

# Provider Supply & Access to Specialty Care

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**VA**



**U.S. Department of Veterans Affairs**  
Veterans Health Administration  
Office of Research & Development

**PEPReC**

*Partnered Evidence-based Policy Resource Center  
A VA QUERI Center*



**VA Quality Enhancement Research Initiative**  
EVIDENCE INTO PRACTICE

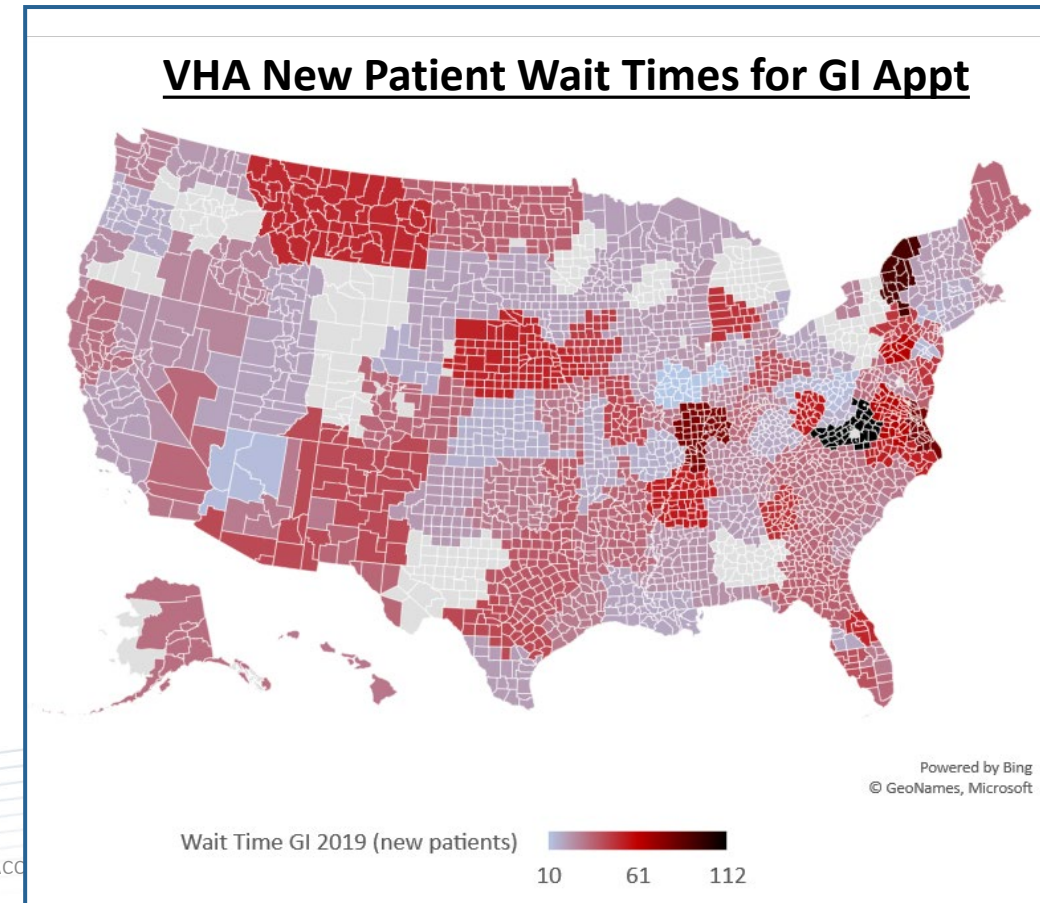
**BOSTON  
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# Acknowledgments

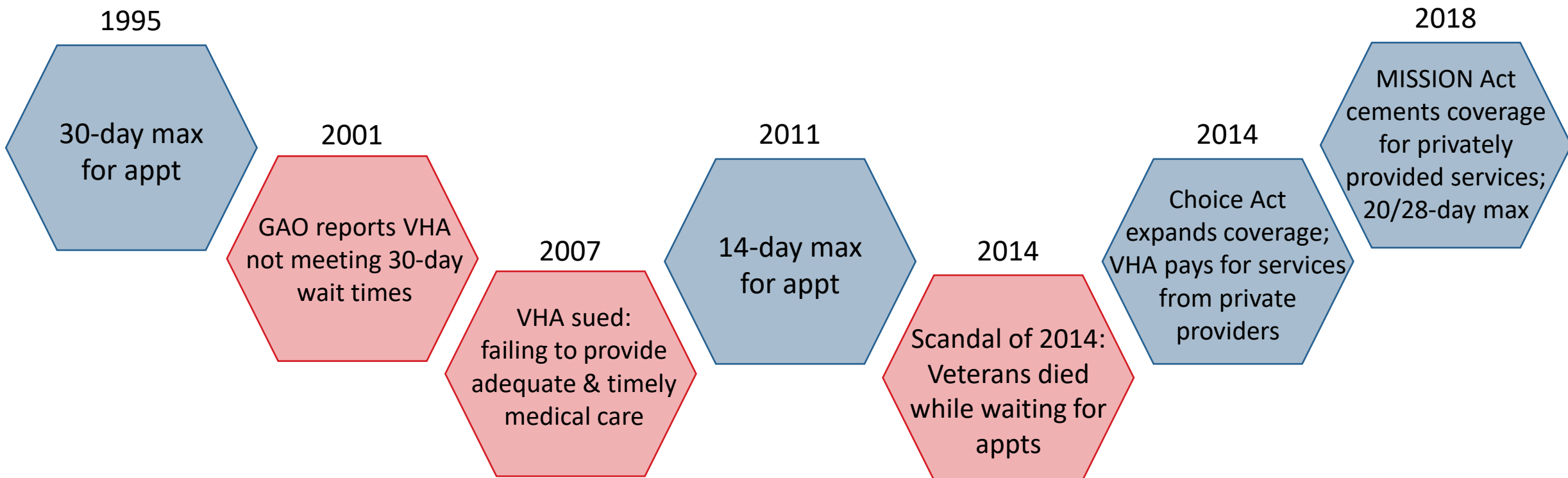
- Funded by the VA Quality Enhancement Initiative (QUERI) and VA Chief Strategy Office (CSO)
- Statements do not reflect the views of the Veterans Affairs (VA) or Veterans Health Administration (VHA)

