

# Outpatient Waiting Time Measures and Patient Satisfaction



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# Wait Times are a Key Policy Focus

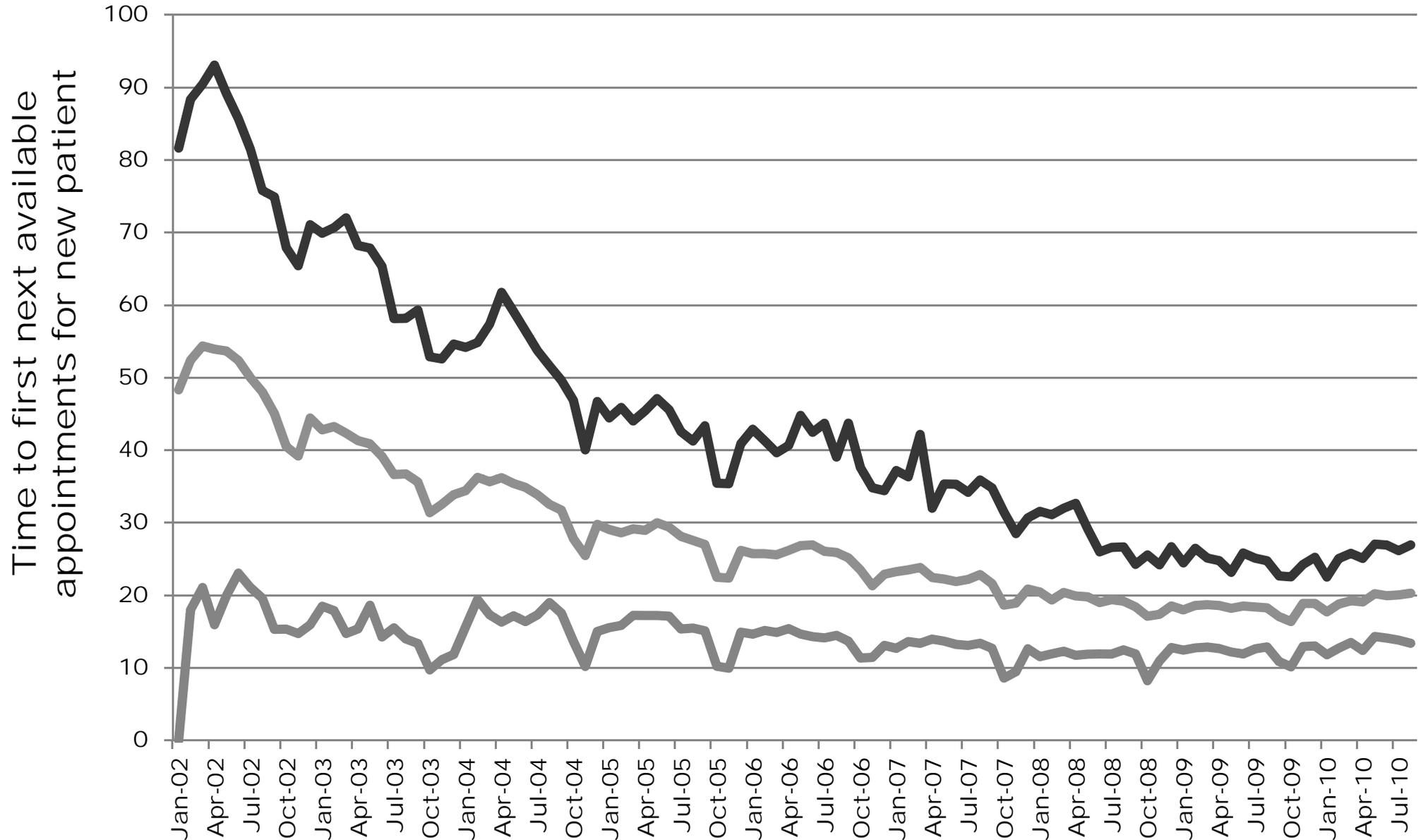
- VA has monitored wait times for over a decade
  - Before 1999, anecdotal evidence on waits
- Congress requested wait time data
- VA began systematically collecting wait time data

# Interventions to Decrease Waits

- Performance measures
- *Advanced Clinic Access in six target clinics*
- Primary care panel sizes
- Limited enrollment to priority 7/8
  - 2003 to 2009

# Wait Times Have Decreased

— Mean — 10% — 90%



# Concerns About Waits Still Remain

- VA OIG audits wait time policies
  - Access to mental health care- April 2012
- Congressional hearings on access
  - SVAC April 2012
  - HVAC May 2012

# Reliability of Wait Time Measures is Unknown

- VA has used a variety of wait time measures
- Initiatives to decrease wait times require reliable measures
  - Little research has used wait time measures to predict outcomes
- This study aims to fill this knowledge gap
  - Today focusing on patient satisfaction results
  - Future analyses focus on health outcomes

# Wait Time Measures

- Capacity measures
  - First next available (FNA)
- Time stamp measures
  - Create date (CD)
  - Desired date (DD)
- Access list measures
  - Create date (CD)
  - Desired date (DD)

# FNA Calculation

- New patient A requests to be seen as soon as possible on January 5, 2010
- First next available appointment is January 10, 2010
- Wait time = 5 days (O-X)



# FNA Measure

- Overall supply in system
  - Patient availability/preferences not considered
- Schedulers distinguish between follow-up and urgent care appointments
  - More problematic for established vs. new patients
- Appointment type/Multiple physician profiles
  - FNA appointment type is not what patient needs
  - Cannot consult all scheduling profiles for same physician

