

# ACTIVE TRANSPORTATION: DESIGNING COMMUNITIES FOR HEALTH

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RESEARCH DIVISION

MAY 23, 2019





# Active Transportation

## A Local Action

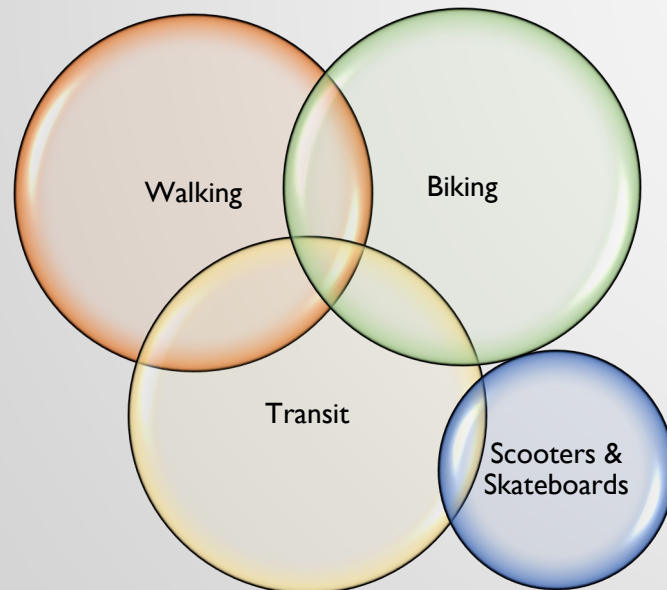
- Active transportation: Using physical activity to travel
  - Well known to improve health
  - Continuing challenge to increase through urban design and transportation planning
- Local agencies need:
  - Tools to quantify health benefits
  - Information/guidance on urban design
  - Funding



# ACTIVE TRANSPORTATION HAS EXPANDED AND IS STILL EVOLVING

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- Successful programs provide adequate services, infrastructure, and integrated options
- Shared bikes and scooters increasing in cities