# Access to Care

- Poor access leads to poor outcomes and quality of life
- Disparities
  - Geographic differences
  - Urban / rural
  - Insurance coverage
  - New patients versus established patients
- One measure of access to care: wait time



# Access Issues & VHA Policies

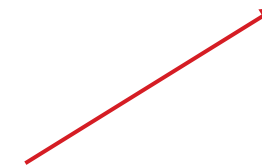


# Two Levers to Improve New Patient Access

Increase Capacity/Staff



Wait Times Decrease



Improve Productivity



# Many Factors Can Affect New Patient Access

Increase Capacity/Staff



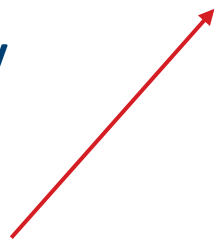
Wait Times Decrease



Demand for VHA

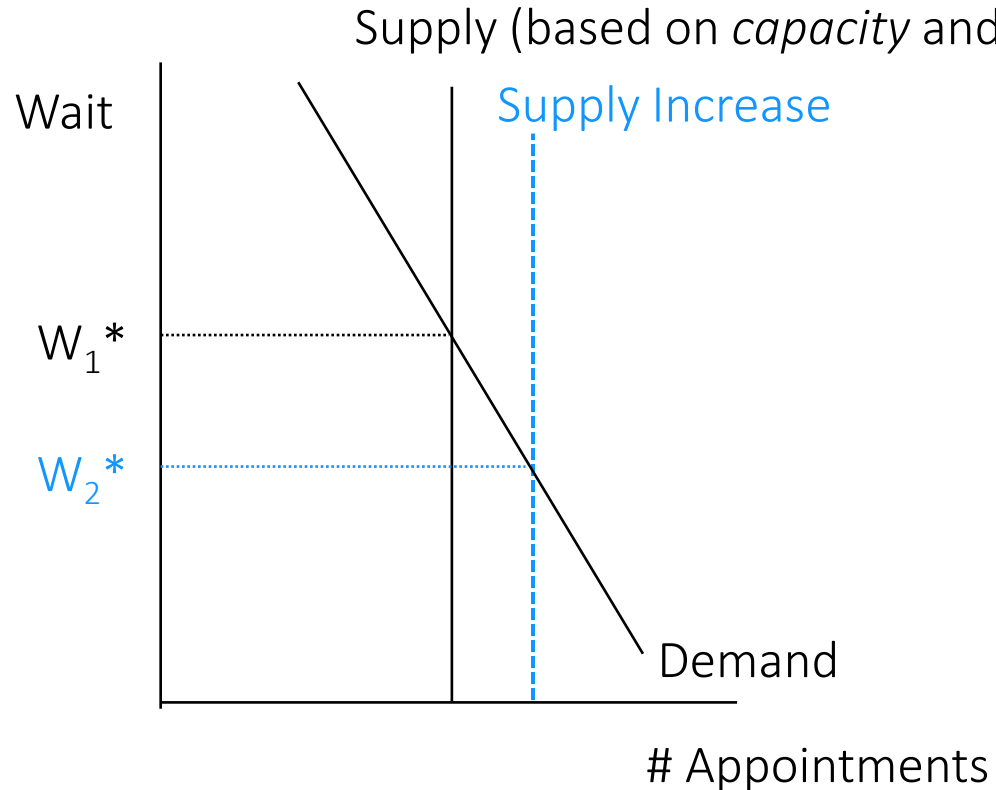
- Alternative health care coverage options
- Demographics
- Socioeconomic status
- Drive time to VHA
- Health status

