

**IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF MARYLAND**

MARYLAND SHALL ISSUE, INC., *et al.* *

Plaintiffs, *

v. * Civil Action No.: 1:22-cv-00865-SAG

ANNE ARUNDEL COUNTY, MD *

Defendant. *

* * * * *

**MEMORANDUM IN SUPPORT OF DEFENDANT’S MOTION IN LIMINE
TO EXCLUDE TESTIMONY OF PLAINTIFFS’ EXPERT GARY KLECK**

Defendant Anne Arundel County, Maryland (the “County”), by and through its attorneys, files this Motion in Limine to Exclude Testimony of Plaintiffs’ Expert Gary Kleck, and for cause states as follows:

I. Background

At issue in this case are two documents that the County distributes to sellers of guns and ammunition and requires them to display and make available to their customers pursuant to Anne Arundel County Council Bill 108-21. These two documents are a pamphlet entitled “Firearms and Suicide Prevention” and a one-page insert on conflict resolution. Ex. 5.¹ As explained more fully in the County’s concurrently filed Cross-Motion for Summary Judgment, the suicide prevention

¹ All exhibits are attached to the Declaration of James Miller.

The conflict resolution pamphlet states that “Conflict Resolution is a process to help you find the best way to resolve conflicts and disagreements peacefully” and provides contact information for various County resources for suicide prevention and conflict resolution. Ex. 5. Plaintiffs have not challenged any of the assertions or statements in the conflict resolution pamphlet. Plaintiffs’ expert offered no opinion on the conflict resolution pamphlet. *See* Kleck Tr. 16:17-17:6, Ex. 3 (disputed language in suicide prevention pamphlet “was the only point made by the pamphlets on which I had an expert opinion”).

pamphlet was prepared by, endorsed by, and is disseminated to gun retailers across the country by the firearm industry’s own trade association, the National Shooting Sports Foundation (NSSF), as well as by the American Foundation for Suicide Prevention (AFSP). *See* County’s Cross-Motion for Summary Judgment (“County SJ Br.”).

As part of their First Amendment challenge to Bill 108-21, Plaintiffs attempt to contest the factual accuracy of one piece of information in one of the pamphlets—specifically, the statement in the Firearms and Suicide Prevention pamphlet that says “access to lethal means including firearms and drugs” is a “risk factor” for suicide. *Pls.’ Br.* at 6, 24; *see also* Kleck Tr. 16:17-18:6 (disclaiming analysis or opinion on any other statements in pamphlet). But this statement is factual and supported by an overwhelming body of social science research. As fully explained in the County’s summary judgment brief at 5-6, public and private sector health authorities—including the Centers for Disease Control, National Institute of Mental Health, and Maryland Department of Health—are unanimous in describing access to firearms as a “risk factor” for suicide.² The social science research is essentially unanimous as well: at least 44 separate studies have found that access to firearms is associated with an increased risk of suicide. *See* Miller Dec. App. 1 (listing studies).

² *See, e.g.*, DEB STONE, ET AL., PREVENTING SUICIDE: A TECHNICAL PACKAGE OF POLICIES, PROGRAMS, AND PRACTICES, CDC 8, 23 (2017), https://www.cdc.gov/suicide/pdf/suicide_TechnicalPackage.pdf, Ex. 12 (listing “availability of lethal means” as a risk factor for suicide, and recommending safe storage of firearms as way to reduce access to lethal means); FREQUENTLY ASKED QUESTIONS ABOUT SUICIDE, NAT’L INST. OF MENTAL HEALTH 2 (2021) https://www.nimh.nih.gov/sites/default/files/documents/health/publications/_suicide-faq/suicide-faq.pdf, Ex. 13 (“main risk factors for suicide” include “[p]resence of guns or other firearms in the home”); RISK FACTORS OF SUICIDE, MARYLAND DEPT. OF HEALTH 1, https://health.maryland.gov/bha/suicideprevention/Documents/Stories_of_Hope/Risk_Factors_of_Suicide_Fact_Sheet.pdf, Ex. 14 (risk factors include “[e]asy access to lethal means among people at risk (e.g., firearms, medications)”); Risk factors, protective factors, and warning signs, Am. Found. For Suicide Prevention, <https://afsp.org/risk-factors-protective-factors-and-warning-signs>, Ex. 15 (last visited Oct. 23, 2022) (risk factors include “[a]ccess to lethal means including firearms and drugs”); STATEMENT OF THE AMERICAN ASSOCIATION OF SUICIDOLGY REGARDING THE ROLE OF FIREARMS IN SUICIDE AND THE IMPORTANCE OF MEANS SAFETY IN PREVENTING SUICIDE DEATHS 1 (2018), https://suicidology.org/wp-content/uploads/2019/07/FirearmStatement_Final.pdf, Ex. 24 (“The American Association of Suicidology recognizes that firearm access and storing firearms unlocked and loaded are risk factors for death by suicide.”).

