



# Opportunities for Enhancing Medicaid (CalAIM) Incentive Models to Center the Whole Person

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## About the Authors

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**Nicole Blumenfeld** is Vice President of Data and Technology Solutions at 211 San Diego. **Rox Suarez** is Director of Partner Experience. **Karis Grounds** is Vice President of Health and Community Impact at 211 San Diego. 211 San Diego plays an integral role in the community, providing a centralized way to connect clients to community resources. While 211 San Diego's core function is information and referral services, the Community Information Exchange (CIE) allows any organization using the platform to access the Resource Database and connect individuals to appropriate resources.





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The aim of this paper is to summarize findings from analysis of countywide data to explore with more specificity what influences social determinants of health (SDOH) hardships among people who have called 211 San Diego or other partners within the Community Information Exchange® (CIE). This summary describes key findings answering the following questions:

- 1.** What kinds of hardships do people experience, and how do these vary by their identities?
- 2.** How severe are these hardships?
- 3.** How do community members interpret the relationships identified in the first two questions?

It has long been documented in previous research that Black, Indigenous, and other people of color carry a disproportionate burden of essential needs due to historic and present-day systemic racism and oppression. Those who work and live within these communities — every service provider, community-based researcher, direct service staff person, and community member with lived experience — know this from what they see and feel daily. In this research study, the aim was therefore not to surface unknown inequities but rather, to demonstrate how community networks might publicly share the results of macro-level analysis in order to examine services and systems — and act on insights driven by the people who are most impacted. By doing this, we hope to bring transparency to the specific ways different communities are impacted in order to drive specific interventions and systems-level changes. A first step in creating accountability is to understand where the disproportionate impact of systemic oppression lies. This allows policymakers, organizations, and service providers to explore interventions in order to examine their impact on reducing inequities.

Within this paper, we will provide a brief overview of the source of data through multiple partner agencies involved in San Diego's countywide CIE, methods of analysis, and some preliminary findings along with interpretations and feedback from community members, representing community-based organizations, institutions, and/or lived experience. We conclude with some insights and potential next steps based on these conversations as a means of sharing lessons early and often with fellow practitioners and advocates across the country.<sup>1</sup>

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<sup>1</sup> We welcome any insights from the field as readers are experiencing them in contexts similar and different from the one in this paper. Additionally, because this white paper does not go into technical detail on the regression modeling in order to give an overview of wide-ranging analyses, we welcome any questions to learn more about these analyses by emailing [analytics@healthleadsusa.org](mailto:analytics@healthleadsusa.org).

# Introduction

## Developing a CIE to Improve Care Coordination

211 San Diego/CIE (211 San Diego hereafter) is a nonprofit information and referral hub for individuals seeking connection to social services, housing, and health care providers throughout San Diego County. Clients call in search of food assistance, health insurance coverage, financial assistance, food and shelter, mental health services, and other services that will address their immediate needs. 211 San Diego's diverse service lines include health and housing navigation, complex care coordination contracts with health systems including previous Health Homes, and current Enhanced Care Management and Community Supports.<sup>2</sup> More information about the history and development of 211 San Diego and program CIE may be found [here](#).<sup>3</sup> One example of the strength in the network is a key founder and long-term partner, Regional Taskforce on Homelessness, which incorporates opt-in CIE consent into a multi-party agreement and shares elements of their Homeless Management Information System (HMIS) resulting in much of the housing data within the CIE.

## Understanding Complex Social Needs from a Racial Health Equity Lens

Systemic racism has led to disparities in the distribution of social needs and hardship by race,<sup>4,5</sup> as well as by gender identity, language, location, and other demographic factors<sup>6</sup> as a predictable result of structural inequities.<sup>7</sup> Despite this, interventions are not often designed to consider the nuance of race as a social construct<sup>8</sup> and as a result, don't realize their potential to advance health equity and unwind systemic racism.<sup>9</sup>

Due to systemic racism, BIPOC (Black, Indigenous, People of Color) clients<sup>10</sup> inequitably often have more complex issues to navigate, which leads to complex case management. It is therefore paramount for healthcare institutions, social service agencies, community partners, and government to better understand complex care, align systems, leverage data to inform, and tailor interventions at every level — from individual interaction to program improvement as well as resource allocation and policy change.

## ABOUT 211 SAN DIEGO

211 San Diego's mission is to seamlessly connect people to resources, and partner with our community to transform how people access help.

As a local nonprofit organization, 211 San Diego is the region's trusted source for information and connections to community, health, and disaster resources. Help is available 24 hours a day, 365 days a year, and in more than 200 languages. It maintains a database of more than 6,000 services and resources that are updated on a real-time basis and Community Connectors help connect San Diegans to the accurate information they need.

## Community Information Exchange

To improve the system of care, 211 San Diego built a cross-sector coalition to work together to share information and shift away from a reactive approach to providing care toward proactive, holistic, person-centered care. To give rise to this new level of service, 211 San Diego and partners designed, developed, launched and now steward the CIE.

The CIE is an ecosystem comprised of 133 and growing multidisciplinary network partners (health plans, hospitals, Federally Qualified Health Centers (FQHCs), CBOs, Housing providers, food banks, etc.) that use a shared language of SDOH screenings and assessments, a resource database, and an integrated technology platform to deliver enhanced community care planning.

2 [211 CIE Data Dashboard](#). 211sandiego.org. Accessed May 1, 2023.

3 [History - 211](#). 211sandiego.org. Accessed May 1, 2023.

4 [Examining the Impact of Structural Racism on Food Insecurity: Implications for Addressing Racial/Ethnic Disparities](#). Fam Community Health. 2018 Apr-Jun; 41(Suppl 2 FOOD INSECURITY AND OBESITY).

5 [Racial Differences in Economic Security: Housing](#). US Department of Treasury. Nov 4, 2022. Accessed May 23, 2023.

6 [The Social Determinants of Health, Health Disparities, and Health Justice](#). J Law Med Ethics. 2022 Winter; 50(4).

