To: Daniel Carey, Virginia Secretary of Health and Human Resources
From: Olivia Nguyen-Dillon
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Subject: Addressing ADHD gender inequities

Executive Summary

Widespread disparities in ADHD testing and diagnosis amongst adolescent boys and girls is a major issue that warrants attention. Currently, boys are diagnosed at a ratio of 4:1 in relation to girls (Ramtekkar, 2011). The early tell-tale signs of ADHD manifest extremely differently, across not only individuals, but especially across gender lines. Successful implementation of policy must encompass the criteria of political feasibility, co-production, and equity. Policy options include mandatory co-producing and revising of the whole ADHD diagnostic test and mandatory testing across public schools upon entering and exiting middle schools. A second option of voluntary and free testing offered in schools alongside an added ADHD curriculum. Third, deals with not altering testing in schools, but increasing accessibility and ease with testing and working to mend disconnects between "informal" and "formal" diagnoses; the VA Department of Education and the Department of Health could work together to form regulations that do not require laws- again facilitating political feasibility. The recommended policy option that aligns most with required criteria is that of voluntary testing in conjunction with adding an ADHD section into health course curriculum.

Background

Early studies of ADHD focused only on adolescent boys and hyperactive symptoms; currently leading to the erroneous association that ADHD affects primarily boys.**Virginia's mental health services reinforce gender inequities through ADHD testing and diagnosis disparities.Testing and diagnosis rates of adolescent boys are three times higher than girls, despite no proven gender preference** (Centers for Disease Control and Prevention, 2020)**.** Females typically go undiagnosed until adulthood (if they get diagnosed at all)- going undiagnosed exacerbates side effects and other mental illnesses that accompany ADHD. Consequently this puts girls at a much higher risk for dealing with long term effects and widespread misdiagnoses (Skogli, 2013).The most common mental health disorders that accompany ADHD are depression, anxiety, OCD, eating disorders, skewed self-image, and low self-worth (CDC, 2020). The research on the causality between mental health disorders and ADHD is not yet complete; however 64% of children diagnosed with ADHD also have an accompanying mental illness (CDC, 2020). Late diagnoses in females perpetuates a lower quality of self-worth due to girls developing habitual, and even unhealthy, coping mechanisms to combat their undiagnosed/misdiagnosed symptoms of ADHD (Skolgi, 2013). Leaving girls out of ADHD conversations leads to the normalization of it in boys; testing disparities incite concerns about over-testing boys, misdiagnosis, and medicinal dependency, only further reinforcing the inequity.Therefore, current discussions on ADHD focus on lessening diagnoses; however, this moves conversation away from even starting to diagnose girls altogether.

Currently, testing in Virginia is largely dependent on teacher referrals based on behavior and symptoms shown in class; as a result, boys are disproportionately referred to get tested more often because girls manifest ADHD symptoms more internally as inattentiveness (CDC, 2020).This problem is pre-existing, so remedies for the future still leave out the large pool of girls that currently suffer the consequences of inequity.Redressing diagnostic inequalities could

allow reallocation of scarce mental health resources later on because of taking preventative measures now. Access to mental health care is difficult enough due to scarcity of professionals in the field, existing wealth disparities throughout Virginia (Northern Virginia compared to rural Southwestern Virginia; Loudon county compared to Wise County), and stigma surrounding mental health diagnoses.
There is potential to incorporate testing into the Virginia school system through pre-existing channels and working closely with the VA Department of Health and the VDOE. Addressing testing disparities has the potential of facilitating mental health diagnoses earlier on, avoiding misdiagnosis, curbing gender inequities in schools, normalizing the discussion of learning disorders and testing, and improving individual quality of life (Skolgi, 2013).

Evaluative Criteria
1. Political feasibility:The policy needs to reduce politicization and polarization as much as possible to achieve political feasibility. There are widespread misconceptions about ADHD within the medical field that can erroneously associate the issue with a partisan leaning.
2. Co-producing knowledge: This criterion stresses the importance of knowledge on all sides and should not place one actor's knowledge superior to the others (Murray, 2019). Avoiding politicization requires mental health experts and policymakers to interact directly with the public, which can be done on the local level. Incorporating the experiences and knowledge of involved actors is essential to alleviating the disconnect in knowledge and jargon between specialized mental health doctors and unspecialized family doctors, policymakers, and the public.
3. Equity: Policy must account for other marginalized communities to not further stress existing inequities or create new ones. It cannot only focus on gender equity in testing and diagnosis, but has to actively account for vulnerable and historically marginalized groups.The policy achieves equity through specifically redressing geographic, economic, and racial disparities and allocating resources and information accordingly.
These criteria set the parameters for successful policy implementation; they are all of equal importance and interact in varying degrees of dependency. Ensuring equity depends heavily on co-production between actors to include the perspectives of traditionally marginalized groups and framing the issue in such a way that actors, on all sides, see this as a public health issue and not a political one.

