PLACING PHYSICIANS BETWEEN SCYLLA AND CHARYBDIS: CHEMICAL DISCLOSURE LAW REQUIRING HEALTH PROFESSIONALS TO SIGN CONFIDENTIALITY AGREEMENT CREATES RISK OF LIABILITY FOR PHYSICIANS AND IMPEDES PROTECTION OF PUBLIC HEALTH

Eric Sando*

ABSTRACT

The Pennsylvania General Assembly enacted House Bill 1950 (Act 13) in February 2012, regulating hydraulic fracturing and the disclosure of chemicals used in the process. Part of this new legislation permits healthcare professionals to access proprietary information, otherwise subject to trade secret protection; however, Act 13 mandates that the requesting healthcare professionals first sign a private confidentiality agreement. There is an emerging debate extending across the states proposing similar legislation as to whether requiring a confidentiality agreement exposes physicians to potential liability or loss of license. On the one hand, if physicians abide by the terms of the private confidentiality agreements, they may violate their ethical code and state statutory laws protecting public health and safety, and such action may also expose them to potential common law negligence claims. On the other hand, if physicians share the information obtained under Act 13, they may be in breach of contract under the confidentiality agreement. This Note examines this dilemma and concludes that the vague language of Act 13 exposes health professionals to either breach of contract liability or potential tort liability and risk of losing their license. This Note recommends that the Pennsylvania Legislature should immediately pass an amendment clarifying the text of the statute, explaining whether physicians may share the information and with whom they can share it, taking into account the ethical obligations, common law doctrines, and public health concerns inherently intertwined with this issue. This Note also serves to guide other states considering similar chemical disclosure laws.

* J.D. Candidate, 2014, Drexel University School of Law; B.A. Temple University. I would like to thank Barry R. Furrow and Robert I. Field for their insightful guidance on earlier drafts of this Note. I would also like to thank my friends and family for their patience and support.
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“To err is human, to delay is deadly.”

INTRODUCTION

In the rural city of Tunkhannock, located in the northeastern part of Pennsylvania, a thirty-acre tract of land may be home to only three or four neighbors. Many residents obtain their tap water from private wells that share common aquifers. The neighbors in some locations, however, no longer speak to one another since the discovery of the valuable resource trapped in the shale formation beneath their land. Over the last ten years, some neighbors have sold their mineral rights for $10 an acre while others have sold their mineral rights for $1,000 an acre, yet still some refuse to sell because of fear of possible environmental degradation and invasion by the natural gas industry.

In this setting, Dr. Paré has a small office that specializes in dermatology and skin conditions. A primary care physician referred Dr. Paré a new patient, Addison, who suffered from bleeding, oozing, and severely inflamed skin lesions. Unfortunately, after examining Addison, the source of the affliction bewildered Dr. Paré.

Over the course of a few weeks, Dr. Paré saw a number of other patients living in the same area as Addison who were suffering from similar symptoms. Finally, she discovered that a new hydraulic fracturing natural gas drill site had recently been erected in the area near where Addison lives. Dr. Paré continued to follow her patients’ conditions and discovered that Addison, along with others,

2. Interview with Arthur F. Davis, III, resident of Tunkhannock, PA. (Sept. 30, 2012) (presenting a divided state of affairs, in which some residents praise the gas industry while others dislike and distrust it).
3. Id.
4. Id.
5. Id.
6. Dr. Paré is a physician practicing in northeast Pennsylvania and, while the medical facts are based on real events, the storyline is fictional. See Alicia Gallegos, Doctors Fight “Gag Orders” Over Fracking Chemicals, AM. MED. NEWS (Aug. 27, 2012), available at http://www.ama-assn.org/amednews/2012/08/27/gvl10827.htm.
7. Id. Fact pattern taken from interview with physician treating patients exposed to chemicals in their drinking water.
8. Id.
9. Id. ("Dr. Paré’s suspicions grew when she learned that the patients lived near the same natural gas drilling site.").
had high levels of phenol and hippuric acid in her urine. Upon instructing her patients to stop drinking their well water, the patients quickly improved.

One of the problems Dr. Paré faced was the inability to quickly determine what her patients had been exposed to after discovering the likely source of the symptoms. If she had known what chemicals to test the patients for, she would have been able to identify the specific source of the symptoms faster. Thankfully, physicians, like Dr. Paré, may now obtain this information under House Bill 1950 (Act 13). However, because physicians must acquiesce to confidentiality agreements as a precondition to obtaining this chemical information from hydraulic fracturing drillers or operators, it is unclear whether physicians may share this valuable information with other physicians, insurance carriers, the patient’s family members, neighbors, or the patient.

Let us now assume that Dr. Paré discovered the potential cause of her patients’ symptoms pursuant to Act 13 and she signed the required confidentiality agreement. Let us further assume that down the street a physician specializing in nephrology, Dr. Pocrates, has a small medical office. Similar to Dr. Paré’s situation, assume a primary care physician refers a local resident, Evan, to Dr. Pocrates who diagnoses Evan as suffering from low platelets, anemia, rash, and acute renal failure.

Dr. Pocrates treats Evan to the best of his ability, but the source of the illness escapes him. Evan slowly gets worse and the cause of his illness remains a mystery. Dr. Paré down the street is aware that her patients’ well water had been contaminated to some degree, and pursuant to her Act 13 request, she knows the specific proprietary chemicals used by the natural gas drillers in the area. Because she signed the private confidentiality agreement, she fears that if she...

10. Id. ("Tests later found that the patients had phenol and hippuric acid in their urine, two contact irritants rarely found in humans.") (emphasis added).
11. Id. ("The patients improved after they stopped drinking water from their underground wells.").
12. Id. ("Knowing what chemicals they had been exposed to would have sped up the process . . . .").
13. Id.
15. See id.
16. Dr. Pocrates is a fictional character, but his story has been taken from real events. See Erin Mcauley, State’s ‘Medical Gag Rule’ Called an Illegal Gift to Gas Drillers, COURTHOUSE NEWS SERVICE (July 31, 2012), http://www.courthousenews.com/2012/07/31/48847.htm.
17. Id. (using interview with physician to explain complicated diagnosis made after treating patient exposed to hydraulic fracturing fluid after a well blowout in Dallas, PA).
discloses the information to anyone, she may be sued. Fearful of potential liability, she chooses not to disclose the information to anyone. Moreover, because the residents on this tract of land no longer speak to one another, Evan never hears that his well water may be contaminated.

Despite Dr. Pocrates’s valiant efforts, Evan slowly slips away as a result of renal failure. A few months later, Dr. Pocrates encounters multiple cases similar to Evan’s, but still does not know the cause of the symptoms. Perhaps state agencies will investigate if an outbreak occurs or multiple people die from unknown sources. But how long will this take and why should we allow such a cost? Moreover, Dr. Paré may now lose her license; she may be liable for negligence and may be subject to criminal penalty for violating state public health disclosure statutes.

Time remains to address this issue by amending Pennsylvania’s recently enacted Act 13. Under Act 13, healthcare professionals may obtain chemical names and concentrations used in hydraulic fracturing fluid. But the legislation provides that health professionals must sign a private confidentiality agreement. This is problematic because, on the one hand, physicians maintain ethical duties to not only fully disclose information to their patients, such as the cause of disease, but also to share such information with fellow physicians and the community at large. Similarly, physicians may have a common law duty to warn identified third parties of a foreseeable risk known to the physician, even if the third party is not within the patient-physician relationship. On the other hand, physicians may expose themselves to liability for sharing that information in contractual breach of a non-disclosure agreement that the statute explicitly authorizes drillers to force physicians to sign.

As a result of the statute’s vague language and the uncertainty of the private drillers’ confidentiality agreements, the Pennsylvania General Assembly has placed healthcare providers, especially physicians,
between Scylla and Charybdis.26 Either the physician adheres to ethical, statutory, and common law duties to share the information, thereby risking suit for breach of contract, or the physician complies with contractual obligations of the private confidentiality agreement, potentially risking loss of license, common law suit for negligence from injured third parties, and violation of public health statutes.

Part I of this Note will provide a general overview of the hydraulic fracturing process, its risks and potential problems arising from fracturing fluid, the chemicals used, and the recently adopted legislation addressing chemical disclosure in Pennsylvania. Part II will examine a physician’s ethical, common law, and statutory duties to share and disclose the chemical information obtained by Act 13. Part III will provide an explanation of the restrictions on a physician’s ability to share information, an overview of trade secret protection, an illustration of a physician’s inability to obtain the information from public sources, and a review of the enforceability of such non-disclosure agreements. Part IV will present arguments and counter-arguments based on legislative intent. Part V will compare other disclosure laws to the language used in Act 13. Part VI will address anticipated consequences of not adopting the remedial measures. Part VII will present some recommendations to remedy this issue.