7 [Racism as a Determinant of Health: A Systematic Review and Meta-Analysis](#). PLoS One. 2015;10(9).

8 [US Housing Insecurity and the Health of Very Young Children](#). AJPH. 2011 August; 101(8).

9 [Racial Health Equity and Social Needs Interventions](#). JAMA Network Open. 2023;6(1):e2250654.

10 [Disparities in unmet need for care coordination: the national survey of children's health](#). Pediatrics. 2013 Feb;131(2):217-24.





In California, Medicaid initiatives like [California Advancing and Innovating Medi-Cal \(CalAIM\)](#) are rolling out to support community-based organizations doing the work of addressing social needs. CalAIM consists of three core aims:

1. Identify and manage comprehensive needs through whole-person care approaches and social drivers of health;
2. Improve quality outcomes, reduce health disparities, and transform the delivery system through value-based initiatives, modernization, and payment reform; and
3. Make Medi-Cal a more consistent and seamless system for enrollees to navigate by reducing complexity and increasing flexibility.

This is one example of many policies that are happening at the state and federal level pushing for a better understanding of what the inequities are, their magnitudes, where, and how they are experienced throughout communities for the purpose of more effective interventions. Interventions to social and structural determinants of health and the essential needs they represent are often addressed via single-stream interventions without community engagement or cultural responsiveness in addressing complex needs. We cannot solve deep systemic inequities by adding simplistic programs or interventions — experiences impact hardships and must be incorporated in meaningful ways when designing connections to services. This paper hopes to highlight opportunities to leverage data for better design or expansion of policies and programs supporting 211 San Diego's clients and those facing similar challenges.

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## About San Diego County

The population included in this analysis of 211 San Diego data represents a subpopulation within San Diego County. San Diego County has a wide diversity of people, localities, and geographies. While every county and place is unique in both its characteristics and context, the methods outlined in this paper may be applicable in many metropolitan areas across the country who are planning to conduct similar analysis with their network data. It is California's second-most populous county and the fifth-most populous in the United States. According to the 2018 US Census<sup>11</sup> among 3,254,400 residents, 46.7% of the county's population identifies as white, 32.6% as Hispanic, 5.0% Black, 11.6% Asian, 3.2% mixed, and 1.0% as Other (the Census regularly undercounts many vulnerable populations — Black, Indigenous, and other communities of color, including those who are undocumented, a longstanding issue due to structural racism<sup>12,13</sup>). The county shares a border with Mexico, is home to 16 military installations of the US Navy, Marine Corps, and Coast Guard, and is home to 18 Native American tribal reservations, including the home of the Kumeyaay, Luiseño, Cahuilla, and Cupeño Native people, the most of any county in the United States. There is a sizable portion of the county that is unincorporated.

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<sup>11</sup> [Statistical Atlas.com](#). Accessed March 15, 2023.

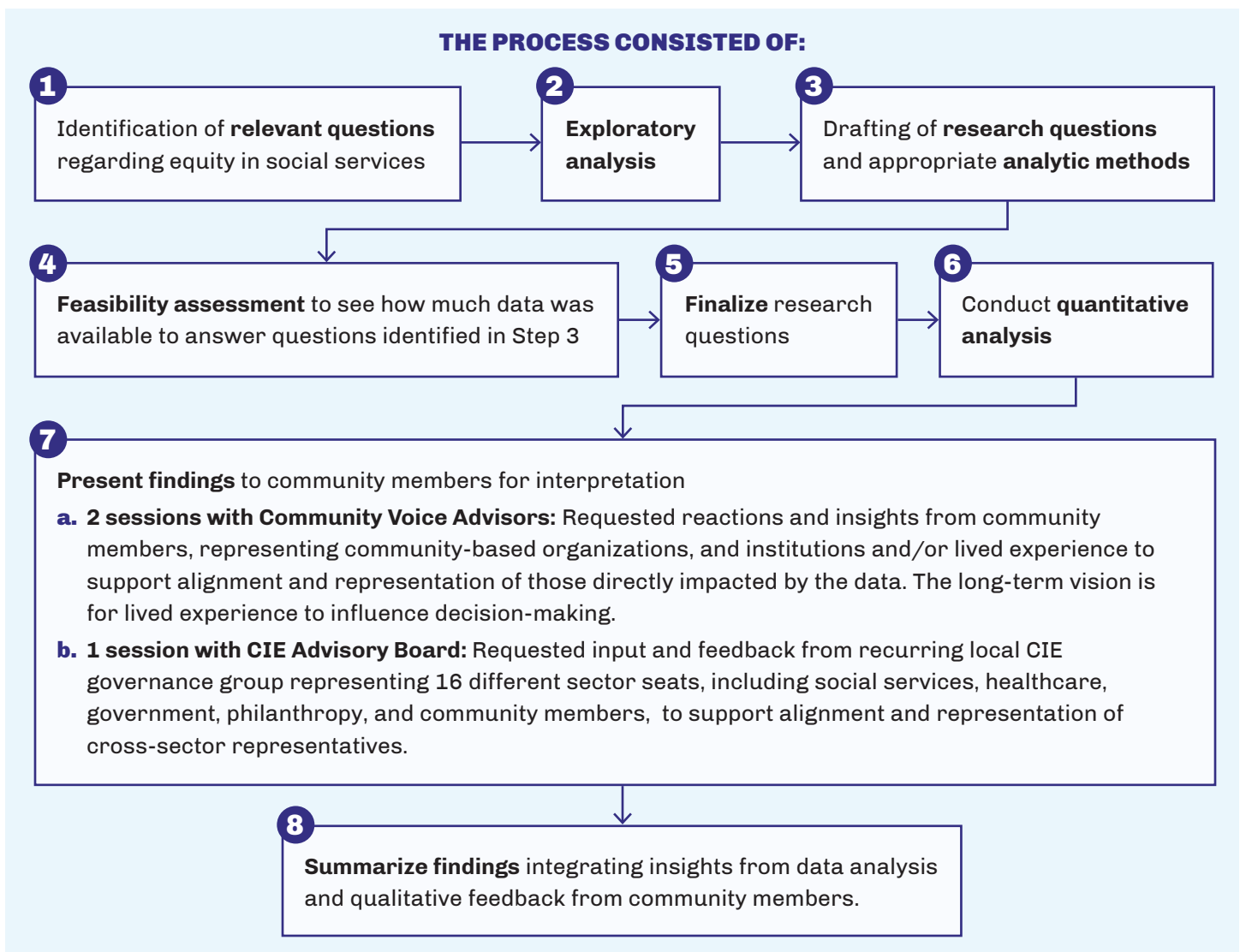
<sup>12</sup> [Race/Ethnicity and the 2000 Census: Recommendations for African American and Other Black Populations in the United States](#). Accessed March 15, 2023.

