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Evaluation Considerations for Programs that Target High-Utilizing Populations

Changing Payment and Changing Care for Medically Complex Patients, The Pay for Performance Summit

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- The contents are solely the responsibility of the authors and have not been approved by the Department of Health and Human Services, Centers for Medicare & Medicaid Services.

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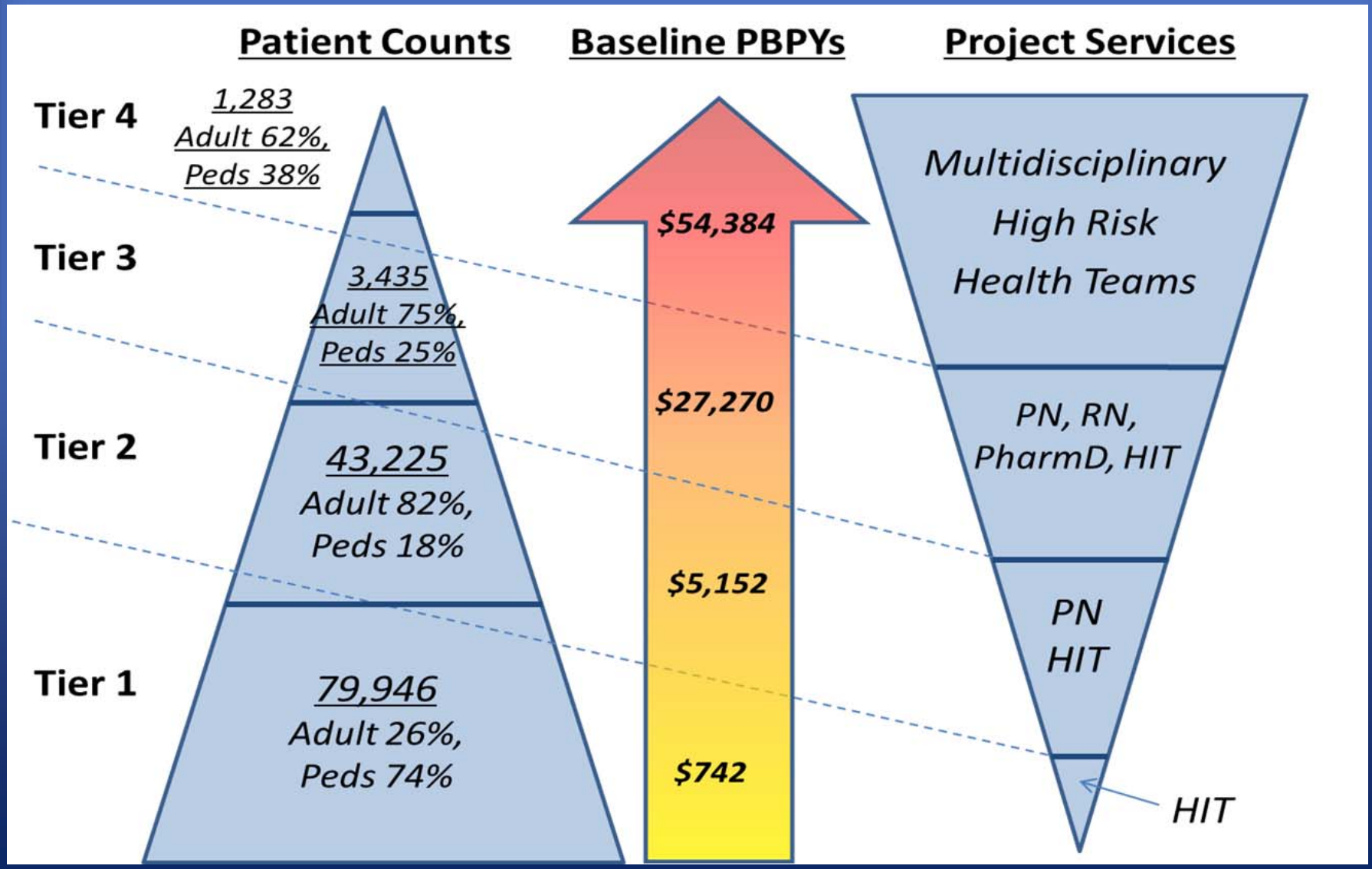
21st Century Care Grant Overview

DH's 21st Century Care builds on Patient Centered Medical Home (PCMH) and provides enhanced and tailored Health Information Technology (HIT) and additional clinic staffing to achieve program goals and objectives.

