

## Access to Clinical Preventive Services

# Out-of-Hospital Cardiac Arrest survival

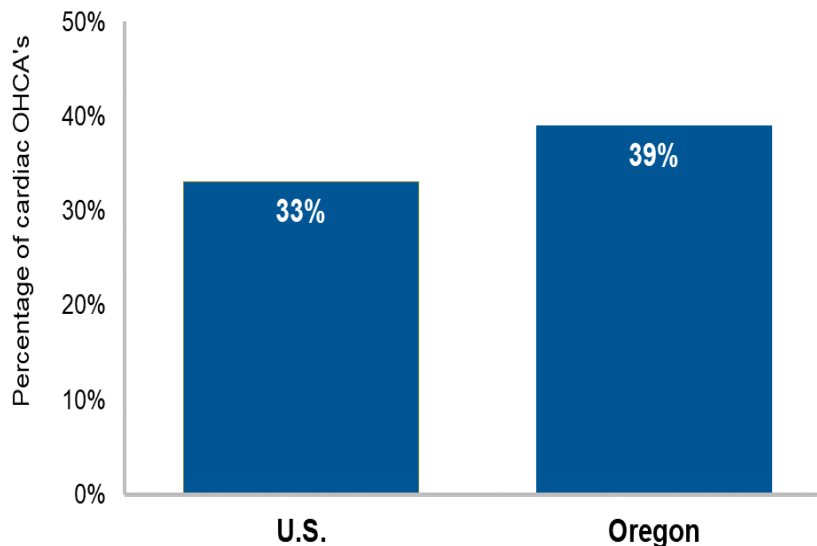
Heart Disease was the leading cause of death in the U.S. in 2018<sup>i</sup>. Each year, about 356,000 persons in the U.S. experience an out-of-hospital cardiac arrest (OHCA). There is a large regional variation in survival from OHCA (range, 4%-41%<sup>ii</sup>) in U.S. counties.

In Oregon, an estimated 3,000 cardiac arrest victims have a resuscitation attempt every year. Oregon EMS agencies are continuing their commitment to improving survival rates in their counties by participating in the Cardiac Arrest Registry to Enhance Survival ([CARES](#)). CARES is a tool for quality improvement that gives EMS agencies information on performance measures, such as bystander CPR, and outcomes, such as Utstein Survival.

Utstein Survival is a nationally comparable measure of survival from OHCA<sup>iii</sup> and is a proxy indicator for the quality of the EMS system. In 2018 the Oregon Utstein Survival was 39% (Figure 1). The national rate was 33%.

FIGURE 1

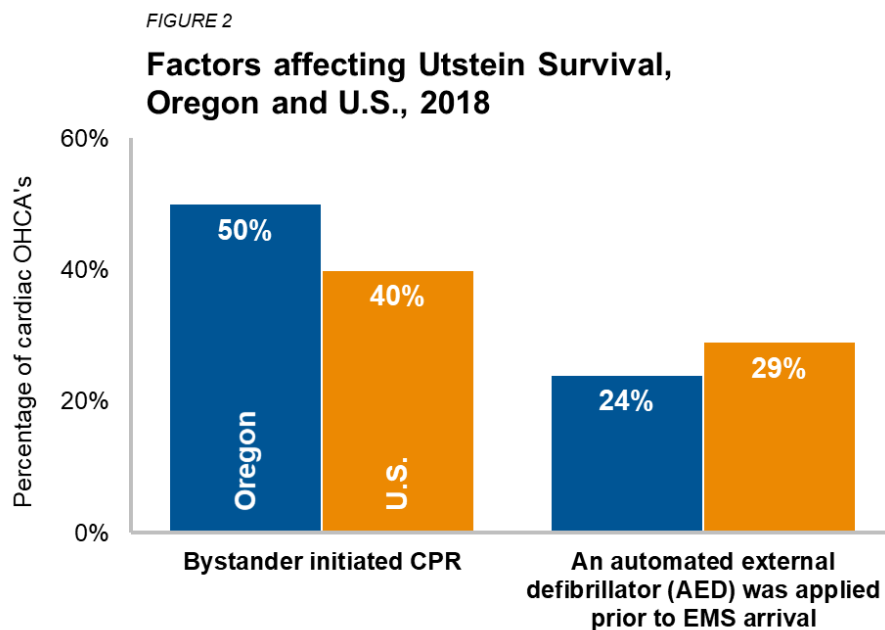
**Utstein Survival from out-of-hospital cardiac arrests (OHCA's), 2018**



Notes: Does not include arrests with non-cardiac cause

Source: CDC Cardiac Arrest Registry to Enhance Survival (CARES)

Early initiation of CPR and defibrillation by bystanders improve OHCA survival rates with good neurological outcomes. The rate of bystander-initiated CPR in Oregon was 50% in 2018, compared to 40% nationwide (Figure 2). Bystander CPR rates are improved in communities with strong dispatch assisted telephone CPR programs.



Source: CDC Cardiac Arrest Registry to Enhance Survival

Future efforts should focus on improving the Oregon Utstein Survival to 60% by increasing rates of bystander CPR and promoting the use of early defibrillation by lay and professional rescuers including law enforcement personnel.

**Additional Resources:** [CARES Summary Report 2018](#)

**About the Data:** Data source is the Cardiac Arrest Registry to Enhance Survival (CARES). In 2004, the Center for Disease Control and Prevention (CDC) collaborated with Emory University to develop CARES, an OHCA surveillance registry to help communities increase survival rates. In 2018 84,795 cases were entered the registry. The registry captures out-of-hospital cardiac arrest where resuscitation is attempted by a 911 responder (CPR and/or defibrillation). It contains demographic, therapeutic, and outcome measures for OHCA. CARES data are used to help communities benchmark and improve their performance for OHCA care. State-level data includes only participating agencies in each state.

**For More Information Contact:**

Oregon Health Authority EMS & Trauma Systems Medical Director  
 David Lehrfeld MD, [david.p.lehrfeld@state.or.us](mailto:david.p.lehrfeld@state.or.us)  
 Oregon Health Authority EMS CARES Coordinator  
 Stella Rausch-Scott, [stella.m.rausch-scott@state.or.us](mailto:stella.m.rausch-scott@state.or.us)

**Date Updated:** June 27, 2019

[Oregon State Health Profile](#)

---

*OHA 9153-D (Rev) 09/13: This document can be provided upon request in an alternate format for individuals with disabilities or in a language other than English for people with limited English skills. To request this publication in another format or language, contact the Publications and Design Section at 503-378-3486, 711 for TTY, or email [dhs-oha.publicationrequest@state.or.us](mailto:dhs-oha.publicationrequest@state.or.us).*

---

<sup>i</sup> National Vital Statistics Reports, Col. 68, No. 9, June 24, 2019 ([https://www.cdc.gov/nchs/data/nvsr/nvsr68/nvsr68\\_09-508.pdf](https://www.cdc.gov/nchs/data/nvsr/nvsr68/nvsr68_09-508.pdf))

<sup>ii</sup> 2018 Annual Report. (2018). CARES Cardiac Arrest Registry to Enhance Survival 2018 Annual Report, 164-189. [https://mycares.net/sitepages/uploads/2019/2018\\_flipbook/index.html](https://mycares.net/sitepages/uploads/2019/2018_flipbook/index.html)

<sup>3</sup> Defined as survival to hospital discharge and includes only bystander witnessed cardiac arrests with an initial shockable cardiac rhythm.