Effect of peer mentoring to improve retention in HIV care and HIV viral load in hospitalized, out-of-care patients

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VA HEALTH CARE Defining EXCELLENCE in the 21st Century

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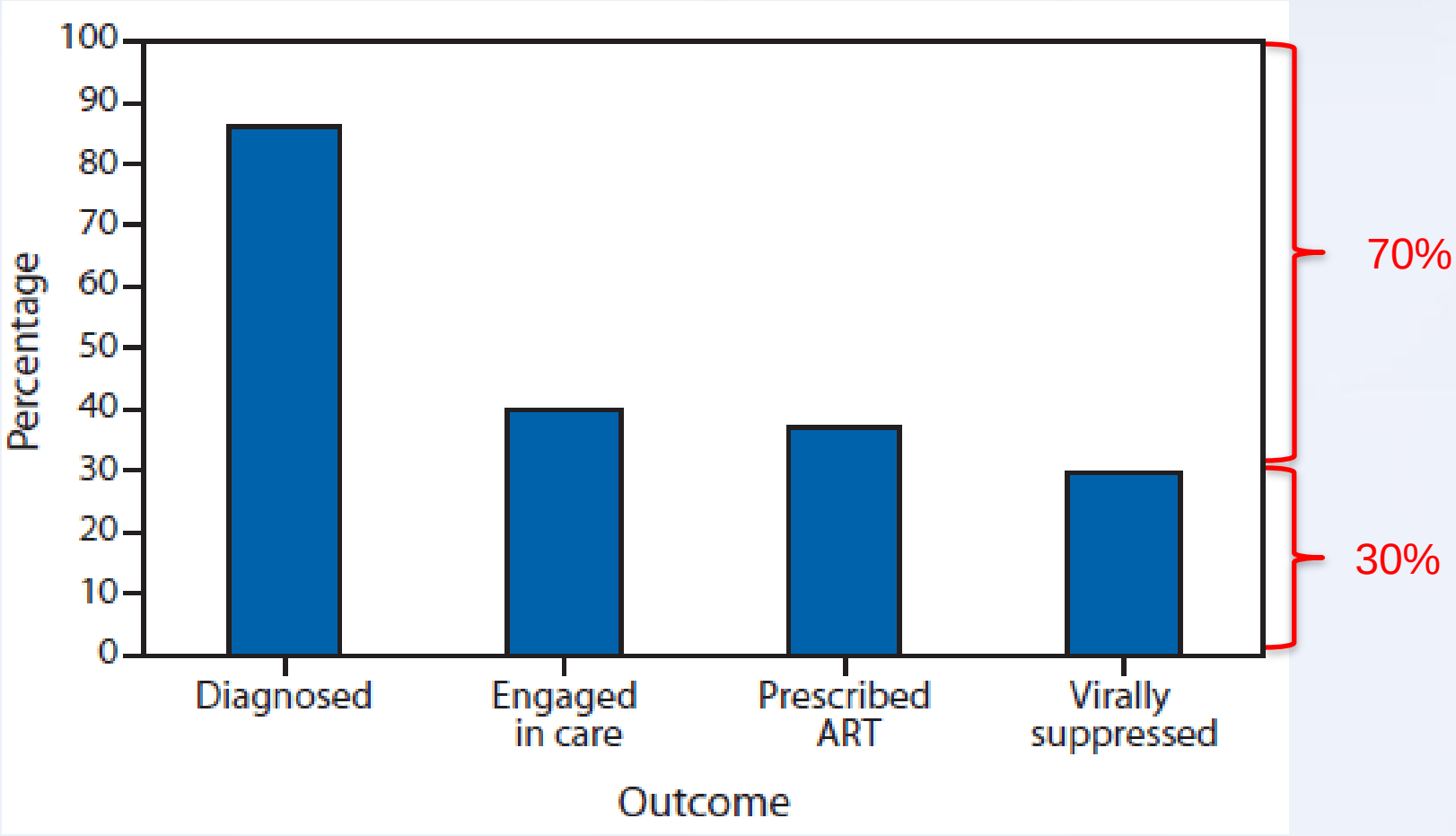
HARRIS HEALTH SYSTEM