<sup>13</sup> [Census Bureau Releases Estimates of Undercount and Overcount in the 2020 Census](#). Press release. Accessed March 15, 2023.

Housing, the cost of utilities, and food insecurity are among the top social concerns in San Diego County. Housing is consistently the highest unmet need of 211 San Diego callers each year. According to the Point-in-Time count (February 2022), 8,427 people were homeless in San Diego County, with 3,036 living in emergency shelters, 1,285 living in transitional housing, and 4,106 unsheltered.<sup>14</sup> The San Diego Hunger Coalition estimates that, as of June 2022, nearly one in four San Diegans are unable to provide three nutritious meals per day for themselves and/or their families.<sup>15</sup>

In February 2023, 941,139 people in San Diego County were eligible for Medi-Cal, and 116,716 were dual eligible.<sup>16</sup> Among 211 San Diego clients in 2022, 68% had Medi-Cal health insurance, and 8% had both Medicare and Medi-Cal.

The data used in our analysis is from the 211 San Diego system and thus is representative of the 211 San Diego client population, but it is not necessarily generalizable to the entire population of San Diego County. In 2022 alone, 236,016 unique clients called 211 San Diego. More information about the 211 San Diego client population can be found in the 211 San Diego Client Profile Report.<sup>17</sup> This analysis project used an iterative process to gain an understanding of the dataset, then formed research questions based on fields where data was collected most often.



<sup>14</sup> [CoC Homeless Populations and Subpopulations Reports](#). Accessed Mar 15, 2023.

<sup>15</sup> [State of Hunger in San Diego County](#). Accessed March 15, 2023.

<sup>16</sup> [Month of Eligibility, Dual Status, by County, Medi-Cal Certified Eligibility](#). CalHHS

<sup>17</sup> [211 San Diego Client Profile Report](#). [211sandiego.org](http://211sandiego.org). Accessed May 1, 2023



## Research Questions & Methods

The model we describe in this paper considered whether clients were or were not recorded as having each of the **hardship** types (one binomial model for each of the 7 hardship types in the 211 San Diego dataset). We arrived at this model after creating models that first examined:

1. The severity of hardship, using proportional odds logistic regression, and
2. The number of hardships experienced by a client, using a Poisson Generalized Linear Model. Layered on top of our initial two models was an overarching question regarding geography:
  - a. Do patterns of inequities vary in different areas of San Diego County? San Diego County is large, varied, and contains a significant unincorporated region. Programs that effectively address inequity will vary from urban areas, to suburban areas, to rural areas. To that end, we ran separate versions of models 1 and 2 using three different geographic levels using:
    - i. Client data from all of San Diego County,
    - ii. Clients from unincorporated San Diego County, and
    - iii. Clients from the city of San Diego. More details on these two models and sub-models can be made available by emailing [analytics@healthleadsusa.org](mailto:analytics@healthleadsusa.org).

Because these initial models did not clarify which demographic variables influenced whether a client had greater or lower odds of having a given type of hardship, we built a third model, which is the focus of this paper. The regression methods used in this analysis allowed the examination of a given outcome (e.g. having or not having a housing hardship) when adjusting for demographic variables in the model — that is, the other variables are held constant. One example would be the consideration of the influence of the primary language spoken on the odds of having or not having a housing hardship, and only across clients who did not have a disability. The odds of having a housing hardship associated with speaking Spanish as a primary language are isolated from whether or not the client had a disability, since both language and disability status are included as predictors in the regression model. The effect of disability status on the odds reported in language has been removed — that is, the model has adjusted out the odds associated with each variable from one another so that it is reported adjusted from the other predictors. For this reason, each odds ratio presented in this paper has had the influence of other demographic variables adjusted out of its estimate. Seeing these component parts allows us to tailor interventions in the future. These adjusted estimates can also be combined to understand differences in the combinations of risk for various hardships.

The model presented in this paper uses proportional odds logistic regression, which is most useful for assessing the odds of an ordered multi-level categorical outcome (in our case, how severe the hardship may be that a client is experiencing — Low, Medium, or High). The model helps to isolate the influence of multiple factors on hardship severity. This model used hardship severity (ranked as Low, Medium, or High) as an ordinal outcome. This model assumes proportional odds across levels of the outcome. We challenged this assumption by testing 2 competing



outcome models — the first comparing Low hardship severity against Medium or High hardship severity. The second model compared Low or Medium hardship severity against High hardship severity. The effect estimates ( $\beta$ ) were similar for both outcome models, suggesting it is reasonable to hold the assumption of proportional odds in a single model across all 3 levels of Hardship Severity (Low-Medium-High).

Each hardship type was considered as an outcome to a set of regression models, which included the demographic variables from the dataset. The resulting set of 7 models gives insight into which demographic variables are most sensitive to different hardships. A generalized linear model with a binomial fit was used to model the presence or absence of a hardship type and the associated odds ratios of the levels of demographic variables. The 7 models controlling for all 7 demographic variables produced 49 tables of results, not all of which are included here due to length. Due to the volume of output, highlights of notable results are presented here, which had large effect sizes, impacted a large group of people, or both.

