Action,” A/69/340, August 22, 2014, <https://www.ohchr.org/Documents/Issues/Racism/A-69-340.pdf> (accessed October 29, 2020).

are medically unnecessary and have no therapeutic value for the individual. By enforcing these regulations, World Athletics effectively coerces women athletes into medical testing and interventions that have no health purpose or benefit.

In 2009, for example, the IAAF disqualified South African runner Caster Semenya on the grounds that her testosterone levels were too high, sparking global outrage over the practice of sex testing women athletes. It was later revealed that athletics bodies forced her to take medically unnecessary drugs to lower her testosterone so that she could keep competing. She said:

I have been subjected to unwarranted and invasive scrutiny of the most intimate and private details of my being ... [which has] infringed on not only my rights as an athlete but also my fundamental and human rights including my rights to dignity and privacy.⁵

The stipulations of the World Athletics regulations are contradictory when it comes to privacy. On the one hand, they proclaim to assure the confidentiality of the targeted athletes. On the other hand, they state that women with high testosterone can compete in the male category or a non-existent “intersex category.” This suggestion is a clear violation of the policy’s own alleged confidentiality protections since it publicly categorizes people on the basis of confidential information. A woman moving from the female category to the male or hypothetical intersex category would result in immediate disclosure that her hormones were above the threshold, and possibly other private anatomical characteristics. Women who choose to drop out of sport or change events to avoid being targeted, tested, or intervened upon under such policies may also face harmful speculation or violations of their privacy.

Surveillance

Sport governing bodies have encouraged the widespread practice of arbitrary surveillance for women’s sex or gender characteristics. A 2012 IOC policy notes that each National Olympic Committee should “actively investigate any perceived deviation in sex

⁵ Associated Press, “Caster Semenya’s Comeback Statement in Full,” *Guardian*, March 30, 2010, <https://www.theguardian.com/sport/2010/mar/30/caster-semenya-comeback-statement> (accessed October 29, 2020).

characteristics” prior to registering women athletes for competition.⁶ This policy impacted women’s careers and lives.

In one example, in 2014, fellow athletes—among others—raised questions about a then-18-year-old Indian sprinter, Dutee Chand, and her supposed masculine “stride and musculature.” Seeking to comply with the regulations, athletics officials in India ordered Chand to undergo invasive physical exams without her informed consent. She was eventually barred from competing in the female category at the 2014 Commonwealth Games and her name was leaked to the press. Chand decided to challenge the regulations at the Court of Arbitration for Sport (CAS), which suspended the IAAF’s regulations in July 2015, noting that IAAF had failed to establish that the regulations “are necessary and proportionate to pursue the legitimate objective of organizing competitive female athletics to ensure fairness.”

Surveillance policy is only intensifying. While testing athletes for doping is a legitimate aim, the use of doping test data to target women athletes under sex testing regulations is not. The World Anti-Doping Agency’s code that comes into effect in January 2021 specifically states that sport governing bodies can use data from doping tests to determine women athletes’ eligibility to compete in the female category.

Coercion

Athletes experience multi-faceted coercion under the regulations. Sport governing bodies are the gatekeepers to competition and wield extraordinary powers over women athletes. Human Rights Watch research indicates that athletes are often given only partial information at the outset of a testing process or investigation; they are then often presented with options for medical interventions without genuinely being given a choice.

Moreover, the impossible choices athletes face under the current regulations mean if they undergo a medical procedure to alter their naturally-occurring hormones in order to continue competing, they have not undertaken the procedure with the conditions necessary to meet the standard of full informed consent. Rather, their agreement to testing

⁶ International Olympic Committee, IOC Regulations on Female Hyperandrogenism, 2012, https://stillmed.olympic.org/Documents/Commissions_PDFfiles/Medical_commission/2012-06-22-IOC-Regulations-on-Female-Hyperandrogenism-eng.pdf (accessed October 28, 2020).

has occurred in a situation of coercion since they are not medically necessary procedures and only the product of arbitrary requirements to compete. Both athlete and physician, some of whom work at the behest of sport governing bodies, are thus put in a position of compromised medical ethics as a result of sex testing regulations. In such circumstances, national governments are failing to ensure the conditions for informed consent.

Compromised Medical Ethics

When sport governing bodies create coercive pressure and policy on athletes to undergo procedures to lower testosterone, the athletes undertaking those procedures do so to comply with sport governing body regulations in order to compete, not medical need or the individual's desire. The regulations put physicians in a compromised position of "dual loyalty" whereby physicians may have a conflict between their duties to their patients and their obligations to their employers. This implicates physicians, the athletics associations that hire them to implement the regulations, and governments in human rights violations.

Social Stigma

Athletes interviewed for this report said that rumors fueled by the regulations were ruinous for them. For example, one runner said that before the rumors of her having high testosterone were mentioned in the media, people in her community and at athletics meets started rumors that raised questions about her sex characteristics. She explained that when she heard people talking about her, "They think that being with high testosterone ... they say there are some other parts you can see from outside."

Caster Semenya's public battle, and the media's relentless focus on her gender and sex characteristics, prompted some athletes to become targets of verbal abuse. One runner told Human Rights Watch: "There were some teachers [verbally] abusing me after they heard about Caster. They'd say things about it. Even one time I went to a competition and they were saying, 'You're not a woman, you're a man. Take off your clothes and we'll check you.'" In Annet Negesa's case, she had to flee from her home country to avoid persecution on the basis of her having a variation in her sex characteristics.

Psychological Impact

Scrutiny, targeting, testing, rumors, and exposure of athletes by peers, coaches, athletics federations, and government sporting officials—often without the athletes knowing what is going on—can have profound negative psychological repercussions.

Interviewees described intense self-questioning, shame, and withdrawal from sport—even when it was their livelihood—and attempting suicide. An athlete who had been tested and subsequently disqualified told Human Rights Watch:

I wanted to know. I wanted to know the results.... I wanted to know who am I? Why are they testing me? They're not testing other girls.... I wanted to know why they have taken me to the hospital, removing the clothes.

Loss of Income

The economic barriers to entry in athletics are lower than in some other sports, largely because running requires less equipment than, for example, some team sports that use more costly devices and facilities. Success in athletics can deliver material dividends for women. From scholarships to housing and food, the benefits can come rather early in an athlete's career. Then, if the athlete is successful, she can earn income at competitions and via sponsorships. In some circumstances, success at athletics can also lead to stable employment outside sport. Some of the athletes interviewed grew up in abject poverty. Their success in athletics became a source of livelihood not only for them, but often for their extended families. In some cases, their abrupt departure from sport after being disqualified by sex testing regulations had significant consequences for them, and their families' economic well-being.

Lack of Adequate Redress

Women targeted by the regulations have the option of taking their case to CAS, based in Lausanne, Switzerland. Yet CAS has proven to be an inadequate justice mechanism for women athletes in particular. The court's terms of reference do not require it to take human rights into account; as an arbitration body, it makes decisions based upon the rules of sport, which in the case of World Athletics excludes human rights. Moreover, appeals to CAS can be prohibitively expensive for individual athletes.

In June 2018, Semenya filed an appeal at CAS against the new IAAF regulations in June 2018. “I just want to run naturally, the way I was born,” she said. “I am Mokgadi Caster Semenya. I am a woman and I am fast.” In May 2019, the three-arbitrator CAS panel dismissed Semenya’s case by a 2-1 majority. All three arbitrators recognized that the regulations are discriminatory but two of them deemed the regulations a “proportionate” response to IAAF’s concerns about eligibility for the female category. In doing so they failed to apply international human rights standards. Despite upholding the regulations, the panel recognized that evidence of actual significant athletic advantage for women athletes with higher-than-typical natural testosterone in certain regulated events was inconclusive, and flagged the issue of possible adverse side effects of hormonal treatment on these athletes. The arbitrators noted their “grave concerns as to the future practical application of the DSD Regulations,” saying that their assessment of the regulations’ proportionality “may change in the future unless constant attention is paid to the fairness of how they are implemented.”

As the evidence documented in this report shows, that reconsideration should take place immediately. World Athletics eligibility regulations for the female classification constitute a continuation of the historic harms of sex testing, and do more than just drive women out of sport: they ruin lives. Governments and sport governing bodies should act swiftly to rescind the regulations.

Recommendations

To World Athletics⁷

- Rescind the Eligibility Regulations for the Female Classification (Athletes with Differences of Sex Development) 2019.
- Engage with stakeholders and adopt a human rights policy in line with the UN Guiding Principles on Business and Human Rights and conduct proper human rights due diligence to assess practices to regulate eligibility for the women’s category of competition.
- Ensure that human rights policy can address the harms identified in this and other human rights reports as a matter of both process and substance.
- Commit to a comprehensive audit of World Athletics policies to ensure they are in line with the “fundamental principles” of the Olympic Charter, including:
 - Principle 4: “The practice of sport is a human right. Every individual must have the possibility of practising sport, without discrimination of any kind and in the Olympic spirit, which requires mutual understanding with a spirit of friendship, solidarity and fair play.”
 - Principle 6: “The enjoyment of the rights and freedoms set forth in this Olympic Charter shall be secured without discrimination of any kind, such as race, colour, sex, sexual orientation, language, religion, political or other opinion, national or social origin, property, birth or other status.”⁸
- Institute clear Duty of Care policies clarifying the sport governing body’s role in protecting all athletes from human rights violations.
- Institute clear, transparent, and participatory policymaking processes and ensure participation of affected athletes and independent experts.

To the International Olympic Committee

- Adopt the UN Guiding Principles on Business and Human Rights as a Fundamental Principle of Olympism.

⁷ Until September 2019, World Athletics was called the International Association of Athletics Federations.

⁸ International Olympic Committee, “Olympic Charter,” July 2020, <https://stillmed.olympic.org/media/Document%20Library/OlympicOrg/General/EN-Olympic-Charter.pdf> (accessed October 28, 2020).

- Revise the terms of reference for the Court of Arbitration for Sport to allow for appeals based upon the violation of human rights.
- Put in place clear Duty of Care policies clarifying the sport governing body’s role in protecting all athletes from human rights violations, which explicitly:
 - Ban all eligibility regulations that require medically unnecessary medical interventions for continuing eligibility;
 - Delineate the rights of athletes, including the right to participate in sport free of unnecessary medical exams and medical interventions based on an athlete’s biological sex characteristics, gender presentation, gender identity, gender role, or sexuality;
 - Require training for all coaches, National Olympic Committee (NOC) officials, and sport federation leaders regarding non-discrimination based on athlete’s biological sex characteristics, gender presentation, gender identity, gender role, or sexuality.
- Mandate all international sport federations to adopt human rights policies.
- In line with the IOC’s commitments to human rights, recommend to World Athletics and other sport governing bodies to discontinue regulations that violate women’s rights to non-discrimination, privacy, and integrity.
- Require World Athletics, and other sport governing bodies to uphold the fundamental principles of the Olympic Charter, including:
 - Principle 4: “The practice of sport is a human right. Every individual must have the possibility of practising sport, without discrimination of any kind and in the Olympic spirit, which requires mutual understanding with a spirit of friendship, solidarity and fair play.”
 - Principle 6: “The enjoyment of the rights and freedoms set forth in this Olympic Charter shall be secured without discrimination of any kind, such as race, colour, sex, sexual orientation, language, religion, political or other opinion, national or social origin, property, birth or other status.”⁹
- Consider the IOC’s leadership role in implementing the recommendation from the Office of the United Nations High Commissioner for Human Rights to “review, revise

⁹ Ibid.

and revoke eligibility rules and regulations that have negative effects on athletes' rights, including those addressing athletes with intersex variations.”¹⁰

- Publicly acknowledge the racial biases in sex testing regulations and, in line with the Durban Declaration, commit to instituting policies that fight against all forms of racism in sport.¹¹
- Raise concern with the World Anti-Doping Agency to limit its use of anti-doping tests solely to issues of anti-doping.

To the World Anti-Doping Agency

- Rescind the provision in the World Anti-Doping Code that allows data from doping tests to be used for the purposes of sex testing.

To Governments

In its 2020 report, the Office of the UN High Commissioner for Human Rights (OHCHR) stated that governments are responsible for “Ensuring that their national anti-discrimination law is adequate to address discrimination on the basis of gender, as well as compounded discrimination on the basis of gender and race or other prohibited grounds, including discrimination on the basis of particular intersex variations or on the basis of sex characteristics. Such domestic law, in conformity with international human rights obligations, needs to be applicable to and in practice be applied to sport governing bodies.”

Human Rights Watch recommends that governments:

- Conduct independent and transparent audits of their existing laws and communicate to the ministries of justice, sport, and health, as well as national

¹⁰ The Office of the UN High Commissioner for Human Rights, “Intersection of Race and Gender Discrimination in Sport,” A/HRC/44/26, June 15, 2020, https://www.ohchr.org/EN/HRBodies/HRC/RegularSessions/Session44/Documents/A_HRC_44_26_AEV.docx (accessed October 28, 2020).

¹¹ The World Conference against Racism, Racial Discrimination, Xenophobia and Related Intolerance Declaration “Urges States, in cooperation with intergovernmental organizations, the International Olympic Committee and international and regional sports federations, to intensify the fight against racism in sport by, among other things, educating the youth of the world through sport practised without discrimination of any kind and in the Olympic spirit, which requires human understanding, tolerance, fair play and solidarity.” World Conference against Racism, Racial Discrimination, Xenophobia and Related Intolerance, “Declaration,” September 8, 2001, https://www.un.org/en/durbanreview2009/pdf/DDPA_full_text.pdf (accessed October 29, 2020).

sport governing bodies, how current law prohibits discrimination on the basis of sex.

- Conduct independent and transparent audits of their existing laws and communicate to the ministries of justice, sport, and health, as well as national sport governing bodies, how current law prohibits discrimination on the basis of sex characteristics.
- In contexts where such laws do not exist, introduce legislation delineating the rights of athletes, including the right to participate in sport free of abuse or discrimination.
- Revoke any applicable immunity for World Athletics and national athletics federations operating under the auspices of World Athletics policies and make explicit that athletes who have been harmed by medically unnecessary interventions carried out as a result of World Athletics policies may seek justice in domestic courts with assurances for their privacy being protected.

To National Ministries of Sports

- Provide education to athletes about their rights and possible remedies under the existing sex testing regulations.
- Investigate national athletics federations for possible human rights violations that they have encouraged or allowed in implementing World Athletics' sex testing regulations.
- Conduct human rights audits of national Olympic committees and national chapters of international federations.
- Withhold subsidies from national Olympic committees and national chapters of international federations that do not comply with the UN Guiding Principles on Business and Human Rights.
- Institute human rights due diligence policies, at a minimum, in line with the UN Guiding Principles on Business and Human Rights for all non-state sporting organizations in the country.
- Where relevant, inform national sports ministries that the regulations violate domestic law.
- Monitor and report on human rights compliance among national chapters of international sporting federations.

To National Ministries of Health

- Clarify to physicians that any regulations that require medically unnecessary exams and interventions violate medical ethics and, where relevant, national laws.
- Issue guidelines instructing that:
 - Physicians should not take part in implementing the World Athletics regulations for classifying female athletes (the “DSD Regulations”).
 - It is unethical for physicians to prescribe pharmaceuticals or perform medical interventions to lower women athletes’ endogenous testosterone levels for the purposes of compliance with World Athletics’ regulations.
- Communicate publicly to the national sports federations and national Olympics committees that the World Athletics “Eligibility Regulations for the Female Classification” violate medical ethics and should not be implemented by athletics federations or physicians.
- Consider the recommendation from the OHCHR to “prohibit the enforcement of regulations that pressure athletes to undergo unnecessary medical interventions as a precondition for participating in sport and [consider] review[ing] and investigat[ing] the alleged enforcement of such regulations.”¹²

¹² The Office of the UN High Commissioner for Human Rights, “Intersection of Race and Gender Discrimination in Sport,” A/HRC/44/26, https://www.ohchr.org/EN/HRBodies/HRC/RegularSessions/Session44/Documents/A_HRC_44_26_AEV.docx.

Methodology

A team consisting of a Human Rights Watch researcher and two academic researchers conducted research for this report. Research was carried out in Africa and Asia between July and November 2019. We do not name specific countries in the report for security reasons.

We interviewed 13 women athletes of color from the Global South participating in athletics events, and two athletics coaches. Other supporting information was gathered through conversations with lawyers, physicians, academics, medical ethicists, journalists, and other experts close to the issues covered in this report. The conversations inform the research but are not cited directly.

In September 2019, the International Association of Athletics Federations (IAAF) changed its name to “World Athletics.” Throughout this report, we refer to the entity as the IAAF in past instances, and World Athletics after the name change.

Interviews were conducted in private locations with one interviewee at a time. Interviewees were not compensated for their participation. In some cases, Human Rights Watch provided reimbursement for travel expenses related to participating in the interviews.

Oral informed consent was obtained before starting each interview, and confirmed at the end of each interview. Interviewees were informed that they were participating voluntarily, that they were not obligated to answer any specific question, and that their names or other personal details would not be included in related publications in order to protect their privacy.

Interviewees were informed that the purpose of the interview was to gather information about their experiences so that it could be published in a Human Rights Watch report and associated materials, and academic publications.

The in-depth interviews conducted for this report were carried out in a semi-structured fashion, based on a questionnaire, but guided by the individual interviewee’s experience. In some cases, interviewees were asked to provide supporting evidence, such as medical

paperwork. In those cases, researchers reviewed the paperwork with the consent of the interviewees.



1930^s

Unsubstantiated stories of men masquerading as women in international sporting events first appear.ⁱ

1940^s-1950^s

Systematic sex testing, of a sort, exists as early as the 1940s via identity cards and “certificates of femininity,” with the IAAF and IOC requiring all female athletes who wish to register for an event to provide a physician letter attesting to their sex for eligibility purposes.ⁱⁱ

Meeting of the Executive Committee of the International Olympic Committee in 1951 in Vienna, chaired by IOC President Edström.
© 1951 ullstein bild via Getty Images

BACKGROUND

You have to sacrifice so much, especially us ladies.

—C.M., athlete, November 12, 2019

The regulation of women’s participation in sport via “sex testing” dates back decades. A key architect of such regulations—a former official with the International Olympic Committee (IOC) and World Athletics—later went on to characterize previous testing regimes as a “systematic violation for which the world of sport must take responsibility,” and “a decades-long example of sexual harassment of sexual abuse within sport [and] a flagrant abuse.”¹³

The earliest attempts at “sex testing” that sports authorities instituted in the 1940s for the purposes of eligibility were informal and ad hoc, but by the 1960s, sports governing bodies such as the IAAF and the IOC began systematic mandatory testing of all women athletes based on rumors that some women “were more male than female,” resulting in “unfair competition for ‘real’ women.”¹⁴ There have never been analogous regulations for men.

In an effort to “thwart the rumours” and ensure “only women competed in women’s events,” the IOC and other sports federations, including the then-IAAF, introduced procedures to sex test women athletes.¹⁵

Over the years of mandatory, systematic, and standardized sex testing from 1966 on, sports governing bodies have relied on various clinical exams and tests to assess women athlete’s specific sex characteristics and, by proxy, their sex.

¹³ Arne Ljungqvist, *Doping’s Nemesis* (Cheltenham: Sportsbooks Limited, April 2011), pp. 182-183.

¹⁴ Vanessa Heggie, “Testing Sex and Gender in Sports; Reinventing, Reimagining and Reconstructing Histories,” *Endeavour* 2010, 34(4): 157–163, accessed October 29, 2020, doi:10.1016/j.endeavour.2010.09.005; Ljungqvist, *Doping’s Nemesis*, p. 183.

¹⁵ Ljungqvist, *Doping’s Nemesis*, p. 183.



1966-1967

Women athletes who wish to register for the 1966 European Athletics Championships are subject to “nude parades,” requiring them to walk before a medical panel to determine eligibility.ⁱⁱⁱ On-site gynecological and physical examinations are required for eligibility in the 1966 British Empire and Commonwealth Games Federation in Kingston, Jamaica.

1967-1980s

The IAAF (in 1967 at the European Cup Athletics) and the IOC at the 1968 Grenoble Winter Olympics implement a technique to determine the presence of more than one X chromosome (Barr body test or buccal smear).^{iv} This method classifies some women as men (those with only one X chromosome).

The Olympic Flag is carried by French Alpine troops during a procession at the opening ceremony of the 1968 Winter Olympics in Grenoble, February 7, 1968.
© 1968 AP Photo

The earliest tests included compulsory genital/gynecological exams, so-called nude parades, and assessment of secondary sex characteristics such as hair patterns.¹⁶ One policymaker noted:

Sport had no other means of asserting the gender of participants other than having them parade naked in front of a panel of doctors. After this ‘examination,’ the panel decided whether the case presented to them was a woman or a man.¹⁷

Sports governing body officials later described these as “traumatic and degrading visual genital inspections” where female athletes “were forced to parade in the nude.”¹⁸ Given their invasive nature, policymakers decided to abandon such degrading exams after a brief period of using them, ushering in a shift to ostensibly less abusive exams.

The IOC and World Athletics adopted a version of chromosomal testing in 1968 that relied on swabbing cells from inside the cheek to assess Barr bodies.¹⁹ Under this method, chromosomes alone were incorrectly deemed sufficient as a proxy for sex, and because this technique only assesses whether someone has more than one X chromosome it ruled some women ineligible to compete in the female category while, theoretically at least as there were no analogous regulations for men, rendering some men eligible.²⁰

¹⁶ Arne Ljungqvist et al., “The History and Current Policies on Gender Testing in Elite Athletes,” *International SportMed Journal* 2006, 7(3): 225–230, https://www.researchgate.net/publication/289604595_The_history_and_current_policies_on_gender_testing_in_elite_athletes (accessed October 29, 2020); Eduardo Hay, “Sex Determination in Putative Female Athletes,” *Journal of the American Medical Association (JAMA)* 1972, 221(9): 221, accessed October 29, 2020, doi:10.1001/jama.1972.03200220032008; Robert Ritchie, John Reynard, and Tom Lewis, “Intersex and the Olympic Games,” *Journal of the Royal Society of Medicine* 2008, 101(8): 395–399, accessed October 29, 2020, doi:10.1258/jrsm.2008.080086; J.L. Simpson et al., “Gender Verification in Competitive Sports,” *Sports Medicine* 1993, 16(5): 305–315, accessed October 29, 2020, doi:10.2165/00007256-199316050-00002.

¹⁷ Ljungqvist, *Doping’s Nemesis*, p. 183.

¹⁸ Ljungqvist et al., “The History and Current Policies on Gender Testing in Elite Athletes,” *International SportMed Journal*, p. 225.

¹⁹ A “Barr body” is the inactive X chromosome in a typically female cell. Albert de la Chapelle, “The Use and Misuse of Sex Chromatin Screening for ‘Gender Identification’ of Female Athletes,” *JAMA* 1986, 256(14): 1920–1923; Heggie, “Testing Sex and Gender in Sports,” *Endeavor*, pp. 157–163.

²⁰ This would include men with Klinefelter syndrome (or XXY syndrome), which is a genetic condition in which a person has an extra copy of the X chromosome. See: Louis J. Elsas et al., “Gender Verification of Female Athletes,” *Genetics in Medicine* 2000, 2(4): 249–254, accessed October 29, 2020, <https://doi.org/10.1097/00125817-200007000-00008>. “It took some time before specific cases and issues became public and illustrated the unreliability and damage caused by chromosome-based screening. Barr body tests had been abandoned during the 1970s, because they were found unreliable. These chromatin tests were screening out women with genetic difference affording no unusual physical advantage for sports (e.g., XY females with complete androgen insensitivity) while they missed XX men and women with medical conditions such as testosterone-producing ovarian tumors or congenital adrenal hyperplasia. That the de facto results of genetic screening devastated the lives of screen-positive women was illustrated by the story of Maria Patino, an unsuspecting Spanish national



1985

Spanish hurdler Maria José Martínez-Patiño is ruled ineligible to compete the World University Games. She challenges her exclusion and eventually wins.^v

A “certificate of femininity” Spanish hurdler María José Martínez-Patiño received in 1983. In 1985, she was ruled ineligible to compete as a woman.

The IAAF stops mandatory testing of all women, and shifts to suspicion-based testing via a health check for all athletes (women and men) before competition in 1991.^{vi} A clause gives “the medical delegate at competition... authority to arrange for the determination of the gender of an athlete at his/her discretion.”^{vii} In 1992, the IAAF stopped systematic

1990s

testing altogether and requested national federations to conduct health checks before international competitions. In 1996, the IAAF added a clause to its constitution reading: “The Medical Delegate shall have ultimate authority on all medical matters ... He shall also have the authority to arrange for the determination of the gender of the competitor should he judge that to be desirable.”^{viii} This remains in place until the 2011 Hyperandrogenism regulations were instituted.

A Note on Terminology

This report discusses human rights violations that occur due to bias and discrimination against people on the basis of their real or perceived innate sex characteristics. Variations in sex characteristics—including genitals, chromosomes, gonads, hormone production, or hormone sensitivity—are sometimes referred to in policy and medical literature as “Disorders of Sex Development” or “Differences of Sex Development (DSD).” Variations in sex characteristics are also sometimes referred to as “intersex,” which, as explained in a 2019 UN background note: “Intersex is an umbrella term used to describe a wide range of innate bodily variations of sex characteristics.”²¹ In this report, we refer to variations in sex characteristics, most prominently hormone levels, as such. When referencing policies that use “DSD” or jurisprudence that uses “intersex” or “intersex variations,” we adhere to that language. The intent is to explain that these terms all overlap and are linked. Our use of “variations in sex characteristics” is intended to be both accurate and respectful.

While the assessed sex characteristic has varied throughout the history of sex testing, the idea that a single biological marker is sufficient for assessing sex has not.²² Regulators have long understood that reliance on one sex characteristic—among the many available—could unfairly exclude women with variations in sex characteristics, but some have understood this barring as the price to pay “in order to ensure fair play.”²³

champion hurdle competitor who was screened out at the World University Games and banned from sports in 1985.”
²¹ OHCHR, “Background Note on Human Rights Violations against Intersex People,” October 26, 2019, <https://www.ohchr.org/EN/Issues/Discrimination/Pages/BackgroundViolationsIntersexPeople.aspx> (accessed October 29, 2020).
²² Katrina Karkazis et al., “Out of Bounds? A Critique of the New Policies on Hyperandrogenism in Elite Female Athletes,” *American Journal of Bioethics* 2012, 12(7): 3-16, accessed October 29, 2020, doi:10.1080/15265161.2012.680533.
²³ Hay, “Sex Determination in Putative Female Athletes,” *JAMA*, p. 221.



1992-1999

The IOC shifts from buccal smear to a novel technique polymerase chain reaction test (PCR-test) to detect the presence of the SRY gene, discovered a few years prior to lead to testis development. Evidence the test is useful for sex determination is sparse, and there is no evidence the gene is linked to athletic advantage. This technique classifies some women as men.^{ix}

2000-2001

The IOC agrees to suspend mandatory sex verification practices for the 2000 Sydney Olympic Games, after years of pressure from medical professional associations, policymakers, women’s sports advocates, and the IOC Athlete’s Commission. The IOC turns to a reserve clause that permits medical professionals to evaluate on an ad hoc basis

The Sydney Harbour Bridge with the Olympic rings and the Opera House with the Earth lighting projection are lit up in Sydney, Thursday, September 14, 2000.
© 2000 AP Photo/Rob Griffith

The problems with the exclusive reliance on a single sex characteristic, and indeed the harms of sex testing, came to widespread attention in 1985, when the IOC disqualified Spanish hurdler Maria José Martínez-Patiño.²⁴ Officials subjected Martínez-Patiño to sex testing using chromosomal tests. After officials deemed her “chromosomally male” and barred her from competition in the World University Games, her results were leaked to the press.²⁵ She was then dropped by the Spanish Athletics Federation, her medals and records were withdrawn along with her university scholarship, and her boyfriend left her.²⁶ Three years later, she was reinstated after having challenged the disqualification, but by then she had suffered significant harm.

In response, some IAAF officials sought to “stop this idiocy,”²⁷ or, as they phrased it more diplomatically, “obviate the need for any laboratory-based genetic ‘sex test.’”²⁸ But disagreement about which sex characteristics to assess complicated any simple answer, so in 1992 the IAAF stopped systematic sex testing per se, instead requiring athletes to provide a certificate of health from a doctor and kept in place a reserve clause that allowed “the medical delegate at a competition ... the authority to arrange for the determination of the gender of an athlete at his/her discretion.”²⁹ Thus, while systematic sex testing was no longer in force, the IAAF’s strong advice to national federations to conduct health checks before international competitions allowed the IAAF the full right to investigate any athlete as they deemed necessary.³⁰

Rather than follow the IAAF, the IOC began testing for what is called the testis development, or SRY gene, with the idea that this was the key to screen the “sexually ambiguous” from the women’s category.³¹

²⁴ Maria Jose Martínez-Patiño, “Personal Account: A Woman Tried and Tested,” *The Lancet* 2005, 366(s38), accessed October 29, 2020, doi:10.1016/S0140-6736(05)67841-5. Ljungqvist, *Doping’s Nemesis*; Maria Jose Martinez-Patiño, Eric Vilain, et al., “The Unfinished Race: 30 Years of Gender Verification in Sport,” *The Lancet* 2016, 388(10014): 541-543, accessed October 29, 2020, doi:10.1016/S0140-6736(16)30963-1.

²⁵ Ljungqvist, *Doping’s Nemesis*, p. 184.

²⁶ Heggie, “Testing Sex and Gender in Sports,” *Endeavor*; Martínez-Patiño, “Personal Account: A Woman Tried and Tested,” *The Lancet*.

²⁷ Ljungqvist, *Doping’s Nemesis*, p. 185.

²⁸ Arne Ljungqvist and J.L. Simpson, “Medical Examination for the Health of All Athletes Replaces the Need for Gender Verification in International Sports: The International Amateur Athletic Federation Plan,” *JAMA* 1992, 267(6): 850-852, accessed October 29, 2020, doi:10.1001/jama.1992.03480060096038.

²⁹ Ljungqvist et al., “The History and Current Policies on Gender Testing in Elite Athletes,” *International SportMed Journal*, p. 229.

³⁰ Elsas et al., “Gender Verification of Female Athletes,” *Genetics in Medicine*; Heggie, “Testing Sex and Gender in Sports,” *Endeavor*, p. 160.

³¹ Bernard Dingenon, “Gender Verification and the Next Olympic Games,” *JAMA* 1993, 269(3): 357-358, accessed October 29, 2020, doi:10.1001/jama.1993.0350003005026.

individual athletes whose sex has been questioned via various clinical exams and laboratory tests.^x In 2001, the IAAF starts conducting blood tests at all major competitions to determine doping until implementation of the Athlete Biological Passport (ABP) by the World Anti-Doping Association (WADA) in January 2009.^{xi} However, the ABP allows “systemic screening for abnormal virilization in female athletes.”^{xii}

The IAAF introduces its Policy on Gender Verification “to establish a policy and mechanism for managing the issue of gender amongst participants in women’s events.” An interim solution, it intends to provide guidance to “event organizers, national associations, athletes and officials as to how to approach this problem and to come up with a satisfactory solution when faced with a case.”^{xiii} The method is a “comprehensive but ad hoc medical examination by a panel of experts.”^{xiv} According to the policy, gender is “an issue that surfaces from time to time in women’s events.”

Using this test, officials classified some women as men, including eight women in the 1996 Atlanta Olympics.³² Then, following pressure from medical organizations and the Athletes’ Commission, the IOC decided to stop mandatory sex testing of all women.³³ As with the IAAF, the IOC instituted a regulation that allowed for medical examination of athletes they deemed suspicious using myriad laboratory tests and clinical exams.³⁴ Medical organizations and the IOC Athletes’ Commission also called for a similar ad hoc, suspicion-based regulation to be abandoned.³⁵ As IOC and World Athletics officials later wrote:

The abolishment of sex verification tests as a condition for women’s participation in competitive sport has closed a dark chapter in elite female sport which has had a permanent impact on the evolution and performance of female athletes. Gender verification has forced professional sports organizations to address the scientific and ethical implications of gender in competitive sport.³⁶

Part of the motivation for discontinuing routine sex testing was financial, and part was because policymakers believed “contemporary athletic clothing and the need to provide a urine sample for doping control under direct supervision made male imposters easy to identify.”³⁷

Nevertheless in 2006, the IAAF issued its Policy on Gender Verification, which was framed as an interim solution “to establish a policy and mechanism for managing the issue of gender amongst participants in women’s events.”³⁸ The IAAF stated that, “[i]n resolving cases that may arise, determination should not be done solely on

³² Myron Genel, “Gender Verification No More?” *Medscape Women’s Health* 2000, 5(3): E2, <https://www.medscape.com/viewarticle/408918> (accessed October 29, 2020).

