

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

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For more information, see: [www.healthoregon.org/dwd](http://www.healthoregon.org/dwd)

Contact: [DWDA.INFO@state.or.us](mailto: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.

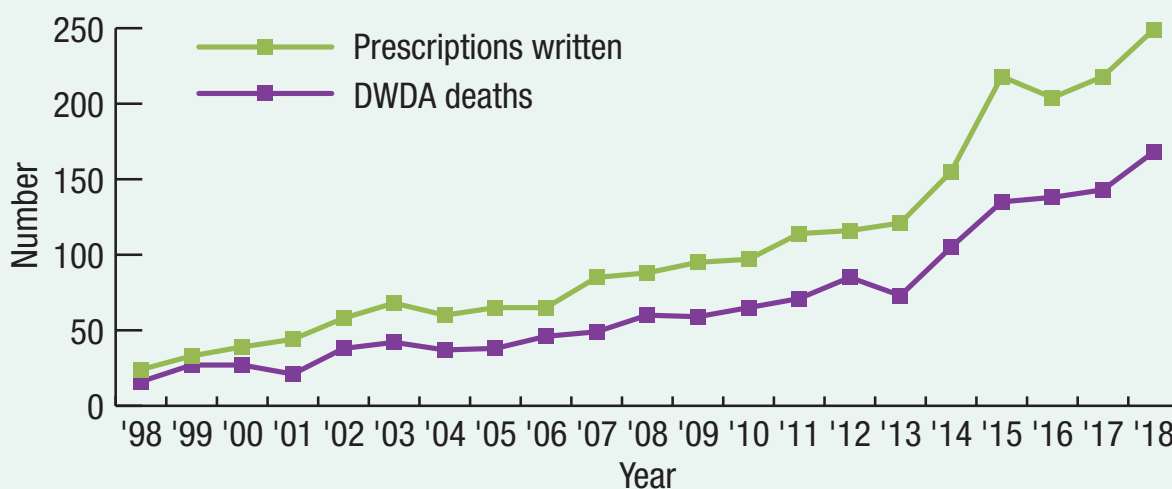
# Introduction

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

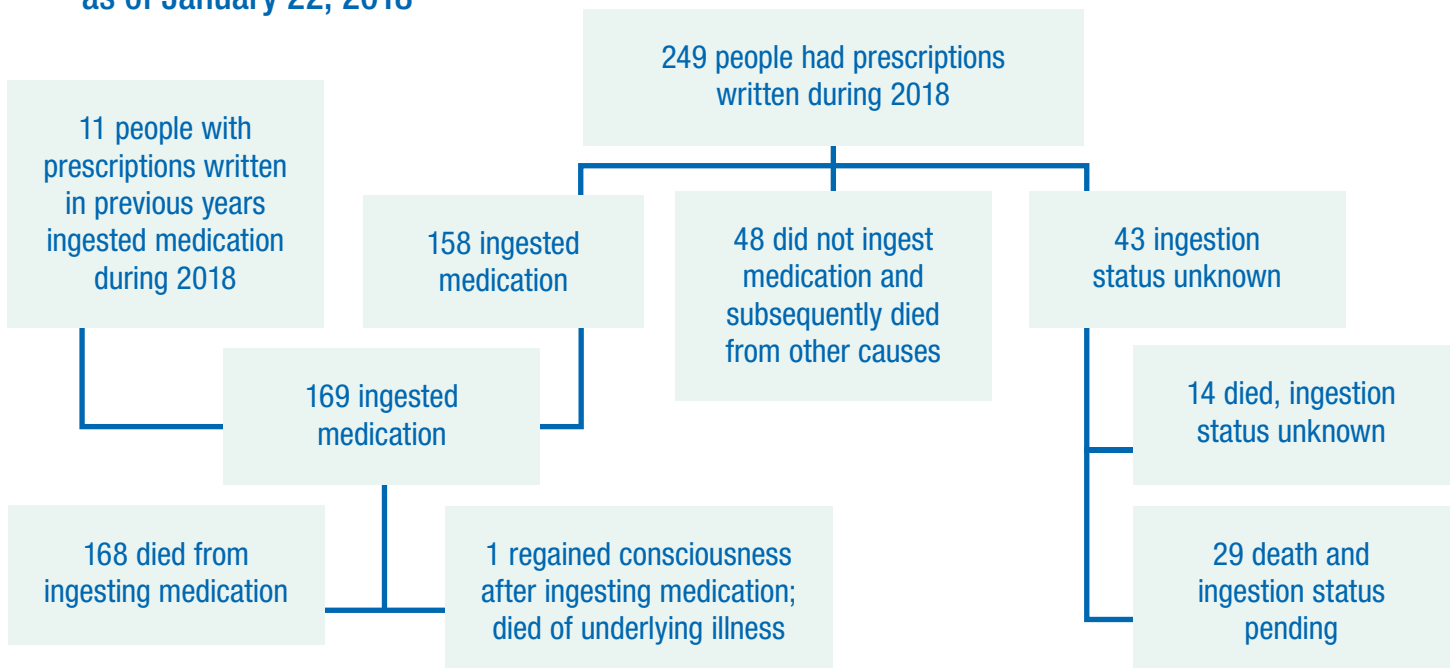
During 2018, 249 people received prescriptions for lethal doses of medications under the provisions of the Oregon DWDA, compared to 219 during 2017 (Figure 1). As of January 22, 2019, OHA had received reports of 168 people who had died during 2018 from ingesting the medications prescribed under DWDA,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