I. HYDRAULIC FRACTURING

A. Hydraulic Fracturing 101

Hydraulic fracturing (fracturing) involves the process of drilling perpendicular holes 4,000 to 10,000 feet into the earth to access the valuable natural gas (methane) trapped in the geological shale formations.27 The process originated in 1949,28 however, the contemporary application is much different.29 Drillers now have the technology to maneuver the drill bit to effectively drill horizontally within the shale formations to reach greater area under the surface,30

29. See Spence, supra note 27, at 438.
30. See, e.g., Sean Moulton & Sofia Plagakis, The Right to Know, the Responsibility to Protect: State Actions Are Inadequate to Ensure Effective Disclosure of Chemicals Used in Natural Gas Fracking, 2012
extending horizontal conduits from the well site by 1,000 to 6,000 feet.\footnote{31}

After operators drill the hole, they then secure the well and encase the walls in cement.\footnote{32} Upon completing the well hole, the operators strategically set off small explosives under the surface within the well to create fractures in targeted geologic formations.\footnote{33} In order to fracture the shale further and increase access to the natural gas, the operators pump large amounts of fracturing fluid—two to four million gallons\footnote{34}—into the well at extremely high pressures.\footnote{35} The fluid contains various types of commercial additives marketed for the purpose of fracturing, secondary chemicals added at the site,\footnote{36} radioactive tracers, and sand or silicon particles.\footnote{37} The pressure from the fluid further fractures the shale creating tentacles extending out from the drill site, while the sand or silicon particles serve to lodge between the shale rock creating openings for the gas to then escape back up the well for harvest.\footnote{38}

A portion—anywhere from \textit{20\%} to more than \textit{70\%}\footnote{39}—of the millions of gallons of fracturing fluid forced into the well later returns to the surface and must be addressed through a variety of waste management techniques.\footnote{40} This backwater carries with it both the initial chemicals mixed by the drillers and site operators, and the mineral salts and radioactive materials that are naturally present beneath the earth’s surface.\footnote{41} Operators either (1) reuse the flow-back

\begin{footnotes}
\item{31.} See, e.g., id. at 11.
\item{32.} See, e.g., Spence, \textit{supra} note 27, at 455.
\item{33.} See, e.g., Moulton & Plagakis, \textit{supra} note 30, at 11.
\item{34.} See, e.g., Spence, \textit{supra} note 27, at 441.
\item{36.} See, e.g., Moulton & Plagakis, \textit{supra} note 30, at 12 (“[T]ens of thousands of gallons of chemical additives may be used in each well[,]” including corrosion inhibitors, poisons, acids, and lubricants.).
\item{37.} See, e.g., id. at 11-12.
\item{38.} See, e.g., id.; see also Spence, \textit{supra} note 27, at 442.
\item{39.} See, e.g., Moulton & Plagakis, \textit{supra} note 30, at 23; Spence, \textit{supra} note 27, at 441.
\item{40.} See, e.g., ROBERT B. JACKSON ET AL., \textsc{Research and Policy Recommendations for Hydraulic Fracturing and SHALE GAS EXTRACTION} 3 (2011) (explaining that a single well can produce more than a million gallons of wastewater in the first month of drilling and production).
\item{41.} See, e.g., David M. Kargbo et al., \textit{Natural Gas Plays in the Marcellus Shale: Challenges and Potential Opportunities}, 44 ENVTL. SCI. & TECHL. 5679, 5681 (2010), \textit{available at} http://pubs.acs.org/doi/pdf/10.1021/es903811p; Kerner, \textit{supra} note 28, at 242 (citation omitted)”[T]racking wastewater contained radioactivity at unsafe levels that could not be diluted in rivers and other waterways and that was not being tested in most sewage treatment plants.”).
\end{footnotes}
fluid, (2) store it in ponds near the drill site,\(^42\) (3) dispose of it in treatment sites, or (4) drill secondary drill sites to dispose of it.\(^43\)

**B. Scope and Risk of Hydraulic Fracturing Fluid**

Over one-half-million natural gas wells are spread across thirty states.\(^44\) Nine in ten of those wells use fracturing as a means of extracting the natural gas.\(^45\) The number of wells is rapidly expanding;\(^46\) between 2000–2009, the number of wells in Pennsylvania has almost doubled, while Texas has added approximately forty-five thousand new wells.\(^47\) The Marcellus Shale formation underlies at least eight different states, and it may be the largest natural gas reserve in the United States.\(^48\) In addition to the Marcellus Shale, Arkansas has the Fayetteville Shale formation; Louisiana has the Haynesville Shale; Arizona and Colorado have the Lewis Shale; Michigan has the Antrim Shale; and Indiana and Kentucky have the New Albany Shale.\(^49\) Hydraulic drilling is also prevalent, or is under consideration, in a number of different states throughout the country, such as Utah, Wyoming, Mississippi, North Dakota, California, New Mexico, New Jersey, Oklahoma, Illinois, Montana, and the New England region.\(^50\)

The impetus behind the aggressive spread of fracturing is the unyielding pressure to find alternative energy resources to remove the burden of relying on foreign oil.\(^51\) Though few think natural gas and fracturing are perfect solutions to this problem, most agree it can help relieve the mounting pressure on the industry and government to devise new energy resources.\(^52\)

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42. See Kerner, *supra* note 28, at 242 (noting storms may cause overflowing of the ponds causing contamination of the surrounding land).

43. See, e.g., Moulton & Plagakis, *supra* note 30, at 15; see also Spence, *supra* note 27, at 443–44, 490 (discussing various waste water disposal procedures and seismic activity linked with disposing fracturing fluid in the ground).


45. See, e.g., id.


47. See, e.g., id.


49. Id. at 41.

50. Id. at 41–42.


52. See, e.g., id.; see also Spence, *supra* note 27, at 441 (“[E]nergy planners see natural gas as a ‘bridge fuel’ in the process of moving from a fossil fuel economy.”).
Despite the recognized need for alternative energy, many criticize the inherent risks and long-term repercussions of fracturing, arguing that the potential negative effects may significantly outweigh the positive effects.\(^{53}\) Over the last fifteen years, there have been multiple occurrences where fracturing allegedly contaminated local water sources.\(^{54}\) Reports indicate that at least twelve states experienced environmental or health problems from the process.\(^{55}\) However, the impact of fracturing is heavily disputed, and at present, the jury is still out on its ultimate effects on the health of local residents and the environment.\(^{56}\) As of late 2012, litigants filed approximately fifty lawsuits alleging personal and economic injuries from fracturing operations in Pennsylvania, Texas, Arkansas, Colorado, Louisiana, New York, and West Virginia.\(^{57}\) Some legal commentators believe that the litigation will primarily focus on the expert testimony of hydrologists, hydro-geologists, environmental engineers, statistical modelers, toxicologists, epidemiologists, and oncologists to determine the cause of any contamination and resulting injuries.\(^{58}\)

53. See generally Kerner, supra note 28, at 245 (analyzing the potential risks and costs versus the benefits of fracturing).


56. Spence, supra note 27, at 447 (“Thus, significant uncertainty remains regarding the magnitude and frequency of the negative effects of fracking.”); see also id. at 440, 446–47, 453–55, 490–91.


58. See id. at 29.
One of the concerns of fracturing, if not the primary concern, involves the contamination of the groundwater from the toxic chemicals used in the fracturing fluid and the methods of disposal. The fluid may leak out of inappropriately sealed wells, migrate into underground groundwater, or accidentally spill during waste removal. Drillers must transport the fracturing fluid to the well site and then take wastewater away from the well site, creating additional risks of spillage and contamination. Moreover, workers may be exposed to harmful chemicals through vapors or skin contact, and healthcare teams treating exposed persons may come in contact with the fluid.

Some chemicals used in the process are known to cause cancers, as well as kidney, heart, blood, lung, and neurological damage in humans. Studies show anywhere from 20% to more than 70% of the fracturing fluid pumped into the wells rises back to the surface and needs to be disposed of by waste management, which further increases the likelihood of spills, accidents, and exposure. Despite the controversy over the extent to which fracturing creates health risks to local residents, at the very least, if fracturing operations are improperly conducted or if accidents occur, exposure to fracturing chemicals can be very dangerous. To the extent such improper fracturing or accidents happen during the operations, injured parties exposed to toxic chemicals in the fracturing fluid will need to seek healthcare professionals for aid.

C. Pennsylvania Disclosure Statute

New Pennsylvania legislation—Act 13—addresses the required disclosure of the chemicals used in the fracturing process. The law requires well operators to file a report with the State Department of

59. See Kerner, supra note 28, at 241–44; see also Spence, supra note 27, at 442–47, 490.
60. Moulton & Plagakis, supra note 30, at 15–17; Spence, supra note 27, at 442–47, 490–91; Pennsylvania Spill, supra note 55.
61. See, e.g., Spence, supra note 27, at 444.
62. See Moulton & Plagakis, supra note 30, at 15–17 (explaining the harm that can be caused by exposure to fracturing fluid).
63. Id. at 14–15; see also Spence, supra note 27, at 442.
64. Moulton & Plagakis, supra note 30, at 23; see also Spence, supra note 27, at 441 (“less than 30% to more than 70%”).
65. Cf. Brady & Crannell, supra note 48, at 42 (identifying four exposure pathways that may affect human health and the environment, and noting that risk of exposure presumably increases as activity with the fracturing fluid increases).
66. See supra notes 55, 56, and accompanying text.
Environmental Protection (DEP) within sixty days after both drilling and well completion to indicate the commercial chemical additives, trade names, vendors, secondary chemicals added at the well site, purpose for the chemicals, maximum concentrations of each chemical, fluid volumes, pump rates, source of water, and the volume of recycled water used. Additionally, the operator must complete a chemical disclosure form within sixty days following the conclusion of fracturing for posting on the chemical disclosure registry, which will be open to the public. If, however, the operator identifies parts of the record, such as additives, chemicals, or chemical concentrations, as trade secrets or confidential proprietary information, the information provided to the DEP and the public registry may only be disclosed to the extent permitted in the Pennsylvania Right-To-Know Law (RTKL).

Act 13 sets deadlines and reporting requirements upon the various parties involved in the industry, including vendors, service providers, and well operators. The commercial chemicals vendor and other service providers involved in providing fracturing fluid must all report to the well operator at the well site. Any of these parties may claim that the information provided is either a trade secret or is confidential, which would result in restricting the public’s access to the information to the extent permitted under the RTKL. In order to claim part of the reported information as a trade secret, the claimant must submit a written statement indicating such information is proprietary; however, no statutory checks or oversights exist over what these parties claim as trade secrets, so long as the claimed information falls within the broad definition of "trade secret" or "proprietary confidential information." Once commercial additives, individual chemicals, or chemical concentrations receive trade secret protection, the claimant must still report the family name or similar description of the chemical to the public chemical registry.

