

Basic Facts

The Oregon Trauma Registry is mandated to collect data from 44 trauma hospitals to:

- identify the causes of traumatic injury and recommend prevention activities;
- assure timely, quality treatment, education, and research.

Trauma data serve these goals by:

- identifying patients who receive care in the system;
- assessing the level of care received;
- tracking outcomes of patients in order to ensure high-quality trauma care throughout the state.

Trauma System Patients

- Between 2003 and 2012, 84,099 patients entered Oregon's trauma system.
- The rate of trauma increased from 200.7 per 100,000 in 2003 to 244.6 per 100,000 in 2012.
- In 2003, 7,120 patients entered the trauma system and by 2012 the number of patients entering the trauma system increased to 9,537 – a 34 percent increase.
- The increase in trauma cases between 2003 and 2012 occurred almost exclusively among patients 55 years and older (characterized as geriatrics patients in the trauma system). In 2003, the proportion of patients 55 years and older was 21 percent of trauma cases; by 2012 the proportion of geriatrics patients increased to 34 percent of all trauma patients. This represents an increase of 115 percent in the number of geriatrics trauma patients since 2003.
- The number of pediatric cases (18 years old and younger) decreased by 2 percent, and the number of adult patients (19 years old and older) increased 23 percent.
- Males comprised 67% of patients that entered the trauma system between 2003 and 2012.

Mechanisms of Injury

Between 2003 and 2012, traffic incidents that injured motor vehicle occupants (32 percent), falls (27 percent), and other transport incidents (8 percent) were the leading mechanisms of injury among trauma system patients. In addition to occupant injury, motor vehicle traffic incidents involving motorcycles, pedestrians, and bicyclists accounted for 5 percent, 4 percent, and 2 percent of trauma patient injuries, respectively. Non-traffic bicyclist incidents accounted for 3 percent of trauma patient injuries.

Trauma System Metrics

- Trauma system patient entry occurred in the field (69 percent), in the emergency department (19 percent), and retrospectively (13 percent).
- There were a total of 105,158 entries into the trauma system from 2003 to 2012 – 15 percent into Level IV trauma centers, 16 percent into Level III Trauma centers, 23 percent into Level II trauma centers, and 46 percent into Level I trauma centers.
- There were 11,042 patient transfers from one level of care to another. The majority of patients (7,395) were transferred to Level I Trauma centers from other trauma centers. Level II Trauma centers received 3,068 patients transferred to from other trauma centers.

Patient Care

- Between 2003 and 2012, Level I trauma centers received and provided care for 38 percent of patients while Level II, III, and IV trauma centers received and provided care for 24 percent, 20 percent and 18 percent of patients, respectively.
- In 2003, 4 percent of trauma patients died; in 2012 the rate of death among trauma patients was 3 percent.
- Between 2003 and 2012:
 - ◊ Almost 42 percent of trauma patients suffered major¹ trauma.
 - ◊ Almost 40 percent of trauma patients had comorbid factors that complicated their care. The leading comorbid factors included: cardiac problems, psychiatric problems, diabetes, respiratory problems, neurological problems, and obesity.
 - ◊ Patients with minor trauma² experienced a 1.6 day average length of stay and patients with major trauma experienced an 8.7 day average length of stay. Average length of stay has declined among patients with major trauma from 10.1 days in 2004 to 7.7 days in 2012.
- Between 2003 and 2012, about 23 percent of patients treated in the emergency department were discharged into the community.

Resources

2013–2012 Oregon Trauma Registry Report: <http://public.health.oregon.gov/ProviderPartnerResources/EMSTraumaSystems/TraumaSystems/Documents/Oregon%20Trauma%20Registry%20Report%202003-2>

Oregon EMS and Trauma Program: <http://public.health.oregon.gov/ProviderPartnerResources/EMSTraumaSystems/Pages/index.aspx>

National Trauma Data Bank: <https://www.ntdbdatacenter.com/Default.aspx>

Footnotes:

¹Major Trauma is defined as injuries that result in death, intensive care admission, a major operation of the head, chest or abdomen, a hospital stay of three or more days, or an Injury Severity Score (ISS) of greater than 15.

²Minor Trauma is defined as patient who is entered into the trauma system, has an ISS of less than or equal to 15, and survives to hospital discharge.

Program contact: Donald Au,
Donald.K.Au@state.or.us