We built an additional fourth model to consider unique combinations of demographic categories and having or not having certain hardship types using multiple correspondence analysis, a categorical principal component method to examine latent dimensions in the demographics and outcomes. Due to data completeness of demographic variables, this model provided poor explainability and is not described in detail in this paper, although it presents a potential future analytic opportunity for use with a more narrow and more complete data set.

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## Scope and Limitations



**As for most data systems that serve a specific region, the population from which the data was collected includes a form of selection bias.** Self-selection bias from those who have contacted 211 San Diego to provide assistance in their hardship or series of hardships among those who were aware of 211 San Diego and the services it provides. Those who have contacted a social service or partnering agency directly may not be documented in the 211 San Diego data since it requires access or data sharing with the CIE. However, social services can be hard to navigate with disparate filing requirements, and the volume of calls 211 San Diego fields makes it reasonable to assume many of those needing social services call 211 San Diego for help, though there is no precise way to know how many based on the data available.



**A large volume of client records came from the 211 San Diego call center.** 211 San Diego initially focuses on the client's primary stated need, with secondary or additional needs addressed over time. If a client reports a single hardship, they receive assistance with that hardship. If they report multiple hardships, they receive assistance with all the hardships they report. 211 San Diego call center staff use person-centered engagement prioritizing primary need rather than standard screenings like some healthcare institutions perform. Even among healthcare providers who do screening, many only do it if reimbursed for such screening (as through Medicare). This means that if a client has called 211 San Diego for food assistance, 211 San Diego will connect that client to food resources, but may not always be able to address the other unstated housing or utility hardships. This plays into analyses of single vs. multiple hardships as reported by clients over the observation period, and may cause a non-differential misclassification bias among clients who call for assistance with a single hardship while experiencing unreported multiple hardships. Future analyses may examine this issue by comparing 211 San Diego hardship data with another source of hardship data in San Diego County or the broader region (e.g. Census data).



**Small groups, such as a racial group with a small number of individuals identifying as that race, can be under-reported due to concerns about privacy** (if the individuals could be identified from their status being reported). These concerns about privacy can be well-founded.<sup>18</sup> One impact of this failure to report is that groups that are small due to historical racism, such as the genocide of people who identify as American Indians/Native Americans, is a driving factor in the group being small in the first place. Failure to report on small groups (even if not statistically significant) can perpetuate the racism faced by that group. For this reason, we have made every effort to report even small group totals and results, but for privacy have reported them as less than 1% of the model data.



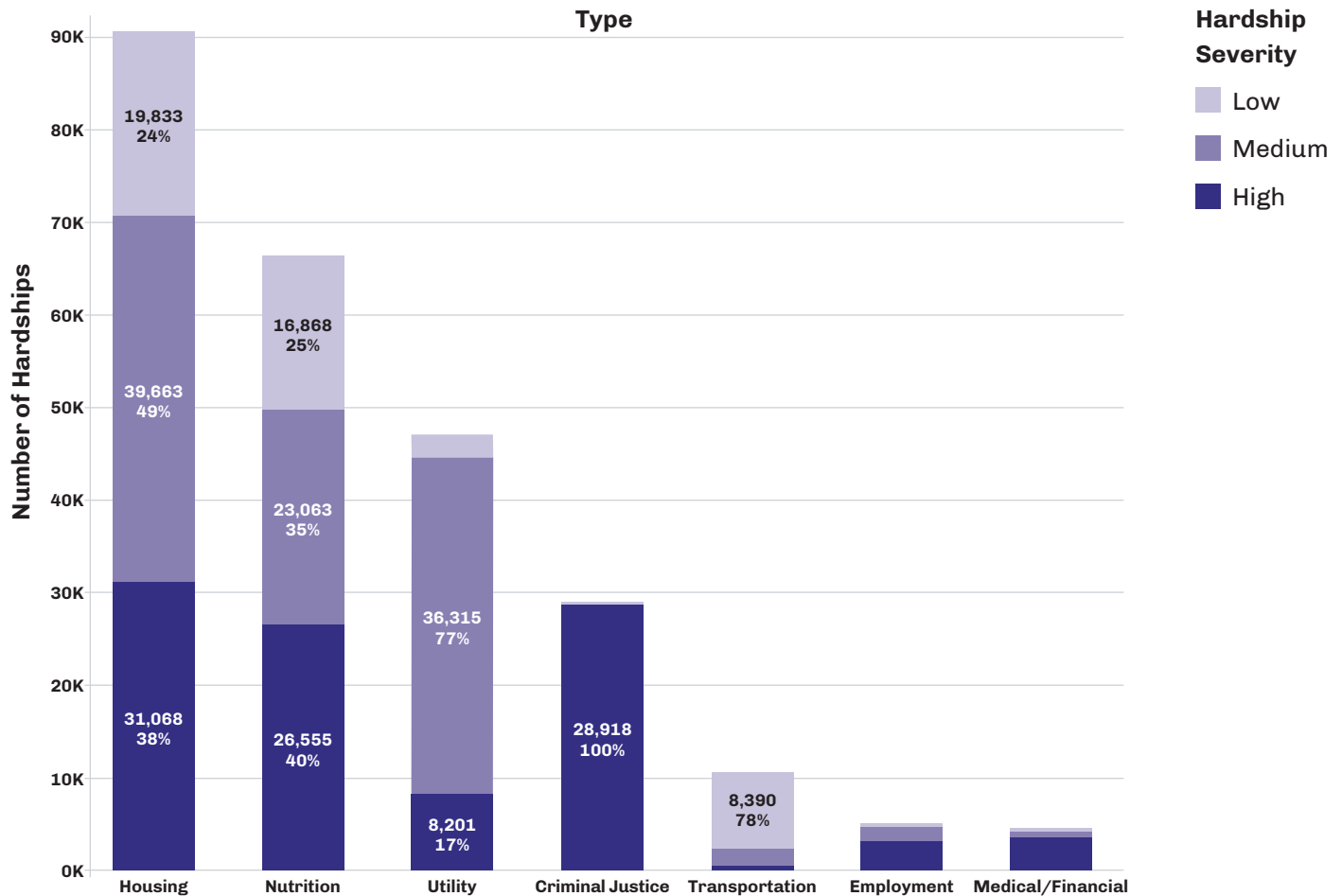
⊘ **There are a large proportion of non-identified values for demographic fields.** This can occur for many reasons — the staff member may not have asked for that information, or the client may have declined to provide that information. If one of the demographic fields in the model had a non-identified value for a client, then that row was removed from the analysis dataset. Descriptive statistics for the dataset were examined with and without these non-identified exclusions, and they were similar, so this minimally impacted the analysis.

