How Can Health Plans Be Effective Partners on Super-Utilizer Management?

Jeffrey Brenner, MD
Executive Director

Why is saving money so hard in healthcare?


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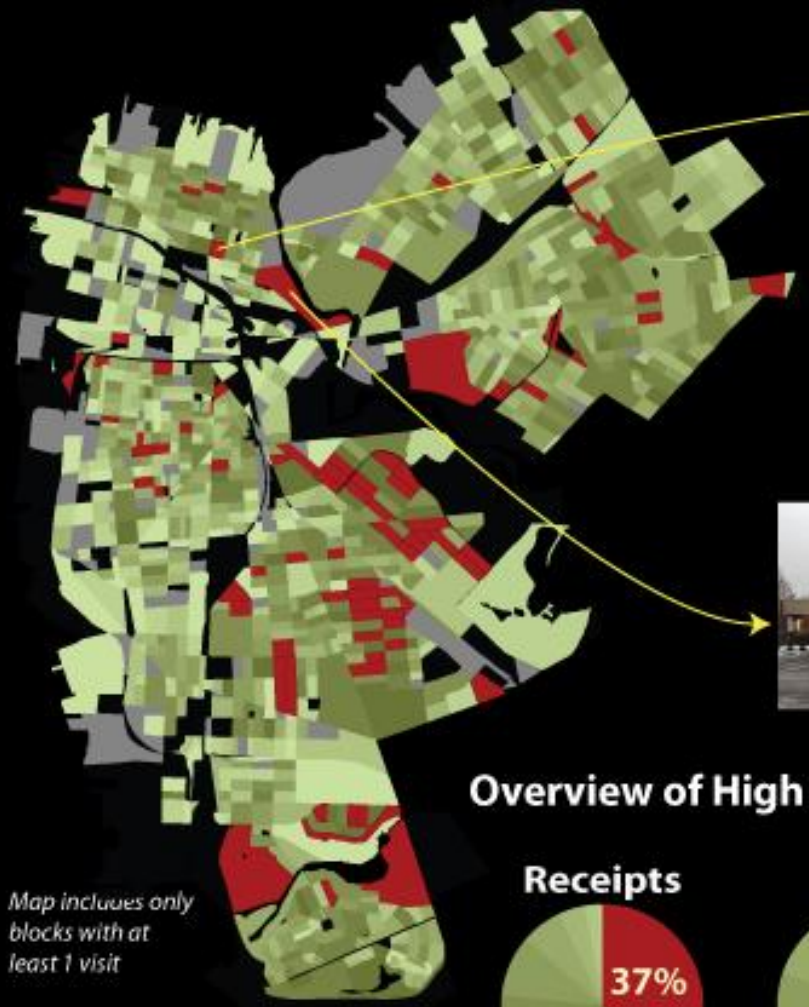
Camden Health Data

- 2002 – 2011 with Lourdes, Cooper, Virtua data
  - 500,000+ records with 98,000 patients
  - 50 % population use ER/hospital in one year
- Leading ED/hospital utilizers citywide
  - 324 visits in 5 years
  - 113 visits in 1 year
- Total revenue to hospitals for Camden residents $100 million per year
  - Most expensive patient $3.5 million
  - 30% costs = 1% patients
  - 80% costs = 13% patients
  - 90% costs = 20% patients

Top 10 ER Diagnosis 2002-2007 (317,791 visits)

465.9	ACUTE UPPER RESPIRATORY INFECTION (head cold)	12,549
382.9	OTITIS MEDIA NOS (ear infx)	7,638
079.99	VIRAL INFECTION NOS	7,577
462	ACUTE PHARYNGITIS (sore throat)	6,195
493.92	ASTHMA NOS W/ EXACER	5,393
558.9	NONINF GASTROENTERI (stomach virus)	5,037
789.09	ABDOMINAL PAIN-SITE NEC	4,773
780.6	FEVER	4,219
786.59	CHEST PAIN NEC	3,711
784.0	HEADACHE	3,248

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



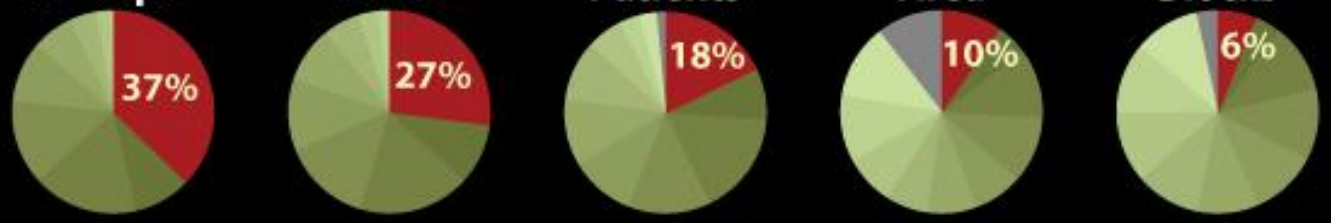
Map includes only blocks with at least 1 visit

High Cost Buildings...

