

A Novel Approach to  
Detecting Elder  
Abuse and Neglect in  
the Community:

Detection of Elder Abuse  
Through Emergency Care  
Technicians (DETECT).

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MedStar Mobile Healthcare  
Texas DFPS



# FORT WORTH SAFE COMMUNITIES COALITION

MAKING FORT WORTH A SAFE CITY IN WHICH TO GROW, LIVE, WORK AND PLAY.



United Way  
of Tarrant County



**JAMES WEST**

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C. SHEARIN



EMT-1

Department

FLORES

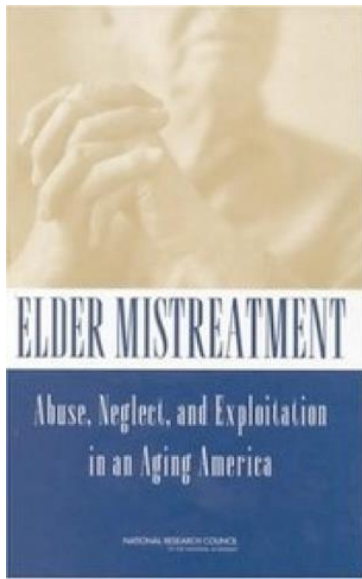
PARAMEDIC



## Underreporting is a **BIG** problem

**1 in 14** cases of elder abuse are reported to authorities  
(Acierno et al., 2010)

**3.24 per 1,000** older adults contacted social services or law enforcement for investigation and support  
(Lifespan of Greater Rochester, 2011)



“Substantial research is needed to improve and develop new methods of **screening** for **possible** elder mistreatment in a range of clinical settings.”



“The purpose of this Funding Opportunity Announcement ... the development of **new and innovative tools** and methods for the **screening** and detection of **elder mistreatment**”

National Institute  
on Aging

**Social isolation, dementia, and declining health and poor functional status** are all associated with elder abuse and neglect

Older adults are **four-times** more likely to use emergency medical services than younger adults



**It make sense for EMTs to be part of the solution**

RESEARCH ARTICLE

Open Access

# Barriers in detecting elder abuse among emergency medical technicians



CrossMark

Jennifer M. Reingle Gonzalez<sup>1\*</sup>, M. Brad Cannell<sup>2</sup>, Katelyn K. Jetelina<sup>1</sup> and Sepeadeh Radpour<sup>2</sup>

# Barriers

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1. Medic's apprehension towards violating older adults' personal freedom to determine the conditions of their living environment
2. Medic's moral anxiety about the perceived negative consequences of an APS investigation on the older adult and/or their caregiver(s)
3. The time burden associated with reporting elder abuse or neglect to APS
4. A perceived lack of case recall ability by medics
5. Medic's low confidence regarding ability to correctly identify potential elder abuse or neglect

# Indicators

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1. The condition of the outside areas around the home
2. The conditions inside the home
3. Lack of / inadequacy of social support
4. Medical history and medication use / misuse
5. Caregiving indicators
6. The physical condition of the older adult
7. The older adult's behavior
8. Medic instincts



RESEARCH ARTICLE

Open Access



# Towards the development of a screening tool to enhance the detection of elder abuse and neglect by emergency medical technicians (EMTs): a qualitative study

M. Brad Cannell<sup>1\*</sup>, Katelyn K. Jetelina<sup>2</sup>, Matt Zavadsky<sup>3,4</sup> and Jennifer M. Reingle Gonzalez<sup>2</sup>

# Final Screening Tool

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1. Brief
2. Direct Observations
3. Decision Rule
4. Easily Incorporated into SOP