68. § 3222(b)–(b.1).
69. § 3222.1(b)(2).
70. See § 3222(b.2); § 3222.1(b)(3), (d), (e). For a discussion of Pennsylvania’s Right-To-Know Law, see infra Section III.C.
71. § 3222.1(b)(1).
72. See id.
73. See § 3222(b.2); § 3222.1(b)(3), (d), (e). For a discussion of Pennsylvania’s Right-To-Know Law, see infra Section III.C.
74. § 3222(b.2); § 3222.1(b)(3); see also discussion infra Section III.C.
75. See infra Sections III.B–C (discussing broad definition of trade secret).
76. § 3222.1(b)(2)–(3).
Act 13 provides an exception for health professionals by requiring service providers, vendors, and well operators to disclose any information otherwise entitled to trade secret protection, including chemical names and concentrations, to health providers under two circumstances: (1) upon written request for the information or (2) in the event of an emergency.\(^{77}\) If there is not an emergency, the written request must indicate that (1) “[t]he information is needed for the purpose of diagnosis or treatment of an individual,” (2) “[t]he individual being diagnosed or treated may have been exposed to a hazardous chemical,” and (3) information requested “will assist in the diagnosis or treatment of an individual.”\(^{78}\) If, however, a physician identifies a medical emergency, the service provider, vendor, or well operator must disclose concentrations and identities of chemicals that may be categorized as trade secrets.\(^{79}\) The health professional, however, may only use that information for the “health needs asserted” and must “maintain the information as confidential.”\(^{80}\)

Act 13 authorizes the conditional release of the confidential information to health providers on the condition that health professionals enter into private nondisclosure contracts, verbally in the case of an emergency, or written in a non-emergency situation.\(^{81}\) There are no statutory specifications or restrictions on what the private confidentiality contract may contain.\(^{82}\) Similarly, there is no requirement that all of the private confidentiality agreements be the same.\(^{83}\) Despite the unknown private restrictions placed on the use of the information provided to physicians, the statute’s text appears to limit the scope of a physician’s use to either the individual patient that created the need to request the information or the specific health emergency.\(^{84}\) In the end, however, the requirements are ambiguous.\(^{85}\)

Since February 2012, when the Pennsylvania General Assembly enacted Act 13, there have been three attempts, which are relevant

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77. § 3222.1(b)(10)–(11).
78. § 3222.1(10) (emphasis added).
79. § 3222.1(11) (presuming the health needs asserted refer to the medical emergency); see also discussion infra Section IV.B.
80. § 3222.1(11).
81. § 3222.1(10)–(11).
82. See id.
83. See id. However, Colorado mandates the use of a legislatively authored confidentiality agreement, which exempts health care professionals from liability. See COLO. OIL & GAS CONSERVATION COMM’N, CONFIDENTIALITY AGREEMENT: FORM 35, http://cogcc.state.co.us/forms/PDF_Forms/form35.pdf (last visited Nov. 1, 2013) [hereinafter FORM 35].
84. § 3222.1(10)–(11).
85. See discussion infra Section IV.B.
to this Note, to amend the legislation, two of which have died in committee and the third appears to have the same fate. These amendments would alleviate the greatest concerns addressed, but as this Note was going to print, even these minor amendments have not made it out of committee.

II. PHYSICIANS’ DUTY TO DISCLOSE INFORMATION

The following Sections will analyze physicians’ duties and obligations to disclose information gained while treating a patient, as well as to whom a physician must disclose such information. More specifically, the Sections will examine: (A) ethical obligations to share information and potential consequences for failure to adhere to ethical duties, (B) potential common law duties and consequences for breach of those duties, and (C) statutory duties dictated by public health statutes and potential punishment for violations.

A. Physicians’ Ethical Obligations

Physicians have an ethical duty to address the cause of a medical problem and prevent potential threats to the health and safety of patients. Physicians maintain an ethical obligation to “make relevant information available to patients, colleagues, and the public.” A doctor should explain the cause of an illness to the patient and advise the patient to the best of his ability regarding how to avoid the health risks. Physicians have a similar duty to share information pertaining to the causation of sickness or injury with a patient’s family and to educate them on any specific risks in order to mitigate subsequent health concerns.


89. See Solomon & Kirkhorn, supra note 87, at 435; see also Mark Miller & Gina Solomon, Environmental Risk Communication for the Clinician, 112 PEDIATRICS 211, 211–12 (2003) (discussing importance of physicians being able to communicate risks in the environment to their patients).

90. See Solomon & Kirkhorn, supra note 87, at 435 (“Obviously it is of paramount importance to educate the family about the problem.”).
Beyond an isolated health concern, physicians have an ethical duty to advance the study of medical science by providing relevant information to colleagues and researchers. It would be unethical for a physician to refrain from sharing valuable scientific information that would advance the understanding of potential health concerns or risks to patients, their families, or the community.

Moreover, physicians have a similar duty to share information with appropriate regulatory authorities and to advocate on behalf of the individuals that may be at risk. If a regulatory agency does not exist—as in the case with private wells, which are not regulated by the federal government—physicians have an ethical obligation to bring attention and awareness to the problem. In this context, the physician’s ethical duty to participate in improving the community and public health “clearly extends beyond his or her own patient to the broader community.” This duty may involve publishing a specific warning in the newspaper, posting signs in clinics, or reaching out to health agencies to protect public health.

In Pennsylvania, the State Medical Board exercises the power to discipline and impose corrective measures for “unprofessional conduct,” which includes the failure to conform to the “standard of the profession.” The statute’s language clarifies that the “standard of the profession” refers to the ethical principles adopted by the professional community, including the measures of “unprofessional conduct” adopted by the American Medical Association (AMA).

The AMA, a professional association representing American physicians, embraces a number of ethical principles governing the medical profession. One such principle, as mentioned, is to share infor-

91. See Principle V, supra note 88.
92. Solomon & Kirkhorn, supra note 87, at 435–36 (“A physician shall recognize a responsibility to participate in activities contributing to the improvement of the community and the betterment of public health.”) (citation omitted).
93. Id. (“An ethical responsibility not commonly discussed is physicians’ duty to know the communities in which they practice. This obligation encompasses the need to understand . . . environmental hazards prevalent in the local community . . . [A] physician’s ethical obligation . . . extends to reporting to appropriate authorities . . . [or to] advocate for the families that might be affected.”).
95. Solomon & Kirkhorn, supra note 87, at 435–36 (explaining how a physician would exercise ethical duties).
96. Id. at 436.
97. Id. at 435–36.
98. 63 PA. CONS. STAT. ANN. § 422.41(1)–(11) (West 2012).
99. § 422.41(8).
100. See § 422.41(8)(i).
migration among other physicians to better care for patients.\textsuperscript{101} Although breaching the AMA’s principles may, under the AMA’s power, result in expulsion from the association, the State Board of Medicine can impose harsher penalties, including the revocation of a medical license.\textsuperscript{102}

Courts have consistently upheld suspensions and revocations of medical licenses doled out by the State Board of Medicine, interpreting the language of “unprofessional conduct” broadly in similar statutes regulating nursing licenses.\textsuperscript{103} The decision of the State Board of Medicine may be appealed to the courts; however, the decision of the Commonwealth Agency will be affirmed unless it is found unconstitutional, beyond the scope of the law, or that substantial evidence contradicts the Board’s decision.\textsuperscript{104} Generally, the State Board has the final authority to determine sanctions and punish physicians for breaching the ethical obligations adopted from professional associations like the AMA.\textsuperscript{105}

\textbf{B. Potential Common Law Negligence Liability for Failure to Disclose Information}

Physicians may also face common law negligence claims for failing to share information regarding a foreseeable risk to an identified third party.\textsuperscript{106} The seminal case creating this duty to warn was

\textsuperscript{101} AM. MED. ASS’N., PRINCIPLES OF MEDICAL ETHICS § 2 (1958) (“Physicians should strive continually to improve medical knowledge and skill, and should make available to their patients and colleagues the benefits of their professional attainments.”); see also Yūsuke Saitō, Patent Protection of Medical Methods – Focusing on Ethical Issues, 20 PAC. RIM. L. & POL’Y J. 125, 135–36 (2011) (discussing ethical obstacles to possibly patenting medical methods, arguing patent system allowing people to exclude others from accessing information “runs afoul of the principle of medical ethics”).

\textsuperscript{102} § 422.41 (listing reasons for refusal, revocation, suspension, or other corrective actions against a licensee).

\textsuperscript{103} Compare Stephens v. Pa. State Bd. of Nursing, 657 A.2d 71, 75–77 (Pa. Commw. Ct. 1995) (affirming penalty issued by State Board of Nursing for unprofessional conduct because “unprofessional conduct” may be interpreted through the understanding of members of the profession), with Pa. State Bd. of Pharmacy v. Cohen, 292 A.2d 277, 280–85 (Pa. 1972) (reversing lower court’s holding that the board of Pharmacy could not suspend or revoke pharmacist’s license under Pharmacy regulation because the regulation text specified thirteen different types of “grossly unprofessional conduct” and the list was interpreted to be exclusive).


\textsuperscript{106} See Tarasoff v. Regents of the Univ. of Cal., 551 P.2d 334, 343 (Cal. 1976), superseded by statute, CAL. CIV. CODE § 43.92 (West 2013); see also Emerich v. Phila. Ctr. for Human Dev., 720 A.2d 1032, 1039–43 (Pa. 1998) (discussing Tarasoff under Pennsylvania common law and the
Tarasoff v. Regents of the University of California.107 The Tarasoff court
held a defendant-psychiatrist liable, under negligence principles,
for breaching a duty owed to a third-party victim where he failed to
warn of known risks posed by the defendant’s patient.108 Although
not precedential in Pennsylvania, courts in a majority of the states,
including Pennsylvania,109 have applied the Tarasoff duty to mental
health professionals and physicians in general.110

Most courts extend the duty to warn to situations in which the
known risk is a contagious disease contracted by the patient, and the
physician fails to warn identified third parties of the foreseeable risk
stemming from the contagiousness of his patient.111 Courts have
found that physicians owe a duty to warn identified and at-risk
third parties when a patient contracts hepatitis, staph infection, ty-
phoid fever, tuberculosis, or smallpox.112 The courts view the duty
imposed on physicians as necessary to protect the community and
at-risk third parties.113

Some courts have expanded this duty to warn one step further,
holding that a physician has a duty to warn a foreseeable, non-
patient third party even when the illness is not contagious or in any
sense causally related to the physician’s patient.114 In Bradshaw v.
Daniel, the Tennessee Supreme Court disagreed with and reversed

