
LEGISLATING DEATH: A REVIEW AND PROPOSED REFINEMENT OF THE UNIFORM DETERMINATION OF DEATH ACT

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*"Everything dies baby that's a fact."*¹

INTRODUCTION

Death is rarely an enjoyable topic to discuss. When it is discussed, it is often in the form of hackneyed platitudes² or accompanied by messages of consolation, such as at a funeral. Nevertheless, death plays a critical role every day in the lives of those who find themselves at its doorstep and those whose legal interests are affected by it. These interests include, but certainly are not limited to: marriage (where death terminates the union); business (where death dissolves partnerships); insurance (where death triggers life insurance policies); property (where death divests certain ownership interests); testamentary law (where death triggers operation of a will); taxation (where death can trigger an estate tax); and many more.³

Considering the consequences engendered by a declaration of death, it is imperative that there be consensus on what it means to be dead. This invokes numerous concepts spanning the academic spectrum, from philosophers and theologians to legal commentators and doctors. Likewise, the scope of the inquiry can range from overly broad and nebulous ("What is the purpose of life, if we are going to die anyway?") to meticulously refined and concrete ("Biologically speaking, what precisely happens when we die?").⁴ This Comment focuses on the concept of death from the perspectives of the legal and medical communities and how each defines death. It also discusses the process by which each group's conception of death was harmonized with the other.

¹ BRUCE SPRINGSTEEN, *Atlantic City, on NEBRASKA* (Columbia Records 1982).

² For example, "[I]n this world nothing can be said to be certain, except death and taxes." This quote, in one form or another, often is attributed to one of several sources. See, e.g., Fred Shapiro, *Quotes Uncovered: Death and Taxes*, FREAKONOMICS (Feb. 27, 2011, 1:30 PM), <http://freakonomics.com/2011/02/17/quotes-uncovered-death-and-taxes/>.

³ Jason L. Goldsmith, *Wanted! Dead and/or Alive: Choosing Among the Not-So-Uniform Statutory Definitions of Death*, 61 U. MIAMI L. REV. 871, 872 (2007).

⁴ Calixto Machado et al., *The Declaration of Sydney on human death*, 33 J. MED. ETHICS 699, 701 (2007) (distinguishing the scope of inquiry between two separate committees tasked with refining the definition of death).

Part I details the history of how the legal system determined death, beginning with the traditional common law definitions through the point at which the first state statutes addressing the topic were promulgated. Part II discusses the enactment of an early Kansas statute defining death—the first of its kind—and how the medicolegal community reacted. Part III outlines alternate definitions promulgated by numerous academic bodies representing both medical and legal academia. It also discusses how these definitions created more conflicts than they resolved. Part IV describes the events leading to the drafting of the Uniform Determination of Death Act (UDDA)—a model law eventually adopted by most states, albeit with discrete linguistic differences. It also details how the UDDA fell short of its goal of harmonizing states’ legal definitions of death. Finally, Part V proposes that the United States Congress should enact a more refined version of the UDDA to establish a consistent standard for all fifty states.

I. EVOLUTION OF THE LEGAL DETERMINATION OF DEATH

The common law traditionally defined death in an elementary manner when compared with modern statutes; death was the “opposite of life.”⁵ Although the vagueness of this definition appears susceptible to widely differing interpretations, the majority of jurisdictions “converged upon two easily observable and universally familiar touchstones, namely, a permanent absence of bloodflow [sic] and breathing.”⁶ Around the end of the nineteenth century, judges and tribunals increasingly relied on dictionary definitions of death, which regurgitated the common law.⁷ Specifically, Black’s Law

⁵ See, e.g., *Evans v. People*, 49 N.Y. 86, 90 (N.Y. 1872).

⁶ Goldsmith, *supra* note 3, at 879.

⁷ See *id.* at 879–880 n.42 for an explanation of the evolution of the definition of death in Black’s Law Dictionary over time, both before and after statutory definitions were widely promulgated. Inexplicably, in 1999 Black’s reverted to a common law formulation for determining death, doing away with any references to statutory definitions, as had been standard following the passage of such laws in the 1960s. Thus, the current definition in Black’s is “[t]he ending of life; the cessation of all vital functions and signs.” *Death*, BLACK’S LAW DICTIONARY (10th ed. 2014). Notably, the current version of Black’s distinguishes between various “types” of death: whole brain death, heart-lung death, brain stem death,

Dictionary defined death as the “cessation of life; the ceasing to exist; defined by physicians as a total stoppage of the circulation of the blood, and a cessation of the animal and vital functions consequent thereon, such as respiration, pulsation, etc.”⁸ While this definition is found in the 1968 version of Black’s, it comports with the earliest definitions used by jurists to determine when someone had died by relying on those two touchstones: (1) total stoppage of the circulation of the blood, and (2) a cessation of animal and vital functions.⁹

One hallmark of Black’s definition that was absent from the common law formulation is the nod to the medical community’s role in determining death—i.e., the concept was “defined by physicians.”¹⁰ Including this phrase suggests that any determination of death, at a minimum, must be in line with accepted medical practices. As will be discussed, this notion was universally included in the earliest statutory definitions of death.¹¹

Notably, both the common law definition and the parallel Black’s 1968 definition lack any mention of brain activity when determining death.¹² One obvious reason for the omission was the absence of reliable technology with which the medical community could monitor brain activity in humans.¹³ But the primary reason brain activity was never considered was that cardiopulmonary functions were easy enough to observe, and the cessation of those functions was considered sufficient proof that a person had died.¹⁴

Beginning in the 1960s, with the advent of medical technology that could perform cardiopulmonary functions for humans who were

etc.

⁸ *Id.* (citing *Death*, BLACK’S LAW DICTIONARY 488 (4th ed., rev. 1968)).

⁹ See, e.g., *Thomas v. Anderson*, 215 P.2d 478, 481-82 (1950); *Vaegemast v. Hess*, 203 Minn. 207, 210, 280 N.W. 641, 643 (1938); *Schmitt v. Pierce*, 344 S.W.2d 120, 133 (Mo. 1961).

¹⁰ *Death*, BLACK’S LAW DICTIONARY 488 (4th ed., rev. 1968) [hereinafter Black’s 1968].

¹¹ See *infra* Part II.

¹² See *Evans v. People*, 49 N.Y. 86, 90 (N.Y. 1872); see Black’s 1968, *supra* note 10.

¹³ Thomas F. Collura, *History and Evolution of Electroencephalographic Instruments and Techniques*, 10 J. CLINICAL NEUROPHYSIOLOGY 476, 482 (1993) (describing early forms of human brain monitoring technology and how practitioners “found it difficult or impossible to make successful recordings.”).

¹⁴ Ad Hoc Comm. of the Harvard Med. Sch. to Examine the Definition of Brain Death, *A Definition of Irreversible Coma*, 205 JAMA 337, 339 (1968) [hereinafter Harvard Committee].

incapable of doing so themselves, the medical and legal communities' sole reliance on these considerations was called into question.¹⁵

This impracticality was especially evident where such natural mechanisms could be, or were in fact being, mechanically substituted within a clinical setting. Indeed, physicians were uncertain how to even classify an artificially-supported patient who appeared to be alive (because she continued breathing, had a heartbeat, and was "warm to the touch") inasmuch as she appeared to be dead (because she lacked consciousness and failed to respond either cognitively or reflexively to external stimuli).¹⁶

Further complicating matters was the development of reliable organ transplantation techniques.¹⁷ This put doctors in the unenviable position of trying to discern the precise moment at which a potential donor had died¹⁸ in order to harvest organs in the best possible condition (thereby increasing the chances of a successful transplant), while simultaneously balancing the interests of the donor who would die once their vital organs were removed.¹⁹

Both the advances in life-sustaining technology and the development of reliable transplant techniques each cast doubt on the validity of the traditional determinations of death on their own.²⁰ When the two coincided, determining when someone had died was virtually impossible if one used traditional methods.²¹ This rapidly

¹⁵ Goldsmith, *supra* note 3, at 880.

¹⁶ *Id.* at 881.

¹⁷ Thomas R. Trenkner, Annotation, *Tests for Death for Organ Transplant Purposes*, 76 A.L.R. 3d 913, 913 (2005).

¹⁸ Under common law, time of death was considered to be a question of fact that had to be "established by expert medical testimony and to be determined by a jury." Goldsmith, *supra* note 3, at 883 n.58.

¹⁹ Trenkner, *supra* note 17, at 913-14.

²⁰ See Collura, *supra* note 13; *see id.* at 914.

