UNIVERSITY OF PENNSYLVANIA

MASTER'S THESIS

Physician-Assisted Suicide as an End-of-Life Care Option for Terminally Ill Patients Nationally

In fulfillment of the requirements
for the Degree of
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Abstract

The aim of this research is to further the academic discourse and policy considerations of Physician-Assisted Suicide ("PAS", also known as "Physician-Assisted Dying"[1]) as an end-of-life option for terminally ill patients nationally. This research is timely and important in that it explores some of the ethical, moral and policy concerns arising from debates for and against PAS in states where legislations exist to provide this benefit to their citizens only. To provide equitable treatment of the various ongoing debates, I have examined some of the controversial concerns on both sides in terms of relevance and legitimacy to the current discourse on the topic, and have provided an evidence-based analysis of usage rates and patient characteristics herein. On moral and religious grounds, I examined concerns around the sanctity of life in relation to a patient's right to self-determination and self-termination of one's life. On social and economic grounds, I examined concerns regarding the impact of financial pressures in hastening a death outcome for terminally ill patients, and the potential for abuse by caregivers in hastening a death outcome to relieve the burden of caring for a terminally ill relative or patient.

My approach and research methodology included, but were not limited to exploring the provisions of the various PAS legislations in the states where PAS is currently enacted. This was important in determining the ways in which the legislations were similar and ways in which they were not, as well as finding any weakness or loopholes in the

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[1] I find the term "Physician-Assisted Dying" imprecise in that it implies that Physicians are assisting terminally ill patients with the process of dying itself and not to achieve a deliberate death outcome on the patient's terms. The term "Physician-Assisted Suicide" carries a more precise meaning, in the context of this research, that Physicians are assisting qualified terminally ill patients achieve deliberate and dignified death outcomes by prescribing a lethal dose of medication to be used by the patient voluntarily, on the patient's terms.

safeguards. I consulted primary peer-reviewed research on both PAS and Euthanasia due to some general overlap in their statutory provisions, as well as academic legal briefs and court rulings that challenged certain provisions of PAS legislations on both legal and ethical grounds regarding the rights of patients, the rights of physicians, and the need for equal access to PAS resources for terminally ill patients in non-PAS states. Utilizing annual reporting data from Oregon's Health Authority, on usage rates in Oregon where PAS is regulated and monitored the longest (from 1998 to present) provides quantitative and qualitative evidence-based data that quantifies the level of success achieved by PAS historically. Also, the data provided evidentiary support for the recommended policy amendments proposed herein regarding the change in the minimum legal age limit and the proof of residency requirement loophole in the state of Vermont and the District of Columbia that could potentially compromise the integrity of the codified safeguards.

As the overall evidence suggests, PAS is working as intended and shows measurable success in several key areas for terminally ill patients, such as the year-over-year incremental rise in the number of users of PAS, and the number of users who chose to die at home compared to dying in hospice and assisted-living facilities. It also shows success in filling a societal need in PAS states by providing end-of-life care options for its terminally ill residents, which engender my support in favor of legalizing PAS nationally to facilitate equal access and equal distribution of PAS resources as an end-of-life option for everyone.

Definitions:

1. For the purpose of this research, the term "Physician-Assisted Suicide" is legally defined as "*the voluntary termination of one's own life by taking lethal medication with the direct or indirect assistance of a physician. Physician-assisted suicide is also referred to as active euthanasia. It differs from withholding or discontinuing medical treatment in circumstances that will result in death. Withholding or discontinuing medical treatment is sometimes called passive euthanasia. Passive euthanasia is generally accepted, although not without controversy, in the United States as an individual's right to refuse medical treatment*" (US Legal, 2019)[2].

2. Definition of Physician-Assisted Suicide according to the Merriam-Webster Dictionary:[3] "*Suicide by a patient facilitated by means (such as a drug prescription) or by information (such as an indication of a lethal dosage) provided by a physician aware of the patient's intent.*"

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[2] US Legal definition of Physician-Assisted Suicide. Retrieved from: https://definitions.uslegal.com/p/physician-assisted-suicide/

[3] Merriam-Webster Dictionary: Definition of Physician-Assisted Suicide. Retrieved from: https://www.merriam-webster.com/dictionary/physician-assisted%20suicide

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1. Introduction

Physician-Assisted Suicide ("PAS") has been legal in Oregon since 1994, and since then its adoption by other states has been purposefully slow and controversial. Collectively, only a handful of states have legally enacted statutes to provide PAS as an end-of-life option to their residents; namely: Oregon in 1994, Washington in 2008, Vermont in 2013, California in 2015, Colorado in 2016, the District of Columbia in 2016, Hawaii in 2018, Maine in 2019, New Jersey in 2019, and Montana who in 2009 made it legal by supreme court decision only. There is currently no statute safeguarding PAS in Montana.

According to the Death with Dignity National Center, there are currently thirteen safeguards built into the Death with Dignity statutes to protect terminally ill patients from coercion and abuse (Death with Dignity, 2019). The safeguards delineate that: (a) "Patients must meet stringent eligibility requirements, including being an adult, state resident, mentally competent, and having a terminal diagnosis with a 6-month prognosis as confirmed by two licensed physicians; (b) only the patient him or herself can make the oral requests for medication, in person. It is impossible to stipulate the request in an advance directive, living will, or any other end-of-life care document; (c) the patient must make two oral requests, at least 15 days apart; (d) the written request must be witnessed by at least two people, who, in the presence of the patient, attest that to the best of their knowledge and belief the patient is capable, acting voluntarily, and is not being coerced to sign the request; (e) one of the witnesses cannot be a relative of the patient by blood, marriage or adoption; anyone who would be entitled to any portion of the patient's estate; an owner, operator or employee of a health care facility where the eligible patient is receiving medical treatment, or is a resident, or the patient's attending physician; (f) the patient must be deemed capable to take (self-administer and ingest) the medication themselves, without assistance; (g) the patient may rescind the request at any time; (h) two physicians, one of whom is the patient's attending physician, familiar with the patient's case, must confirm the diagnosis. Each physician must be licensed by the state to practice medicine and certified to prescribe medications; (i) if either physician determines the patient may be suffering from a psychiatric or psychological disorder, or depression causing impaired judgment, they must refer the patient for evaluation by a state licensed psychiatrist or psychologist to determine their mental competency. Medication cannot be prescribed until such evaluation determines the patient is mentally competent; (j) the attending physician must mail or hand-deliver the prescription to the pharmacy; (k) the patient must wait 48 hours from their written request to fill their prescription; (l) the request process must be stopped immediately if there is any suspicion or evidence of coercion; (m) the physicians must meet strict reporting requirements for each request; (n) anyone who falsifies a request, destroys a rescission of a request or who coerces or exerts undue influence on a patient to request medication under the law or to destroy a rescission of such a request commits a Class A felony." The law also does not limit liability for negligence or intentional misconduct, and criminal penalties also apply for conduct that is inconsistent with the safeguards as codified in the statutes (Death with Dignity, 2019).

Oregon was the first state to lead the charge on PAS as a human rights issue in 1994 when the Death with Dignity Act was first approved, and later went into effect in 1997. Oregon was first to recognize the problems that terminally ill patients faced regarding end-of-life care options and their personal right[4] to self-determination and self-termination. As a matter of state policy, the statute afforded residents of Oregon the legal right to choose between long-term palliative hospice care, or Physician-Assisted Suicide as a personal end-of-life choice (Death with Dignity, 2019). From the very outset, there has been debates for and against PAS' legalization nationally; fearing its impact on vulnerable groups; its perceived violation of the Hippocratic Oath of physicians; the legal right to self-termination; the supposed preclusion of palliative care alternatives; the physician's obligation; and financial incentives and motivations.

1.1. PAS as endangering to the lives of Vulnerable Individuals

Many of the decades-old debates on the proposal of Physician-Assisted Suicide as an end-of-life care option for the terminally ill nationally, continues to be hotly debated as a bioethical, public policy, and human rights issue on either moral, political or religious grounds. Some of the general arguments against the legalization of PAS on moral grounds believe that PAS would endanger the lives of a far larger group of vulnerable individuals, who might seek out this option as a result of depression, untreated pain, or due to coercion

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[4] The "personal right" to die is a concept based on the opinion that a human being is entitled to end their life, or undergo voluntary euthanasia. The right to assisted suicide (also known as "death with dignity" or "the right to die") was established by individual states where PAS legislations are enacted. The vast majority of states do not allow patients to end their lives, either on their own or through the aid of a doctor, even when diagnosed with a terminal illness. These laws, in states where it is prohibited, do not, however, prevent the act of suicide by individuals given that the outcome is absolute and is a victim-only crime.

(Dworkin, 2008). The problem with this argument is that it does not consider the full list of safeguards that are written into the Death with Dignity[5] statutes.

According to Oregon's model legislation, the Death with Dignity Act, no person from a vulnerable group can request PAS without meeting the basic requirements of the law which include, but are not limited to: a qualifying age of 18 years or older; being a resident of a state and the District of Columbia where PAS is legal; being of sound mental capacity to make and communicate healthcare and end-of-life care decisions; and was diagnosed and confirmed by two attending physicians with a terminal illness that will lead to death within six months or fewer (Oregon Health Authority, 2019).

The argument that PAS would endanger people suffering from depression, untreated pain or coercion falls short of a defense against PAS in that it does not take into consideration the role intent plays in the ending of one's life. If a person suffering from depression, untreated pain or due to coercion is intent on ending their life, PAS is not the only and most effective way to achieve a death outcome. Over-the-counter prescription drugs would therefore also qualify as endangering to this vulnerable group of individuals, whereby an intended over-dose could produce a hastened death outcome. So, following this line of reasoning, if PAS is believed to endanger the lives of vulnerable individuals, then so too is the potential for over-dosing on any over-the-counter drugs, or ending one's life via

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[5] Death with Dignity laws is a term used to describe the collection of states with legislations supporting Physician-Assisted Suicide as an end-of-life option for terminally ill patients in their states. The Death with Dignity laws allow qualified terminally-ill adults to voluntarily request and receive a prescription medication to achieve a death outcome on their terms. As of September 2019, Death with Dignity statutes are in effect in: California, Colorado, District of Columbia, Hawaii, Maine, New Jersey, Oregon, Vermont, Washington, and (Montana, by supreme court decision).

a deliberate act, given that any chosen method of suicide will possibly endanger the lives of vulnerable individuals equally.

Now then, if the final outcome of using PAS and other methods of suicide is the same, is there a difference between PAS and suicide by over-dosing on prescription or over-the-counter drugs? Well, yes and no. Yes, there is a difference between PAS and over-dosing on over-the-counter drugs in that PAS has built-in safeguards against abuse and a high degree of certainty in producing a dignified and quick death with minimal pain and suffering and on the patient's terms; whereas, the other methods are more prone to abuse by vulnerable groups due to ease of access to over-the-counter and prescription drugs as well as deliberate fatal acts, which may produce an undignified death or unexpected and prolonged pain and suffering in instances where a death outcome is not immediate. There is no difference between PAS and suicide by over-dosing in the majority of instances where the outcome of the two methods is the same: death.

According to the Center for Disease Control and Prevention, in 2016, nearly 45,000 Americans age 10 or older died by suicide, which was ranked to be the 10th leading cause of death for vulnerable groups within the population (CDC, 2018), not affiliated with PAS, which is higher than the total reported usage rate of 4,249[6] terminally ill patients requesting PAS from 1998 to 2017 to end their lives in all states where PAS is legal (Oregon Health Authority, 2017), (ProCon, 2019). Therefore, the evidence shows that PAS does not

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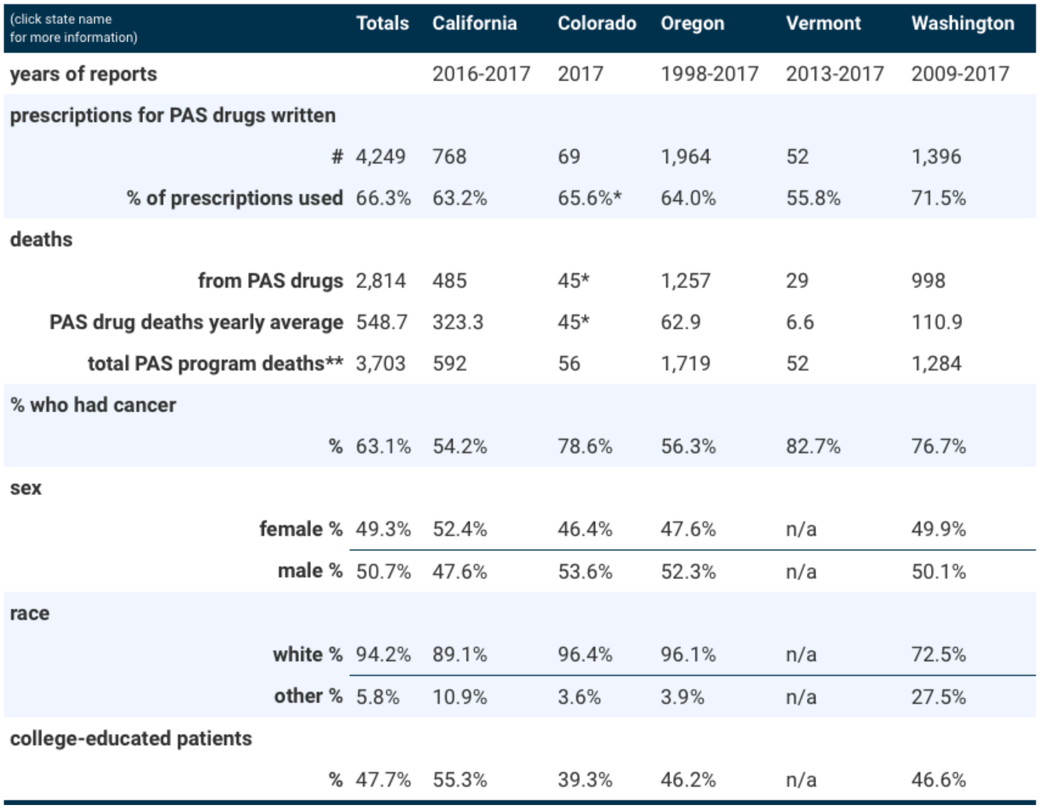
[6] As of Jan. 28, 2019, seven US states have legal physician-assisted suicide, six via legislation and one via court ruling. Five states--California, Colorado, Oregon, Vermont, and Washington--have issued reports on the states' PAS programs. Each state track and report results very differently, making comparisons difficult.

While DC, Hawaii, and Montana also have legal physician-assisted suicide, they have not yet issued reports. And, Montana does not have a reporting framework in place because the state became legal via a supreme court ruling rather than by legislation. See supporting Exhibit 1.

in any way endanger or target vulnerable individuals suffering from treatable or chronic diseases and conditions.

Exhibit 1: State-by-State Physician-Assisted Suicide Statistics, 1998 – 2017.



(click state name for more information)	Totals	California	Colorado	Oregon	Vermont	Washington
years of reports		2016-2017	2017	1998-2017	2013-2017	2009-2017
prescriptions for PAS drugs written						
#	4,249	768	69	1,964	52	1,396
% of prescriptions used	66.3%	63.2%	65.6%*	64.0%	55.8%	71.5%
deaths						
from PAS drugs	2,814	485	45*	1,257	29	998
PAS drug deaths yearly average	548.7	323.3	45*	62.9	6.6	110.9
total PAS program deaths**	3,703	592	56	1,719	52	1,284
% who had cancer						
%	63.1%	54.2%	78.6%	56.3%	82.7%	76.7%
sex						
female %	49.3%	52.4%	46.4%	47.6%	n/a	49.9%
male %	50.7%	47.6%	53.6%	52.3%	n/a	50.1%
race						
white %	94.2%	89.1%	96.4%	96.1%	n/a	72.5%
other %	5.8%	10.9%	3.6%	3.9%	n/a	27.5%
college-educated patients						
%	47.7%	55.3%	39.3%	46.2%	n/a	46.6%

Source: Oregon Health Authority.

1.2. Abuse by Caregivers

Another morally leaning argument against PAS suggest that it could lead to abuse by caregivers (Physicians, family and other paid caregivers) who may influence or coerce a

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* *Exhibit 1:* Because Colorado does not separate deaths from PAS drugs from other deaths, the % of prescriptions used number has been calculated from an average of the other states, and the number of PAS drug deaths calculated from that average and the number of PAS prescriptions written.

** *Exhibit 1:* The number of PAS program deaths includes people who took the PAS drug(s) and died as a result; people who obtained prescriptions but died from their diseases; and people who took the PAS drug(s) but ultimately died of their disease rather than the drug.

terminally ill person to request PAS to end feeling like a burden to relatives and other caregivers. There was a case reported in the Hawaii Free Press on February 15, 2011, which was held up as evidence of abuse by a caregiver, from a woman in Oregon, who claimed that she overhead the attending physician "*giving [her] husband a sales pitch for assisted suicide." "Think of what it will spare your wife, we need to think of her, he said, as a clincher.*" The wife believed the physician had overstepped his caregiving responsibilities and was now seen to be coercing her husband to use PAS to end his life early. She reported that she took her husband to a different physician for care, and that her husband lived another five or so years. But the experience with the first physician and a later encounter with a nurse who was also in favor of PAS as an end of life care option, had made her fearful of leaving her "*husband alone with doctors and nurses, for fear they'd morph from care providers to enemies, with no one around to stop them*," (Hawaii Free press, 2011).

While this case is not conclusive of coercion or undue influence of a patient to request PAS to end his life, there are incomplete information about the condition of the patient and who the attending physician was to them. It is unclear whether the patient was diagnosed with a terminal illness and was being treated by an attending physician who was familiar with his health situation, and was informing the patient of his end-of-life care options. Given that her husband died five years later, and was seen by multiple physicians during that time would seem to suggest that his health was very poor and that he was perhaps not expected to have a healthy recovery.

Since PAS is legal in the state of Oregon, I do not believe it is outside the realm of caregiving responsibilities for an attending physician to provide information (even it may seem like a sales pitch) to a patient with a terminal illness, or a short life expectancy as part of their end-of-life care planning. Nothing that was said by the physician to the patient sounded like coercion or an abuse of the physician's caregiving responsibility to the patient. Coercion by definition is to compel a person to an act or choice by force or threat[8], neither of which was evident in the conversation between the physician and the patient. It is not unreasonable for the wife to react the way she did, or felt like her husband was being coerced, but I think the context of the discussion and the setting are vital to the understanding of the physician's intent in sharing information on PAS to his patient.

