

SOCIAL DETERMINANTS OF HEALTH AS PUBLIC GOODS:

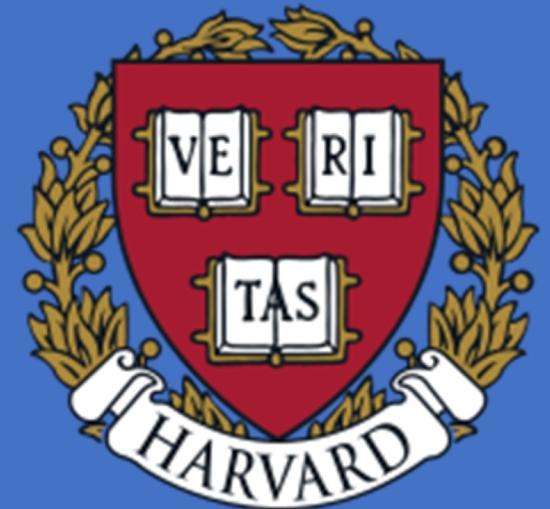
A NEW APPROACH TO FINANCING KEY INVESTMENTS IN HEALTHY COMMUNITIES

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Altarum's Healthcare Value Hub

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POLICY INSIGHT

Social Determinants As Public Goods: A New Approach To Financing Key Investments In Healthy Communities

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Overview

- Fundamental Insights
- Logic of VCG model how it could work in SDoH context
- Example
- Implementation Steps and Challenges

Fundamental Insights

- SDoH investments have public good-like properties => free rider problems
 - Non-rivalrous
 - Non-excludable
- E. Ostrom clarified the boundaries among public, private, club/toll, and common pool are more like continua than bright lines
- Economics profession worked out a functional solution to the free-rider problem in the 1970s, Vickrey-Clarke-Groves (VCG), which works under certain conditions
 - “trusted broker”
 - functional local stakeholder coalition
- Those conditions are likely to be present in many communities grappling with SDoH deficits today

VCG logic

- Given a trusted broker and a stakeholder collaborative agreeing on a particular SDoH project to undertake:
- The broker accepts and sums the confidential WTP or bids, $V = \sum v_i$
- If $V > C$ (total cost), then project is worth doing (has collective ROI)
- Simpleminded cost allocation would have all pay $c_i = C/N$
- Trusted broker assigns prices; $p_i = c_i + t_i$ so that each $p_i < v_i$ (has individual ROI)
- $t_i \geq 0$ if $v_i > c_i$ and $t_i < 0$ if $v_i \leq c_i$
- If stakeholder strategically bids low, they risk $V^* < C \Rightarrow$ they would lose $v_i - p_i$
 \Rightarrow SO it is in each stakeholder's self interest to bid accurately, reveal true WTP

VCG Simple Example

- Suppose 3 players, $v_1 = 110$, $v_2 = 40$, $v_3 = 50$, then $V = 200$
- If $C = 180$, project worth doing, BUT if we made each $p = c_i$, two out of three would oppose the project
- Player 1 (maybe a health plan) imposes an “externality” on players 2 and 3 (maybe hospitals), and he must pay $t_1 > 0$ for that, and players 2 + 3 must be compensated for bearing it, so t_2 and $t_3 < 0$
- Broker could assign taxes and prices such that:
- $p_1 = 60 + 32 = 92$, $p_2 = 60 - 21 = 39$, $p_3 = 60 - 11 = 49$, so total collected = 180, and each $p_i < v_i$

VCG Real World Example using NEMT

- Cost and benefit estimates, updated with M-CPI from 2005 NAS report, with updated prevalence estimates from Paul Hughes-Cromwick (of Altarum)
- Assume community of 300,000: estimate of transportation- challenged population = 7,000 (2.3%)
 - There are 162 MSAs in US with 300,000 or more residents
- Net Savings estimates of \$2,200 per client per year
- Cost of transport = \$750 per client per year
- Note: Providers LOSE margin when insured patients' utilization goes down (we assumed 20% of gross revenue decline)

VCG Real World Example using NEMT

Community of 300,000, average prevalence of transportation challenged, cost and savings updated from NAS report

Stakeholder	Market Share of Target patients	Gross value of investment	Loss from reduced care	Net Value, bid to trusted broker	Cost share	Tax or side payment	Net price
Medicaid	50%	7,700	0	7,700	1,312.5	500	1,812.5
Medicare	20%	3,080	0	3,080	1,312.5	200	1,512.5
Private insurer	10%	1,540	0	1,540	1,312.5	100	1,412.5
Providers/uninsured	20%	3,080	2,464	616	1,312.5	-800	512.5
TOTALS	100%	15,400	2,464	12,320	5,250	0	5,250