²¹ Trenkner, *supra* note 17, at 914 ("[A] growing number of medical and legal commentators[] argu[e] that the reliability of these criteria has been rendered suspect by modern resuscitative and supportive measures, including the demonstrated ability of transplant recipients to go on living after their vital organs have been removed and replaced by those of another, and further argu[e] that the traditional definition of death minimizes the possibilities of successful organ transplantation by discouraging physicians, due to their fear of possible civil or criminal liability, from removing donors' organs until after respiration and heartbeat have ceased and the organs have begun to deteriorate . . .").

changing medical landscape proved to be the driving factor behind the effort to define accurately when a person had died by considering neurological activity.²²

A. Brain Death

The medical community sought to refine the physiological benchmarks that defined death following the developments in medical technology that made determining death, at best, an inexact science.²³ A new definition was promulgated by a group of Harvard scholars, who proposed to “define irreversible coma as a new criterion for death.”²⁴ The Ad Hoc Committee of the Harvard Medical School gave two primary reasons for identifying new criteria for death:

- (1) Improvements in resuscitative and supportive measures have led to increased efforts to save those who are desperately injured. Sometimes these efforts have only partial success so that the result is an individual whose heart continues to beat but whose brain is irreversibly damaged. The burden is great on patients who suffer permanent loss of intellect, on their families, on the hospitals, and on those in need of hospital beds already occupied by these comatose patients.
- (2) Obsolete criteria for the definition of death can lead to controversy in obtaining organs for transplantation.²⁵

With these considerations in mind, the committee settled on three conditions that must be satisfied before an individual was deemed to be in an irreversible coma and thus dead: (1) a complete lack of any response to external stimuli, no matter how painful, and a total unawareness of internal need; (2) no movements or breathing; and (3) an absence of elicitable reflexes—e.g., pupils remaining dilated and fixed upon exposure to light.²⁶ The third condition also

²² Seema K. Shah & Franklin G. Miller, *Can We Handle the Truth? Legal Fictions in the Determination of Death*, 36 AM. J.L. & MED. 540, 541 (2010).

²³ See *id.* at 544.

²⁴ Harvard Committee, *supra* note 14, at 337. It should be noted that the Harvard Committee was concerned only “with those comatose individuals who have no discernible central nervous system activity,” removing the possibility of doctors having to guess whether or not a comatose patient would eventually come out of it.

²⁵ *Id.*

²⁶ *Id.* at 338 (“As a rule the stretch of tendon reflexes cannot be elicited; i.e., [sic] tapping the

required that the patient exhibit no signs of basic bodily functions such as swallowing, yawning, or vocalizing.²⁷ A fourth criterion was said to be “of great confirmatory value” – suggesting that its presence was less important than the other three—to wit, a flat electroencephalogram (EEG)²⁸ reading.²⁹

In contrast with the indefinite common law definition, the committee’s proposal required concrete conditions to exist before a person could be declared dead.³⁰ Moreover, each of these measurable and observable conditions had to be present for at least twenty-four hours.³¹ By requiring each test to be performed at least twenty-four hours apart, the committee reinforced the idea that a declaration of death should not be made until a person’s vital functions permanently ceased to operate naturally.³²

tendons or the biceps, triceps, and pronator muscles, quadriceps and gastrocnemius muscles with the reflex hammer elicits no contraction of the respective muscles.”).

²⁷ *Id.* at 337–38 (“Observations covering a period of at least one hour by physicians is adequate to satisfy the criteria of no spontaneous muscular movements or spontaneous respiration After the patient is on a mechanical respirator, the total absence of spontaneous breathing may be established by turning off the respirator for three minutes and observing whether there is any effort on the part of the subject to breathe spontaneously.”).

²⁸ An EEG test “detects abnormalities in the brain waves or electrical activity of the brain. During the procedure, electrodes consisting of small metal discs with thin wires are pasted on the scalp. The electrodes detect tiny electrical charges that result from the activity of the brain cells. The charges are amplified and appear as a graph on a computer screen or as a recording that may be printed out on paper.” *Electroencephalogram (EEG)*, HOPKINS MED., http://www.hopkinsmedicine.org/healthlibrary/test_procedures/neurological/electroencephalogram_eeg_92,P07655/ (last visited Mar. 6, 2016).

²⁹ Harvard Committee, *supra* note 14, at 338 (noting that EEG tests should be utilized whenever available, but “[i]n situations where for one reason or another electroencephalographic monitoring is not available, the absence of cerebral function has to be determined by purely clinical signs . . . or by absence of circulation as judged by standstill of blood in the retinal vessels, or by absence of cardiac activity.”); *id.* at 337.

³⁰ *Id.* at 337–38.

³¹ *See id.*

³² *Id.* at 340 (explaining “repeated examinations over a period of 24 hours or longer should be required in order to obtain evidence of the irreversibility of the condition.”).

B. Reactions to the Harvard Committee's Report

The committee's careful articulation of both the requisite conditions and their measurement procedures indicates that it did not intend to loosen the standard for death. Each of these conditions would have been present in individuals who were declared dead under the common law definition.³³ Rather, the committee supplied doctors with more criteria upon which they could base a declaration of death by focusing on bodily functions that could not be duplicated by machines.³⁴

Despite its thoroughness, the Harvard Committee's report faced several criticisms.³⁵ Skeptics complained that the committee never explained *why* these criteria, when met, constituted death.³⁶ Whether the lack of explanation was intentional—because the committee did not think one was necessary—or careless is unclear. But the chief criticism among skeptics in the medicolegal community was that the Harvard Committee was defining death “through a moral lens (rather than a biological one) . . . based on the underlying purpose the definition would serve in allowing organ transplantation to take place.”³⁷ In other words, critics complained that the committee tried to lower the bar that had to be met before death could be declared. The text of the committee's report, however, does not support the accusation. The committee's prescribed tests and procedures were meant to harmonize then-current medical science with the antiquated common law.³⁸ Thus, rather than lowering the bar, the committee offered more criteria which, when satisfied, would prove the existing bar had been met.³⁹ Put differently, a declaration of death according

³³ See *id.* at 339.

³⁴ *Id.* at 339–40.

³⁵ Shah & Miller, *supra* note 22, at 544.

³⁶ *Id.* (emphasis added).

³⁷ *Id.*; see also Harvard Committee, *supra* note 14, at 338 (describing that the decision, responsibility, and procedure for declaring death and turning off a respirator “are to be taken by the physician-in-charge, in consultation with one or more physicians who have been directly involved in the case” and potential conflicts of interest).

³⁸ See Harvard Committee, *supra* note 14, at 339 (explaining that the committee's criteria would not conflict with the common law).

³⁹ See *id.* at 337.

to the committee's definition would necessarily mean that a patient was dead under the common law definition as well.⁴⁰

The committee's report represented a monumental step in the medical community's efforts to define death, because it allowed doctors to consider factors that could not be replicated by machines. Meanwhile, two years would pass before the legal community crafted its own determination of death that departed from the common law notion.⁴¹ This definition came in the form of a 1970 Kansas statute.⁴²

II. ADVENT OF STATUTORY DEATH

A. Kansas Leads the Way

In 1970, the Kansas legislature passed the "Act Relating to and Defining Death," the purpose of which was to define death "for all purposes . . . any laws to the contrary notwithstanding."⁴³ The legislature sought to achieve this goal by codifying two alternative definitions of death:

A person will be considered medically and legally dead if, in the opinion of a physician, based on ordinary standards of medical practice, there is the absence of spontaneous respiratory and cardiac function and, because of the disease or condition which caused . . . these functions to cease, or because of the passage of time since these functions ceased, attempts at resuscitation are considered hopeless . . . or [a] person will be considered medically and legally dead if, in the opinion of a physician, based on ordinary standards of medical practice, there is the absence of spontaneous brain function Death is to be pronounced before artificial means of supporting respiratory

⁴⁰ See *id.* at 339. The committee was also mindful of common medical treatments for brain-damaged patients that could distort the results of the tests, and required doctors to control for them. "The validity of such data . . . depends on the exclusion of two conditions: hypothermia or central nervous system depressants, such as barbiturates." *Id.* at 338.

⁴¹ See Goldsmith, *supra* note 3, at 882.

⁴² See *id.*; see also Act Relating to and Defining Death, KAN. STAT. ANN. § 77-202 (repealed 1984), amended by KAN. STAT. ANN. § 77-205 (1984).

⁴³ Goldsmith, *supra* note 3, at 882 (citing Act Relating to and Defining Death, KAN. STAT. ANN. § 77-202 (repealed 1984), amended by KAN. STAT. ANN. § 77-205 (1984)).

and circulatory function are terminated and before any vital organ is removed for purposes of transplantation.⁴⁴

Although the definitions themselves were not groundbreaking, the enactment of this law was, because it was the first time any state had codified the common law definition; it was also the first time that the concept of brain death had been legally recognized.⁴⁵ Looking at the text of the statute, the hallmarks of each stage in the evolution of the definition of death are apparent: the nod to the medical community by conditioning each determination on the input of a physician operating under “ordinary standards of medical practice,”⁴⁶ the common law cardiopulmonary-centric view of death,⁴⁷ the medical community’s conception of brain death,⁴⁸ and finally, the attempt to resolve the complicating matters of life-supporting mechanisms and organ transplantation.⁴⁹ The legislature straightforwardly approached resolution of this issue: a person had to be legally brain dead before a doctor could remove or terminate any life-supporting mechanisms and harvest their organs for transplantation.⁵⁰ Doctors could now more easily determine if (and when) an individual died, even though the patient maintained a pulse and respiratory activity with the aid of machines.