Baylor College of Medicine

Background:
The HIV Treatment Cascade



Source: MMWR, Nov 28, 2014, Vol 63, No. 47

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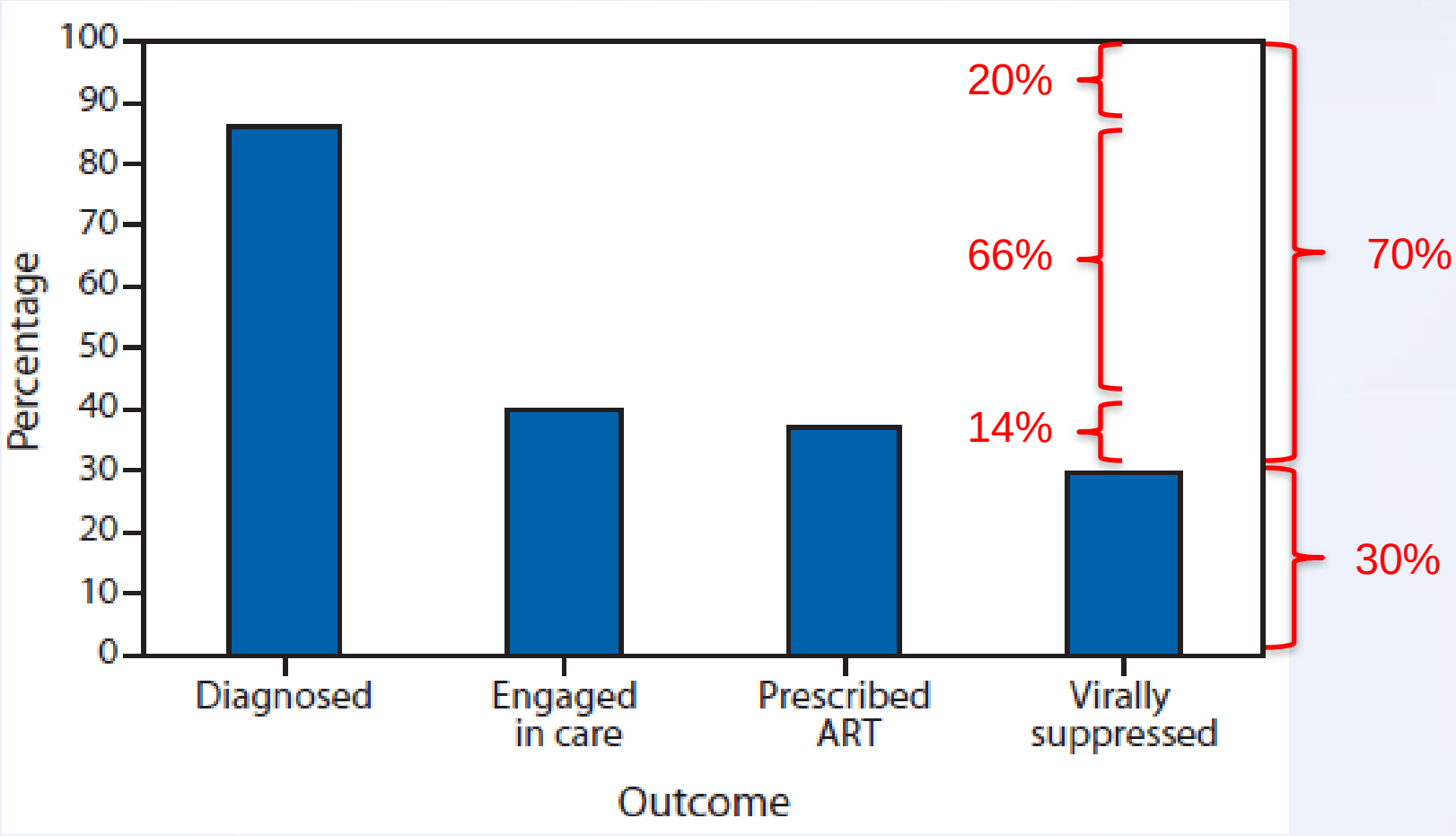

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Background: Harris Health System

- Thomas Street Health Center opened in 1989, provides HIV care, and served >5300 unique patients in 2014
- TSHC has had a volunteer peer mentoring program since 2005
- Mentors work with new patients during the first visit to TSHC to increase knowledge about the clinic, navigate, and increase comfort with the staff, facility, and living with HIV
- Preliminary data: mentoring increased short-term retention after the first visit
- Ben Taub General Hospital, tertiary hospital
- Preliminary data: about 45% of persons discharged from Ben Taub General Hospital were retained in TSHC care in the next 180 days

Aim and Outcomes

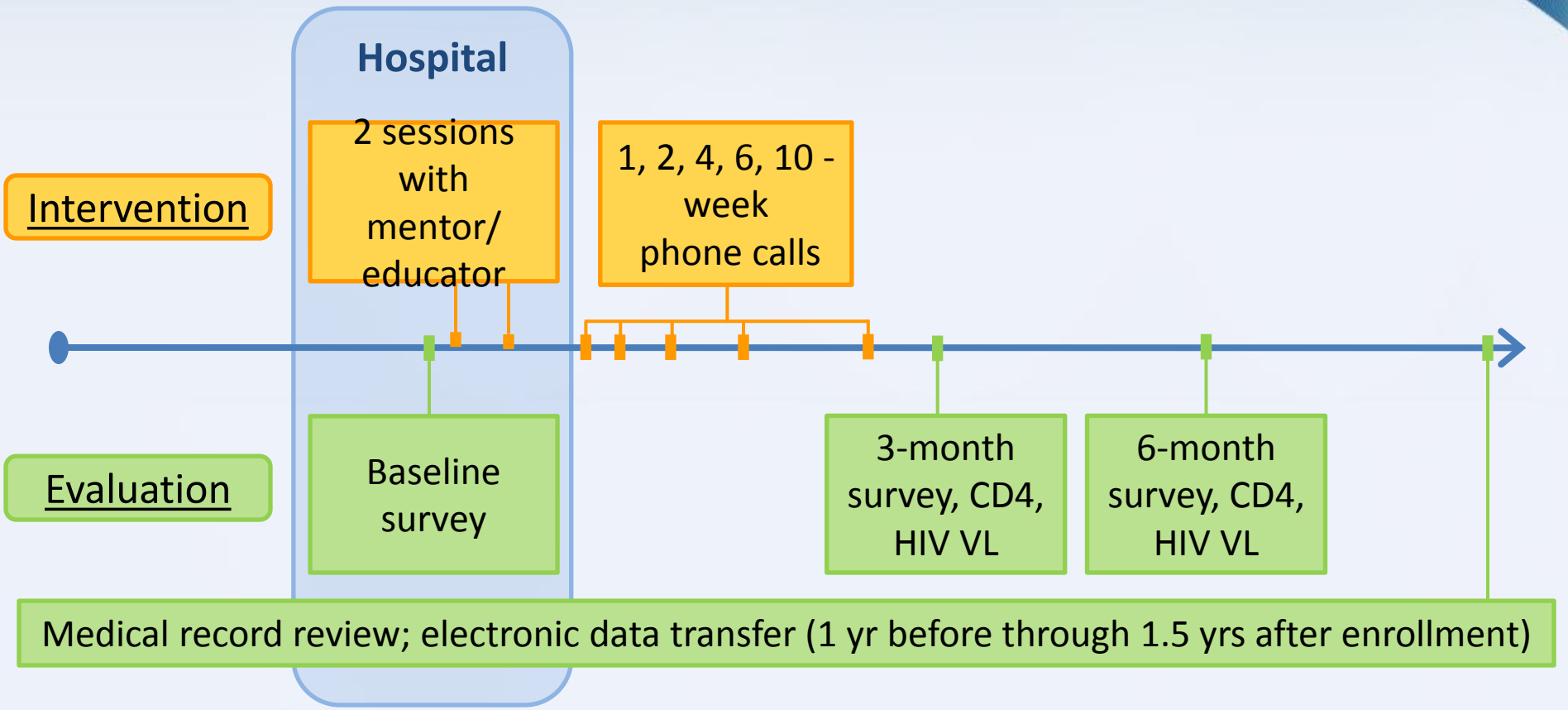
- Aim: to improve engagement after discharge from BTGH
- Primary composite outcome (6 months):
  - Attend ≥1 HIV primary care visit within 30 days of discharge

