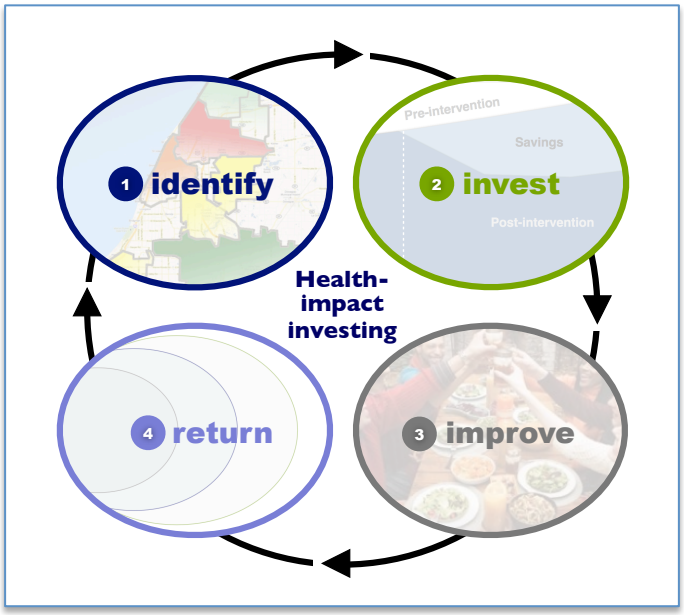
collective health
better health, better returns

Rick Brush | rick@collectivehealth.net | 860.712.2242
collectivehealth.net



Impact Investing for Better Health & Financial Outcomes

Institute of Medicine • Roundtable on Population Health Improvement
February 6, 2014

Rick Brush | rick@collectivehealth.net | 860.712.2242
collectivehealth.net

what matters to health?

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collectivehealth.net

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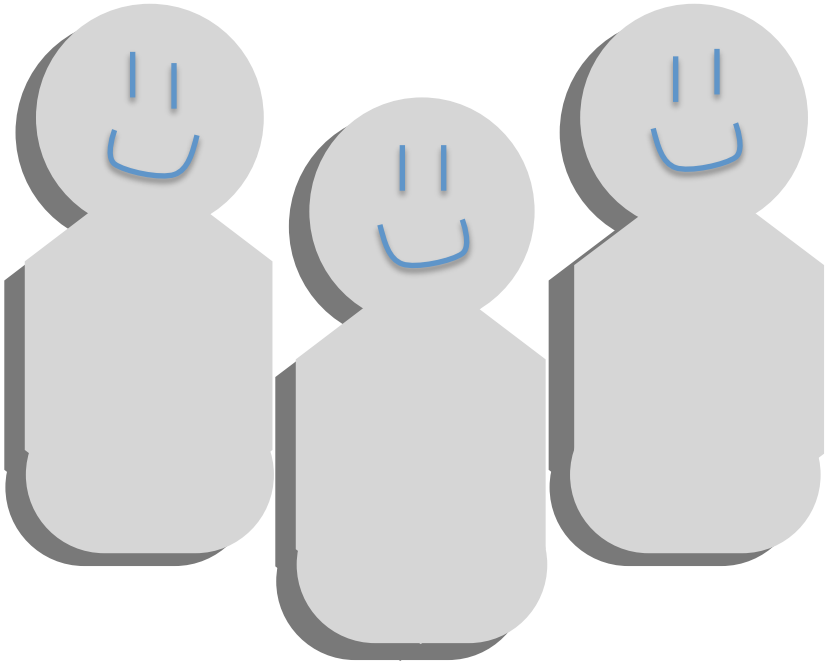
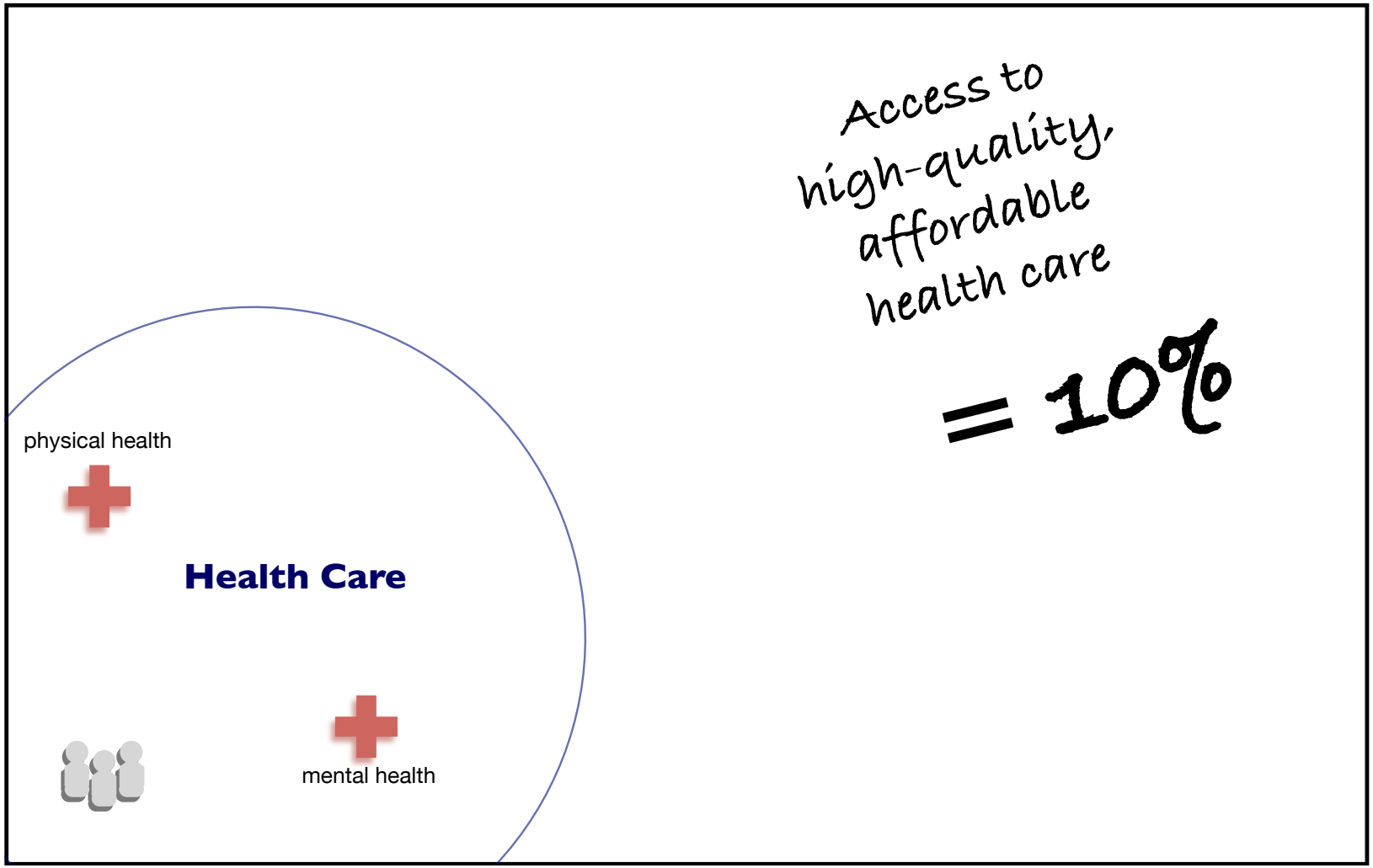