Improve Productivity



# The Model

# Conceptual Model of Wait Times



In equilibrium:

$$Appt^D_{(w, \theta)} = Appt^S_{(w, FTE, P)}$$



$$w = f(FTE, P, \theta)$$



# Empirical Model & IV

$$Wait_{c,s,t+1} = \beta_0 + \beta_1 \cdot FTE_{c,s,t} + \beta_2 \cdot P_{c,s,t} + \gamma \cdot \theta_{c,t} + \alpha_r + \delta_s + y_t + q_t + u_{c,s,t}$$

c: medical center {138 medical centers in sample}

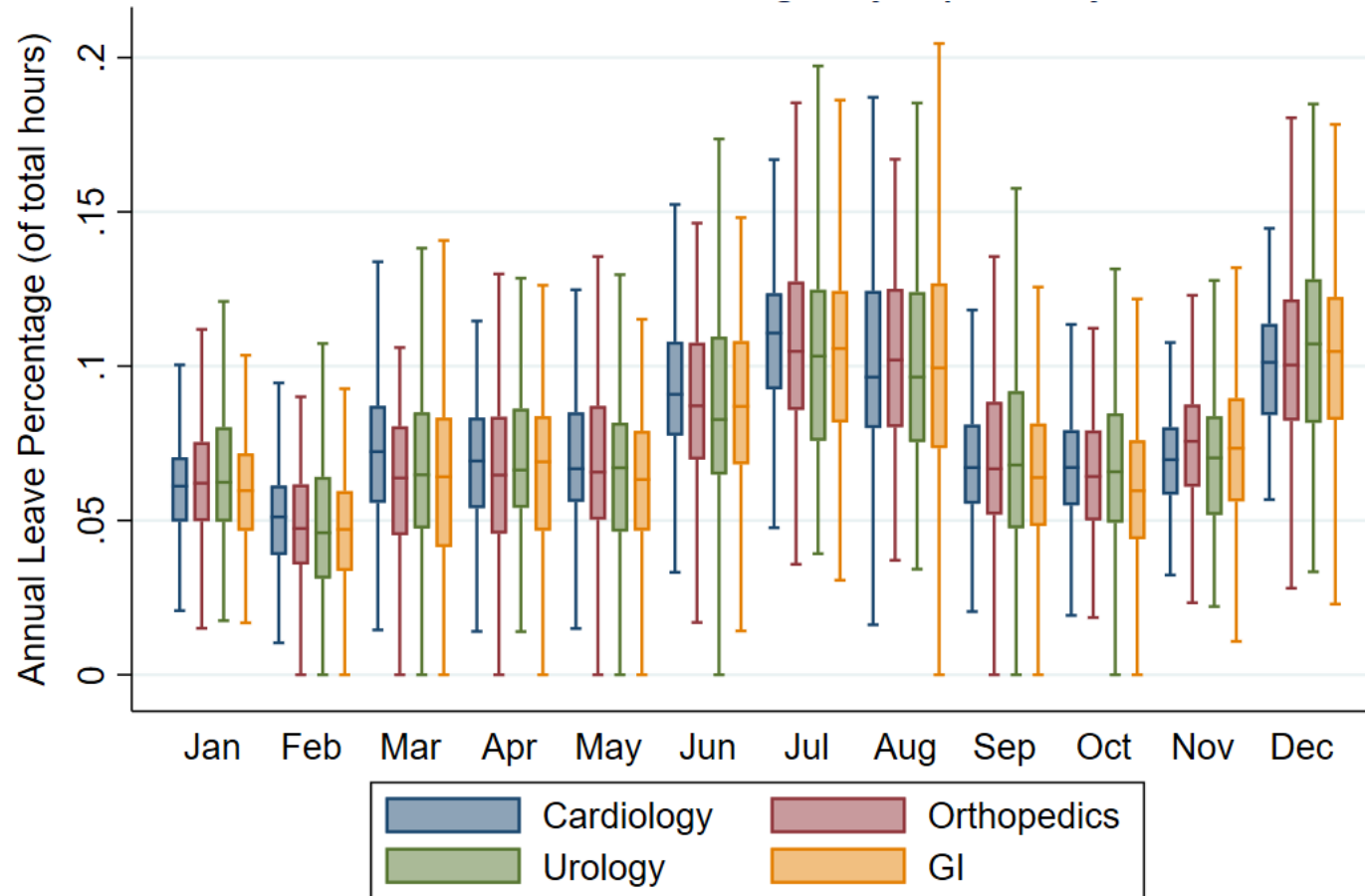
s: specialty {cardiology, gastroenterology, orthopedics, urology}

