Community Collaboration for Children's Success
Data Analysis Overview, Methods and Results

Background

Statistics tell us that the neighborhoods where children and their families live in San Mateo County have an impact on their health and well-being. Poor health and low socioeconomic status are found concentrated together in neighborhoods throughout the county. We are finding that youth contact with systems and services is also concentrated in a few areas of San Mateo County. Data show that several San Mateo County neighborhoods hold high concentrations of children and youth who enter into Juvenile Probation, Behavioral Health & Recovery Services (BHRS), and Child Welfare systems. Focused attention and aligned resources in these areas could be a key to more positive long-term results for our children and youth who face significant challenges in San Mateo County.

Methods

The analysis of youth need and youth planning readiness was a collaborative effort between the San Mateo County Health System, Human Services Agency (HSA), Probation Department, and Office of Education (SMCOE). Leadership and staff from these agencies participate in the Children and Youth System of Care (CYSOC) work group, which compiled lists of potential indicators to use in determining youth need and planning readiness. Health System staff reviewed and selected indicators based on data availability and quality. CYSOC members reviewed final lists and helped compile datasets which were used by Health System staff to conduct the analysis and mapping of data.

Youth Need

Youth need was measured using a combination of County client data and external data. Client data of BHRS, HSA, and Juvenile Probation were selected as key indicators. Address-level data of clients under 18 years from BHRS and Juvenile Probation was mapped and analyzed using a hot spot analysis technique to determine significant spatial clusters of high counts of clients. HSA address-level client data was not available for analysis due to stricter data-sharing restrictions, and child maltreatment allegation rates (aggregated by census tract) were used as a proxy. Low birthweight rates (by census tract), percentages of third graders not reading proficiently (by school district), percentage of students who have been suspended (by school district), and percentage of individuals living below 200% of Federal Poverty Level (by census tract) were additional indicators used. Years of datasets for the indicators did not always match based on data availability. In creating a score of youth need out of 100 points possible, BHRS Juvenile Probation, and child maltreatment allegation data were weighted the most heavily (see Table 1).

Table 1. **Calculation of Youth Need Score**

Indicator	Weighted
Juvenile Probation client hot spot[1]	20
Behavioral Health and Recovery Services client hot spot[2]	20
Child maltreatment allegation rate per 1,000 children[3]	20
Low birthweight rate per 1,000 births[4]	10
3rd graders not meeting reading proficiency percentage[5]	10
Suspension percentage[5]	10
Poverty (individuals below 200% of Federal Poverty Level) percentage[6]	10
Total	100

[1] Source: San Mateo County Probation, 2015-2016
[2] Source: San Mateo County Health System, Behavioral Health and Recovery Services, 2017
[3] Source: California Child Welfare Indicator Project, 2016
[4] Source: California Department of Public Health Birth Statistical Files, 2014

[5] Source: California Longitudinal Pupil Achievement Data System, 2014-2014
[6] Source: U.S. Census Bureau, American Community Survey, 2011-2015

To reconcile the different geographies of the various indicators, a new geography type was created, called a fishnet polygon. This does not correspond to any particular existing geography, such as census block or neighborhood boundaries. This new geography type is a grid network made up of square cells, approximately measuring half mile in length. The analysis of community created a score of youth need for each individual cell, based on its location in proximity to client hot spots, census tracts, and school districts.

Youth Planning Readiness

Community assets focused on serving children and youth were compiled to measure youth planning readiness. They included school districts participating in The Big Lift (an initiative of the SMCOE aimed at improving early learning), as well as community collaboratives/community based-organizations (CBOs) and facilities' programs and services (resource centers, Boys and Girls Clubs, YMCAs, community health clinics, libraries, and Parks and Recreation programs). Because of The Big Lift's existing in-depth engagement, this indicator was weighted the most heavily in creating a youth planning readiness score out of 100 points possible, followed by collaboratives/CBOs, and then facilities' programs and services (see Table 2).

