Connect SoCal: Public Health Report Update

Hannah Brunelle Active Transportation and Special Programs January 24, 2019



Discussion Areas

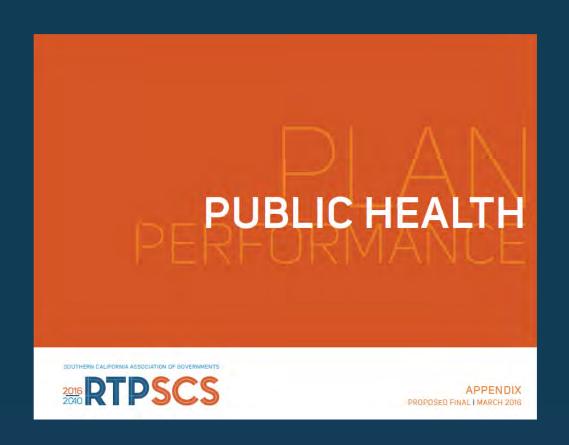


- Overview of 2016 RTP/SCS Public Health Appendix
- 2020 SoCal Connect Public Health Report update:
 - Review expanded analysis areas
 - Discuss regional definition of health equity
 - Review proposed Environmental Justice analysis integration

Review of 2016 RTP/SCS



 2016 Public Health Appendix



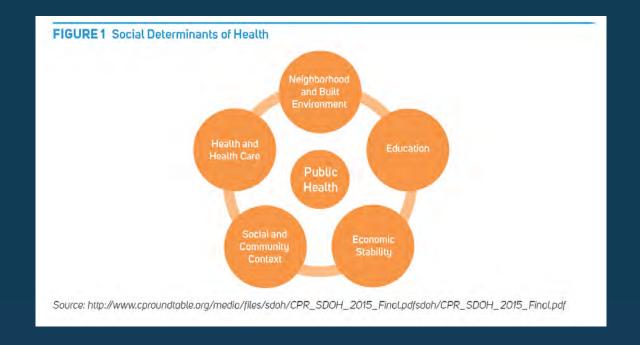
- Social Determinants of Health
 - Access to Essential Destinations
 - Affordable Housing
 - Air Quality
 - Climate Adaptation
 - Economic Opportunity
 - Physical Activity
 - Transportation Safety

Policy Frameworks



Existing:

- Health in All Policies (HiAP)
- Social Determinants of Health (SDOH)



Performance Measures



- Used existing Plan
 Performance measures
- Used SDOH framework
- Expect to mirror this process for Connect SoCal

TABLE 4 Plan Performance - Accessibility*

Metric	Result of Plan	
	2040 Baseline	2040 Plan
Share of growth in High Quality Transit Areas (HQTAs) from Base Year (% of Households in in HQTAs)	36%	47%
Jobs/Housing Balance in HQTAs	36% Housing 44% Employment	46% Housing 55% Employment
Average distance for work trips (miles)	15.1	15.5
Average distance for non-work trips (miles)	7.8	7.9
Percent of work trips less than 3 miles	20.4%	20.3%
Percent of non-work trips less than 3 miles	41.7%	41.9%
Work Trip Length Duration	Auto 25.3 min Transit 79.9 min Walk 25.7 min Bike 26.9 min	Auto 22.0 min Transit 76.3 min Walk 25.4 min Bike 26.5 min
Percentage of PM Peak transit trips <45 min	26.2%	30.1%
Percentage of PM Peak HOV Trips <45 min	72.9%	78.4%
Percentage of PM Peak SOV Trips <45 min	82.2%	88.6%

^{*}Please see the Performance Measures Appendix for more information on data sources and methodology used to colculate these outcomes.

