Evaluating the Effectiveness of Bike to Work Month Promotions:
Are We Reaching Low Income–Minority Communities?

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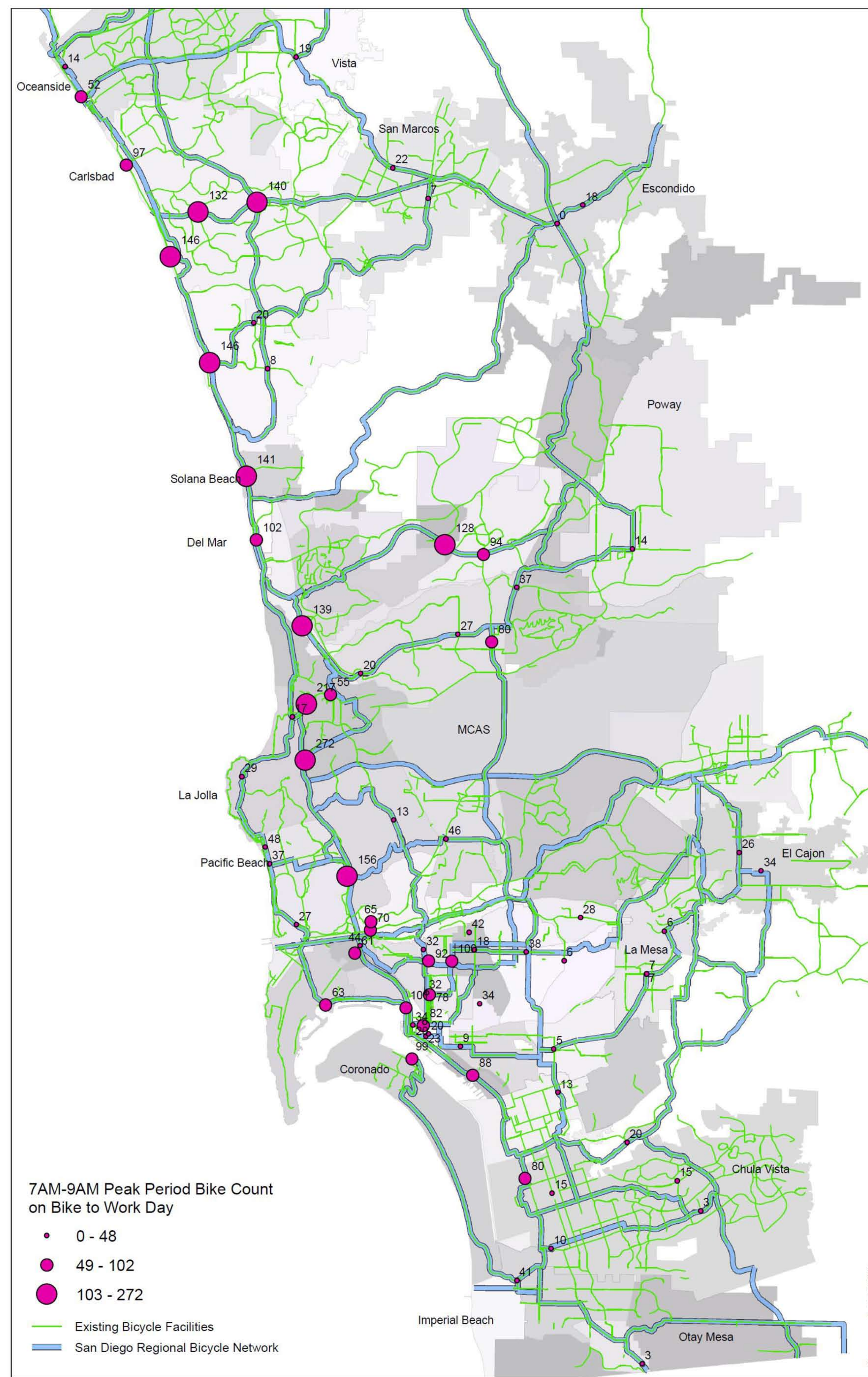healthy WORKS Paths to Healthy Living

INTRODUCTION

- During the months proceeding May 2011, San Diego's Metropolitan Planning Organization (SANDAG) promoted a county-wide Bike to Work Month with Bike to Work Day on May 20th, 2011

- This study aimed to evaluate the effectiveness of these promotional efforts, especially in relation to low income and minority populations.

- Bicycling rates before, during and after Bike to Work Day and differences in bicycling by SES and built environment characteristics were analyzed at 75 locations across San Diego County

METHODS

- Promotional efforts included a commuting website (iCommute), magazine and radio advertisements, emails to employees of large corporations and prizes, community outreach workshops, and Bike to Work Day "Pit Stops" with giveaways

- Manual counts of bicyclists were conducted at 75 locations before, during and after Bike to Work Day (April, May, September) between 7AM and 9AM

- GIS was used to obtain SES and built environment characteristics around each count location (.5 mile street network buffer)

RESULTS

- The number of bicyclists/location was approximately double on Bike to Work Day as compared to the previous month (Mean = 55 vs. 23; p < .05); however, the number of cyclists decreased by September to a similar rate as before Bike to Work Day (Mean = 26 vs. 23; p = NS)

- More men were bicycling than women (Mean = 43 vs. 10; p < .05) but the increase in bicycling on Bike to Work Day was proportionally similar for men and women (Mean = +56% vs. +63%; p = NS)

- More bicyclists were observed in neighborhoods with low population density (Mean = 60 vs. 39), high median household income (Mean = 72 vs. 38), high percent of residents with high school degree (Mean = 76 vs. 34), and low percent Hispanics (Mean = 78 vs. 31)

- Greater increases in cycling rates were observed in neighborhoods with low population density (Mean = 42 vs. 20), high median household income (Mean = 46 vs. 16), high percent of residents with high school degree (Mean = 46 vs. 16) and low percent Hispanic (Mean = 48 vs. 14)

- A greater proportion of cyclists riding on sidewalks was observed in neighborhoods with high population density (Mean = 28% vs. 4%), low percent of residents with high school degree (Mean = 33% vs. 0%), high percent Hispanic (Mean = 35% vs. 0%), and no Bike to Work Day "Pit Stops" (Mean = 29% vs. 3%)

7AM-9AM Peak Period Bike Count on Bike to Work Day
- 0 - 48
- 49 - 102
- 103 - 272
— Existing Bicycle Facilities
— San Diego Regional Bicycle Network

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DISCUSSION

- SANDAG's promotional efforts were effective in increasing bicycling on Bike to Work Day

- Increased cycling rates were not maintained after Bike to Work Day

- Cycling on Bike to Work Day was significantly higher in neighborhoods characterized by low population density neighborhoods, low Hispanic, and low educational attainment

- Cycling rates and increases in bicycling on Bike to Work Day were significantly lower in underserved areas, suggesting that targeted promotion may be needed in these difficult to reach areas

Bicycling Rates Before, During and After Bike to Work Day

- Mean # bicyclists/location
- Mean % bicyclists on sidewalk
- Mean % bicylicsts against traffic

* P < .05

Where did Bicycling Occur on Bike to Work Day? Neighborhood Characteristics and Bicycling

* P < .05
High / Low

Where was Unsafe Bicycling Happening? Neighborhood Characteristics and Bicycling on Sidewalk

* P < .05
High / Low