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Ciclovia in a Rural Latino Community: Results and Lessons Learned

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Abstract

Context—Ciclovias involve the temporary closure of roads to motorized vehicles allowing for use by bicyclists, walkers, runners and for other physical activity. Ciclovias have been held in urban and suburban communities in the US and Latin America.

Objective—We evaluated the first ciclovia held in a rural predominantly Latino community in Washington state.

Setting—Three blocks within a downtown area in a rural community were closed for 5 hours on a Saturday in July 2015.

Outcome Measures—The evaluation included observation counts and participant intercept surveys.

Results—On average, two hundred participants were present each hour. Fourteen percent of youth (under age 18) were observed riding bikes. No adults were observed riding bikes. A total of 38 surveys were completed. Respondents reported spending on average 2 hours at the ciclovia. Seventy-nine percent reported that that would have been indoors at home involved in sedentary activities (such as TV, computer) if they had not been at the ciclovia.

Conclusions—Regularly held ciclovias, which are free and open to anyone, could play an important role in creating safe, accessible and affordable places for physical activity in rural areas.

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Keywords

rural; physical activity; Latino; ciclovía; open streets

Introduction

Physical inactivity is one of the leading causes of morbidity and mortality in the U.S.^{1,2} and promoting physical activity is one avenue that could address health inequities. However, the majority of American adults and children are not sufficiently active to achieve the preventive health benefits of physical activity, and Latinos are less physically active than non-Latino whites.³ Nearly half of all Mexican Americans do not participate in any leisure time physical activity, compared with close to a third of non-Latino whites.³ Rural residents are significantly more likely to be physically inactive compared with urban residents.⁴ This inactivity may in part be due to the lack of opportunities for physical activity and an infrastructure that is not conducive to walking and biking in rural communities.⁵

Creating safe places for physical activity is a community-level approach to promoting physical activity. Ciclovías, which originated in Bogotá, Columbia in the early 1980s, are one way to create safe places for community members to engage in physical activity. Ciclovías involve the temporary closure of roads to motorized vehicles allowing for use by bicyclists, walkers, runners and for other physical activity, such as aerobics. Ciclovías are offered free of charge, opening the streets for all community members. Ciclovías are wide spread in Latin America.⁶ In the US, open streets, which are modeled after ciclovías, are becoming an increasingly popular community approach to promoting physical activity, with 48 US cities/towns holding open streets events in 2011.⁷ In Latin America the majority of ciclovías are held in urban areas although a few have been held in rural areas,⁶ and in the US ciclovías/open streets to date only have been held in urban and suburban areas.⁷ These events have considerable variation in route length, event duration, types of activities offered during the event, sponsors, and number of participants.^{6,7} Ciclovías/open streets are a promising community strategy to promote physical activity.^{8,9}

In July of 2015, we held a ciclovía in a rural predominantly Latino US community with the goals of promoting physical activity, creating a safe place for families to be active, and bringing the community together. We conducted an evaluation that included direct observation counts to estimate attendance and a participant intercept survey to describe participation in physical activities, travel to/from event, and demographics of attendees. This paper reports our planning process, evaluation results and lessons learned.

Methods

The ciclovía was conducted as part of a larger community-based participatory research (CBPR) project aimed at promoting physical activity and healthy eating in rural Latino communities. The ciclovía was held in Toppenish, Washington, which is located in a rural agricultural region in central Washington state. Toppenish is classified as a large rural community based upon a Rural-Urban Commuting Area (RUCA) code, which is a standard approach to classifying rural areas based upon the relationship and commuting patterns to

urban areas, of 4.2. The population is just over 10,000 with 74% Latino and 24% living below the federal poverty level.¹⁰ This study was approved by the investigators' Institutional Review Boards, and informed consent was obtained from research participants.

Planning

Planning for the ciclovía occurred over 5 months. A ciclovía committee, consisting of community advisory board members and researchers for the larger CBPR project planned the event and evaluation. Community partners involved with the ciclovía included the school district, city government, parks and recreation department, local food bank, and a community clinic. Because this was the first such event in this rural community, we opted to hold a single brief ciclovía in the summer. We focused advertisement on families with young children including automatic phone calls to school children's home telephones, flyers sent home with children, and announcements on school electronic sign boards. We also placed colorful flyers (in both English and Spanish) in strategic community locations and distributed flyers at community events.

Route and Event Description

Three blocks in the downtown area of the town were closed for five hours (9 am–2 pm) on a Saturday in July. A park bordered one side of the street for one block, and we took advantage of this park to expand the space available for physical activity. We had two physical activity stations located under shade trees in the park to protect from the unusually high temperatures at the time of the ciclovía. One area was for adults, with guided Zumba and aerobics, changing type of activity every 30 minutes. The other offered activities geared for children, such as, playing with balls and hula hoops. There was an area with information on physical activity and one on healthy eating at the end of the second block on the route.

