Oregon's Death with Dignity Act: The First Year's Experience

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INTRODUCTION

On October 27, 1997 physician-assisted suicide became a legal medical option for terminally ill Oregonians. The Oregon Death with Dignity Act requires that the Oregon Health Division (OHD) monitor compliance with the law, collect information about the patients and physicians who participate in legal physician-assisted suicide, and publish an annual statistical report.[1] This report describes the monitoring and data collection system that was implemented under the law, and summarizes the information collected on patients and physicians who had participated in the Act through December 31, 1998. To better understand the impact of physician-assisted suicide on the care of and decisions made by terminally ill Oregonians, we also present the results of two studies conducted by the OHD. Each study compared the characteristics of physician-assisted suicide participants with a sample of Oregon patients and physicians who did not participate in the Death with Dignity Act.

THE OREGON DEATH WITH DIGNITY ACT

The Oregon Death with Dignity Act, a citizens' initiative, was first passed by Oregon voters in November 1994 by a margin of 51% in favor and 49% opposed. Immediate implementation of the Act was delayed by a legal injunction. After multiple legal proceedings, including a petition that was denied by the United States Supreme Court, the Ninth Circuit Court of Appeals lifted the injunction on October 27, 1997 and physician-assisted suicide then became a legal option for terminally ill patients in Oregon. In November 1997, Measure 51 (authorized by Oregon House Bill 2954) was placed on the general election ballot and asked Oregon voters to repeal the Death with Dignity Act. Voters chose to retain the Act by a margin of 60% to 40%.

The Death with Dignity Act allows terminally ill Oregon residents to obtain from their physicians and use prescriptions for self-administered, lethal medications. The Act states that ending one's life in accordance with the law does not constitute suicide.[1] However, we have used the term "physician-assisted suicide" rather than "Death with Dignity" to describe the provisions of this law because physician-assisted suicide is the term used by the public, and by the medical literature, to describe ending life through the voluntary self-administration of lethal medications, expressly prescribed by a physician for that purpose. The Death with Dignity Act legalizes physician-assisted suicide, but specifically prohibits euthanasia, where a physician or other person directly administers a medication to end another's life.[1]

To request a prescription for lethal medications, the Death with Dignity Act requires that a patient must be:[1]

- An adult (18 years of age or older);
- A resident of Oregon;
- Capable (defined as able to make and communicate health care decisions);

- Diagnosed with a terminal illness that will lead to death within 6 months.

Patients who meet these requirements are eligible to request a prescription for lethal medication from a licensed Oregon physician. To receive a prescription for lethal medication, the following steps must be fulfilled:[1]

- The patient must make two verbal requests to their physician, separated by at least 15 days
- The patient must provide a written request to their physician
- The prescribing physician and a consulting physician must confirm the diagnosis and prognosis. The prescribing physician and a consulting physician must determine whether the patient is capable. If either physician believes the patient's judgment is impaired by a psychiatric or psychological disorder, such as depression, the patient must be referred for counseling
- The prescribing physician must inform the patient of feasible alternatives to assisted suicide including comfort care, hospice care, and pain control
- The prescribing physician must request, but may not require, the patient to notify their next-of-kin of the prescription request.

To comply with the law, physicians must report the writing of all prescriptions for lethal medications to the OHD.[1, 2] Reporting is not required if patients begin the request process, but never receive a prescription. Physicians and patients who adhere to the requirements of the Act are protected from criminal prosecution, and the choice of legal physician-assisted suicide cannot affect the status of a patient's health or life insurance policies. Physicians and health care systems are under no obligation to participate in the Death with Dignity Act.[1]

THE REPORTING SYSTEM

The Death with Dignity Act requires that the OHD develop a reporting system to monitor and collect information on physician-assisted suicide.[1] To fulfill this mandate, the OHD implemented a reporting and data collection system with two components. The first involves physician prescription reports. When a prescription for lethal medication is written, the physician must submit specific information to the OHD that documents compliance with the law.[2] We review all physician reports and contact reporting physicians regarding missing or discrepant data.

The second component of the reporting system involves death certificate review. All Oregon death certificates are screened by the OHD Vital Records staff. Death certificates of all recipients of prescriptions for lethal medications are reviewed by the OHD State Registrar and matched to the prescribing physician reports. In addition, OHD Vital Records files are searched periodically for death certificates that correspond to physician reports, but that may have been missed by initial death certificate screening.

