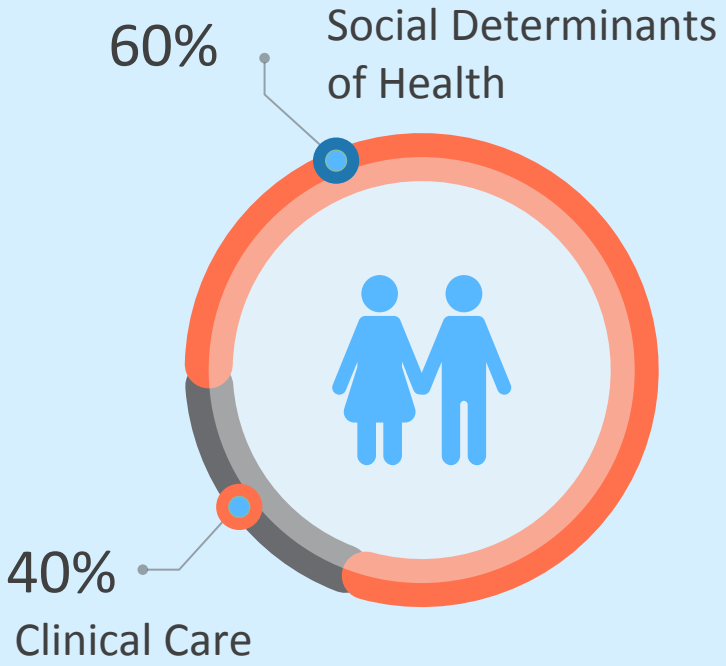
Addressing the Clinical and Social Determinants of Health

Ruben Amarasingham, MD
Founder and CEO
September 24, 2020

60% of patients' long-term wellness is determined by factors outside the clinic

How do we comprehensively address clinical and social determinants of health?



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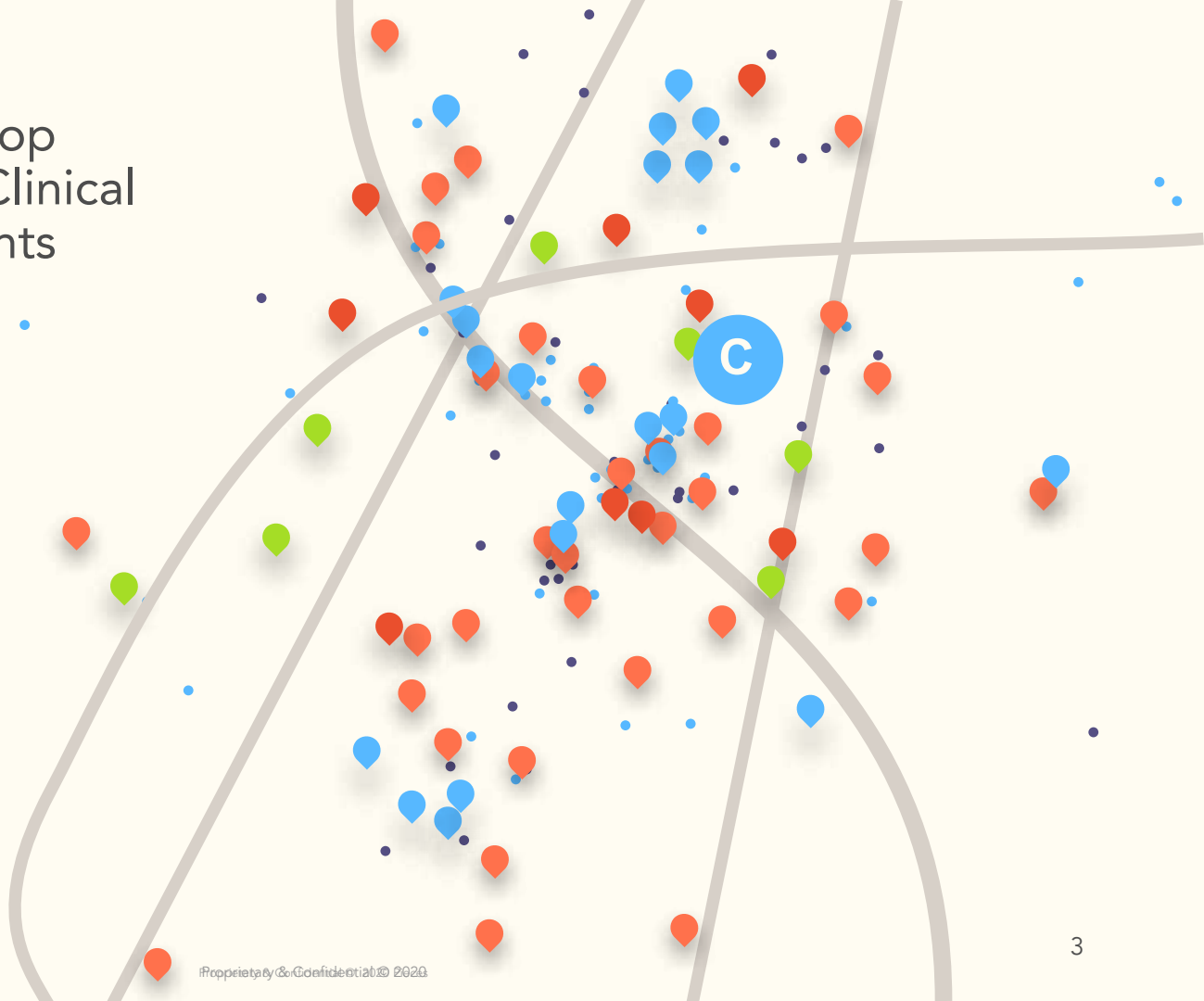
Source: Magnan S. Social Determinants of Health 101 for Health Care: Five Plus Five. National Academy of Medicine, Aug 2018. https://nam.edu/social-determinants-of-health-101-for-health-care-five-plus-five/. Accessed April 30, 2019.