Evaluation

We used the Open Streets Initiatives: Measuring Success Toolkit developed by Hipp and Eyler, which is available on the Active Living Research website (<http://activelivingresearch.org/open-streets-initiatives-measuring-success-toolkit>) to guide our evaluation plan.

Participant Counts—We conducted direct observations for 15 minutes each hour of the ciclovía for a total of 5 time points. We counted participants at two locations, at the beginning of the route by the edge of the park and at the end of the second block, in order to capture participants who entered the park and those who continued on the route. We used a count form to record the number, gender, and activity (walking, cycling, skating, or other) of adults and youth (under age 18) that passed a designated point along the route.⁹ One observer recorded data on youth and one on adults at each location. We multiplied each 15-minute count by four for each hour, and the average attendance per hour was estimated by taking the mean across the 5 hours.⁹

Participant Intercept Survey—The participant intercept survey asked about reasons attended the ciclovía (open ended question), time spent or plan to spend on activities while at the ciclovía (walking, bicycling, activity station, running, other/specify), travel to the

ciclovia (automobile, walk/run, metro/bus, bicycle, other/specify), activity that would have been engaged in if not at ciclovia (at home indoors (e.g. TV, on computer, reading), other recreational activities indoors, other recreational activities outdoors, other/specify), and demographics. Surveys were available in English and Spanish. Research staff were stationed at 2 locations and approached participants over the age of 18 to complete the survey.

Results

Observational Data

On average 200 people were present at the ciclovia each hour. Since the route was short and participants reported spending on average two hours at the ciclovia, it is possible that a participant was counted in more than one observation count time point. Thus, we were not able to calculate an estimate total number of participants across the five hours. Eighty-one percent of adults were women and 39% of youth were girls. Fourteen percent of youth were observed cycling; 93% of them were boys. One of every six children cycling was wearing a helmet. There were not any adult cyclists.

Participant Survey

A total of 38 surveys were completed. Ninety percent of survey respondents were women, 90% identified themselves as Latino, and their average age was 40. Fifty-five percent reported less than a high school degree, and 32% reported completing high school. Seventy-six percent of respondents lived in Toppenish. Half of the respondents walked to the ciclovia. Reasons given for attending the ciclovia included opportunity for children to be active, children wanted to attend and curiosity about a ciclovia.

Respondents reported spending on average 2 hours at the ciclovia and spent on average 84 minutes walking. Seventy-one percent participated in an activity station (Zumba, aerobics) spending on average 40 minutes at an activity station. Seventy-nine percent reported that they would have been indoors at home involved in sedentary activities (TV, computer) if they had not been at the ciclovia.

Lessons Learned

After the ciclovia, the ciclovia committee held a debriefing meeting and discussed lessons learned and reviewed the evaluation results. We held the ciclovia in the morning to avoid the heat of the day; however, in the community many adults work until mid-day on Saturdays, which limited their ability to participate. In the future, we would hold an event in late afternoon to early evening, such as 4 pm–8 pm in order to allow greater participation. Our outreach focused on families with school aged children, and wider community outreach in subsequent events could increase participation and enhance wider community awareness. Closing streets that bordered a park, which is not widely used, addressed the goal of highlighting the park as a place for physical activity. By holding activities in the park, it is not clear whether participants were drawn to the opportunity of being active on the closed street or being active in the park; however, participants spent twice as much time walking then participating in an activity station. The ciclovia offered an opportunity for community

members to interact and converse with each other, which can build social capital within the community.

Discussion and Conclusions

This first ciclovia was a success in that it allowed adults and children to engage in physical activity in the street and adjoining park. Considering 79% of survey respondents reported that they would have been engaged in sedentary activities, the ciclovia encouraged physical activity with adults spending on average 2 hours at the ciclovia, with an average of 40 minutes engaged in physical activity at an activity station and 84 minutes walking. Thus, this ciclovia offered an opportunity for participants to achieve the recommended 30 minutes per day of moderate level physical activity in a safe place. Similarly, other open streets/ciclovias have resulted in participants engaging in at least 30 minutes of physical activity and as much as 144 minutes of activity.^{8,9,11}

Two hundred participants were present on average each hour, which is approximately 2% of the town's population. This rate of attendance is similar to the initial ciclovia called CicloSDias in San Diego, in which <1% of the population participated.⁸ This suggests that ciclovias in rural areas have a similar draw and potential to promote physical activity as in urban areas. In rural areas there are limited high quality accessible and affordable places for physical activity, such as parks, recreation centers,⁵ and ciclovias could provide opportunities for rural residents to obtain physical activity by taking advantage of the existing resources of the streets and opening them up for physical activity. Participants who attended more than one ciclovia called Sunday Streets in San Francisco engaged in 20 minutes of physical activity compared with first time participants.¹¹ Thus, regularly held ciclovias, which are free and open to anyone, could play an important role in creating safe accessible and affordable places for physical activity in rural areas. However, more research on the impact of regularly held ciclovias/open streets in rural areas is needed.

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Implications for Policy and Practice

- Broad community input is important for the success of a ciclovía
- Ciclovías in rural areas have the potential to promote physical activity