

Chapter 5: Healthy Communities

Designing Healthy, Equitable, Resilient, and Economically Vibrant Places

"I thought about it while riding my bicycle."

- Albert Einstein on the Theory of Relativity

Introduction

The health and well-being of California's residents are fundamental to their quality of life and economic vitality. Protection of the public health, safety, and welfare of its residents is the legal basis for land use regulation.¹⁹ Homes, schools, and neighborhoods influence community health in fundamental ways. In these places are opportunities to influence and improve health, by ensuring that everyone has access to the ingredients for a healthy life, including nourishing food, safe water, affordable places to live, safe places to walk, bike, and be active, and clean air indoors and out. Policy priorities established in local general plans have tremendous potential to improve community health and make the healthy option the easier option.

Research shows that while access to health services is important, social, environmental, and economic factors also have a significant impact on health outcomes- the built environment is a key component of those factors. The built environment can affect all chronic conditions. Walkable neighborhoods promote physical activity.^{iv} Other links between health and environment continue to emerge; for example, the impact of green space on mental and physical health.^v Many planning policies, such as Complete Streets, already promote healthier outcomes by creating safer places to walk with improved connectivity to destinations. Adding a health lens to the planning process can lead to better health outcomes. Cross-sectoral work throughout the planning process allows communities to prioritize policies and coordinate with other local government agencies and private or non-

¹⁹ Cecily Talbert Barclay, Matthew S. Gray, Curtins California Land Use and Planning Law (Solano Press 34th Edtn. 2014).

profit partners to improve the health of the community. Many of the health-related policies identified in this section also promote economic, equity, and climate resiliency goals.

This chapter provides concepts integrated from promising practices that communities may voluntarily incorporate into their general plans and focuses on data analysis and policy development to further healthy planning. Fortunately, many opportunities are already aligned with existing planning practice and state legislation, such as requirements for incorporating [complete streets](#), addressing [climate change](#), and considering [environmental justice](#). This chapter provides ideas for data analysis, policy development, and implementation. Information was gathered from multiple sources, including health organizations across the state, a review of existing published research literature, a survey of promising practices, and extensive stakeholder engagement. As with all of the voluntary sections, this chapter provides suggestions and resources for use by jurisdictions as they see fit.

Correlations among Elements

	Land Use	Circulation	Housing	Conservation	Open Space	Noise	Safety
Healthy Communities	■	■	■	■	■	■	■

● Identified in statute

■ Closely related to statutory requirements

Strategies and Approaches

Incorporating Health Considerations in General Plans

Local jurisdictions that have incorporated health considerations into their general plans have opted for one of three formats 1) a separate health element; 2) an integrated approach which has health woven throughout all elements; or 3) a hybrid approach that weaves health throughout the General Plan and uses a health element to frame the importance of health issues. The adoption of a health element is consistent with [Section 65303](#) of the State of California Government Code. There are benefits to having a separate health element

because it can be easier for the public and decision-makers to see health-related policies in one place. At the same time, an integrated approach puts health-related policies into the elements that address those issues; for example, including active transportation policies in a [circulation](#) element could potentially make implementation more actionable, by incorporating them in to larger transportation plans. Some jurisdictions incorporate more specific health considerations into the [housing](#) element. Since this element is often updated more frequently, it provides an opportunity for more regular evaluation of policy implementation and progress. Regardless of approach, the health-related policies must meet internal consistency rules set forth in Government Code Section [65300.5](#). Health policies carry the same legal weight as all other elements once the final general plan is adopted. Ultimately, the best format will depend on the local context, available funding, and community interest, and should complement the overall general plan update and vision.

Jurisdictions will likely prioritize various health considerations differently depending on the local context. For instance, some communities may focus on active transportation, while other communities may emphasize clean water access, food systems or access to health care. Whether the General Plan is being updated at the city or county level could also impact which health issues emerge as priority areas in a general plan update. Additionally, policies that work in a rural area might not be as relevant for an urban area and vice versa. The discussion below is not an exhaustive list, but rather a starting point for further deliberation as to some of the associations between health and planning.

Innovative Partnerships and Collaboration

Planning relies on collaborating with different sectors to accomplish the vision set forth in the General Plan. Addressing health in the built environment creates an opportunity to form new partnerships. Several organizations can provide unique health expertise and offer a health perspective during the planning process. Additional models of collaboration are referenced in the [Public Engagement and Outreach Chapter](#).