# Previous Research

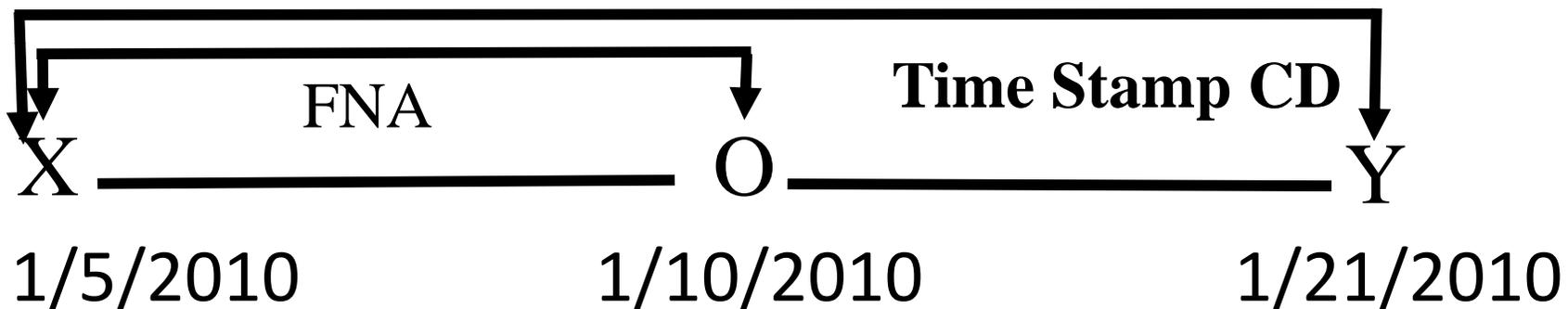
- Veterans visiting VA facilities with longer FNA have poorer health outcomes
- Mortality, preventable hospitalization for geriatric veterans
- Mortality, preventable hospitalization, AMI, stroke, HbA1c
  - Veterans with diabetes
  - Veterans over age 70 and with greater comorbidities

# FNA Measure Limitations

- Patient availability/preferences not considered
- VA managers explored other options

# Create Date Time Stamp Calculation

- New patient A requests to be seen as soon as possible on January 5, 2010
- Cannot take January 10, 2010 appointment
- Appointment is scheduled for January 21, 2010
- Wait time= 16 days (Y-X)



# Create Date (CD) Time Stamp Measure

- Little information required of scheduling clerks
- Based on completed appointments
  - Excludes no-shows, cancellations
- Use of recall systems versus scheduling follow-up appointments right away
  - Influences wait time
  - More problematic for established versus new patients



# Desired Date (DD) Time Stamp Measure

- In 2010, VA shifted to desired date measure
- Not influenced by use of recall systems
- Takes into account patient preferences

# Desired Date (DD) Time Stamp Measure

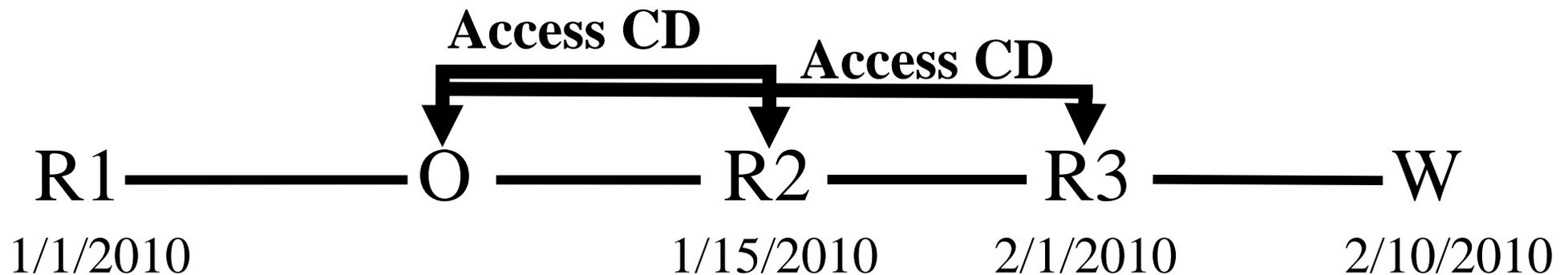
- Schedulers must correctly enter desired date
  - Original DD kept when negotiating appointment
  - E.g. May 1<sup>st</sup> versus May 5<sup>th</sup>
- Extensive training of schedulers
  - Implemented in 2010
  - Audits find date is entered correctly 90% of the time

# Prospective Access Measures

- Time stamp measures are retrospective
  - Only includes completed appointments
  - Patient no-shows not included
  - Cancellations that are not rescheduled not included
- Access list measures are prospective
  - Calculate waits off of pending appointments
  - Includes no-shows and cancellations

# Access List Create Date Calculation

- New patient A requests an appt ASAP on January 5, 2010
- Appointment is scheduled for February 10, 2010
- Bi-monthly report dates (1 and 15<sup>th</sup> of each month)
- Appointment is not eligible for calculation until CD is equal to or before report date
- 1/1/2010 report- appt. not included
- 1/15/2010 report- Wait time = 10 days (R2-O)
- 2/1/2010 report- Wait time = 26 days (R3-O)