21st Century Care Goals

- Better Access:
  - Increase access to care by 15,000 people
- Better Care & Health:
  - Improve overall population health for DH patients by 5%
  - Improve patient satisfaction with care delivered between visits by 5% without decreasing satisfaction with visit-based care
- Lower Cost:
  - Decrease total cost of care by 2.5% relative to trend
  - Reduce CMS spending by $12.8 million relative to trend

Denver Health 21st Century Care: Tiered Service Delivery Model



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CRG Status by Tier

21ST CENTURY CARE

	Tier				
CRG Status	1	2	3	4	Total
1 - Healthy	21,701	301		8	22,010
2 - History of Significant Acute Disease	2,604	52		8	2,664
3 - Single Minor Chronic Disease	1,466	2,748		5	4,219
4 - Minor Chronic Disease in Multiple Organ Systems		1,383		3	1,386
5 - Single Dominant or Moderate Chronic Disease	272	10,420	577	65	11,334
6 - Significant Chronic Disease in Multiple Organ Systems		11,633	3,717	629	15,979
7 - Dominant Chronic Disease in 3 or more Organ Systems			57	1,796	1,853
8 - Dominant, Metastatic and Complicated Malignancies		422		91	513
9 - Catastrophic Conditions		567	220	213	1,000
Totals	26,043	27,526	4,571	2,818	60,958

Report Name: Count_by_CRG_Status.rdl

Theoretical Basis for Model

Theoretical Basis

- Wagner's Chronic Care Model
- PCMH concepts

Prerequisites for Savings: Key Assumptions

- Prepared and informed health teams
- Activated patients
- Health system and community support for above

Interventions to reduce avoidable hospitalizations and high cost use

•Self-management for chronic disease

- Care planning and care coordination
- Transitional care (hospital through post-discharge period)

Alternative Care Models

- Primary care model (DH PCMH+)
- Ambulatory ICU model (DH IOC)
- Hospital Discharge model (MCPN)
- Community-based model (MCPN, DH/MHCD)
- Health plan model
- ED-Based model
- Home-based model
- Housing first model

(Reference: Bodenheimer T. Strategies to Reduce Costs and Improve Care for High-Utilizing Medicaid Patients. Center for Health Care Strategies. 2013)

PCMH+ Model

PCMH Clinical Support Roles

- **23 navigators to support tier 3 and 4 patients**
  - 19 hired, placed, seeing patients
- **3 pediatric nurses to support tiers 3 and 4 kids**
  - All hired, placed, seeing patients
- **3 clinical pharmacists to support tiers 3 and 4 adults**
- **5 behavioral health consultants (BHCs) to allow behavioral health integrated care at all of our primary care sites**

ICU Model

IOC Clinic

- 1.0 charge RN
- 1.0 Substance abuse counselor (CAC II)
- 1.0 LCSW
- 1.0 Navigator
- 0.5 clinical pharmacist
- 0.1 clinical psychologist
- 1.0 NP/PA
- 0.5 GIM MD
- 1.0 clerk
- 1.0 Medical assistant

Adult Tier 4 IOC Care Model: Overview

- Targeted to adults with multiple, potentially avoidable, inpatient admissions within a year
- Serves as the patient's medical home and has a much smaller panel size
- A range of care coordination/care transition services are provided according to a care plan that captures the following domains:
  - Medical, Pyschiatric, Medications, Substance Use/Abuse, Social

Pros/Cons of IOC

- May need to change PCP
- Central location
- Ability to provide highly specialized service team
- Close proximity to ED

Pros/Cons of PCMH+

- Difficult to target high utilizers
- Challenge to integrate staff
- Patients have team connections
- Proximity to home

Clinical Lessons Learned

- Challenge to predict high utilizers
- Challenge to add non-professionals to PCMH team
- Need to monitor to assure interventions targeted at high utilizers
- Need to monitor to assure interventions implemented

THE NEW YORKER

MEDICAL REPORT

THE HOTSPOTTERS

by Atul Gawande JANUARY 24, 2011

“Hendricks” had severe congestive heart failure, chronic asthma, uncontrolled diabetes, hypothyroidism, gout, and a history of smoking and alcohol abuse. He weighed five hundred and sixty pounds. In the previous three years, he had spent a much time in hospitals as out. … A toxic combinatio of poor health, Johnnie Walker Red, and, it emerge cocaine addiction had left him unreliably employed, uninsured, and living in a welfare motel. He had no consistent set of doctors, and almost no prospects for turning his situation around.

