Beyond the Symptoms

How one Emergency Department is reducing overutilization by broadening homelessness services

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This presenter has no conflicts of interest to disclose

AGENDA

Homelessness Figures

The ED Care Model

Problems at the Intersection

A New Role

Evidence of Effect

Homelessness by the Numbers

- United States (~pop. 331.5 million)
  - 580,466 People Experiencing Homelessness (PEH)[2]
  - 0.175% of U.S. population

- California (~pop. 40 million)
  - 161,548 PEH
  - 0.408% of state population
  - California makes up 11.9% of U.S. pop, but hosts 28% of all PEH in U.S.

EXHIBIT 1.7: States with the Highest and Lowest Percentages of People Experiencing Homelessness who were Unsheltered
2020

Highest Rates				
CALIFORNIA	**NEVADA**	**OREGON**	**HAWAII**	**ARKANSAS**
70.4%	61.0%	60.6%	56.5%	53.8%
161,548 Homeless 113,660 Unsheltered	6,900 Homeless 4,209 Unsheltered	14,655 Homeless 8,877 Unsheltered	6,458 Homeless 3,650 Unsheltered	2,366 Homeless 1,273 Unsheltered

Lowest Rates				
NEW YORK	**NEBRASKA**	**NORTH DAKOTA**	**MAINE**	**MASSACHUSETTS**
5.0%	5.9%	6.3%	6.7%	7.2%
91,271 Homeless 4,557 Unsheltered	2,404 Homeless 143 Unsheltered	541 Homeless 34 Unsheltered	2,097 Homeless 141 Unsheltered	17,975 Homeless 1,294 Unsheltered

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Homelessness in Los Angeles

- LA County (~pop. 10 million)
  - 25% of California's population but 41% of its PEH
  - 3% of U.S. population but 12% of its PEH

- LA City (~pop. 3.9 million)
  - 39% of county population but 62% of PEH
  - 2/3 in first episode of homelessness
  - Estimated new 20,000 PEH amid COVID[4]

	2019	2020	Percent Change
City of Los Angeles	35,550	41,290	16%
County of Los Angeles	58,936	66,436	13%

3: LAHSA 2020 Greater Los Angeles Homeless Count
4: Andy Bales, president and CEO of the Union Rescue Mission in Skid Row (urm.org)

HDAA	2022	Hot for Analytics

The Emergency Medicine Model

- Community safety net for anybody in need

- A place for stabilization
  - Get you stable enough to go back home
  - or stable enough to transport to an IP unit

- Problems with non-urgent utilization
  - Overburdens department resources
  - Increases wait for care for all patients
  - Chain reaction of patients LWBS

Packed EDs

- Crowding and overflowing in emergency departments is not a new issue.

- Examples of low-acuity cases coming in
  - RX refills
  - treatment of hypertension
  - chronic elevated blood sugar
  - behavioral health

- Source of patient and staff harm

- "COVID-19 has laid bare medicine's house of cards"[5]

SOME PATIENTS MAY BE DELAYING EMERGENCY CARE DURING THE PANDEMIC

6

Emergency department visits declined **42%***

A decline in visits for serious conditions might result in complications or death

*U.S. emergency department visits March 29–April 25, 2020, compared with March 31–April 27, 2019

CDC.GOV   bit.ly/MMWR6320   MMWR

5: Chekijian, 2021: https://www.usnews.com/news/health-news/articles/2021-10-19/er-crowding-threatens-a-health-care-house-of-cards
6:Hartnett et al 2020 https://www.cdc.gov/mmwr/volumes/69/wr/mm6923e1.htm

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Homeless Care at Cedars-Sinai ED

- 7,956 visits by 3,194 PEH patients Feb 2020-Jan 2021
  - Roughly 2.49 visits per PEH patient
  - Many there for basic needs
    - Food
    - Shelter
    - Primary care-level treatment

California SB1152

- Passed In 2018, requires hospitals to document info about patients experiencing homelessness before discharging them.
  - Services offered
    - Transportation
    - Meal
    - Meds
    - Vaccinations
    - Weather-appropriate clothing
  - Resources offered
    - Clinical/Behavioral
    - Follow-up with PCP
    - Help getting insurance

A New Role is Born

Community Resource Coordinator (CRC)

- Responsible for SB1152 checklist items

- Help PEH patients find more sustainable support

- Provide connections to community resources
  - Shelter
  - Staple needs
  - Insurance
  - Follow-up & specialty care appointments

Weihao Qu, CRC

How's It Going?