⁴⁴ KAN. STAT. ANN. § 77-202 (repealed 1984), amended by KAN. STAT. ANN. § 77-205 (1984). The statute also codified, as a matter of law, the time at which someone could be declared dead—a first for any American legal system. The time of death was the time at which the functions mentioned in each alternative definition ceased. Goldsmith, *supra* note 3, 883 n. 58.

⁴⁵ Frederick J. White III & J. Kelly Elrod, *Organ Donation After Cardiac Death A Louisiana Hospital Ethics Committee Perspective*, 39 S.U. L. REV. 71, 152 (2011).

⁴⁶ Goldsmith, *supra* note 3, at 882 n.56; see KAN. STAT. ANN. § 77-202 (repealed 1984), amended by KAN. STAT. ANN. § 77-205 (1984).

⁴⁷ Goldsmith, *supra* note 3, at 879, 882. See KAN. STAT. ANN. § 77-202 (repealed 1984), amended by KAN. STAT. ANN. § 77-205 (1984); see also BLACK’S LAW DICTIONARY 488 (4th ed., rev. 1968).

⁴⁸ A determination of brain death was conditioned upon “reasonable attempts to either maintain or restore spontaneous circulatory or respiratory function” and upon an appearance that “further attempts at resuscitation or supportive maintenance will not succeed.” White III & Elrod, *supra* note 45, at 152-53.

⁴⁹ *Id.* at 152-53; see KAN. STAT. ANN. § 77-202 (repealed 1984), amended by KAN. STAT. ANN. § 77-205 (1984).

⁵⁰ See KAN. STAT. ANN. § 77-202 (repealed 1984), amended by KAN. STAT. ANN. § 77-205 (1984).

B. Reaction to Kansas Statute

Upon enactment, the “Act Relating to and Defining Death” was met with skepticism. Commentators complained that this definition was promulgated by lawmakers with presumably no medical background.⁵¹ In *State v. Shaffer*,⁵² the Kansas Supreme Court said the statute “allowed two separate standards to be applied to the single phenomenon of death”⁵³ These observations, particularly the idea of a dual construction of death, were not well received: “Common sense seems to dictate that death is but of one nature, though its manifestations may vary. It is in no way inspiring of confidence in one’s doctor to learn that there are two types of death.”⁵⁴ Additionally, just as the Harvard Committee was accused of creating a more lenient standard for determining death to facilitate organ transplants, so too was the Kansas legislature.⁵⁵

These concerns were understandable given the monumental nature of the legislation. The critics cannot be faulted for trying to protect the interests of those individuals who could not protect themselves—comatose individuals who could be declared dead under the statute’s brain death provision. Nevertheless, the critiques

⁵¹ Goldsmith, *supra* note 3, at 883 (citing Alexander M. Capron & Leon R. Kass, *A Statutory Definition of the Standards for Determining Human Death: An Appraisal and a Proposal*, 121 U. PA. L. REV. 87, 92 (1972)) (“[P]ublic bodies and laymen . . . [had] no role to play in this process of change.”). Although this was a common criticism, the Kansas legislature had at least one physician as a member—the legislator who proposed the law. *See infra* note 55, at 62.

⁵² *State v. Shaffer*, 574 P.2d 205 (1977).

⁵³ *Id.* at 209.

⁵⁴ Ian McColl Kennedy, *The Kansas Statute on Death: An Appraisal*, 285 NEW ENG. J. MEDICINE 946, 947 (1971).

⁵⁵ President’s Comm’n for the Study of Ethical Problems in Med. & Biomed. & Behavioral Research, *DEFINING DEATH: A REPORT ON THE MEDICAL, LEGAL AND ETHICAL ISSUES IN THE DETERMINATION OF DEATH* 63 (July 1981), <https://scholarworks.iupui.edu/bitstream/handle/1805/707/Defining%20death%20-%201981.pdf?sequence=1&isAllowed=y> [hereinafter *DEFINING DEATH*] (“The dual nature of the Kansas statute is its most troublesome feature. The alternative standards are set forth in two separate, complex paragraphs without a description of how they were to be related to the single phenomenon, death. When the statute was enacted, transplantation was very much in the news. The two-pronged statute seems to create one definition of death for most people and another, apparently more lenient standard for ‘harvesting’ organs from potential donors.”).

presumed too much; they were premised on the idea that doctors – and, indirectly, the Kansas legislature – would hasten a declaration of death simply to facilitate more organ transplants.⁵⁶ But the statute's directive is clear: any declaration, regardless of which form it took, was to be conditioned on "ordinary standards of medical practice."⁵⁷ The language does not contemplate, much less condone, a doctor using his position to "play God" and to decide who lives and who dies based on the desirability of their transplantable organs. Certainly, any conceivable "ordinary standard[] of medical practice" would not allow a declaration of death based on a lack of brain activity without an EEG reading indicating that the brain had ceased to function in the manner contemplated by the statute.⁵⁸

The problem, according to critics, was that under a determination of death based on lack of brain function, death had to be declared before artificial life-sustaining machines were disconnected and before vital organs were removed for transplant.⁵⁹ This concept contradicted everything the legal community had come to accept: an individual was dead when their cardiopulmonary functions ceased; to declare someone dead before that happened was unacceptable.⁶⁰ The procedure, however, was designed to ensure that once a person was declared dead under the new definition, his organs should be preserved in the best possible condition – by maintaining oxygen and blood flow – until they could be harvested.⁶¹ In this sense, one may argue that the Kansas legislature sought to "facilitate organ transplants."⁶² Nevertheless, a legislative mandate

⁵⁶ *See id.*

⁵⁷ Goldsmith, *supra* note 3, at 883 (citing KAN. STAT. ANN. §77-202 (repealed 1984), amended by KAN. STAT. ANN. §77-205 (1984)).

⁵⁸ It is reasonable to assume that this would be an "ordinary standard of medical practice" because the Harvard Committee's report, published in 1968, strongly encouraged doctors to confirm a determination with a "flat [EEG] reading," suggesting that the technology was widely used at that time and was reliable enough for purposes of measuring brain function. *See* Harvard Committee, *supra* note 14, at 338.

⁵⁹ KAN. STAT. ANN. § 77-202 (repealed 1984), amended by KAN. STAT. ANN. § 77-205 (1984).

⁶⁰ *Id.* at 338; BLACK'S 1968, *supra* note 10.

⁶¹ Walter Glannon, *Dead Enough*, AEON (July 27, 2015), <https://aeon.co/essays/should-we-harvest-organs-from-patients-who-are-not-dead-yet>.

⁶² Alexander Morgan Capron & Leon R. Kass, *A Statutory Definition of the Standards for*

that organs destined for transplantation be kept in the best possible condition is sound public policy. Requiring a doctor to remove the life-sustaining mechanism(s) until the patient stopped breathing and pumping blood on his own, and *then* making the doctor wait a specified period of time before harvesting would put all donees in danger of receiving organs that had already begun deteriorating.⁶³

III. DEVELOPMENT OF THE LAW AFTER KANSAS STATUTE ENACTED

Despite the criticisms, the enactment of the Kansas statute sparked a wave of similar legislation in other states across the country.⁶⁴ The acceptance of this new standard, which still concerned many in the medicolegal community, prompted other authors to put forth their own alternate definitions of death. By the end of the 1970s, “nearly half of the United States had appropriated one of five legislative prototypes for defining and determining death.”⁶⁵

A. The Wave of Competing Definitions

The five most prominent legislative models for determining death consisted of: (1) the Kansas statute; (2) a refined version of the Kansas statute proposed by Professors Alexander Capron and Leon Kass;⁶⁶ (3) a Model Definition of Death Act put forth by the American Bar Association (ABA);⁶⁷ (4) the Model Determination of Death

Determining Human Death: An Appraisal and A Proposal, 121 U. PA. L. REV. 87, 110 (1972).

⁶³ Shah & Miller, *supra* note 22, at 564 (“[T]wo minutes is likely not sufficient to be completely certain that death has occurred, especially when certain organ-preserving measures may have the unintended effect of reviving the heart. However, the danger of waiting longer is that substantial harm might result. Waiting longer amounts of time might fail to respect the wishes of the person who wanted to donate her organs and compromise the success of organ transplantation, or might even render it impossible.”).

⁶⁴ DEFINING DEATH, *supra* note 55, at 62–63 (“With slight variations, in 1972 Maryland, and in 1973 New Mexico and Virginia, enacted statutes patterned on the Kansas model. (In 1975 Oklahoma adopted a statute drawn solely from the second “alternative definition” of the Kansas prototype.”).