The implied assertion that the physician was hinting at the patient to think of himself and his state of health as a burden to his wife and family, was a bit narrowly viewed as evidence of coercion by caregivers as an abuse of PAS. It is unreasonable to believe that being a burden to his wife is the only qualifying reason for a physician to disseminate information to a patient about PAS as an end-of-life option. Feelings of being a burden to relatives was reported by terminally ill patients who have used PAS to end their lives as only one factor influencing their decision in Oregon's 2011 reporting of annual and total usage rates and end of life concerns[9]. The report showed that in 2011, 30 of 71 users, or 42.3%, reported being a burden to their families, friend and caregivers as an end of life concern, while on an historical basis, 36.1% of all 596 users from 1998 to 2011, expressed being a burden to family and caregivers as an end of life concern. However, the two main reasons for choosing PAS were reported as *the lack of ability to engage in activities that*

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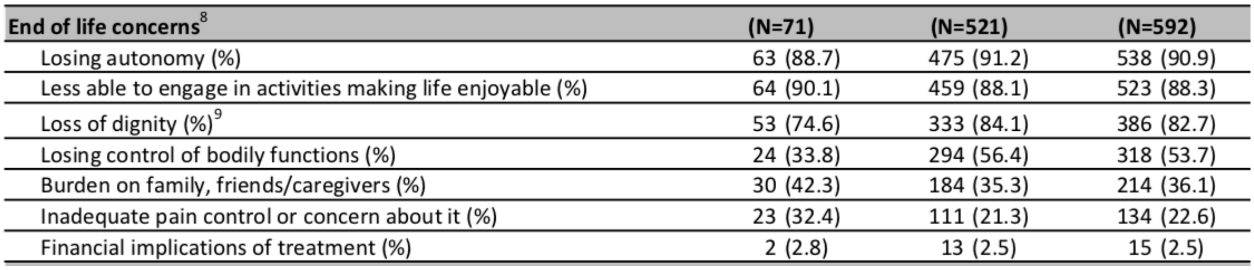
[8] See definition of *Coerce* by Merriam Webster: https://www.merriam-webster.com/dictionary/coercing

[9] *2011 Note 8 on chart:* Affirmative answers only ("Don't know" included in negative answers). Categories are not mutually exclusive. Data unavailable for four patients in 2001.

made life enjoyable (90.1%), and *loss of autonomy* (88.7%), (Oregon Health Authority, 2011).

Exhibit 2: Characteristics and end-of-life care of 596 DwDA patients who have died from ingesting a lethal dose of medication as of February 29, 2012, by year, Oregon, 1998-2011. Table showing only the section relating to end of life concerns for DwDA patients for 2011.



End of life concerns[8]	(N=71)	(N=521)	(N=592)
Losing autonomy (%)	63 (88.7)	475 (91.2)	538 (90.9)
Less able to engage in activities making life enjoyable (%)	64 (90.1)	459 (88.1)	523 (88.3)
Loss of dignity (%)[9]	53 (74.6)	333 (84.1)	386 (82.7)
Losing control of bodily functions (%)	24 (33.8)	294 (56.4)	318 (53.7)
Burden on family, friends/caregivers (%)	30 (42.3)	184 (35.3)	214 (36.1)
Inadequate pain control or concern about it (%)	23 (32.4)	111 (21.3)	134 (22.6)
Financial implications of treatment (%)	2 (2.8)	13 (2.5)	15 (2.5)

Looking forward, Oregon's 2018 reporting of annual and total usage rates and end of life concerns reported by terminally ill patients who used PAS to end their lives, showed that 91 of the 168 (54.2%) respondents in 2018, and 654 of the 1,459 (44.8%) respondents from 1998 to 2018, reported that being a burden to family, friends and caregivers was an influencing factor in requesting PAS. This data also shows a modest rise of 11.9% from 2011, in patients' thinking of themselves and their health condition as a burden to family, friends and caregivers, but was not the primary reason for choosing PAS to end their lives (Oregon Health Authority, 2018).

Exhibit 3: Characteristics and end-of-life care of 1,459 DwDA[10] patients who have died from ingesting a lethal dose of medication as of January 22, 2019, by year, Oregon,

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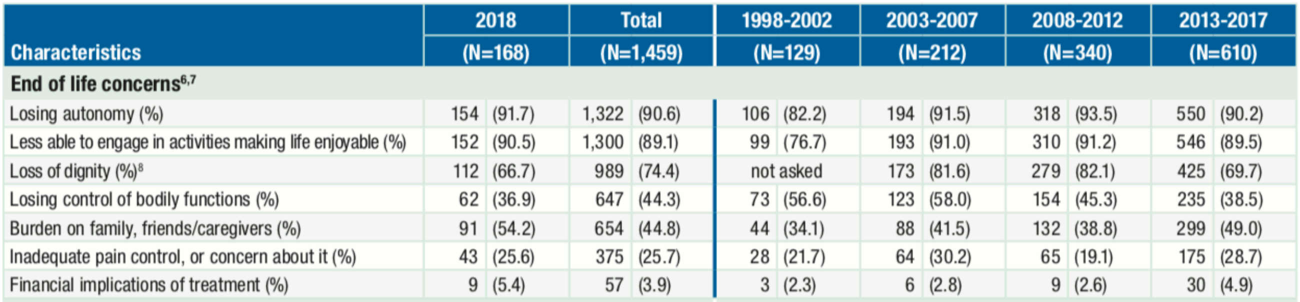
[10] Death with Dignity Act, (DwDA).

1998–2018 (Revised April, 2019). Table showing only the section relating to end of life concerns[11] of DwDA patients for 2018.



Characteristics	2018 (N=168)		Total (N=1,459)		1998-2002 (N=129)		2003-2007 (N=212)		2008-2012 (N=340)		2013-2017 (N=610)	
End of life concerns[6,7]												
Losing autonomy (%)	154	(91.7)	1,322	(90.6)	106	(82.2)	194	(91.5)	318	(93.5)	550	(90.2)
Less able to engage in activities making life enjoyable (%)	152	(90.5)	1,300	(89.1)	99	(76.7)	193	(91.0)	310	(91.2)	546	(89.5)
Loss of dignity (%)[8]	112	(66.7)	989	(74.4)	not asked		173	(81.6)	279	(82.1)	425	(69.7)
Losing control of bodily functions (%)	62	(36.9)	647	(44.3)	73	(56.6)	123	(58.0)	154	(45.3)	235	(38.5)
Burden on family, friends/caregivers (%)	91	(54.2)	654	(44.8)	44	(34.1)	88	(41.5)	132	(38.8)	299	(49.0)
Inadequate pain control, or concern about it (%)	43	(25.6)	375	(25.7)	28	(21.7)	64	(30.2)	65	(19.1)	175	(28.7)
Financial implications of treatment (%)	9	(5.4)	57	(3.9)	3	(2.3)	6	(2.8)	9	(2.6)	30	(4.9)

Source: Oregon Health Authority.

The implications of the data suggest that although incrementally more terminally ill patients viewed their health condition and dependence on family, friends and caregivers as a burden based on their end of life concerns, it was not the primary or only reason for their choice to use PAS to end their lives. Their decisions were based on a combination of concerns with loss of ability to engage in activities that make life enjoyable, and loss of autonomy being the most important reasons. The data also suggest that the patient's emotional and mental states were a factor in their decision, due to feeling a *loss of dignity*, and was not necessarily due to any deliberate form of coercion and/or external influence. The evidence that supports this reasoning can be found in the high number of deaths that occurred at the patients' homes, where care was most likely provided by immediate relatives and loved ones, or close friends, who are not likely to coerce or influence a terminally ill relative or friend to request PAS to hasten a death outcome. In 2018, there

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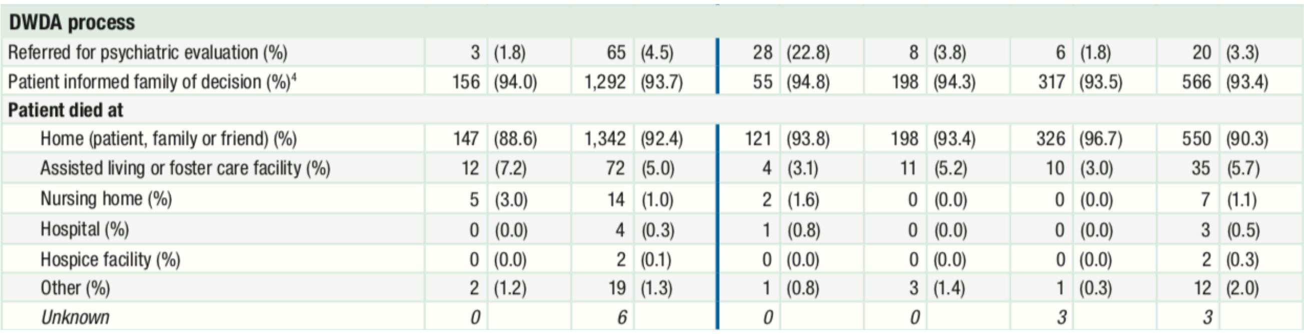
[11] *2018 Notes 6, 7 in chart*:

(6) Affirmative answers only ("Don't know" included in negative answers). Categories are not mutually exclusive.

(7) The percentages for this section have been recalculated since the original report date of 2/28/2109. The original percentage did not include "don't know" answers as a negative response.

were 147 of the total 168 (88.6%) PAS deaths, and 1,342 of the total 1,459 (92.4%) PAS deaths from 1998 to 2018 that occurred at the patients' home, compared to 12 PAS deaths occurring at assisted living or foster care facilities, and 5 occurring at a nursing home facility (Oregon Health Authority, 2018).

Exhibit 3: Table showing only section relating to 2018 reported locations where PAS Patients ended their lives.



DWDA process												
Referred for psychiatric evaluation (%)	3	(1.8)	65	(4.5)	28	(22.8)	8	(3.8)	6	(1.8)	20	(3.3)
Patient informed family of decision (%)[4]	156	(94.0)	1,292	(93.7)	55	(94.8)	198	(94.3)	317	(93.5)	566	(93.4)
Patient died at												
Home (patient, family or friend) (%)	147	(88.6)	1,342	(92.4)	121	(93.8)	198	(93.4)	326	(96.7)	550	(90.3)
Assisted living or foster care facility (%)	12	(7.2)	72	(5.0)	4	(3.1)	11	(5.2)	10	(3.0)	35	(5.7)
Nursing home (%)	5	(3.0)	14	(1.0)	2	(1.6)	0	(0.0)	0	(0.0)	7	(1.1)
Hospital (%)	0	(0.0)	4	(0.3)	1	(0.8)	0	(0.0)	0	(0.0)	3	(0.5)
Hospice facility (%)	0	(0.0)	2	(0.1)	0	(0.0)	0	(0.0)	0	(0.0)	2	(0.3)
Other (%)	2	(1.2)	19	(1.3)	1	(0.8)	3	(1.4)	1	(0.3)	12	(2.0)
Unknown	*0*		*6*		*0*		*0*		*3*		*3*	

Source: Oregon Health Authority. Actual % may differ slightly due to rounding and computation adjustments.

The data provides evidentiary support that the legalization of PAS does not lead to abuse by caregivers, including physicians who have the authority to inform and discuss the procedure and process to any terminally ill patient who meet the qualifications as determined by the law and a practicing physician. The built-in safeguards in the PAS legislations are sufficient, although not perfect, to prevent any abuse of coercion and therefore invalidates the argument of coercion by caregivers in opposition to PAS.

It is important to note however, that my position on the issue does not preclude the fact that other, more subtle forms of coercion by caregivers may exist in caring for terminally ill patients, but in the case presented above and based on the evidence reported by the state of Oregon, it does not appear that overt coercion by a caregiver had transpired given that only the patient acting voluntarily can self-administer and ingest the lethal drugs once all other qualifications have been met. Assuming the patient never requested the information about PAS from the attending physician, but was provided the information anyway, this dissemination of information does not, by itself, constitute coercion, since the patient was not being forced against his will to act.

1.3. ***Denial* of Health Insurance Coverage**

The denial of health coverage by insurance companies is another concern that has been brought forward by those in opposition to PAS legalization. They believe that insurance companies will seek to coerce a hastened death outcome for terminally ill patients to avoid paying claims. There is much confusion about this sensitive topic which has led to much misinformation by those who oppose PAS legalization. First, it is important to understand that PAS statutes do not specify who and how to pay for PAS services, nor does it provide any guidance about utilizing insurance policies to cover the cost of any of its services. Currently, no federal funding, including Medicare and Medicaid can be used to cover PAS services or pay for the prescribed lethal medications received under PAS legislation in any of the states where PAS is legal (Death with Dignity, 2019).

Patients with private health insurance who intend to use their policy to pay for PAS services or medications, will need to consult with their insurance provider to determine if PAS is something covered by their policy under explicit terms and conditions and the types of illness (terminal or otherwise) that the policy covers. As with all private insurance policies, the insurer will determine whether to cover PAS services, or not. The discretion of the insurer to provide PAS coverage does require important considerations on both sides.

For the patient, a discussion with the insurer should be had regarding any exception in paying claims for certain chronic or terminal illness in favor of paying claims for PAS, which would be the less expensive of the two types of claims. This is important, since this is the main concern for PAS opposers regarding abuse by insurers in failing to pay claims for the expensive, life-saving treatment of prolonged chronic illness in favor of paying claims for PAS procedures to hasten a death outcome. For insurers, policy-underwriters should be explicit and clear about the extent of coverage for any expensive procedure due to a chronic illness that is covered by the policy, as well as the coverage provided for a qualifying terminal disease for PAS claims. As a for-profit business, it is not unreasonable, though perhaps unethical, for insurers to be seen as abusive to terminally ill patients, by favoring to pay PAS claims more readily than claims for expensive treatments of a prolonged chronic illness, whether terminal or otherwise.

The catch to this; however, is that as a for-profit business, the appearance of implicitly coercing a terminally ill client to choose PAS in order to have a claim paid, would be injurious to the insurer by the premature ending of cash flow premiums into the business. This could also signal a red flag to current clients with existing medical conditions of the firm who would view this coercive behavior unfavorably and would perhaps seek out more favorable health coverage elsewhere.

Evidence of this coercive behavior by insurers was reported in The Washington Times in May, 2017, where a Nevada physician claimed that "insurance companies in states where assisted suicide is legal have refused to cover expensive, life-saving treatments for his patients but have offered to help them end their lives instead," (Richardson, 2017). On the surface, this charge may appear to be solid evidence of coercion by insurance companies in the denial of claims for expensive, life-saving treatments of chronic illnesses in favor of PAS, but in fairness, the denial of claims for expensive, life-saving treatments for patients with chronic illnesses is not unique to patients in PAS states. An interesting point to note in the scenario presented above is that the denial of claim was for an expensive, life-saving treatment of a non-terminal disease. That the insurer offered to cover PAS claims instead of a non-PAS claim, does not necessarily suggest a case of coercion or abusive behavior towards non-terminally ill patients only, but instead reflect a common practice by insurers to assess the cost of medical procedures and decide whether to honor or deny such claims, regardless of whether PAS coverage is a clause within the policy. It is also important to note that the policyholder has the right to refuse PAS coverage in their policy to avoid the possibility of insurer denial of covered medical claims in favor of PAS claims. A client can choose to challenge the insurer's decision in court, but that may be a costly endeavor without any guarantee of success.

The fact that it is common practice by private insurers to assess and decide to pay or deny claims for any chronically ill or terminally ill patient does not indicate abuse or coercion in favor of PAS to avoid paying claims, and therefore is a poor argument in opposition of PAS legalization. It is unfortunate that there are no legal safeguards to protect healthcare policyholders of private insurers to prevent denial of claims after a policy has been executed, but that is more a matter of financial and insurance regulatory controls at the national level.

2. Religious views on PAS

A collection of religious sentiment on PAS for terminally ill patients shows the vast majority of religions standing in strong opposition to PAS on the grounds that life is sacred and that the ending of a life should be an act of god only. While a case could perhaps be made for each religious points-of-view, I will, for summation, organize the different religions into three groupings: Those in favor of PAS; those partial to PAS not based on doctrine; and those in opposition of it.

Religions in favor of PAS include: Evangelical Lutheran,[12] Methodists,[13] Unitarian Universalists,[14] and Quakers,[15] (Death with Dignity, 2019).

Those religions in favor of PAS are few and generally hold a liberal view of the right to self-determination and self-termination based on individual choice and human rights. Those in favor usually do not agree with the entirety of PAS legislation and process, but agree to the extent that it allows the individual to exercise their freedom of choice and their free will regarding the quality of life lived and when and how to end their life due to unbearable pain and suffering.

Religions that are partial to PAS, but not in terms of doctrine: Buddhists,

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[12] A 1992 statement on end-of-life matters from the Evangelical Lutheran Church of America Council supports physician-assisted death: "Health care professionals are not required to use all available medical treatment in all circumstances. Medical treatment may be limited in some instances, and death allowed to occur." They oppose euthanasia because "deliberately destroying life created in the image of God is contrary to [their] Christian conscience." However, they do acknowledge that physicians "struggle to choose the lesser evil" in some situations, e.g., when pain is so severe "that life is indistinguishable from torture." Surprisingly, even though Death with Dignity is a hotly debated topic, they do not comment on it, (Death with Dignity, 2019).

[13] Methodists generally accept the individual's freedom of conscience to determine the means and timing of death. Some regional conferences have endorsed the legalization of medical aid in dying, (Death with Dignity, 2019).

[14] Unitarian Universalists support Death with Dignity. In its 1988 General Resolution, the Unitarian Universalist Association resolved to advocate for "the right to self-determination in dying" and to "support legislation that will create legal protection for the right to die with dignity, in accordance with one's own choice," (Death with Dignity, 2019).

[15] Among the most liberal, allowing at least individual decision-making in cases of hastened death, (Death with Dignity, 2018).

Episcopalians, Hindus, Jainism, and the United Church of Christ, (Death with Dignity, 2019).

These religions that are partial to PAS, disagree with PAS on the grounds of historical and religious doctrine mostly, but also believe in the God-given rights of humans to exercise their freewill, and generally view the soul as separate and eternal from the body, which reincarnates to have other life experiences. There are subtle differences in beliefs among these religions about PAS, but in general they are partial to accepting it when it comes to relieving the individual from unbearable pain and suffering.

Religions in opposition of PAS include: Anglicans, Baptists, Roman Catholics, Christian Reformed (Church of North America), Christian Scientists, Disciples of Christ, Eastern Orthodox, Evangelicals, Jehovah's Witnesses, Judaism, Lutheran Church – Missouri Synod, Mennonites, Mormon, Muslims, Presbyterians, Russian Orthodox, Sikhs, Spiritualists, and the Synod of the Great Lakes – Reformed Church in America (Death with Dignity, 2019).

