Building a Community Health System at Scale

Regional Triple Aim Initiative

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Overview

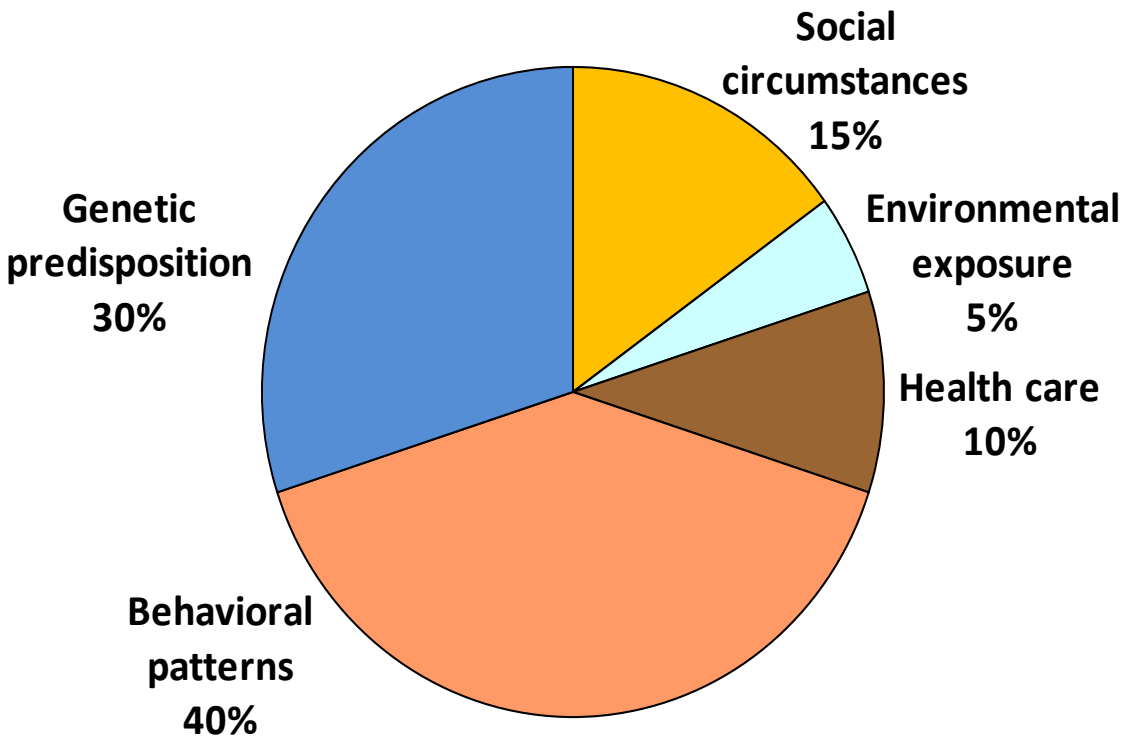
I. Goal - Health of individuals and populations

II. Comprehensive models for community health that address context and circumstances

III. Impact investing/pay for success models –

sustainable funding mechanisms for interventions that work

Determinants of Health and Their Contribution to Premature Death



Adapted from: McGinnis JM, Williams-Russo P, Knickman JR. The case for more active policy attention to health promotion. Health Aff (Millwood) 2002;21(2):78-93.

How Population Health Happens

- Health happens:
  - one person at a time
  - one day at a time
  - one decision at a time

- Within the context of where and how people live:
  - where they work, learn, play, shop
  - influenced by their level of education, income, employment
  - determined by their access to healthy food, safe environments, available transportation, healthcare services

- Health does not happen primarily within healthcare sector:
  - it happens within the context of each person's life –
    - their cultural, social, and economic frameworks modified by their values and priorities

- Individuals aggregate to populations

Defining Populations

Determined by defining boundaries of individuals:

- Racial, ethnic, disease specific, life-stage, level of poverty
- Health system's population of patients
- Health insurer's population of patients across health systems
- Clinician's entire practice of patients
- Segment of a clinician's practice
  - Patients with depression or adolescents or elderly….
- Geographic region - county, city, neighborhood or block
- Healthcare resource utilization
  - high utilizers

System designs that simultaneously improve three dimensions:

- Improving the health of the population
- Improving the patient experience of care (including quality and satisfaction)
- Reducing the per capita cost of health care