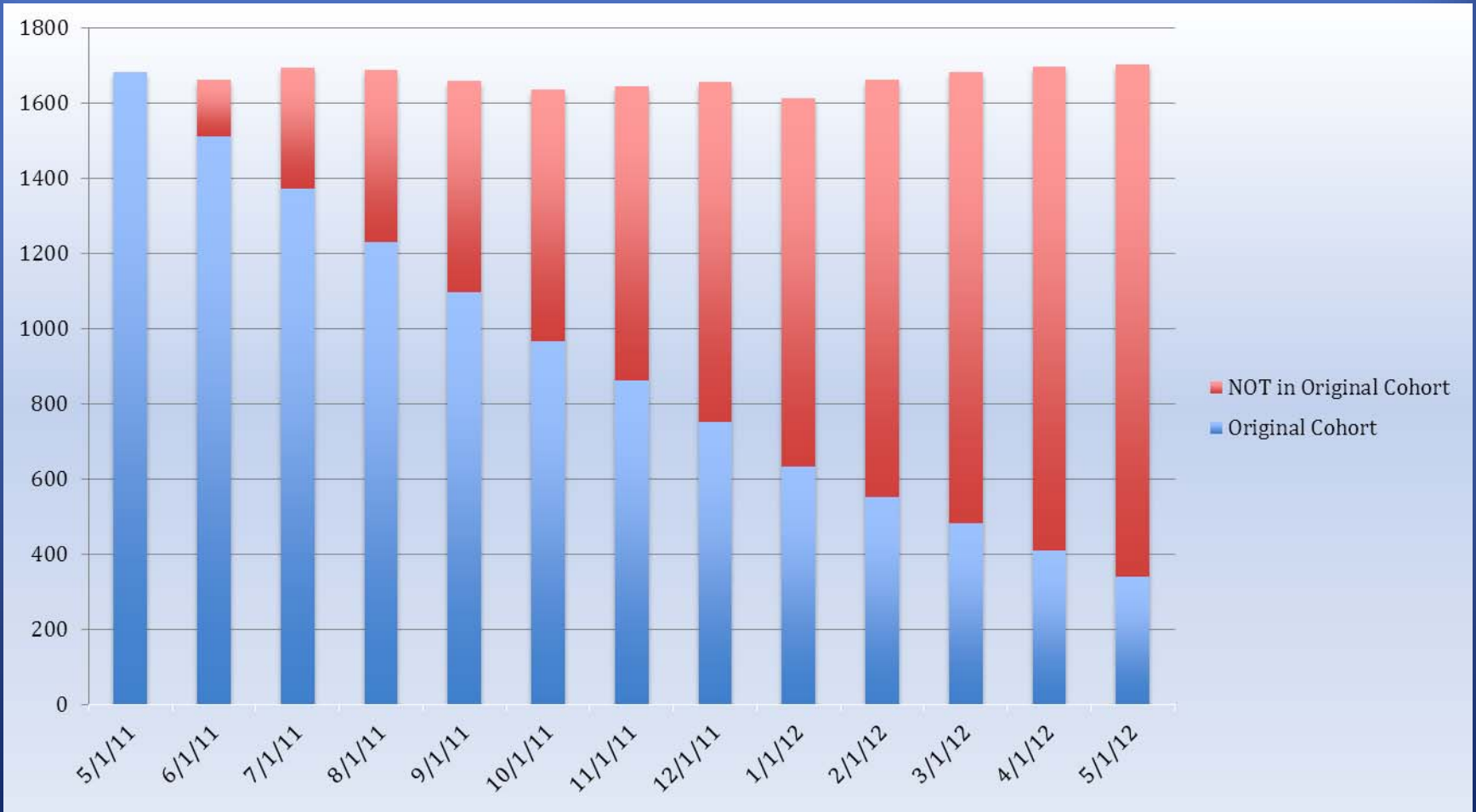
Metro Community Provider Network

Descriptive Analysis of Super-Utilizers

3% of DH adult super-utilizers drive 30% of facility charges:

- Stable at population level
- Unstable at the person-level
- Policy relevant sub-groups of super-utilizers exist
  - -- Metastatic cancer
  - -- Emergency Medicaid
  - -- Trauma/ortho complications
  - -- Multiple chronic diseases
  - -- Homelessness/ mental health/ substance abuse