Access to high-quality, affordable health care

Rick Brush | rick@collectivehealth.net | 860.712.2242
collectivehealth.net

What matters to health?



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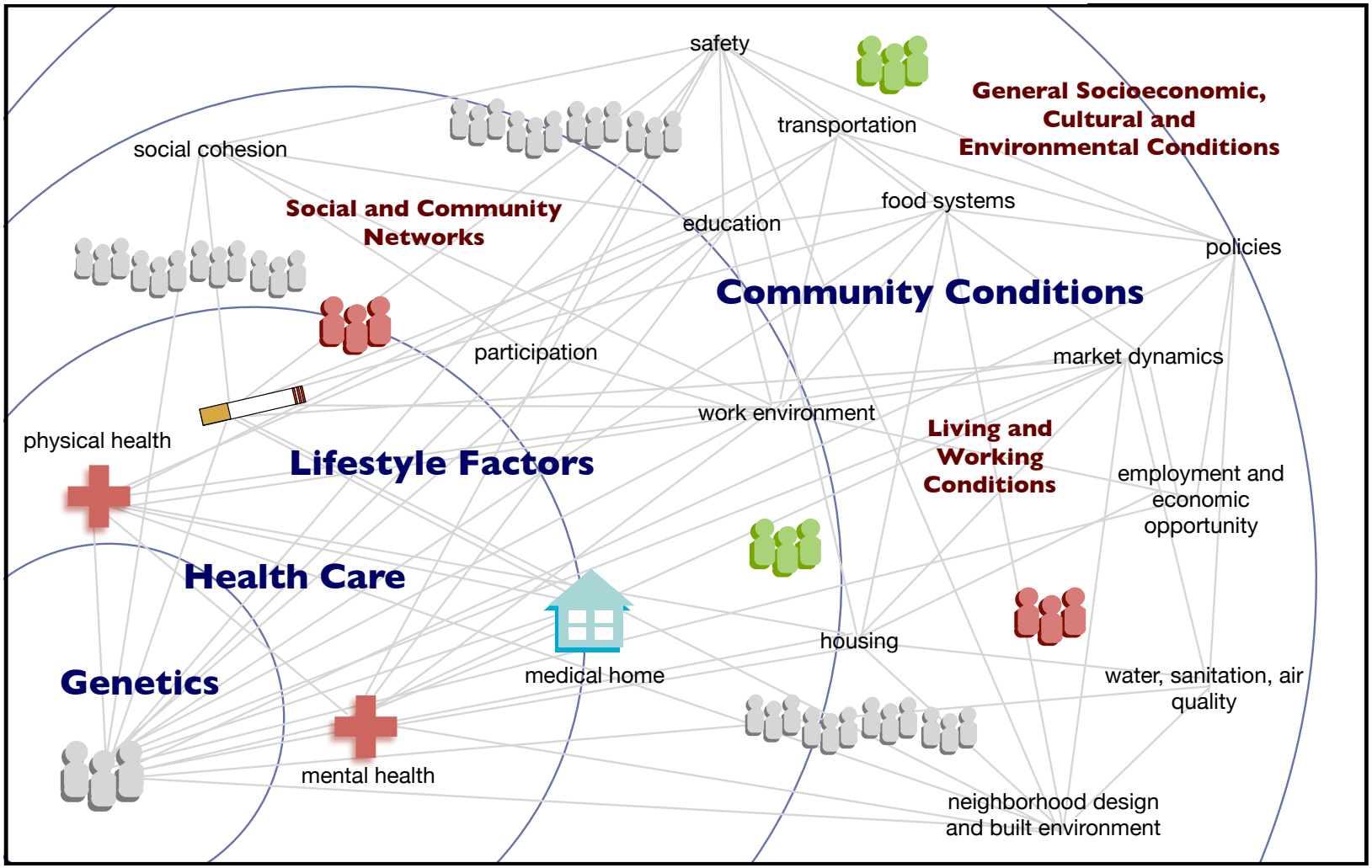
What really matters to health?



Rick Brush | rick@collectivehealth.net | 860.712.2242
collectivehealth.net

What really matters to health?

health care, plus…

socioeconomics

housing

transportation

food access

education

College graduates live 5 years longer than those who don't complete high school. If all Americans had the same good health as college grads, we'd avoid $1 trillion of costs annually.