Northgate II
3,901 visits, **615** patients
$83 million in charges
(**$21,000** per visit)
$12 million in receipts
15% collection rate

Abigail House
1,414 visits, **332** patients
$92 million in charges
(**$65,000** per visit)
$15 million in receipts
16% collection rate

Overview of High Cost Hotspots...



Camden Coalition of Healthcare Providers
www.camdenhealth.org

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

High Inpatient Utilizers
215 patients (1%)

Mean # ED visits	Mean # IP visits	Mean total LOS	Mean % of all unique primary ICD classified as chronic	Mean % of IP that are 60 day readmissions	Mean total charges	Mean total receipts	Median Age
4.48	5.33	54.71	34%	55%	$673,592	$73,143	57

% total	% total ED	% total IP	% total LOS	% total charges	% total receipts	% total 60 readmits	Total charges	Total receipts
.8%	1.5%	13.0%	27.5%	20.0%	18.8%	23.0%	$144,148,652	$15,652,705

	Patients	Percent
RESPIRATORY ABNORM NEC	34	2.2
CHEST PAIN NOS	29	1.9
SHORTNESS OF BREATH (Begin 1998)	28	1.8
REHABILITATION PROC NEC	26	1.7
ABDOM PAIN NOS (Begin 1994)	25	1.6
SEPTICEMIA NOS	23	1.5
ACUTE RENAL FAILURE NOS	21	1.4
URIN TRACT INFECTION NOS	21	1.4
PNEUMONIA ORGANISM NOS	19	1.2
ACUTE ON CHRONIC SYSTOLIC HEART FAILR(Begi	17	1.1