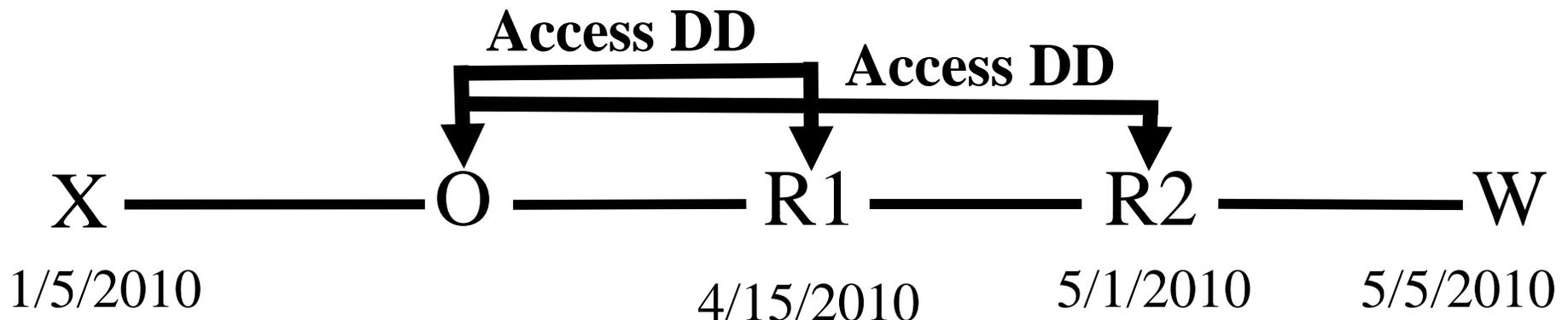


# Access List CD Measure

- Performance measure is percent of appts. that have less than a 14 day wait
  - We average waits to match other measures
- Influenced by how follow-up appts. are scheduled (e.g. recall systems)

# Access List Desired Date Calculation

- Established Patient B requests an April 5, 2010 follow-up appointment on January 5, 2010
- Appointment is scheduled for May 5, 2010
- Report dates are 1<sup>st</sup> and 15<sup>th</sup> of each month
- 4/15/2010 report- Wait time= 10 days (R1-O)
- 5/1/2010 report- Wait time= 25 days (R2-O)

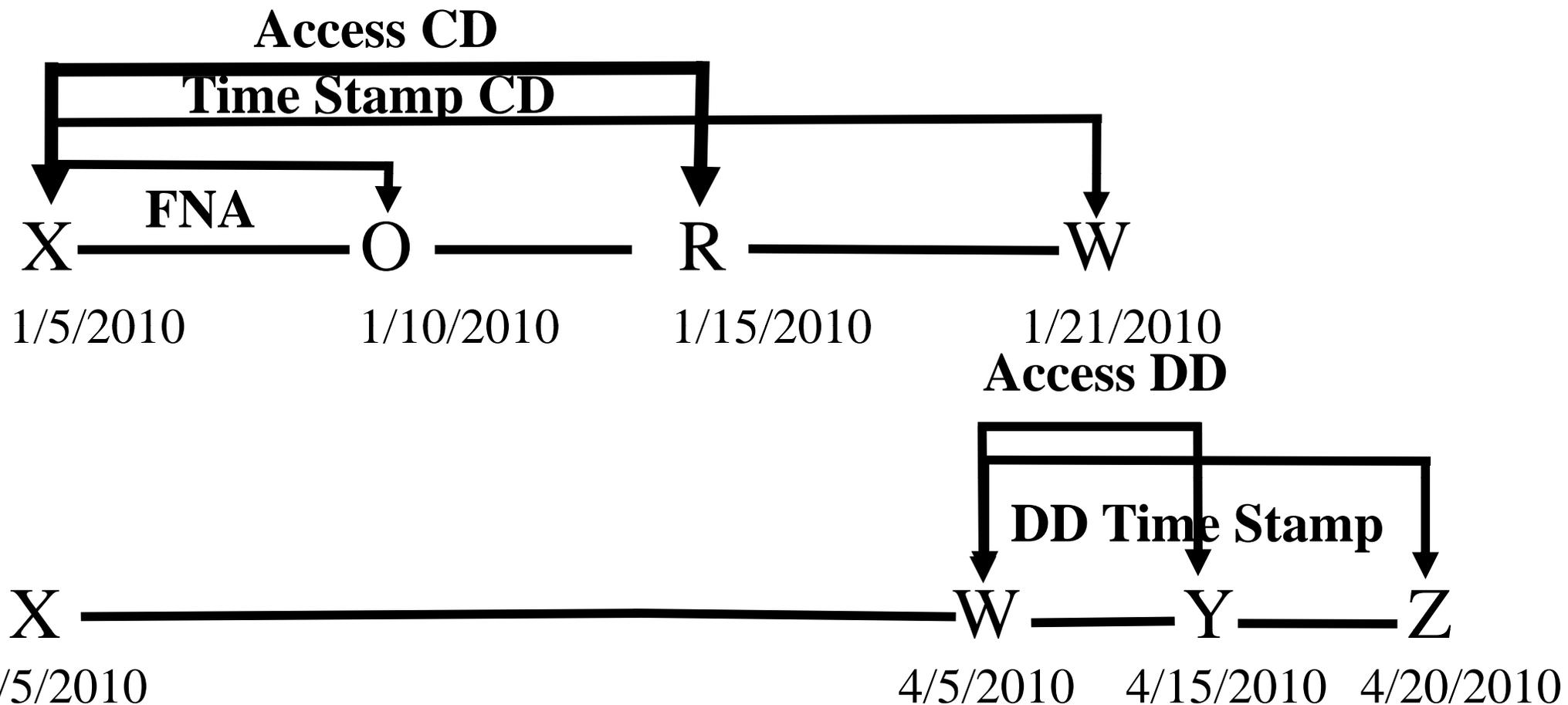


# Access List DD Measure

- Performance measure is percent of appts. that have less than a 14 day wait
  - We average waits to match other measures
- Schedulers must correctly enter DD

# Summary of Wait Time Measures

- New versus established patients
- Time Stamp Retrospective
- FNA-Access Prospective



# Research Question

- How well do alternative measures of wait times predict patient satisfaction?

