HB699, Favorable with Amendment Eliza Holland, MD 3066 Burnt Mill Road Charlottesville, VA 22911 *etholland@comcast.net*

2 March 2023

Dear Delegate Pena-Melnyk,

I am a Pediatric Hospitalist who is Favorable with Amendment in regards to HB699.

In August 2022, the CDC released a report that stated, "Being up to date with vaccination provides a transient period of increased protection against infection and transmission after the most recent dose, although protection can wane over time...CDC's COVID-19 prevention recommendations no longer differentiate based on a person's vaccination status because breakthrough infections occur, though they are generally mild, and persons who have had COVID-19 but are not vaccinated have some degree of protection against severe illness from their previous infection" (Massetti, et al. *MMWR*, 2022). This claim has repeatedly been proven true, most recently in a systemic review and meta-analysis of protection provided by prior infection versus protection from immunization which concluded that, "Our analysis suggests that the level of protection from past infection by variant and over time is at least equivalent if not greater than that provided by two-dose mRNA vaccines" (Stein, et al. *The Lancet*, 2023).

The percentage of people who have infection-induced immunity and/or vaccine-induced immunity is high. According to the CDC, over 95% of pediatric patients, and 98.9% of those ages 12-17, have evidence of immunity as of December 2022 (CDC Covid data tracker, 2023). The level of immunity in the general population has not been udpated recently but was 62.9% to 96.6% nationwide, and 81.5% in Maryland, by August 2022 (COVID-19 SeroHub). The general population is already well protected against severe illness in the absence of further vaccine mandates.

Vaccines were initially thought to decrease transmission of Covid but, as noted above, there is now evidence that vaccinated people can catch and spread Covid. A study comparing transmission rates between vaccinated and previously infected individuals in a California state prison found that, "Vaccination and prior infection were each associated with similar reductions in infectiousness during SARS-CoV-2 infection." (Tan, et al. *Nat Med*, 2023) Despite being in the age group most likely to get Covid, college students are at low risk for serious disease and hospitalization compared to older age groups. Individuals in the 30-39 year old age group were 1.5 times more likely to be hospitalized than 19-29 year olds. 50-64 year olds were 3.1 times more likely to be hospitalized than 19-29 year olds (CDC, 2023).

Finally, any discussion of Covid vaccines mandates needs to acknowledge the risks of myocarditis following vaccination, especially in young males. The following slide is from a CDC meeting that shows the reported rate of myocarditis following Covid vaccination. The estimated background rate of myocarditis is 0.2-2.2 per million doses day 0-7 post-vaccination and 0.4-3.8 per million doses day 8-21 post-vaccination. In the 18-24 year old male group (college age), the risk of myocarditis is especially high at 38.0 per million doses 0-7 days after the 2nd vaccine - **17.7 to 194.5 times the expected background rate.** Myocarditis can cause heart failure, scarring of the heart, or sudden death.

		0–7 days			8–21 days			0–7 days			8–21 days		
		Males			Males			Females			Females		
	Age (yrs)	Dose 1	Dose 2	Booster	Dose 1	Dose 2	Booster	Dose 1	Dose 2	Booster	Dose 1	Dose 2	Boost
Г	5-11	0.2	2.6	0.0	0.6	0.0	0.0	0.2	0.7	0.0	0.2	0.0	0.0
-	12-15	5.3	46.4	15.3	1.2	1.2	0.9	0.7	4.1	0.0	0.4	0.2	0.9
L	16-17	7.2	75.9	24.1	1.7	3.2	1.3	0.0	7.5	0.0	0.7	0.4	0.0
th la	18-24	4.2	38.9	9.9	1.1	2.2	0.4	0.6	4.0	0.6	0.2	0.7	0.0
	25–29	1.8	15.2	4.8	0.4	1.1	0.5	0.4	3.5	2.0	0.2	0.0	0.8
	30-39	1.9	7.5	1.8	0.4	0.8	0.2	0.6	0.9	0.6	0.3	0.2	0.0
	40-49	0.5	3.3	0.4	0.2	0.5	0.0	0.4	1.6	0.6	0.2	0.2	0.0
	50-64	0.5	0.7	0.4	0.2	0.3	0.1	0.6	0.5	0.1	0.2	0.5	0.1
L	65+	0.2	0.3	0.6	0.3	0.2	0.1	0.1	0.5	0.1	0.1	0.2	0.1

VAERS reporting rates of myocarditis (per 1 million doses administered) after mRNA COVID-19 vaccination, days 0–7 and 8–21 post-vaccination^{*,+}



* As of May 26, 2022; reports verified to meet case definition by provider interview or medical record review; primary series and 1st booster doses only * An estimated 1–10 cases of myocarditis per 100,000 person years occurs among people in the United States, regardless of vaccination status; adjusted for days 0–7 and 8–21 risk intervals, this estimated background is 0.2 to 2.2 per 1 million person-day 0–7 risk interval and 0.4 to 3.8 per 1 million person-day 8–21 risk interval (peach shaded cells indicate that reporting rate exceeded estimated background incidence for the period)

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In March 2023, Covid is no longer the health emergency that it was in March 2020. There is ample immunity in the general population that, in conjunction with a milder variant, has caused Covid to act like other seasonal respiratory viruses. The risk of myocarditis, especially in young

men, has been acknowledged and well-documented by the CDC. Covid vaccines should be readily available to those who want them but should not be mandated prior to enrollment or employment. I am asking that you please pass HB699 with amendment.

Please do not hesitate to reach out if you have any questions. I appreciate your time and consideration.

Sincerely, Eliza Holland, MD Pediatric Hospital Medicine

References

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