



Oregon Cigarette Fires in Single- & Multi-Family Housing

Prepared by the Oregon Office of State Fire Marshal,
Data Collection & Research Unit, for the Regional Fire
Prevention/Smokefree Housing Collaboration
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Oregon Cigarette Fires

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Oregon Cigarette Fires

Summary

Oregon's structure fire agencies respond to more than 11,000 fires each year. One in ten Oregon fires is started by cigarettes. During 2005-2009, there were almost 6,400 cigarette fires in the state. These fires were responsible for 34 deaths, 133 injuries, and an estimated \$20 million in property loss. Of all cigarette fires responded to by Oregon structure fire agencies, 82% are outside fires, 15% are structure fires, and 2% are vehicle or other fires.

Focus on single- and multi-family housing properties

One in ten fires on single- and multi-family housing ('home') properties is started by cigarettes.

Cigarettes are the leading cause of outside home fires. One in five outside home fires is started by cigarettes.

Although only 29% of all cigarette fires occur on home properties, almost all deaths, injuries and loss from cigarette fires occur on home properties.

The predominant ignition factor for cigarette fires on home properties is an improperly discarded cigarette. Other important, but less common, circumstances include falling asleep while smoking, smoking while using medical oxygen, or children playing with cigarettes.

Leading counties, cities, and districts of incident

During 2005-2009, Oregon had 1,820 cigarette fires on home properties, translating to an average of one cigarette fire per 10,000 population. The counties with the highest rates of home cigarette fires per 10,000 population are: Multnomah (2.7), Wasco (1.2), Sherman (1.1), Linn (0.9), and Benton (0.8).

Fifteen Oregon cities have 78% of the cigarette fires on home properties. Of these, the highest rates per 10,000 population are: Portland (3.3), Roseburg (1.7), Albany (1.5), Salem (1.3), Corvallis (1.2), and Beaverton (1.2). The majority of cigarette fires on home properties take place in five districts of incident.

District of Incident's percentage of the state's cigarette fires on:

1- & 2- family dwelling properties		Multi-family housing properties	
<i>Portland F&R</i>	45.9%	<i>Portland F&R</i>	60.6%
<i>Tualatin Valley F&R</i>	7.3%	<i>Tualatin Valley F&R</i>	7.7%
<i>Salem FD</i>	5.1%	<i>Salem FD</i>	5.9%
<i>Bend FD</i>	3.3%	<i>Gresham FD</i>	3.3%
<i>Jackson Co RFPD #3</i>	2.4%	<i>Hillsboro FD</i>	2.7%
<i>Top 5 districts</i>	64.0%	<i>Top 5 districts</i>	80.2%

Fire-standard compliant cigarette law

The fire-standard compliant cigarette law took effect on January 1, 2008. In the Portland F&R district, cigarette fires on 1- & 2-family dwelling properties have declined 34% since 2006. Otherwise, the cigarette fires in the leading three districts (Portland F&R, Tualatin Valley F&R, and Salem FD) do not show definitive trends since the law took effect. It is too soon to see the impact of the law.

Summary, continued

Area of fire origin

Inside the home. Inside the home, the bedroom is the most common area of origin for cigarette fires. One out of five cigarette fires in home structures start in the bedroom.

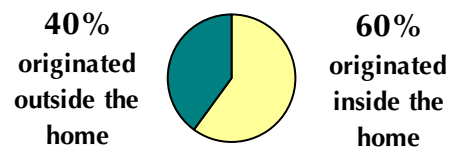
Outside the home. 72% of cigarette fires on home properties originated outside. (23% of these became structure fires, and 77% remained outdoor fires.)

40% of home structure fires caused by cigarettes were started just outside the home, on a patio, balcony, or exterior wall.

All cigarette fires on home properties



Home structure fires started by cigarettes



Fire Casualties

Note: Cigarette fire fatality statistics are from the 'Oregon Fire Fatality Review 2004-2008' report published by the Office of State Fire Marshal in April 2010.

