

EMS Response Pattern and High-User Program Update

Fire Commission Meeting
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Clement Yeh MD

FRES and Dispatch Operations

- FRES (Fire Response) pattern is the CAD (Computer Aided Dispatch) system's automatic recommendation for call determinants
- FRES/Response Pattern is set between a dispatch agency (e.g. Division of Emergency Communications) and a response agency (e.g. SFFD, private ambulance providers)
- 2012 Revision project was limited to medical calls only
- Analyzed 2010-2011 data
- FRES Revisions implemented on 1/7/12

FRES Revision Project Goals

- Improve safety for responders, patients, public
- Align most appropriate resources with call type (as determined by AMPDS—Advance Medical Priority Dispatch System)
- Code 3 calls normally require minimum 2 resources
- Historically SF = 70% Code 3 dispatch with 6% C₃ return
- Average C₃ time saved = 1 min 52 sec

FRES Revision Project Process

- **Identify potential EMD determinants to for revision**
 - At least moderate frequency of use (>50 calls/year)
 - Currently Code 3 dispatch
 - 50 MPDS Determinant Groups Identified
 - 7916 Calls analyzed
 - Approximately 15% all Code 3 dispatches
- **Analyze Pre-hospital Care Records**
 - Low rate of time sensitive ALS interventions
 - CPR, Intubation/King Tube, Defibrillation

FRES Revision: Code 2 Response

- 1C1-C6 Abdominal Pain
- 1D1 Abdominal Pain, Not Alert
- 18C Headache
- 19C3 Heart Problem/Chest Pain <35yo
- 19D4 Heart Problem/Clammy
- 26C1-2 Sick Person
- 33C Inter-facility Transfer (except possible MI)

FRES Revision: Code 2 + Engine Response

- 4D2-4D4 Assault
- 13C1-C3 Diabetic Problem
- 17D3-D5 Fall
- 19C2, D1-D3 Heart Problem
- 21D2-4 Bleeding
- 32D1 Unknown Problem/Status

Tracking Measures: C3 Dispatch

Dispatch Priority	2011 (1/7-4/7)	2012 (1/7-4/7)
<i>Code 3</i>	<i>70% (15722)</i>	<i>57.3% (13243)</i>
<i>Code 2</i>	<i>30% (6724)</i>	<i>42.6% (9827)</i>
<i>Total</i>	<i>100% (22446)</i>	<i>100% (23070)</i>

- Overall 12.6% decrease in Code 3 dispatch ~ 2500 fewer calls
- Projected ~10k-12k calls / year

Tracking Measures: C3 Return

Return Priority	2011 (1/7-4/7)	2012 (1/7-4/7)
<i>Code 3</i>	6.4% (1038)	6.1% (1010)
<i>Code 2</i>	93.6% (15209)	93.9% (15531)
<i>Total</i>	100% (16247)	100% (16541)