Both health and planning have distinct professional terminology. In local jurisdictions that have successfully integrated health considerations, cross-sector groups prioritized learning basic planning and health terms, which is important for professional collaboration as well as

for community outreach. The long-term nature of the land use plans, e.g., 20 years or more, is new to many groups outside of the planning community. Particularly for large jurisdictions, general plan updates can be costly and are not undertaken frequently. Therefore, it is important to provide clear expectations in the initial phases of engagement, to clarify the timeline, and set expectations about the planning process. In addition, it may be beneficial for jurisdictions that decide to incorporate explicit health considerations into their general plan to start with a city or county resolution prior to the formal update of the General Plan to raise awareness about the connections between the built environment and healthy planning to achieve improved health outcomes. The “Healthy Eating, Active Living Resolution” is an example of such a resolution. To date, 176 cities across California have enacted resolutions to support health and wellness policies.^{vi}

Sources of Support and Information for health considerations

- **Local County and City Departments of Public Health:** Public health experts have in-depth understanding of local health data as well as strong ties with community organizations
- **Health related non-profits:** Many organizations are working to improve walkability, bikeability, accessibility for the disabled, and overall health in local communities
- **Equity or EJ related non-profits:** Many organizations are working to improve conditions in communities unable to access basic resources like safe water, healthy foods, and healthful air quality
- **Community groups:** Neighborhood or community organizations, environmental justice organizations, local parent groups, youth groups, faith-based organizations, or topically focused interest groups often work on community health issues
- **Academic institutions:** Academic researchers often analyze health data and provide expertise on data analysis, mapping, health impact analysis, and knowledge of local health conditions
- **Hospitals and/ or Clinics:** Health care reform has increased awareness on the social, environmental, and economic issues that affect health beyond clinic walls; non-profit hospitals conduct community health needs assessments (CHNAs) and provide funding for initiatives to improve health

- **Local and Regional Governments:** Local agencies such as police, water, flood, utility, and air districts manage programs that impact healthy planning processes
- **Local School Districts:** School districts partner with Safe Routes to School programs to ensure safe access to get to school; districts also participate in school siting of new facilities, have access to forecasted school growth and/or school closings
- **Private Sector Partners:** Local business associations, vendors, and local industries are increasingly designing work wellness programs which often have a transit component

Innovating in Riverside - A Healthy Community Planner

In 2011, through a grant by The California Endowment (TCE), the Riverside County Department of Public Health became the first health department in California to hire a full-time urban/regional planner. This "Healthy Communities Planner" position is designed to provide leadership in bringing public health concerns into municipal planning. The planner is key to bridging the gap between public health and urban/regional planners to help ensure that health is considered as the cities and the county plan for the built environment, future development and population growth. The planner is helping to implement the County's Health Element of the General Plan, actively

Health Considerations

The health considerations listed in this section were gathered from multiple sources, including health organizations across the state, a review of existing literature and best and promising practices, and an extensive stakeholder engagement process. It is divided by general health consideration, example policies are listed below to address these topics as well as in the appendix A. As mentioned in the beginning of this chapter, some local jurisdictions have separate health elements, and others have integrated or hybrid approaches.

Health & Economic Opportunity

Increasingly, health is recognized as a vital component of human capital. Several measures of health and wellbeing are factored into the World Economic Forum Human Capital Report.^{vii} Communities that have access to a wide array of resources have more opportunities to experience healthier outcomes and attain their fullest potential. Land use planning can influence commute patterns, access to jobs, and development projects can serve as job creation opportunities. General plan policies can impact the presence of anchor institutions, such as universities, schools, medical facilities and/or clinics, and have a stabilizing effect on the local economy. Recently, the San Francisco Federal Reserve Bank launched a nation-wide Healthy Communities cross-sector initiative to facilitate discussion between community development partners and the health sector, seeking to improve investment in low-income communities and improve health at the community level.^{viii} New models, with a more integrated approach, continue to emerge and focus on measureable and scalable results. Many of the models for economic development examine the role of Transit-Oriented and Infill Development recognizing that access to transit corridors can leverage resources and increase access to services and amenities to support healthy lifestyles for local community members that work, live, and play in the surrounding areas.

