Superutilzer Analytics & Action

The Key to Value Based Care Success

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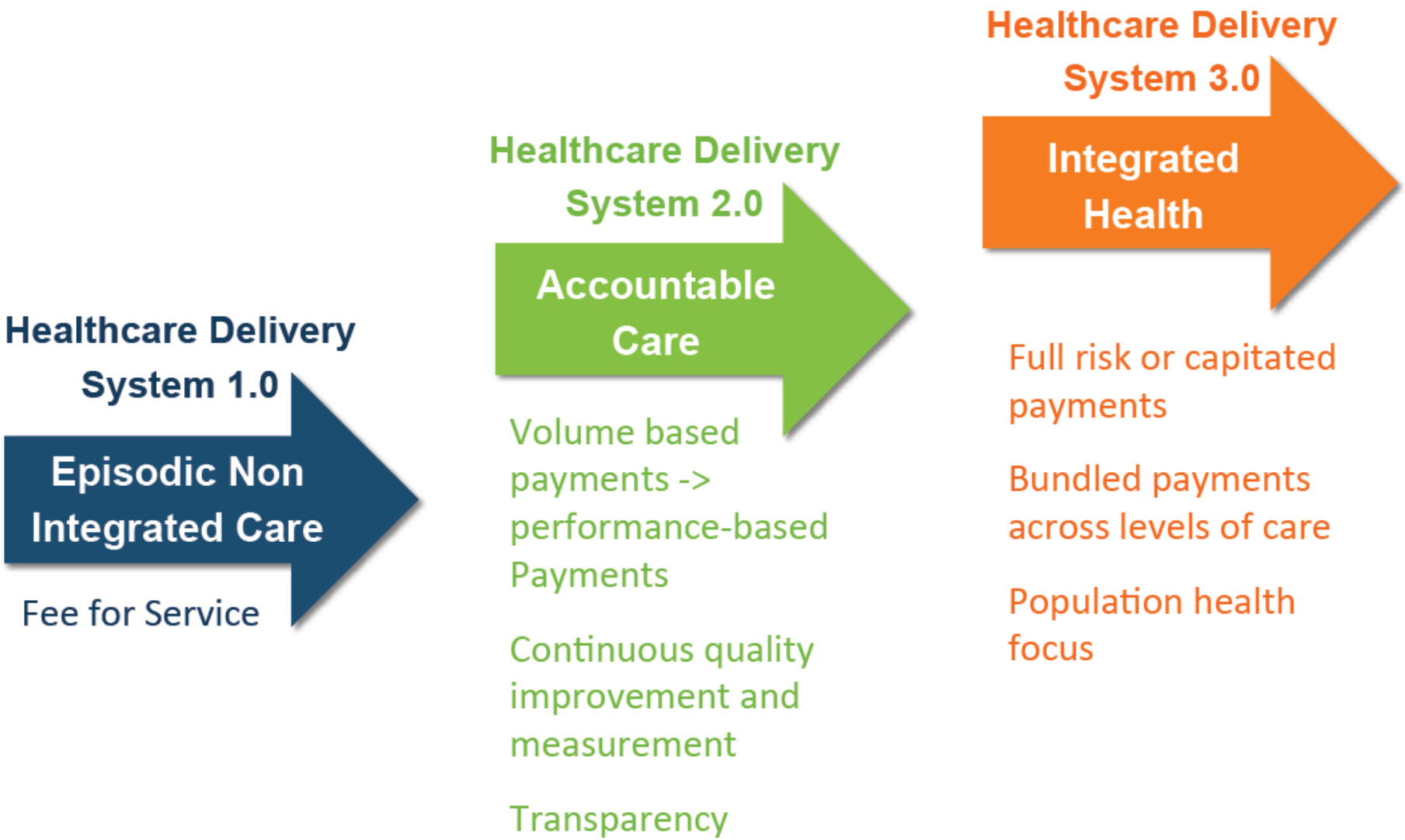
Driving Health Care System Transformation