Contra Costa Regional Triple Aim Initiative

- **Comprehensive System-Wide Model**
  - **multi-sector utilization of evidence-based interventions** to leverage the unique assets of each sector in a coordinated, integrated, aligned fashion to build an accountable learning community to improve health

- **Sustainable financing mechanism**
  - **social impact investing/pay for success model**

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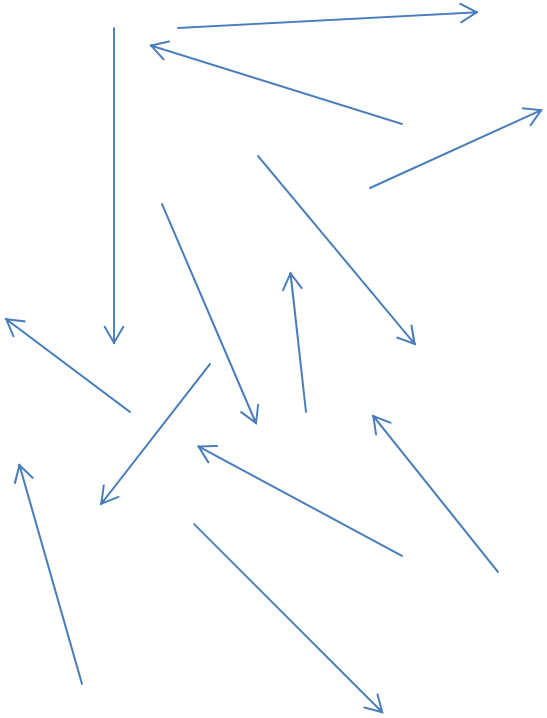
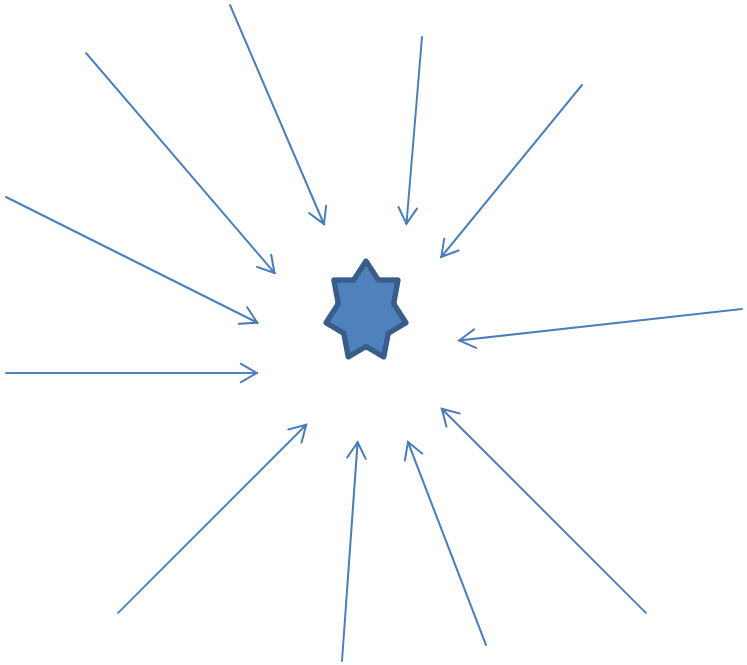
UNFOCUSED EFFORTS



- Random activity
- Blinded to related efforts
- Competitive
- Redundant
- In-Parallel

TARGETED, ALIGNED ACTION



- Clear, focused aim and outcomes with targets
- Explicit, deliberate aligned action
- Utilize unique levers of each sector
- Track results over time – adapt interventions to achieve targeted outcomes
- Become a learning community
- Spread model to other activities

Contra Costa Regional Triple Aim

Asthma has significant impact on health, quality of life, community function and funds available for multiple community needs:

- **healthcare utilization high – ER and hospitalizations**
- **school attendance**
- **business absenteeism**
- **work force productivity/presenteeism**
- **substantial cost**

California Asthma Impact

- Most common health condition among young children especially African Americans

- Significant cause of absenteeism from work and #1 from school

- Asthma prevalence increasing
  - 2001 - one in eight (12%)
  - 2010 - one in six (15%)

- 22% of children diagnosed with asthma have an asthma-related ER visit each year

- High cost problem
  - $763 Million total asthma-related charges (2005)
  - $23,953 average hospitalization cost (2005)

Contra Costa Asthma Impact

- Contra Costa has a higher prevalence of asthma than almost all counties in the state and 30% higher rate of ER visits and hospitalizations

- West Contra Costa County
  - two times prevalence of asthma hospitalizations than other regions of Contra Costa County
  - Large African-American population with highest rate
  - High poverty rate

Contra Costa Regional Triple Aim Initiative

AIM:

To prevent asthma onset and improve the outcomes of individuals with asthma in West Contra Costa County through system-wide, integrated, and aligned action.