AI-enabled Closed Loop Network to Address Clinical and Social Determinants

- Family services
- Homeless shelter
- Food bank
- Hospital
- Community colleges
- Health systems clinic



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Pieces Predict uses artificial intelligence to predict outcomes so health care providers can intervene early and efficiently.

Pieces Connect connects with and manages those who need community services.

pieces

pieces Predict

Clinic

Patient presents to clinic

Clinical and social needs surface

Needed interventions flagged

Care team makes referrals

SDoH data is fed back into AI

pieces is continuously monitoring.

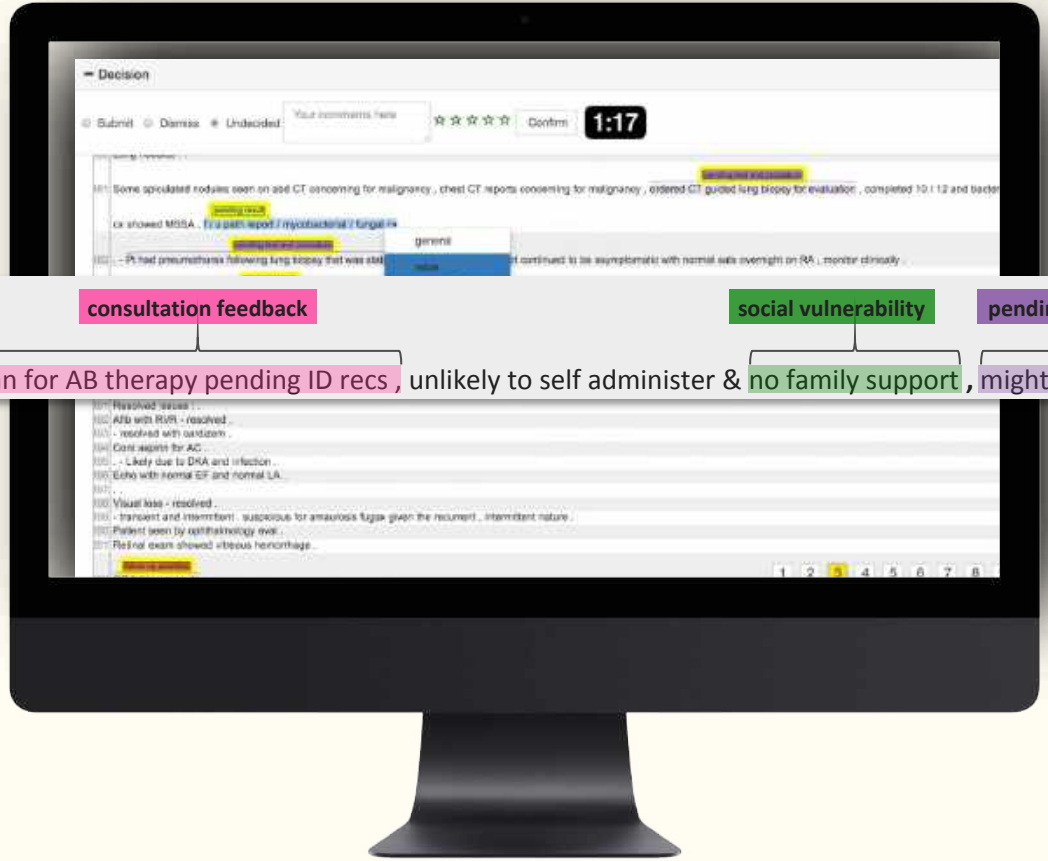
pieces Connect

Community

Patient referral received at community-based organization

CBO updates patient visit in Pieces Connect

Patients' social needs are addressed



medication issue **consultation feedback** **social vulnerability** **pending placement**

Dispo: needs IV AB , final plan for AB therapy pending ID recs , unlikely to self administer & no family support , might need SNF , OPAT team following

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Pieces Social Determinants of Health Framework

Factors Pieces considers in building SDoH Assessments & Risk Scores

Economic Instability

- Employment
- Food insecurity
- Housing instability
- Financial
- Insurance
- Transportation