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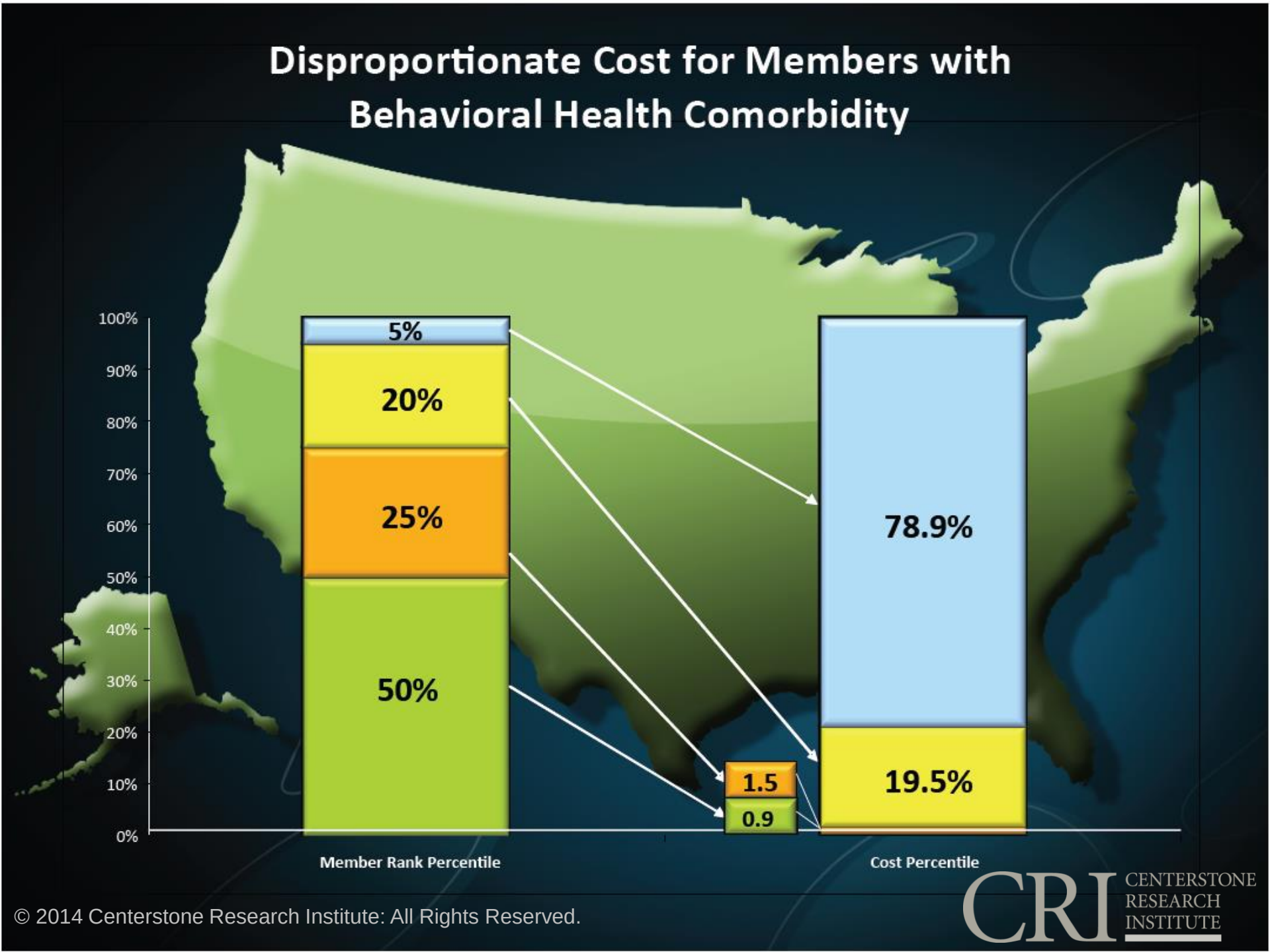
Disproportionate Cost for Members with Behavioral Health Comorbidity



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= 5%

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How to get to Value Based Care?

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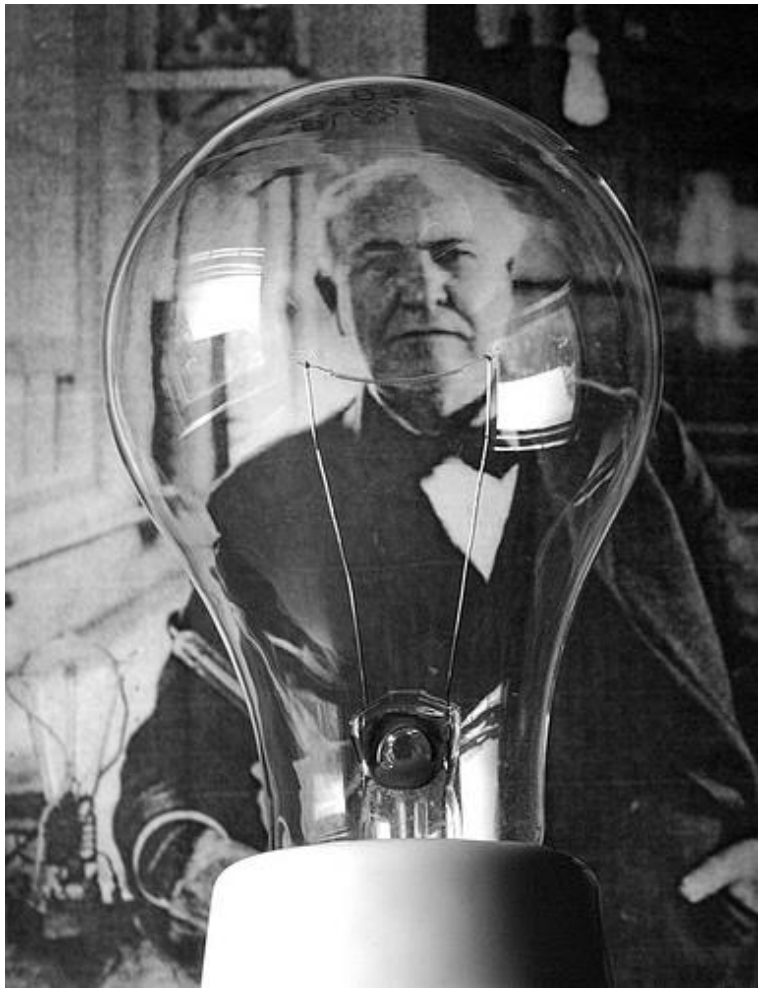
"Vision without execution is hallucination."
– Thomas Edison