In fact, all of the named experts in this case agree on this point too: **firearms are correlated or associated with suicide risk**, and in this sense **are a risk factor for suicide**. *See* Exp. Rep. of Dr. N. Kalyanaraman for the County (“NK Report”), Ex. 2, ¶ 25 (“[H]igher rates of gun ownership are *associated* with increased rates of gun suicide....” (emphasis added)); Exp. Rep. of Dr. A. McCourt for the County (“AM Report”), Ex. 1, ¶ 5 (“Firearms and violence are tightly linked, particularly when it comes to suicide.”); *see also* Kleck Tr. 200:20-201:2 (“Q. So you—you agree with the proposition that firearms ownership and firearms access is a risk factor for suicide if risk factor is used to mean a correlate? A. Yes. If it means nothing more than a correlate and not a causal assertion about causality, then yes.”).³ In short, while Plaintiffs in their brief object to what they describe as “the County’s view that firearms are *associated* with suicide,” Pls.’ Br. at 13 (emphasis added), their own expert concedes that this statement is factually accurate, i.e., that there is “a correlation between firearms access and suicide.” *See*, Kleck Tr. 78:24-79:2 (agreeing with quoted language); Kleck Tr. 48:10-11 (stating that firearms access has “a noncausal correlation or association with suicide”). The association (or correlation) between firearms and suicide is therefore both factual⁴ and undisputed. *See* County SJ Br. at 20-24.

Plaintiffs offer a single expert, retired professor of criminology Gary Kleck, who is perhaps best known for his controversial assertion that there are between 2.2 million and 2.5 million defensive gun uses per year—a figure that the Rand Corporation assessed and found “not plausible.” *See* Rand Corp., *The Challenges of Defining and Measuring Defensive Gun Use* (Mar. 2, 2018), <https://www.rand.org/research/gun-policy/analysis/essays/defensive-gun-use.html>. This

³ Kleck appears to use the concepts of association and correlation interchangeably. *See* Kleck Tr. at 48:10-11 (describing firearm access as “a noncausal correlation or association with suicide”).

⁴ Plaintiff’s expert also concedes that the question of whether access to a firearm increases suicide risk is a factual question, rather than a matter of opinion or belief. *See* Kleck Tr. 77:4-17.

figure was also part of Kleck's expert testimony in a recent federal court case in New Jersey, with the court noting that Kleck's current estimate had been revised downwards by half, and with Kleck admitting the figure was a "guess for which [he] had no data at all." *See Ass'n of N.J. Rifle & Pistol Clubs, Inc. v. Grewal*, No. 3:17-CV-10507, 2018 WL 4688345, at *8 (D.N.J. Sept. 28, 2018). Kleck has offered expert testimony in at least 20 prior cases on behalf of individuals or members of the firearm industry challenging gun safety laws, and has never testified in support of such laws. *See Kleck Tr.* 64:22-65:7.

Plaintiffs' expert takes issue with one point: he asserts that there is no proven *causal*⁵ relationship between firearms and suicide. *See, e.g., Kleck Rpt., Ex. 23*, at 4-5. Kleck's opinion consists of two principal parts and relies for support primarily on two sources: a 2019 book chapter that Kleck authored and a 2019 article that he published in *Social Science Quarterly*. In fact, he admits copying significant portions of these two analyses verbatim into his report. *See Kleck Tr.* 113:23-114:15 (acknowledging portions of report copied from 2019 book chapter); *see also id.* at 161:16-162:9 ("Q. Did you copy portions of this 2019 article into your report? A. Probably. I couldn't swear to it, but yeah, probably."); *see generally* Ex. 26 (2019 book chapter); Ex. 27 (2019 article in *Social Science Quarterly*).

Kleck's 2019 book chapter forms the basis for his critique of case-control studies as set forth in his report.⁶ Case-control studies, Kleck contends, are unreliable because they do not

⁵ In the field of epidemiology, a causal factor is one that must be present for an outcome to occur. When a factor is *associated* with an outcome, that means that it is simply correlated with (i.e., observed in connection with) the outcome, and may or may not be a cause of the outcome. *See* CDC, PRINCIPLES OF EPIDEMIOLOGY IN PUBLIC HEALTH PRACTICE: AN INTRODUCTION TO APPLIED EPIDEMIOLOGY AND BIostatISTICS (3d Ed.), Glossary pp. 1, 3-4 (2012), <https://www.cdc.gov/csels/dsepd/ss1978/SS1978.pdf>, Ex. 25 (defining "association" and cause of disease").

⁶ A case-control study looks at a group of individuals with a known outcome (like suicide), and compares them to a control group (for example, individuals in the same community, suicides by other means, or suicide attempts). It then looks back to determine the extent of the salient exposures (like the presence of a gun in the home) as well as other characteristics (like demographics and other factors thought to potentially affect the outcome) within each group. *See Kleck Tr.* 100:16-101:4 (defining and describing case-control study).

sufficiently control for confounding variables—which he defines as factors that both affect suicide and are correlated with gun access. *See* Kleck Rpt. at 5-6 (defining “confounder”); *id.* at 11 (critiquing case-control research). Kleck hypothesizes 19 potential confounding variables, and asserts based upon his truncated review of the literature that no study has controlled for “even half” of these and that “most researchers” have controlled for four or less. *See id.* at 7-10.⁷ He speculates that this alleged failure to control for confounding variables produces results that show an artificially strong relationship between gun access and suicide—but he does not know how strong this alleged effect from confounding variables is, has never attempted to calculate it, and can only guess. *See* Kleck Tr. 312:20-313:15 (responding, when asked whether he knows whether uncontrolled confounders could nullify results demonstrated in case control studies, “No, I don’t know, nor does anyone else know.”). In his deposition, Kleck conceded that none of these confounders, on its own, could possibly nullify the observed association between firearm access and suicide. *See* Kleck Tr. 305:21-306:12. Instead, he must add their hypothesized effects together to have any hope of explaining away the case-control research whose conclusions he disputes. *See id.*; *see also* Kleck Rpt. at 10 (arguing that failure to control for more confounders leads to worse distortion of results). Based in large part on this criticism of case-control studies, Kleck concludes that a statement that firearm access causes an increased risk of suicide is “not supported by the most credible available scientific evidence,” is “probably false,” and is “contradicted by much of the available scientific evidence.” *See* Kleck Rpt. at 3-4.