Health & Health Care

- Access to Health Care
- Access to Primary Care

Social Isolation

- Civic Participation
- Discrimination
- Incarceration
- Neglect
- Abuse
- Non-accidental trauma (NAT)
- Social Isolation

Education

- Lack of Early Childhood Education
- High School Education
- Higher Education
- Language & Literacy

Neighborhood & Built Neighborhood

- Lack of Food Access
- Secondary Tobacco Exposure
- Crime & Violence
- Housing Quality
- Occupational Hazards

Clinical Drivers

- Substance Misuse
- Behavioral Health Issues
- Disability
- Stress

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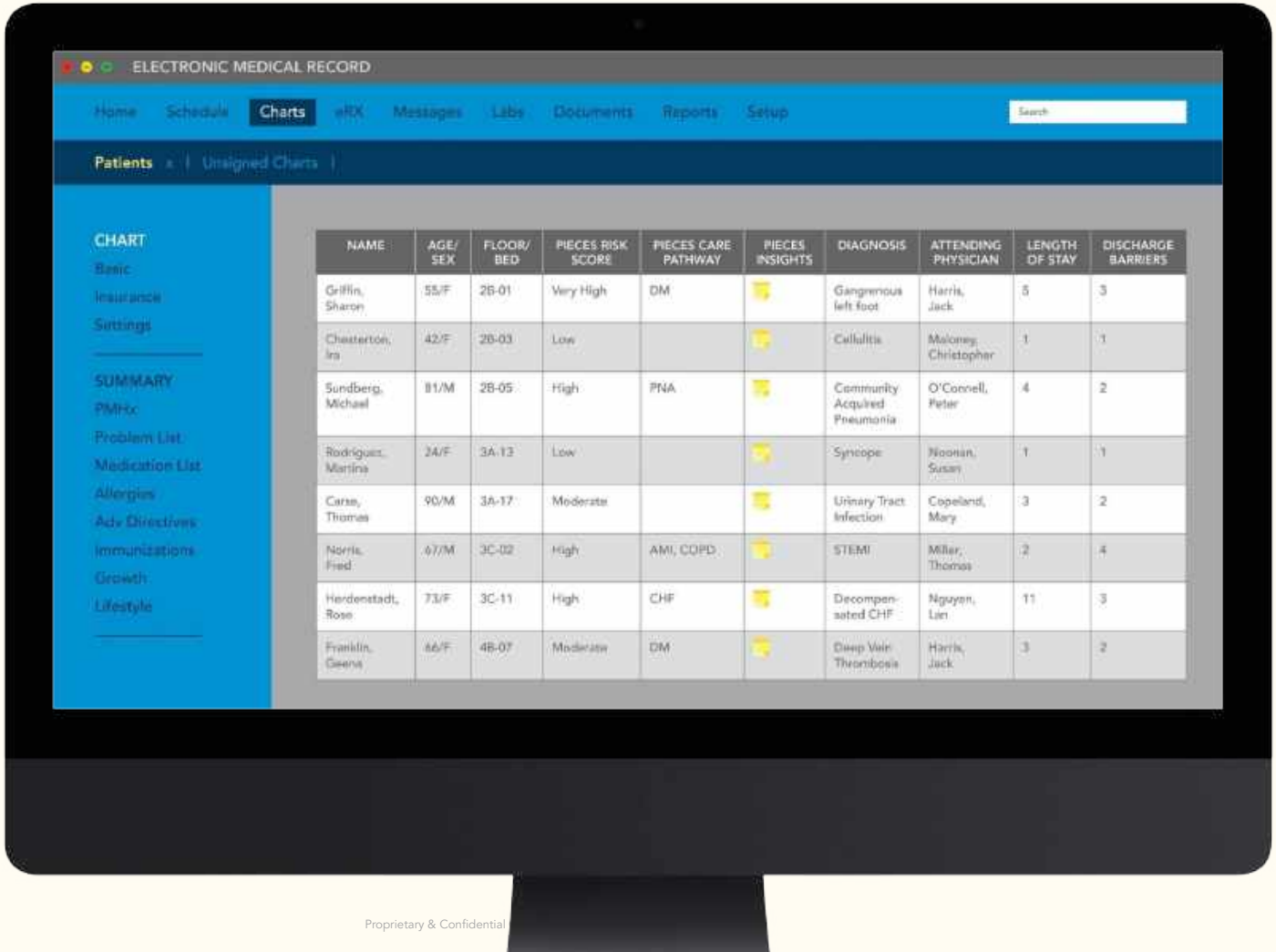
Pieces Integrates with your EHR



