Asian and Pacific Islander Health and Wellness:
A San Francisco Neighborhood Analysis

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API
COUNCIL

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Executive Summary

Commissioned by the Asian Pacific Islander Council (API Council) and prepared by Davis Y. Ja and Associates, this study marks a preliminary assessment of the structural indicators of health and wellness of Asian Pacific Islander populations in the San Francisco. The API Council is a coalition of 30 community-based organizations that provide linguistically and culturally proficient services targeting Asian Pacific Islander San Franciscans. API Council members provide a wide range of health and social services including job training and workforce development, legal services, mental and physical health, senior, self-sufficiency support, youth development, affordable housing, and accessible childcare. Together, Council members serve API individuals living in virtually every neighborhood of San Francisco.

Data Reporting Methods

While the API population in San Francisco is the largest and fastest growing racial group in San Francisco, the needs of API populations are not well understood. There are many factors that affect health ranging from environmental to economic and physical factors, thus we report and describe the "health landscape" of specific neighborhoods utilizing a broad inventory of indicators. Since API as a category is broad and encompasses a wide, diverse range of people, we also assess a few selected sub-groups with unique health needs, including children and older adults.

We examined **existing** local community, city, state, and federal databases and reports, as well as academic publications. Through an iterative process between the evaluation team and the API Council, based on the available data:

- We first identified the key neighborhoods to be examined in the report. There is a lack of consistency in the way the concept of "neighborhood" is defined in studies and reports. This is a major challenge for place- or neighborhood-based analysis. In some cases, neighborhood is defined by zip code, while in other cases it is defined by U.S. Census tracts, police districts, or local conceptualizations of neighborhood names (ex. Sunset District, Nob Hill) – each of these has different boundaries.

Because of the high degree of variability in neighborhoods boundaries, we took a region-based approach to examining how places shape the health of its residents. This enabled us to compare and consolidate the results of multiple studies. We found that the neighborhoods with largest populations of poor and low-income API cluster into three San Francisco "regions" we call **North**, **South**, and **West** (Figure 1).
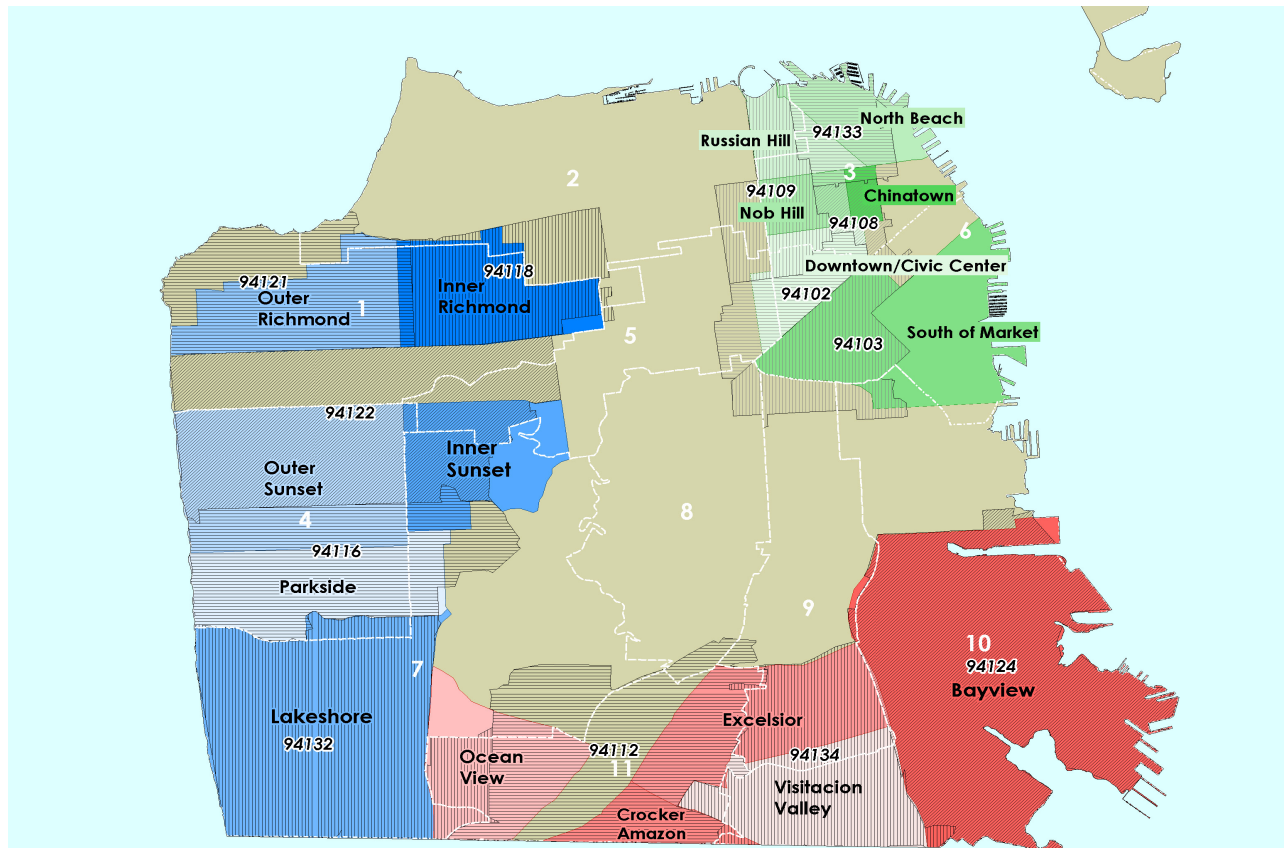
Figure 1. San Francisco "regions"

NORTH:	Chinatown, Downtown, Civic Center, Nob Hill, North Beach, Russian Hill, Telegraph Hill, Tenderloin, SoMa
	Zip Codes: 94133, 94109, 94108, 94102, and 94103
SOUTH:	Visitacion Valley, Bayview/ Hunter's Point, Excelsior, Ocean View, Crocker Amazon, Portola, Silver Terrace
	Zip Codes: 94112, 94134, and 94124
WEST:	Outer Richmond, Inner Richmond, Outer Sunset, Inner Sunset, Lakeshore, Parkside
	Zip Codes: 94121, 94118, 94122, 94116 and 94132

In a dense, diverse city like San Francisco, which is well known for its neighborhoods and even micro-neighborhoods, collecting health data block-by-block would be an ideal way to examine how places shape health. But in the absence of more granular data, by combining adjacent neighborhoods into a larger "region", we are able to better compare existing studies and reports and account for the wide variability in neighborhood conceptualizations and boundaries.

We also suggest that a region-based approach underscores the fluidity and mutability of neighborhood boundaries. Boundaries are meaningful and important for analyzing spaces, but research suggests that the way places are used in everyday life is greatly different from how they are defined and measured by policy-makers or scientists (Coulton et al., 2001). Thus a region-based approach, which reflects the "landscape" of health, resources, and services in a given section of San Francisco, may better reflect how neighborhoods are utilized by both residents and community-based organizations.

- We used the North, South, and West regions to organize the reporting of health data, but we are specific about neighborhood terms (zip code, neighborhood name, etc.) used by the original data source when the information is available.

- Finally, we examined health and wellness using existing health, environmental, and economic reports/data. Some sources were publically available while others were requested. Data specific to API populations by neighborhood was infrequently available. When health and wellness data was not specifically available to API populations, we present results for all populations within the regions/neighborhoods of interest. When data was not available by region/neighborhood, we present city-wide results on API populations. API data broken down into specific race/ethnic subgroups is presented when it is available.

Findings

1. ***Poverty***: By population numbers, API's by far represent the largest minority group affected by poverty in San Francisco. As of 2012, there were 38,495 API's living in poverty in San Francisco, making up 35% of the 110,889 San Franciscans living in poverty. This problem, unfortunately, is growing rapidly for API's. While almost all racial groups

saw an increase in poverty since the recession, the number of API's living in poverty increased most rapidly, growing by 43% from 26,917 in 2007 to 38,495 in 2012. Not surprisingly, Asian poverty rates in low-income neighborhoods like Chinatown and Tenderloin exceed 30% and 29%, respectively. What *is* surprising is the widespread geographic distribution of API poverty throughout the city. In wealthy neighborhoods like North Beach, Asian living in poverty approaches 27%. In the Bayview, Asian poverty rates have grown to 16.5%. Asian poverty rates peak in the Richmond at 13.1% and 16% in the Excelsior. Nearly 30% of Asians living in poverty reside in Westside neighborhoods.

2. *Unemployment*: API's suffer from disproportionately high unemployment rates. While the San Francisco unemployment rate stood at 5.4% at the end of 2013, Asian unemployment stood at 7.3% and Native Hawaiian/Pacific Islander unemployment stood at a disturbing 14.2%. As with poverty levels, pockets of significant API unemployment are widespread throughout the city. Asian unemployment in Northbeach (16.2%) and Chinatown (14%) nearly triples the citywide rate. Asian unemployment in Bayview (11.5%) and Visitacion Valley (11.1%) nearly double the citywide rate. Westside API unemployment peaks in the Outer Richmond at 9.4% followed closely by Parkside/Outer Sunset at 8.4%.

3. *Overcrowded Households*: Perhaps the most common indication of API poverty is overcrowded living conditions. While overcrowding data is not available by race/ethnicity, overcrowding in largely API neighborhoods points to the severity of this problem for API's. Not surprisingly, overcrowding is most severe in Chinatown (24.4%), a rate that exceeds the citywide rate (5.1%) by nearly 5 times. The rate of overcrowding in heavily API populated Southern San Francisco neighborhoods is also severe. In Visitacion Valley, 13.3% overcrowding exceeds citywide rates by 2.5 times, followed by Oceanview, 11.0%, Crocker Amazon, 9.7%, and Bayview, 9.1%.

4. *Perceived Safety*: While public safety data is not available by race/ethnicity, neighborhood-level data points to significant public safety concerns in Southern San Francisco neighborhoods. Most telling, while rate of violent crime in Visitacion Valley is much lower than the overall rate in San Francisco as a whole (i.e., statistically safer than SF overall), residents perceive public safety to be considerably worse than the rest of San Francisco. Fifty-one percent (51%) of San Franciscans feel safe in their neighborhoods at

night, whereas only 33% of Visitacion Valley residents do. This contradiction between low crime rates and low perceptions of public safety holds true for Crocker Amazon as well - the violent crime rate is about half the city average, yet perceived safety in the neighborhood is very low at 23%. Only 13% of residents in the Bayview felt safe at night.

5. *Childcare Capacity*: Families who are experiencing extremely high rates of poverty, including those residing in single-room occupancy (SRO) facilities and many recent immigrants, have very limited access to quality, early childhood daycare and educational opportunities. The lack of childcare slots, especially infant/toddler care, is prevalent throughout the city, but is particularly acute in the Southern and Western neighborhoods. In Southern neighborhoods, an estimated 86.5% of the 23,000 children remain without an option of childcare near their home. On the West, 81.4% of the 18,464 children remain without an option of childcare near their home. The disparity on the West is the most problematic in the Outer Sunset where it is estimated 97% of the 5,826 children remain without a nearby childcare option.

6. *Health Disparities*: Disproportionate health concerns for API populations in San Francisco include higher incidences of liver cancer, diabetes, tuberculosis and smoking, alcohol use among some API ethnicities. Preventive screening levels for breast, cervical, prostate, and colon cancer are low. There were 116 active cases of TB in 2012, 70% were API, and all nine deaths that year from TB were within the API community. Rates of new HIV infection among APIs in San Francisco more than doubled within a decade, from 5.6% in 2002 to 12.3% in 2013. However, APIs have low HIV testing rates.

7. *Mental Health*: Higher rates of problem gambling, suicide, depression and PTSD are reported in the API population, but there is also an underutilization of mental health services. This points to potential barriers to seeking treatment such as social stigma, cultural factors, and access to services.

8. *Nutrition and Physical Activity*: Fitness level in API children measured by the California Fitnessgram Test showed that only 34% of API 9th graders could achieve 6 of 6 tests, with NH/PI 9th graders scoring dramatically lower at 5%. Only 23.3% of API teens reported engaging in regular physical activity compared to 61.0% of teens overall. For API

adults, only 12.9% were regularly engaging in vigorous physical activity. Healthy level of fruit and vegetable consumption (5 or more servings) were low at 37% in children aged 2-11 and for teens at 8.8%. For Asian children, 24.2% consumed two or more glasses of soda or sugary drinks daily.

9. ***Native Hawaiian / Pacific Islander Health***: NH/PI make up a segment the API San Francisco population, but research suggests they have different and often more acute health needs and potentially less access to services. Pacific Islanders have a higher incidence of babies born with low birth weight at 10.1% (compared to 7% overall in SF) and lower utilization of prenatal care at 64.9% (compared to 88% overall in SF). Physical health factors, including fitness and body size, were more concerning for NH/PI populations. NH/PI high school students also had high drop-out rates.

10. ***Open Space Access***: An overview of neighborhoods with significant API concentrations show a lack of access to open space in neighborhoods located in Northern San Francisco. While 22.8% of San Francisco by land mass is devoted to open space, only 5.5% of the land mass in Northern San Francisco (Tenderloin, Nob Hill, Chinatown, North Beach, Russian Hill) is devoted to open space.

API Council Recommendations

The API Council Steering Committee and Membership developed these recommendations based on the findings of this report:

1. ***Greater investment in linguistically and culturally appropriate neighborhood based services, with a focus on workforce training and placement***: While API Council member organizations serve API's throughout the City, the wide distribution of API need speaks to the importance of investing resources into place-based, neighborhood-level services that are linguistically and culturally appropriate to API San Franciscans. The services provided within each neighborhood would reflect the needs of its residents. For example, workforce integration and self-sufficiency is a critical area of need for API residents in the West side neighborhoods (Districts 1, 4 and 7) where 10.4% of APIs are living in poverty and would

benefit from job readiness training and placement programs. Providing services in a neighborhood-based manner has a number of benefits, including providing more access to services in non-Chinese API sub-populations, better tailoring of services to sub-population need, a sense of security for residents and their neighbors. A sense of community can lead to better neighborhood understanding and harmony, increased interaction, citizen participation, and leadership to issues and concerns of the neighborhood.