Key Roles in VCG Implementation



Technical Assistants (TAs): Researchers, Evaluators, numbers ppl
(Len and Lauren + Altarum)



Trusted Broker (TB): to be decided by local stakeholders

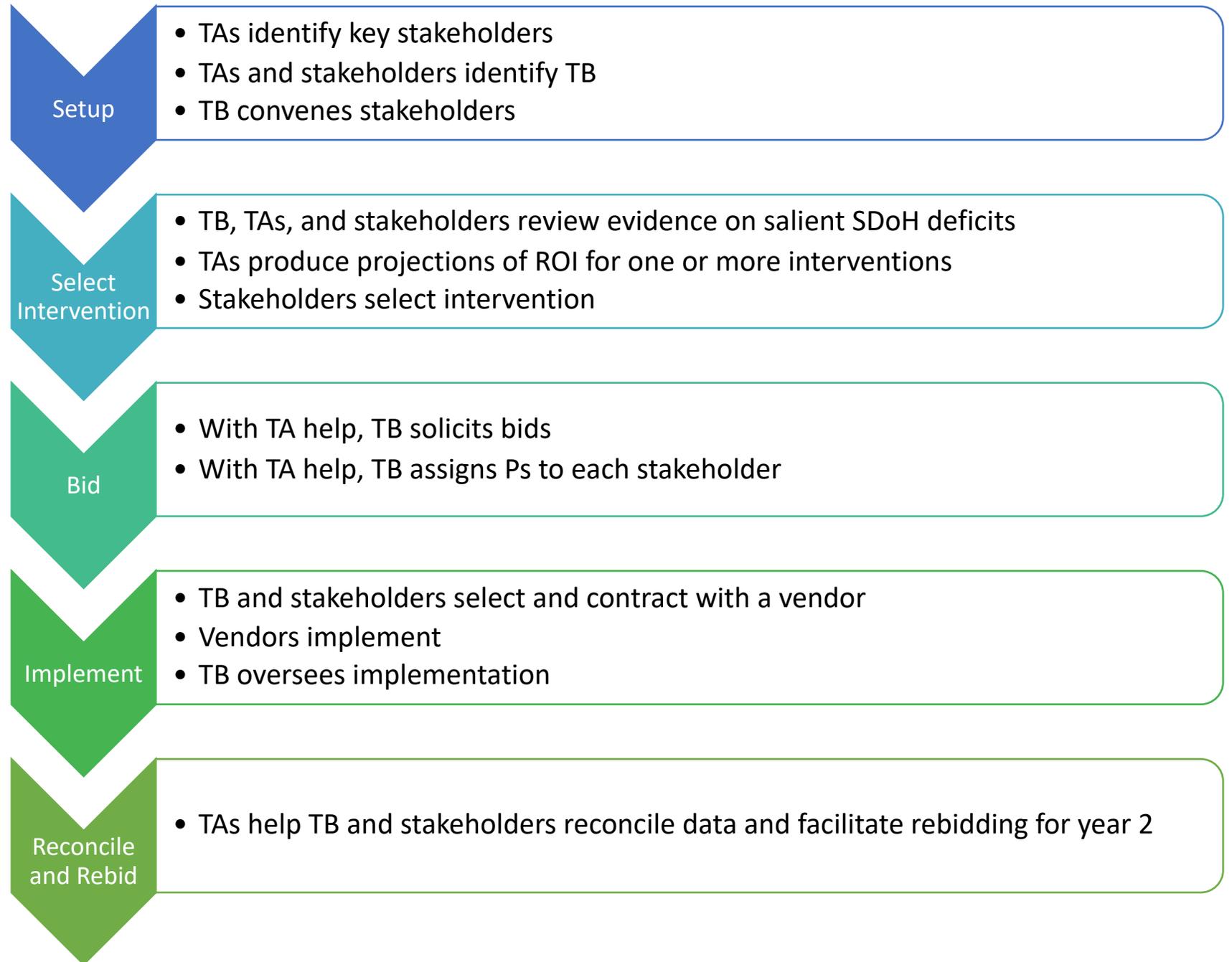


Stakeholders: health delivery and payor organizations, maybe local governmental units as well



Vendors: Organizations that can deliver SDoH interventions and results

12 Step Process



Challenges and Risks

- Selecting sites and assembling a consortium of funders
- Local trust insufficient to overcome free-rider/under-bidding behavior
- Insufficient confidence in estimated effects of intervention, or excess disappointment after year one, that collaboration collapses