The religions that oppose PAS do so strongly based on both fundamental religious and historical doctrines, and harbor varying views on the sanctity of life itself, believing that taking a life before its natural course is a violation of divine law and divine order. Some of the varying views also believe that suffering is a result of karmic punishment and that the individual should accept the suffering as a part of their life experience, and strive to make peace with it. This view may seem rather extreme, but not surprising when you consider the role of Martyrs and self-flagellations in some religions as a way of making penance to their god in this life.

3. Misunderstandings of the Death with Dignity Statutes

Further fueling resistance to the legalization of PAS nationally are many misunderstandings of what the "Death with Dignity Statutes," as they are collectively called, legally allow and what they do not. The Statutes are similar in that they only authorize physicians to diagnose and prescribe a life-ending dose of medications to patients with a prognosis of six months or fewer to live. Only the patient can self-administer the lethal dose of medications, usually at home with the supervision of relatives, friends, caregivers, and/or a licensed physician.

All the states with enacted PAS legislations have similar safeguards to prevent abuse or the perception of abuse to terminally ill patients. The statutes delineate a core list of requirements that must be met without exception by a requesting patient to qualify for PAS. To qualify for life-ending prescription drugs under PAS laws, a terminal patient must be: (a) a resident of a state or the District of Columbia where PAS is legal by statute or court ruling, where proof[16] is determined by a state-issued identification card or driver's license,

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[16] In Maine, you may use the above items as proof of residency as well as documents showing you occupy the location of a dwelling, including received mail, hunting/fishing license, receipt of any public benefit conditioned upon residency, or "any other objective facts tending to indicate [your] place of residence."

In New Jersey, proof of renting or owning property is not acceptable, but you can use "any other government record that the attending physician reasonably believes to demonstrate the individual's current residency in this State" in addition to the other three on the list.

In Vermont, the law does not specify how residency may be proven. It is recommended that the rules above be followed.

Likewise, the District of Columbia Death with Dignity Act does not stipulate ways to prove residency. However, the D.C. Department of Health has established rules for patients to prove residency, specifically by submitting any two (2) of the following original documents that include a valid address in the District of Columbia: Recent utility bill ("recent" being within the past 60 days in this and all other instances below); recent telephone bill; deed, mortgage, or settlement agreement; unexpired lease or rental agreement; recent property tax bill or tax assessment; unexpired homeowner's or renter's insurance policy; recent letter with picture from the Court Services and Offender Supervision Agency or D.C. Department of Corrections; DMV proof of residency form and a copy of unexpired D.C. Driver license or D.C. identification card; bank, credit union, credit card, or investment account statement; piece of official mail received from any government agency; recent form from a social service provider; recent medical tax filing, voter registration, or proof of rental or property ownership in the state; (b) be 18 years or older; (c) be mentally competent, that is, capable of making and communicating their health care and end-of-life care decisions clearly and voluntarily; and (d) be diagnosed with a terminal illness that will, within reasonable medical judgment by two licensed physicians, lead to death within six months, or fewer. Only the patient can make the oral requests for PAS medication, in person. The patient must also be physically capable to self-administer and ingest the prescribed medication without any aid from another person. Once proof of qualification is provided, two physicians must determine whether all the criteria have been fully met to authorize the issuance of the prescription medication (Death with Dignity, 2019).

Understanding the requirements, rules and safeguards that are in place to protect the terminally ill as well as physicians, should remove some of the concerns and confusion about the provisions of the Death with Dignity statutes. There are however persistent concerns for people who remain in strong opposition to PAS despite the growing evidence that the safeguards are working as intended.

4. Fears of a Bureaucratic Death Panel

On the political stage, another misunderstanding around PAS as an end-of-life care option arose in 2009, when Section 1233 of Bill HR 3200 (Congress.gov, 2009) on federal health care legislation to cover the uninsured nationally was still being written, which

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bill; recent student loan statement; recent home line of equity statement; recent car or personal loan statement; or recent home security system bill.

There is also no minimum length-of-residency requirement. You must simply be able to prove you are a current, bona fide resident of one of these states or the District of Columbia.

would have paid physicians for providing voluntary counseling to Medicare patients about living wills, advance directives, and end-of-life care options. It was then that the term “Death Panel” was coined[17] and used publicly to suggest that bureaucrats would decide whether Americans such as the disabled, the elderly and the terminally ill were worthy of health care, and would "absolutely require" Medicare patients to have counseling sessions every five years that would inform them of ways to end their lives sooner (CNN, 2017).

One poll, published in The Forum in 2010 by Brendan Nyhan, showed that after the ‘death panel’ charge spread across news outlets, about 85% of respondents were familiar with the charge and of those who were familiar with it, about 30% believed it to be true at the time (Nyhan, 2010). The impact of the ‘death panel’ charge was effective in stalling future talks on the issue of legalizing PAS at the federal level, leaving individual states to take measures into their own hands by passing legislations, or by state supreme court ruling to offer PAS to their residents only. Needless to say, the phrase and its charge were more about fear politics than facts, and have generally faded from the mass psyche, but not forgotten completely. As recent as 2017, a CNN article by Eric Bradner reported that Bill Akins -- the then chairman of Pasco County’s Republican Party -- complained of Obamacare's "death panels," at a town hall meeting held by Rep. Gus Bilirakis. The term does not appear in the final text of former President Barack Obama's signature health care law, but refers to the Politifact-ruled "Pants On Fire" claim that the Affordable Care Act (“ACA”) created a panel of government bureaucrats that would determine whether

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[17] The “Death Panel” charge was made back in 2009 by former Alaskan Governor and GOP Presidential Candidate, Sarah Palin, on her personal Facebook page. Her assertion was that the government’s intention with the crafting of Obamacare was to establish health boards to determine whether seniors and the disabled were worthy of healthcare — a charge that quickly spread through newscasts, talk shows, blogs and town hall meetings, fueling opponents of the healthcare legislation to believe that it revealed the real goals of the Democratic healthcare proposals (CNN, 2017).

someone is worthy of health care (CNN, 2017). The article also reported that the charge was met with shouts and jeers that erupted into fights by pro-Obamacare attendees who shouted down the claim of a 'death panel' existence.

Any fears of a 'death panel' requiring elderly and terminally ill Medicare recipients to consult a physician on ways to end their lives sooner, whether via PAS or otherwise, should be put aside, since none of these requirements were successful in being included in the final legislation.

5. Ethical concerns with the mandates of the Death with Dignity Statues.

5.1. *The Age* Requirement:

A closer look at some of the provisions of the Death with Dignity statutes brought forward some potential ethical concerns regarding access, and barriers to access, for terminally ill patients in PAS states. The age limit restriction that was codified in the PAS legislations was intended to safeguard against abuse to minors who are believed to be of insufficient mental capacity to make medical and life-ending decisions for themselves. This arbitrary age limit, assumes, by default, that two patients, one 17 years or younger, and the other 18 years or older, with the same terminal disease and an identical prognosis of dying within six months or fewer, and exhibiting similar unbearable pain and suffering, cannot request PAS as an end-of-life choice. Only the patient of 18 years or older would qualify under the current statutes to request PAS, and the other patient, 17 years or younger, would be denied this option due to age only, with all else being the same. The age requirement for PAS seems to suggest that the resulting pain and suffering from the terminal disease was not similarly experienced by both patients, and that somehow the prognosis of a death outcome within six months did not apply for the two patients equally because of this age difference.

As a matter of personal rights, the right to self-determination and self-termination, seem to only apply to terminal patients 18 years or older without any substantial evidence of abuse to people 17 years or younger that would support this age restriction. Clearly, this age restriction harms terminally ill patients 17 years or younger by limiting their access to PAS resources and denying their personal rights, which does not carry an age requirement, even when they qualify by all other measures. The only option available to terminally ill patients 17 years or younger is palliative pain management and a prolonged dying process.

The problem with prolonging the dying process via palliative pain management is that pain is only one sensory expression of suffering; that is, the physical manifestation of suffering. Those in opposition to PAS and Euthanasia will often recommend palliative care as the more compassionate option for terminal ill patients, but what they fail to realize is that terminally ill patients suffer in multiple ways, and no amount of sedation via palliative pain management will alleviate the mental and emotional suffering the patient endures, which are also contributing factors and concerns for patients requesting PAS.

A version of PAS has been legal at the national level in Belgium and the Netherlands since 2002 (Legemaate, 2013), and is commonly referred to as Voluntary Active Euthanasia[18] in both countries. The Euthanasia laws of the two countries are inclusive of

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[18] In the Netherlands and Belgium, the term Euthanasia is generally used and understood in the Greek context, *eu-thanatos*, by which it literally means "good death." But in the United States and perhaps elsewhere in the world, the word carries the baggage of negative undertones of political killings and murder, and remains illegal at the federal level, although some states have enacted legislations to offer Physician-Assisted Suicide to their adult residents only, (Brouwer, et al., 2018).

The term Euthanasia is used herein in reference to the legislations of Belgium and the Netherlands where appropriate.

both terminally ill adults and children 12 years and older. All requests must be made in earnest and with full mental competence and conviction by the individual, and are only honored if the patients and their attending physicians see Euthanasia as the only way to end their unbearable pain and suffering from a terminal illness. The Euthanasia legislation was extended in 2005 to include neonatal euthanasia for infants <1 year of age, which was permitted by a policy known as the 2005 Groningen Protocol[19] (Brouwer, et al., 2018).

According to Brouwer, et al., (2018), the euthanasia usage statistic of the last 10 years reported only 2 cases of neonatal euthanasia occurring, and in the last 15 years, only 12 cases of terminally ill minors between the ages of 12 and 18 years were reported to have used euthanasia to end their lives. Despite the progressive and inclusive nature of the Euthanasia laws in the Netherlands, there are groups of pediatricians and families who argue that the current laws deny access to terminally ill children between 1 and 11 years old without good reason other than their age. They together are proposing an extension of the Groningen Protocol to include this demographic of terminally ill children to give them access to the provisions of the law.

Despite support for the expansion of the newborn regulation to include all children, there are those who oppose such an expansion. One opponent of the expansion of the protocol, Christopher Kaczor, Ph.D, a philosopher who argues in favor of palliative care and believes that "the Minister of Health [should] not expand the range of cases in which *intentional killing* of innocent human beings is permitted by law." He also argues that "permitting *intentional killing of infants* as well as adults and children 12 years of age and

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[19] The Groningen Protocol for Euthanasia in Newborns sets out a list of requirements that must be fulfilled as well as information needed to support and clarify the decision about euthanasia (Verhagen, et al., 2005). (*Source:* https://www.nejm.org/doi/full/10.1056/NEJMp058026)

older presuppose an empirical claim that killing a person is "the only escape from the situation" of unbearable suffering. He believes this claim is false, and that terminal sedation is a contemporary technique of palliative care in which a person who was suffering is *relieved of pain entirely* by the continuous infusion of sedatives that entirely *relieve all pain*. He adds that terminal sedation can be administered to infants, children, or adults who are suffering and cannot be cured of their disease, and that if we cared about suffering people, we should relieve their pain and suffering rather than kill them," (Brouwer, et al., 2018).

Dr. Kaczor's position in favor of palliative care carries an emotional charge with the use of the phrase "intentional killing" to evoke a negative response to the proposed expansion of the law. What is not considered in this charge is that only the terminally ill patient carries the intention of dying via Euthanasia, or intending to have a *good death* outcome. This intention by the patient is also true for PAS cases in the United States. Under no provision of the euthanasia law are physicians allowed to exercise their own intention towards a patient's life, unless to save it. The belief that palliative pain management through sedation relieves all pain *completely* is also a broad and technically false statement. According to an article published by Johns Hopkins Medicine[20], on Palliative Care Methods for controlling pain, it states that "*nearly all* pain problems can be *relieved or reduced*, which is a conditional statement indicating that not all pain problems can be relieved completely as Dr. Kaczor claimed.

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[20] The article was published online by Johns Hopkins Medicine in the Health section titled, Palliative Care Methods for Controlling Pain. Link to the article can be accessed here: https://www.hopkinsmedicine.org/health/wellness-and-prevention/palliative-care-methods-for-controlling-pain

Over time, the dosage of sedatives given to terminally ill patients to relieve their pain must be increased to sustain its effectiveness. At a certain point, the dosage may be so high that the death of the patient may be seen to be an unintended but certain fatal side-effect (Brouwer, et al, 2018). This would seem to negate Dr. Kaczor's claims of palliative care being more compassionate, since a death outcome from an overdose of sedatives is essentially the same as a death outcome via Euthanasia or PAS.

It is clear that the issue of age limits regarding access to end-of-life resources poses an ethical and legal challenge to both PAS and Euthanasia laws and may require a statutory revision of existing laws to be more inclusive of all age groups, given that terminal diseases do not have age limits and are equal opportunity terminal situations for nearly everyone.

5.2. State* Residency *Requirement:

Another area of ethical concern, is the state residency requirement codified in the majority of current PAS laws, with the exception of Vermont and the District of Columbia. According to the requirement, all patients requesting PAS must live in a state or District where PAS is legal and be able to show and prove residency status as part of the qualification process. In the District of Columbia in particular, its Death with Dignity Act does not stipulate ways to prove residency beyond a shadow of doubt, which was left to the D.C. Department of Health to establish rules for patients to prove residency, specifically by submitting the original of any two documents with a valid District of Columbia address from a published list of approved documents that may be used to prove residency (Death with Dignity, 2019).

The problem with this requirement as it relates to the Death with Dignity Act of the District of Columbia is that the list of approved documents, at the time of this research, which may be used to prove residency in the District allows for documents that can be easily changed online by the patient and used to prove residency without further verification. For example, one of the approved documents that may be used to prove residency in the District include a copy of a recent telephone bill (cellular or landline), whose mailing address on the account can be easily changed by the patient at any time by accessing the account via the internet. The implication of this is that the mailing address may not necessarily represent the state of residency, since the patient could be a resident of another state but change the mailing address of the telephone bill to an address in a PAS state without any verification or oversite in order to qualify for PAS.

Although the data reported by Oregon's Health Authority does not show evidence of abuse of this provision due to an unusual rise in total number of PAS users moving to the District of Columbia, it does create an exploitable loophole where terminally ill patients of non-PAS states could intentionally fake their residency status to circumvent the residency safeguard and receive PAS in the District of Columbia. While this is not a problem for PAS states, or those moving to the District legally in order to qualify for PAS, the weakness in the ways to prove residency in the District could cause opponents of PAS to use it as a call-to-action to question the integrity, soundness and efficacy of the safeguard, due to the lack of uniformity in the residency requirement for the state of Vermont and the District of Columbia, when compared to the majority of states that have stricter requirements for proving residency. Currently, the District of Columbia has the weakest residency safeguard of all PAS states due to this exploitable loophole.

5.3. Efficacy of the Prescribed Drug in relation to Other Outcomes:

Under current PAS laws, only a qualified terminally ill patient can request lethal medications to end their lives. The medications prescribed to PAS patients in 2018 were different from previous years due to regulatory changes relating to controlled substances. In previous years, secobarbital, a short-acting barbiturate, was prescribed to slightly more than half of all PAS patients, which totaled 54.8%. In 2018; however, 38.1% of patients were prescribed a combination of diazepam, digoxin, morphine sulfate, and propranolol (DDMP), compared to 13.2% in previous years. In addition, no patients were prescribed pentobarbital in 2018 (which accounted for 26.5% of all patients between 1998 and 2017), (Oregon Health Authority, 2018).

Once the lethal drugs have been prescribed, it is left up to the patient to decide when and how to take the drugs to end their lives. There is little information in the PAS statutes about how long the potency of the prescribed lethal drugs remain viable, and the 'used-by' date by when the drugs must be used or disposed of. The danger in the omission of this important information for terminally ill patients is that if they do in indeed have a 'used-by' date or decreased potency due to aging (that is, from the time of manufacture to the time of ingestion by the patient), the drugs may produce unintended outcomes with pain and suffering from the side-effects of the medication. In 2017, 218 people received prescriptions under the Death with Dignity Act from 92 physicians, and 143 died using them, including 14 patients who had received their prescription in 2016, a full year prior, (Death with Dignity, 2017).

According to Oregon's 2018 reporting statistics, there was 1 case in 2018 where the patient regained consciousness after ingesting the lethal dose of PAS drugs, and between

1998 and 2018, there were a total of 8 reported cases of such occurrence. Not much information is provided in Oregon's annual report as to the causes of these unexpected outcomes and the extent to which the patient may have suffered side-effects from ingesting the lethal drugs (Oregon Health Authority, 2018).

What these unexpected outcomes suggest, although uncommon, is that the drug's potency and 'used-by' date may need to be further examined to see if there is a causal link, or whether the different outcomes of regained consciousness are the result of the patient's immune response, metabolism, or the body's cells fighting to maintain their integrity. Perhaps the fidelity of the patient's body type, immune system and metabolism need to be accounted for by the prescribing physician to determine the appropriate dosage that may be required to ensure a good and painless death for the patient, and minimize the possibility of an unintended outcome.

6. Analysis of Oregon's Annual PAS Usage Reporting, 1998 - 2018

Oregon's Death with Dignity Act ("DWDA") has been in effect for more that 21 years, and has generally worked as intended, despite concerns by opponent of PAS legislations fearing the provisions of the Act may lead to abuse or coercion of terminally ill patients. Compliance with the Act is strictly enforced by Oregon's Health Authority who has monitored and enforced compliance with the Act the longest and publishes a detailed annual report each February.

A year-over-year comparison of 2017 and 2018 reports provide patient and usage rate statistics that are analyzed to identify trends and gain important information on user characteristics such as: sex, age, race, marital status, education, residency (country/region), end-of-life care (including hospice care), insurance, underlying illness, the DWDA process, end-of-life concerns, health-care provider presence (since 2001), complications, unintended outcomes, and other factors influencing the decisions of terminally ill patients to end their lives via PAS. Additionally, the report will analyze historical data between 1998 and 2018 to determine the viability of the program and the ongoing need for PAS as an end-of-life choice.

Comparison of Oregon's 2018 and 2017 DWDA annual reports showed that 249 terminally ill patients received prescriptions for lethal doses of medications under the provisions of PAS laws,[21] compared to 218 in 2017, which shows a 12.4% year-over-year increase in issuance of new prescriptions. Of the numbers of new prescriptions issued in 2018, only 168[22] patients died from ingesting the medications, compared to 158 in 2017, showing a modest 5.9% rise during that period. On a historical basis, the total number of prescriptions issued between 1998 and 2018 was 2,217, of that number 1,459 people have died from ingesting the medications, a usage rate of 34.2% over the period. Also, during 2018, the estimated rate of DWDA deaths was 45.9 per 10,000 total deaths in the state of Oregon,[23] (Oregon Health Authority Data Summary, 2018).