These data limitations are common to many social service delivery systems,<sup>19</sup> an opportunity the Department of Health and Human Services recognized in a 2019 report.<sup>20</sup> Despite these limitations, useful insights can still be taken from the data. The San Diego CIE is among the most advanced networks among CIEs and community referral networks. In uplifting a partnership between analysts and executive-level decision makers, program implementers and community engagers, we hope to emphasize the value of CIE models for data analysis through community-based partners participating in collecting and sharing over time. Data analysis will always have limitations, but this data is real, local, and represents the work and experiences of countless staff and community members who want their neighbors to have equitable access to the resources they need to thrive.

Appendix A contains information about the data.

## Preliminary Findings

**FIGURE 1: NUMBER OF HARDSHIPS BY TYPE AND SEVERITY**



18 [A review of statistical disclosure control techniques employed by web-based data query systems](#). J Public Health Management Pract, 2018. Accessed March 15, 2023.

19 [Uses and Misuses of Patient- and Neighborhood-level Social Determinants of Health Data](#) - Gottlieb et al (2018, The Permanente Journal) Accessed Mar 10, 2023.

20 [Leveraging Data on the Social Determinants of Health, Roundtable Report December 2019](#), Accessed Mar 10, 2023.

**TABLE 1.1: HARDSHIP SEVERITY BY RACE**

Race	Avg. Hardship Indicator numeric	Median Hardship Indicator numeric	Std. Dev. of Hardship Indicator numeric	IQR Hardship Severity	Number of Hardships	Number of Clients	Percent of Clients
Alaskan Native	2.54	3.00	0.64	1	129	56	0.05%
Native Hawaiian	2.32	2.00	0.71	1	273	104	0.09%
Bi-Racial/Multi-Racial	2.28	2.00	0.72	1	6,740	3,160	2.65%
American Indian/Native American	2.23	2.00	0.76	1	2,582	1,036	0.87%
African American/Black	2.22	2.00	0.72	1	40,283	15,287	12.84%
White/Caucasian	2.21	2.00	0.77	1	73,110	30,654	25.74%
NA	2.21	2.00	0.75	1	47,467	30,665	25.75%
African	2.19	2.00	0.79	1	35	14	0.01%
Hispanic/Latino	2.19	2.00	0.71	1	55,210	31,311	26.30%
Pacific Islander	2.17	2.00	0.76	1	2,141	1,034	0.87%
Other	2.16	2.00	0.73	1	5,187	2,987	2.51%
Asian	2.08	2.00	0.76	2	4,762	2,711	2.28%
Middle Eastern	1.95	2.00	0.65	0	102	55	0.05%
<b>Grand Total</b>					<b>238,021</b>	<b>119,074</b>	<b>100.00%</b>

Table 1.1 displays the average hardship experienced by each race/ethnicity group, ordered from highest mean hardship severity to lowest. A Low hardship severity was given a score of 1, a Medium hardship severity was given a score of 2, and a High hardship severity was given a score of 3. By averaging these, even among small groups, we can get an impression of the typical need among callers to 211 San Diego identifying as a given race group. Figure 1 provides a general orientation to the distribution of hardship types and severities.

The model presented here was designed to examine what demographic factors make a person more likely to experience a specific type of SDOH Hardship. Key Findings from analysis related to Question 3 show that, among clients who contacted the 211 San Diego CIE, while holding constant all other demographic variables of interest<sup>21</sup> in five primary areas:

#### **Health Insurance:**

- Clients with no health insurance (N=8,038, 17.1%) have 76% higher odds of having a nutrition hardship (OR=1.76, 95%CI = 1.61-1.93) compared to those who carry Private insurance (N=1,608, 3.4%).
- Clients who carry Medi-Cal health insurance (N=25,313, 54% of the client sample) have 284% higher odds of having a housing hardship (OR=2.84, 95%CI = 2.53-3.19) compared to those who carry Private insurance (N=1,608, 3.4% of the client sample). This increase in odds is the same (OR=2.84, 95%CI = 2.47-3.27) among those with VA Health (N=1,085, 2.3% of client sample).
- Clients who are dual eligible and carry both Medi-Cal and Medicare health insurance (N=3,388, 7.2% of the client sample) have 231% higher odds of having a transportation hardship (OR=2.31, 95%CI = 1.83-2.97), compared to clients who carry Private insurance (N=1,608, 3.4% of the client sample).

#### **Gender Identity:**

- Clients who identify as Women (N=31,679, 67.5%) have over twice the odds (OR=2.02, 95%CI = 1.95-2.10) of having a utility hardship as compared to clients who identify as Men (N=15,135, 32.3%).
- Clients who identified their gender as 'Other' (less than 1% of the client sample) have 286% higher odds of a housing hardship (OR=2.86, 95%CI = 0.94-9.21) compared to clients who identify as men (N=37,574).

