

# Exploring High Utilizer Intervention Programs



**Camden  
Coalition**

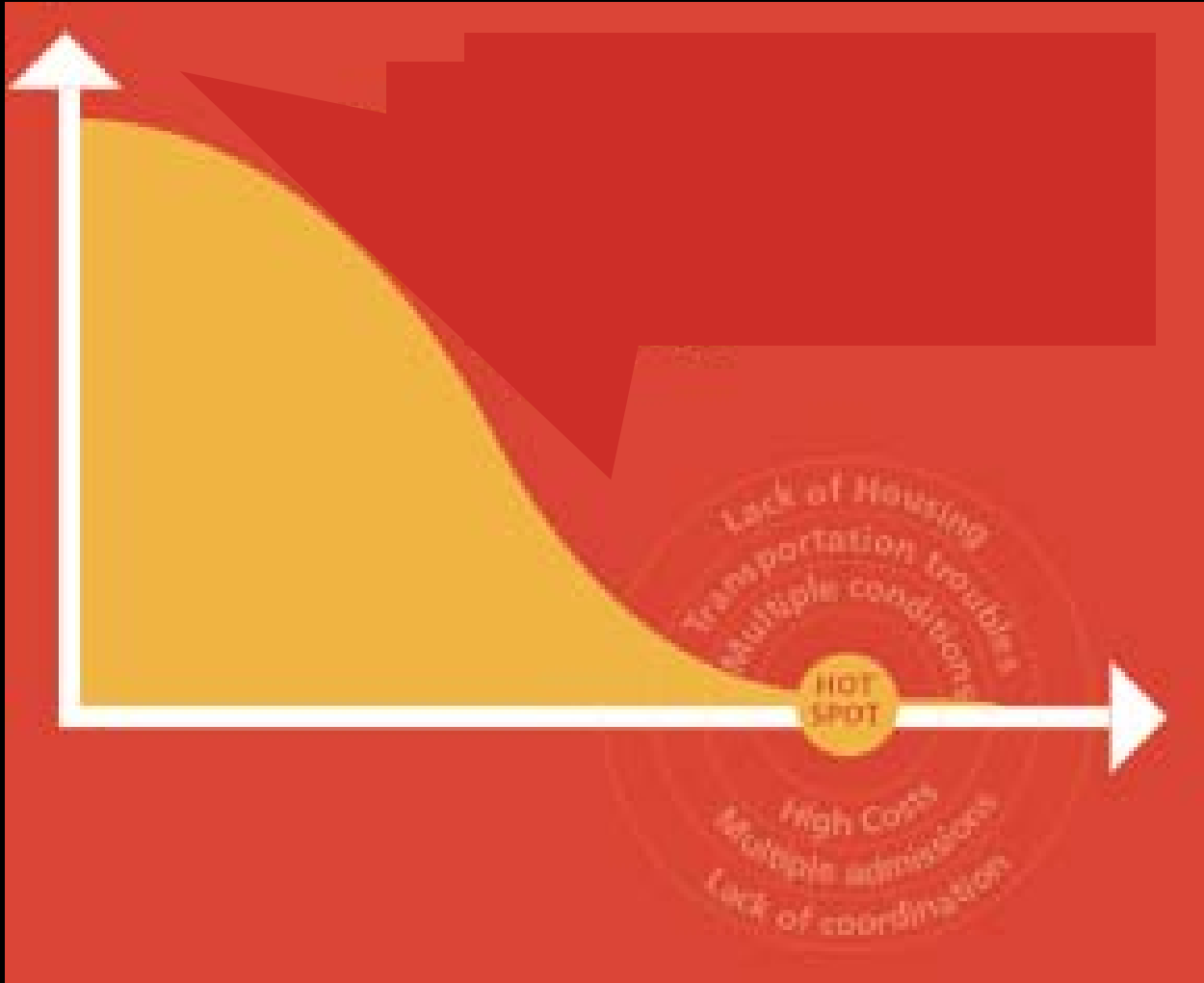
of Healthcare Providers

**Jeffrey Brenner, MD**  
Executive Director

# What do these patients have in common?

- Homeless patient in Trenton, NJ with 450 visits in a year
- Dialysis patient in Allentown, PA with \$1 million in inpatient costs
- Frequently hospitalized wheelchair bound patient in San Diego, CA
- Middle class patient in South Eastern, PA with 147 CT scans
- Ventilator-assisted patient in Camden with \$745,000 in charges
- Dialysis patient with \$2 million in inpatient costs found by a group of student hotspotters

