

# Addressing the basic resource needs of Kaiser Permanente members



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# Addressing Basic Resource Needs within Kaiser Permanente (KP)



KP's commitment to addressing basic resource needs



KP initiatives to identify and address basic resource needs



KP tools for planning social interventions, using data resources, & assessing outcomes

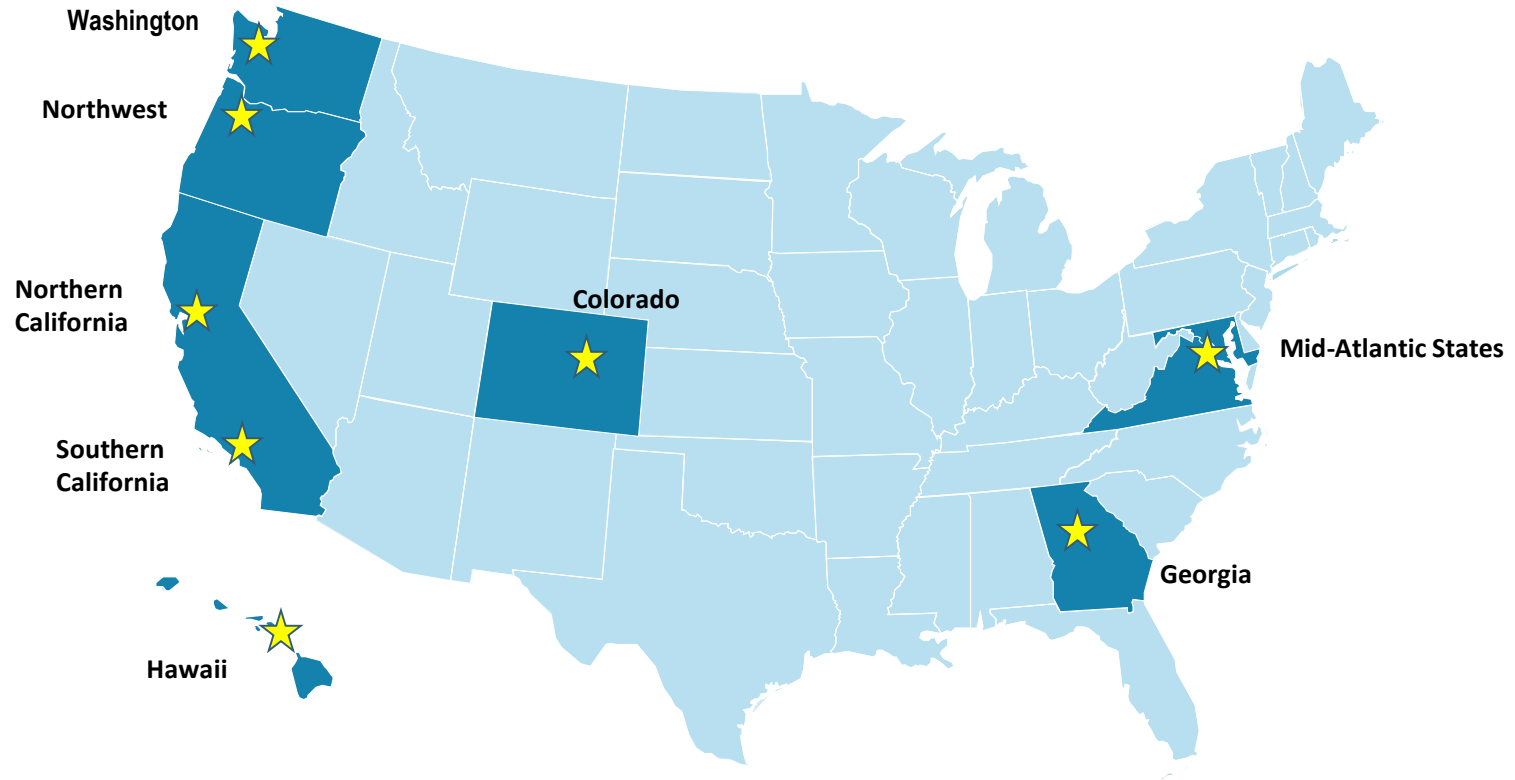


SDOH and cancer care in KP



Implications for research using "big data" to address SDOH and disparities

# Kaiser Permanente regions



## Kaiser Permanente (KP): an Overview

- 1 million members in state Medicaid and CHP programs
- Many low-income KP members are enrolled in our commercial health plans
- KP's mission emphasizes improving the health “of the communities we serve”
  - Active Community Health programs at Program Office and in all 8 regions
- Common EHR
  - Well-developed internal research and evaluation capacity, linked across regions by the KP Virtual Data Warehouse (VDW)

# Social Determinants of Health (Healthy People 2020)

- **Economic stability**

- Basic resource needs (poverty, employment, food insecurity, housing instability, lack of transportation...)