⁷ Kleck’s list of hypothesized confounders is (1) strength of suicidal intent, (2) age, (3) sex, (4) race, (5) region, (6) marital status, (7) income, (8) living alone, (9) education, (10) population size of place of residence, (11) alcoholism, (12) illegal drug use, (13) gang membership, (14) violent crime victimization, (15) sociability, (16) self-reliance/self-blame, (17) residence in a high-crime area, (18) perception of the world as a hostile place, and (19) drug dealing.

Kleck also levels a variety of criticisms at macro-level studies, a second study design.⁸ His 2019 *Social Science Quarterly* article forms the basis for this analysis. Kleck faults some macro-level studies for failing to adequately control for confounding variables, *see id.* at 12-13, similar to his critique of case-control studies, though his report does not identify macro-level confounders and he admits they differ from case-control confounders, *see* Kleck Tr. 164:24-165:25. He also faults methods for measuring gun ownership in some macro-level studies, as well as studies that use either a small sample size of studied areas or that examine areas with large heterogeneous populations like states and countries. *See* Kleck Rpt. at 13, 15-17. Kleck then uses these criteria to discount large portions of the macro-level research as unreliable and he focuses instead on a subset of studies that he contends find no significant connection between rates of gun ownership and suicide. *Id.* at 13. Together with his wholesale discounting of case-control research, this allows Kleck to conclude that “much” of the scientific evidence “contradict[s]” the notion that gun access increases the risk of suicide. *See id.* at 3-4.

Finally, Kleck opines on the relative lethality of firearms as a method of suicide, and on the likelihood of other methods being substituted if a firearm were unavailable. He uses this opinion to question whether providing suicide prevention resources to persons with access to firearms serves the County’s desired outcome of reducing suicide, as he concludes that for someone highly motivated to take their own life, “the absence of a firearm in the home...would merely result in the substitution of other methods with equally frequent fatal outcomes.” *Id.* at 19.

Although Kleck’s report offers blanket conclusions about the state of social science research, it does not analyze or discuss other study designs beyond case-control and macro-level

⁸ A macro-level study (also referred to as an ecologic study) compares populations in different areas, like cities, states, or countries. As relevant here, a macro-level study would typically attempt to measure firearm ownership (or other similar exposure such as secure firearm storage) and suicide rates for each population being studied, and compare them. *See* Kleck Tr. 156:24-157:12 (defining and describing macro-level studies).

studies—not coincidentally, the only two study designs covered by his underlying 2019 source material. And Kleck admits that he did not conduct any meaningful search for or analysis of research that postdates the 2019 analyses that he copies. *See* Kleck Tr. 113:23-114:15 (“Q. Did you do any additional analysis beyond the analysis performed to develop the list for your book chapter when you copied it into your report? A. No.”); *see also id.* 161:20-162:9 (“Q. When you drafted the portion of your report relating to macro-level studies, did you do any additional or independent research to identify macro-level studies? A. No. Q. Did you do any independent or additional analysis of macro-level studies, beyond what you had done for this 2019 article? A. No.”).

II. ARGUMENT

As described in further detail below, Kleck’s opinion is inadmissible and should be excluded for several independent reasons. Most importantly, his opinion is completely irrelevant: Kleck attacks the proposition that access to firearms *causes* suicide even though that is neither the actual text of the suicide prevention pamphlet nor a fair or reasonable reading of its overall message. And even if his opinion were considered relevant, Kleck’s underlying data and methodology are both irreparably flawed, and thus unreliable. Among other defects, his report simply copies his own prior writings—which he admits overlooked significant contrary research—without any attempt to identify, analyze, or reconcile any new research. Finally, the core of Kleck’s opinion boils down to nothing more than speculation—that his theories *might somehow* explain away the dozens of studies linking firearm access to suicide risk, but that Kleck cannot say for certain. For each of these reasons, his opinion is inadmissible, and should be excluded. *See* Fed. R. Evid. 702; *see also Daubert v. Merrell Dow Pharms. Inc.*, 509 U.S. 579, 597 (1993) (“[T]he Rules of Evidence ... assign to the trial judge the task of ensuring that an expert’s testimony both rests on a reliable foundation and is relevant to the task at hand.”).

A. Kleck’s Opinion Should Be Excluded Because It Is Irrelevant

As a threshold matter, Plaintiffs cannot use Kleck’s report to create a factual dispute over whether firearms access *causes* an increased risk of suicide, because that is not an objectively reasonable reading of the suicide prevention pamphlet. In fact, the pamphlet does not speak of the “causes” of suicide at all, other than to say that suicide has “no single cause.” Ex. 5, at 2. Instead, the pamphlet speaks of firearm access as one of many “risk factors” for suicide. *Id.* at 4. As explained in greater detail in the County’s summary judgment brief, the only reasonable reading of this language is that these risk factors are associated with a risk of suicide, not that they cause suicide. *See* County SJ Br. at 20-24.