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The VBC Failures

- Remote RN Telephone Care coordination.
- All but 1 (health quality partners) of the first series of CMS Innovation grantees
- Most ACOs
  - Average savings is around 2%

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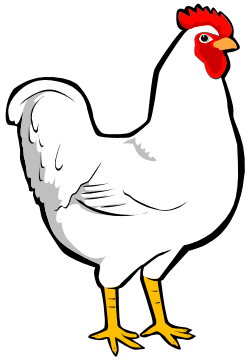
Why did these fail?

My theories:

1. 

2. 

3. 



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The Known Solutions

- Camden Coalition Hotspotter's model
- Health Quality Partners
- Oklahoma ER high utilizer program
- Mary Naylor's Transition Care Management program

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What they did

- Targeted impactible high utilizers in the community
- Engaged in Home visits
- Tackled key social needs (food, housing, community, spirituality, safety)
- Aligned meds
  - Reduced total # of meds
  - Extra med checks post hospital/ER visits

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How effective were they?

Camden HotSpotters

- 40% reduction in ER/Hospitalizations
- Used lay staff

Health Quality Partners

- Reduced hospitalizations by 33%
- Cut Medicare costs by 22%.

Transition Based Care Management

- NP based
- Saved around 20% of costs for high need Medicare patients at risk of rehospitalization

Oklahoma ER utilization program

- Decreased ER use by high users by 55%

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Big Thought

Effective High Utilizer Care could solve the national budget crisis & keep our state Medicaid budgets solvent in perpetuity.

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How do CMHCs best serve the 5% top high utilizers?

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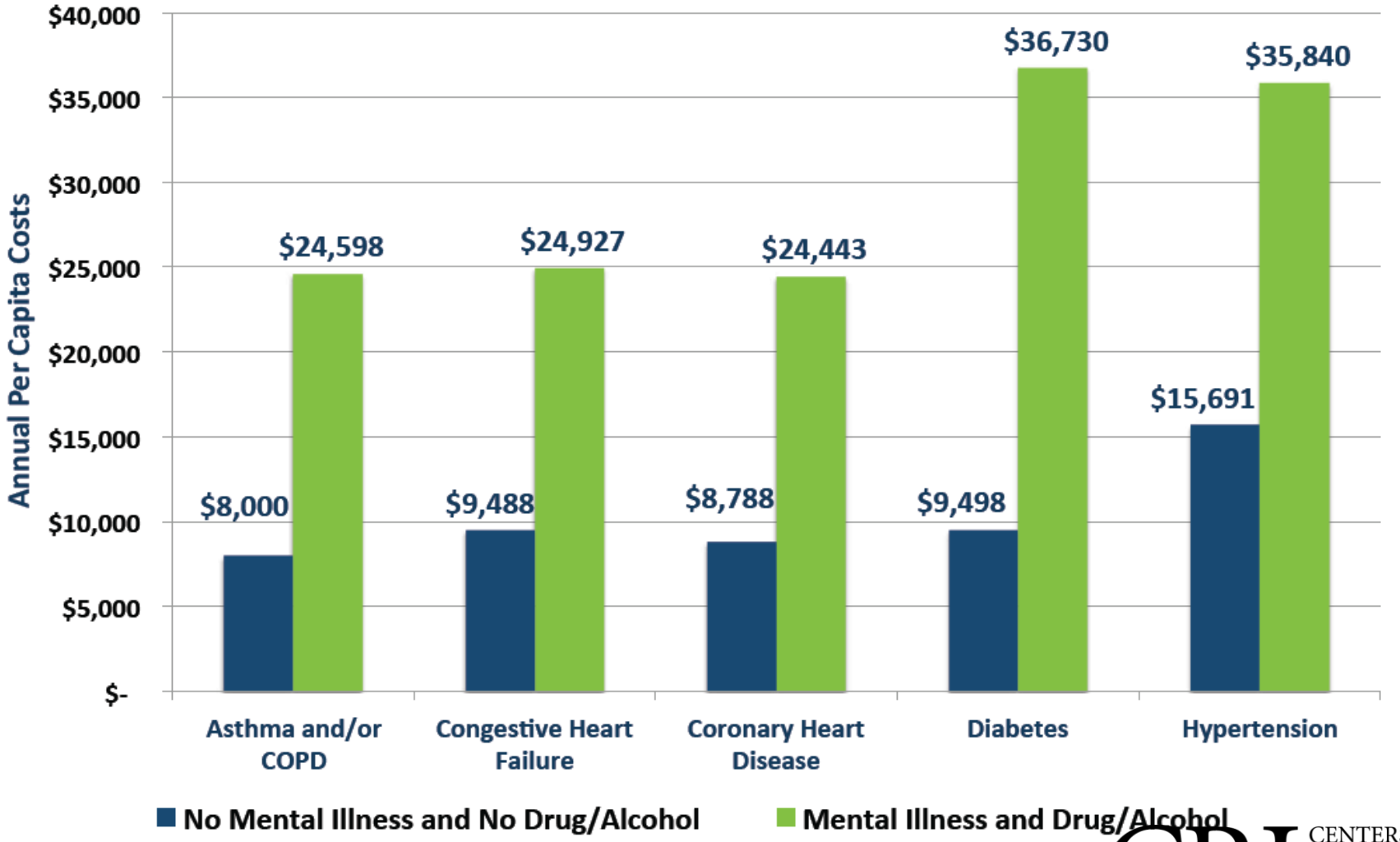
Impact of Behavioral Health Co-Morbidities on Medicaid Costs