2020 Connect SoCal Public Health Framework



- Guiding document for Connect SoCal Public Health integration
- Provide policy frameworks
- Propose performance measures and data sources

Expanded Analysis Areas (Base Year)



- Climate Change
 - Extreme Temperatures
- Affordable Housing
 - Housing Quality
- Access to Essential Services
 - School Access
- Additional Health Outcomes
 - Insured adults



Health Equity Framework



New to Public Health Report: Health Equity Framework

- Health Disparities
- Expanded Base Year SDOH Analysis
- Regional Definition of Health Equity
- Integration of Environmental Justice analyses

Defining Health Equity



State Office of Health Equity (OHE):

• "Health equity refers to efforts to ensure that all people have full and equal access to opportunities that enable them to lead healthy lives." (CA Health and Safety Code Section 131019.5)

Health Equity Framework



OHE provides guidance for framework:

- Determinants of Equity
 - Social, economic, geographic, political and environmental conditions
- Vulnerable Communities
 - Including low-income, racial/ethnic groups, etc.
- Vulnerable Places
 - Communities with inequities or insufficient capacity to promote health and well-being of residents

Proposed Connect SoCal Health Equity Analysis



Goal:

 Explore how the Plan impacts the social determinants of health in vulnerable communities and places.

Approach:

- Adopt existing Environmental Justice definitions to capture "vulnerable communities" and "vulnerable places".
- Report on Environmental Justice metrics in Public Health Appendix to explore how the plan impacts social determinants of health in EJ communities.

Environmental Justice Definitions



- Environmental Justice Areas
 - Transportation Analysis Zones (TAZs) with high concentrations of minority populations OR low-income households
- SB 535 Disadvantaged Communities
 - Census tracts identified by Cal EPA
- Communities of Concern
 - Census Designated Places with high concentrations of minority populations AND low income households
- Urban Areas
- Rural Areas

Environmental Justice Metrics



- Example: SDOH Air Quality
 - EJ Metric: Impacts Along Freeways and Highly Traveled Corridors
 - Data Source:
 - Distribution of Environmental Justice Demographic Groups along Freeways and Highly Traveled Corridors (Percentage of Minority Population)

Thank you

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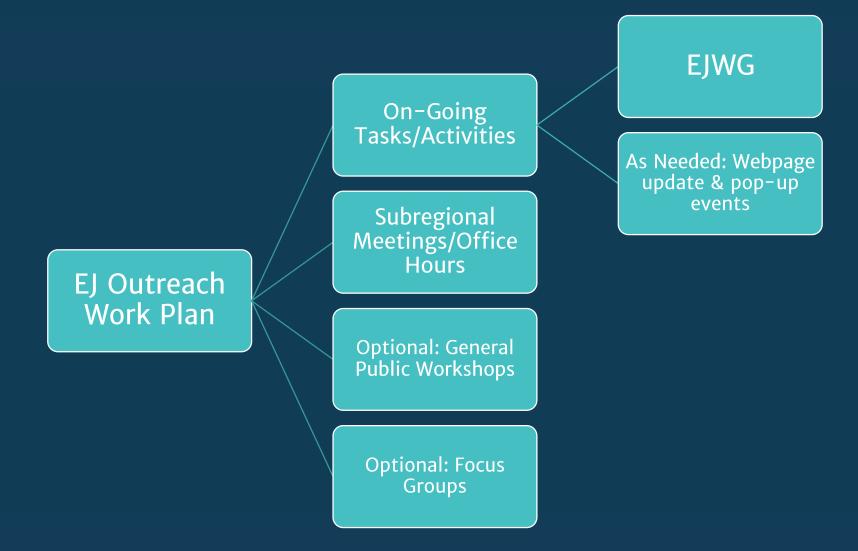
Connect SoCal EJ Outreach Update

Anita Au
Associate Regional Planner
EJ + PH Working Group,
January 24, 2019



EJ Outreach Work Plan





FOCUS: On-Going Tasks/Activities



Environmental Justice Working Group

- Meetings held every 2-3 months or based on input and demand from the group
- Guide development of Connect SoCal EJ technical analysis
- Platform for EJ information sharing and discussions on different topics
 - With involvement of other SCAG staff with different expertise

AS NEEDED: On-Going Tasks/Activities



Webpage Update and Maintenance

- Larger online presence
- Potential enhancements: hub for EJ information, announcements and events

Pop-Up Events

- Public engagement in existing events, meetings, workshops, activities
- "Piggy-back" on events

FOCUS: Subregional Meetings/Office Hours



Subregional Meetings/Office Hours

- Targeted outreach
 - Regions with less representation at SCAG EJ meetings/activities
- Smaller, intimate meetings with support from SCAG staff with expertise in different topic areas
- Utilize "local sponsors" and communicate with CTCs and COGs to prepare for meetings
- February March 2019

