

Examining the Implementation of Play Streets: A Systematic Review of the Grey Literature

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ABSTRACT

Context: Outdoor play has been described as essential for healthy childhood development. Lack of safety is one barrier to children participating in outdoor play. Play Streets are an intervention to help increase outdoor play by temporarily closing public streets (closures are recurring or episodic) to traffic, creating a safe place for active play.

Objective: This systematic grey literature review aimed to examine and describe what is known about implementing Play Streets using the RE-AIM (**R**each, **E**ffectiveness, **A**doption, **I**mplementation, and **M**aintenance) framework, which is widely used in implementation research.

Design: A systematic search for and review of nonacademic, or grey, literature was conducted using Academic Search Complete, Google Scholar, and a general Google search.

Eligibility Criteria: Included literature was published in English, through December 2017, in nonacademic sources (ie, organizational/grant/municipal reports, newspapers, conference presentations, previous intervention advertisement materials, Web-based articles) or found in reference lists of academic articles about Play Streets, Pop-up Parks, or Open Streets/Ciclovías with a Play Street component.

Study Selection: Resources were selected that documented Play Streets, which are defined as recurring or episodic temporary street closures to traffic that provide the public with a no-cost, safe space to actively play and be physically active. These approaches are designed primarily for youth and may include various marked play areas, loose equipment, and/or group activities.

Main Outcome Measures: RE-AIM measures guided data extraction.

Results: Of the 36 articles composing the final sample, 100% reported on implementation, although the level of detail varied. Only 14 of 36 articles reported measures of effectiveness; limited information was provided for other RE-AIM components.

Conclusions: In the grey literature, there are several inconsistencies in how the implementation of Play Streets is reported and level of detail. Specific details regarding implementing and evaluating Play Streets are needed to support widespread replication.

KEY WORDS: implementation science, outdoor play, safe play space, youth

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Active outdoor play has been described as essential for healthy child development.¹ Several studies show that children today play outside less than their parents did.^{2,3} Declines in outdoor play have important implications for efforts to promote physical activity.⁴ Regular physical activity and play in childhood and adolescence have many benefits, including improving healthy bones and muscles, reducing anxiety and stress, and increasing self-esteem.⁵ Despite these benefits, approximately 3 of 4 United States adolescents still do not meet national physical activity guidelines.⁶

One reason for the decline in outdoor active play stems from safety concerns. In several communities across the United States, traffic, violence, and crime are barriers to parents allowing children to play outside.^{7,8} One intervention to increase access to safe outdoor play that has been gaining popularity is Play Streets. Play Streets refer to the temporary closure (recurring or episodic) of public streets that for a specified time create a safe space for active play.^{9–13} Play Streets have been implemented as a stand-alone approach, or Play Streets–style components have been incorporated in other community activities or events such as Open Streets, Ciclovías, or Pop-up Parks as part of an activity hub or area.^{14,15} Play Streets are occurring in countries all across the world including the United Kingdom, Chile, Ireland, Australia, the United States, Canada, Scotland, Austria, and Denmark. In the United States, several cities have implemented Play Streets, with the earliest Play Streets occurring in New York City between 1929 and 1934 and then becoming popular again during the 1970s in New York City and Philadelphia.^{16–19} Current Play Street efforts have spread to several large cities including Chicago since 2012, Seattle since 2013, and San Francisco in 2013 and 2017.^{9–11} Play Streets tend to occur during the summer months, which some studies suggest is a time when youth fitness gains are lost or physical activity levels decline; however, the strength of this evidence is mixed.²⁰

There is a dearth of academic literature examining Play Streets, especially regarding implementation.²¹ Much of the available implementation information is in nonacademic literature (eg, Web sites, local reports, blogs), which limits their reach to both practitioners interested in implementing Play Streets and researchers interested in studying Play Streets to promote active play and physical activity. Synthesizing nonacademic implementation information reported by Play Streets practitioners can illuminate gaps in academic literature and inform future research and implementation of Play Streets.²² The aim of this systematic review of the grey literature is to examine and describe what is known

about implementing Play Streets using the RE-AIM (Reach, Effectiveness, Adoption, Implementation, and Maintenance) framework, which is widely used in implementation research.^{23,24} The RE-AIM framework was chosen because of the model's ability to measure implementation components at multiple socioecological levels (ie, individual, organizational) and the compatibility with community-based intervention strategies.²³ By examining existing literature using RE-AIM, future Play Streets can be created and adapted to maximize their implementation and resulting impact.