- Education

- Social and community context

- Health and health care

- Neighborhood and built environment

Table 2.3. Prevalence of social needs in five KP surveys

	KPSC <sup>(27)</sup>	Multiple regions	KPCO <sup>(16)</sup>	KPNW <sup>(30)</sup>	KPCO <sup>(26)</sup>	KPNC
Case study *	1	3	5	x	x	x
Population(s) assessed	Care utilization in top 1%	Medicare members who may also be Medicaid-eligible	Members ≥ age 65	Multiple †	Newly enrolled members	Predicted costs in upper 20%
Assessment approach	Case-finding	Case-finding	Screening	Case-finding	Screening	Case-finding
Assessment tool	Health Leads survey	Altegra survey	MTHA survey	YCLS survey	Onboarding survey	Local survey
N of members assessed	2,999	22,576	50,097	11,273 members with 18,284 referrals	22,548	9,268
Dates of survey	2015-17	2013-17	2012-15	2016-18	2014	2013-14
Food or nutrition needs	29%	38%	6%	8%	x	
Housing needs or concerns	11%	3%	x	7%	x	23%
Energy (utility) needs	24%	7%	x	x	x	
Transportation needs	22%	34%	x	16%	x	
Financial assistance or medical cost needs	37%	Income replacement (19%) Medical costs (6%)	x	8%	x	25%
Other needs assessed	Social isolation (24%)	Legal aid (10%)	Social isolation (15%)	Legal (1%), social support (3%), etc.	Difficulty paying for social needs (10%)	Unable to pay for social needs (18%)

## KP Commitment to Addressing Basic Resource Needs, 2012 – 2017 (Local initiatives)

- **2012:** Medicare Total Health Assessment survey began assessing food insecurity and social isolation in elderly (>100,000 completed)
- **2014-17:** groundswell of screening and intervention programs across KP
- **2015:** internal questionnaire to assess difficulty paying for multiple basic needs (>40,000 completed across regions)
- **2015:** Kaiser Permanente Research Bank (biobank) begins
  - SDOH questions on enrollment survey
    - Social support & isolation, perceived discrimination, neighborhood safety, financial strain
  - 118,000 members in general cohort and 7,200 members in cancer cohort completed surveys to date

## KP Commitment to Addressing Basic Resource Needs, 2017 – 2019 (National initiatives)

- **2017:** Social Needs Network for Evaluation and Translation (SONNET)
- **2018:** Thrive Local initiative
- **2018:** Homelessness/housing initiative
- **2019:** Food for Life initiative
  - Increasing SNAP enrollment in California
  - Funding and evaluating programs to provide medically tailored meals (Northern California, Northwest/Oregon, Colorado)
- **2019:** National survey (8 regions) of basic resource needs among KP members under development
  - SONNET “proof-of-concept” pilot survey in 2018
- **2019:** Epic Social Needs module





Social Needs Network for Evaluation and Translation

### A learning network of researchers and evaluators who:

- Help design rigorous interventions to address the social needs of members
- Promote common frameworks for measurement, intervention design
- Develop KP's data resources to improve research and prediction
- Systematically share learnings to scale up what works... and stop doing what doesn't work
  - Scoping review of KP programs (2018)
- Publish research, including Permanente Journal supplement (fall 2018)
  - 13 reports on aspects of this work

# Three Components of Thrive Local

## Resource Directory

- Online platform allows users to search for community resources
- Resources updated regularly by contracted vendor (Unite Us)



## Community Partner Networks

- Community organizations use vendor platform
- KP users send and track referrals