t: two-week pay period between 7/2014 and 12/2019

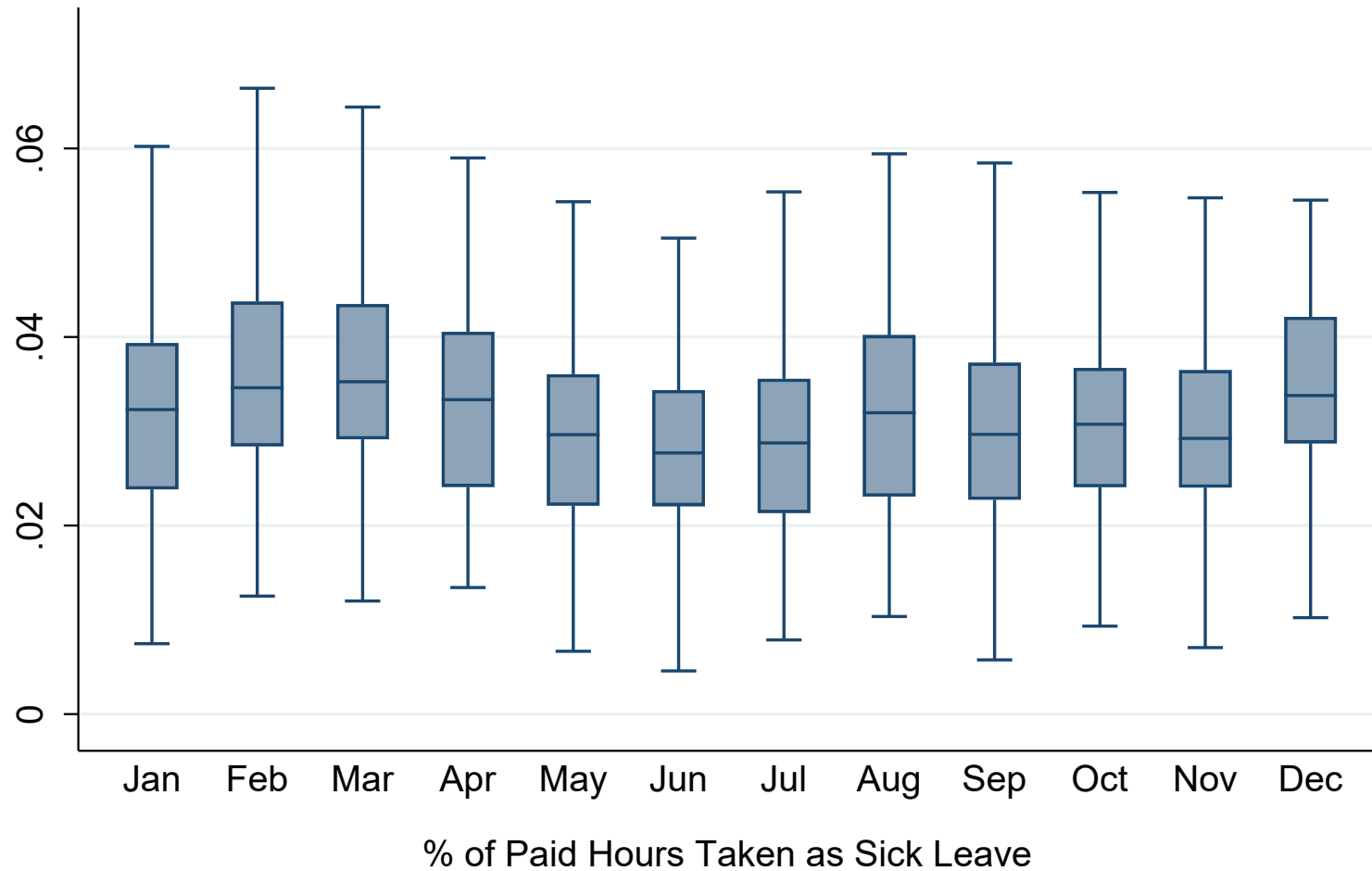
IV mitigates potential endogeneity due to simultaneity and reverse causation

| <u>Variable</u>          | <u>Description</u>                               | <u>Instruments</u>                                   |
|--------------------------|--|--|
| Capacity $FTE_{c,s,t}$   | # of physician, NP, PA FTEs per 10,000 enrollees | % holiday, % annual leave, % sick leave              |
| Productivity $P_{c,s,t}$ | # of new patient visits per FTE day              | Recall Reminder policy, % annual leave, % sick leave |