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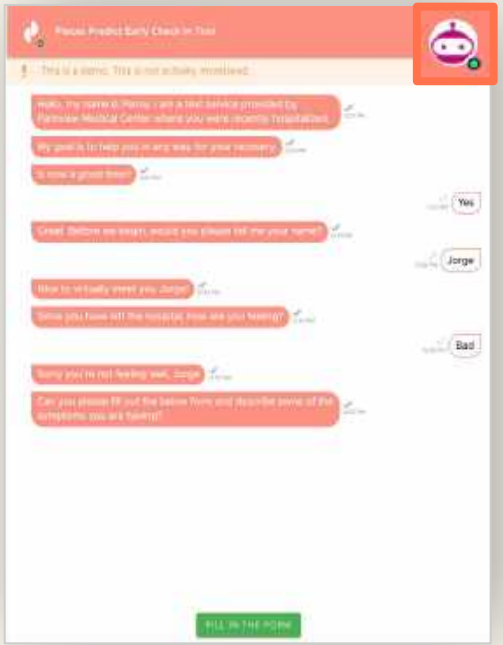
Pieces Engagement

Pieces SMS



Pieces ChatBot

Pieces API

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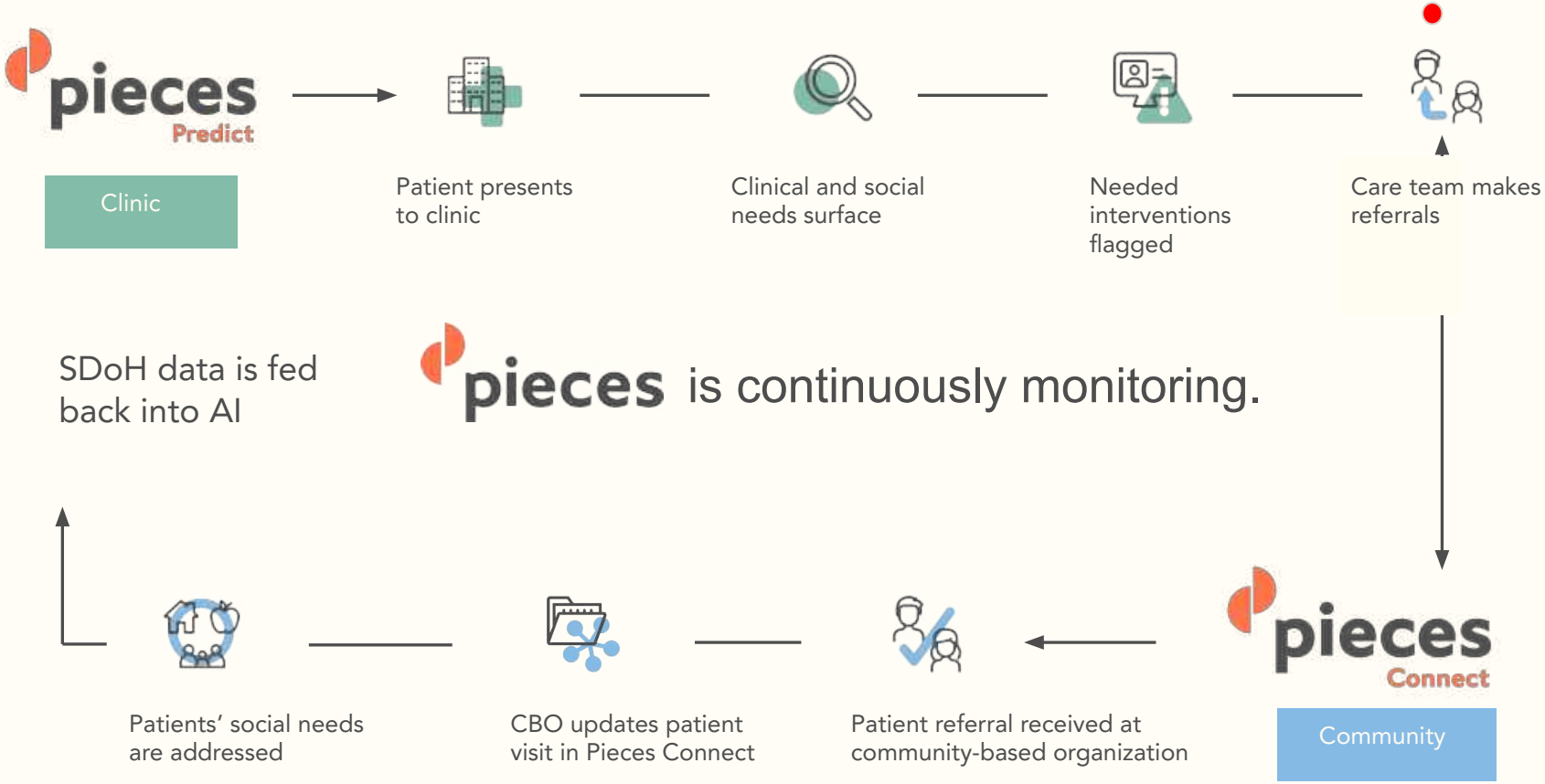
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Who We Work With