Cigarettes are the top cause of residential fire fatalities. Nearly one out of two fatal fire victims (46%) died in fires started by cigarettes, from 2004 through 2008. During this period, 44 people died in 41 fires started by cigarettes.

One out of every five cigarette fire deaths (20%) involved smoking while using medical oxygen.

71% of the fatal cigarette fires occurred in 1- & 2-family dwellings (houses and mobile homes used as fixed residences), and 27% occurred in multi-family housing.

75% of cigarette fire fatalities are age 50 and older. (20% are age 50-59, and 55% are age 60+).

From 2004-2008, about one out of six fire injury victims were injured in fires started by cigarettes.

The charts on the following pages provide additional detail about the cigarette fire statistics cited in this summary.

Report Notes

Throughout this report, the term 'cigarette fires' refers to all fires started by cigarettes, cigars or pipes. 'Home' refers to both single- and multi-family housing. '1- & 2-family dwellings' refers to houses and duplexes. 'Multi-family housing' refers to apartments.

Unless otherwise noted, statistics are for the five-year period: January 1, 2005 through December 31, 2009.

All statistics are based on incident data reported by Oregon fire agencies to the Office of State Fire Marshal as of January 31, 2010.

'Property loss' amounts include building, contents, mobile, and other property. These amounts are estimates made by firefighters on the scene and are not official insurance estimates.

Oregon Cigarette Fires

Charts

Incidents, property loss, and casualties

2005-2009

	All properties	1- & 2-family	Multi-family	Single & multi-family as % of all properties
Total cigarette, cigar & pipe fires	6,365	1,089	731	29%
<i>cigarette:</i>	6,316	1,070	726	
<i>cigar or pipe:</i>	49	19	5	
Property loss est.	\$20 M	\$11.6 M	\$5.6 M	86%
Civilian injuries	105	51	39	86%
Civilian deaths	34	29	5	100%
Firefighter injuries	28	11	6	61%
Firefighter deaths	0	0	0	

- ◆ From 2005-2009, Oregon structure fire agencies responded to 6,365 fires started by cigarettes. Cigarettes were the reported cause of 10% of all Oregon fires during this period.
- ◆ Cigarettes also cause one out of ten fires occurring on single- and multi-family housing properties.
- ◆ Although only 29% of cigarette fires occur on single- and multi-family housing properties, almost all deaths, injuries, and loss from cigarette fires occur on those properties.

Property types where cigarette fires occurred

2005-2009

General Property Use	Number of fires	Percent of fires
Special Property - Road or Parking	1,870	30%
Residential Property - House	1,089	17%
Residential Property - Apartment	731	12%
Special Property - Outdoor	665	10%
Mercantile, Business Property	659	10%
Assembly Property	374	6%
Special Property - Unspecified	318	5%
Educational Property	117	2%
Healthcare, Detention, or Correctional Property	97	2%
Basic Industry, Utility, Defense, or Agri	73	1%
Other	345	5%
<i>Known property types:</i>	6,338	100%
Property type unspecified	27	
Total cigarette fires in Oregon, 2005-2009:	6,365	