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**



<sup>1</sup> 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**

Characteristics	2018		Total		1998-2002		2003-2007		2008-2012		2013-2017	
	(N=168)		(N=1,459)		(N=129)		(N=212)		(N=340)		(N=610)	
<b>Sex</b>	<b>N (%)<sup>1</sup></b>		<b>N (%)<sup>1</sup></b>		<b>N (%)<sup>1</sup></b>		<b>N (%)<sup>1</sup></b>		<b>N (%)<sup>1</sup></b>		<b>N (%)<sup>1</sup></b>	
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)
<b>Age</b>												
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)
<b>Race</b>												
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	
<b>Marital status</b>												
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)
<b>Education</b>						
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)
<i>Unknown</i>	3	15	0	0	5	7
<b>Residence county/region<sup>2</sup></b>						
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)
<i>Unknown</i>	0	10	0	0	3	7
<b>End of life care</b>						
<b>Hospice</b>						
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)
<i>Unknown</i>	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)	
<b>Insurance</b>												
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	
<b>Underlying illness</b>												
<b>Cancer (%)</b>	<b>105</b>	<b>(62.5)</b>	<b>1,107</b>	<b>(75.9)</b>	<b>102</b>	<b>(79.1)</b>	<b>178</b>	<b>(84.0)</b>	<b>274</b>	<b>(80.6)</b>	<b>448</b>	<b>(73.4)</b>
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)	
<b>Neurological disease (%)</b>	<b>25</b>	<b>(14.9)</b>	<b>161</b>	<b>(11.0)</b>	<b>12</b>	<b>(9.3)</b>	<b>17</b>	<b>(8.0)</b>	<b>31</b>	<b>(9.1)</b>	<b>76</b>	<b>(12.5)</b>
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)
<b>Respiratory disease [e.g., COPD] (%)</b>	<b>13</b>	<b>(7.7)</b>	<b>75</b>	<b>(5.1)</b>	<b>9</b>	<b>(7.0)</b>	<b>6</b>	<b>(2.8)</b>	<b>18</b>	<b>(5.3)</b>	<b>29</b>	<b>(4.8)</b>
<b>Heart/circulatory disease (%)</b>	<b>16</b>	<b>(9.5)</b>	<b>66</b>	<b>(4.5)</b>	<b>4</b>	<b>(3.1)</b>	<b>1</b>	<b>(0.5)</b>	<b>9</b>	<b>(2.6)</b>	<b>36</b>	<b>(5.9)</b>
<b>Infectious disease [e.g., HIV/AIDS] (%)</b>	<b>0</b>	<b>(0.0)</b>	<b>13</b>	<b>(0.9)</b>	<b>1</b>	<b>(0.8)</b>	<b>7</b>	<b>(3.3)</b>	<b>2</b>	<b>(0.6)</b>	<b>3</b>	<b>(0.5)</b>
<b>Gastrointestinal disease [e.g., liver disease] (%)</b>	<b>1</b>	<b>(0.6)</b>	<b>9</b>	<b>(0.6)</b>	<b>0</b>	<b>(0.0)</b>	<b>1</b>	<b>(0.5)</b>	<b>1</b>	<b>(0.3)</b>	<b>6</b>	<b>(1.0)</b>
<b>Endocrine/metabolic disease [e.g., diabetes] (%)</b>	<b>2</b>	<b>(1.2)</b>	<b>11</b>	<b>(0.8)</b>	<b>0</b>	<b>(0.0)</b>	<b>2</b>	<b>(0.9)</b>	<b>1</b>	<b>(0.3)</b>	<b>6</b>	<b>(1.0)</b>
<b>Other illnesses (%)<sup>3</sup></b>	<b>6</b>	<b>(3.6)</b>	<b>17</b>	<b>(1.2)</b>	<b>1</b>	<b>(0.8)</b>	<b>0</b>	<b>(0.0)</b>	<b>4</b>	<b>(1.2)</b>	<b>6</b>	<b>(1.0)</b>
<b>DWDA process</b>												
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 (%) <sup>4</sup>	156	(94.0)	1,292	(93.7)	55	(94.8)	198	(94.3)	317	(93.5)	566	(93.4)
<b>Patient died at</b>												
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	
<b>Lethal medication</b>												
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 (%) <sup>5</sup>	10	(6.0)	67	(4.6)	0	(0.0)	0	(0.0)	0	(0.0)	57	(9.3)
DDMP2 (%) <sup>5</sup>	54	(32.1)	78	(5.3)	0	(0.0)	0	(0.0)	0	(0.0)	24	(3.9)
Phenobarbital compound (%) <sup>5</sup>	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)	
<b>End of life concerns<sup>6</sup></b>												
Losing autonomy (%)	154	(95.1)	1,322	(95.5)	106	(85.5)	194	(92.8)	318	(97.8)	550	(97.3)
Less able to engage in activities making life enjoyable (%)	152	(95.6)	1,300	(94.6)	99	(82.5)	193	(92.8)	310	(95.4)	546	(97.3)
Loss of dignity (%) <sup>7</sup>	112	(79.4)	989	(87.4)	not asked		173	(84.8)	279	(92.1)	425	(88.0)
Losing control of bodily functions (%)	62	(46.3)	647	(56.5)	73	(59.3)	123	(61.5)	154	(53.8)	235	(58.3)
Burden on family, friends/caregivers (%)	91	(63.6)	654	(51.9)	44	(36.7)	88	(42.7)	132	(43.9)	299	(61.1)
Inadequate pain control, or concern about it (%)	43	(31.2)	375	(29.8)	28	(22.4)	64	(31.4)	65	(21.4)	175	(35.9)
Financial implications of treatment (%)	9	(7.3)	57	(4.7)	3	(2.4)	6	(2.9)	9	(2.9)	30	(6.7)
<b>Health-care provider present (collected since 2001)</b>	<b>(N=168)</b>		<b>(N=1,387)</b>		<b>(N=57)</b>		<b>(N=212)</b>		<b>(N=340)</b>		<b>(N=610)</b>	
When medication was ingested <sup>8</sup>												
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	
<b>Complications<sup>8</sup></b>	<b>(N=168)</b>		<b>(N=1,459)</b>		<b>(N=129)</b>		<b>(N=212)</b>		<b>(N=340)</b>		<b>(N=610)</b>	
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	
<b>Other outcomes</b>												
Regained consciousness after ingesting DWDA medications	1		8		0		1		5		1	