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About the 5%

- For SSDI Medicaid adults, 5% = 60% of costs.
  - 40% have MI and cardiovascular
  - 40% have MI and CNS;
  - 29% have MI and pulmonary disorders. (Kronick, Bella, Gilmer, 2009).
- Missouri **5%** high utilizers = **85%** had a mental health diagnosis. (Lewin Group)

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If these aren't our patients already, they should be.

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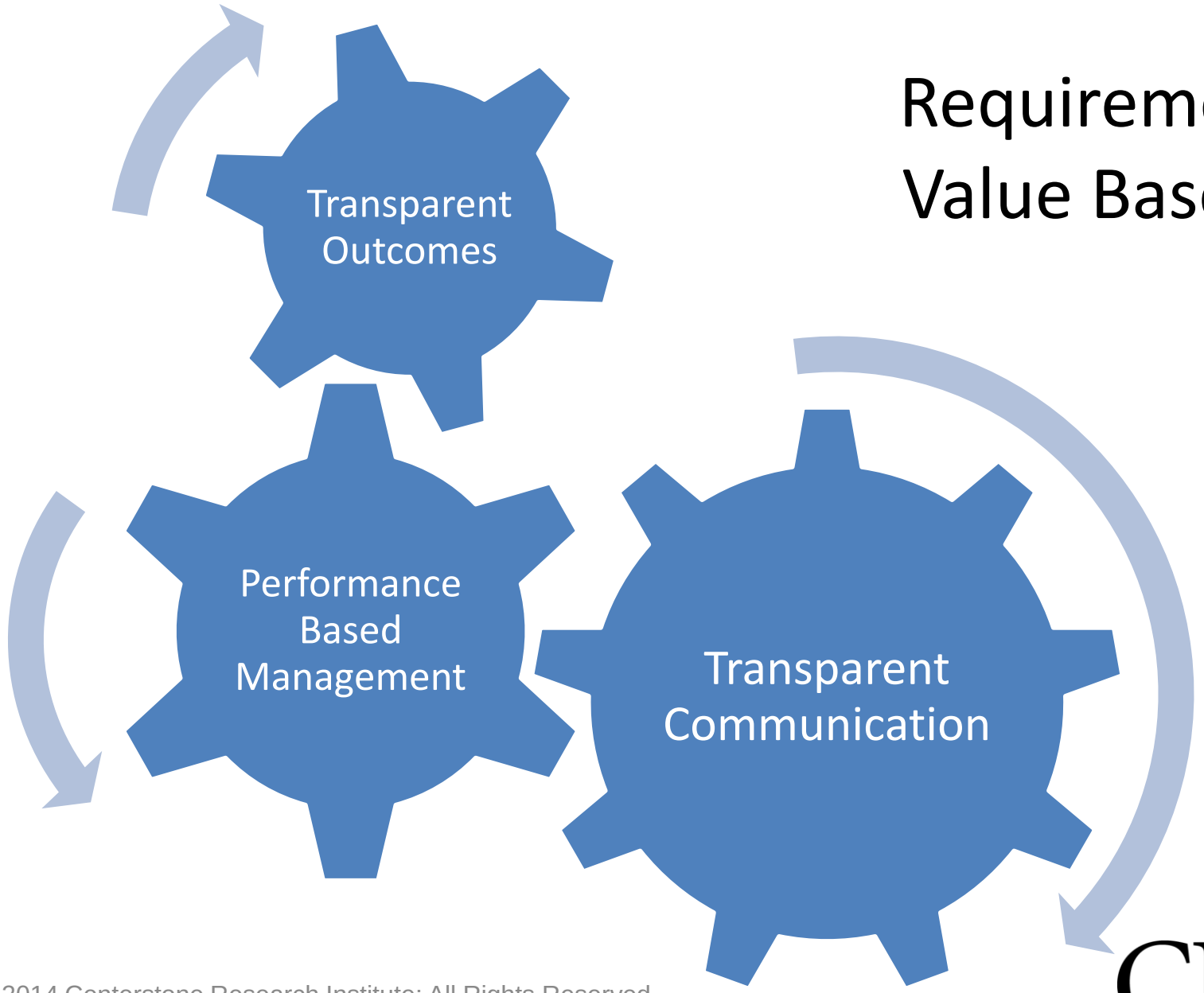
Requirements for Value Based Care