Occurrence by county

2005-2009

Oregon cigarette fires by county Single- & multi-family housing properties

Ranked by number of cigarette fires per 10,000 population

Rank	County	(5 year)		Population	Cigarette fires per 10,000 population
		# of fires	% of fires		
1	MULTNOMAH	968	53%	724,680	2.7
2	WASCO	14	1%	24,230	1.2
3	SHERMAN	1	0%	1,830	1.1
4	LINN	52	3%	110,865	0.9
5	BENTON	33	2%	86,725	0.8
6	MARION	119	7%	318,170	0.7
7	DESCHUTES	61	3%	170,705	0.7
8	WASHINGTON	185	10%	527,140	0.7
9	MALHEUR	11	1%	31,720	0.7
10	POLK	23	1%	68,785	0.7
11	DOUGLAS	33	2%	105,395	0.6
12	JEFFERSON	7	0%	22,715	0.6
13	LINCOLN	13	1%	44,700	0.6
14	COLUMBIA	14	1%	48,410	0.6
15	LAKE	2	0%	7,600	0.5
16	JACKSON	50	3%	207,010	0.5
17	MORROW	3	0%	12,540	0.5
18	LANE	73	4%	347,690	0.4
19	CLACKAMAS	79	4%	379,845	0.4
20	JOSEPHINE	17	1%	83,665	0.4
21	TILLAMOOK	5	0%	26,130	0.4
22	COOS	12	1%	63,065	0.4
23	KLAMATH	10	1%	66,350	0.3
24	HOOD RIVER	3	0%	21,725	0.3
25	GRANT	1	0%	7,525	0.3
26	CLATSOP	5	0%	37,840	0.3
27	BAKER	2	0%	16,450	0.2
28	UNION	3	0%	25,470	0.2
29	YAMHILL	11	1%	95,250	0.2
30	UMATILLA	7	0%	72,430	0.2
31	CURRY	2	0%	21,340	0.2
32	CROOK	1	0%	27,185	0.1
33	GILLIAM	0	0%	1,885	0.0
34	HARNEY	0	0%	7,715	0.0
35	WALLOWA	0	0%	7,100	0.0
36	WHEELER	0	0%	1,585	0.0
	OREGON	1,820	100%	3,823,465	1.0

2009 population data from Portland State University Population Research Center

Occurrence by city

2005-2009

Cities with highest percentage of Oregon's cigarette fires Single- & multi-family housing properties

Ranked by number of cigarette fires per 10,000 population

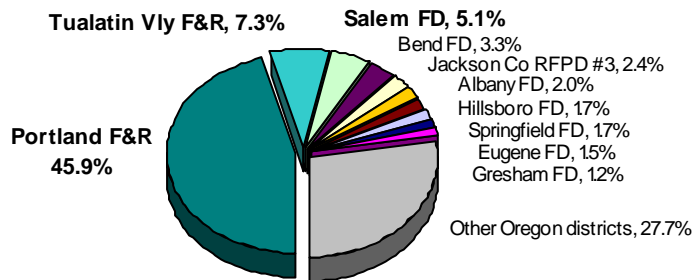
Rank	City	(5 year)		Population	Cigarette fires per 10,000 population
		# of fires	% of fires		
1	Portland	955	52%	582,130	3.3
2	Roseburg	18	1%	21,355	1.7
3	Albany	36	2%	49,165	1.5
4	Salem	103	6%	156,955	1.3
5	Corvallis	32	2%	55,125	1.2
6	Beaverton	50	3%	86,860	1.2
7	Bend	47	3%	82,280	1.1
8	Grants Pass	15	1%	33,225	1.1
9	Tigard	16	1%	47,460	0.8
10	Springfield	24	1%	58,085	0.8
11	Hillsboro	32	2%	90,380	0.7
12	Gresham	32	2%	101,015	0.6
13	Medford	16	1%	77,240	0.4
14	Eugene	28	2%	157,100	0.4
15	Washington Co.	18	1%	218,780	0.3

2009 population data from Portland State University Population Research Center

Occurrence by district of incident

2005-2009

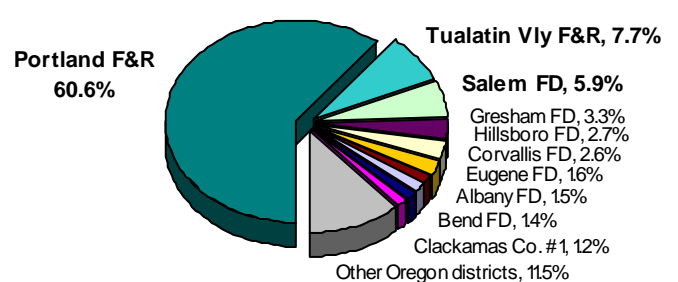
1- & 2-family dwellings



Based on 1,089 cigarette fires on single-family and duplex properties, 2005-2009.