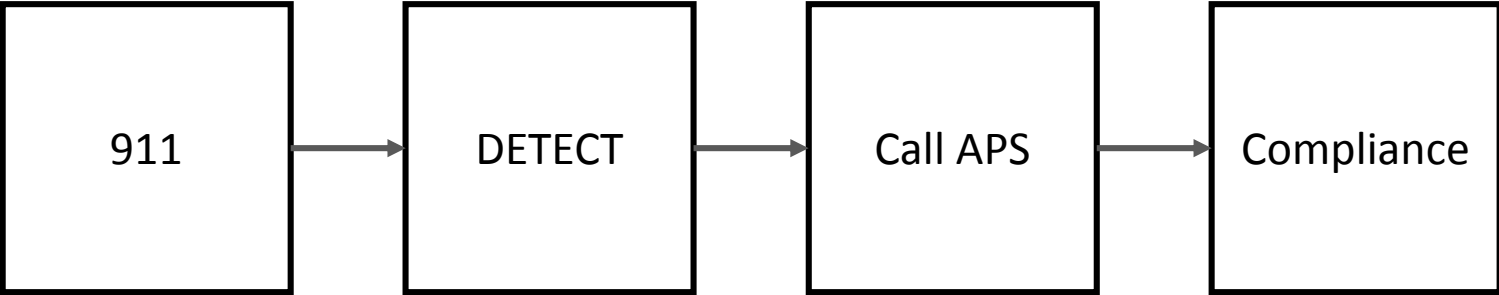
- Times
- Mileage
- Timeline
- Power Tools
- Release at
- AMA
- Spinal
- Termination
- Withholding
- Stroke
- Handgun
- STEMI
- DETECT
- All

OK Cancel Delete

- Header >
- DETECT STUDY >
- Footer >

DETECT STUDY

Unusual odor (e.g., urine, feces)	<input type="button" value="Yes"/>	<input type="button" value="No"/>	
Inside of home is in extreme disarray / hoarding	<input type="button" value="Yes"/>	<input type="button" value="No"/>	
Living environment poses a health or safety concern (e.g., fire hazard, insect or rodent infestation, urine or feces present)	<input type="button" value="Yes"/>	<input type="button" value="No"/>	
If caregiver(s) present, they appear to lack knowledge of the patient / older adult's medical needs	<input type="button" value="Yes"/>	<input type="button" value="No"/>	<input type="button" value="N/A"/>
If caregiver(s) present, they appear unengaged and inattentive in caring for the patient / older adult	<input type="button" value="Yes"/>	<input type="button" value="No"/>	<input type="button" value="N/A"/>





