



**rehn**  
community health foundation

## ASPPR PRPCAN D2 Project: Findings

**May 2021**

# Project Objectives

- **Demonstrate the benefit of analytics and dashboards in clinical, financial, and operational decisions**
- **Identify strengths, weaknesses, and variations in data collection and documentation practices among the centers participating in the study**
  - Develop recommendations to further enhance the quality and uniformity of patient data across all health centers
  - Share best practices and lessons learned from the centers
- **In conjunction with ASPPR and PRPCAN, support development and reinforcement of robust data culture at the health centers**
  - Use of dashboards and other data summaries to broaden access and appreciation of data to all stakeholders - administrators, clinicians, analysts and front office staff

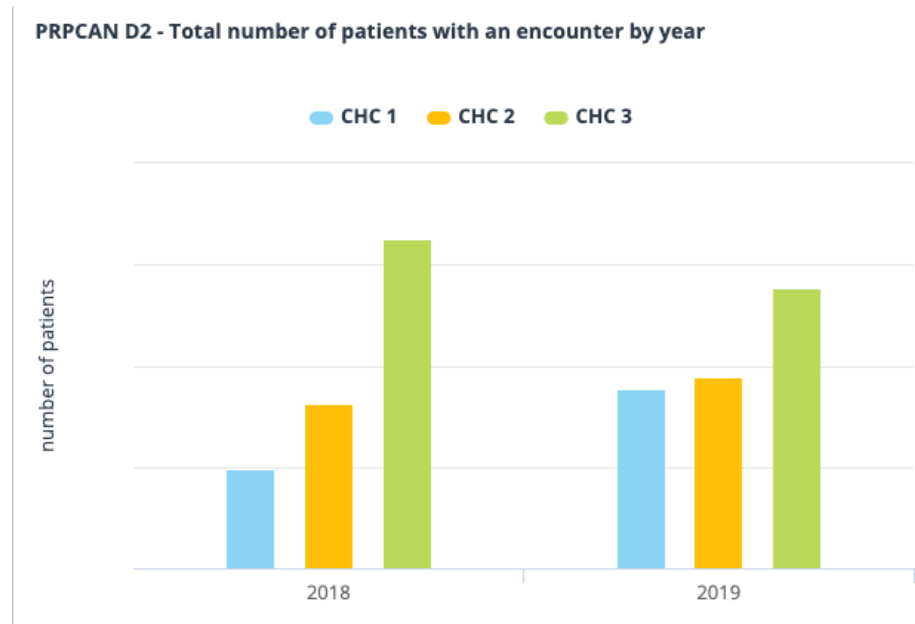
# Data Analysis Approach

- **Initial survey conducted to understand information systems and data handling practices at three participating community health centers**
- **Clinical and practice data extracted and analyzed**
  - Data exported from the Electronic Health Record (EHR) systems in the form of HL7 standard Continuity of Care Documents (CCDs)
  - Analytics and dashboards developed on Health Gorilla interoperability solution
- **Data quality exploration, summary data measures**
  - CCD data completeness reports, summary stats on Encounters, Diagnoses, Medications
  - Social Determinants of Health (SDoH)