# IV: % Annual Leave Variation

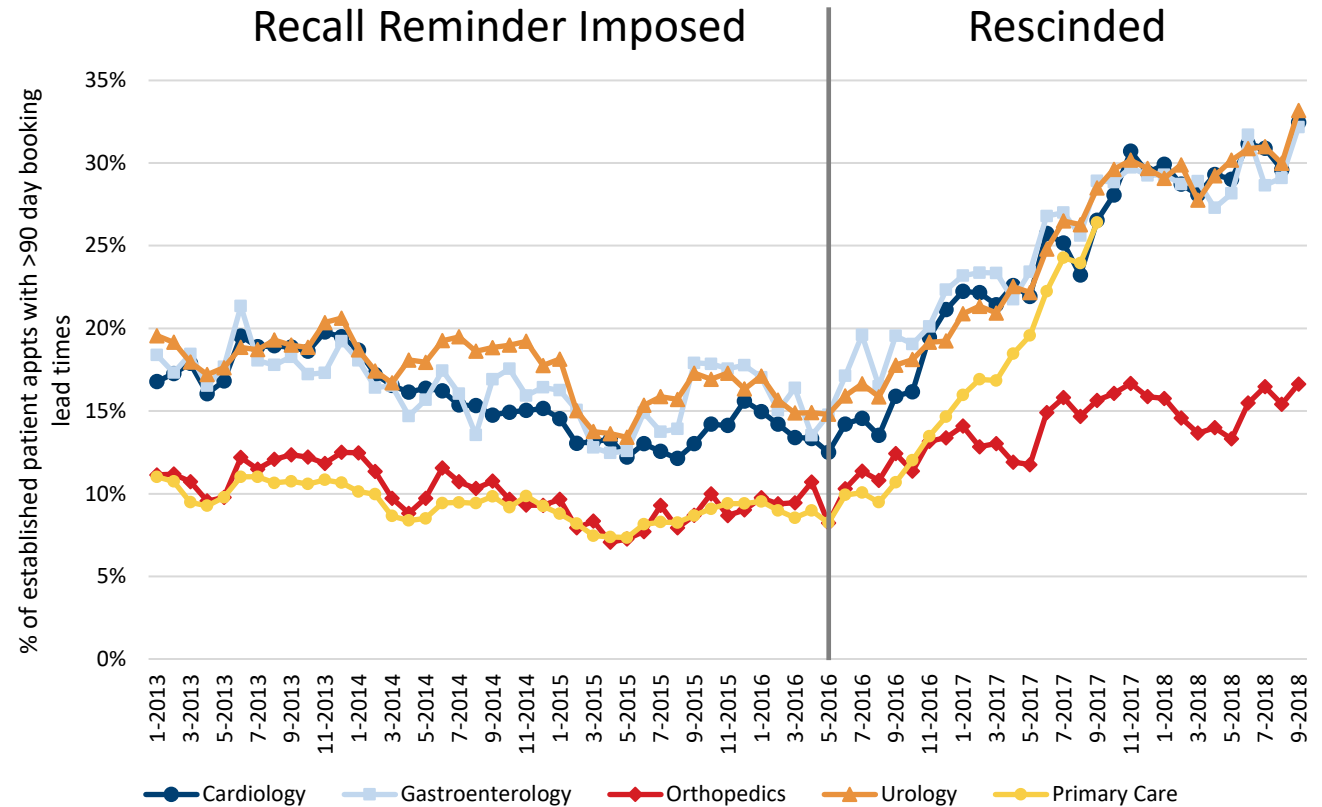


# IV: % Sick Leave Variation

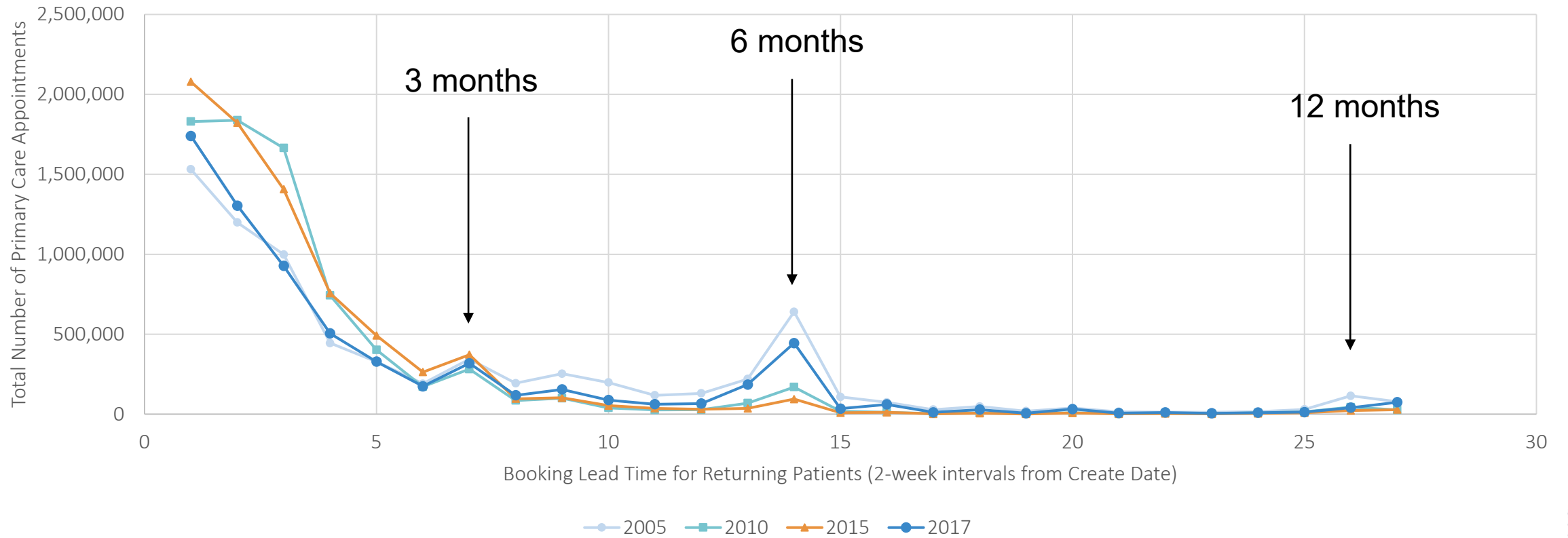


# IV: Recall Reminder Policy Change

- Recall Reminder was rescinded in May 2016
- Recall Reminder did not allow > 90-day follow-up appointments to be scheduled at the time of originating appointment
- Under policy, fewer follow-ups should have been booked more than 90 days in advance
- After revocation, 2x increase in % of established patient appointments that were booked more than 90 days in advance