**251** medics  
**1,480** older adults

September 17, 2015

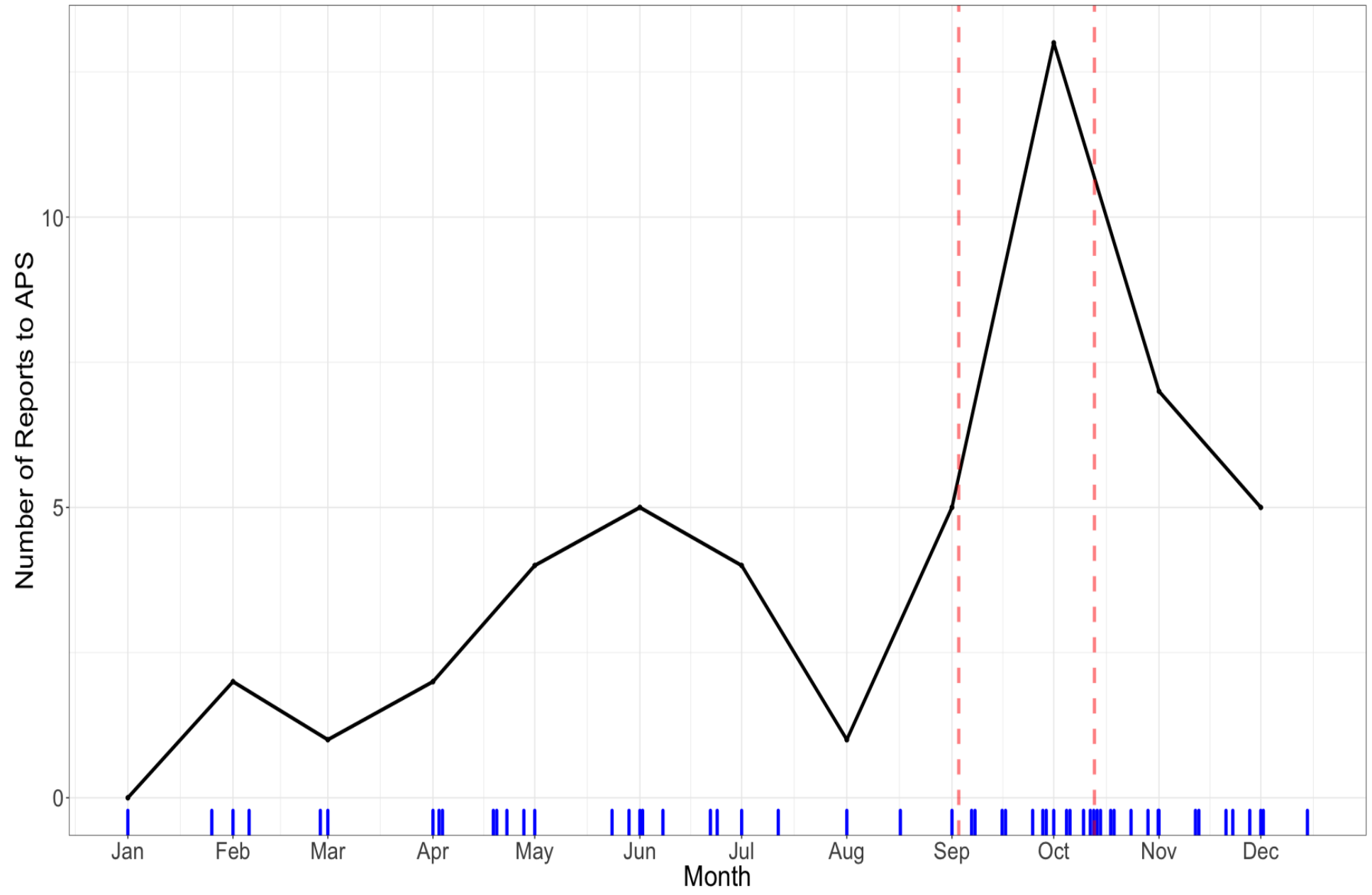
October 26, 2015

**1,248** DETECT Screenings  
**209** Positive Screenings

September 17, 2015

