



“Spotlight on Improvement” highlights real stories of current efforts, including: programs being initiated; practices being implemented; and outcomes being targeted and/or achieved. They’re an opportunity for learning from others as well as a spark for further ideas on how we may work together to improve health care quality in the region.”

King County Emergency Medical Services:

Using Data to Guide Improvement Efforts

Background

The King County Emergency Medical Services (EMS) Division¹, part of Public Health - Seattle & King County, coordinates with regional partners that include 27 fire departments, five dispatch centers, six paramedic programs, and community, business, and health system partners to provide the best care possible for nearly two million residents.

The King County EMS System is organized using what’s known as a “Medical Model,” tiered regional based system, which means:

- Primary focus is on the medicine provided and its patient outcomes, not just response times.
- Patients are triaged at the point of the 911 call and the level of clinical response is tiered to match to the type of request.
- Regional partners are supported by centralized medical direction who partner with the University of Washington to study EMS protocols and systems and regional approaches to community programs, professional standards, and quality improvement initiatives.

Challenge

King County EMS has been working to improve out-of-hospital cardiac arrest for over 30 years. They selected cardiac arrest as a specific area to focus on because the time sensitivity and multi-disciplinary response needed serves as an effective measure for their overall system’s efficiency.

In 2009, King County’s cardiac arrest survival rate was impressive at an all-time high of 48%, which was one of the highest rates found in the country. However, they believed they could do better and established a goal of a 60% survival rate.

King County EMS’s Mantra:

*“Measure and improve.
 Measure and improve.”*

Solution

In order to meet the new ambitious goal, several key areas became a focus. Two of those areas included: 1) the instructions provided to callers through dispatch centers, and 2) a concept known as high performance CPR. To measure the effectiveness of CPR and the resuscitation effort, a new tool was developed to take a lengthy and cumbersome post call review process and convert it to an online review that included, audio clips from the field and from 911 calls, compression rates (and pauses), and feedback from a medical director, all with a goal of occurring within 7 days of the case. This measurement tool allows providers to see where they are doing great and where there is room for improvement. This measurement tool also allows for data aggregation at a system level to see where policies, common practices, and varying equipment may be assisting or hindering patient care.

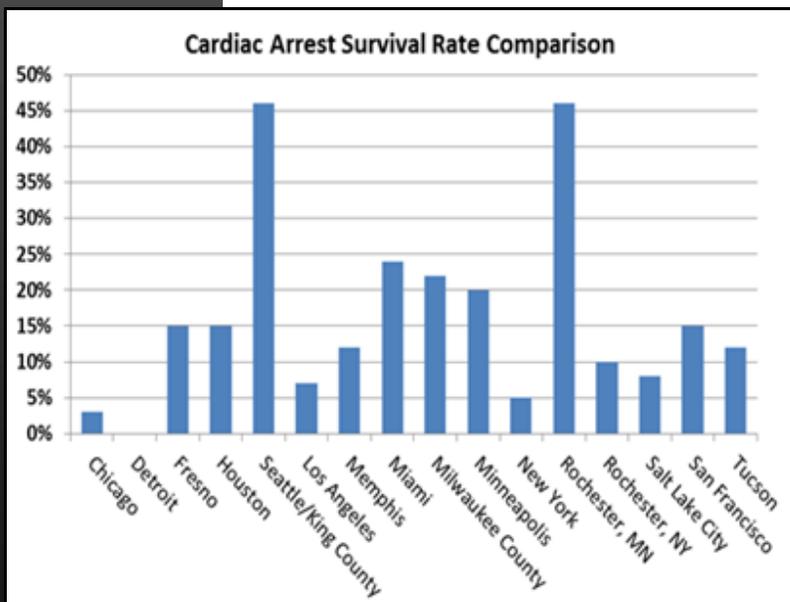


Figure 1: In 2007, Seattle & Rochester tied at 46%, significantly higher than other urban areas.²

Want to recommend
a program for an
upcoming Spotlight?

Contact us!