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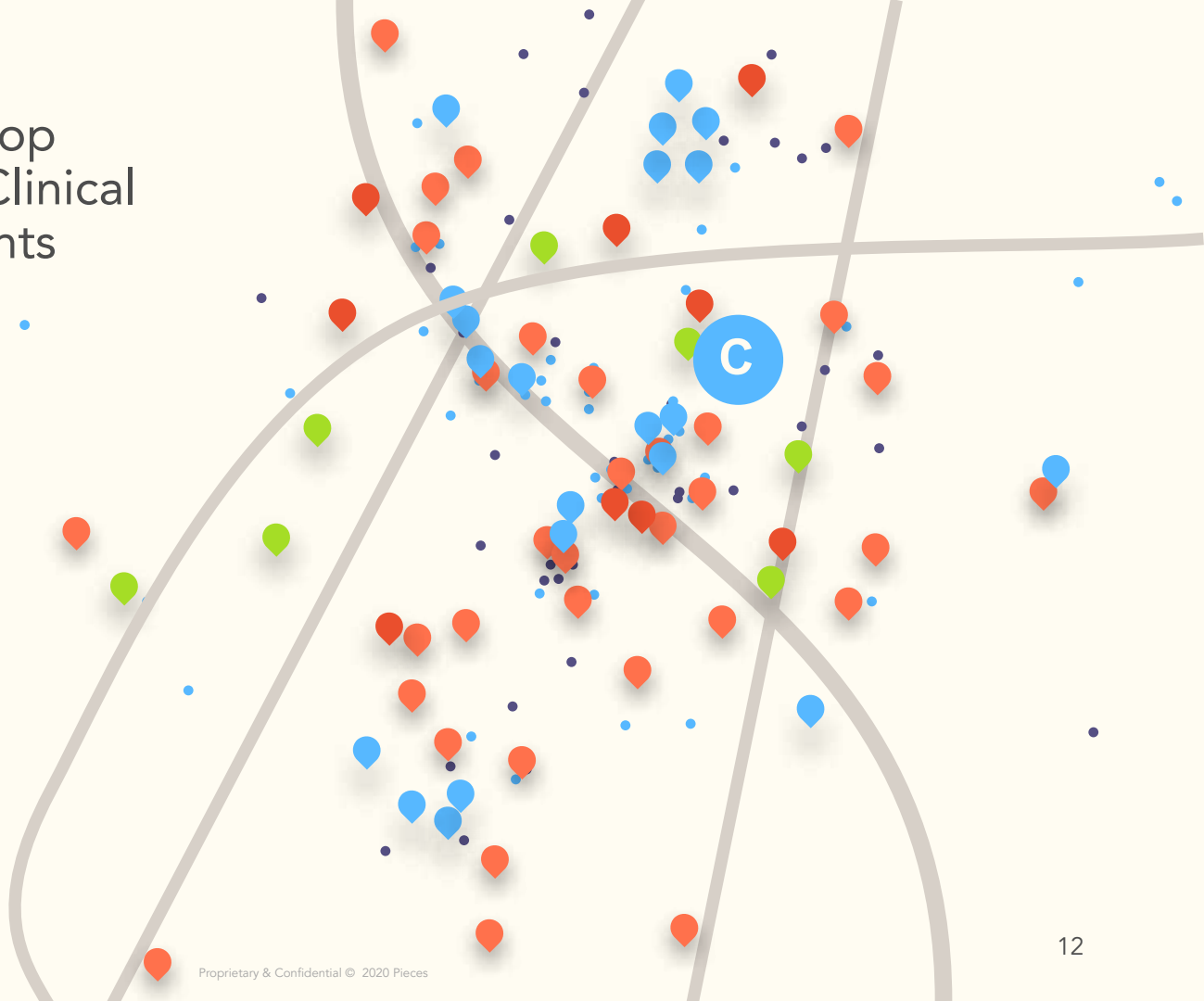