- ➡ 72% of all cigarette fires on 1- & 2-family dwelling properties occur in ten districts of incident.
- ➡ 58% of cigarette fires on 1- and 2-family dwelling properties occur in these three districts: Portland F&R, Tualatin Valley F&R, and Salem FD.

Multi-family housing properties



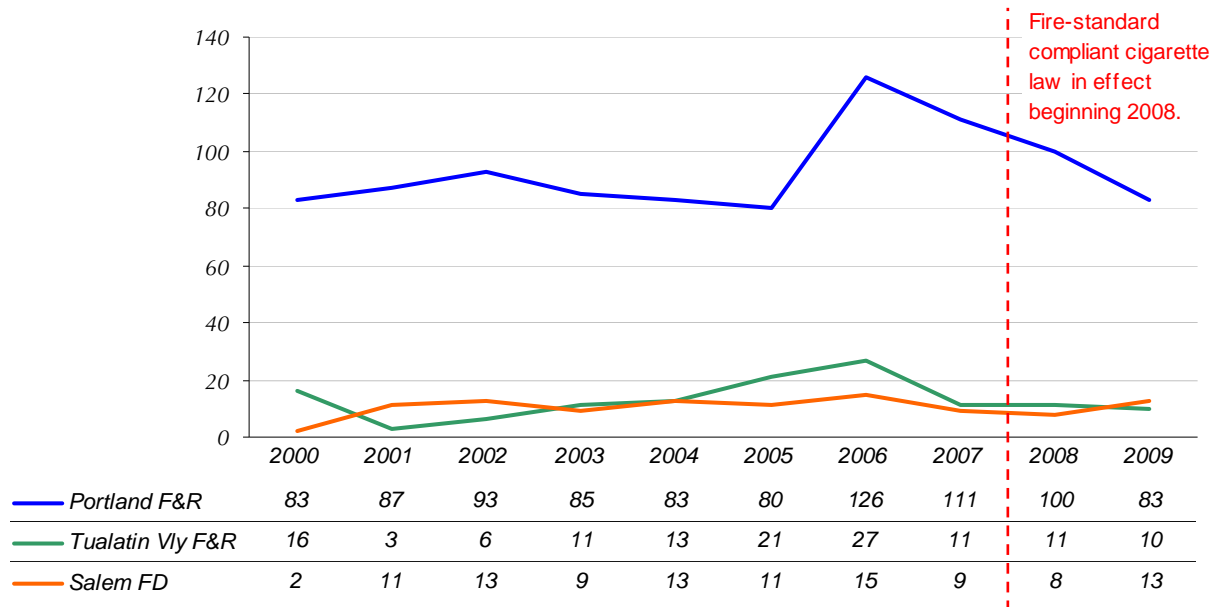
Based on 731 cigarette fires on multi-family housing properties, 2005-2009.

- ➡ 89% of all cigarette fires on multi-family housing properties occur in ten districts of incident.
- ➡ 74% of cigarette fires on multi-family housing properties occur in these three districts: Portland F&R, Tualatin Valley F&R, and Salem FD.