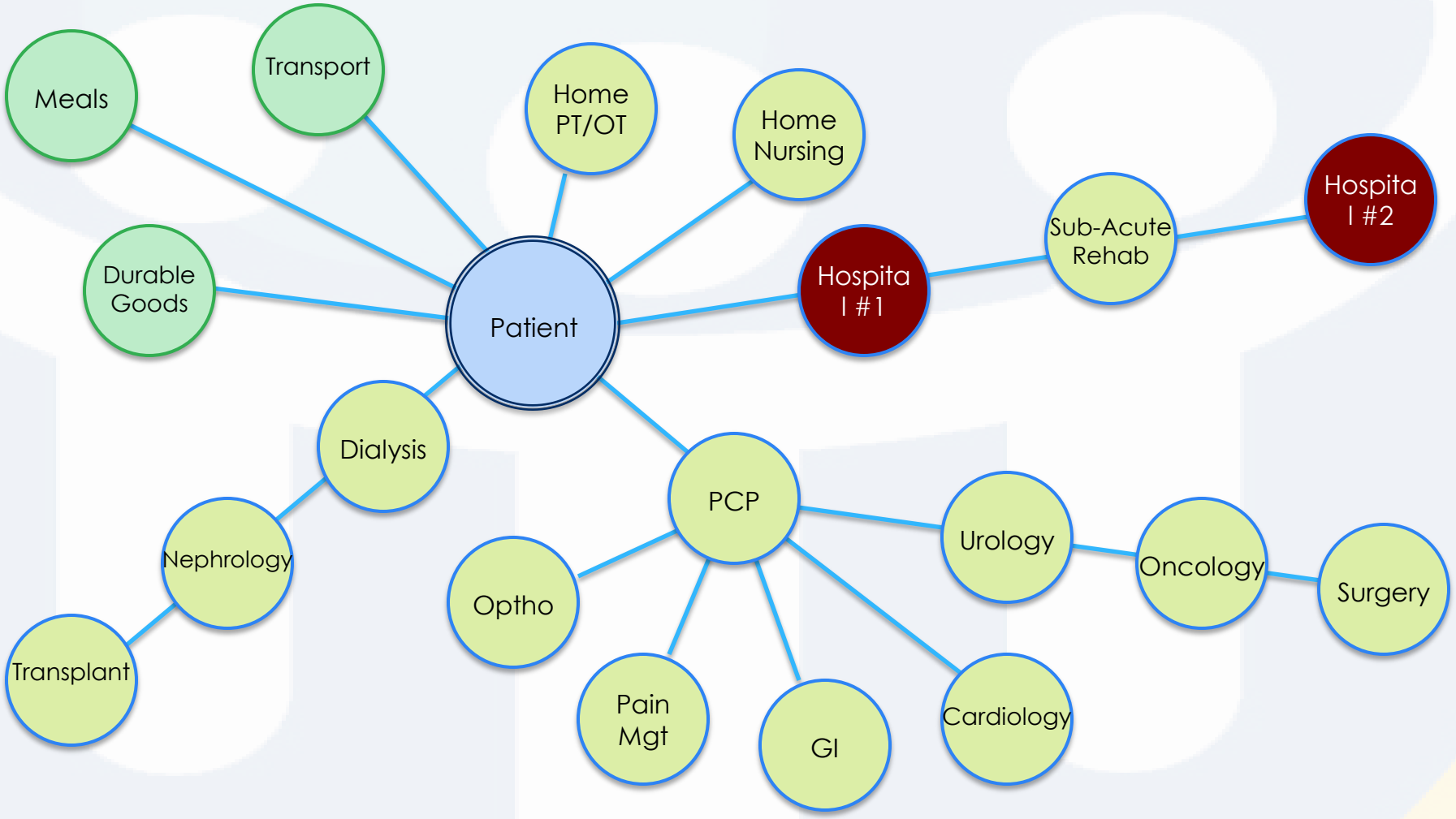
Patient Case Presentation #1

- 55-yo Male, admitted for GI bleed and SOB (November 2011)
- Dual coverage, Lives alone in high-rise apartment
- 6 months- 9 ED visits, 6 Inpt visits
- 12 Medications daily

ESRD
Renal Carcinoma
Hepatitis B
Hypertension
Hyperlipidemia
Peripheral vascular dx