Methods

Search strategy

A systematic search for nonacademic, or grey, literature was conducted using Academic Search Complete, Google Scholar, and a general Google search. Each search used the following terms: “play street*” OR “pop-up park” OR “open street*” OR “ciclovía*.” Pop-up Parks can occur on street segments, or parking lots, that have been closed to vehicle traffic, creating temporary public spaces that include temporary play structures, often resembling a park more than an open play space.²⁵ Open Streets are events usually lasting 1 day and are advertised to the community as a time to visit merchants, food trucks, group fitness classes, and other activities. Open Streets can include a Play Streets–style component as an activity hub or area to allow children and their families to participate in active play.¹⁴ Ciclovías, typically occurring on Sundays or holidays, are closures of large sections of a main city street to promote active transport (eg, walking, cycling). Some Ciclovías have started to incorporate group fitness classes and active play opportunities as activity areas.^{14,15} These search terms were selected to ensure inclusion of Play Streets as well as larger events with Play Streets–style components. A systematic review approach was chosen to help provide a more rigorous method for assessing the current grey literature and to facilitate the comparison of the information discovered with other literature reviews.²²

Literature published worldwide was searched to capture all articles published, in English, through January 2017. A second literature search was completed in early 2018 using the same search strategies to identify new documents published from February to December 2017. All included literature was published in periodicals, organizational/grant/municipal reports, newspapers, conference presentations, previous intervention advertisement material, or Web-based articles (blogs). References to grey literature were also obtained from reference sections of

academic articles about Play Streets, Pop-up Parks, or Open Streets/Cicloviás with Play Streets–style components that have been identified in an academic, systematic literature review.²¹ Preferred Reporting Items for Systematic Reviews and Meta-Analysis (PRISMA) guidelines were used for tracking articles identified through the literature search.²⁶

Document selection

Two researchers conducted independent searches of previously mentioned databases and reviewed titles of potential articles and the full resource to determine inclusion in the final sample of documents. Of the potential documents, resources were included that documented one of the following: (1) Play Streets, (2) a Play Streets–style intervention, or (3) a broader event with a Play Streets–style component, where information was provided for this component. A Play Streets–style intervention was defined as recurring or episodic temporary closures of a street or public area to traffic to provide the public with a safe space to actively play and be physically active that was publicly accessible at no cost, lasted for a specific time, included some form of adult presence and/or supervision, designed primarily for youth, and could have included marked play areas, loose equipment, and/or group activities. Because of the lack of academic literature on Play Streets and the absence of an existing review of the grey literature, there were no inclusion limits for publication dates to allow the researchers to identify and describe all possible information.²¹ Documents were excluded if they only described the time, place, and activities that would be available at the Play Streets and did not include any other implementation or outcome information; only focused on active transport; only focused on tailoring the intervention for adults/older adults; or was about a specific personal account of an experience at a Play Street. Since Play Streets–style interventions activate public spaces and engage people in new ways on a temporary basis, documents discussing interventions with permanent changes to the built environment were also excluded.

Data extraction

An Excel spreadsheet was created to extract information guided by the RE-AIM framework components. The locations, dates, and times of the interventions were also documented. Two trained researchers were each assigned 50% of the documents for data extraction. A third researcher read through all data extracted to ensure consistency in the extraction process between the 2 researchers and to check quality. To verify consistency and quality, a fourth researcher created

general themes based on the extracted data. The level of detail provided for data extraction varied slightly ($n = 6$) and was resolved by consensus between the researchers. Extracted data are qualitatively described and presented in Supplementary Table 1 (available at <http://links.lww.com/JPHMP/A577>) for each RE-AIM component.