107. 551 P.2d at 343.
108. See id.
109. Emerich, 720 A.2d at 1036.
110. See Michelle R. King, Physician Duty to Warn a Patient’s Offspring of Hereditary Genetic
Defects: Balancing the Patient’s Right to Confidentiality Against the Family Member’s Right to
Know – Can or Should Tarasoff Apply, 4 QUINNIPIAC HEALTH L.J. 1, 11 (2000).
111. See id. at 14; see also Christine E. Stenger, Note, Taking Tarasoff Where No One Has Gone
(1996).
112. King, supra note 110, at 14 n.87.
113. Id. at 14–15 (noting that the “rationale is to prevent the disease from spreading to family
members or the community”).
114. See Bradshaw v. Daniel, 854 S.W.2d 865, 870–73 (Tenn. 1993); see also King, supra note
110, at 15–16 (citing Roy F. Satterwhite III, Warning Non-Patients Now Includes Non-Contagious
Diseases, TENN. B.J., Sept.-Oct. 1993, at 12, 15 (“[T]he ramifications [of Bradshaw and the duty
to warn third parties of non-contagious diseases] are potentially far-reaching for physicians.”)).
Courts vary in how far they extend the duty to warn. Compare Tenuto v. Lederle Labs., 687 N.E.2d 1300, 1302–04 (N.Y. 1997) (holding physician liable for failing to warn father of risk of contracting polio from infant patient’s excrement after giving a polio vaccine, reas-
oning the court must consider “common concepts of morality, logic, and considerations of
social consequences of imposing [or not imposing] the duty”), with McNulty v. City of New
York, 792 N.E.2d 162, 167 (N.Y. 2003) (retracting scope of duty owed in New York, holding
physician owed no duty to patient’s friend to warn of the patient’s contagious disease).
the appellate court on interlocutory appeal,115 holding that the physician owed a legal duty to an identified third party—the wife of the patient—when the physician knew or should have known of a foreseeable risk that was not causally linked to his patient but was present in the environment.116 The physician in Bradshaw breached his duty to warn, despite staying in communication with his patient’s wife and informing her of the treatment of the patient, because the physician failed to warn of the cause of the risk—namely, infected ticks.117 The physician either knew, or should have known, that his patient suffered from Rocky Mountain Spotted Fever because it was common knowledge within the medical profession that infected ticks transmitted the disease in the area.118 The court considered expert witness affidavits that stated that the standard of care a physician owed to third parties known to be at risk included educating and informing the third parties of the types of risks, causes, and actions to take if symptoms develop.119

To no avail, the Bradshaw physician-defendant argued that physicians have no legal duty to treat or inform family members of risks to health, despite assenting to a clear ethical duty.120 The court drew analogies to cases holding that physicians have a duty to warn foreseeable third parties of a contagious disease transmitted by the patient.121 The court looked to the physician-patient relationship as the source of the information ascertained by the physician.122 It further focused on the fact that the physician knew, or should have known, of the foreseeable risk posed to an identified third party.123 The court explained that there is no legal reason to limit liability for the failure to warn only to those situations in which the risk is a contagious disease.124 The known clustering phenomenon of the infected ticks created a known probable source of risk equivalent to the risk presented by a contagious disease.125 The duty upon physicians to warn known third parties of such risks is consistent with contemporary societal expectations and policies emphasizing the ability to protect

115. Bradshaw, 854 S.W.2d. at 868.
116. Id. at 872.
117. Id.
118. See id. at 872–73.
119. Id. at 867.
120. See id. at 868.
121. Id. at 870–72.
122. Id. at 872.
123. Id. at 872–73.
124. Id.
125. See id.
individuals from harm when a special relationship makes the physician aware of the foreseeable risk to an identified third party.\textsuperscript{126}

C. Physicians’ Statutory Obligation to Report Public Health Hazards

The control of communicable disease and public safety are constant concerns for federal and state governments.\textsuperscript{127} Each state has specific public health reporting requirements for physicians,\textsuperscript{128} clinical laboratories, healthcare facilities, and other health practitioners licensed in the state.\textsuperscript{129} In addition, the federal government collects data on a number of diseases.\textsuperscript{130}

In Pennsylvania, healthcare practitioners licensed or certified by the Board of Medicine are under statutory and regulatory obligations to report certain diseases, infections, outbreaks, or conditions to the State Department of Health or other local offices.\textsuperscript{131} Certain diseases, infections, outbreaks, or conditions must be reported within twenty-four hours of discovery.\textsuperscript{132} Pennsylvania law requires health practitioners to report any unusual conditions or diseases capable of being spread to others through direct or indirect contact with a toxic product by way of, among other sources, the inanimate environment.\textsuperscript{133}

All reports must be made pursuant to state regulation and must include the appropriate case report format.\textsuperscript{134} The case report may solicit information relating to the disease, infection, or condition creating the public danger.\textsuperscript{135} Following a physician’s report, it is likely that the state agency or department will contact the reporting physician to solicit more information to assess the extent of the

\textsuperscript{126} See id.
\textsuperscript{128} See Joseph D. Piorkowski, Jr., Between a Rock and a Hard Place: AIDS and the Conflicting Physician’s Duties of Preventing Disease Transmission and Safeguarding Confidentiality, 76 GEO. L.J. 169, 180 (1987); see also Rosencranz & Lavey, supra note 127.
\textsuperscript{129} See, e.g., 28 PA. CODE §§ 27.3–4 (West 2013).
\textsuperscript{131} See Disease Prevention and Control Law of 1955, 35 PA. CONS. STAT. ANN. §§ 521–4 (West 1956); see also 28 PA. CODE §§ 27.1–4 (West 2002).
\textsuperscript{132} 28 PA. CODE § 27.3 (West 2002).
\textsuperscript{133} § 27.3(b); § 27.1.
\textsuperscript{134} § 27.4(e).
\textsuperscript{135} See §§ 27.2–4.
danger, assuming the report states a condition suspected of presenting a danger to the public.\textsuperscript{136}

If the required report is not filed, a healthcare practitioner may be subject to criminal penalties as well as disciplinary sanctions from the Pennsylvania State Board of Medicine.\textsuperscript{137} Failure to comply with all obligations listed under the reporting statutes and regulations may result in loss of a practitioner’s license.\textsuperscript{138} In addition, failure to comply with responsibilities provided under the statutes and regulations may result in fines and imprisonment of up to thirty days.\textsuperscript{139}

III. RESTRICTIONS ON PHYSICIANS’ ABILITY TO DISCLOSE OR SHARE

Physicians who obtain information under Act 13 may not be able to share the information with their patients, colleagues, public health agencies, or insurance carriers. Section (A) will examine how Act 13 places an explicit condition upon physicians receiving information pursuant to the Act. Sections (B) and (C) will discuss the inability of physicians to obtain, through other means, information entitled to trade secret protection under the RTKL. Section (D) will examine the enforceability of nondisclosure agreements that implicate the public good.

A. Pennsylvania Statutory Conditions

Act 13 requires that if a healthcare professional requests information deemed by the drillers to be trade secrets or otherwise confidential, the information shall be provided so long as the requesting healthcare professional “executes a confidentiality agreement and provides a written statement of need for the information” specifying that the purpose is for the diagnosis or treatment of an individual patient.\textsuperscript{140} If the health professional identifies a medical emergency requiring the protected information from the drillers, then the information must be provided so long as the requesting professional verbally acknowledges that “the information may not be used for purposes other than the health needs asserted and that the health professional shall maintain the information as confidential.”\textsuperscript{141} The

\textsuperscript{136} See §§ 27.1–.8, .21–.35.
\textsuperscript{137} § 27.8; see also § 27.6.
\textsuperscript{138} See § 27.6(c); see also discussion supra Part II.A.
\textsuperscript{139} § 27.8(a).
\textsuperscript{140} 58 PA. CONS. STAT. ANN. § 3222.1(b)(10) (West 2012).
\textsuperscript{141} § 3222.1(b)(11).
drillers may subsequently require the health professional to sign a written confidentiality agreement “as soon as circumstances permit.”

B. Certain Information Carrying Trade Secret Protection

Manufacturers, vendors, operators, and service providers obtain competitive advantages by maintaining the secrecy of their specific chemical formula used in the proprietary fracturing fluid. Similar to the recipe of Coca-Cola, this information is understandably guarded by its respective owners. If this information were not protected, then competitors would be able to reverse engineer competing fracturing fluid formulas and directly compete against opponents who invested in costly research and development. This would obviously serve as a disincentive to further invest in expensive, time-intensive research and development, which may produce safer and more efficient chemical formulas.

For example, FTS International, a leader in the supply of chemical mixtures, manufactures a proprietary blend of chemicals and sells its products to drill site operators. Like Coca-Cola, FTS maintains an advantage over competitors by keeping its formula secret. If the law protects the proprietary rights of Coca-Cola, it should protect the rights of FTS for the same reasons.

State law originally protected trade secrets under common law property doctrines; now, however, states have expanded or superseded the common law protections with regulations. Most states

142. Id.
143. See, e.g., Furlow & Hays, supra note 54, at 306.
145. See, e.g., id. at 333.
146. See, e.g., id. at 306 (discussing fracturing fluid designed and used in environmentally sensitive areas); see also Spence, supra note 27, at 442 n.50 (discussing attempts to devise safer, non-toxic fracturing fluid).
147. See Furlow & Hays, supra note 54, at 306 (“[This] product is a unique formula developed by FTS and used specifically for slickwater frac treatments in environmentally sensitive areas.”).
148. Cf. id. An argument could be made that products regulated by the FDA, such as Coca-Cola, can be distinguished from unregulated fracturing fluid. See also Spence, supra note 27, at 448-52 (explaining how environmental, health, and safety risks associated with fracking are not always regulated in the same way as other industries); Brady & Crannell, supra note 48, at 43-52 (explaining exemptions in hydraulic fracturing regulations).
follow the Uniform Trade Secret Act (UTSA) when defining trade secrets,150 while others have adopted the Restatement definition.151 Whether under the UTSA or Restatement definition, the law bestows trade secret protection upon information that the owner treats as confidential for the purpose of preserving its competitive value within its industry.152

By definition, trade secret protection does not extend to requests from the government, and the holder of otherwise protected information must therefore share it with the government upon request.153 The government must ensure confidentiality consistent with the purpose of protecting trade secrets; namely, to protect against competitors obtaining the secrets.154

The appropriate balance in the fracturing context between protecting legitimate property rights via trade secret protection from competitors and disclosing information to protect public health and safety is a debate not directly addressed here, but it merits further analysis.