OPTIONAL: General Public Workshops



General Public Workshops

- Dependent on feedback and subregional meeting progress
- "Piggy-back" on Connect SoCal general outreach efforts (details TBD)
- Anticipated timeline: May-June 2019

OPTIONAL: Focus Groups/Interviews



Focus Groups/Interviews

- Dependent on feedback and subregional meeting progress
- Similar to 2016 RTP/SCS approach
 - Hire consultant to administer focus groups for candid input
- Consider objective of focus groups; how is this different from 2016?
 - Progress report (for post draft outreach)?
- Possible timeline: June/July 2019 or after draft release

Proposed Timeline



Continuous

Environmental Justice Working Group

Feb – Mar 2019

Subregional Meetings

May - Jun 2019

 General Public Workshops (w/ Connect SoCal Workshops)

Jun - Jul 2019

Focus Groups/Interviews

Thank you

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Strategies to Reduce Air Pollution Exposure Near High-Volume Roadways: Technical Advisory

Annalisa Schilla

California Air Resources Board, Research Division

January 24, 2019
SCAG Environmental Justice and Public Health Working Group Meeting

What is the "Technical Advisory"?

- A guide intended to provide planners and other stakeholders with:
 - Options for strategies that can be selected based on site/projectspecific context
 - Scientific basis and other considerations (tradeoffs, appropriate context, etc.)
- Technical supplement to the 2005 Land Use Handbook



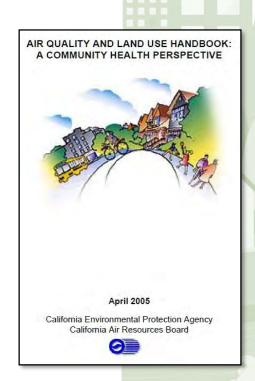


Why is it Needed?

1. Supplement CARB's Land Use Handbook

- Land Use Handbook recommendation: "Avoid siting new sensitive land uses within 500 feet of a freeways, urban roads with 100,000 vehicles/day, or rural roads with 50,000 vehicles/day."
- But, what to do for:
 - Existing development w/in 500'?
 - Development where 500' separation is impractical?
 - Communities where the busy roadway network is dense?

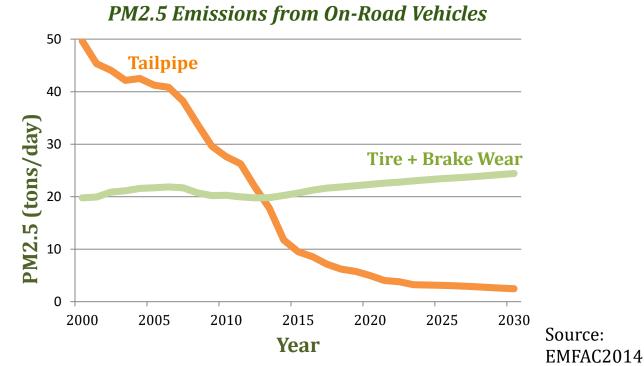
2. Identify ways for reducing exposure in existing and future infill areas



¹ http://www.arb.ca.gov/ch/handbook.pdf

Why is it Needed? (Cont.)

- 3. To provide near term options as near-roadway air quality improves over time
 - State regulations, policies, plans are cleaning up the air, but some are phased-in, so full benefits may take time
 - Non-tailpipe emissions (e.g., tire and brake wear) may continue to be an issue



How did CARB Identify Strategies?

- Comprehensive literature review: 2013-2016
- Criteria for inclusion:
 - 1. Consistent findings from multiple studies support the strategy as a means for reducing pollution concentrations, or emissions rates, or improving air flow to disperse pollutants.
 - **2. Significant evidence of effective** pollutant concentration or exposure reductions.
 - **3. Diversity in the study methods** supports consistent findings (such that strategies do not exclusively rely on one method of investigation).