Concurrently, land use patterns that promote healthier lifestyles can generate economic value. A synthesis of peer-reviewed literature showed that open space for recreation and walkable communities create positive economic impacts.^{ix} For Instance, a rising demand for more walkable transit-oriented neighborhoods has increased resale value of property in those neighborhoods.^x Recognizing the power of healthy planning, the Urban Land Institute has a building healthy places initiative and recently published a series of case studies from developments around the world with a host of wellness features including support of bicycling, built amenities to support physical activity, and design to increase social interaction.^{xi}

With changes in health policy, new incentives have emerged for workplace wellness programs, ^{xii} including opportunities to site businesses near multi-modal transportation in a manner that encourages walking, increase activity through design, and improve health in conjunction with workplace programs.

A Changing Climate & Resiliency

The natural environment supports human life. Humans, in turn, impact the natural environment. The most prominent example is climate change caused by greenhouse gases (GHGs). Changes to the climate can have devastating consequences on health due to physical or mental harm or displacement from increased frequency or severity of disasters like flooding, drought, fire, and landslides. Climate change may not only increase existing risks but will also pose new threats to human health. The California Department of Public Health provides recommendations and publications dealing with health and climate change through their [climate change and public health team](#). While climate change will be the biggest common pathway that threatens public health for decades to come, land use planning can help reduce GHGs that cause climate change and prepare and adapt. The Safety Element already requires natural hazard areas to be considered to avoid or mitigate for potential hazards such as fires, flood zones, earthquakes, landslides and other hazards. Explicit consideration of health issues provides an opportunity to improve resilience of local communities.

Some health effects of climate change are already being experienced due to increasing temperature. Twelve of the warmest years ever recorded in history have occurred in the last fifteen years.^{xiii} Temperatures in urban areas can exacerbate already warm conditions due to materials- such as asphalt-absorbing heat and then releasing it, causing urban heat islands. Increased exposure to heat puts children, elderly, and people with pre-existing health conditions at more serious risk to suffer from heat stroke and heat-related complications. Studies show increased mortality during times of high heat.^{xiv} In fact, according to the Center for Disease Control, between 1979 and 2003, more people prematurely died from extreme heat-related illness than the total combined deaths from other natural disasters including tornadoes, floods, earthquakes, hurricanes, and lightning.^{xv}

Land use planning to reduce urban heat island effects is important to create more resilient communities to withstand extreme heat. Increased urban greening and cool surfaces, which have a high-albedo effect, reflecting higher portions of radiation and thus absorbing less, can decrease temperatures and lessen the effects of extreme heat. Green roofs can also have health benefits by reducing exposure to heat with the added benefit of better air quality. Healthy tree canopy can also provide shade from heat, help with carbon capture,

and improve air quality.^{xvi} Land use planning can also help to ensure the availability of water resources for cooling purposes.

With climate change, there is a growing recognition of the need to preserve limited resources such as water, fertile ground for agriculture, energy, and clean air. All of these actions are vital for human health.

Land use policies to promote efficient circulation, conservation, and recapture of water are needed for water conservation and drought mitigation. Additionally, it is important to control for pools of stagnant water. As water pools, without natural systems, such as certain fish populations, there is an increased risk for mosquito reproduction. With higher mosquito populations, strong pesticides- that can affect health- are required to spray to contain mosquito populations. Scientists predict that vector borne diseases will change in the future as a result of climate change. More tropical diseases, not previously experienced in California, such as dengue and yellow fever could become more of a concern. In 2013, the particular mosquito that carries Dengue was found in California. Land use policies to conserve water and prevent large scale stagnant pools will be key.

Climate change also has the potential to harm agricultural yields. Ensuring adequate food supplies to feed the population and avoid famines will require preservation of agricultural land. Land use policies that identify and avoid development on prime agricultural land are important to protect California's food supply.

Energy conservation programs have potential health co-benefits. When buildings and developments are planned to use less energy they can reduce energy bills and allow families to use the savings towards other expenses. Additionally, programs have started to monitor the benefits of energy efficiency measures and the opportunity to improve indoor air quality at the same time, which can reduce costs of respiratory illness such as asthma.^{xvii}

Policies that continue to improve air quality such as creating more public transportation options, zero emission vehicles, and bike and walk options for commuting are all important to maintain air quality and promote public health.