Start in the Person's Home

Use proven standardized **in-home assessment tools** to identify asthma triggers including family circumstances to be conducted by –

- Public health nurses
- Promotoras and African American Health Conductors
- Community Health Workers - key workforce development
- Geospatial Information Systems (GIS) mapping to target *hot spots*

In Home Remediation

Targeted in-home remediation and family-based interventions

- Remove mold, mildew and pet dander
- Reduce dust by removing carpets and/or thorough cleaning of living area with non-toxic products
- Pillow and mattress covers
- Hepa-filter vacuums for aerosolized triggers
- Address in-home smoking risk
- Weatherize windows to prevent drafts
- Education and support for Asthma Action Plan

Go to Where People Spend Their Time – At Work and School

School-based education and clinical support services for students, teachers, and families and on-site clinical services for students to manage asthma in schools

- Outreach to students missing school due to asthma-related episodes – intensive case management connected to a health home
- Utilize the Contra Costa Public Health van services to identify students with asthma requiring management support and link to coverage for needed services
- Utilize mobile apps and other social networking strategies
- Primary care management services at the school site to keep children in school with an Asthma Action Plan based on peak flow and symptoms
- Educational, environmental and individual support for Asthma Action Plan for each student
- Health Academy at schools with some focused educational activities related to asthma prevention and management

Pre-School Interventions

- **Pre-School education, remediation of triggers and management (Head Start and other daycare programs)**
  - Education of parents and staff about recognition of asthma triggers (exercise, environmental, upper respiratory infections and allergy), medication management and Asthma Action Plans for each affected child
  - Trigger remediation at sites

Business Sites

Business site education and remediation of triggers

- Support employees in effective self-management
- Workplace environment trigger remediation
- Ensure employee's insurance coverage aligns with clinical best practices for asthma
- Education, environmental and support for Asthma Action Plans for affected employees

In Their Community

General community education about asthma prevention and triggers

- Cigarette smoking exposure risk
- In-home triggers that can be mitigated
- On-site school and business-related exposure mitigation
- Adherence to Asthma Action Plans
- Ongoing self-management support through community resources
- Geospatial Information Systems (GIS) mapping to target *hot spots*

In Their Community

Community-led peer-to-peer support groups and self-management support

- Led by Community Health Workers, Promotoras, African American Health Conductors, faith-based organizations, etc.
- Develop Community Health Worker training and certification programs at high schools and community college through the existing Health Academies, Contra Costa Community College and Contra Costa Employment and Human Services Department

Integrate with Healthcare Delivery System

Education for self-management for those with chronic uncontrolled asthma –intensive ambulatory care case management and in-home health education--

- Peer-to-peer support groups within the healthcare delivery system and in the community
- Train and fully utilize Promotoras, African American Health Conductors, Community Health Workers for healthcare delivery, in-home, and community-based support services
- Fully utilize each healthcare team member to highest level of practice competency
- Build multiple strategies for access outside of the face-to-face visit such as email, text messaging, telephone visits and groups convened where people spend their time – schools, worksites, coffee shops, churches, etc.
- Utilize smart phones/mobile apps and other social networking strategies