For 1998, we enlarged the scope of our data collection system to include in-person or telephone interviews with all prescribing physicians after receipt of their patients' death certificate. Physicians were asked to confirm whether the patient took the lethal medications, and were then asked a series of questions to collect data not available from physician reports or death certificates (e.g., insurance status, end-of-life care, end-of-life concerns, medications prescribed, and medical and functional status at the time of death). In instances where the patient took the lethal medication, we collected information on the rapidity of the medication's effect and on any unexpected adverse reactions. Many terminally ill patients have more than one physician providing care at the end of life. To maintain consistency in data collection and to protect the privacy of the patient and the prescribing physician, interview data were only collected from prescribing physicians. All physician interviews were performed after the patients' death. We did not interview or collect any information from patients prior to their death, nor did we collect data from patients' families at any time. Reporting forms and the physician interview questionnaire are available at www.ohd.hr.state.or.us/cdpe/chs/pas/pas.htm.

DATA COLLECTION

Data on all recipients of prescriptions for lethal medications were collected from physician reports, death certificates, and prescribing physician interviews using the reporting system just described. We collected information on request dates and consultations from the prescription reports submitted to the OHD. Demographic data (e.g., age, place of residence, level of education) were obtained from death certificate reviews. Using physician interviews, we collected additional information about prescription recipients that was not available from either physician reports or death certificates as well as information about prescribing physician characteristics such as age, sex, number of years in practice, and medical specialty.

COMPARISON STUDIES

We collected information on all patients who received a prescription for lethal medications and died in 1998. Prescription recipients died either by ingesting their lethal medications or from their underlying illnesses. Because there may be differences in the characteristics of patients who completed the physician-assisted suicide process and those who received lethal medications but never used them, we did not classify or analyze the prescription recipients as a single group. Instead, our comparison studies focus only on those persons who chose physician-assisted suicide and died after taking their lethal medications. We did not conduct similar analyses of persons who received lethal medications, but chose not to use them, because of the small number of patients (six) in this group.

For our comparison studies, we included all persons who died between January 1, 1998 and December 31, 1998 after ingesting a lethal dose of medication prescribed under the Death with Dignity Act (no prescriptions for lethal medications were written under the Act in 1997). We

compared persons who chose physician-assisted suicide with two control groups. First, we compared persons who chose physician-assisted suicide with all Oregonians who died from similar underlying illnesses (e.g., lung cancer, ovarian cancer, congestive heart failure) in 1996 (the most recent year that finalized Oregon mortality data are available). Next, we compared persons who chose physician-assisted suicide with a group of matched control patients, Oregonians who died in 1998 and were similar with respect to age, underlying illness, and date of death. Matched control patients who would not have met the requirements of the Death with Dignity Act were excluded from the study (e.g., control patients who were not Oregon residents, or who were not capable of making health care decisions). Finally, we compared the characteristics of physicians who cared for patients that chose physician-assisted suicide with the characteristics of physicians who cared for the matched control patients.

RESULTS

Results of our data collection and comparison studies are presented in two formats. In addition to this report, the results are also presented in a manuscript published in the *New England Journal of Medicine* (Title: "Legalized physician-assisted suicide in Oregon: The first year's experience") on February 18, 1999.[3] These data are published in a peer-reviewed medical journal for two reasons. First, legalized physician-assisted suicide is unique to Oregon. As such, the reporting system implemented by the OHD under the Death with Dignity Act has no precedent. We believe that a new reporting system which is responsible for collecting data on a controversial issue, such as the Death with Dignity Act, should be subject to the scrutiny of peer review in the medical literature. Such critique may lead to future improvements in the way data are collected. Second, the data and analyses presented in these reports will be of interest and used by parties on all sides of this issue. Again, we believe that the methods, results, and analyses that we present can only benefit from the critique offered by the peer review process.