2. *Expand Bilingual Workforce Readiness Programs:* The combination of poverty and unemployment in San Francisco's API population points to a significant isolation of API populations from the workforce. While difficult to pin-point the exact cause, workforce development providers have long observed that limited English proficiency constitutes the most significant barrier to accessing employment (47% of API San Francisco residents identify as speaking English "less than well"). Culturally and linguistically competent providers are key to tailoring programs that meet the needs of limited English proficiency (LEP) jobseekers. Certificated programs with opportunity to direct end-use job placements with target employers will offer longer term impact. Funds and resources can be used to provide LEP job seekers with culturally competent and linguistically acceptable workshops and trainings such as life skills, workplace etiquette, ESL/VESL, job readiness and counseling.

3. *Invest in Vocational English as a Second Learner (VESL) Workforce Training Programs*: Sector-based training programs in San Francisco (CityBuild, Healthcare Academy) require trainees with high proficiency English levels. Ironically, this excludes a significant proportion of API individuals with limited English proficiency. The lack of English proficiency further isolates API populations from both employment and skills development. API's have a strong need for integrated workforce development programs that support English learners. Pre-sector academies coupled with VESL will offer LEP workers with relevant language acquisition, tangible sector skills, enhanced confidence, and a direct pathway to the established sector academies. Further, leveraging collaboration between educational institutions like City College of San Francisco, community based organizations, and the City/County of San Francisco will further enable innovation and successful workforce initiatives.

4. ***Incentivize employers to hire LEP workers***: Consideration should be given to invest funds in providing incentives, including tax credits or benefits to employers to hire Limited English Proficient (LEP) employees. Incentives for employers to develop partnerships with job training programs to train employees on skills specific to the employer's business and employee needs will be beneficial to the business as it ensures highly trained and qualified employees who will be job ready. It is also beneficial to the employee as it will ensure job stability and economic self-sufficiency. When employer and employee are able to be self-sustaining and self-sufficient, communities are more vibrant and economically stable.

5. ***Greater investment in support services critical to workforce participation***:
    a. *Affordable access to childcare in Southern and Westside Neighborhoods*: Since 2008, California has cut over $1 billion for subsidized childcare, which has not only reduced the number of child care slots locally, but forced many providers to close their doors. San Francisco must provide greater investment in childcare, particularly for low-income families in underserved neighborhoods, such as those in the South and West regions of the city.
    b. *English as Second Language*: ESL provides critical survival skills and educational opportunities for immigrant, limited English proficient communities. City College of San Francisco is the largest and primary ESL provider with 700 course offerings. ESL is the largest department within the College, an indicator of the high demand of ESL programs. Also, 27% of San Francisco Unified School District students are English Language Learners. With a vast LEP population, it's imperative City/County of San Francisco continue to invest in public programs to integrate LEP individuals and align programs offered by our public educational institutions. Further, immigrant integration needs to be defined beyond assimilation. Immigrants should be viewed as individuals, families, and communities with basic needs who seek to build their lives and thrive.

6. ***Invest in building healthier neighborhoods***:
    a. *More affordable housing for seniors and families*: API populations in the South and North regions suffer from housing overcrowding rates from 2 times to 5 times the city norm. In practice this means some families are packed into shoebox-sized single room occupancy (SRO) hotels in Chinatown, Tenderloin, SOMA and Mission.

In neighborhoods like Visitacion Valley, Crocker Amazon, and the Bayview, multiple generations live under the same roof, sharing living spaces. High overcrowding rates are driven in large part by the high cost of housing in San Francisco. Seniors, in the meantime, make up almost 1/3 of the API individuals living in poverty in San Francisco -- many of whom also live in SRO hotels. The public sector needs to increase the supply of subsidized affordable housing to address this major health concern.

b. *Expand open space in the North Region*: With the confluence of significant overcrowding and disproportionately low amounts of open space, significant investment in open space expansion and programming of existing space is critical.

c. *Establish requirements for disaggregated data for API ethnicities*. This is critical to researching and addressing the health needs and barriers specific to the many API ethnic and cultural communities.

d. *Increased investment in neighborhood-based health services targeted to APIs* to help address the specific health disparities the community faces, including: lower access to prenatal care, childcare, cancer screenings, TB care, diabetes care, HIV screenings, mental health care services, substance use treatment, senior community and activity centers.

e. *Native Hawaiian / Pacific Islander populations throughout San Francisco have distinctive health needs and concerns.* An increase in health and wellness services targeted specifically to NH/PI populations is warranted.

Introduction

Davis Y. Ja and Associates (DYJA) was contracted by the Asian Pacific Islander Council (API Council) in November 2013 to conduct a preliminary assessment of the state of Asian and Pacific Islander (API) health and wellness in the city and county of San Francisco. The API Council requested an assessment of the health of poor and low-income APIs in the specific neighborhoods with large API populations using existing data and reports. The API Council is a coalition of 30 community-based organizations that provide linguistically and culturally proficient services targeting Asian Pacific Islander San Franciscans. Council members provide a wide range of health and social services including job training and workforce development, legal services, mental and physical health, senior self-sufficiency support, youth development, affordable housing, and accessible childcare.

For this report, we used existing reports and databases to examine the health and wellness of APIs in San Francisco neighborhoods. We found that similar to a national pattern (Ghosh, 2003), in San Francisco, health information on APIs as a specific sub-group is scarce and scattered despite the enduring historical fact that APIs make up a large portion of San Francisco's resident population. To our knowledge, there is no systematic collecting and reporting of the health of APIs in San Francisco. This report is a step in that direction.

Asian Pacific Islanders in San Francisco

In the city of San Francisco, many ethnic groups make up the API community. Today, the API ethnicities in San Francisco are (**Figure 2** - ethnicity: percent of SF population):
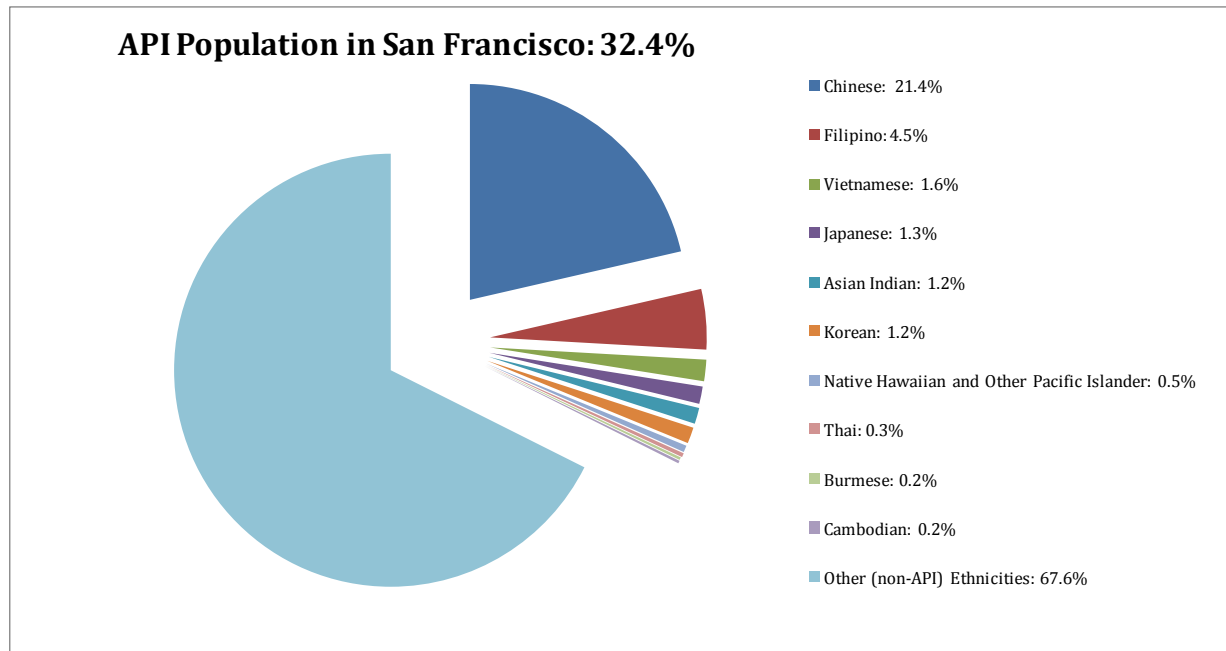
Figure 2: API Population in SF

Asian Pacific Islanders as a broadly defined group are often thought to have "good" health compared to other minority or immigrant populations in the United States. However, this perception masks not only the wide range of health outcomes among this heterogeneous group, but also the historic and current inequalities the API populations endure (Chen, 1995; Lin-Fu, 1993). According to a recent US Census Bureau *American Community Survey* (2010-2012), **there are 38,495 APIs living below the poverty level[1] in San Francisco, California**. APIs make up almost 35% of the 110,889 San Franciscans living beneath the poverty line. Therefore, although the API population today is affected by poverty at lower rates than other racial and ethnic groups (14% API, compared to 30% black, 17% Hispanic/Latino), **by population numbers, APIs by far represent the largest minority group affected by poverty in San Francisco**.

Moreover, the API population is the fastest growing ethnic/racial group in San Francisco. With recent population growth, the API population has been disproportionately affected by poverty. When comparing ACS poverty estimates data from before the economic downturn in 2007 to 2012,

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[1] The poverty level in 2013 for a single person is $11,787/year; for a family of four it is $22,990/year. Important to note is that poverty levels are based on national and not local estimates of cost of living. The median household income is about $73,802 in San Francisco (San Francisco Planning Department 2011), 40% higher than the United States median household income of $52,762 (US Census 2013).

almost all[2] major racial and ethnic groups have experienced increases in poverty percentages. However, the increase in poverty rate is most profound for the API community. There were an estimated 38,495 API living below the poverty threshold in 2010-2012, a 43% increase from the 2005-2007 estimate of 26,917. **That is, circumstances of poverty disproportionately affect the API population, and poverty has become considerably more severe for APIs since the beginning of the economic downturn[3]***.*

Table 1: Percent Increase in San Francisco Poverty Rates by race, pre- and post-recession

ACS 3-year estimates (2005-2007)		ACS 3-year estimates (2010-2012)		% Difference
Total SF poverty: N = 88,426 (12%)		*Total SF poverty:* N = 110,889 (14%)		
White:	38,235	White:	44,287	15.8%
Black:	14,445	Black:	14,135	-2.14%
Hispanic (any race):	16,110	Hispanic:	20,758	29%
Asian, Pacific Islander, Native Hawaiian:	**26,917**	**Asian, Pacific Islander, Native Hawaiian:**	**38,495**	**43%**

API Characteristics by Region:

The vast majority of poor Asians (approximately 29,000 of 38,485) live in three regions of San Francisco we call **North**, **South** and **West** (color scheme is consistent for regions throughout the report). The environmental and health services landscapes and the demographic composition varies widely between the three major regions, as well as the neighborhoods that comprise them. Below are brief summaries of API[4] poverty in these regions:

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[2] Blacks had a small (2.14%) decrease in the population numbers living below the poverty line between 2007-2012. Blacks also had the smallest overall population increase between the two periods. This may indicate that poorer Blacks are moving away from San Francisco due to cost or other factors.

[3] Between the two survey periods, the overall population of APIs in San Francisco grew by about 23,000 individuals, a 9% increase.

[4] Some of the data presented is derived from the "Asian" community (as defined by the US Census) and excludes PIs and NHs because the sample sizes were too small and prone to statistical error. We provide more in-depth data on NH/PIs in the body of the report.

API Poverty Rates by Age and Neighborhood
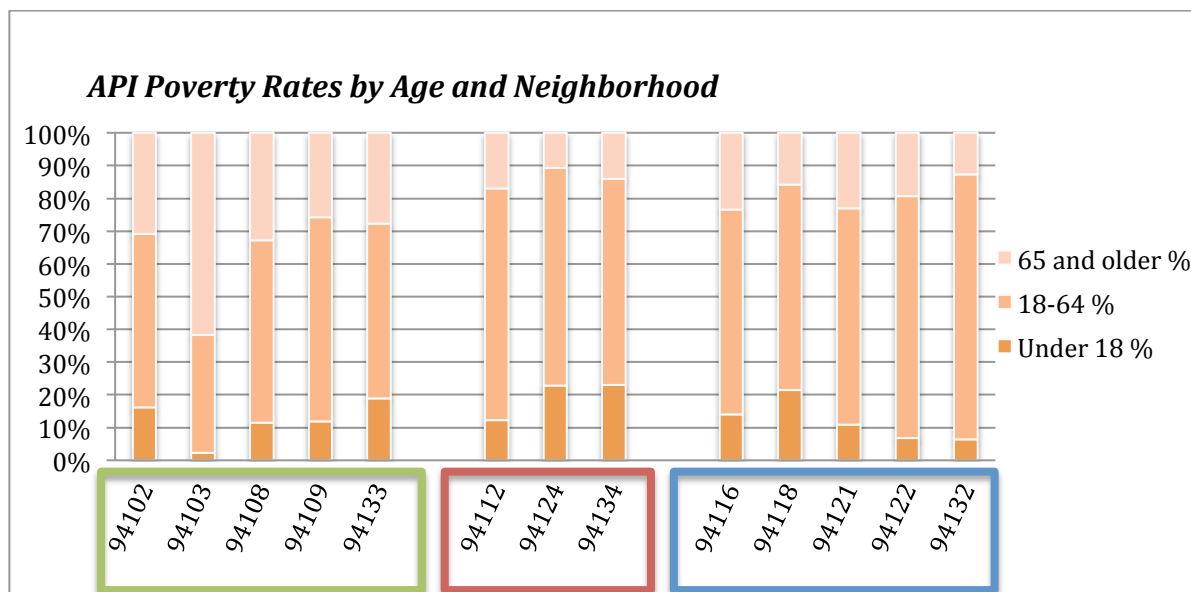
- *NORTH*: Broadly, the North region of San Francisco has a somewhat older, poorer API population, who live in denser housing conditions. In the North region, nearly one-quarter of Asians (24%) live below the poverty line. The North has the most children (N=1778) and older adults (N=4,130) living below the poverty line in San Francisco. More than one-third of Asian older adults (35.7%) in the North live in poverty. This is most acute in the 94103 zip code, which represents the SOMA and mid-Market neighborhoods, where 61% of Asian older adults live in poverty. The North also has the highest rates of Asian unemployment at 11.7%, which is more than twice the city-wide rate of 5.4%. The Asian population is mostly foreign-born (77%). The North also has the most overcrowded households in San Francisco. In the Chinatown neighborhood, for example, 24% of rooms were considered overcrowded. Residents in the North Region have the least access to open or green space in San Francisco. The North, particularly the Tenderloin/Civic Center neighborhoods, report the highest rates of violent crime. Generally, there are more targeted health and wellness services/resources available for APIs in the North, compared to the West and South.