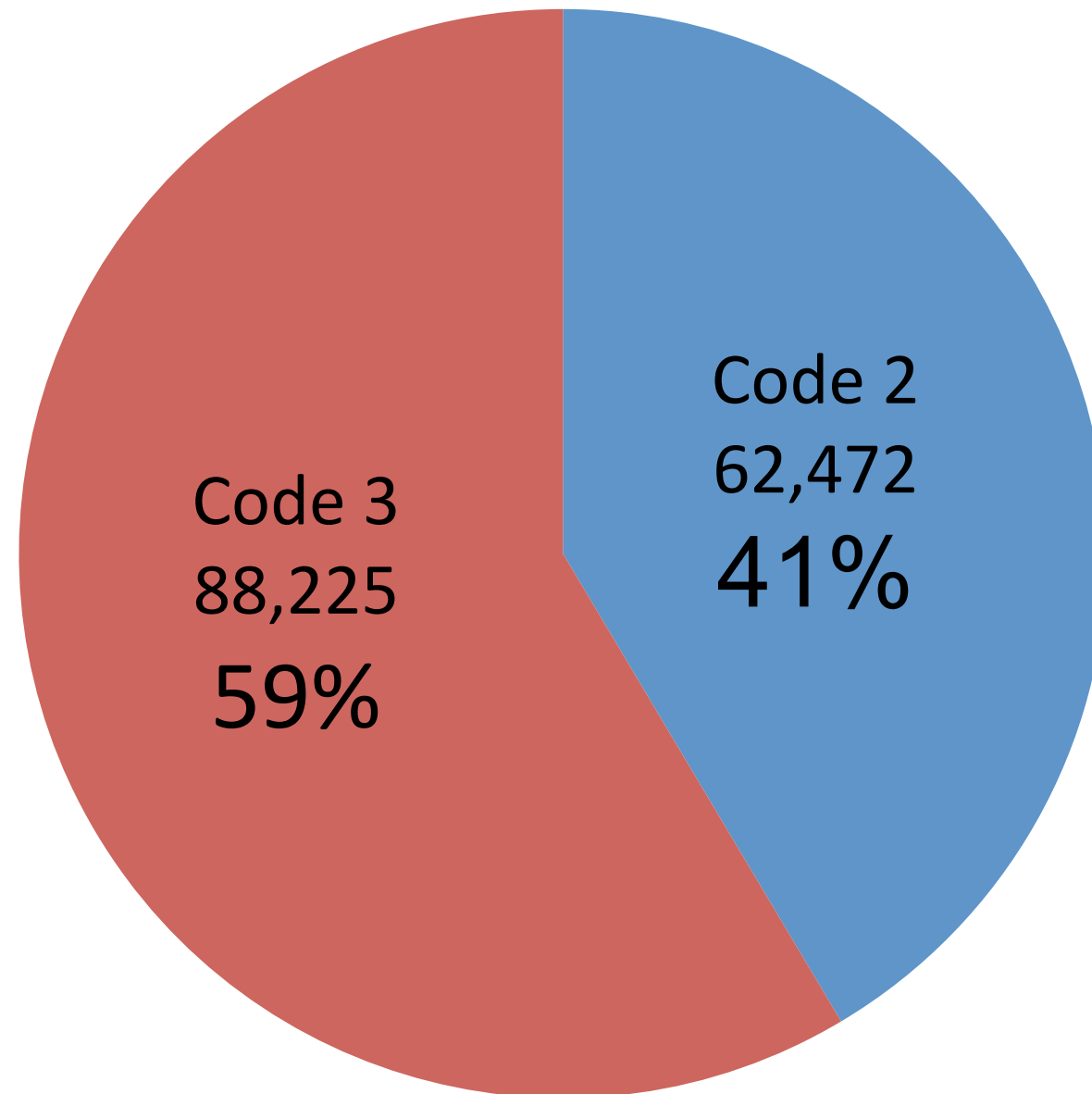
- Overall no change in Code 3 Return rate