⁶⁵ Goldsmith, *supra* note 3, at 883.

⁶⁶ *Id.*

⁶⁷ *Id.*

promulgated by the American Medical Association (AMA);⁶⁸ and (5) the Uniform Brain Death Act (UBDA) recommended by the National Conference of Commissioners on Uniform State Laws (NCCUSL).⁶⁹ Each of these attempts to define death added to the cacophony of suggestions surrounding the debate. Even though each proposal aimed to answer the same question: When is someone dead? The authors demonstrated that the answer is far from straightforward.

Contribution from these outside groups forced the medical community to consider the additional concerns raised by them—for instance, the expanded understanding of what it means to be alive.⁷⁰ But legislative confusion about the differences between the competing definitions demonstrated how more parties participating in the debate could be detrimental. In 1981, a presidential commission observed that “[l]egislators, presented with a variety of proposals and no clear explanation of the significance of their differences, are (not surprisingly) wary of *all* the choices. Proponents of each of the models (and other critics) compounded this difficulty by objecting to the language of the other statutes”⁷¹

As an illustration of the challenges legislators faced when evaluating proposals, one can look to the required standards of care in each proposal.⁷² Both the Kansas statute and the refinement of it by Capron and Kass required that a determination of death be “based on ordinary standards of medical practice.”⁷³

The ABA’s Model Definition of Death Act mandated that death be defined “according to usual and customary standards of medical practice,”⁷⁴ while the AMA’s Model Determination of Death called for a diagnosis of death to be “made in accordance with accepted

⁶⁸ *Id.*

⁶⁹ *Id.*

⁷⁰ Capron & Kass, *supra* note 62, at 95.

⁷¹ DEFINING DEATH, *supra* note 55, at 73.

⁷² Goldsmith, *supra* note 3, at 887.

⁷³ KAN. STAT. ANN. § 77-202 (repealed 1984), amended by KAN. STAT. ANN. § 77-205 (1984); Capron & Kass, *supra* note 62, at 111.

⁷⁴ Goldsmith, *supra* note 3, at 887 n. 94.

medical standards.”⁷⁵ The Uniform Brain Death Act proposed by NCCUSL stated that death should be determined “in accordance with reasonable medical standards.”⁷⁶

Although the variation among the proposals appears slight, even minor differences may prove to be the deciding factor in determining if a doctor should face liability for declaring death, regardless of whether or not she acts in good faith and in accordance with professional norms.⁷⁷ Indeed, the 1981 commission acknowledged that the threat of this liability could hinder doctors’ decision-making.⁷⁸ For instance, NCCUSL introduced the concept of a reasonableness standard.⁷⁹ But whose reasonableness controls? Could a jury decide that certain medical practices, although widely accepted in the medical community, were nevertheless unreasonable? If so, how active should judges be in setting aside such findings? What would a judge have to show in order to justify doing so? These questions typified the tedious debate about which proposal was best.⁸⁰

Furthermore, since twenty-six states had enacted legislation inspired by one or more of the five prevailing definitions, there was considerable discontinuity across the country about when a person legally could be declared dead.⁸¹ Of course, it is not unusual to have varying legal standards among states governing the same topic.⁸² But, whereas divergences among states in other areas of law created minor inconveniences, the legal uncertainty concerning death had a

⁷⁵ *Id.*

⁷⁶ *Id.*

⁷⁷ *Id.* at 888 (citing *Defining Death*, *supra* note 55, at 78).

⁷⁸ *Id.*

⁷⁹ Goldsmith, *supra* note 3, at 887 n. 94.

⁸⁰ DEFINING DEATH, *supra* note 55, at 78.

⁸¹ Goldsmith, *supra* note 3, at 884. The President’s Commission acknowledged in its report that the concern of someone being legally alive in one state but dead in a sister state was unlikely. Nevertheless, the Commission still thought it was an important issue explaining, “it is possible to think of medical situations—and, even more freely, of legal cases that would be unlikely but not bizarre—in which differences in statutory language *could* lead to different outcomes.” DEFINING DEATH, *supra* note 55, at 72.

⁸² Goldsmith, *supra* note 3, at 884.

viscerally “jarring effect.”⁸³ Recognizing the importance of settling this debate, in 1978, Congress established the President’s Commission for the Study of Ethical Problems in Medicine and Biomedical and Behavioral Research.⁸⁴ One of the stated purposes of the commission was to “undertake studies of the ethical and legal implications of . . . the matter of defining death, including the advisability of developing a uniform determination of death.”⁸⁵

IV. UNIFORM DETERMINATION OF DEATH ACT

The commission met with representatives from the ABA, AMA, and NCCUSL to figure out the best way for the legal and medical communities to reach consensus on what constituted death.⁸⁶ Additionally, Professor Capron served as the Executive Director for the commission.⁸⁷ Thus, the major contributors to the debate were all represented. In fact, much of the language in the commission’s final report was taken directly from the law review article penned by Professors Capron and Kass.⁸⁸

In 1981, the commission published its final report, *Defining Death: Medical, Legal and Ethical Issues in the Determination of Death (Defining Death)*.⁸⁹ The detailed report addressed virtually all of the issues raised by various parties in the ongoing debate.⁹⁰ The commission’s central conclusions illustrate the issues it deemed most important, and how it addressed each one:

⁸³ *Id.* (citing DEFINING DEATH, *supra* note 55, at 72).

⁸⁴ Goldsmith, *supra* note 3, at 884 (citing Pub. L. No. 95-622, § 1802(a)(1)(B), 92 Stat. 3439 (1978)).

⁸⁵ *Id.*

⁸⁶ DEFINING DEATH, *supra* note 55, at 2.

⁸⁷ *Id.*

⁸⁸ *See generally id.*; *see also* Goldsmith, *supra* note 3.

⁸⁹ *See generally* DEFINING DEATH, *supra* note 55.

⁹⁰ *See generally id.* Although three years may seem like an extraordinarily long time to consider this issue, the commission did not meet for the first time until January 1980. *Id.* at 8.

1. That recent developments in medical treatment necessitate a restatement of the standards traditionally recognized for determining that death has occurred.
2. That such a restatement ought preferably be a matter of statutory law [as opposed to judge-made or common law].
3. That such a statute ought to remain a matter for state law, with federal action at this time being limited to areas under current federal jurisdiction.
4. That the statutory law ought to be uniform among the several states.
5. That the “definition” contained in the statute ought to address general physiological standards rather than medical criteria and tests, which will change with advances in biomedical knowledge and refinements in technique.
6. That death is a unitary phenomenon which can be accurately demonstrated either on the traditional grounds of irreversible cessation of heart and lung functions or on the basis of irreversible loss of all functions of the entire brain.
7. That any statutory “definition” should be kept separate and distinct from provisions governing the donation of cadaver organs and from any legal rules on decisions to terminate life-sustaining treatment.⁹¹

In light of these central conclusions, the commission proposed a Uniform Determination of Death Act, which was unanimously endorsed by the ABA, AMA, NCCUSL, and Professor Capron.⁹² In keeping with its congressional mandate,⁹³ the commission settled on a definition of death: “death is that moment at which the body’s physiological system ceases to constitute an integrated whole.”⁹⁴ On its face, the definition is, at best, vague;⁹⁵ however, the text of the UDDA offers more helpful guidance. Section one of the model law

⁹¹ *Id.* at 1.

⁹² *Id.* at 2.

⁹³ See Goldsmith, *supra* note 3, at 884 (citing Pub. L. No. 95-622, § 1802(a)(1)(B), 92 Stat. 3439 (1978)).

⁹⁴ DEFINING DEATH, *supra* note 55, at 33.

⁹⁵ The definition’s imprecision was deliberate. See *Defining Death*, *supra* note 55, at 73 (“[T]he proposed statute addresses the matter of ‘defining’ death at the level of general physiological standards rather than at . . . the level of more precise criteria and tests.”).

says that “[a]n individual who has sustained either (1) irreversible cessation of circulatory and respiratory functions, or (2) irreversible cessation of all functions of the entire brain, including the brain stem, is dead. A determination of death must be made in accordance with accepted medical standards.”⁹⁶ The text shows that the definition chosen by the commission is best understood as the moment at which the body’s systems stop working in concert.⁹⁷ Rather than characterizing death solely by the absence of one or another bodily function, the commission adopted a more holistic view, explaining that “life is a matter of integrating the functioning of major organ systems, breathing and circulation are necessary but not sufficient to establish that an individual is alive. When an individual’s breathing and circulation lack neurologic integration, he or she is dead.”⁹⁸

The model law was short and simple, but its brevity belies the commission’s efforts. Apart from the first criterion—which simply restated the common law⁹⁹—almost every word used in the statute was the result of painstaking analysis performed either by the commission or other legal commentators at the time.¹⁰⁰ For instance, the final sentence, addressing the required standard of care, was chosen after a thorough review of suggestions put forth by the ABA, AMA, NCCUSL, and Professors Capron and Kass.¹⁰¹ In its final report, the commission explained its choice:

The process by which a norm of medical practice becomes “accepted” varies according to the field and the type of procedure at issue. The statutory language should eliminate wholly idiosyncratic standards or the use of experimental means of diagnosis (except in conjunction with adequate customary procedures). On the other hand, the statute does not require a procedure to be universally adopted; it is enough if, like any medical practice which is later challenged, it has been accepted by

⁹⁶ DEFINING DEATH, *supra* note 55, at 2. The final version was proposed at a May 1980 meeting between representatives of the ABA, AMA, NCCUSL, and Executive Director Capron. That summer the NCCUSL formally approved of the proposed legislation, an action which was followed by approvals from the AMA (October 19, 1980) and the ABA (February 10, 1981).