Are CRCs effective at reducing the use of emergency services for non-urgent matters while ensuring that homeless patients can access their basic needs?

Data gathered in fulfilling SB1152 needs used to measure role's impact

Studying the Impact

- Diff-in-diff cohort model
  - Visit rates of patients experiencing homelessness,
  - Split by whether they were seen by a CRC during their index visit.

- Dependent variables
  - Time-interval between visits (in days)
  - Cost of stay
  - Length of stay (LOS)

- Differences in the populations were tested for statistical significance using a Welch t-test.
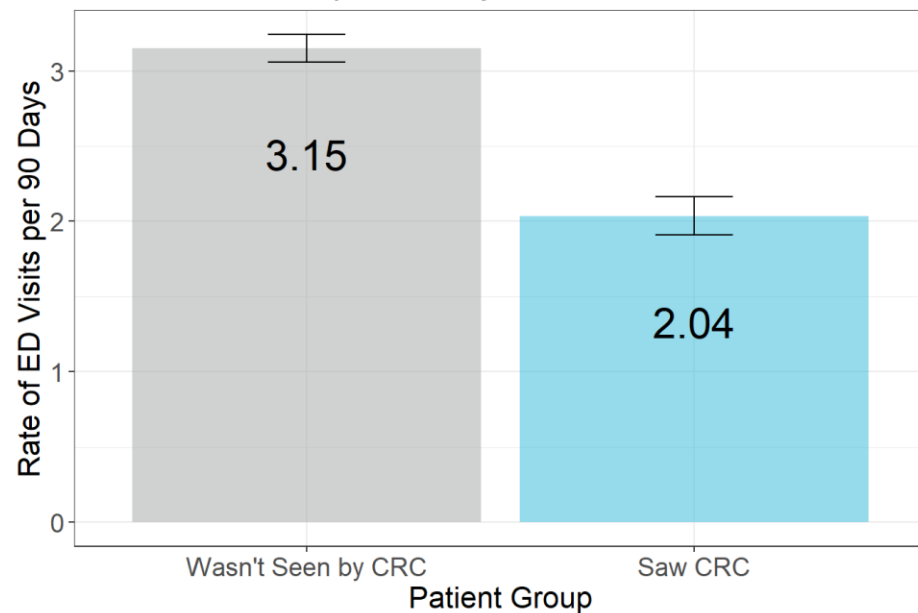
What We Found

- A two-sample t-test demonstrated statistical significance (p = 0.0014)

- 22.82% increase to # of days elapsed before a patient returned to the ED after visiting with a CRC