³³ Ljungqvist and Simpson, “Medical Examination for the Health of All Athletes Replaces the Need for Gender Verification in International Sports,” *JAMA*; Heggie, “Testing Sex and Gender in Sports,” *Endeavor*; Elsas et al., “Gender Verification of Female Athletes,” *Genetics in Medicine*; Ljungqvist, *Doping’s Nemesis*.

³⁴ Genel, “Gender Verification No More?” *Medscape Women’s Health*; Tian Qinjie et al., “Gender Verification in Athletes with Disorders of Sex Development,” *Gynecological Endocrinology* 2009, 25(2): 117–121, accessed October 29, 2020, doi:10.1080/09513590802530957; Ljungqvist and Simpson, “Medical Examination for the Health of All Athletes Replaces the Need for Gender Verification in International Sports,” *JAMA*

³⁵ Louis J. Elsas et al., “Gender Verification of Female Athletes,” *Genetics in Medicine*.

³⁶ Ljungqvist et al., “The History and Current Policies on Gender Testing in Elite Athletes,” *International SportMed Journal*, p. 230.

³⁷ Myron Genel and Arne Ljungqvist, “Gender Verification of Female Athletes,” *The Lancet* 2005, 366(S41), accessed October 29, 2020, doi:10.1016/S0140-6736(05)67843-9.

³⁸ IAAF, “IAAF Policy on Gender Verification,” 2006, <http://bolandathletics.com/sitefiles/wp-content/uploads/2015/11/IAAF-Gender-Verification-Policy.pdf> (accessed November 4, 2020).



The Olympic Council of Asia tests Santhi Soundarajan after she wins silver in the 800 meters at the Asian Games in Doha. News leaks that she failed a “sex test” and that her medal was withdrawn.^{xv} She attempts suicide a year later.^{xvi}

India's Santhi Soundarajan holds her silver medal on the winner's podium after the women's 800-meter final on the second day of the athletics competition for the 15th Asian Games at Khalifa Stadium in Doha.
© 2006 Toshifumi Kitamura/AFP via Getty Images



Caster Semenya wins the World Championships in Berlin amid speculation about her sex.^{xvii} News of Semenya being investigated leaks, as does^{xviii} her confidential medical report,^{xix} which cites a source close to an investigation being conducted by the International Association of Athletics Federations, the sport's governing body, as saying the “18-year-old returned three times the amount of testosterone which might be expected from a ‘normal’ female.”

South Africa's gold medal winner Caster Semenya is flanked by Kenya's silver medal winner Janeth Jepkosgei Busienei, left, and Britain's bronze medal winner Jennifer Meadows, right, during the awards ceremony for the women's 800-meter final at the World Athletics Championships in Berlin on Thursday, Aug. 20, 2009.
© 2009 AP Photo/Markus Schreiber

laboratory based sex determination.” However, the policy also stated that:

[I]f there is any ‘suspicion’ or if there is a ‘challenge’ then the athlete concerned can be asked to attend a medical evaluation before a panel comprising gynecologist, endocrinologist, psychologist, internal medicine specialist, expert on gender/transgender issues.³⁹

In other words, tests that sports governing body officials had called degrading and humiliating were once again put in force. Moreover, the exact medical specialists called to weigh in on an athlete's sex for the purpose of sports eligibility, and hence her right to compete, are precisely those called in to make diagnoses regarding variations in sex characteristics, revealing once again the decades-long focus on rooting women with these variations out of competition.

Once again, women athletes fell under an ad hoc policy that had no clear criteria for inclusion or exclusion. Another widely publicized investigation under these regulations was the disqualification of Indian runner Santhi Soundarajan in 2006. The Olympic Council of Asia stripped Soundarajan of a silver medal won in the 2006 Asian Games in the 800 meter race and, following that, the Athletics Federation of India barred her from competing.⁴⁰ She attempted suicide in the aftermath of the media coverage of her disqualification.⁴¹

Three years later, in 2009, sex testing came to widespread public attention again with the IAAF's disqualification of South African Caster Semenya. Semenya's treatment reinvigorated global attention, and indeed outrage, over the practice. She said: “I have been subjected to unwarranted and invasive scrutiny of the most intimate and private details of my being ... [which has] infringed on not only my rights as an athlete but also my fundamental and human rights, including my rights to dignity and privacy.⁴² It was later revealed she was required to take testosterone-lowering medications to continue competing, medication that she said made her “feel constantly sick.”⁴³

³⁹ Ibid.

⁴⁰ “Santhi Stripped of Asiad Medal,” *Rediff*, December 18, 2006, <https://www.rediff.com/sports/2006/dec/18dohalead02.htm> (accessed October 29, 2020).

⁴¹ Ruth Padawer, “The Humiliating Practice of Sex-Testing Female Athletes” *New York Times*, June 28, 2016, <https://www.nytimes.com/2016/07/03/magazine/the-humiliating-practice-of-sex-testing-female-athletes.html> (accessed October 29, 2020).

⁴² Associated Press, “Caster Semenya's Comeback Statement in Full,” *Guardian*, March 30, 2010,

<https://www.theguardian.com/sport/2010/mar/30/caster-semenya-comeback-statement> (accessed October 29, 2020).

⁴³ Nick Said, “Semenya Accuses IAAF of Using Her as a ‘Human Guinea Pig,’” *Reuters*, June 18, 2019, <https://www.reuters.com/article/us-athletics-semenya/semenya-accuses-World-Athletics-of-using-her-as-a-human-guinea-pig-idUSKCN1TJ22P> (accessed October 29, 2020).



2010

Caster Semenya returns to competition. She and her coach report that she underwent extensive physical examinations, including nude photography.^{xx}

Caster Semenya celebrates with the South African flag after winning the athletics women's 800-meter final during the 2018 Gold Coast Commonwealth Games at the Carrara Stadium on the Gold Coast on April 13, 2018.
© 2018 Saeed Khan/AFP via Getty Images

She later said:

The IAAF used me in the past as a human guinea pig to experiment with how the medication they required me to take would affect my testosterone levels.⁴⁴

Sport governing bodies faced a public relations and media backlash. Starting in 2010, IAAF and IOC policymakers began to develop new regulations, which they issued in 2011 and 2012, respectively.⁴⁵

Although the IAAF claimed that its new regulations “replaced” the 2006 Gender Verification Policy and that it had “abandoned all reference to the terminology ‘gender verification’ and ‘gender policy’ in its Rules,” critics pointed out that the regulations continued the decades-long practice of sex testing in multiple ways.⁴⁶

Critics of sex testing had successfully challenged the use of single markers of sex (such as chromosomes) for how it ignored sex’s biological and social complexity. Yet policymakers framed the new regulations’ exclusive focus on testosterone as objective and scientific, and ostensibly as a “clean break” from the previous problems of sex testing policies such as the reliance on a single marker.⁴⁷

Athletics officials identified testosterone as the primary driver of athleticism, identified 10 nanomoles per litre of blood (10nmol/L) as a scientifically specious threshold for functional endogenous testosterone that they deemed confers a performance advantage, and ascribed an unfair advantage to women with natural testosterone above this level.⁴⁸ They deemed this level within the “normal male range,” ignoring the variability of both women’s and men’s testosterone levels, and the overlap between ranges for women and men.⁴⁹ Any woman with naturally occurring testosterone in the “normal male range” and an unspecified degree of androgen sensitivity—meaning her body has functional androgen receptors—would be ineligible to compete unless she lowered her levels. In April

⁴⁴ Ibid.

⁴⁵ IAAF, “IAAF Regulation Governing Eligibility of Females with Hyperandrogenism to Compete in Women’s Competition,” April 2011, <https://www.sportsintegrityinitiative.com/wp-content/uploads/2016/02/IAAF-Regulations-Governing-Eligibility-of-Females-with-Hyperandrogenism-to-Compete-in-Women%E2%80%99s-Competition-In-force-as-from-1st-May-2011-6.pdf> (accessed October 29, 2020).

⁴⁶ Ibid.

⁴⁷ Ibid., Karkazis et al., “Out of Bounds?” *American Journal of Bioethics*.

⁴⁸ Ibid.

⁴⁹ Katrina Karkazis and Rebecca Jordan-Young, “Debating a Testosterone ‘Sex Gap,’” *Science* 2015, 348(6237): 858-860, accessed October 29, 2020, doi:10.1126/science.aab1057.



2011



The IAAF introduces regulations governing the eligibility of women with hyperandrogenism (when women produce higher than typical androgens), in elite women’s competition. An athlete assigned female at birth and with a female legal sex may compete if her endogenous testosterone levels are below 10nmol/L (which they deem the “normal” male range) and with

androgen sensitivity. A woman athlete known or suspected to have hyperandrogenism must be examined by an expert panel to determine her levels and degree of androgen insensitivity. Athletes with levels above this limit (and absent androgen insensitivity) who refuse to lower levels below the threshold via pharmaceuticals or surgery will not be eligible to compete.^{xxi}

Mariya Savinova (front L) of Russia competes with Caster Semenya (front R) of South Africa in the women’s 800-meter final at the world athletics championships in Daegu, South Korea, on Sept. 4, 2011. Savinova won the gold medal in 1:55.87, while Semenya finished second in 1:56.35. Mariya Savinova is later stripped of the gold medal for doping; Semenya receives the gold.

Uganda’s Annet Negesa, right, Slovakia’s Lucia Klocova, left, and New Zealand’s Nikki Hamblin compete on the final stretch of a Women’s 800m qualification heat at the World Athletics Championships in Daegu, South Korea, Thursday, Sept. 1, 2011.

© 2011 Kyodo via AP Images

© 2011 AP Photo/Martin Meissner

2019, World Medical Association President Dr. Leonid Eidelman said: “We have strong reservations about the ethical validity of these regulations. They are based on weak evidence from a single study, which is currently being widely debated by the scientific community.”⁵⁰

The determination of whether testosterone is “functional” requires the same physical tests and exams used in the past, including genital inspections to assess clitoral size (used as a proxy for androgen sensitivity) as well as physical inspections, for example, to assess breast size and bodily and facial hair quantity and patterns.⁵¹

The investigations under these regulations also drove stigma. According to article 2.2 of the 2011 World Athletics regulations, anyone was allowed to request World Athletics to investigate and women suspected of having higher natural testosterone (sometimes called “hyperandrogenism”) could be targeted for testing on “reasonable grounds.”⁵² The 2012 IOC policy also noted that each National Olympic Committee should “actively investigate any perceived deviation in sex characteristics” prior to registering women athletes for competition.⁵³

⁵⁰ “WMA Urges Physicians Not To Implement IAAF Rules on Classifying Women Athletes,” World Medical Association press release, April 25, 2019, <https://www.wma.net/news-post/wma-urges-physicians-not-to-implement-iaaf-rules-on-classifying-women-athletes/#:~:text=WMA%20President%20Dr.,debated%20by%20the%20scientific%20community> (accessed October 29, 2020).

⁵¹ IAAF, “IAAF Regulation Governing Eligibility of Females with Hyperandrogenism to Compete in Women’s Competition,” <https://www.sportsintegrityinitiative.com/wp-content/uploads/2016/02/IAAF-Regulations-Governing-Eligibility-of-Females-with-Hyperandrogenism-to-Compete-in-Women%E2%80%99s-Competition-In-force-as-from-1st-May-2011-6.pdf>; Katrina Karkazis and Rebecca Jordan-Young, “The Powers of Testosterone: Obscuring Race and Regional Bias in the Regulation of Women Athletes,” *Feminist Formations* 2018, 30(2): 1-39, accessed October 29, 2020, doi:10.1353/ff.2018.0017.

⁵² “IAAF to Introduce Eligibility Rules for Females with Hyperandrogenism,” World Athletics news release, April 12, 2011, <https://www.worldathletics.org/news/World-Athletics-news/World-Athletics-to-introduce-eligibility-rules-for-femal-1> (accessed October 29, 2020).

⁵³ International Olympic Committee, IOC Regulations on Female Hyperandrogenism, 2014, https://stillmed.olympic.org/Documents/Commissions_PDFfiles/Medical_commission/IOC-Regulations-on-Female-Hyperandrogenism.pdf (accessed October 29, 2020).

The IOC publishes “Hyperandrogenism Regulations,” developed in conjunction with IAAF policymakers. They do not specify a testosterone threshold.^{xxiii}

2012

World Championships take place in Daegu, South Korea. Blood samples are collected from all athletes in an ‘unprecedented anti-doping programme to measure relevant biomarkers for individual profiling purposes within the framework of the Athlete Biological Passport.’^{xxii}

Caster Semenya wins her second gold medal in the World Championships.

Ugandan runner Annet Negesa competes at the Daegu World Championships and is also sex tested under the anti-doping regulation.

Annet Negesa runs her personal best of 1:59:08 in the 800 meter race on May 27 at Fanny Blankers-Koen Games in Netherlands. In July, she is informed that she cannot compete in the London Olympics, and travels to France for further investigation initiated by the IAAF. In November, she undergoes orchiectomy (removal of testes) surgery in Uganda.

Caster Semenya wins silver at the London Olympics (Mariya Savinova is later stripped of the gold medal for doping; Semenya receives the gold).

Analysis of the putatively neutral new regulations revealed:

- Continued use of a single biological marker of sex, testosterone in this case;
- Ongoing scrutiny of women’s bodies for signs of masculinity and even maleness, now linked explicitly to higher natural testosterone;
- Sports officials’ opportunistic and selective use of science to support binary models of sex/gender and inattention to contradictory evidence about the relationship between testosterone and athleticism; and
- The spurious nature of officials’ claims that medical interventions to lower testosterone benefit athletes, when in fact they are medically unnecessary and harmful.⁵⁴

In 2013, a retrospective clinical study that included key sports officials as authors revealed that four women athletes (aged 18-21) from “rural or mountainous regions of developing countries” underwent gonadectomy (surgery to remove gonads) and “partial clitoridectomy” after being identified as having testosterone above the regulations’ threshold.⁵⁵ The physician-authors also state that their diagnoses carried no health risks and that the procedures were not required for health reasons. It also revealed the women were likely women of color from the Global South, matching the pattern of women whose names had been leaked to the press over the years.⁵⁶

This study contradicted earlier claims that the interventions were for the health of the athletes.⁵⁷ As one article said: “the reported medical decisions rendered violate ethical standards of clinical practice and constitute a bio-medical violence against their persons.”⁵⁸

⁵⁴ Karkazis et al., “Out of Bounds?” *American Journal of Bioethics*; Rebecca M. Jordan-Young et al., “Sex, Health, and Athletes,” *British Medical Journal* 2014, 348: g2926, accessed October 29, 2020, doi:10.1136/bmj.g2926; Sönksen et al., “Medical and Ethical Concerns Regarding Women with Hyperandrogenism and Elite Sport,” *Journal of Clinical Endocrinology and Metabolism* 2015, 3(1): 825-827, accessed October 29, 2020, doi:10.1210/jc.2014-3206.

⁵⁵ Patrick Fenichel et. al., “Molecular Diagnosis of 5 α -Reductase Deficiency in 4 Elite Young Female Athletes Through Hormonal Screening for Hyperandrogenism,” *Journal of Clinical Endocrinological Metabolism* 2013, 98(6):E1055-9, accessed October 29, 2020, doi:10.1210/jc.2012-3893.

⁵⁶ In the past, sex testing regulations targeted women from the global north, including María José Martínez-Patiño (Spain) and Ewa Klobukowska (Poland). However, the most publicized investigations since 2009 feature women from the Global South, including publicized cases of women from India, South Africa, Uganda, Kenya, and Burundi.

⁵⁷ Katrina Karkazis and Rebecca Jordan-Young, “The Harrison Bergeron Olympics,” *American Journal of Bioethics* 2013, 13(5): 66–69, accessed October 29, 2020, doi:10.1080/15265161.2013.776375.

2013

Annet Negesa tries to return to competition, but is unable to get her strength back.

A group of physicians, including some who are IAAF-affiliated, publish an article documenting investigation of, and interventions on, four women athletes (see “The Fenichel Paper” section).

2014

Dutee Chand wins the 200 meter and 4x400 meter gold medals in Asian Junior Championships in Taipei, Taiwan. The chairperson of the Medical Committee of the Athletic Federation of India (AFI) conducts tests on Chand without her informed

India’s Dutee Chand celebrates after winning the bronze medal in the women’s 200-meter race at the Asian Athletics Championships in Doha, Qatar, Wednesday, April 24, 2019.
© 2019 AP Photo/Vincent Thian

Another article analyzing the interventions noted the especially debilitating short and long-term complications from such interventions, including the possibility of sterilization.⁵⁹

In 2014 after fellow athletes—among others—raised questions about the supposed “masculine” “stride and musculature” of 18-year-old Indian sprinter, Dutee Chand, officials in India ordered Chand to undergo invasive exams without her informed consent. She was eventually barred from competing in the female category at the 2014 Commonwealth Games in Glasgow and her name was leaked to the press.⁶⁰ Chand could continue competing only if she submitted to medical interventions to lower her testosterone below the threshold, but she refused and decided to challenge the regulations at the Court of Arbitration for Sport (CAS).

CAS suspended the IAAF’s regulations in July 2015, noting that IAAF had failed to establish that the regulations “are necessary and proportionate to pursue the legitimate objective of organizing competitive female athletics to ensure fairness” in elite women’s competition.⁶¹ CAS noted that IAAF had failed to provide sufficient evidence about the “quantitative relationship between enhanced testosterone levels and improved athletic performance in hyperandrogenic athletes.” The court said:

In the absence of such evidence, the Panel is unable to conclude that hyperandrogenic female athletes may enjoy such a significant performance advantage that is it necessary to exclude them from competing in the female category.⁶²

CAS gave IAAF two years to provide further evidence “concerning the magnitude of the performance advantage that hyperandrogenic females enjoy over other females.” If they did not, the IAAF regulations would be declared

⁵⁸ Sönksen et al., “Medical and Ethical Concerns Regarding Women with Hyperandrogenism and Elite Sport,” *Journal of Clinical Endocrinology and Metabolism*.

⁵⁹ Jordan-Young et al., “Sex, Health, and Athletes,” *British Medical Journal*.

⁶⁰ *Dutee Chand v. The Athletics Federation of India and the International Association of Athletics Federations*, CAS 2014/A/3759, Interim Arbitral Award, 2014, https://www.doping.nl/media/kb/3317/CAS%202014_A_3759%20Dutee%20Chand%20vs.%20AFI%20%26%20IAAF%20%28S%29.pdf (accessed October 29, 2020).

⁶¹ *Ibid.*

⁶² The CAS Panel found that “the evidence does not go so far as to equate, or correlate, the level of testosterone in females with a percentage increase in competitive advantage. The evidence does not, for example, establish an advantage of the order of 12% rather than, say 1% or 3%. Once the degree of competitive advantage is established, the World Athletics would then need to consider, if the degree of advantage were well below 12%, whether that justified excluding women with that advantage from the female category.” *Ibid.*



consent, and does not share the results with her. AFI asks the Sports Authority of India (SAI) to conduct further tests. Chand is dropped from the team for IAAF World Junior Championship in Oregon and the Commonwealth Games in Glasgow. Chand appeals to the Court of Arbitration for Sport asking it to allow her to compete and declare IAAF Hyperandrogenism Regulations “invalid and void.”

On July 24, the Court of Arbitration for Sport suspends IAAF regulations as a result of Chand’s case.^{xxiv}

Dutee Chand competes in a semi-final heat of the women’s 100m athletics event during the 2018 Asian Games in Jakarta on August 26, 2018.
© 2018 Jewel Samad/AFP via Getty Image

void. The IOC met in November 2015; IAAF representatives were invited. The IOC decided not to issue regulations for the 2016 summer Olympics in Rio, Brazil. Nonetheless, the IOC’s November 2015 consensus statement on the matter supported the IAAF’s testosterone-based regulations.⁶³

In April 2018, the IAAF released its new “Eligibility Regulations for the Female Classification (Athletes with Differences of Sexual Development).” Under the new regulations, women would be ineligible to compete in the women’s category in international races ranging in length between 400m and one mile if they received any of seven DSD diagnoses, had testosterone levels above 5 nmol/L, had sufficient sensitivity to testosterone such that their testosterone levels were thought to have an “androgenising effect, and refused to take medical steps to reduce and maintain their testosterone below 5 nmol/L.”⁶⁴

Caster Semenya filed an appeal in June 2018 at CAS. “It is not fair,” Semenya said. “I just want to run naturally, the way I was born. I am Mokgadi Caster Semenya. I am a woman and I am fast.”⁶⁵ Her legal team argued that the case was meant to:

[E]nsure, safeguard and protect the rights of all women on the basis that the Regulations are irrational, unjustifiable, and in violation of the World Athletics Constitution (based in Monaco), the Olympic Charter, the laws of Monaco, the laws of jurisdictions in which international competitions are held, and of universally recognized human rights.⁶⁶

⁶³ In response to the interim award dated July 24, 2015 in *Chand v AFI and World Athletics*, CAS 2014/A/3759, the IOC Consensus Meeting recommended: Rules should be in place for the protection of women in sport and the promotion of the principles of fair competition.

The IAAF, with support from other International Federations, National Olympic Committees and other sports organisations, is encouraged to revert to CAS with arguments and evidence to support the reinstatement of its hyperandrogenism rules.

To avoid discrimination, if not eligible for female competition the athlete should be eligible to compete in male competition.

International Olympic Committee, “IOC Consensus Meeting on Sex Reassignment and Hyperandrogenism,” November 2015, https://stillmed.olympic.org/Documents/Commissions_PDFfiles/Medical_commission/2015-11_ioc_consensus_meeting_on_sex_reassignment_and_hyperandrogenism-en.pdf (accessed October 29, 2020).

⁶⁴ The 2018 regulations are substantively similar to the 2011 regulations. Analysis of the 2011 regulations thus remains relevant.

⁶⁵ “Caster Semenya: Olympic Champion Will Challenge ‘Unfair’ IAAF Testosterone Ruling,” *BBC*, June 19, 2019, <https://www.bbc.com/sport/athletics/44522370> (accessed October 29, 2020).

⁶⁶ Norton Rose Fulbright, “Norton Rose Fulbright Advises Olympic Champion Caster Semenya to Challenge World Athletics Rules as Discriminatory,” June 18, 2018, <https://www.nortonrosefulbright.com/en/news/115e61b6/norton-rose-fulbright-advises-olympic-champion-caster-semenya-to-challenge-World-Athletics-rules->

2015

In November, the IOC Consensus Meeting on Sex Reassignment and Hyperandrogenism primarily addresses regulations for transgender athletes but notes that in light of the Chand decision, “The IAAF, with support from other International Federations, National Olympic Committees and other sports organisations, is encouraged to revert to CAS with arguments and evidence to support the reinstatement of its hyperandrogenism rules. To avoid discrimination, if not eligible for female competition the athlete should be eligible to compete in male competition.”⁶⁷

2015-2019

No official IAAF or IOC sex testing regulations in place.

Whereas policymakers framed the 2011 regulations as a departure from prior sex testing regulations, the 2018 regulations revealed their aim to be sex testing. The foregrounding of testosterone as a criterion for judging women’s eligibility was intended to signal a new focus on scientific validity. However, in reality, the new regulations reveal an intensified focus on other aspects of sex biology beyond testosterone.

During the case, IAAF amended the policy, narrowing the women to whom the regulations applied. According to a public letter they wrote in response to World Medical Association criticism:

The DSD regulations only apply to individuals who are:

- legally female (or intersex), and
- who have one of a certain number of specified DSDs, which mean that they have:
 - male chromosomes (XY) not female chromosomes (XX)
 - testes not ovaries
 - circulating testosterone in the male range not the (much lower) female range
 - the ability to make use of that testosterone circulating within their bodies by having functional androgen receptors.⁶⁷

The amended version allowed some women with endogenous testosterone above the threshold to compete provided they had female typical chromosomes and gonads (that is 46, XX karyotype and ovaries). The women allowed to compete include women with polycystic ovarian syndrome (PCOS)—the most common reason that women have naturally high testosterone—and women with Congenital Adrenal Hyperplasia (CAH), a condition that can cause atypical sex characteristics even though IAAF has argued that women with these diagnoses derive an “advantage” from their higher testosterone.⁶⁸

as-discriminatory (accessed October 29, 2020).

⁶⁷ IAAF, “IAAF Letter to the World Medical Association,” May 7, 2019, <https://www.worldathletics.org/news/press-release/iaaf-letter-wma> (accessed October 29, 2020).

⁶⁸ David J. Handelsman, Angelica L. Hirschberg, and Stéphane Bermon, “Circulating Testosterone as the Hormonal Basis of Sex Differences in Athletic Performance,” *Endocrine Reviews* 2018, 39(5): 803-829, accessed October 29, 2020, <https://doi.org/10.1210/er.2018-00020>. “In creating a threshold for eligibility for female events it is also necessary to make allowance for hyperandrogenic women including women with polycystic ovary syndrome (PCOS) and non-classical adrenal hyperplasia. PCOS is a relatively common disorder among women of reproductive ages with a prevalence of 6-10%, depending on the diagnostic criteria



File photo dated August 20, 2016 of IAAF president Sebastian Coe
© 2016 Martin Rickett/PA Wire via AP Images

The IAAF issues “Eligibility Regulations for the Female Classification (Athletes with Difference of Sex Development).” They differ from the 2011 regulations in several ways, including:

- Applying only to a subset of races (400m, 400m hurdles, 800m, 1500m, and the mile, relays and combined events including any of these distances).
- Setting a lower arbitrary testosterone threshold of 5 nmol/L.
- Focusing only on women with a subset of intersex variations (also called “differences of sex

development”) characterized by higher natural testosterone levels and “sufficient androgen sensitivity” (receptors for testosterone) to have an effect.

- Explicitly excluding conditions unrelated to intersex variations but that can cause higher testosterone in women, even if they “cause the individual to have testosterone levels in her blood above the normal female range.”^{xxvi} In June, Caster Semenya appeals the 2018 IAAF Regulations at the Court of Arbitration of Sport.

In the meantime, concerns were growing about both the human rights violations associated with the regulations and the science used by IAAF to support the regulations. In 2018, three UN special procedures mandate holders (on health, torture, and discrimination against women) wrote to World Athletics to express “serious concerns” that:

The eligibility criteria and the procedures for their implementation set forth in these regulations appear to contravene international human rights norms and standards including the right to equality and non-discrimination, the right to the highest attainable standard of physical and mental health, the right to physical and bodily integrity and the right to freedom from torture, and other cruel, inhuman or degrading treatment and harmful practices.⁶⁹

Others criticized the short- and long-term harms of medical interventions to lower testosterone noting that there was no medical reason to lower testosterone in the absence of patient complaints,⁷⁰ and that the science produced by World Athletics to support the claim that women with higher natural testosterone have a competitive advantage over peers with lower levels was (and remains) deeply contested.⁷¹

used, in which mild hyperandrogenism is a key clinical feature and has higher than expected prevalence among elite female athletes. Non-classical adrenal hyperplasia is a milder and later (adult) onset variant of classical congenital adrenal hyperplasia with a much higher but still rare population prevalence (1:1000 vs 1:16,000 for the classical variant).... Hence a conservative threshold for circulating testosterone of 5 nmol/L measured by LC-MS would identify fewer than 1:10,000 women with PCOS as false positives, based on circulating testosterone measurement alone. Circulating testosterone higher than this threshold is likely to be due to testosterone-secreting adrenal or ovarian tumors, intersex/DSD, badly controlled or non-compliant M2F transgender athletes or testosterone doping.”

⁶⁹ Mandates of the Special Rapporteur on the Right of Everyone to the Enjoyment of the Highest Attainable Standard of Physical and Mental Health; the Special Rapporteur on Torture and Other Cruel, Inhuman or Degrading Treatment or Punishment; and the Working Group on the Issue of Discrimination Against Women in Law and in Practice, “Special Procedures Communication to the IAAF,” OL OTH 62/2018, https://www.ohchr.org/Documents/Issues/Health/Letter_IAAF_Sept2018.pdf.

⁷⁰ Karkazis et al., “Out of Bounds?” *American Journal of Bioethics*; Jordan-Young et al., “Sex, Health, and Athletes,” *British Medical Journal*.

⁷¹ While a full discussion of the science is beyond the scope of this report, key articles include: Simon Franklin, Jonathan Ospina Betancurt, and Silvia Camporesi, “What Statistical Data of Observational Performance Can Tell Us and What They Cannot: The Case of Dutee Chand v. AFI & World Athletics,” *British Journal of Sports Medicine* 2018, 52(7): 420–421, accessed October 29, 2020, doi:10.1136/bjsports-2017-098513; Handelsman, Hirschberg, and Bermon, “Circulating Testosterone as the Hormonal Basis of Sex Differences in Athletic Performance,” *Endocrine Reviews*; Court of Arbitration for Sport (CAS), Dutee Chand v. Athletics Federation of India (AFI) & The International Association of Athletics Federations (World Athletics), CAS2014/A/3759, September 2014, https://www.doping.nl/media/kb/3317/CAS%202014_A_3759%20Dutee%20Chand%20vs.%20AFI%20%26%20IAAF%20%28S%29.pdf (accessed November 3, 2020); Katrina Karkazis and Gideon Meyerowitz-Katz, “Why the IAAF’s Latest Testosterone Atudy Won’t Help Them at CAS,” *World Sport Advocate* 2017, 15(8), August 2017; Karkazis and Jordan-Young, “The Harrison Bergeron Olympics,” *American Journal of Bioethics*; Karkazis et al., “Out of Bounds?” *American Journal of*



2019

In February, the CAS hearing takes place in Lausanne with both Semenya’s team and Athletics South Africa’s team challenging the IAAF’s DSD Regulations. In a split decision issued in April, the CAS rules against Semenya. In May, Semenya announces she is appealing the case to the Swiss Federal Tribunal.^{xxvii}

In a Monday, Feb. 18, 2019 file photo, South Africa's runner Caster Semenya, left, current 800-meter Olympic gold medalist and world champion, and her lawyer Gregory Nott, right, arrive for the first day of a hearing at the international Court of Arbitration for Sport, CAS, in Lausanne, Switzerland. © 2019 Laurent Gillieron/Keystone via AP, File

On May 1, the IAAF issues revised eligibility regulations for the female classification (athletes with difference of sex development). Similar to the 2018 regulations, they focus on an even narrower subset of women with variations in sex characteristics.^{xxviii}

In October, Ugandan runner Annet Negesa speaks publicly about what she has endured since 2012. A

Matthieu Reeb, General Secretary of the Court of Arbitration for Sport, CAS, speaks to journalists during the release of the decision in the case of South Africa's runner Caster Semenya, left, the current 800-meter Olympic gold and world champion in front of the Court of Arbitration for Sport (CAS) in Lausanne, Switzerland, Wednesday, May 1, 2019. Semenya lost her appeal Wednesday against rules designed to decrease naturally high testosterone levels in some female runners © 2019 Laurent Gillieron/Keystone via AP, File

On May 1, 2019, a panel of CAS arbitrators ruled 2-1 in favor of World Athletics and its regulations limiting endogenous testosterone in women. The judgment thus required any woman who did not meet the conditions in the eligibility regulations to lower her testosterone, only compete nationally (if permitted by the national federation), change events to an unrestricted event, compete in the male category, or leave the sport.⁷² CAS procedure dictates that the minority opinion does not write a dissent.