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What If…

- **21st century technologies?**
- **BA-level staff**?
- Experience engaging persons with **SMI & SUD**?
- We could get next day data from partner MCOs?

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From:
Date: May 20, 2014 at 8:51:10 AM CDT
Subject: < SECURE ><internal> Daily Hospitalization Alerts
Here are today's hospitalization alerts:

Member First Name	Facility ID	Facility	Dx Code	Diagnosis	Eff Start Dt	Patient Dob	Age	IPRO Risk Score	Tot Days
John	20350083501	Gateway Medical Center	599.0	URINARY TRACT INFECTION SITE N	11-May-14	12-Jul-63	50	33.3038	9
Paul	626001445I8	Middle Tennessee Mental Health Institute	296.54	BIPLR AFFCT D/O DPRSD SEV SPEC	14-May-14	13-Jun-88	25	21.8298	6
Mary	62162086600	Horizon Medical Center	724.5	UNSPECIFIED BACKACHE	17-May-14	10-Dec-70	43	29.9784	3

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Better care. Together.

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Research-Based Proprietary Clinical Model

+

Super Utilizers ($35k+ yr health expenses)

+

High Intensity Wellness Coaching w/ RN On Call

+

Flexible Funds

+

Technology-Enabled Care

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Goals

- ↔ **Engage** all clients with their health home.
- ↓ Reduce unnecessary hospitalizations.
- ↓ Reduce unnecessary emergency department visits.
- ↑ Improve clients' physical health
- ↓ Decrease clients' social needs
- ↑ Improve clients' experience of care
- ✚ Determine value equation.
- $ Obtain value based care contracts.

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Vision & Values

Vision: To equip people who have complex healthcare needs with the tools, skills, and connections they need to:

- Engage with their health home
- Improve their physical and mental health
- Enjoy life

Values

With our coworkers, the people we serve, their loved ones, and the health homes we work with, we aim to be:

- Responsive
- Empowering
- Transparent
- Fun

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verizon

Ginger.io

CISCO JABBER

fitbit

HipaaChat

visage

MobileIron

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Case Study: "Rebecca"

Results

- Lost **17 pounds**
- HgbA1x now in normal range (was in diabetic range).
- 1 ED visit 1st week. 1 ED visit 2nd month.
- Diabetes blood sugar is more stable.
- Switched from regular to diet coke.

What worked for Rebecca

- FitBit–Loves tracking her steps.
- I-Phone– Faithfully tracks food intake in FitBit app & uses HIPAA chat to engage with wellness coach.
- **Accompanied exercise was key for getting moving**
- Wellness Coaching – has seen doctor, gotten labs, improved nutrition, gotten follow-ups, & is working her wellness plan.
- Health Bucks
  - Swimsuit & Temporary Y pass
  - Yoga ball for watching TV
  - Hygiene items (toothbrush, soap)

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Case Study: “Samantha

Results

- 0 Hospitalizations
- 0 ER visits
- Diabetes is stabilizing

What worked for “Samantha”

- HIPAA video-chat de-escalation while in crisis mode. Note, in past crisis mode → not monitoring diabetes → shaky → falls
- Wellness coaching for monitoring diabetes
- Centerstone Assistance: Electric Bill (had to pay for a funeral & would have been without electricity for the month).
- Health Bucks
  - Swimsuit, yoga ball, cockroach traps