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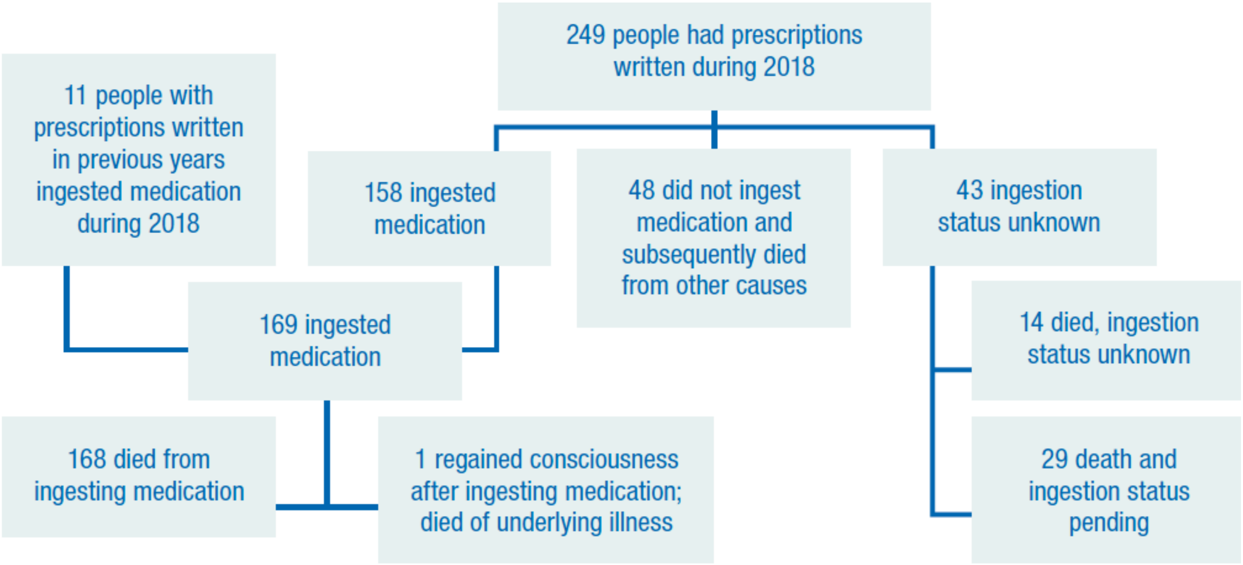
[21] See Chart 1 below for a detailed breakdown of total prescriptions issued in 2018, and the rates of ingestion of the medication, deaths and other outcomes.

[22] The actual total number of death outcomes for 2018 from ingestion of the medication was 169. Of that total, 1 patient regained consciousness after ingesting the medication, but died of the underlying illness, and was therefore not included in the reported total, making the adjusted reported total 168. Included in the 168 total reported deaths, were 11 people who were issued the lethal medication in previous years but ingested the medication during 2018. Therefore, the re-adjusted total of reported deaths in 2018 was 158. The re-adjusted total of 158 deaths would have resulted in a breakeven total for both 2018 and 2017, respectively.

[23] Rate per 10,000 deaths calculated using the total number of Oregon resident deaths in 2017 (36,640), the most recent year for which final data for decedents are available (Oregon Health Authority, 2018).

What the numbers suggest is that usage rates of ingested PAS medications to achieve a death outcome closely tracked the number of prescriptions issued, and was usually well below 50% of year-over-year and historical usage rates. The relatively low usage rates also suggest that the precautions built into the statutes, although imperfect, are effective in limiting access to PAS resources to only those who qualify and are committed to their decision of using PAS to achieve a quick, painless death on their own terms.

CHART 1: *Summary of DWDA prescriptions written and medications ingested in 2018, as of January 22, 2019.*



Source: Oregon Health Authority, DWDA 2018 Data Summary.

A look at the reported patient characteristics shows that of the 168 DWDA deaths during 2018, the majority of patients (79.2%) were aged 65 years, or older. The median age at death was 74 years. As in previous years, the majority of decedents were commonly Caucasian (97.0%), and had a college education (47.3%), at least a bachelor's degree. The underlying illnesses of patients were similar to those of previous years. Most patients had cancers of various types (62.5%), followed by neurological diseases of various types

(14.9%) and heart/circulatory diseases of various types (9.5%). The majority of patients (87.5%) died at home in the presence of family, relatives and/or caregivers, and most (90.5%) were enrolled in hospice care. Excluding unknown cases, most (99.3%) had some form of healthcare insurance. The percentage of patients who had private insurance coverage were (32.4%), and those with Medicare or Medicaid insurance (66.9%) in 2018 were similar to those reported during the past five years of 35.8% and 63.3%, respectively. As in previous years, the four most frequently reported end-of-life concerns were loss of autonomy (91.7%); being a burden on family, friends and caregivers (91%); decreasing ability to participate in activities that made life enjoyable (90.5%); and loss of dignity (66.7%), (Oregon Health Authority Data Summary, 2018).

What these end-of-life concerns show is that terminally ill patients are not being coerced by relatives or caregivers into requesting PAS to end their lives sooner, as many in opposition to PAS legislations feared. That the top three concerns were loss of autonomy followed by patients feeling themselves to be a burden to family, friends and caregivers, and a decreasing ability to participate in activities that make life enjoyable show that these concerns are not mutually exclusive of each other, and that patients were likely to express having all three concerns influencing their decision. For example, a patient who is concerned about a loss of autonomy, may also feel like a burden to family and friends as a result of this condition, and as such, may also feel life is less enjoyable due to the loss of personal autonomy. As was mentioned elsewhere in this research, the suffering that PAS patients endure is not just physical pain, but also mental and emotional suffering; all of which are manifestations of the underlying illness.

As the data shows, the majority of patients were highly educated and were able to think about the consequences of their choice in a rational way, and without the need for any external influence of coercion. That many of the patients were also enrolled in hospice care facilities prior to requesting PAS, shows that palliative care is not the best choice for all terminally ill patients whose condition and concerns go beyond just pain management.

The reported underlying illnesses of PAS patients is important to the discourse in that it shows the prevalence of the various diseases that are scientifically proven to be highly fatal to afflicted patients and will usually, based on past precedent, lead to death within a specific timeframe as determined by the prognosis of an attending physician. The nature of these diseases is known to be without an effective cure and are not considered to be treatable chronic conditions where there is a high chance of recovery. The data gives credence to the position that PAS does not endanger vulnerable groups of individuals who, as those in opposition of PAS legislations believe, may seek out PAS due to severe depression, chronic illnesses, untreated pain or coercion since none of those conditions would qualify on their own, and are more likely to be symptoms of other underlying illnesses.

There are a couple of outliers in the data as well, namely Race and Marital Status of patients requesting and using PAS to end their suffering. In 2018 alone, 97% of all users were Caucasian; 1.2% were Asian; 0.6% were American Indian; and 1.2% was a combination of two or more races, and other. Historically, this trend has remained consistent at 96.4% Caucasian, with the other races combined accounting for the remaining 3.4% since 1998. Similarly, the majority of patients (43.4%) were married, including registered domestic partnerships, followed by 25.3% being divorced, and 19.3% being widowed. (Oregon Health Authority Data Summary, 2018).

It is unclear from the data what the causal relationship is for the disparity between White users compared to all the other ethnicities combined. Perhaps it could be attributed to strong fundamental religious beliefs about suicide by non-white groups, or due to whites, on average, having a college education and are able to make informed rational choices about their end-of-life care based on available information on PAS. There is also the possibility of economic barriers for economically disadvantaged groups, who may find the costs of medications too expensive and perhaps do not have private insurance to cover the cost of PAS medications since it is not covered by Medicaid or Medicare. These are only proposed scenarios that may me contributors to the racial disparity, which is worthy of further research and exploration to identify the possible cause(s).

7. Classical Philosophical Views of Suicide

Looking to the distant past for classical philosophical views and sentiments on suicide revealed that classical philosophers such as Plato and Aristotle, for example, expressed beliefs and sentiments similar to contemporary views of physician-assisted suicide being morally wrong. In Plato's *Phaedo*, Socrates "expressed guarded enthusiasm for the thesis associated with the Pythagoreans, that suicide is always wrong because it represents our releasing ourselves (i.e., our souls) from a "guard-post" (i.e., our bodies) the gods have placed us in as a form of punishment" (*Phaedo* 61b-62c) (Cholbi, 2017).

Socrates' view of the body as a vessel for imprisoning the soul as a form of divine punishment by the gods, is an interesting and perhaps controversial claim that implies an adversarial relationship between the gods and human souls. It implies that every soul that occupies a body has been imprisoned by the gods to endure a lifelong sentence for some unknown crime against the gods. By this reasoning, Socrates is making a judgement that part of the punishment while imprisoned in a body is that all forms of illnesses, including terminal illnesses, are part of the collective punishment for the soul, and that suicide (including PAS) is a soul's act of defiance to escape the prison of the body early and therefore defy the gods. This view is similar to many of the religions mentioned in this research that morally oppose PAS based on fundamental religious beliefs about the body/soul connection and the relationship between the divine will of the gods and the free will of humans.

In another of his work in the *Laws,* Plato made the claim that the act of suicide is disgraceful and that people who commit suicide should be buried in unmarked graves (Cholbi, 2017). But in light of this intensely strong position against suicide, Plato also proposed four reasoned exceptions to his claim of the moral wrongness of suicide: The first, is "when one's mind is morally corrupted and one's character can therefore not be salvaged" (Laws IX 854a3–5); the second, is "when the self-killing is done by judicial order, as in the case of Socrates;" the third, is "when the self-killing is compelled by extreme and unavoidable personal misfortune;" and the fourth exception is "when the self-killing results from shame at having participated in grossly unjust actions" (Laws IX 873c-d) (Cholbi, 2017).

Plato's reasoned exceptions suggests that suicide under these four circumstances can be excused, but that "it is otherwise an act of cowardice or laziness undertaken by individuals too delicate to manage life's vicissitudes." In this context of the *Laws*, Plato's views appear to trigger many questions and concerns within the discourse of unacceptable acts of suicide versus acceptable exceptions. He first declares suicide to be a disgraceful act and suggests that those people who commit suicide should be buried in unmarked graves, except in the four instances presented that he believes qualify as justified exceptions. The concern here; however, is that all of the four exceptions Plato outlines could be viewed as disgraceful acts of cowardice and laziness by the individual. For example, if a person whose character is morally corrupted and cannot be salvaged commits suicide (a disgraceful act), by what super authority is this act deemed an acceptable exception, compared to other acts of suicide that are deemed disgraceful, cowardly, or lazy? And by what degree is a person's moral character deemed unsalvageable? How is something so subjective and immeasurable scientifically determined? In the context of the questions presented here, it would appear that Plato is expressing his unqualified personal opinions towards suicide and presenting himself as the super authority based on his philosophical reasoning of the act of suicide.

In the second exception, we see the *polis* (the state) acting as the super authority behind ordering suicide by judicial order, which is not without a sense of irony. Here the state is ordering the death (by suicide) of an individual to be carried out by the individual. In this context, the state is ordering the disgraceful act be carried out by proxy as a form of capital punishment. Suicide as a form of capital punishment is directly opposed to Socrates' view that the body serves as a prison for the soul as a matter of divine punishment in the first instance, and that the person should not attempt to escape this divinely ordained punishment and imprisonment in the body via suicide. But as we see in this instance, the individual is not acting voluntarily, but by judicial order, although the act of suicide and the outcome (death) is the same as any other instance of suicide. So, is the act of suicide by judicial order considered unusual capital punishment by proxy, or suicide? It would seem the answer is both yes, and no. As a form of unusual capital punishment, the act of suicide by proxy could be considered execution by the state, or capital punishment by proxy, since the victim was not acting voluntarily, expressing his freewill, or expressing an intent to commit suicide. Looking at it from the view of the state as the super authority, it could then be argued that it was not capital punishment by suicide, since it was a victim-only act, and the state had no direct physical involvement in the final act and outcome.

Plato's third exception is problematic and concerning in that the act of suicide is excusable when it is compelled by extreme and unavoidable personal misfortune, which is likely the case for the majority of instances of death by suicide. The words "extreme unavoidable personal misfortune" is a broad and inclusive phrase that warrants a definition in the context used by Plato. For random acts of suicide, any reason could be described as causing an extreme unavoidable personal misfortune, therefore scenarios where it becomes difficult to discern and identify instances where the exception applies and when it does not. Similar concerns to the other exceptions arise as to the measure by which extreme unavoidable personal misfortune is determined? Is it determined by the state, a physician or the suicidal individual? The answers to these questions are important to qualify this exception to acts of suicide as valid.

The last exception suggests that the suicide must arise from the shame of participating in an unjust act. Like the previous exceptions, the concern and problem with this exception is that shame from an unjust act is too broad and subjective a requirement for this exception to be viable. For example, a person can feel shame for any act they or society deem unjust such as a hungry person breaking into a person's house to steal food and money, or an angry person who shoots and kills random people intentionally. What the example shows is that unjust acts can include acts of extreme survival, and extreme acts of murder due to a person's emotional state. Both acts can cause extreme shame to the individuals involved, but what remains unclear about Plato's exception is whether the shame the individuals experience is derived from the individual's self-judgement of the unjust act, or derived externally due to public outcry about the unjust act? Knowing this is important because it determines the source of the shame that causes the individuals to commit suicide.

Considering the nature of the unjust acts, one being a victim-less unjust act, while the other being a vicious crime, assuming both individuals commit suicide due to shame, are both instances of suicide then excusable if the cause of the suicide is determined to be shame from participating in the unjust acts? How is shame determined to be the cause of the suicidal acts, and by whom? How does one distinguish between shame and guilt being the root cause? As you can see, this exception to suicide being acceptable based solely on shame from an unjust act generates several ethical questions that require deeper philosophical contemplation as to the determination of shame being the true cause, from the many possible causes for suicide, including medically assisted suicide, for the exception to be applicable in each instance.

Aristotle's only discussion of suicide (Nicomachean Ethics 1138a5–14) occurs in the midst of a discussion of the possibility of treating oneself unjustly. Aristotle concludes that "self-killing does not treat oneself unjustly so long as it is done voluntarily because the harm done to oneself is consensual. He concludes that suicide is somehow a wrong to the state or the community, though he does not outline the nature of this wrong or the specific vices that suicidal individuals exhibit," (Cholbi, 2017).

Aristotle offers a rather objective perspective on suicide compared to Plato's general view of suicide being disgraceful and morally wrong. Aristotle views suicide in terms of justness and unjustness to oneself, and not in terms of human morals or religious doctrines. He takes into consideration the voluntariness of the individual in the act, and does not believe suicide to be unjust to the individual as an expression of personal choice. Perhaps another way to look at the voluntary nature of the individual, is in terms of the individual's 'intent'. The intent of the individual to commit suicide make the act 'just' for the individual because it is consensual. In the context of Aristotle's view of suicide, physician-assisted suicide could be view as a 'just' act for the terminally ill individual because part of the core requirement of PAS, as well as euthanasia, is that it is a voluntary and consensual act between the patient, the physician, and the state.

Although it remains unclear what Aristotle meant by stating "that suicide is somehow a wrong to the state or the community," it is not unreasonable to infer that, in the context of his time, the individual was regarded as a human resource to the state, in terms of economic, labor and military resources, and that suicide was a direct threat to the number of available human resource for the state and community. This is in line with the fact that at the national level, suicide is illegal in the United States, and only a handful of states allow PAS as an end-of-life care option for terminally ill adults only.

8. Policy Recommendations

The collective provisions of the various Death with Dignity statues are precise in the qualifying requirements for terminally ill patients requesting PAS resources. Based on the reported data out of Oregon from 1998 to 2018, the safeguards are generally working as intended, which could be viewed as a success for PAS as an end-of-life option for the terminally ill, and also as a victory for human rights for the residents of PAS states.

Although the statutes are generally successful at preventing abuse, coercion and exploitation, there are a couple of provisions that could present ethical or legal challenges in the future in terms of equal access to PAS resources for every terminally patient regardless of age. Another apparent loophole in the statutes that could lead to abuse and exploitation by terminally ill patients in non-PAS states is the residency requirement. The Death with Dignity statute of the District of Columbia does not explicitly stipulate ways to prove residency, and only a set of loosely established rules exist for patients to prove residency in the District (Death with Dignity, 2019).

The core concern for the residency requirement in all PAS states, is that there is an omission of a codified *minimum residency* stipulation that must be met to prove residency, which creates an exploitable loophole that warrants consideration for amendment.

8.1. Policy Recommendation for Age Limit Requirement

The age limit safeguard codified in the PAS statutes limits access to PAS resources to adults 18 years and older without any conclusive medical or legal reason as to how and why this age cutoff was stipulated. On moral grounds, the age limit of 18 years and older seems to be in line with societal norms stipulating the minimum age (the age of majority) to vote, the minimum age to serve in the military, and the minimum age to serve on juries as the underlying drivers (ACLU, 2019). The general belief is that individuals under 18 years of age "*do not function as adults*," therefore the laws codify special provisions to protect individuals under 18 years of age from some of the consequences of their actions (ACLU, 2019).

Contrary to this general belief that the laws established special provisions to protect minors under 18 years of age from some of the consequences of their actions, is invalidated by the fact that the United States Supreme Court prohibits execution of juveniles for serious crimes committed at the age of fifteen or younger, although nineteen states currently have laws permitting the execution of juveniles who committed vicious crimes at sixteen or seventeen years of age and are judged to be *functioning as adults*. Since 1973, there were 226 juvenile death sentences imposed, of which twenty-two juvenile offenders have been executed, while 82 remain whose death sentences are still pending (ACLU, 2019).

Some studies have attempted to provide scientific evidence to support why the 18 years of age limit is valid in determining adulthood, primarily in the U.S., and the age at which the individual's mental capacity is sufficiently developed for making rational decisions for themselves. According to the ACLU, there were studies performed by Harvard Medical School, the National Institute of Mental Health, and UCLA's Department of Neuroscience that found that "the frontal and pre-frontal lobes of the brain, which regulate impulse control and judgment, are not fully developed in adolescents. Development is not *[completed]* until *somewhere between 18 and 22 years of age*. These findings confirm that adolescents generally have a greater tendency towards impulsivity, making unsound judgments or reasoning, and are less aware of the consequences of their actions" (ACLU, 2019).