(RWJF Commission to Build a Healthier America. Issue Brief 6: Education and Health. Sept. 2009. Nat. Longitudinal Mortality Study. 1988-1998.)

work environment

built environment

natural environment

public safety

economic development

relationships

The influence of relationships on the risk of death are comparable with well-established risk factors such as smoking and alcohol consumption, and exceed the influence of risk factors such as physical inactivity and obesity.

(Holt-Lunstad, Smith, Layton. PLoS Med. 2010; 7[7].)

child development

local jobs & training

control/participation

a community system focused on health

community

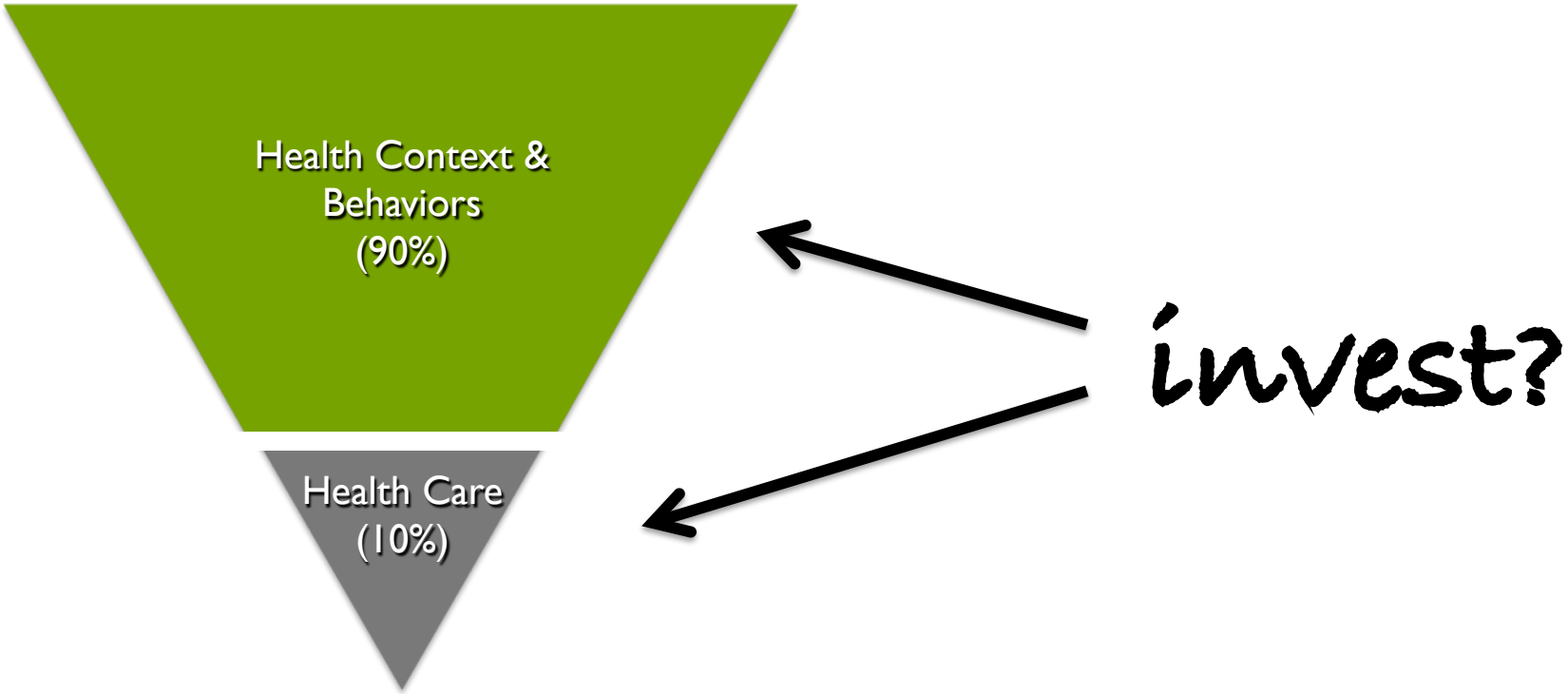
A $10 per person annual investment in community-based prevention over five years could produce 5% reductions in type 2 diabetes, high blood pressure, heart and kidney disease, and stroke — with ROI of $5.60 for every dollar invested.

healthyamericans.org/reports/prevention08/

Rick Brush | rick@collectivehealth.net | 860.712.2242
collectivehealth.net

What the return on $2.9 trillion?

Health Determinants



S. A. Schroeder "We Can Do Better – Improving the Health of the American People," *New England Journal of Medicine*, 357 (2007): 1221-28.