In dismissing Semenya’s case, the CAS arbitrators recognized that the regulations are discriminatory but deemed them a “prima facie proportionate” response to World Athletics’ concerns about eligibility for the female category. The CAS arbitrators nevertheless expressed “serious concerns as to the future practical application” of the regulations. These concerns included how World Athletics would assess individual athletes’ compliance with the regulations, and flagging the issue of possible side effects of hormonal interventions for athletes, and recognizing the questionable evidence of significant athletic advantage for women athletes with higher than typical natural testosterone in certain events, such as the 1500 meter race.⁷³ The CAS conclusion was based on the assumption that testosterone levels can be effectively reduced below the stated threshold and maintained using only contra-

Bioethics; Mary-Louise Healy et al., “Endocrine Profiles in 693 Elite Athletes in the Postcompetition Setting,” *Clinical Endocrinology* 2014, 81(2): 294–305, accessed October 29, 2020, doi:10.1111/cen.12445; Stéphane Bermon et al., “Serum Androgen Levels in Elite Female Athletes,” *Journal of Clinical Endocrinology & Metabolism* 2014, 99(11): 4328–4335, accessed October 29, 2020, doi:10.1210/jc.2014-1391; Stéphane Bermon and Pierre-Yves Garnier, “Serum Androgen Levels and their Relation to Performance in Track and Field: Mass Spectrometry Results from 2127 Observations in Male and Female Elite Athletes,” *British Journal of Sports Medicine* 2017, 51(17): 1309–1314, accessed October 29, 2020, doi:10.1136/bjsports-2017-097792; Stéphane Bermon et al., “Serum Androgen Levels are Positively Correlated with Athletic Performance and Competition Results in Elite Female Athletes,” *British Journal of Sports Medicine* 2018, 52: 1531-1532, accessed October 29, 2020, https://doi.org/10.1136/bjsports-2018-099700; Martin Ritzén et al., “The Regulations About Eligibility for Women with Hyperandrogenism to Compete in Women’s Category are Well Founded. A Rebuttal to the Conclusions by Healy et al.,” *Clinical Endocrinology* 2014, 82(2): 307–308, accessed October 29, 2020, doi:10.1111/cen.12531; Amanda Menier, “Use of Event-Specific Tertiles to Analyse the Relationship Between Serum Androgens and Athletic Performance in Women,” *British Journal of Sports Medicine* 2018, 52(23): 1481-1482, accessed October 29, 2020, https://doi.org/10.1136/bjsports-2017-098464; Roger Pielke, “A Call for Bermon and Garnier (2017) to be Retracted,” post to “The Least Thing” (blog), July 12, 2018, http://leastthing.blogspot.com/2018/07/a-call-for-bermon-and-garnier-2017-to.html (accessed October 29, 2020); Peter Sönksen et al., “Hyperandrogenism Controversy in Elite Women’s Sport: An Examination and Critique of Recent Evidence,” *British Journal of Sports Medicine* 2018, 52(23): 1481-1482, accessed October 29, 2020, doi:10.1136/bjsports-2017-098446.

⁷² “CAS Arbitration: Caster Semenya, Athletics South Africa (ASA) and International Association of Athletics Federations (IAAF): Decision,” Court of Arbitration for Sport press release, May 1, 2019, https://www.tas-cas.org/fileadmin/user_upload/Media_Release_Semenya_ASA_IAAF_decision.pdf (accessed November 3, 2020).

⁷³ Sean Ingle, “Caster Semenya to Run in Doha as Sebastian Coe Welcomes Cas Ruling,” *Guardian*, May 2, 2019, https://www.theguardian.com/sport/2019/may/02/caster-semenya-doha-sebastian-coe-iaaf-cas-ruling-athletics (accessed October 29, 2020).



Francine Niyonsaba (BDI) celebrates after winning gold in the Women's 800-meter final in a time of 1:58.31 during the final session of the IAAF World Indoor Championships at Arena Birmingham in Birmingham, United Kingdom on Saturday, Mar 2, 2018.
© 2018 Steve Flynn/Image of Sport

German television documentary about her and another unnamed athlete sparks an investigation by the French government.^{xix}

In December, the IOC's Executive Board notes that its "consultation process regarding "athletes' inclusion on the basis of sex characteristics and gender identity" confirmed "considerable tension between the notions of fairness and inclusion, and the desire and need to protect the women's

category." The IOC concludes that changing the 2015 Consensus Statement guidelines before the Tokyo 2020 games would be "neither ethically nor legally admissible." It pledges further deliberation.^{xxx}

Several other athletes including Francine Niyonsaba,^{xxxi} Maximilla Imali,^{xxxii} and Margaret Wambui^{xxxiii} begin to speak to media about their unfair exclusion.

ceptive pills, such that surgery or other methods would not be required. It is noteworthy that World Athletics still included surgery as an option, however, in its press release about the case.⁷⁴ The arbitrators noted that further assessment of these concerns may result in the regulations being deemed invalid in the future.

In the run-up to and aftermath of the decision, a slew of sports organizations and LGBT and intersex advocacy groups spoke out against the World Athletics' regulations.⁷⁵

In September 2020, the Federal Supreme Court of Switzerland ruled in Caster Semanya's case that sport regulations that violate women's rights cannot be struck down as inconsistent with Swiss public policy. The court came to this conclusion despite finding that the regulations in question—which create a regime of discriminatory surveillance and medical interventions on women—violate the fundamental human rights of Caster Semanya.⁷⁶ "I will continue to fight for the human rights of female athletes, both on the track and off the track, until we can all run free the way we were born," Semanya said in a statement about the Swiss ruling.⁷⁷ In November 2020, Semanya announced she would be taking her case to the European Court of Human Rights.⁷⁸

World Athletics' application of sex testing based on stereotypical gender norms sparked intense criticism from the World Medical Association and the United Nations Human Rights Council, among others, who criticized the body for mandating that healthy athletes undergo medically unnecessary interventions in order to compete.⁷⁹

⁷⁴ "IAAF Publishes Briefing Notes and Q&A on Female Eligibility Regulations," IAAF press release, May 7, 2019, <https://www.worldathletics.org/news/press-release/questions-answers-iaaf-female-eligibility-reg> (accessed October 29, 2020).

⁷⁵ Canadian Centre for Ethics in Sport (CCES), the Canadian Association for the Advancement of Women in Sport and Physical Activity (CAAWS) and AthletesCAN, "CCES, CAAWS and AthletesCAN Very Concerned with the CAS Ruling on IAAF's Eligibility Regulations for Female Classification," May 2, 2019, <https://cces.ca/news/cces-caaws-and-athletescan-very-concerned-cas-ruling-iaafs-eligibility-regulations-female> (accessed November 4); See statement signed by Athlete Ally, Women's Sports Foundation, Champion Women, Canadian Association for the Advancement of Women and Sport and Physical Activity, GLSEN, Global Justice Institute, Metropolitan Community Churches, the HRC, interAct, International Working Group on Women and Sports, LGBT SportSafe Inclusion Program, National Women's Law Center, OutRight International, Out and Equal, Out in Athletics, Tucker Center for Research on Women & Girls, and WomenWin here: <https://www.athleteally.org/organizations-support-caster>.

⁷⁶ Tribunal Fédéral Suisse, "Arrêt du 25 août 2020, Ire Cour de droit civile, 4A_248/2019, 4A_398/2019, on file with Human Rights Watch.

⁷⁷ Norton Rose Fulbright, "Caster Semanya Remains Determined to Fight for Human Rights," September 8, 2020, <https://www.nortonrosefulbright.com/en-us/news/8ee6fb77/caster-semenya-remains-determined-to-fight-for-human-rights> (accessed October 29, 2020).

⁷⁸ "Athletics: Semanya to take fight to European Court of Human Rights," *Reuters*, November 17, 2020, <https://www.reuters.com/article/us-athletics-semenya/athletics-semenya-to-take-fight-to-european-court-of-human-rights-idUSKBN27X1G8>.

⁷⁹ On March 22, 2019, the United Nations Human Rights Council passed a resolution noting that the World Athletics regulations "are not compatible with international human rights norms and standards, including the rights of women with differences of sex development" and expressing concern at "the absence of legiti-

Caster Semenya announces she is switching to 200 meter race [an unregulated event] in a bid to compete in the Tokyo Olympics, reflecting an apparent trend of women athletes refusing to undergo involuntary medical interventions to comply with the regulations.^{xxxiv} The Swiss Federal Tribunal rules in Semenya’s case that sport regulations that violate

women’s rights cannot be struck down as inconsistent with Swiss public policy. The court came to this conclusion despite finding that the regulations in question – which create a regime of discriminatory surveillance and medical interventions on women – violate fundamental human rights of the South African runner Caster Semenya.

Rather than viewing the serious and long-term consequences of lowering testosterone as “side effects,” World Athletics proposes that the “medications are gender-affirming.”⁸⁰

Disregarding women athletes who have resisted these interventions, World Athletics insists that the “side effects” such as reduced muscle and increased fat “change [women’s bodies] to better reflect their chosen gender.”⁸¹ The latter statement insinuates that women athletes who do not willingly modify their bodies chose not to do so for reasons of gender rather than because they are unwanted manipulations of their bodies and violate their bodily integrity.

Dr. Stéphane Bermon, a consultant physician who has served as Director of Health and Science for World Athletics since 2018, and was one of the principal architects of the regulations, defended this justification, saying, “for me the approach is quite simple: you want to compete in the PROTECTED feminine category, then you must not oppose a treatment that affirms your feminine gender,” and “If a person claims to be a woman and wants to compete IN THIS PROTECTED FEMALE CATEGORY, then she should be happy to lower her testosterone level” (emphasis in his original quote).⁸² This framing of the policy imposes a narrow construction of femininity in order to determine who is a “real” woman, a process which imposes discriminatory gender stereotypes on all athletes in violation of rights to autonomy, privacy and dignity, and freedom from discrimination. It also projects for broader society a stereotype-driven image of “femininity,” which negatively affects all women.

The result is that, approaching the 2021 Olympics in Tokyo, sex testing of women athletes has not yet been brought to an end. In a March 2020 press release, the IOC Executive Board clarified that they had undertaken a consultation with athletes with variations in their sex characteristics. The 2015 Consensus Statement guidelines, therefore, will not be updated before the 2020 Games. The IOC wrote:

mate and justifiable evidence for the regulations.” The Human Rights Council also found “no clear relationship of proportionality between the aim of the regulations and the proposed measures and their impact.” UN Doc. A/HRC/40/L.10/Rev.1, Elimination of Discrimination Against Women and Girls in Sport.

⁸⁰ IAAF, “IAAF Letter to the World Medical Association,” <https://www.worldathletics.org/news/press-release/iaaf-letter-wma>.

⁸¹ “IAAF Publishes Briefing Notes and Q&A on Female Eligibility Regulations,” IAAF press release, <https://www.worldathletics.org/news/press-release/questions-answers-iaaf-female-eligibility-reg>; Rebecca Jordan-Young and Katrina Karkazis, “4 Myths about Testosterone,” *Scientific American*, June 18, 2019.

⁸² Rachel Mulot, “Athletism: ‘If You Want to Compete in the Feminine Category, then You Must not Oppose a Treatment,’” *Sciences Et Avenirs*, June 25, 2019, https://www.sciencesetavenir.fr/sante/athetism-if-you-want-to-compete-in-the-feminine-category-then-you-must-not-oppose-a-treatment_134846 (accessed October 29, 2020).

A change of the existing guidelines – the 2015 Consensus Statement – at this stage would mean a change of rules during an ongoing competition with the qualification for the Olympic Games Tokyo 2020 already underway. Such a change, therefore, would be neither ethically nor legally admissible.⁸³

The press release said the IOC “will reflect further on new guidelines for athletes’ inclusion on the basis of sex characteristics and gender identity.”⁸⁴

Absent updated guidance from the IOC, the World Athletics regulations will determine eligibility for women athletes in the now-postponed Tokyo games. They are arbitrary, invasive, and degrading. They are not based on accepted science, and they violate women’s fundamental rights. They are implemented in coercive environments where women are forced to choose between their careers and their basic human rights. In addition, the policies put physicians, sporting bodies, and governments in precarious positions of complicity in violations of privacy, dignity, health, and non-discrimination protections.

In June 2019, following the negative outcome at CAS, Caster Semenya told reporters:

Even though the hormonal drugs made me feel constantly sick, World Athletics now wants to enforce even stricter thresholds with unknown health consequences. I will not allow the World Athletics to use me and my body again. But I am concerned that other female athletes will feel compelled to let World Athletics drug them and test the effectiveness and negative health effects of different hormonal drugs. This cannot be allowed to happen.⁸⁵

⁸³ International Olympic Committee, “IOC Executive Board Opens Second Meeting of the Year,” <https://www.olympic.org/news/ioc-executive-board-opens-second-meeting-of-the-year>.

⁸⁴ Ibid.

⁸⁵ Said, “Semenya Accuses IAAF of Using Her as a ‘Human Guinea Pig,’” *Reuters*, <https://www.reuters.com/article/us-athletics-semenya/semenya-accuses-World-Athletics-of-using-her-as-a-human-guinea-pig-idUSKCN1TJ22P>.

ⁱ Louis Elsas, et al., “Gender verification of female athletes,” *Nature*, vol. 2, no. 4, July/August 2000, <https://www.nature.com/articles/gim2000258.pdf?origin=ppub>; J.L. Simpson, et al., “Gender verification in competitive sports,” *Sports Medicine*, 16 (5), 1993, <https://www.ncbi.nlm.nih.gov/pubmed/8272686>.

ⁱⁱ Vanessa Heggie, “Testing sex and gender in sports; Reinventing, reimagining and reconstructing histories.” *Endeavour* December 2010, 34(4): 157–163

ⁱⁱⁱ Vanessa Heggie, “Testing sex and gender in sports; Reinventing, reimagining and reconstructing histories.” *Endeavour* December 2010, 34(4): 157–163; Louis Elsas, et al., “Gender verification of female athletes,” *Nature*, vol. 2, no. 4, July/August 2000, <https://www.nature.com/articles/gim2000258.pdf?origin=ppub>

^{iv} Vanessa Heggie, “Testing sex and gender in sports; Reinventing, reimagining and reconstructing histories.” *Endeavour* December 2010, 34(4): 157–163; Louis Elsas, et al., “Gender verification of female athletes,” *Nature*, vol. 2, no. 4, July/August 2000, <https://www.nature.com/articles/gim2000258.pdf?origin=ppub>

^v María José Martínez-Patiño, “Personal Account: A woman tried and tested,” *The Lancet*, 2006, <https://www.thelancet.com/pdfs/journals/lancet/PIIS0140673605678415.pdf>.

^{vi} Arne Ljungqvist, et al., “Medical Examination for the Health of All Athletes Replaces the Need for Gender Verification in International Sports: The International Amateur Athletic Federation Plan,” *JAMA*, 1992, doi:10.1001/jama.1992.03480060096038.

^{vii} Arne Ljungqvist, María Jose Martínez-Patiño, M.J., et al., “The history and current policies on gender testing in elite athletes,” *International SportMed Journal*, 2006, 7(3): 225–230

^{viii} IAAF Constitution, <https://www.worldathletics.org/download/download?filename=d8a4e154-7244-4c53-a3cf-55faad26d7ab.pdf&urlslug=2019%20IAAF%20Constitution>.

^{ix} Louis Elsas, et al., “Gender verification of female athletes,” *Nature*, vol. 2, no. 4, July/August 2000, <https://www.nature.com/articles/gim2000258.pdf?origin=ppub>; Dineon, B., “Gender verification and the next Olympic games,” *Journal of the American Medical Association* 269(3): 357–358, 1993; Myron Genel, “Gender verification no more?” *Medscape Women’s*

Health 5(3): E2, 2000, <https://www.medscape.com/viewarticle/408918>.

^x Arne Ljungqvist, *Doping’s Nemesis*, April 2011, Sportsbooks Ltd.; Myron Genel, “Gender verification no more?” *Medscape Women’s Health* 5(3): E2, 2000, <https://www.medscape.com/viewarticle/408918>.

^{xi} Robinson N., Dollé G., Garnier P.Y., and Saugy M., 2012. 2011 IAAF World Championships in Daegu: blood tests for all athletes in the framework of the Athlete Biological Passport. *Bioanalysis*, 4, 1633–1643.

^{xii} Patrick Fenichel, et al., “Molecular diagnosis of 5α-reductase deficiency in 4 elite young female athletes through hormonal screening for hyperandrogenism,” *The Journal of Clinical Endocrinological Metabolism*, June 2013. 98(6):E1055-9. doi: 10.1210/jc.2012-3893.

^{xiii} IAAF Policy on Gender Verification, 2006.

xiv Ibid.

xv "Indian athlete fails gender test," *BBC*, December 18, 2006, http://news.bbc.co.uk/2/hi/south_asia/6188775.stm.

xvi "Runner Santhi Soundarajan in apparent suicide bid," *Reuters*, September 5, 2007, <https://in.reuters.com/article/idINIndia-29355420070905>.

xvii Anna Kessel, "Caster Semenya wins 800m gold but cannot escape gender controversy," August 19, 2009, <https://www.theguardian.com/sport/2009/aug/19/caster-semenya-800m-world-athletics-championships-gender>.

xviii Tom Bryant, "Caster Semenya subjected to 'humiliating' sex test, claims coach," September 17, 2009, <https://www.theguardian.com/sport/2009/sep/17/caster-semenya-sex-test-athletics>.

xix Mike Hurst, "Caster has elevated testosterone," *The Daily Telegraph*, August 26, 2009, <https://www.dailytelegraph.com.au/z-redesign/archive-sport/caster-has-elevated-testosterone/news-story/daa421dcf3438f3coaca1d3c4ee27fb?sv=c4ac421dfd8a948614c783f52abb9aa2>.

xx Anna Kessel, "Caster Semenya returns to the track in triumph after year in limbo," *Guardian*, July 15, 2010, <https://www.theguardian.com/sport/2010/jul/15/caster-semenya-returns>.

xxi IAAF Regulations Governing Eligibility of Females With Hyperandrogenism to Compete in Women's Competitions, 2011

xxii World Athletics, "Blood tests for all athletes in Daegu in unprecedented Anti-doping programme," August 11, 2011, <https://www.worldathletics.org/news/press-release/blood-tests-for-all-athletes-in-daegu-in-unpr> (accessed October 20, 2020).

xxiii IOC Regulations on Female Hyperandrogenism, 2012. [online]. https://stillmed.olympic.org/Documents/Commissions_PDFfiles/Medical_commission/2012-06-22-IOC-Regulations-on-Female-Hyperandrogenism-eng.pdf (accessed October 20, 2020).

xxiv Court of Arbitration for Sport, *Dutee Chand v. The Athletics Federation of India and the International Association of Athletics Federations*, CAS 2014/A/3759, Interim Arbitral Award, https://www.doping.nl/media/kb/3317/CAS%202014_A_3759%20Dutee%20Chand%20vs.%20AFI%20%26%20IAAF%20%28S%29.pdf (accessed October 20, 2020).

xxv IOC Consensus Meeting on Sex Reassignment and Hyperandrogenism, November 2015, https://stillmed.olympic.org/Documents/Commissions_PDFfiles/Medical_commission/2015-11_ioc_consensus_meeting_on_sex_reassignment_and_hyperandrogenism-en.pdf (accessed October 20, 2020).

xxvi IAAF, "Eligibility Regulations for the Female Classification (Athletes with Difference of Sex Development)," April 23, 2018, <https://www.worldathletics.org/news/press-release/eligibility-regulations-for-female-classifica> (accessed October 20, 2020).

xxvii Motez Bishara, "Caster Semenya appeals to Federal Supreme Court of Switzerland against testosterone ruling," *CNN*, May 30, 2019, <https://www.cnn.com/2019/05/29/sport/caster-semenya-appeals-to-federal-supreme-court-of-switzerland-spt-intl/index.html> (accessed October 20, 2020).

xxviii IAAF, "Eligibility Regulations for the Female Classification (Differences of Sex Development), Version 2.0," May 1, 2019, <https://www.sportsintegrityinitiative.com/wp-content/uploads/2019/05/IAAF-Eligibility-Regulations-for-the-Female-Classi-2-compressed.pdf> (accessed October 20, 2020).

xxix "This Intersex Runner Had Surgery to Compete. It Has Not Gone Well," *The New York Times*, December 16, 2019, <https://www.nytimes.com/2019/12/16/sports/intersex-runner-surgery-track-and-field.html> (accessed October 20, 2020).

xxx IOC, "IOC Executive Board Opens Second Meeting of the Year," March 3, 2020, <https://www.olympic.org/news/ioc-executive-board-opens-second-meeting-of-the-year> (accessed October 20, 2020).

xxxi Olympic Channel, "Exclusive! Francine Niyonsaba: 'I didn't choose to be born like this...,'" <https://www.olympicchannel.com/en/video/detail/exclusive-francine-niyonsaba-i-didn-t-chose-to-be-born-like-this/> (accessed October 20, 2020)

xxxii Olympic Channel, "Exclusive: Kenyan Maximila Imali speaks about life-changing DSD discovery," <https://www.olympicchannel.com/en/video/detail/exclusive-kenyan-maximila-imali-speaks-about-life-changing-dsd-discovery/> (accessed October 20, 2020).

xxxiii Olympic Channel, "Exclusive! Margaret Nyairera Wambui on testosterone rule: 'I became a victim,'" <https://www.olympicchannel.com/en/video/detail/exclusive-margaret-nyairera-wambui-on-testosterone-rule-i-became-a-victim/> (accessed October 20, 2020).

xxxiv Ben Bloom, "Caster Semenya switches to 200m in bid to qualify for Tokyo Olympics," *The Telegraph*, March 13, 2019, <https://www.telegraph.co.uk/athletics/2020/03/13/caster-semenya-switches-200m-bid-qualify-tokyo-olympics/> (accessed October 20, 2020).

II. Privacy and Dignity

I'm suffering because of this regulation. I'm an example of the harm.

Athletes of the future will be affected by these rules.

—J.G., athlete, August 7, 2019

As the UN High Commissioner on Human Rights noted in a 2020 report, “History demonstrates that, because these regulations are applied in hundreds of countries, among many actors, it is impossible to guarantee privacy.”⁸⁶ The World Athletics regulations violate an individual’s right to privacy in multiple ways:

- Regulations that call for scrutiny of women’s naturally occurring hormone levels—and, by extension and in practice, their bodies—for signs of perceived masculinity due to testosterone are a form of judgment on athletes according to narrow norms of femininity and result in abusive questioning of women’s sex and gender identity.
- The processes involved in detecting and examining an athlete’s sex characteristics, and assessing her degree of “virilization,” are inherently subjective and degrading. They mandate arbitrary scrutiny of women’s sex characteristics and gender presentation, compromise women’s privacy and confidentiality, mandate invasive and degrading medical examinations, and require medical interventions not intended for the health benefit for the women targeted.
- Regulations effectively coerce athletes into medical testing that has no health benefit and has potential harms, including to the individual’s career and physical and emotional well-being.⁸⁷
- The regulations can reveal any woman investigated as having a variation in their sex characteristics.
- Implementing the regulations even just in international competitions can reveal women who have been targeted. For example, if an athlete competes in a restricted event at the national level and succeeds, but then does not compete in that event internationally, it may be revealed that she was targeted under the regulations and

⁸⁶ OHCHR, “Intersection of Race and Gender Discrimination in Sport,” A/HRC/44/26, <https://undocs.org/en/A/HRC/44/26>.

⁸⁷ Fenichel et. al., “Molecular Diagnosis of 5 α -Reductase Deficiency in 4 Elite Young Female Athletes Through Hormonal Screening for Hyperandrogenism,” *Journal of Clinical Endocrinological Metabolism*; Jordan-Young et al., “Sex, Health, and Athletes,” *British Medical Journal*.

ruled ineligible, or that she chose to not compete internationally because of the risks to her privacy.

- Throughout their history, the regulations have enforced gender stereotypes. The 2011 version of the regulations read: “The individuals concerned often display masculine traits ... in relation to their fellow female competitors.” The regulations encouraged scrutiny of women’s voices, breasts, and hair to assess their possible relation to the regulation. When Indian sprinter Dutee Chand challenged the regulations at CAS in 2014, testimony revealed rumors about gender-stereotyped behavior aroused initial suspicion about Chand and led to her being investigated, tested, and ruled ineligible.⁸⁸

Dr. Arun Mendiratta, chair of the Athletics Federation of India Medical Commission, testified at CAS in Chand’s case. In the court’s decision, the panel of arbitrators wrote:

[F]ollowing the National Inter-State Athletics Championships in June 2014, the President of the AFI told Dr Mendiratta that during a recent visit to a [Sports Authority of India] training camp, “several female athletes had expressed concern to him that the Athlete appeared to be very masculine in her physique, and queried whether she should be allowed to compete in the female category.” Subsequently, during the Junior Athletics Championships in Taipei between 12-15 June 2014, officials from the Asian Athletics Federation and some national coaches “informally observed about the Athlete’s stride and musculature” and questioned her right to participate in female events.⁸⁹

Athletes told Human Rights Watch that rumors fueled by the regulations were ruinous for them. For example, one runner said that before the rumors of her having high testosterone were mentioned in the media, people in her community and at athletics meets started asking questions about her body.⁹⁰

⁸⁸ *Dutee Chand v. The Athletics Federation of India and the International Association of Athletics Federations*, CAS 2014/A/3759, Interim Arbitral Award, 2014, https://www.doping.nl/media/kb/3317/CAS%202014_A_3759%20Dutee%20Chand%20vs.%20AFI%20%26%20IAAF%20%28S%29.pdf.

⁸⁹ *Ibid.*

⁹⁰ Human Rights Watch interview with C.M., November 12, 2019.

The processes involved in detecting and examining an athlete's sex characteristics, and assessing her degree of "virilization," are inherently subjective and degrading.

The mandated exams, tests, and procedures are medically unnecessary and have no therapeutic value for the individual. By enforcing these regulations, World Athletics effectively coerces women athletes into medical testing and treatment that have no health purpose or benefit. All of the athletes Human Rights Watch interviewed said they felt healthy and did not need medical intervention. Physicians affiliated with World Athletics have written that the athletes they have examined and for whom they have recommended interventions under the regulations are healthy and do not need the interventions.⁹¹ Athletes targeted by the regulations did not view their sex traits as being a health problem.

The regulations' stipulations are contradictory in many ways. Most obviously is that although the World Athletics regulations say they assure confidentiality of the athletes concerned, the policy states that women with high testosterone can compete in the male category or a non-existent "intersex category."

This suggestion clearly violates the policy's own alleged confidentiality protections. A woman's placement in the male category, or hypothetical intersex category, would constitute an immediate de facto disclosure of her hormone levels, and possibly other private anatomical characteristics. Moreover, it is insulting and degrading to exclude women from a category where they belong, and instead involuntarily place them in a male category or a non-existent intersex category.

In addition to this third competition category not existing, in naming it the "intersex category," World Athletics introduces a problematic and inaccurate understanding of "intersex" as a third sex or gender category, a construct activists have repeatedly opposed.⁹² Rather, the label "intersex" refers to a range of variations in sex characteristics

⁹¹ Fenichel et. al., "Molecular Diagnosis of 5 α -Reductase Deficiency in 4 Elite Young Female Athletes Through Hormonal Screening for Hyperandrogenism," *Journal of Clinical Endocrinological Metabolism*.

⁹² See for example, "Darlington Statement: Joint Consensus Statement from the Intersex Community Retreat in Darlington, March 2017," March 10, 2017, <http://darlington.org.au/statement> (accessed October 30, 2020); "Statement of San Jose de Costa Rica," Intersex Day, March 30, 2018, <https://intersexday.org/en/san-jose-costa-rica-statement/#:~:text=Intersex%20persons%20and%20those%20with,the%20diversity%20of%20our%20voices> (accessed October 30, 2020); "Malta Declaration," Organisation Intersex International Europe, December 1, 2013, <https://oii-europe.org/malta-declaration> (accessed October 30, 2020).

and does not index a third sex or gender. Indeed, the majority of people born with intersex variations are cisgender, identifying with the gender assigned at birth.

The situation is similar for women who choose to drop out of sport. The same negative outcome of increased public scrutiny and stigma, including associated rumors and pejorative media enquiry, has already occurred for women who dropped out of sport due to the IAAF 2018 DSD regulations and its predecessors.⁹³ As one athlete explained regarding the scrutiny she faced:

It made [name of another athlete] lose hope in athletics. And even those who are there, they just retire. They don't shift [to another event] because shifting is a headache, it's not something easy.⁹⁴

For some athletes Human Rights Watch interviewed, their encounter with the doctor who performed the testosterone test was their first time visiting a medical professional. Some were deeply confused by the revelation that they had testosterone levels above the World Athletics threshold.

The behavior of World Athletics in the public debate and legal proceedings over these regulations has intensified the degradation and stigma the regulations create. In advance of Semenya's trial at the Court of Arbitration for Sport, for example, files obtained by the *Times*, a newspaper in the UK, indicated that the World Athletics legal team intended to argue that Semenya was a "biological male."⁹⁵ This appeared to be a deliberate attempt to conflate Semenya with transgender women. World Athletics lawyers denied the claim at the time, but subsequent public statements revealed that they did indeed argue that

⁹³ "DSD Athlete Seyni Banned from 400m," *Sydney Morning Herald*, October 1, 2019, <https://www.smh.com.au/sport/dsd-athlete-seyni-banned-from-400m-20191001-p52wq1.html> (accessed October 30, 2020).

⁹⁴ Human Rights Watch interview with C.M., November 12, 2019.

⁹⁵ Martyn Ziegler, "Caster Semenya: Olympic Champion is 'Biological Male,' IAAF Lawyers will Argue," *Times*, February 13, 2019, <https://www.thetimes.co.uk/article/caster-semenya-olympic-champion-is-biological-male-World-Athletics-lawyers-will-argue-n52dsmsnv> (accessed October 30, 2020).

women targeted under the regulation were “biological males,” a claim widely and often uncritically repeated in the worldwide press.⁹⁶

In a 2019 interview with French journal *Sciences et Avenirs*, Dr. Stéphane Bermon, World Athletics medical consultant, argued:

If you have a high testosterone level and you are socially accepted as a woman and want to ‘look like’ a woman and compete with women, the treatments (e.g., oral contraception) that affirm your female gender are the standard of care for you.

Bermon concluded that in cases where women who do not want to lower their testosterone to compete in the female category, “one must ask questions (a) about her true sexual identity, (b) about possible secondary benefits to maintain such as her high testosterone levels.”⁹⁷

When World Athletics first revealed these regulations in 2011 it was under several rationales, including that higher endogenous testosterone conferred a performance advantage and also that lowering testosterone to comply with the regulations supported the health of the athletes.⁹⁸ As the scientific rationale and claims of medical beneficence have come under increasing scrutiny (including claims of significant errors and fraud and that the interventions cause medical harm), World Athletics has turned to more pernicious arguments designed to cast suspicion on whether the women who fall under the regulation are really women.

⁹⁶ For example, in para. 292 of the CAS judgment: “The IAAF states that unlike in *Chand*, the present case ‘is not about biological females and how their bodies respond to testosterone; it is about biological males with 5-ARD (and other 46 XY DSDs), how their bodies respond to testosterone, and the performance advantages of that response when they compete against biological females’” *Mokgadi Caster Semenya v. International Association of Athletics Federations and Athletics South Africa v. International Association of Athletics Federations*, CAS 2018/0/5794 and CAS 2018/0/5798, Interim Arbitral Award, 2018, https://www.tas-cas.org/fileadmin/user_upload/CAS_Award_-_redacted_-_Semenya_ASA_IAAF.pdf (accessed October 30, 2020). See also Associated Press, “Track Officials Called Caster Semenya ‘Biologically Male,’ Newly Released Documents Show,” *New York Times*, June 18, 2019, <https://www.nytimes.com/2019/06/18/sports/track-officials-called-caster-semenya-biologically-male-newly-released-documents-show.html> (accessed October 30, 2020).

⁹⁷ Mulot, “Athletism: ‘If You Want to Compete in the Feminine Category, then You Must not Oppose a Treatment,’” *Sciences Et Avenirs*, https://www.sciencesetavenir.fr/sante/athetism-if-you-want-to-compete-in-the-feminine-category-then-you-must-not-oppose-a-treatment_134846.

⁹⁸ IAAF, “IAAF Regulation Governing Eligibility of Females with Hyperandrogenism to Compete in Women’s Competition,” <https://www.sportsintegrityinitiative.com/wp-content/uploads/2016/02/IAAF-Regulations-Governing-Eligibility-of-Females-with-Hyperandrogenism-to-Compete-in-Women%E2%80%99s-Competition-In-force-as-from-1st-May-2011-6.pdf>.