October 26, 2015

Monthly increase after DETECT = 3.6 reports/month ( $p < 0.0001$ )



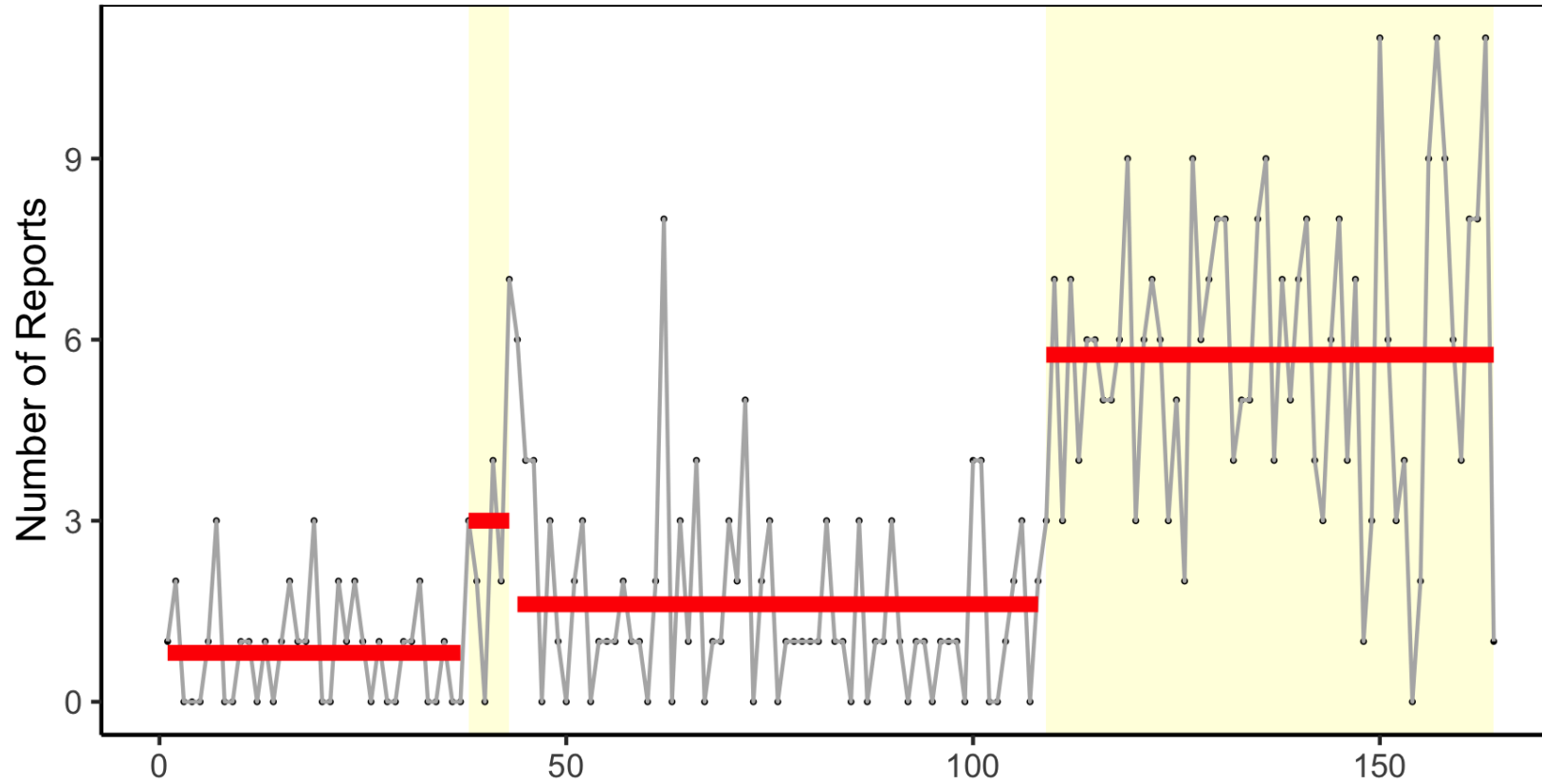
**14** Item DETECT Tool  
**28,228** DETECT Screenings