Connect to Healthcare Delivery System

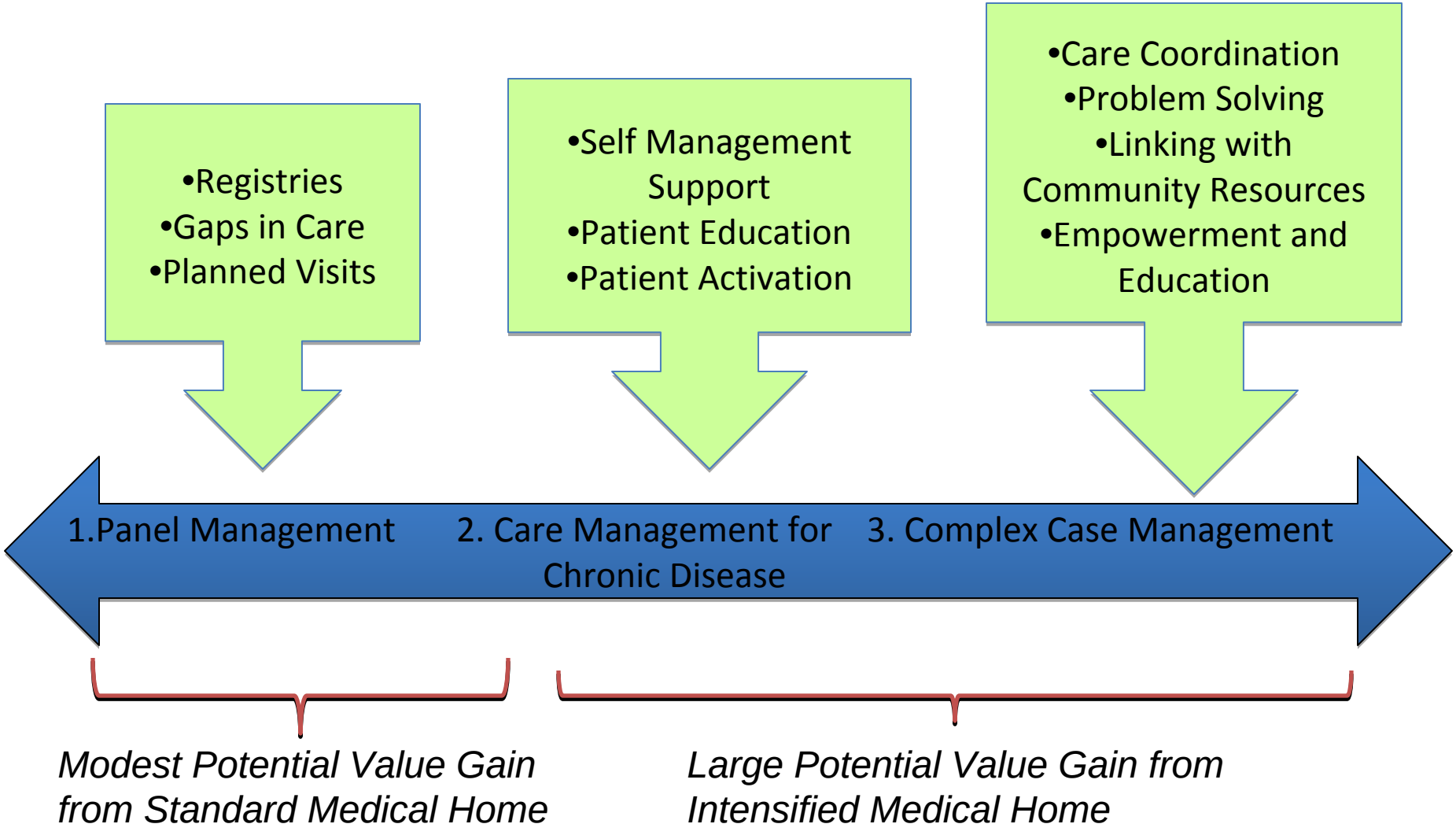
- **Targeted intensive healthcare ambulatory care case management** for high utilizers of healthcare services –
  - Connect each individual to a health home
  - Develop community-wide asthma registry – share data across healthcare systems public health and other key sectors
  - Intensive disease and case management
  - Evaluate for co-morbidities that may be asthma triggers
  - Connect individuals to community resources

Connect to Healthcare Delivery System

Targeted outreach to individuals with chronic uncontrolled asthma identified through claims data from health plans, self-insured employers and insurance companies and hospital emergency room data -

- Shared-decision making care management
- Develop community-wide asthma registry – share data across healthcare systems and sectors
- Develop school-based and business-based interventions

Expansion of Patient-Centered Medical Home Model



Measures

- Decrease asthma-related **ER visits** by 20%
- Decrease asthma-related **hospitalizations** by 20%
- Improve **school attendance** of children and adolescents with chronic uncontrolled asthma by 20%
- Improve **work attendance** of adults with chronic uncontrolled asthma by 20%
- Improve **self-reported health status** of individuals with chronic uncontrolled-asthma

Health Leads

Expanding Models of Care

- ***Health Leads*** enables doctors, nurses, and other healthcare providers to "prescribe" food, housing, or other basic resources—just as they would medication

- Patients take their prescriptions to the clinic waiting room, where Health Leads' Advocates are ready to connect them to community resources

Health Leads at Boston Medical Center – Patient Needs Survey

Health Leads helps patients find services in their community. Please answer these questions and hand this form to your provider at the start of your visit. Your answers are private. Thank you!