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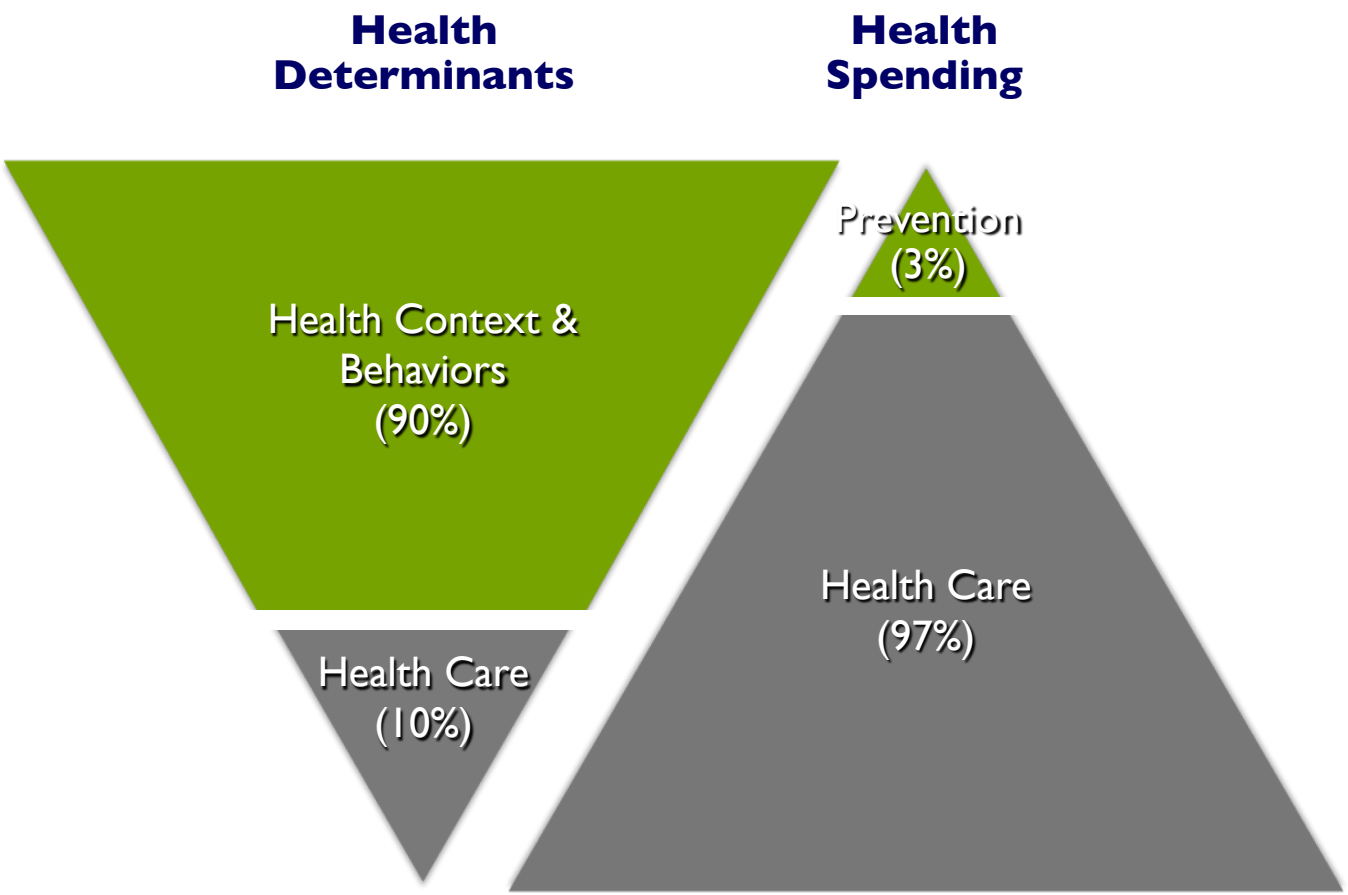

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Centers for Medicare and Medicaid Services, "National Health Expenditures" Table 1, (Washington, DC: CMS, Office of the Actuary, National Health Statistics Group, 2012).

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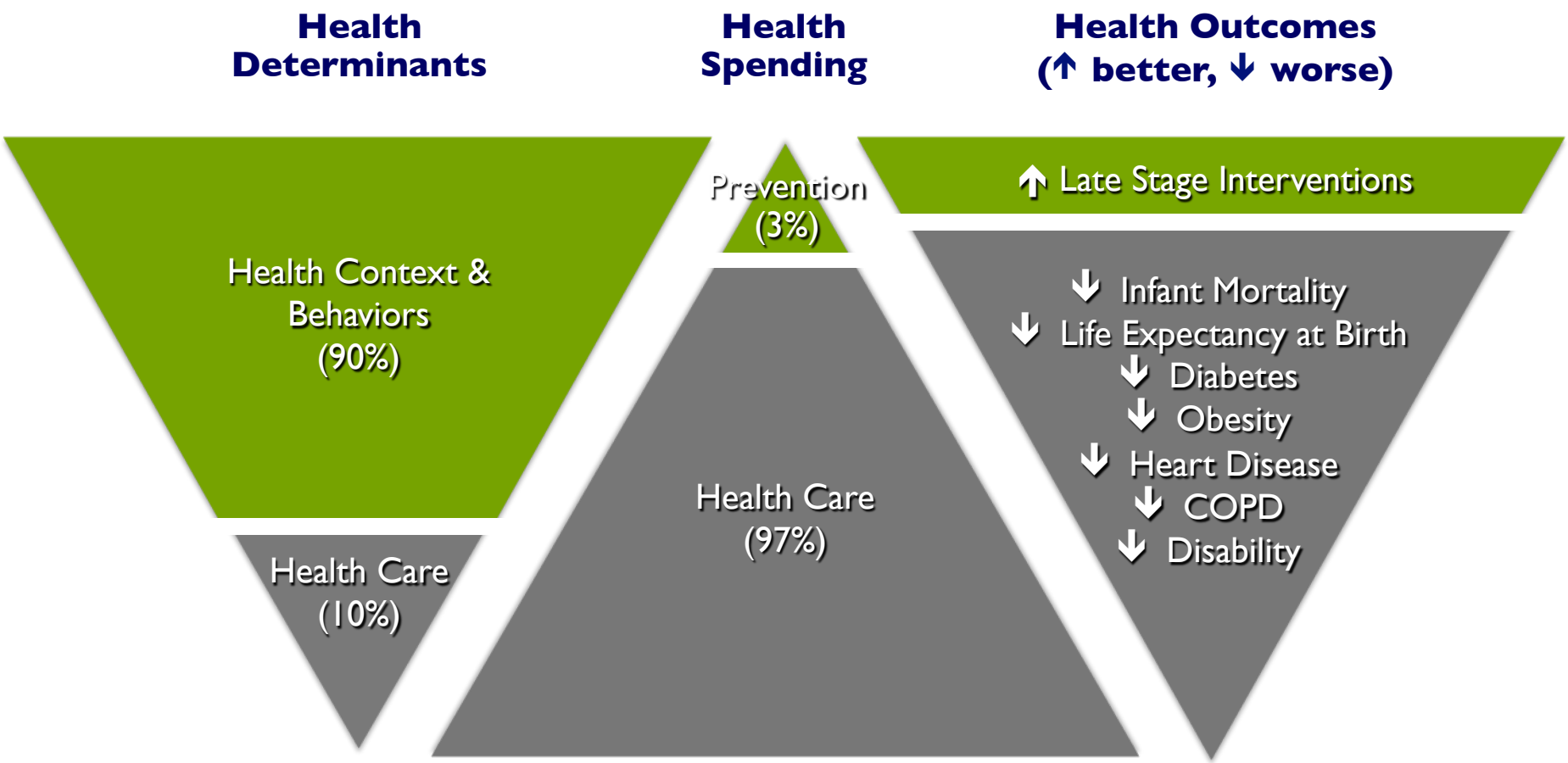