- 95% confidence interval: 2.6-10.9 days to gap between ED visits

Average Gap Between ED Visits for Homeless Patients
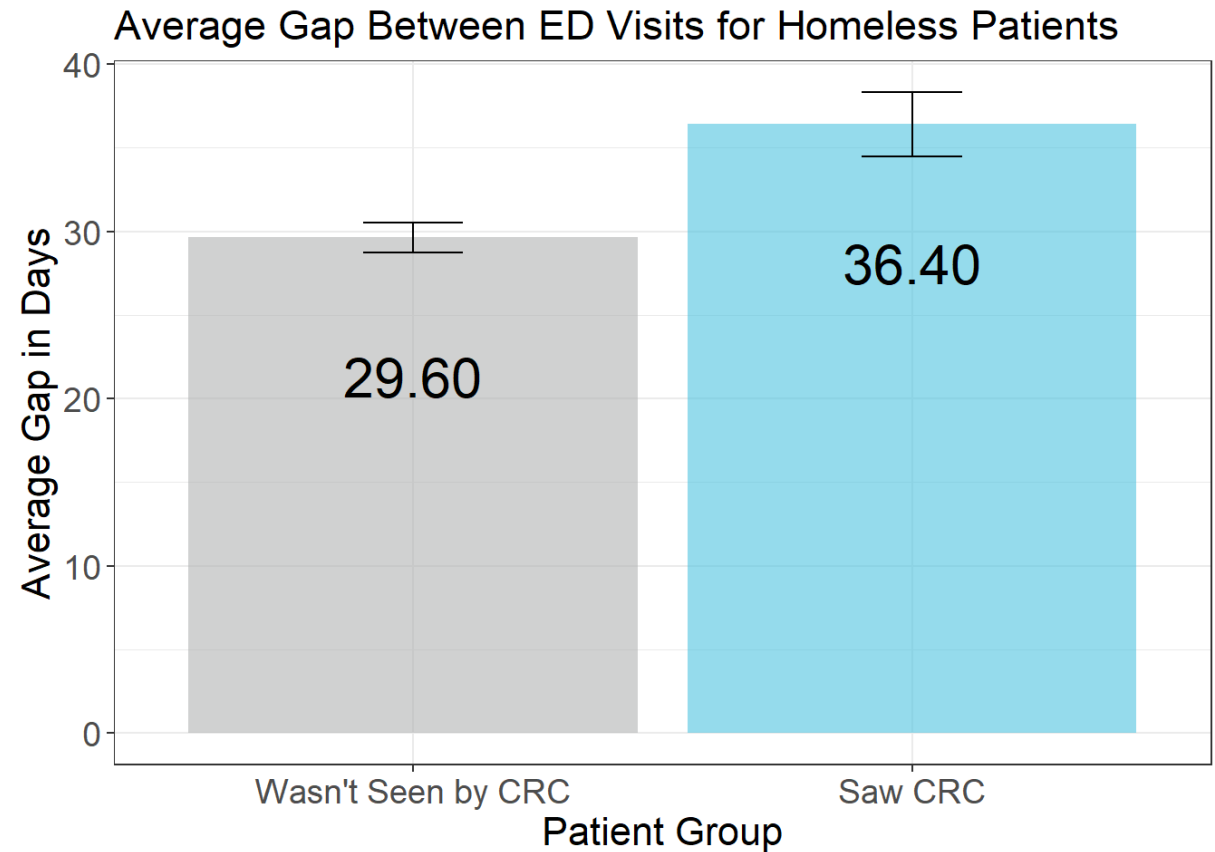
90 Days

Rate of ED Visits per 90 Days for Homeless Patients

180 Days

Rate of ED Visits per 180 Days for Homeless Patients

Time interval	Reduction in visit rate	95% CI	p-value
90 days	35%	0.8–1.4 fewer visits	<0.0001
180 days	35%	1.1-2.1 fewer visits	<0.0001

Other Results

- Difference in the <u>cost</u> of care
  - $p = 0.1050$
  - Not statistically significant

- Difference in <u>length of stay</u> in the ED.
  - $p = 0.1053$
  - Not statistically significant

- Makes sense considering CRC can't really affect those figures.

"YOU MISS 100% OF THE SHOTS YOU DON'T TAKE. -WAYNE GRETZKY"
- MICHAEL SCOTT
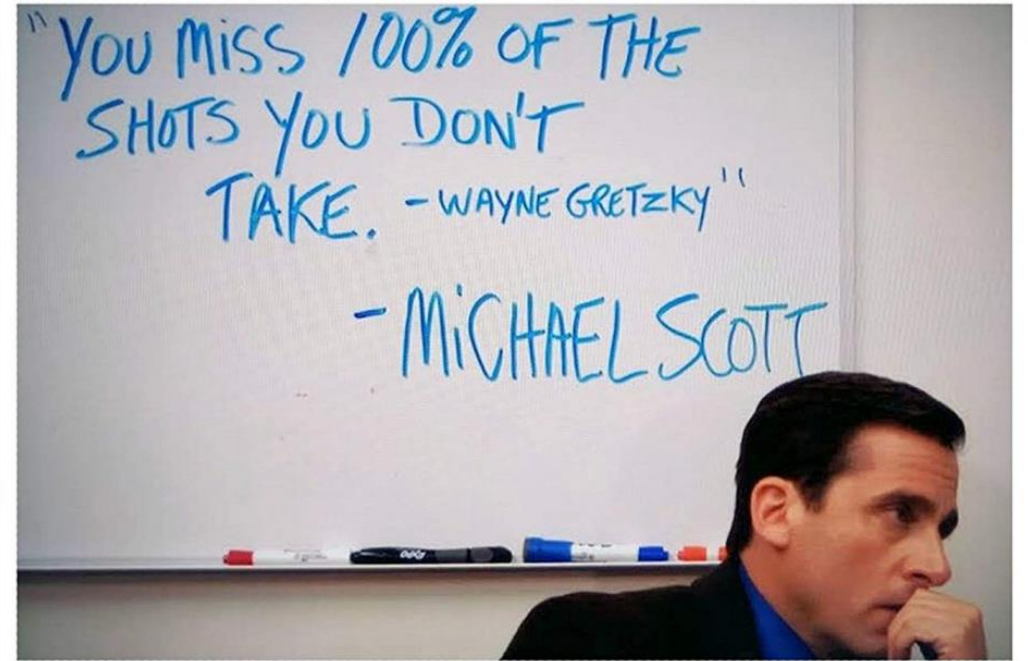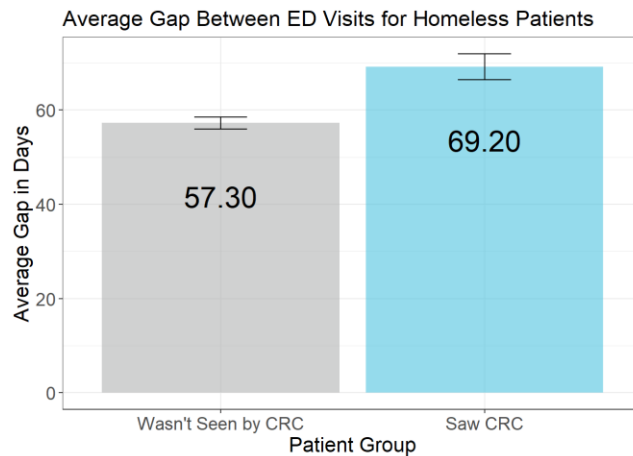
Understanding the Results