I would like help:

1. Finding housing assistance or an emergency shelter.

☐ Yes ☐ No

2. Paying for food or finding healthy foods.

☐ Yes ☐ No

3. Paying my bills (gas, electric, phone).

☐ Yes ☐ No

4. Finding child care or after-school programs for my child.

☐ Yes ☐ No

5. Enrolling myself in ESL or GED classes.

☐ Yes ☐ No

6. Finding clothing for myself or my child.

☐ Yes ☐ No

7. Finding employment or job training program.

☐ Yes ☐ No

If you answered YES to any of these questions, do you want help today?

☐ Yes ☐ No

Your Name: _____ Email: _____ Phone #: _____ Best Time to Call: _____

For Provider Use Only

To make a referral to Health Leads

1. Place a patient sticker to the right
2. Print your name clearly above the sticker
3. Direct or walk patient to Health Leads Desk
4. If there is no Health Leads advocate , place referral in drop box

Referring Provider Name: _____

Place Patient Sticker Here

The Process

1. Families seek medical care at UMass Memorial Health Center

2. Families complete pre-visit screener

3. Physician addresses basic resource needs and refers patient to Health Leads

4. Patient brings referral prescription to Health Leads and obtains resource information from Advocate

5. Health Leads Advocate follows up with families

6. Health Leads Advocate closes the loop with physician through the EMR

Social Impact Bonds

Essential Benefits

- **Sustainable funding** mechanism –
  - Rather than grants that end

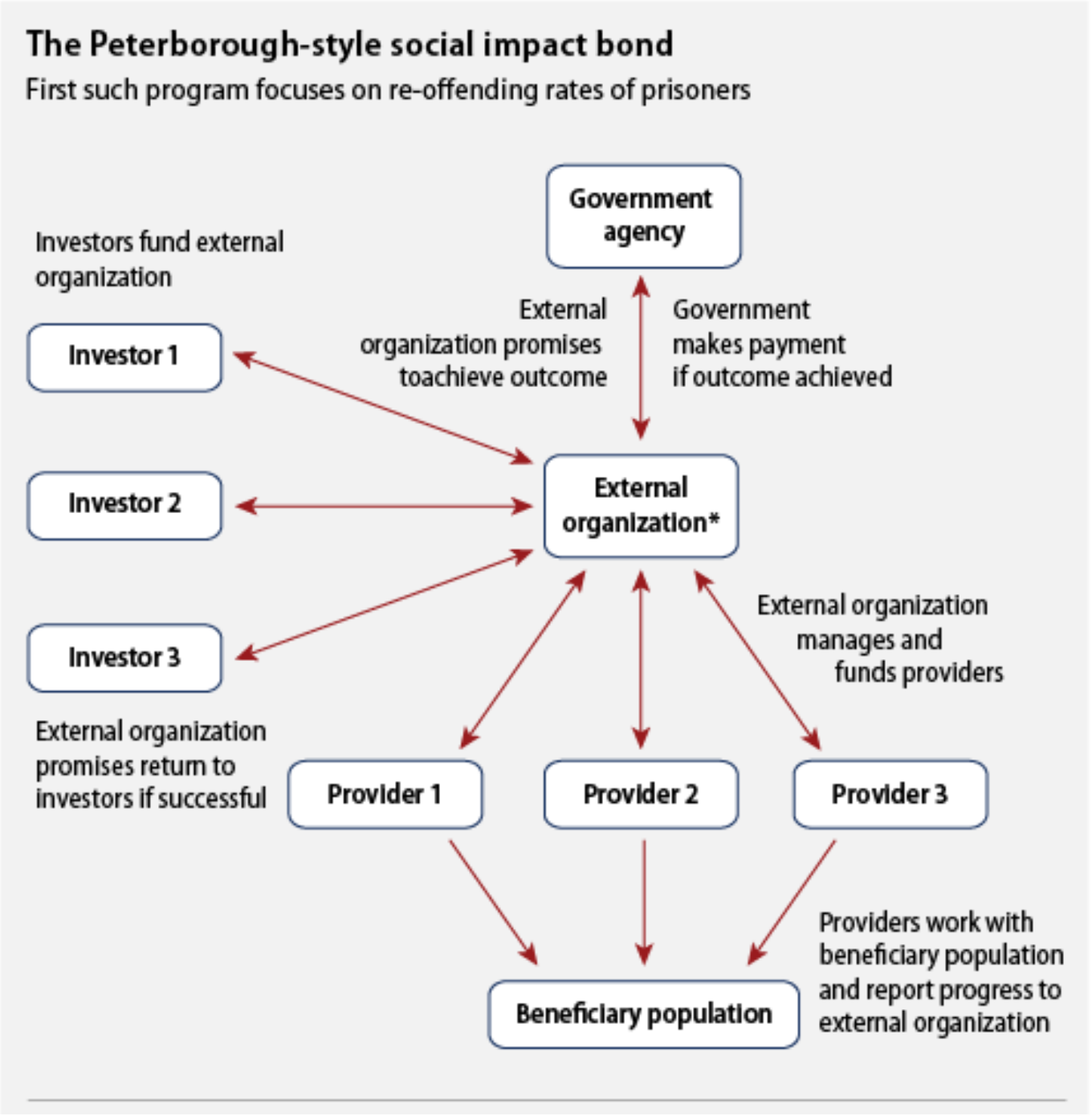
- **Outcomes driven with specified targets**
  - Rather than inputs and outputs
  - Allows for course corrections throughout initiative