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Centers for Medicare and Medicaid Services, "National Health Expenditures" Table 1, (Washington, DC: CMS, Office of the Actuary, National Health Statistics Group, 2012).

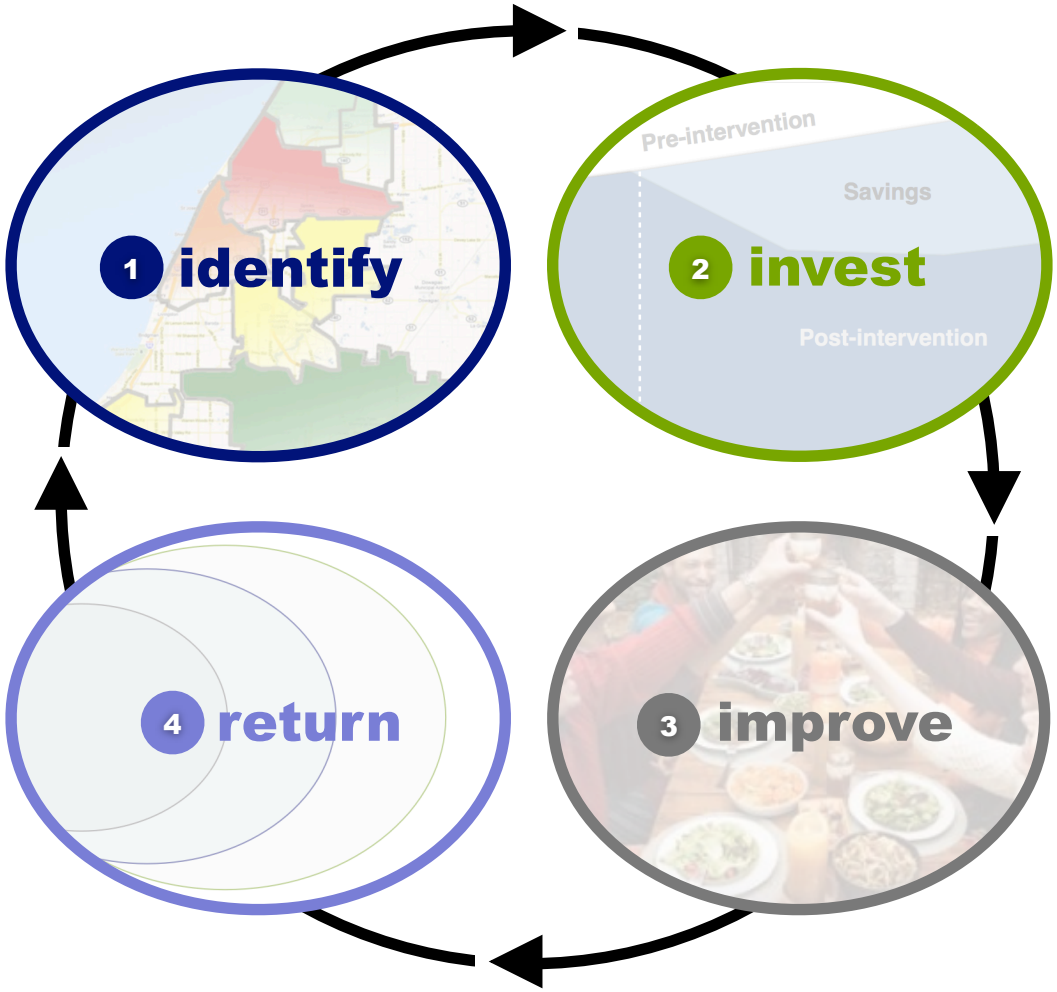
United States compared to 16 "peer" countries, National Research Council, "US Health in International Perspective: Shorter Lives, Poorer Health" (Washington, DC: National Academies Press, 2013).

Rick Brush | rick@collectivehealth.net | 860.712.2242
collectivehealth.net

health-impact investing

Rick Brush | rick@collectivehealth.net | 860.712.2242
collectivehealth.net

How would we invest for better *health*?