Active Living & Recreation

The design of the physical environment can either facilitate active transport or serve as a barrier. Physical inactivity is one of the key contributors to chronic disease in California.^{xviii} Only half of Californians meet the recommended daily activity: about thirty minutes a day for adults and one hour for children. ^{xix} Physical inactivity is associated with obesity. In 2011, 30.4% of California Children age 10-17 were overweight or obese.^{xx} In 2012, 25% of adult Californians were obese. ^{xxi} Obesity increases the risk for many chronic diseases such as diabetes, high blood pressure, high cholesterol, heart disease and many cancers. A more active lifestyle can help reduce the risk of obesity. Active living incorporates physical activity into one's daily routine such as walking to perform errands, active transportation to work, walking or biking to school, or accessing nearby open space to pursue recreation.

Active transportation options allow for less time spent in vehicles. In addition, greater individual activity also helps reduce Vehicle Miles Traveled (VMT) resulting in less greenhouse gas (GHG) emissions and improving air quality. Many local jurisdictions have developed active design guidelines that can also complement General Plan Policies.

Planning connected bike and pedestrian paths increase alternatives to auto use. Both transit oriented development (TOD) and infill development also create an opportunity for more active lifestyles. Complete Streets and multimodal, interconnected transit allow access to services, housing, school, open space recreation areas, and other amenities without the need for vehicles. In conjunction with a robust public transportation system, first and last mile policies- addressing the need to provide connections between destinations and the beginning or end of transit- ensure increased mobility. Additional infrastructure such as covered rest areas, shade, age friendly seating, and bike storage are important to increase utilization. This is an area where interagency cooperation with other districts or entities can allow for creative and cost effective solutions such as through easements for trail networks.

The Sustainable Communities and Climate Protection act of 2008 (SB 375), promotes regional coordination of transportation and land use planning, including support of active transportation. These policies help reduce the burden of transportation on the environment, improve air quality, and help communities be more active. Prioritizing more forms of active transport policies in general plans will strengthen potential for regional transportation plans to meet GHG reduction targets established pursuant to SB 375 (2008).

Due to recent federal legislation, the statewide funding mechanisms to support active transportation have been evolving. The Active Transportation Program, enacted via Senate Bill 99, is a new program to fund pedestrian, bicycle, and Safe Routes to School programs (SRTS). In 1969, nationally, almost half of the children between the ages of 5-14 walked or biked to school, but that number has plummeted to 13% in 2009. While the reasons for this are many, factors include the distance to school, school siting, safety of the area, and physical conditions on the route to school. Programs that promote walking or biking to school help achieve daily-recommended physical activity. Improving infrastructure and safety also increase the ability of children to walk or bike to school as desired. Although school siting is conducted outside of the realm of the general plan, the general plan process can promote coordination with school districts and help align school modernization and reinvestment with the general plan.

Planning for active lifestyles also benefits the elderly. The "Aging in Place" concept focuses on enabling seniors to stay in their own homes and communities. Also known as Naturally Occurring Retirement Communities (NORC), these areas prioritize creating walkable communities to accommodate their needs and provide access to full services such as stores, clinics, and social programming.

Furthermore, providing parks and natural recreation opportunities and access to green space is vital to good health, allowing easy access to physical activity and relief from urban stress. As more compact development occurs, it is important to ensure access to adequate green space for all community members.

Social Connection & Safety

The physical environment can have a significant impact on health and wellbeing, but the social structures and how citizens engage within the physical space can be equally important. Feeling connected to neighbors, feeling safe in one's home, and having a robust supportive social network has been shown to affect physical and mental health.^{xxii} A neighborhood can be well designed and offer amenities, but if the local residents perceive the area to be unsafe, or it is unsafe, it will not be utilized to its full capacity. Design

principles can be implemented with this in mind. Crime prevention through environmental design (CPTED) examines environmental conditions that have unintended consequences on behavior.^{xxiii} This field of research combines evaluating place and human interaction. CPTED uses design elements to control access, provide more opportunities for passive observation of what is occurring in the area, and encourage civic engagement to maintain properties. An important aspect of implementing CPTED includes a wide multi-sector, such as with law enforcement- and community engagement process to define the problems, opportunities, and solutions. Civic participation and social cohesion can be supported through the design of community spaces that provide engagement, access to learning opportunities, quality interaction of citizens, multi-generational connections, public services such as libraries, and cultural and art facilities. Joint use agreements with schools allow for another opportunity to collaborate with school districts, maximize resource utilization, and foster more activated spaces that otherwise would be empty during non-work hours.