- **Novel capital investors**
  - Expand to equity investors not traditionally in the public health or healthcare investment sphere

Social Impact Bonds

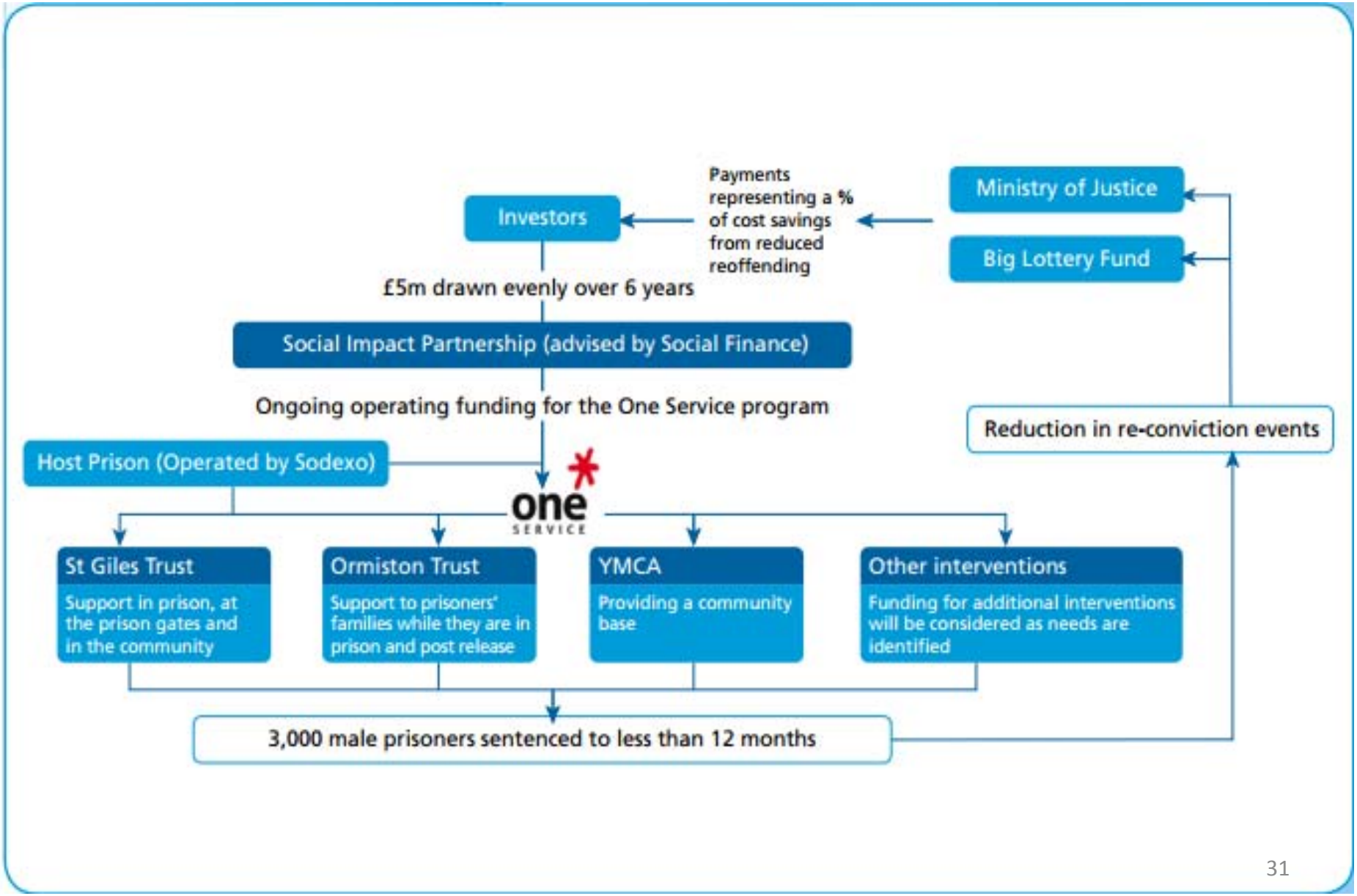
Shared-Savings /Pay for Success Model

- First Social Impact Bond launched 2010 –
  - Peterborough Prison in UK – goal to reduce prisoner recidivism by ≥7.5% over 6 years
- Social Impact Bond core components:
  - ***Financial stakeholders*** - government or entity that will save money if program reaches target
  - ***Investors*** – foundations or investment organizations who define target outcomes to be reached over specified timeframe
  - ***Intermediary –*** financial transaction management and/or program management
  - ***Service providers*** *that are paid* ***up front*** to deliver evidence-based interventions with the goal of reaching specified contracted targets
  - **Independent External Evaluator – validate targets achieved and savings**
  - **Shared Savings pay-out - if target outcomes are met**, ***investors*** receive funds from ***financial stakeholders***—repayment of initial investment plus a previously agreed upon financial return