# Surveys on Patient Satisfaction

- Access is a key component of satisfaction
- Difficult to judge technical quality
- Patients focus on practical aspects of their healthcare experience

# Satisfaction Data

- 2010 Survey of Healthcare Experiences of Patients (SHEP)
  - Managed by Office of Quality and Performance
  - Modeled after Consumer Assessment of Healthcare Providers and Systems
- Simple random sample of patients with completed appointments each month
- Visit date of appointment is recorded
- n=221,924 people

# Access Satisfaction Measures

- 1) Appt. as soon as wanted (Timely appt.)
- 2) Ease of getting test or treatment in last 12 months? (Treatment access)
- 3) Ease of accessing specialist visit (Specialist access)
  - Asked for the last 12 months
    - Most recent visit is likely in mind
  - Coded as Always/Usually vs. Sometimes/Never

# General Satisfaction Measures

4) Rate VA health care in last 12 months (VA rating)

- On a scale of 1 (worst) to 10 (best)
- 9 or 10 versus  $\leq 8$

5) Satisfaction with VA at recent visit (satisfied)

- Likert scale 1 (least) to 7 (most) of satisfaction
- 6 or 7 versus  $\leq 5$

# Analyses

- Logistic regression predicting satisfaction
- Wait time measures
  - High volume clinic stops
  - Patient/provider interactions
  - All major medical sub-specialties
  - Facility level monthly averages (including Access measures)
  - Matched to visit date when respondent was selected for sample
  - Quartiles

# Analyses Continued

- Risk adjustors from SHEP
  - Sex
  - Race
  - Age
  - Education
  - Health care utilization
  - Health status

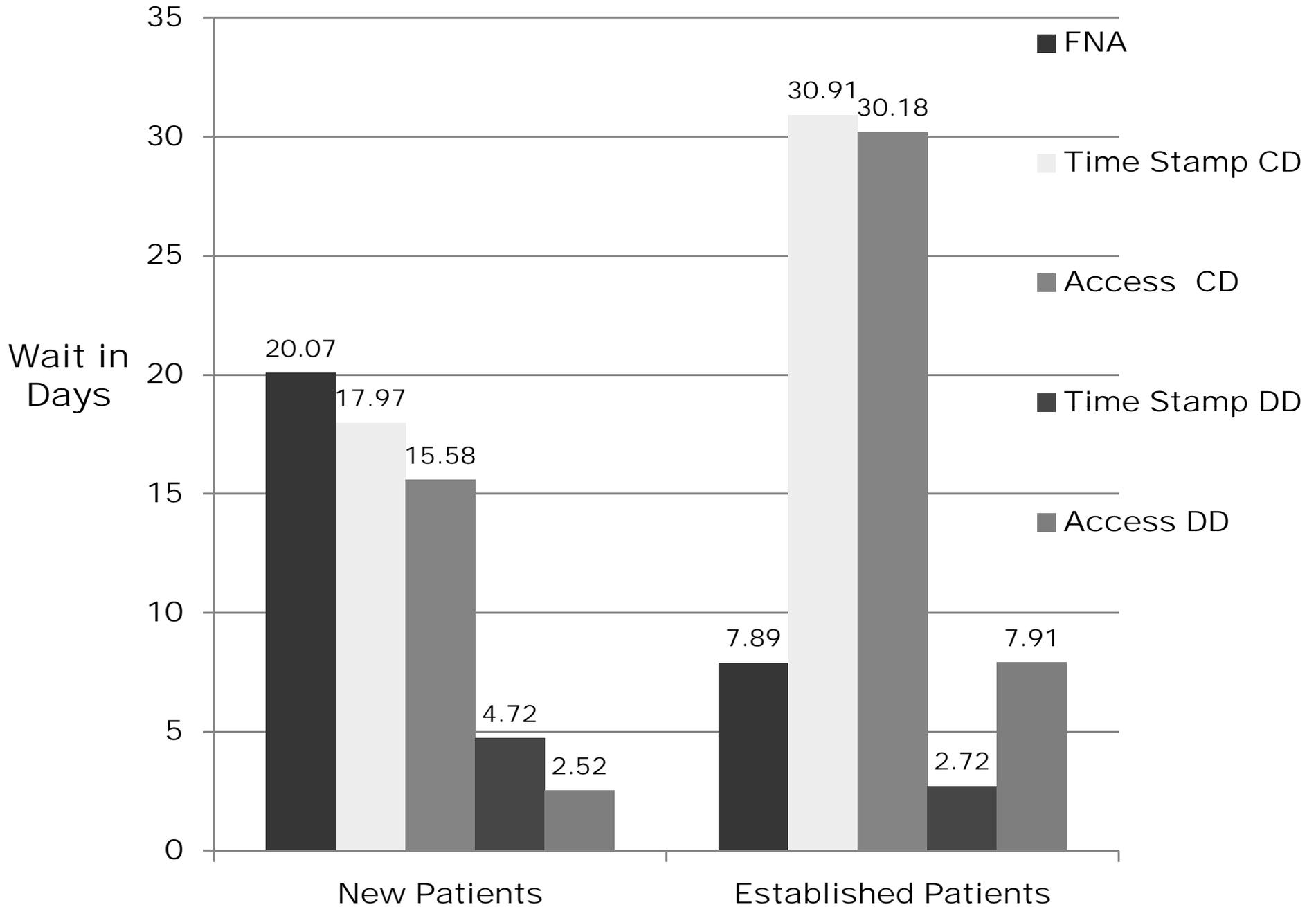
# Descriptive Statistics of Sample

Demographics	Mean or %
Age	67
Male	95%
Had some college	53%
White	79%
Black	10%
Hispanic	5%
Other	6%
>=5 visits to a doctor's office in last 12 months	31%
Excellent/very good self-reported health status in last 12 months	25%