A safe community with active streets includes protection from criminal activity, as well as from avoidable accidents. Many design elements such as narrower streets, intensity-appropriate lighting, improved signage, and slower speed limits can help reduce accidents. Traffic calming measures, complete streets, and improvement of physical infrastructure are important components of injury prevention. As referenced in the circulation element, the California Complete Streets Act of 2008 (AB 1358) requires local jurisdictions, upon any substantial revision of the circulation element, to plan for a “balanced, multimodal transportation network that meets the needs of all users of the streets, roads, and highways for safe and convenient travel in a manner that is suitable to the rural, suburban, or urban context of the general plan.”^{xxiv} The circulation element can be an excellent place to incorporate design for safety and multimodal use. The National Association of City Transportation Officials (NACTO) Street Design guidelines, formally endorsed by Caltrans in 2014, offer excellent examples and a blueprint to guide complete street policy implementation, particularly around priority sites such as schools and daycare centers.^{xxv}

Housing

Housing affordability, location, and quality have major health implications. Also special housing considerations factor into planning such as housing to accommodate special groups such as homeless populations, marginally housed, individuals with disabilities, and aging populations. The [housing element](#) allows jurisdictions to identify opportunities and adopt policies to promote positive health outcomes. State Housing Element law, including the Regional Housing Need Allocation (RHNA) process, a.k.a, "fair share" planning, fundamentally addresses equity issues, and related planning and zoning laws require regional and local governments to adopt plans for increasing, improving and preserving the State's housing supply for all income groups.

Location of housing plays a central role in how individuals and families engage in their communities, particularly for the elderly population with the growing interest to "age in place." Neighborhoods with accessible transit and active transportation infrastructure offer opportunities for access to employment, schools, and services. If the neighborhood is safe, housing located near parks and green space provides recreational opportunities. Housing location can influence ease of access to fresh food and produce.

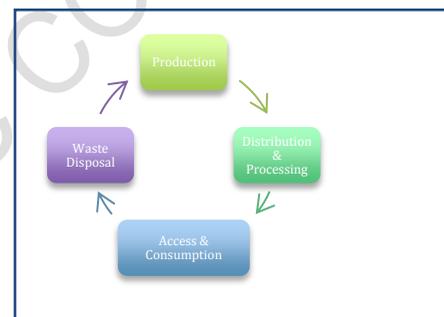
The quality of available housing stock has direct health implications. Older housing that has not been maintained or updated can lead to physically unsafe conditions such as pest infestation, water intrusion, mold, poor insulation, and exposure to toxins such as lead. Water intrusion, poor insulation, and mold can exacerbate respiratory illnesses such as asthma and chronic obstructive pulmonary disease. Lead exposure, a known neurotoxin, can have lifelong health consequences for young exposed children.

In addition to the quality of housing, affordability is a key factor. Access to affordable housing helps alleviate undue stress suffered from unstable living conditions. Often, since

families are on fixed incomes, affordable housing allows them to use remaining income towards other goods and services, health care needs, and basic necessities such as healthy food. When housing prices rise, household occupancy rates often increase, becoming overcrowded, leading to unsafe living conditions and increased risk for spread of infectious disease. Rising rents can also lead to displacement of residents resulting in a disruption of social networks and school attendance, and can change the fabric of the local community. Given the health impacts of having access to safe, decent, and affordable housing it remains critical jurisdictions appropriately plan for variety of housing types.

Nutrition & Food Systems

The paradigm around access to healthy food has been shifting nationally as the percent of obese adults and children has been on the rise. In addition to public health messages targeted at individual behavior, the focus also now includes policy around food access. Over consumption of less nutritional food is a component of



the problem as well as lack of access to enough healthy, fresh food. Some areas struggle with food deserts, areas that do not have adequate physical access to nutritious healthy foods.^{xxvi} Many Californians have experienced food insecurity, defined as a time when they could not afford enough food or had to forgo other basic life expenses to buy food.^{xxvii} Although foods choices are for individuals to decide, those choices are made within the context of what is accessible and affordable. Access to healthy food is a critical factor to better nutrition.^{xxviii} New research also shows the lifetime risk of developing diabetes in the US population is on the rise with nearly a 40 percent risk to develop diabetes during the average lifespan, further supporting the need to improve nutrition.^{xxix}

Increasing access to healthy foods can occur in multiple ways, such as zoning for and opening grocery stores in underserved areas, providing policies to increase access to farmers markets, promoting community gardens, working with local convenience stores to increase affordable fresh produce selection, and using food procurement policies. California is the largest and most diverse producer of healthy foods and commodities in the nation.