    AND
  - Attend ≥1 HIV primary care visit between 31 and 180 days of discharge AND
  - If ART indicated by guidelines, achieve a ≥1 log10 decrease in HIV VL or maintain VL <400 c/mL at 180 days after discharge
- Secondary outcomes:
  - Components of the primary outcome
  - Hospitalization, emergency department, use of ART, CD4 cell count, VL<400, health related quality of life (HRQOL)

Methods: Peer Mentor Intervention

- Semi-structured intervention included:
  - Telling their story to the patient to model success (focus on overcoming stigma, fear, substance use, “death sentence” mentality)
  - Increasing information by discussing importance of HIV care and providing educational HIV literature and information about TSHC
  - Increasing motivation by motivating patient to increase their assessment of the importance of care and their ability to seek outpatient HIV care
  - Increasing behavioral skills by assessing barriers to care and developing an action plan to access sources of support for care and access outpatient care after discharge
- 3-5 mentors selected for extra training on study intervention:
  - 6 weeks of training: group and one-on-one sessions, manuals, role play
  - Standardized patients to certify quality of intervention every 4-6 months
- Attention control: safe sex (RESPECT), given by health educators

Methods: Intervention, Evaluation

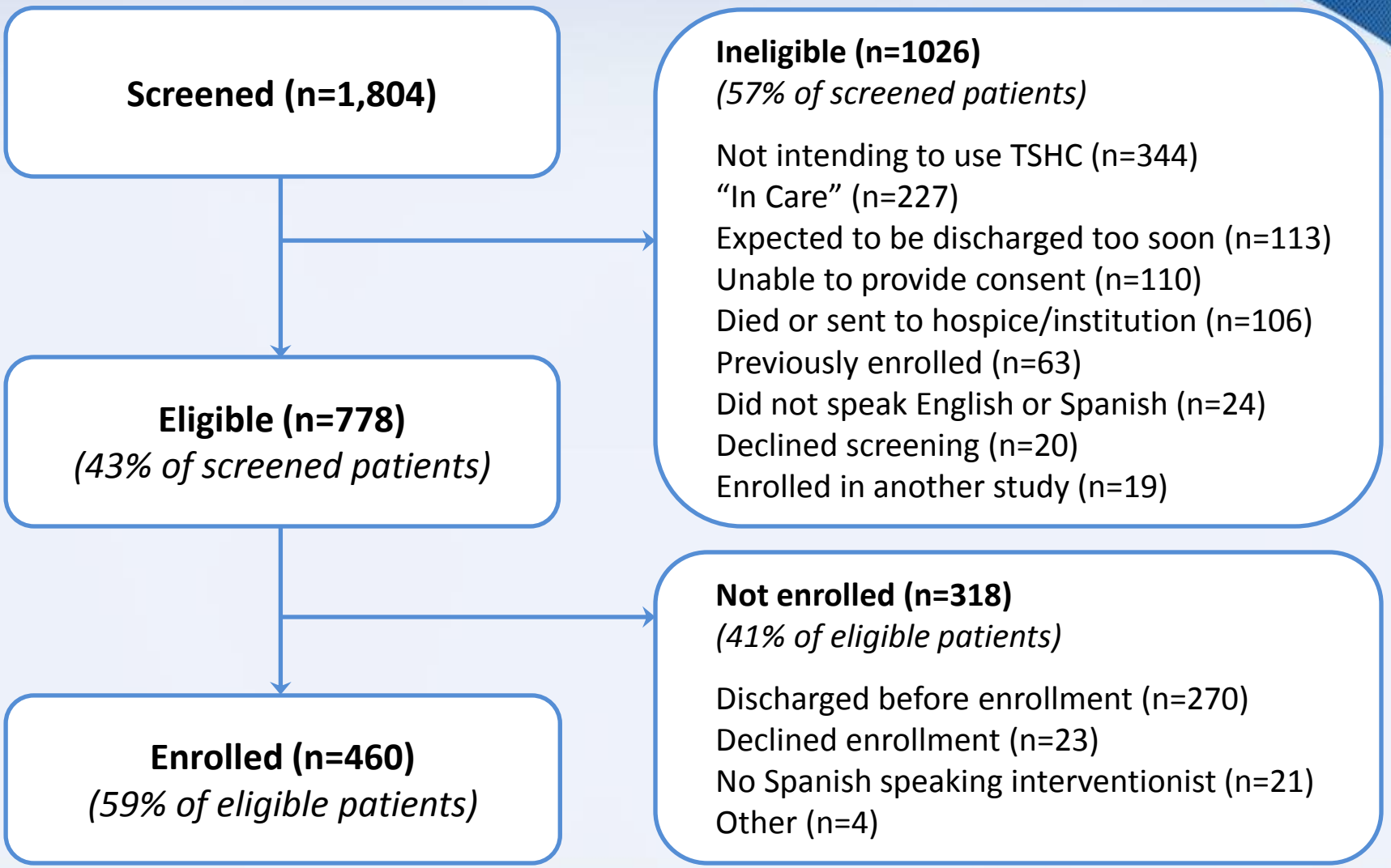


- Analysis plan: modified Intent to Treat (mITT), removing persons who moved out of area, withdrew consent, and were incarcerated

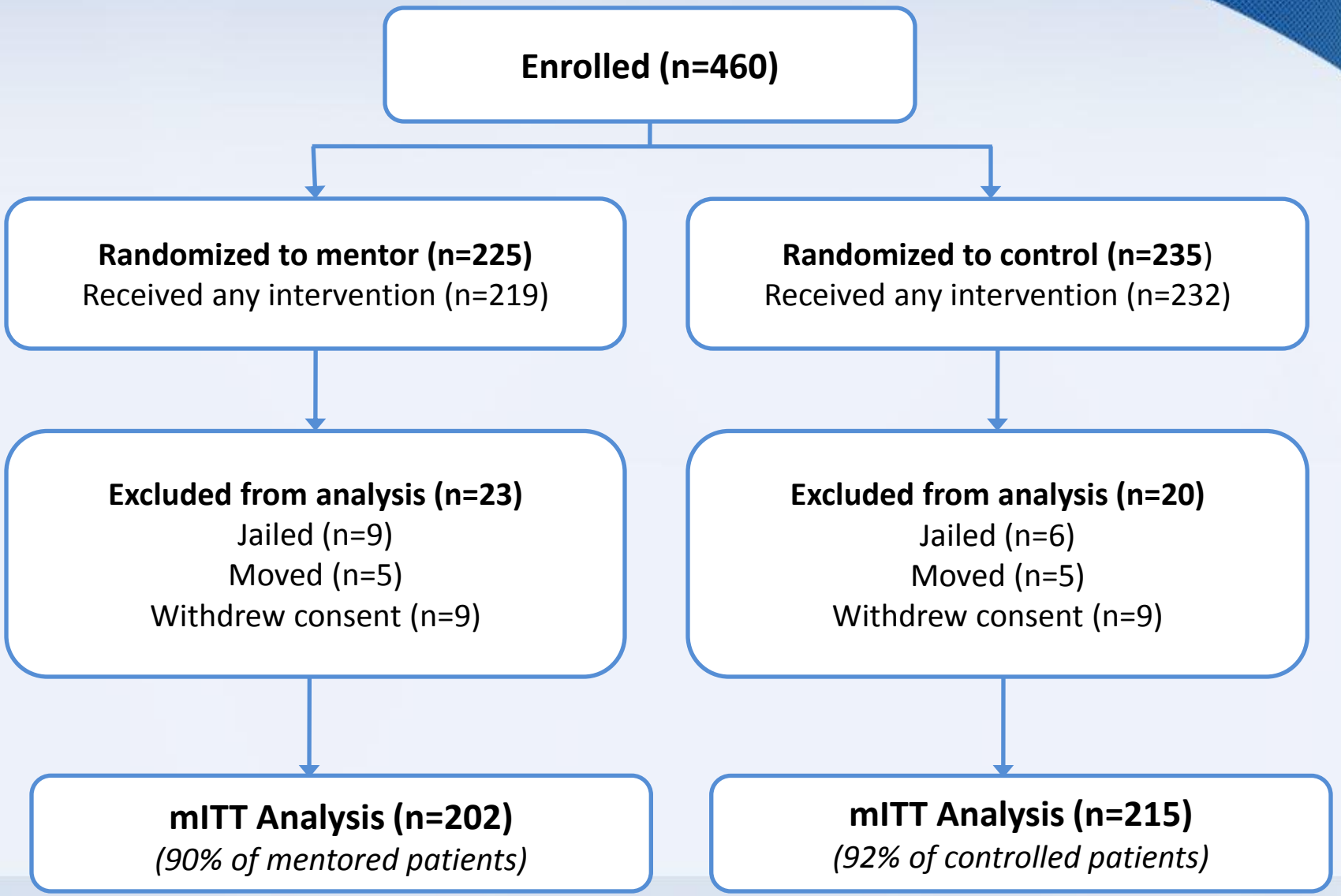
Methods: Recruitment

- Participants enrolled while hospitalized at Ben Taub General Hospital from August, 2010 to August, 2013
- Inclusion Criteria
  - Age ≥ 18 years
  - Able to provide consent
  - English or Spanish speaking
  - Expected to be hospitalized ≥ 1 more night
  - Not expected to be discharged to an institutional setting
  - Referred to TSHC for follow-up care
  - Out of care, defined as not "in care:"
    - In care: ≥ 3 consecutive VL <400 over > 6 months AND have completed HIV primary care visits in ≥ 3 of the last 4 quarter-year periods
    - Out of care: persons not "in care," including persons diagnosed <1 year or transferring to TSHC