Tracking Measures: C2-C3 Upgrade in Revised FRES Determinants

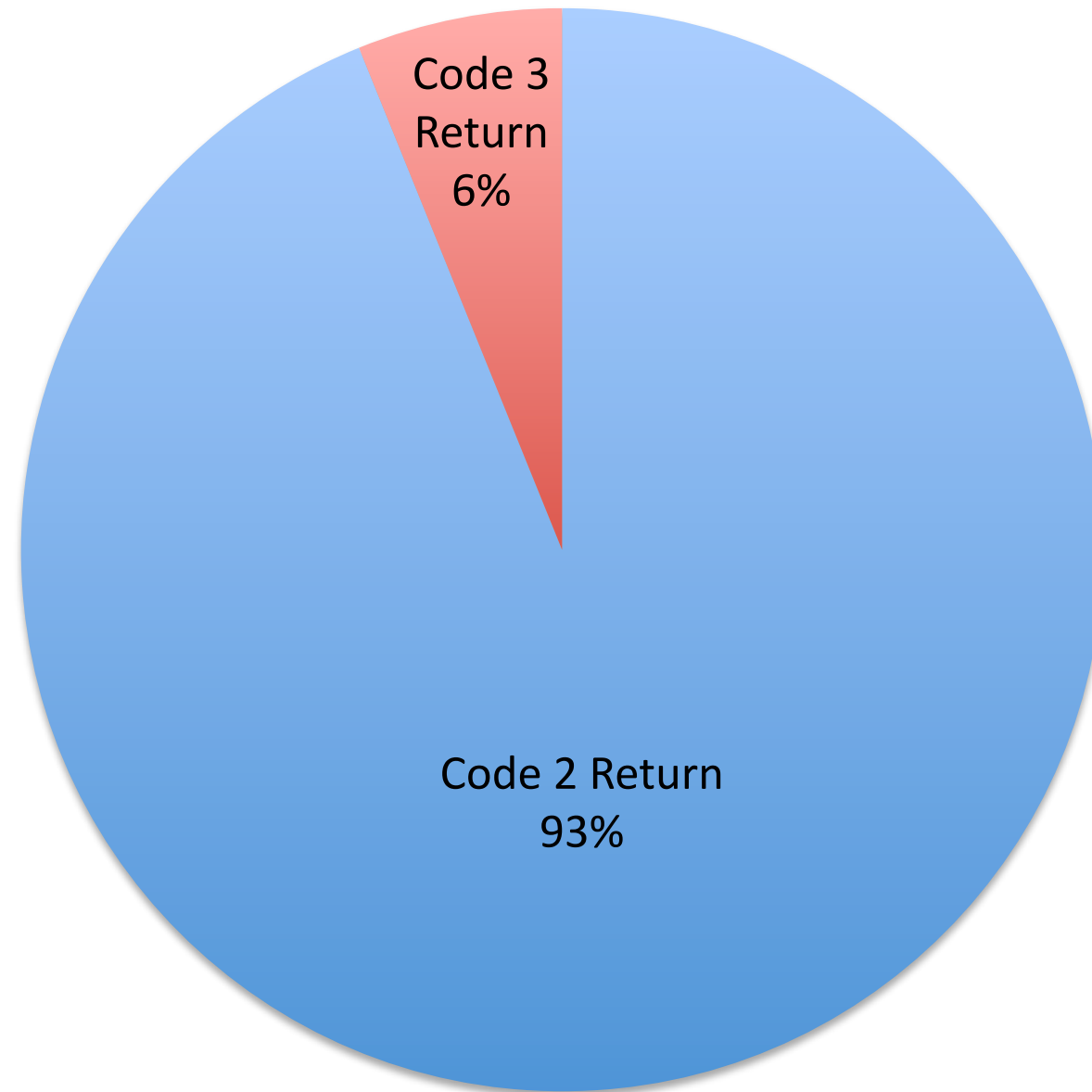
	2011 (1/7-4/7)	2012 (1/7-4/7) REVISED
<i>Code 3 Return %</i>	<i>4.9%</i>	<i>4.7%</i>
<i>Code 3 Return #</i>	<i>140 of 2843</i>	<i>120 of 2554</i>

- Small **decrease** in Code 3 Return rate among revised FRES determinants
- Cases of Code 2 dispatch with C3 return reviewed
 - CAD Records
 - PCR Records
 - Hospital Records
- No instances of compromised patient care related to revisions found