C. Inability to Use Pennsylvania Right-To-Know Law to Obtain Information

The RTKL permits and creates a procedure for the disclosure of government-held information requested by citizens.155 The government agency possessing the information must grant a request to receive access to specific information if (1) the information is a “public record, legislative record or financial record” as defined in the

150. See, e.g., id. at *6.
151. See, e.g., id.
152. Compare Unif. Trade Secrets Act § 1(4)(i) (1985) (defining a trade secret as “information, including a formula, pattern, compilation, program, device, method, technique, or process that: (i) derives independent economic value, actual or potential, from not being generally known to, and not being readily ascertainable by proper means by, other persons who can obtain economic value from its disclosure or use, and (ii) is the subject of efforts that are reasonable under the circumstances to maintain its secrecy”), with Restatement (First) of Torts § 757 cmt. b (1939) (defining a trade secret as “any formula, pattern, device or compilation of information which is used in one's business, and which gives him an opportunity to obtain an advantage over competitors who do not know or use it”).
153. See Greene, supra note 149, at *14–15 (“Because a trade secret’s only legally cognizable value is the advantage it affords over competitors, sharing trade secret information confidentially with the government—a non-competitor—does not impinge upon the trade secret holder’s competitive advantage and thus does not reduce the property’s value.”).
154. Id. at *14 (citing Unif. Trade Secrets Act § 1(4)(i) (1985) and Restatement (First) of Torts § 757 cmt. b (1939)). “The Restatement of Torts, widely accepted before the enactment of the UTSA, defines trade secret as ‘any formula . . . which is used in one’s business, and which gives him an opportunity to obtain an advantage over competitors who do not know or use it . . . .’” Id. at *14 n.69.
statute,\textsuperscript{156} and (2) the information is within the government agency’s control or possession.\textsuperscript{157} The government agency is not required to create a record if no record exists or if the agency does not keep the type of record requested.\textsuperscript{158}

Certain privileged information, however, is exempt from the statutory disclosure requirement because the law does not consider that information public.\textsuperscript{159} One such exception to the general rule of disclosure is information reported to the agency as a “trade secret” or “confidential proprietary information.”\textsuperscript{160} In addition, if a requester is entitled to some information but requests information containing exempt information, the government agency must redact the exempt information.\textsuperscript{161} Therefore, certain information reported to a state agency, such as the DEP,\textsuperscript{162} is inaccessible by the general public under the RTKL.\textsuperscript{163}

The RTKL defines “trade secret” as:

\begin{quote}
Information . . . that: (1) derives independent economic value, actual or potential, from not being generally known to and not being readily ascertainable by proper means by other persons who can obtain economic value from its disclosure or use; and (2) is the subject of efforts that are reasonable under the circumstances to maintain its secrecy.
\end{quote}

The Act defines “confidential proprietary information” as “[c]ommercial or financial information received by an agency: (1) which is privileged or confidential; and (2) the disclosure of which would cause substantial harm to the competitive position of the person that submitted the information.”\textsuperscript{164}

If the agency denies a request for information because the source of the requested information submitted that information as a trade

\textsuperscript{156} § 67.701(a).
\textsuperscript{157} See § 67.705.
\textsuperscript{158} Id.
\textsuperscript{159} See § 67.708(b).
\textsuperscript{160} § 67.708(b)(11).
\textsuperscript{161} See § 67.706.
\textsuperscript{162} 58 PA. CONS. STAT. ANN. § 3222.1 (West 2012) (providing Act 13 requirements to report information to DEP).
\textsuperscript{163} See § 67.707(b) (“Requests for trade secrets. – An agency shall notify a third party of a request for a record if the third party provided the record and included a written statement signed by a representative of the third party that the record contains a trade secret or confidential proprietary information.”); § 67.506(c) (stating the circumstances under which an agency has discretion to make otherwise exempt records accessible).
\textsuperscript{164} § 67.102.
\textsuperscript{165} Id.
secret or confidential proprietary information, the requester may appeal the decision. The question on appeal would be whether the requested information falls under the definition of trade secrets or confidential proprietary information under the Act. As such, the public, including healthcare professionals, would not be able to obtain the identity of chemicals from the fracturing process that the drillers report to DEP pursuant to Act 13 and submit as trade secrets or as confidential and proprietary information.

During the final vote in the Pennsylvania House of Representatives, Representative Ellis supported the legislation by stating, in response to an interrogation from Representative Gerber, that all chemicals would be available to the public. Although Representative Gerber attempted to point Representative Ellis to textual language in Act 13 that contradicts that interpretation, Representative Ellis responded by distinguishing public disclosure of chemicals—not restricted—versus the concentration of those chemicals, which may be restricted under trade secret protection. Because of this exchange, there is an argument that the legislative intent was to disclose all chemicals publicly and only limit disclosure of the concentrations of those chemicals. The statutory text, however, unambiguously and explicitly refutes this interpretation in multiple places and otherwise lends it no support.

Moreover, making an exception for healthcare professionals to acquire the names of chemicals and re-

166. See §§ 67.1101, 67.1301.
168. The information requested would have to fall outside the scope of the broad definitions of trade secrets or confidential proprietary information, which in all likelihood would not occur given the purpose of the RTKL, which was not to disclose private secrets to the public, and the fact that Act 13 explicitly authorizes chemical names and concentrations to have trade secret protection. See Bowling v. Office of Open Records, 990 A.2d 813, 824 (Pa. Commw. Ct. 2010) (“As the [RTKL] is remedial legislation designed to promote access to official government information in order to prohibit secrets, scrutinize the actions of public officials, and make public officials accountable for their actions, the exemptions from disclosure must be narrowly construed.”).
170. Id.
171. See 58 PA. CONS. STAT. ANN. § 3222.1(b)(3)–(4), (d)–(e) (West 2012).
quiring a signed confidentiality agreement would be superfluous if the chemical list were available to the public.

**D. Non-Disclosure Agreements and Their Enforceability**

Non-disclosure agreements are common in the employee-employer setting as well as during business dealings where parties share information that competitors would deem valuable.\(^\text{172}\) The agreements protect the interests of companies when they disclose valuable information to employees and others.\(^\text{173}\) “The enforceability of these agreements becomes questionable, however, when the agreements prevent sharing information about threats to the public well-being.”\(^\text{174}\)

It is unclear whether a nondisclosure agreement signed by a physician to keep chemical identity, concentration, and trade name confidential would be enforceable when the physician breaches the agreement by sharing information to warn of dangers with residents, insurance providers, other physicians, or public health and safety agencies.\(^\text{175}\) The analysis would be highly fact-specific and depend on multiple factors, including: (1) the language in the specific agreement, (2) what the physician disclosed, (3) to whom and for what purpose it was disclosed, and (4) whether any legislation has explicitly addressed the issue.

Courts occasionally consider public policy reasons for voiding a nondisclosure agreement, but they often uphold the private contracts, leaving public policy to the legislature.\(^\text{176}\) In at least one case considered an example of an appropriate judicial analysis of public policy concerns when deciding whether to enforce a confidentiality agreement.


\(^{173}\) See id.

\(^{174}\) Id. at 1212 (“[T]here is a difference between disclosures of confidential, competitive business information and disclosures concerning the public health and safety.”).

\(^{175}\) Ryan M. Philp, Silence at Our Expense: Balancing Safety and Secrecy in Non-Disclosure Agreements, 33 Seton Hall L. Rev. 845, 857 (2003).

\(^{176}\) Compare Giannechini v. Hosp. of St. Raphael, 780 A.2d 1006, 1011–12 (Conn. Super. Ct. 2000) (upholding nondisclosure agreement between former employer-hospital and terminated nurse where hospital sought to warn prospective employer about the reasons for nurse’s termination), with Bowman v. Parma Bd. of Educ., 542 N.E.2d 663, 663 (Ohio Ct. App. 1988) (voiding nondisclosure agreement where it would prohibit a school board from disclosing pedophilia on the part of a terminated teacher); see also Philp, supra note 174, at 854 (noting that judicial application of public policy in nondisclosure agreement enforcement is an “amorphous, ever-changing concept, characterized by uncertainty and unpredictability”).
agreement, the court found a defendant-hospital in breach of a nondisclosure agreement when it shared confidential information to protect the safety of third parties. In *Giannecchini v. Hospital of St. Raphael*, the plaintiff was a registered nurse who formerly worked for the defendant-hospital. The hospital terminated the employee for making multiple medication errors and included the mistakes in the employee’s employment record. After termination, the former employee and the defendant-hospital entered into an agreement, in which the former employee agreed not to sue the employer for wrongful termination and the hospital agreed to keep the mistakes of the employee confidential. The former employee subsequently applied to work at another hospital—Veterans Affairs Hospital (VA Hospital). During the interviewing and vetting process, the former hospital sent the “confidential” information to VA Hospital. VA Hospital did not hire the plaintiff, and the plaintiff claimed breach of the confidentiality agreement.

The *Giannecchini* court only reluctantly considered the public policy issue, noting that “[p]ublic policy . . . is a very unruly horse, and once you get astride it you never know where it will carry you.” The court acknowledged that the confidentiality agreement was beneficial for both the former hospital and the former employee; however, the third-party patients that the plaintiff would impact in the future were not at the bargaining table. Patients rely on nurses for care at their most vulnerable times and mistakes committed by nurses may be the difference between life and death. The court ultimately concluded that the employee confidentiality agreements—which conflict with public policy protecting patients, or any third party for that matter—had been addressed by the legislature in statutes governing the sharing of employee personnel files, which enforced the confidentiality agreements.