Characteristics	2018	Total	1998-2002	2003-2007	2008-2012	2013-2017
	(N=168)	(N=1,459)	(N=129)	(N=212)	(N=340)	(N=610)
<b>Timing of DWDA event</b>						
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
<i>Number of patients with information available</i>	165	1,449	128	212	339	605
<i>Number of patients with information unknown</i>	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
<i>Number of patients with information available</i>	167	1,458	129	212	340	610
<i>Number of patients with information unknown</i>	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 First asked in 2003. Data available for 1,327 patients.
- 8 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 <sup>4</sup>
Secobarbital (%)	778	397	381 (100.0)	285 (74.8)	69 (18.1)	27 (7.1)	25	139	2min - 83 hrs	5
Pentobarbital <sup>1</sup> (%)	384	156	228 (100.0)	188 (82.5)	31 (13.6)	9 (3.9)	20	97	1min - 104hrs	0
DDMP1 <sup>2</sup> (%)	67	46	21 (100.0)	10 (47.6)	6 (28.6)	5 (23.8)	77	214	10min - 21hrs	0
DDMP2 <sup>2</sup> (%)	78	37	41 (100.0)	12 (29.3)	19 (46.3)	10 (24.4)	120	230	13min - 21hrs	2
Phenobarbital (%) <sup>3</sup>	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.



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<http://www.healthoregon.org/dwd>

[DWDA.info@state.or.us](mailto:DWDA.info@state.or.us)

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