# What are Data Dashboards?

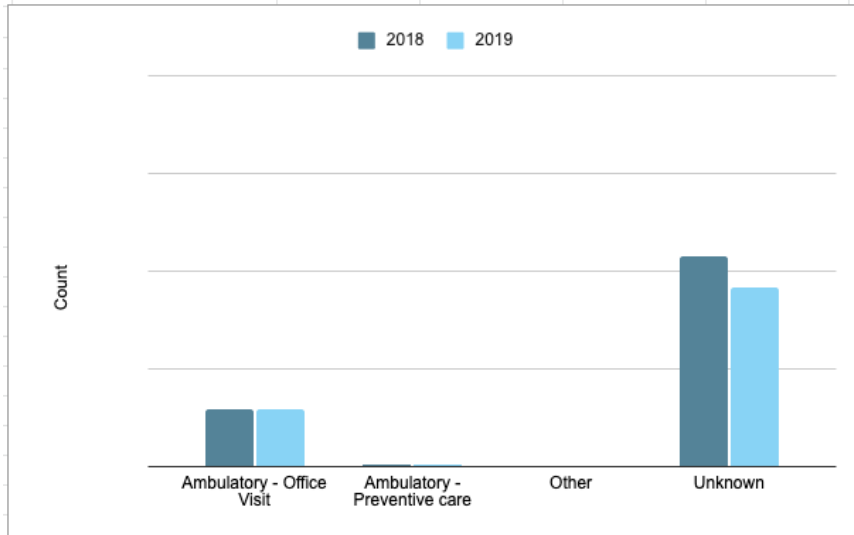
- A **data dashboard** is an information management tool that visually displays, tracks, and analyzes key data points and metrics
- **Provides core information for monitoring and reviewing activity and performance**