Characteristics of Prescription Recipients

Twenty-three persons who received legal prescriptions for lethal medications in 1998 were reported to the OHD. Of these twenty-three persons, fifteen died after taking their lethal medications, six died from their underlying illness, and two were alive as of January 1, 1999. Table 1 presents information on the 21 prescription recipients who died in 1998 and further subdivides this information into two categories: patients who took their lethal medications, and prescription recipients who died of their underlying illnesses. The median age of the 21 prescription recipients was 69 years and ranged from the third to the tenth decade of life. All 21 patients were white, 11 (52%) were male, and 11 (52%) lived in the Portland Tri-county area. Of the 21 recipients, 20 had been residents of Oregon for longer than 6 months when they received their prescriptions. One patient had moved to Oregon 4 months prior to death to be cared for by family members and not because of legalized assisted suicide. Four of the twenty-one prescription recipients had a psychiatric or psychological consultation and all patients were ultimately

determined to be capable in the context of the Death with Dignity Act. All physician reports were in full compliance with the law.

Twenty (95%) of the twenty-one prescription recipients who died in 1998 were prescribed nine grams of a fast-acting barbiturate, either secobarbital or pentobarbital. One patient was prescribed one gram of secobarbital to be taken with an oral narcotic. Most patients also received a number of nonlethal medications to be taken in conjunction with the lethal medications. These included medications to increase stomach emptying and to prevent nausea and vomiting.

The Physician-Assisted Suicide Process

Fifteen prescription recipients chose physician-assisted suicide and died after taking their lethal medications. The median time from medication ingestion to unconsciousness (available for 11 patients) was 5 minutes (range 3-20 minutes). The median time from medication ingestion to death (available for 14 patients) was 26 minutes (range 15 minutes to 11.5 hours). For eight of the 15 persons who chose physician-assisted suicide, the prescribing physician was at the bedside when they took the lethal medications. For 6 of the 15 patients, the physician was also at the bedside when they died. In instances where the physician was not present for the medication ingestion or death, times to unconsciousness and death, as well as reports of complications, were provided to the physician by persons present at the bedside. No complications, such as vomiting or seizures were reported by any physician.

Comparison Studies

We first compared the 15 persons who chose physician-assisted suicide with all deaths in Oregon in 1996, the latest year for which finalized mortality data are available. The 15 persons who chose physician-assisted suicide accounted for 5 of every 10,000 deaths in Oregon, based on the 28,900 deaths that occurred in 1996.[4] The 13 persons with cancer who chose physician-assisted suicide accounted for 19 of every 10,000 cancer deaths, based on the 6,784 persons who died of cancer in Oregon in 1996.[4] Next, we compared the 15 persons who chose physician-assisted suicide with the 5,604 Oregonians who died in 1996 from similar underlying illnesses. Age, race, sex, and Portland Tri-county residence status did not predict participation in physician-assisted suicide (Table 2). Twelve of the fifteen persons who chose physician-assisted suicide had at least a high school diploma. Four of these twelve had graduated from college. The proportions of high school and college graduates were similar among persons who chose assisted suicide and the 5,604 controls. In contrast, marital status was associated with participation in physician-assisted suicide. Persons who were divorced and persons who had never married were 6.8 times and 23.7 times, respectively, more likely to choose physician-assisted suicide than persons who were married.

For our second comparison study, the matched case-control study, we identified control patients who had not participated in the Death with Dignity Act but who were similar to the persons who chose physician-assisted suicide with regard to age, underlying illness, and date of death. Using

1998 death certificates, we identified 81 potential control patients who met these criteria. Of these 81 persons, 17 were disqualified from the study because we could not contact the physician who provided end of life care or because we could not identify an end of life care provider. We were able to obtain physician interviews for 64 potential control patients. Of these 64 persons, 21 were disqualified because they would not have been eligible for a prescription for lethal medications under the law: 10 were deemed incapable of making health care decisions by their physicians; 2 were not Oregon residents; 2 could not take oral medications, and for 7 patients, the time between when the physician determined that the patient had less than 6 months to live and death was less than the required 15-day waiting period. Ultimately, we collected data on 43 persons to serve as controls, 3 matched controls for each of 14 persons choosing physician-assisted suicide and 1 matched control for the single remaining person.

Results of the matched case-control study are similar to the comparison with 1996 Oregon deaths just described. Persons who chose physician-assisted suicide and 1998 matched controls did not differ statistically by race, sex, Oregon resident status (greater than 6 months), Portland Tri-county resident status, or education level (Table 3). Although not statistically significant, there was a trend in that persons who chose physician-assisted suicide were more likely to be divorced than controls. Persons who chose physician-assisted suicide were more likely than controls to have never married.