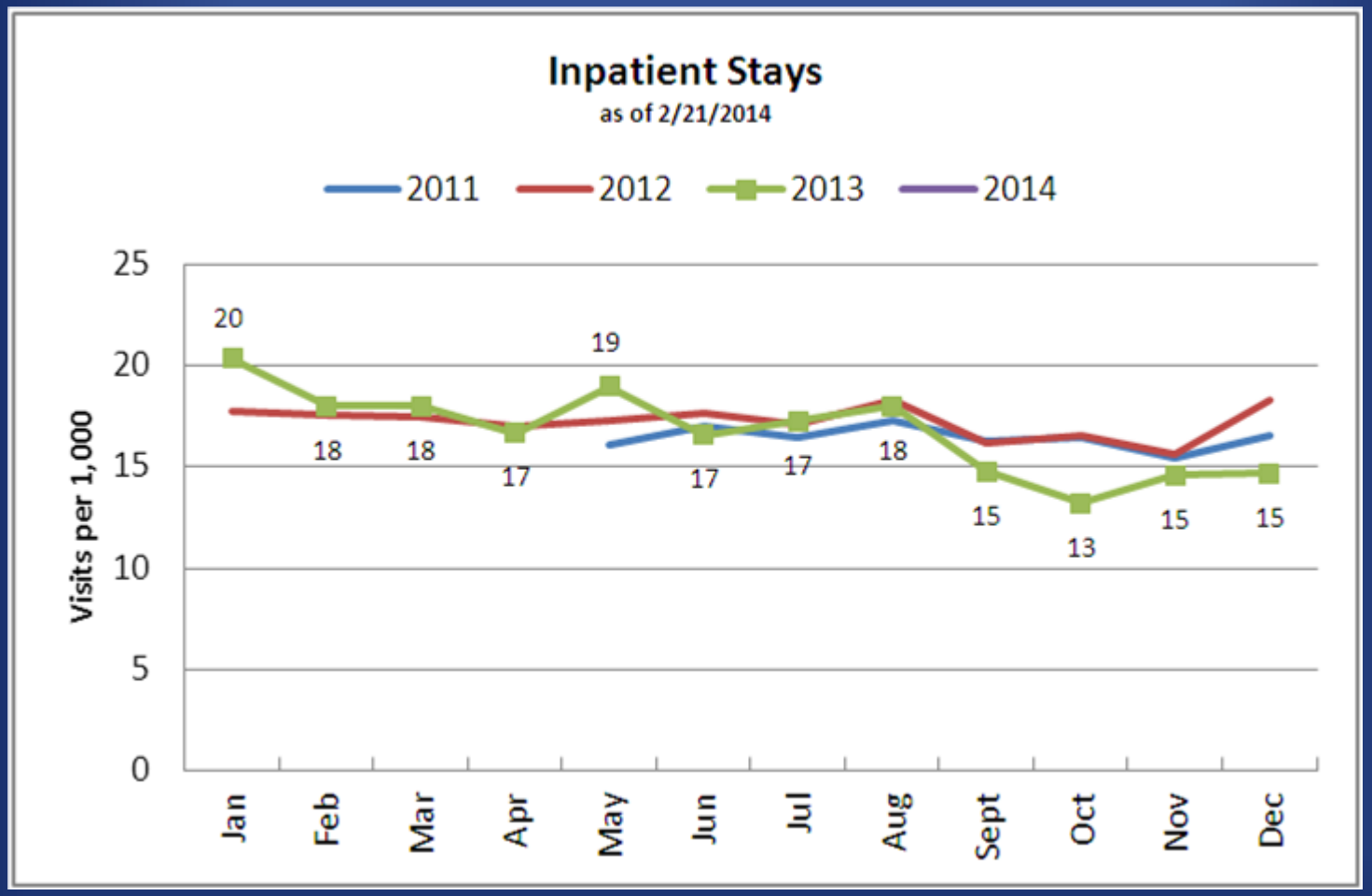
Simulations of Super-Utilizer Tier-Switching