The American Planning Association recently completed a national scan of planning documents addressing food issues, and compiled findings into a policy report, [Planning for Food Access and Community Based Food Systems](#). CDFA's [Farm to Fork](#) office provides information on programs to improve food access. In addition, local and regional collaboratives can help address food access issues in the global sense, including evaluating policies that cover the range of food system issues from production, distribution and processing, access and consumption, through the end of the cycle to waste disposal. According to the USDA, "a community food system is one in which 'food production, processing, distribution and consumption are integrated to enhance the environmental, economic, social and nutritional health of a particular place.'"^{xxx}

General Plans can support protecting agricultural land for production as well as establishing a framework to support and encourage local food production in the form of community gardens and zoning. Integrated transportation systems connecting regional networks can ensure distribution and processing that has a lower carbon footprint and is more sustainable. Also, local access can help reduce trip generation, promote locally sourced food and general plan policies can support mixed use for food retail, farmers markets, and other food stores. Waste disposal has been a component of some local general plans as local jurisdictions have gone toward zero waste policies.

All of the policies to support improved access to fresh food are not only important for health, but also for community resilience.

Environmental Health

Exposures to various toxic substances in air, water, and soil can significantly affect health. Noise, when extreme can also be considered a health hazard. Diseases such as asthma, birth defects, cancer, heart disease, neurologic disorders, and reproductive disorders can be linked to toxins in the environment. In addition, certain geographic areas and communities experience a disproportionate share of exposure to environmental toxins. As a result, compatible siting should be considered in the context of housing, childcare, and businesses. . Siting of childcare is particularly important since children are more prone to exposure of toxic substances due to their developmental stage. Childcare sites are often sited in

residential or mixed-use zones. When sited in a residential use zone it is usually safer since it avoids siting near incompatible uses. Occasionally, sites are in commercial or industrial zones. If this occurs, it is important to ensure there are not hazards. Although school siting occurs outside of the general plan, local planning agencies can provide information to school districts and other entities involved in locating services to avoid location near higher-risk areas, such as near businesses producing toxic substances, agricultural land where pesticides are used, or areas with poor air quality. Additionally, providing guidance on buffer zones and limiting certain types of uses can help minimize toxic exposure.

Air quality can also be a relevant consideration for public health. Of course, air quality varies from day to day and can be affected by many environmental factors as well as the emission sources, prevailing winds, and natural terrain. Most jurisdictions are not required to address air quality in their general plan,²⁰ although some have chosen to do so voluntarily. For additional discussion see [Social Equity, Environmental Justice, and Community Resilience Chapter](#).

Health & Human Services

Hospitals and clinics are increasingly recognizing that where patients live, learn, work, go to school and play affects their health and wellbeing. Through new paradigms and innovation, they are considering what community services are necessary to support health for individuals in their community. Non-profit hospitals conduct community health needs assessments as part of their community tax requirements and can reinvest into the community based on the assessment. Increased access to health care, physical activity opportunities, and healthy foods are often key priorities to improve community health. General Plan policies can improve all of these and particular planning decisions can improve access to health services through integrated public transportation and provisions for access to broadband and thus allow for telemedicine capacity.

General plan policies authorizing or promoting supportive housing can facilitate the integration of healthcare services into multifamily housing developments, especially for the

²⁰ See Air Quality chapter

elderly and disabled. A number of housing developments in major metropolitan areas include health clinics, and community spaces, and tenant services for special needs populations.^{xxxii} Supportive services have multiple benefits, for both tenants and property management. Integrated service delivery plays a critical role with populations at risk of homelessness or institutionalization. Healthcare providers have started to bring farmer's markets and gardens on clinic and hospital premises to facilitate access to healthy food for their staff and patients.

Clinic locations, particularly federally qualified health centers, serve as important meeting points and services in case of a disaster. Having established systems in place to ensure access to routine services allow for a more robust and resilient system during times of emergency.