Stakeholder Review



Technical Advisory Strategies



Strategies that reduce traffic emissions

- 1. Speed reduction mechanisms, including roundabouts
- 2. Traffic signal management
- 3. Speed limit reductions on high-speed roadways (>55 mph)

Strategies that increase dispersion of traffic pollution

- 4. Design that promotes ventilation along street corridors
- 5. Solid barriers, such as sound walls
- 6. Vegetation for pollutant dispersion

Strategies that remove air pollution

7. Indoor high efficiency filtration (in buildings)

Strategies that Reduce Traffic Emissions

1. Speed reduction mechanisms, including roundabouts

- Reduce stop-and-go driving and hard accelerations and thereby reduce emission rates by 20% or more
- Roundabouts (in place of stopcontrolled intersections)
 - Reduce localized pollutant concentrations, depending on context and site-specific conditions



Strategies that Reduce Traffic Emissions

2. Traffic signal management

- Reduce stop-and-go driving and vehicle idling
- May reduce localized pollutant concentrations by up to 50 percent



Strategies that Reduce Traffic Emissions

- 3. Speed limit reductions on high-speed roadways
- Per-mile emission rates and fuel consumption are minimized in the optimal average speed range of ~35 to 55 miles per hour



Strategies that Increase Dispersion of Traffic Pollution

4. Design that promotes ventilation along street corridors

- Better dispersion and air quality in street corridors characterized by:
 - Buildings with varying shapes, heights, etc.
 - Spaces that encourage air flow (e.g., parks, wider sidewalks, and bike lanes)



CARB research projects:

- Identifying urban designs and traffic management strategies for Southern California that reduce air pollution exposure
- Effects of complete streets on travel behavior and exposure to vehicular emissions

Strategies that Increase Dispersion of Traffic Pollution

5. Solid barriers, such as sound walls

- Better vertical dispersion of pollutants
 - Magnitude/spatial extent of reduction depends on the height of the barrier, width of the road, and micrometeorology



CARB research project:

 Effectiveness of sound wall-vegetation combination barriers as nearroadway pollutant mitigation strategies

Strategies that Increase Dispersion of Traffic Pollution

6. Vegetation for pollutant dispersion

- Vegetation can alter pollutant transport and dispersion
 - May promote particle removal by diffusion and impaction



CARB research project:

 Effectiveness of sound wallvegetation combination barriers as near-roadway pollutant mitigation strategies

Strategies that Remove Air Pollution

7. Indoor high efficiency filtration (in buildings)

High efficiency filters

 (in-building ventilation systems and portable air filters) can remove 50-99% of airborne particles



ARB research projects:

- Benefits of high efficiency filtration to children with asthma
- Reducing in-home exposure to air pollution

Key Overarching Considerations

- Durability of built environment changes
- Holistic and comprehensive planning
- Site-specific considerations
- Role of changing fleets in near-road air quality
- On-roadway exposure to traffic emissions
- Translating research into practice



How should the Technical Advisory be Used?

Intended audience:

 Public health, air quality, and planning professionals and policy makers, & other key stakeholders

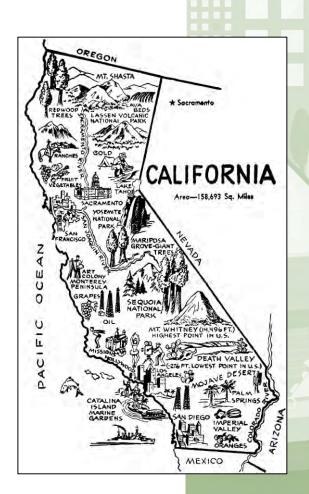
• Reference when:

- Developing local policies/plans
- Weighing options for a specific site



OPR General Plan Guidelines Update

- Update released in 2017 with rolling updates expected moving forward
- Includes reference and links to CARB's Technical Advisory & strategies





Next Steps

- Continued coordination with stakeholders and partners
 - E.g., with OPR on future updates to the General Plan Guidelines
- Track use of Advisory and evaluate need for future guidance and updates
- Continue research on:
 - Exposure hot spots
 - Additional mitigation strategies
 - Analysis of the real-world effectiveness of combinations of strategies



Additional ARB Resources

- Air Quality & Land Use:
 - https://www.arb.ca.gov/ch/landuse.htm
- Public Health & the Built Environment:
 - https://www.arb.ca.gov/research/vprp/vprp.htm
- Searchable database of CARB-funded research:
 - https://www.arb.ca.gov/research/projects.htm
- Additional Information on Filtration:
 - "Air Cleaning Devices for the Home: FAQs":
 https://www.arb.ca.gov/research/indoor/acdsumm.pdf
 - CARB-funded research on reducing in-home exposure to air pollution: https://www.arb.ca.gov/research/single-project.php?row_id=65080

Thank You!