First, the regulations, since World Athletics revised them in 2019, exclude women with polycystic ovarian syndrome (PCOS) and congenital adrenal hyperplasia (CAH), even when their testosterone levels exceed the threshold. World Athletics maintains these exemptions even though it has claimed they derive “advantage” from higher testosterone. The amendments have narrowed the regulation’s focus only to women with sex-atypical chromosomes and gonads.⁹⁹ Such assertions support two damaging myths: they imply that the targeted women athletes are not “really” women while women with PCOS and CAH are somehow, by contrast, legitimate women or blameless for their condition; and they suggest that these regulations differ from decades of sex testing regulations given their focus aspects of sex biology over testosterone, per se.

Second, World Athletics has argued that any woman would want these supposedly feminizing interventions. Responding to the World Medical Association’s 2018 critique of the regulations, which noted the harms inherent in these interventions, World Athletics claimed that the changes wrought by lowering women’s testosterone, among them reduced muscle and increased fat are “gender-affirming” and “change [a woman’s] body to better reflect their chosen gender.”¹⁰⁰ The implication is that any woman who refuses these interventions is not really a woman. This ignores and downplays that women are refusing the interventions because they are not medically indicated, because they are concerned about the significant negative health effects, as well as negative effects on performance, and that the only reason they would be undergoing the intervention is to comply with the regulations. It also ignores other reasons a woman might reject medical interventions, including religious beliefs, a lack of interest in molding themselves to comply with stereotypical views of “femininity,” a mistrust of the medical professionals involved, or simply a preference to avoid undergoing non-essential treatment.

Third, for women athletes with atypical testosterone levels, the process of undergoing medical examinations (in some cases, as the regulations stipulate, repeatedly) can be humiliating. Public involuntary disclosure of a woman’s atypical sex characteristics also

⁹⁹ World Athletics, “World Athletics Publishes Briefing Notes and Q&A on Female Eligibility Regulations,” May 7, 2019, <https://www.worldathletics.org/news/press-release/questions-answers-World-Athletics-female-eligibility-reg> (accessed October 30, 2020).

¹⁰⁰ “IAAF Letter to the World Medical Association,” World Athletics press release, May 7 2019, <https://www.World-Athletics.org/news/press-release/World-Athletics-letter-wma> (accessed October 30, 2020).

has implications for her safety. Accounts documented in this report expose the societal discrimination that can come with public exposure of one's atypical sex characteristics.

The combination of public disclosure and poor communication directly with the affected athletes can mean women are left to handle trauma, psychological harm, and deep questions about their own body and identity with little information and no support.¹⁰¹

For example, one athlete Human Rights Watch interviewed who had been tested and disqualified from competition, explained:

I questioned myself because there was never any information or results from the process. I don't even know my testosterone level, just that it's above 5 [nmol/L]. I didn't understand; I didn't get to see the paper with the numbers.¹⁰²

Another athlete who had been tested and disqualified explained:

I wanted to know. I wanted to know the results. It is good to know yourself. I wanted to know who am I? Why are they testing me? They're not testing other girls... I wanted to know why they have taken me to the hospital, removing the clothes. I wanted to know, but they did not give me that answer. So during that time I went to school, I did not perform well. I wanted to know who I am."¹⁰³

Test Results Exposed

In perhaps the most egregious disclosure of private medical information under the modern sex testing regulations, a 2013 article in the *Journal of Clinical Endocrinology and Metabolism*, Dr. Patrick Fenichel and colleagues documented the results of medical

¹⁰¹ "[I]t will be appreciated that this practice may have devastating effects on unsuspecting athletes. As in previous years, those who become subject to investigation express little doubt about their femininity and/or womanhood. The discovery and diagnosis of a DSD will likely come as a severe shock, and the potential for harm is not a trivial matter." Sönksen et al., "Medical and Ethical Concerns Regarding Women with Hyperandrogenism and Elite Sport," *Journal of Clinical Endocrinology and Metabolism*.

¹⁰² Human Rights Watch interview with P.H., July 16, 2019.

¹⁰³ Human Rights Watch interview with K.N., July 15, 2019.

examinations and interventions performed on four elite women athletes investigated under the regulations.¹⁰⁴

The Fenichel Paper

In a 2013 article in the *Journal of Clinical Endocrinology and Metabolism*, Dr. Patrick Fenichel and other WA-affiliated physicians and policymakers documented the investigation of four elite women athletes from the Global South whom they examined at a hospital in Nice, France, the year prior.¹⁰⁵

The paper, which is at the center of a French government investigation discussed later in this report, describes elite women athletes who have 5-alpha reductase deficiency (5-ard), which can cause higher than typical natural testosterone (and one of the regulated diagnoses). The article reveals the women's ages; familial relations; and information about their bodies and anatomies, including their height and weight, degree of muscularity, karyotype, internal reproductive organs, hormone profiles, pubic hair patterns, clitoral size, vaginal depth, breast size, and menstrual history. It also states that the team of physicians interviewed the women about their gender identities, sexual behavior, and interest in child-bearing.

It describes how the gonadectomies they underwent were not medically necessary, in that there was no health risk without surgery, and were recommended solely to make them eligible for competition in the female category:

Although leaving male gonads in patients [with this condition] carries no health risk, each athlete was informed that gonadectomy would most likely decrease their performance level but allow them to continue elite sport in the female category.¹⁰⁶

¹⁰⁴ Fenichel et. al., "Molecular Diagnosis of 5 α -Reductase Deficiency in 4 Elite Young Female Athletes Through Hormonal Screening for Hyperandrogenism," *Journal of Clinical Endocrinological Metabolism*.

¹⁰⁵ Ibid.

¹⁰⁶ Ibid.

The doctors list the procedures they proposed to the women, which included the hormone-altering procedure “bilateral gonadectomy,” and a number of others that are neither medically necessary (no health benefit), nor required by athletics regulations:

We thus proposed a partial clitoridectomy with a bilateral gonadectomy, followed by a deferred feminizing vaginoplasty and estrogen replacement therapy, to which the 4 athletes agreed after informed consent on surgical and medical procedures.¹⁰⁷

In a 2015 article titled “Medical and Ethical Concerns Regarding Women with Hyperandrogenism and Elite Sport,” a group of medical and legal scholars concluded:

The publication of the athletes’ confidential medical results also contradicts existing protocols surrounding the procedures, despite changes in this area having been touted as significant improvements to the new policies. Ethical approval for this retrospective clinical study was not provided, and the decision to include detailed information relative to the participation of four young women athletes renders them additionally vulnerable and potentially identifiable in the context of elite women’s competition. Given that their eligibility to compete was clearly dependent upon agreeing to the procedures, the line between consent and coercion is blurred in this instance. The reported medical decisions rendered violate ethical standards of clinical practice and constitute a biomedical violence against their persons.¹⁰⁸

Media reports indicate that some World Athletics officials had serious ethical concerns about surgical procedures described in the paper, as well as breaches of patient confidentiality given the extensive private details published in the article.

¹⁰⁷ Ibid.

¹⁰⁸ Sönksen et al., “Medical and Ethical Concerns Regarding Women with Hyperandrogenism and Elite Sport,” *Journal of Clinical Endocrinology and Metabolism*.

According to a 2013 report in *De Volkskrant*, a Dutch newspaper, Martin Ritzén, a pediatric endocrinologist specializing in intersex care who was involved in creating the World Athletics regulations, was “furious” about the genital surgeries, which he said were “against the rules of World Athletics.”¹⁰⁹

The same article quoted an unnamed World Athletics official as saying the Fenichel paper was “a flagrant violation of professional secrecy” because it published so many patient details. A kinesiologist documented an unnamed World Athletics affiliate’s reaction to the Fenichel paper in 2013, reporting that the official called the paper “unfortunate” and remarked in reference to the patients, “I hope that no media will try to identify them.”¹¹⁰

The identities of the four women featured in the Fenichel paper were unknown to the wider public until October 2019. Then, a German television station aired a documentary featuring the stories of two women runners who underwent gonadectomies as condition of their continued participation in women’s athletics. The film featured Annet Negesa, as well as another unnamed athlete.

Public and Media Scrutiny

While the World Athletics regulations mention confidentiality protections, and World Athletics officials say they want to protect women’s privacy, officials and affiliated parties disclosing private information has driven the public debate around the regulations. Indeed, public awareness of the two most high-profile cases to date—Caster Semenya and Dutee Chand—began because individuals leaked private information.

World Athletics officials publicly confirmed the investigation into Caster Semenya to reporters prior to the women’s 800 meter final, in which Semenya was competing, at the

¹⁰⁹ Ellen de Visser, “Topatletes Laten Teelballen Verwijderen Op Last van IAAF,” *De Volkskrant*, May 25, 2013, <http://www.volkskrant.nl/wetenschap/topatletes-laten-teelballenverwijderen-op-last-van-World-Athletics~a3446744> (accessed October 30, 2020), as cited in Karkazis and Jordan-Young, “The Powers of Testosterone: Obscuring Race and Regional Bias in the Regulation of Women Athletes,” *Feminist Formations*.

¹¹⁰ L. Dawn Bavington, “Regulating Hyperandrogenism in Female Athletes: The History and Current Politics of Sex-Control in Women’s Sport,” (Ph.D. diss., University of Otago, 2016), as cited in Karkazis and Jordan-Young, “The Powers of Testosterone: Obscuring Race and Regional Bias in the Regulation of Women Athletes,” *Feminist Formations*.

2009 Berlin World Championships, fueling headlines around the world.¹¹¹ In 2014, newspaper articles speculating about a “gender test” on Dutee Chand leaked her private information to the world. For example, the *Times of India* reported: “Young sprinter Dutee Chand’s last minute exclusion from the Indian athletics team for the upcoming Glasgow Commonwealth Games led to speculation over the outcome of the gender test she reportedly underwent recently in Bangalore.”¹¹²

Anyone can raise doubts about an athlete to the World Athletics medical manager, a practice that exposes all women athletes to sustained and arbitrary surveillance. In other words, individuals could be targeted for being perceived as too “masculine,” a subjective and arbitrary criterion, which can result in leaks of private health information or rumors that trigger investigation.

Within days of the Court of Arbitration for Sport issuing its ruling upholding the IAAF regulations in May 2019, national athletics federation officials ruled several women athletes ineligible for competition and shared their names with media.¹¹³ Months later, in the lead-up to the 2019 World Championships in Qatar, officials from a national athletics federation revealed two other athletes’ names to media under the auspices of enforcing the World Athletics regulations.¹¹⁴

Human Rights Watch interviewed several athletes whose names were leaked to media as a result of the implementation of World Athletics sex testing regulations. Local media published the name of C.M., a runner, in stories about athletes being ruled ineligible to

¹¹¹ As reported by the *New York Times*: “[Davies] said the I.A.A.F. had decided to confirm the existence of the investigation [into Semenya] only when asked about it in Berlin by reporters. ‘The choice is that you lie, which we don’t like to do,’ said Davies, acknowledging that it was unfortunate that Semenya’s privacy had been violated.” Christopher Clarey, “Gender Test After a Gold-Medal Finish,” *New York Times*, August 19, 2009, <https://www.nytimes.com/2009/08/20/sports/20runner.html> (accessed October 30, 2020); Mike Hurst, “Caster has Elevated Testosterone,” *Daily Telegraph*, August 26, 2009, <https://www.dailytelegraph.com.au/z-redesign/archive-sport/caster-has-elevated-testosterone/news-story/doa421docf3438f3coaca1d3c4ee27fb?sv=cdac421dfd8a948614c783f52abb9aa2> (accessed October 30, 2020); Mike Hurst, “Caster Semenya has Male Sex Organs and No Womb or Ovaries,” *Daily Telegraph*, September 11, 2009, https://www.runnerspace.com/news.php?news_id=7265 (accessed October 30, 2020).

¹¹² “Speculation Over Dutee’s Gender Test After AFI Axe,” *Times of India*, July 15, 2014, <https://timesofindia.indiatimes.com/commonwealth-games-2014/india-at-glasgow/Speculation-over-Dutees-gender-test-after-AFI-axe/articleshow/38437118.cms> (accessed October 29, 2020).

¹¹³ AFP, “Kenya Drops Two Female Sprinters Over Testosterone Levels,” *East African*, May 10, 2019, <https://www.theeastafrican.co.ke/sports/Kenya-drops-two-female-sprinters-over-testosterone-levels/4494642-5109608-id84g9z/index.html> (accessed October 30, 2020).

¹¹⁴ On file with Human Rights Watch. Media reports not cited here to protect identities of athletes.

compete because they refused to submit to testosterone tests. “[T]hat’s a personal issue,” she said.¹¹⁵ C.M. said officials had not contacted her for a test around the time of the leak. She had undergone blood tests with doping officials two years prior, but never knew the results. The media coverage that focused on her and another athlete’s refusal to submit to testing is an example of how athletes suspected under the regulations can be exposed and potentially investigated, even based on false information, or if they decline a medically unnecessary test.

Some women said they felt blindsided by public exposure of private information. P.H. explained how the physician who took her blood for a testosterone test told her he would only share the results with her. “He had promised me it would be a secret and then it was public all of the sudden,” she said.¹¹⁶ “I didn’t want anything like that to happen again,” she explained, adding the experience has led her to avoid medical care altogether.

Others said they were confused because they felt the information about their bodies gleaned from the tests and exams had not been shared or sufficiently explained to them in the first place. This was particularly acute for women who experienced cruel, inhuman, and degrading treatment and clear violations of the right to health as part of the testing process.

¹¹⁵ Human Rights Watch interview with C.M., November 12, 2019.

¹¹⁶ Human Rights Watch interview with P.H., July 16, 2019.

III. The Right to Health

So for [World Athletics] to say that these athletes should take drugs to reduce their [testosterone] levels, which can create other side effects, it's horrendous. That's almost in my simplistic way of looking at it, that's almost a doping issue in itself. Forced doping—systemic doping.

—J.Q., an elite coach, November 18, 2019

The 2019 World Athletics DSD regulations are part of a history of widespread institutional and medical abuse of people with variations of sex characteristics. The paradigm of conducting medically unnecessary “normalizing” interventions on people with intersex traits originated in the Global North. Since being popularized in the 1960s in the United States, these operations have become the default care paradigm in industrialized medicine around the world. In some parts of the Global South, where infant surgeries are less available and less commonly carried out, people born with variations in their sex characteristics are often raised without interventions.

For the last three decades, scholars, human rights entities, intersex people, and scientists have critiqued the use of medically unnecessary “normalizing” surgeries conducted on children born with variations in their sex characteristics (or intersex variations). These include procedures to reduce the clitoris size, change the size and shape of the vagina, and remove gonads. The paradigm of non-consensual “normalizing” procedures is unscientific, unethical, and in violation of various domestic laws and international human rights law.

Since 2011, for example, intergovernmental bodies such as the Committee on Bioethics of the Council of Europe,¹¹⁷ and United Nations treaty bodies—as well as NGOs including Physicians for Human Rights¹¹⁸ and Amnesty International¹¹⁹—have critiqued such practices

¹¹⁷ The Committee on Bioethics of the Council of Europe, “The Rights of Children in Biomedicine: Challenges Posed by Scientific Advances and Uncertainties,” Council of Europe, January 16, 2017, <http://www.coe.int/en/web/children/-/study-on-the-rights-of-children-in-biomedicine> (accessed November 5, 2020).

¹¹⁸ “Intersex Surgery Must Stop,” Physicians for Human Rights press release, October 20, 2017, <http://physiciansforhumanrights.org/press/press-releases/intersex-surgery-must-stop.html> (accessed October 30, 2020).

¹¹⁹ Amnesty International, “First, Do No Harm: Ensuring the Rights of Children Born Intersex,” May 2017, <https://www.amnesty.org/en/latest/campaigns/2017/05/intersex-rights> (accessed October 30, 2020).

on at least 51 occasions.¹²⁰ In a 2019 resolution, the European Parliament noted the history of human rights violations that people with intersex variations have faced, and stated that it “strongly condemns sex-normalizing treatments and surgery.”¹²¹

Policies from sport governing bodies that encourage the discriminatory treatment of women athletes with variations in their sex characteristics in sporting events similarly run afoul of fundamental rights protections, and encourage physicians, governments, and domestic sporting authorities to participate in human rights violations against these women.

Interventions Not Medically Necessary, Carry Risk of Harm

All athletes whom Human Rights Watch interviewed said they felt healthy and did not need medical intervention.

Physicians affiliated with World Athletics have written that the athletes they have examined and for whom they have recommended interventions under the regulations are healthy and do not need the interventions.¹²² The 2013 Fenichel paper itself documented that the interventions proposed and carried out on those four women were medically unnecessary.¹²³ Multiple other analyses have confirmed this.¹²⁴

According to medical practice standards, testosterone should not be lowered in the absence of symptoms, and interventions to lower testosterone should only be carried out at the initiation of the woman.¹²⁵ The women athletes interviewed for this report did not seek medical care for this trait unless directed to do so by sport governing body representatives, managers, or coaches.

As was revealed in Dutee Chand’s case at the Court of Arbitration for Sport, some athletes are instructed to undergo unnecessary tests under false pretenses. In Chand’s case, she was instructed to undergo a “high performance test” that included an ultrasound, an exam unrelated to her athletic performance or health (she never complained of abdominal pains, which a witness confirmed), but rather one aimed at assessing her internal sex characteristics without her knowledge or consent.¹²⁶

¹²⁰ United Nations Committee on the Rights of the Child, “Concluding Observations on the Combined Fourth and Fifth Periodic Reports of Chile,” CRC/C/CHL/CO/4-5, October 30, 2015, <https://undocs.org/en/CRC/C/CHL/CO/4-5> (accessed October 30, 2020); United Nations Committee on the Rights of the Child, “Concluding Observations on the Fifth Periodic Report of France,” CRC/C/FRA/CO/5, February 23, 2016, <https://undocs.org/CRC/C/FRA/CO/5> (accessed October 30, 2020); UN Committee on the Rights of the Child, “Concluding Observations on the Combined Third and Fourth Periodic Reports of Ireland,” CRC/C/IRL/CO/3-4, March 1, 2016, <https://undocs.org/en/CRC/C/IRL/CO/3-4> (accessed October 30, 2020); UN Committee on the Rights of the Child, “Concluding Observations on the Fifth Periodic Report of the United Kingdom of Great Britain and Northern Ireland,” CRC/C/GBR/CO/5, July 12, 2016, <https://undocs.org/CRC/C/GBR/CO/5> (accessed October 30, 2020); UN Committee on the Rights of the Child “Concluding Observations on the Third to Fifth Periodic Reports of Nepal,” CRC/C/NPL/CO/3-5, July 8, 2016, <https://undocs.org/en/crc/c/npl/co/3-5> (accessed October 30, 2020); UN Committee on the Rights of the Child, “Concluding Observations on the Fifth Periodic Report of Denmark,” CRC/C/DNK/CO/5, October 26, 2017, <https://undocs.org/en/CRC/C/DNK/CO/5> (accessed October 30, 2020); UN Committee on the Rights of the Child, “Concluding Observations on the Combined Fifth and Sixth Periodic Reports of Spain,” CRC/C/ESP/CO/5-6, March 5, 2018, <https://undocs.org/CRC/C/ESP/CO/5-6> (accessed October 30, 2020); UN Committee on the Rights of the Child, “Concluding Observations on the Combined Fifth and Sixth Periodic Reports of Argentina,” CRC/C/ARG/CO/5-6, October 1, 2018, <https://undocs.org/CRC/C/ARG/CO/5-6> (accessed October 30, 2020); UN Committee on the Rights of the Child, “Concluding Observations on the Combined Fifth and Sixth Reports of Belgium,” CRC/C/BEL/CO/5-6, February 28, 2019, <https://undocs.org/en/CRC/C/BEL/CO/5-6> (accessed October 30, 2020); UN Committee on the Rights of the Child, “Concluding Observations on the Combined Fifth and Sixth Periodic Reports of Italy,” CRC/C/ITA/CO/5-6, February 28, 2019, <https://undocs.org/CRC/C/ITA/CO/5-6> (accessed October 30, 2020); UN Committee on the Rights of the Child “Concluding Observations on the Combined Third to Sixth Periodic Reports of Malta,” CRC/C/MLT/CO/3-6, June 26, 2019, <https://undocs.org/CRC/C/MLT/CO/3-6> (accessed October 30, 2020); UN Committee on the Rights of the Child, “Concluding Observations on the Combined Fifth and Sixth Periodic Reports of Portugal,” CRC/C/PRT/CO/5-6, December 9, 2019, <https://undocs.org/CRC/C/PRT/CO/5-6> (accessed October 30, 2020); UN Committee on the Rights of the Child, “Concluding Observations on the Combined Fifth and Sixth Periodic Reports of Austria,” CRC/C/AUT/CO/5-6, March 6, 2020, <https://undocs.org/en/CRC/C/AUT/CO/5-6> (accessed October 30, 2020); United Nations Committee on the Elimination of Discrimination against Women, “Concluding Observations on the Sixth Periodic Report of the Netherlands,” CEDAW/C/NLD/CO/6, November 24, 2016, <https://undocs.org/CEDAW/C/NLD/CO/6> (accessed October 30, 2020); United Nations Committee on the Elimination of Discrimination against Women, “Concluding Observations on the Combined Fourth and Fifth Periodic Reports of Switzerland,” CEDAW/C/CHE/CO/4-5, November 25, 2016, <https://undocs.org/en/CEDAW/C/CHE/CO/4-5> (accessed October 30, 2020); United Nations Committee on the Rights of Persons with Disabilities, “Concluding Observations on the Initial Report of Chile,” CRPD/C/CHL/CO/1, April 13, 2016, <https://undocs.org/en/CRPD/C/CHL/CO/1> (accessed October 30, 2020); United Nations Committee on the Rights of Persons with Disabilities, “Concluding Observations on the Initial Report of Italy,” CRPD/C/ITA/CO/1, October 6, 2016, <https://undocs.org/en/CRPD/C/ITA/CO/1> (accessed October 30, 2020); United Nations Committee on the Rights of Persons with Disabilities, “Concluding Observations on the Initial Report of India,” CRPD/C/IND/CO/1, October 29, 2019, <https://undocs.org/CRPD/C/IND/CO/1> (accessed October 30, 2020); United Nations Committee on Economic, Social and Cultural Rights, “Concluding Observations on the Fifth Periodic Report of Australia,” E/C.12/AUS/CO/5, July 11, 2017, <https://undocs.org/en/E/C.12/AUS/CO/5> (accessed October 30, 2020); CESCR, “Concluding Observations on the Sixth Periodic Report of the Netherlands,” E/C.12/NLD/CO/6, July 6, 2017, <https://undocs.org/E/C.12/NLD/CO/6> (accessed October 30, 2020); The UN Committee against Torture, which reviews state compliance with the Convention against Torture, has referenced several articles in its analysis of intersex surgeries. These are: article 2 (legislative, administrative, judicial or other measures to prevent acts of torture), article 10 (education and information regarding the prohibition against torture included in the training of...medical personnel), article 12 (systematic review [of] methods and practices with a view to preventing any cases of torture), article 14 (legal redress for torture) and article 16 (prevention of acts of cruel, inhuman or degrading treatment) in its analysis of intersex surgeries. Some patterns emerge in the committee’s critique of state practices and recommendations for action. CAT, “Concluding Observations of the Committee Against Torture: Germany,” CAT/C/DEU/CO/5, December 12, 2011, <https://undocs.org/en/CAT/C/DEU/CO/5> (accessed October 30, 2020); CAT, “Concluding Observations on the Seventh Periodic Report of Switzerland,” CAT/C/CHE/CO/7, September 7, 2015, <https://undocs.org/CAT/C/CHE/CO/7> (accessed October 30, 2020); CAT, “Concluding Observations on the Sixth Periodic Report of Austria,” CAT/C/AUT/CO/6, January 27, 2016, <https://undocs.org/CAT/C/AUT/CO/6> (accessed October 30, 2020); CAT, “Concluding Observations on the Fifth Periodic Report of China with Respect to Hong Kong, China,” CAT/C/CHN-HKG/CO/5, February 3, 2016, <https://undocs.org/en/CAT/C/CHN-HKG/CO/5> (accessed October 30, 2020); CAT, “Concluding Observations on the Combined Sixth and Seventh Periodic Reports of Denmark,” CAT/C/DNK/CO/6-7, February 4, 2016,

In addition, the methods to lower naturally occurring testosterone can have significant short and long-term health impacts. There are two methods for lowering testosterone:

1) *Pharmacology*

Including taking medication, such as oral contraceptives, which cause side effects in most women, including diuretic effects that cause excessive thirst and urination, and electrolyte imbalances, metabolism problems, and headache, fatigue, and nausea.¹²⁷

2) *Surgery*

For women whose high testosterone results from an intersex variation (or DSD), gonadectomy (surgical removal of the testes) may be used to lower testosterone. Historically, gonadectomy was the default intervention because it was assumed that internal testes carried high cancer risk. However, further examination of the medical evidence revealed that cancer risk is highly variable by specific condition, and weighed against the impacts of removing healthy gonadal tissue, gonadectomy is not advised in many situations.¹²⁸

<https://undocs.org/CAT/C/DNK/CO/6-7> (accessed October 30, 2020); CAT, “Concluding Observations on the Seventh Periodic Report of France,” CAT/C/FRA/CO/7, June 10, 2016, <https://undocs.org/CAT/C/FRA/CO/7> (accessed October 30, 2020).

¹²¹ European Parliament, “The Rights of Intersex People,” February 14, 2019, (2018/2878(RSP)), http://www.europarl.europa.eu/doceo/document/TA-8-2019-0128_EN.html (accessed October 30, 2020).

¹²² Fenichel et. al., “Molecular Diagnosis of 5 α -Reductase Deficiency in 4 Elite Young Female Athletes Through Hormonal Screening for Hyperandrogenism,” *Journal of Clinical Endocrinological Metabolism*.

¹²³ “Although leaving male gonads in SDRD5A2 patients carries no health risk, each athlete was informed that gonadectomy would most likely decrease their performance level but allow them to continue elite sport in the female category.” Fenichel et. al., “Molecular Diagnosis of 5 α -Reductase Deficiency in 4 Elite Young Female Athletes Through Hormonal Screening for Hyperandrogenism,” *Journal of Clinical Endocrinological Metabolism*.

¹²⁴ “In many cases, however, there is no clear health risk from higher than typical testosterone levels. Yet these policies strongly imply that treatment to lower testosterone levels is medically necessary.” Karkazis et al., “Out of Bounds?” *American Journal of Bioethics*.

¹²⁵ For example, the American College of Obstetricians and Gynecologists policy on “Screening and Management of the Hyperandrogenic Adolescent” says: “[T]reatment is indicated only when symptoms are distressing to the patient.” ACOG, “Screening and Management of the Hyperandrogenic Adolescent,” Committee Opinion No. 789, October 2019, <https://www.acog.org/Clinical-Guidance-and-Publications/Committee-Opinions/Committee-on-Adolescent-Health-Care/Screening-and-Management-of-the-Hyperandrogenic-Adolescent> (accessed October 30, 2020).

¹²⁶ *Dutee Chand v. The Athletics Federation of India and the International Association of Athletics Federations*, CAS 2014/A/3759, Interim Arbitral Award, 2014, https://www.doping.nl/media/kb/3317/CAS%202014_A_3759%20Dutee%20Chand%20ovs.%20AFI%20%26%20IAAF%20%28S%29.pdf, paras. 410-414.

¹²⁷ Jordan-Young et al., “Sex, Health, and Athletes,” *British Medical Journal*.

¹²⁸ Lutz Wunsch et al., “Patients with Disorders of Sex Development (DSD) at Risk of Gonadal Tumour Development: Management Based on Laparoscopic Biopsy and Molecular Diagnosis,” *BJU International* 2012, 110:E958-65, accessed October 30, 2020, doi:10.1111/j.1464-410X.2012.11181.x.

Gonadectomy (one of the surgeries carried out on the four women featured in the Fenichel paper) causes hypogonadism, or decreased function of the gonads. Symptoms of hypogonadism include decreases in bone and muscle strength, and increased risk of chronic weakness, depression, sleep disturbance, decreased libido, adverse effects on lipid profile, diabetes, and fatigue. These symptoms are particularly important for an athlete to consider when the surgery is irreversible and will require the woman being on lifelong hormone replacement therapy (which can be costly) and foregoing potential fertility options.¹²⁹ The American Association of Clinical Endocrinologists does not recommend gonadectomy for treating high testosterone.¹³⁰ The removal of gonads may sterilize women.

None of the athletes interviewed for this report independently sought tests to determine their testosterone levels. None of those who had been tested knew their actual testosterone level, just that they had been made ineligible to compete based on their level. None of the athletes indicated that they felt unhealthy or had symptoms that bothered them prior to the interventions.

Human Rights Watch asked J.Q., an elite coach who has worked with some women affected by sex testing regulations, whether he ever heard from targeted athletes that they were interested in medical interventions to lower their testosterone. “No. Absolutely no.... If I have a conversation with any of them, I’ll tell them, ‘In my opinion, it’s not an option that we should even look at,’” he said. “We can discuss it, sure, to highlight the dangers of it. But don’t play with nature, don’t play with what God gave you.”¹³¹

¹²⁹ Surgically removing gonads can amount to sterilization.

¹³⁰ American Association of Clinical Endocrinologists, “Medical Guidelines for Clinical Practice for the Diagnosis and Treatment of Hyperandrogenic Disorders,” *Endocrine Practice* 2001, 7:120-34, accessed October 30, 2020, doi:10.4158/EP.7.2.120.

¹³¹ Human Rights Watch interview with J.Q., November 18, 2019.

Compromised Medical Ethics

Medical personnel should not engage in acts of torture or other forms of cruel, inhuman, or degrading treatment.¹³² The World Athletics regulations significantly compromise medical ethics. This occurs primarily in two ways:

- 1) The procedures the regulations mandate or suggest to lower testosterone are unethical in that they are carried out based on compliance with the regulations, not medical need or patient desire, and bring significant risks.
- 2) The regulations put physicians in a compromised position of “dual loyalty” whereby physicians may have a conflict between their duties to their patients and their obligations to their employers. This implicates physicians, the athletics associations that hire them to implement the regulations, and governments in human rights violations.

As discussed above, responding specifically to the Fenichel paper, ethicists and physicians argued that because their eligibility was contingent upon the women’s agreeing to the medical interventions, the line between consent and coercion was substantially blurred.¹³³ Reacting to the 2019 regulations, political scientist Roger Pielke argued:

If [World Athletics] is going to stipulate that athletes with certain DSDs are eligible to compete only if they undergo unproven medical interventions, it should be required to prepare a human-study protocol, secure approval from an independent ethical-review board and have any subsequent research overseen and published. I doubt that any board would countenance such research, but the exercise would make it clear that the [World Athletics’] new requirements are ethically indefensible.¹³⁴

¹³² See, for example, World Medical Assembly, Declaration of Tokyo: Guidelines for Physicians Concerning Torture and other Cruel, Inhuman or Degrading Treatment or Punishment in Relation to Detention and Imprisonment, Adopted by the 29th World Medical Assembly, Tokyo, Japan, October 1975 and editorially revised by the 170th WMA Council Session, Divonne-les-Bains, France, May 2005 and the 173rd WMA Council Session, Divonne-les-Bains, France, May 2006, <https://www.wma.net/policies-post/wma-declaration-of-tokyo-guidelines-for-physicians-concerning-torture-and-other-cruel-inhuman-or-degrading-treatment-or-punishment-in-relation-to-detention-and-imprisonment> (accessed October 30, 2020). The declaration provides the following definition of torture: “For the purpose of this Declaration, torture is defined as the deliberate, systematic or wanton infliction of physical or mental suffering by one or more persons acting alone or on the orders of any authority, to force another person to yield information, to make a confession, or for any other reason.”

¹³³ Jordan-Young et al., “Sex, Health, and Athletes,” *British Medical Journal*.

¹³⁴ Roger Pielke Jr., “Caster Semenya Ruling: Sports Federation is Flouting Ethics Rules,” *Nature*, May 17, 2019, <https://www.nature.com/articles/d41586-019-01606-8> (accessed October 30, 2020).

In 2019, as the Court of Arbitration for Sport prepared its ruling in the case of Caster Semenya, the World Medical Association (WMA)—an international organization comprised of 114 national medical associations that develops consensus on high standards of medical ethics and professional competence—immediately called for World Athletics to rescind the regulations and for physicians to refuse to comply with them. WMA said that the regulations “constitute a flagrant discrimination based on the genetic variation of female athletes and are contrary to international medical ethics and human rights standards.”¹³⁵

According to WMA’s analysis:

The regulations would constrain the athletes concerned to take unjustified medication, not based on medical need, in order for them to be allowed to compete, and accordingly require physicians to prescribe such medication.