# Outlier patients in the long tail of data



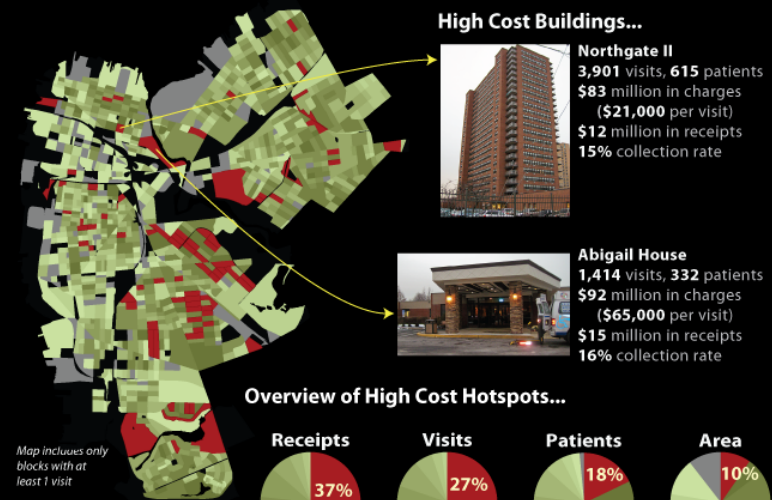
# Who are patients with 'super-utilization'?

- Homeless?
- Mentally ill?
- Addicted?
- Complex co-morbidity?
- Medication confusion?
- Transportation barriers?

# Hotspotting- Lesson from NYPD and William Bratton



## Healthcare Cost Hotspots in Camden, NJ (Jan 2002-June 2008)



**Camden Coalition of  
Healthcare Providers**  
www.camdenhealth.org

Source: Cooper, Lourdes, and Virtua  
Hospital and ER billing data  
Jan 2002-June 2008

# Utilization typology

	Inpatient visits, 2011				
ED visits, 2011	0	1	2	3 to 4	5+
0	0	1,293	57	4	1
1	26,128	2,075	117	7	0
2 to 3	13,390	1,842	373	68	3
4 to 5	3,216	666	223	118	15
6 to 7	1,020	251	106	84	24
8 to 9	386	112	39	41	11
10 +	339	96	70	65	62

# Social determinants is a limiting construct...



Causality goes in many directions

Not deterministic but probabilistic

Perhaps....you can improve health  
without curing poverty?