Annalisa Schilla

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Overview of SCAG Scenario Planning

Sarah Dominguez
Sustainability Department
1/24/19



Overview of Scenario Planning



- Why does SCAG use scenario planning?
- How is SCAG developing scenarios for Connect SoCal?
- Next Steps

How does SCAG use scenario planning?



- To develop, evaluate, and consider distinct pathways the region could take to meet Connect SoCal's goals.
 - Goals: Mobility, economy, environment, healthy and complete communities
 - 19% GHG reduction by 2035
- To illustrate the impact of distinctive policy and investment choices.

Draft Scenarios

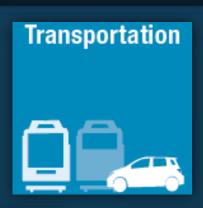


	Scenario 1	Scenario 2	Scenario 3	Scenario 4	Scenario 5
Theme	Trend	Local Input "Base Case"	TBD	TBD	TBD

Scenario Outputs





















What scenarios can and cannot tell us:



Scenarios CAN:

- Highlight impacts of various growth alternatives
- Illustrate trade-offs between policy choices

Scenarios CANNOT:

- Predict the future
- Show which future leads to more affordable housing



What we've heard







- Not all growth can occur near transit, need range of strategies that fit diverse jurisdictions
- Need for better jobs/housing fit and diverse housing types (MF, workforce, affordable)
- Tension between affordable housing development and curbing growth in greenfield areas
- Support for redevelopment of underutilized parcels and spot density in existing urbanized areas
- Increase land use mix near single family areas
- Need more EV infrastructure

Scenario Development: Land use



Growth Priority Areas:

- Transit Priority Areas 1/2 mile of major transit stop
- **High Quality Transit Area** 1/2 mile of bus service with 15 minute headways during peak commute hours
- Livable Corridors arterial network, subset of HQTA with improved transit
- Neighborhood Mobility Areas walkable neighborhoods
- Job centers subregional areas with peak job density

Scenario Development: Land use



Growth Constraints:

- Existing Open Space
- Conserved Land
- Agriculture
- Areas subject to 2 ft. sea level rise
- Housing within 500 ft. buffer of high capacity roadway
- Very high severity fire risk
- Natural lands and habitat corridors

Connect SoCal Development



Plan Milestones:

Oct 2018: Local Input Deadline

Nov 2018: Draft County Transportation Commission Input

Now-Mar 2019: Scenario Development

Now- June 2019: Policy Development

May 2019: Public Workshops on Scenario Results

July 2019: Develop Final Preferred Scenario

Oct 2019: Release Draft Connect SoCal

April 2020: Adopt Final Connect SoCal

Announcing: CBO Partnerships



- Learn more about the RTP/SCS development process
- Host workshops with your local community or members
- Provide feedback to SCAG on policies and projects in the RTP/SCS

