Heart Disease was the leading cause of death in the U.S. in 2018\(^1\). 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\%)\(^{ii}\) 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\(^{iii}\) 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\%.

![Utstein Survival from out-of-hospital cardiac arrests (OHCA's), 2018](image)

**FIGURE 1**

<table>
<thead>
<tr>
<th>Percentage of cardiac OHCA's</th>
<th>U.S.</th>
<th>Oregon</th>
</tr>
</thead>
<tbody>
<tr>
<td>33%</td>
<td></td>
<td></td>
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<tr>
<td>39%</td>
<td></td>
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</tbody>
</table>

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.

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.

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Date Updated: June 27, 2019

Oregon State Health Profile

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¹ National Vital Statistics Reports, Col. 68, No. 9, June 24, 3019 (https://www.cdc.gov/nchs/data/nvsr/nvsr68/nvsr68_09-508.pdf)


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