Results

Summary

An initial search identified 1,586,958 documents between the 3 search engines. Researchers read through the document titles to determine which articles were relevant and only discussing the intervention strategies specified and narrowed the search to 247 documents, of which 35 met inclusion criteria, with an additional 8 from a secondary search conducted in early 2018, for an initial sample of 43 articles. Of these 43 articles, 36 documented Play Streets, 5 documented a Play Streets–style intervention, and 2 focused on broader events that included a Play Streets–style component as an activity hub/area. The articles documenting Play Streets–style interventions and broader events mentioned having play areas that satisfied inclusion criteria and were initially included in data extraction. However, because of the lack of detail to ensure these articles were only discussing a Play Streets–style component as an activity hub/area versus documenting the overall event, these articles ($n = 7$) were excluded from this review. The results for this review focus specifically on the Play Streets documents for a final sample of 36 articles (Figure 1). These articles came from urban or suburban areas in Australia ($n = 1$), the United States ($n = 24$), and the United Kingdom ($n = 11$). There was a lack of rural areas represented across the articles. Most articles ($n = 35$) did not measure physical activity outcomes, and 14 reported measures of effectiveness. Measures were mainly observational in nature, including documenting attendance or activities provided ($n = 8$).^{26–36} Four articles used a combination of both observational (eg, general field notes, attendance counts) and self-report surveys.^{27,33–35} Table 1 summarizes descriptive statistics including location, dates, and times of the Play Streets.

Reach

Reach relates to the target population of the intervention, specifically the proportion of the intended population that participated and how they were recruited.²³ Seventy-five percent of resources ($n = 27$) reported information on reach. The most commonly

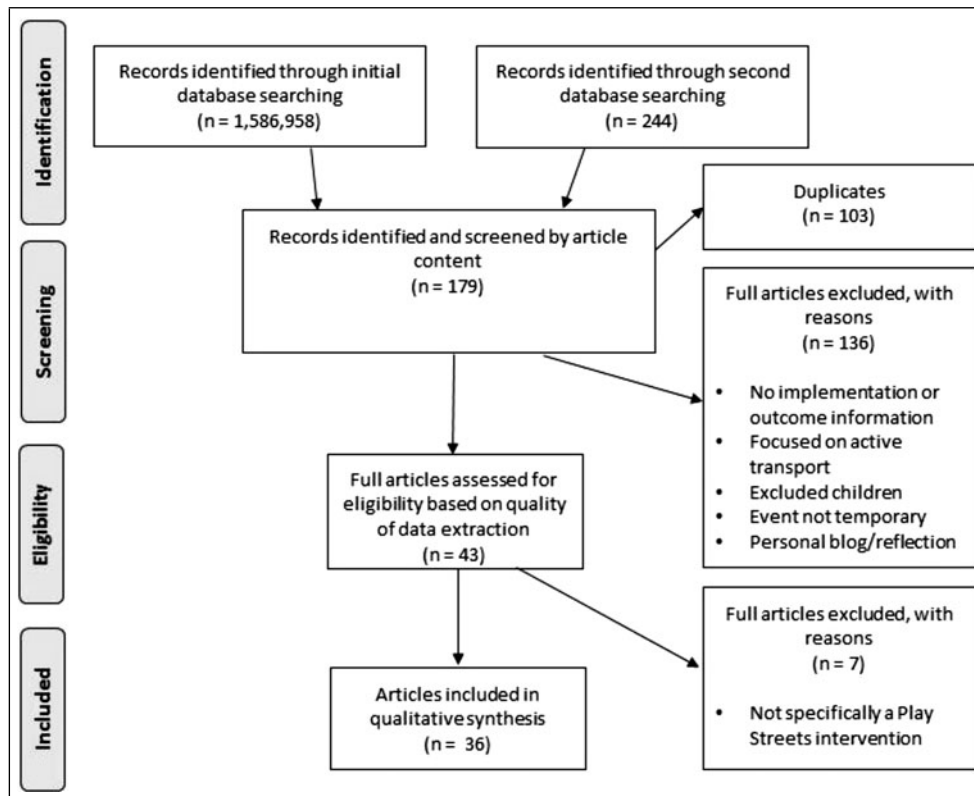


FIGURE 1. Preferred Reporting Items for Systematic Reviews and Meta-Analysis (PRISMA) Flow Diagram for grey Literature Resource Inclusion in a Systematic Review of Examining the Implementation of Play Streets Using the RE-AIM Framework

reported statistic across all reviewed documents was total attendance ($n = 14$) or the number of events hosted by the selected city or organization ($n = 18$). Participation ranged from 30 children at 1 Play Street³⁶ to 67 000 over 422 Play Streets³²; however, only 2 articles provided details about how well Play Streets attendees represented the intended population.^{28,32} Documents varied on frequency and number of Play Streets, ranging from reporting on a single Play Street up to reporting on 800 Play Streets occurring throughout the year. While most organizers rotated the location of Play Streets ($n = 21$),^{27,31-35,37-47} throughout their communities, other documents only described a single location for Play Streets ($n = 4$).^{29,30,48,49}