No patients who chose physician-assisted suicide or matched control patients voiced concern to their physician about the financial impact of their illnesses. Both groups contained similar proportions of patients insured through Medicare, Medicaid, or private insurance, or who lacked health insurance. One patient who chose physician-assisted suicide (7 %) and 15 (35 %) controls expressed concern about end of life pain, although this difference was not statistically significant. Patients who chose physician-assisted suicide and controls were equally likely to have been enrolled in hospice, to have had advance medical directives, and to have died at home. The proportion of patients in each group who expressed concerns about being a physical or emotional burden, or about the inability to participate in activities that made life enjoyable, were similar. However, patients who chose physician-assisted suicide were significantly more likely than controls to express concern to their physicians about loss of autonomy, and more likely to express concern about loss of control of bodily functions (e.g., incontinence, vomiting) due to their illness.* At death, patients who chose physician-assisted suicide were significantly less likely than controls to be completely disabled and bedridden.*

Physician Characteristics

Fourteen physicians wrote prescriptions for lethal medications for the 15 patients who chose physician-assisted suicide. Forty physicians were the end of life providers for the 43 control patients. The two groups of physicians were similar with respect to age, sex, specialty, and years-in-practice, although there was a trend for prescribing physicians to have been older and in practice longer (Table 4).

* This sentence contained an error in the original manuscript dated 2/18/99. The sentence was edited and corrected on 3/15/99.

For some physicians, the process of participating in physician-assisted suicide had a great emotional impact. In response to general, open-ended inquiries, prescribing physicians offered comments such as, "It was an excruciating thing to do...it made me rethink life's priorities", "This was really hard on me, especially being there when he took the pills," and "this had a tremendous emotional impact."

Not all Oregon physicians were willing to participate in physician-assisted suicide in 1998. Six patients who chose assisted suicide had requested lethal medications from one or more providers before finding a physician who would begin the prescription process. Physicians for 67% (29/43) of control patients would have refused to write a prescription for lethal medications had the patient asked; physicians for 21% (9/43) of control patients would have provided prescriptions; and physicians for 12% (5/43) of control patients were unsure. Six control patients (14%) had discussed physician-assisted suicide with the physician we interviewed, but none had begun the formal request process.

DISCUSSION / CONCLUSIONS

Currently, Oregon is the only place in the world where physician-assisted suicide is legal. Physician-assisted suicide was briefly legalized in the Northern Territory of Australia between July, 1996 and March, 1997.[5] In the Netherlands, physician-assisted suicide has been practiced for many years; although technically illegal, it has been rarely prosecuted.[6]

The Death with Dignity Act continues to be the focus of highly charged ethical, legal, and medical debates.[7-13] The role of the Oregon Health Division is neither to take sides nor to settle these controversies; however, we believe that the data collected on 1998 participants in the Death with Dignity Act and on patients who chose physician-assisted suicide are important to all concerned parties. Among the important findings from our 1998 data collection and comparison studies are:

- Physician-assisted suicide accounted for approximately 5 of every 10,000 deaths in Oregon in 1998. Patients with cancer who chose physician-assisted suicide accounted for 19 of every 10,000 cancer deaths in Oregon in 1998.

- Patients who chose physician-assisted suicide in 1998 were similar to all Oregonians who died of similar underlying illnesses with respect to age, race, sex, and Portland residence.

- Patients who chose physician-assisted suicide were *not* disproportionately poor (as measured by Medicaid status), less educated, lacking in insurance coverage, or lacking in access to hospice care.

- Fear of intractable pain and concern about the financial impact of their illnesses were not disproportionately associated with the decision to choose physician-assisted suicide.

- The choice of physician-assisted suicide was most strongly associated with concerns about loss of autonomy and personal control of bodily functions.

- In 1998, many hospitals and physicians in Oregon were unable or unwilling to participate in physician-assisted suicide.

- Physicians who wrote prescriptions for lethal medications for patients who chose physician-assisted suicide represented a wide range of specialties, ages, and years in practice.