Analyzing the findings of the study within the context of 18 being the age of consent and adulthood, reveal some broad assumptions made by the study. First, the study assumes that the development of the adolescent brain is completed somewhere between 18 and 22 years of age, despite other longitudinal research determining that development and maturation of the brain continues well into adulthood from age 10 to 24 (the period of adolescence) (Arain, et al., 2013). What the contextual nature of the study's findings suggests is that the age range (18-22) in which the brain is believed to develop and mature according to the study, is not fixed and absolute at 18 years of age, or at 22 years for that matter. Brain maturity and development is a continuous process which begins in adolescence and continues well into adulthood, and is unique for each individual (Johnson, et al., (2009).

Based on the age limit requirement in the Death with Dignity statues, the provision equates terminally ill patients having achieved the minimum legal age to participate in PAS as also having the requisite developmental maturity and mental capacity required for making rational decisions for themselves strictly based on their age. But the reverse of this assumption may also true, in that those achieving the minimum legal age to qualify for PAS may not have the developmental maturity and mental capacity expected of someone of that age. This is important to the discourse because there is no standard by which competency and developmental maturity is measured, and is completely subjective and arbitrary. Applying Aristotle's doctrine of the mean (Crisp, 2000), in the context of the age range for developmental maturity, is the mean relative to the individual; therefore, the point between age 18 (deficient in maturity) and age 22 (excess in maturity) according to the study? How is the requisite developmental maturity determined and measured? Is the requisite level of developmental maturity the same for every individual? Developmental maturity and mental capacity do not develop in a vacuum and require an environment that will enable the individual to develop these abilities such as quality schooling, social activities, nutrition and parental nurturing, among other things.

The arbitrary nature of age limits in policymaking makes them prone to ethical challenges on the basis of fairness and equal access for all. For example, in the United States, the legal drinking age was arbitrarily raised to 21 to protect the developmental maturity of young adults, whereas the voting age was arbitrarily reduced to 18 years so as to create equality with enlistment in the armed forces. Similarly, in the U.S., the minimum age to be elected for political office varies: candidates must be 25 years of age for the House of Representatives; 30 years of age for the Senate; and 35 years of age for the Presidency. Although, in some municipalities, individuals as young as 16 can be elected to the Mayor's office without regard to developmental maturity. What the variation evident in age-based determination of developmental maturity illustrates is that most are developmentally arbitrary (Johnson, et al., 2009).

As a matter of policy, the age limit requirement of the Death with Dignity statutes does not allow equal access to PAS resources by individuals under the age of 18 years. The ethical problem this age restriction creates for terminally ill patients is that, two individuals, one 18 years and the other 17 years, with identical terminal illness and prognosis of six months or fewer to live, will have completely different experiential death outcomes. One, the 18-year-old, will be able to exercise his intent and self-determination to utilize PAS to end his life on his terms, whereas the other patient, the 17-year-old, will have to seek out alternative ways to manage his prolonged pain and suffering until death claims his body before reaching the minimum legal age of 18.

Under PAS, although the prognosis, pain, and suffering endured by both patients are relatively the same, the law unfairly discriminates against terminally ill patients by age, even if their intent and qualification for PAS are the same, except by age.

In the Netherlands, by comparison, the minimum age for adult Euthanasia is 12 years, which has been in effect for seventeen years and has generally worked as intended without evidence of abuse or coercion by adults (Brouwer, et al., 2018). What this suggests for PAS is that the arbitrariness of age-limits only harms one demographic in favor of another, with end-of-life care policies that conform to political correctness and moral attitudes towards PAS without good reason. Under the 2005 Groningen Protocol, which authorized euthanasia for infants <1 year of age, the Netherlands is considering expanding this provision to include all ages from 1 to 12 years, which would make the law fully inclusive of all age groups equally. This would create a legal precedent and procedural model for- as well as provide evidentiary support for the removal of age limit requirements as barriers to access to PAS resources for terminally ill patients who qualify and intend to use it.

Based on the evidence presented herein regarding the arbitrariness of age-limits and the ethical implications of its inclusion in public policy; the erroneous assumption that age equates to expected developmental maturity and mental capacity, warrants a policy reconsideration to amend the minimum age requirement provision of the Death with Dignity statutes to be more inclusive. Perhaps modeling the provision after the current euthanasia law of the Netherlands would effectively make the provision more ethical by granting greater access to PAS resources for terminally ill patients 12 years and older, as a start.

The euthanasia law provides precedent and evidentiary support that terminally ill patients 12 years and older are capable of expressing their reasoned intention, and are sufficiently developmentally mature to request PAS without fears of abuse or coercion by adults. Until the outcome of the expansion of the Groningen Protocol is decided, a further amendment could be made to the provision in the future to model PAS similar to international legislations on euthanasia, and make PAS equally accessible to all residents of PAS states.

8.2. Policy Recommendation for Proof of Residency Requirement

The residency requirement presents a unique challenge for the state of Vermont and the District of Columbia in that their failure to stipulate ways to prove residency in their statutes opens them up to possible exploitation by other terminally ill patients from non-PAS states. As it stands, only the attending physician determines whether the terminally ill patient has adequately established proof of residency without any direct or governmental agency oversight (Death with Dignity, 2019). Leaving the proof of residency responsibility to the attending physician could potentially become an ethical issue, since it creates the appearance of a conflict of interest for the physician, being the super authority without oversight by the state, as well as being the prescribing physician for the lethal dose of medication.

The current process does not specify how long an attending physician must have provided care for the terminally ill patient to establish an extensive relationship by which residency could be determined; that is, has the patient always been in the state or District for all of their care from the attending physician(s). If the patient recently moved to the state or District temporarily to see a physician about their terminal illness, does the physician, therefore, qualify as the official attending physician, and is now able to determine residency based on this short period of providing care for the patient?

This also ties into the core issue of the residency requirement for all PAS states; that is, there is no stipulation of a minimum residency requirement for terminally ill patients requesting PAS resources (Death with Dignity, 2019). The current list of documents established by the DC Department of Health that may be used to prove residency is more extensive than those required for the majority of PAS states. Some of the documents may even be issued by a non-governmental agency or reputable company located in the District. A patient may present copies of telephone bills issued in the last 60 days from any provider as proof of residency. The problem with this requirement is that the mailing address for a telephone subscriber can be easily changed to any mailing address within the U.S. by the account holder without any further proof or verification of the new address being permanent. This is the weakest form of proof of residency of any PAS state, compared to Oregon, California, Colorado, New Jersey, Maine, Hawaii and Washington, that requires the following documents as proof in their respective states: A state-issued identification card or driver's license; documents showing you rent or own (residential) property in the state; a state voter registration; or a recent state tax return (Death with Dignity, 2019).

The types of proof of residency required by the majority of PAS states provide verifiable sources where the patient's proof of residency is already validated by an official agency or authority. It remains unclear why the state of Vermont and the District of

Columbia chose to omit how residency may be proven from their statutes given the precedent established by other states including Oregon, whose method of proof of residency offers greater validity as a safeguard.

It is recommended that PAS legislations in all participating states and the District of Columbia be amended to include a Minimum Residency requirement of 2 years for all terminally ill patients requesting PAS. During this two-year period, terminally ill patients must be in the care of an attending physician of the PAS state who is familiar with their health condition and prognosis, and only after this period can PAS be requested by a terminally ill patient. All the current protocols to qualify for PAS would still apply. The two-year time frame would provide the attending physician time to track the progression of the illness; the extent of pain and suffering by the patient; and be better equipped to determine if the patient qualifies for PAS. For the terminally ill patient, the benefit of the two-year minimum residency requirement is that it provides sufficient time for the patient to acquire two or more forms of proof of residency from the list codified in the majority of Death with Dignity statutes; such as the filing of tax returns, acquiring a driver's license based on proof of permanent residency, voter registration, or documents showing ownership or leasing of real property in the state.

For the state of Vermont and the District of Columbia specifically, an amendment to their Death with Dignity statutes is warranted to be more in line with the majority of PAS states who have uniformly adopted similar proof of residency requirements and stipulated how residency may be proven. This provision should be codified in their respective legislations to avoid exploitable loopholes that could be abused by terminally ill patients of non-PAS states who may see the softer residency requirements as a way to circumvent the stricter residency requirement of the majority of PAS states.

Together, the two-year minimum residency requirement and the amendment to the Death with Dignity statutes for Vermont and the District of Columbia to stipulate how residency may be proven would serve to bring conformity and cohesion to the safeguards of all PAS legislations.

9. Benefits of PAS for Terminally Ill Patients, their Families, and Physicians?

The Death with dignity legislation, specifically in Oregon, affords several direct and indirect benefits for all involved parties. For the terminally ill, the greatest benefit the patient enjoys is the personal freedom the law provides for them to voluntarily decide their own ending on their terms without fear of abuse or coercion. The majority of patients who are prescribed a lethal dose of medication in compliance with PAS laws, value the freedom and personal right to make their own decisions about the time and place of their death. Evidence for this claim is provided by the majority of patients who used PAS to end their lives and cited loss of autonomy as their chief end-of-life concern (Oregon Health Authority Report, 2018).

Psychologically, terminally ill patients also benefit from the assurance that they are in control of the final outcome after filling the prescription, although 1 in three may choose never to ingest it. Having a full understanding of the PAS process also gives them peace of mind that death will be relatively quick and pain-free, and with a relatively low chance for unintended outcomes. Knowledge of the PAS process is also beneficial to the families of the terminally ill, in that, they can derive peace of mind from knowing they will not have to helplessly endure watching a loved one die after a prolonged period of pain and suffering.

Moreover, the Oregon Health Authority's 2018 report shows that the vast majority of PAS users (88.6%) chose to die at home in the presence of loved ones and caregivers compared to the 7.2% who died at assisted-living or hospice care facilities. The PAS process aims to provide a comfortable and compassionate experience for terminally ill patients by allowing them to spend their final days with, and being cared for by family, friends and caregivers. At the national level, only about 20 percent of people have the benefit and convenience of dying at home, whereas 88.6 percent of people accessing the Oregon Death with Dignity Act in 2018 enjoyed the benefit of doing so.[24] The high number of patients choosing to die at home also holds true historically at 92.4 percent from 1998 to 2018 (Oregon Health Authority, 2018).

For physicians, medical aid-in-dying laws codify and bring to light the common practice of giving life-ending medications to their patients. Death with dignity legislation protects physicians by stipulating the steps they must follow and, provided they follow the law, providing them with immunity from civil and criminal liability as well as professional disciplinary action.

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[24] The national statistic on individuals who died at home was determined and reported by Death with Dignity National Center as of November 11, 2019, and is cited herein in the context of a comparison to the total number of PAS users who chose to die at home in 2018 (88.6%), as reported by the Oregon Health Authority.

10. Conclusion

The unfavorable attention given to PAS by opponents who reject it as morally wrong, fearing that it will be used to coerce vulnerable individuals; deny claims in favor of PAS; or lead to the creation of bureaucratic death panels that will decide who qualifies for medical care and who do not, is misdirected and unsubstantiated. In general, opponents of the Death with Dignity statues tend to favor palliative care because they believe this is the more humane and moral approach for the terminally ill. Their passionate support for palliative care alternatives does not take into account that not all pain management procedures are effective in completely alleviating all pain and suffering that terminally ill patients endure, and that pain is not the only end-of-life concern for terminally ill patients choosing PAS to end their lives. Palliative care is not sufficiently advanced to alleviate the mental and emotional pain and suffering terminally ill patients endure, or the other reasons reported by Oregon's Health Authority as influencing patients' decisions to request PAS. The three most frequently cited end-of-life concerns that were reported in 2018 were loss of autonomy (91.7 percent) of patients cited this concern; decreasing ability to participate in activities that made life enjoyable (90.5 percent); and loss of dignity (66.7 percent); the least important concerns were being a burden on family/friends/caregivers (54.2 percent); inadequate pain control or concern about it (25.6 percent), and financial implications of treatment (5.4 percent).

Similarly, the favorable attention is given to PAS by proponents who promote the benefits it provides for terminally ill patients and their families, do not go far enough to promote active discussions and advocacy for PAS' inclusion into national healthcare legislation. Many of the research that supports PAS as an end-of-life care option, only speak in rebuttal of specific claims and controversies against PAS. The slow pace at which more states move to enact Death with Dignity statutes for their residents is evidence that opponents to PAS are far more successful at stalling discussions and influencing sentiments about PAS at the state and national levels, as well as among individuals.

Despite the slow movement by states to enact PAS legislations for their residents, there is; however, growing support by physicians signaling a shift toward more acceptance. The results of a 2018 survey published in the Medscape Ethics Report found that 58% of doctors who responded to the survey agreed that physician-assisted death should be available to the terminally ill, which was incrementally higher than the 57% who agreed in 2016, and was up from 54% in 2014 and 46% in 2010 (Medscape, 2018). But physicians in non-PAS states who are willing to participate in PAS find it difficult to do so because of the lack of enacted Death with Dignity statutes in their respective states, or at the national level.

The Death with Dignity National Center, a non-profit organization based in Oregon is the first of its kind whose primary mission is to promote death with dignity laws nationwide based on Oregon's model legislation, has done much work to promote and stimulate nationwide improvements and discussions around PAS as an end-of-life care option. The center has had some success in the areas of advocacy for all qualified terminally ill Americans to make their own end-of-life decisions, including how they die; promoting death with dignity laws around the United States based on the Oregon model; providing information, education, and support about Death with Dignity as an end-of-life option to patients, family members, legislators, advocates, health care and end-of-life care professionals, the media, and the interested public; and mounting legal defense of physician-assisted dying legislation (Death with Dignity, 2019).

Similarly, Oregon's Health Authority, which closely tracks and compiles data on PAS usage rates, user characteristics and compliance with the provisions and safeguards of the statutes, publishes an annual report that tracks both year-over-year and historical data that may be used for evidence-based analysis by PAS researchers and advocates. The report provides useful data on key areas that may reveal evidence of abuse, coercion, exploitation, and non-compliance with the safeguards codified in the statutes. But more importantly, the data also provide measurable proof that the provisions and safeguards of the statutes are working as intended, and that the Death with Dignity Act has achieved measurable success in fulfilling a societal need for the terminally ill.

The significance of this research among the current discourse on PAS is that its focus is to address the more salient concerns expressed by opponents to PAS that were not substantiated with facts or credible evidence. The evidence-based approach taken in this research utilized historical user and compliance data compiled by the state of Oregon to prove the various arguments and concerns by opponents of PAS invalid. The evidence-based approach also gives readers a succinct understanding of my analysis of the data based on historical and year-over-year trends that informed my conclusions about the effectiveness of the safeguards; the incremental rise in annual usage rates which suggest that PAS is generally working as intended; and that PAS fulfills a societal need for terminally ill patients by allowing them to exercise their personal freedom to decide when, where and how to end their lives in a dignified way.

As the foregoing research indicates, physician-assisted suicide has been and continues to be a rich field of philosophical and ethical investigation primarily in the U.S. as more states enact legislations. Advancements in the pharmacological development of lethal drugs and sedatives, medical technologies, and palliative care methods are largely responsible for the extensive favorable and unfavorable philosophical attention given to physician-assisted suicide, while the more common form of suicide that is motivated by psychological anguish, depression or untreated pain is somewhat overlooked in the general discourse. This is most unfortunate since physician-assisted suicide (and euthanasia to a similar degree) raise issues beyond those associated with the more common forms of suicides, including the allocation of health care resources, the nature of the medical profession, the patient-physician relationship, and the prospect that allowing relatively benign forms of killing such as voluntary euthanasia or PAS will lead down a "slippery slope" to more morally worrisome killings. However, many of the same issues and concerns that surround PAS and euthanasia also surround the more common form of suicide, and many writers who address the former often disregard the vast literature on the latter. (Dworkin et al., 1998), (Barry, 2007), (Pabst Battin, 2003), (Cholbi, 2011).

Given that Oregon has experienced measurable successes with PAS on a year-over-year and historical basis at the state level based on the total number of terminally ill residents who used the Death With Dignity statutes historically without any evidence of abuse or coercion, I believe the data provides evidentiary support for the benefits of PAS as a viable end-of-life care option for the terminally ill, and should reignite new research and policy discussions at the federal level about PAS as a health care and end-of-life care option for the terminally ill, without unsubstantiated fears of bureaucratic death panels, or on the grounds of moral and religious beliefs. I believe making PAS legal at the federal level, based on Oregon's model legislation, would create win/win outcomes similar to the successes achieved in Oregon, while allowing all terminally ill patients equal access to PAS, and the freedom to exercise their right to self-determination and self-termination on their terms and without any unfavorable stigma.

In terms of ethics, the available evidence suggests that the provisions of the PAS legislation appear to be executed ethically since the safeguards stipulate that the choice to use PAS to end a life is must be made voluntarily by the individual and no one else (Death with Dignity, 2019). The availability of PAS as an end-of-life care option for all residents of Oregon, as well as other PAS states, also makes it ethical in its equal distribution and availability to all terminally ill patients at the state level who qualify. At the federal level; however, the national healthcare law (also called "Obamacare") strictly prohibits physician-assisted suicide, creating a situation where the majority of citizen does not have access to PAS legally if needed, whereas only individuals in PAS states enjoy the benefit. That the federal healthcare law does not supersede the laws of PAS states, create an unequal distribution of end-of-life care resources for the terminally ill nationally, which could be seen as creating an ethical dilemma regarding equal distribution and equal access to national healthcare provisions compared to countries like the Netherlands and Belgium where the euthanasia law is enacted at the national level.

It is hoped that an evidenced-based approach will inspire future researchers of PAS to rely more on both qualitative and quantitative data when available to support their research findings, instead of it being purely empirical. Any data-driven research will be far more effective in influencing discussions at the federal level to legalize PAS, or to encourage more states to adopt PAS based on the Oregon model, which has already been proven to be easy to implement and will yield similar outcomes and success as experienced in Oregon to date.

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* * *

2018

Oregon Death with Dignity Act

2018 Data Summary

Oregon Health Authority
PUBLIC HEALTH DIVISION

Acknowledgments

Report written by: Public Health Division, Center for Health Statistics

Date: February 15, 2019

Revised April 25, 2019: The percents shown for end of life concerns were recalculated on April 25, 2019. See Table 1, footnote 7 for details.