177. See Philp, supra note 175, at 848, 853 (suggesting that courts should question nondisclosures when implicating public health and safety, despite courts’ reluctance to do so, citing *Giannecchini* as a more progressive approach to questioning nondisclosure agreements).
178. *Giannecchini*, 780 A.2d at 1014.
179. *Id.* at 1008.
180. *Id.*
181. *Id.*
182. *Id.*
183. *Id.* at 1009.
184. *Id.* at 1009–10.
185. *Id.* at 1010 (quoting Richardson v. Mellish, (1824) 130 Eng. Rep. 294, 303).
186. *Id.* at 1010.
187. *Id.* at 1010–12.
Although some courts, similar to Giannecchini, attempt to consider public policy when determining the enforceability of confidentiality agreements, most courts “choose to mechanically apply statutes, ignoring the reality that the legislature is often unaware of the effects such proclamations can have on contract law.”\textsuperscript{188} The courts have taken a back seat to the legislature when confidentiality agreements implicate public policy concerns.\textsuperscript{189} The majority of courts addressing the issue find that the legislature has the duty to pass adequate legislation informing the courts on public policy.\textsuperscript{190} Thus, to the extent that liability arises from the failure to effectively pass such legislation, courts may interpret such liability as either intentional or considered appropriate by the legislature.\textsuperscript{191} Nonetheless, some authors note frameworks that courts can use to consider public policy when enforcing breaches of nondisclosure agreements.\textsuperscript{192} The current practice of courts and the normative question of whether to enforce nondisclosure agreements that implicate public policy, however, remain unpredictable at best.\textsuperscript{193}

IV. Physicians May Disclose Freely: The Fiction of Legislative Permissiveness

As the concern over forcing physicians to sign nondisclosure agreements to obtain information gained publicity, a number of counterarguments emerged defending Act 13 in its current form.

\begin{itemize}
\item \textsuperscript{188} See Philp, supra note 175, at 855.
\item \textsuperscript{189} Id. at 854 (noting that the legislature replaced courts in invalidating contracts based on public policy).
\item \textsuperscript{190} Id. at 856–57, 860.
\item \textsuperscript{191} Cf., e.g., id. at 856–60, 868–874 (explaining various authors’ arguments for judicial restraint when enforcing contracts that may create risk to the public safety, yet recognizing that even when the legislature is completely silent, courts still enforce these contracts; and, when the legislature has explicitly addressed an issue, courts tend to shy away from contradicting or creating exceptions to statutory text lest the court be accused of judicial activism).
\item \textsuperscript{192} See Terry Morehead Dworkin & Elletta Sangrey Callahan, Buying Silence, 36 AM. BUS. L.J. 151, 171–90 (1998) (setting forth and applying factors supporting and factors contravening the enforcement of contract terms according to the Restatement (Second) of Contracts); Carol M. Bast, At What Price Silence: Are Confidentiality Agreements Enforceable?, 25 WM. MITCHELL L. REV. 627, 672 (1999) (noting that courts implementing the public policy exception can either choose to always incorporate public policy or simply ignore it); Stewart J. Schwab, Wrongful Discharge Law and the Search for Third-Party Effects, 74 TEX. L. REV. 1943, 1957–58 (1996) (describing court decisions that avoid broad public policy exceptions by grounding them in unconstitutional or statutory provisions).
\item \textsuperscript{193} Dworkin & Callahan, supra note 192, at 153 (“At present, it is unclear under what circumstances, and to what extent, such [confidentiality] provisions will be enforced.”).
\end{itemize}
Patrick Henderson, Governor Corbett’s energy executive, opined against the need for statutory clarification, stating that physicians should not worry because silencing physicians “was never the intent.” Along the same lines, former Pennsylvania Secretary of Health, Eli N. Avila, MD, opined that physicians may use the confidential information provided by the drillers to share the information with patients, other physicians, specialists, and the Department of Health. Avila reasoned that “the information can be utilized in whatever manner is necessary to respond to the ‘medical needs asserted’ by the health care professional,” because the legislature could not have possibly intended to silence physicians. Avila supported his opinion by citing all of the “progressive disclosure requirements” in other sections of the statute, and emphasized that the DEP will receive all of the information, including the trade secret information.

First, although the drilling industry must, under Act 13, disclose all information—even confidential information—to the DEP, this requirement is irrelevant to whether health professionals, statutorily required to sign confidentiality agreements with private drillers, may share the information gained. As noted in Section III.C, this information would not be public information. Second, other state statutory constructions are more progressive than Act 13, so it is debatable whether the legislature intended to take the side of healthcare professionals, as opposed to protecting trade secrets of private companies. Third, the plain textual reading of Act 13 tends to favor a very strict use of the confidential information. The text specifies purposes for which a physician may use the information in vague terms, and it does not explicitly state an ability to share the information with anyone. Fourth, the legislative committee reports and hearings are devoid of any mention of this section of the Act, and

194. Gallegos, supra note 6.
196. Id.
197. Id.
198. See 58 PA. CONS. STAT. ANN. § 3222.1(b) (West 2012).
199. See discussion supra Sections III.C.–D.
200. See discussion supra Section III.C.
201. See discussion infra Section IV.A.
202. See discussion infra Section IV.B.
203. See discussion infra Section IV.B.
the Health Committee never reviewed Act 13.\textsuperscript{204} Fifth, even if we assume that the Pennsylvania General Assembly did not intend to hold physicians liable for breaching a private, contractual confidentiality agreement, it is still impossible to assure a party to that contract that courts will correctly interpret the legislative intent given the aforementioned reasons to doubt this interpretation.\textsuperscript{205}

\textbf{A. Lack of Clarity Regarding Legislature’s Preference for Either \protects exclusively for trade or disclosure rights}

Of the states permitting hydraulic fracturing, thirteen have provided chemical disclosure regulations for operators, and Pennsylvania is not the most progressive.\textsuperscript{206} In Arkansas, drillers must provide disclosure of chemicals to health professionals upon request, and the statute does not indicate whether a physician must first sign a confidentiality agreement.\textsuperscript{207}

In Colorado, the language requiring disclosure to health professionals is very similar to Act 13 in Pennsylvania.\textsuperscript{208} However, the Colorado regulation provides for standardized confidentiality forms indicating, “Nothing in this Agreement shall prohibit Health Professional from disclosing Trade Secret Information obtained from Custodian if Health Professional can document that . . . Health Professional is required by law to disclose such information pursuant to a court order or government agency order.”\textsuperscript{209}

Texas also adopted clarifying language in its disclosure regulations, explicitly specifying exceptions to the general rule that a health professional must hold information confidential.\textsuperscript{210} The Texas regulations indicate that health professionals may use the otherwise confidential information for “diagnostic or treatment purposes” and to “disclose information . . . to another health professional, emergency responder, or accredited laboratory.”\textsuperscript{211} In addition, Texas’s

\textsuperscript{204} \textit{See supra} note 170 (describing the final vote in the House of Representatives and the specific committees that reviewed the Act).

\textsuperscript{205} \textit{See discussion supra} Section III.D.

\textsuperscript{206} \textit{See} Moulton & Plagakis, \textit{supra} note 30, at 4, 54–55.

\textsuperscript{207} \textsc{178 ARK. CODE R. § 001} (LexisNexis 2013) (listing Rule B-19(l)(9), (m)(5)), available at http://www.aogc.state.ar.us/onlinedata/forms/rules\%20and\%20regulations.pdf.

\textsuperscript{208} \textit{Compare} 58 PA. CONS. STAT. ANN. § 3222.1(b)(11) (West 2012), with \textsc{COLO. CODE REGS. § 404-1:205A(b)(5)} (2012).

\textsuperscript{209} \textsc{COLO. OIL & GAS CONSERVATION COMM’N}, Order No. 1-174 (Mar. 5, 2012), available at http://cogcc.state.co.us/orders/orders/1/174.html.

\textsuperscript{210} Hydraulic Fracturing Chemical Disclosure Requirements, \textsc{16 TEX. ADMIN. CODE} § 3.29(g) (2012).

\textsuperscript{211} \textit{Id.}
disclosure regulation explicitly references the legislative intent to permit healthcare professionals to access otherwise protected information to the extent permissible under Occupational Safety and Health Act of 1970 (OSHA) regulations.\footnote{See id. § 3.29(c)(4) (citing OSHA Hazard Communication Rule, 29 C.F.R. § 1910.1200(i) (2013)).} Under the specific OSHA regulations referenced in the Texas regulation, health professionals are permitted “to access trade secrets to assess the hazards of the chemicals to which employees will be exposed,” “conduct . . . sampling of workplace atmosphere” to assess employee exposure levels, conduct “periodic medical surveillance of exposed employees,” and “conduct studies to determine the health effects of exposure,” among other permitted purposes.\footnote{29 C.F.R. § 1910.1200(i)(3).}

In contrast, unlike Arkansas’s requirements, Act 13 requires health professionals to sign a confidentiality agreement.\footnote{58 P.A. CONS. STAT. ANN. § 3222.1(b)(10) (West 2012).} Unlike Texas’s regulations, Act 13 does not reference OSHA regulations or any clear language explaining the intent behind this portion of the Act.\footnote{See generally § 3222.1.} Moreover, the text of Act 13 is explicitly more limiting than OSHA and the Texas regulation.\footnote{See generally id. (failing to list any explicit circumstances under which confidential chemical information obtained by health professionals may be shared).} Although the text is similar to the Colorado regulation, unlike that regulation, Act 13’s text does not provide for a legislatively crafted confidentiality agreement, but instead, permits private drillers and operators to craft a contract that physicians must sign to receive the necessary information.\footnote{See § 3222.1(b)(10)(i)–(iii).}

B. Plain Textual Reading of Act 13 Leads to Ambiguity

A plain textual reading of Act 13 fails to unambiguously support the assertion that physicians may share information received pursuant to Act 13 disclosure requirements with their patients, other physicians, insurance companies, or public health agencies.\footnote{See id. § 3222.1(b)(10)–(11).} Not only is the text vague, but a plain reading of the text indicates that the legislature intended a health professional to only use the information to diagnose and treat a specific individual exposed to the chemicals.\footnote{See id. § 3222.1(b)(10)(i)–(iii).}
The text of Act 13 explicitly imposes conditions on the release of information to health professionals. First, if there is no emergency, the health professional must:

[provide] a written statement of need for the information indicating all of the following: (i) The information is needed for the purpose of diagnosis or treatment of an individual. (ii) The individual being diagnosed or treated may have been exposed to a hazardous chemical. (and) (iii) Knowledge of information will assist in the diagnosis or treatment of an individual.