10-year trend in the top 3 districts of incident

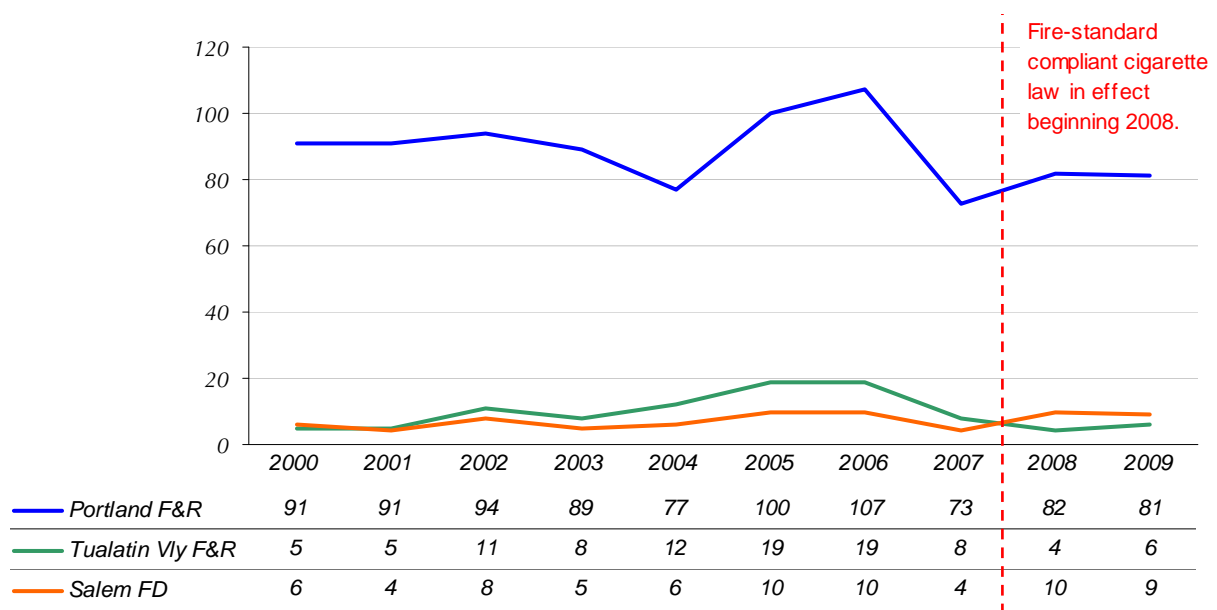
2000-2009

1- and 2-family dwellings



◆ In the Portland F&R district of incident, cigarette fires on 1- & 2-family dwelling properties have declined 34% since 2006. Otherwise, in the Portland F&R, Tualatin Valley F&R, and Salem FD districts, there are not definitive trends in number of cigarette fires in single- and multi-family housing 2007-2009.

Multi-family housing properties



Breakdown by incident type

2005-2009

Percent of fires started by cigarettes, by incident type:

Incident Type	All property types	1- & 2-family	Multi-family
Outside fire	70%	48%	47%
Structure fire	15%	46%	37%
Outside refuse/trash fire	12%	4%	15%
Vehicle fire	1%	1%	1%
Fire, other	1%	2%	0%
	100%	100%	100%

Note: 'Structure fire' includes fires in mobile property used as fixed residence.

➤ **Cigarettes are the leading cause of outside home fires.** During 2005-2009, one out of five outside home fires was started by cigarettes. (single- & multi-family housing properties)

➤ Overall, 82% of cigarette fires responded to by Oregon structure fire agencies are outside fires.

➤ Four times as many outside refuse/trash fires occur on multi-family housing properties, than on 1- & 2-family dwelling properties.

Top 5 areas of origin in structure fires

2005-2009

Area of origin	1- & 2-family	Multi-family
Patio, balcony or exterior wall	41%	39%
Bedroom	18%	22%
Garage, carport	9%	0%
Entry, exit, hallway, stairway	8%	7%
Living room, family room	7%	11%
	83%	79%

Note: 'Structure fire' includes fires in mobile property used as fixed residence.