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From our clients' voices

"Mike"

"Two years ago I was dying. A lung transplant was all that would save me, now I've miraculously gained 16% of my lungs back. I have an exercise program where I work out with a CPAT machine, and it has expanded my lungs back. The surgeons at Vanderbilt have no answer for what I've done, they're saying it's a miracle. No one's gone from the 30's to gain their lungs back. [My wellness coach is] helping me push forward and not step back and think "well I'm dying I should give up…. The iPhone it is tremendous, and I recommend it. At night when I'm alone and not interested in TV and bored and depressed, I can pick up the phone, play a game, listen to some music, read about current events."

"Sarah"

"I have lost 25 pounds since I started going. I have now gone from 260 (when I had my son) to 197, and had to buy new britches."

"Laquita"

"I love [the technology]. I use it to help, not just as a phone. Using Hipaachat to talk to [my wellness coach] is amazing. It keeps me on track, it also helps me remember to exercise, and I enter all my food. It also helps if I don't have a computer because I can look stuff up about food, and helping in the house (like how would a chemical react if I'm using it). I looked up how to get rid of cockroaches in my apartment."

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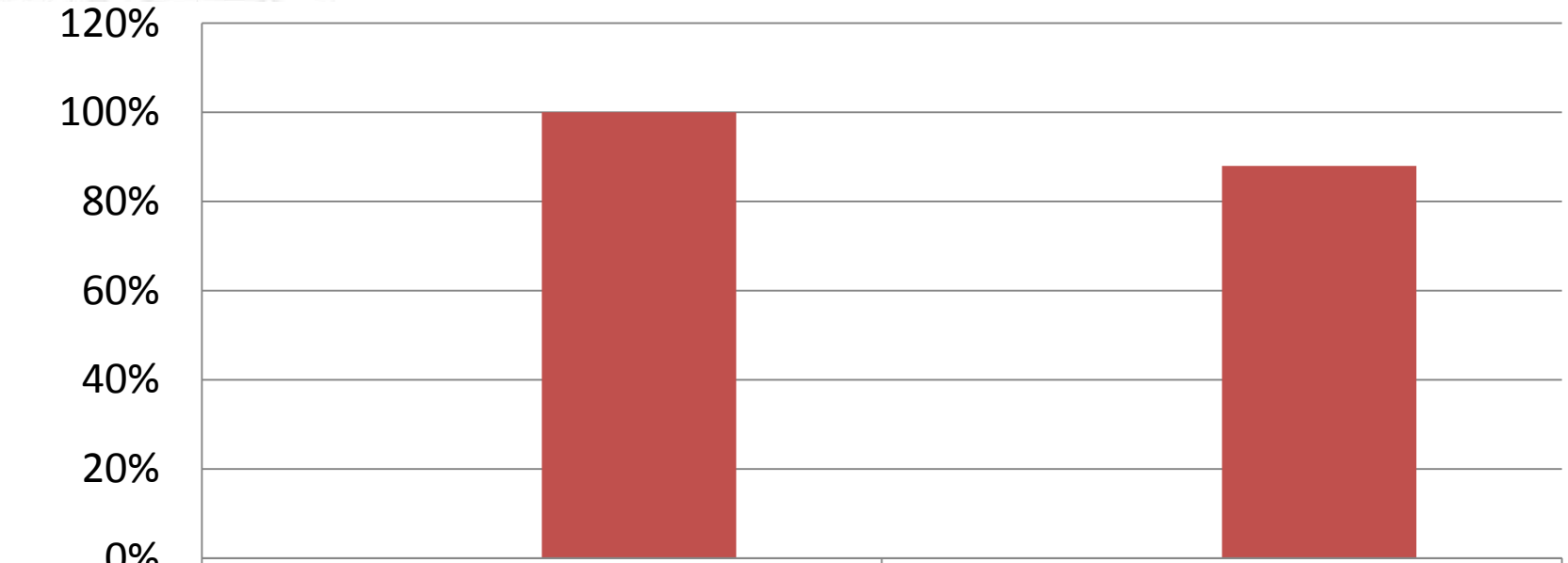
Ginger.io

Client Satisfaction Results



	I feel moderately or very confident managing my condition	I feel connected to my care team
Intake	0%	0%
30 days	100%	88%

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Outcomes Results

- *NOTE – these are preliminary results from a feasibility study with 10 patients.*
- Hospitalizations
  - 0 hospital days during intervention.
  - Note: 13 days of hospitalizations in 3 months before the intervention.
- 5 ED visits during the intervention for 3 clients
  - No reliable comparison data for 3 months < intervention
- 55% decrease in areas of need on clients' social needs checklists.