21 See Demographic variable list, [linked here](#)

## **Persons with Disabilities:**

- Clients with disabilities (N=16,779, 35.8% of the client sample) have 337% higher odds of having a Medical/Financial hardship (OR=3.37, 95%CI = 3.04-3.73) compared to people without disabilities (N=30,125, 64.2% of the client sample). Clients with disabilities also have 47% higher odds of having a housing hardship (OR=1.47, 95%CI = 1.43-1.52) compared to clients without disabilities.

## **Racial Identity:**

- Clients who identified as African American/Black (N=7,628, 16.3% of the client sample) have 61% higher odds of having a utility hardship (OR=1.61, 95%CI = 1.53-1.68) as compared to clients who identified as white (N=14,182, 30.2% of the client sample).
- Clients who identified as Hispanic/Latino (N=19,032, 40.6%) have twice the odds of having a utility hardship (OR=2.00, 95%CI = 1.91-2.09) as compared to people who identified as white (N=14,182, 30.2%)
- Clients who identified as American Indian/Native American (N=476 clients) have 21% higher odds of having a housing hardship (OR=1.21, 95%CI = 1.07-1.36) compared to clients who identified as white (N=14,182, 30.2%).
- Clients who identified as Asian (N=1,399, 3.0%) have 73% higher odds of having a nutrition hardship (OR=1.73, 95%CI = 1.58-1.89) as compared to clients who identify as white (N=14,182, 30.2%).

## **Primary Language:**

- Clients who identified Spanish as their primary language (N=9,764, 20.8%) have 29% higher odds of having a nutrition hardship (OR=1.29, 95%CI = 1.24-1.35) as compared to clients who identified English as their primary language (N=35,042, 74.7%).
- Clients who identified "Other" as their primary language (N=1,338, 2.9%) have 53% higher odds of having a housing hardship (OR=1.53, 95%CI = 1.43-1.62) as compared to clients who identified English as their primary language (N=35,042, 74.7%).





## Key Findings

Looking at different aspects of identity matters in equity work, not for enabling narrow interpretations of racism, sexism, ableism, or other forms of oppression, but because intersectionality continues to be missed in both analysis and advocacy. To analyze hardships of only people with disabilities, for example, would miss the compounding burden that people with disabilities may experience due to racism, to discrimination based on their gender identity, to their living in a historically under-resourced area, etc. By using many demographic variables that we hypothesize affect one's odds of hardship, we aimed to counter the "dominant conception of discrimination and its tendency to marginalize those whose experiences cannot be described within its tightly-drawn parameters," as written by Kimberlé Crenshaw in her introduction of the term *intersectionality*.<sup>22</sup>

The results of this analysis showed that within a given hardship type, there are disproportionate impacts on many groups. The 284% higher odds of having a housing hardship among clients with Medi-Cal (California's Medicaid Program) and VA Health insurance, compared to clients with private insurance, presents a significant opportunity for coordinated care to provide a more robust safety net in an area where the national housing crisis is especially pronounced. Similarly, the 231% higher odds of transportation hardship among dual-eligible clients, compared to clients with private insurance, stand out as an opportunity for public insurance providers to embrace whole-person care, and to recognize and address transportation barriers.

This model again highlights how clients with disabilities are experiencing a disproportionate share of hardship compared to clients without disabilities. The 337% higher odds of a medical/financial hardship is evidence of multiple systematic failures that converge and unfairly put clients with disabilities at high risk of significant financial strain.

The systemic racism that underlies disparities in access to healthcare exists in social services too. Our analysis demonstrates significant disparities by race and ethnicity — notably, clients who are Black, Native American, Asian, or Hispanic/Latino are more likely to experience utility, housing, and nutrition hardships when compared to white clients. Compounding these effects are differences in hardship experienced by preferred language. While one of our previous models demonstrated that people whose preferred language was not an available option tended to have more hardships, model 3 shows that even clients whose preferred language was an option are still experiencing a disproportionate share of hardships. Together these results point to a lack of access and availability of culturally competent, linguistically accessible programs, as well as challenges to the programs of reaching the communities they serve.

The 371% higher odds of employment hardship among gender non-conforming clients, when compared to men, is evidence that discrimination continues to present barriers to employment for people who are gender non-conforming.



<sup>22</sup> [Demarginalizing the Intersection of Race and Sex: A Black Feminist Critique of Antidiscrimination Doctrine, Feminist Theory and Antiracist Politics](#). Kimberlé Crenshaw. 152.

### **Key Findings/Impact on Medicaid Incentive Programs & Policy:**

Institutions across the nation — including health care, education, businesses, and others — recognize the necessity to address the SDOH that impact the wellbeing of their patients, students, employees, and clients. For example, U.S. health systems have been among the first institutions to invest, investing at least \$2.5 billion in programs around SDOH<sup>23</sup> from 2017 to 2019.<sup>24</sup>

As governments and policies move to support social needs, investment in addressing social needs is key to ensuring holistic health is met. However, program design matters in effectiveness. Programs should be designed to account for need, severity, complexity, and intersectionalities that are present in the context of American history and the healthcare system.

Currently, California is in the process of reforming Medicaid, restructuring key components of the delivery of healthcare, inclusive of social needs with the intention of creating a more equitable system of care. CalAIM is an example of how healthcare can include health and social care. Yet there are still many opportunities to enhance the comprehensiveness of these services and truly design with the members in the center.

### **Key Insights from the Data:**

- As seen in Model 1 and Figure 1, the majority of hardships are medium to high severity, without accounting for the complexity of client needs or barriers to access that impact their ability to improve their situation. This creates challenges for service providers because funding is often capped by service vs. acuity or complexity and client improvements are expected in time periods that require systemic changes to move out of severe hardships.
- In Model 2 and Table 1.1, the median hardship ranges from 2-3 with mean or amounts of hardships being higher for specific BIPOC communities. This highlights the need for multiple hardship supports to address root causes of hardships. This includes emphasizing the accessibility and coordination to ensure community members can access these services and service providers are able to navigate the system of care.
- As seen in Model 3, people with specific intersectionalities have higher odds of hardships, such as, type of health insurance (income-based), gender identity, persons with disabilities, racial identity and primary language. This highlights the systemic issues that people face with just one, let alone multiple intersectionalities. Programs aligned with resources must account for these from program design, funding, services needed and continued analytics to support the most at-risk populations.