# Descriptive Statistics of Satisfaction Measures

Satisfaction Measure	%
Timely visit Always/Usually vs. Sometimes/Never	83
Treatment access Always/Usually vs. Sometimes/Never	85
Specialist access Always/Usually vs. Sometimes/Never	82
VA rating in last 12 months 9 or 10 versus <9	78
VA satisfaction at most recent visit 6 or 7 versus <6	82

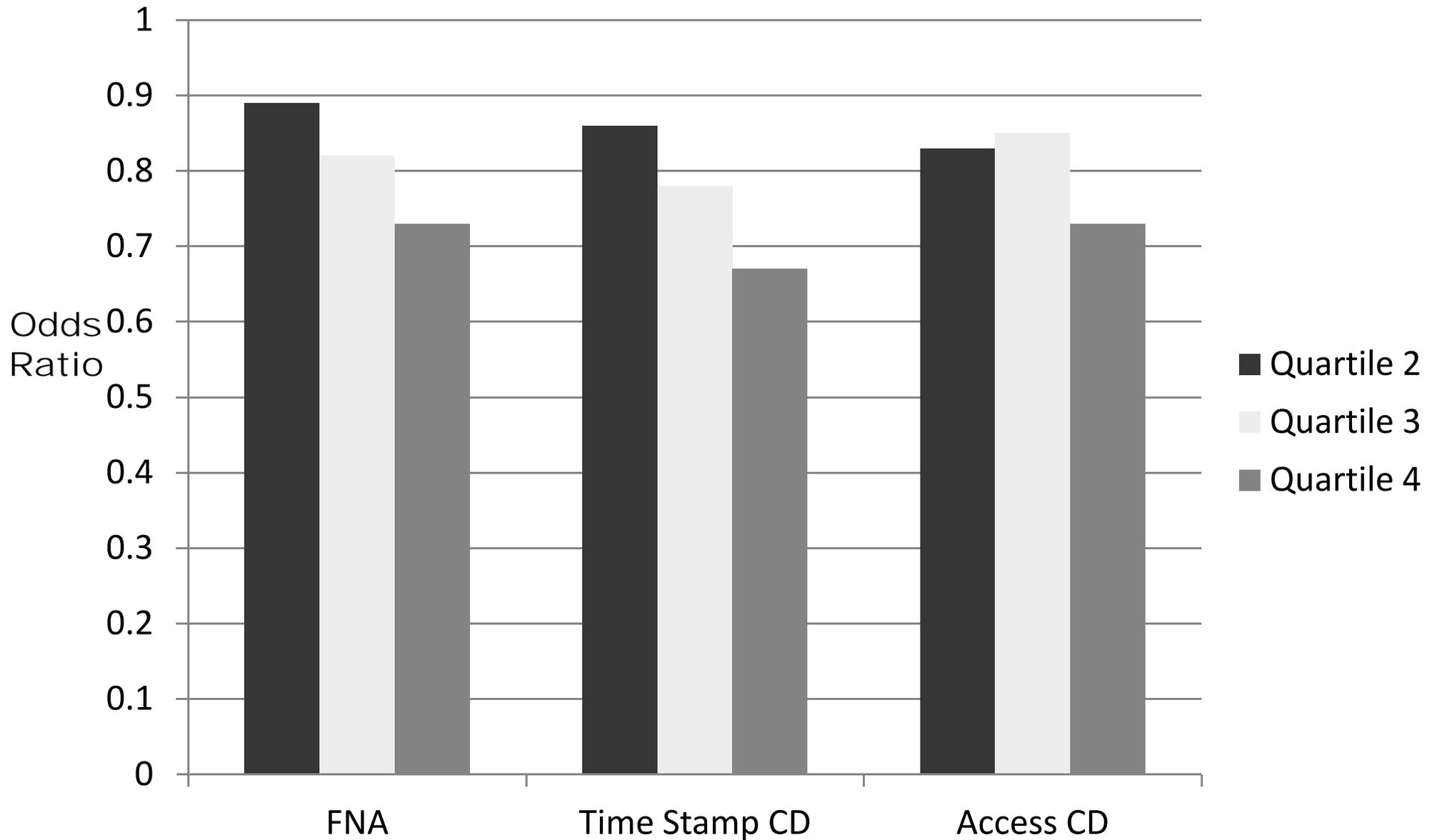
# Mean Wait Times



# New Patient Results

- How well do alternative measures of wait times predict patient satisfaction?
  - Longer waits predict lower satisfaction