- Partnerships are funded
- Recruitment information coming in February

Thank you

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Connect SoCal- Base Year Public Health Variables				
Focus Area	Variables	Source	Geography	
Access to Essential Services				
	Share of growth in High Quality Transit Areas (HQTAs)	SCAG Performance Measure	Region/County	
	Jobs/Housing Balance in HQTAs	SCAG Performance Measure	Region/County	
	Average distance for work trips (miles)	SCAG Performance Measure	Region/County	
	Average distance for non-work trips (miles)	SCAG Performance Measure	Region/County	
	Percent of work trips less than 3 miles	SCAG Performance Measure	Region/County	
	Percent of non-work trips less than 3 miles	SCAG Performance Measure	Region/County	
	Work Trip Length Duration	SCAG Performance Measure	Region/County	
	Percentage of PM Peak transit trips	SCAG Performance Measure	Region/County	
	Percentage of PM Peak HOV Trips	SCAG Performance Measure	Region/County	
	Percentage of PM Peak SOV Trips	SCAG Performance Measure	Region/County	
	Automobile Access	American Community Survey	Census Tract	
	Park Access	CDPH - Healthy Places Index	Census Tract	
	Supermarket Access	USDA Food Access Research Atlas	Census Tract	
	Distance to Health Care	SCAG Analysis	Census Tract	
	Access to Healthy Food	Modified Retail Food Environment Index	Region/County/City/Census Tract	
	Share of Transportation System Usage	EJ Performance Measure	Region/EJ Communities	
	Travel Time & Travel Distance Savings	EJ Performance Measure	Region/EJ Communities	
	Geographic Distribution of Transportation Investments	EJ Performance Measure	Region/EJ Communities	
	Accessibility to Parks & Natural Lands	EJ Performance Measure	Region/EJ Communities	
	Accessibility to Employment & Services	EJ Performance Measure	Region/EJ Communities	
Affordable Housing				
	Per Household Transportation Costs	SCAG Performance Measure	Region/County	
	Per Household Utilities	SCAG Performance Measure	Region/County	

Connect SoCal- Base Year Public Health Variables				
Focus Area	Variables	Source	Geography	
	Multifamily Homes as Percentage of all New	SCAG Performance Measure	Region/County	
	Home Construction			
	Household Cost	Census (American Housing Survey)	Metropolitan Area	
	Housing & Neighborhood Search	Census (American Housing Survey)	Metropolitan Area	
	Housing Cost	Census (American Housing Survey)	Metropolitan Area	
	Housing Quality	Census (American Housing Survey)	Metropolitan Area	
	Ratio of Value to Household Income	Census (American Housing Survey)	Metropolitan Area	
	Housing Quality	Census (American Housing Survey)	Metropolitan Area	
	Home Ownership	American Community Survey	Census Tract	
	Housing Habitability	HUD CHAS Table 3	Census Tract	
	Low-Income Homeowner Severe Housing Cost Burden	HUD CHAS Table 8	Census Tract	
	Low-Income Renter Severe Housing Cost Burden	HUD CHAS Table 9	Census Tract	
	Cost of Housing and Transportation Analysis	SCAG Analysis	TBD	
	Jobs-Housing Imbalance	EJ Performance Measure	Region/EJ Communities	
Air Quality				
	Air Pollution-related Health Incidences	SCAG Performance Measure	Region/County	
	Air pollution-related Health Costs	SCAG Performance Measure	Region/County	
	Share of New Growth Within 500 Feet of Freeway	SCAG Performance Measure	Region/County	
	Criteria Pollutant and Greenhouse Gas Emissions	SCAG Performance Measure	Region/County	
	Asthma	CHIS Neighborhood Edition	Region/County	
	Impacts Along Freeways & Highly Traveled Corridors	EJ Performance Measure	Region/EJ Communities	
	Criterion Exposure by Geography Relative to All State Census Tracts	EJ Performance Measure	Region/EJ Communities	

Connect SoCal- Base Year Public Health Variables				
Focus Area	Variables	Source	Geography	
	Population in the Highest Regional Exposure Areas by Race/Ethnicity	EJ Performance Measure	Region/EJ Communities	
	Population in the Highest Regional Exposure Areas by Income Quintile	EJ Performance Measure	Region/EJ Communities	
	Population in the Highest Regional Exposure Areas by at or near the Federal Poverty Level	EJ Performance Measure	Region/EJ Communities	
	Population in the Highest Regional Exposure Areas by Age (0-4 and seniors)	EJ Performance Measure	Region/EJ Communities	
	Population in the Highest Regional Exposure Areas by Disabled Populations	EJ Performance Measure	Region/EJ Communities	
Climate Change/Adaptation				
	Greenhouse Gas Emission	SCAG Performance Measure	Region/County	
	Building Water Use	SCAG Performance Measure	Region/County	
	Land Consumption	SCAG Performance Measure	Region/County	
	Extreme Heat Days	CalBRACE Vulnerability Assessment Framework	County	
	Drought	CalBRACE Vulnerability Assessment Framework	County	
	Sea level Rise	CalBRACE Vulnerability Assessment Framework	County	
	Households w/o Air Conditioning	CalBRACE Vulnerability Assessment Framework	County	
	Tree Canopy	CalBRACE Vulnerability Assessment Framework	County	
	Impervious Surface Cover	CalBRACE Vulnerability Assessment Framework	County	
	Ground Level Ozone	CalBRACE Vulnerability Assessment Framework	County	
	Climate Adaptation	EJ Performance Measure	Region/EJ Communities	