# Recall Reminder Reduced 3/6/12-mo Follow-Ups

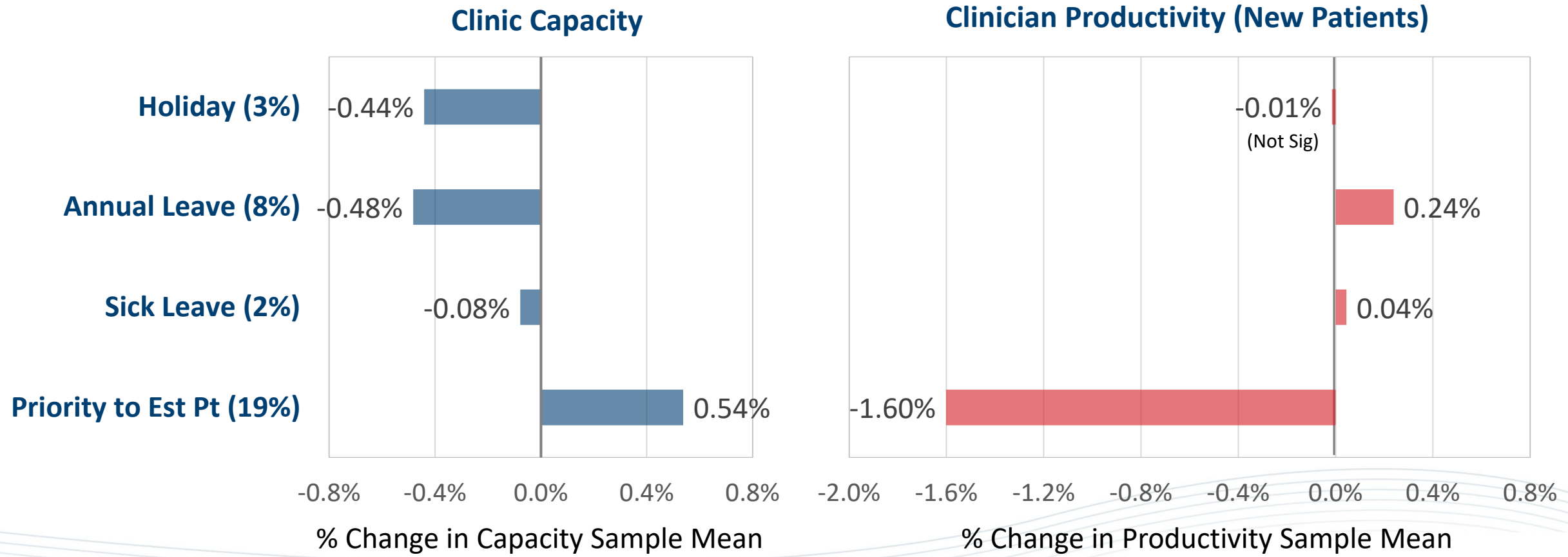


(Illustration uses Primary Care data)