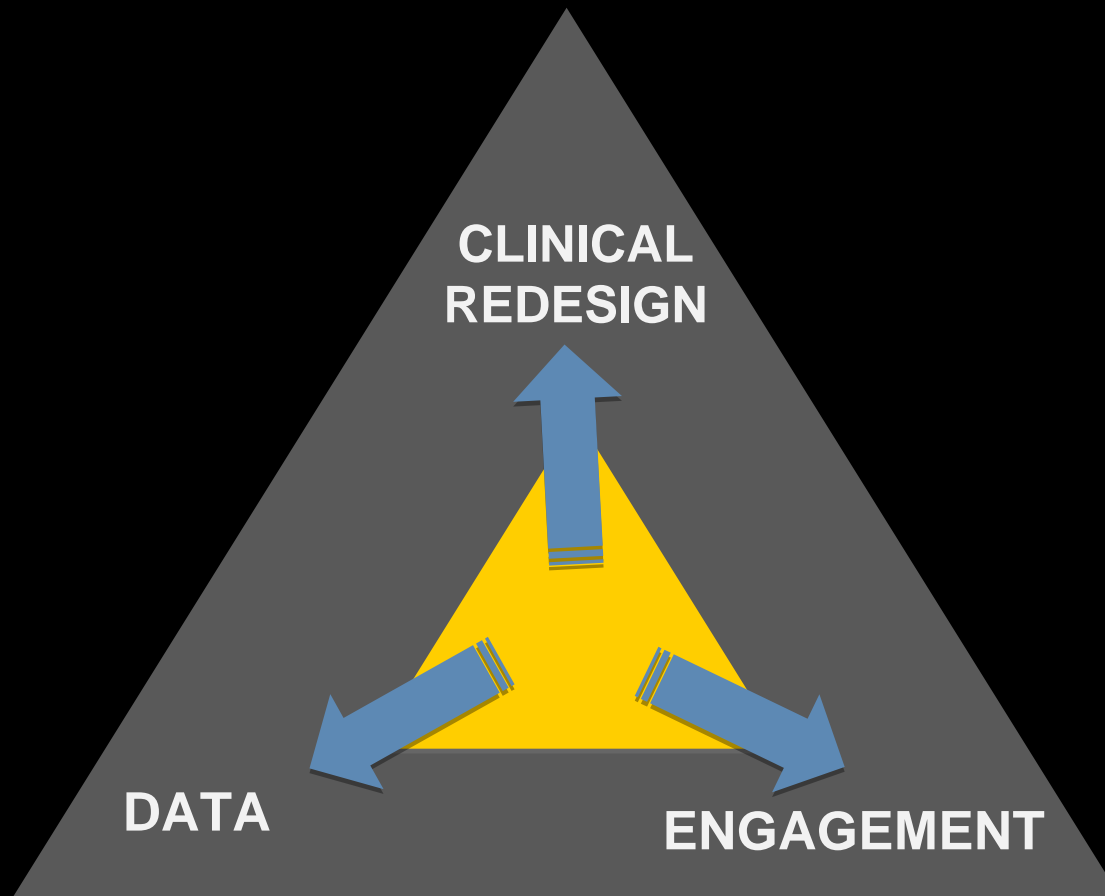
# Population Health

Better care at lower cost for  
everyone everyday



# Population Health

- Sociology
- Psychology
- Anthropology
- Non-linear math
- Systems engineering
- Business thinking
- Social work
- Medicine
- Nursing