# Sample Data Dashboards - Total Patient Encounters

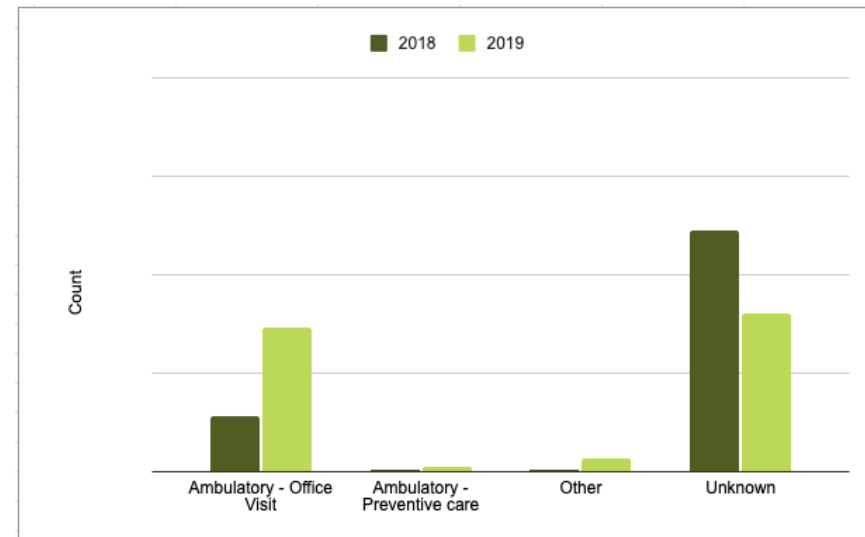


# of patients who had at least one encounter, by year

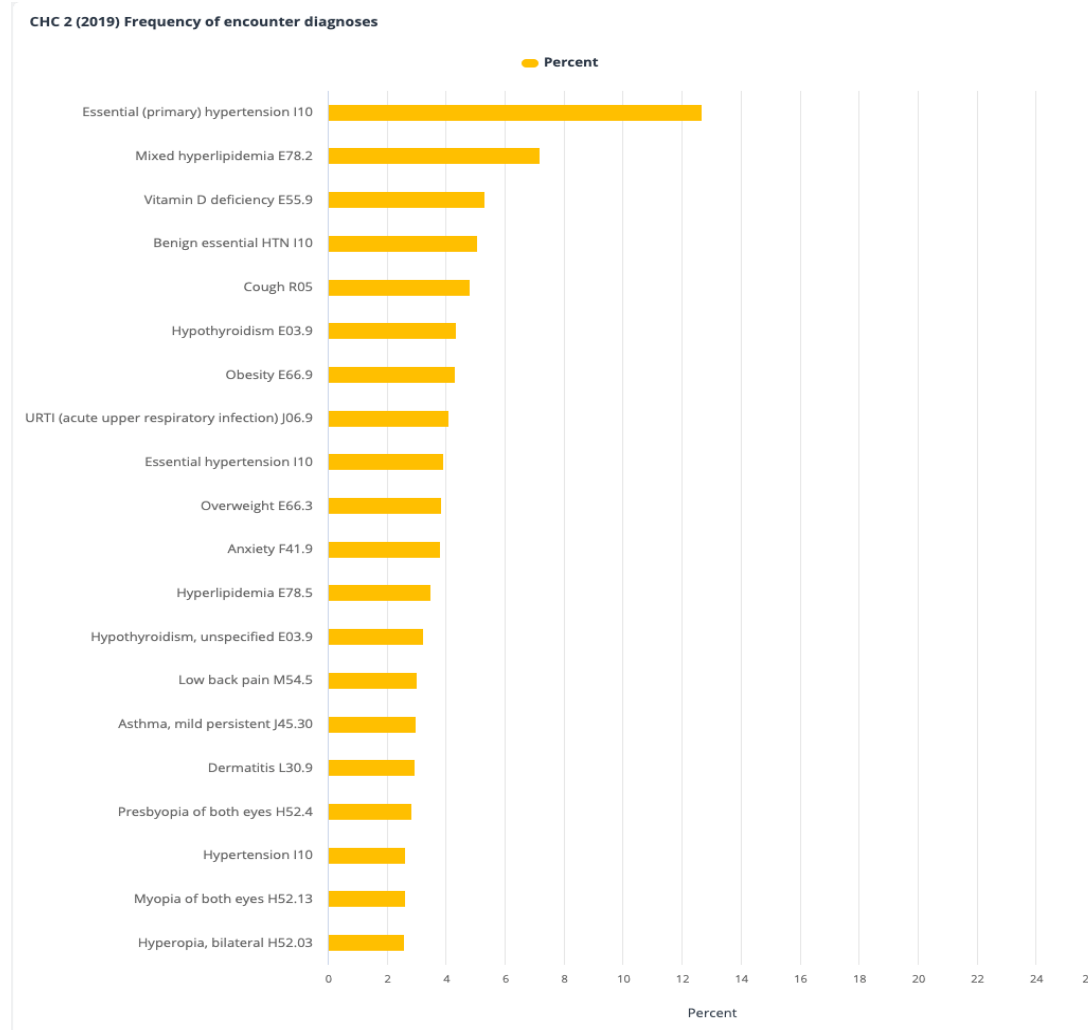
# Sample Data Dashboards - Encounter Types



Documented encounter types, by year  
CHC 1 (above), CHC 3 – (right)



# Sample Data Dashboard - Encounter Diagnosis



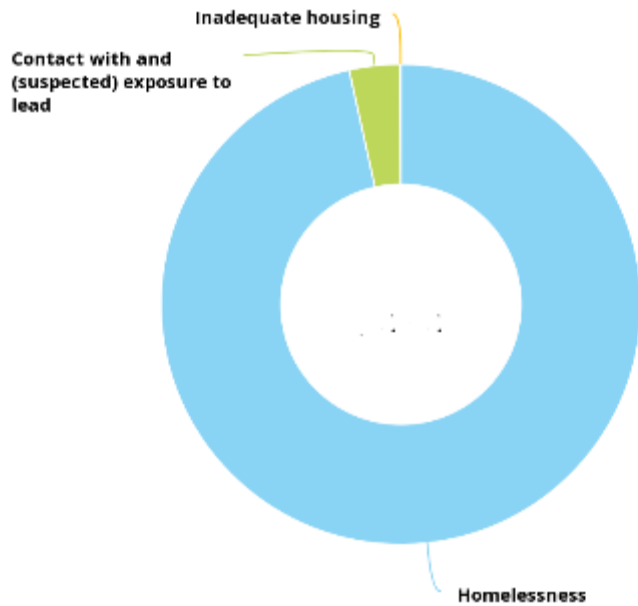
# Social Determinants of Health (SDoH)