## Technology Platform

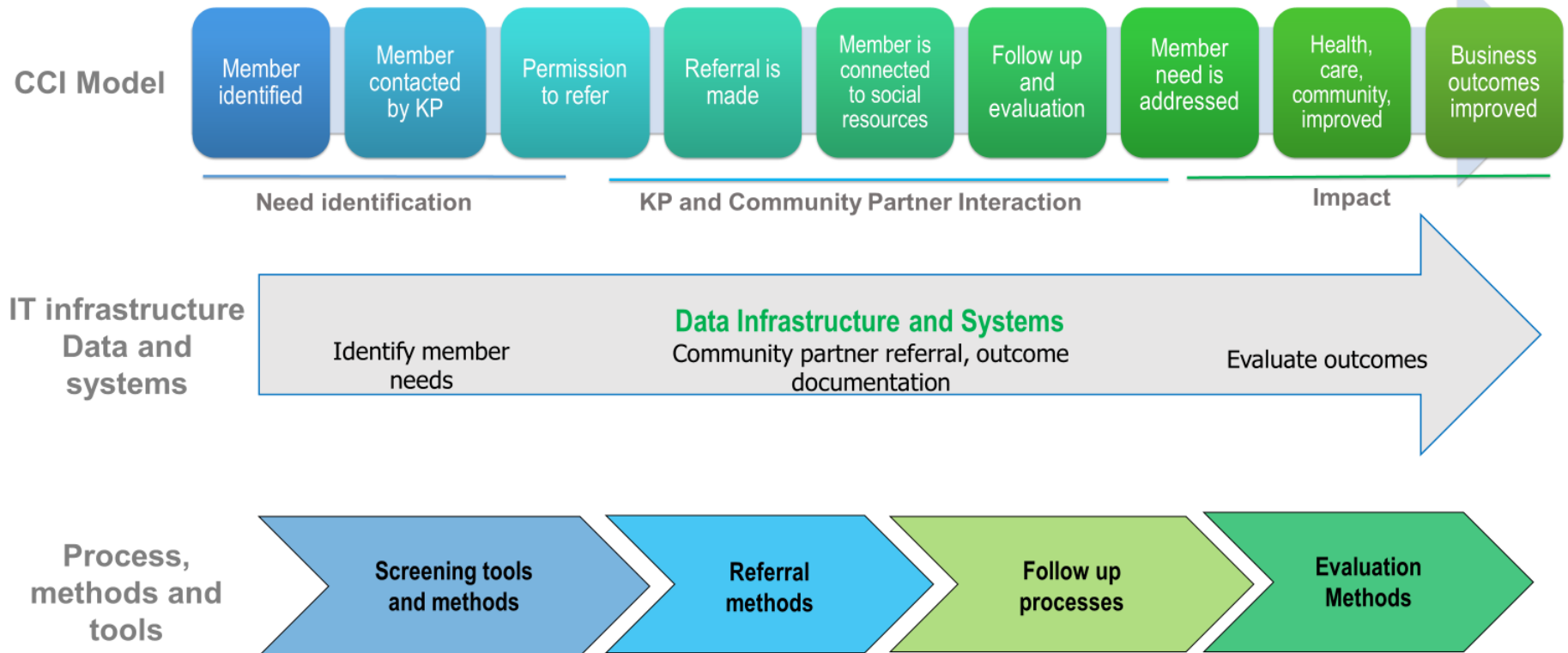
- Closed loop referrals
- Bidirectional exchange of information between KP and Community organizations
- Integration of KP EHR and patient portal (kp.org)



These components **integrate clinical and social care**, supported by **data integration** and community **partnerships**