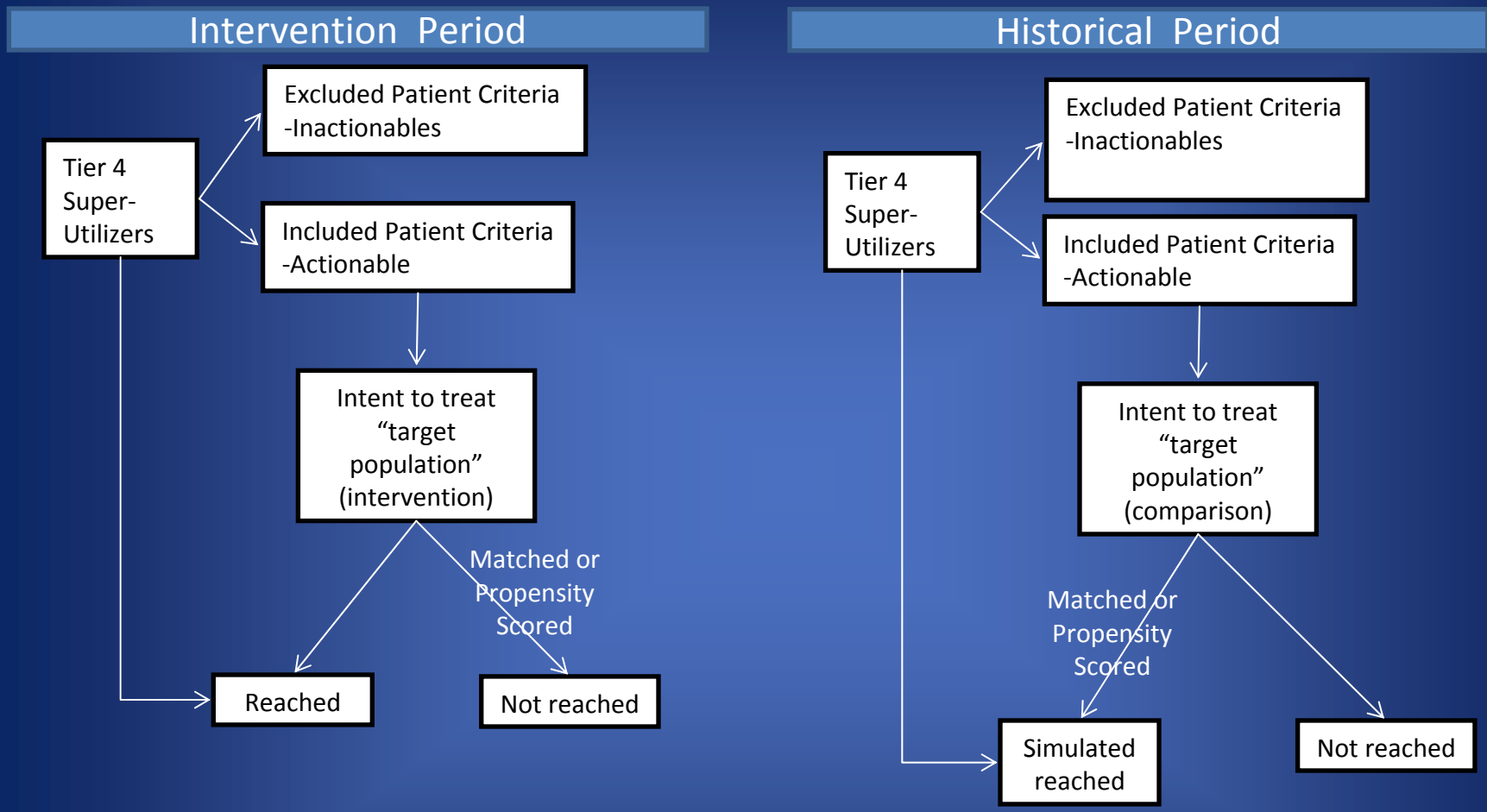
Challenges with evaluating an enrolled group pre- and post intervention

DH Simulation on Historical Data:

- "Intervention": Patients are Tiered
  - Patients that meet Tier 4 "high utilizer" criteria on 5/1/2011 are identified through an automated tiering algorithm, no clinical program
- "Before" (prior year) costs: $113 K charges per person
- "After" (post year) costs: $63 K charges per person
- 45% reduction in spending with NO CLINICAL INTERVENTION ("regression to the mean")
- Need to find additional methods for evaluating effectiveness


Inpatient Stays
as of 2/21/2014
2011
2012
2013
2014
Visits per 1,000
25
20
15
10
5
0
20
18
18
17
19
17
17
18
15
13
15
15
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sept
Oct
Nov
Dec

Comparison Group Options Using Historical Database



Key Population Considerations for Adult Super-Utilizer Program Development and Evaluation

- 3% of DH super-utilizers account for 30% of adult facility charges;
- 43.3% of DH super-utilizers do not have an established medical home;
- DH super-utilizers have stable, overall group characteristics: burden of chronic disease, payer, social determinants of health, and per person costs;
- Identifiable policy- or practice-relevant subgroups exist;
- Super-utilizers are NOT stable at the individual level, with monthly cycling;
- Different care models focus on different subgroups w/ different intentions
- Regression to the mean complicates cost/utilization analysis

Payment Model Considerations

- Payment model must align with reductions in avoidable utilization
- Actuarial stability of high-utilizers masks individual-level instability
- Attribution models/minimum eligibility rules will be important to ensure stability in enrollment

Questions

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