Results: Enrollment



Results: Randomization



Baseline Characteristics: The Modified Intent-to-Treat Population

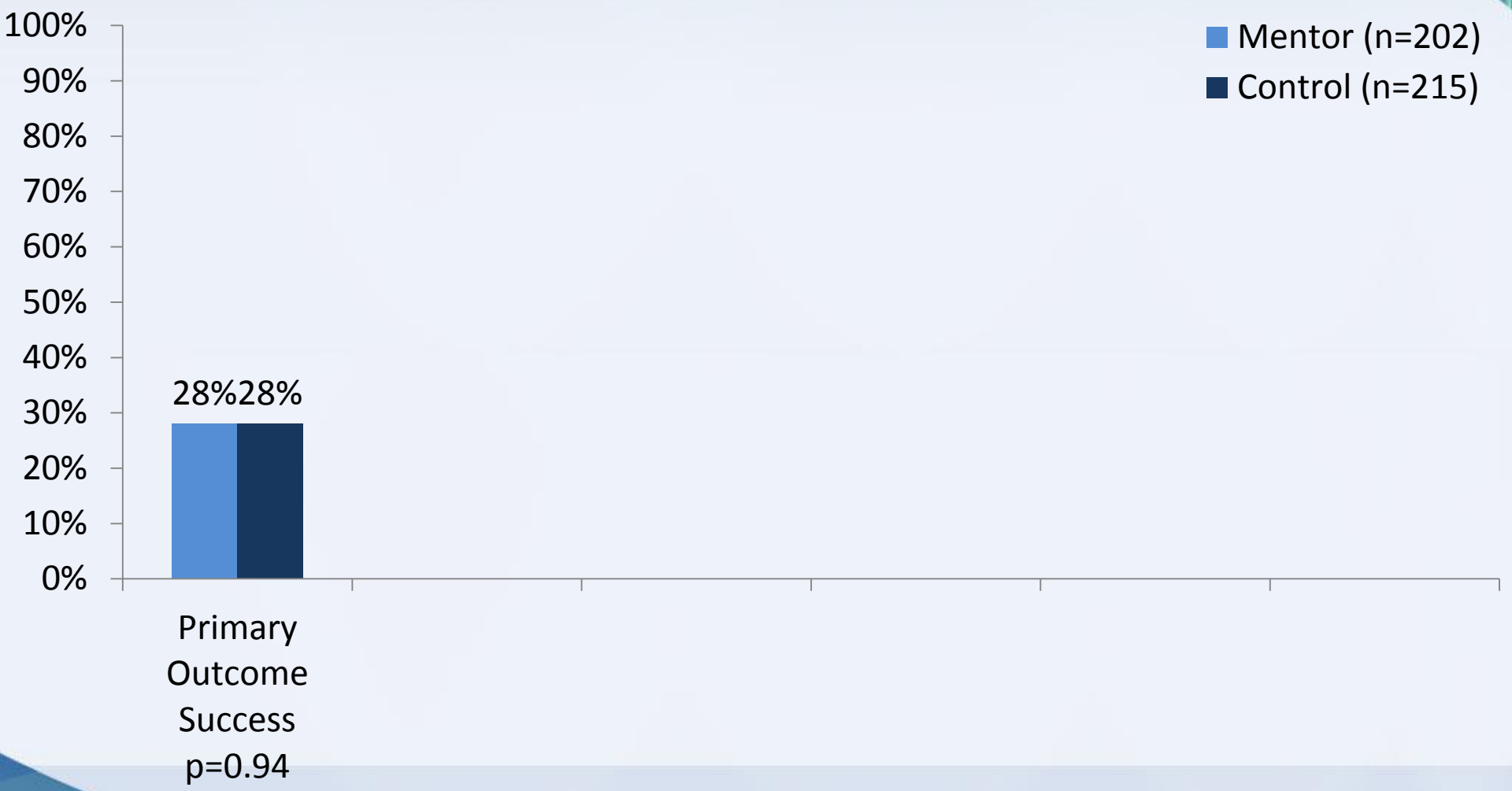
	Mentored Arm n=202	Control Arm n=215	P-value
Age			0.94
<30	26 (13%)	26 (13%)	
30-39	53 (26%)	61 (28%)	
40-49	73 (36%)	73 (34%)	
≥50	50 (25%)	55 (26%)	
Race			0.34
Black	131 (65%)	147 (68%)	
Hispanic	45 (22%)	36 (17%)	
White	26 (13%)	32 (15%)	
Sex			0.54
Male	145 (72%)	160 (74%)	
Female	57 (28%)	55 (26%)	

Baseline Characteristics: The Modified Intent-to-Treat Population

	Mentored Arm n=202	Control Arm n=215	P
Initial CD4			0.11
<200	132 (66%)	137 (64%)	
200-349	19 (10%)	37 (17%)	
350-500	13 (7%)	12 (6%)	
>500	36 (18%)	29 (13%)	
Initial VL			0.16
<400	44 (22%)	41 (19%)	
400-100,000	70 (35%)	60 (28%)	
>100,000	86 (43%)	111 (52%)	