Speaking in terms of “risk factors” helps make the pamphlet accessible to audiences who have neither the specialized knowledge nor the need to navigate the nuance between correlation and causation. Indeed, as the County’s expert and lead Public Health officer Dr. Kalyanaraman explains, the pamphlets here apply CDC guidelines to “tailor[]” their message to a target audience in a “clear and concise way.” NK Report ¶ 23; *see also* CDC CLEAR COMMUNICATION INDEX, CENTERS FOR DISEASE CONTROL AND PREVENTION 12 (August 2019) <https://www.cdc.gov/ccindex/pdf/clear-communication-user-guide.pdf> Ex. 30 (effective public health communication should “always use words the primary audience uses”) (emphasis in original). This is the same reason why, for example, family history is often listed as a risk factor for cancer even though what really drives cancer risk are specific genetic mutations that are beyond the general public’s technical expertise. *See Family Health History and Cancer*, Centers for Disease Control and Prevention, <https://www.cdc.gov/cancer/family-health-history/index.htm>, Ex. 31 (last visited October 21, 2022). Kleck, who is a retired professor of criminology with no apparent experience in public health, offers little basis to set aside the widely accepted consensus of medical and public

health professionals in favor of his results-oriented reading of the pamphlet. *See* Kleck Rpt. at 26-27 (curriculum vitae).

In sum, Kleck cannot read the pamphlet’s statements about “risk factors” as a statement about causation without fundamentally altering the text of the pamphlet. He must add the word “causes” where the pamphlet does not use it, and (as explained in the County’s cross-motion for summary judgment) he ignores multiple other features of the brochure that make clear that it is not asserting that firearms cause suicide. *See* County SJ Br. at 20-24; *see also* *Recht*, 32 F.4th at 417 (strongly cautioning against any reading that “cleaves” one part of a disclosure from the rest in a way that distorts the overall message). And Kleck must set aside the expertise and guidance of public health professionals who understand the term “risk factor” to be a statement about association, and who have crafted a message to this effect that can be readily understood by the public. Being unable to dispute the factual basis for the pamphlet’s statements about association, Kleck invents and attacks an irrelevant strawman. But that does not transform a nearly universally accepted factual proposition—that access to firearms is a risk factor for suicide, as reflected on the websites of the Centers for Disease Control, Maryland Department of Public Health, and National Institute of Mental Health and confirmed by innumerable studies (*see supra* p. 2 and App. 1)—into a controversial message about causation that no reasonable reader would take away from the NSSF-prepared and -endorsed suicide prevention pamphlet. His opinion is therefore irrelevant, and should be excluded.

B. Kleck’s Opinion Should Be Excluded Because It Is Based on Unreliable Data and Methods

Even if the pamphlet could be reasonably read as a causal claim about suicide risk, which it cannot, Kleck’s opinion still should be excluded because it is not based on “sufficient facts or data” nor is it based on “reliable principles and methods” as required by the Rules of Evidence.

See Fed. R. Evid. 702(b)-(c); see also *Young v. Swiney*, 23 F. Supp. 3d 596, 609 (D. Md. 2014) (courts may address challenges to expert admissibility in the context of a motion for summary judgment).

The burden of establishing admissibility is always on the party seeking admission of the expert testimony. See *Fireman's Fund Ins. Co. v. Tecumseh Prods. Co.*, 767 F. Supp. 2d 549, 553 (D. Md. 2011). When assessing an expert's methodology, courts in the Fourth Circuit "typically consider several factors, including: (1) whether the expert opinion can be tested; (2) whether the expert opinion has been subjected to peer review; (3) the rate of error of the methods employed by the expert; and (4) whether the expert's method has been generally accepted by his community." *Anderson v. Westinghouse Savannah River Co.*, 406 F.3d 248, 261 (4th Cir. 2005). Kleck's methodology is riddled with flaws, fails to meet any of these standards, and should be excluded.

To begin with, large portions of Kleck's report merely copy, verbatim, a book chapter and a journal article that he authored in 2019. See Kleck Tr. 113:23-114:15; see also *id.* 161:16-162:9. But copying preordained conclusions creates a two-fold problem of reliability. The first is that Kleck's recycled 2019 analyses were incomplete even when written, as they clearly failed to analyze, rebut, or even acknowledge numerous studies that undercut his conclusions. For example, Kleck's principal argument for setting aside the body of case-control studies whose conclusions he disagrees with is that "no study has ever controlled for even half" of his theorized confounding variables, and only three studies have controlled for more than four of them.⁹ See Kleck Rpt. at 17. But this claim is demonstrably false, and the proof is in the studies that Kleck overlooks—such as a 2014 study by Briggs & Tabarrok (two professors at George Mason University who published their analysis in the peer-reviewed journal *International Review of Law and Economics*)—that

⁹ These studies are Miller et al. 2022, Kvisto et al. 2022, Studdert et al. 2020, and Lane 2022. These studies are identified on Appendix 1 and attached as Exhibits 52, 53, 65, and 71.

controlled for ten alleged confounders and yet found “strong evidence that increased gun prevalence causes an increase in overall suicide.” *See* Ex. 40, at 187 (study conclusion); *see also* Kleck Tr. at 239:10-245:25 (acknowledging that the Briggs and Tabarrok study is “relevant” and controls for ten alleged confounders, but that he “inadvertently omitted it” from his analysis).¹⁰

Kleck also admitted that he failed to consider a 2016 study by Matthew Miller, Sonja A. Swanson, and Deborah Azrael published in the journal *Epidemiologic Reviews* that quantified the characteristics a confounding variable would need in order to nullify the observed association between firearms access and suicide—the precise issue on which Kleck purports to offer an expert opinion on the state of social science. *See* Kleck Tr. at 304:11-305:7. Such an unmeasured confounder, the Miller et al. study finds:

would need to possess an untenable combination of characteristics, such as being not only 1) as potent a suicide risk factor as the psychiatric disorders most tightly linked to suicide (e.g., major depressive and substance use disorders) but also 2) an order of magnitude more imbalanced across households with versus without firearms than is any known risk factor. No such confounder has been found or even suggested.