### **Policy Recommendations:**



#### **Program Design:**

- With the high impact of intersectionalities on hardships, ensuring accessible and standardized screening and intake to ensure people are screened and enrolled in available programs
- To support an equitable system of care, creating and designating funding opportunities for BIPOC-led grassroots organizations addressing essential needs that have experience with diverse populations to ensure the most vulnerable communities have access to direct services.
- Create accountability from local community organizations to ensure policy programs support the target populations of these programs and those with lived experience are able to access and enroll in programs.

23 Social determinants of health (SDOH) are the conditions in the environments where people are born, live, learn, work, play, worship, and age that affect a wide range of health, functioning, and quality-of-life outcomes and risks (Social Determinants of Health - Healthy People 2030, [Office of Disease Prevention and Health Promotion](#))

24 Horwitz L.I., Chang C., Arcilla H.N., & Knickman J.R.. Quantifying Health Systems' Investment In Social Determinants Of Health, By Sector, 2017–19. Health Affairs. 39, No. 2 (2020): 192–198. <https://doi.org/10.1377/hlthaff.2019.01246>



### **Funding:**

- Due to the complexity and severity of people's situations, rather than funding using a one size fits all approach, support flexibility in funding program design and reduce the over-prescribing of state policies across regions. CBOs and community members are best positioned to leverage local strengths and assets, engage, and overcome the most prominent barriers to systemic inequity.
- Just as the shift from fee-for-service models to value-based health care is underway, we must be wary of incentives that drive services based on volume and speed over quality and client outcomes (i.e., refine payment models to support complex case management and coordination).



### **Services:**

- To address the various social needs highlighted by this population, expanding CalAIM services to be inclusive of other economic and legal support benefits (e.g., clients needing utility assistance, assisted transportation and medical-legal partnerships).
- Based on this analysis, health insurance type is a significant driver of social needs — primarily housing. Expanding housing services and funding opportunities in the context of existing systems of care like Continuum of Care (CoC) as part of Medicaid is a crucial focal point.
- Create more equitable and statewide access to prevention funding and programs, such as homelessness prevention. As housing becomes more expensive and more unattainable in states like California — and moving homes presents additional financial strain — more funding needs to be made available to ensure clients are able to stay in their current homes. For example, CalAIM programs are unable to assist with paying for arrears, a primary reason that individuals become evicted.



### **Analytics:**

- Establish accountability among Managed Care Plans (MCPs), encouraging bidirectional data sharing from contracted providers and other service providers to allow aggregation of population needs to drive innovative interventions.
- Encourage and incentivize the client choice to share demographic information, which would allow more robust equity-focused analysis in the future.

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## **Community Insights:**

Preliminary findings were presented to 211 San Diego Community Voices Advisors and additional feedback was gathered from the CIE Advisory Board members which includes representatives from several partner agencies. The 211 San Diego Community Voices Advisors include:

- Imani Robinson, CIE Advisory Board Member
- Oscarin Ortega, Lived Experiences
- Khea Pollard, Director, Economic Mobility and Opportunity, Jewish Family Service of San Diego
- A reentry provider in San Diego County

Moving forward, this work and any subsequent research will benefit from early co-design with Community Voices Advisors, as they surfaced new and different priorities than were addressed in this analysis, particularly regarding policies and practices that make accessing services unnecessarily difficult even with a service like 211 San Diego. The following are key themes that emerged:



- 1. This Data Isn't the Whole Story:** Data included in this report only highlights those who have called 211 San Diego or participated in CIE, which is only a subgroup of vulnerable communities who are able to proactively seek services. Meaning, people who seek other forms of support or rely on their own networks aren't reflected in the dataset. Additionally, in order to qualify for many of these programs, it requires people to share their personal information including demographics. Because grant and revenue streams often dictate what information is necessary for eligibility and screening purposes, people may find that their responses are limited to categories or checkboxes that don't accurately capture intersectional identities.
- 2. Care Systems are Set Up for Surviving, Not Thriving:** Once enrolled in programs, systems feel intentionally built for people to be in continuous hardship, instead of supporting them towards a self-sufficient state of being. People are held just above ground to qualify for benefits, fueling a constant state of survival mode.
- 3. Restrictive Eligibility:** Due to the constraining nature of benefits eligibility, people are incentivized to respond in a way that will get them screened into programs. Either that or they will have to wait until they slip into more critical states of distress before they can qualify for help. For example, much of housing assistance is based on homelessness versus homelessness prevention, so rather than supporting someone who is about to be unhoused, a person must become unhoused to access services, pushing people to encounter crises before getting meaningful support.
- 4. Building Power Through Specificity/Data:** With the lack of societies awareness of systemic racism's impact on social and health outcomes, these reports are helpful to support advocacy needed to change and redesign our current system of care.
- 5. Retraumatizing Without Demonstrated Difference:** In recent years, the great calls for equity within public health and policy spaces have led to various equity-oriented initiatives. In theory, this could move program designs in an equitable direction. However, these efforts are often uncoordinated and siloed across different government, public and private entities. For those directly impacted by social services, this is exhausting. Imagine being invited to share your story of the times you were left out, discriminated against, ignored, misled, misrepresented or misunderstood. Then imagine the amount, volume and impact of different equity initiatives requesting input from you again and again. Yet there is no visible change or impact. **Do we still need data to tell those in power that our systems are racist or can we actually move to solving the problems?**

Given Medicaid's focus on innovating on care coordination with an equity lens, specifically by CalAIM in California, this paper hopes to allow for policymakers, service providers and key stakeholders to use these findings to reflect on the key insights in order to improve and refine efforts to advance equitable, person-centered care.