- Increased gap between ED visits

- Lowered rate of ED visits over 90 and 180 days

- Implications
  - Increased utilization of community resources may be decreasing frequency of needs that draw patients experiencing homelessness to ED.
  - Reduced burden by lower-urgency needs on ED resources – Possible effects
    - Shorter wait-times
    - Fewer LWBS
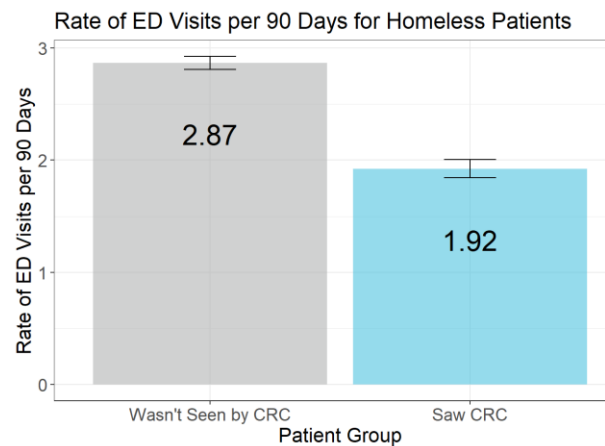   - Greater focus on other patients with more acute needs

Beyond the First Year …

- Results Feb 2020-Sep 2022
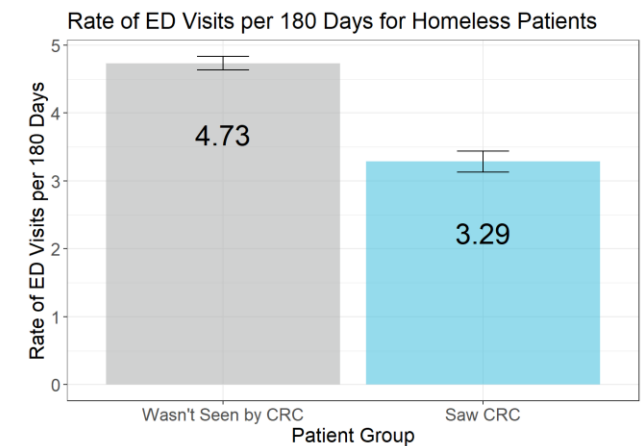 - 17,230 visits by 7,446 PEH patients

Overall Avg Gap Between Visits

Average Gap Between ED Visits for Homeless Patients

⬆ 6.0-17.9 Days

90-day Visit Rate

Rate of ED Visits per 90 Days for Homeless Patients

⬇ 0.7-1.1 Visits

180-day Visit Rate

Rate of ED Visits per 180 Days for Homeless Patients

⬇ 1.1-1.8 Visits

THANK YOU

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Questions?