Matthew Miller et al., *Are We Missing Something Pertinent? A Bias Analysis of Unmeasured Confounding in the Firearm-Suicide Literature*, 38 EPIDEMIOLOGICAL REVIEWS 62, 62 (2016), Ex. 64. The study thus concludes that “unmeasured confounding alone is unlikely to explain the association between firearms and suicide,” a finding directly at odds with Kleck’s opinion here. Kleck’s failure to consider such “on point” studies makes his opinion unreliable. *See, e.g., Hoefling v. U.S. Smokeless Tobacco Co.*, 576 F. Supp. 3d 262, 273 (E.D. Pa. 2021) (excluding

¹⁰ Kleck initially discounted the Briggs and Tabarrok study by stating that “generally speaking, the usual reason for doubt about this kind of conclusion is, again, the failure to control for confounding factors.” Kleck Tr. 242:9-21. However, after being shown that this study controlled for more confounders than any referenced in his 2019 book chapter, Kleck then claimed that Briggs and Tabarrok misstated their own findings. *See id.* 248:23-249:10 (claiming that “[M]aybe they were honestly mistaken. They sort of, you know, worked hasty in writing a paper....”).

expert who “ignore[d] other information and research” and “did not do an ‘in depth’ review of any epidemiological research” after a given date).

The second methodological error that Kleck’s report makes by copying his analyses from 2019 is that he makes absolutely no effort to identify or analyze more recent research, despite offering what purports to be an opinion about the current state of social science. *See* Kleck Tr. 113:23-114:15; *see also id.* at 161:16-162:9. Kleck himself admits that re-evaluating one’s conclusions in light of new evidence is a fundamental tenet of social science research, because “no scientific conclusion is ever absolutely final and definitive. There always might be better evidence that comes along in the future.” *Id.* at 48:3-6. And yet he totally disregarded new evidence and admits he merely parrots his 2019 work in his report.

Kleck’s failure to grapple with more recent research postdating his 2019 book chapter undermines the reliability of his conclusions because, since that time, at least four new studies have been published that unambiguously contradict Kleck’s position and support the fact that access to firearms is a risk factor for suicide. Among these, for example, are a pair of longitudinal studies¹¹—a study design Kleck doesn’t even mention or consider in his report—by researchers at Harvard and Stanford published in the peer-reviewed journals *The New England Journal of Medicine* and *JAMA Psychiatry*. *See* David M. Studdert et al., *Handgun Ownership and Suicide in California*, 382 *NEW ENG. J. MED.*, 2220 (2020) (“Studdert 2020”), Ex. 71; Matthew Miller et al., *Suicide Deaths Among Women in California Living With Handgun Owners vs Those Living With Other Adults in Handgun-Free Homes, 2004-2016*, 79(6) *JAMA PSYCHIATRY*, 582 (2022) (“Miller 2022”), Ex. 65. The Studdert study examined 26.3 million male and female California

¹¹ Longitudinal studies track an exposure (like a gun purchase) and an outcome (like suicide) across a population *over time*, allowing researchers to (among other things) assess how close in time an exposure is followed by the outcome. *See* Kleck Tr. 196:22-197:12 (defining and describing longitudinal studies).

residents over a dozen years and concluded that the acquisition of a handgun was followed by a substantially higher rate of suicide both immediately and for a sustained period of several years thereafter. *See* Studdert 2020, at 2220, 2226. The Miller study followed 9.5 million female California residents and found that the purchase of a handgun *by someone else in their household* likewise led to a sustained period of substantially higher suicide risk for the female non-owner. *See* Miller 2022, at 582, 586. The sustained elevation of suicide risk found in the Studdert study—persisting for years after handgun acquisition—directly undercuts Kleck’s theory that suicidal intent can explain away the relationship between gun access and suicide. *See* Studdert 2020 at 2227 (“[Suicidal] intent is less plausible as an explanation for the elevated risk of suicide by firearm among owners over the longer term, when most occurred.”). Miller’s finding of elevated suicide risk among non-purchasers living with a gun owner likewise undercuts Kleck’s theory that suicidal intent drives both gun acquisition and suicide, for the simple reason that in the Miller study these events were experienced by different people.¹²

Adding together the omissions in his underlying 2019 book chapter and paper, plus more recent studies he failed to analyze, Kleck’s expert report fails to even mention at least 25 relevant studies that undercut his conclusion. These are identified on Appendix 1 as Exhibits 31-33, 40, 42, 44-46, 48, 51-54, 59, 61-62, 64-68, 70-72, and 74. These omissions include an entire category of contemporary study design that he fails to address or rebut—i.e., longitudinal and quasi-experimental studies, which track populations over time to provide insight into the temporal link between gun acquisition and suicide risk. Instead, he focuses his criticism on older “case control”

¹² Confronted with Miller’s conclusion at his deposition, Kleck offered the nonsensical explanation that “spouses tend to resemble one another. Like attracts like”—meaning that “whatever attributes there are that are confounders regarding the individual that acquired a gun...are more likely to be attributes that characterize the spouse or girlfriend, as well.” Kleck Tr. 220:20-221:10. Kleck could not point to any research for this theory, other than that it is supposedly “common knowledge and undisputed amongst social scientists”—except, evidently, the social scientists who authored the Miller 2022 study. *See id.* at 221:25-222:11.

and “macro level” studies. *See, e.g.*, Kleck Rpt. at 11-13; *see also* Kleck Tr. 235:21-236:7 (admitting that he did not look at studies other than case-control studies for his report section about confounders). These omissions and failures to grapple with contrary evidence, taken as a whole, provide a more than sufficient basis to exclude Kleck’s opinions. *See, e.g., Yates v. Ford Motor Co.*, 113 F. Supp. 3d 841, 858 (E.D.N.C. 2015) (“[I]f the relevant scientific literature contains evidence tending to refute the expert’s theory and the expert does not acknowledge or account for that evidence, the expert’s opinion is unreliable.” (citation omitted)).