⁹⁷ *Id.* at 33.

⁹⁸ *Id.*

⁹⁹ See *id.* at 2 n. 5–6.

¹⁰⁰ See generally *id.*; see also Capron & Kass, *supra* note 62; Kennedy, *supra* note 54.

¹⁰¹ DEFINING DEATH, *supra* note 55, at 78–79.

a substantial and reputable body of medical men and women as safe and efficacious for the purpose for which it is being employed.¹⁰²

This explanation illustrates the attention to detail exhibited throughout the report. The commission was not just trying to reach consensus on the structure of the proposed law; the representatives wanted to justify each decision they made.¹⁰³ The explanations lent credence to the criteria chosen, just as the lack of explanations by the Harvard Committee tended to discredit its proposal.¹⁰⁴

A. Shortfalls of the UDDA

The UDDA successfully governs the vast majority of situations where a person dies—by essentially codifying a widely endorsed brain death standard, the Act ensures that most deaths will be diagnosed easily using one of the standards. As a practical matter, however, the Act does little to address the situations that frequently give rise to litigation concerning death.¹⁰⁵ Specifically, the commission that drafted the Act punted issues like time of death to be dealt with by other entities.¹⁰⁶ But time of death is very often a central concern in litigating end of life scenarios.¹⁰⁷

Time of death implicates a variety of legal interests, including property rights, insurance beneficiary rights, survivorship rights, and tax consequences.¹⁰⁸ The legal rights that are directly affected by death, and the degree to which they are modified based on the exact time it occurs, justify a statutory determination of time of death. If it

¹⁰² *Id.*

¹⁰³ See DEFINING DEATH, *supra* note 55, at 74–81 (justifying the choice of language in each section of the model statute).

¹⁰⁴ See *supra* text accompanying note 36.

¹⁰⁵ Goldsmith, *supra* note 3, at 888 (“For most practical purposes, then, the Act speaks to a relatively narrow range of possible situations within the universe of plausible scenarios where the distinction between life and death is blurred.”).

¹⁰⁶ DEFINING DEATH, *supra* note 55, at 77 (“Procedures for certifying time of death, like those for determining the status of being dead, will be a matter for locally ‘accepted medical standards,’ hospital rules and custom, community mores and state death certificate law.”).

¹⁰⁷ Goldsmith, *supra* note 3, at 897.

¹⁰⁸ *Id.* at 897–98; see A. L. Moses, *Uniform Determination of Death Act Adds Certainty to the Determination of Death*, 16 EST. PLAN. 276, 277–78 (1989).

is desirable for the standard for death to be uniform,¹⁰⁹ then the interests implicated by it should be uniform as well. This goal can most nearly be accomplished by requiring judges in every state to interpret the same language, as opposed to idiosyncratically different language unique to each state.¹¹⁰

Another problem was that the statute was not binding on the states.¹¹¹ Although all states have adopted some form of the statute, several have modified the language.¹¹² This contravenes one of the commission's central conclusions: that the statutory language should be uniform across the country to avoid conflicts between states' laws.¹¹³

1. *The Case of Aden Hailu*

The case of *Gabreyes v. Prime Healthcare Servs. (In re Estate of Hailu)*¹¹⁴ demonstrates the confusion created by discrete differences between two states' statutory language. There, the Nevada Supreme Court considered whether a hospital properly declared a young woman brain dead using "accepted medical standards"¹¹⁵ under the UDDA, which the state adopted in 1985.¹¹⁶

In April 2015, Aden Hailu, a twenty-year-old college student, underwent a procedure to remove her appendix at St. Mary's Regional Medical Center.¹¹⁷ During the surgery, she had low blood

¹⁰⁹ DEFINING DEATH, *supra* note 55, at 1.

¹¹⁰ *Id.* at 52 ("[S]ince certainty and clarity are highly valuable in this area, uniformity of statutory language would be preferable lest differences in words seem to open the door to differences in substance.").

¹¹¹ *Id.* at 8 ("[T]he Commission concludes that this topic remains an appropriate subject for state rather than federal legislation.").

¹¹² *What is the Uniform Declaration of Death Act (UDDA)?*, FINDLAW, <http://healthcare.findlaw.com/patient-rights/what-is-the-uniform-declaration-of-death-act-or-udda.html> (last visited Mar. 3, 2016).

¹¹³ *Id.* at 52; DEFINING DEATH, *supra* note 55, at 1.

¹¹⁴ *Gabreyes v. Prime Healthcare Servs. (In re Estate of Hailu)*, 361 P.3d 524 (Nev. 2015).

¹¹⁵ *In re Estate of Hailu*, 361 P.3d 524, 524 (2015).

¹¹⁶ 1979 Nev. Stat. 226, amended by 1985 Nev. Stat. 130 (codified at NEV. REV. STAT. § 451.007 (2015)).

¹¹⁷ *In re Estate of Hailu*, 361 P.3d at 525.

pressure, which injured her brain due to lack of oxygen, and she never woke up.¹¹⁸ After she was transferred to the intensive care unit, her treating physician performed three EEG tests over the course of two weeks, all of which registered brain activity, “albeit abnormal and slow.”¹¹⁹ But during a clinical examination conducted thirteen days after her surgery, Aden showed no physical signs of neurologic functioning.¹²⁰

On May 28, doctors performed an apnea test, which involved removing ventilation support from Aden to see if she could breathe on her own; she failed.¹²¹ Based on the test result and the absence of any physical indicia of brain activity, the hospital concluded that she was “unequivocally” brain dead.¹²² On June 2, St. Mary’s notified her father that it intended to discontinue Aden’s life support; he sued to enjoin it from doing so, claiming that the hospital had prematurely determined brain death.¹²³

Between June and July, the trial court held three hearings and heard testimony from seven witnesses. Dr. Aaron Heide, St. Mary’s Director of Neurology and Stroke, testified that he applied the American Academy of Neurology (AAN) guidelines to declare Aden brain dead and that these represented accepted medical standards in Nevada.¹²⁴ Based on his application of the AAN protocol, he believed that Aden “had zero percent chance of any form of functional neurological outcome.”¹²⁵

Aden’s father primarily relied on testimony from two physicians: Drs. Paul Byrne and Brian Callister.¹²⁶ Dr. Byrne was not licensed in

¹¹⁸ *Id.*

¹¹⁹ *Id.* at 527.

¹²⁰ *Gabreyes v. Prime Healthcare Servs. (In re Estate of Hailu)*, 361 P.3d 524, 525 (Nev. 2015).

¹²¹ *Id.*

¹²² *Id.*

¹²³ *Id.*

¹²⁴ *Id.* The court’s opinion mistakenly refers to the organization as the “American Association of Neurology”; see also *UPDATE: DETERMINING BRAIN DEATH IN ADULTS*, AMERICAN ACADEMY OF NEUROLOGY fig. 1, <https://www.aan.com/Guidelines/Home/GetGuidelineContent/432> (last visited Aug. 20, 2016).

¹²⁵ *In re Estate of Hailu*, 361 P. 3d 524, 526 (2015).

¹²⁶ *Gabreyes v. Prime Healthcare Servs. (In re Estate of Hailu)*, 361 P.3d 524, 526 (Nev. 2015).