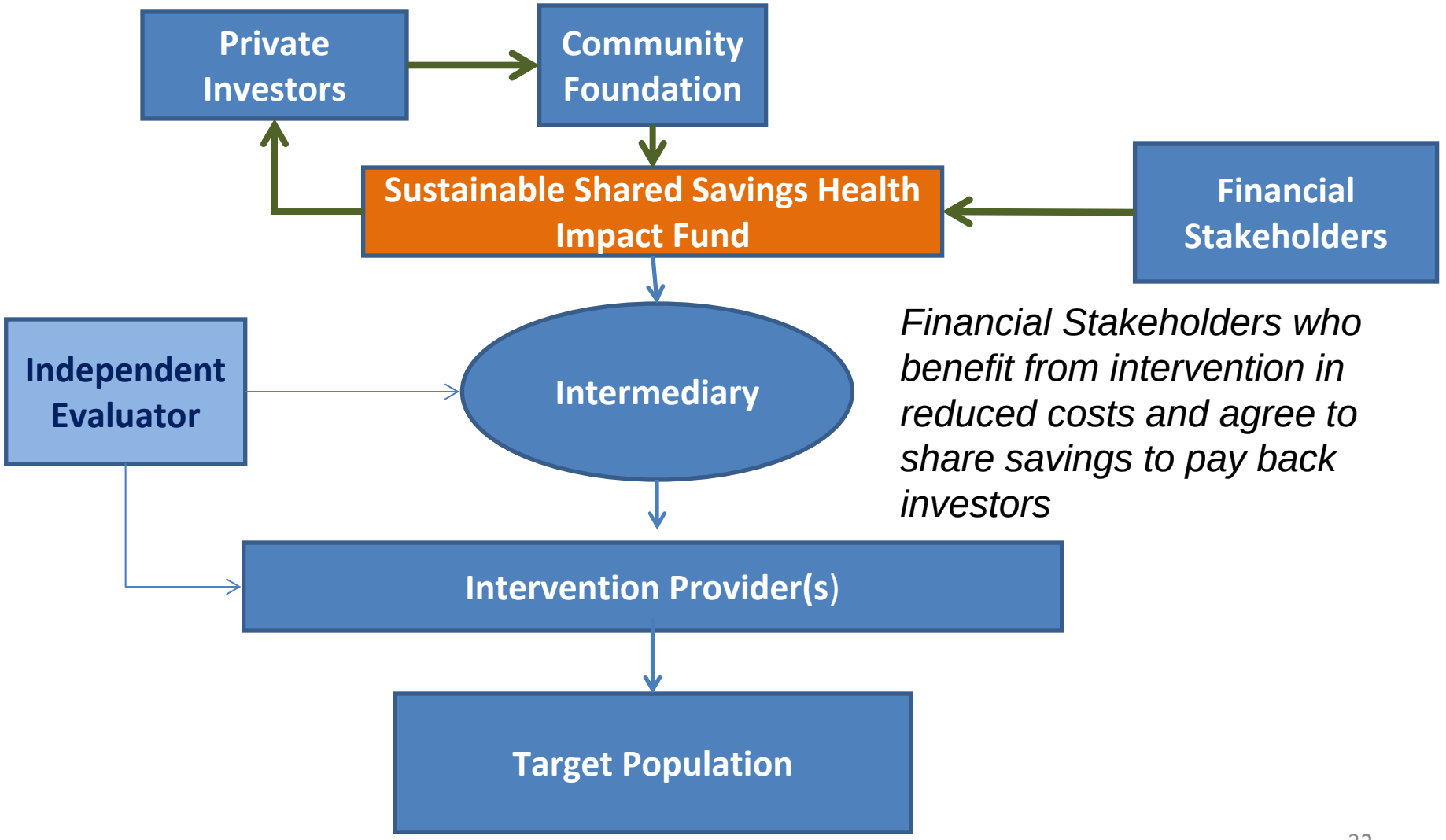

The Peterborough-style social impact bond
First such program focuses on re-offending rates of prisoners
Government agency
Investors fund external organization
External organization promises toachieve outcome
Government makes payment if outcome achieved
Investor 1
Investor 2
Investor 3
External organization*
External organization manages and funds providers
External organization promises return to investors if successful
Provider 1
Provider 2
Provider 3
Beneficiary population
Providers work with beneficiary population and report progress to external organization

1

The UK Social Impact Bond Structure



A Private Sector Model for Social Impact Investing



Financial Stakeholders who benefit from intervention in reduced costs and agree to share savings to pay back investors

Health Impact Contracts

- Identify high-cost population
- Determine who is paying for their care – financial stakeholder (health plans and self-insured employers)
- Estimate costs for care – ER visits, hospitalizations, medication costs, provider visits
- Identify evidence-based interventions and competent service providers
- Estimate costs to implement interventions
- Determine Return On Investment (ROI) which is the savings for financial stakeholder minus intervention costs
- Attract investors to provide capital for interventions who will be repaid with interest if target outcomes reached (foundations, organizations, market investors)
- External evaluator to validate savings

Multiple US Applications in Process

President Obama's 2012 budget -$100M to fund "Pay for Success" Initiatives for several government agencies – 7 pilot programs including job training, education, and juvenile justice

New York – recidivism - Goldman Sachs investor $9.6 million backed by Bloomberg Philanthropies 75%

Massachusetts – homelessness and recidivism

Maryland – youth recidivism and job programs