It is in general considered as unethical for physicians to prescribe treatment for excessive endogenous testosterone if the condition is not recognized as pathological. The WMA calls on physicians to oppose and refuse to perform any test or administer any treatment or medicine which is not in accordance with medical ethics, and which might be harmful to the athlete using it....¹³⁶

In a later statement, WMA leadership reiterated:

A medical treatment (with a few legal exceptions, which do not apply here) is only justified when there is a medical need. The mere existence of an intersex condition, without the person indicating suffering and expressing the desire for an adequate treatment, does not constitute a medical indication.¹³⁷

¹³⁵ “WMA Urges Physicians Not to Implement World Athletics Rules on Classifying Women Athletes,” World Medical Association press release, <https://www.wma.net/news-post/wma-urges-physicians-not-to-implement-World-Athletics-rules-on-classifying-women-athletes>.

¹³⁶ Ibid.

¹³⁷ “Physician Leaders Reaffirm Opposition to World Athletics Rules,” World Medical Association press release, May 15, 2019, <https://www.wma.net/news-post/physician-leaders-reaffirm-opposition-to-IAAF-rules> (accessed October 30, 2020).

Dual Loyalty

Dual loyalty refers to situations where physicians find themselves accountable to patients and to a third party, and where the obligations to the patient and third party conflict. In sport, it has been documented how physicians affiliated with sport governing bodies “align their opinions with those of the sports organizations, often in the face of significant scientific evidence to the contrary.”¹³⁸

According to the WMA medical ethics manual:

Third parties that demand physician loyalty include governments, employers (e.g., hospitals and managed healthcare organizations), insurers, military officers, police, prison officials and family members.¹³⁹

To illustrate the concept, the WMA puts physicians’ mandatory reporting of child abuse at one end of a spectrum, saying that “physicians should fulfil these requirements without hesitation.” At the other end of the spectrum, the WMA states there are:

...[R]equests or orders by the police or military to take part in practices that violate fundamental human rights, such as torture.

The WMA Declaration of Geneva, the modern equivalent of the Hippocratic Oath, asks physicians to pledge that “the health of my patient shall be my first consideration” and to provide medical services in “full technical and moral independence.”¹⁴⁰ The WMA instructs physicians to always resolve such conflicts in their patient’s favor, including when those conflicts involve physician affiliation with commercial entities.¹⁴¹

¹³⁸ Nancy M. P. King and Richard Robeson, “Athletes Are Guinea Pigs,” *American Journal of Bioethics* 2013, 13(10): 13-14, accessed October 30, 2020, doi:10.1080/15265161.2013.82812.

¹³⁹ World Medical Association, *Medical Ethics Manual*, 2015, https://www.wma.net/wp-content/uploads/2016/11/Ethics_manual_3rd_Nov2015_en_1x1.pdf (accessed October 30, 2020).

¹⁴⁰ World Medical Association, “Declaration of Geneva,” October 2017, <https://www.wma.net/policies-post/wma-declaration-of-geneva/> (accessed October 30, 2020).

¹⁴¹ World Medical Association, “WMA Statement Concerning the Relationship Between Physicians and Commercial Enterprises,” October 2009, <https://www.wma.net/policies-post/wma-statement-concerning-the-relationship-between-physicians-and-commercial-enterprises> (accessed October 30, 2020).

As a joint report on dual loyalty from Physicians for Human Rights and the School of Public Health and Primary Health Care University of Cape Town explained:

[V]iolations of human rights at the behest of the state by health professionals also take place in open societies, for example, in cases of institutionalized bias or discrimination against women, members of a particular ethnic or religious group, refugees and immigrants, or patients who are politically or socially stigmatized.¹⁴²

The report clarifies:

[E]ven in private doctor-patient encounters, health professionals can become complicit in violations by adhering to—and thus furthering—state health policies and practices that unjustly discriminate on the basis of race, sex, class, or other prohibited grounds.¹⁴³

See legal section for more on how dual loyalty is related to international human rights law.

Coercion

During the test, they just talked about [another athlete who had been tested]. They didn't say anything about an undue advantage. And they said they'd take away my medals like they did with the [other athlete's] medals. They said if I stop [competing] then they won't do anything. But if I continue, they'll take away everything.

—P.F., athlete who was sex tested and ruled ineligible, August 11, 2019

Sporting cultures are intensely hierarchical, and athletes often defer considerable authority to their federations, coaches, and managers. The coercion athletes experience under the regulations takes place in these already hierarchical contexts and is multifaceted, in some ways direct and in other ways more subtle. In accounts documented

¹⁴² Physicians for Human Rights and the School of Public Health and Primary Health Care, University of Cape Town, “Dual Loyalty and Human Rights in Health Professional Practice,” March 2003, <https://phr.org/wp-content/uploads/2003/03/dualloyalties-2002-report.pdf> (accessed October 30, 2020).

¹⁴³ Ibid.

in this report, women athletes were both coerced into medically unnecessary tests by being told it was a condition of their eligibility, and coerced into being evaluated by medical specialists who asked questions about their gender and sexuality, or coerced into undergoing interventions to lower their testosterone.

As documented in this report, sport is often a pathway out of poverty for athletes, and athletes can experience intense pressure to perform. Grooming is one of the ways in which abuse happens in sport. This hierarchical coach-athlete relationship leads to exploitation at the cost of the athletes' mental and physical health. History and policy scholars Nancy King and Richard Robeson argued:

Athletes should, in at least some circumstances, be viewed as vulnerable research subjects, akin to desperate patients. Competitive athletes are often encouraged to sacrifice long-term health benefits for short-term gains; cultural mythology about sports and high-stakes financial investments at the organizational level in team sports exercise great influence on individual athletes' range of choices.¹⁴⁴

If athletes are investigated under sex testing regulations, they are often given only partial information at the outset of a testing process or investigation, and they are then often presented with options for medical procedures without genuinely being given a choice.

The cases highlighted below illustrate the contexts in which implementation of sex testing regulations coerces athletes into violations of their own rights.

“D.B.”

In the early 2010s, following a 10 kilometer race in her home country in which she placed second, D.B. had a urine test for doping.¹⁴⁵ “I think that’s when things started,” she said.

¹⁴⁴ Nancy King and Richard Robeson, “Athlete or Guinea Pig? Sports and Enhancement Research,” *Studies in Ethics, Law, and Technology* 2007 1(1), accessed October 30, 2020, doi:10.2202/1941-6008.1006.

¹⁴⁵ As described in detail later in this report, the process of urine tests for doping itself involves an athlete exposing her genitals to an official so that the official can observe that the urine is exiting from the athlete’s body and not another source. In some cases, the physical trait of higher than typical testosterone in a woman corresponds with variations in her external genitalia. This means that for women with higher-than-typical natural testosterone who also have atypical external genitalia, routine doping tests expose them to bodily scrutiny.

“On that day, when I went for the test, I told [the athletics official] about [my body] because I thought if I didn’t tell her she might complain anyway,” D.B. said she disclosed some information about her body to the healthcare professional administering the test. The official responded: “Oh, your case is different so I need to contact [an athletics federation official].” She did, and the official ordered her to conduct the urine test.

In March 2014, the same official from her national athletics federation took D.B. to a hospital in the capital city. “She told me we should go to the hospital because of my issue—this thing of testosterone regulations,” D.B. told Human Rights Watch. “She didn’t ask me any questions, she just said we are going to the hospital and we are doing some tests.” Doctors took blood. D.B. was given an ultrasound, but no physical exam or buccal swab.¹⁴⁶ “I don’t know what they were testing,” D.B. said, “they did not tell me—I don’t know if she was sending that thing to the World Athletics or what. The report from the hospital, it stayed with her.”

Later, the official told her she might need to take medication or do surgery: “[She said] I need to take the medication. She told me the World Athletics wanted the details about me and if I can take the medication and maybe do surgery.”

D.B. told Human Rights Watch she suspected athletics federation officials began observing her more closely due to her physical appearance and her rapid success in races. “Sometimes when you run and you win, they try to get involved. I realized maybe there was something,” she said. “At the time I was competing in the national stadium and [an official from the athletics federation] called me she wanted to talk to me.”

A year later, in 2015, the athletics federation official who accompanied D.B. to the hospital called her multiple times and asked: “When are you coming—we are going back to the hospital?” D.B. decided she did not want to return to the hospital, based on her own understanding of the surgical outcomes, and that of her coaches.

The federation official called her intermittently and encouraged her to go in for surgery, D.B. said, but that pressure was countered by her own understanding of the surgical outcomes, and by the advice of her coaches. D.B. had grown up aware of Caster Semenya

¹⁴⁶ A swab test that collects DNA from the inside of the cheek.

and, over time, learned about Semenya’s entanglements with the World Athletics sex testing regime. When she moved to university, gained phone and internet access, and began spending time with more athletes, she also learned more about a case where another athlete had been sex tested, and instructed to undergo surgery. “They started with [that athlete],” D.B. said. “She won an [international competition] and then when [she] came back from there, they started following her and telling her ‘you need to go and get the medicine, we need to take you for surgery,’ until they forced [her] to go for surgery.” But her coaches resisted:

The coaches said: ‘No, you see, this thing they did to [the other athlete], and [she] is no longer running.’ You want D.B. to be like her and not to run again?’¹⁴⁷

D.B.’s strategy was to “just keep quiet,” even though she faced consequences for doing so. She said that even when she later qualified for international competitions, the federation official who had taken her to the hospital would forbid her from being on the team.

“Just because [the other athlete] did it, it made me to escape,” D.B. said of the surgery. “I think they would have done it. Because if they are not seeing the effects on [the other athlete], it could be me,” she said, explaining that having her coaches’ support to not do surgery reinforced her own resistance to the pressure.

When the regulation was suspended by the Court of Arbitration for Sport decision in Dutee Chand’s case in 2015, federation officials slowly became more comfortable with D.B. competing internationally. Federation officials initially continued to hold her back from competing, but then began suggesting she experiment with different events “to see if the World Athletics will not complain.”¹⁴⁸ Officials allowed her to compete when she qualified for international meets in 2017.

Then in 2017, at an international competition, D.B. had three separate tests: one requiring a urine sample, and two requiring blood samples. She was first tested on the day she

¹⁴⁷ Human Rights Watch interview with D.B., November 13, 2019.

¹⁴⁸ Human Rights Watch interview with D.B., November 13, 2019.

arrived at the competition, before running. Then she competed, and lost in the semi-finals of her event. Although this would normally mean officials would not dope test her, she was called in for a urine test. “I think they were after something; I think those people picked me. I was not even top six in semi-final but they still took me,” she said.¹⁴⁹

During this test, the official who was in the room with her scrutinized her body. D.B. said:

I removed my clothes the way they wanted but the lady was saying maybe I’m still hiding something, I said, ‘Well what do you want me to do?’ When the woman wasn’t satisfied watching my urine, she called [other people]... I don’t know who they were.

After that test, officials visited D.B.’s hotel room to conduct another blood test. She said:

It was during that urine test where the woman watching me was complaining, ‘I can’t tell where the urine is coming from.’ Then that was when they sent someone to do the blood test after that.

D.B. never received information about the tests from the international competition. The next communication she received was a letter from World Athletics in 2019,¹⁵⁰ when Semenya’s case at the Court of Arbitration for Sport concluded, informing her that she had been disqualified from competition under the regulations.¹⁵¹

“M.L.”

M.L., who is in her mid-twenties, first started hearing comments about her appearance from teammates in 2016. “They said, ‘There’s no way you can be running with us or with other girls because of the way you look,’” she said. An official at her club approached the team members and rebuked them:

¹⁴⁹ Human Rights Watch interview with D.B., November 13, 2019.

¹⁵⁰ See Appendix 1.

¹⁵¹ Human Rights Watch interview with D.B., November 13, 2019.

[M.L.] is female. She's not like other people, but she's female. Don't treat her like she's male now.¹⁵²

Even with the official's public support, the experience was jarring for M.L. She left the track without training that day. "The experience was quite challenging and painful," she said. "Knowing that you are female and then people are telling you that you are not female because the way you are, the way you look."

M.L. believes her teammates were mostly targeting her because she was beating them in races. She continued to excel, and started the 2019 season promisingly. She was on target to qualify for the World Championships in Doha and Olympics in Tokyo in her main event, the 400 meters. In early 2019, as she prepared for international competitions, M.L. was training with her teammates. She said:

I remember there was a day we were in the gym and one of my training mates was reading the news online and saw [two other athletes] were affected [by the DSD regulations], and she said, 'Hey M.L., you look like them, so I think you're also affected. And if [another athlete] comes back to athletics, she will also be affected.'¹⁵³

Then a few months later, in April 2019, the scrutiny on M.L. increased and she began to get requests from her coaches to submit to unnecessary medical tests.

Following an international meet where she ran in a middle-distance race and placed fourth, M.L.'s coach summoned her. "My coach called me to his room and said I have received an email from the federation.... 'So we have to go to do the medicals so that we know the way forward and how I can continue helping you,'" she said. "It was about the regulations," the coach told M.L., "I think you might be affected, so we have to go for a full medical check-up so we can confirm and know how to go about it." M.L. was aware of the scrutiny of Caster Semenya at that time, but did not know details about the World Athletics regulation. "When he showed me the email he said if what I'm suspecting is true, then you have to

¹⁵² Human Rights Watch interview with M.L., July 10, 2019.

¹⁵³ Human Rights Watch interview with M.L., July 10, 2019.

switch to other events,” M.L. recounted. “Because if you continue doing 400 meters they would be giving some drugs or [you have to] go for surgery.”¹⁵⁴

Two days later, when M.L.’s team returned home, the coach took her and three teammates to a private hospital for testing. M.L. told Human Rights Watch her coach instructed her to do the tests, and it did not occur to her to ask why or if she had a choice. “To be honest I don’t know, I just agreed to it. He mentioned my training mates [were going as well], so I thought I had to just go do it,” she said.¹⁵⁵

The athletes and coach visited a private clinic in the capital. The coach signed all of the forms at the clinic; the athletes were not asked to sign anything, nor were they given any copies of what was signed. M.L. was the fourth athlete to enter the room and have her blood drawn. She told Human Rights Watch that she did not know what the doctors were testing and they did not explain. They conducted a blood draw. Two days later, the coach called, and said:

The result is that you have a higher level compared to your two teammates. I think you might be affected if the regulations are implemented. So I think the best way is maybe to focus on 200 meters [an event not covered by the regulation].

M.L. was bewildered by the news but also understood that the regulation might not come into effect. However shortly after this test, when the Court of Arbitration for Sport ruled in favor of the World Athletics regulation, M.L. had another conversation with her coach, who told her “... it means if you are doing 400 meters then you have to go for surgery or taking drugs.” She added the coach emphasized, “I don't think this is a good idea for you and I don't think you should do it.”

He asked her if she wanted drugs or surgery to lower her testosterone, and she said no. “He didn't want to be answerable for any of the consequences after doing either of the two,” M.L. said of her coach. She sought advice from another athlete who had also been rumored to have high testosterone, and this discussion reinforced her decision not to have

¹⁵⁴ Human Rights Watch Interview with M.L., July 10, 2019.

¹⁵⁵ Human Rights Watch interview with M.L., July 10, 2019.

surgery. M.L. said, “If my birth certificate says I’m female, why should I be taking drugs or going for surgery?”¹⁵⁶

M.L.’s decision to switch to a different event as a result of the World Athletics regulation allowed her to retain control over her body, but it was not an easy shift. “I felt very bad. It gave me lack of motivation,” she said.¹⁵⁷

“P.H.”

As discussed above, when P.H. underwent mandatory testosterone testing in 2019, it was her first time experiencing medical care.

After the doctor told her the test results—that her testosterone was “too high,” without specifying the level—he reassured her that this was a secret between them. “At that time I thought I was the only one,” she said. “The doctor told me it was a secret.” P.H. recounted the conversation:

First he asked me: ‘What would you do if your testosterone is above five?’

Then: ‘How will you feel if it’s below five?’

I told him I would accept any result because I didn’t know anything about it.

I thought if it’s higher than five, I’m still going to travel [to compete internationally].

Then he asked me: ‘Who is your closest friend or family member?’

Then he asked: ‘Have you ever been tested like this before?’

Then he said: ‘You tested above five so you have to stay. You can’t travel with the others.’

I did not understand ‘five,’ ‘above five,’ why?

¹⁵⁶ Human Rights Watch interview with M.L., July 10, 2019.

¹⁵⁷ Human Rights Watch interview with M.L., July 10, 2019.

Then he said: ‘Before I told you could travel but you are not going to travel. We cannot risk for you to travel.’

Then he asked: “Were you expecting it to be higher than five before you received this result?”¹⁵⁸

P.H. asked the doctor what she could do to lower her testosterone so she could compete, and the doctor informed her she could take drugs or, barring that, change to an unregulated event. “He said he’s not the one who makes the World Athletics regulations—he was just sent by [my federation] to give information,” she said. “He didn’t explain what the World Athletics rules were.”

But the secrecy did not last long. Because she had been ruled ineligible due to her testosterone level, P.H. did not attend the pre-departure team meeting later that day. “I wasn’t there at that meeting, so rumors began,” she said. “And there was one other [woman who was not in attendance]—so rumors began about her too. It was no secret at all.” P.H. went home to her family’s village. After a week, the physician who had tested her blood called her. P.H. said:

The doctor called me again and said, ‘We haven’t seen you. The World Athletics has a newer option. You can go for a medical check-up outside of the country. Because you are not able to pay for it, you can go outside the country to get counseling from a doctor on this because we don’t know what causes high testosterone. They can treat you; they can help you.’¹⁵⁹

About three weeks after the blood test results, the national athletics federation doctor instructed P.H. to visit another physician in the capital city.¹⁶⁰ At that appointment, according to P.H., the physician performed exams without informed consent and that had no medical necessity:

¹⁵⁸ Human Rights Watch interview with P.H., July 16, 2019.

¹⁵⁹ Human Rights Watch interview with P.H., July 16, 2019.

¹⁶⁰ P.H. knew the name of the physician and Human Rights Watch was able to confirm the individual is a practicing physician in that city.

The doctor asked me about my life and did a physical exam where she checked my chest, my genitals, even inside, and she asked did I menstruate, did I have a girlfriend or boyfriend.

Forced physical examinations that include touching and penetration of intimate anatomy with no medical justification may constitute sexual assault.¹⁶¹

Despite asking the athletics federation doctor via text message for the results of her exam, she never received her medical records, including her ob/gyn report. “He called and said he got the report and took it to the [national athletics federation]. I called him again after three days and told him I needed information. He said he was working on it. I never heard from him again,” P.H. said. “I never got my medical records and I never saw the ob/gyn report. I want to know what they are learning about my body, but there was never any results given to me.”

Denial of Information Necessary for Informed Consent

M.L., D.B., and P.H.’s experiences were similar in several respects, despite their different contexts. Each athlete received limited information about the regulations and the procedures for their implementation, and limited information about the purpose and outcomes of the medical tests they underwent. Each was presented with a set of options that involved medically unnecessary and potentially harmful procedures they were pressured to undergo to maintain their eligibility to compete. And each of the athletes, in this situation where they lacked information and were confronted with the loss of their career, experienced coercion.

Other athletes interviewed said they were also bewildered about being sex tested. “I didn’t know what the test was about, just that the physical exam ended my ability to work,” J.G. said. “It was rumors, ‘J.G. failed medical test’ is what people would say all the time. Medical tests are very meaningful in [my country].”¹⁶² L.O., a coach from J.G.’s country, explained:

¹⁶¹ It is established under international law that forced “virginity exams” or anal exams involving penetration carried out in custody are a form of sexual violence and constitute torture. See Reports of the Special Rapporteur on torture and other cruel, inhuman or degrading treatment or punishment: A/HRC/7/3, January, 15 2008, para. 34 and A/HRC/31/57, January 5, 2016, para. 36.

¹⁶² Human Rights Watch interview with J.G., August 7, 2019.

So many women athletes still don't know what's going on. They ask me, 'Is this person a boy?' Or they think they have hyperandrogenism when they succeed, and they start questioning themselves. But they often don't actually know.¹⁶³

In E.K.'s case, she was instructed to undergo a suite of tests and exams including a blood draw, ultrasound, buccal swab, and a physical. Throughout the process, she did not know the purpose of the various tests but, as explained below, she did not feel she could decline them. When the tests were complete, she said, she received her results and was told she could no longer compete. "They just come and take the samples [from you] and come to tell you. 'This is the results we get.' They just tell you: 'You have high level' but they will not tell you the actual level, where it is at," she said. After having undergone invasive medical examinations with no information, E.K. was then told she was not allowed to continue running, with no explanation of her detailed test results or their meanings. She said:

They just come and take the sample then the next day: 'You have been suspended for having a high level.' But you don't know that even the level you have—maybe we can say five, maybe more. Maybe you have six or seven. You don't know the actual level.¹⁶⁴

Athletes' Limited Knowledge of Regulations

Athletes who spoke with Human Rights Watch often learned about the sex testing regulations through partial information from coaches, but rarely understood them fully, or what was happening to them when they were tested. D.B. said:

... [S]he [the coach] tells me my case is hard, but she doesn't tell me what the World Athletics has actually said....¹⁶⁵ I didn't understand what they

¹⁶³ Human Rights Watch interview with L.O., August 9, 2019.

¹⁶⁴ Human Rights Watch interview with E.K., July 14, 2019. The current regulations apply to women competing in international events covering the 400m to one mile with one of seven DSD diagnoses, and with testosterone levels above 5 nmol/L and having an "androgenising effect."

¹⁶⁵ Human Rights Watch interview with D.B., November 13, 2019.

were saying. I wondered: What is testosterone? What is five? I didn't understand why testosterone was important.¹⁶⁶

E.K. explained: "I just heard about [the regulations] for the first time last year." She learned that the regulation existed because she had been tested and ruled ineligible for competition.

No one even talked about that again. I was just told this year I have a level of testosterone and that I'm suspended from that time, no one talked about the issue again.¹⁶⁷

Others described when they first learned about the regulations, which was often via media reports about high-profile athletes such as Caster Semenya or Dutee Chand. "Sometimes I feel threatened that what has happened to Dutee could happen to me. Reading about Caster's story makes me fearful of the regulations as well," said U.C., a 20-year-old athlete.¹⁶⁸

"I remember the year when Caster ran in some world championship and people were disturbing Caster so I heard about that thing but I could not understand very well about it," D.B. told Human Rights Watch, referring to the initial controversy in 2009. The next time she recalls hearing about the regulation is in 2019. "This year I heard about it when they said no competition, you should go for drugs, you have to stop running," she said. "So I said, 'Maybe, ah, now this is the real thing, the real reason.'" ¹⁶⁹

The regulations and their ambiguity put athletes and coaches in difficult, precarious positions. J.Q., an elite coach said the confusion caused by the regulations and the lack of clear communication from World Athletics meant he was forced to interpret and explain the regulations to several affected athletes. J.Q. said:

¹⁶⁶ Human Rights Watch interview with P.H., July 16, 2019.

¹⁶⁷ Human Rights Watch interview with E.K., July 14, 2019.

¹⁶⁸ Human Rights Watch interview with U.C., August 9, 2019.

¹⁶⁹ Human Rights Watch interview with D.B., November 13, 2019.

...[N]obody from the Federation sat down with any of these ladies and had a conversation about, ‘Where do we go next? What do we do next?’.... It’s not an easy conversation. And I tried to have conversations with one or two of the so-called more senior coaches here. They just say, ‘World Athletics ruling, nothing to do with us.’¹⁷⁰

For P.H., who was removed from her team after a testosterone test, the experience included not receiving any information:

I questioned myself because there was never any information or results from the process. I don’t even know my testosterone level, just that it’s above five. I didn’t understand; I didn’t get to see the paper with the numbers. I only knew the doctor said if you are above five you have a lot of energy.¹⁷¹

Athletes’ Perceptions of Regulation-Mandated Medical Interventions

Athletes interviewed for this report were overwhelmingly fearful and distrustful of the medical interventions that the regulations mandate, namely surgery or drugs. “If I take the drugs it will spoil my life,” said H.T., a 16-year-old runner.¹⁷²

C.M., a middle-distance runner who was ruled ineligible under the 2018 regulations, said:

Even if today you come to me and tell me you have to do surgery, when I go back and think about it like that.... Because there’s no need to be interfering with somebody’s life. There’s no need to be injected because where will you be after that—there was another athlete from Uganda, she used to be 800 meters. After she went for surgery, she’s not there again in terms of athletics.¹⁷³

¹⁷⁰ Human Rights Watch interview with J.Q., November 18, 2019.

¹⁷¹ Human Rights Watch interview with P.H., July 16, 2019.

¹⁷² Human Rights Watch interview with H.T., August 9, 2019.

¹⁷³ Human Rights Watch interview with C.M. November 12, 2019.

She added:

As a young person you have to think about your future.... Those are chemicals you are putting your body.... Maybe we can take the same medicine but for you it will react different.¹⁷⁴

“Impossible Choices” for Athletes

In a 2018 article, bioethicists Katrina Karkazis and Morgan Carpenter describe how the World Athletics regulations present affected athletes with a series of “impossible choices,” from submitting to examinations to medically unnecessary interventions to alter naturally occurring hormones.¹⁷⁵ The authors write:¹⁷⁶

The alternatives available to athletes are presented under the guise of choice, but each option carries its own high price. The choice is to subjugate oneself to power: alter your body, accept being labelled, or leave. It is an impossible set of choices.¹⁷⁷

The article discusses how each option for an athlete under the 2018 regulation has potential for harm. The chart below outlines the risk and inherent harms of each “choice:”

“Choice” for Athlete	Risks, Harms for Athlete
Submit to medical assessment	<ul style="list-style-type: none">▪ Unnecessary, invasive, humiliating medical exams.▪ Legitimization of rumors and whisper campaigns.▪ Ruled ineligible if they do not submit.
Undergo medically unnecessary interventions	<ul style="list-style-type: none">▪ Medication: Daily contraceptive pill or monthly GnRH agonist injections to lower testosterone. Can cause severe medical side effects, including: decreases in bone and muscle strength, and increased risk of

¹⁷⁴ Human Rights Watch interview with E.K., July 14, 2019.

¹⁷⁵ Katrina Karkazis and Morgan Carpenter, “Impossible ‘Choices’: The Inherent Harms of Regulating Women’s Testosterone in Sport,” *Journal of Bioethical Inquiry* 2018, 15: 579–587, accessed October 30, 2020, doi:10.1007/s11673-018-9876-3.

¹⁷⁶ Ibid.

¹⁷⁷ Ibid.

	<p>chronic weakness, depression, sleep disturbance, decreased libido, adverse effects on lipid profile, diabetes, and fatigue.¹⁷⁸</p> <ul style="list-style-type: none"> ▪ Surgery to lower testosterone (gonadectomy) is irreversible, requires lifelong hormone replacement therapy and careful medical management, and can compromise fertility.
Compete with men	<ul style="list-style-type: none"> ▪ Humiliation and exposure of athlete violates rights to privacy, identity. ▪ Complicates legal situation—women athletes are legally recognized as women and have always been. ▪ Complicates the situation within athletics and for other sports, as women forced to run in regulated events as men would still be eligible to run in non-restricted events—or play other sports—as women. ▪ To date, none of the affected athletes’ times would allow them to be competitive in the male category effectively ending competitive career.
Compete in an “intersex” category	<ul style="list-style-type: none"> ▪ Forces them into another category violating rights to privacy, identity. ▪ Complicates the women’s legal situation—women athletes are legally recognized as women. Most women interviewed by Human Rights Watch identify as women. They are also recognized legally and by their communities as women. ▪ Category does not exist, and World Athletics predicts, based on no evidence, that it would take a decade to come into existence, so “choosing” this options essentially means retiring from competitive sport. ▪ Coercive in that it makes such categories function as an incentive to comply with

¹⁷⁸ Jordan-Young et al., “Sex, Health, and Athletes,” *British Medical Journal*.

	medical interventions to lower testosterone.
Challenge the regulation	<ul style="list-style-type: none"> ▪ Requires the athlete to take a case public, thus exposing herself to intense scrutiny. ▪ Athletes must pay half of the cost for an ombudsperson to assist the athlete in understanding and addressing the requirements of the regulations. This does not guarantee the process will be fair or neutral. ▪ Athletes may be suspended while a case to challenge their eligibility is ongoing.
Exit international competitions	<ul style="list-style-type: none"> ▪ Possible public and media scrutiny. ▪ Loss of livelihood, end of income that may support entire families.
Change events	<ul style="list-style-type: none"> ▪ Can arouse suspicion, provoke scrutiny. ▪ Significant and challenging undertaking for an elite athlete, whose training is often specifically tailored over years to excel at one event.
Quit sport	<ul style="list-style-type: none"> ▪ Quitting sport can mean the end of crucial income, and foreclose opportunities for second-career employment that some governments and private sector actors offer athletes. ▪ For most athletes pursuing sports seriously, to suddenly be prevented from competing can lead to severe mental health issues including being alcoholism and suicide. ▪ There is the stigma of this being a punitive action often imposed for cheating, but here the women have done absolutely nothing wrong, amounting to punishment without a crime.

Athletes told Human Rights Watch about how they navigated these “impossible choices.”

E.K., who by the time she was tested had succeeded in international competitions, told Human Rights Watch she felt she was not given the choice to opt out of the sex testing examinations. “I was just told by my federation: ‘Now this is what you [are] required to do

because they want to know this and that. And for you to be able to continue competing.’ So I could not refuse them to do it,” she said.¹⁷⁹ “I was told if you don’t, you are going to be stopped from running. So I just went there and I was told this is the doctor who is going to do the test.”¹⁸⁰

According to E.K.:

If I could have [had] another option, I would not go. Because I didn’t understand anything. What is all that for? I could not understand anything. I had many questions running through my mind: Why are they investigating me? And then later: Why only me and not any other athletes? What are we not many or why am I not in a group? I came to realize maybe that’s because maybe it’s because of how I’m created. If I had said ‘No’ they would have told me, ‘You have to. You have to. You have to. You have to.’.... You don’t have any other choice.¹⁸¹

For others, the pressure extended beyond the initial testing. For example, as noted above, after P.H. was tested and ruled ineligible for competition, she went to her parents’ village to recover from the emotional trauma. While she had declined initial offers to alter her natural hormone levels, the physician who had tested her kept trying to give her interventions. The physician who had tested her called her several times during the first week she was home. She said:

The doctor called me again and said, ‘We haven’t seen you. The IAAF has a newer option. You can go for a medical check-up outside of the country. Because you are not able to pay for it, you can go outside the country to get counseling from a doctor on this because we don’t know what causes high testosterone. They can treat you; they can help you.’¹⁸²

¹⁷⁹ Human Rights Watch interview with E.K., July 14, 2019.

¹⁸⁰ Human Rights Watch interview with E.K., July 14, 2019.

¹⁸¹ Human Rights Watch interview with E.K., July 14, 2019.

¹⁸² Human Rights Watch interview with P.H., July 16, 2019.

The World Athletics regulation states that “surgical anatomical changes are not required in any circumstances.” However, given that pharmacological approaches may not sufficiently and consistently maintain testosterone below the threshold or that providers may view gonadectomy as the more effective or expedient way to lower testosterone, this cannot be accepted as a foregone conclusion.¹⁸³ Recently published peer-reviewed clinical research has demonstrated that physicians often exploit the “clinical uncertainty” presented by cases of patients with intersex traits to recommend “normalizing” procedures that not only have no therapeutic value, but may cause discomfort, suffering, and harm.¹⁸⁴

Moreover, the impossible choices athletes face, as outlined in this chapter, mean if they undergo a medical procedure to alter their naturally occurring hormones in order to continue competing per the regulation, they have not undertaken this procedure with full informed consent. Rather, it has occurred in a situation of multi-faceted coercion. Given the ecosystem of coercive factors, both athlete-patient and physician are thus put in a position of compromised medical ethics as a result of sex testing regulations.

French Government Investigation

In September 2019, the German sports investigative television agency ARD released an hour-long documentary about the World Athletics testosterone/DSD regulations.¹⁸⁵ The segment featured testimony from the family of an athlete from the Global South who had been profiled under the regulation and subsequently died by suicide due to pressure she faced being profiled for her hormone levels.