Rick Brush | rick@collectivehealth.net | 860.712.2242
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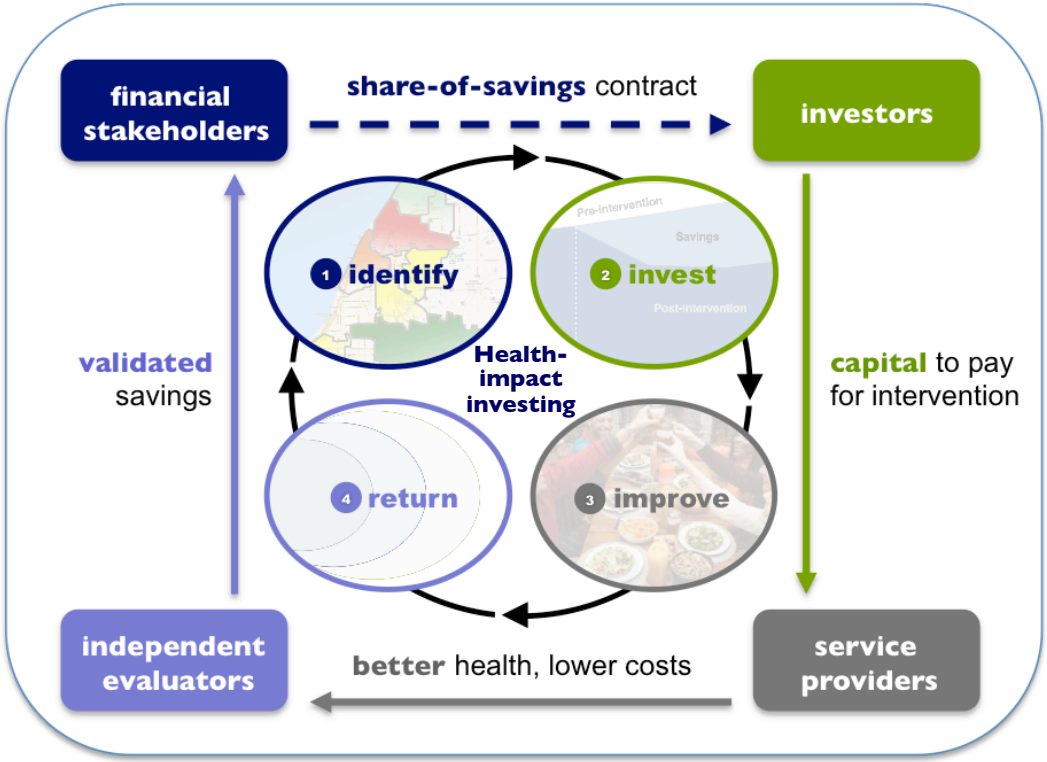
Health-impact investing: how it works

1 **What are the *causes* of poor health – and who is paying?**

2 **What is the required investment and risk/return?**



4 **Can the savings be validated, shared and reinvested?**

3 **What initiatives and service providers are evidence-based?**

ongoing learning • iterative/adaptive • sustainable reinvestment

Rick Brush | rick@collectivehealth.net | 860.712.2242
collectivehealth.net

Health-impact investing: what's required

1. **Known causes** of significant and costly health issues that can be prevented or improved
2. **Evidence-based interventions** and service providers with demonstrated results
3. **Net savings potential *and method*** for measuring/validating actual cost savings (e.g., RCT using insurance claims data)
4. **Payers** that agree to share/reinvest savings:
   - Government health plans & commercial insurers
   - Self-insured employers
   - Providers with aligned incentives (Accountable Care Organizations, Patient-Centered Medical Homes, capitated)
5. **ROI/IRR:** acceptable investor risk-return and payback period

Rick Brush | rick@collectivehealth.net | 860.712.2242
collectivehealth.net

Health-impact investing: potential applications

- Preventable/manageable chronic disease (heart disease, asthma, COPD, diabetes)
- "Superusers" of emergency department/hospital readmissions
- Mental illness (especially with comorbidity)
- Addiction/recovery
- Preventive oral health
- Onsite/location-based clinics and telehealth
- At-risk maternity/prenatal care, and early childhood development

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collectivehealth.net

Philanthropy as a bridge to health-impact investing

- **Validate existing evidence-base** with rigorous evaluation design & insurance claims data; due diligence of intervention and service providers
- **Confirm risk/return proposition** will attract impact investors (philanthropy to commercial investors)
- **Identify payer(s) of outcomes** for scale-up

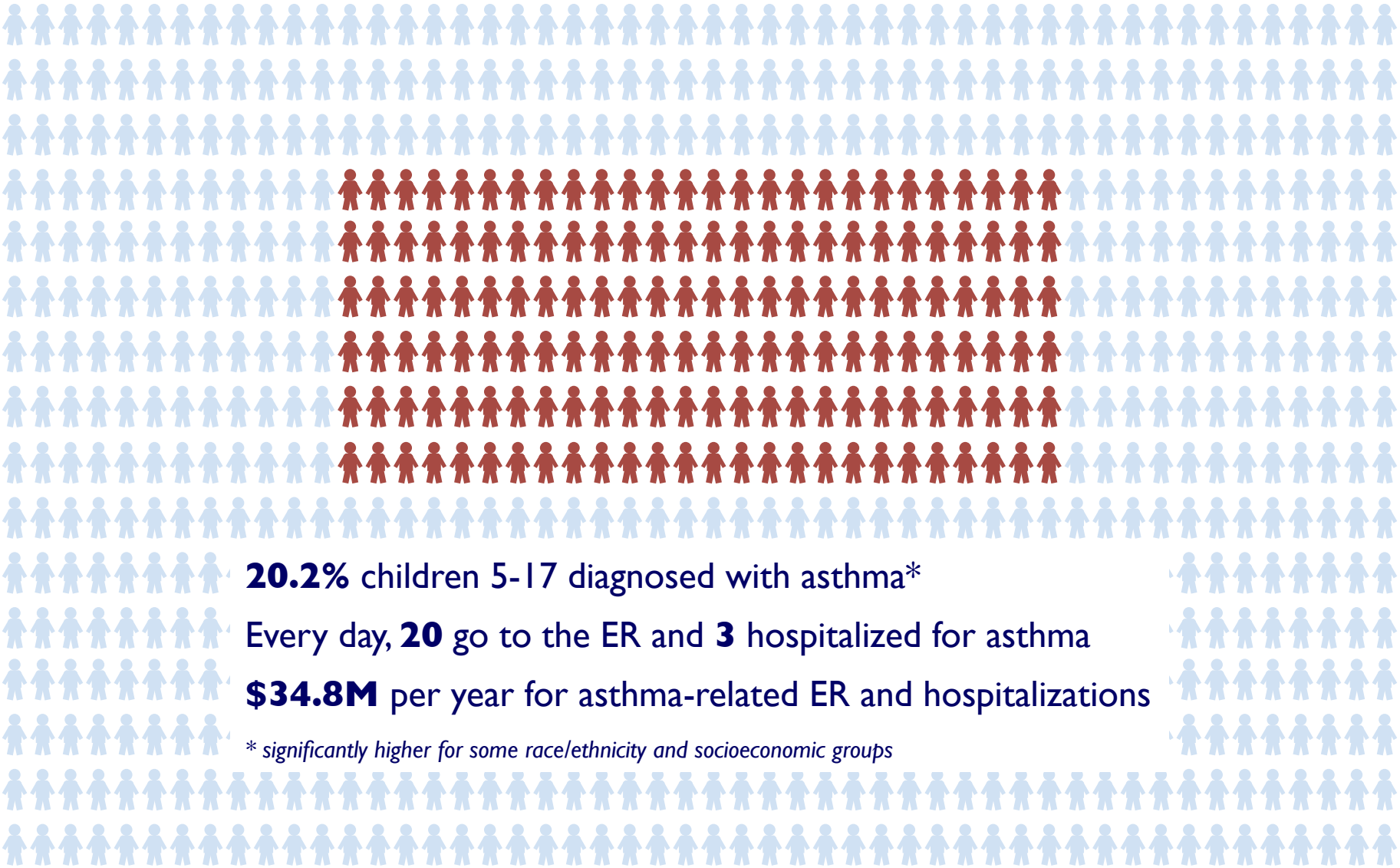
Rick Brush | rick@collectivehealth.net | 860.712.2242
collectivehealth.net