➤ On 1- & 2-family dwelling properties, 52% are outside fires. In addition, 41% of the structure fires start just outside the home (on a patio, balcony, or exterior wall). This translates to: **71% of cigarette fires on 1- & 2-family dwelling properties originate outside of the home.**

➤ On multi-family housing properties, 62% are outside fires. In addition, 39% of the structure fires start just outside the home (on a patio, balcony, or exterior wall). This translates to: **76% of cigarette fires on multi-family housing properties originate outside of the home.**

Fires originating outside the home

2005-2009

Single- & multi-family housing properties

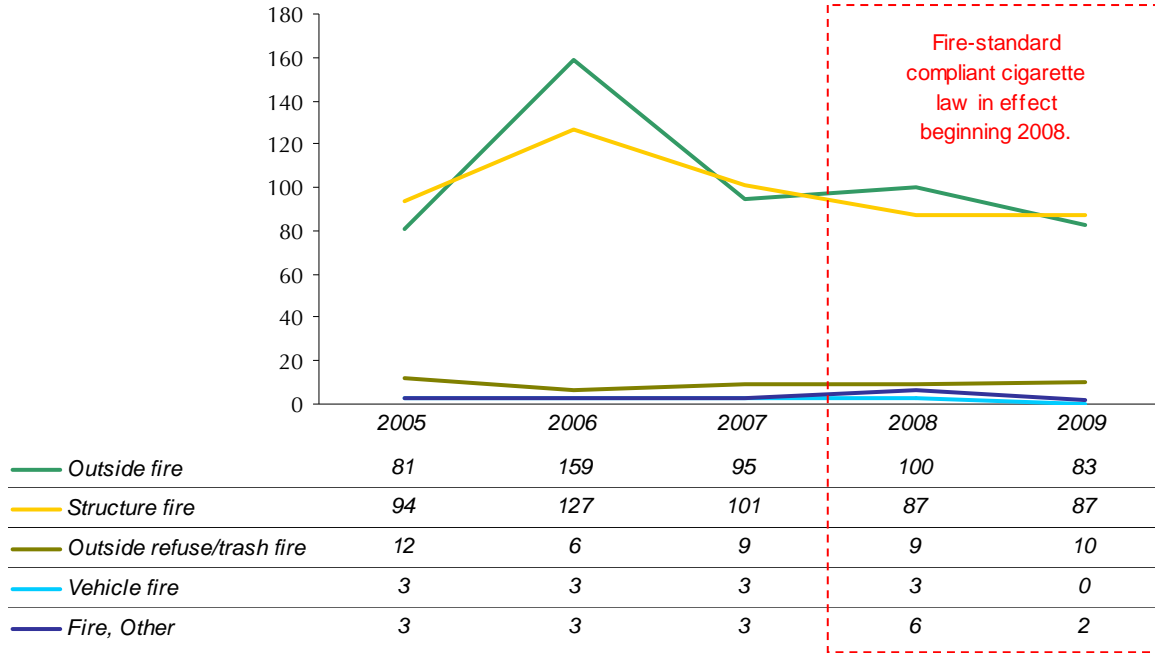
	All cigarette fires	Cigarette fires originating outside	% of fires originating outside
Total cigarette fires	1,820	1,314	72%
<i>outdoor fires:</i>		1,016	
<i>structure fires:</i>		298	
Property loss est.	\$17.2 M	\$6.4 M	37%
Civilian injuries	90	11	12%
Civilian deaths	33	0	0%
Firefighter injuries	17	4	24%
Firefighter deaths	0	0	

➤ During 2005-2009, there were over 1,300 cigarette fires on single- and multi-family housing properties that originated outside. These resulted in 15 injuries and an estimated \$6.4 million of property loss.