Reading the text together, the permitted purpose or use of the information is for the diagnosis or treatment of the specific individual who may have been exposed to hazardous chemicals. The text does not explicitly allow the health professional to share the information with insurance companies, patients, or other physicians who may need the information for “the purpose of diagnosis or treatment” of unknown or future third-party patients.

In an emergency situation, Act 13 provides an alternative procedure for requesting information. The emergency situation request is similar to the non-emergency; however, under a plain reading, it allows disclosure to health professionals before receiving a written statement of need. Instead, if a health professional determines that a medical emergency exists and the specific identity and amount of any chemicals claimed to be a trade secret or confidential proprietary information are necessary for the emergency treatment, the vendor, service provider or operator shall immediately disclose the information . . . upon a verbal acknowledgement by the health professional that the information may not be used for purposes other than the health needs asserted and that the health professional shall maintain the information as confidential.

Adopting a plain textual reading of this provision, it would appear that if there is a medical emergency, and if disclosure is necessary for that emergency treatment, then the information must be disclosed for the health needs asserted, referring to the specific

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220. See id.
221. See id. (emphasis added).
222. Id. § 3222.1(b)(10)(i).
223. See § 3222.1(b)(11).
224. Id.
225. § 3222.1(b)(11) (emphasis added).
emergency. This emergency provision does not appear to allow for the sharing of any disclosed information outside the scope of the specific medical emergency for which the information was requested.

In both situations—emergency and non-emergency—the scope of the permitted use of the otherwise confidential information is limited to either the diagnosis or treatment of an individual or, in the emergency context, the “health needs asserted” in that emergency situation.\footnote{226} The text, though somewhat vague, does not appear to support the proposition that physicians can share information gained pursuant to Act 13 with anyone outside the scope of either emergency treatment or the diagnosis and treatment of a specific patient.

\section*{C. The Ambiguous Nature of Act 13 Will Lead to Unintended Consequences}

Despite claims that Act 13 is clear and leaves physicians unrestricted, history shows one of the greatest predictors of a piece of legislation’s unintended consequences is the vagueness with which it is written, combined with legislators’ hubris of refusing to admit to this vagueness.\footnote{227} Without a clear indication of legislative intent, the courts and future generations of litigants must divine a meaning.\footnote{228} In many instances, whether legislatures intended to assign a specific meaning to vague language is debatable.\footnote{229} This notion is especially true in circumstances of divided government, special interests, lobbyists, fractured politics, and various bargaining agreements throughout the negotiation process.\footnote{230} If the legislation does not address the specific ambiguity in the statute, any unintended consequences may become engrained in the law or in practice, in which case the legislators will be even more unlikely to admit the vagueness as a mistake.\footnote{231}

A familiar example of vague statutory language that resulted in unintended consequences is the Comprehensive Environmental Response, Compensation, and Liability Act\footnote{232} (commonly known as...
Superfund Act or CERCLA) and its resulting litigation. In an attempt to address externalities and force internalization of pollution costs, Congress enacted the Superfund Act to target the largest and worst polluters. The unintended consequences of the legislation may be analyzed under three approaches: (1) the “reverse Chevron”, (2) the subjective test, and (3) a combination of the two tests. These tests can be used to determine whether the consequences of the legislation were clearly unintended.

What resulted from the CERCLA legislation may best be understood as partially intended and partially unintended. The Environmental Protection Agency (EPA) predictably filed claims against large corporations accused of violating CERCLA. The unpredicted consequence, however, was that large corporate defendants then filed claims against small businesses, individuals, and municipalities. For example, the EPA sued landfill owners who then, in turn, filed suit against everyone who disposed of trash in the landfill, including schools, small businesses, and town residents. Under the vague language of CERCLA, someone who spills a cleansing product in the driveway or disposes of insecticide products in household trash could potentially be held liable under CERCLA. Although statistics show household trash contains 0.5% of toxic wastes, CERCLA never specified how much waste would incur liability.

The claims filed by targets of the EPA against third parties ranged from one thousand dollars to multiple thousands. Most claims set-

233. See Steinzor, supra note 227, at 100.
234. See id.
236. Id. at 97–98 (“[I]f the results are really out of line, to the point where one suspects that had Congress foreseen them, the legislation never would have passed, the results of the provision represent an unintended consequence.”).
237. Id. at 98 (suggesting a Chevron test targeting certain parts of legislation and measuring those parts by whether it is likely Congress would still have passed the provision had Congress known of the problematic consequence).
238. Id. at 97–100.
239. Id. at 98–100.
240. Id. at 104.
241. Id. at 106.
243. Id.; Steinzor, supra note 227, at 99–100.
244. Tomsho, supra note 242, at A1 (“Vague legislation doesn’t discriminate between a drumful of toxic chemicals and an empty bottle of drain cleaner.”).
245. Id.
tled because third-party liability was minimal compared to the legal fees necessary to litigate the case. One such suit contained over six hundred defendants, including a gym, doughnut shop, nursing home, and dog kennel, most of whom settled out of court. In *United States v. Wade*, the interpretation of the Superfund Act came down to one judge defining the scope of liability based on the plain textual meaning of its language, holding that the statute’s text did not provide any reason to exclude small amounts of toxic waste. The legislature knew how to make exceptions and, because it did not, it must have intended to impose liability.

Congress eventually amended the Superfund Act; however, the initial unintended consequences attest to (1) attempts by the largest polluters to get rid of Superfund liability by purposely creating unintended consequences to force the EPA or legislature into reining in enforcement and (2) the success of such attempts when legislation has ambiguous language. The intent of the Superfund Act was to hold large toxic polluters liable, but the result was liability transferred to unintended parties, such as small businesses and individuals, because of ambiguous language. The intended targets of the legislation—large polluters—clearly had an incentive to undermine the legislation.

Here, Act 13 was allegedly intended to force drillers to disclose chemicals to healthcare professionals; however, the statute’s vague language may expose healthcare professionals to liability. The drillers’ incentives here may be similar to the incentives held by the targets of Superfund Act liability—to limit the effectiveness of the legislation or get rid of its purpose altogether by exposing health professionals to potential liability for sharing information with colleagues, state agencies, patients, or insurance carriers.

V. DIFFERENCE BETWEEN ACT 13 AND OSHA REGULATIONS

Some proponents of Act 13 argue that because its language is similar to federal statutes and regulations that address the same concerns, such as OSHA and corresponding regulations, Act 13 should

246. *Id.*
247. *Id.*
249. See *id.* at 103.
250. See *id.* at 108–09.
251. See *id.* at 100–02.
252. See *id.* at 104.
be an acceptable protection for health professionals.\textsuperscript{253} First, the intent of OSHA regulations are to address concerns in the occupational setting where employees may be exposed to harmful chemicals;\textsuperscript{254} however, under Act 13, health professionals may treat workers as well as the general public, thereby implicating a broader spectrum of protected individuals.\textsuperscript{255} Act 13 must take into account not only environmental and public safety concerns, but also the context of drilling because fracturing fluid is evolving and operators and drillers are using new chemicals and mixtures.\textsuperscript{256} Second, the language in OSHA regulations is much clearer than in Act 13, and OSHA regulations explicitly articulate the purpose for which a physician can use the information, which is substantially broader than the limited purpose under Act 13.\textsuperscript{257}

\textbf{A. Contextual Differences Between Act 13 and OSHA Regulations}

Some argue that the language in Act 13 does not impact physicians differently than do other similar disclosure regulations.\textsuperscript{258} The Texas Medical Association supports similar language in a Texas disclosure regulation because the language parallels that in the OSHA standards.\textsuperscript{259} Under the OSHA regulations, a chemical supplier must disclose confidential chemical information (1) if there is a medical emergency and the physician requires the information for treatment\textsuperscript{260} or (2) in a non-emergency situation, if a health professional requires the information for one or more health needs listed in the regulation.\textsuperscript{261} Additionally, the physician may be required to sign a written confidentiality agreement.

The application of OSHA regulations “to potential environmental medical risks from [fracturing] is dangerous” because there is a cog-
nizable difference between worker safety regulated by OSHA and environmental and public safety regulated by Act 13. The OSHA regulations protect workers; in contrast, Act 13 is broader in scope, not only protecting workers, but also the public at large who may be unaware of exposure to any chemicals. In the work environment, physicians and health professionals may be more accustomed to dealing with work-related chemicals, and employees seeking the advice of the health professional may be more aware of the chemicals to which they are exposed. In addition, federal authorities usually regulate the environmental concerns in any given work setting; in contrast, Act 13 addresses hydraulic fracturing primarily because it is largely exempt from federal regulations.

Outside of the work setting, under Act 13, hydraulic fracturing chemicals may implicate the public safety, and physicians should have the clear ability to share information at least to the same extent granted under the OSHA regulations to protect the general public. Moreover, the context of the potential harm is different. Fracturing involves constantly evolving chemical mixtures that combine with natural chemicals deep in the earth; it is unclear whether, or to what extent, these chemicals remain in the earth. The exposure rates and pathways, whether by inhalation, ingestion, or dermal absorption, are unknown, as are the long-term health effects of these chemicals.