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About the Alliance

The Puget Sound Health Alliance, an Aligning Forces for Quality Community, is a non-profit made up of those who provide, pay for and use health care, working to improve quality of care at a price more people can afford. More than 165 organizations have joined the Alliance, including The Boeing Company, Starbucks, Puget Sound Energy, WA State Health Care Authority, King County and many other employers, physician groups, hospitals, consumer organizations, unions, health plans, pharmaceutical companies, associations and others.

A cornerstone of the Alliance work is the Community Checkup, a regional report to the public comparing the performance of clinics and hospitals for basic measures of quality care in the Puget Sound area.

This readily available data combined with the commitment to “measure and improve” began revealing multiple areas for improvement, such as:

- Decreasing pause time between shocks to 15 seconds or less
- Reducing the time for telecommunicators to begin telephone CPR instructions
- Increasing compression fractions to over 90% (previously 85.3%)

certification, and education and regional support of the entire system by community members.

Keys to success

What gets measured gets managed and continually improved upon!

- Persistence, dedication, and consistency. That’s simple to say but hard to do.
- Objectivity through data, knowing what

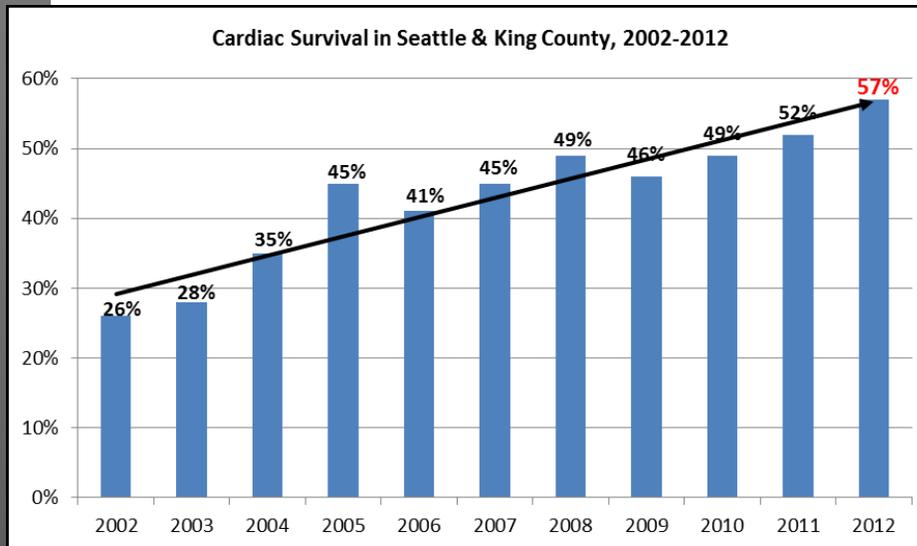


Figure 2: Seattle and King County’s cardiac arrest rate was 57% in 2012.²

Results

In 2012, four years into the process of increasing their goal to 60% from 47%, they have reached a 57% cardiac arrest survival rate. This puts the Seattle and King County System as having the highest survival rate not only in the United States, but in the world.²

Opportunities

Maintaining a culture of continuous improvement and a commitment to data driving those improvements is challenging. Or as EMS personnel may say, “*It’s simple but it’s not easy.*” It takes commitment and persistence from everyone, leadership to frontline and everyone in between to make meaningful progress.

Work remains to be done to improve upon “Pre-call” opportunities, (i.e before 911 calls are needed). The more community members are prepared for emergency situations the better. Preparations include privately and publicly placing AED systems, recommending and/or incentivizing CPR

needs to be fixed-- You have to be measuring things to know if it’s working or not.

- Trust between partners, ensuring that improvement tools are always seen as learning opportunities and not for punitive purposes.
- Teaching the science behind decisions so everyone is empowered by understanding why.

- Training, practice, and learn...and relearn from each other.

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Resources

1. Emergency Medical Services, Public Health – Seattle and King County: <http://www.kingcounty.gov/healthservices/health/ems/introduction.aspx>
2. The King County Emergency Medical Services (EMS) Division, Annual Report, September 2013: <http://www.kingcounty.gov/healthservices/health/ems.aspx>