Nine documents specifically mentioned targeting children and families for Play Streets.^{28-31,35,42,43,50,51} There were 5 Play Streets articles^{28,29,35,45,52} that focused on communities with physical activity disparities, such as communities with residents who are from a low socioeconomic status, communities of color, and those that lacked access to physical activity facilities (eg, playgrounds, recreation centers). Most documents ($n = 34$) did not provide specific demographic information; however, one Play Streets

implementation team conducted an extensive survey of the adult participants, finding that most participants were college educated (78% held a bachelor's degree), of various ages, and representative of the ethnic distribution of the city.²⁷

Advertising for Play Streets ($n = 11$)^{34-36,43,44,47,51,53,54} was included in some documents. Social media was used to disseminate information for 6 Play Streets.^{35,43,44,51,53,54} One Play Streets organizer used multilingual advertising to encourage diversity.⁴⁴ While the documents analyzed in this review (eg, resources available online describing Play Streets) could be considered a form of advertising, there was a lack of additional marketing efforts for most Play Streets ($n = 26$).*

Effectiveness

Effectiveness or efficacy of an intervention is based on the success rate or intended outcomes when the recommended implementation protocol goes as planned.²³ Sixty-one percent of the documents

*References 27-33, 35, 37, 42, 46, 48-50, 52, 55-60.

TABLE 1
Descriptions of Locations, Dates, and Times of Play Streets From Grey Literature Resources

Reference #	Location	Dates	Times
28	San Francisco, California	8 events per year in different San Francisco neighborhoods	11:00 AM-4:00 PM
29	Hackney, England	Weekly or monthly	A few hours
30	Brooklyn, New York	Summer 1967	12:00 PM-8:00 PM daily
31	London, England	June 28, 2016	3:00 PM-5:00 PM
32	Philadelphia, Pennsylvania	Summer 2010	10:00 AM-4:00 PM
33	Chicago, Illinois	NR	NR
34	New York City, New York, and Philadelphia, Pennsylvania	Summer 1974	New York: Play Streets last 7 h; Philadelphia: 10:00 AM-4:00 PM
35	East Harlem and the South Bronx, New York City, New York	East Harlem: Every Thursday in July and August 2010; South Bronx: Every Wednesday in July and August 2010	Lasted 4 h at both locations
36	New York City, New York—3 programs: Summer Play Streets, School Play Streets, and PAL PLAYSTREETS	Summer Play Streets: July 1-August 31 School Play Streets: During the school year PAL PLAYSTREETS: NR	Summer Play Streets: 8:00 AM-5:00 PM School Play Streets: NR PAL PLAYSTREETS: NR
36	Chicago, Illinois	Late spring-early fall	Minimum of 3 h
36	Bellflower, California	Saturdays and Sundays for 36 wk during the school year; Tuesday, Wednesday, and Thursday during the summer	NR
37	Philadelphia, Pennsylvania (East Silver Street location)	Summer 2017; June 27-September 1 (Monday-Friday)	10:00 AM-4:00 PM
38	Chicago, Illinois	Summer 2017	≥3 h
39	Play Streets in New York City, New York; Bristol, England; and others	New York City: Every summer England: Every Sunday during the summer	NR
40	London, England	Weekly or monthly	Up to 3 h
41	New York, New York	Summer 2012 and 2013	NR
42	London, England	NR	NR
42	New York City, New York	7-wk program (Monday-Friday) starting July 12, 2000	NR
44	Hertfordshire County, England; Tring, England	Tring: Monthly since 2013	NR
45	Los Angeles, California (5 neighborhoods: South Los Angeles, Boyle Heights, Watts, Pacoima, and Koreatown)	South Los Angeles: November 21, 2015 Boyle Heights: May 15, 2016; June 12, 2016; July 17, 2016 Watts: June 18, 2016 Pacoima: June 20, 2016 Koreatown: July 10, 2016	South Los Angeles: 10:00 AM-2:00 PM Boyle Heights: 1:00 PM-7:00 PM; 1:00 PM-8:00 PM; 1:00 PM-8:00 PM Watts: 2:00 PM-7:00 PM Pacoima: 11:00 AM-7:00 PM Koreatown: 2:00 PM-7:00 PM
46	Philadelphia, PA	Summer 2017 (Monday-Friday)	10:00 AM-4:00 PM
47	New York City, New York	Summer 2017	NR
48	Philadelphia, Pennsylvania	Summer 2017 (Monday-Friday)	10:00 AM-4:00 PM
49	San Francisco, California	Spring 2017; June 3, 2017; July 1, 2017; August 5, 2017; September 2, 2017; October 7, 2017	1:00 PM-5:00 PM
50	Croydon town center (London, England)	July 15, 2017; October 21, 2017; February 10, 2018	11:30 AM-4:30 PM
51	New York City, New York	Summer 2013	Monday-Friday 9:00 AM-5:00 PM