When confronted with these omissions during his deposition, Kleck simply wrote off wholesale the overwhelming corpus of contrary academic literature in the relevant field. Peer-reviewed studies published by dozens of different researchers from a range of academic and medical institutions in the leading U.S. medical journals—like the *Annals of Internal Medicine*, *The New England Journal of Medicine*, and *The Journal of the American Medical Association*—are, in Kleck’s view, “simply unreliable on the issue of the relationship between guns and violence” because of “a pronounced ideological bias among editors and contributors.” Kleck Tr. 192:14-194:22 (pronouncing *The New England Journal of Medicine* biased); *see also id.* 215:8-216:18 (*JAMA Psychiatry*); *id.* at 251:3-13 (*Injury Prevention*); *id.* 232:12-24 (pronouncing *Journal of the American Academy of Child and Adolescent Psychiatry* biased, despite admitting that he “do[esn]’t know about that specific one”). Studies that contradict Kleck’s conclusions—including ones that he had only “just glanced at” for the first time in his deposition—were likewise immediately dismissed as “junk science,” notwithstanding their acceptance in leading peer-reviewed journals and their authors being highly qualified academics and medical professionals. *See, e.g., id.* at 218:3-219:5 (dismissing Miller 2022); *see also id.* at 233:17-234:7 (dismissing

Studdert 2020); *id.* at 237:5-17 (dismissing Kvisto 2021);¹³ *id.* at 253:10-17 (dismissing Miller 2006).¹⁴

Nothing about Kleck’s approach remotely resembles a reliable or generally accepted methodology among social scientists or public health authorities, which reinforces the basis for excluding Kleck’s opinions. *See In re Lipitor Mktg., Sales Practs. & Prods. Liab. Litig.*, 892 F.3d 624, 634 (4th Cir. 2018) (“Result-driven analysis, or cherry-picking, undermines principles of the scientific method and is a quintessential example of applying methodologies (valid or otherwise) in an unreliable fashion.”). To the contrary, this indicates that instead of providing an objective assessment of the current state of social science on this issue, Kleck—who has served as an expert repeatedly and almost exclusively for parties challenging gun regulations—has simply set aside all the research that contradicts his longstanding and broader views about gun ownership. *See Kleck Tr.* at 335:18-336:21 (“Q. So is it fair to say that any study that finds that access to a firearm increases a risk of suicide is inconsistent with your broader view that you’re well-known for, that gun access is not equated with gun violence? A. Yes.”). But an expert who “essentially had a set of boilerplate objections ... which he asserted regardless of the specific facts of the particular case” is properly excluded. *Cooper v. Smith & Nephew, Inc.*, 259 F.3d 194, 201-02 (4th Cir. 2001); *see also Fail-Safe, LLC v. A.O. Smith Corp.*, 744 F. Supp. 2d 870, 889 (E.D. Wis. 2010) (finding

¹³ Kleck also raised his boilerplate objection alleging the failure to adequately control for confounding variables as to the Studdert 2020 study, Miller 2022 study, and Kvisto 2020 study, *see, e.g.*, *Kleck Tr.* 205:19-25 (Studdert); *id.* at 217:24-218:7 (Miller 2022); *id.* at 237:9-17 (Kvisto 2020).

¹⁴ *See* Appendix 1 and Exhibits 52, 59, 65, and 71. These four studies were published in *JAMA Psychiatry*, *Journal of the American Academy of Child & Adolescent Psychiatry*, *The New England Journal of Medicine*, and *Injury Prevention*. Their authors include Matthew Miller, MD, MPH, ScD (Harvard, Northeastern); Yifan Zhang, PhD (Stanford); Lea Prince, PhD (Stanford); Sonja A. Swanson, ScD (Harvard, Erasmus Med. Ctr. Rotterdam, Pitt); Garen J. Wintemute, MD, MPH (Stanford, UC Davis); Erin E. Holsinger, MD (Stanford); David M. Studdert, LLB, ScD (Stanford); Aaron J. Kvisto, PhD (Univ. Indianapolis); Katherine L. Kvisto, PhD (Univ. Indianapolis); Erica Gurnell, MA (Univ. Indianapolis), Peter Phalen, PsyD (Maryland), Bradley Ray, PhD (Wayne State); Jonathan A. Rodden, PhD (Stanford); Matthew J. Spittal, PhD (Univ. Melbourne); Deborah Azrael, PhD (Harvard); Lisa Hepburn, PhD, MPH (Harvard); David Hemenway, PhD (Harvard); and Stephen Lippmann, PhD (Duke).

expert's "methodology unreliable because of how [he] uniformly treated all evidence that undermined his underlying conclusion: unwarranted dismissal of the evidence or outright blindness to contrary evidence").