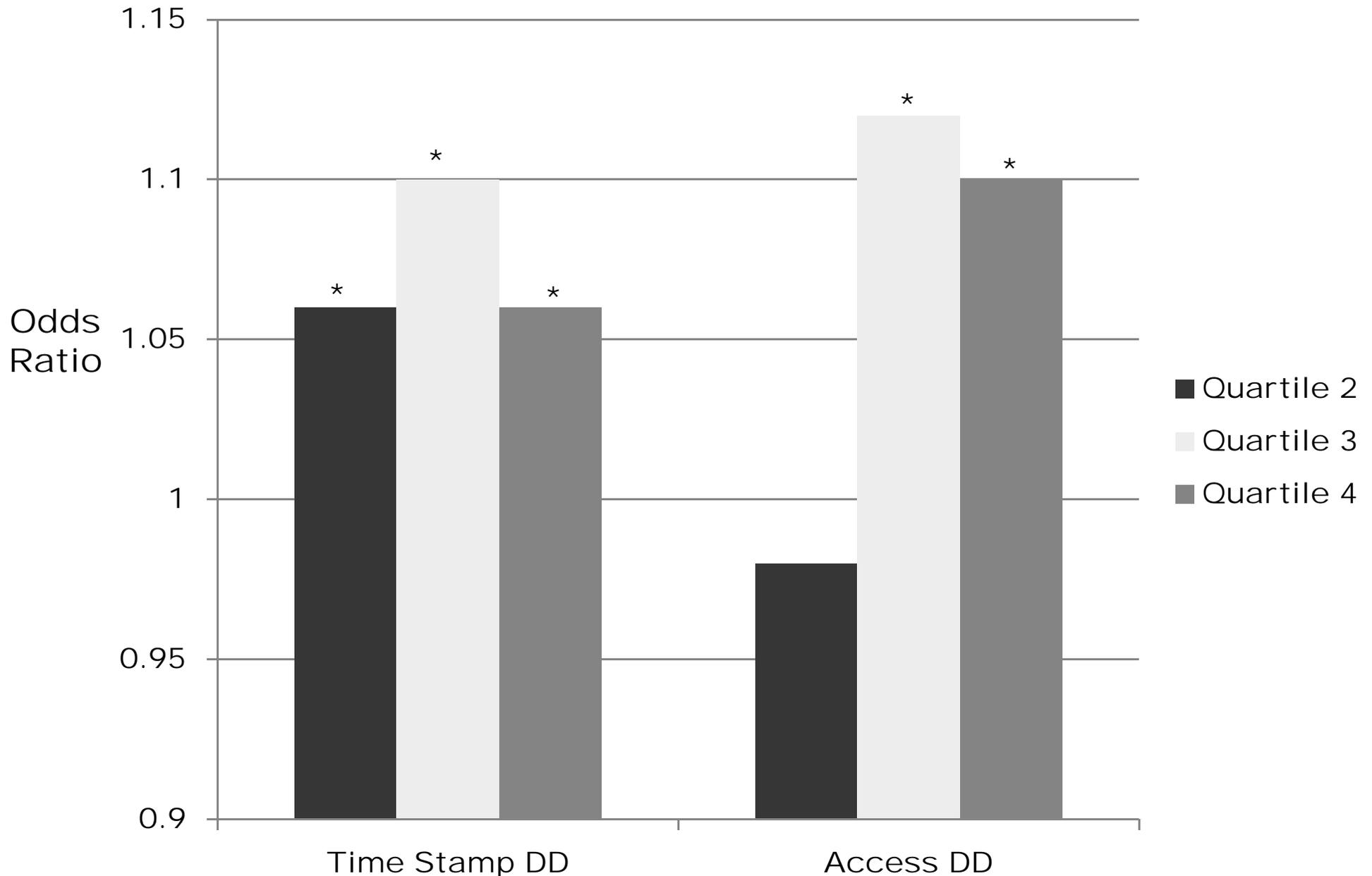
# New Patient FNA/CD Timely Visit\*



**\*Everything is significant at  $P < 0.05$**

**Reference group is VA facilities in quartile 1**

# New Patient DD Timely Visit\*



\*Significant at  $P < 0.05$  in wrong direction  
Reference group is VA facilities in quartile 1

# New Patient Waits Predicting Satisfaction

Measure	Timely Appt.	Treatment Access	Specialist Access	VA rating	VA satisfaction
<b>FNA (ref=Q1)</b>					
Q2	0.89*	0.93*	0.93*	0.95*	0.95*
Q3	0.82*	0.84*	0.84*	0.92*	0.91*
Q4	0.73*	0.73*	0.74*	0.86*	0.85*
<b>Time Stamp CD (ref=Q1)</b>					
Q2	0.86*	0.87*	0.86*	0.96*	0.94*
Q3	0.78*	0.80*	0.81*	0.91*	0.90*
Q4	0.67*	0.65*	0.67*	0.83*	0.82*
<b>Access CD (ref=Q1)</b>					
Q2	0.83*	0.84*	0.86*	0.93*	0.93*
Q3	0.85*	0.84*	0.85*	0.93*	0.91*
Q4	0.73*	0.72*	0.72*	0.89*	0.86*

Numbers are odds ratio from logistic regression.

\* Significant at  $P \leq 0.05$

# New Patient Waits Predicting Satisfaction

Measure	Timely Appt.	Treatment Access	Specialist Access	VA rating	VA satisfaction
<b>Time Stamp DD (ref=Q1)</b>					
Q2	1.06*	1.01	1.05*	1.00	1.01
Q3	1.10*	1.06*	1.10*	0.98	1.01
Q4	1.06*	1.02	1.07*	1.01	1.02
<b>Access DD (ref=Q1)</b>					
Q2	0.98	0.97	0.98	0.94*	0.96*
Q3	1.12*	1.09*	1.11*	1.00	1.03
Q4	1.10*	1.06*	1.11*	1.00	1.03

Numbers are odds ratio from logistic regression.

