

Medical Oversight and Quality-Improvement Process

Micah Panczyk

9-1-1 CPR Program Manager

Arizona Department of Health Services



Overview

- Medical Oversight
 - The What and Why
- Quality Improvement Process
 - The What and How

Medical Oversight

What is it?

Practical, hands-on management of medical response in an effort to **maximize** rates of bystander CPR and **minimize** time to the start of CPR.

Why?



- A **Compass**: Physicians versed in latest guideline recommendations
 - Recommendations do change!
 - 15:2 ... 30:2 ... C-O



- An **Authority**: Cultivates “grass roots” support from staff

Medical Directors guide ...

- Protocol revisions
 - 2-question model
 - Compression-only CPR in most cases
- Approaches to training
- Continuing education
- Quality-Improvement Process

Quality Improvement Process

What is it?

A system by which we mine and evaluate data to identify strengths and weaknesses in an effort to refine process and maximize survival from OHCA.

A couple of calls ...



A couple more ...

The Polite Dispatcher:

Would you like to try CPR?
(Please?)



The Drill Sergeant:

Now drop and gimme 30!
(Compressions, that is.)



Vision



Plan



Revise



Report/
CE

Your QI Process:

Preliminary



Plan

- A. Accept “The Must”: You must listen to calls

- B. Know the obstacles: I & E
 - Listening can be ...
 - Time Intensive
 - Expensive

Plan Accordingly



Plan

A. Know your QI budget = Y

B. Know the costs

- To evaluate recordings = X

- To train staff in latest guideline recommendations

 - Train-the-trainer model

 - T-CPR Video

C. Devise sustainable QI model

$$N = Y/X$$

Data Essentials



Plan

- Data dictionary defining data elements
- Necessary data
 - Did dispatcher **recognize** cardiac arrest?
... Time?
 - Did dispatcher **start instructions**?
... Time?
 - Did rescuer **start compressions**?
... Time?
 - **Barriers** to CPR?

Reporting: System “Snapshots”