It also featured the stories of two athletes from the Global South who, allegedly acting on World Athletics’ recommendations, had irreversible surgeries in 2012 in order to keep competing in the female category. One of them, Annet Negesa of Uganda, whose story is

¹⁸³ Jordan-Young et al., “Sex, Health, and Athletes,” *British Medical Journal*.

¹⁸⁴ Stefan Timmermans et. al., “Does Patient-centered Care Change Genital Surgery Decisions? The Strategic Use of Clinical Uncertainty in Disorders of Sex Development Clinics,” *Journal of Health and Social Behavior* 2018, 59(4): 520-535, accessed October 30, 2020, doi:10.1177/0022146518802460.

¹⁸⁵ ARD, “Gender Battle: The Abandoned Women of Sport,” September 29, 2019, video clip, YouTube, <https://www.youtube.com/watch?v=Af4ClrCL3Do&t=4s> (accessed October 30, 2020).

featured in this report, said she believed her experience was one of those featured in the 2013 Fenichel paper.¹⁸⁶

Nine of the Fenichel paper's 10 authors, many of whom are key sports medicine figures, practice medicine in France, including lead author Dr. Fenichel; the 10th practices in Monaco. As the paper notes, "The study was performed in the Nice and Montpellier University Hospitals (France), which collaborate as reference centers for DSD in elite athletes on behalf of sports governing bodies."¹⁸⁷ Within weeks of the program's broadcast, 25 French athletes wrote an open letter to the sports and health ministers, expressing outrage that such advice was given to fellow women athletes in France and by French physicians. "Human rights and human dignity are flouted," the letter said.¹⁸⁸ The ministers responded by launching an investigation into the allegations. When the investigation was announced, Minister of Sport Roxana Mărcineanu told reporters:

We have categories, we have women who compete who are stronger than other women, we have men who compete who are stronger than other men, it is the principle of sport and the best wins.¹⁸⁹

Dr. Thomas Seppel, an endocrinologist in Germany who examined one of the four women from the Fenichel paper who underwent gonadectomy, said:

Based on the conversation I had with the patient, I can say that my impression is that she did not understand or did not know exactly what was

¹⁸⁶ "Exclusive Interview: DSD Athlete Annet Negesa – 'My Family Miss Me, but if I Go Back to Uganda I May Lose My Life,'" *Telegraph*, November 7, 2019, <https://www.telegraph.co.uk/athletics/2019/11/07/exclusive-interview-dsd-athlete-annet-negesa-family-miss-go> (accessed October 30, 2020).

¹⁸⁷ Fenichel et. al., "Molecular Diagnosis of 5 α -Reductase Deficiency in 4 Elite Young Female Athletes Through Hormonal Screening for Hyperandrogenism," *Journal of Clinical Endocrinological Metabolism*.

¹⁸⁸ "'Mutilations' d'athletes hyper-androgenes: Maracineanu Promet Une Enquete," *RMC Sport*, October 12, 2019, <https://rmcsport.bfmtv.com/plus-de-sports/mutilations-d-athletes-hyper-androgenes-maracineanu-promet-une-enquete-1785628.html> (accessed October 30, 2020).

¹⁸⁹ Franceinfo, "Hyperandrogénie : Roxana Maracineanu annonce l'ouverture d'une enquête sur de possibles cas de mutilations sexuelles dans le sport," October 12, 2019, https://www.francetvinfo.fr/replay-radio/8h30-fauvelledely/hyperandrogenie-roxana-maracineanu-annonce-l-ouverture-d-une-enquete-sur-de-possibles-cas-de-mutilations-sexuelles-dans-le-sport_3637101.html (accessed November 5, 2020).

done to her, and what further care or therapy was required or what the consequences are for her.¹⁹⁰

Dr. Greta Dreyer, a professor of gynecology at the University of Pretoria in South Africa and a noted specialist on women athletes with variations in their sex characteristics, said in response to the news of the gonadectomies ordered by the physicians in Nice: “I strongly suggest the World Athletics offers a serious apology to all women who were pushed into this operation.”¹⁹¹

The French government’s investigation remains pending.

¹⁹⁰ ARD, “Gender Battle: The Abandoned Women of Sport,” YouTube, <https://www.youtube.com/watch?v=Af4ClrCL3Do&t=4s>.

¹⁹¹ Martyn Ziegler, “IAAF Owes Gonadectomy Athletes an Apology, says Caster Semenya’s Medical Specialist,” *Times*, October 11, 2019, <https://www.thetimes.co.uk/article/iaaf-owes-gonadectomy-athletes-an-apology-says-caster-semenyas-medical-specialist-2jf5h7hwj#:~:text=Athletics%20chiefs%20should%20offer,operations%20to%20reduce%20testosterone%20levels> (accessed October 30, 2020).

IV. Discrimination

To me, it's not fair that they're being told what they can and can't do.

Athletics is meant to be a sport for all.¹⁹²

—J.Q., coach, November 18, 2019

The regulations discriminate against and stigmatize those athletes who are subjected to them. Even in dismissing Caster Semenya's claim, the CAS arbitrators recognized that the regulations are discriminatory; they just deemed them a "prima facie proportionate" response to World Athletics' concerns about eligibility for female categories.

An athlete whom the athletics federation publicly banned from attending international competitions said of the regulations: "You are discriminating [against] somebody," she said, adding that she believed her swift rise in domestic competitions had attracted the athletic federation's scrutiny. "I trained seriously, and I got good, and that's what made me to be banned." If I had not sacrificed like this I would have not gotten to this level and gotten banned."¹⁹³

As the UN High Commissioner for Human Rights wrote in her 2020 report, "The implementation of female eligibility regulations denies athletes with variations in sex characteristics an equal right to participate in sports and violates the right to nondiscrimination more broadly."¹⁹⁴ Discrimination, inherent in the regulations, is unnecessary and disproportionate. While the objective of ensuring that each athlete is qualified to compete in the appropriate category in sports competitions may be legitimate, any such regulation designed to achieve this end must be reasonable, necessary, and proportionate. In other words, there needs to be a rational connection between the regulations and the objective they are designed to meet.

Moreover, in order not to be discriminatory, regulations should not unreasonably infringe on other rights. As this report shows, the regulations, combined with World Athletics'

¹⁹² Human Rights Watch interview with J.Q., November 18, 2019.

¹⁹³ Human Rights Watch interview with C.M., November 12, 2019.

¹⁹⁴ OHCHR, "Intersection of Race and Gender Discrimination in Sport," A/HRC/44/26, <https://undocs.org/en/A/HRC/44/26>.

exclusive control over implementation, means they are rife with potential for abuse. They are based on highly-contested science and on a stereotype-driven concept of femininity.

As this report shows, the regulations' vague and problematic language has led to abuses in implementing them. They also operate under a system devoid of checks and balances: World Athletics both creates and enforces the regulations based on its own interpretation of relative advantage, homing in on a single factor rather than acknowledging the complexity of athletic performance.

The science around performance and endogenous testosterone remains contested. But World Athletics claims that it is clear cut. This misleading assertion sends an oversimplified message that high testosterone is akin to cheating. In fact, there are many factors that advantage some competitors over others.¹⁹⁵

As a coach explained to Human Rights Watch: “Seb Coe [World Athletics president] talks always about a level competition, an even playing field. But what does that even mean?” He asked: “Will a six-foot [woman] be even to a four-foot [woman]? Is a [woman] from an advanced country with nutrition and training even with a [woman] from a developing country?”¹⁹⁶ The coach said:

I fear this is deliberately vague—‘level competition’—so they can add other events later if they want to. It’s not about being even. How can they go against God-given talent? If this is what they want, they should have a developed country Olympics and an underdeveloped country Olympics.¹⁹⁷

The regulations are also inherently discriminatory because they apply only to women: there is no similar regulation for men. E.K., a runner, asked:

¹⁹⁵ Myron Genel et al., “The Olympic Games and Athletic Sex Assignment,” *JAMA* 2016, 316(13): 1359-1360, accessed October 30, 2020, doi:10.1001/jama.2016.11850; Malcolm A. Ferguson-Smith and L. Dawn Bavington, “Natural Selection for Genetic Variants in Sport: The Role of Y Chromosome Genes in Elite Female Athletes with 46,XY DSD,” *Sports Medicine* 2014, 44: 1629–1634, accessed October 30, 2020, doi:10.1007/s40279-014-0249-8; Myron Genel et al., “The Illusory ‘Level Playing Field,’” *The Hastings Center Report* 2012, 7(4):450-466, accessed October 30, 2020, doi:10.1080/17511321.2013.856460; Myron Genel et al., “Sex and Gender in Sport: Fallacy of the ‘Level Playing Field,’” *Pediatric Research* 2010, 48(149), accessed October 30, 2020, doi:10.1203/00006450-201011001-00289.

¹⁹⁶ Human Rights Watch interview with L.O., August 9, 2019.

¹⁹⁷ Human Rights Watch interview with L.O., August 9, 2019.

When it comes to men, maybe they are performing well and they do the research and they find maybe you have an advantage of having a high testosterone level, and we celebrate them. ‘He is taking his advantage.’ But why does it then, when it comes to men who have a lower level of testosterone are not performing well, why doesn’t it go to them and say, ‘Okay we can give you medication. Be more like him then you continue?’ or ‘Your level of testosterone is low. You can compete with the ladies.’¹⁹⁸

Others pointed out that women athletes with high testosterone and ensnared by the testosterone regulations did not always outperform women athletes who were not subjected to the regulations. “So many athletes with high T can’t beat a lady who is in the range they want,” said C.M., a runner. “You know in athletics, you have to be stronger.”¹⁹⁹ C.M. said:

These people should stop discriminating [against] others. Because nobody wrote a letter to God and said, ‘Oh God, I want to be like this’—nobody.... When you are discriminating, that is a person like you. And God will judge us.²⁰⁰

D.B., another runner, told Human Rights Watch that she thinks the regulations are discriminatory because they are “a way of destroying some people from competition.” D.B. whose story of being coerced into sex testing by an athletics federation official is featured in this report, explained:

If they come and they are taking you to the hospital but you’re not sick, and you’re taking medicine but you’re not sick and sometimes you don’t know the side effects of the medicine on your body. You start taking some medicine and you don’t understand it.

¹⁹⁸ Human Rights Watch interview with E.K., July 14, 2019.

¹⁹⁹ Human Rights Watch interview with C.M., November 12, 2019.

²⁰⁰ Human Rights Watch interview with C.M., November 12, 2019.

She emphasized that the forced medical treatment is “a way of disorganizing people,” explaining “it can affect you physically and also mentally—so you cannot focus.” D.B. talked about the sense of abandonment the regulations instilled in affected athletes:

Even when you are young, you just found yourself the way you are. It can affect you after some years. For them they will not be there, but you will be suffering. It can really impact you, suffer you.

She explained that in the wake of some athletes choosing medication or surgery and suffering the side-effects, World Athletics’ regulations had more far reaching effects than leveling the playing field. “But now because they have seen the side effect, and still they want us to do this—it’s like they’re chasing us away from sport.”²⁰¹

Athletes Profiled and Targeted

The World Athletics regulations have resulted in profiling and targeting women according to gender stereotypes. Women perceived to be too “masculine” may become targets of suspicion, gossip, and whisper campaigns with detrimental effects.²⁰² The underlying stereotypes that drive targeting are deeply racialized. Under the veneer of scientific legitimacy, some women are ensnared in abusive and medically unnecessary tests and exams. These are overwhelmingly women of color from the Global South. The result can be exclusion from competitive athletics and the elimination of their livelihoods.

As scholars Katrina Karkazis and Rebecca Jordan-Young note, “[b]ecause race is not a biological category, a biological criterion such as T levels should be race-neutral, applying to women irrespective of ethnoracial categorization.”²⁰³ As such, there should be no racial and regional bias in who is targeted. But the women harmed are typically—if not exclusively—women of color from the Global South. How this comes to be involves intertwined stories about the relationship between testosterone and athleticism and

²⁰¹ Human Rights Watch interview with D.B., November 13, 2019.

²⁰² The problem of rumors prompting sex testing has a long history. At the 1936 Olympics, when American Helen Stephens beat Polish runner Stella Walsh, a Polish journalist’s accusation that Stephens was not a woman led to officials sex testing her. Jennifer Finney Boylan, “The XY Games,” *New York Times*, August 3, 2008, <https://www.nytimes.com/2008/08/03/opinion/03boylan.html> (accessed October 30, 2020).

²⁰³ Karkazis and Jordan-Young, “The Powers of Testosterone: Obscuring Race and Regional Bias in the Regulation of Women Athletes,” *Feminist Formations*.

masculinization; about whether high testosterone makes women ill; about appropriate approaches to babies with variations in sex characteristics; racialized ideas about who has high testosterone; ethnic and regional variations in hyperandrogenism; and notions of femininity associated with whiteness, among other factors, that, when taken together, narrow the likely targets to women of color from the Global South.”²⁰⁴

As illustrated in this section, for some athletes, this targeting occurs when officials conducting required doping tests decide to scrutinize their anatomy. It also occurs even before such tests take place, simply due to rapid success, or their physical appearance, as happened to Dutee Chand when a physician told her the targeting of her began when other athletes reported to officials that they were suspicious of her supposedly “masculine” “stride and musculature.”²⁰⁵

Officials began scrutinizing D.B., a runner, after she won a long-distance domestic race in 2013 and had a routine urine test for doping. D.B. was aware of another high-profile sex testing case in her country, and had heard that the issue involved genitals. She told Human Rights Watch that at her first dope testing in 2013, before disrobing, she informed the attendant official that her body looked different.²⁰⁶ The official said that before conducting the test, she needed to call the athletics federation, and left the room. When she returned, the official told D.B. that her case was “different” but the athletics federation had said she should still have the dope test. “I think that’s when things started,” D.B. said.

Soon after, a local athletics federation official called D.B. “She just said we are going to the hospital and we are doing some tests,” D.B. said, explaining she was unaware of what exactly the tests were about, but also unsurprised that the official had called. “I knew she was [paying attention to me]. I knew it was because I could run. Sometimes when you run and you win, they try to get involved. I realized maybe there was something,” D.B. said.

²⁰⁴ Ibid.

²⁰⁵ *Dutee Chand v. The Athletics Federation of India and the International Association of Athletics Federations*, CAS 2014/A/3759, Interim Arbitral Award, 2014, https://www.doping.nl/media/kb/3317/CAS%202014_A_3759%20Dutee%20Chand%20vs.%20AFI%20%26%20IAAF%20%28S%29.pdf, para. 392.

²⁰⁶ Researchers inquired specifically about how she described her body to the official, but D.B. said she preferred not to share that.

D.B. visited a hospital in March 2014 with the official, who told her the trip was “because of my issue, this thing of testosterone regulations,” and that D.B. needed to take medication. She told me World Athletics wanted the details about me and if I can take the medication and maybe do surgery.” According to D.B., doctors took one vial of blood and conducted an ultrasound, but no physical exam or buccal swab.

D.B. never received any information about test results. The official who accompanied her, however, began saying D.B. was not allowed to represent her country in international competitions, even if she qualified. D.B. said several coaches suggested to the federation that D.B. should represent the country at the Olympics due to her good time.

The official who had accompanied D.B. to the hospital gave them all the same answer: “She said ‘Oh, your case is complicated.’” D.B. said, “Coaches told me, ‘We tried to talk with her about you, but your case is complicated. You just pray and train, God will do something.’” She eventually heard from coaches and teammates that the official had told them: “‘Did you know about what happened to Caster? So, [D.B.] might run like that and bring shame to the country.’”²⁰⁷

J.Q., a coach, explained how one athlete had been profiled due to her physical appearance and successful performance and subsequently disqualified. “[She] is a classic example, because she suddenly appeared from some reasonably remote part of [the country], came to the Junior Trials and wiped the floor with everybody,” J.Q. said. “And straight away, the gossip-mongers would be saying, ‘Look, the way she walks, the way she talks, the way she runs. She must be a [man].’”²⁰⁸

Doping Suspicion, Tests, and Discrimination

Testosterone testing of women athletes is sometimes entangled with doping tests administered to monitor use of illegal performance-enhancing drugs. This happens for several reasons.

First, sex testing of women athletes in elite competitions has historical and contemporary links to doping scandals. When the World Athletics regulations were unveiled in 2011,

²⁰⁷ Human Rights Watch interview with D.B., November 13, 2019.

²⁰⁸ Human Rights Watch interview with J.Q., November 18, 2019.

World Athletics medical adviser Dr. Stéphane Bermon called the participation of women athletes from the Global South with higher than typical testosterone “a way of cheating.”²⁰⁹ This had the effect of conflating endogenous testosterone with doping. Women with high testosterone have not introduced any foreign substance into their bodies and have not cheated. Doping control can serve as a backdoor to test any woman deemed suspicious by sports governing bodies, but it is also a route to test all women via collection of blood and urine samples.

Second, success in athletics can arouse suspicion that an athlete is taking performance-enhancing drugs. This can mean that an athlete who is profiled because of her strong performance, and suspected of doping, can also be subject to sex testing.

Third, the process of urine tests for doping itself involves an athlete exposing her genitals to an official so that the official can observe that the urine is exiting from the athlete’s body and not another source. In some cases, the physical trait of higher than typical testosterone in a woman corresponds with variations in her external genitalia. This means that for women with higher-than-typical natural testosterone who also have atypical external genitalia, routine doping tests expose them to bodily scrutiny. As cases documented in this report illustrate, that scrutiny can lead to additional testing—of blood—that is used to determine endogenous testosterone levels and rule some athletes ineligible.

Finally, the World Anti-Doping Agency has made it explicit in its 2019 policy that doping tests can be used to determine endogenous testosterone levels to determine eligibility in the female category. A footnote in its new WADA Code states: “An International Federation could use data from a Doping Control test to monitor eligibility relating to transgender and other eligibility rules.”²¹⁰

Athletes Human Rights Watch interviewed described these phenomena. U.C., 20, said that when she began seriously training and competing in secondary school, people around her often ascribed her success to doping. “They said things like, ‘Oh, she’s using some

²⁰⁹ Karkazis and Jordan-Young, “The Powers of Testosterone: Obscuring Race and Regional Bias in the Regulation of Women Athletes.”

²¹⁰ World Anti-Doping Agency, “World Anti-Doping Code 2021,” https://www.wada-ama.org/sites/default/files/resources/files/2021_code.pdf (accessed October 30, 2020).

medicine and now she's become like this.' They think I am doping," U.C. said. After she moved to a larger city in her home country and won her first national competition, a friend told her that trainers there told other athletes that "I only got the medal because I took some medication."²¹¹

Doping suspicion and accusations can lead to additional competition amongst athletes: not over how well they will perform against each other, but over whose competition will count at all. A coach described to Human Rights Watch how athletes often link disqualification of others with their own ascent. He said he has experienced this phenomenon linked directly with the World Athletics testosterone regulations when, following the public disqualification of several athletes whose primary event is the 400 meters, an athlete who had not been affected by the regulations told him: "'I'll make the team, easy. Because these people aren't there."²¹²

Women athletes who must expose their genitals to a doping official during the test are at risk of that official's subjective judgment about whether their genitals are "normal" and as a result whether the athlete should be compelled to undergo a blood test for hormone levels. As D.B.'s case illustrated above, observations of bodily difference during doping tests can cascade from that unrelated procedure into disqualification under the World Athletics regulations.

E.K., who was dope tested after finishing in the top six in her event at an international competition in 2017, recounted her experience of being scrutinized by the doping official:

I was submitting my samples. The lady just stopped there and looked at me and then went out, to talk with her colleagues in the other room. Then they came in, three ladies. Then they were talking.... I don't know the language they were talking in. Then after that another man came inside. Then he told them—all I could hear from the man was, 'Just write a report.' They took the samples and then I left.²¹³

²¹¹ Human Rights Watch interview with U.C., August 9, 2019.

²¹² Human Rights Watch interview with J.Q., November 18, 2019.

²¹³ Human Rights Watch interview with E.K., July 14, 2019.

E.K. said the experience made her feel bad and also surprised her. “I had competed [before], so I’d been going through all those doping tests,” she said. “But that was the only time I heard someone complaining.”²¹⁴

As documented in this report in her vignette, D.B. also faced bodily scrutiny during a dope test at the same international competition as E.K. in 2017. On the first day when she arrived at the meet location, officials administered a blood test before any competitions. She ran in the heats the next day and qualified for the semi-finals. The following day, D.B. ran in the semi-finals and did not qualify for the finals. However, officials asked her to undergo a urine test that day. During that test, the woman observing D.B. told her “I can’t tell where the urine is coming from,” and called other officials to come into the room. They allowed D.B. to leave, and then later that day, officials visited her dormitory room to collect a blood sample. “Even my coaches were saying, ‘What do these people want?’” D.B. said.²¹⁵ She never heard from officials from that event, WADA, or World Athletics regarding her test results.²¹⁶ The next communication from World Athletics was in 2019 when they sent her a letter declaring her ineligible under the DSD regulation.

Athletes Harassed and Ostracized

You hear some whispers. You hear people saying, ‘That one doesn’t look like a woman.’²¹⁷

—J.Q., a coach, November 18, 2019

E.K., a middle-distance runner, began excelling at athletics during secondary school. Almost as soon as she won some competitions, she began to face scrutiny. “There were some of my classmates who are older than me and they shouted, ‘Oh, someone like you—this is Caster Semenya,’” E.K. said. She lived with her family in an impoverished part of a city, and they did not have a television at home. She had never watched an athletics competition, other than the ones she competed in. “I didn’t know what it means by Caster Semenya. But what I came to realize is that they mean I look like a boy,” she said. E.K. explained:

²¹⁴ Human Rights Watch interview with E.K., July 14, 2019.

²¹⁵ Human Rights Watch interview with D.B., November 13, 2019.

²¹⁶ World Anti-Doping Association.

²¹⁷ Human Rights Watch interview with J.Q., November 18, 2019.

[At first] ... even when they are calling me Caster Semenya I just think they are calling me that because that word means [champion]. Then I started asking myself why are they calling me that?...because she is a champion? I ask myself why. ‘Well why don't they call me like Usain Bolt or any other any other athlete, to any other champion? Why are they calling me her name?’ That’s the time I came to realize they mean here by calling me Caster Semenya—maybe I look like Caster.²¹⁸

As World Athletics increasingly humiliated Semenya on the global stage, E.K. was not the only athlete who experienced direct comparisons. A.P. told Human Rights Watch she experienced scrutiny from teammates:

They complained, ‘You look like man. You look like a man,’ There were some teachers [verbally] abusing me after they heard about Caster. They’d say things about it. Even one time I went to a competition and they were saying, ‘You’re not a woman, you’re a man. Take off your clothes and we’ll check you.’²¹⁹

Another athlete explained: “Since I live in a [facility for athletes], other people there hear the news about Caster and say ‘oh maybe this will happen to you.’” She said sometimes the comments about Semenya are followed with more direct accusations that she “looks like a boy” and that the local athletics federation will likely test her and disqualify her. “When the Semenya case judgment came out, that’s when this started,” she said.²²⁰

As analyzed in this report, despite their claims to the contrary, World Athletics perpetuated gender stereotypes in its sex testing policies. As a result, the dominant narrative about individual women in media was often presented without a counterpoint. This resulted in widespread misinformation, even among those involved in athletics and the athletes themselves. It also meant that media coverage of individual stories frequently served as the principal reference point.

²¹⁸ Human Rights Watch interview with E.K., July 14, 2019.

²¹⁹ Human Rights Watch interview with A.P., July 17, 2019.

²²⁰ Human Rights Watch interview with U.C., August 9, 2019.

J.B., an athlete, explained how a sex testing case in her country that was widely covered in the media as a scandal impacted how she was treated. “The coach I had when I was younger had asked me about my body and I avoided the question at the time because I was wondering why is he all of the sudden asking me this question?” she said. When she asked him why he was inquiring about her body, his response revealed his understanding was heavily influenced by a case in the media. “He said I might be suspended. And that a lot of people were saying I was like [an athlete covered by the media in the high-profile case],” J.B. told Human Rights Watch. “Senior players were also talking about it when I went to speak to them.”²²¹

Other interviewees confirmed scrutiny in both private and public. J.Q., a coach, said:

There was a point where one of her relay teammates started arguing with another of the relay teammates very loudly within everyone’s earshot about, ‘These men shouldn’t be allowed to compete,’ and ‘We don’t need them in the team.’²²²

Both types of incidents instilled fear in athletes, including fear of social situations and fear of their own success. Several athletes described to Human Rights Watch how they were aware that their success would bring more scrutiny on them. “When I performed well at athletics, I’d feel more stressed,” said J.G. “My coach would say ‘[This person] is a boy, why is she always competing with girls?’”²²³ “When I won more and more, I only felt more fear. I was afraid they might do [a] physical exam and make me ineligible to compete,” she said.²²⁴

Another athlete who had never undergone a medical test said she faced consistent questioning from family and peers over the appearance of her body. Asked why she thought she had high testosterone, U.C. explained: “I started thinking this is what I’m like because the other people in the hostel were talking about me—that’s the basis.”²²⁵

²²¹ Human Rights Watch interview with J.B., August 11, 2019.

²²² Human Rights Watch interview with J.Q., November 18, 2019.

²²³ Human Rights Watch interview with J.G., August 7, 2019.

²²⁴ Ibid.

²²⁵ Human Rights Watch interview with U.C., August 9, 2019.

Public Humiliation at Athletic Events

In some cases, scrutiny and harassment occurred in public during athletics meets. J.Q., a coach, recounted a specific domestic competition that took place after the 2018 regulations were in place. The coach said the crowd appeared to mainly consist of people in the athletics industry. They taunted and jeered at a particular athlete. J.Q. said:

It was like I'd never heard.... I mean I've heard whispers and gossip, but I'd never heard a crowd suddenly start. And they're all laughing, and booing, and hissing, 'Hey, it's a guy! It's a guy!' ²²⁶

Later in the day, J.Q. found several athletes—all of whom had been criticized either by peers, the public, or athletic officials for not meeting gender stereotypes—sitting together in a car, crying.

Some cases of humiliation are less public, but no less impactful for the athletes. At an international competition in 2006, an official from her home country's athletics federation instructed 20-year-old P.F. to wear a padded bra when she competed in order to prevent suspicion about her sex.

"I told her I wouldn't," P.F. told Human Rights Watch. "I said that I'd competed in [another international competition] and nothing had happened there and I didn't have to wear a padded bra so why would I wear a padded bra now," she said. P.F. was not the only athlete requested to wear a padded bra, and news of this spread throughout the team. "A lot of people knew that [the other athlete] and I were both asked to wear bras," she said, explaining that several teammates warned her and the other athlete: "You have similarities in terms of your physique—you might need to get tested." To P.F., this did not seem particularly threatening. She thought at the time: "I had taken tests before I could take another one, it doesn't matter." ²²⁷

When she attempted to re-join sports years after being disqualified, P.F. still faced public humiliation. At a domestic meet, she won her heat and advanced to the finals. Then, as she was lacing her running shoes on the track just before the race, an athletics federation

²²⁶ Human Rights Watch interview with J.Q., November 18, 2019.

²²⁷ Human Rights Watch interview with P.F., August 11, 2019.

official publicly told her she was not allowed to run. “It would have been better if they had just told me I wasn’t eligible to participate [when I registered],” she said. “Because they let me run in the heat and I qualified, then they told me I can’t run.”²²⁸

Gender Stereotyping

The World Athletics regulations have been repeatedly critiqued for relying on gender stereotypes to determine which athletes fall under the criteria. The 2011 World Athletics regulations relied on deeply problematic stereotypes such as a “deep voice” to identify athletes with intersex variations. The 2019 regulations include no criteria for identifying these athletes, leaving the system open for abuse and similar stereotyping where athletes are being identified through observation and suspicion. This, in turn, creates a situation in which women athletes’ bodies are scrutinized through subjective and discriminatory frameworks and harmful gender stereotypes.

Athletes told Human Rights Watch about how their coaches and other athletics officials encouraged them to change their appearance to conform to gender stereotypes as a strategy to avoid scrutiny.

For example, in J.G.’s case, what began as officials telling her to augment her appearance with makeup and jewelry then grew into recommendations for cosmetic genital surgery. “Coaches told me to grow my hair long, wear lipstick and earrings, and wear a padded bra to look more like a woman,” J.G. said. The coach, she said, delivered this instruction in front of the entire team, so everyone around her was aware of the profiling taking place.²²⁹ Soon after that incident, officials from her local sports ministry suggested to J.G. that she undergo surgery to make her body appear more feminine: “[They] told me to do a surgery. Not related to testosterone—not specific, just because my body was different, maybe to make breasts.”²³⁰

Another athlete, C.M. said when she received scrutiny from her teammates and coaches it was often related to rumors and assumptions about her anatomy. “When you wear those small tights and those vests, they reflect how your body looks like,” C.M. said. When

²²⁸ Human Rights Watch interview with P.F., August 11, 2019.

²²⁹ Human Rights Watch interview with J.G., August 7, 2019.

²³⁰ Human Rights Watch interview with J.G., August 7, 2019.

public suspicion about her testosterone levels began, C.M. said she overheard several people commenting about her body: “People say, ‘Oh well we have not seen anything there, and now we hear she has high testosterone.’”²³¹

J.B. said that during class 10 [high school] when teammates began making comments about how her body was not developing like her peers, she ignored it because it was relatively common knowledge that female athletes sometimes do not develop breasts. “Then I went to college and there were a lot of problems,” she said. A widely-reported case of another local elite athlete undergoing sex testing intensified the scrutiny on J.B. When she turned to her coach for advice, “he asked me not to engage in this debate because I kind of looked like a boy and it might cause problems.”²³²

A coach told Human Rights Watch that the regulations also caused some of the athletes he worked with to doubt both who they are, and their ability to compete in the future: “[One of the athletes I train] had sort of confided in me a little bit before [an international competition in 2019]. She told me, ‘Coach, let’s not plan too far ahead because I may be [stopped] under this rule.’”²³³

For others, sport became a safer space for them than broader society. For example, H.T., a 16-year-old athlete who faced severe criticism and bullying from her family members and peers due to the appearance of her body, said: “I was feeling so bad. But now after sports I am proud of me. Because nobody is getting in my way—I’m proud of what I am doing, proud of me.”²³⁴

World Athletics officials have relied heavily on gender stereotypes in their public portrayals of the women targeted by the regulations. According to testimony in Semenya’s case at the Court of Arbitration for Sport supplied by Pierre-Jean Vazel, an elite French athletics coach, World Athletics medical director Dr. Stéphane Bermon made a series of pejorative comments about Semenya and Chand during a 2018 presentation at the French Athletics Association. According to Vazel, Dr. Bermon referred to women affected by the regulations

²³¹ Human Rights Watch interview with C.M., November 12, 2019.

²³² Human Rights Watch interview with J.B., August 11, 2019.

²³³ Human Rights Watch interview with J.Q., November 18, 2019. Bracketing in this quote indicates information redacted for privacy purposes.

²³⁴ Human Rights Watch interview with H.T., August 9, 2019.

as “those people,” and recounted a Nike commercial that featured Semenya, commenting that he had “assumed a man was narrating the video and it was only at the end he had realized it was Ms. Semenya talking.”²³⁵

In a 2018 paper, two scholars documented how Dr. Bermon unveiled the DSD regulation at a conference that took place just before the 2012 London Olympics. The presentation was laden with gender stereotypes. The paper notes:

He began with a slide titled ‘Men and Women: Different Phenotypes’ consisting of two side-by-side images. On the left was Francisco Goya’s late 18th-century masterpiece *La Maja Desnuda*, an idealized Venus of a woman: sensual, curved, nude, her opaline skin lustrous.... The photo on the right could not present a starker contrast. With his oiled, dark brown skin stretched tight over superhumanly developed muscles, Kenneth ‘Flex’ Wheeler smiles at the viewer. The bodybuilder, whom Arnold Schwarzenegger called ‘one of the greatest,’ stands in a ‘front lat spread,’ a banana-colored Speedo just covering his genitals: fists on his narrow waist, arms bent at a right angle, pectorals pushed up and protruding out, elbows pivoting forward, thighs and biceps bulging, with stomach sucked in.²³⁶

The World Athletics regulations set up a system in which women athletes’ bodies are under near-constant and arbitrary surveillance. Or, as legal scholar Michele Krech argues, the regulations effectively create an unfair system justified on the discriminatory logic that “ensuring that only women with bodies deemed sufficiently ‘feminine’ are allowed to excel in athletics is worth subjecting a small subset of women to unnecessary and unwanted medical intervention and/or exclusion from athletics altogether.”²³⁷

²³⁵ *Mokgadi Caster Semenya v. International Association of Athletics Federations and Athletics South Africa v. International Association of Athletics Federations*, CAS 2018/0/5794 and CAS 2018/0/5798, Interim Arbitral Award, https://www.tas-cas.org/fileadmin/user_upload/CAS_Award_-_redacted_-_Semenya_ASA_IAAF.pdf, para. 109.