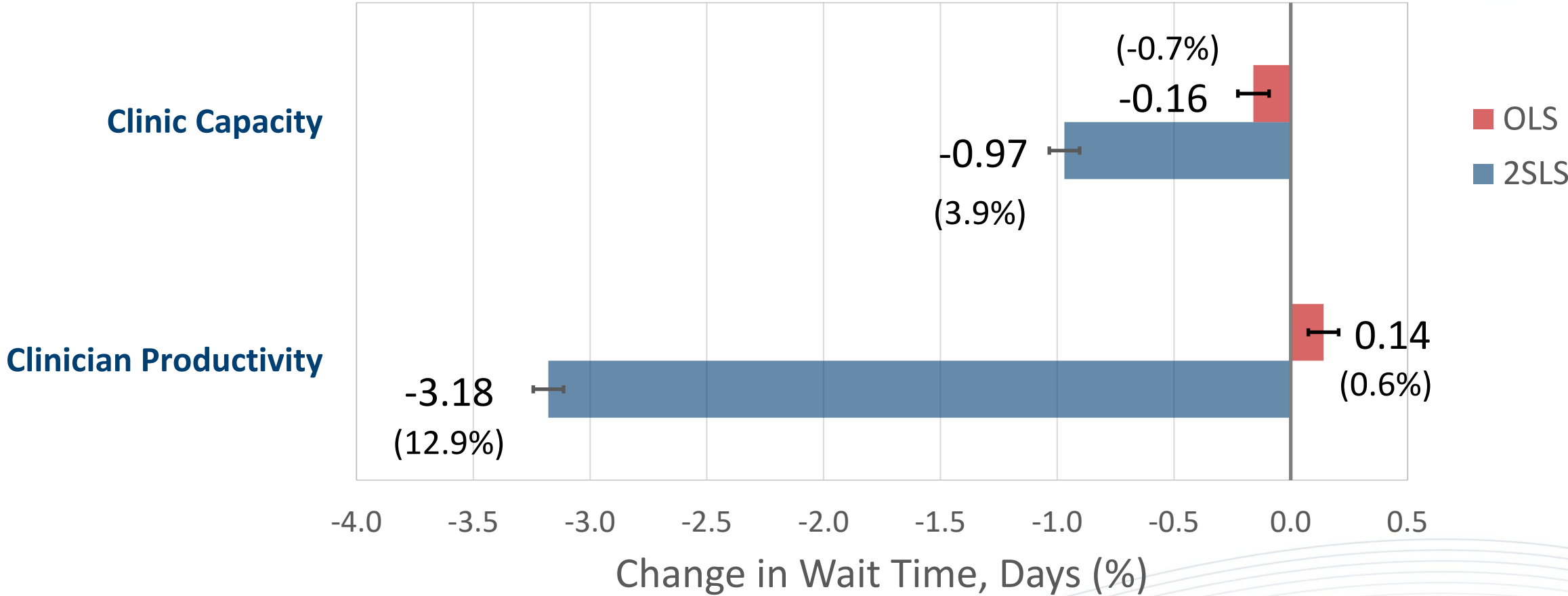
# Results

# Supply Changes Associated with 10% Increase in Instrumental Variables

Sample means provided in parentheses.



# Wait Time Reduction From 10% Increase in Supply





# Factors Related to VHA Demand & Wait Times

|                                    | Lower Wait<br><i>(Less Demand)</i>                   | Higher Wait<br><i>(More Demand)</i>                              | No (Consistent)<br>Association |
|------------------------------------|--|--|--------------------------------|
| <b>Socioeconomic</b>               | Employment<br>Income<br>Education                    | Housing prices   |                                |
| <b>Alternative Health Coverage</b> | Medicare Advantage<br>Medicaid                       | Comprehensive<br>(Trad. Medicare+D, ESI)<br>Medical-only (no Rx) |                                |
| <b>Health Status</b>               | Severity risk score (HCC)                            |  |                                |
| <b>Demographics</b>                | Age<br>Race/ethnicity (Hispanic,<br>Native Hawaiian) | Married<br>Race/ethnicity (Asian,<br>Native Am, Black)           | Female                         |
| <b>Other</b>                       | Driving distance<br>Population density               |  |                                |