Considerable debate has focused on the characteristics of terminally-ill patients who choose physician-assisted suicide. Some feared that patients who were minorities, poor, or uneducated would more likely be coerced into choosing physician-assisted suicide. Others feared that terminally-ill persons would feel pressured, either internally or through external forces (e.g., family members or health care systems), to choose physician-assisted suicide because of the financial impact of their illnesses.[9, 11, 14, 15] To date, the Oregonians who have chosen physician-assisted suicide have not had these characteristics. Patients who chose physician-assisted suicide and our two comparison groups were similar with respect to age, sex, race, education level, and health insurance coverage. No person who chose physician-assisted suicide expressed a concern to their physician about the financial impact of their illness. The proportion of patients with private insurance and medicaid were similar among those who chose physician-assisted suicide and among controls. This provides some evidence that socioeconomic status was not associated with the decision to take lethal medications.

End of life care has made great strides in Oregon in recent years. Oregon ranks third, nationally, in the rate of hospice admissions.[15] More than two-thirds of the patients who chose physician-assisted suicide were enrolled in a hospice program when they died. A similar proportion of control patients were also enrolled in hospice. Of the four patients who chose physician-assisted suicide, but who were not receiving hospice care, three had repeatedly refused enrollment offers. To date, lack of access to hospice care has not been associated with the decision to take lethal medications. Fear of intractable pain was also an end of life care issue not associated with physician-assisted suicide. Only one person who chose physician-assisted suicide expressed concern to her physician about inadequate pain control at the end of life (compared with 15 of 43 control patients). This may reflect confidence in one's end of life care. Alternatively, recipients of lethal medications may not have been concerned about end of life pain because physician-assisted suicide offered them the option of avoiding intractable pain.

The primary factor distinguishing persons in Oregon selecting physician-assisted suicide is related to the importance of autonomy and personal control. Patients who chose physician-assisted suicide were more likely to be concerned about loss of autonomy and loss of control of bodily functions than control patients.* Autonomy was a prominent patient characteristic in physicians'

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answers to open-ended questions about their patients' end of life concerns. Many prescribing physicians reported that their patients decision to request a lethal prescription was consistent with a long-standing philosophy about controlling the manner in which they died. The fact that 79% of persons who chose physician-assisted suicide did not wait until they were bedridden to take their lethal medication provides further evidence that controlling the manner and time of death were important issues to these patients. Thus, in Oregon the decision to request and use a prescription for lethal medications in 1998 appears to be more associated with attitudes about autonomy and dying, and less with fears about intractable pain or financial loss.

There are several limitations that are important to consider when interpreting these results. First, the number of patients who chose physician-assisted suicide in 1998 was relatively small. This limits our ability to detect, from a statistical standpoint, small differences between the characteristics of persons who chose physician-assisted suicide and control patients. Second, the possibility of physician bias must be considered. Physicians prescribing lethal medications may have spent more time exploring end of life concerns and care options with patients who requested lethal medications. Because of the unique nature of lethal prescription requests, physicians may have recalled their conversations and interactions with requesting patients in greater detail than physicians of terminally ill patients who did not request such prescriptions. Finally, the Death with Dignity Act requires the OHD to collect data on patients and physicians who participate in the Act.[1, 2] However, the OHD must also report any noncompliance with the law to the Oregon Board of Medical Examiners for further investigation.[16, 17] Because of this obligation, we cannot detect or collect data on issues of noncompliance with any accuracy. A 1995 anonymous survey of Oregon physicians found that 7% of surveyed physicians had provided prescriptions for lethal medications to patients prior to legalization.[18] We do not know if covert physician-assisted suicide continued to be practiced in Oregon in 1998.

Considerable debate has also surrounded the interpretation of very limited data on the medications prescribed for physician-assisted suicide and the rapidity of their effects.[19-22] With one exception, all of the lethal prescriptions were similar. This may reflect information available from Oregon physician-assisted suicide advocacy groups. Although all patients were unconscious within 20 minutes of medication ingestion, the time from ingestion to death ranged from 15 minutes to 11.5 hours. In four instances, patients died more than 3 hours after taking the medications, including the one patient who died 11. 5 hours afterward. The last patient fell asleep 5 minutes after taking all 9 grams of barbiturate, the same prescription given to 14 of the 15 persons who chose physician-assisted suicide. Physicians, patients, and their families should be aware that the time from medication ingestion to death is not always rapid or predictable.