Asthma
Glaucoma (blind in one eye)
Sleep Apnea
Severe Back Pain

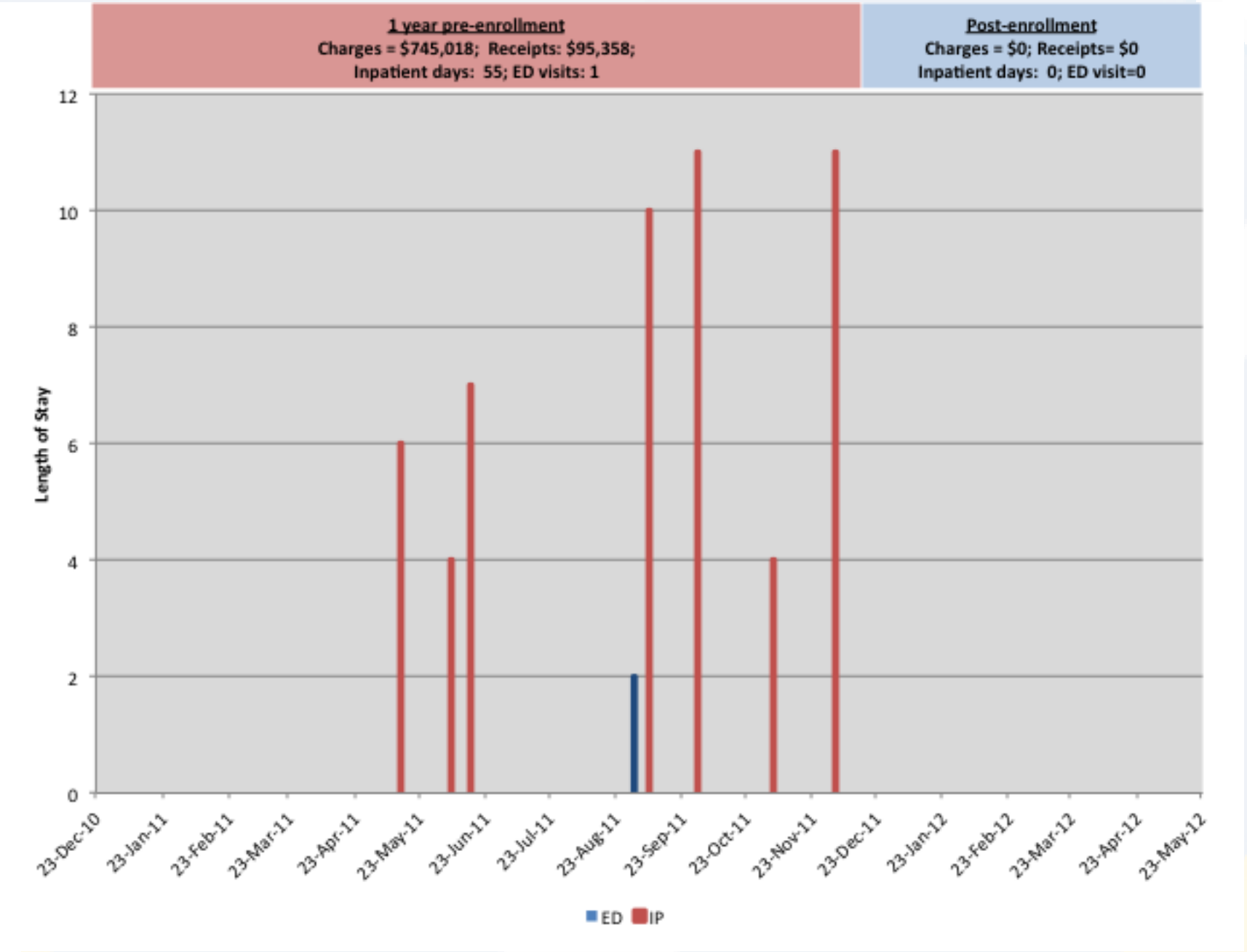
Patient Centered Care Coordination




ONETOUCH
Ultra
Sure comfort

Patient Case Presentation #2

- 52-yo Female, Spanish-speaking, admitted for SOB
- Lives with family
- 6 months- 6 inpatient visits
- Ventilator dependent and has tracheosotomy
- Severe COPD


1 year pre-enrollment
Charges = $745,018; Receipts: $95,358;
Inpatient days: 55; ED visits: 1
Post-enrollment
Charges = $0; Receipts= $0
Inpatient days: 0; ED visit=0
Length of Stay
0
2
4
6
8
10
12
23-Dec-10
23-Jan-11
23-Feb-11
23-Mar-11
23-Apr-11
23-May-11
23-Jun-11
23-Jul-11
23-Aug-11
23-Sep-11
23-Oct-11
23-Nov-11
23-Dec-11
23-Jan-12
23-Feb-12
23-Mar-12
23-Apr-12
23-May-12
ED
IP