- **Social Interventions Research and Evaluation Network (SIREN) at UCSF promotes interventions addressing patients' SDoH in health care delivery.**
- **Gravity Project developing standards to facilitate SDoH data capture and exchange across a variety of systems and settings of care and social services.**
  - Documented 20 SDoH-related domains used in 6 different social health assessment tools such as *HealthLeads*, *SEEK*, and *PRAPARE*
  - *PRAPARE* was developed by NACHC in conjunction with AAPCHO, an Oregon Primary Care Association
  - SDoH domains include Access to health care, Education, Employment, Food, General (non-specific), Housing, Social Connections, and Transportation
- **SDoH related ICD-10 codes in Problem Lists of patients from the 3 Centers**
  - CCD ICD-10 code categories Z55 - Z65 describe conditions such as poverty, homelessness, unemployment etc.

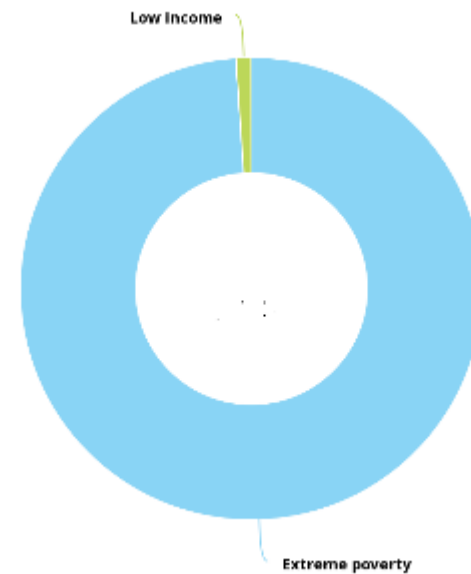


# Sample Data Dashboard- SDoH

## Housing Status - CHC 2



## Financial Status - CHC 3



# SDOH Data Summary

Table 1. Percentages of 2019 patients that had social determinants in each domain.

	Education	Employment	Finances	General	Housing	Social Connections / Isolation
CHC 1	0.36%	< 0.1%	< 0.1%	0.72%	< 0.1%	0.42%
CHC 2	< 0.1%	< 0.1%	< 0.1%	0.55%	6.6%	0.34%
CHC 3	0.31%	0.83%	3.9%	1.1%	< 0.1%	1.0%

- Documented SDOH data in EHR is sparse and uneven among the different domains
- 6.4% of CHC 2 patients reported homelessness, 3.8% of CHC 3 patients reported extreme poverty
- Standardized SDOH documentation is essential to drive improvements in screening, assessment and diagnosis, and treatment and intervention

# Data Quality Issues and Considerations

- **Data collection/entry at the point of care**
  - Completeness of key data fields - (i.e., documentation of encounter types)
  - Uniformity of definitions - i.e., for diagnostic coding
  - Consistency of data entry within each Center and across CHCs
- **Interoperability between various information systems**
  - Challenges due to limited/controlled exchange of data between systems
  - Exchange of infrequent snapshots between EHRs and analytics platforms resulting in limited utility and increased staff workloads
  - Deployment of (near) real-time exchange based on modern APIs to improve visibility and actionable analytics

# Recommended Follow-Up

- **Focus on data quality and standardization**
  - **Invest resources in data management, training, analysis to support best practices and new models of care**
  - **Deploy dashboards for limited range of fields and add as complete, reliable data become available.**
- **Key strategic decisions can be supported by the data that a CHC has so long as... The right, clean, data is utilized**



**rchn**  
community health foundation

**Srini Rao, Ph.D.**  
**Datycs Inc.**  
**100 Trade Center, Suite G-700**  
**Woburn, MA 01801**

Phone: (617) 761-7500  
Email: [srini@Datycs.com](mailto:srini@Datycs.com)

## Thank You

Please feel free to contact us  
for more information

**Feygele Jacobs, DrPH**  
**RCHN Community Health Foundation**  
**55 Broadway, Suite 1502**  
**New York, New York 10006**

Phone: (212) 246-1122 ext 712  
Email: [fjacobs@rchnfoundation.org](mailto:fjacobs@rchnfoundation.org)