2014 Dispatch Priority



2014 Transport to Hospital



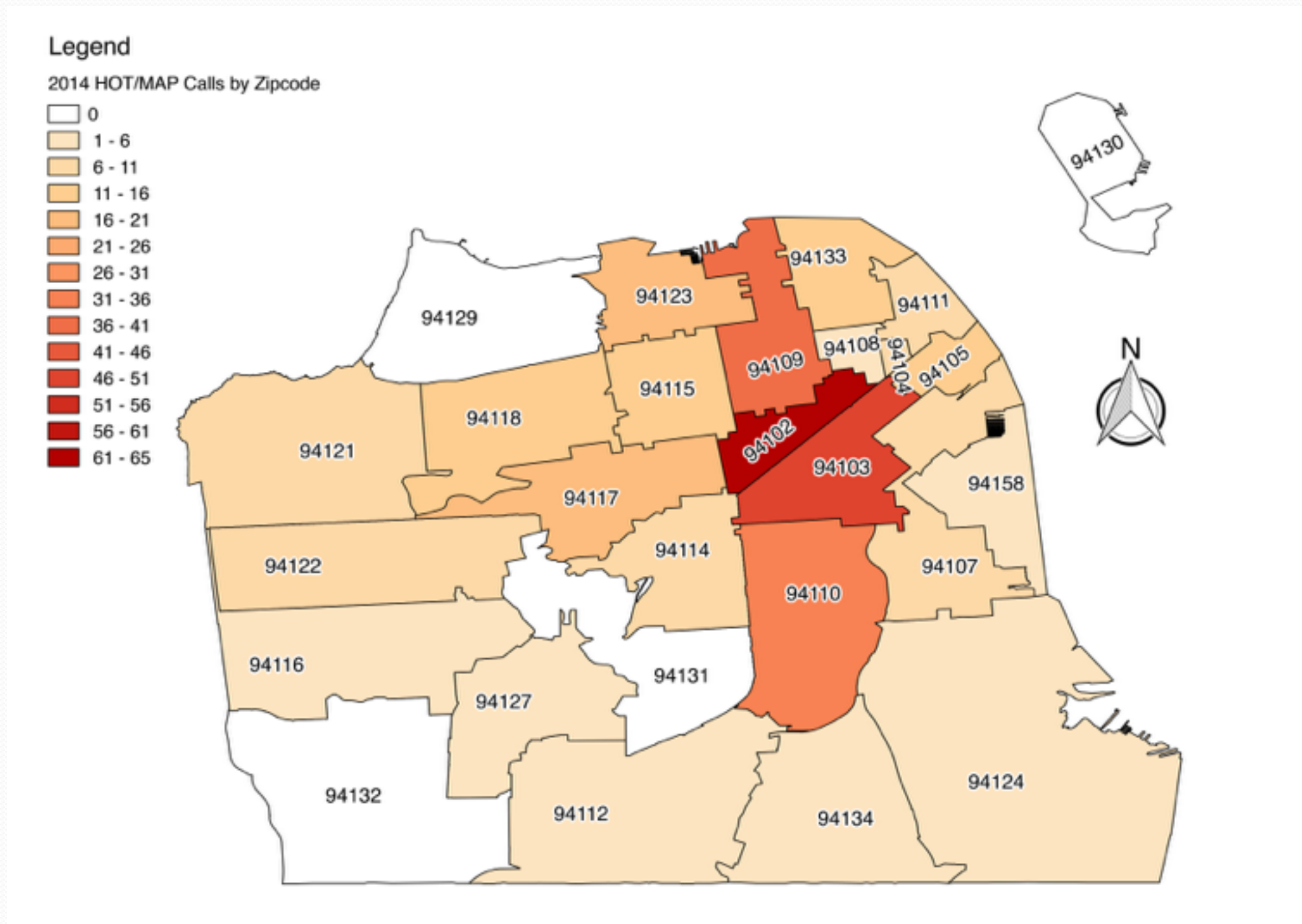
Conclusions

- 2012 FRES Revisions decreased C₃ dispatch by 12.6%
- Projected 10,000-12,000 fewer C₃ dispatches/year
- Very small increase in C₂-C₃ upgraded calls (1.2%)
- No evidence found of compromised patient care with these changes

EMS High-User Program

- 2004-2009 SFFD HOME Team provided outreach for EMS high users
- Small portion of patients continue to rely on EMS for a disproportionately high amount of services
- Additional programs exist
 - SF-HOT / Street Medicine
 - Sobering Center
 - Navigation Center
- Need exists for improved coordination of EMS with city non-emergency resources