a simple example

(with a few complicated charts)

Rick Brush | rick@collectivehealth.net | 860.712.2242
collectivehealth.net

Asthma in Fresno: A Crisis for Children and Community



20.2% children 5-17 diagnosed with asthma*

Every day, **20** go to the ER and **3** hospitalized for asthma

$34.8M per year for asthma-related ER and hospitalizations

** significantly higher for some race/ethnicity and socioeconomic groups*

Rick Brush | rick@collectivehealth.net | 860.712.2242
collectivehealth.net

Asthma: A Business Case for Prevention

Asthma Control: Home-Based Multi-Trigger, Multicomponent Environmental Interventions

Economic Review

Cost-benefit studies show **return of $5.3 to $14.0** for each $1 invested.

www.thecommunityguide.org/asthma/multicomponent.html

PEDIATRICS

Published online February 20, 2012
Pediatrics Vol. 129 No. 3 **March 1, 2012**
pp. 465 –472
(doi: 10.1542/peds.2010-3472)

Article

Community Asthma Initiative: Evaluation of a Quality Improvement Program for Comprehensive Asthma Care

Elizabeth R. Woods, MD, MPH[a], Urmi Bhaumik, MBBS, MS, DSc[b], Susan J. Sommer, MSN, RNC, AE-C[a], Sonja I. Ziniel, PhD[c], Alaina J. Kessler, BS[a], Elaine Chan, BA[a], Ronald B. Wilkinson, MA, MS[d], Maria N. Sesma, BS[e], Amy B. Burack, RN, MA, AE-C[b], Elizabeth M. Klements, MS, PNP-BC, AE-C[f], Lisa M. Queenin, BA[b,g], Deborah U. Dickerson, BA[b], and Shari Nethersole, MD[b,h]

Twelve-month data show a **significant decrease** in any (≥1) **asthma ED visits (68%)** and **hospitalizations (84.8%)**.

http://pediatrics.aappublications.org/content/129/3/465.abstract

Rick Brush | rick@collectivehealth.net | 860.712.2242
collectivehealth.net

Asthma Impact Model for Fresno (AIM4Fresno)

Phase I - Targeted Outcomes

- **Reduce the rate of asthma emergencies** among 200 high-risk children enrolled in Medi-Cal in Fresno:
  - ≥30% lower asthma-related emergency department (ED) visits
  - ≥50% lower hospitalizations
- **Measure health care cost savings for payers** using an actuarial analysis of insurance claims data; reduction in asthma-related health care services for program participants vs. randomized control group
- **Develop an impact investment strategy** to finance scale-up of the program in Phase II

Is a *Social Impact Bond* a viable strategy for financing a home-based asthma program for high-risk children covered by Medi-Cal?

Rick Brush | rick@collectivehealth.net | 860.712.2242
collectivehealth.net

Asthma Impact Model for Fresno (AIM4Fresno)

1 identify

Value: reduce ER 30% & inpatient 50%

Potential: 16,000 children with poorly controlled asthma covered by Medi-Cal

CalViva HEALTH Anthem Blue Cross

Target top 10%: $8 million net savings

Rick Brush | rick@collectivehealth.net | 860.712.2242
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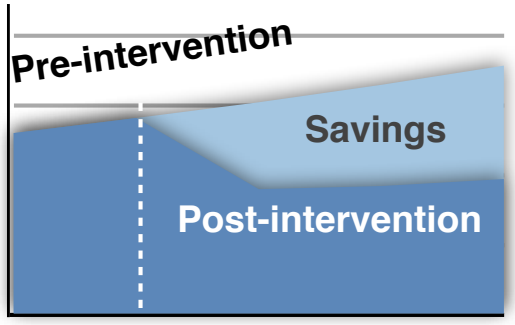
Potential: 16,000 chil
controlled asthma co

CalViva HEALTH

Target top 10%.