Not surprisingly, Kleck's report relies on just a single author to support the lion's share of its conclusions: Kleck himself. In fact, nearly half of the citations in Kleck's report in this case (28 out of 63) are self-referential, mostly to his 2019 book chapter and 2019 paper in *Social Science Quarterly*.¹⁵ When pressed to identify any other sources of support, Kleck was unable to identify a single scholar or article that agrees with the conclusions in either of his 2019 publications. Kleck Tr. 105:16-20 (no scholar or paper agrees with Kleck's 2019 book chapter); *see also id.* at 171:13-21 (no scholar agrees with Kleck's 2019 paper). Hence, Kleck stands as an outlier whose theories lack foundational support from peers in his field. This is a strong indicator that neither Kleck's methodology nor his conclusions are generally accepted by his community. *See Nease v. Ford Motor Co.*, 848 F.3d 219, 232 (4th Cir. 2017) (excluding expert opinion, and directing district courts to "consider whether and to what extent an expert's theory has been accepted within the relevant scientific ... community").

The portion of Kleck's report contesting the efficacy of the County's efforts to prevent firearm suicide suffers from a similar lack of sufficient or reliable evidentiary foundation. Specifically, Kleck claims that individuals who attempt suicide by firearm are highly motivated to die, and that this motivation means that they would simply commit suicide using another equally lethal method if a firearm were unavailable. *See Kleck Rpt.* at 19. However, this portion of

¹⁵ Compounding this deficiency, it is not evident that Kleck's 2019 book chapter was even peer reviewed, as that term is normally understood in the context of academic journals. *See Kleck Tr.* 106:19-24 ("Q. Was the article peer reviewed prior to publication in this book chapter? A. It was reviewed by the editors. I'm not sure if it was reviewed by anybody else."); *see also Anderson*, 406 F.3d at 261 (identifying peer review as factor governing admissibility of expert opinion).

Kleck's report cites several studies comparing the relative fatality rates of suicide methods like firearms, hanging, and poisoning, but it does not cite any research indicating that method substitution in fact occurs as Kleck theorizes. At most, Kleck offers citations to research that he claims shows that persons with strong intention to die are more likely to choose highly lethal methods of suicide, like firearms. *See id.* But Kleck cites no study showing that persons with high suicidal intent in fact substitute methods of suicide if their primary method is unavailable. He also cites no study showing that substituted methods are always as lethal as firearms. He therefore has little basis to claim that the County's efforts at suicide prevention are misguided or in vain, or to rebut the County's experts who cite studies demonstrating the efficacy of lethal-means reduction as a public health strategy for preventing suicide. *See, e.g.*, NK Report ¶ 20 (citing study finding that most people who attempt suicide and survive do not go on to die from subsequent attempts); AM Report ¶¶ 8-10 (describing studies showing efficacy of lethal-means reduction, and role of impulsivity in suicide). This portion of Kleck's opinion is similarly inadmissible, for lack of any reliable evidentiary basis.

C. Kleck's Opinion Amounts to Little More Than Inadmissible Speculation

Even if Kleck's report could somehow overcome these fatal defects of relevance and reliability, it would still fail to create a disputed issue of material fact. This is because even on its own terms, its core rests on little more than speculation about the effect—if any—of uncontrolled variables.

There are numerous problems with Kleck's theory that some combination of extrinsic factors—which he calls “confounders”—drive both gun acquisition/access and suicide and can thus explain away the observed relationship between them. *See* Kleck Rpt. at 6. For starters, even Kleck admits that for four of these supposed confounding variables, there is “no empirical

evidence” to show that they are, in fact, confounders. *See id.* at 9-10 (no evidence for self-reliance and self-blame, residence in high-crime area, perception of the world as a hostile place, and drug dealing as confounding variables); *see also* Kleck Tr. 146:7-13, 147:16-25.

The only empirical data that Kleck does offer is even less supportive of his theory than having no data at all. As to 11 other supposed confounders, the data that Kleck compiles in his 2019 book chapter shows that these variables operate the opposite way from how Kleck theorizes—meaning that they do not in fact nullify (and may not even *reduce*) the observed relationship between gun access and suicide when controlled for. Specifically, this data (which is the only data Kleck presents in support of his confounder theory) shows that controlling for age, sex, race, region, marital status, income, living alone, education, population size at place of residence, alcohol use, and marijuana use *increased* the apparent relationship between guns and suicide in multiple studies, rather than negating it. *See* Kleck 2019 at T.17 (citing Kellerman et al. (1992), Kung et al. (2003), and Weibe (2003) studies, all of which show an increase between the crude suicide occurrence rate (“OR”) and the adjusted OR, after accounting for hypothesized confounders); *see also* *See* Kleck Tr. 298:2-10 (acknowledging that increase between crude OR and adjusted OR in these studies indicates that controlling for confounders enhanced, rather than negated, the observed relationship between gun access and suicide).¹⁶ Kleck’s only empirical evidence on the effect of these 11 confounders thus undercuts his hypothesis rather than supporting it.

¹⁶ As to two of these supposed confounders—marital status and income—Kleck’s report appears to acknowledge that they have an inverse relationship with firearms ownership and suicide, meaning that if uncontrolled they would likely skew the results to show less of a relationship between gun access and suicide. *See* Kleck Rpt. at 8; *see also* Kleck Tr. 131:23-132:18. Nonetheless, he still asserts both as a reason for discounting the social science whose conclusions he disputes.