- *SOUTH*: Compared to the North and West, the Southern region of San Francisco has fewer Asians living below the poverty line. In some South neighborhoods, however, Asians experience a high degree of poverty, such as the Bayview where one out of six Asians (16.5%) lives below the poverty line. The South has greatest percentage of children below

the poverty line. In the South, almost 20% - one in five Asian children - lives below the poverty threshold. Asians in the South have high unemployment rates (10.4%, almost two times the city-wide rate of 5.4%). Although the South is not as densely populated as the North, it also contains overcrowded households. In Visitacion Valley, for example, 13% of rooms were overcrowded, over twice the city-wide rate of 5.1%. The South also has a large foreign-born Asian population, with 74% of Asians born outside the United States. While some of the South neighborhoods have good access to open or green space, neighborhoods like Oceanview and Crocker Amazon have very limited open space (3% and 0.6% respectively). The rate of violent crime was lower in most South neighborhoods than the city-wide rate, with the exception of the Bayview and Hunter's Point neighborhoods. Yet despite the lower rates of crime, residents of the South reported the lowest rates of "perceived safety". That is, most residents (77%) did not feel safe in South neighborhoods. Also, the South had the greatest concentration of juvenile probation referrals, arrests, and bookings. A considerable portion of Healthy SF participants live in the South (43%). Families in the South have less utilization of prenatal care, and less access to childcare slots than the North and West. There are also fewer services for older adults located in the South.

- *WEST*: The West of San Francisco is the largest geographic region we examined and contains the largest API populations by numbers. There are more US-born API residents in the West, compared to the South and North. Although higher incomes are reported overall in the West, the region has a large number of Asians living below the poverty line (N=10,228). Asian poverty is low in some neighborhoods but high in others. For example, in the 94118 zip code, which represents the Inner Richmond neighborhood, more than one in five Asian children (21.4%, N=404) live in poverty. In the 94116 and 94121 zip codes (Outer Richmond and Outer Sunset neighborhoods, respectively), nearly one in four older adults live in poverty (23.4% and 23.1%, respectively.) The largest populations (by numbers) of older Asians live in the West, and Asians had high unemployment (7.2%) compared to the city-wide rate (5.4%). Overcrowded households, access to parks, violent crime, and perceived safety were less of a concern in the West than the North and South. In the West, there were only enough childcare slots to cover 18% of eligible children - the disparity was most severe in the Outer Sunset neighborhood, where there are only enough childcare slots to cover 2.7% of eligible children. Like the South, older adults in the West

had less access to services, with just 14% of senior health and activity centers located in the Western region.

Key Terms

1. Asian and Pacific Islander

The term "Asian and Pacific Islander" (API) is used in the United States to describe people with origins in Asia, Southeast Asia, and the Pacific Islands. API was a widely used race/ethnic category until the late 1990's when it became more common to disaggregate Asians, Pacific Islanders (PI), and Native Hawaiians (NH) into separate demographic categories. According to the 2010 US Census, the State of California has the largest API population in the United States. In San Francisco, there are 274,241 Asian/Pacific Islanders (API), comprising **32.4%** of the city's population.

In the United States, APIs are often minorities within communities who personally (or within recent family history) have experienced the challenges of immigration, learning a new language, and managing different cultural identities. Although such broad commonalities connect API populations together, researchers have identified several critical health issues in categorizing such a diverse population into a single health demographic category. Simplifying the cultures, experiences, social and economic statuses, and degrees of acculturation into a single race/ethnic category overlooks the wide variability of health outcomes[5] within the API population:

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[5] Examples of the range of health outcomes within the API category: One study of cancer rates by Miller, Chu, Hankey, and Ries (2008) underscores the diversity and disparity of health outcomes among API populations. They showed that while API overall had lower rates of cancer than whites, some API subgroups had much higher cancer rates than others ethnicities. For example, API have higher rates of specific cancers such as stomach and liver compared to non-Hispanic whites. Also, different types of cancer were more prevalent among some API subgroups versus others. For example, cancer rates among Samoans and Native Hawaiians were considerably higher than for East Asians. Another study of API children also showed there were major differences in the health status of children from different API subgroups (Yu, Huang, & Singh, 2004).

Historically, research related to the health of Asian Americans and of Pacific Islanders has been without focus and significant financial support. Available data on any Asian American and Pacific Islander subgroup have tended to be cataloged the broader Asian American and Pacific Islander category without more extensive specificity. Subsequently, clinicians, insurance companies, public health practitioners, and policy makers have had few opportunities to make evidence-based decisions for these subgroups. (Ghosh, 2010)

In this report, we have gathered the available data on the health of API populations in San Francisco. However, this data is typically **not** disaggregated by race/ethnicity. When disaggregated data is available, we report on the findings but also caution that sample sizes are often small and highly susceptible to sample/statistical error, particularly for ethnic groups with smaller populations such as Southeast Asians and Pacific Islanders. In our recommendations at the conclusion of this report, we underscore the need to consistently disaggregate the API category into specific ethnic groups when collecting health data.

2. Income and Poverty Rates

We focus on the health and wellness of poor and low-income APIs because this population typically experiences greater health risks. We used median household income and poverty rates as defined by the US Census as indicators of economic marginalization. The federal poverty threshold in 2013 was $11,787 for a single person and $22,990, for a family of four. It is important to note that poverty levels are based on national (not local) estimates of cost of living. The median household income is $73,802 in San Francisco (San Francisco Planning Department 2011), 40% higher than the United States median household income of $52,762 (US Census 2013). According to a recent US Census Bureau *American Community Survey* (2010-2012), 14% of APIs (N = 38,495) live under the poverty level in San Francisco. APIs make up almost 35% of the 110,889 San Franciscans living beneath the poverty line.

3. Health Indicators

It is increasingly recognized that "health" is a broad concept that entails not simply physical factors, but also economic, emotional, mental, social, and environmental health. Health is shaped by one's ability to access health services, people, activities, and resources that enable healthy lives, such as

quality food, social support, health insurance, and health education. Language, economic, and cultural barriers can limit access to health services, support, and resources among API populations. For this report, we conceptualize health as an individual and community goal that is physical, psychological, social, and emotional in outcome, and affected by both individual actions and social/environmental circumstances.

Methods

To our knowledge, there has been no prior systematic collecting and reporting of API health and health disparities in San Francisco. The existing research, reporting and available data is fragmented across multiple organizations, city departments, agencies, and state and national databases. Furthermore, the data that exists is not consistent in methodology. There is a lack of consensus and consistency in the way the concept of "neighborhood" is defined in studies and reports. In some cases, neighborhood is defined by zip code, while in other cases it is defined by U.S. Census tracts, police districts, or local conceptualizations of neighborhood names (ex. Sunset District, Nob Hill) – each of these has different boundaries.

Because of the high degree of variability in neighborhoods boundaries, we took a region-based approach to examining how places shape the health of its residents. In a dense, diverse city like San Francisco, which is well known for its unique neighborhoods and even micro-neighborhoods, collecting health data block-by-block would be an ideal way to examine how places shape health. But in the absence of this data, by combining adjacent neighborhoods into a larger "region", we are able to better compare existing studies and reports and account for the wide variability in neighborhood conceptualizations and boundaries.

We also suggest that a region-based approach underscores the fluidity and mutability of neighborhood boundaries. Boundaries are meaningful and important for analyzing spaces, but research suggests that the way places are used in everyday life is greatly different than how they are defined and measured by policy-makers or scientists (Coulton et al., 2001). Thus a region-based approach, which reflects the "landscape" of health, resources, and services in a given section of San Francisco, may better reflect how neighborhoods are utilized by both residents and community-based organizations.

A second methodological issue is that existing health data is often not collected and reported on API ethnic populations specifically, and it is exceptionally rare for any data or information to be available on disaggregated API races/ethnicities. This limits our ability to report on how health indicators specifically affect API sub-populations. In many cases, reports discussing APIs are often reflective of very small sample sizes of Native Hawaiians and/or Pacific Islanders (NH/PI). In this

report, we have attempted to describe when specific data on Asians is available versus the NH and/or PI communities. When available data is disaggregated by Asians and Pacific Islanders or by specific API sub-groups, we are specific about which ethnic group is being reported.

We found that the neighborhoods with largest populations of poor and low-income API cluster into three San Francisco "regions" we call North, South, and West:

Figure 3 summarizes the three regions and their corresponding zip codes and supervisorial district numbers:

Figure 3: API Regions

North

Neighborhoods	Chinatown, Downtown, Civic Center, Nob Hill, North Beach, Russian Hill, Telegraph Hill, Tenderloin, SoMa
Zip Codes	94102, 94103, 94108, 94109, 94133
Supervisor Districts	3 and 6 (2,5,7 partial)

South

Neighborhoods	Visitacion Valley, Bayview/ Hunter's Point, Excelsior, Oceanview, Crocker Amazon, Portola, Silver Terrace
Zip Codes	94112, 94124, 94134
Supervisor Districts	10 and 11 (7 partial)

West

Neighborhoods	Outer Richmond, Inner Richmond, Outer Sunset, Inner Sunset, Lakeshore, Parkside
Zip Codes	94116, 94118, 94121, 94122, 94132
Supervisor Districts	1, 4, 7 (2 and 5 partial)

Figure 3: San Francisco Region Map
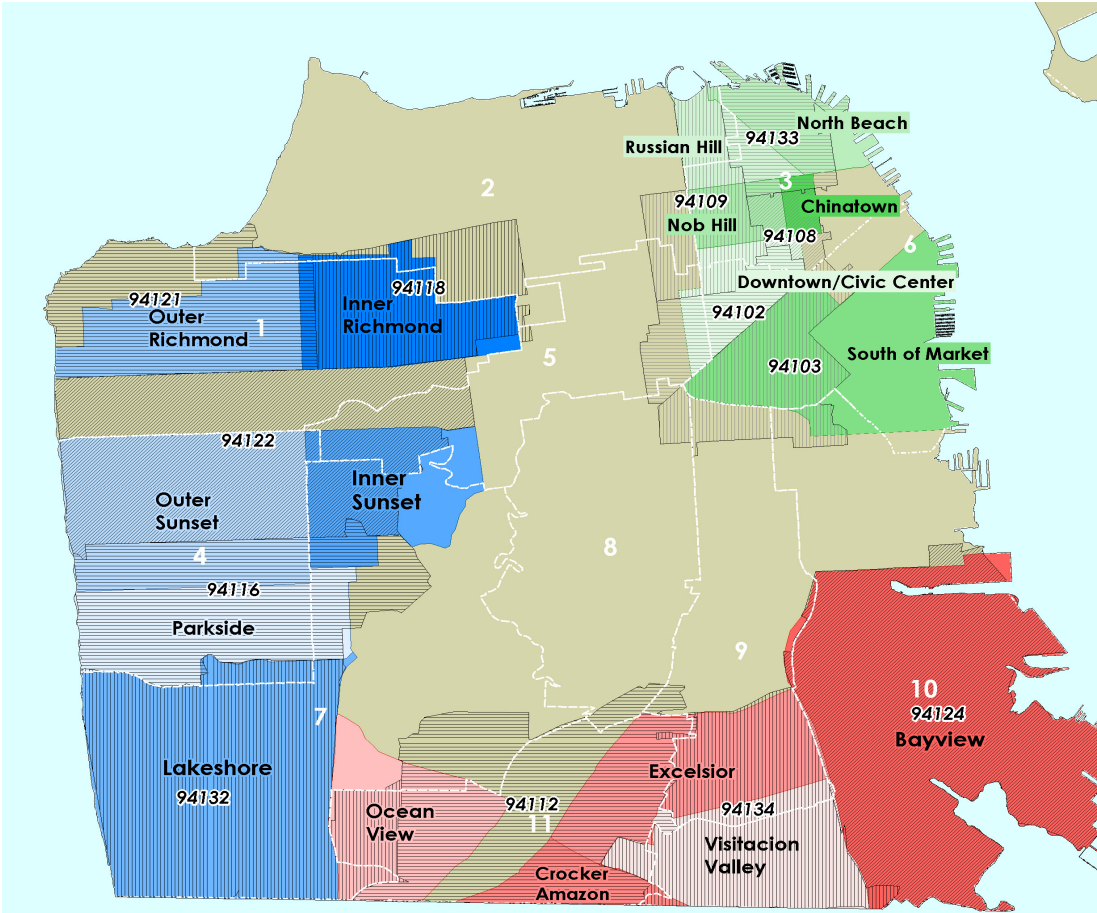
Neighborhood Health Landscapes

We used several indicators to examine the *health landscape* in specific San Francisco neighborhoods with large API populations. These indicators help to build nuanced pictures of how neighborhoods – one's real-life health environment – can promote or deter the health of API communities [6]. Assessing the economic/social/environmental conditions in San Francisco neighborhoods allows a more dynamic understanding of health. In this section, we report on neighborhoods with large API populations – the **North**, **West**, and **South** regions of San Francisco – but the data reported applies to the health of all residents of these neighborhoods.