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Lessons Learned

- Not all high utilizing patients want something like coactionHealth. Reasons clients chose not to participate include:
  - "I don't want to spend 1-3 hours a week with a wellness coach. I will miss my favorite TV shows."
  - "I can't learn how to turn on this thing [i-phone]."
- Some clients are too sick for coactionHealth
  - One client received hospital visits and several home visits from our coach, but never could use the flexible funds or the technology tools since she was so deathly ill. She rejected skilled nursing & home health recommendations. She died recently due to complications from her diseases.
  - One client was very eager to participate but was repeatedly discharged from Davidson County hospitals to out of service area group homes and skilled nursing facilities outside of the county.
  - One client wouldn't sign the technology release.
- We estimate that 50% of high utilizers will engage, and that this will probably benefit 2/3 of those engaged.

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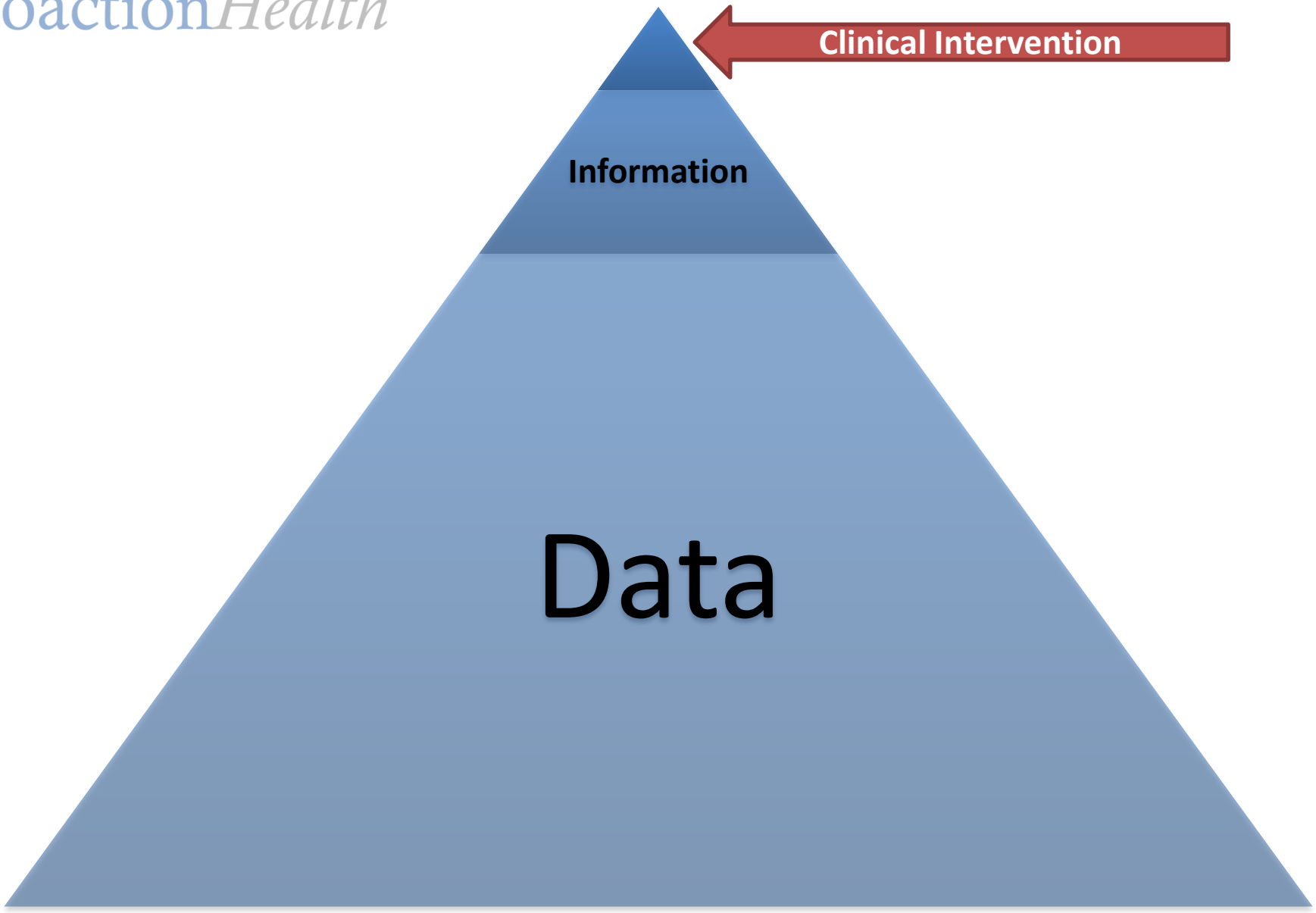

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What data is required to produce actionable information enabling coactionHealth to improve the lives of our clients?