(continues)

TABLE 1
Descriptions of Locations, Dates, and Times of Play Streets From Grey Literature Resources (Continued)

Reference #	Location	Dates	Times
52	London Borough of Haringey (England)	The first Play Street is on the last Sunday of every month since May 2013; the second Play Street is every third Sunday	First Play Street: 2:30 PM-5:30 PM; second Play Street: 2:00 PM-5:00 PM
53	Los Angeles, California	NR	NR
54	Kensington, Victoria (Melbourne, Australia)	3 inaugural dates; Events on August 8, 2015, and September 13, 2015	1:00 PM-3:30 PM
55	New Orleans, Louisiana	October 26, 2013	9:00 AM-12:00 PM
56	Jackson Heights, New York	2 mo every summer	All day
57	Ealing, England	NR	NR
58	Seattle, Washington	Summer 2015 (every day of the week)	A few hours (eg, 4:00 PM-10:00 PM; 3:00 PM-6:00 PM; 10:00 AM-4:00 PM)
59	London, England	NR	NR
60	Seattle, Washington	NR	NR
61	London, England	NR	NR

Abbreviation: NR, not reported.

^aRecurring or episodic closures of a street or area to traffic to provide the public with a safe space to play and/or be physically active that was accessible at no cost, lasted for a specific time, designed primarily for youth, and may include marked play areas, loose equipment, and/or group activities.

^bBroader events (ie, Open Streets or Ciclovías) with specific areas blocked off for safe, free play as a part of the larger event.

($n = 22$) did not include measures of effectiveness.[†] When effectiveness was measured, participation numbers were used to indicate attendance at Play Streets or to compare attendance at Play Streets within a community (eg, year after year) and across locations. Several documents mentioned that Play Streets ($n = 5$)^{27,32,34,41,51} improved safety, led to more connected and social neighborhoods, and a “healthier” street, although no data were provided to support these anecdotal claims. One document stated that Play Streets enabled more than 8100 child-hours of physical activity, which was noted as equivalent to 14 additional classes of weekly physical education lessons; however, information was not provided regarding how this estimate was determined.²⁸

Four documents reported the use of surveys at Play Streets^{27,33-35}; the content of these surveys varied greatly. One report stated that most of the participants would have been sedentary if they were not attending the Play Streets, 82% of participants reported it was very important or important to have a Play Street near their home, and 84% felt the neighborhood was safer with a Play Street.³⁴ Another survey found that 91% of participants would want a Play Street at least once per month, if not more frequently, 80% would prefer that the Play Streets occur on a weekend, and 77% of participants stayed at the Play Streets 2 hours or more.³⁵