B. Medical Needs Asserted in Act 13 Are Not Like Those Asserted in OSHA Regulations

Under OSHA regulations, a health professional may receive confidential trade secret information in a non-emergency situation pursuant to a written request indicating “one or more of the following occupational health needs for the information”:

(A) To assess the hazards of the chemicals to which employees will be exposed; (B) To conduct or assess sampling of the workplace atmosphere to determine employee exposure levels; (C) To conduct pre-assignment or periodic medical

263. See Gallegos, supra note 6.
265. See Spence, supra note 27, at 447–52; see also Brady & Crannell, supra note 48, at 43–52.
266. See discussion infra Section V.B.
267. See Gallegos, supra note 6.
268. Id. See also Brady & Crannell, supra note 48, at 42 (discussing the four potential pathways through which fracking chemicals are feared to enter drinking water).
surveillance of exposed employees; (D) To provide medical treatment to exposed employees; (E) To select or assess appropriate personal protective equipment for exposed employees; (F) To design or assess engineering controls or other protective measures for exposed employees; and (G) To conduct studies to determine the health effects of exposure.269

However, Act 13’s language, allegedly adopted from Colorado’s similar legislation,270 indicates that in a non-emergency situation, a health professional may access the otherwise confidential information pursuant to a written request to diagnose and treat an individual patient.271 Here, the asserted health needs, unlike those in the OSHA regulation, indicate only that “[t]he information is needed for the purpose of diagnosis or treatment of an individual,” “[t]he individual being diagnosed or treated may have been exposed,” and “[k]nowledge of information will assist in the diagnosis or treatment of an individual.”272 Although the language here is vague as to what exactly a physician can use the information for when making the request, it appears relatively certain that the “individual” must be known to the physician (most likely a patient), the “individual” must have possibly been exposed to the chemicals, and the information is “needed” to diagnose or treat that possibly exposed person. Despite its ambiguity, it is clear that the text does not parallel OSHA regulations.

Additionally, Act 13 allows for a separate provision in the event of a medical emergency, similar to OSHA standards. However, under Act 13, the text merely indicates that if a health professional determines an emergency exists, then the health professional can gain access to the confidential information immediately and file, upon request, the appropriate paperwork under the aforementioned non-emergency provision after the emergency subsides.273 OSHA regulations, by contrast, refer back to the acceptable medical needs listed in the non-emergency section.274 Under Act 13, the language just says “health needs asserted” in its emergency section,275 which, under a plain reading, either (1) refers to the emergency situation giving rise to the need to request the information without filing the appropriate paperwork; or (2) refers to the non-emergency provision.

270. See Letter, supra note 195.
272. Id. (emphasis added).
273. Id. § 3222.1(b)(11).
274. 29 C.F.R. § 1910.1200(i)(2)-(3).
275. § 3222.1(b)(11).
However, under the latter meaning, this section indicates a much narrower, albeit ambiguous, use for the confidential information received, unlike OSHA regulations.

VI. POTENTIAL CHILLING EFFECTS ON PHYSICIANS

Act 13 will most likely cause a chilling effect upon healthcare professionals regarding potential dangers posed by hydraulic fracturing. Under Act 13, the DEP will have a list of the confidential chemicals and concentrations used by the hydraulic drilling process. Certain physicians may also know the chemicals and concentrations used, as well as the impact on their patients. But because the physicians fail to communicate with each other or the DEP for fear of liability for breach of contract, the general public may never learn about the dangers. This scenario is similar to a “divide and conquer” strategy because it allows some people to have access to the information, but creates a risk of liability if those people share that information with others.

The unintended consequence of scaring physicians with potential liability and leaving confidentiality agreement drafting to the private industry may expose the general public to harm. The potential effect of this statutory construction will be to silence physicians. Individual physicians may acquire confidential information and not share it. Proper diagnosis and treatment may be delayed. Many people may die as a result of delayed or inappropriate treatment because physicians are understandably and rightly fearful to share information.

The question posed by many commentators asks whether the statute does, in fact, create liability. Act 13 exposes physicians to liability regardless of whether they disclose or do not disclose the information pursuant to Act 13. The greater question, however, is what will the ultimate consequences of this legislation be on patients, the environment, the community, and physicians themselves if it is not amended? How many diagnoses or treatments will be delayed and how many people will suffer the consequences of this vague legislation?

276. 58 PA. CONS. STAT. ANN. § 3222.1(a)–(b.2) (West 2012).
A chemical disclosure law within the context of fracturing fluid should take into account three separate goals: (1) protection of individual patients; (2) protection of physicians; and (3) protection of the general public.

A. Individual Patient Protection

As a first priority, any legislation addressing chemical disclosure and allowing health professionals to obtain otherwise confidential information should not, under any circumstances, impair the health professionals’ ability to properly treat the patient. At a minimum, the law should explicitly permit health professionals to store information relating to the specific patient in that individual patient’s medical records. Because the long-term health effects of exposure to fracturing chemicals are unknown, the patient may develop medical problems years into the future. To the extent medical problems arise in the future, the treating health professionals should have the ability to view the patient’s medical record in full, without redactions based on trade secret protection or confidentiality agreements between prior physicians and third-party drilling companies.

Second, any legislation should explicitly permit the sharing of information between specialists and other healthcare providers for the benefit of the individual patient. Health professionals often consult one another, especially regarding cases that exceed the scope of mundane diseases. Any chemical exposure causing illness as a result of fracturing would probably be outside the scope of the mundane. Thus, primary care physicians may have to consult toxicologists to ascertain the risks and treatment methods to counteract any potential chemical exposures. The specialists consulted would likely need to know the chemical identity and concentrations of any potential chemicals a primary care physician believes are causing illness in a patient. It may be argued that a specialist could sign a confidentiality agreement before obtaining the information; this process, however, would be cumbersome and contrary to the best interests of the patient. There should be absolutely no impairment or restriction on the ability to treat a patient, which includes sharing information with specialists and openly sharing information with health professionals.

Third, the health professional should be able to use the confidential information to file a claim form on behalf of the patient to cover the medical services provided. If this information could not be
shared, the patient may be denied coverage, depending on the type of insurance contract.

B. Protection of Health Professionals

In order to protect the health professionals from potential liability, the legislation should explicitly grant civil immunity for health professionals obtaining confidential information. The legislation should remove all risks of liability from health professionals whose primary focus is protecting and treating patients from illness.

Additionally, the confidentiality form health professionals must sign, under Act 13, should be uniform and legislatively drafted. This would minimize health professionals’ worries and costs of obtaining legal counsel to interpret the various confidentiality agreements. An example of this protection is the legislatively crafted form used in Colorado.277

Similar to protecting the individual, in order to protect the health professional, any legislation should explicitly permit physicians to share information received with any necessary persons pursuant to statutory obligations, common law duties, ethical standards adopted by the medical community, or best interests of the patient or any foreseeable patients.278 Ohio has adopted a similar amendment to its respective chemical disclosure legislation after an outcry from the Ohio State Medical Association.279 The Ohio Legislature amended Senate Bill 315 by adding that “[n]othing in [this section] precludes a medical professional from making any reports required by law or professional ethical standards.”280 In the alternative, the Pennsylvania General Assembly may want to adopt the specific text from

277. FORM 35, supra note 83.


OSHA regulations, as did Texas regulators. Adopting the explicit OSHA language would be better than the current version of the statute, but because the context of OSHA is different from Act 13, it may be prudent to adopt something more akin to the Ohio measure to explicitly protect physicians when acting in accordance with any legal or ethical obligation rather than to define how physicians can use the information.

C. Protection of the General Public

One area where other states addressing this issue are falling short is the protection of the general public. Some states are using band-aid types of legislation to fix the flaws. This tactic exposes physicians to risks of liability and fails to adequately protect the general public. The legislature should go further and empower physicians, or even better to impose a duty upon physicians and healthcare providers, to report incidents of illness stemming from fracturing fluid to a national registry. As mentioned, physicians would have a duty in Pennsylvania to report a potential hazardous outbreak or contagion to state agencies; however, this may not address low frequency events that are occurring across multiple states. Because reporting laws differ among states, a national collection hub or database would permit uniform reporting requirements and allow for consistent analysis and epidemiological research aimed at identifying trends and causes.

The federal government implemented a similar tactic in 2004, after litigation surrounding the pharmaceutical drug Vioxx, requiring the FDA to monitor the national drug effects for the protection of the general public. Similarly, vaccines and cancers are reported on a national basis for constant research and analysis to search for trends in exposure or disease clustering. The federal government should assign new powers to the Centers for Disease Control and Prevention (CDC) to monitor the incidents of fracturing-caused injuries for the protection of the general public.

282. See FORM 35, supra note 83; § 1509.10(H)(2); 16 TEX. ADMIN. CODE § 3.29(g) (2012).
283. See discussion supra Part VI.
Beyond the inconsistency in state disclosure laws and the advantage of aggregating national data in search for trends, this would eliminate problems with trade secret or confidentiality concerns because the health professionals would be duty-bound to report to a noncompetitor government agency.286 This recommendation would serve to bridge the current gap between health professionals and the government agency responsible for keeping track of chemical identities or concentrations, ensuring that physicians are serving on the front lines to protect the general public while the government agency assesses the information for potential risks to the public. Moreover, the hydraulic fracturing process has been exempt from most federal regulatory oversight,287 so this would serve to justify the exemption by allowing federal officials to oversee the use of the dangerous chemicals indirectly by performing research on the data received from health professionals and the drilling industry.

CONCLUSION

The current form of Act 13 exposes health professionals, especially physicians, to risks of unavoidable liability, should the health professional encounter a patient exposed to hydraulic fracturing fluid. The only question at that point is what kind of liability will be imposed—either the physician shares the information pursuant to statutory, ethical, and common law requirements, and faces liability for breaching a confidentiality agreement, or the physician does not disclose the information and faces the risk of loss of licensure and potential common law negligence liability.

The Pennsylvania Legislature should amend Act 13 and adopt the recommendations listed above to protect (1) the individual patients, (2) the health professionals, and (3) the general public. At a minimum, the amendment should explicitly permit health professionals to use information gained under the legislation to fulfill their statutory, ethical, and common law duties. Ideally, state legislation should explicitly grant health professionals civil immunity for sharing such information and should impose a duty on health professionals to report to a national registry overseen by the CDC, which would also require federal legislation. Beyond Pennsylvania, these recommendations should serve to guide other states, and the federal

286. See discussion supra Section III.B.
287. See Spence, supra note 27, at 447–52; see also Brady & Crannell, supra note 48, at 43–52.
government, in implementing chemical disclosure laws that fully protect patients, health professionals, and the general public.