In 1998, not all hospital systems or physicians in Oregon participated in physician-assisted suicide. Federal law prohibits participation by patients or physicians within federal health care systems such as Veterans Administration Hospitals and Indian Health Service clinics.[23] Some health care systems, including at least one Catholic medical system in Oregon, have placed similar restrictions on patients and staff within their facilities. Although some physicians are unable to participate in the Death with Dignity Act because of restrictions by their employers, other physicians have

chosen not to participate in physician-assisted suicide because of other concerns. Six of the patients who chose physician-assisted suicide had to approach more than one physician before finding one that would start the prescription process. Two-thirds of otherwise eligible control patients, had they asked, would not have received such prescriptions from the physician that we interviewed. Both findings provide evidence that a substantial proportion of Oregon physicians are not willing to participate in legalized physician-assisted suicide.

Physicians who wrote prescriptions for lethal medications for those patients who chose physician-assisted suicide represented a wide range of medical specialties, ages, and years in practice and were similar to physicians for control patients with respect to these characteristics. Several Oregon physicians have publically acknowledged their participation in the Death with Dignity Act, but the majority of prescribing physicians have remained anonymous. Several physicians commented that despite the emotional impact of participating in a physician-assisted suicide, they were unwilling to share their experience with others because they feared repercussions from colleagues or patients if they did not keep their identity as a Death with Dignity Act participant anonymous.

In publishing this report, we recognize that the Death with Dignity Act has been and remains a focal point for ethical, legal, and medical debate. As required by the Act, we will continue to collect information regarding compliance with the statute, and we emphasize that our role is to do so as a neutral party. In accordance with the Act, we will make available to the public an annual statistical report of the information collected. Future reports may not, however, contain the level of detail provided in this first study.

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Table 1: Characteristics of patients who received prescriptions for lethal medications and timing of events.

Demographics	**Death after Lethal Medication Ingestion (N=15)**		**Death from Terminal Illness (N=6)**		**All Lethal Prescription Recipients (N=21)**	
Age - median (years)	69		47		69	
Race - white	15	100%	6	100%	21	100%
Sex - male	8	53%	3	50%	11	52%
Oregon resident greater than 6 months	15	100%	5	83%	20	95%
Residence - Portland-Metro	7	47%	4	67%	11	52%
Legal Requirements						
Psychiatric/psychological consultation	4	27%	0	0%	4	19%
Full compliance	15	100%	6	100%	21	100%
Underlying Illness						
Cancer (all types)	13	87%	5	83%	18	86%
Lung, ovarian, or breast cancer	9	60%	3	50%	12	57%
Acquired Immune Deficiency Syndrome	0	0%	1	17%	1	5%
Congestive heart failure	1	7%	0	0%	1	5%
Chronic obstructive pulmonary disease	1	7%	0	0%	1	5%
PAS Lethal Prescription						
secobarbital 9 grams	13	87%	6	100%	19	90%
phenobarbital 9 grams	1	7%	0	0%	1	5%
secobarbital 1 gram/morphine 1 gram	1	7%	0	0%	1	5%
anti-emetic agent	14	93%	5	83%	19	90%
gastric pro-motility agent	6	40%	5	83%	11	52%
chlorpromazine	1	7%	0	0%	1	5%
beta blocker	3	20%	3	50%	6	29%
	median	**range**	**median**	**range**	**median**	**range**
Prescription Time-Line (days)						
First and second oral requests	18	(15-68)	30	(16-83)	20	(15-83)
First oral request and death	20	(15-75)	93	(26-101)	26	(15-101)
Prescription receipt and death	1	(0-22)	28	(8-66)	4	(0-66)

Table 2: Characteristics of case patients and Oregon residents who died from similar illnesses in 1996.

Demographic Characteristic	Deaths	Physician-Assisted Suicide Cases	Rate Physician-Assisted Suicides per 10,000 deaths	Risk Ratio (95% CI^)	2-tailed P value
race* - non-white	116	0	0.0	referent	
white	5450	15	27.4	undefined	1.00
sex - female	3026	7	23.1	referent	
male	2578	8	30.9	1.3 (0.5-3.7)	0.57
Residence - rural	3582	8	22.3	referent	
urban (Portland-metro)	2022	7	34.5	1.6 (0.6-4.3)	0.39
Education*					
did not graduate high school	1540	3	19.4	referent	
high school graduate	3901	12	30.7	1.6 (0.5-5.6)	0.58
college graduate	614	4	64.7	3.3 (0.8-14.8)	0.11
Marital Status at Death*					
married	2703	2	7.4	referent	
widowed	1868	5	26.7	3.6 (0.7-18.6)	0.13
divorced	789	4	50.4	6.8 (1.3-37.2)	0.03
never married	224	4	175.4	23.7 (4.4-128.9)	<0.001