Value of reducing emergency room (ER) by 30% and inpatient hospital by 50%



example only

Per Person Per Year

Emergency and Hospital Costs	
Pre-intervention:	$16,371
Post-intervention:	$8,598
Savings:	$7,773
Program Investment and Infrastructure	$2,728
Net Savings	$5,045
Net ROI	1.8

Potential: **16,000 children** (3-19) covered by Medi-Cal had an ER or urgent care visit for asthma in past 12 months

Target top 10%: 1,600 x $5,000 = **$8 million net savings**

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2 invest

Phase I: 200 children
→ *current demonstration project is grant-funded*

The California Endowment

Phase II: scale-up TBD
→ *health-impact investment*

SOCIAL FINANCE

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SOCIAL FINANCE

3 improve

CCAC Central California ASTHMA COLLABORATIVE

CLINICA SIERRA VISTA "Caring for the Community"

ramp REGIONAL ASTHMA MANAGEMENT & PREVENTION

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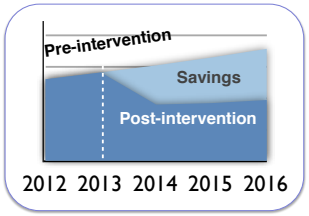
SOCIAL FINANCE

4 return

Project lead & evaluation:
RCT using insurance claims data

collective health
better health, better returns

Validation: third-party health insurance actuary
→ *actual savings achieved*



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Target top 10%: $8 million net savings

2 invest

Phase I: 200 children
→ *current demonstration project is grant-funded*

The California Endowment

Phase II: scale-up TBD
→ *pay for success*

SOCIAL FINANCE

this is really important to investors

4 return

Project lead & evaluation:
RCT using insurance claims data

collective health
better health, better returns

3 implement

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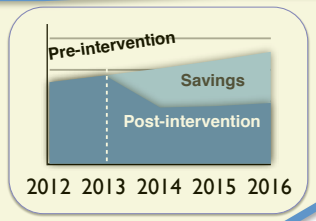

Rick Brush | rick@collectivehealth.net | 860.712.2242
collectivehealth.net

a bigger example

Rick Brush | rick@collectivehealth.net | 860.712.2242
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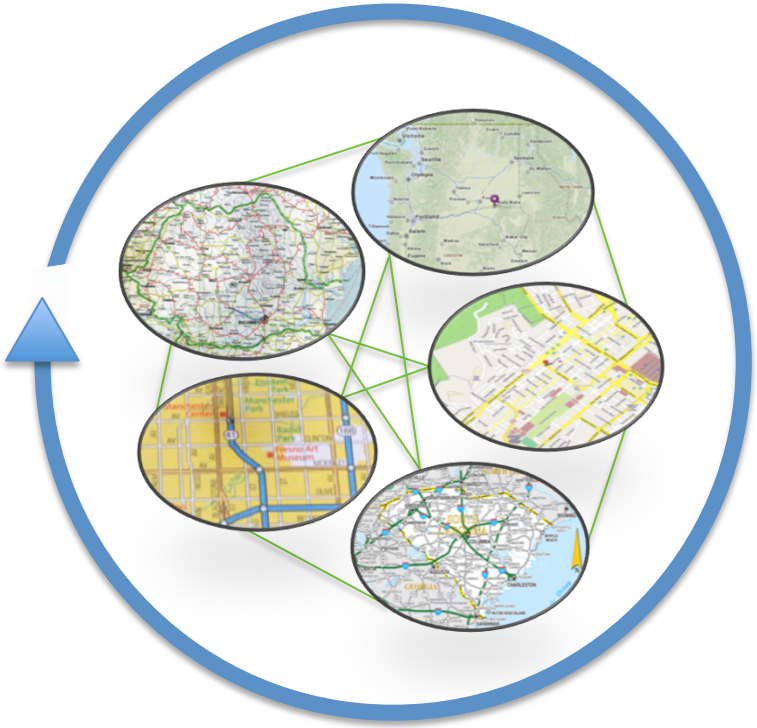
HICCup

Health Initiative Coordinating Council

five places. five metrics. five years.

- National competition launching 2014
- Five communities compete to win the **HICCup Prize** for the greatest cost-effective improvement in health over five years
- HICCup will help local **leaders** with **data**…new **solutions**…and **investment** models that generate better health with financial returns



More coming… **HICCup.co**

Rick Brush | rick@collectivehealth.net | 860.712.2242
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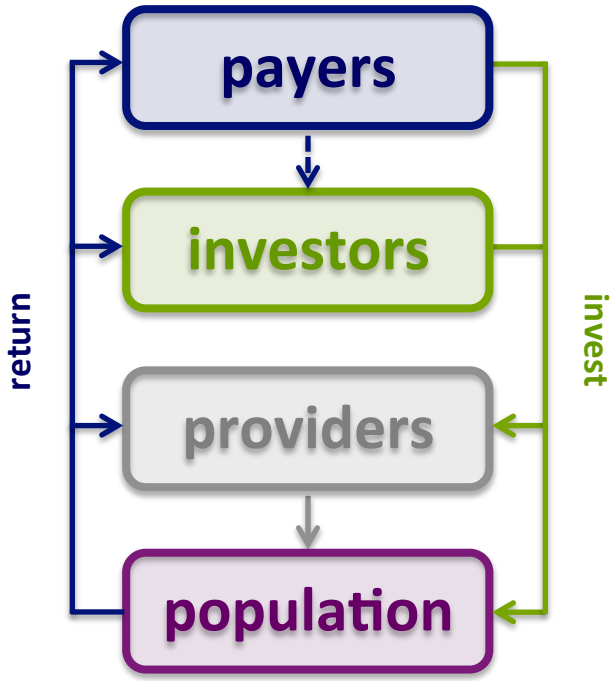
Health Capital Markets

≈ investment bank for community health

- Shift $: treatment → health
- Portfolio approach
- Progressive reinvestment



impact investing
insurance/reinsurance
HC payment/delivery
innovation fund
new business models
health credit exchange
health trust/fund
debt financing
sponsorships/in-kind
community benefit
micro/crowdfunding
philanthropy
public sector funding
policy change

Rick Brush
rick@collectivehealth.net
860.712.2242

collectivehealth.net
@collectivehlth

HICCup.co
@HICCup_co