Connect SoCal- Base Year Public Health Variables				
Focus Area	Variables	Source	Geography	
Economic Opportunity				
	Additional Annual Jobs Supported by Improving Competitiveness	SCAG Performance Measure	Region/County	
	Additional Annual Jobs Supported by Transportation Investments	SCAG Performance Measure	Region/County	
	Percent of Work Trips Less Than 3 Miles	SCAG Performance Measure	Region/County	
	Percent of Non-work Trips Less Than 3 Miles	SCAG Performance Measure	Region/County	
	Per Household Transportation Costs	SCAG Performance Measure	Region/County	
	Per Household Utilities	SCAG Performance Measure	Region/County	
	Median Household Income	American Community Survey	Census Tract	
	Child Poverty	American Community Survey	Census Tract	
	RTP/SCS Revenue Sources in Terms of Tax Burdens	EJ Performance Measure	Region/EJ Communities	
	RTP/SCS Investments vs. Benefits	EJ Performance Measure	Region/EJ Communities	
Physical Activity				
	Percent of non-work trips less than 3 miles	SCAG Performance Measure	Region/County	
	Per Household Transportation Costs	SCAG Performance Measure	Region/County	
	Mode share of walking	SCAG Performance Measure	Region/County	
	Mode share of bicycling	SCAG Performance Measure	Region/County	
	Obese Population	SCAG Performance Measure	Region/County/City	
	High Blood Pressure	SCAG Performance Measure	Region/County/City	
	Heart Disease	SCAG Performance Measure	Region/County/City	
	Diabetes Type 2	SCAG Performance Measure	Region/County/City	
	Hypertension	CHIS Neighborhood Edition	Region/County/City	
	Stroke	CHIS Neighborhood Edition	Region/County/City	
	Diabetes	CHIS Neighborhood Edition	Region/County/City	
	Heart Disease	CHIS Neighborhood Edition	Region/County/City	

Connect SoCal- Base Year Public Health Variables				
Focus Area	Variables	Source	Geography	
	Mental Health	CHIS Neighborhood Edition	Region/County/City	
	COPD/CLRD	CHIS Neighborhood Edition	Region/County/City	
Safety				
	Number of Fatalities by Mode	SCAG Performance Measure	Region/County	
	Transportation Fatality Rate per 100M VMT	SCAG Performance Measure	Region/County	
	Number of Serious Injuries by Mode	SCAG Performance Measure	Region/County	
	Transportation Severe Injury Rate per 100M VMT	SCAG Performance Measure	Region/County	
	Number of Non-motorized Fatalities and Non-motorized Serious Injuries	SCAG Performance Measure	Region/County	
	Collision Rates and Income	SCAG Analysis	Census Tract	
	Crime Rates	American Community Survey	Census Tract	
	Fatalities by Road Type	SCAG Performance Measure	County	
	Active Transportation Hazards	EJ Performance Measure	Region/EJ Communities	
Additional Health Outcomes				
	Mental Health Not Good	CDC 500 Cities / BRFSS	City Where Available	
	Insured Adults	American Community Survey	Census Tract	
	Life Expectancy at Birth	Center for Disease Control (CDC)	Census Tract	
	Education	American Community Survey	Census Tract	
	Leading Cause of Death	CDPH - County Health Status Profiles	County	
	CalEnviroScreen 3.0 Score	CalEnviroScreen 3.0 Score	Census Tract	
	Gentrification & Displacement	EJ Performance Measure	Region/EJ Communities	
	Aviation Noise Impacts	EJ Performance Measure	Region/EJ Communities	
	Roadway Noise Impacts	EJ Performance Measure	Region/EJ Communities	
	Rail Related Impacts	EJ Performance Measure	Region/EJ Communities	