Nevada, but he is a well-known opponent of brain death declarations.¹²⁷ He testified that Aden's condition could improve if the hospital, for instance, treated her for thyroid problems.¹²⁸

Dr. Callister, a specialist in internal medicine and hospitalist medicine, reviewed Aden's medical records and first examined her on the day of his testimony.¹²⁹ He pointed to factors of her condition that indicated a slim chance of recovery or at least the absence of brain death.¹³⁰ In his opinion, the EEG tests "should give you just enough pause to say you can't say with certainty that her chances are zero."¹³¹ Additionally, the bodily functions she still exhibited and the absence of any marked organ deterioration suggested to him that Aden's neurologic condition was not irreversible.¹³²

While Dr. Callister conceded that a strict application of the AAN guidelines would support a brain death diagnosis, he questioned their reliability.¹³³ He said the guidelines do not measure all of the relevant brain functions that must be absent to declare a patient brain dead.¹³⁴ He concluded that, while Aden's chances of recovery were slim, he could not support a brain death determination without more recent EEG tests and an examination by a third-party neurologist.¹³⁵ Despite Dr. Callister's and Dr. Byrne's reservations, the trial court ruled against Aden's father and authorized a certification of brain death, but its order was stayed pending appeal to the Supreme Court of Nevada.¹³⁶

¹²⁷ *Id.*; see also Paul A. Byrne, M.D. Column, RENEW AMERICA, <http://www.renewamerica.com/columns/byrne> (last visited Aug. 20, 2016).

¹²⁸ *In re Estate of Hailu*, 361 P.3d at 526.

¹²⁹ *Id.* at 527.

¹³⁰ *Id.*

¹³¹ *Id.*

¹³² *Gabreyes v. Prime Healthcare Servs. (In re Estate of Hailu)*, 361 P.3d 524, 527 (Nev. 2015).

¹³³ *Id.*

¹³⁴ *Id.* ("[T]he AAN guidelines will always yield results consistent with brain death for a patient with a nonfunctioning cortex, even if the mid or hind parts of the brain are still functioning.").

¹³⁵ *Id.*

¹³⁶ *Id.* at 528.

The supreme court noted that it had to apply and construe Nevada's UDDA in a manner "uniform among the states which [have] enact[ed] it."¹³⁷ The trial court's decision could only be upheld if the hospital employed medical standards that were accepted uniformly among other UDDA-adopting states—that is, if these states considered the AAN guidelines "accepted medical standards."¹³⁸

Neither the district court nor St. Mary's supplied evidence indicating that the guidelines were uniformly accepted in UDDA states.¹³⁹ Instead, the issue at trial was framed as whether the guidelines were accepted medical standards *in Nevada*.¹⁴⁰ On appeal, the hospital cited only one source to support the guidelines' uniform acceptance: a 2013 report by the New Jersey Law Revision Commission, which discussed proposed amendments to the state's Declaration of Death Act.¹⁴¹ But the hospital's reliance on this authority was misplaced, because the report actually disapproved the use of AAN guidelines.¹⁴²

The court cited several instances in the report where the New Jersey Commission expressed doubt about the propriety and rigor of the AAN guidelines and the extent of the medical community's acceptance of them.¹⁴³ Based on those comments and the conflicting testimony concerning Aden's condition, the court was not "convinced that the AAN guidelines are considered the accepted medical standard that can be applied in a way to make Nevada's Determination of Death Act uniform with states that have adopted it, as the UDDA requires."¹⁴⁴

¹³⁷ NEV. REV. STAT. ANN. § 451.007(3) (LexisNexis through 2015 Reg. Sess.); see UNIF. DETERMINATION OF DEATH ACT § 2 (NAT'L CONFERENCE COMM'RS ON UNIF. STATE LAWS 1981).

¹³⁸ *Gabreyes v. Prime Healthcare Servs. (In re Estate of Hailu)*, 361 P.3d 524, 529 (Nev. 2015).

¹³⁹ *Id.*

¹⁴⁰ *Id.*

¹⁴¹ *Id.*; see N.J. LAW REVISION COMM'N, FINAL REPORT RELATING TO NEW JERSEY DECLARATION OF DEATH ACT (Jan. 18, 2013), <http://www.lawrev.state.nj.us/UDDA/njddaFR011813.pdf>.

¹⁴² N.J. LAW REVISION COMM'N, *supra* note 32, at 14; *but see* N.J. STAT ANN. § 26:6A-4(a).

¹⁴³ *In re Estate of Hailu*, 361 P.3d at 529.

¹⁴⁴ *Gabreyes v. Prime Healthcare Servs. (In re Estate of Hailu)*, 361 P.3d 524, 529 (Nev. 2015); NEV. REV. STAT. § 451.007(3) (2015).

Rather than affirmatively rejecting the guidelines, however, the court remanded the case to the trial court to determine whether St. Mary's could show Aden was brain dead according to the statute.¹⁴⁵ If the hospital maintained that it only had to follow the AAN protocol, then it assumed the burden of proving, through expert testimony: (1) that a patient satisfying those criteria had sustained "an irreversible cessation of . . . [a]ll functions of the person's entire brain, including his or her brain stem," and (2) that the medical community accepted this view.¹⁴⁶

The issues were never resolved. On January 4, 2016, Aden Hailu suffered a cardiopulmonary arrest and died.¹⁴⁷

Aden's case illustrates the confusion that can arise when states employ different language in their respective death determination statutes. The uniformity desired by the President's Commission is impossible to achieve when courts have to interpret and construe two (or more) effectively different statutes.¹⁴⁸ For instance, in *In re Estate of Hailu*, the court was unable to determine what constituted "accepted medical standards."¹⁴⁹ Since its reversal of the trial court was based on the New Jersey Commission's rebuke of the AAN guidelines,¹⁵⁰ the supreme court likely would have been baffled to discover that the New Jersey legislature disregarded the criticism and retained the statutory approval of the guidelines.¹⁵¹ If Aden had not passed away before the next hearing, and assuming the trial court had ruled the AAN standards were not uniformly accepted, the

¹⁴⁵ *In re Estate of Hailu*, 361 P.3d at 532.

¹⁴⁶ *Id.*; NEV. REV. STAT. § 451.007(1)(b) (2015).

¹⁴⁷ Siobhan McAndrew, *The contested death of Aden Hailu*, RENO GAZETTE-J. (Mar. 25, 2016), <http://www.rgj.com/story/news/2016/03/25/contested-death-aden-hailu/82269006/>.

¹⁴⁸ PRESIDENT'S COMM'N FOR THE STUDY OF ETHICAL PROBLEMS IN MED. & BIOMED. & BEHAVIORAL RESEARCH, DEFINING DEATH 72, July 1981, <https://scholarworks.iupui.edu/bitstream/handle/1805/707/Defining%20death%20-%201981.pdf>.

¹⁴⁹ See generally *In re Estate of Hailu*, 361 P.3d 524, 524 (2015).

¹⁵⁰ N.J. LAW REVISION COMM'N, *supra* note 31, at 14.

¹⁵¹ See N.J. STAT. ANN. § 26:6A-4(a) (West, Westlaw through L.2016, c. 39 and J.R. No. 3) (stating that a declaration of brain death shall be made "in accordance with currently accepted medical standards that are based upon nationally recognized sources of practice guidelines, including, but not limited to, those adopted by the American Academy of Neurology.").

result would have been an inherent split in authority—an obvious lack of uniformity. Had that been the case, a patient in an identical condition as Aden would be legally dead in New Jersey but alive in Nevada.¹⁵²

The President's Commission considered such a scenario to be unlikely.¹⁵³ Indeed, the hypothetical assumes that the trial court would have rejected the AAN guidelines or that the hospital could not have otherwise proven brain death through, for instance, the Harvard Committee's criteria. Thus, it may be reasonable to believe that the prospect of a person being alive in one state while dead in another is a virtual impossibility. The story of Jahi McMath demonstrably refutes this belief.

In December 2013, thirteen-year-old Jahi McMath suffered complications from a corrective surgery for sleep apnea.¹⁵⁴ She lived in California, which has adopted the UDDA.¹⁵⁵ A few days after her surgery, doctors declared her brain dead, and a death certificate was issued after a court ruled against her objecting family members.¹⁵⁶ Nevertheless, the family arranged for Jahi to be transferred to New Jersey, where doctors have declared that she is alive.¹⁵⁷ As of July 2016, she remains in New Jersey while her family maintains state and federal lawsuits in California.¹⁵⁸ For 2.5 years, she has been legally

¹⁵² Compare NEV. REV. STAT. ANN. § 451.007 (LexisNexis through legis. from Seventy-Eighth Reg. Sess. (2015)) with N.J. STAT. ANN. §§ 26:6A-3 and 6A-4 (West, Westlaw through L.2016, c. 39 and J.R. No. 3).

¹⁵³ DEFINING DEATH, *supra* note 55, at 72.

¹⁵⁴ Josh Hafner, *Jahi McMath, Pronounced Dead Years Ago, is 'Healthy,' New Photo Claims*, USA TODAY (Mar. 21, 2016, 3:21 PM), <http://www.usatoday.com/story/news/nation-now/2016/03/21/jahi-mcmath-pronounced-dead-years-ago-healthy-new-photo-claims/82082798/>.

¹⁵⁵ CAL. HEALTH AND SAFETY CODE § 7180 (West, Westlaw through Ch. 438 of 2016 Reg. Sess., Ch. 8 of 2015-2016 2nd Ex. Sess., and all propositions on 2016 ballot).