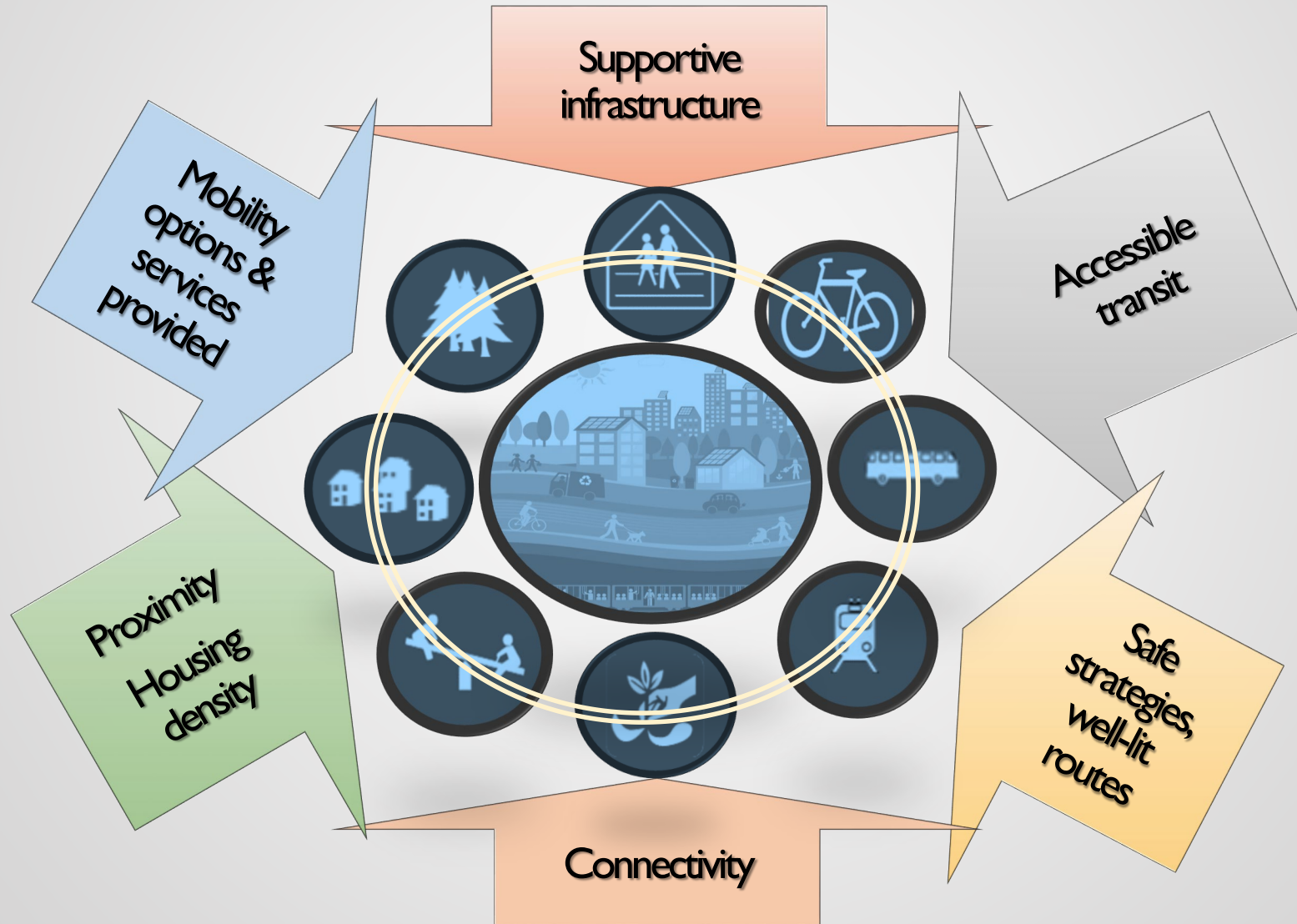
# WHY IS INCREASING ACTIVE TRANSPORTATION IMPORTANT FOR HEALTH IN CALIFORNIA?

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- About 20% of Californians have low physical activity
- Low physical activity is associated with heart disease, strokes, diabetes and obesity
  - About 80,000 deaths per year in CA from heart disease and strokes
  - CA has the 20<sup>th</sup> highest rate in the nation from deaths from diabetes
  - CA has the 24<sup>th</sup> highest obesity rate in the nation for youth ages 10 to 17