New Jersey – legislation for a health-related impact bond

Connecticut – enabling legislation and developing a recidivism model

Minnesota - passed legislation for appropriation bond and issued RFI

LA County – motion by Board of Supervisors to examine the feasibility of implementing PFS to expand the "Just in Reach" program to serve homeless repeat offenders

Pennsylvania – pre-Kindergarten Special Education bond

Dallas – dedicated group of impact investors exploring model for workforce development

Cuyahoga County, OH – county manager has secured Dept of Justice award for pay for success project

Guiding Principles

1. Build all systems around the individuals/people within their communities

2. Align aims, measures and initiatives across community through partnerships and coalitions

3. Utilize all intersections of each individual and the personal healthcare delivery system to address clinical preventive services, provide health promotion information and support (physical activity, healthy diet, tobacco cessation, ETOH moderation) and health literacy, link to community resources and with specific conditions consider related implications for family and broader community

4. Utilize intersections of places where individuals spend their time to impact their health – schools, businesses, pharmacies, groceries, parks

5. Promote 'Health in all Policies'
   - Health impact considered in all policy decisions in a community
   - Health and well-being are primary goals of each community and impacts are measured in key sectors

6. Develop shared accountability recognizing no one sector can provide all necessary services or health-promoting conditions alone – shared accountability between healthcare, governmental public health and key community stakeholders

7. Build a learning community
   - --- transparent data sharing of outcomes over time
   - --- adapt strategies over time to achieve outcome targets

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