I. Economic Health Indicator – Poverty Rates

Economic indicators of health formed the foundation of our analysis. One of the main goals of this report was to identify the neighborhoods in San Francisco with the largest low-income/poor API populations. We examined API poverty rates by neighborhood using data from the American Community Survey (2012). This source includes data for Asians, Pacific Islanders (PI), and Native Hawaiians (NH) as different race/ethnic categories, but the data for PI and NH is not reported here at length because the sample sizes of these groups was small and susceptible to error[7]. The data we examined, however, suggests that NH/PI experience high poverty rates in San Francisco, rates considerably higher than their Asian counterparts. NH/PI regional poverty rates ranged from **24.2%** in the West region to **31.7%** in the South region (American Community Survey, 2012). The South region also contained the highest concentration of NH/PI living below poverty – 63.9% of the city's poor NH/PIs lived in the Southern neighborhoods. The West region had 21.1% of the total below-poverty NH/PI population. The North region contains only 6.0% of the total below-poverty NH/PI population. These figures indicate NH/PI poverty is high overall, and populations of poor

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[6] Researchers (Rhodes, 2002) have argued that environments shape health in two ways: 1) by exposing people to health risks and 2) shaping people's ability to protect themselves when risks occur.

[7] The US Census only recently began using NH/PI as a race category in 2000. (The other race categories are white, black, Asian, and Native American/Native Alaskan.) The NH/PI race category is the most likely to report bi-racial or mixed-race, with 56% reporting report "more than one race" (US Census Brief, 2012).

NH/PI are concentrated heavily in the South region. Since available data for this population is limited due to small sample sizes, further research is needed to confirm and elaborate this finding.

For Asians, the population below the poverty line was examined in each zip code, and two key measures of poverty were gathered:

(a) ***The percent of Asians that are below poverty level in specific neighborhoods***. This provides information on the proportion of Asians that are affected by poverty in SF neighborhoods.

(b) ***The percentage of San Francisco's total below-poverty Asian population that reside within specific neighborhoods***. This provides information which neighborhoods have the highest concentrations[8] of Asian poverty.

We present the percentages for zip codes in the North, West, and South regions, along with averages for the regions overall (Tables 2a-2c). This data indicates that Asian populations in the North of San Francisco have the most acute poverty rates based on both percentage of neighborhood population and percentage of city-wide Asian poverty. However, the West region (ex. Inner Richmond, Lake Merced) also has very large numbers of Asians below poverty (N=10,228 in the West, compared to N=12,881 in the North).

a. North Region

In the North Region, an estimated 12,881 Asian people (24.7% of the total 52,046 Asians population in the region) are living below poverty level. The majority live in the 94133, 94109, and 94108 zip codes, which represent the Chinatown, North Beach, Civic Center, and Nob Hill neighborhoods. In these neighborhoods, about one out of every four Asians lives below the poverty level. This data indicates that poor Asians are most populous and concentrated in the North region of San Francisco.

Table 2a: Asian Poverty Rate in *NORTH* San Francisco

Zip Code	Asian	Asian Population	(a) % By	(b) % of Total Below Poverty

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[8] Concentration by population numbers, not geography.

	Population	Below Poverty	Neighborhood	Population by neighborhood
94133	14,925	4,014	26.9%	11.55%
94109	15,319	3,009	19.6%	8.66%
94108	8,186	2,471	30.2%	7.11%
94102	7,199	2,127	29.5%	6.12%
94103	6,417	1,260	19.6%	3.63%
Total	**52,047**	**12,881**		
		Total in NORTH Region:	**24.7%**	**37.07%**

b. *South Region*

In the South region, an estimated 5,881 Asian people (8.4% of the 69,882 total Asian population in the region) are living below the poverty level. Compared to the North and West, the South has fewer Asians living below the poverty line by numbers and percent of population. In specific South neighborhoods, however, Asian poverty is more acute. In the 94124 neighborhood, which represents the Bayview neighborhood, one out of every six Asians (16.5%) lives below the poverty line.

Table 2b: Asian Poverty Rate in *SOUTH* San Francisco

Zip Code	Asian Population	Asian Population Below Poverty	(a) % By Neighborhood	(b) % of Total Below Poverty Population by neighborhood
94112	38,749	2,457	6.3%	7.07%
94134	21,704	1,872	8.6%	5.39%
94124	9,429	1,552	16.5%	4.47%
Total	**68,882**	**5,881**		
		Total in SOUTH Region:	**8.4%**	**16.9%**

c. West Region

In the West region, an estimated 10,228 Asian people (10.4% of the total 98,007 Asian population the region) are living below poverty level. The rates of poor Asians in Western zip codes is comparable to the South, but since the West contains more zip codes, the overall number of poor Asians is high (estimated N=10,288). Of note, the Western zip code with the most acute Asian poverty is 94132, the Lake Merced neighborhood, is situated on the most Southern part of West San Francisco.

Table 2c: Asian Poverty Rate in *WEST* San Francisco

Zip Code	Asian Population	Asian Population Below Poverty	(a) % By Neighborhood	(b) % of Total Below Poverty Population by neighborhood
94121	19,322	2,225	11.5%	6.40%
94122	28,164	2,089	7.4%	6.01%
94116	23,535	2,025	8.6%	5.83%
94132	12,603	2,000	15.9%	5.75%
94118	14,453	1,889	13.1%	5.44%
Total	**98,077**	**10,228**		
		Total in WEST Region:	**10.4%**	**29.4%**

d. Children and Older Adult Poverty Rates

There are large numbers of Asian children and older adults living in poverty in San Francisco. The North has the most children (N=1778) and older adults (N=4,130) living below the poverty line in San Francisco. More than one-third of Asian older adults (35.7%) in the North live in poverty. This is most acute in the 94103 zip code, which represents the SOMA and mid-Market neighborhoods, where 61% of Asian older adults live in poverty. The South has greatest percentage of children below the poverty line. In the South, almost 20% - one in five Asian children - lives below the

poverty threshold. In the west, Asian poverty is low in some neighborhoods but high in others. For example, in the 94118 zip code, which represents the Inner Richmond neighborhood, more than one in five Asian children (21.4%, N=404) live in poverty. In the 94116 and 94121 zip codes (Outer Richmond and Outer Sunset neighborhoods, respectively), nearly one in four older adults live in poverty (23.4% and 23.1%, respectively.)

Table 3. Asian Poverty Rates by Zip Code and Age

Region	Zip Code	Total	N Poverty	< 18	%	18-64	%	65+	%
North	94102	7,199	2,127	343	16.1%	1,129	53.1%	655	30.8%
	94103	6,417	1260	29	2.3%	453	36.0%	778	61.7%
	94108	8,186	2471	286	11.6%	1,377	55.7%	808	32.7%
	94109	15,319	3,009	358	11.9%	1,876	62.3%	775	25.8%
	94133	14,925	4,014	762	19.0%	2,138	53.3%	1114	27.8%
			Overall:	**1,778**	**12.2%**	**4,835**	**52.1%**	**4,130**	**35.7%**
South	94112	38,749	2,457	301	12.3%	1740	70.8%	416	16.9%
	94124	9,429	1,552	353	22.7%	1033	66.6%	166	10.7%
	94134	21,704	1,872	432	23.1%	1179	63.0%	261	13.9%
			Overall:	**1,086**	**19.4%**	**3,952**	**66.8%**	**843**	**13.9%**
West	94116	23,535	2,025	284	14.0%	1,268	62.6%	473	23.4%
	94118	14,453	1,889	404	21.4%	1,186	62.8%	299	15.8%
	94121	19,322	2,225	241	10.8%	1,470	66.1%	514	23.1%
	94122	28,164	2,089	141	6.7%	1,546	74.0%	402	19.2%
	94132	12,603	2,000	128	6.4%	1,620	81.0%	252	12.6%

	Overall:	1,198	11.9%	7,090	66.4%	1,940	18.8%

Limitations and Future Directions: *While the figures above provide estimates of Asian poverty, the high cost of living in San Francisco makes federal poverty definitions inadequate to describe the true poverty experienced by residents. We hypothesize that there are many more San Franciscans living in poverty-like conditions than the figures reported here. Furthermore, the small numbers of NH/PI makes it difficult to ascertain the true extent of poverty for this population.*

II. Economic Health Indicator - Unemployment Rates

Unemployment rates (American Community Survey, 2012) for Asians and for NH/PI are another indicator of health. Persons are classified as unemployed if they do not have a job, have actively looked for work in the prior 4 weeks, and are currently available for work. Unemployment can be caused by poor health or disability; it can also affect health since un/underemployment has been linked to less access to health insurance, less economic stability, and health concerns such as depression, stress, and substance use (Dooley, Fielding, & Levi, 1996). The overall unemployment rate for the city of San Francisco is **5.4%** (Bureau of Labor Statistics, 2013). The unemployment rate for Asians in San Francisco is **7.3%** (American Community Survey, 2012). *The unemployment rate for NH/PIs is **14.2%** - almost three times the city-wide rate.*

Again, the available data for NH/PIs is limited due to small sample size. However, it still may reflect unemployment trends for the NH/PI community. The South region had the highest unemployment rate for NH/PIs (20.5%), which is higher than the city-wide average for NH/PIs in San Francisco (14.2%) and nearly four times the overall unemployment rate in San Francisco.

Asians living in the North region had the highest rate of unemployment (11.7%), with the South following closely (10.4%). *The unemployment rates in these regions are close to two times the city-wide rate.* The highest unemployment rates were in the 94108 and 94133 zip codes, which represent the Lower Nob Hill, Chinatown, and North Beach neighborhoods. Due to the large populations of Asians in the West region, the West contains a relatively high number of unemployed Asians (N=3,850) despite having the lowest overall unemployment rate of the regions studied. *The*

data indicates that in many San Francisco neighborhoods, particularly in the North and South, Asians have high unemployment rates.

Table 4: Asian Unemployment Rate by Zip Code

	Zip Code	Labor Force Count	Unemployed Count	Unemployment Rate
North	94102	3,389	282	8.3%
	94103	3,186	256	8.0%
	94108	4,055	562	13.9%
	94109	8,673	852	9.8%
	94133	6,826	1,108	16.2%
North	**Total**	**26,129**	**3,060**	**Avg: 11.7%**
South	94112	20,722	2,030	9.8%
	94124	5,347	614	11.5%
	94134	11,695	1,299	11.1%
South	**Total**	**37,764**	**3,943**	**Avg: 10.4%**
West	94116	11,541	964	8.4%
	94118	7,477	464	6.2%
	94121	10,658	1,004	9.4%
	94122	15,386	1,045	6.8%
	94132	6,991	373	5.3%
West	**Total**	**52,053**	**3,850**	**Avg: 7.2%**

Limitations and Future Directions: The unemployment rate does not take into account 'discouraged', underemployed or temporary workers who are not considered a part of the labor force. As with poverty rates in the previous section, the data available for NH/PIs was limited but was included.

III. Overcrowded Households

Adequate housing is critical to attaining good health (Krieger & Higgins, 2002) and overcrowding in homes is a factor that reduces opportunities for good health. Several acute and chronic health concerns have been linked to overcrowded households including stress, anxiety, depression, tuberculosis, as well as infrastructure issues like dampness (Shaw, 2004). Households with *one person or greater per habitable room* were defined as overcrowded (American Community Survey: 2012).

The overall percent of overcrowded housing for San Francisco is **5.1%** (ACS 2012). Overcrowded housing was greater than the San Francisco average in all of the regions we examined and was most acute in the North region (regional average = 10.4% overcrowded). In Chinatown, for example, up to 24% of rooms were defined as "overcrowded", in large part due to the population density of this neighborhood. More surprisingly, other San Francisco neighborhoods with less dense populations also have high percentages of overcrowded households. For example, Visitation Valley and Oceanview in the South have high overcrowded household rates (13.3% and 11% respectively), despite being about one-fifth the population density of neighborhoods like Chinatown. **Table 5** on the following page shows overcrowded housing rates by neighborhood.

Table 5: Overcrowded Households by Neighborhood

Region	Neighborhood	% Overcrowded
North	Chinatown	24.4%
	Downtown/Civic Center	11.5%
	Nob Hill	7.2%

	North Beach	5.8%
	Russian Hill	3.2%
North		**Average: 10.4%**

South	Visitacion Valley	13.3%
	Crocker Amazon	9.7%
	Bayview	9.1%
	Excelsior	6.7%
	Oceanview	11.0%
South		**Average: 10.0%**

West	Parkside	5.4%
	Outer Sunset	4.8%
	Lakeshore	3.6%
	Outer Richmond	3.3%
	Inner Richmond	2.4%
	Inner Sunset	1.8%
West		**Average: 4.26%**

		San Francisco Overall: 5.1%

Limitations and Future Directions: *Data for this indicator was not available broken down by ethnicity, so we are unable to report rates of overcrowding specific to the API population. The ability to do so will be crucial to understanding housing needs for API in these communities.*

IV. English Language

Language is important to consider when thinking about the health of API communities. Language barriers are a major factor affecting ability to access and navigate health service/resources.

> *"Language barriers can have deleterious effects. Patients who face such barriers are less likely than others to have a usual source of medical care; they receive preventive services at reduced rates; and they have an increased risk of non-adherence to medication. Among patients with psychiatric conditions, those who encounter language barriers are more likely than others to receive a diagnosis of severe psychopathology — but are also more likely to leave the hospital against medical advice. Among children with asthma, those who confront language barriers have an increased risk of intubation. Such patients are less likely than others to return for follow-up appointments after visits to the emergency room, and they have higher rates of hospitalization and drug complications. Greater resources are used in their care, but they have lower levels of patient satisfaction." (Flores 2006)*

In a local example, individuals in San Francisco who speak Chinese at home reported experiencing higher than average difficulty understanding their doctor, which can in turn shape health (California Health Interview Survey, 2009).

We examined language and nativity for Asians and NH/PIs using American Community Survey data (2012), which provides a count of people over the age of 5-years old who speak English "less than very well". Nativity is defined as born in the United States. In the North, South and West of San Francisco, the majority of the Asian population is "foreign born", or born outside the United States. The North region contains the highest percentage of foreign-born Asians (77.2%), while the West region contains the greatest number of foreign-born Asians (N=60,685). English language proficiency showed a similar trend: the North region had the highest percentage of Asians reporting speaking English "less than very well" (58.10%), while the West region had the greatest number of Asians reporting speaking English "less than very well" (N=42,584).