¹⁵⁶ Lateef Mungin & Chuck Conder, *Jahi McMath's Family, Oakland Hospital Discussing Girl's Transfer*, CNN, <http://edition.cnn.com/2014/01/03/health/jahi-mcmath-girl-brain-dead/> (last updated Jan. 4, 2014, 3:25 AM).

¹⁵⁷ *Doctor: No Evidence of Life in Brain-dead Girl*, CBS NEWS (Oct. 9, 2014, 9:29 AM), <http://www.cbsnews.com/news/jahi-mcmath-case-expert-rejects-evidence-of-life-in-brain-dead-girl/>.

¹⁵⁸ See *Jahi McMath, A Dispute Over Brain Death*, THADDEUSPOPE.COM, <http://thaddeuspope.com/braindeath/jahimcmath.html> (last visited Aug. 20, 2016), for the latest updates in both suits.

dead in California yet legally alive in New Jersey. However “unlikely” such a situation was thought to have been in 1981, it is the reality with which Jahi and her family are unfortunately faced.

The President’s Commission believed the standard for determining death should be uniform and that the matter should be left in the hands of the states.¹⁵⁹ But the experiences of Jahi and Aden Hailu show that those two ideals are, in fact, mutually exclusive. The only way to ensure uniformity is for the United States Congress to pass a revised UDDA that binds all states to the same language and standards.

Several states have adopted modified versions of the UDDA, which include desirable features; these should be incorporated into the revised UDDA. For instance, Hawaii’s statute calls for a bi-annual committee to review the viability of its standards for determining death.¹⁶⁰ The committee seeks input from all interested parties: representatives from the medical and legal communities and the public.¹⁶¹ Congress can utilize its resources to do the same. This continuous review will ensure that the law keeps pace with further medical advances while also giving members of the public a forum in which they can express their concerns and have them addressed. Extensive development of a record of public comments and hearings will supply courts with ample guidance on how to apply the law.

Another state law feature that should be included in the revised UDDA is a carve-out for religious objectors to brain death declarations, as found in New York or New Jersey.¹⁶² Of those two, New York’s regulation represents the best, most practicable option. Whereas religious objectors in New Jersey may prevent a declaration of brain death altogether, forcing the hospital to wait until a patient is dead under the cardiopulmonary criteria,¹⁶³ New York requires hospitals to establish procedures for the “reasonable accommodation

¹⁵⁹ DEFINING DEATH, *supra* note 55, at 1.

¹⁶⁰ HAW. REV. STAT. ANN. § 327C-1(e) (LexisNexis through 2016 Second Spec. Sess.).

¹⁶¹ *Id.*

¹⁶² N.J. STAT. ANN. § 26:6A-5 (West, Westlaw through L.2016, c. 39 and J.R. No. 3); N.Y. COMP. CODES R. & RECS. tit. 10, § 400.16(e)(3) (West, Westlaw through Sept. 21, 2016).

¹⁶³ N.J. STAT. ANN. § 26:6A-5.

of the individual's religious or moral objection" to brain death.¹⁶⁴ By vesting the hospitals with the responsibility, the regulation allows for some leeway in how to approach an objection. For instance, a hospital's policy could establish a timeframe following a declaration of brain death during which it would continue to monitor a patient. If the patient did not improve, then the policy could allow the hospital to terminate life support or authorize the family to transfer the individual to a hospital with more favorable policies.

While some departures from the UDDA language have resulted in favorable features, many more have not. For example, Idaho's statute defines the term at issue in *Hailu*: "accepted medical standards . . . mean the usual and customary procedures of the community in which the determination of death is made."¹⁶⁵ The idea of someone being alive in one state but dead in another is jarring;¹⁶⁶ the idea of someone being alive in one *city within a state* but dead in another is absurd. A Congressionally-enacted revised UDDA with language that applies uniformly from state to state (and city to city) would avoid such a result.

The commission did not recommend that Congress bind the states with a federally-enacted preemptive law, because it believed that states would readily adopt the new standard on their own, avoiding potential Tenth Amendment issues.¹⁶⁷ While the commission's efforts not to step on the toes of the states are admirable, it did not effect the desired uniformity.¹⁶⁸ Having tried the more cooperative approach, Congress should enact a law that binds

¹⁶⁴ N.Y. Comp. Codes R. & Regs. tit. 10, § 400.16(e)(3).

¹⁶⁵ IDAHO CODE §54-1819 (LexisNexis through 2016 Reg. Sess.).

¹⁶⁶ DEFINING DEATH, *supra* note 55, at 72.

¹⁶⁷ See *id.* at 52 ("The Commission believes that [passing a federal law] would be premature, before seeing whether the states all adopt the Uniform Determination of Death Act and secure uniformity that way. Until this is tried, there is no justification for disturbing the traditional allocation of state and federal responsibilities on this subject."); see also *id.* at 53 ("Furthermore, *without in any way coercing the states*, federal adoption would offer useful encouragement to the States to place this matter on their legislative agendas.") (emphasis added); U.S. CONST. amend. X.

¹⁶⁸ See DEFINING DEATH, *supra* note 55, at 1; see also *What is the Uniform Declaration of Death Act (UDDA)?*, *supra* note 112.

each of the states to the same language.¹⁶⁹ Concededly, doing so would defeat the third central conclusion reached by the commission.¹⁷⁰ Nevertheless, the limiting language in the conclusion (“at this time”), combined with the repeated emphasis on uniformity, suggests that the commission viewed uniformity as more desirable than commitment to state self-governance.

V. PROPOSAL FOR A FEDERAL UNIFORM DETERMINATION OF DEATH

Congress should enact a law that harmonizes differences among states’ definition of death laws. Importantly, when listing the reasons for not doing so in 1981, the Presidential Commission did not think Congress lacked authority to do so.¹⁷¹ In fact, it intimated that there was little doubt that Congress could pass such a law.¹⁷² Thus, jurisdictional issues will not be addressed in this Comment.

A. Time of Death

One of the reasons Congress should act is that time of death remains a hotly-contested issue in end of life litigation.¹⁷³ Although the commission focused its inquiries on whether or not the law should recognize an alternate standard on which to determine death,¹⁷⁴ much of the litigation that brings in UDDA considerations turns on a question of *when* someone died, and not *whether* they died.¹⁷⁵ By statutorily grounding time of death determinations,

¹⁶⁹ See DEFINING DEATH, *supra* note 55, at 52.

¹⁷⁰ *Id.* at 1 (“That such a statute ought to remain a matter for state law, with federal action at this time being limited to areas under current federal jurisdiction.”).

¹⁷¹ *Id.*

¹⁷² *Id.*

¹⁷³ See *supra* text accompanying note 108.

¹⁷⁴ DEFINING DEATH, *supra* note 55, at 3.

¹⁷⁵ *E.g.*, *In re Haymer*, 350 N.E.2d 940, 942 (1st Dist. 1983) (“This case presents the issue of determining when death legally occurs in Illinois.”); *Janus v. Tarasewicz*, 482 N.E.2d 418 (1st Dist. 1985) (deciding question of who died first when husband and wife unknowingly ate cyanide-laced pills minutes apart from each other). See also Goldsmith, *supra* note 3, at 897 (saying that “[A] lack of statutory consensus regarding when a person has died assures

Congress could ease the burden faced by judges and juries who are asked to evaluate conflicting testimonies about when a person died.¹⁷⁶ The best legislative option to prescribe time of death would look similar to the provision in the Kansas statute,¹⁷⁷ with slight modification.

Rather than *mandating* that the time of death be the point at which the relevant bodily functions irreversibly ceased, the law should leave room for the consideration of contradictory evidence. In cases of a declaration of death due to cessation of cardiopulmonary activity, the law should *presume* that the time of death is the point at which the relevant functions are found to be absent.¹⁷⁸ In cases where a patient is declared dead using brain-based criteria, the law should say that the time of death *shall* be the point at which medical tests confirm the cessation of brain activity. The reason for the discrepancy is that patients declared dead using neurological indicia are almost exclusively found in hospital settings suitable for constant monitoring of the patient's status.¹⁷⁹ Instances where death is judged using the cardiopulmonary standard, on the other hand, more frequently occur outside of a hospital setting, and the time of death is apt to be closer to a guess.¹⁸⁰ Another refinement of the UDDA would aid doctors (or finders of fact, as appropriate) in establishing the time of death: the statutory incorporation of the commission's definition of death.

discomforting uncertainty regarding what it means to have done so.”).

¹⁷⁶ See generally, e.g., *In re Haymer*, 450 N.E.2d 940; *In re Schmidt's Estate*, 261 Cal. App. 2d 262 (1968).

¹⁷⁷ KAN. STAT. ANN. § 77-202 (repealed 1984), amended by KAN. STAT. ANN. § 77-205 (1984).

¹⁷⁸ See *supra*, note 108, at 277 (saying that a legislative mandate on the time of death in cases where a person is found dead (and thus, declared dead under the cardiopulmonary standard) would preclude introducing reliable testimony that could show the person in fact died earlier).