For more information, see: www.healthoregon.org/dwd

Contact: DWDA.INFO@state.or.us

Executive summary

The Oregon Death with Dignity Act (DWDA) allows terminally ill Oregonians who meet specific qualifications to end their lives through the voluntary self-administration of a lethal dose of medications, expressly prescribed by a physician for that purpose. The Act requires the Oregon Health Authority to collect information about the patients and physicians who participate in the Act and to publish an annual statistical report. In 2018, 249 people received prescriptions under the DWDA. As of January 22, 2019, 168 people had died in 2018 from ingesting the prescribed medications, including 11 who had received the prescriptions in previous years. Characteristics of DWDA patients were similar to those in previous years: most patients were aged 65 years or older (79.2%), and most had cancer (62.5%). During 2018, two physicians were referred to the Oregon Medical Board for failure to comply with DWDA requirements.

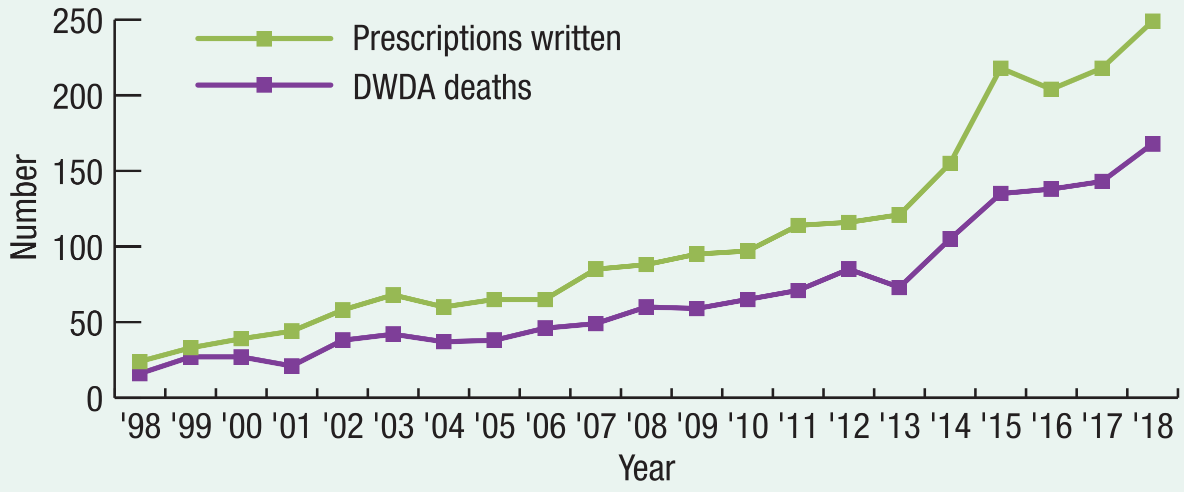
Introduction

The Oregon Death with Dignity Act (DWDA) allows terminally ill Oregonians who meet specific qualifications to end their lives through the voluntary self-administration of a lethal dose of medications, expressly prescribed by a physician for that purpose. The Act requires the Oregon Health Authority (OHA) to collect information about the patients and physicians who participate in the Act and to publish an annual statistical report.

The DWDA outlines specific patient requirements to participate. A patient must be: 1) 18 years of age or older, 2) a resident of Oregon, 3) capable of making and communicating health care decisions to health care practitioners, and 4) diagnosed with a terminal illness that will lead to death within six months. The attending and consulting physicians must determine whether these requirements have been met, and report that fact to OHA at the time a prescription is written. When OHA identifies any issue of noncompliance with the statutory requirements, it reports the fact to the appropriate licensing board.

Data presented in this summary, including the number of people for whom DWDA prescriptions were written (DWDA prescription recipients) and the resulting deaths from the ingestion of the medications (DWDA deaths), are based on required reporting forms and death certificates received by OHA as of January 22, 2019. More information on the reporting process, required forms, and annual reports is available at: http://www.healthoregon.org/dwd.

Figure 1: DWDA prescription recipients and deaths*, by year, Oregon, 1998-2018



**As of January 22, 2019*

See Table 2 for detailed information

Participation summary and trends

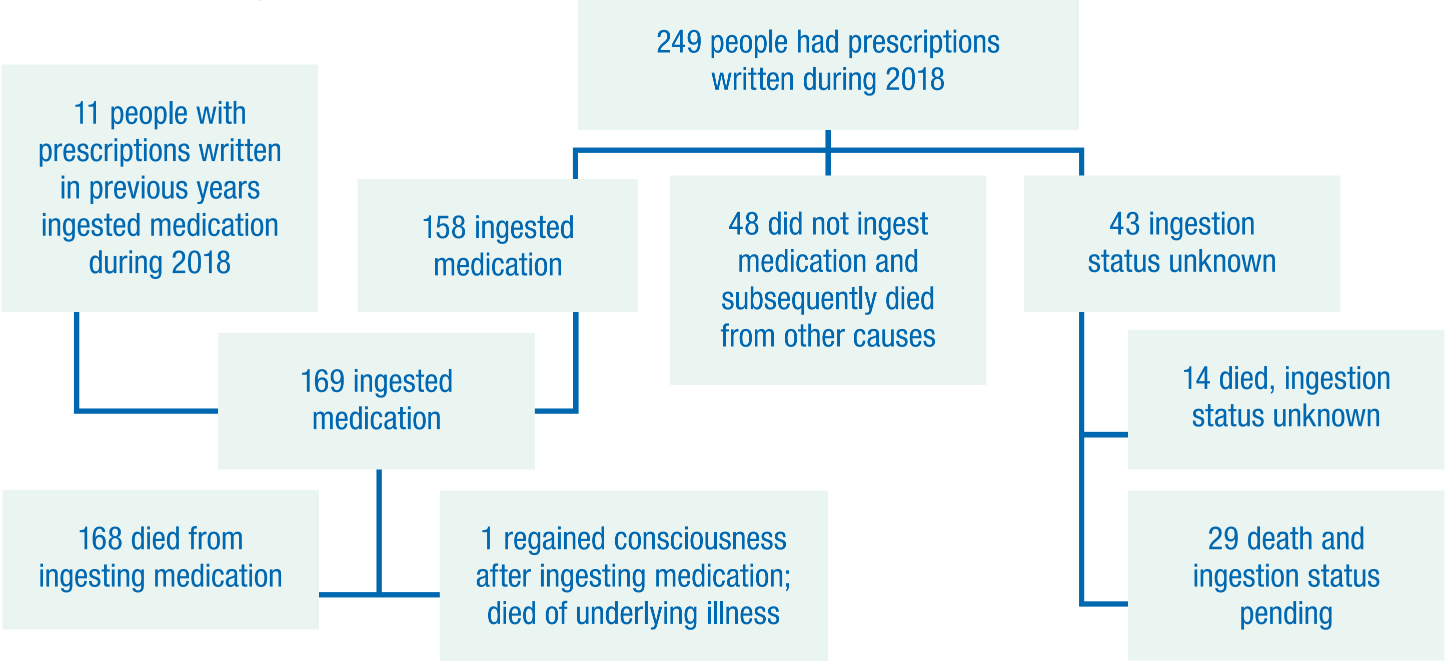
During 2018, 249 people received prescriptions for lethal doses of medications under the provisions of the Oregon DWDA, compared to 219 during 2017 (Figure 1). As of January 22, 2019, OHA had received reports of 168 people who had died during 2018 from ingesting the medications prescribed under DWDA, an increase compared to 158 during 2017.

Since the law was passed in 1997, prescriptions have been written for a total of 2,217 people under the DWDA; 1,459 people (65.8%) have died from ingesting the medications. During 2018, the estimated rate of DWDA deaths was 45.9 per 10,000 total deaths.[1]

A summary of DWDA prescriptions written and medications ingested is shown in Figure 2. Of the 249 patients for whom prescriptions were written during 2018, 158 (63.5%) ingested the medication; 157 died from ingesting the medication, and one patient ingested the medication but regained consciousness before dying from the underlying illness (therefore is not counted as a DWDA death). An additional 48 (19.3%) did not take the medications and subsequently died of other causes.

Ingestion status is unknown for 43 patients prescribed DWDA medications in 2018. Of these, 14 patients died but follow up information is not yet available. For the remaining 29 patients, both death and ingestion status are pending (Figure 2).

Figure 2: Summary of DWDA prescriptions written and medications ingested in 2018, as of January 22, 2018



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[1] Rate per 10,000 deaths calculated using the total number of Oregon resident deaths in 2017 (36,640), the most recent year for which final death data are available.

Patient characteristics

Table 1 shows the characteristics and end-of-life care for 2018 DWDA deaths, total DWDA deaths, and deaths by five-year increments. Of the 168 DWDA deaths during 2018, most patients (79.2%) were aged 65 years or older. The median age at death was 74 years. As in previous years, decedents were commonly white (97.0%) and well educated (47.3% had a least a baccalaureate degree).

Patients' underlying illnesses were similar to those of previous years. Most patients had cancer (62.5%), followed by neurological disease (14.9%) and heart/circulatory disease (9.5%). Most patients (87.5%) died at home, and most (90.5%) were enrolled in hospice care. Excluding unknown cases, most (99.3%) had some form of health care insurance. The proportions of patients who had private insurance (32.4%) and Medicare or Medicaid insurance (66.9%) in 2018 were similar those reported during the past five years (35.8% and 63.3%, respectively).

As in previous years, the three most frequently reported end-of-life concerns were loss of autonomy (91.7%), decreasing ability to participate in activities that made life enjoyable (90.5%), and loss of dignity (66.7%).

DWDA process

A total of 103 physicians wrote 249 prescriptions during 2018 (1–35 prescriptions per physician). The number of attending physicians has increased since 1998, but has been relatively stable for the past four years (Table 2). Approximately one-half of the attending and consulting physicians practiced in the Portland metropolitan area (Table 3). Three patients were referred for psychological or psychiatric evaluation. During 2018, two physicians were referred the Oregon Medical Board for failure to comply with DWDA requirements.

The medications prescribed to DWDA patients in 2018 differed from previous years (Table 1). As in previous years, secobarbital was prescribed to slightly more than half. In 2018, however, 38.1% of patients were prescribed a combination of diazepam, digoxin, morphine sulfate, and propranolol (DDMP), compared to 13.2% in previous years. In addition, no patients were prescribed pentobarbital in 2018 (26.5% of patients in all years).

The procedure was revised in 2010 to standardize reporting on the follow-up questionnaire. The new procedure accepts information about the time of death and circumstances surrounding death only when the physician or another health care provider is present at the time of death. Prescribing physicians were present at time of death for 28 patients (16.7%); 37 additional patients (22.0%) had other health care providers present (e.g., hospice nurse). Data on time from ingestion to death are available for 62 DWDA deaths (36.9%) during 2018. Among those 62 patients, time from ingestion until death ranged from nine minutes to 14 hours.

Table 4 shows the duration from ingestion to death, by medication prescribed for known cases. The median time until death was longer for the DDMP2 compound (120 min) than for secobarbital (25 min) or pentobarbital (20 min).

Table 1. Characteristics and end-of-life care of 1,459 DWDA patients who have died from ingesting a lethal dose of medication as of January 22, 2019, by year, Oregon, 1998–2018 (Revised April, 2019)

Characteristics	2018 (N=168)		Total (N=1,459)		1998-2002 (N=129)		2003-2007 (N=212)		2008-2012 (N=340)		2013-2017 (N=610)	
Sex	**N (%)[1]**		**N (%)[1]**		**N (%)[1]**		**N (%)[1]**		**N (%)[1]**		**N (%)[1]**	
Male (%)	87	(51.8)	763	(52.3)	71	(55.0)	112	(52.8)	169	(49.7)	324	(53.1)
Female (%)	81	(48.2)	696	(47.7)	58	(45.0)	100	(47.2)	171	(50.3)	286	(46.9)
Age												
18-34 (%)	0	(0.0)	9	(0.6)	2	(1.6)	2	(0.9)	2	(0.6)	3	(0.5)
35-44 (%)	2	(1.2)	28	(1.9)	3	(2.3)	7	(3.3)	5	(1.5)	11	(1.8)
45-54 (%)	9	(5.4)	85	(5.8)	10	(7.8)	21	(9.9)	21	(6.2)	24	(3.9)
55-64 (%)	24	(14.3)	275	(18.8)	21	(16.3)	52	(24.5)	68	(20.0)	110	(18.0)
65-74 (%)	50	(29.8)	441	(30.2)	46	(35.7)	47	(22.2)	101	(29.7)	197	(32.3)
75-84 (%)	54	(32.1)	394	(27.0)	37	(28.7)	61	(28.8)	91	(26.8)	151	(24.8)
85+ (%)	29	(17.3)	227	(15.6)	10	(7.8)	22	(10.4)	52	(15.3)	114	(18.7)
Median years (range)	74	(40-102)	72	(25-102)	69	(25-94)	69	(29-96)	71	(34-96)	73	(29-102)
Race												
White (%)	163	(97.0)	1,402	(96.4)	125	(96.9)	207	(97.6)	330	(97.9)	577	(94.9)
African American (%)	0	(0.0)	1	(0.1)	0	(0.0)	0	(0.0)	1	(0.3)	0	(0.0)
American Indian (%)	1	(0.6)	3	(0.2)	0	(0.0)	1	(0.5)	0	(0.0)	1	(0.2)
Asian (%)	2	(1.2)	21	(1.4)	4	(3.1)	2	(0.9)	2	(0.6)	11	(1.8)
Pacific Islander (%)	0	(0.0)	1	(0.1)	0	(0.0)	0	(0.0)	1	(0.3)	0	(0.0)
Other (%)	1	(0.6)	4	(0.3)	0	(0.0)	0	(0.0)	0	(0.0)	3	(0.5)
Two or more races (%)	1	(0.6)	7	(0.5)	0	(0.0)	0	(0.0)	0	(0.0)	6	(1.0)
Hispanic (%)	0	(0.0)	15	(1.0)	0	(0.0)	2	(0.9)	3	(0.9)	10	(1.6)
Unknown	*0*		*5*		*0*		*0*		*3*		*2*	
Marital status												
Married (including Registered Domestic Partner) (%)	72	(43.4)	668	(46.1)	60	(46.5)	94	(44.3)	156	(46.3)	286	(47.2)
Widowed (%)	32	(19.3)	319	(22.0)	29	(22.5)	44	(20.8)	85	(25.2)	129	(21.3)
Never married (%)	20	(12.0)	114	(7.9)	8	(6.2)	20	(9.4)	27	(8.0)	39	(6.4)
Divorced (%)	42	(25.3)	349	(24.1)	32	(24.8)	54	(25.5)	69	(20.5)	152	(25.1)
Unknown	*2*		*9*		*0*		*0*		*3*		*4*	

Characteristics	2018		Total		1998-2002		2003-2007		2008-2012		2013-2017	
	(N=168)		(N=1,459)		(N=129)		(N=212)		(N=340)		(N=610)	
Education												
8th grade or less (%)	0	(0.0)	12	(0.8)	0	(0.0)	3	(1.4)	1	(0.3)	8	(1.3)
9th-12th grade, no diploma (%)	2	(1.2)	60	(4.2)	14	(10.9)	10	(4.7)	14	(4.2)	20	(3.3)
High school graduate/GED (%)	37	(22.4)	318	(22.0)	43	(33.3)	52	(24.5)	59	(17.6)	127	(21.1)
Some college (%)	36	(21.8)	306	(21.2)	23	(17.8)	47	(22.2)	80	(23.9)	120	(19.9)
Associate degree (%)	12	(7.3)	130	(9.0)	31	(24.0)	31	(14.6)	18	(5.4)	38	(6.3)
Bachelor's degree (%)	47	(28.5)	352	(24.4)	18	(14.0)	49	(23.1)	92	(27.5)	146	(24.2)
Master's degree (%)	17	(10.3)	158	(10.9)	not collected		13	(6.1)	42	(12.5)	86	(14.3)
Doctorate or professional degree (%)	14	(8.5)	108	(7.5)	not collected		7	(3.3)	29	(8.7)	58	(9.6)
Unknown	*3*		*15*		*0*		*0*		*5*		*7*	
Residence county/region[2]												
Multnomah (%)	31	(18.5)	319	(22.0)	26	(20.2)	46	(21.7)	80	(23.7)	136	(22.6)
Washington (%)	20	(11.9)	151	(10.4)	10	(7.8)	13	(6.1)	41	(12.2)	67	(11.1)
Clackamas (%)	19	(11.3)	148	(10.2)	12	(9.3)	33	(15.6)	28	(8.3)	56	(9.3)
Lane (%)	18	(10.7)	154	(10.6)	16	(12.4)	26	(12.3)	31	(9.2)	63	(10.4)
Marion (%)	15	(8.9)	154	(10.6)	22	(17.1)	25	(11.8)	24	(7.1)	68	(11.3)
Other northwest counties (%)	25	(14.9)	215	(14.8)	19	(14.7)	31	(14.6)	57	(16.9)	83	(13.8)
Southern Oregon (%)	20	(11.9)	206	(14.2)	17	(13.2)	25	(11.8)	61	(18.1)	83	(13.8)
Central Oregon / Columbia Gorge (%)	17	(10.1)	76	(5.2)	4	(3.1)	7	(3.3)	12	(3.6)	36	(6.0)
Eastern Oregon (%)	3	(1.8)	26	(1.8)	3	(2.3)	6	(2.8)	3	(0.9)	11	(1.8)
Unknown	*0*		*10*		*0*		*0*		*3*		*7*	
End of life care												
Hospice												
Enrolled (%)	152	(90.5)	1,285	(90.2)	107	(83.6)	185	(87.3)	301	(95.6)	540	(89.7)
Not enrolled (%)	16	(9.5)	140	(9.8)	21	(16.4)	27	(12.7)	14	(4.4)	62	(10.3)
Unknown	*0*		*34*		*1*		*0*		*25*		*8*	