Table 2. **Calculation of Youth Planning Readiness Score**

Indicator	Weighted
The Big Lift school districts[1]	50
Areas served by collaborative or community-based organization[2]	35
Facilities' programs and services[3]	15
Total	100

[1] Source: San Mateo County Office of Education, 2017
[2] Source: San Mateo County Health System, 2017
[3] Sources: Boys and Girls Club, 2017; YMCA, 2017; San Mateo County Health System, 2017; ; San Mateo County Libraries, 2017; and San Mateo County Parks and Recreation, 2017

Youth planning readiness indicators were analyzed in different ways, depending on how communities were served. The Big Lift, community collaboratives/CBOs, and some facilities' programs and services (Parks & Recreation departments) specifically target certain geographies, such as school districts and cities, which were not dependent on the physical location of the agency or organization. Most facilities' programs and services served communities from the location of their facility (such as a Boys and Girls Clubs or YMCAs); for these entities, a two-mile buffer from the physical location was conducted. Any areas within the two-mile buffer were considered to be served by the facility.

The same fishnet polygon created to reconcile different geographies in the youth need analysis was also used for the youth planning readiness analysis. Each cell was given a score of youth planning readiness based on its location in proximity to cities, school districts, and two-mile buffers around facilities.

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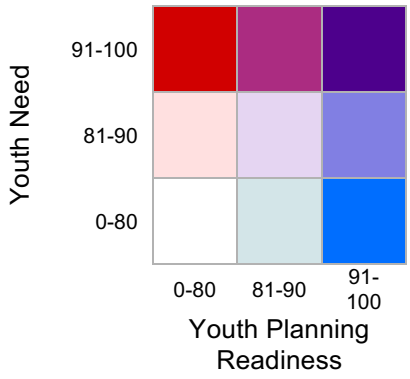
High Youth Need and High Youth Planning Readiness Areas

A bivariate map was created to compare high youth need areas with high youth planning readiness areas. All cells in the fishnet polygon were categorized as high, medium, or low for both need and planning readiness (see Figure 1). Cells that were in the 91-100 percentile of need or planning readiness scores were considered high need or high readiness. Cells in the 81-90 percentile of need or planning readiness scores were considered medium need or medium planning readiness. Cells in the 0-80 percentile of need or planning readiness scores were considered low need or low planning readiness.

Figure 1. **Bivariate Analysis of Youth Need and Youth Planning Readiness**



Results

San Mateo County areas scored between 2.7 and 85.0 out of 100 points possible for youth need, where highest scores indicate highest need (see Figure 2). The highest scoring areas were South San Francisco, Redwood City/North Fair Oaks, Menlo Park, and East Palo Alto. Areas in Daly City, San Bruno and San Mateo also scored high for youth need.

San Mateo County areas scored between 0 and 87.4 out of 100 points possible for youth planning readiness, where highest scores indicate highest youth planning readiness (see Figure 2). The highest scoring areas were Daly City. South San Francisco, Half Moon Bay, Redwood City/North Fair Oaks, Menlo Park, and East Palo Alto also scored high for youth planning readiness.

Some areas in San Mateo County showed both high need and high youth planning readiness. Daly City, South San Francisco, Redwood City/North Fair Oaks, Menlo Park, and East Palo Alto all had areas that scored high for both need and readiness, indicated by the color purple (see Figure 4). South San Francisco and Redwood City/North Fair Oaks also had areas of high need and medium readiness (represented by fuchsia). Daly City and South San Francisco also had areas of medium need and high readiness (periwinkle). Parts of Daly City, San Bruno, San Mateo, Redwood City, and Menlo Park had high need and low readiness (red), while Half Moon Bay had low need and high readiness (blue).