The West region had the highest percentage of foreign-born NH/PI (35.5%); while the South region had the highest percentage of NH/PI reporting speaking English "less than very well" (15.8%).

Table 6: Asian Population Language by Neighborhood

Zip Code	Asian Pop	US Born	US Born: Speak English < "very well"	%	Foreign born (FB)	FB % total Asian Population	FB: Speak English < "very well"	%
94102	7,045	1,322	135	10.2%	5,723	81.2%	4,005	70%
94103	6,451	1,441	111	7.7%	5,010	77.7%	3,152	62.9%
94108	8,068	1,088	253	23.3%	6,980	86.5%	5,295	75.9%
94109	14,862	4,498	380	8.4%	10,364	69.7%	6,040	58.3%
94133	14,700	3,309	591	17.9%	11,391	77.5%	9,735	85.5%
Total	51,126	11,658	1470	12.6%	39,468	77.2%	28,227	71.5%
94112	37,165	9,756	1,237	12.7%	27,409	73.7%	19,025	69.4%
94124	9,082	2,243	513	22.9%	6,839	75.3%	5,134	75.1%
94134	20,610	5,570	1,123	20.2%	15,040	73.0%	11,218	74.6%
Total	66,857	17,569	2,873	16.4%	49,288	73.7%	35,377	71.8%
94116	22,707	7,445	789	10.6%	15,262	67.2%	10,024	65.7%
94118	13,973	5,727	791	13.8%	8,246	59.0%	5,126	62.2%
94121	18,946	7,360	912	12.4%	11,586	61.2%	7,677	66.3%
94122	27,397	9,871	1,045	10.6%	17,526	64.0%	11,282	64.4%
94132	12,127	4,062	289	7.1%	8,065	66.5%	4,649	57.6%
Total	95,150	34,465	3826	11.1%	60,685	63.8%	38,758	63.9%

V. Access to Open and Green Spaces

Proximal access to public parks and recreational spaces greatly enhances the regular physical activity, leisure, community, and stress reduction necessary for healthy lives (Bedimno-Rung, Mowen, & Cohen, 2005; Chiesura, 2004). Public open spaces may be particularly important for lower-income populations, who have less access to private recreational spaces. Overall, San

Francisco has **22.8%** of land devoted to open space (including large parks like Golden Gate Park and the Presidio), but there are major differences in the amount of land used for open space in each neighborhood. We looked at percentage of land that is *open space* by neighborhood (Sustainable Communities Index, 2014; SF Planning Department, 2011; SF Department of Parks and Recreation, 2009). Open spaces include public parks, gardens, playgrounds, and recreational areas. The North region had the lowest percentage of land that is open space (5.5%) compared to the other regions examined. However, limited access to open space was an issue throughout San Francisco. Neighborhoods ranging from Nob Hill, Crocker Amazon, Oceanview, and the Outer Richmond, for example, had less than 3% of land devoted to open space (**Table 7, Figure 4).**

Table 7: Percentage of Land that is Open Space

Region	Neighborhood	Percentage of open space land
North	Chinatown	5.8%
	Downtown/civic center	3.7%
	Nob hill	1.3%
	North Beach	7.6%
	Russian Hill	8.9%
North		**Average: 5.5%**
South	Bayview	12.7%
	Excelsior	11.9%
	Visitacion valley	31.5%
	Crocker Amazon	0.6%
	Oceanview	3%
South		**Average: 11%**
West	Inner Richmond	11.3%

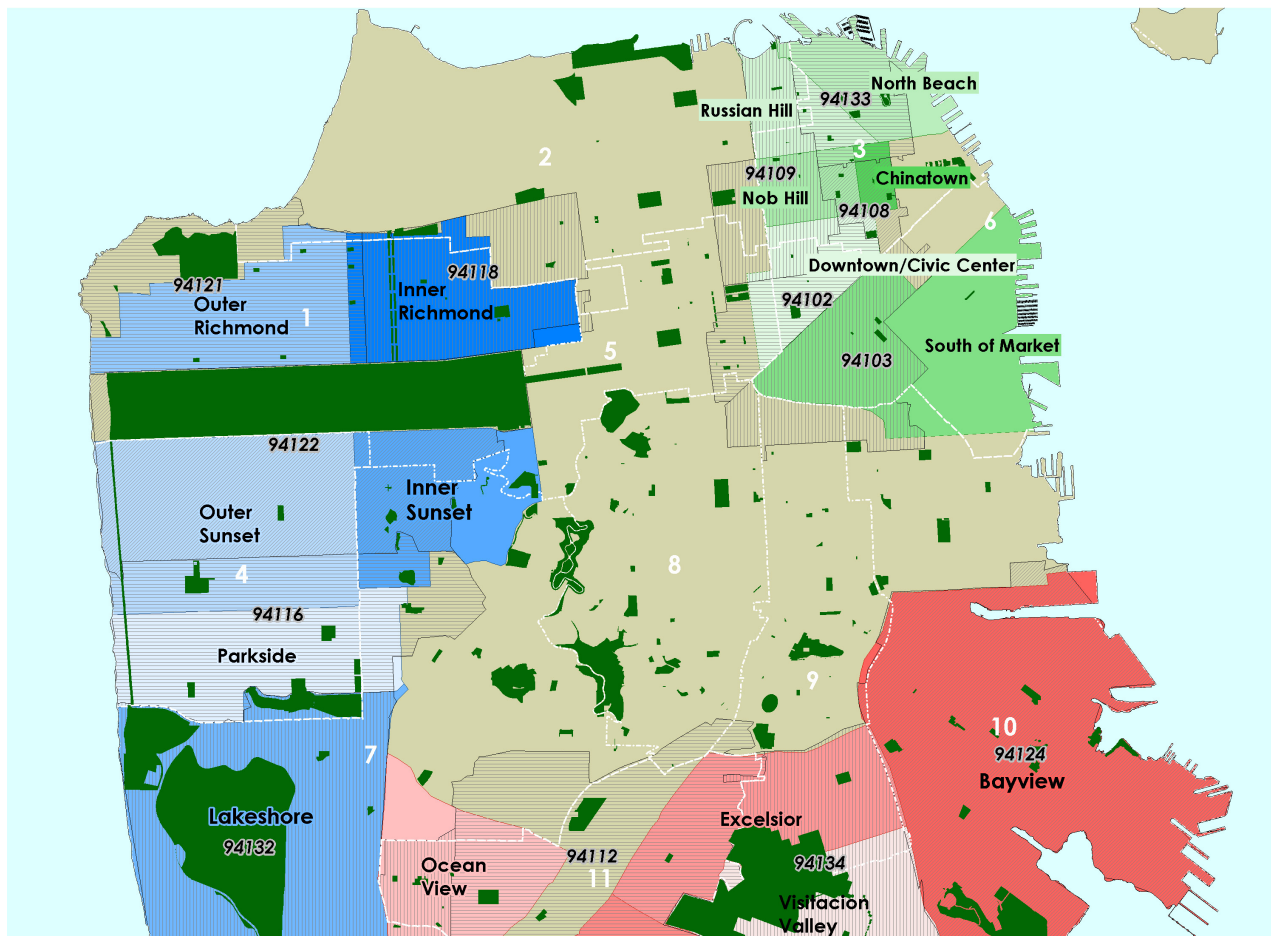|	Inner Sunset	17.4%
	Lakeshore	64.8%
	Outer Richmond	2.9%
	Outer Sunset	8.9%
	Parkside	8.9%
West		**Average: 19%**
		San Francisco Overall: 22.8%

Figure 4. Green / Open Space in San Francisco

Limitations and Future Directions: *While percentage of land that is open space is an important start to understanding neighborhood-level geography, the indicator shown does not describe the ways residents use the open space or how functional it is for residents. A more comprehensive look at how neighborhood spaces are utilized is necessary to determine how green and open spaces affect health.*

VI. Exposure to Violent Crime

The rate of violent crime in San Francisco neighborhoods shapes the health of residents directly through exposure to acute risk, as well as through more subtle vectors like increased stress and anxiety. Residents of neighborhoods with high rates of violent crime are less likely to leave their homes out of fear of violence, leading to less physical activity and decreased likelihood of engagement in community (Sampson, Raudenbush, & Earls, 1997). We examined violent crime incidents reported in 2013 within the neighborhoods with large API populations (San Francisco Data, 2014). *Violent crime* includes robbery, assault, and sexual violence, but excludes homicide, which is reported as a different crime category. We examined the number of violent crime incidents, the rate of violent crime incidents per 1000 residents, and the factor of the city average violent crime rate by neighborhood from January 1, 2013 – December 31, 2013. Violent crimes were distinct from property crimes and included robberies, assaults and sexual offenses as well as other miscellaneous violent crimes as defined by the SFPD in their reporting. The SFPD omitted homicides from this dataset; therefore homicide data is not included. *The city-wide average violent crime rate in 2013 was approximately 7.8 incidents per 1000 residents.* Results are discussed for each region below and findings are presented in **Table 8a-8c**.

a. North Region

The violent crime rate/square mile in the North region ranged from 1.4 times the city average rate (North Beach) to 7.3 times the city average rate (Tenderloin). The average factor for the North region was 2.8.

Table 8a: Violent Crimes in NORTH

Neighborhood	Violent Crime Incidents	Rate/ 1000 residents

Neighborhood	Violent Crime Incidents	Rate/ 1000 residents	
Tenderloin	835	58	7.3 x the SF rate
Union Square	240	24	3.1 x the SF rate
Civic Center	258	22	2.8 x the SF rate
Lower Nob Hill	184	16	2.0 x the SF rate
SOMA	782	12	1.5 x the SF rate
China Town	73	12	1.5 x the SF rate
North Beach	92	11	1.4 x the SF rate
Total	**2464**		
	Regional Average	**22.1**	**2.8 x** the SF rate

b. South Region

The violent crime rate/square mile in the South region ranged from 0.49 times the city average rate (Crocker Amazon) to 1.8 times the city average rate (Bayview). The average factor for the South region was 1.04.

Table 8b: Violent Crimes in SOUTH

Neighborhood	Violent Crime Incidents	Rate/ 1000 residents	
Bayview	195	14	1.8 x the SF rate
Hunter's Point	45	11	1.4 x the SF rate
Oceanview	53	7	0.92 x the SF rate
Visitacion Valley	58	7	0.82 x the SF rate
Excelsior	74	5	0.63 x the SF rate
Crocker Amazon	46	4	0.49 x the SF rate
Total	**426**		
	Regional Average	**8**	**1.04** x the SF rate

c. West Region

The violent crime rate/square mile in the West region ranged from 0.24 times the city average rate (Lakeshore) to 0.38 times the city average rate (Inner Sunset). The average factor for the West region was 0.30.

Table 8c: Violent Crimes in WEST

Neighborhood	Violent Crime Incidents	Rate/ 1000 residents	
Inner Richmond	59	3	0.37 x the SF rate
Outer Richmond	68	3	0.35 x the SF rate
Inner Sunset	25	3	0.38 x the SF rate
Outer Sunset	67	2	0.19 x the SF rate
Parkside	22	1	0.18 x the SF rate
Lakeshore	7	2	0.24 x the SF rate
Total	**248**		
	Regional Average	**2.3**	**0.30 x the SF rate**

Limitations and Future Directions: The results shown above describe incidents of violent crime that were reported to police. All crimes may not be reported, and there may be confounding factors that influence rates of reporting. The data also did not include ethnicity information, so we were not able to determine rates of violent crime specific to Asians or Pacific Islanders. In future studies it will be important to examine trends of non-reporting and ethnicity-specific crime rates.

VII. Perceived Safety

In addition to the rates of violent crime, we also examined *perceived safety at night*. Perceived safety at night (Sustainable Communities Index, 2014; San Francisco City Survey Report, 2011) describes the *percentage of residents who feel safe walking alone at night in their neighborhood*. Though ethnicity-specific data is not available, the data shown provides a sense of how neighborhoods are "experienced" by their residents.

The South region had the lowest average perception of safety at night percentage of the regions we examined (23%), a figure that is also well below the overall San Francisco percentage (51%). The South also contained the zip code with the overall lowest score (94124, the Bayview neighborhood at 13%). The North region had an average perception of safety at night percentage at night of 46%, which also falls below the San Francisco average. The West region performed relatively well on this indicator, and better than the overall San Francisco average, with an average perception of safety at night percentage at 59%.

Table 9: Perceived Safety in Key Neighborhoods

Region	Zip Code	Percentage of residents who feel safe walking alone at night
North	94102	31%
	94103	37%
	94108	64%
	94109	50%
	94133	49%
North		**Average: 46%**
South	94112	33%
	94124	13%
	94134	23%
South		**Average: 23%**
West	94116	63%
	94118	63%
	94121	65%
	94122	55%
	94132	47%
West		**Average: 59%**
		San Francisco Overall: 51%

The perceived safety data is interesting when compared to the *rate of violent crimes* reported above (Sub-section VI). The rate of violent crimes is considerably higher in the North Region than the South Region, yet residents of the South region report feeling less safe walking at night. This may be

due to the population densities of the two regions, the North being more densely populated and utilized (particularly at night) with more social accountability. It may be linked to underreporting of crime in the South. It may also be linked to differences in neighborhood infrastructure – we have not examined this data but factors such as police presence, neighborhood design (street design, desolate industrial spaces, street lighting) can shape residents perceptions of safety. This paradox warrants further investigation.

Health

Specific health concerns are discussed in this section as they relate to Asians and Pacific Islander populations in San Francisco. We briefly address health insurance rates, nutrition and exercise, physical (cancer, diabetes, tuberculosis, HIV/AIDS), mental health utilization, and substance use rates. We were not able to report on other important health factors (such as vision, dental health, specific drug use patterns, employment-related health concerns, ethnicity-specific health concerns etc.) because recent data for APIs was not available or because it was beyond the scope of the study. Since health data is rarely reported on the neighborhood-level for API populations, most of the information presented here is *city-level* or even *state-level* data.