Characteristics	2018		Total		1998-2002		2003-2007		2008-2012		2013-2017	
	(N=168)		(N=1,459)		(N=129)		(N=212)		(N=340)		(N=610)	
Insurance												
Private (%)	48	(32.4)	662	(49.6)	80	(63.5)	132	(62.6)	212	(66.7)	190	(35.8)
Medicare, Medicaid or other governmental (%)	99	(66.9)	656	(49.2)	44	(34.9)	78	(37.0)	99	(31.1)	336	(63.3)
None (%)	1	(0.7)	16	(1.2)	2	(1.6)	1	(0.5)	7	(2.2)	5	(0.9)
Unknown	*20*		*125*		*3*		*1*		*22*		*79*	
Underlying illness												
Cancer (%)	**105**	**(62.5)**	**1,107**	**(75.9)**	**102**	**(79.1)**	**178**	**(84.0)**	**274**	**(80.6)**	**448**	**(73.4)**
Lip, oral cavity, and pharynx (%)	2	(1.2)	30	(2.1)	3	(2.3)	3	(1.4)	5	(1.5)	17	(2.8)
Digestive organs (%)	27	(16.1)	291	(19.9)	24	(18.6)	53	(25.0)	64	(18.8)	123	(20.2)
Pancreas (%)	9	(5.4)	100	(6.9)	12	(9.3)	18	(8.5)	15	(4.4)	46	(7.5)
Colon (%)	7	(4.2)	86	(5.9)	7	(5.4)	16	(7.5)	20	(5.9)	36	(5.9)
Other digestive organs (%)	11	(6.5)	105	(7.2)	5	(3.9)	19	(9.0)	29	(8.5)	41	(6.7)
Respiratory and intrathoracic organs (%)	16	(9.5)	247	(16.9)	25	(19.4)	45	(21.2)	70	(20.6)	91	(14.9)
Lung and bronchus (%)	16	(9.5)	233	(16.0)	24	(18.6)	41	(19.3)	64	(18.8)	88	(14.4)
Other respiratory and intrathoracic organs (%)	0	(0.0)	14	(1.0)	1	(0.8)	4	(1.9)	6	(1.8)	3	(0.5)
Melanoma and other skin (%)	3	(1.8)	39	(2.7)	2	(1.6)	8	(3.8)	13	(3.8)	13	(2.1)
Mesothelial and soft tissue (%)	0	(0.0)	26	(1.8)	2	(1.6)	5	(2.4)	10	(2.9)	9	(1.5)
Breast (%)	10	(6.0)	102	(7.0)	10	(7.8)	20	(9.4)	27	(7.9)	35	(5.7)
Female genital organs (%)	7	(4.2)	84	(5.8)	10	(7.8)	11	(5.2)	20	(5.9)	36	(5.9)
Prostate (%)	5	(3.0)	63	(4.3)	8	(6.2)	12	(5.7)	12	(3.5)	26	(4.3)
Urinary tract (%)	6	(3.6)	42	(2.9)	5	(3.9)	6	(2.8)	9	(2.6)	16	(2.6)
Eye, brain, central nervous system (%)	12	(7.1)	47	(3.2)	5	(3.9)	5	(2.4)	5	(1.5)	20	(3.3)
Brain (%)	11	(6.5)	42	(2.9)	4	(3.1)	4	(1.9)	5	(1.5)	18	(3.0)
Eye and central nervous system (%)	1	(0.6)	5	(0.3)	1	(0.8)	1	(0.5)	0	(0.0)	2	(0.3)
Thyroid and other endocrine (%)	2	(1.2)	7	(0.5)	0	(0.0)	0	(0.0)	2	(0.6)	3	(0.5)
Ill-defined, secondary, and unspecified sites (%)	2	(1.2)	37	(2.5)	3	(2.3)	2	(0.9)	11	(3.2)	19	(3.1)
Lymphoma and leukemia (%)	10	(6.0)	65	(4.5)	3	(2.3)	7	(3.3)	21	(6.2)	24	(3.9)
Other cancers (%)	3	(1.8)	27	(1.9)	2	(1.6)	1	(0.5)	5	(1.5)	16	(2.6)

Characteristics	2018		Total		1998-2002		2003-2007		2008-2012		2013-2017	
	(N=168)		(N=1,459)		(N=129)		(N=212)		(N=340)		(N=610)	
Neurological disease (%)	**25**	**(14.9)**	**161**	**(11.0)**	**12**	**(9.3)**	**17**	**(8.0)**	**31**	**(9.1)**	**76**	**(12.5)**
Amyotrophic lateral sclerosis (%)	15	(8.9)	117	(8.0)	10	(7.8)	16	(7.5)	23	(6.8)	53	(8.7)
Other neurological disease (%)	10	(6.0)	44	(3.0)	2	(1.6)	1	(0.5)	8	(2.4)	23	(3.8)
Respiratory disease [e.g., COPD] (%)	**13**	**(7.7)**	**75**	**(5.1)**	**9**	**(7.0)**	**6**	**(2.8)**	**18**	**(5.3)**	**29**	**(4.8)**
Heart/circulatory disease (%)	**16**	**(9.5)**	**66**	**(4.5)**	**4**	**(3.1)**	**1**	**(0.5)**	**9**	**(2.6)**	**36**	**(5.9)**
Infectious disease [e.g., HIV/AIDS] (%)	**0**	**(0.0)**	**13**	**(0.9)**	**1**	**(0.8)**	**7**	**(3.3)**	**2**	**(0.6)**	**3**	**(0.5)**
Gastrointestinal disease [e.g., liver disease] (%)	**1**	**(0.6)**	**9**	**(0.6)**	**0**	**(0.0)**	**1**	**(0.5)**	**1**	**(0.3)**	**6**	**(1.0)**
Endocrine/metabolic disease [e.g., diabetes] (%)	**2**	**(1.2)**	**11**	**(0.8)**	**0**	**(0.0)**	**2**	**(0.9)**	**1**	**(0.3)**	**6**	**(1.0)**
Other illnesses (%)[3]	**6**	**(3.6)**	**17**	**(1.2)**	**1**	**(0.8)**	**0**	**(0.0)**	**4**	**(1.2)**	**6**	**(1.0)**
DWDA process												
Referred for psychiatric evaluation (%)	3	(1.8)	65	(4.5)	28	(22.8)	8	(3.8)	6	(1.8)	20	(3.3)
Patient informed family of decision (%)[4]	156	(94.0)	1,292	(93.7)	55	(94.8)	198	(94.3)	317	(93.5)	566	(93.4)
Patient died at												
Home (patient, family or friend) (%)	147	(88.6)	1,342	(92.4)	121	(93.8)	198	(93.4)	326	(96.7)	550	(90.3)
Assisted living or foster care facility (%)	12	(7.2)	72	(5.0)	4	(3.1)	11	(5.2)	10	(3.0)	35	(5.7)
Nursing home (%)	5	(3.0)	14	(1.0)	2	(1.6)	0	(0.0)	0	(0.0)	7	(1.1)
Hospital (%)	0	(0.0)	4	(0.3)	1	(0.8)	0	(0.0)	0	(0.0)	3	(0.5)
Hospice facility (%)	0	(0.0)	2	(0.1)	0	(0.0)	0	(0.0)	0	(0.0)	2	(0.3)
Other (%)	2	(1.2)	19	(1.3)	1	(0.8)	3	(1.4)	1	(0.3)	12	(2.0)
Unknown	*0*		*6*		*0*		*0*		*3*		*3*	
Lethal medication												
Secobarbital (%)	92	(54.8)	846	(58.0)	86	(66.7)	91	(42.9)	223	(65.6)	354	(58.0)
Pentobarbital (%)	0	(0.0)	386	(26.5)	41	(31.8)	120	(56.6)	117	(34.4)	108	(17.7)
DDMP1 (%)[5]	10	(6.0)	67	(4.6)	0	(0.0)	0	(0.0)	0	(0.0)	57	(9.3)
DDMP2 (%)[5]	54	(32.1)	78	(5.3)	0	(0.0)	0	(0.0)	0	(0.0)	24	(3.9)
Phenobarbital compound (%)[5]	2	(1.2)	65	(4.5)	0	(0.0)	0	(0.0)	0	(0.0)	63	(10.3)
Other (%)	10	(6.0)	17	(1.2)	2	(1.6)	1	(0.5)	0	(0.0)	4	(0.7)

Characteristics	2018		Total		1998-2002		2003-2007		2008-2012		2013-2017	
	(N=168)		(N=1,459)		(N=129)		(N=212)		(N=340)		(N=610)	
End of life concerns[6,7]												
Losing autonomy (%)	154	(91.7)	1,322	(90.6)	106	(82.2)	194	(91.5)	318	(93.5)	550	(90.2)
Less able to engage in activities making life enjoyable (%)	152	(90.5)	1,300	(89.1)	99	(76.7)	193	(91.0)	310	(91.2)	546	(89.5)
Loss of dignity (%)[8]	112	(66.7)	989	(74.4)	not asked		173	(81.6)	279	(82.1)	425	(69.7)
Losing control of bodily functions (%)	62	(36.9)	647	(44.3)	73	(56.6)	123	(58.0)	154	(45.3)	235	(38.5)
Burden on family, friends/caregivers (%)	91	(54.2)	654	(44.8)	44	(34.1)	88	(41.5)	132	(38.8)	299	(49.0)
Inadequate pain control, or concern about it (%)	43	(25.6)	375	(25.7)	28	(21.7)	64	(30.2)	65	(19.1)	175	(28.7)
Financial implications of treatment (%)	9	(5.4)	57	(3.9)	3	(2.3)	6	(2.8)	9	(2.6)	30	(4.9)
Health-care provider present (collected since 2001)	**(N=168)**		**(N=1,387)**		**(N=57)**		**(N=212)**		**(N=340)**		**(N=610)**	
When medication was ingested[9]												
Prescribing physician	32		220		22		52		37		77	
Other provider, prescribing physician not present	51		346		29		111		95		60	
No provider	18		116		6		45		22		25	
Unknown	*67*		*705*		*0*		*4*		*186*		*448*	
At time of death												
Prescribing physician (%)	28	(16.8)	201	(14.7)	20	(35.1)	46	(22.1)	33	(9.9)	74	(12.4)
Other provider, prescribing physician not present (%)	37	(22.2)	352	(25.8)	37	(64.9)	110	(52.9)	111	(33.2)	57	(9.5)
No provider (%)	102	(61.1)	812	(59.5)	0	(0.0)	52	(25.0)	190	(56.9)	468	(78.1)
Unknown	*1*		*22*		*0*		*4*		*6*		*11*	
Complications[9]	**(N=168)**		**(N=1,459)**		**(N=129)**		**(N=212)**		**(N=340)**		**(N=610)**	
Difficulty ingesting/regurgitated	3		28		4		15		3		3	
Seizures	0		2		0		0		0		2	
Other	4		11		0		0		0		7	
None	56		650		121		193		163		117	
Unknown	*105*		*768*		*4*		*4*		*174*		*481*	
Other outcomes												
Regained consciousness after ingesting DWDA medications	1		8		0		1		5		1	

Characteristics	2018 (N=168)	Total (N=1,459)	1998-2002 (N=129)	2003-2007 (N=212)	2008-2012 (N=340)	2013-2017 (N=610)
Timing of DWDA event						
Duration (weeks) of patient-physician relationship						
Median	10	12	14	11	12	13
Range	1-1,108	0-2,138	0-1,337	0-1,477	0-1,905	1-2,138
Number of patients with information available	*165*	*1,449*	*128*	*212*	*339*	*605*
Number of patients with information unknown	*3*	*10*	*1*	*0*	*1*	*5*
Duration (days) between first request and death						
Median	43	47	43	43	49	50
Range	15-807	14-1,009	15-466	15-1,009	14-872	15-692
Number of patients with information available	*167*	*1,458*	*129*	*212*	*340*	*610*
Number of patients with information unknown	*1*	*1*	*0*	*0*	*0*	*0*

1 Unknowns are excluded when calculating percentages.

2 Other northwest counties: Benton, Clatsop, Columbia, Lincoln, Linn, Polk, Tillamook, and Yamhill.
Southern: Coos, Curry, Douglas, Jackson, Josephine, Klamath, and Lake.
Central/Columbia Gorge: Crook, Deschutes, Gilliam, Hood River, Jefferson, Sherman, Wasco, and Wheeler.
Eastern: Baker, Grant, Harney, Malheur, Morrow, Umatilla, Union, and Wallowa.

3 Includes deaths due to arthritis, arteritis, sclerosis, stenosis, kidney failure, and musculoskeletal systems disorders.

4 First recorded in 2001. Since then, 55 patients (4.6%) have chosen not to inform their families, and 21 patients (1.7%) have had no family to inform. Information is unknown for 10 patients.

5 DDMP is a compound consisting of diazepam, digoxin, morphine sulfate, and propranolol. DDMP1 contains 10g of morphine sulfate; DDMP2 contains 15g. The phenobartital compound consists of phenobarbital, chloral hydrate, and morphine sulfate.

6 Affirmative answers only (“Don’t know” included in negative answers). Categories are not mutually exclusive.

7 The percentages in this section have been recalculated since the original report date of 2/28/2019. The original percentages did not include “don’t know” answers as a negative response.

8 First asked in 2003. Data available for 1,327 patients.

9 A procedure revision was made mid-year in 2010 to standardize reporting on the follow-up questionnaire. The new procedure accepts information about time of death and circumstances surrounding death only when the physician or another health care provider is present at the time of death. This resulted in a larger number of unknowns beginning in 2010.

Table 2. Number of DWDA prescription recipients, DWDA deaths, and attending physicians, 1998-2018

Year	Prescription recipients	DWDA deaths	Attending physicians
1998	24	16	n/a
1999	33	27	n/a
2000	39	27	22
2001	44	21	33
2002	58	38	33
2003	68	42	42
2004	60	37	40
2005	65	38	40
2006	65	46	41
2007	85	49	46
2008	88	60	60
2009	95	59	64
2010	97	65	59
2011	114	71	62
2012	116	85	62
2013	121	73	62
2014	155	105	83
2015	218	135	106
2016	204	139	101
2017	219	158	93
2018	249	168	103

Table 3. Primary location of practice, DWDA physicians, 2018

Region	Attending physicians		Consulting physicians	
	N	(%)	N	(%)
Metro counties (Clackamas, Multnomah, Washington) (%)	50	(48.5)	97	(52.7)
Coastal counties (%)	6	(5.8)	7	(3.8)
Other western counties (%)	36	(35.0)	61	(33.2)
East of the Cascades (%)	11	(10.7)	19	(10.3)
Unknown	0		2	

Table 4. Duration between ingestion and death, DWDA deaths, 2001-2018

Drug	Total	Unknown duration	Known duration		<1hr		1-6 hours		>6 hours		Median	Mean	Range	Regained consciousness[4]
Secobarbital (%)	778	397	381	(100.0)	285	(74.8)	69	(18.1)	27	(7.1)	25	139	2min - 83 hrs	5
Pentobarbital[1] (%)	384	156	228	(100.0)	188	(82.5)	31	(13.6)	9	(3.9)	20	97	1min - 104hrs	0
DDMP1[2] (%)	67	46	21	(100.0)	10	(47.6)	6	(28.6)	5	(23.8)	77	214	10min - 21hrs	0
DDMP2[2] (%)	78	37	41	(100.0)	12	(29.3)	19	(46.3)	10	(24.4)	120	230	13min - 21hrs	2
Phenobarbital (%)[3]	65	43	22	(100.0)	4	(18.2)	13	(59.1)	5	(22.7)	73	439	20min - 72hrs	0
Other (%)	17	3	14	(100.0)	6	(42.9)	6	(42.9)	2	(14.3)	68	192	10min - 14hrs	1

[1] Pentobarbital is no longer available in the United States.

[2] DDMP is a compound consisting of diazepam, digoxin, morphine sulfate, and propranolol. DDMP1 contains 10g of morphine sulfate; DDMP2 contains 15g.

[3] Phenobarbital is dispensed as a compound consisting of phenobarbital, chloral hydrate, and morphine sulfate.

[4] Patients who regained consciousness after ingestion are not considered DWDA deaths, and are not included in the other columns in this table.

NOTE: Table includes all reported durations, not just those from licensed providers. Complete information not available before 2001. Unknown values are excluded when calculating percentages.

Oregon Health Authority
PUBLIC HEALTH DIVISION
http://www.healthoregon.org/dwd
DWDA.info@state.or.us

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OHA 8579 (04/19)

2017

Oregon Death with Dignity Act

2017 Data Summary

Oregon Health Authority
PUBLIC HEALTH DIVISION

Acknowledgments

Report written by: Public Health Division, Center for Health Statistics

Date: February 9, 2018

For more information, see:
http://public.health.oregon.gov/ProviderPartnerResources/Evaluationresearch/deathwithdignityact/Pages/index.aspx

Contact: DWDA.INFO@state.or.us

Executive summary

The Oregon Death with Dignity Act (DWDA) allows terminally ill Oregonians who meet specific qualifications to end their lives through the voluntary self-administration of a lethal dose of medications, expressly prescribed by a physician for that purpose. The Act requires the Oregon Health Authority, Public Health Division, to collect information about the patients and physicians who participate in the Act and to publish an annual statistical report. In 2017, 218 people received prescriptions under the DWDA. As of January 19, 2018, 143 people had died in 2017 from ingesting the prescribed medications, including 14 who had received the prescriptions in prior years. Characteristics of DWDA patients were similar to those in previous years: most patients were aged 65 years or older (80.4%) and had cancer (76.9%). During 2017, no referrals were made to the Oregon Medical Board for failure to comply with DWDA requirements.

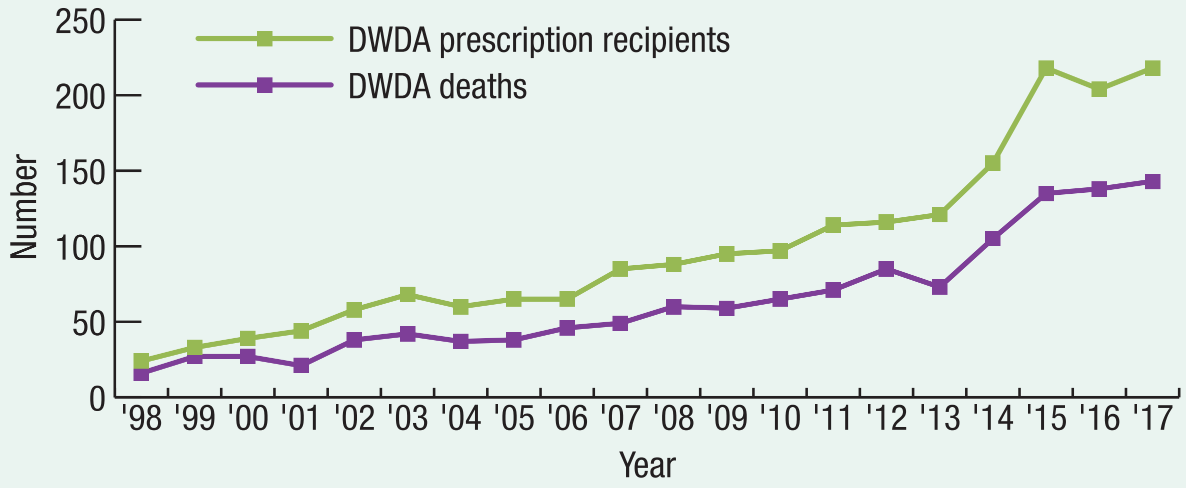
Introduction

The Oregon Death with Dignity Act (DWDA) allows terminally ill Oregonians who meet specific qualifications to end their lives through the voluntary self-administration of a lethal dose of medications, expressly prescribed by a physician for that purpose. The Act requires the Oregon Health Authority (OHA), Public Health Division, to collect information about the patients and physicians who participate in the Act and to publish an annual statistical report.