²³⁶ Karkazis and Jordan-Young, “The Powers of Testosterone: Obscuring Race and Regional Bias in the Regulation of Women Athletes.”

²³⁷ Michele Krech, “The Misplaced Burdens of ‘Gender Equality’ in *Caster Semenya v. the IAAF*: The Court of Arbitration for Sport Attempts Human Rights Adjudication,” *Sweet & Maxwell’s International Sports Law Review* 2018, 3: 66-76, https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3611413 (accessed October 30, 2020).

Dangers of Public Disclosure

As Annet Negesa’s case illustrates, public disclosure of women’s ensnarement under the World Athletics regulations can have serious ramifications. Negesa’s case is prominent in that it is public and she sought and received asylum on the basis of her fear of persecution, but her experience of the fallout from harassment and discrimination is not unique.

“Sometimes I do not feel safe,” D.B., an athlete, told Human Rights Watch. “Because there [are] some times some people can be so ignorant. And they can just maybe do something.... Maybe they’re just seeing you and your appearance, and they maybe suspect something and they can sometimes act the way they want,” she said.²³⁸

Other athletes described how comments about their appearance throughout their lives impacted them psychologically. Negesa said: “My teachers and fellow students would talk about many things—she’s like a man.... Those are the things they were saying, and I was just keeping quiet—just ignoring. I was nine years old. I felt very sad when they said it.”²³⁹ Another athlete recounted how her classmates in secondary school called her slurs commonly used for gay and transgender people. “I couldn’t go to school. I stopped in the 8th grade but my mother forced me to go,” J.G. said. “I realized I didn’t look like other females. Around puberty—I was different. I couldn’t talk to anyone about it.”²⁴⁰

²³⁸ Human Rights Watch interview with D.B., November 13, 2019.

²³⁹ Human Rights Watch interview with A.P., July 17, 2019.

²⁴⁰ Human Rights Watch interview with J.G., August 7, 2019.

V. Lives and Livelihoods Harmed

Remember in athletics, it's not only because of passion but for our daily bread.²⁴¹

—C.M., athlete, November 12, 2019

Now my family is relying on me—they know that one day I will get them out of poverty. So when these things happen, they get so sad.²⁴²

—S.D., athlete, describing the impact of being ruled ineligible, November 12, 2019

My life is over—no coach is interested in training me; no job. I couldn't even eat.²⁴³

—J.G., athlete, describing the impact of being ruled ineligible, August 7, 2019

As discussed in this report, public disclosure of women athletes' sex characteristics and the associated stigma have harmed the lives of affected individuals and their families. Athletes scrutinized under sex testing regulations can also experience loss of livelihood.

The economic barriers to entry in athletics are lower than in some other sports, largely because running requires less equipment than, for example, some team sports that use more costly devices and facilities. This makes it possible for a significant number of women from backgrounds of poverty to compete in athletics. As one athlete described:

Growing up we had nothing—no field, no track. I practiced running on farmland. I traveled seven to ten kilometers to practice once I started formally. And I never dreamt of getting a job because in my village and in my family we couldn't even get two square meals a day. When I used to practice, after practice I'd feel really hungry but there wasn't enough food.²⁴⁴

²⁴¹ Human Rights Watch interview with C.M., November 12, 2019.

²⁴² Human Rights Watch interview with S.D., November 12, 2019.

²⁴³ Human Rights Watch interview with J.G., August 7, 2019.

²⁴⁴ Human Rights Watch interview with J.B., August 11, 2019.

Success in athletics can deliver material dividends for women. From scholarships to housing and food, the benefits can come early in an athlete's career, including when she is a child.²⁴⁵ Then, if the athlete is successful, she can earn income at competitions and through sponsorships. In some circumstances, success at athletics can also lead to stable employment outside sport.

Similarly, financial support is crucial for an athlete to develop to an elite competitor. This includes funding for nutritious food, equipment such as spiked running shoes, travel to attend competitions, and the financial means to have enough time to train. In other words, athletes need to be economically secure enough to be able to dedicate the substantial time required for training. If they are not, it is very unlikely they will succeed.

Programs vary across contexts, but many athletes rely on sport scholarships to support them for tuition fees, as well as housing and food, while they train and develop as competitors. Some local clubs and national federations have specific housing and training facilities for athletes who achieve a certain level of success or demonstrate promise.

Economic security, however, is highly dependent on performance. As the experiences of the women documented in this report show, when athletes ascend in competitions and begin earning per diem and prize money, often that money is shared with their families, for whom it can become a vital source of support. In some cases, athletes who achieve a certain level of success are rewarded with a permanent non-sporting job, which can significantly secure their and their family's economic stability.

E.K., now 24 years old, grew up in a slum, with her two siblings and a single mother. "My mother sometimes woke up very early in the morning to look for something for us to eat," she said. "Sometimes you don't even have time to talk to your mother—she's just out there looking for something, for anything to help us continue life." At least once, E.K. and her siblings were not able to gather enough money to pay for their school exam fees. As a result, they stayed home from school for three months, working day jobs with their mother to save enough money to re-enroll.

²⁴⁵ For example, Indian runner Pinki Pramanik received a cow as a prize for winning a race when she was a teenager. "Dour – The Frontrunner" Documentary on the story of Pinki Pramanik, an Indian athlete," Co-directed by Debalina & Payoshni Mitra (2013).

When E.K. was 18, she competed in her first major international competition, which attracted the attention of sponsors. That year, she was able to rent an apartment outside of the slum for her mother and brothers, and pay their school fees. She continued competing, but did not earn prize money quickly. Instead, she saved her per diems to continue paying rent. Then, in subsequent years as she continued to succeed, a combination of prize money and sponsorships allowed her to purchase land and build a house for her family. “By that time, because I was doing well, it helped a lot at home,” she said.²⁴⁶ When athletics officials began investigating E.K. under the DSD regulations in 2019 and declared her ineligible for competitions, she immediately worried about sustaining her family. “It was hard to have someone tell you, ‘Okay, this is how it is,’” she said regarding when she found out she was disqualified under the regulation. She was fearful of her family having to return to the slum:

I do worry, because I cannot imagine going back to that place, that life again. For me to be able to change the whole thing not to ever think of that position again.²⁴⁷

Employment Programs Linked to Athlete Performance

Some countries around the world provide employment opportunities to athletes who have competed on behalf of the national team. The list below is illustrative but not exhaustive, and illustrates how the sacrifices athletes make in terms of the time spent training are sometimes rewarded.

Germany

The German Ministries of Interior and Defense allow elite athletes to become civil servants employed by the federal police, the customs office, and military.²⁴⁸ Those divisions within ministries have “sport support groups” responsible for employing athletes. Athletes join 4.5-year-long degree programs that include 21 months of

²⁴⁶ Human Rights Watch interview with A.P., July 17, 2019.

²⁴⁷ Human Rights Watch interview with E.K., July 14, 2019.

²⁴⁸ Andrew Smith et al., “The Funding and Employment Status of Elite Athletes – A Comparison of the UK, USA and Germany,” *Law In Sport*, May 6, 2016, <https://www.lawinsport.com/topics/item/the-funding-and-employment-status-of-elite-athletes-a-comparison-of-the-uk-usa-and-germany> (accessed October 30, 2020).

lectures at a police college and 8 months of training and competitions. During their sporting career, they can reduce the service hours by 33 percent and join full time as police or customs officials after their sporting career ends. Programs of both ministries employ up to 904 athletes at a time; most are employed by the Ministry of Defense.²⁴⁹

India

The Sports Authority of India reserves 5 percent of entry level cadre for Olympians and 1 percent for Paralympians.²⁵⁰ Those jobs include additional wages, promotions, and special casual leave. The percentage includes jobs offered by organizations under administrative control of these departments and ministries.

Indonesia

Beginning in 2018, the government has provided civil servant jobs to athletes who earned gold and silver medals in the Olympics.²⁵¹

South Korea

The government of South Korea has established a program to enhance their employability. The program focuses on after-sports career training including English education, sports industry education, retirement programs, and graduate school scholarships.²⁵² The Sports Ministry also provides pensions for athletes who sustained serious injuries, designating them “people of national merit.”²⁵³

²⁴⁹ Ibid.

²⁵⁰ Government of India, Ministry of Youth Affairs and Sports, Department of Sports, “Jobs Opportunities in Government to Sportspersons,” undated, <https://yas.nic.in/sports/jobs-sportspersons-government> (accessed October 30, 2020).

²⁵¹ “Medal-winning Athletes Offered Civil Servant Jobs,” *Tempo*, August 27, 2018, <https://en.tempco.co/read/921130/medal-winning-athletes-offered-civil-servant-jobs> (accessed October 30, 2020).

²⁵² Steven Borowiec, “The Price of Success for Young South Korean Athletes,” *Al Jazeera*, February 19, 2018, <https://www.aljazeera.com/indepth/features/price-success-young-south-korean-athletes-180211120942233.html> (accessed October 30, 2020).

²⁵³ Hooyeon Kim, “What Lies Ahead for Korea’s Forgotten Athletes?” *Reuters*, October 28, 2015, <https://www.reuters.com/article/us-sport-southkorea-injuries/what-lies-ahead-for-koreas-forgotten-athletes-idUSKCN0SMoP520151028> (accessed October 30, 2020).

C.M., a 19-year-old athlete, said: “I came from a humble background and now as my parents are struggling to make ends meet, you have to do your part.” She said she had been working since she was “a small girl,” and that her athletics income supports her parents, grandparents, as well as younger athletes who cannot afford to eat well or travel to competitions.²⁵⁴

D.B. said her income from athletics, even just the per diem, combined with skipping meals, means that she is able to help pay for her sisters’ school fees. “That money has always helped me so much because when something is happening at home I always use it to help,” she said. “Like when my dad became sick ... at home they cannot get that money.”²⁵⁵

Athletes who come from relatively impoverished backgrounds can find the dual pressures of supporting their athletics careers and supporting families challenging. P.H. told Human Rights Watch that after she delayed attending secondary school because her family could not afford it, she was identified as a promising athlete and given a full school scholarship. P.H. was forced to change schools three times in one year due to changes of perception about her athletics performance. When she was eventually selected to represent her country at an international meet, she nearly had to withdraw because her family could not afford the passport application fee.²⁵⁶

J.B. is an athlete in a country with a robust employment program for athletes that achieve excellence at the international level. Her family made significant financial sacrifices for her, including selling some of their farmland to pay for a doctor’s appointment following gender-stereotyped scrutiny of her body by a coach. J.B.’s economic situation is compounded by her history of being sex tested. She needs the financial support to eat and train properly to compete, and since her family cannot provide her with financial support, she needs a job. However, since she had already undergone a humiliating sex testing procedure and faces routine comments from coaches and athletics federation officials about her body, she was terrified of pursuing employment, which would likely also require

²⁵⁴ Human Rights Watch interview with C.M., November 12, 2019.

²⁵⁵ Human Rights Watch interview with D.B., November 13, 2019.

²⁵⁶ Human Rights Watch interview with P.H., July 16, 2019.

a medical examination.²⁵⁷ “My family is waiting for me to get a job,” she said. “I can’t be an athlete forever. And they’re worried about how I’m going to help sustain them after that happens.”²⁵⁸

Psychological Impact on Athletes

Even if you come you beat me today at athletics. It doesn’t mean that tomorrow you’ll do it, or you’ll do it for the rest of your life. Even Caster started down—she didn’t start where she is today.²⁵⁹

—C.M., athlete, November 12, 2019

As documented throughout this report, athletes can be deeply scarred by the scrutiny associated with sex testing regulations, and the actions taken while implementing the regulations. The intense pressure athletes experience to perform, to represent their countries, and to support their own and their families’ livelihoods is compounded by the human rights violations documented.

The combination of public disclosure and poor direct communication with affected athletes can leave women with little knowledge about their bodies, resulting in intensive self-questioning. As Sönksen et al. noted:

[I]t will be appreciated that this practice may have devastating effects on unsuspecting athletes. As in previous years, those who become subject to investigation express little doubt about their femininity and/or womanhood. The discovery and diagnosis of a DSD will likely come as a severe shock, and the potential for harm is not a trivial matter.²⁶⁰

According to media reports, Pratima Gaonkar, an Indian runner, died by suicide in 2001 following her coach revealing to her that she had come under scrutiny by sports authorities

²⁵⁷ Human Rights Watch interview with J.B., August 11, 2019. In J.B.’s country, most if not all government jobs require a routine medical examination prior to employment.

²⁵⁸ Human Rights Watch interview with J.B., August 11, 2019.

²⁵⁹ Human Rights Watch interview with C.M., November 12, 2019.

²⁶⁰ Sönksen et al., “Medical and Ethical Concerns Regarding Women with Hyperandrogenism and Elite Sport,” *Journal of Clinical Endocrinology and Metabolism*.

when she won a silver medal in the 4x400 relay at the Junior Asian Athletics Championship in Brunei.²⁶¹

One athlete who had been tested and disqualified from competition told Human Rights Watch:

I questioned myself because there was never any information or results from the process. I don't even know my testosterone level, just that it's above 5 [nmol/L]. I didn't understand; I didn't get to see the paper with the numbers.²⁶²

Another athlete who had been tested and disqualified explained:

I wanted to know. I wanted to know the results. It is good to know yourself. I wanted to know who am I? Why are they testing me? They're not testing other girls... I wanted to know why they have taken me to the hospital, removing the clothes. I wanted to know, but they did not give me that answer. So during that time I went to school, I did not perform well. I wanted to know who I am.²⁶³

P.F. said she became intensely depressed and withdrew from the sports community after a slew of experiences that included being told by a federation official in 2006 that she did not conform to gender stereotypes. She also had blood tests, a physical exam, and an ultrasound at a hospital, the results of which were never revealed to her. After those tests, athletics officials deemed her ineligible to compete. She never learned about the test results or what exactly disqualified her. Instead, she became intensely depressed and withdrew from the sports community. No federation official contacted her, nor did anyone suggest that she take medication or undergo surgery; since then, P.F. has followed the sex testing controversies in women's sports and is aware of various high-profile cases and the subsequent regulations. Human Rights Watch asked her to consider what she felt and

²⁶¹ Nihal Koshie, "The Rising Star Who Ended Her Life Much Before Dutee Chand Challenged the Rules," *Indian Express*, September 9, 2018, <https://indianexpress.com/article/sports/sport-others/the-girl-before-dutee-chand-pratima-gaonkar-5346699> (accessed October 30, 2020).

²⁶² Human Rights Watch interview with P.H., July 16, 2019.

²⁶³ Human Rights Watch interview with K.N., July 15, 2019.

knew immediately following her sex testing experience in 2006. Looking back on the situation and what she knew then, she said she would have considered medical interventions such as drugs or surgery in order to continue competing: “Because I love sports that’s why.”²⁶⁴

L.O., a coach with decades of experience in national and international competitions, said:

I worry about the women. I worry because they feel like they were born to do this—born to run. And running like this changes their entire existence so when they have it taken away from them, what can they do?²⁶⁵

For some, scrutiny from peers alone is sufficient to cause psychological suffering. J.B. described how teammates and competitors began making comments about her body when a case of another athlete being sex tested became widely reported in media. In some cases, those comments specifically referenced the other athlete, and suggested that J.B. would be ensnared in sex testing as well. J.B. said: “This created tremendous pressure on me and I used to cry all alone and didn’t know what decision I could take.” She stopped competing for over a year.²⁶⁶

Others who stopped competing said the scrutiny of their bodies, and associated gossip and media coverage, impacted more than just their lives. J.G., who was disqualified after a sex test at an international competition in 2006, told Human Rights Watch:

Ending my athletics career has impacted my entire family, especially my sisters. They had trouble getting married because people suspected they had the same [condition] as me.²⁶⁷

When media revealed that P.H., a 23-year-old athlete, had been sex tested and ruled ineligible for competition in 2019, the athlete contacted her coach. “I told him I didn’t want to run any more because they put my name in the newspaper. I was very sad.”²⁶⁸

²⁶⁴ Human Rights Watch interview with P.F., August 11, 2019.

²⁶⁵ Human Rights Watch interview with L.O., August 9, 2019.

²⁶⁶ Human Rights Watch interview with J.B., August 11, 2019.

²⁶⁷ Human Rights Watch interview with J.G., August 7, 2019.

²⁶⁸ Human Rights Watch interview with P.H., July 16, 2019.

E.K. described what it felt like to be ruled ineligible under the regulations: “You feel very disappointed. It is very disappointing because you didn’t ask anyone to—you didn’t choose to be the way you are. It’s like they are avoiding you for being who you are.”²⁶⁹

Other athletes described how comments about their appearance throughout their lives impacted them psychologically. Negesa said:

My teachers and fellow students would talk about many things—she’s like a man.... Those are the things they were saying, and I was just keeping quiet—just ignoring. I was nine years old. I felt very sad when they said it.²⁷⁰

Another athlete recounted how her classmates in secondary school called her slurs commonly used for gay and transgender people. J.G. said:

I couldn’t go to school. I stopped in the 8th grade but my mother forced me to go.... I realized I didn’t look like other females. Around puberty—I was different. I couldn’t talk to anyone about it.²⁷¹

Athletes also spoke of fear of social situations, and fear of their own success. Several athletes described how they were aware that their success would bring more scrutiny. J.G. said:

When I performed well at athletics, I’d feel more stressed.... My coach would say ‘[This person] is a boy, why is she always competing with girls?’²⁷² When I won more and more, I only felt more fear. I was afraid they might do [a] physical exam and make me ineligible to compete.²⁷³

²⁶⁹ Human Rights Watch interview with E.K., July 14, 2019.

²⁷⁰ Human Rights Watch interview with A.P., July 17, 2019.

²⁷¹ Human Rights Watch interview with J.G., August 7, 2019.

²⁷² Human Rights Watch interview with J.G., August 7, 2019.

²⁷³ Human Rights Watch interview with J.G., August 7, 2019.

VI. International Legal Obligations

We cannot ignore how [World Athletics] is flouting decades of worldwide progress in respecting human rights and dignity.

—Roger Pielke, director of the Sports Governance Center, University of Colorado, May 17, 2019²⁷⁴

As this report shows, sex testing regulations, including the World Athletics DSD regulations and their precursors, violate internationally protected fundamental rights and discriminate against women on the basis of their sex, their sex characteristics, and their gender expression. The regulations violate their privacy and coercing them into unnecessary medical procedures.

While the global sporting industry is regulated by a complex system of local, national, and regional governmental and non-governmental entities that have different relationships with official human rights mechanisms, human rights standards apply to all relevant actors. This includes international sports governance bodies. Their failure to incorporate human rights protections in their policy-making and enforcement processes has resulted in fragmented and deficient protection for women athletes. The insularity of the global sporting industry does not exempt its brokers from human rights law.

Legal experts have distanced themselves from World Athletics due to the regulations. For example, in May 2018, in the wake of the release of the new World Athletics regulations, Steve Cornelius, head of the Department of Private Law and Director of the Centre for Intellectual Property Law at Pretoria University, publicly resigned from the World Athletics Disciplinary Tribunal. In his resignation letter to World Athletics Director, Sebastian Coe, Dr. Cornelius wrote:

I cannot with good conscience continue to associate myself with an organization which insists on ostracizing specific individuals, all of them female, for no reason other than being what they are born to be.

²⁷⁴ Pielke, “Caster Semenya Ruling: Sports Federation is Flouting Ethics Rules,” *Nature*, <https://www.nature.com/articles/d41586-019-01606-8>.

He said: “The adoption of the new eligibility regulations for female classification is based on the same kind of ideology that has led to some of the worse injustices and atrocities in the history of our planet.”²⁷⁵

International human rights experts have scrutinized the regulations analyzed in this report. For example, in 2016, the United Nations special rapporteur on health called on sporting organizations to:

...implement policies in accordance with human rights norms and refrain from introducing policies that force, coerce or otherwise pressure women athletes into undergoing unnecessary, irreversible and harmful medical procedures in order to participate as women in competitive sport.²⁷⁶

In 2018, the special rapporteur on health was joined by the special rapporteur on torture and other cruel, inhuman or degrading treatment or punishment, and the working group on the issue of discrimination against women in law and in practice in a letter to World Athletics condemning their new regulations. The experts wrote:

The regulations reinforce negative stereotypes and stigma that women in the targeted category are not women—and that they either need to be ‘fixed’ through medically unnecessary treatment with negative health impacts or compete with men, or compete in ‘any applicable intersex or similar classification,’ which can call into question their very definition of self. Women who do not conform to culturally constructed notions of womanhood are particularly at risk of discrimination, violence, and criminalization. By singling out a certain group of athletes and denying

²⁷⁵ “The IAAF Should Listen to Prof Cornelius,” *The Citizen*, May 2, 2018, <https://citizen.co.za/news/opinion/opinion-editorials/1911524/the-World-Athletics-should-listen-to-prof-cornelius> (accessed October 30, 2020).

²⁷⁶ Human Rights Council, “Special Rapporteur on the Right of Everyone to the Enjoyment of the Highest Attainable Standard of Physical and Mental Health,” A/HRC/32/33, April 4, 2016, <https://undocs.org/en/A/HRC/32/33> (accessed October 30, 2020).

them membership in the ‘female’ category, the World Athletics puts these women at risk of repercussions far beyond the inability to compete.²⁷⁷

Right to Privacy

Article 17 of the International Covenant on Civil and Political Rights (ICCPR) states that:

No one shall be subjected to arbitrary or unlawful interference with his privacy, family, home or correspondence, nor to unlawful attacks on his honour and reputation. Everyone has the right to the protection of the law against such interference or attacks.²⁷⁸

As discussed above, the regulations violate an individual’s right to privacy. States do have some latitude to legitimately intrude upon a person’s privacy, for example during bodily searches carried out pursuant to a criminal investigation. But such actions must be justified as necessary for and proportional to the importance of a legitimate state interest. States and sport governing bodies have no legitimate interest in subjecting anyone to coerced genital exams for the purposes of determining competition eligibility.

Regulations that call for scrutiny of women’s naturally-occurring hormone levels are a form of judgment and questioning of women’s sex and gender identity. The processes involved in identifying an athlete for special scrutiny, detecting and examining an athlete’s sex characteristics, and assessing her degree of “virilization” are inherently subjective and degrading. The process of enforcing the regulations necessarily compels women to undergo unnecessary and invasive examinations.

Right to Health

The regulations also violate women athletes’ right to health. The UN Committee on Economic, Social and Cultural Rights (CESCR) which oversees implementation of the

²⁷⁷ Mandates of the Special Rapporteur on the Right of Everyone to the Enjoyment of the Highest Attainable Standard of Physical and Mental Health; the Special Rapporteur on Torture and Other Cruel, Inhuman or Degrading Treatment or Punishment; and the Working Group on the Issue of Discrimination Against Women in Law and in Practice, “Special Procedures Communication to the IAAF,” OL OTH 62/2018, https://www.ohchr.org/Documents/Issues/Health/Letter_IAAF_Sept2018.pdf.

²⁷⁸ International Covenant on Civil and Political Rights (ICCPR), adopted December 16, 1966, G.A. Res. 2200A (XXI), 21 U.N. GAOR Supp. (No. 16) at 52, U.N. Doc. A/6316 (1966), 999 U.N.T.S. 171, entered into force March 23, 1976, art 17.

International Covenant on Economic, Social and Cultural Rights (ICESCR), has made clear that the ICESCR proscribes any discrimination in access to health care and the underlying determinants of health, as well as to means and entitlements for their procurement, on the grounds of sexual orientation and gender identity. The CESCR emphasized in its General Comment 14 that:

The right to health contains both freedoms and entitlements. The freedoms include the right to control one's health and body... and the right to be free from interference, such as the right to be free from torture, nonconsensual medical treatment and experimentation.²⁷⁹

Children's Rights Concerns

As many athletes begin their professional careers when they are children, the World Athletics regulations also raise children's rights concerns. All of the athletes interviewed for this report experienced stigma and discrimination related to the variations in their sex characteristics beginning in childhood. One of the athletes interviewed was a child (16 years old) at the time of the interview. In 2016, the UN Committee on the Rights of the Child issued General Comment No. 20, on the implementation of the rights of the child during adolescence.²⁸⁰

In their analysis the committee examined the rights of all children to physical integrity,²⁸¹ and to information, including health information.²⁸² This information should be presented in a way that is accessible to them.²⁸³ The committee stated that, "There should be no barriers to...information and counselling on sexual and reproductive health and rights" and that "particular efforts need to be made to overcome barriers of stigma and fear

²⁷⁹ CESCR, General Comment No. 14: The Right to the Highest Attainable Standard of Health, art. 12, U.N. Doc. E/C.12/2000/4 (2000), <http://docstore.ohchr.org/SelfServices/FilesHandler.ashx?enc=4sIQ6QSmIBEDzFEovLCuW1AVC1NkPsgUedPIF1vFPMJ2c7ey6PAz2qaojTzDjmCoy%2Bgt%2BsAtGDNzdEqA6SuP2row%2F6sVBGTpvTSCbiOr4XVFTqhQY65auTFbQRPWNDxL> (accessed October 30, 2020).

²⁸⁰ UN Committee on the Rights of the Child, General comment No. 20 (2016) on the Implementation of the Rights of the Child During Adolescence, CRC/C/GC/20, December 6, 2016, <https://undocs.org/en/CRC/C/GC/20> (accessed October 30, 2020).

²⁸¹ See Convention on the Rights of the Child (CRC), adopted November 20, 1989, G.A. Res. 44/25, annex, 44 U.N. GAOR Supp. (No. 49) at 167, U.N. Doc. A/44/49 (1989), entered into force September 2, 1990, arts. 19, 37(a); General Comment No. 20, para. 34.

²⁸² CRC, arts. 13, 17, 24; General Comment No. 20, paras. 47-48.

²⁸³ General Comment No. 20, paras. 59-61.

experienced by, for example, adolescent girls, girls with disabilities and lesbian, gay, bisexual, transgender and intersex adolescents....”²⁸⁴

The Committee has noted that, “The right to privacy takes on increasing significance during adolescence,” particularly with respect to medical advice and medical procedures.²⁸⁵ The Committee has condemned forced surgeries or treatments on children with variations in their sex characteristics, including adolescents, as well as interventions that purport to change sexual orientation and other medically unnecessary, discriminatory, and invasive medical procedures.²⁸⁶

²⁸⁴ Ibid., para. 60.

²⁸⁵ Ibid., para. 46. See CRC, art. 16.

²⁸⁶ General Comment No. 20, para. 34. The Committee has condemned surgery on intersex children nine times, including in reviews of New Zealand (UN Committee on the Rights of the Child, “Concluding Observations on the Fifth Period Report of New Zealand,” CRC/C/NZL/CO/5, October 21, 2016, <https://undocs.org/en/CRC/C/NZL/CO/5> (accessed October 30, 2020)), South Africa (UN Committee on the Rights of the Child, “Concluding Observations on the Second Periodic Report of South Africa,” CRC/C/ZAF/CO/2, October 27, 2016, <http://docstore.ohchr.org/SelfServices/FilesHandler.ashx?enc=6QkG1d%2fPPRiCAqhKb7yhsgKm5PV3GD7y5SARaYf1ofW7dXUQDVbHBNB2j3p%2fesDxuc8JUVdBBuc6CCUAL%2fsCNNFybwggiSitaHqAaGgCK7yHkSvo%2bhACPZfglZ67fLT> (accessed October 30, 2020)), Switzerland (UN Committee on the Rights of the Child, “Concluding Observations on the Combined Second to Fourth Periodic Reports of Switzerland,” CRC/C/CHE/CO/2-4, February 26, 2015, <https://undocs.org/CRC/C/CHE/CO/2-4> (accessed October 30, 2020)), Chile (UN Committee on the Rights of the Child, “Concluding Observations on the Fourth and Fifth Periodic Reports of Chile,” CRC/C/CHL/CO/4-5, <https://undocs.org/en/CRC/C/CHL/CO/4-5>), France (UN Committee on the Rights of the Child, “Concluding Observations on the Fifth Periodic Report of France,” CRC/C/FRA/CO/5, <https://undocs.org/CRC/C/FRA/CO/5>), Ireland (UN Committee on the Rights of the Child, “Concluding Observations on the Combined Third and Fourth Periodic Reports of Ireland,” CRC/C/IRL/CO/3-4, <https://undocs.org/en/CRC/C/IRL/CO/3-4>), the UK (UN Committee on the Rights of the Child, “Concluding Observations on the Fifth Periodic Report of the United Kingdom of Great Britain and Northern Ireland,” CRC/C/GBR/CO/5, <https://undocs.org/CRC/C/GBR/CO/5>), Nepal (UN Committee on the Rights of the Child, “Concluding Observations on the Third to Fifth Periodic Reports of Nepal,” CRC/C/NPL/CO/3-5, <https://undocs.org/en/crc/c/npl/co/3-5>), Italy (UN Committee on the Rights of the Child, “Concluding Observations on the Combined Fifth and Sixth Periodic Reports of Italy,” CRC/C/ITA/CO/5-6, <https://undocs.org/CRC/C/ITA/CO/5-6>), Belgium (UN Committee on the Rights of the Child, “Concluding Observations on the Combined Fifth and Sixth Reports of Belgium,” CRC/C/BEL/CO/5-6, <https://undocs.org/en/CRC/C/BEL/CO/5-6>), Malta (UN Committee on the Rights of the Child, “Concluding Observations on the Combined Third to Sixth Periodic Reports of Malta,” CRC/C/MLT/CO/3-6, <https://undocs.org/CRC/C/MLT/CO/3-6>), Portugal (UN Committee on the Rights of the Child, “Concluding Observations on the Combined Fifth and Sixth Periodic Reports of Portugal,” CRC/C/PRT/CO/5-6, <https://undocs.org/CRC/C/PRT/CO/5-6>), Australia (UN Committee on the Rights of the Child, “Concluding observations on the combined fifth and sixth periodic reports of Australia, CRC/C/AUS/CO/5-6, November 1, 2019, <https://undocs.org/CRC/C/AUS/CO/5-6> (accessed October 30, 2020)), Austria, (UN Committee on the Rights of the Child, “Concluding Observations on the Combined Fifth and Sixth Periodic Reports of Austria,” CRC/C/AUT/CO/5-6, <https://undocs.org/en/CRC/C/AUT/CO/5-6>), Spain (UN Committee on the Rights of the Child, “Concluding Observations on the Combined Fifth and Sixth Periodic Reports of Spain,” CRC/C/ESP/CO/5-6, <https://undocs.org/CRC/C/ESP/CO/5-6>), Argentina (UN Committee on the Rights of the Child, “Concluding Observations on the Combined Fifth and Sixth Periodic Reports of Argentina,” CRC/C/ARG/CO/5-6, <https://undocs.org/CRC/C/ARG/CO/5-6>), Denmark (UN Committee on the Rights of the Child, “Concluding Observations on the Fifth Periodic Report of Denmark,” CRC/C/DNK/CO/5, <https://undocs.org/en/CRC/C/DNK/CO/5>).

Health professionals have a particular duty to ensure that children are able to participate meaningfully in decisions about them, including in their medical care, and should safeguard children’s best interests.²⁸⁷

Lack of Informed Consent

The regulations violate the right to health, first, because athletes impacted by the regulations are not in any meaningful way given the option of providing informed and voluntary consent to the medical intervention proposed by World Athletics. An athlete choosing between the medical interventions demanded by the regulations and the end of her career is not making a free choice, but rather a coerced one.