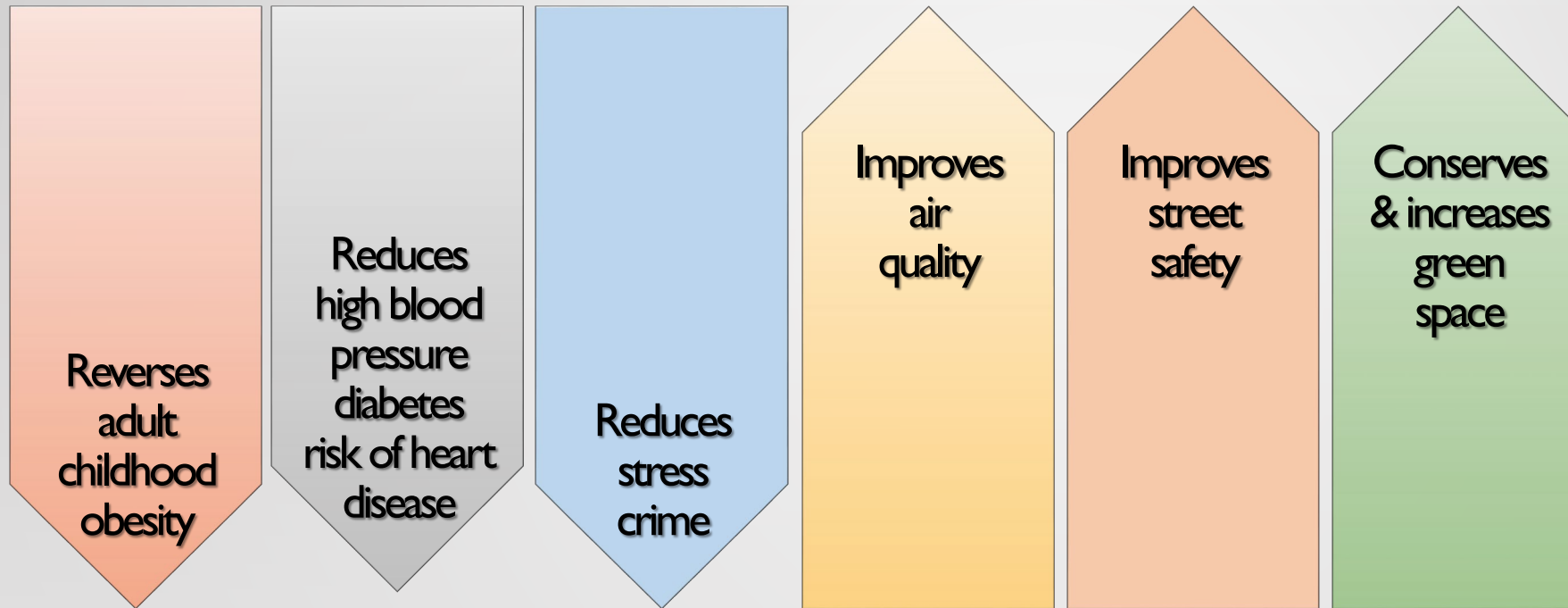
# HOW LOCAL COMMUNITY DESIGN AND POLICY SUPPORT ACTIVE TRANSPORTATION?





# HOW CAN ACTIVE TRANSPORTATION AND COMMUNITY DESIGN IMPROVE HEALTH AND WELLBEING?

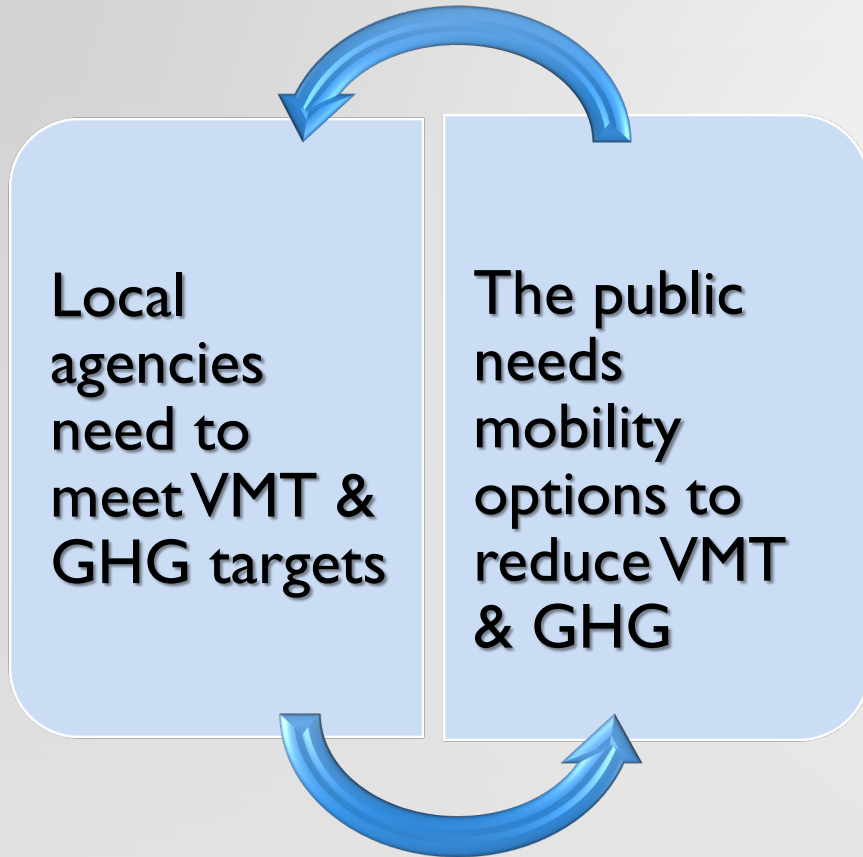
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*Increasing physical activity through active transportation would be a substantial public health accomplishment*