	1996 Oregon Death Cohort (N=5604)	Physician-assisted Suicide Deaths (N=15)	P value
median Age (years)	74	69	0.40

* Of the 5,604 persons who died in 1996 from illnesses that matched the case-patients' underlying illnesses, data on race were available for 5,566; data on education were available for 5,441; and data on marital status were available for 5,584.
^ CI denotes confidence intervals

Table 3: Characteristics of case patients and matched controls

	Case-Patients (N=15)		Control-Patients (N=43)			95%	
					Matched	Confidence	2-tailed
Demographics	**N**	**%**	**N**	**%**	**Odds Ratio**	**Interval**	**P value**
race - white	15	100%	43	100%			
sex - male	8	53%	15	35%	4.5	0.6-32.1	0.30
Oregon resident >6 months	15	100%	43	100%			
Portland-Metro resident	7	47%	16	37%	1.4	0.4-4.9	0.87
Education*							
did not graduate high school	3	20%	11	27%	referent		
high school graduate	12	80%	30	73%	1.4	0.3-9.7	0.90
college graduate	4	27%	7	17%	undefined		1.00
Marital Status at Death							
married	2	13%	20	47%	referent		
widowed	5	33%	14	33%	1.7	0.1-24.7	0.93
divorced	4	27%	7	16%	7.5	0.7-354.5	0.12
never married	4	27%	2	5%	undefined		0.04
Insurance Coverage at Death ¶							
Private Insurance	8	53%	28	65%	referent		
Medicare only	4	27%	7	16%	6.0	0.3-288.4	0.41
Oregon Medicaid	2	13%	7	16%	0.8	0.1-7.7	0.81
No Insurance	1	7%	0	0%	undefined		0.56
Unknown	0	0%	1	2%	undefined		0.56
Hospice/Advance Directives at Death							
Enrolled in Hospice^	10	71%	32	74%	0.8	0.2-4.2	1.00
Written Advance Directives‡	11	79%	37	93%	0.4	0.1-3.3	0.55
Place of Death							
Private Home	12	80%	29	67%	3.5	0.4-29.7	0.55

Table 3 continued on next page

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Patient End of Life Concerns*							
Financial cost of treating/prolonging illness	0	0%	0	0%			
Burden on family/friends/caregivers	2	13%	15	35%	0.2	0.0-1.5	0.21
Inability to participate in activities	10	67%	26	60%	1.2	0.3-4.3	1.00
Inadequate pain control	1	7%	15	35%	0.2	0.0-1.4	0.10
Loss of autonomy due to illness	12	80%	17	40%	7.3	1.5-35.9	0.01
Loss of control of bodily function	8	53%	8	19%	9.0	1.6-51.4	0.02
Functional Status at Death							
completely disabled	3	21%	32	84%	0.1	0.0-0.4	<0.001

	median	**range**	**median**	**range**	**P value**
Age (years)	69		74		0.70
Patient-physician relationship (days)	69	15-3780	720	35-7284	0.03

* education data were available for 15 case-patients and 41 controls
† hospice data were available for 14 case-patients and 43 controls
‡ advance directives data were available for 14 case-patients and 40 controls
§ Functional status data were available for 14 case-patients and 38 controls
¶ column totals may not sum to 100% due to multiple responses for a single patient

Table 4: Characteristics of physicians who prescribed lethal medications and physicians who provided care at the end of life for controls.

	Case Physicians (N=14)		Control Physicians (N=40)		O.R.	95% Confidence Interval	2-tailed P value
Sex - male	11	79%	35	88%	0.5	0.1-3.4	0.41
Specialty - primary care*	9	64%	22	55%	1.5	0.4-6.6	0.55
Median age - years (range)	51	(37-69)	44	(30-62)			0.07
Median years in practice - years (range)	18	(1-45)	12	(1-36)			0.11

*primary care specialities defined as family practice, internal medicine, obstetrics and gynecology