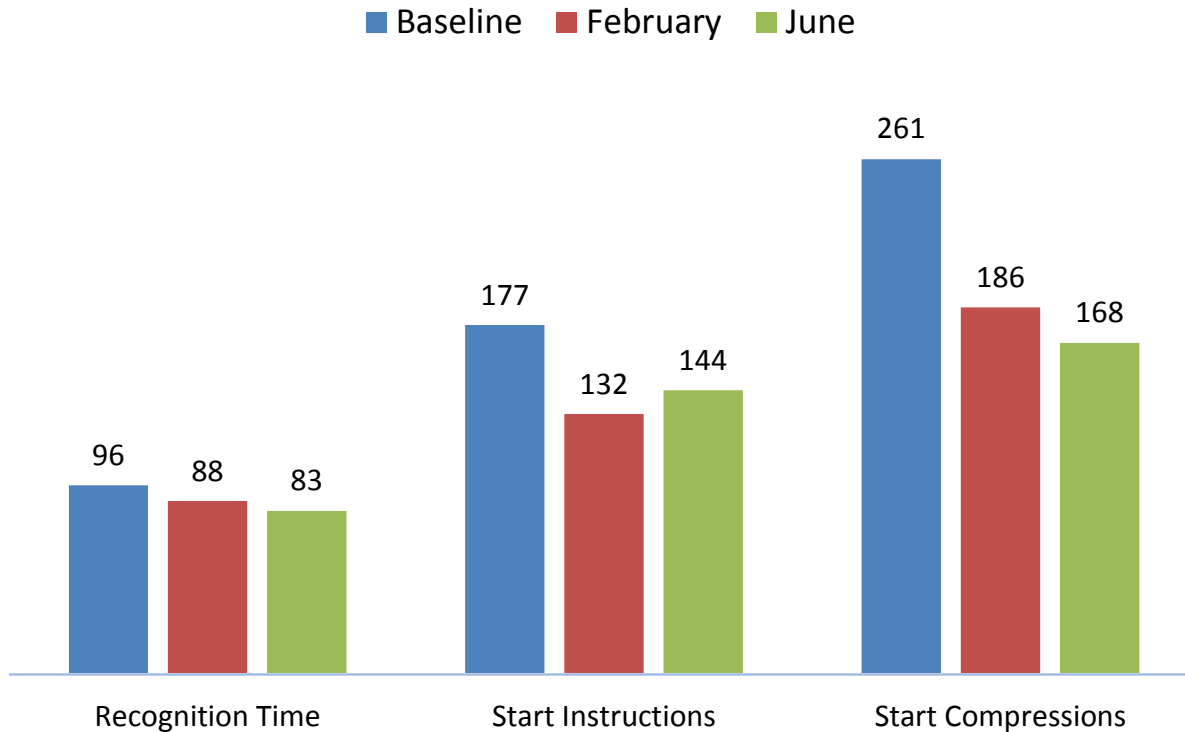


Aggregate data from recordings

- A. Baseline
- B. Measurement at regular intervals

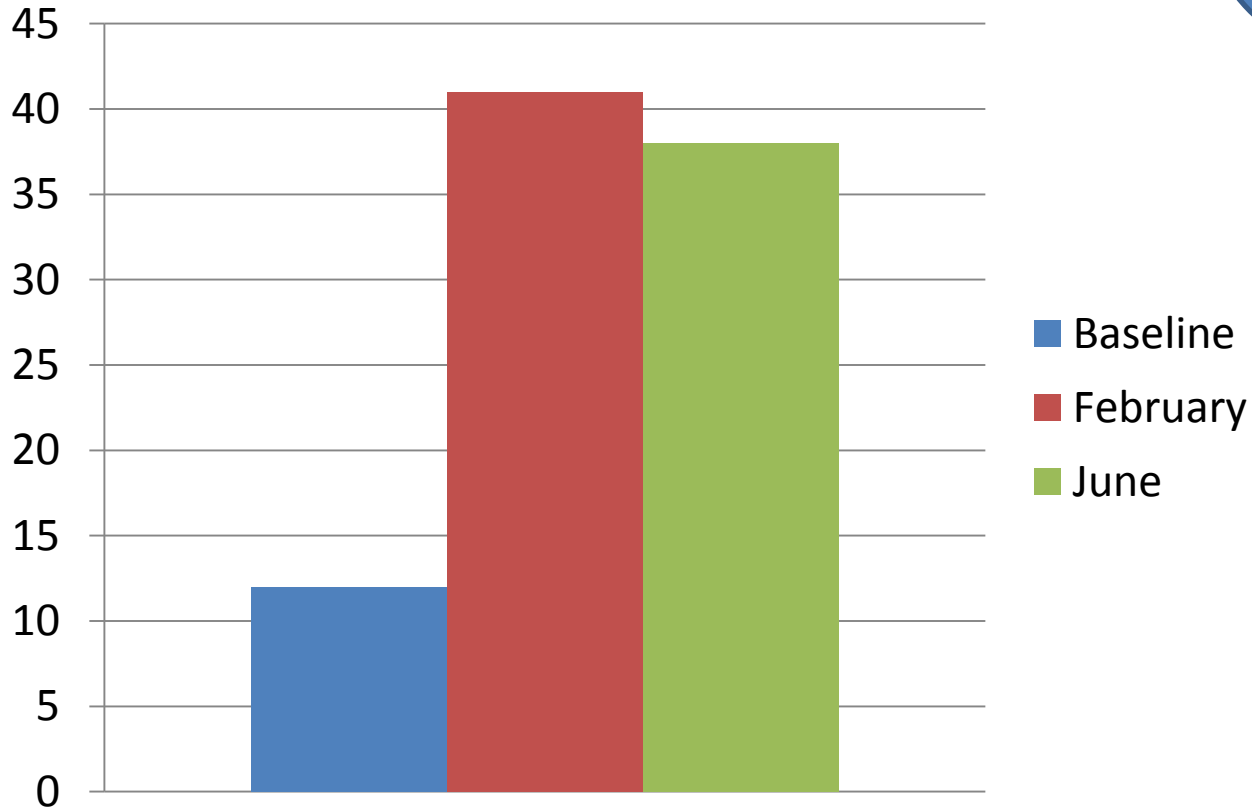


Time Measures (in seconds) on Three Intervals



The figure above shows the impact at one dispatch center of the Save Hearts in Arizona Registry and Education (SHARE) Program's effort to improve the quality of dispatch-assisted CPR in Arizona. The times from call-receipt to (1) recognition of the need for CPR, (2) start of CPR instructions, and (3) start of chest compressions have fallen from their baseline values by 14%, 19% and 36%, respectively.

Percent Telephone-Assisted Bystander CPR



The rate of Telephone-Assisted Bystander CPR includes all suspected cardiac arrest calls where (1) dispatchers started CPR instructions and (2) bystander compressions were delivered. The figure shows this rate over the course of three reports at one dispatch center participating in the Save Hearts in Arizona Registry and Education (SHARE) Program’s initiative to improve dispatch-assisted CPR in Arizona.

Calls Where CPR Instructions Were Not Started



Report

1. CPR not needed after initial indication
2. Probable death
3. Elderly rescuer can't lift patient off bed
4. Unable to get patient to floor
5. Caller unable to perform CPR; flustered, confused, caller
6. First caller is child, breathing and consciousness reassessed at 5:15; patient status change
7. Rescuer refuses CPR
8. Difficult access; unable to get patient to floor
9. Caller refused CPR; caller hard of hearing, older, less responsive; suspected death, unable to get patient to floor
10. Unable to get patient to floor
11. Caller not with patient; unable to get patient to floor; other: multiple handoffs, regains consciousness
12. Unable to calm caller; unable to get patient to floor
13. Caller refused CPR; caller uncooperative
14. Caller left phone; caller essentially ignored dispatch; uncooperative
15. Caller refuses CPR; patient "cold" and "gray; CT not assertive
16. Caller refuses CPR, reports patient "cold"
17. Caller refused CPR at 1:35, saying patient was breathing but flailing around on the floor
18. Patient's status changed
19. Call ended abruptly before CPR instructions could start
20. Caller refused CPR, possibly because CT wasn't assertive, asking if they wanted to do CPR
21. Unable to get patient to floor
22. Patient status change, became conscious after initial CPR indication
23. Couldn't get patient to floor; CT not assertive
24. Patient status change
25. Caller not with patient; couldn't calm caller; caller refused to try CPR or to try to move patient

Using your data: Revising Protocol

Revise

Strengths & Problems?



Possible solutions?



Impact of Solutions?

Using your data

Continuing Education

Revise

Identify
“coaching” cases

Review
recording



Data Linkage

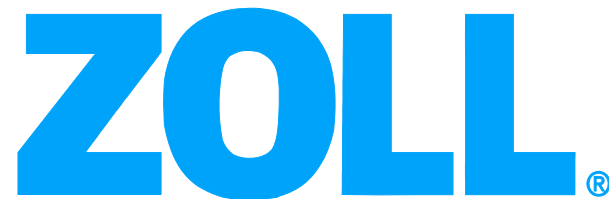


The Connection



From left: Dispatcher Katie Sheridan; survivor Joe Andazola (seated, center); rescuer George Priniski; survivor's wife, Karen Andazola.

Acknowledgements



micah.panczyk@azdhs.gov

9-1-1CPRDispatch.azshare.gov