# ***A CALL TO ACTION:*** EMISSION REDUCTIONS & IMPROVED PUBLIC HEALTH THROUGH ACTIVE TRANSPORTATION

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VMT = Vehicle Miles Traveled  
GHG = Greenhouse Gases

## *Resources available for local and regional governments*

- Local, state, national and international policies and programs with an active transportation focus
- Tools to help determine program effectiveness
- Targeted research results on community design
- Funding support



# LOCAL, STATE, NATIONAL & INTERNATIONAL AGENCIES ACTIONS ON ACTIVE TRANSPORTATION

*Many available resources of collaborative frameworks maximizing health & wellbeing*





# ACTIVE TRANSPORTATION TOOL: OVERVIEW

## *Integrated Transport and Health Impacts Model (ITHIM)*

- Calculates health effects from changes in mode of transportation
- Health component of [ITHIM](#) includes
  - Changes in physical activity
  - Changes in exposure to air pollution
  - Risk for traffic injuries
- Estimates impacts by geographic area and in the future
- Available on the web

ITHIM Design DRAFT 4/Oct2

ITHIM  
Integrated Transport and Health Impact Modelling Tool

Home About Run ITHIM Decision Support User Support Search Enter

Transportation Planning for Health, Equity, and Climate Change

Replacing short car trips with walking, cycling, and transit increases physical activity and cuts air pollution and climate-warming emissions.

Every year, more than 30,000 Californians die prematurely from traffic injuries and chronic diseases linked to physical inactivity and air pollution. Learn about active travel health benefits, harms, and cost savings in California transportation plans and for goals in your own community

What is the ITHIM tool? Learn More

How do I use the ITHIM tool? See Instructions

Take me to the ITHIM tool. Enter Data

A Sample of ITHIM Results from Scientific Publications and Reports

Since 2009, ITHIM has played a role in elucidating the health co-benefits of active travel as a strategy to reduce greenhouse gas emissions. The model has been used by California's regional transportation planning agencies, the California Air Resources Board, Department of Public Health, and local health departments to evaluate their strategic goals.

ITHIM models physical activity, air pollution, and traffic injuries

Most Californians are not physically active

Active transport reduces chronic disease, but may increase injuries

Health benefits follow increases in active transport

Achieving national health goals will maximize health equity

This study, like the majority of health impact studies of active transport in the United States and Europe, shows that physical activity due to increased biking and walking would have a profound impact on health and economic outcomes while contributing to GHG and PM<sub>2.5</sub> reduction goals.