The Camden Coalition of Healthcare Providers
Lillian Perez
CORINNE BOSTIC

Hospital Utilization since 1996

ER Visits	102
Admissions	54
Total CT Scans	147
CT Scan-Head	73

Types of Hospital Utilizers

Low / No Utilization

Rarely visit hospital

Medium ED Utilizer

Average 2-3 ED visits in a year

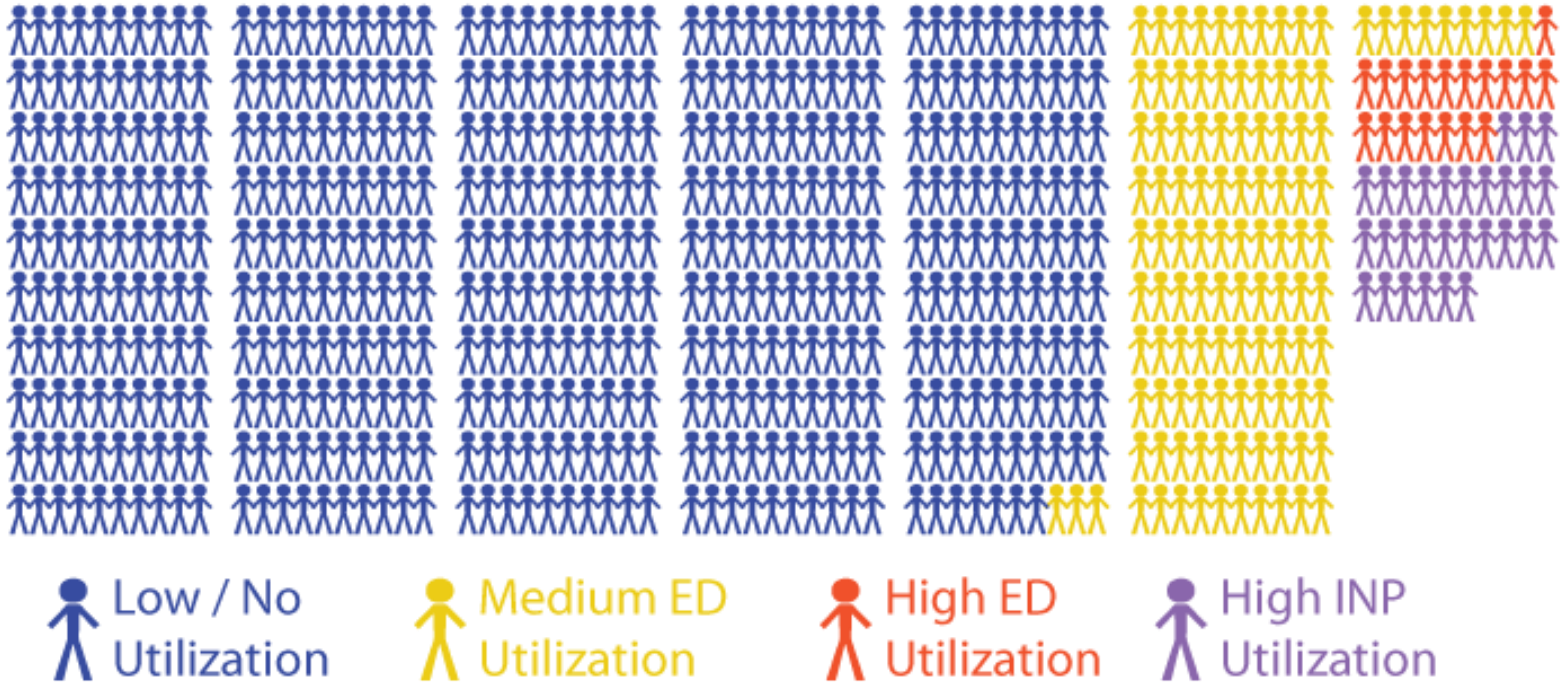
High ED Utilizer

Average 8 ED Visits And 1 Inpatient Visit

High Inpatient Utilizer

Average 3 Inpatient 1 ED Visit

Utilization Types



# of Residents	**497**	**122**	**18**	**21**
% of Building	**76%**	**19%**	**3%**	**3%**
Average Age	**37.2**	**59.1**	**41.5**	**39.8**
Average Yrs in Building	**4.7**	**6.0**	**4.8**	**3.7**