# Social Interventions Require a Care Continuum

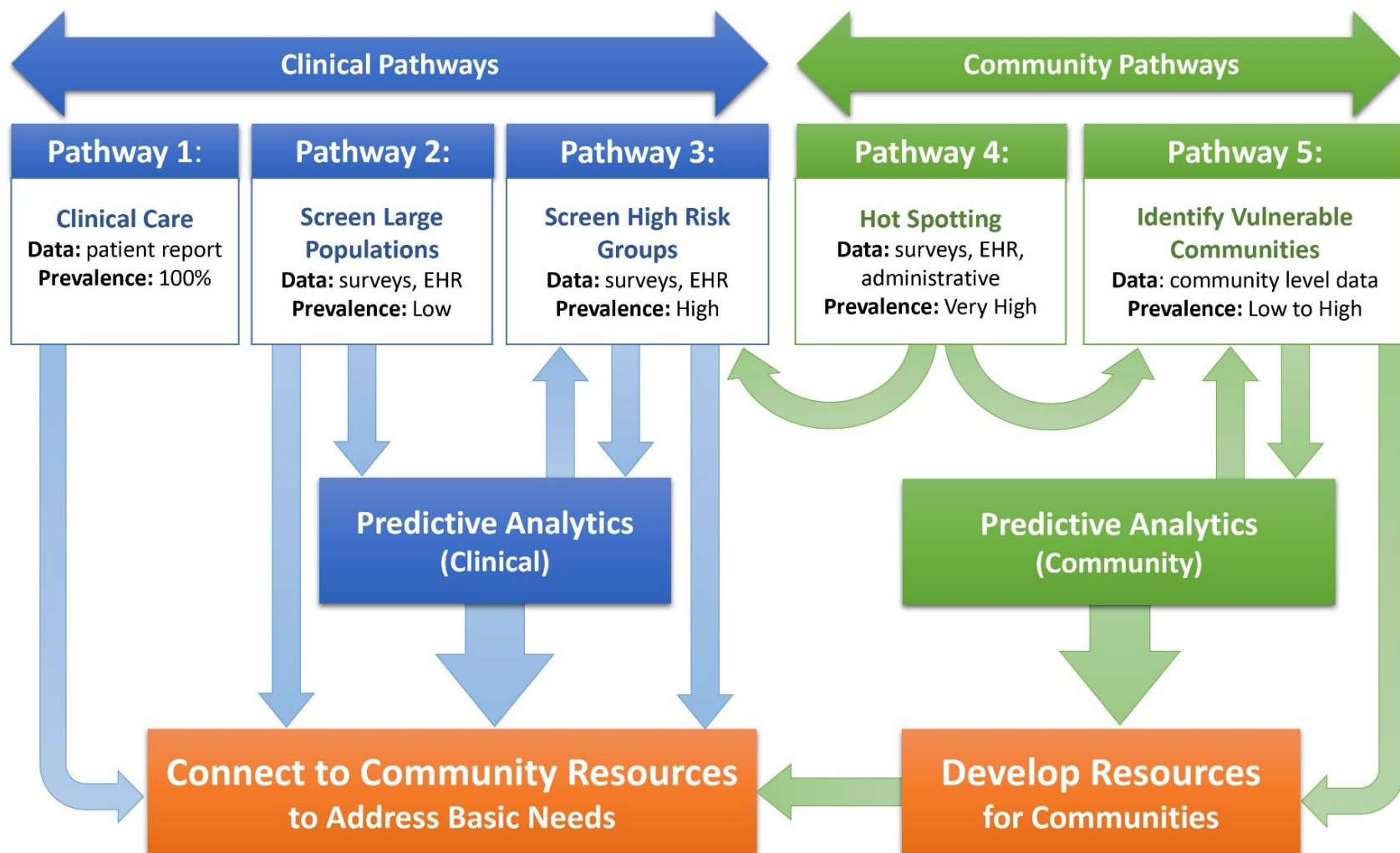
## Colorado Clinic-Community Integration Model



# Different Outcomes Matter to Different Stakeholders



# Social Needs Can Be Identified by Multiple Pathways, Facilitated by Predictive Analytics



# Social determinants of health in KP cancer care research

- Lung – Population-based Research to Optimize the Screening Process (PROSPR) (NCI-funded 5UM1CA221939; Ritzwoller/Vachani)
  - PROSPR is using “big data” to assess factors associated with disparities in screening rates, time to follow-up, and outcomes
  - Measures and sources
    - Food security: Food Access Research Atlas
    - Air quality: EPA maps
    - Wealth & assets: open-source real-estate price data – Zillow, Redfin, Realtor.com
    - Poverty: restricted microdata from the US Census Bureau
    - CDC’s Social Vulnerability Index (SVI)
  - Data is mapped to census-based variables available in our electronic health records (EHR) (e.g. FIPS codes, zip codes)

# Cancer Financial Experience (CAFÉ): Clinic-Based Intervention to Address Financial Hardship (NCI R01CA237322; Henrikson/Banegas)

## Patient-reported outcomes:

- Financial Hardship (material, psychological, behavioral)
- Food Insecurity
- Transportation hardship
- Employment changes
- Difficulty paying for housing

## Electronic Medical Record (EMR)-based outcomes:

- Medical Financial Assistance (application and enrollment)
- Delinquent account
- Account sent to collections

## For participants referred to community resource navigators/specialists

- Data on social/economic needs community agency referrals

# Big Data, Social Determinants, and Health Disparities: the KP Perspective

- **What makes data “big”?**
  - Rows (number of cases)
  - Columns (number of variables)
- **What makes “big data” useful in KP?**
  - Denominators – users and non-users of care
  - Completeness of ascertainment
  - Richness – range of variable types
    - Clinical, behavioral, social, environmental, economic
  - Continuity over time
  - Trustworthy, high-quality data
- **What makes big data useful to address disparities?**
  - Representativeness (justice)