Systematic review of how Play Streets impact opportunities for active play, physical activity, neighborhoods, and communities



Physical activity is important for promoting health and preventing obesity among children; however, many families and children live in communities that lack access to safe places for physical activity. Some communities have begun using Play Streets, which are temporary street closures that provide physical activity equipment and activities for children, to provide a safe place for play. This systematic literature review examined how Play Streets impact children, neighborhoods, and communities, while also documenting how Play Streets are implemented and evaluated.

Six studies were identified from the peer review literature and included in this review. The findings presented here are based on these studies.



Impact on physical activity

Activities provided at Play Streets included hula-hoops, jump ropes, areas for dancing, bicycles, and balls. Three studies measured physical activity and all three found that children's physical activity increased during Play Streets. Pedometers, which measure the number of steps taken, and accelerometers, which measure amount and intensity of physical activity, were used to measure physical activity in two of these studies.

- One study compared children at Play Streets with a control group and found Play Streets increased children's overall moderate-to-vigorous physical activity by 9.1 minutes per day and reduced their sedentary behavior by 8.6 minutes per day.
- Both studies also surveyed parents and found that outdoor play and time spent playing outside after school generally increased as a result of Play Streets.

A third study, which used the System for Observing Play and Recreation in Communities (SOPARC) to measure

physical activity among all people at a Play Street, found 11.3% more children participated in vigorous activity when Play Streets were offered than they did when Play Streets were not offered. The study also found 12.1% more adults were sedentary during Play Streets, which the authors attributed to passive supervision of children at play.

Impact on safety

Five of the six studies examined found that Play Streets and similar interventions provided an active play option with reduced motorized traffic and provision of adult supervision. Five of the studies collected information from parents. One found that 71% of parents reported Play Streets provided safe and supervised outdoor play and 61% reported Play Streets provided a good opportunity for safe outdoor play.



Impact on neighborhoods and communities

Adults felt Play Streets increased a sense of community by strengthening relationships among neighbors and community members. This was confirmed by findings across several individual studies, including:

- 94% of adults reported Play Streets strengthened their community.
- ◆ 54% of parents reported Play Streets strengthened relationships with neighbors.
- 61% of parents reported Play Streets were a good way for children to make new friends.
- Most parents and children had positive feelings toward Play Streets.

- ♦ 43% of parents identified social interaction as the primary reason they liked Play Streets.
- At least 3 in 4 children reported they enjoyed Play Streets.

Racial/ethnic and socioeconomic findings

Three of the six studies included a majority of participants who were Hispanic or Latino. Four studies also included participants who were either of low socioeconomic status or lower income. The results from these studies show the potential impact of Play Streets in communities with fewer resources to be physically active.



Implications

Play Streets are a low-cost and feasible way to increase physical activity among children, particularly those living in communities that lack access to safe places for play.

- This review showed that Play Streets provide children a safe place to play, equipment to play with, activities to participate in, and supervision.
- Play Streets can also create a sense of safety and community.
- In addition, Play Streets provide children with opportunities they may not have otherwise to play outside and engage with others in the community. According to three of studies, 43% to 62% of parents reported Play Streets as a positive alternative to their children being sedentary indoors or using screens.

Sharing results that show the positive benefits of Play Streets with local community organizations that are focused on improving physical activity and outdoor play of children, such as Boys and Girls Clubs, health departments, churches, and AgriLife Extension offices, can lead more communities to plan and offer Play Streets.

These results should also be shared with city and county leaders who oversee street closures so they know how Play Streets benefit kids, families, and communities.



Play Street hosted by Garrett County Health Department in Oakland, MD. Photo by Renée Umstattd Meyer.



More than 15,000 articles about Play Streets were identified through a systematic search of scholarly databases published in English through December 2017. Six peer-reviewed studies met the four criteria below and were assessed for this review:

- They had a stated Play Street intervention, a Play Streets-style intervention with temporary closure of a street or parking lot, or an Open Streets/Ciclovía intervention with description of a specific area, or "activity hub" that was set up for children's physically active play.
- The activity was free for participants.
- The activity was open to the general public.
- Traffic was not allowed on the street or in the area.

The studies reviewed took place in: Santiago, Chile; Hantown, England; San Francisco, California, USA; Ghent, Belgium; Melbourne, Australia; and Santa Ana, California, USA. Information about the Play Street, study sample, methods, study design, measures (impacts on opportunities for safe active play and physical activity, and neighborhood and community level impacts), and limitations was gathered from each of the six studies reviewed.



Play Street hosted by Choctaw Nation Health Services Authority in Talihina, OK. Photo by Renée Umstattd Meyer.

Authors:

M. Renée Umstattd Meyer, Christina N. Bridges Hamilton Baylor University

Thomas L. Schmid Centers for Disease Control and Prevention

Amelie A. Hecht, Keshia M. Pollack Porter Johns Hopkins University

Full article published in BMC Public Health, available at:

https://bmcpublichealth.biomedcentral.com/articles/10.1186/s12889-019-6609-4