Informed consent is a fundamental aspect of medical ethics, protected by international human rights law, and enshrined in international medical standards. The Universal Declaration on Bioethics and Human Rights, issued by UNESCO in 2005, outlines ethical issues related to medicine and the life sciences, and provides a framework of principles and procedures to guide states when they formulate policies in the field of bioethics. It states: “Any preventive, diagnostic and therapeutic medical intervention is only to be carried out with the prior, free and informed consent of the person concerned, based on adequate information.”²⁸⁸

In a 2009 report to the United Nations General Assembly, the special rapporteur on the right to health stated: “Guaranteeing informed consent is fundamental to achieving the enjoyment of the right to health.” However, the special rapporteur observed that informed consent is often compromised in healthcare settings “as a result of the power imbalance created by reposing trust and unequal levels of knowledge and experience inherent in doctor-patient and researcher-subject relationships.” He noted that “Structural

²⁸⁷ Article 12(1) of the Convention on the Rights of the Child requires states to “assure to the child who is capable of forming his or her own views the right to express those views freely in all matters affecting the child, the views of the child being given due weight in accordance with the age and maturity of the child.” Article 3 of the Convention states: “In all actions concerning children, whether undertaken by public or private social welfare institutions, courts of law, administrative authorities or legislative bodies, the best interests of the child shall be a primary consideration.”

²⁸⁸ United Nations Education, Scientific and Cultural Organization (UNESCO), “Universal Declaration on Bioethics and Human Rights,” October 19, 2005, http://portal.unesco.org/en/ev.php-URL_ID=31058&URL_DO=DO_TOPIC&URL_SECTION=201.html (accessed October 30, 2020).

inequalities exacerbated by stigma and discrimination result in individuals from certain groups being disproportionately vulnerable to having informed consent compromised.”²⁸⁹

The British Medical Association provides helpful guidelines on situations in which informed consent cannot be given:

A fundamental ethical principle guiding medical practice is that no examination, diagnosis or treatment of a competent adult should be undertaken without the person’s consent. The ethical obligation to seek consent applies even where this is not a legal requirement. In order for consent to be ‘valid’ the individual must have been given sufficient, accurate and relevant information; the individual must have the competence to consider the issues and to reach a decision; and that decision must be voluntary in terms of not being coerced. There are a number of ways in which the ability of detainees to give consent may be compromised:

- the individual’s competence to make a decision may be affected by illness, fear, fatigue, distress or by the effects of alcohol or drugs
- the lack of privacy during the consultation may affect the individual’s willingness to ask questions in order to receive sufficient information to make an informed decision
- the individual may give general consent to anything proposed in the hope of being released more quickly without considering the actual procedure to be undertaken
- the fact that a refusal to permit an intimate search may be seen to imply guilt, may pressurise the patient to give consent.²⁹⁰

Informed consent is not just a matter of asking patients whether they are amenable to individual clinical procedures. In a situation where strong incentives to undergo otherwise medically unnecessary procedures to lower hormone levels exist, the line between consent

²⁸⁹ Ibid.

²⁹⁰ BMA Ethics, “Recommendations for Healthcare Professionals Asked to Perform Intimate Body Searches: Guidance for Doctors from the British Medical Association and the Faculty of Forensic and Legal Medicine,” July 2010, <http://www.bma.org.uk/-/media/files/pdfs/practical%20advice%20at%20work/ethics/intimatebodysearchesjuly2010.pdf> (accessed August 20, 2020). p. 1.

and coercion is blurred. The regulations repeatedly mention that doctors involved in the testing of these athletes must obtain their informed consent and state that “no athlete will be forced to undergo any assessment and/or treatment under these regulations.”

However, the regulations also specify that any athlete who “does not meet the Eligibility Conditions (and any athlete who is asked by the World Athletics Medical Manager to submit to assessment under these Regulations and fails or refuses to do so) will not be eligible to compete in the female classification.”

Due to the relationship between the procedures and the athlete’s ability to compete as well as retain her privacy rights, the conditions for giving informed, voluntary consent are not realistic, and informed consent standards cannot be met.

Medically Unnecessary Interventions

The regulations also violate an athlete’s right to health because the regulations impose medically unnecessary procedures.

While the medical interventions required by the 2019 regulations are in the form of hormone therapy and not surgery explicitly, the analysis by the United Nations Committee against Torture, the monitoring body for the Convention Against Torture (CAT) on medically unnecessary non-consensual surgeries on people with intersex variations, is instructive as to the ways in which any non-consensual medical intervention violates human rights in particular the right to bodily integrity. The Committee has addressed and condemned such surgeries on people with intersex variations eight times.²⁹¹ CAT has referenced several of the Convention’s provisions in its analysis of intersex surgeries. These are: article 2 (legislative, administrative, judicial or other measures to prevent acts of torture), article 10

²⁹¹ CAT, “Concluding Observations of the Committee Against Torture: Germany,” CAT/C/DEU/CO/5, <https://undocs.org/en/CAT/C/DEU/CO/5>; CAT, “Concluding Observations on the Seventh Periodic Report of Switzerland,” CAT/C/CHE/CO/7, <https://undocs.org/CAT/C/CHE/CO/7>; CAT, “Concluding Observations on the Sixth Periodic Report of Austria,” CAT/C/AUT/CO/6, <https://undocs.org/CAT/C/AUT/CO/6>; CAT, “Concluding Observations on the Fifth Periodic Report of China with Respect to Hong Kong, China,” CAT/C/CHN-HKG/CO/5, <https://undocs.org/en/CAT/C/CHN-HKG/CO/5>; CAT, “Concluding Observations on the Combined Sixth and Seventh Periodic Reports of Denmark,” CAT/C/DNK/CO/6-7, <https://undocs.org/CAT/C/DNK/CO/6-7>; CAT, “Concluding Observations on the Seventh Periodic Report of France,” CAT/C/FRA/CO/7, <https://undocs.org/CAT/C/FRA/CO/7>; CAT, “Concluding Observations on the Seventh Periodic Report of the Netherlands,” CAT/C/NLD/CO/7, December 18, 2018, <https://undocs.org/en/CAT/C/NLD/CO/7> (accessed October 30, 2020); CAT, Concluding Observations on the Sixth Periodic Report of the United Kingdom of Great Britain and Northern Ireland, CAT/C/GBR/CO/6, June 7, 2019, <https://undocs.org/en/CAT/C/GBR/CO/6> (accessed October 30, 2020).

(education and information regarding the prohibition against torture included in the training of...medical personnel), article 12 (systematic review [of] methods and practices with a view to preventing any cases of torture), article 14 (legal redress for torture) and article 16 (prevention of acts of cruel, inhuman or degrading treatment) in its analysis of intersex surgeries.

In a 2013 report, the UN special rapporteur on torture and other cruel, inhuman or degrading treatment or punishment explained:

Medical treatments of an intrusive and irreversible nature, if they lack a therapeutic purpose, constitute torture or ill-treatment when enforced or administered without the free and informed consent of the person concerned. This is particularly the case when intrusive and irreversible, non-consensual treatments are performed on patients from marginalized groups ... notwithstanding claims of good intentions or medical necessity.²⁹²

The special rapporteur noted that sexual minorities are “disproportionately subjected to torture and other forms of ill-treatment because they fail to conform to socially constructed gender expectations.”²⁹³

The regulations state that “surgical anatomical changes are not required in any circumstances.” However, given the degree of coercion present in the typical clinical management of DSD cases, this cannot be accepted as a foregone conclusion. As discussed above, the Fenichel study revealed that four women had been subjected to medically unnecessary surgery in order to comply with the prior regulations, including gonadectomy and clitoral reduction, which was not specifically mentioned in the regulations nor related to lowering testosterone levels. Multi-disciplinary clinical research has demonstrated that physicians often exploit the “clinical uncertainty” presented by

²⁹² The Center for Human Rights & Humanitarian Law and the Anti-Torture Initiative, “Torture in Healthcare Settings: Reflections on the Special Rapporteur on Torture’s 2013 Thematic Report,” March 2014, http://antitorture.org/wp-content/uploads/2014/03/PDF_Torture_in_Healthcare_Publication.pdf (accessed October 30, 2020).

²⁹³ Ibid.

intersex bodies to recommend “normalizing” procedures that have no therapeutic value.²⁹⁴

The African Commission on Human and Peoples’ Rights, through its Committee on the Prevention of Torture in Africa (CPTA), has called on states parties—including African countries in which Human Rights Watch conducted research for this report—to:

Ensure that torture or ill-treatment is not perpetrated on individuals on account of sexual orientation or gender identity. In particular, States should forbear from adopting policies or legislation whose effect may be to encourage perpetration of torture or ill-treatment on the basis of such characterisation by State agencies or private individuals or other entities.²⁹⁵

Physicians Compromised

As discussed earlier in this report, policies such as the World Athletics regulations present a situation of dual loyalty for physicians working with national athletics federations around the world. The result is that the regulations implicate medical professionals in human rights violations. The UN Principles of Medical Ethics state:

It is a gross contravention of medical ethics, as well as an offence under applicable international instruments, for health personnel, particularly physicians, to engage, actively or passively, in acts which constitute participation in, complicity in, incitement to or attempts to commit torture or other cruel, inhuman or degrading treatment or punishment.²⁹⁶

²⁹⁴ Timmermans et. al., “Does Patient-centered Care Change Genital Surgery Decisions?” *Journal of Health and Social Behavior*, doi:10.1177/0022146518802460.

²⁹⁵ Committee for the Prevention of Torture in Africa, Inter-session Activity Report (November 2013 to April 2014) and Annual Situation of Torture and Ill-treatment in Africa Report, Presented to the 55th Ordinary Session of the African Commission on Human and Peoples’ Rights, Luanda, Angola, 28 April to 12 May 2014, <https://www.achpr.org/sessions/sessionsp?id=172> (accessed November 5, 2020), para. 47.

²⁹⁶ United Nations Office of the High Commissioner for Human Rights, “Principles of Medical Ethics Relevant to the Role of Health Personnel, Particularly Physicians, in the Protection of Prisoners and Detainees against Torture and Other Cruel, Inhuman or Degrading Treatment or Punishment,” Adopted by General Assembly resolution 37/194 of 18 December 1982, https://www.who.int/hac/techguidance/hbp/instruments_human_rights/en/index2.html (accessed November 5, 2020).

The principles in international human rights law that call for the elimination of discrimination in the sphere of civil life support a norm that should govern the conduct of a private health professionals. Under customary international law as well as under international human rights treaties, torture or other cruel, inhuman or degrading treatment is prohibited at all times and in all circumstances. It is a non-derogable right, meaning it is one of those core rights that may never be suspended, even during times of war, when national security is threatened, or during other public emergencies. This also extends to situations of upholding an employer's policy that mandates interventions that amount to torture or ill-treatment, such as athletics federations employing doctors to enforce the World Athletics eligibility regulations for the female category.

Non-Discrimination

Under international law, discrimination constitutes any unjustified distinction, exclusion or restriction that has the effect of impairing or nullifying the recognition, enjoyment or exercise on an equal basis of human rights and fundamental freedoms in the political, economic, social, cultural, civil or other any field.

International human rights bodies have commented on the need to improve women's place in society through sport by eschewing stereotypes. In its 2017 general recommendation No. 36 on the right of girls and women to education, the UN Committee on the Elimination of Discrimination against Women noted that the Convention on the Elimination of Discrimination against Women (CEDAW) "calls on States parties to ensure that girls and women have the same opportunities [as boys and men] to actively participate in sports and physical education."

These rights are enshrined in articles 10 and 13 of CEDAW. The committee has noted with concern that "based on prevailing stereotypes, positive outcomes for women's empowerment and gender equality in this sphere are constrained by discrimination in all areas of sports and physical activity" and that "media representations of women in sports also influence prevailing stereotypes."²⁹⁷

²⁹⁷ Committee on the Elimination of Discrimination against Women, General Recommendation No. 36 (2017) on the Right of Girls and Women to Education, CEDAW/C/GC/36, November 16, 2017, https://tbinternet.ohchr.org/Treaties/CEDAW/Shared%20Documents/1_Global/CEDAW_C_GC_36_8422_E.pdf (accessed October 30, 2020).

The World Athletics regulations discriminate against women in several ways. Even in upholding the 2018 DSD regulations, the Court of Arbitration for Sport acknowledged their discriminatory nature, and the arbitrators expressed hesitation with how they would be implemented (analyzed further below).

The World Athletics regulations apply exclusively to women. No such scrutiny is applied to men. As such, the regulation has a discriminatory impact on women simply because they are women.

The regulations also discriminate against women by stigmatizing those who are affected by or subjected to it. Although the regulations state that “No stigmatisation or improper discrimination on grounds of sex or gender identity will be tolerated” and the World Athletics explanatory note accompanying the regulations insists that “persecution or campaigns against athletes simply on the basis that their experience does not conform to gender stereotypes are unacceptable,” stigmatization, stereotyping, and discrimination are intrinsic to the implementation of the regulation.

The proposed medical interventions in the regulations are also discriminatory. Research on the experiences of people with variations in their sex characteristics has found that institutional and medical treatment of this population is frequently motivated by prejudice presented as science.²⁹⁸ The history of non-consensual “normalizing” procedures conducted on and promoted for people with intersex variations has been repeatedly debunked as unscientific, unethical, and in violation of international human rights law.²⁹⁹

²⁹⁸ OHCHR, “Background Note on Human Rights Violations against Intersex People,” <https://www.ohchr.org/EN/Issues/Discrimination/Pages/BackgroundViolationsIntersexPeople.aspx>; Katrina Karkazis, *Fixing Sex: Intersex, Medical Authority, and Lived Experience* (Durham: Duke University Press, 2008).

²⁹⁹ The UN Committee Against Torture, which reviews state compliance with the Convention Against Torture, has referenced several articles in its analysis of intersex surgeries. These are: article 2 (legislative, administrative, judicial or other measures to prevent acts of torture), article 10 (education and information regarding the prohibition against torture included in the training of...medical personnel), article 12 (systematic review [of] methods and practices with a view to preventing any cases of torture), article 14 (legal redress for torture) and article 16 (prevention of acts of cruel, inhuman or degrading treatment) in its analysis of intersex surgeries. Some patterns emerge in the committee’s critique of state practices and recommendations for action. CAT, “Concluding Observations of the Committee against Torture: Germany,” CAT/C/DEU/CO/5, <https://undocs.org/en/CAT/C/DEU/CO/5>; CAT, “Concluding Observations on the Seventh Periodic Report of Switzerland,” CAT/C/CHE/CO/7, <https://undocs.org/CAT/C/CHE/CO/7>; CAT, “Concluding Observations on the Sixth Periodic Report of Austria,” CAT/C/AUT/CO/6, <https://undocs.org/CAT/C/AUT/CO/6>; CAT, “Concluding Observations on the Fifth Periodic Report of China with Respect to Hong Kong, China,” CAT/C/CHN-HKG/CO/5, <https://undocs.org/en/CAT/C/CHN-HKG/CO/5>; CAT, “Concluding Observations on the Combined Sixth and Seventh Periodic Reports of Denmark,” CAT/C/DNK/CO/6-7, <https://undocs.org/CAT/C/DNK/CO/6-7>; CAT, “Concluding Observations on the Seventh Periodic Report of France,” CAT/C/FRA/CO/7, <https://undocs.org/CAT/C/FRA/CO/7>.

The discriminatory treatment of female athletes with variations in their sex characteristics in sporting events similarly runs afoul of fundamental rights protections.

Human Rights Responsibilities of Sports Governing Bodies

While governments are primarily responsible for upholding international human rights standards, sports governing bodies also have a responsibility to respect human rights law. The governing bodies are engaged in commercial activities, and are therefore expected to follow the UN Guiding Principles on Business and Human Rights. As John Ruggie emphasized in his 2016 report on FIFA’s human rights responsibilities, “Enterprises do not sign up to [the UNGPs]; they are an expectation of all enterprises, regardless of size, sector, location or ownership structure.”³⁰⁰

Thus, sport governing bodies have a responsibility to avoid infringing on people’s human rights through their activities, and also to address harms that do occur as a result of their business activities. This includes taking remedial measures if business policies or practices contribute to negative impacts throughout their value chain. Sports governing bodies, like all businesses, need to take measures to engage with affected people, who may be harmed by their policies and practices, to ensure no human rights harms are taking place. One significant step that sports governing bodies should take is to adopt a clear and coherent human rights policy to guide all of their work. At a minimum, World Athletics should conduct a risk assessment to determine whether to eliminate coerced medical procedures and other practices that violate rights in violation of its responsibilities under the UNGPs.

World Athletics said in June 2019 that it is “not a public authority exercising state powers, but rather a private body exercising private (contractual) powers. Therefore, it is not subject to human rights instruments such as the Universal Declaration of Human Rights or the European Convention on Human Rights.”³⁰¹ World Athletics has also claimed that the Court of Arbitration for Sport is “competent to rule on all legal claims, including human

³⁰⁰ John Ruggie, “For the Game and for the World: FIFA and Human Rights,” April 2016, https://www.hks.harvard.edu/sites/default/files/centers/mrcbg/programs/cri/files/Ruggie_humanrightsFIFA_reportApril2016.pdf (accessed October 30, 2020).

³⁰¹ “World Athletics Response to IWG, WSI and IAPESGW,” World Athletics press release, June 4, 2019, <https://www.worldathletics.org/news/press-release/World-Athletics-letter-iwg-wsi-iapesgw> (accessed October 30, 2020).

rights claims, and it did so in its recent ruling, in favour of World Athletics.”³⁰² However, by acknowledging it is a private body, it is submitting itself to follow the UNGPs.

World Athletics’ Exclusive Grip on Power

The regulations are open for abuse, in part because World Athletics—as creator and enforcer of the regulations—has an exclusive grip on power over women’s participation in elite international athletics. As the experiences of athletes documented in this report shows, these regulations also have a downstream impact on how national sport governing bodies behave towards women athletes, and contribute to furthering stereotypes about femininity that harm all women.

The regulations, while lacking criteria for identifying relevant athletes, do provide for absolute authority of the World Athletics medical manager to investigate (for example, conduct medically unnecessary testing on) any athlete of their choosing. The regulations also encourage a range of individuals and institutions to report athletes of concern to the World Athletics. National Federations are also obliged by World Athletics to identify athletes for investigation. The 2011 World Athletics regulations relied on gender stereotypes such as “deep voice” to identify athletes.

The 2019 regulations make no mention of criteria for identifying relevant athletes, leaving the system open for abuse and similar stereotyping where athletes are being identified through observation and suspicion. As documented in this report, this creates a situation in which women athletes’ bodies are under near-constant surveillance through subjective and discriminatory frameworks and stereotypical understandings of gender.

Inadequacy of the Court of Arbitration for Sport

As analyzed in the “impossible choices” discussion above, women targeted by the regulations, per the regulations themselves, have the option of taking their case to the Court of Arbitration for Sport (CAS), as Chand and Semenya have done.

³⁰² World Athletics, “World Athletics Publishes Briefing Notes and Q&A on Female Eligibility Regulations,” <https://www.worldathletics.org/news/press-release/questions-answers-World-Athletics-female-eligibility-reg>.

CAS has proven to be an inadequate justice mechanism for women athletes in particular.³⁰³ The court’s analysis in *Semenya* of the “competing rights” of women whose hormones are within typical ranges and those who are not renders the decision deeply skewed towards maintaining the status quo power dynamics of the international sporting industry.

As legal scholar Jonathan Cooper wrote, “As a pure human rights question, it seems difficult to justify that a reduced opportunity of winning should outweigh the potential serious infringements of the rights and freedoms of individual DSD athletes.”³⁰⁴ And more broadly, by failing to consider human rights standards, or the lack of human rights standards incorporated in the policies of sports governing bodies such as World Athletics, CAS has demonstrated its shortcoming with regard to women athletes’ access to justice.

In General Recommendation 33, the CEDAW committee noted that, around the world, women’s access to justice is impeded due to a range of obstacles that “occur in a structural context of discrimination and inequality, due to factors such as gender stereotyping, discriminatory laws, intersecting or compounded discrimination.”³⁰⁵

In May 2019, CAS dismissed Caster Semenya’s challenge to the World Athletics DSD regulations. The three-member panel found that the new regulations discriminate against Semenya; however two of the three panel members found that the regulations are not “invalid.”³⁰⁶

³⁰³ Legal scholar Michele Krech wrote: “Tasked with adjudicating a human rights claim, the CAS Panel sets out to apply the widely recognised legal framework for the analysis of such claims. Its actual application of this framework, however, strays off course and never reaches the finish line. This detour, deliberate or not, undermines the Panel’s presumably sincere intention to fairly adjudicate the fundamental rights of Caster Semenya and other female athletes targeted by the IAAF’s latest female eligibility regulations. As a result, a momentous opportunity for the CAS to demonstrate its competence in human rights adjudication is missed. Instead, the decision in *Semenya v IAAF* makes clear that the CAS stamp of approval is no guarantee of human rights compliance. The IAAF cannot therefore rely on the decision to credibly claim its female eligibility regulations respect, let alone promote, human rights.” Krech, “The Misplaced Burdens of ‘Gender Equality’ in *Caster Semenya v. the IAAF*: The Court of Arbitration for Sport Attempts Human Rights Adjudication,” *Sweet & Maxwell’s International Sports Law Review*, https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3611413.

³⁰⁴ Jonathan Cooper, “Testosterone: The Best Discriminating Factor,” *Philosophies* 2019, 4(3): 36, accessed October 30, 2020, doi:10.3390/philosophies4030036.

³⁰⁵ Committee on the Elimination of Discrimination against Women, General Recommendation on Women’s Access to Justice, CEDAW/C/GC/33, July 23, 2015, https://tbinternet.ohchr.org/Treaties/CEDAW/Shared%20Documents/1_Global/CEDAW_C_GC_33_7767_E.pdf (accessed October 30, 2020).

³⁰⁶ Minky Worden, “Caster Semenya Loses Appeal for Equal Treatment,” Human Rights Watch dispatch, September 8, 2020, <https://www.hrw.org/news/2020/09/08/caster-semenya-loses-appeal-equal-treatment>.

In dismissing Semenya’s case, the CAS arbitrators recognized that the regulations are discriminatory but, failing to apply international human rights standards, deemed them a “prima facie proportionate” response to World Athletics’ concerns about eligibility for female categories. Nevertheless, they expressed “serious concerns as to the future practical application” of the regulations, regarding how World Athletics would assess individual athlete’s compliance with the regulations, recognizing the questionable evidence of actual significant athletic advantage for women athletes with higher than typical natural testosterone in certain events, and flagging the issue of possible side effects of hormonal treatment on these athletes. The panel noted that further assessment of these concerns may result in these regulations being deemed invalid in the future.

Legal scholar Michele Krech argued soon after the decision was issued that:

[T]hese multiple caveats are symptoms of a narrow and self-contradictory legal analysis that misplaces the burden of history, the burden of uncertainty and the burden of risk on Semenya and other female athletes, rather than on [World Athletics].³⁰⁷

The evidence presented in this report supports thorough re-consideration of the proportionality analysis conducted by CAS.

Employment Rights

For elite athletes, competing in sport is their employment. International Labour Organization (ILO) convention 190 on eliminating workplace violence and harassment states:

[T]he term ‘violence and harassment’ in the world of work refers to a range of unacceptable behaviours and practices, or threats thereof, whether a single occurrence or repeated, that aim at, result in, or are likely to result in

³⁰⁷ Krech, “The Misplaced Burdens of ‘Gender Equality’ in *Caster Semenya v. the IAAF*: The Court of Arbitration for Sport Attempts Human Rights Adjudication,” *Sweet & Maxwell’s International Sports Law Review* https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3611413.

physical, psychological, sexual or economic harm, and includes gender-based violence and harassment.³⁰⁸

As documented in this report, the World Athletics DSD regulations institute a system in elite athletics that encourages practices by athletics officials, physicians, and others that result in physical, psychological, sexual, and economic harm to women athletes.

ILO Convention 155, on occupational safety and health “applies to all branches of economic activity,” including professional sport.³⁰⁹ The convention clarified that:

[T]he term health, in relation to work, indicates not merely the absence of disease or infirmity; it also includes the physical and mental elements affecting health which are directly related to safety and hygiene at work.

Article 13 of the convention states that, “A worker who has removed himself from a work situation which he has reasonable justification to believe presents an imminent and serious danger to his life or health shall be protected from undue consequences in accordance with national conditions and practice.”³¹⁰

The World Athletics regulations contravene this convention because, as the evidence in this report shows, the policy leads to women athletes removing themselves from athletics—and by consequence, in some cases removing themselves from society—to protect their right to health. In addition, as the accounts in this report demonstrate, the decision to remove oneself from this form of employment does not come with guarantees of privacy and confidentiality. Indeed, as the legal and publicity campaigns against athletes who have challenged the regulations, as well as those who have been deemed ineligible under the regulations have demonstrated, a woman athlete is not protected from undue consequences following her departure.

³⁰⁸ International Labour Organization (ILO), Convention No. 190 Concerning Violence and Harassment in the World of Work (Violence and Harassment Convention), adopted June 21, 2019, art. 1, https://www.ilo.org/wcmsp5/groups/public/---ed_norm/---relconf/documents/meetingdocument/wcms_711570.pdf (accessed November 2, 2020).

³⁰⁹ ILO, Convention No. 155 Concerning Occupational Safety and Health (Occupational Safety and Health Convention), adopted June 21, 2019, art. 3(e), https://www.ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:12100:0::NO::P12100_ILO_CODE:C155 (accessed November 2, 2020).

³¹⁰ *Ibid.*

Acknowledgments

The research conducted for this report was a joint undertaking of Human Rights Watch and partners Payoshni Mitra, a scholar and athlete advocate, and Katrina Karkazis, a cultural anthropologist and visiting assistant professor of women's, gender, and sexuality studies at Emory University, and fellow at the Yale Global Health Justice Partnership. The team, which included Kyle Knight, a senior researcher at Human Rights Watch, conducted the interviews between July and November 2019.

Expert review of the report was provided by Michele Krech, SSHRC Doctoral Fellow at the NYU School of Law; Morgan Carpenter, bioethicist and co-executive director of Intersex Human Rights Australia; Sayan Bhattacharya of the Gender, Women's and Sexuality Studies Department at the University of Minnesota; Bruce Kidd, professor of Sport and Public Policy at the University of Toronto; Satoko Itani, Associate Professor at Kansai University; Ali Miller, Associate Professor of Law and Co-Director, Global Health Justice Partnership at Yale University; and PJ Vazel, professional coach at Athlétisme Metz Métropole and athletics statistician.

The report was reviewed by Graeme Reid, director of the LGBT rights program; Arvind Ganesan, Business and Human Rights director; Heather Barr, acting Women's Rights Division co-director; Megan McLemore, consultant on health and human rights; Michael Garcia Bochenek, senior Children's Rights counsel; Aisling Reidy, senior Legal adviser; Minky Worden, director of global initiatives; Danielle Haas, senior editor; and Joseph Saunders, deputy program director. Anjelica Jarrett, LGBT rights program coordinator, provided editorial and production assistance and formatted the report. Additional production assistance was provided by Travis Carr, Publications coordinator, and Fitzroy Hepkins, senior administrative manager.

Human Rights Watch thanks the courageous athletes who shared their stories with us so we could write this report.

Appendix: World Athletics Ineligibility Letter

International Association of Athletics Federations



[Redacted]
Athlete
[Redacted] Athletics Federation

STRICTLY PRIVATE AND CONFIDENTIAL

[Redacted] 019
[Redacted]

Eligibility under the International Association of Athletics Federation (IAAF) rules and regulations

I am writing to you pursuant to the IAAF's Eligibility Regulations for the Female Classification (Athletes with Differences of Sex Development) (**Regulations**). Version 2.0 of the Regulations was published by the IAAF on 1 May 2019 and will come into effect as from 8 May 2019.¹ Unless otherwise defined, capitalised terms used in this letter have the meanings given to them in the Regulations.

Investigation

Pursuant to section 3A of the Regulations, the IAAF Medical Manager may investigate at any time whether an athlete may be a Relevant Athlete for the purposes of the Regulations. I consider that, as a result of information that has been brought to my attention, there are reasonable grounds to initiate an investigation to evaluate your eligibility in accordance with the Regulations. In particular, the grounds for initiating that investigation are:

- Consistently elevated androgen levels measured in samples collected for anti-doping purposes.

I enclose for your information a copy of the Regulations and the Explanatory Notes. If you have any questions relating to the Regulations or regarding the process to be followed in your case, please do not hesitate to contact me.

Your choice

It is a condition of eligibility to compete in the female classification in a Restricted Event at an International Competition (and of eligibility to set a World Record in a Restricted Event at a competition that is not an International Competition) that you comply with the Regulations, cooperate promptly and in good faith with the IAAF Medical

¹ The first version of the Regulations was published by the IAAF on 23 April 2018 and was due to come into effect as from 1 November 2018, but its implementation was stayed pending the resolution of a legal challenge before the Court of Arbitration for Sport (CAS). The CAS dismissed the challenge against the Regulations and so the Regulations have now been republished (as version 2.0) and will come into effect as from 8 May 2019. The first version of the Regulations replaced the IAAF's Regulations Governing Eligibility of Females with Hyperandrogenism to Compete in Women's Competition (**Hyperandrogenism Regulations**) which no longer apply anywhere in the sport.



Manager in the discharge of his responsibilities under the Regulations and provide all necessary consents and waivers. (See clause 3.19).

However, no athlete will be forced to undergo any assessment and/or treatment under the Regulations. It is your right to decide (in consultation with your medical team) whether or not to proceed with any assessment and/or treatment. If you decide not to do so, you will not be entitled to compete in the female classification of any Restricted Event at an International Competition (see clauses 2.5 and 2.6). However, you would still be entitled to compete:

- (1) in the female classification:
 - a. at any competition that is not an International Competition: in any event, without restriction; and
 - b. at International Competitions: in any discipline other than track events between 400m and a mile; or
- (2) in the male classification: at any competition at any level, in any discipline, without restriction; or
- (3) in any 'intersex' (or similar) classification that the event organiser may offer: at any competition at any level, in any discipline, without restriction.

Confidentiality and consent

All cases arising under the Regulations (including all information provided to the IAAF) will be dealt with in strict confidence at all times.

I enclose a Consent Form for the release of your medical records by your relevant health care professional to the IAAF. Please will you review, take advice as necessary, then (assuming you decide to pursue eligibility for Restricted Events at International Competitions) complete and sign the Consent form and return it to me by post or email by 17th of May 2019.

All medical information and data provided by you (or by someone else on your behalf) under the Regulations will be treated in strict confidence as sensitive personal information and will (for example) be provided to the Expert Medical Panel on an anonymous basis without identifying you, by name or otherwise.

Next steps

I hope this information is all clear for you. If you, your support team, or your health care professionals have any questions, please do not hesitate to contact me at stbermon@iaaf.org

I look forward to hearing from you in due course and receiving your completed Consent Form.

Kind regards

Dr Stéphane Bermon
IAAF Medical Manager (as per the DSD Regulations)

A handwritten signature in blue ink, appearing to read "S Bermon", with a long horizontal line extending to the right.



“They’re Chasing Us Away from Sport”

Human Rights Violations in Sex Testing of Elite Women Athletes

Applying “sex testing” policies based on racialized gender stereotypes, sport governing bodies have created environments that coerce some women into invasive and unnecessary medical interventions as a condition to compete. While some athletes have fought back publicly, openly challenging the policies in court, countless other women have suffered under them as well. Sports officials have engaged in vitriolic public criticism that has ruined careers and lives.

“*They’re Chasing Us Away From Sport*” documents how sex testing policies in international athletics violate rights and damage the lives of many women athletes. The regulations target women in running events between 400 meters and one mile and compel women to undergo medical interventions, or be forced out of competition.

To identify which athletes to target, sports authorities subject all women athletes’ bodies to scrutiny and require those who seem “suspect” to undergo degrading and often invasive medical examinations.

There is no scientific consensus that women with naturally higher testosterone have a performance advantage in athletics. And despite a wide range of testosterone levels among men, they have never been subjected to analogous regulations. World Athletics, which produced the regulations, and the International Olympic Committee—the supreme authority in global sport—should immediately rescind and renounce all such regulations.

(front cover) Annet Negesa, a Ugandan runner, holds a photo of herself racing in the 2011 World Championships in Daegu, South Korea. Negesa was targeted under sex testing regulations and instructed to undergo a medically unnecessary surgery in 2012.

(above) Annet Negesa at a training center in Berlin, Germany, October 2020.

Photos © 2020 Cagla Dincer for Human Rights Watch