Figure 2. **Youth Need and Youth Planning Readiness in San Mateo County**

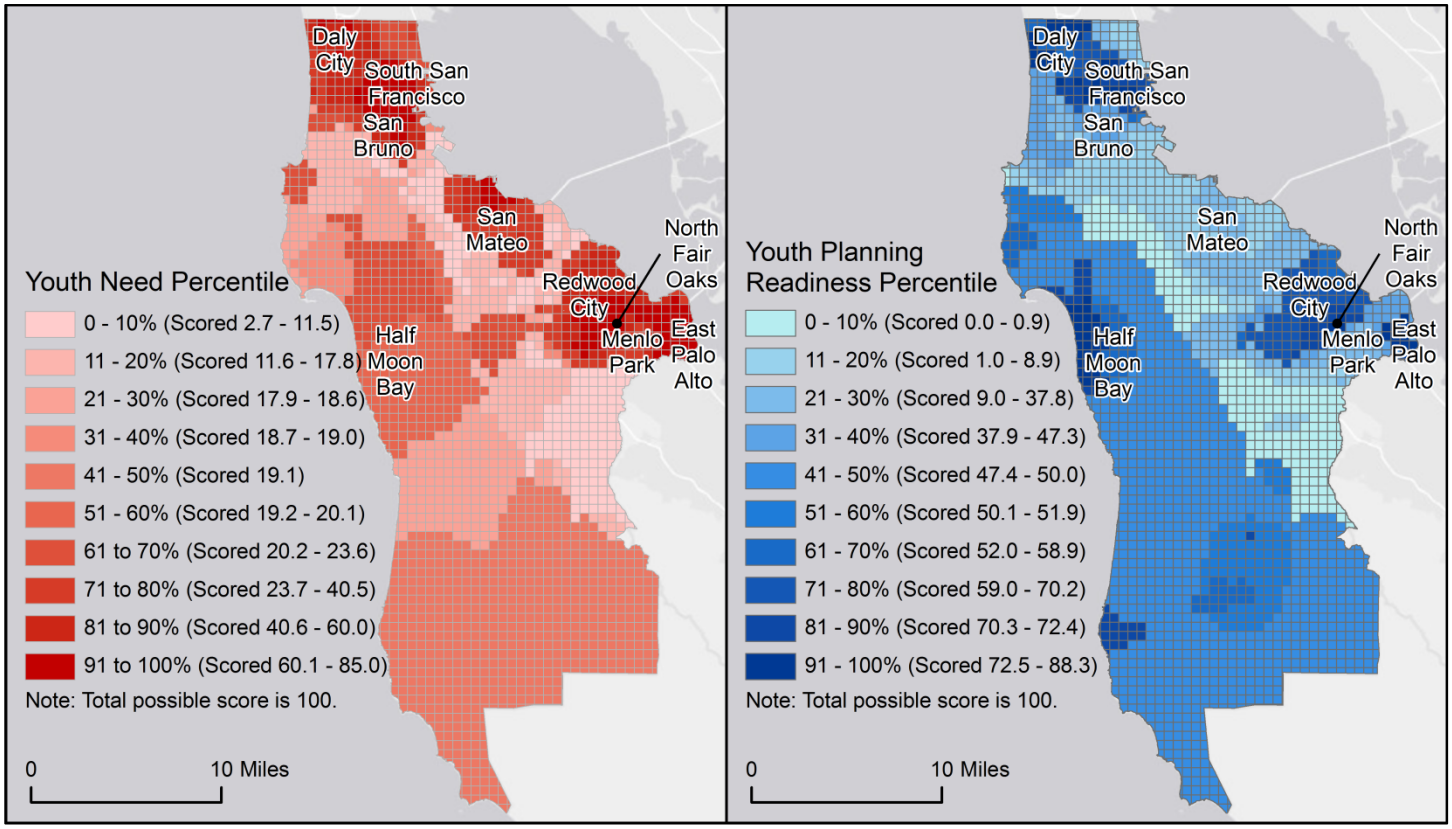


Figure 3. **Bivariate Comparison of Youth Need and Youth Planning Readiness in San Mateo County**