\* Significant at  $P \leq 0.05$

\* Significant in wrong direction

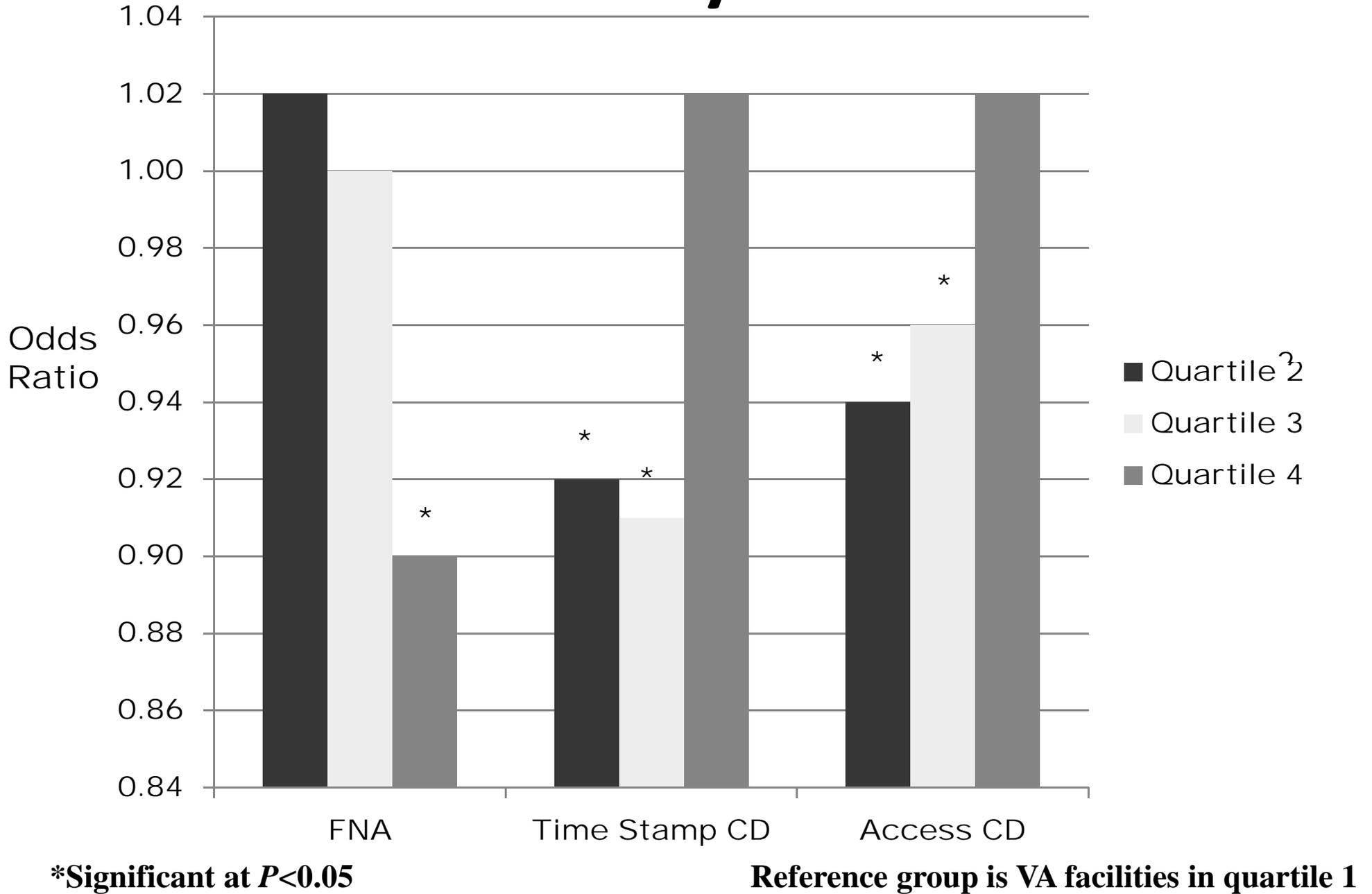
# New Patient Results

- FNA and create date measures are most reliable
  - Predict all 5 satisfaction measures
- New patients want to be seen as soon as possible
  - Date an appointment request was originally made is reliable