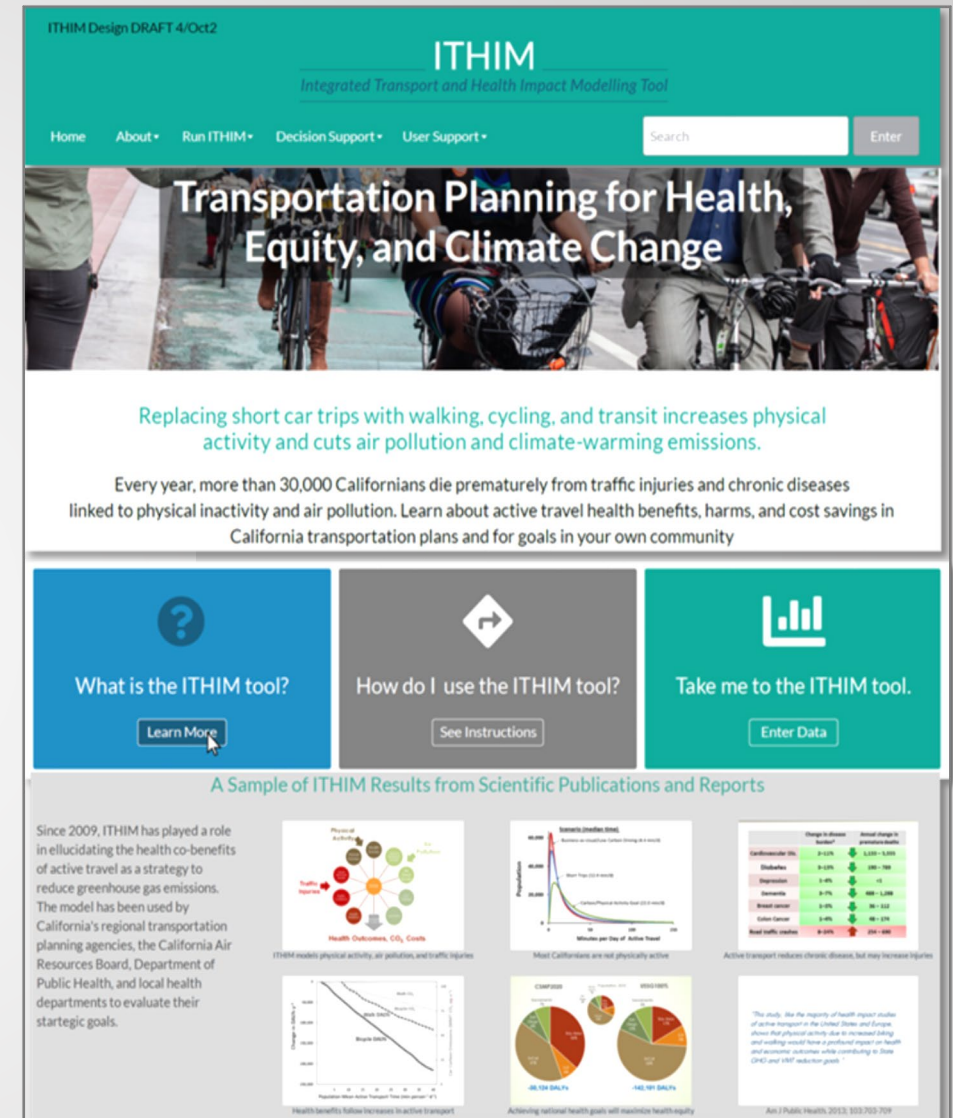
Am J Public Health 2013; 103:703-709

(RELEASE DATE FALL, 2019)

# ACTIVE TRANSPORTATION TOOL: RESOURCES FOR ACTION

## *Integrated Transport and Health Impacts Model (ITHIM)*

- Output: tables, graphs and infographics
  - Health benefits from active transportation
  - VMT and GHG reduction
  - Economic value of improved health
- Support: documents and reference lists
  - Relevant policies
  - References from the scientific literature for a broad health context
  - Tutorials
  - Videos, model methods & program code



DEMO

# COMMUNITY DESIGN RESEARCH TO ASSIST LOCAL DECISION-MAKERS

## Sustainable Communities Strategies

Equity impacts

Smart urban design

Impacts of urban design on modes of travel

Mobility options

Best practices

- Resources:

ITHIM Tool: 1- Introduction Video <https://www.youtube.com/watch?v=LYVWk8kumOM>

ITHIM Tool: 2- Beta Version <http://cal-ithim.org/ithim/>

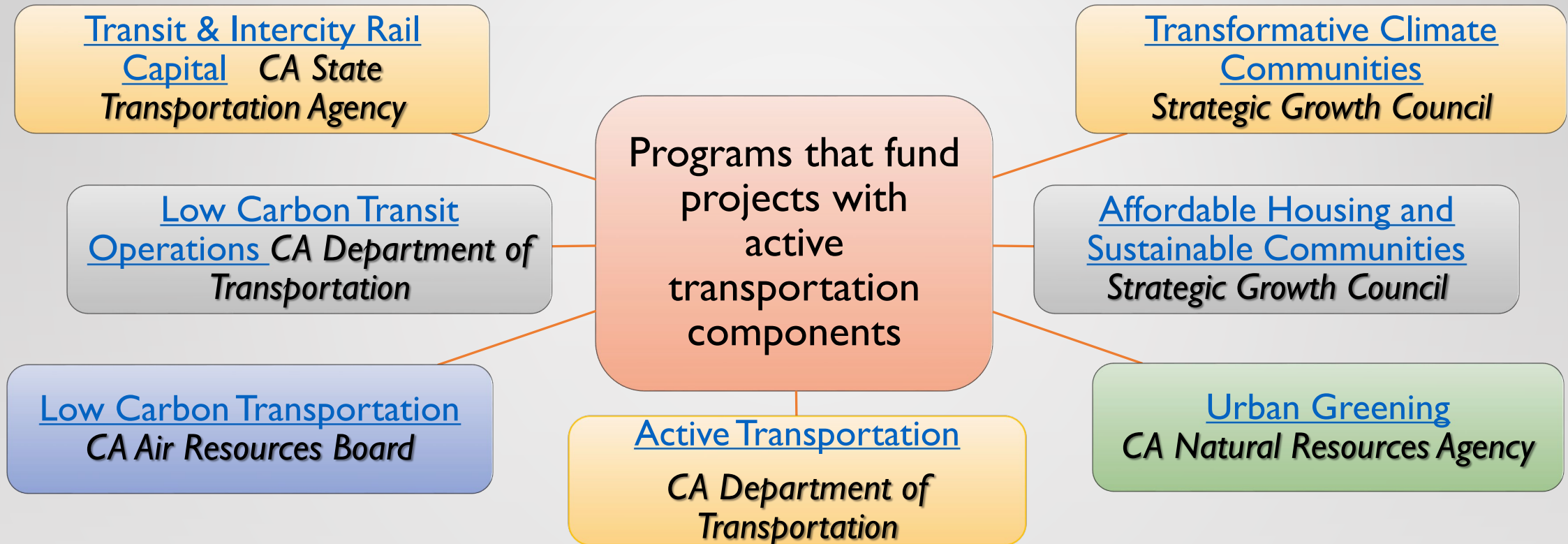
Supporting Sustainable Communities <https://ww2.arb.ca.gov/our-work/topics/sustainable-communities>

Health Benefits of Physical Activity <https://ww2.arb.ca.gov/resources/fact-sheets/health-benefits-physical-activity>

Promoting Active Transportation <https://www.arb.ca.gov/planning/tsaq/bicycle/ati.htm>



# FUNDING SUPPORT: CALIFORNIA CLIMATE INVESTMENTS



Annual Report Cap-and-Trade Auction Proceeds 2019: <http://www.caclimateinvestments.ca.gov/annual-report>

Funding Wizard: <https://fundingwizard.arb.ca.gov/about>

# CONCLUSION

## *COMMUNITY DESIGN AFFECTS HEALTH WITH EVERY STEP OUTSIDE THE FRONT DOOR*

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- Active transportation reduces VMT/GHG and improves public health
- Community design and policies enable active transportation most successfully when:
  - Mobility options & services are provided
  - Safe, supportive infrastructure & transit exists
  - High-density housing is available
  - Work, school, healthy food & green space are nearby
- Local agencies can maximize health & wellbeing by incorporating these design elements in their VMT/GHG reduction strategies