Policy Alternatives
Amending this issue must include more accessible and equitable testing of ADHD in young girls and opening the conversation of diagnosis in girls. between health experts, institutions, and the local government to repair the disconnect in knowledge and understanding between all actors, and also reduce the risk of political polarization on the issue (Murray, 2019).
Policy Option 1: In this policy option, the VA Department of Public Health will use new knowledge to create a peer-reviewed and standardized ADHD test, that all Virginia middle schools would be required to administer. Incorporating mandatory testing in middle schools posits many solutions to testing and knowledge inequity. This test could easily be implemented through Virginia's already existing standardized testing program. Students would take the exam upon entering 6th grade and again exiting 8th grade.Testing twice offers opportunity for advancements and improvements in the medical field and also accounts for the development and changes of the students' minds. Mandates by the state have a pattern of politicizing matters and power disputes due to power devolution; still parents would have the option to opt out. Results

and recommendations of diagnosis would otherwise be offered along with future steps that can be taken. Depending on results, students could be separated based on appropriate learning styles and taught accordingly, but ensuring socialization among all students and identical curriculum requirements. This policy option would address existing concerns of overtesting and overdiagnosing adolescent boys, and provides space for brain development and including girls into the conversation. While this policy option meets criteria of equity and co-production of knowledge, the political feasibility of two mandatory screenings would require more funding and research, thus decreasing likelihood of proper implementation.

Policy Option 2: VDOE and VDH will provide voluntary free testing in schools and also incorporate an ADHD/mental health section into health education curriculum; implementation could resemble an in school driver's education class. Awareness of the issue and accessibility to testing allows for more confidential diagnoses, and also offers tangible resources students can access through the school. Accessibility to testing eases inequities on various different fronts and can also deter self-diagnoses. This could decrease stigma about mental illnesses and foster necessary environments that promote discussion on ADHD, while also normalizing seeking help and stressing the importance of individual mental well-being. This policy sufficiently meets all three criteria for successful policy implementation: political feasibility, co-production of knowledge, and equity.

Policy Option 3: Not incorporating ADHD testing into schools, but VDH increases the accessibility, and simplifying of, current ADHD tests. The current tests are extremely long and intensive and also not easily accessible to the public. This alternative attacks the inequity at the administrative level; this requires the formation of a new and plausible test and also changing the officialities of "formal" and "informal" diagnoses. Addressing the problem from the ground up would fulfill political feasibility and co-producing knowledge by engaging all actors in the conception of a simpler test. However, not providing access through schools runs the risk of reinforcing other inequities, along geographic, economic, and racial boundaries.

All policies encompass addressing reparations for those previously affected. Costs of testing could potentially come from later savings of said simplified testing and preemptive action. Although this is the most politically feasible option, it lacks in equity and co-production, where screening and testing adjustments have the potential to further marginalized other groups left out of the conversation.

Recommendation

The primary policy that deserves the most consideration is providing voluntary, free testing in middle schools, also developing and implementing a facet of curriculum dedicated to ADHD information and mental illnesses.Voluntary testing best appeals to political feasibility by avoiding power disputes in regards to mandates and partisanship, and also requires less regulation. This option best maintains equity by providing the resources and information through the school system and also providing privacy for students who need it, while simultaneously promoting students' individual autonomy (because they can choose if they get tested). The VA Department of Health and the Department of Education would work together to fulfill these requirements. All actors must take part in developing and implementing the new curriculum, thus also fulfilling co-producing knowledge by stressing the importance of knowledge and information on all sides, especially from those previously affected by lack of testing. Future implications could allow for a reallocation and more equal distribution of healthcare access through the preventative nature of early testing. This could also improve mental well-being in general and curb the manifestation of other mental illnesses accompanying ADHD.

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