I. Health Insurance

In 2011-2012, the rate of "persons who have a usual place to go when sick or need health advice" was 90.0% for Asians in SF County, slightly above the county-wide average of 88.8% (CHIS, 2011-2012). However, the rate of Asians who self-reported their general health to be "Good" or "Better" was 80.5%, which was less than the rate of 85.2% for San Franciscans overall (CHIS, 2011-2012).

a. Healthy SF Enrollment

While Healthy San Francisco (HSF) is not a health insurance program per se, the program provides comprehensive health coverage to uninsured adults in San Francisco primarily by assigning enrolled patients to health plans in community-based health clinics. In the Healthy San Francisco Annual Report (2011-2012), the San Francisco Department of Public Health noted that APIs constituted **44%** of Healthy San Francisco participants, the highest rate of participation of any ethnic group and an increase from 41% in the previous year (SFDPH, 2012) Moreover, APIs are more likely than other race/ethnic groups to be continuously enrolled in HSF (SFDPH, 2012). *Although HSF does provide some health coverage, the large numbers of APIs enrolled in the program may indicate that these populations have less regular access to health insurance and healthcare.*

The data below shows that a large portion of HSF participants - 43% - live in San Francisco's South neighborhoods. While the neighborhoods in the North and West each contain between 2-8% of HSF participants, far higher percentages live in the Mission and Excelsior neighborhoods in the South (11% and 17% respectively).

Table 10: Healthy SF Participation by Neighborhood, FY 2011-2012

Region	Neighborhood	% of Total HSF Participants
North	Nob Hill	6%
	Tenderloin	5%
	South of Market	5%
	North Beach	4%
	Chinatown	2%
	North:	*22%*

Region	Neighborhood	% of Total HSF Participants
South	Excelsior	17%
	Mission	11%
	Visitacion Valley	8%
	Bayview	7%
	South:	*43%*

Region	Neighborhood	% of Total HSF Participants
West	Sunset	6%
	Parkside	5%
	Outer Richmond	4%
	Inner Richmond	3%
	Lake Merced	2%
	West:	*20%*

Limitations and Future Directions: *A clear limitation to this indicator is the lack of available ethnic and socioeconomic data for HSF users on a neighborhood-level. The reported figures can only indicate overall rates of HSF enrollment in those areas, not enrollment specific to API San Franciscans. Nonetheless, this indicator serves as a useful proxy in assessing service use in the areas of focus.*

II. Food, Body Size and Exercise

a. Nutrition

The percentage of Asian children aged 2-11 in San Francisco who eat at least five servings of fruits and vegetables per day is 37%, much less than the 56.1% average for all groups (CHIS, 2011-2012). For Asian teens in SF County, 8.8% eat at least five servings of fruits and vegetables per day, whereas 41.5% of all San Franciscan adolescents do. Additionally, 17.2% of all children and teens in SF County had consumed two or more glasses of soda or sugary drink, but that 24.2% of Asian children and teens had (CHIS, 2009).

b. Body Weight

In California, where the average rate of adults who are overweight or obese is 34%, 46% of Filipino adults and 70% of NH/PI adults are overweight or obese. Among Samoan children, 54% had body mass indexes (BMI) above the Healthy Fitness Zone criteria determined by the state's public school system; 42% of other Pacific Islander children had high BMI scores (Ponce et al. 2009). In SF County, less Asian adults (28.1%) but more Pacific Islander adults (100.0%) are overweight or obese than the average (41.8%), although the value for Pacific Islanders is again subject to statistical error due to small sample sizes and should be interpreted with caution (CHIS, 2011-2012). A recent study of obesity among Los Angeles children of API subgroups described highly varying rates of childhood obesity and overweight prevalence among API subgroups (Shabbir, 2010). The study called for disaggregation of API health data in order to improve intervention efforts.

c. Exercise

The San Francisco Unified School District (SFUSD) uses the California Department of Education's Fitnessgram test to measure aspects of students' physical fitness including aerobic capacity, body composition, strength and endurance. The table below shows rates for Asian, Filipino, NH/PI and all children, respectively, in the 5th, 7th and 9th grades within the SFUSD during the 2009-2010 school year. The rates of physically fit Asian children were consistently higher than overall averages, with percentages increasing over the 2-year increments. The fitness rate for Filipino children also increased over time, but at rates that tended to be slightly less than overall averages. However, the rates of physical fitness for NH/PI students were low at the 9th grade level at 12.5%, and at every timepoint were considerably less than overall averages. The weight of API youth over time (**Table 11**) demonstrates how trends in health indicators can vary within subgroups of API populations.

Table 11: Children in the SFUSD scoring 6 of 6 on the CA Fitnessgram Test

Grade Level	Asian	Filipino	NH/PI	SF Overall
5th Grade	25.9%	18.3%	12.5%	20.3%
7th Grade	41.5%	31.7%	15.0%	30.4%
9th Grade	44.2%	32.0%	5.1%	34.8%

SFUSD, 2009-2010.

Physical fitness in API teens and adults in San Francisco is also of note. In 2009, only 23.2% API teens reported engaging in regular physical activity, compared to 61.0% of San Francisco teens overall (CHIS, 2011-2012). As for San Franciscan API adults, only 12.9% were regularly engaging in vigorous physical activity, less than the overall average rate for adults of 21.0% (CHIS, 2007).

III. Physical Health

a. Cancer

According to "The State of Asian American, Native Hawaiian and Pacific Islander Health in California Report" (2009), APIs are the only racial group in California for whom cancer is the leading cause of death. The report states that "liver cancer disproportionately strikes the Asian

American, Native Hawaiian and Pacific Islander (AANHPI) population at such high rates that the cancer burden levied on AANHPIs is unmatched by other racial/ethnic health disparities in the U.S." (Ponce et al., 2009). Research suggests that the disparity in liver cancer is due to the high incidence of hepatitis B among APIs, which is linked to the majority of liver cancer incidence and mortality (Ponce et al., 2009). In 2009, APIs constituted the vast majority of hepatitis B cases (86.6%) in San Francisco (SFDPH, 2012). Moreover, San Franciscan APIs have a liver and bile duct cancer diagnosis rate of 19.3 cases per 100,000 population, greater than the average of 16.4 cases per 100,000 population (National Cancer Institute [NCI], 2006-2010).

Additional disparities are present for APIs when it comes to cancer screening and prevention. Koreans, Vietnamese, Chinese and "Other Asian women" were the least likely groups in California to be screened for cervical cancer (Ponce et al., 2009). In California, Asian American men were also less likely than average to comply with prostate cancer screening guidelines, with Vietnamese and Korean men in California the least likely to be screened out of all ethnic groups (Ponce et al., 2009). In San Francisco County, Asian women were less likely than average to have had a mammogram (67.4%, compared to 71.8%) (CHIS, 2011-2012). They were also substantially less likely than average to have had a pap test (76.5%, compared to 87.5%) within the past three years (CHIS, 2007). Compared to the overall average rate of 78.8%, only 69.4% of Asian SF residents over age 50 had ever been screened for colon cancer (CHIS, 2009).

b. Diabetes

According to the California Health Interview Survey (2011-2012), 7.2% of Asian adults in San Francisco had diabetes, which is greater than the city-wide average rate of 4.7%. The age-adjusted rate of emergency room visits due to diabetes for API individuals in SF County is 6.2 ER visits/10,000 population over 18 years of age, significantly less than the overall average of 13.8 ER visits/10,000 population over 18 years of age (California Office of Statewide Health Planning and Development [COSHPD], 2010-2012). The hospitalization rate due to diabetes is 5.7 hospitalizations/10,000 population over 18 years of age, which is also less than the countywide average of 10.6 hospitalizations /10,000 population over 18 years of age (COSHPD, 2010-2012). The paradox of higher than average figures for API adults with diabetes, but lower than average hospitalization and ER rates warrants further investigation.

c. Tuberculosis

Tuberculosis (TB) is a contagious bacterial disease that usually affects the lungs, with potentially fatal outcomes (SFHIP, 2014). Of the 116 new cases of active Tuberculosis that were reported in San Francisco in 2012, an overwhelming 70% were API (SFDPH, 2012). Ninety-four percent of API individuals diagnosed with active TB had been born outside of the U.S.; of all foreign-born cases, the largest groups came from China (34%), the Philippines (21%), or Vietnam (11%) (SFDPH, 2012). While the average age of persons with TB was 52, the majority of API cases occurred in persons over 59 years of age (SFDPH, 2012). Every single one of the nine deaths among TB cases in San Francisco in 2012 occurred within the foreign-born API population (SFDPH, 2012). These major disparities underscore the importance of quality and culturally-targeted TB education, prevention, screening and treatment services for API patients.

d. HIV / AIDS

HIV/AIDS continue to be an issue in the United States and countries around the world (Center for Disease Control, 2013). While significant progress has been made towards increasing prevention and treatment efforts, it is crucial to take into account how HIV affects different communities and tailor prevention efforts for each community and cultural context appropriately.

It is thought that APIs have lower rates of HIV/AIDS than other racial groups, but the CDC warns that the known rates of infection among APIs may be underestimated:

> *"Statistically, Asians have one the lowest rates of HIV infections in comparison to other racial populations however misidentification of race may lead to the underestimation of HIV infection rates in Asians." (2013)*

In 2000, the San Francisco Department of Public Health reported that 4.5% of all AIDS cases were within the API population. Rates of new HIV infection among APIs in San Francisco more than doubled, from 5.6% in 2002 to 12.3% in 2013, and APIs still have lower HIV testing levels (SFDPH, 2010;2013):

API gay, bisexual and MSM (men who have sex with men) are at especially high risk of HIV (CDC, 2013). Cultural factors may also affect the risk of HIV infection. For example some APIs may avoid seeking testing, counseling or treatment due to language barriers, fear of discrimination, stigma associated with homosexuality, immigration dilemmas or fear of bringing shame to their families (CDC, 2013). This is an area that is understudied and warrants additional investigation.

Limitations: *The San Francisco Department of Public Health (2010) provides specific data for some API ethnicities; however, approximately 20% of case ethnicities are unknown. With broad sub categories of APIs (i.e., Pacific Islander and South East Asian), it inconveniently aggregates varied groups of APIs, although HIV rates may affect different ethnicities among APIs differently (API Wellness, 2011). We were unable to locate API neighborhood data on HIV rates. We summarize city-wide data of HIV rates in the API population below, in the "city wide health indicators section."*

IV. Mental Health and Substance Use

a. Mental Health Care Utilization

The rates of depression, post-traumatic stress disorder (PTSD) and suicidal ideology are high for API populations in the United States, and suicide is more common for this group than for the overall population (National Alliance on Mental Illness [NAMI], 2004). Studies indicate that older Chinese women and Asian American females aged 15-24 have especially high rates of suicide compared to other groups (NAMI, 2004). Southeast Asian refugee populations have high rates of depression (40%), anxiety disorders (35%) and post-traumatic stress disorder (14%), with close to 70% of refugee populations affected (Nicholson, 1996; Kinzie, 1997). In one study, 54% of Cambodian, 11% of Vietnamese, and 92% of Hmong outpatient clients met the criteria for PTSD (Marshall, 2005).

Despite the high rates of mental health concerns, APIs are much less likely than average to receive mental health care. Compared to other ethnic and racial groups, APIs may be more reluctant to seek

help from outside parties concerning issues with mental health (NAMI, 2004). According to the CHIS, between 2011 and 2012, 16.1% of the adult population in San Francisco received mental health care (visited a health professional regarding emotional, mental or substance abuse concerns), but only 4.0% of APIs had received such care. Also, during the 2010-2011 FY, 41% of Healthy San Francisco participants identified as API, but only 19% of Community Behavioral Health Services clients were API (SFDPH, 2012). Furthermore, according to a County Mental Health Plan review in 2013, only 19.4% were served by the SFDPH mental health services despite almost 38% API being eligible (CAEQRO, 2013). Without further investigation into API mental health care needs in this area, it is difficult to determine whether these discrepancies in rates are due to less need among API for mental health care or a lack of accessibility. Research suggests that issues with stigma and cultural differences factor into this disproportionate underuse of treatment services (Nemoto, 1999)

b. Problem Gambling

The National Council on Problem Gambling (NCPG) describes *problem gambling* as "including, but not limited to, the condition known as 'pathological', or 'compulsive' gambling, a progressive addiction characterized by increasing preoccupation with gambling, a need to bet more money more frequently, restlessness or irritability when attempting to stop, 'chasing' losses, and loss of control manifested by continuation of the gambling behavior in spite of mounting, serious, negative consequences" (NCPG, 2014). API sub-groups vary widely in terms of vulnerability to problem gambling (Fong & Tsuang, 2007). According to Liao (2008), "In general, more research is needed, but it would appear that Asian Americans may have heightened risks for problem and pathological gambling, and in particular, several Asian sub-groups are found to have very high rates of gambling pathology." Since there is considerable variation among API populations, there is a need for data on API gambling behaviors that permits comparisons between ethnic sub-groups and allows for the development of culturally appropriate treatment and prevention services (Lui & Chung, 2007).

A few studies indicate that specific groups may experience higher rates of problem gambling. A 2007 study of problem gambling in California found that APIs who spoke a native language on a daily basis were 2.8 times more likely than average to be a problem gambler (Lui & Chung, 2007). This study also found that gender, education level, employment, depression were significant predictors of pathological gambling behavior (Lui & Chung, 2007). Partners of problem gamblers are more likely to experience interpersonal violence (Liao, 2008).