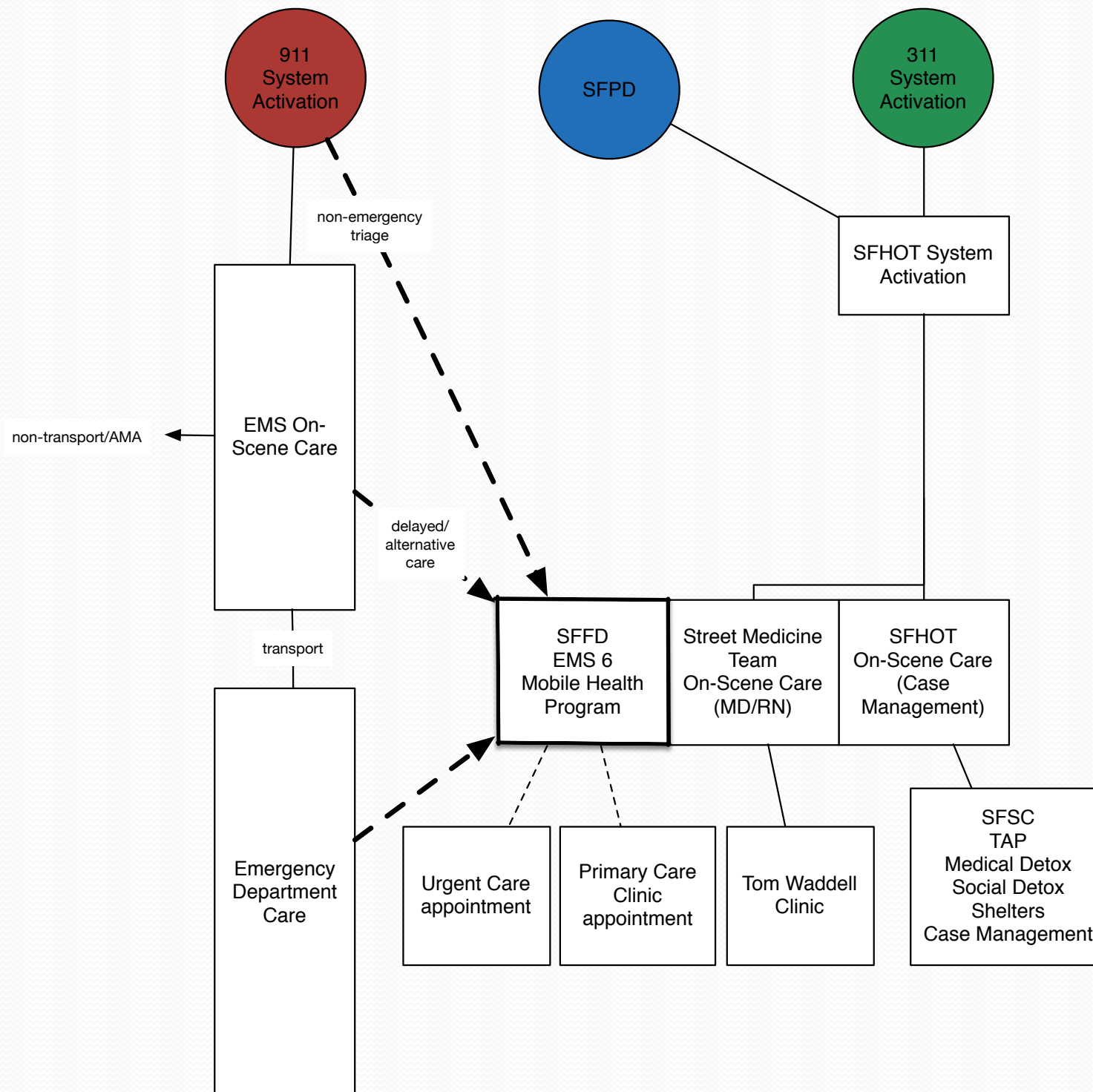
EMS to SFHOT/MAP transfers



EMS-6 Program

- H-33 EMS Captain
- Dispatched to 911 incidents
- Special Called by other EMS Resources, clinics, case managers
- Co-Staffing with SFDPH SFHOT Outreach worker
- 10 hours/day x 7 days/week
- Integrated records with case management
- Work in conjunction with existing services to stabilize high-users and refer to non-emergency programs

EMS-6 Process Map



Next steps

- Finalize budget proposal
- Ongoing planning discussions with DPH
- Develop standard policies and protocols
- Implement shared medical record system