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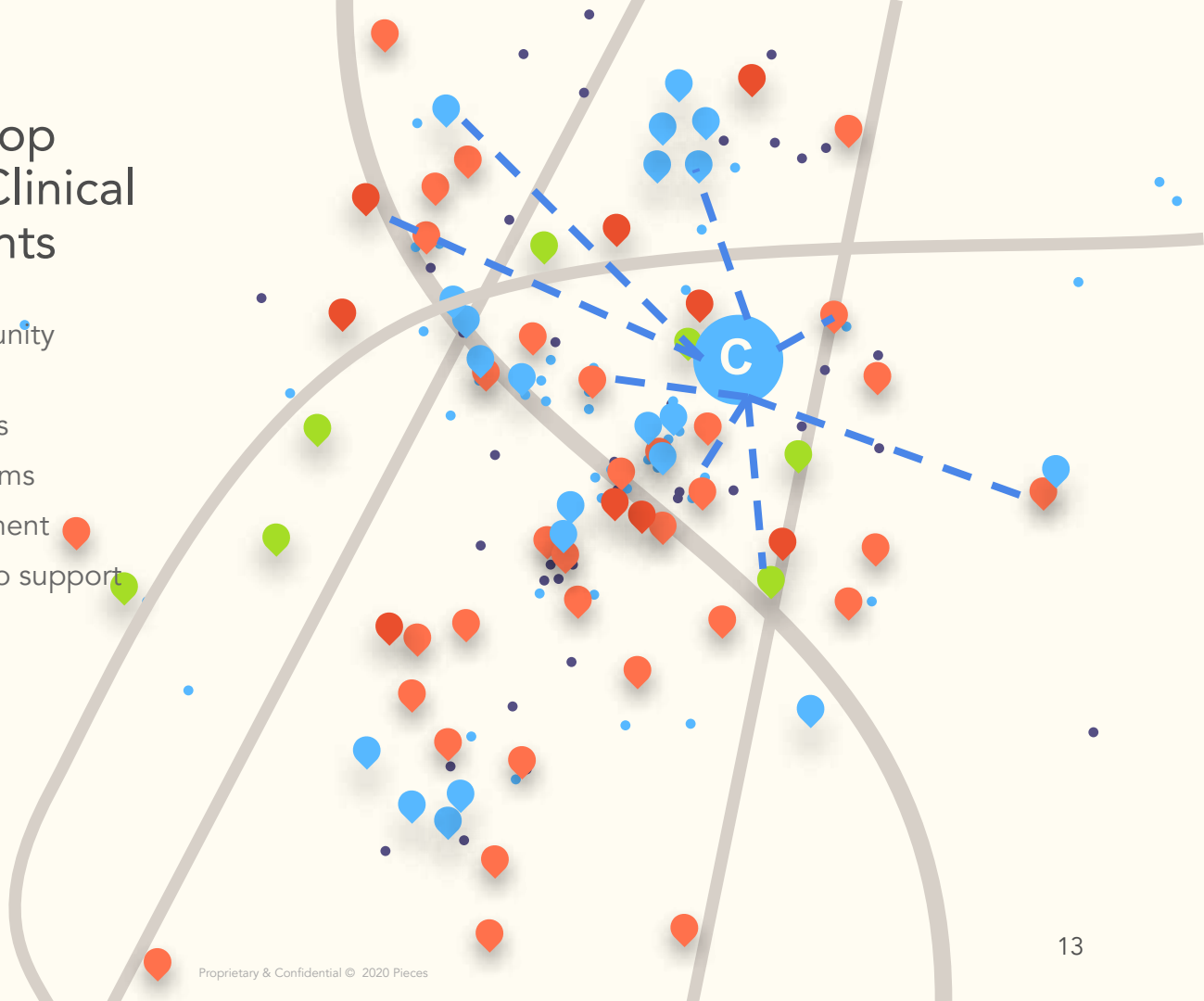
AI-enabled Closed Loop Network to Address Clinical and Social Determinants

- Free resource directory for all Community Based Organizations (CBOs)
- Accept and send closed-loop referrals
- Integrating “invisibly” with EHR systems
- Full community-based case management
- Implement community partnerships to support social determinants of health (SDoH)
- Create Social Vulnerability Index (SVI)
- Capture social screenings at scale



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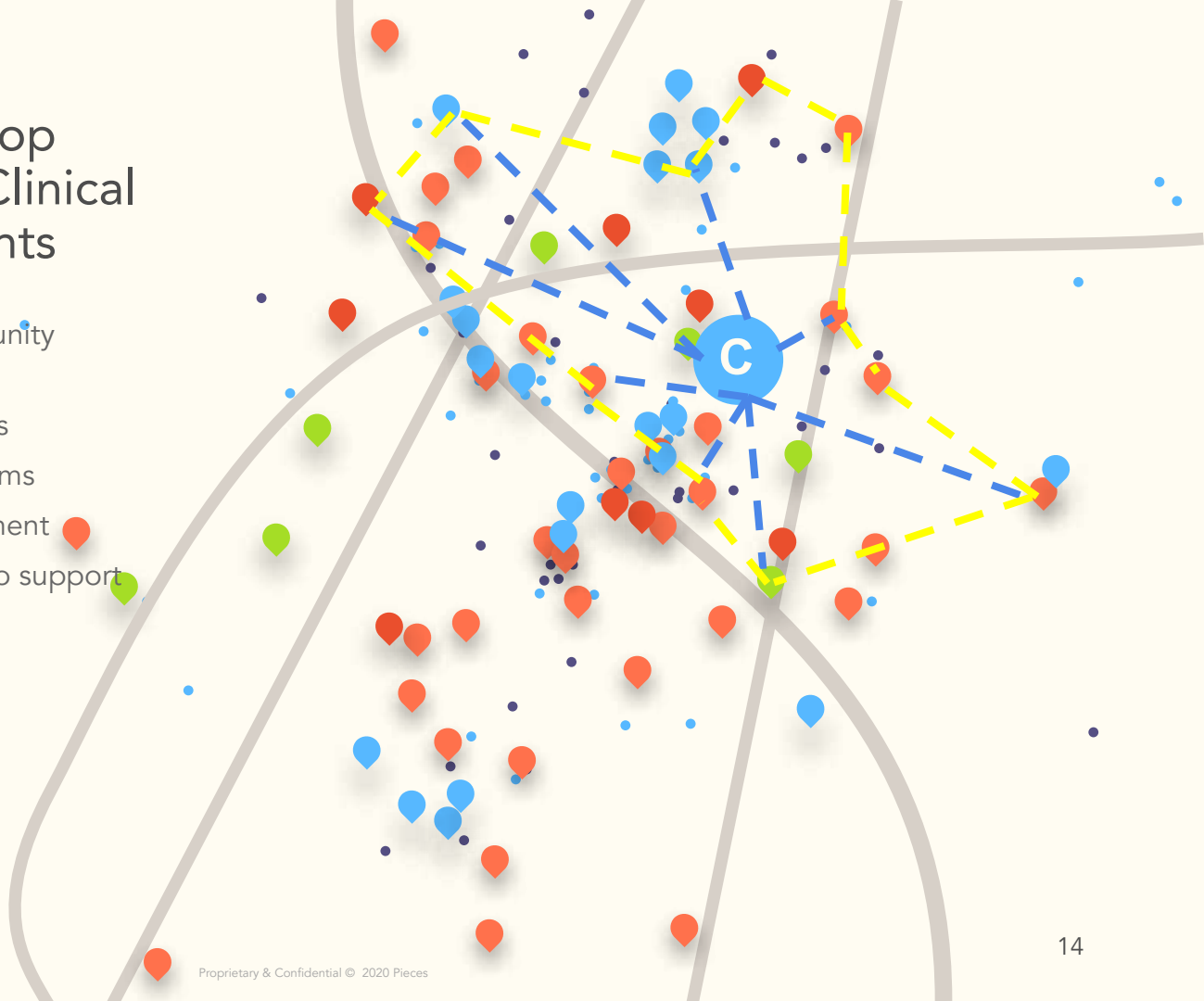