February 02, 2017

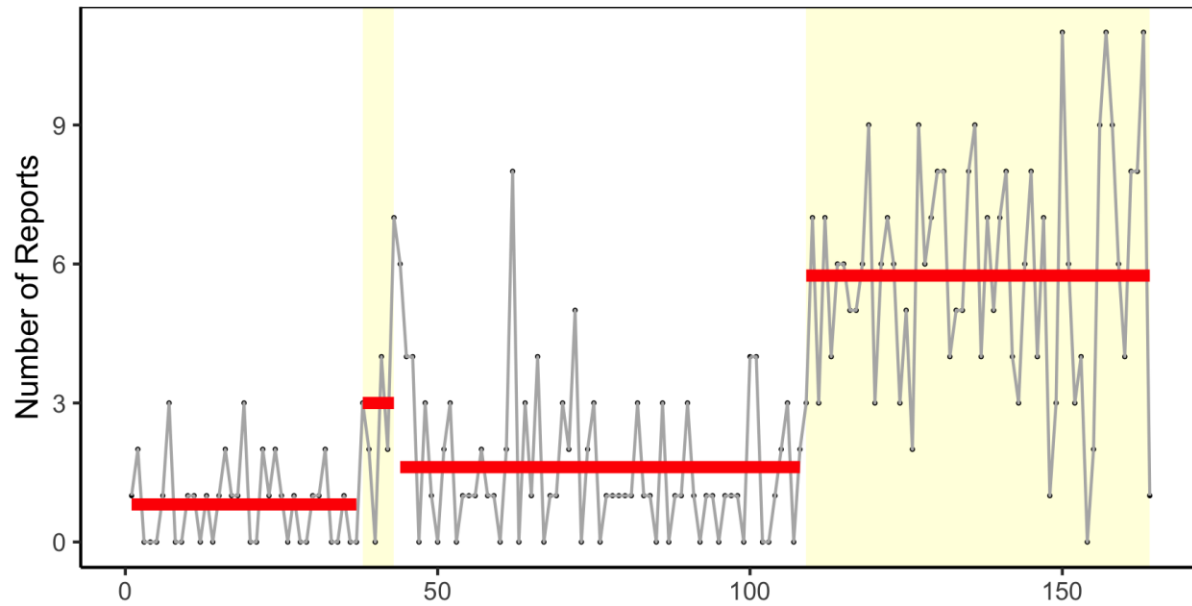
February 28, 2018



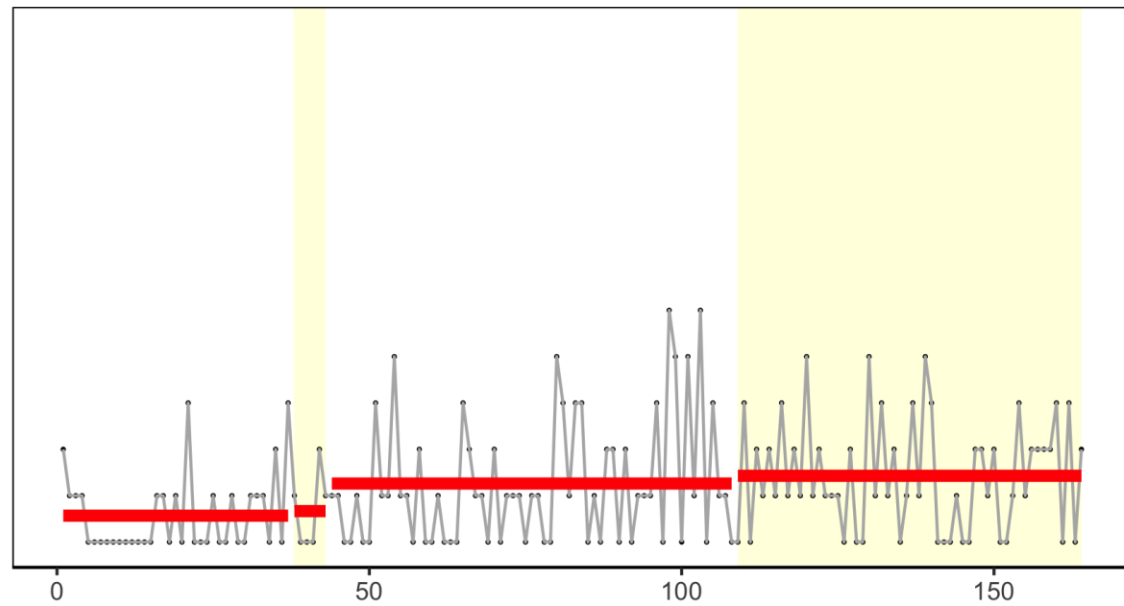
Medics, Inside MedStar Service Area



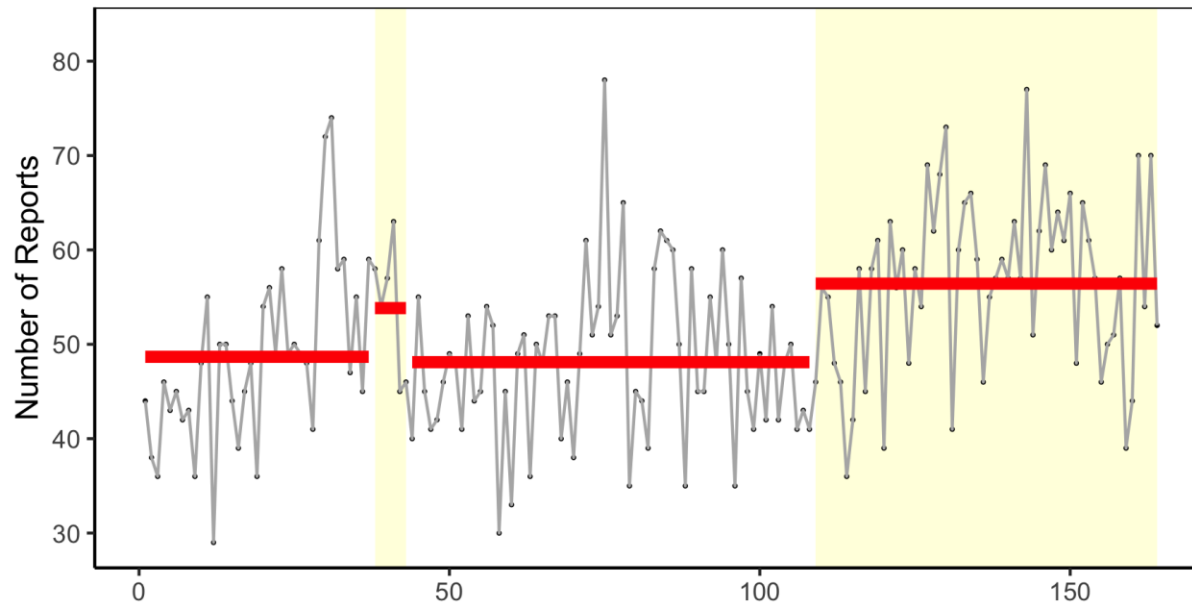
Medics, Inside MedStar Service Area



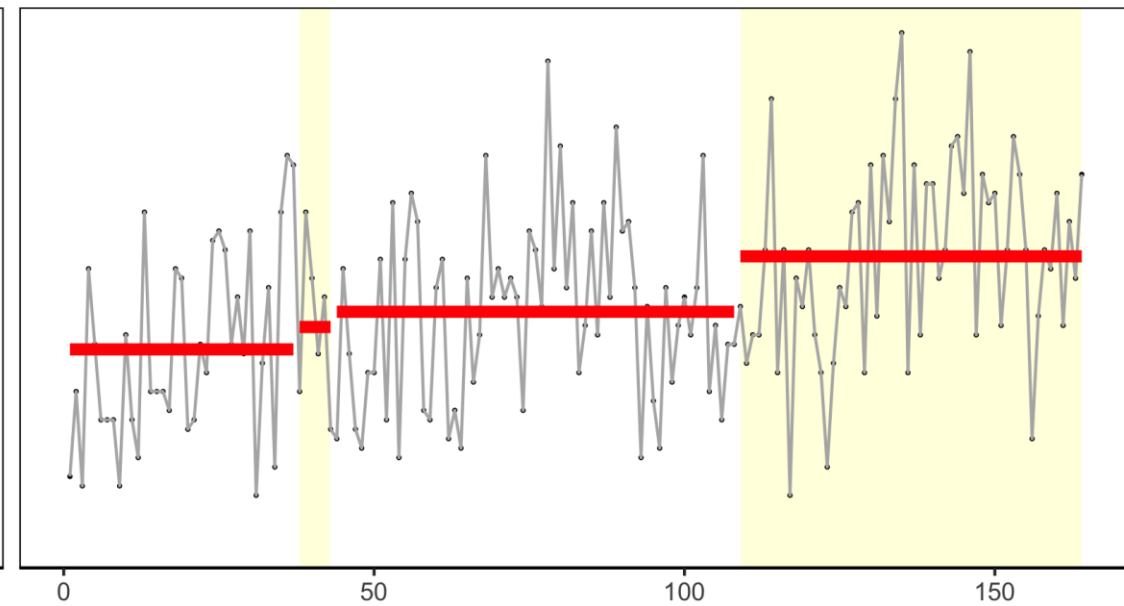
Medics, Outside MedStar Service Area



Non-medics, Inside MedStar Service Area



Non-medics, Outside MedStar Service Area



**Table 1.** Estimated Effect of DETECT on Changes in the Number of Elder Abuse Reports by Reporter Type and Medstar Service Area, Results of a differences in differences in differences (DDD) analysis.

	Rate Ratio	95% Confidence Interval
<i>Crude Effects by Group</i>		
Medics in the MedStar Service Area	4.13	(3.25, 5.27)
Non-medics in the MedStar Service Area	1.16	(1.09, 1.22)
Medics outside the MedStar Service Area	1.32	(0.96, 1.82)
Non-medics outside the MedStar Service Area	1.12	(1.05, 1.19)
<i>DDD Estimate of the Effect of DETECT</i>	3.03	(2.06, 4.46)

# Strengths

- Feasibility
- Increased reporting
- Low FDR
- 800,000 medics in every county in the US
- ImageTrend is used in every state, and 36 statewide systems

# Opportunities

- No information/follow-up for negative screens
- No “Gold Standard”
- Little contextual information

Data Collection Activity

Month

Total

1

2

3

...