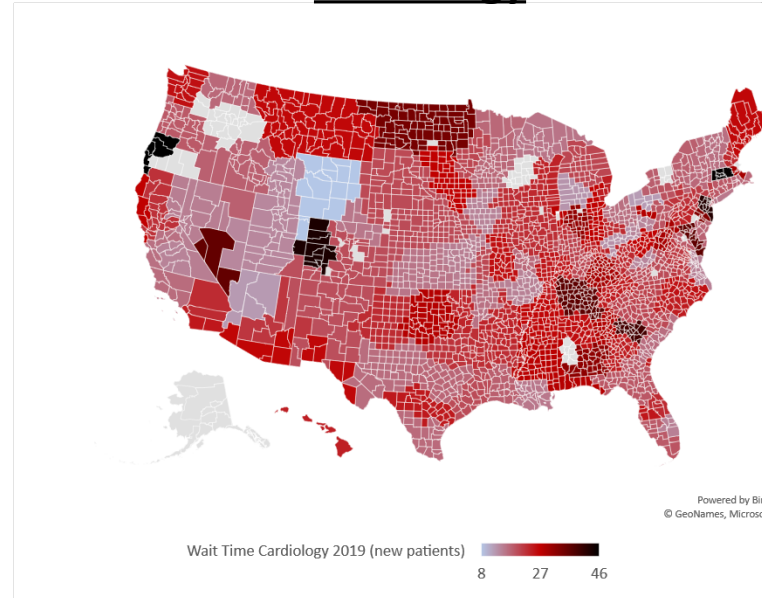
# Policy Application

**How much would the VHA need to expand capacity to meet the 28-day wait time target?**

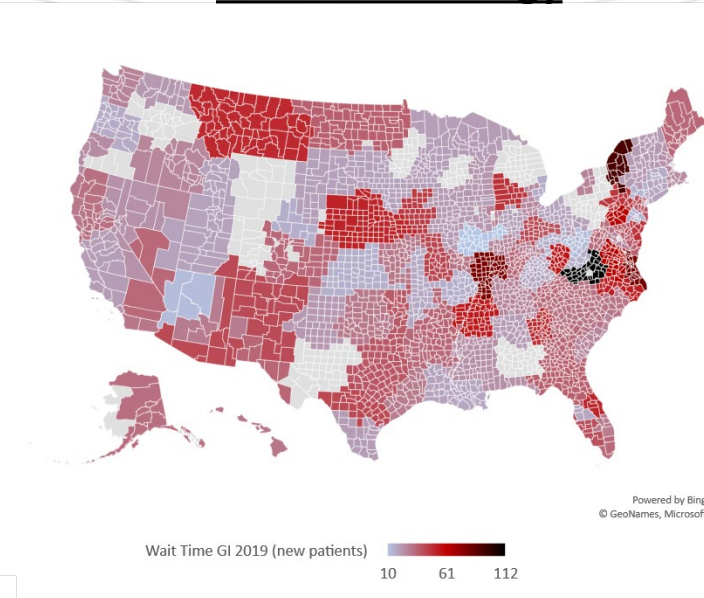
# Areas Not Meeting MISSION Act 28-Day Target

Wait Times of ALL Medical Centers

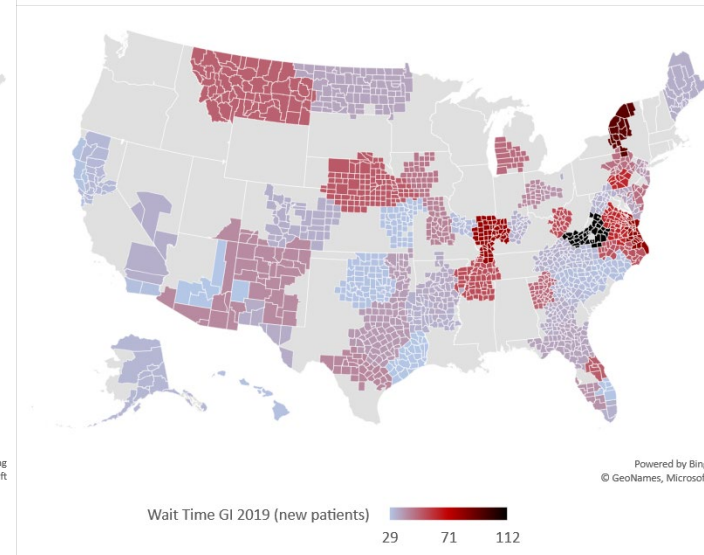
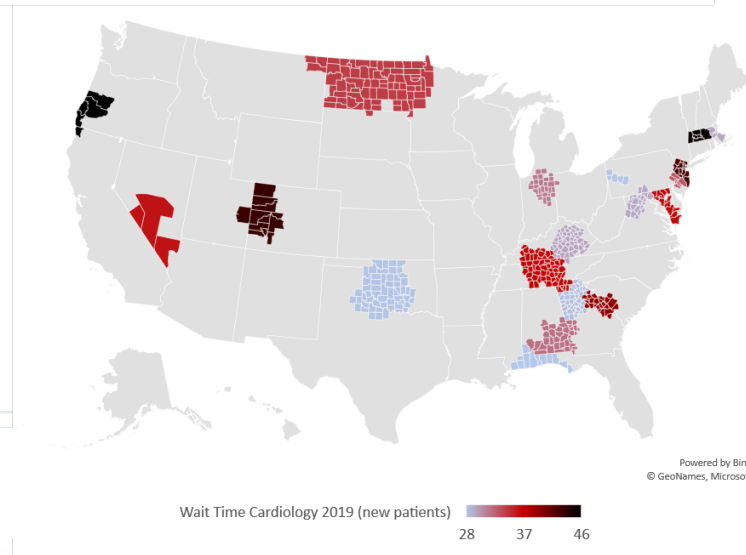
Cardiology



Gastroenterology



Wait Times of Centers with Waits > 28-day Target



Based on 2019 wait times

# Comparing 3 Scenarios to Reach 28-day Target

|                                   |                               |                           | % Increase in Nationwide Clinical Staff |  |  |
|-----------------------------------|-------------------------------|---------------------------|---|--|--|
|                                   | % of Medical Centers >28 days | Nationwide Clinical Staff | Δ Capacity Only                         | Δ Productivity + Capacity                                    | Δ Recall Reminder + Capacity                     |
| Cardiology                        | 15%                           | 316                       | 7%                                      | 6%   | 2%   |
| Gastroenterology                  | 48%                           | 160                       | 110%                                    | 94%  | 65%  |
| Orthopedics                       | 26%                           | 238                       | 15%                                     | 12%  | 9%   |
| Urology                           | 37%                           | 208                       | 34%                                     | 29%  | 14%  |
| Total / Average                   | 31%                           | 922                       | 41%                                     | 35%  | 22%  |
| Cost Effectiveness Considerations |                               |                           | Cost of hiring clinical staff           | Cost of 5% increase in Productivity + hiring remaining staff | Cost of Recall Reminder + hiring remaining staff |

# Conclusions

- Increasing clinic capacity or productivity can reduce wait times
- Productivity effect >> capacity effect
- Ways to improve productivity include solutions such as scheduling protocols that make the schedule more efficient

# Thank you!

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