One gambling study specific to San Francisco found the prevalence rate of pathological gambling among API youth to be 10.9%, far higher than the national rate for the age group (2-5%) (Chiu, 2008). The same study conveyed that most of the teens interviewed reported having learned about gambling from friends or family members. In a second study, researchers interviewed Chinese Americans living in San Francisco Chinatown about gambling behaviors and determined that 21% of those surveyed met criteria for pathological gambling (Toy & Wong, 1999).

c. Smoking

Using data from the 2009-2010 National Adult Tobacco Survey, a recent study (Mukherjea et al., 2014) found that although APIs overall have low smoking rates, the smoking rates of Native Hawaiian/Pacific Islander, Korean and Japanese people were comparable, if not higher, than the overall U.S. population. In California, among API men, 35.7% of Pacific Islanders, 30.7% of Vietnamese, and 21.5% of Koreans smoke cigarettes. Vietnamese and Pacific Islander men's smoking rates are close to two times the overall rate for men in California (17.2%) (CHIS, 2009). Smoking rates among API women have typically been low, but have increased in the last decade. In California, rates of smoking for Korean women (20.5%) and Pacific Islander women (23.0%) are more than double the rate of California women overall (10.1%). Moreover, API smokers tend to smoke more cigarettes on a daily basis than other ethnic groups, which may account for the higher lung cancer prevalence and mortality rates among API populations. Other API subgroups with an increased likelihood of nicotine dependency include non-English speakers, recent immigrants to the US, and adolescents (Fong & Tsuang, 2007).

Data from a California tobacco helpline indicated that 40% of API callers, compared to 6% of non-API callers, were friends or family members of smokers, (Fong & Tsuang, 2007). Involving the support of friends and loved ones may facilitate substance use treatment for API populations.

d. Alcohol

There is limited research available on alcohol consumption patterns for API populations. Alcohol consumption rates are typically lower for APIs than other race/ethnic groups, but similar to the pattern for smoking, researchers argue there are substantial variations in drinking behavior that exists among different API subgroups (Caetano, Clark & Tam, 1998). A recent study (Lee, Han & Gfroerer, 2013) comparing national data on API sub-populations showed that Korean Americans and Japanese Americans reported higher rates (51.8% and 49.7%, respectively) of past-month

alcohol use than Chinese Americans (42.0%), Filipino Americans (37.9%), and Asian Indian Americans (34.0%). Korean Americans (24.6%) reported the highest rate of past-month binge alcohol use, followed by Filipino Americans (14.5%), Japanese Americans (14.2%), Asian Indian Americans (10.1%), and Chinese Americans (8.1%). Cultural factors are considered to be strongly related to attitudes towards drinking, and stresses related to immigration status have been correlated with higher rates of problems due to alcohol use. Also, the perception of low problematic drinking among APIs may be due to the low rates of alcohol treatment utilization (Caetano, Clark & Tam, 1998). However, low rates of treatment utilization may not reflect low need for treatment options.

Sub-Populations

As discussed in the introduction, in San Francisco, a city with a large and historic API resident population, API is a diverse category involving many sub-groups. The sub-groups go beyond race/ethnicity to also include different age groups, immigration/language status, sexual identities, etc. In this section, we focus on sub-populations of APIs that have unique health needs, including children, youth, families, older adults, and LGBTQ communities.

I. API Children and Families

a. Childcare Capacity

High quality childcare is associated with positive health outcomes for children, such as "childhood growth, physical development, and physical health, cognitive, behavioral and school outcomes" (Sustainable Communities Index, 2012). Access to childcare services relies on the ability of licensed childcare centers and family childcare home providers to sufficiently meet the need of the childcare population in the community.

According to the California Department of Social Services (2012), the **West** and **South** regions of San Francisco have considerable disparities between the need for childcare services and the available childcare slots. In the South region, there are over 23,000 children eligible for childcare, but only 3,115 slots available, leaving an estimated 86.5% of children in the region without the option of childcare near their home. The disparity is most acute in the Crocker Amazon neighborhood, where there are childcare slots to cover just 8% children. In the West, there are 3,440 childcare slots available, covering only 18.6% of the 18,464 eligible children. The disparity is most severe in the Outer Sunset neighborhood, where there are only enough childcare slots to cover 2.7% of eligible children. In the North region, there are enough childcare slots to cover about 21% of eligible children.

Table 12: Child Care Capacity by neighborhood

Region	Neighborhood	Number of Slots	Child Care Population	Difference
North	Downtown/CC	443	2,264	2,201
	Nob Hill	131	1,146	1,015
	Russian Hill	127	1,125	998
	North Beach	243	973	730
	Chinatown	448	777	329
	North Total	1412	6,685	5,273
South	Bayview	1,049	6,768	5,719
	Excelsior	882	5,816	4,934
	Visitacion Valley	584	4,356	3,772
	Oceanview	444	4,160	3,716
	Crocker Amazon	156	1,982	1,826
	South Total	3,115	23,082	19,967
West	Outer Sunset	163	5,826	4,663
	Outer Richmond	736	4,129	3,393
	Inner Richmond	702	4,022	3,320
	Inner Sunset	370	2,713	1,803
	Lakeshore	469	1,774	1,305
	West Total	3,440	18,464	15,024

Limitations*: When examining the data of the total childcare population versus the total number of childcare slots, one slot does **not** equal one child. There are different types of childcare facilities (licensed family child care homes, licensed child care facilities) catering to families with different levels of need (family child care half day, family child care full day). Not all families utilize the full day childcare facilities, thus they may be "sharing" a slot with another family.*

b. Prenatal Care

In San Francisco County, 23.1% of babies are born to Asian mothers, 3.9% to Filipino mothers, 2.1% to Southeast Asian mothers, and 0.7% to Hawaiian or Pacific Islander mothers (CHSA, 2012). Babies born with a *low birth weight* are more likely than babies of normal weight to require specialized medical care, and maternal health and access to prenatal care are closely linked to ensuring a healthy birth weight (Department of Health and Human Services, 2006). Standard prenatal care includes regular checkups during pregnancy, pregnancy routines, and prenatal testing. Research has consistently shown that the chances of healthy pregnancy are dramatically increased when mothers participate in early and regular prenatal care. When mothers access prenatal care early, they reduce the risk of pregnancy, mother, and infant health complications (NIH, 2013).

Babies with low birth weight is associated with premature birth and is typically defined as those born less than five pounds and eight ounces. Statistics from the California Department of Public Health indicate that 7.3% of babies born to Asian mothers in San Francisco County and 10.3% of babies born to PI mothers in SF County have low birth weights – higher than the countywide average of 7.0% (2011). In a related pattern, 90.7% of Asian mothers in SF County receive first-trimester prenatal care, above the 88.0% countywide average, but only 64.9% of PI mothers had. These disparities in maternal and infant health for PIs indicate potential issues in access to maternal and prenatal health care.

We examined the neighborhood rates of *San Francisco mothers receiving prenatal during the first trimester* as an indicator of health for both mothers and their babies. This data was not available specific to APIs, so we report the findings for the regions with large API populations. The rate of San Francisco mothers receiving prenatal care during the first trimester was collected from the California Department of Public Health Birth Records of 2010; these rates were collected by dividing the number of live births where the mother received prenatal care during their first trimester by the total number of live births in each zip code. The zip codes are based on the mothers' place of residence at the time of delivery.

In comparison to the city average (85%), the North (85%) and West (90%) regions rate similarly. *However, mothers in the South (77%) region rate significantly less*. The Bayview neighborhood has the lowest percentage (69%) of mothers receiving prenatal care during the first trimester.

Table 13. Prenatal Care Rate by Zip Code

Region	Neighborhood	% Of mother receiving prenatal care during first trimester
North	94102	78%
	94103	82%
	94108	85%
	94109	89%
	94133	91%
North	**Average**	**85%**
South	94124	69%
	94134	80%
	94112	83%
South	**Average**	**77%**
West	94132	82%
	94121	91%
	94122	91%
	94116	91%
	94118	95%
West	**Average**	**90%**
	S.F. Average	**85%**

Limitations*: The California Center for Health Statistics suggests caution when examining data in zip codes with small live birth numbers (n<100) because small numbers tend to be unreliable and not representative (Sustainable Communities Index). API data was not available on a neighborhood level; therefore we present the available neighborhood level data instead.*

II. API Youth

a. High School Drop-Out Rates

Educational achievement is an important determinant of health. High school graduates have considerably better chances at gaining employment and health insurance, which are predictors of positive health outcomes (McKeon, 2006). Dropping out of high school is associated with multiple health risks, including less employment opportunities[9], poverty, substance abuse, increased experience with criminal justice systems[10], injury and early pregnancy (McKeon, 2006).

For this report, we use data from the California Department of Education (2014) on the 1-year drop out rates. The table below (Table 13) describes rates for years 2009-2012. The data suggests that Asians and Filipino High School students drop out of school at a lower rate than the overall San Francisco rate. However, students identified as "Other Pacific Islander" had high drop out rates, which were considerably higher than Asians and Filipinos and SF overall. For example, in the single year of 2010, 10% of Other Pacific Islander students in San Francisco dropped out of high school, almost three times the city rate of 3.8% that year.

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[9] According to the U.S. Department of Labor, high school dropouts are 72 percent more likely to be unemployed as comparison to high school graduates (McKeon, 2006).

[10] The Office of Juvenile Justice and Delinquency Prevention (1995) report that nearly 80 percent of individuals in prison do not hold a high school diploma (McKeon, 2006).

Table 14: SF High School Drop-Out Rates

	2009	2010	2011	2012
Asians	1.2%	1.7%	2%	1.9%
Pacific Islanders	5.3%	10.1%	5.8%	9.5%
Filipino	2.3%	2.5%	2.5%	3.8%
San Francisco	3.3%	3.8%	4.8%	7%

Limitations*: High School graduation and dropout rates are challenging to interpret because they are reported using different methods, including cohort (a group of classmates as they move through grade levels) and overall rates. Alternative School dropout rates are included in some reports and not others.*

b. English Language Learning Students

As discussed above, educational attainment is an influential predictor of one's health. It is key to examine issues relevant to APIs in the San Francisco School System including: English-language learners, and students enrolled in special needs education.

> *"Asian Americans speak dozens of languages and dialects, reflecting the community's rich immigrant character and diversity. Nearly three out of four Asian Americans speak a language other than English at home, and nearly one-third is limited-English proficient (LEP)." (Community Contrasts, 2011).*

While many of San Francisco's residents are bilingual, the ability for children to communicate effectively in English is vital to their success. In the San Francisco County, these are the percentage of total English Learners (grades 1-12) among API ethnicities in from 2012-2013 (**Figure 5**). The largest majority of English learners speak Cantonese (32.2%).
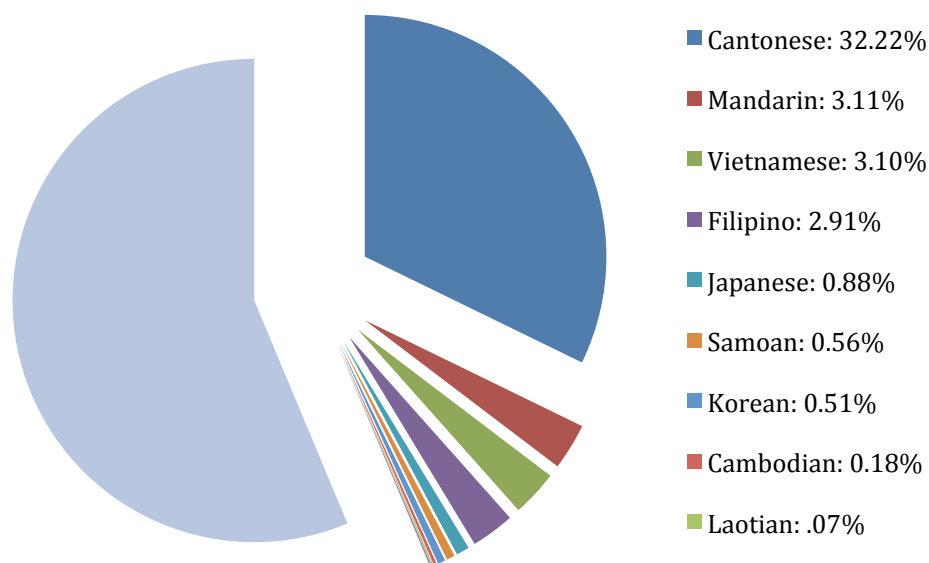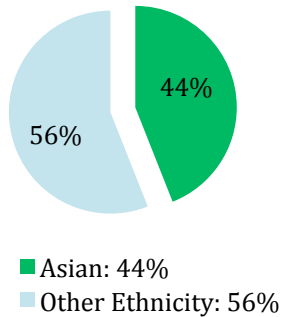
Figure 5: English Language Learners in SFUSD:Native Language

Approximately 20% of English Language Learners in San Francisco dropped out from High School. Note this estimate includes other non-API ethnicities (California Department of Education, 2011-2012).
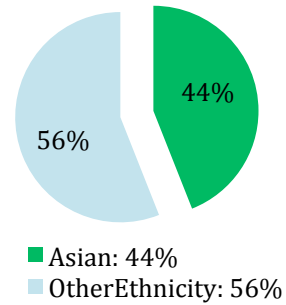
c. Special Education Enrollees

Special Education for children with physical, intellectual or developmental disabilities is a vital service needed within the California school system. From 2011-2012 San Francisco County Data on Special Education Learners (n= 516), approximately 18.8% of students with special education needs dropped out of High School (note, this estimate includes other non-API ethnicities.) API populations experience high rates of special needs. APIs in San Francisco constitute 35% of all enrolled under mental retardation, 42% of all enrolled under hard of hearing, 44% of all enrolled under orthopedic impairment and 44% of all enrollees under the autism category (California Department of Education, 2011-2012). In the San Francisco County, these are the percentages of total Special Education learners (grades kindergarten- 12th) among API in 2012 (**Figure 6**).
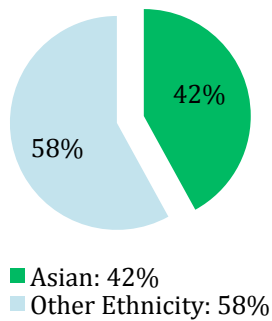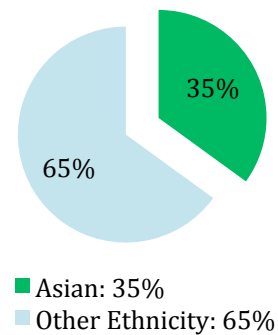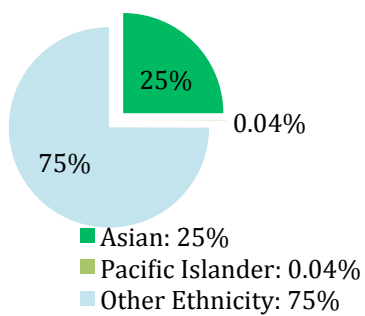
Orthopedic Impairment