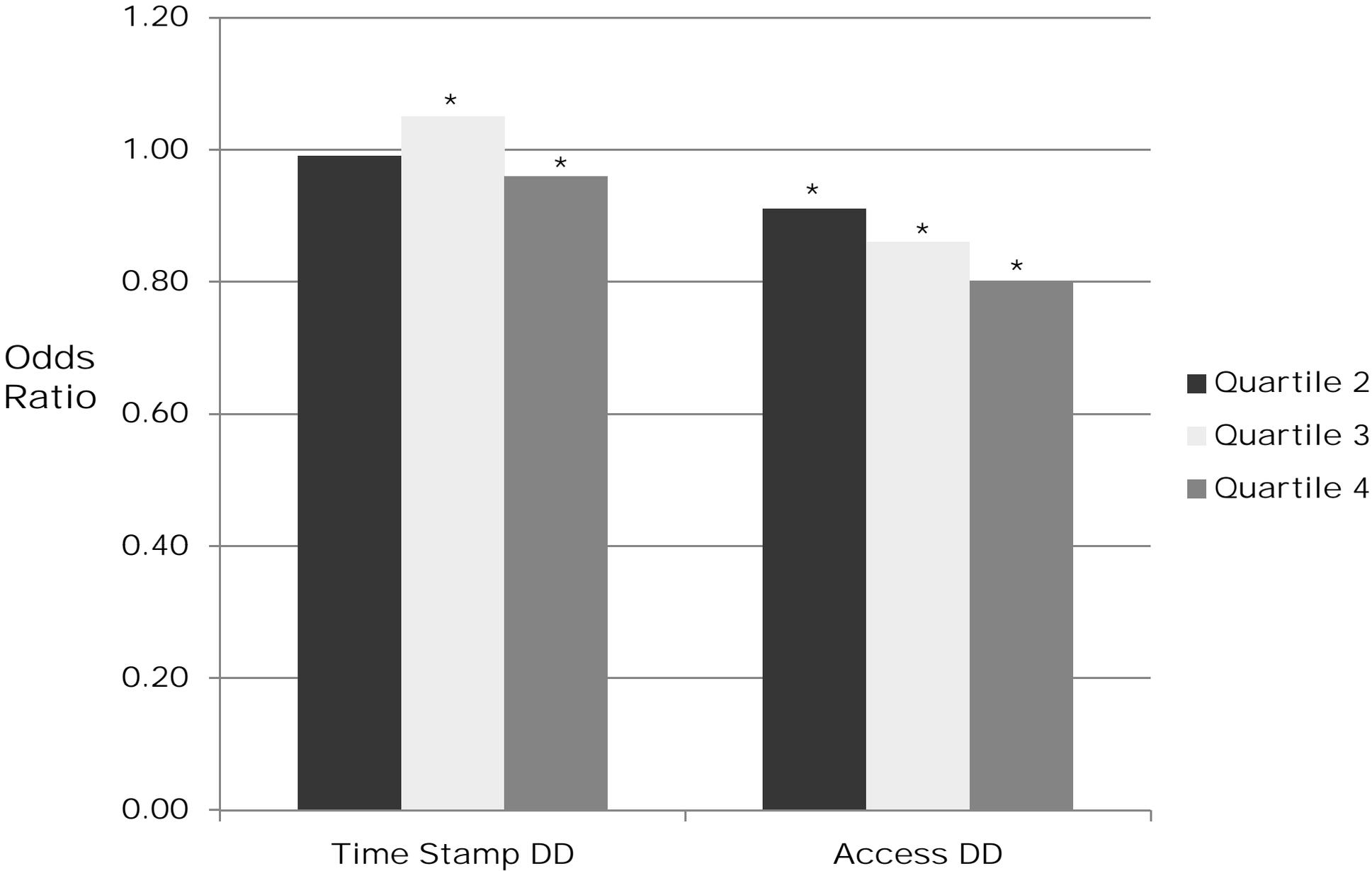
# Established Patient Results

- How well do alternative measures of wait times predict patient satisfaction?
  - Longer waits predict lower satisfaction

# Established Patient FNA/CD Timely Visit



# Established Patient DD Timely Visit



**\*Significant at  $P < 0.05$**

**\*Significant in wrong direction at  $P < 0.05$**

**Reference group is VA facilities in quartile 1**

# Established Patient Waits Predicting Satisfaction

Measure	Timely Appt.	Treatment Access	Specialist Access	VA rating	VA satisfaction
<b>FNA (ref=Q1)</b>					
Q2	1.02	0.99	1.01	0.97	0.99
Q3	1.00	1.02	1.03	0.95*	0.98
Q4	0.90*	0.90*	0.90*	0.90*	0.93*
<b>Time Stamp CD (ref=Q1)</b>					
Q2	0.92*	0.90*	0.94*	0.96*	0.99
Q3	0.91*	0.87*	0.89*	0.94*	0.93*
Q4	1.02	0.96*	0.99	1.07*	1.02
<b>Access CD (ref=Q1)</b>					
Q2	0.94*	0.93*	0.94*	0.94*	0.98
Q3	0.96*	0.95*	0.93*	0.98	0.98
Q4	1.02	0.98	0.97	0.95*	1.01

Numbers are odds ratio from logistic regression.

\*Significant at  $P \leq 0.05$  \*Significant in the wrong direction

# Established Patient Waits Predicting Satisfaction

Measure	Timely Appt.	Treatment Access	Specialist Access	VA rating	VA satisfaction
<b>Time Stamp DD (ref=Q1)</b>					
Q2	0.99	0.97	0.98	0.94*	0.97*
Q3	1.05*	1.03	1.02	0.98	1.00
Q4	0.96*	0.94*	0.97	0.95*	0.97
<b>Access DD (ref=Q1)</b>					
Q2	0.91*	0.90*	0.88*	0.94*	0.92*
Q3	0.86*	0.86*	0.83*	0.86*	0.87*
Q4	0.80*	0.77*	0.76*	0.86*	0.84*

Numbers are odds ratio from logistic regression.

\*Significant at  $P \leq 0.05$

\*Significant in wrong direction

# Established Patient Results

- Access list desired date is most reliable
  - Includes no-shows/cancellations
  - More accurate measure of supply in system
- DD reflects established patient preferences versus FNA/CD measures

# Policy Implications

- Multiple wait time measures needed
  - New versus established patients
- New patients want to be seen right away
  - Change in health status
  - Appointment request dates are reliable
  - Capacity and create date measures

# Policy Implications Continued

- Established patients may not prioritize wait times
  - Continuity of care
  - Convenient time
- VA is a leader in recognizing new versus established patient complexity
- Future work will predict health outcomes

# Questions or Comments?

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## Resources

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