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- Hospitalization/ER
  - Next day or better
- Physical Health Indicators
- Traditional EHR Data
- Activity Data
- Self Report Assessments

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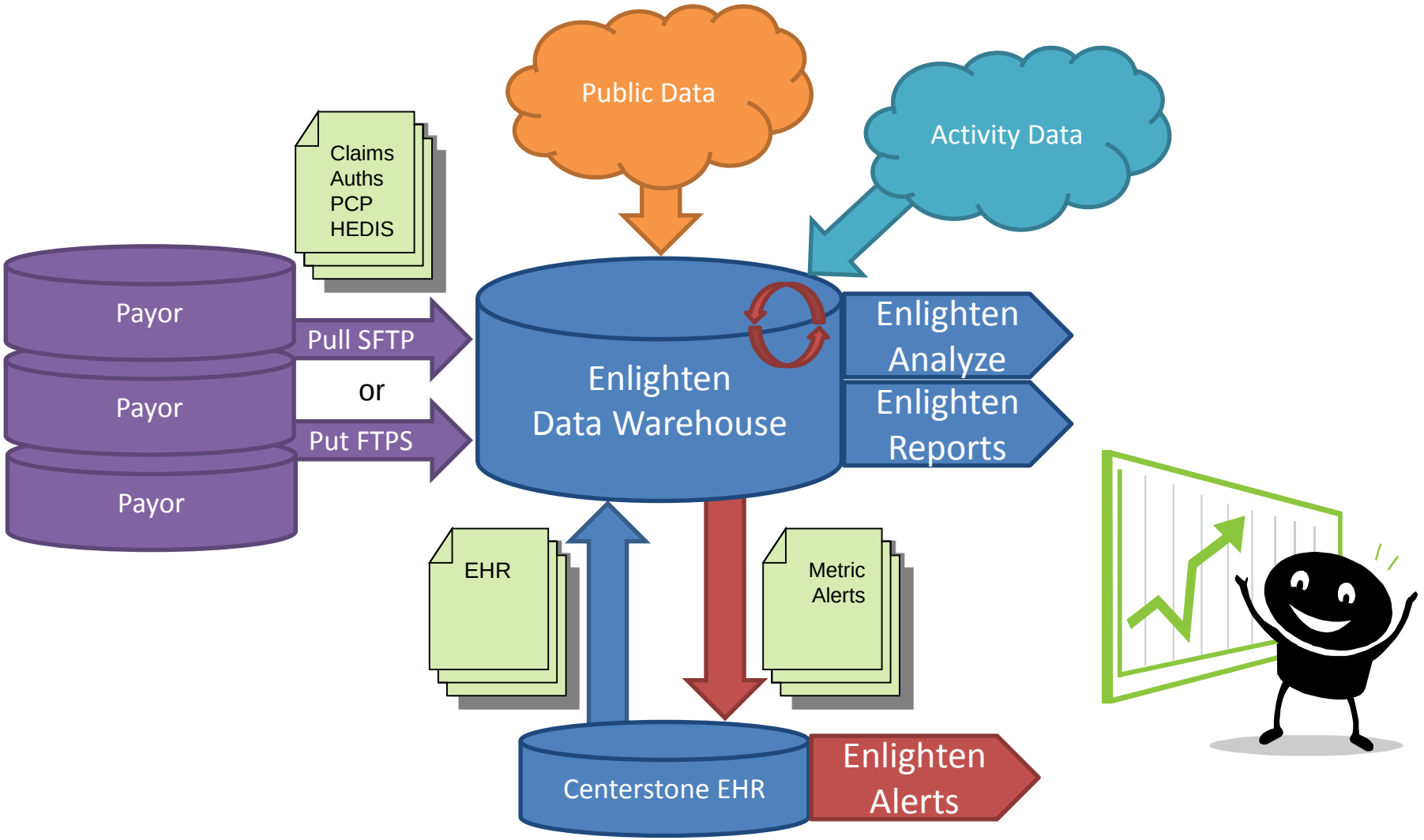

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Who is likely to be hospitalized 30 days from today?

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Currently we are able to predict 74.1% of hospitalizations that occur.

False positives are acceptable for clinical intervention (>90% Accuracy).

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- Tested hundreds of predicators across millions of encounters.
- Settled on 22 predicators that are a mix of payer and EHR data.
- Now have a random forest model with a next day latency.
- Randomized clinical trial of the clinical intervention begins in November.

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- Everyone is interested in a different set of data.

- Everything doesn't have to be pulled together for clinical interventions to impact people's lives.

- Interfacing is aggravating.

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DEMO, if time permits.

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