¹⁷⁹ *Id.*

¹⁸⁰ *Id.* (“Many cardiorespiratory deaths will not have anywhere near that close a scrutiny by a physician nor the extensive record of the patient's condition. Estimating ‘time of death’ in brain death situations is probably going to be much more precise than many estimations after a cardiorespiratory death diagnosis.”) (quoting John M. McCabe, Legislative Director of the NCCUSL).

B. Incorporating the Commission's Definition of Death

Congress should incorporate the commission's definition of death into the revised statute.¹⁸¹ While the UDDA enumerated the two bases on which a person may be declared dead, the model statute's text did not include the definition of death, which framed why those criteria were chosen in the first place.¹⁸² Namely, these criteria indicated that a body had stopped functioning as an integrated whole.¹⁸³ In cases where a court rules on when or whether a patient died, the outcome often can turn on discrete, arguably irrelevant questions of how much activity is required to show that a patient is not dead.¹⁸⁴

In *Janus v. Tarasewicz*, an Illinois appellate court had to decide who died first between a husband and wife, both of whom ingested poisoned Tylenol pills around the same time.¹⁸⁵ The two were rushed to the hospital where the husband was declared dead roughly two hours after arrival.¹⁸⁶ His wife, Theresa, on the other hand, underwent a battery of tests during the next few days.¹⁸⁷ During the administration of these tests, Theresa was, by any measure, barely alive.¹⁸⁸ Nevertheless, efforts to save her life were ultimately futile, and Theresa was declared dead due to loss of brain function two days after her husband.¹⁸⁹

The testimony at trial included statements from numerous doctors and members of the hospital staff, some of whom personally treated Theresa, some of whom did not.¹⁹⁰ Despite each witness reviewing the same data, each one interpreted the actual time of

¹⁸¹ See DEFINING DEATH, *supra* note 55, at 33 ("Death is that moment at which the body's physiological system ceases to constitute an integrated whole.").

¹⁸² See *id.* at 2 (omitting the definition from the proposed statute).

¹⁸³ *Id.* at 33.

¹⁸⁴ See generally, e.g., *Janus v. Tarasewicz*, 482 N.E. 418 (1985).

¹⁸⁵ *Id.* at 419.

¹⁸⁶ *Id.* at 420.

¹⁸⁷ *Id.* at 420-21.

¹⁸⁸ *Id.*

¹⁸⁹ *Id.*

¹⁹⁰ *Janus v. Tarasewicz*, 482 N.E. 418, 421 (1985).

death differently.¹⁹¹ For instance, one neurosurgeon who did not treat Theresa said that EEG tests he had viewed, and which showed minimal brain activity, were distorted by “interference from surrounding equipment in the intensive care unit.”¹⁹² Thus, even though the doctor never saw any other test results, he believed Theresa was already dead when she arrived at the hospital. Likewise, another expert testified that a person could be brain dead but still have spontaneous pulse and blood pressure, which are indirectly maintained with artificial respiration.¹⁹³ This testimony was offered in support of the proposition that it was ambiguous whether Theresa’s cardiopulmonary functions were present.¹⁹⁴

On the other hand, another doctor who also had not seen Theresa concluded that she had outlived her husband based on observations from hospital staff and the EEG reading showing minimal brain activity.¹⁹⁵ In contrast with the opposing party’s expert, the doctor concluded that the EEG reading could not have been affected by outside interference.¹⁹⁶ Accordingly, in agreement with the doctors and staff that actually did treat Theresa, he believed Theresa outlived her husband.¹⁹⁷

In holding that Theresa did in fact outlive her husband, the court noted that it was constrained by the legal rule that, when reviewing trial court decisions of this kind, it had to defer to fact findings at trial.¹⁹⁸ Nevertheless, the appellate court declined to decide on an exact time of death.¹⁹⁹ The court admitted that the expert testimony rendered the case a close call,²⁰⁰ but it never should have been.

¹⁹¹ *Id.*

¹⁹² *Id.*

¹⁹³ *Id.*

¹⁹⁴ *Id.*

¹⁹⁵ *Id.*

¹⁹⁶ *Janus v. Tarasewicz*, 482 N.E. 418, 421 (1985).

¹⁹⁷ *Id.*

¹⁹⁸ *Id.* at 424.

¹⁹⁹ *Id.*

²⁰⁰ *Id.*

If the Presidential Commission's definition was incorporated into the statute and applied to Theresa, the trial court would not have wasted time hearing testimony about possible electrical interference. Inclusion of the definition would allow a court to frame the inquiry thus: "Did Theresa's condition signify that her body was functioning as an integrated whole?" Instead, the court found itself evaluating evidence in the form of unreliable, conflicting observations by the hospital staff²⁰¹ and speculative, conclusory testimony from doctors who never saw Theresa.²⁰² If the court approached the case from the "integrated whole" perspective, it is clear that Theresa outlived her husband. Upon arrival at the emergency room, both Theresa and her husband lacked visible vital signs,²⁰³ but while efforts to revive her husband failed, doctors were able to establish in Theresa a spontaneous heartbeat and a measurable blood pressure.²⁰⁴ The inquiry needs to go no further. Theresa's heart was beating without the aid of a pacemaker, showing that there was organized activity taking place—as opposed to residual cellular activity—in her body; thus, her heartbeat, when considered with the EEG reading, showed that her functions were "integrated."²⁰⁵

Incorporating the definition of death into the statute would reinforce the holistic view that the commission adopted in its report.²⁰⁶ Rather than encouraging the use of speculative testimony, as in *Janus*, including the definition would instead prompt courts to focus their inquiries more nearly in line with the commission's objectives.²⁰⁷

²⁰¹ *Id.* at 420.

²⁰² *Janus v. Tarasewicz*, 482 N.E. 418, 421 (1985).

²⁰³ *Id.* at 420.

²⁰⁴ *Id.*

²⁰⁵ See DEFINING DEATH, *supra* note 55, at 6 (emphasizing that integration is marked by *organized* cellular activity, as opposed to residual cellular activity. Importantly, the Commission noted that tests like EEG do not measure residual cellular activity, only organized activity.); See also *Electroencephalogram (EEG)*, *supra* note 28 (listing factors that could affect an EEG reading, among which electrical interference is not included).

²⁰⁶ See DEFINING DEATH, *supra* note 55, at 33 ("When an individual's breathing and circulation lack neurologic integration, he or she is dead.").

²⁰⁷ *Id.*

CONCLUSION

The legal standard for determining death has evolved significantly since technology first necessitated a reassessment of the common law. So too has the medical standard, albeit at a much faster pace. Although it would be ideal if the law recognized new medical determinations of death as they develop, public policy cautions against such hasty acceptance.²⁰⁸ At the same time, the law should not stifle innovation. Any law that governs what constitutes death should be rigid enough to disallow the use of dubious tests or procedures, but flexible enough to accept reliable tests or procedures, as they become available.

Congress is uniquely situated to enact a law that fits these requirements.²⁰⁹ Federal lawmakers can commission scientific studies, conduct informational hearings, and promote cooperation among numerous parties. Indeed, Congress did each of these things when crafting the UDDA, and the result was a marked success with every state eventually adopting some form of the model statute.²¹⁰ Nevertheless, differences in statutory language and confusion about them continue to cast uncertainty on the questions of what death is and what consequences follow its occurrence.

In order to effect the intent of the President's Commission, Congress should pass a law with substantially similar language to the first UDDA. This new law should be different from the 1981 version in only four respects: (1) Rather than drafting a model statute, which the states may adopt at their option, the law should be enacted by Congress so that it preempts any inconsistent state law; (2) The new UDDA should include a provision that addresses time of death, provided that sufficient leeway is allowed when determining the time of death under the cardiopulmonary standard; (3) The new UDDA should incorporate the definition of death used by the commission, or a new definition based on contemporary medical knowledge (if substantially different from 1981); and (4) The new

²⁰⁸ *Id.* at 22 (“The social and legal as well as medical consequences attached to a determination of death make it imperative that the diagnosis be incontrovertible.”).

²⁰⁹ *See id.* at 52.

²¹⁰ *What is the Uniform Declaration of Death Act (UDDA)?*, *supra* note 112.

UDDA should allow for reasonable accommodation of religious beliefs that may not recognize brain-based criteria as valid bases for declaring death.

This Comment does not endorse the federal government playing a leading role in every situation in which death plays a part. Instead, it merely takes the position that the standard of what constitutes death should be the same in every state. The commission best explained why uniformity is necessary: "There is nothing to applaud in the prospect that small, and perhaps inadvertent, differences [between] two neighboring states might make a 'live' patient 'dead' as the ambulance carrying him or her crosses their border."²¹¹

²¹¹ See DEFINING DEATH, *supra* note 55, at 49.