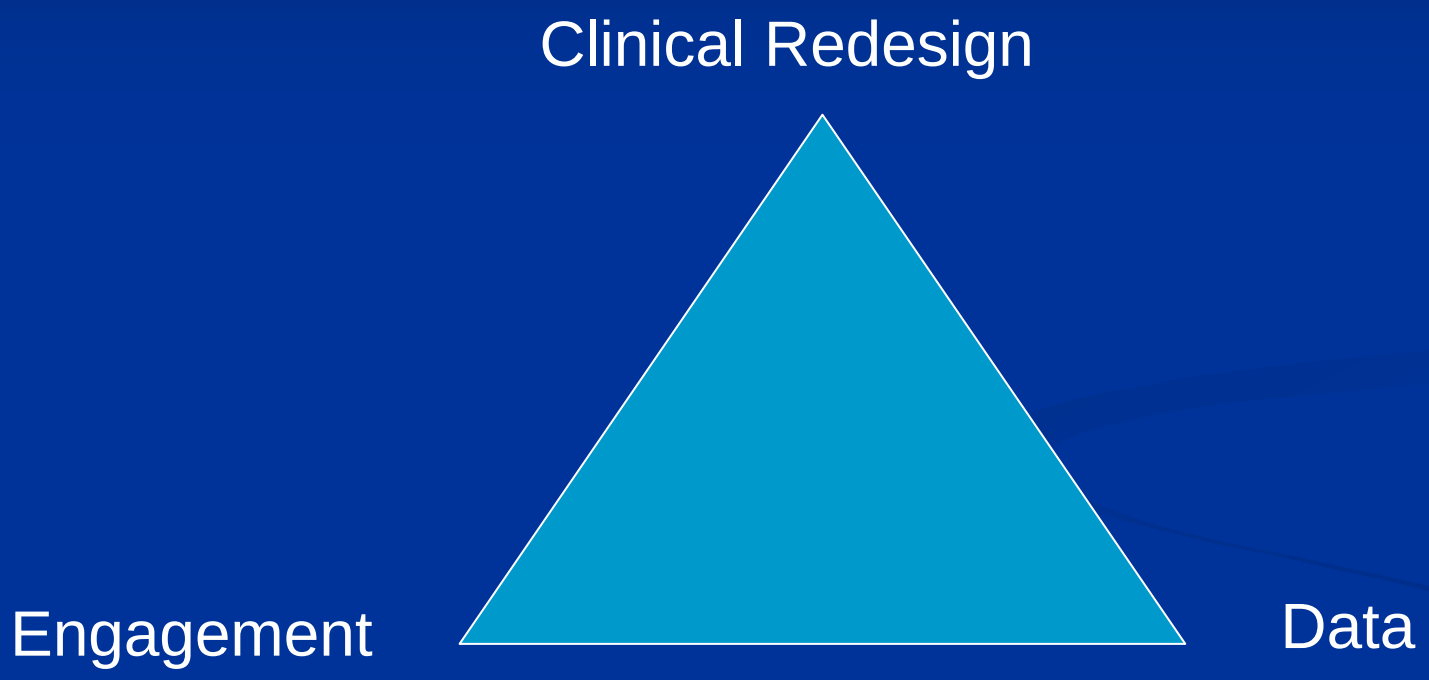
Utilization typology

ED visits, 2011	Inpatient 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

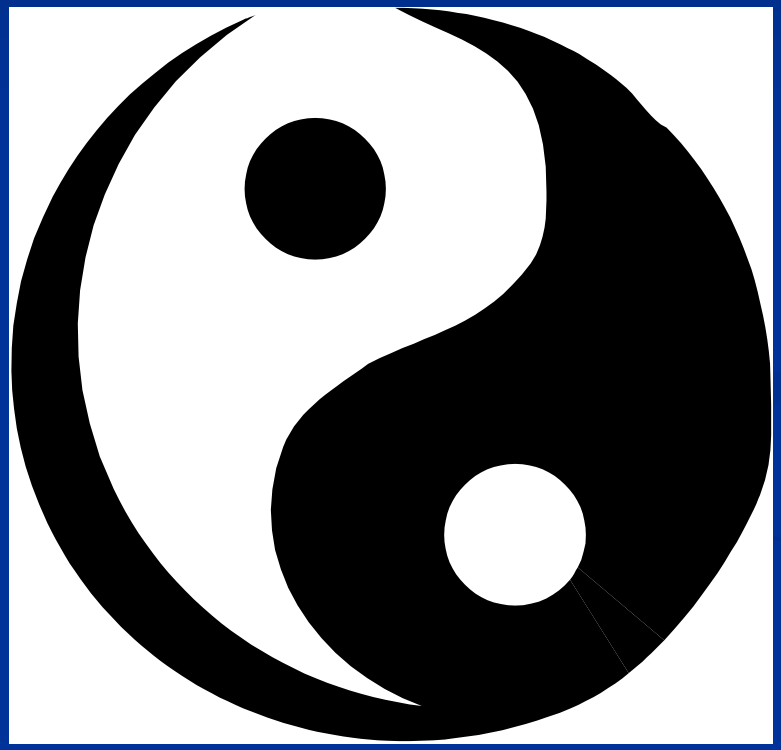
Utilization matrix

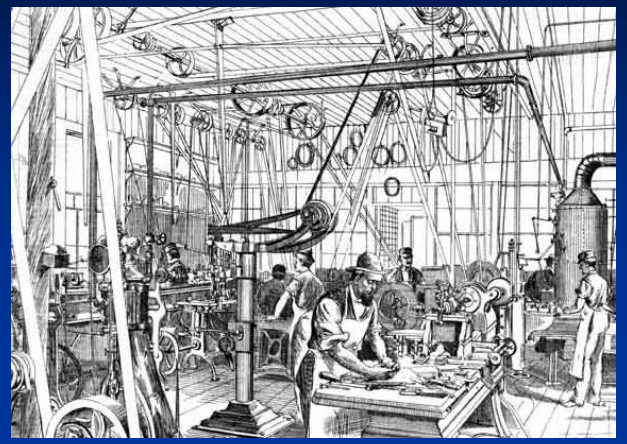
ED visits, 2011	Inpatient visits, 2011				
	0	1	2	3 to 4	5+
0	44,728 (85%) patients 5,210 Inpatient visits 63,489 ED visits $28,000,000 (50%) IP payment $25,800,000 (59%) ED payment		985 (2%) patients 1,856 IP visits 4,129 ED visits $10,000,000 (17%) IP payment $1,700,000 (4%) ED payments	503 (1%) patients 2,026 Inpatient Visits 4,144 ED Visits $10,900,000 (20%) in IP payment $1,700,000 (4%)in ED payment	
1					
2 to 3					
4 to 5	4,961(9%) patients 28,447 ED visits $11,500,000 (27%) in ED payment	1,563 (3%) patients 1,239 IP visits 6,962 ED visits $6,700,000 (18%) in IP payment $2,800,000 (6%) in ED payment			
6 to 7					
8 to 9					
10 +					

