

Ambulance Accident Reduction

Royal Ambulance
Santa Clara County, CA
Feb 2022 – Early 2024

Methodology:
DMAIC / Lean Six Sigma

63%

TOTAL REDUCTION
ACHIEVED

1.0 → 0.37

INCIDENTS PER 1,000 TRIPS

\$100K+

ANNUAL SAVINGS
(DIRECT)

3

INTERVENTION
TRACKS

THE PROBLEM

Royal Ambulance was running at 1 incident per every 1,000 transport trips across Santa Clara County — driving up vehicle repair costs, increasing legal liability, and pulling units out of rotation. Investigations were reactive and siloed, with no feedback loop into training or policy.

THE APPROACH

As Operations Supervisor, Christopher Harper led a formal DMAIC improvement project sponsored at the executive level. Data was collected from ESO incident reports and driver behavior data from StreetEagle, the fleet's existing GPS platform. Root causes were identified via fishbone analysis and GEMBA walks, and countermeasures deployed across three parallel tracks.

COUNTERMEASURES DEPLOYED

01

Updated EVOC training content to reflect incident data patterns. Targeted problem areas identified in ESO report analysis.

02

Standardized FTO curriculum. Implemented daily driving evaluation via Google Forms. Driving begins Day 1 of field training.

03

Rewrote SOP 122 (discipline policy). Shifted from punitive model to coaching-and-improvement framework. Consistent accountability statewide.

04

Identified limitations of StreetEagle (GPS/location only) and built the business case to upgrade to Samsara — a full safety platform with driver behavior scoring, harsh event detection, and camera integration. Piloted driver cameras fleet-wide. Now fleet standard.

63%

Accident rate reduced from 1.0 to 0.37 incidents per 1,000 trips — exceeding the original 30% target by more than double.

The project delivered hundreds of thousands in direct savings through reduced repair costs, lower insurance premiums, and improved unit availability. Improvements sustained and continued growing after initial implementation — demonstrating a durable operational system, not a one-time fix.

Ready to apply this approach to your operation?

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