	Mentored Arm n=202	Control Arm n=215	P
HIV Diagnosis			0.76
New	24 (12%)	23 (11%)	
Previous	178 (88%)	192 (89%)	
HIV diagnosis			0.51
< 1 year	57 (28%)	54 (25%)	
> 1 year	145 (72%)	161 (75%)	
On or should be on ART			0.52
Yes	191 (95%)	200 (93%)	
No	11 (5%)	15 (7%)	

Primary and Secondary Outcomes:



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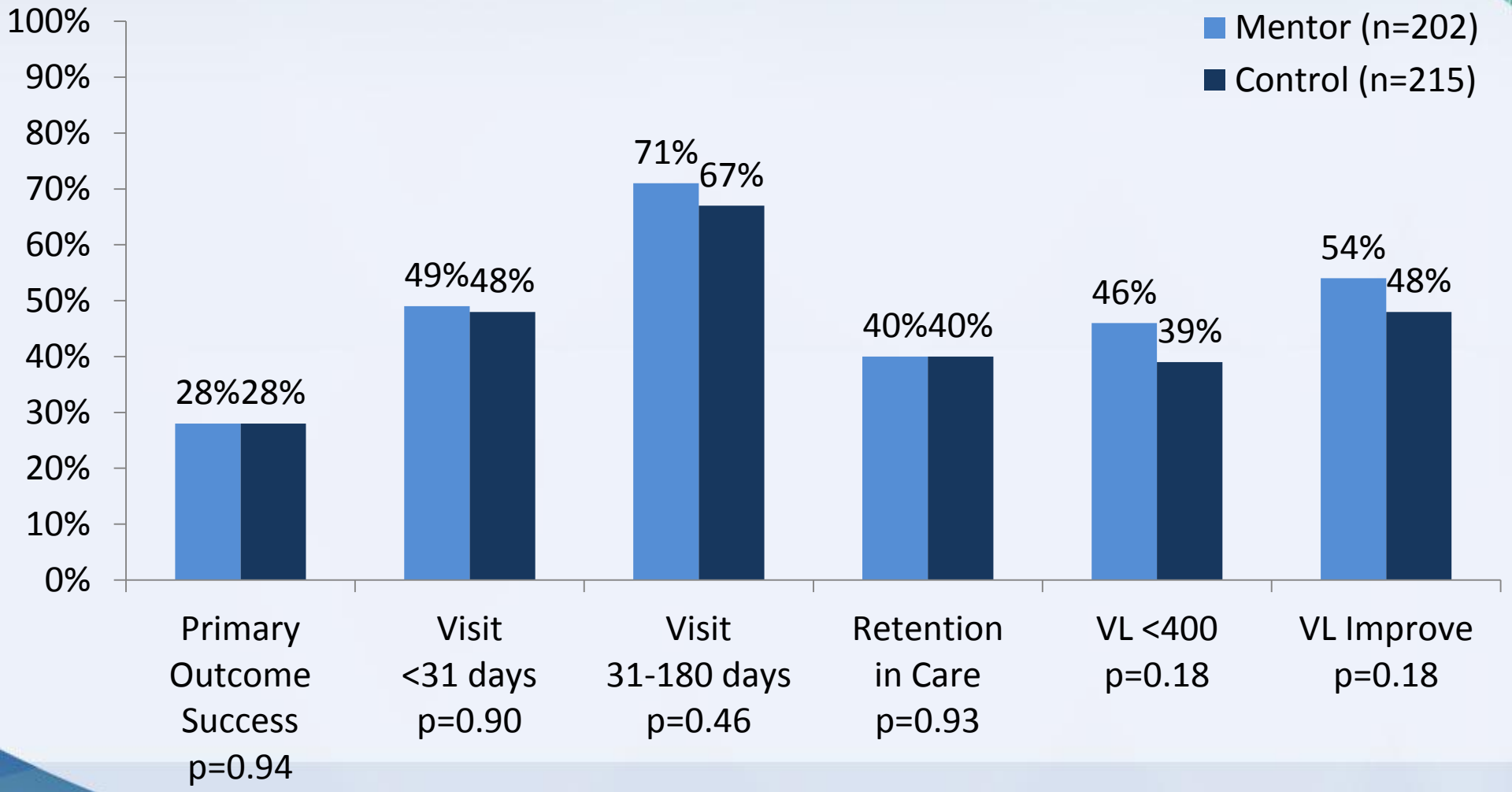
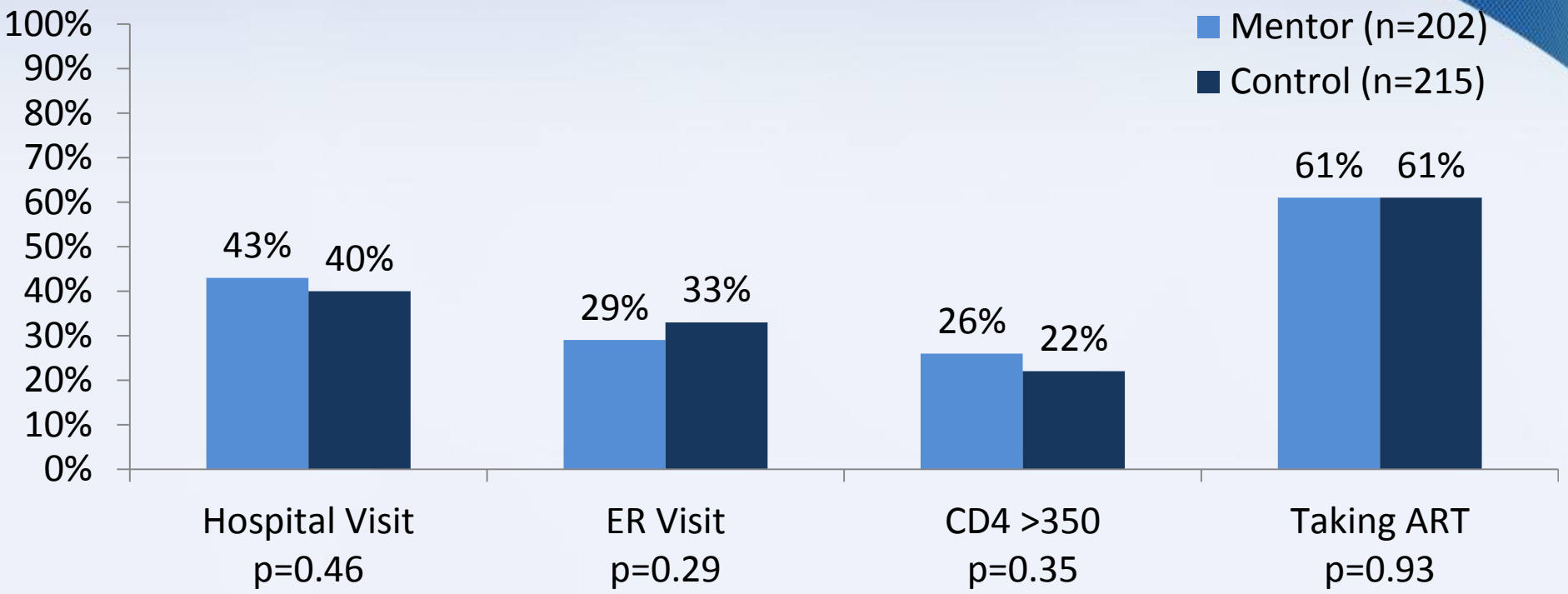