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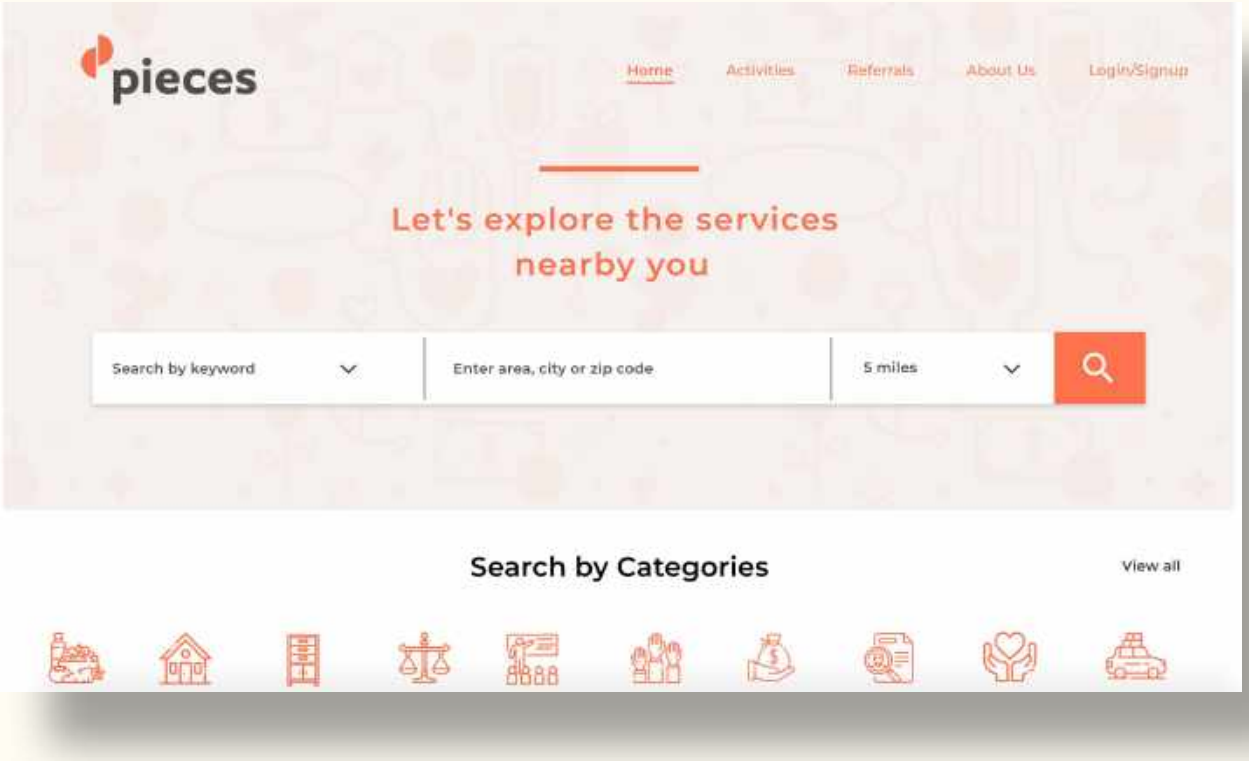
Pieces Guide



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Pieces Connect for Community Based Organizations