Additionally, to highlight the value of a true Community Information Exchange, CIE presents several opportunities to support social needs across intersectionality. 211 San Diego/CIE is a centralized way of capturing information, sharing data and identifying aggregated severity of need, and thus can be effective at finding eligible individuals and connecting with them at various points of entry across multiple social services. CIE is also led by a local community-based organization with a shared stewardship model which enables relationship building among many community organizations, it is particularly well-suited to foster community engagement and participation in the implementation of CalAIM.



# Appendix

## About the Data

The data used for this analysis has been collected from all clients (people who called 211 San Diego or a data-sharing partner) who accessed services through 211 San Diego or a CIE network partner between January 1, 2018–December 31, 2021 and had at least one documented hardship. The majority of data is collected by trained Community Connectors who assist callers in connecting with social services that can address their needs. Hardships may have been from any time during the time period when a client was served by 211 San Diego or a CIE network partner.

The 211 San Diego system uses a unique ID for each client; hardships are associated with a longitudinal client record if a client calls multiple times. Dates reflect the point in time in which the information is known or captured and may not reflect the specific date that the hardship first took place. For example, a client may have encountered a housing hardship on January 1, but did not call 211 San Diego until February 1. In this example, the date of the hardship would be February 1.

Demographic fields are collected by 211 San Diego and CIE partners. These staff explicitly ask demographic questions or obtain the information through conversational interviewing. This information is tracked with a single response for each demographic field and is updated over time as client situations change.

Demographic fields in the data analyzed include:

- City, neighborhood, and zip code of San Diego County
- Racial Identity
- Age in years
- Gender Identity
- Disability Status (Whether or not clients identify as having a disability)
- Preferred Language
- Health Insurance Type

### Comprehensive Social Continuum Assessments (CSCA)

are tools that provide a high-level assessment of vulnerability within a larger domain.

Hardships are a composite variable designed to represent a client's level of security across different SDOH categories. Extrapolated from many input variables,<sup>25</sup> a hardship can range in severity from low, to medium, to high, based on where the individuals' total score for that hardship indicator fell within the relative distribution of total scores across all respondents.<sup>26</sup>

Hardships fall within the below SDOH types, listed in the order of frequency:

### **Nutrition Hardships (e.g. food insecure or supplemental food needed)**

- The Food Insecurity Indicator leverages metrics of food insecurity, derived from the USDA Food Security Survey, with metrics about immediacy and prioritization.
- The Food Insecurity Hardship Indicator isolated variables from the Nutrition CSCA domain, specifically pulling metrics on immediacy and prioritization. Hardship Indicators are typically displayed as High, Medium, or Low. For the Food Insecurity Hardship Indicator, for example, a High indicator is someone who often worries about having enough food and sometimes or often does not actually have enough food; who has skipped a meal at least once in the previous month; who has to prioritize their budget to purchase other items instead of food (e.g. rent or housing expenses); and someone who has an immediate need for assistance.

<sup>25</sup> Hardships are based on many client details. For more information on the process 211 San Diego uses to create hardship variables, please email [analytics@healthleadsusa.org](mailto:analytics@healthleadsusa.org).

<sup>26</sup> [Using K-Means Cluster Analysis and Decision Trees to Highlight Significant Factors Leading to Homelessness](#). Clark et al, *Mathematics*, 2021. Accessed Mar 10, 2023.



### **Utility Hardships (e.g. insecure finances to pay for basic utilities)**

- The Utility Hardship Indicator looks at the individual's utility bill status (e.g. shut off, past due) to determine the severity and immediacy of a basic need. Individuals whose bill has been shut off is considered in High status, those with a bill past due is Medium, and those with payment concerns and the utility bill is more than 25% of income is Low.



### **Housing Hardships (e.g. insecure housing or housing assistance needed)**

- The Housing Situation Indicator signals the type of clients' housing situation.



### **Transportation Hardship (e.g. unreliable access to transportation)**

- The Transportation Indicator identifies transportation needs as they relate to what they are for — so transportation for medical needs as the highest.



### **Employment Hardship (e.g. unemployment, underemployed)**

- The Employment Indicator identifies if individuals are experiencing financial hardships related to unemployment or employment changes.



### **Medical/Financial Hardship (e.g. medical bills that cannot be paid)**

- The Medical Costs/Debt Indicator looks across the assessments to determine if the individual is experiencing financial strain related to medical costs or medical debt.
- The Medical/Financial Indicator looks across the assessments to determine if the individual is experiencing financial strain related to medical costs or medical debt. This indicator is defined by the level of difficulty paying for basic needs (e.g., housing, food) due to a financial hardship related to a disability, accident, or medical condition, barriers related to medical costs (e.g., prescriptions, medical procedures), and by percent of AMI. Individuals with the highest difficulty and lowest income are considered High, with those with moderate difficulty and moderate income are in the Medium, with the lowest difficulty and higher incomes considered Low.



### **Criminal Justice Hardship (e.g. need for legal supports or re-entry programs)**

- The Criminal Justice Indicator identifies individuals who experienced legal issues related to housing, or who had intersection with the criminal justice system (i.e. felonies or misdemeanors).

Non-identified values were excluded in these models due to the modeling used. This did significantly decrease the volume of data used since in more complex models, at least one of the demographic fields was missing.

Some of the subgroups had small sizes — for example, a racial group with only 20 individuals. While results from populations this small are rarely statistically significant due to their small sample size, there is still practical significance to be gained from identifying and reporting these small groups independently of the groups with larger populations. Some small groups are also more likely to be socially vulnerable groups, which if unreported may perpetuate their vulnerability and exclude them from new policies designed to increase access to services. For this reason, these groups are reported as “less than 1% of client sample” in this white paper.

Basic data cleaning and inspection was performed before beginning analysis. Blank values and “NULL” values were recoded to non-identified, five-point summaries of all numeric variables were examined for outliers, and maximum string lengths of all character variables were examined to ensure data quality.

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## **CONTRIBUTORS:**

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