Theory of Change



Effective vs Efficient

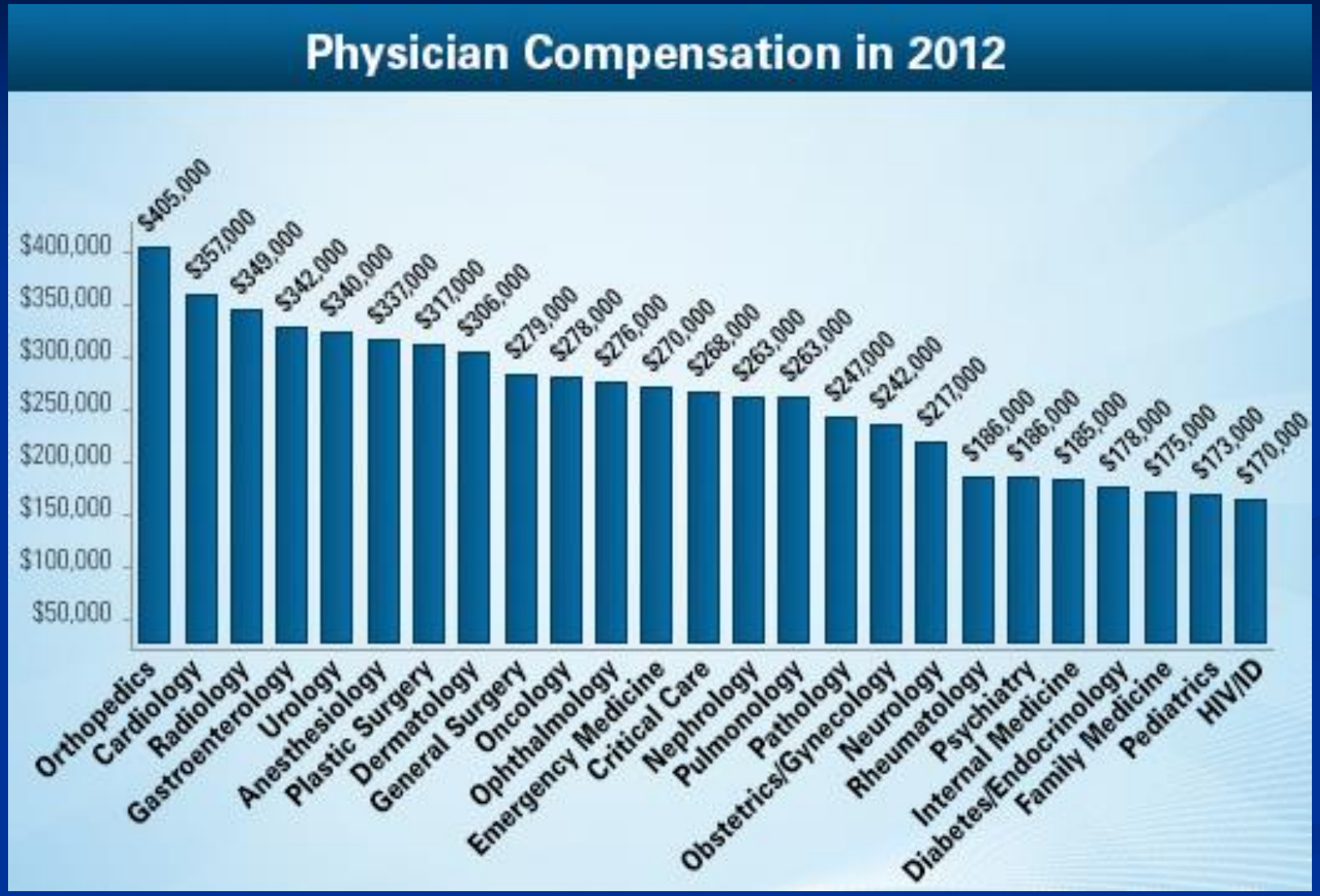




Early auto workshop with non-standard product, high cost, poor quality

Early assembly line with standardized work, lower costs, and higher quality

Modern assembly line with team-based work, automation, delegation, standardization, lower cost, high quality


Physician Compensation in 2012
$400,000
$350,000
$300,000
$250,000
$200,000
$150,000
$100,000
$50,000
$405,000
$357,000
$349,000
$342,000
$340,000
$337,000
$317,000
$306,000
$279,000
$278,000
$276,000
$270,000
$268,000
$263,000
$263,000
$247,000
$242,000
$217,000
$186,000
$186,000
$185,000
$178,000
$175,000
$173,000
$170,000
Orthopedics
Cardiology
Radiology
Gastroenterology
Urology
Anesthesiology
Plastic Surgery
Dermatology
General Surgery
Oncology
Ophthalmology
Emergency Medicine
Critical Care
Nephrology
Pulmonology
Pathology
Obstetrics/Gynecology
Neurology
Rheumatology
Psychiatry
Internal Medicine
Diabetes/Endocrinology
Family Medicine
Pediatrics
HIV/ID

Research Article

Relationship of Childhood Abuse and Household Dysfunction to Many of the Leading Causes of Death in Adults

The Adverse Childhood Experiences (ACE) Study

Vincent J. Felitti, MD, FACP, Robert F. Anda, MD, MS, Dale Nordenberg, MD, David F. Williamson, MS, PhD, Alison M. Spitz, MS, MPH, Valerie Edwards, BA, Mary P. Koss, PhD, James S. Marks, MD, MPH