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Pieces Reporting Options

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Enrollment Dashboard

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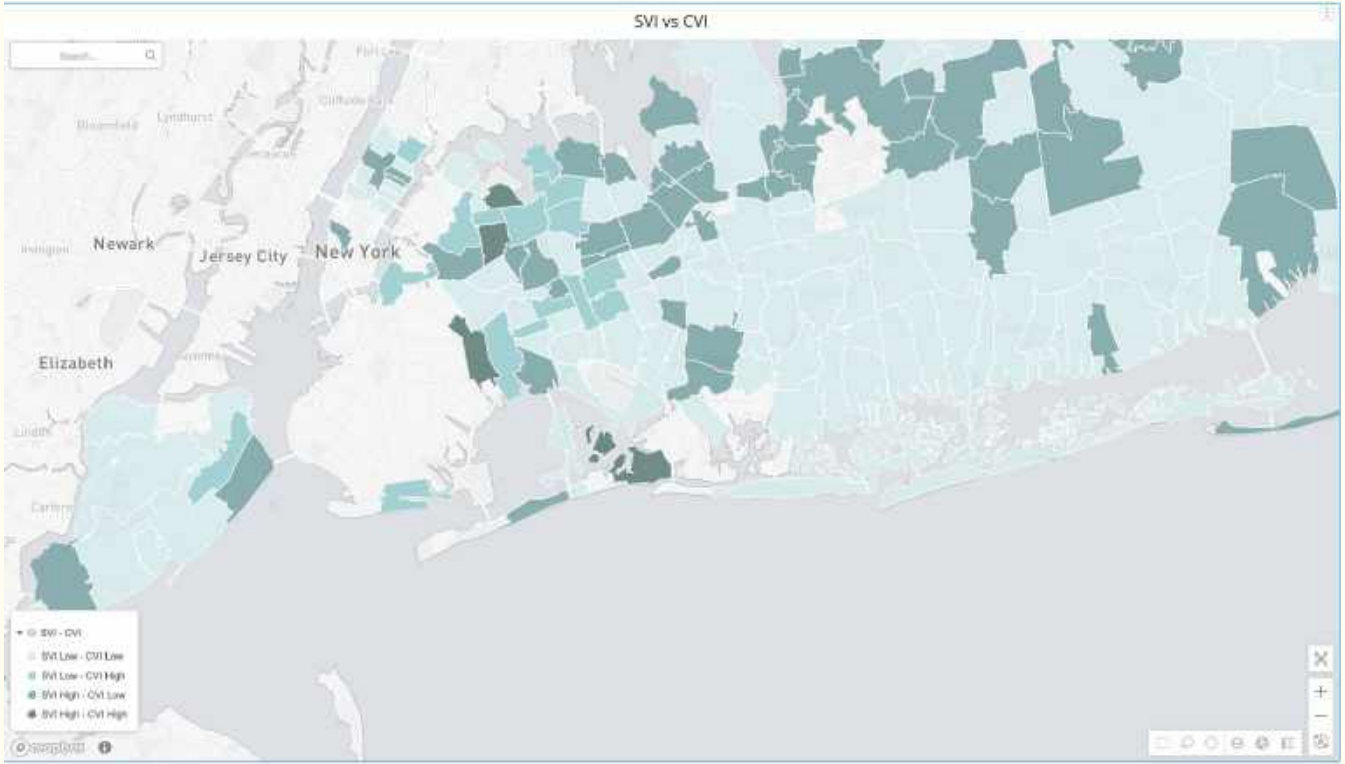
Pieces Consultative Analytics



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A Connected Community with

pieces Connect

2X

As likely to be a high risk patient for readmissions

82%

Referrals made in Connect close the loop

10,464

Inter-agency referrals

256,139

Clients enrolled in community based services

1,000+

Orgs in Pieces Connect

1,173,810

Documented encounters across 417 locations

58%

Reduction in ED Utilization when partners with community organizations on Pieces Connect

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NEJM Catalyst | Innovations in Care Delivery

COMMENTARY

Connected Communities of Care in Times of Crisis

Keith C. Kosel, PhD, MHSA, MBA, David B. Nash, MD, MBA

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The Parkland Center for Clinical Innovation (PCCI), a health care analytics and R&D organization based in Dallas, has developed an innovative model of community governance and cooperation to impact the health and welfare of the county's residents. The Dallas Connected Community of Care is an entity that — working with community-based organizations, local government leaders, and health care providers in the Dallas metroplex — has been able to quickly assemble data to help identify hotspot neighborhood locations where the Covid-19 virus is having a disproportional impact on the residents, many of whom are poor and underserved. With that information, they have created targeted communications to improve containment efforts through community-wide awareness and education messaging. By connecting local CBOs and faith-based organizations with public health workers and clinicians, effective contact tracing and care plan development has been achieved for high-risk individuals.

When a major disaster occurs — such as a tornado, earthquake, or pandemic such as Covid-19 — health care providers and community-based organizations (CBOs) are called upon to provide more

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Thank You!

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