44%
56%

■ Asian: 44%
■ Other Ethnicity: 56%

Autism

44%
56%

■ Asian: 44%
■ OtherEthnicity: 56%

Hard of Hearing

42%
58%

■ Asian: 42%
■ Other Ethnicity: 58%

Mental Retardation

35%
65%

■ Asian: 35%
■ Other Ethnicity: 65%

Speech or Language Impairment

25%
0.04%
75%

■ Asian: 25%
■ Pacific Islander: 0.04%
■ Other Ethnicity: 75%

Emotional Disturbance

12%
88%

■ Asian: 12%
■ Other Ethnicity: 88%
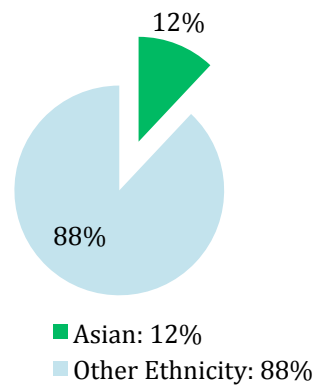
Figure 6: Special Education Learners in SF in 2012

Limitations: We utilized the California Department of Education to access data on the percent of API English Learners and Special Education enrollment. Although the database does not allow us to search for these rates on a neighborhood level, we feel the data is significant and describes the API children and youth in the San Francisco Educational System.

d. Alcohol and Drug Use, and Mental Health

API youth comprise 44.6% of San Francisco Unified School District middle and high school students. A national survey on drug use conducted by the Substance Abuse Mental Health Services Administration (SAMHSA) found that substance use and abuse among APIs is a continuing and expansive social concern (2003). Recently, local and national data have shown increases in the prevalence of alcohol, marijuana, and methamphetamine use among API youth:

- **Alcohol:** In a 2008 study of two generations of Southeast Asians in the Bay Area, 64% reported drinking in the past month and 20% reported binge drinking. Younger respondents reported drinking alcohol to be common among their peers and readily accessible (Lee et al., 2008).
- **Marijuana:** Nationally, APIs had the highest rate of treatment admissions for marijuana use. Marijuana was also found to be the primary drug of choice for API youth ages 12-21, 49% of the time (SAMHSA, 2005). In 2009, the Asian Youth Prevention Services (AYPS) administered a youth-led survey focusing on marijuana use by high school students in San Francisco. The results of the survey found that among the 200 respondents, 70% of youth reported using marijuana, including 25% on a weekly basis (AYPS, 2009).
- **Methamphetamines:** There is a growing body of evidence that methamphetamine (meth) abuse is an escalating problem for API youth and young adults. APIs had the highest rates of treatment admission for meth abuse and were admitted to treatment at a younger age compared to other racial groups (SAMHSA, 2005).

III. API Older Adults

The growth in number and proportion of older adults is unprecedented in the history of the United States. According to the CDC (2013), "Two factors including longer life spans and aging baby boomers combined will double the population of Americans aged 65 and older during the next 25

years to approximately total 72 million. By 2030, older adults will account for roughly 20% of the U.S. population." The proportion of the senior population (65 years and older) in San Francisco (14%) slightly outnumbers the California senior population of 12% (Census Bureau, 2012).

a. API Older Adults in San Francisco

With the dramatic aging of the U.S. population during the next several decades, there will be significant increases in the racial and ethnic diversity of older adult populations. According to the CDC (2013), "by 2030, older non-Hispanic whites will make up 71.2% of the population, whereas Hispanics will make up 12%, blacks nearly 10.3%, and Asians 5.4%. The proportion of older Asian Americans will more than double during 2010-2050, from 3.3% to 8.5%."

The percent of API older adults (ages 55 years and older) is a significant proportion of the total API population. While the North has the highest percentage of API seniors (40%), the largest number of total API (N=32,238) is present in the West region (US Census, 2012). In each region, the percentage of API seniors outnumbers the San Francisco average of 28%.

Table 15: API Older Population (55 years+)

Region	Zip Code	% Of API (55+)	Total API (55+)
North	94108	46%	3,794
	94103	45%	2,892
	94133	42%	6,340
	94102	35%	2,576
	94109	34%	5,171
	North	**40%**	**20,773**
South	94134	30%	6,447
	94112	29%	11,090
	94124	27%	2,581

South	**29%**	**20,118**	
West	94116	36%	8,580
	94118	34%	4,858
	94121	34%	6,561
	94122	31%	8,831
	94132	27%	3,408
	West Total	**32%**	**32,238**
		SF Average	**28%**

b. Services Available for Older Adults

It is evident from the data above that older adults are a large health demographic in San Francisco, particularly within the API population. To examine the types of older-adult-targeted services available in the city, we collected data on the location of the senior health centers (N=25) and senior activity centers (N=26) in San Francisco using the listings on the San Francisco Human Services Agency website (2014), shown in **Figure 7**. The majority of senior health service providers (about 44%) are located in the North regions of the San Francisco; the South and West regions both contain about 12% of senior health centers. Additional zip codes where senior health services are provided are in: 94105, 94107, 94110 and 94111. Of the 10 Senior health centers who specifically target API's, the majority are also located in the North at a rate of 60%, the West has a rate of 20%, and 10% in the South. From the data collected from Senior Activity Centers, (n=26), the North regions have the majority of Senior Activity Centers at 42.3%, the South regions at 15.3%, and the West neighborhoods at 11.5%.
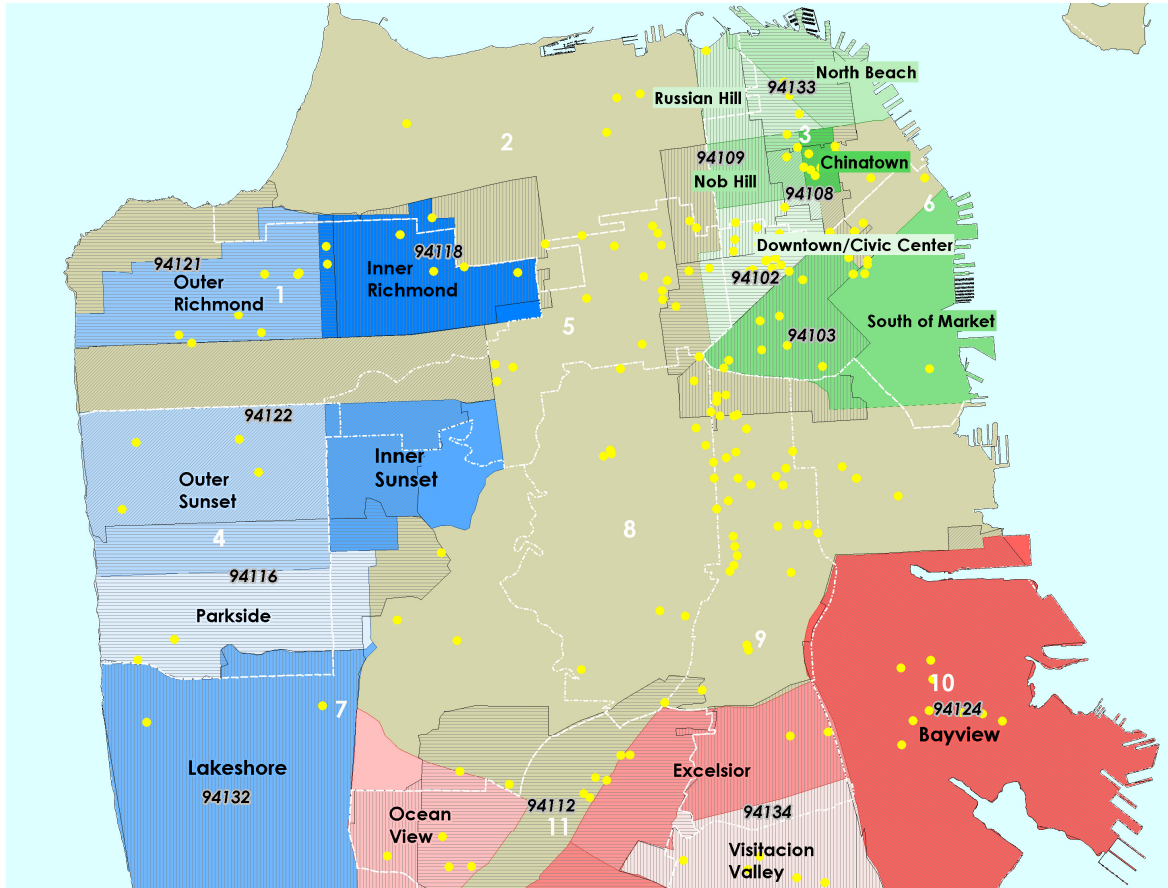
Figure 7: Locations of Senior Centers in San Francisco

Limitations: *Due to the time constraints, we were unable to research each senior service provider individually and how culturally appropriate each provider is. We find it relevant to examine the gathered data to view where the services are available (in which neighborhoods) to focus on whether each neighborhood has adequate access to senior health centers and senior activity centers.*

IV. LGBTQ

Based on 2000 Census, Gates and Sears (2005) estimate that 2.2 of every 1000 households are API same sex couples, suggesting that San Francisco has the highest number of API same sex couples in the nation. The LGBTQ API community in San Francisco faces specific health concerns. Many LGBTQ API face barriers in acceptance from family or community members who come from cultures

traditionally less understanding of diverse sexual identities. This can lead to health issues, such as depression, stress, and anxiety. Factors of discrimination are also a real health threat for LGBTQ API, who may experience varying degrees of personal and structural stigmatization and discrimination.

In San Francisco, the LGBTQ community has the highest HIV/AIDS incidence rates in the nation with more than six times the rate of API nationwide (Wortley, 2000). Furthermore, HIV/AIDS infections in San Francisco increased among the API community between 2000 and 2010, nearly doubling from 4.5% of all cases to 8.7%. Chin and his colleagues (2007) reported that for a four year period, API's had the only statistically significant increase in HIV/AIDs diagnosis rates among all racial groups in the United States. In a 30-year period, between 1980 to 2010, 30.6% of the API HIV cases occurred in the Filipino population, followed by the Chinese at 21.1%.

There is a need for culturally appropriate medical and prevention care that are specific for the API population. To examine the scope of LGBTQ services for the API population, we reached out to the LGBTQ Community Center who directed us to providers they felt provided targeted services to the API population. The four LGBTQ providers they identified as serving the API LGBTQ community included: the API Wellness Center, Gay Asian Pacific Alliance, API Equality and API Legal Outreach. Of the LGBTQ providers (from the San Francisco Police Department) and the API LGBTQ providers, we were able to identify that they are primarily located in the North region and the Castro (corresponding to zip code 94114).

Recommendations for Future Analysis

This report is a step toward characterizing the neighborhood health needs of Asian Pacific Islanders in San Francisco. It can be used to begin to inform the health and community-based organizations that serve the API community, but the report is limited in its scope and interpretability because it is based on a comparison of existing data, studies, and reports. For future analysis, we recommend:

1. Develop a data extraction/analysis plan: In the future, it will be key to extract raw data from federal, state, and local databases in order to more accurately assess the health needs of APIs and address how these health needs have been served. Data extractions should begin with block-by-block US Census Data, and key local agencies such as Departments of Public Health, Human Services, the Unified School Districts, Children, Youth and their Families, and Housing, etc. An example of one database is the Coordinated Case Management System (CCMS) database run by SFDPH, which is a meta-database of multiple health data sources. Independent statistical analysis of raw data by specific subgroups and neighborhoods would enable a more thorough, accurate assessment of API health and health needs in San Francisco.

2. Collect original data on the neighborhood health of APIs: Another approach for assessing the health of APIs in San Francisco is to develop an original community-based survey designed to collect information tailored to community-based organizations and the API populations they serve. The survey can be developed based on the findings from this report, as well as focus groups and interviews with API-focused community-based organizations, API residents, and key informants. The purpose and content of the survey can include: API health profiles, utilization of neighborhood resources, awareness and utilization of health services, perceptions of neighborhood resources, etc. The survey can be implemented on an annual basis to collect longitudinal data on the health of San Francisco APIs.

3. *Disaggregate APIs into ethnic subgroups when collecting any health data*: APIs continue to be seen as a homogenous group. But as we have described throughout this report, there are wide

differences in the health needs of different API populations. We suggest that when health data is collected on APIs through hospital-based or community-based surveys, it is critical that demographic data is disaggregated into the specific API ethnic subgroups due to the large health disparities that exist among APIs. The lack of disaggregated data masks the variability in health needs and health outcomes. City Departments should provide statistics, data and reports disaggregated by API specific subgroups (Filipino, Korean, Hawaiian, Samoan, Vietnamese, Chinese, etc.).

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2014 API Council Members

APA Family Support Services
API Legal Outreach
Asian & Pacific Islander Wellness Center
Asian Law Caucus, Inc.
Asian Neighborhood Design, Inc.
Asian Pacific American Community Center
Charity Cultural Services Center
Chinatown Community Development Center
Chinese for Affirmative Action
Chinese Newcomers Service Center
Chinese Progress Association
Community Youth Center
Donaldina Cameron House
Filipino Community Center
Filipino-American Development Foundation
Gum Moon/Asian Women Resources Center
Japanese Community Youth Council
Kimochi, Inc.
NICOS Chinese Health Coalition
Northeast Community Credit Union
Richmond Area Multi-Services
Samoan Community Development
Center Self Help for the Elderly
SOMCAN
Southeast Asian Community Center
The YMCA of San Francisco-Chinatown
Veterans Equity Center
Visitation Valley Asian Alliance
West Bay Pilipino Multi-Service, Inc.
Wu Yee Children's Services