Fountain of Youth Discovered in Doylestown, PA

OPEN ACCESS Freely available online PLoS MEDICINE

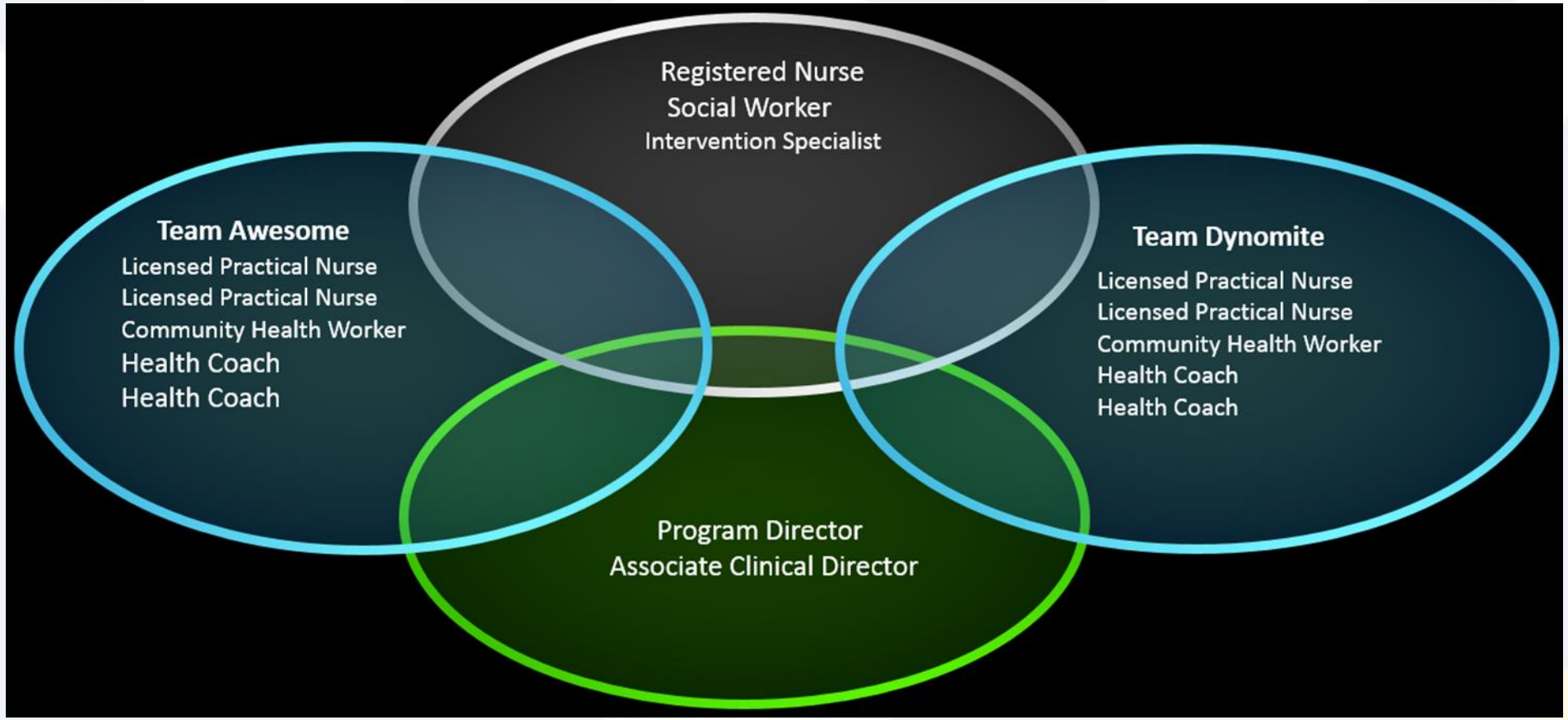
Effect of a Community-Based Nursing Intervention on Mortality in Chronically Ill Older Adults: A Randomized Controlled Trial

Kenneth D. Coburn*, Sherry Marcantonio, Robert Lazansky, Maryellen Keller, Nancy Davis

Health Quality Partners, Doylestown, Pennsylvania, United States of America

- 1,700 adults over 65 over 10 years
- Randomized study run by Mathematica begun in 2002
- Part of a Medicare Coordinated Care Demonstration Project
- 25% lower relative risk of death (9.9% vs 12.9%)
- Highest risk patients 48% reduction in death rates
- 33% reduction in hospitalization
- 22% reduction in total cost to Medicare

Team Structure



Camden Coalition Health Plan Partnerships

- University of Pittsburgh Medical Center: Community Care Behavioral Health
  - Camden Coalition Cross-Site Learning partner
  - Social workers and nurses employed by the health plan
- United Healthcare – Medicaid HMO
  - CCHP contracted to provide services to high-utilizing United Healthcare patients in Camden