36

37

38

Initial DETECT Screenings

1,650

1,650

1,650

...

1,650

59,400

Follow-up Interviews

70

70

...

70

70

2,520

LEAD Panel Reviews

18

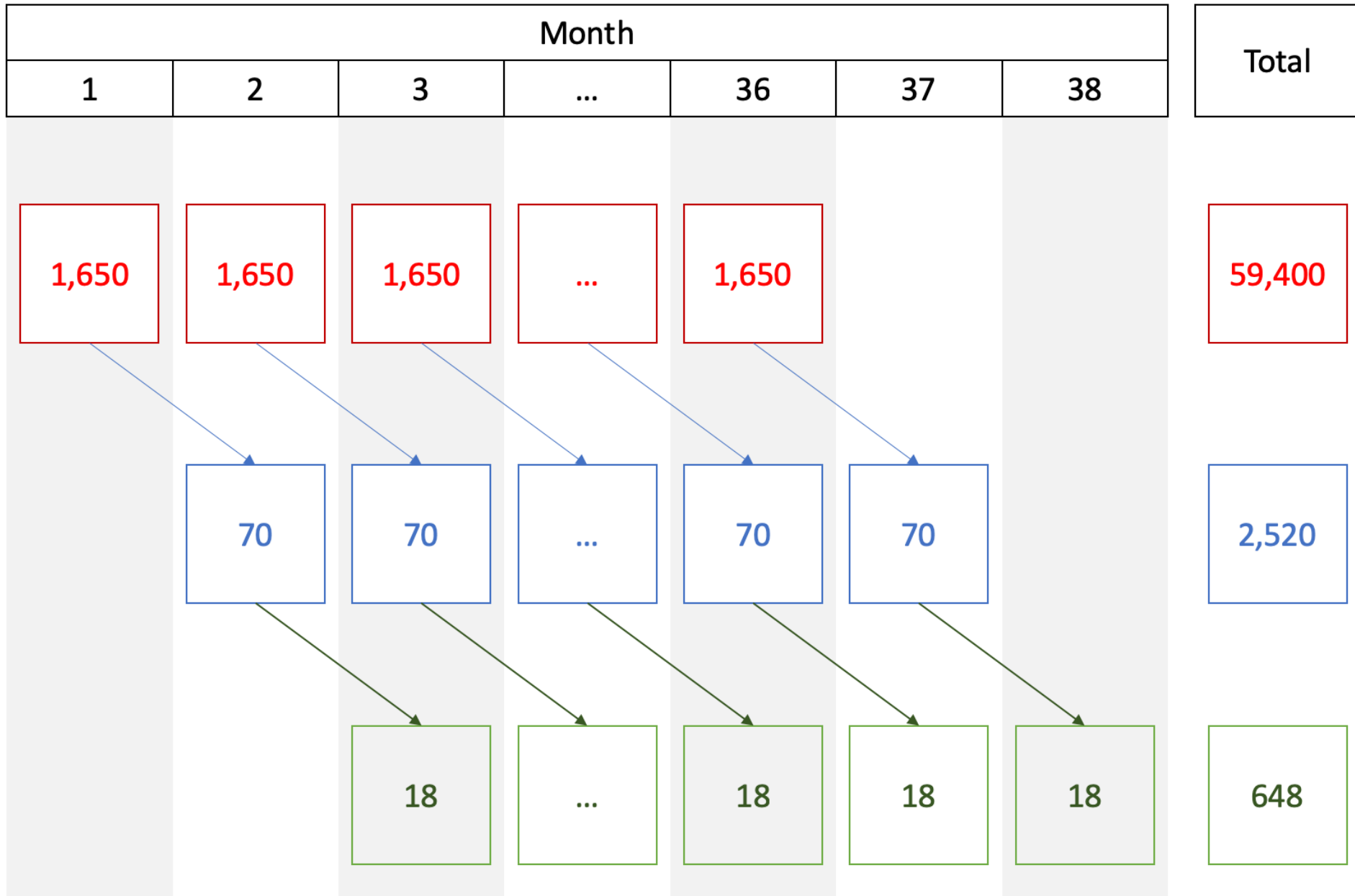
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