# Theory of Change



## Modern Assembly Line

# Standardization

### EARLY AUTO WORKSHOP

- non-standard product
- high cost, poor quality

### EARLY ASSEMBLY LINE

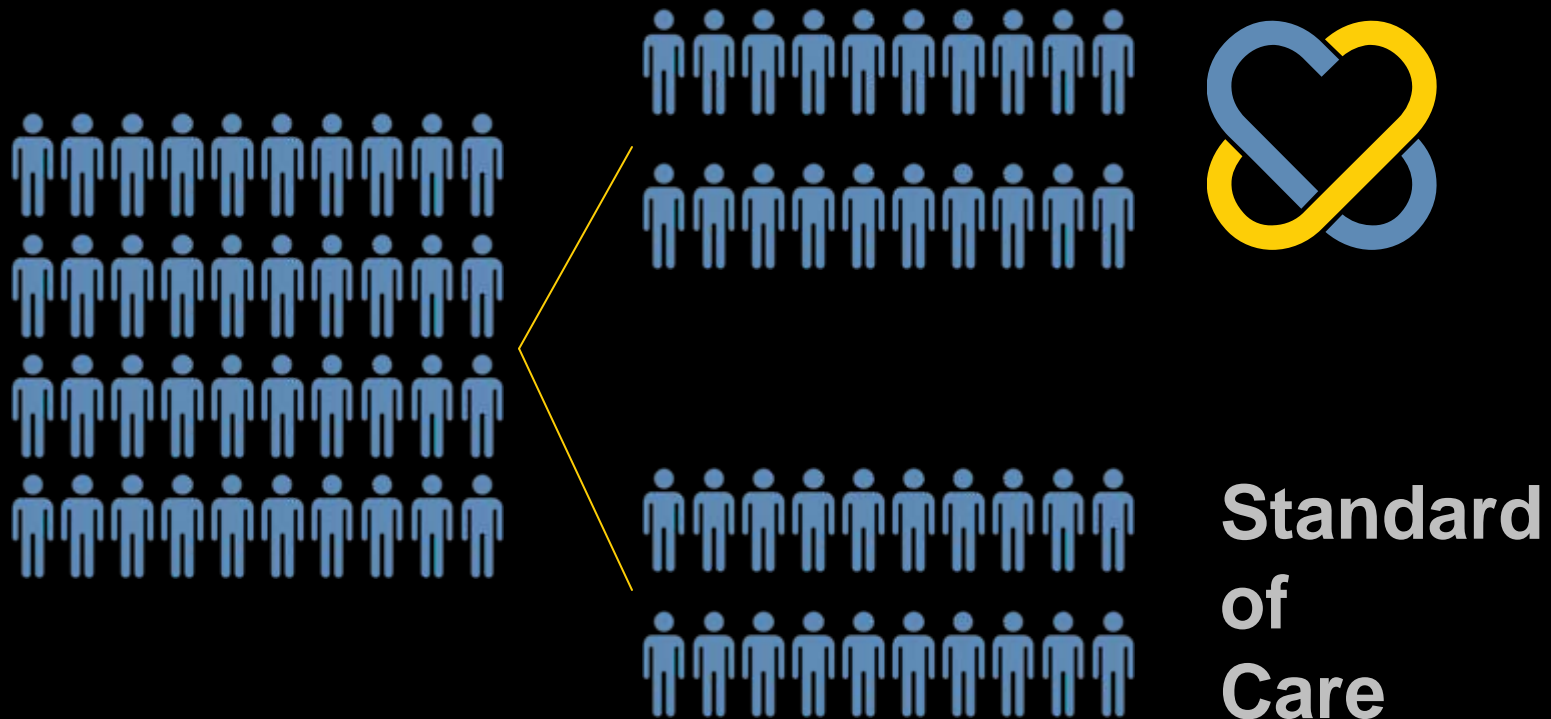
- standardized work
- lower costs & higher quality

### MODERN ASSEMBLY LINE

- team-based work
- automation
- delegation
- standardization
- lower cost & high quality

# Future of Population Health

# CCHP's Care Management RCT



**Key Outcomes:** reduced re-hospitalizations and ED visits in 12 month period following discharge

current n = 250 / 800



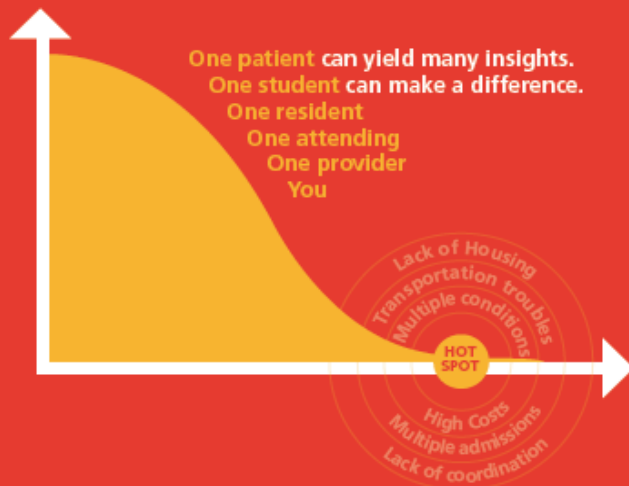
# Movement Building: Student Hotspotting



## Seeking the next generation of hot spotters!

**Have you noticed** those patients that visit the hospital again and again, whose faces are now recognizable to you? Every hospital has these patients with complex care needs who are admitted three times or more in a six to nine month window. Starting with one patient, you can gain insights into the root causes that lead to repeat visits to the emergency room or hospital. You can help these patients get better care. You can become a hot spotter.

Start with one patient, follow our 10 steps, become a hot spotter.



Jefferson Medical College

Johns Hopkins University School of Medicine

Louisiana State University School of Medicine with  
Tulane University School of Medicine

Ohio State University College of Medicine

Penn State College of Medicine

University of North Carolina School of Medicine at  
Chapel Hill with Duke University School of  
Medicine

University of Rochester School of Medicine and  
Dentistry

University of Washington School of Medicine

Vanderbilt University School of Medicine

Virginia Commonwealth University School of  
Medicine