The DWDA outlines specific patient requirements to participate. A patient must be: 1) 18 years of age or older, 2) a resident of Oregon, 3) capable of making and communicating health care decisions for him/herself, and 4) diagnosed with a terminal illness that will lead to death within six (6) months. It is up to the attending and consulting physicians to determine whether these requirements have been met, and to report that fact to OHA at the time a prescription is written. If OHA identifies any issues of noncompliance with the statutory requirements, that fact is reported to the appropriate licensing board.

Data presented in this summary, including the number of people for whom DWDA prescriptions were written (DWDA prescription recipients) and the resulting deaths from the ingestion of the medications (DWDA deaths), are based on required reporting forms and death certificates received by OHA as of January 19, 2018. More information on the reporting process, required forms, and annual reports is available at: http://www.healthoregon.org/dwd.

Figure 1: DWDA prescription recipients and deaths*, by year, Oregon, 1998-2017



**As of January 19, 2018*

See Table 2 for detailed information

Participation summary and trends

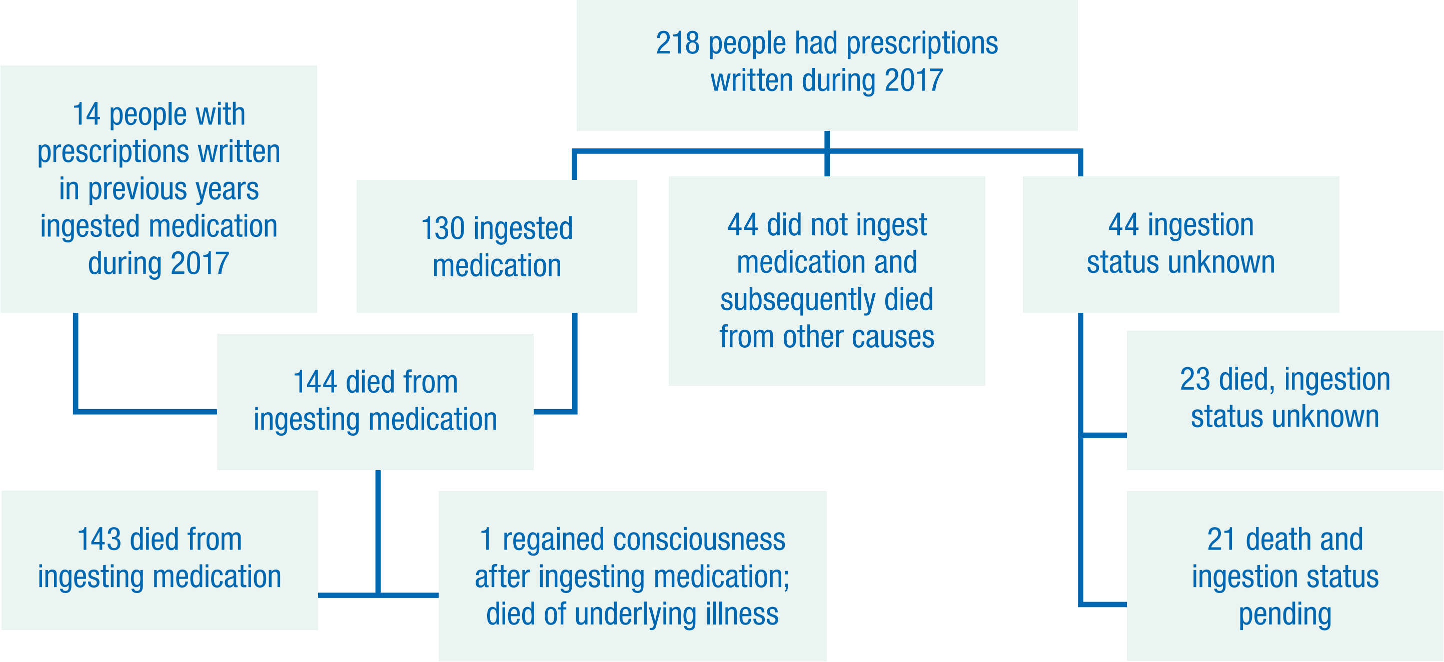
During 2017, 218 people received prescriptions for lethal medications under the provisions of the Oregon DWDA, compared to 204 during 2016 (Figure 1 and Table 2). As of January 19, 2018, OHA had received reports of 143 people who had died during 2017 from ingesting the medications prescribed under DWDA, compared to 138 during 2016.

Since the law was passed in 1997, a total of 1,967 people have had prescriptions written under the DWDA, and 1,275 patients have died from ingesting the medications. During 2017, the estimated rate of DWDA deaths was 39.9 per 10,000 total deaths.

A summary of DWDA prescriptions written and medications ingested is shown in Figure 2. Of the 218 patients for whom prescriptions were written during 2017, 130 (59.6%) ingested the medication; 129 died from ingesting the medication, and one patient ingested the medication but regained consciousness before dying from the underlying illness and is therefore not counted as a DWDA death. An additional 44 patients (20.2%) did not take the medications and subsequently died of other causes.

Ingestion status is unknown for 44 patients prescribed DWDA medications in 2017. Twenty-three of these patients died, but follow up information is not yet available. For the remaining 21 patients, both death and ingestion status are pending (Figure 2).

Figure 2: Summary of DWDA prescriptions written and medications ingested in 2017, as of January 19, 2018



Patient characteristics

Of the 143 DWDA deaths during 2017, most patients (80.4%) were aged 65 years or older. The median age at death was 74 years. As in previous years, decedents were commonly white (94.4%) and well educated (48.9% had a least a baccalaureate degree).

Patients' underlying illnesses were similar to those of previous years. Most patients had cancer (76.9%), followed by amyotrophic lateral sclerosis (ALS) (7.0%) and heart/circulatory disease (6.3%). The majority of patients (90.2%) died at home, and most (90.9%) were enrolled in hospice care. Excluding unknown cases, most (99.1%) had some form of health care insurance. The percent of patients who had private insurance (31.3%) and Medicare or Medicaid insurance (67.8%) in 2017 was similar to last year (29.7% and 69.5%, respectively).

Similar to previous years, the three most frequently reported end-of-life concerns were decreasing ability to participate in activities that made life enjoyable (88.1%), loss of autonomy (87.4%), and loss of dignity (67.1%).

DWDA process

A total of 92 physicians wrote 218 prescriptions during 2017 (1–29 prescriptions per physician). Five patients were referred for psychological or psychiatric evaluation. During 2017, no referrals were made to the Oregon Medical Board for failure to comply with DWDA requirements.

A procedure revision was made in 2010 to standardize reporting on the follow-up questionnaire. The new procedure accepts information about the time of death and circumstances surrounding death only when the physician or another health care provider was present at the time of death. For 42 patients, either the prescribing physician or another healthcare provider was present at the time of death. Prescribing physicians were present at time of death for 23 patients (16.1%); 19 additional cases had other health care providers present (e.g., hospice nurse). Data on time from ingestion to death are available for only 40 DWDA deaths during 2017. Among those 40 patients, time from ingestion until death ranged from ten minutes to 21 hours.

Table 1. Characteristics and end-of-life care of 1,275 DWDA patients who have died from ingesting a lethal dose of medication as of January 19, 2018, by year, Oregon, 1998–2017

Characteristics	2017		1998–2016		Total	
	(N=143)		(N=1,132)		(N=1,275)	
Sex	N (%)[1]		N (%)[1]		N (%)[1]	
Male (%)	83	(58.0)	585	(51.7)	668	(52.4)
Female (%)	60	(42.0)	547	(48.3)	607	(47.6)
Age						
18-34 (%)	0	(0.0)	9	(0.8)	9	(0.7)
35-44 (%)	2	(1.4)	24	(2.1)	26	(2.0)
45-54 (%)	3	(2.1)	70	(6.2)	73	(5.7)
55-64 (%)	23	(16.1)	225	(19.9)	248	(19.5)
65-74 (%)	46	(32.2)	342	(30.2)	388	(30.4)
75-84 (%)	43	(30.1)	292	(25.8)	335	(26.3)
85+ (%)	26	(18.2)	170	(15.0)	196	(15.4)
Median years (range)	74	(41-99)	72	(25-102)	72	(25-102)
Race						
White (%)	135	(94.4)	1,088	(96.5)	1,223	(96.3)
African American (%)	0	(0.0)	1	(0.1)	1	(0.1)
American Indian (%)	0	(0.0)	2	(0.2)	2	(0.2)
Asian (%)	4	(2.8)	15	(1.3)	19	(1.5)
Pacific Islander (%)	0	(0.0)	1	(0.1)	1	(0.1)
Other (%)	0	(0.0)	3	(0.3)	3	(0.2)
Two or more races (%)	1	(0.7)	5	(0.4)	6	(0.5)
Hispanic (%)	3	(2.1)	12	(1.1)	15	(1.2)
Unknown	*0*		*5*		*5*	
Marital status						
Married (including Registered Domestic Partner) (%)	75	(52.4)	514	(45.7)	589	(46.5)
Widowed (%)	26	(18.2)	258	(22.9)	284	(22.4)
Never married (%)	6	(4.2)	86	(7.6)	92	(7.3)
Divorced (%)	36	(25.2)	267	(23.7)	303	(23.9)
Unknown	*0*		*7*		*7*	
Education						
Less than high school (%)	7	(5.0)	63	(5.6)	70	(5.5)
High school graduate (%)	36	(25.5)	242	(21.6)	278	(22.0)
Some college (%)	29	(20.6)	299	(26.6)	328	(26.0)
Baccalaureate or higher (%)	69	(48.9)	518	(46.2)	587	(46.5)
Unknown	*2*		*10*		*12*	

Characteristics	**2017**		**1998–2016**		**Total**	
	(N=143)		**(N=1,132)**		**(N=1,275)**	
Residence						
Metro counties (Clackamas, Multnomah, Washington) (%)	55	(38.5)	484	(43.1)	539	(42.6)
Coastal counties (%)	12	(8.4)	80	(7.1)	92	(7.3)
Other western counties (%)	65	(45.5)	471	(41.9)	536	(42.3)
East of the Cascades (%)	11	(7.7)	88	(7.8)	99	(7.8)
Unknown	*0*		*9*		*9*	
End of life care						
Hospice						
Enrolled (%)	130	(90.9)	989	(90.1)	1119	(90.2)
Not enrolled (%)	13	(9.1)	109	(9.9)	122	(9.8)
Unknown	*0*		*34*		*34*	
Insurance						
Private (%)	36	(31.3)	569	(53.8)	605	(51.6)
Medicare, Medicaid or other governmental (%)	78	(67.8)	474	(44.8)	552	(47.1)
None (%)	1	(0.9)	14	(1.3)	15	(1.3)
Unknown	28		75		103	
Underlying illness						
Cancer (%)	**110**	**(76.9)**	**883**	**(78.0)**	**993**	**(77.9)**
Lung and bronchus (%)	23	(16.1)	193	(17.0)	216	(16.9)
Breast (%)	6	(4.2)	86	(7.6)	92	(7.2)
Colon (%)	6	(4.2)	73	(6.4)	79	(6.2)
Pancreas (%)	15	(10.5)	74	(6.5)	89	(7.0)
Prostate (%)	10	(7.0)	48	(4.2)	58	(4.5)
Ovary (%)	4	(2.8)	41	(3.6)	45	(3.5)
Other cancers (%)	46	(32.2)	368	(32.5)	414	(32.5)
Neurological disease (%)	**20**	**(14.0)**	**114**	**(10.1)**	**134**	**(10.5)**
Amyotrophic lateral sclerosis (%)	10	(7.0)	90	(8.0)	100	(7.8)
Other neurological disease (%)	10	(7.0)	24	(2.1)	34	(2.7)
Respiratory disease [e.g., COPD] (%)	**2**	**(1.4)**	**59**	**(5.2)**	**61**	**(4.8)**
Heart/circulatory disease (%)	**9**	**(6.3)**	**40**	**(3.5)**	**49**	**(3.8)**
Infectious disease [e.g., HIV/AIDS] (%))	**0**	**(0.0)**	**13**	**(1.1)**	**13**	**(1.0)**
Gastrointestinal disease [e.g., liver disease] (%)	**0**	**(0.0)**	**8**	**(0.7)**	**8**	**(0.6)**
Endocrine/metabolic disease [e.g., diabetes](%)	**1**	**(0.7)**	**7**	**(0.6)**	**8**	**(0.6)**
Other illnesses (%)[2]	**1**	**(0.7)**	**8**	**(0.7)**	**9**	**(0.7)**

Characteristics	2017		1998–2016		Total	
	(N=143)		(N=1,132)		(N=1,275)	
DWDA process						
Referred for psychiatric evaluation (%)	5	(3.5)	57	(5.1)	62	(4.9)
Patient informed family of decision (%)[3]	139	(97.9)	982	(93.1)	1,121	(93.7)
Patient died at						
Home (patient, family or friend) (%)	129	(90.2)	1,052	(93.4)	1,181	(93.1)
Long term care, assisted living or foster care facility (%)	13	(9.1)	55	(4.9)	68	(5.4)
Hospital (%)	0	(0.0)	4	(0.4)	4	(0.3)
Other (%)	1	(0.7)	15	(1.3)	16	(1.3)
Unknown	*0*		*6*		*6*	
Lethal medication						
Secobarbital (%)	71	(49.7)	676	(59.7)	747	(58.6)
Pentobarbital (%)	0	(0.0)	386	(34.1)	386	(30.3)
Phenobarbital (%)	6	(4.2)	57	(5.0)	63	(4.9)
Morphine sulfate (%)	66	(46.2)	6	(0.5)	72	(5.6)
Other (%)	0	(0.0)	7	(0.6)	7	(0.5)
End of life concerns[4]	**(N=143)**		**(N=1,132)**		**(N=1,275)**	
Losing autonomy (%)	125	(87.4)	1,029	(91.4)	1,154	(90.9)
Less able to engage in activities making life enjoyable (%)	126	(88.1)	1,011	(89.7)	1,137	(89.5)
Loss of dignity (%)[5]	96	(67.1)	769	(76.9)	865	(75.7)
Losing control of bodily functions (%)	53	(37.1)	526	(46.8)	579	(45.7)
Burden on family, friends/caregivers (%)	79	(55.2)	475	(42.2)	554	(43.7)
Inadequate pain control or concern about it (%)	30	(21.0)	297	(26.4)	327	(25.8)
Financial implications of treatment (%)	8	(5.6)	39	(3.5)	47	(3.7)
Health-care provider present (collected since 2001)	**(N=143)**		**(N=1,062)**		**(N=1,205)**	
When medication was ingested[6]						
Prescribing physician	24		163		187	
Other provider, prescribing physician not present	24		270		294	
No provider	6		91		97	
Unknown	*89*		*538*		*627*	
At time of death						
Prescribing physician (%)	23	(16.1)	149	(14.3)	172	(14.6)
Other provider, prescribing physician not present (%)	19	(13.3)	295	(28.4)	314	(26.6)
No provider (%)	101	(70.6)	595	(57.3)	696	(58.9)
Unknown	*0*		*23*		*23*	
Complications[6]	**(N=143)**		**(N=1,121)**		**(N=1,264)**	
Difficulty ingesting/regurgitated	1		24		25	
Seizures	2		0		2	
Other	1		6		7	
None	38		554		592	
Unknown	*101*		*537*		*638*	

Characteristics	2017 (N=143)	1998–2016 (N=1,132)	Total (N=1,275)
Other outcomes			
Regained consciousness after ingesting DWDA medications[7]	1	6	7
Timing of DWDA event			
Duration (weeks) of patient-physician relationship			
Median	10	13	13
Range	1-2,138	0-1,905	0-2,138
Number of patients with information available	*140*	*1,128*	*1,268*
Number of patients with information unknown	*3*	*4*	*7*
Duration (days) between first request and death			
Median	52	48	48
Range	15-603	14-1,009	14-1,009
Number of patients with information available	*143*	*1,132*	*1,275*
Number of patients with information unknown	*0*	*0*	*0*
Minutes between ingestion and unconsciousness			
Median	6	5	5
Range	2-240	1-60	1-240
Number of patients with information available	*38*	*556*	*594*
Number of patients with information unknown	*105*	*576*	*681*
Minutes between ingestion and death			
Median	31	25	25
Range	10min-21hrs	1min-104hrs	1min-104hrs
Number of patients with information available	*40*	*562*	*602*
Number of patients with information unknown	*103*	*570*	*673*

1 Unknowns are excluded when calculating percentages.

2 Includes deaths due to arthritis, arteritis, sclerosis, stenosis, kidney failure, and musculoskeletal systems disorders.

3 First recorded in 2001. Since then, 55 patients (4.6%) have chosen not to inform their families, and 21 patients (1.7%) have had no family to inform. There was one unknown case in 2002, two in 2005, one in 2009, three in 2013, and one in 2017.

4 Affirmative answers only ("Don't know" included in negative answers). Categories are not mutually exclusive. Data unavailable for four patients in 2001.

5 First asked in 2003. Data available for 143 patients in 2017, 1,003 patients between 1998 and 2016, and 1,146 patients for all years.

6 A procedure revision was made mid-year in 2010 to standardize reporting on the follow-up questionnaire. The new procedure accepts information about time of death and circumstances surrounding death only when the physician or another health care provider is present at the time of death. This resulted in a larger number of unknowns beginning in 2010.

7 There have been a total of seven patients who regained consciousness after ingesting prescribed lethal medications. These patients are not included in the total number of DWDA deaths. These deaths occurred in 2005 (1 death), 2010 (2 deaths), 2011 (2 deaths), 2012 (1 death), and 2017 (1 death). Please refer to the appropriate years' annual reports on our website (http://www.healthoregon.org/dwd) for more detail on these deaths.

Table 2. Number of DWDA prescription recipients, DWDA deaths, and attending physicians, 1998-2017

Year	Prescription recipients	DWDA deaths	Attending physicians
1998	24	16	n/a
1999	33	27	n/a
2000	39	27	22
2001	44	21	33
2002	58	38	33
2003	68	42	42
2004	60	37	40
2005	65	38	40
2006	65	46	41
2007	85	49	46
2008	88	60	60
2009	95	59	64
2010	97	65	59
2011	114	71	62
2012	116	85	62
2013	121	73	62
2014	155	105	83
2015	218	135	106
2016	204	138	102
2017	218	143	92

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