Health Data and Mapping

Data, Mapping, and Tools

Defining existing conditions is part of the General Plan update. Incorporating health data creates an opportunity to conduct a more comprehensive existing condition analysis and also serves as a means to provide baseline data to track progress, particularly for the social, economic, and environmental factors that can impact health. The housing element section includes analysis of community characteristics related to population characteristics, economic conditions and well-being, housing needs, and special populations. These issues all have health implications. As more and more local jurisdictions have started to incorporate explicit health considerations, Geospatial data can be used to analyze health outcomes at a geographic level and to inform how health considerations might be incorporated or targeted. Additional tools such as walk audits, charrettes, community-based visual cataloging, and new crowd sourcing platforms can be an effective means of getting communities involved for more local and qualitative data.

Data is informing policy in innovative ways. Just as a physician would look at vital signs of a patient, cities and counties have started to look at vital signs or community dashboards that are reflective of how the population's health is fairing and other indicators that reflect the social, economic, and environmental conditions. This type of analytic measurement can be

particularly informative when examining areas that are disproportionately burdened by poor health outcomes and help target needed resources towards more vulnerable populations. It can also provide a baseline for analytic discussion on location of services, where to prioritize new or update current infrastructure, and provide a means for tracking outcomes of development and infrastructure investments over time. See [Social Equity, Environmental Justice, and Community Resilience Chapter](#) for a more in-depth discussion on addressing vulnerable populations.

Additional Health Data Resources

Many indicators for health, social, environmental, and economic indicators are available at the census tract level. Health departments also have access to local data that is occasionally available at a more granular level. Some additional health data resources include:

- [Community Health Needs Assessment](#): This free web-based platform was created to assist community hospitals doing their needs assessment and provides census level data for health, economic, social, environmental, and behavioral data.
- [California Environmental Health Tracking Program](#): This program is hosted by the CDPH. The data is more focused on environmental health impacts such as air quality, health, climate change related outcomes, water quality, and cancer prevalence.
- [Envirostor](#): This program is hosted by the Department of Toxic Substances Control. It is a database that provides data in a GIS form to identify contaminated sites as well as facilities that deal with hazardous waste. This resource is important for remediation and siting.
- [CalEnviroscreen](#): The Office of Environmental Health Hazard Assessment (OEHHA) in the California Environmental Protection Agency created this online mapping tool. It is a tool that can help identify communities that are burdened with high levels of pollution.
- [Healthy Communities Data and Indicators Project \(HCI\)](#): HCI is hosted by the California Department of Public Health (CDPH). This indicator list provides evidence for the link to health outcomes, data sources, and provides the ability to create maps.
- [California Health Interview Survey \(CHIS\)](#): The largest state health survey in the nation, CHIS is a random phone interview administered by the UCLA Center for

Health Policy in conjunction with the State Department of Public Health and the Department of Health Care Services.

SAMPLE OF OPR RECOMMENDED DATA FOR CONSIDERATION IN ANALYSIS OF THIS ELEMENT

	<i>Intent of Analysis</i>	<i>Recommended Data</i>
<p><i>Health & Health Behavior Related</i></p>	<p>Life expectancy can be a good proxy for general health and well-being in the community. Many low-income areas suffer from early mortality and morbidity.</p>	<p>Life Expectancy at Birth</p>
	<p>Asthma can be worsened by environmental triggers such as poor air quality, poor housing quality, and climate change, examining baseline conditions can help inform siting decisions.</p>	<p>Asthma (Prevalence, ED visits, hospitalizations)</p>
	<p>Obesity is caused by many factors, but lack of access to healthy foods and physical activity are significant contributors. Examining baseline status can help with policy decisions around active transportation, recreation priorities, and food system policies.</p>	<p>Obesity (child and adult) prevalence</p>
	<p>These diseases, also caused by many factors, are often associated with obesity. Examining baseline status can help with policy decisions around active transportation, recreation priorities, and food system policies.</p>	<p>Secondary diseases from obesity (high blood pressure, high cholesterol, heart disease, type 2 diabetes prevalence)</p>
	<p>Many accidents involving pedestrians and bicycles could be improved through infrastructure, design, and signage. Examining a baseline can inform policy and planning for transit routes, active transportation, and safety.</p>	<p>Unintentional injury such as pedestrian and bicycle accidents</p>
	<p>Walk trips is a behavior that benefits health and is influenced by the environment. Examining a baseline number can help inform active transportation and for</p>	<p>Walk trips per capita</p>