Secondary Outcomes:



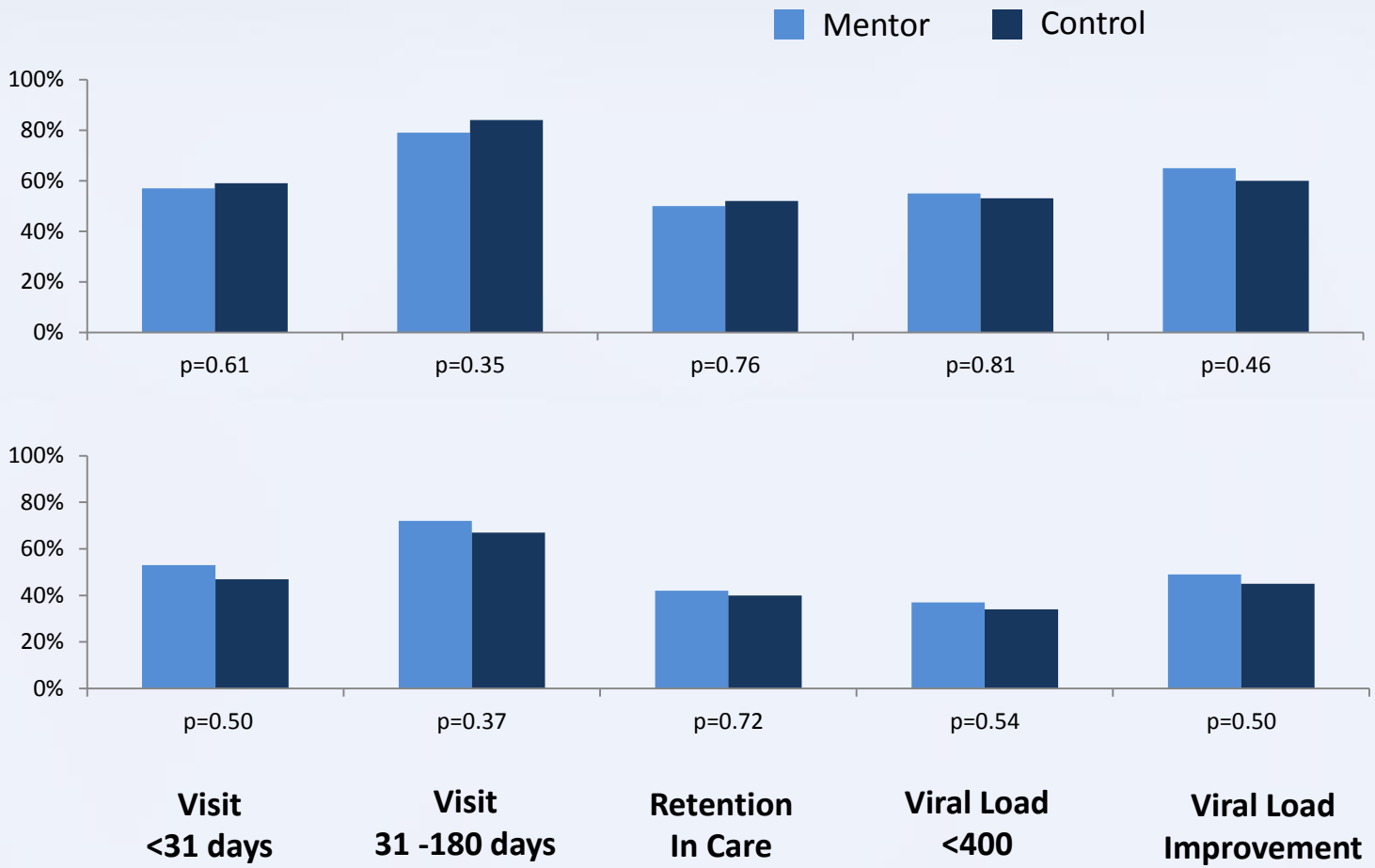
	Mentor	Control	P
Adherence, Median (25th, 75th percentiles), n=249	98 (90, 100)	97 (80, 100)	0.23