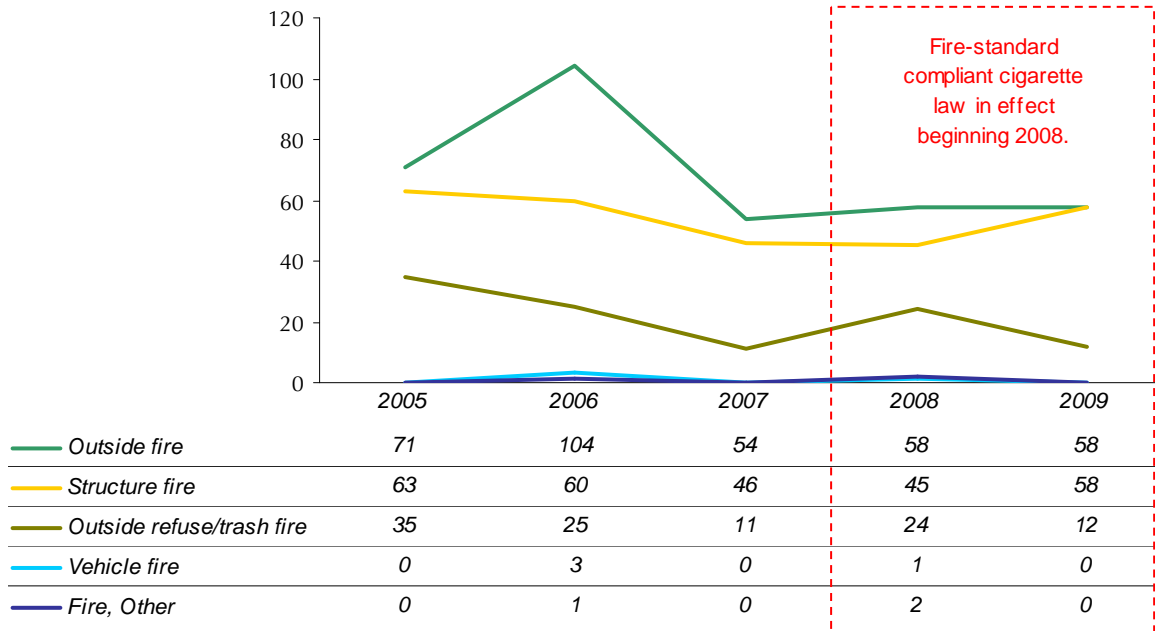
5-year trend by incident type

2005-2009

1- & 2-family dwellings



Multi-family housing properties



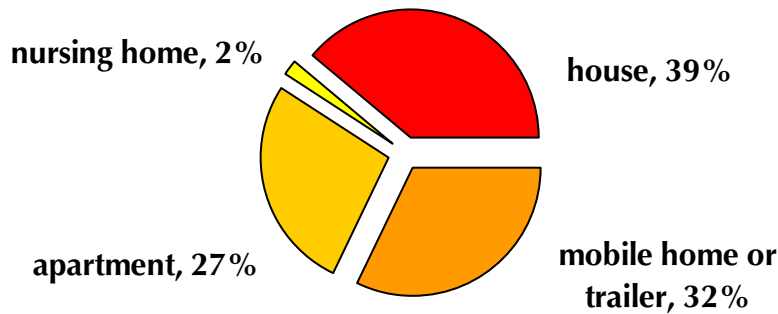
Cigarette fire casualties

2004-2008

Note: Cigarette fire fatality statistics are from the 'Oregon Fire Fatality Review 2004-2008' report published by the Office of State Fire Marshal in April 2010.

- ◆ Cigarettes are the top cause of residential fire fatalities. Nearly one out of two fatal fire victims (46%) died in fires started by cigarettes, from 2004 through 2008. During this period, 44 people died in 41 fires started by cigarettes.
- ◆ One out of every five cigarette fire deaths involved smoking while using medical oxygen. (19.5% of the fatal cigarette fires)
- ◆ A higher percentage of cigarette fire fatalities are age 50 and above. 75% are age 50+ and 55% are age 60+.
- ◆ 71% of the fatal cigarette fires occurred in 1- & 2-family dwellings (houses and mobile homes), and 27% occurred in multi-family housing.

Property types where fatal cigarette fires occurred 2004-2008



- ◆ From 2004-2008, about one out of six fire injury victims were injured in fires started by cigarettes.