	climate change and resiliency policy.	
	Children walking, biking, or rolling to school is a behavior that can improve health and is influenced by the environmental conditions such as distance to school and safety. Examining the baseline condition can inform policy priorities around active transportation, active design, school siting, and housing siting.	Percent of children who walk, bike, roll to school
	Commuting decisions also can be influenced by connectivity, cost and ease of use. Active transportation can have positive health benefits since people are able to achieve higher physical activity. Examining the baseline can inform policy priorities around active transportation, mixed use developments, job locations, and housing locations.	Percent of commuters who use active transportation
	Eating more fruits and vegetables is a behavior that can be supported through more access to healthy, affordable options. Examining a baseline condition can inform policy around food systems, location of services, and mixed use developments.	Consumption of daily fruits and vegetables
	Understanding the poverty conditions can help focus resources and policy development to areas that need additional support.	Poverty data for population below 200% of the Federal Poverty Level
	Income is an important predictor of health outcomes. Access to job opportunities as well as job/housing/work force fit can inform transit lines, housing location, and where jobs are incentivized to locate.	Employment Density (example: Trade Transportation, utility, leisure, hospitality, goods producing, government, education, real estate, finance, health services)
	Mapping baseline food retail and access conditions can identify areas that might not have adequate access and inform policy priorities and decisions for siting.	Food retail, community garden, and farmer market location

Social, Economic, or Environmental Related	Mapping baseline walk and bike conditions can help create a more connected network for improved use.	Walk and bike maps
	Mapping baseline conditions can help identify areas that could benefit from improved transportation options	Public transit facilities
	Safety in the neighborhood can impact social stress and influence whether people will be active. Establishing a baseline condition can help inform safety policies such as crime prevention through environmental design.	Percent of people that feel safe in their neighborhoods
	Air quality has direct effects on people with respiratory disease. Mapping baseline conditions can help inform policies around transportation, connectivity, siting, and industry.	Air quality (ozone, pm 2.5)
	Extreme heat days and heat island effects can cause illness and even death in extreme circumstances. Monitoring heat days and areas with worse heat effects can help inform policies around transit, greening, materials, and programs to mitigate its effects.	Extreme Heat Days, heat islands effects
	Urban canopy can have multiple benefits for air quality, shade for easier time spent outdoors for commuting and recreation, and even new research on the benefits of mental health and mood. Establishing a baseline can help inform policy for transit, roadway, recreation, and bike and pedestrian planning.	Urban canopy
	Health facilities provide daily services and often serve the community in disaster. Establishing a baseline of where services are located can help improve transit decisions, siting, and emergency preparedness planning.	Location of health facilities
	Mapping where schools and child facilities are can provide an important baseline. This can inform policies	Location of schools, child care facilities

	to leverage joint use agreements, ensure they are accessible and free from newly sited environmental hazards.	
	How much people drive is a great proxy to understand how active community members are. New research suggests that the amount of time spent in a vehicle may have potential effects on mental and physical health.	VMT

OPR Recommended Policies

A full list of recommended policies can be found [here](#)

As is the case throughout the entire general plan, many of the policies have relation to other elements. This is particularly true with the health-related policies, below are some of the top priorities for consideration. A full appendix of example health related polices are in appendix A.

Policy	Example	Relation to other elements
[city, county] shall prioritize Transit Oriented Development that connects housing to local jobs		Circulation, land use, housing, economic development, social equity, climate change
[city, county] shall provide job training opportunities that match resident skill to locally available jobs		Economic development, social equity
[city, county] shall require employment centers to provide traffic demand management to support alternate commutes to work		Circulation, land use, climate change
[city, county] shall site anchor institutions in transit- oriented corridors		Circulation, land use, housing, economic development, social equity, climate change

[city, county] shall encourage local employers to sponsor workplace wellness programs		economic development, social equity
[city, county] shall incorporate existing pedestrian, bike, and/or Safe Routes to School Plans		Circulation, land use, housing, social equity, climate change
[city, county] shall Integrate plans for public health implications of climate change		Social equity, climate change
[city, county] shall establish a food policy council		Land use, economic development, social equity

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