- No significant differences in change in Health Related Quality of Life

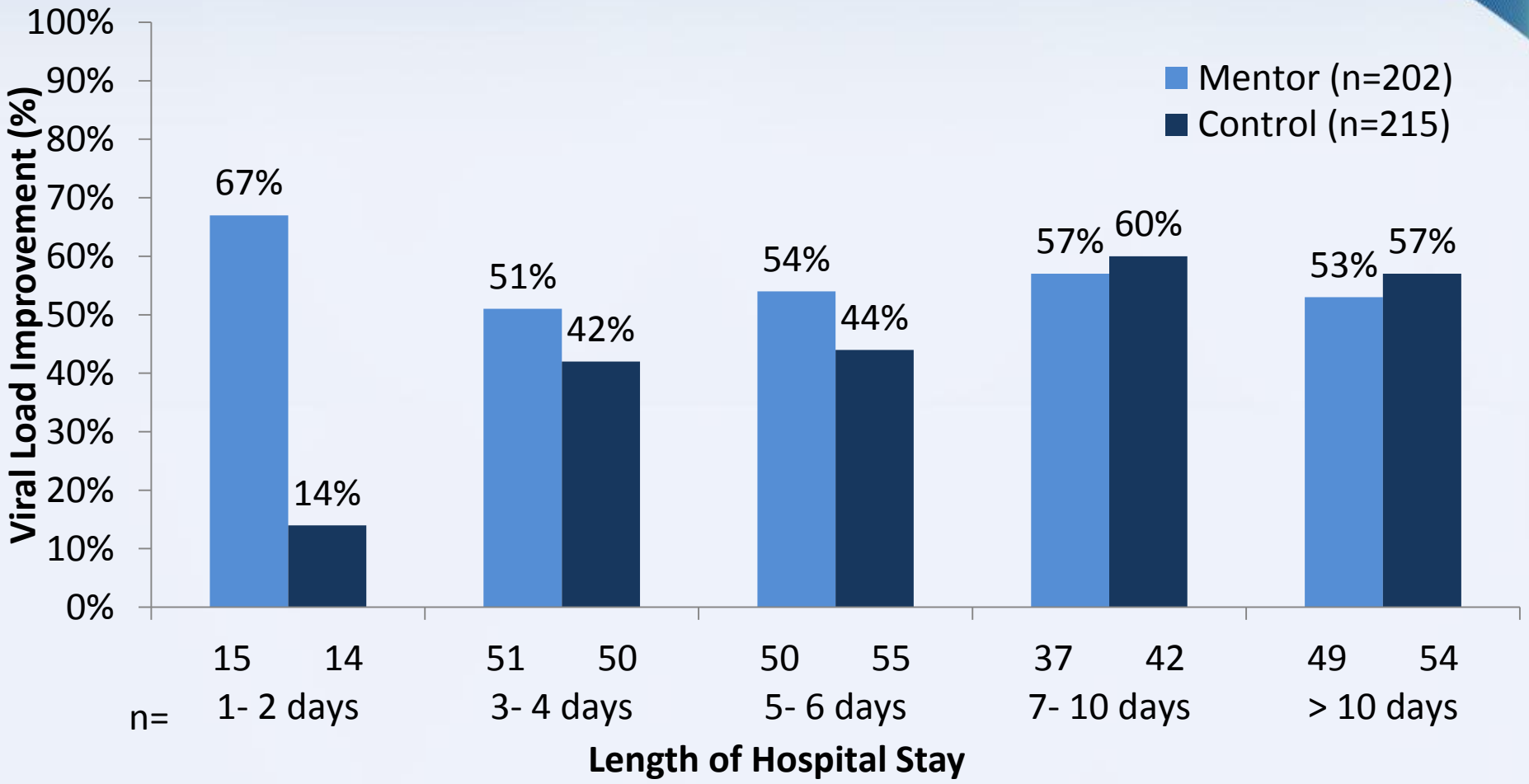
Post hoc Analyses:
VL Improvement

Full dose:
2 Sessions
3 phone calls
(n = 218)
Mentor (n=124)
Control (n=94)

Initial VL ≥400
(n = 327)
Mentor (n=156)
Control (n=171)



Post hoc Analyses:
Length of Stay on VL Improvement



- Interaction significant ($p<0.05$) in logistic regression model

Discussion

- Hospitalization represents an opportunity to find and engage out-of-care patients for both service delivery and research.
- Mentoring, while promising, may not be potent enough to overcome systemic and some of the more significant barriers to care (eg, substance use and mental health problems).
- Attention control may have provided too much support.
- Mentoring appeared to have some effect in persons hospitalized for a shorter time, while persons hospitalized for a longer time did better regardless of mentoring.
  - Mentoring may be beneficial for persons with less severe disease or who get less support from social services providers based at the hospital.
  - Additional qualitative and quantitative analyses are underway.
- VL outcomes 6% - 7% higher in the mentor arm (P=0.18), and adherence was slightly higher in the mentored arm.
  - If this is a real effect, number needed to treat ~15 persons.

Conclusions

- The mentoring intervention did not have a statistically significant or clinically meaningful effect on outcomes, including re-establishing care, VL improvement, HRQOL, and health care utilization.
- Enhanced or intensified interventions warrant further study.

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