In fact, Kleck’s report cherry-picks the only studies that arguably support his conclusion—a pair of studies by Brent in 1988 and 1991 that controlled for suicidal intent. *See* Kleck Rpt. at 6-7.¹⁷ But relying on these studies raises its own problems. For one, Brent does not say in either study that access to firearms is unrelated to suicide; in fact, it states quite the contrary. In his 1988 study, Brent concluded that “the availability of firearms is much greater in the homes of suicide completers than in those of a comparable group of at-risk youth” and thus recommended that “clinicians who work with suicidal adolescents should strongly advocate the removal of firearms from the home environment.” Ex. 35, at 587. Likewise, Brent’s larger 1991 follow-up study found that, even after controlling for suicidal intent, “[t]he availability of guns in the home ... appears to increase the risk for suicide among adolescents.” Ex. 36 at 2989.

More foundationally, *both* of these Brent studies examined gun access and suicide among a small group of adolescent psychiatric patients—hardly a representative sample from which to make generalizations about the behavior of gun-buying adults in the general population. *See id.*; *see also* Kleck Tr. 269:8-270:9 (acknowledging these limitations); Kleck Tr. 282:8-10 (acknowledging that subjects of Brent studies could not have legally acquired handguns). In fact, Brent himself cautioned against drawing precisely this analogy to the general population in a 1993 follow-up study—a limitation that Kleck dismissed (without evidence) as motivated by “pro-[gun] control” colleagues and “bias that’s evident in medical journals.” Kleck Tr. 270:23-272:4. And Kleck simply ignores—or dismisses as “junk science”—recent research like Studdert 2020 and Miller 2022, discussed above, which studied tens of millions of people in California’s general

¹⁷ Ironically, Brent’s 1991 study was published in *The Journal of the American Medical Association*, a medical journal whose reliability Kleck disparages when it publishes research not in line with his desired conclusions. *See, e.g.*, Kleck Tr. 215:21-216:14.

population and concluded that the observed increase in suicide after gun purchases could not be explained by suicidal intent. *See supra* pp. 12-13.

Ultimately, Kleck’s entire confounder theory is built upon several layers of speculation explained above—some confounders are grounded in flimsy analogies, some are contradicted by Kleck’s own data, and some lack any empirical support at all. To this, Kleck adds another methodologically unsound layer of guesswork. He admits that none of his theorized confounders, taken on its own, could possibly explain away the results seen throughout the social science research linking firearms access to an increased risk of suicide. *See* Kleck Tr. 305:21-306:12 (“[M]y opinion pertained to an entire long list of confounding variables, not any one of them. And, in fact, I think I explicitly said no one of these factors would completely account for the associations found in this study.”). Thus, he theorizes that if you *add together* the alleged confounding effects of each uncontrolled variable, that just might bridge the gulf between observed reality and Kleck’s desired outcome. In other words, it might explain away the heightened incidence of suicide among gun owners as attributable to some combination of *other variables* rather than to easy access to lethal means. *See, e.g.*, Kleck Rpt. at 10.

The problem is that this asks the reader—and the Court—to make a blind leap of faith. There is no evidence that the effects of Kleck’s supposed confounders can simply be added to one another. To the contrary, there is evidence that the effects of many of the confounders largely overlap, such that if social scientists control for one, they have at least partially controlled for others. And this makes intuitive sense—for example, that controlling for marital status would largely control for whether a study subject lives alone, or that education would likely control for income level, and so on. Variables that overlap in this way are described as “colinear,” and Kleck admits that “[a]most all of these alleged confounders are, indeed, colinear; they’re coordinating

with one another.” *See* Kleck Tr. at 310:13-311:5. But despite this admission, Kleck has not tried to identify the extent to which his hypothesized confounders overlap. Nor has he ever tried to measure the combined effect of his alleged list of confounders. Consequently, Kleck can only guess whether it would nullify the numerous study results he disputes:

Q. Do you know whether the cumulative effect of the confounders you identify do, in fact, explain away the results that have been identified in study after study after study?

A. I know that we don’t know, in study after study after study.

Q. You're not answering my question. Do you know whether or not the cumulative effect of all of the confounders you’ve identified, in fact, explain away the results of all of the studies we’ve gone over, and others we haven’t, such that they would render a null result?

A. No, I don’t know, nor does anyone else know.

Id. at 312:22-313:15; *see also id.* at 125:11-126:17 (“Q. ... [Y]ou’re contending that if you were to add up the effects of all of these confounders, the findings—they would, in fact, nullify the findings of some or all of the case control studies that have documented an association between firearms access and death by suicide. Is that accurate? A. No, I’m saying it could. I’m not saying it would; I’m saying it could.”). At its core, Kleck’s theory about confounders nullifying the mountain of contrary empirical evidence is simply guesswork heaped on speculation, lacking any degree of reasonable certainty.

For this reason, and for the independent reasons that Kleck’s opinions are totally irrelevant and not reliable for the reasons set forth above, they should be excluded.

* * *

WHEREFORE, Defendant Anne Arundel County respectfully requests that this Honorable Court grant its Motion in Limine to Exclude Testimony of Plaintiffs' Expert, Gary Kleck. Alternatively, to the extent the Court is considering relying on Kleck's opinions in any way, the County requests a *Daubert* hearing to allow the Court to more fully assess Kleck's credibility and the problems with both his analysis and its foundation.

Respectfully submitted,

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CERTIFICATE OF SERVICE

I HEREBY CERTIFY that on this 24th day of October, 2022, the foregoing motion was electronically filed in the United States District Court for the District of Maryland.

Tamal A. Banton

Tamal A. Banton