Adoption

Adoption refers to the settings in which the intervention is started, as well as the plans and practices used to start the intervention.²³ About 92% of resources ($n = 33$) reported information regarding adoption. Twenty Play Streets[‡] began through partnerships with community advocacy groups and city departments. Four Play Streets^{29,35,44,57} cited adopting ideas from other cities and adapting these existing ideas to meet their specific community’s needs. One Play Streets program began as an initiative of the Chicago Department of Public Health, with partnerships from the Active Transportation Alliance, Chicago Local Initiatives Support Corporation, World Sport Chicago, and Gads Hill Center.³⁵ Several resources detailed New York’s Play Streets partnership with the Police Athletic League as an organizing force.^{29,33,35,41,42,45,50} Other partnerships included Kounkuey Design Initiative with the Los Angeles Department of Transportation for Play Streets,^{35,36} as well as Transportation Alternatives, Strategic Alliance for Health, and Harvest Home Farmer’s Market in New York with their Play Streets.³⁴ Three Play Streets^{32,35,54} were started through grants from Blue Cross Blue Shield or the Partnership for a Healthier America. One resource cited Michelle Obama’s “Let’s Move” campaign as a driving factor for initiating Play Streets.⁵⁹ While most

[†]References 29-31, 35, 38-40, 42, 46-50, 52-60.

[‡]References 29, 32-39, 41, 42, 46-48, 50, 52, 53

documents stated a good or neutral relationship with municipalities and received support to implement Play Streets, one resource specifically mentioned that residents in Jackson Heights, New York, won a “hard-fought battle” to implement a series of Play Streets for 2 summer months; however, no additional details were provided.⁵⁵

Implementation

Implementation indicates how an intervention is carried out in the real world.²³ All of the resources (n = 36) included information regarding some aspect of implementation. Forty-seven percent of resources (n = 17) described the specific types of activities offered during Play Streets.⁵ The most commonly implemented activities at Play Streets were various activities directed toward children, such as loose equipment for general play and sport equipment (eg, hula hoops, jump ropes, balls, hopscotch) (n = 17),[¶] cycling/biking (n = 5),^{28,46-49} fitness classes (n = 4),^{34,37,40,54} music (n = 1),⁴⁴ dancing (n = 1),⁴⁰ and running (n = 1).⁴⁰ While the activities were described, usage of activities (eg, how many people used/engaged in each activity and/or for how long) were not reported in any document.

Only one resource included the length of street closures, whereas multiple resources documented the duration streets were closed. These closures ranged from 1 to 4 miles across multiple Play Streets²⁷ and were typically closed for a few hours, ranging from 3 to 9 hours across Play Streets (n = 10).[¶]

Thirty-six percent of the host organizations provided paid staffing and/or volunteer supervision at Play Streets (n = 13).[#] Parents or residents of the community provided oversight in 7 Play Streets documents.^{28,39,47,55-57,60} Seven documents provided information on how much it cost to implement the Play Streets.^{33,35,41,44,58} Reported costs greatly varied (eg, \$312 for a block party permit⁴⁴ to \$30 000 for a single Play Street with paid staff).³⁵ Costs varied by Play Streets size (eg, anticipated attendance and amount of area closed), duration of the Play Streets, and location. For example, one document states that \$4000 to \$5000 is budgeted per street segment to operate a single Play Street that includes street worker salaries, administration expenses, equipment, and street markings.³³

Maintenance

Maintenance refers to how the program is sustained or continued over time.²³ Eighty-six percent of resources (n = 34) reported information specific to maintenance. Seventy-two percent of the documents detailed an ongoing program or series of Play Streets (n = 26),^{27-29,31-47,50,55,58,60} whereas others documented a 1-time occurrence either as a pilot or as a single, stand-alone Play Street (n = 8).^{30,35,48,49,52,54,57,59} Some program implementers expressed a desire to increase either frequency of or participation in Play Streets (n = 6).^{30,39,44,47,52,57} Few Play Streets occurred year-round (n = 4),^{35,43,48,49} with 14 Play Streets** only implemented in the summer. One example of program maintenance in practice is how the Hackney Play Streets and the Hackney Play Association encouraged parents, schools, and other organizations to be responsible for continuing the planning and supervision of Play Streets by providing some advice and guidance after the organizations stopped hosting Play Streets.²⁸

Discussion

This systematic review of the grey literature highlights the lack of information on implementing Play Streets and similar style temporary interventions. This gap in knowledge is significant considering the increasing popularity of Play Streets across the United States.²¹ The documents reviewed indicate tremendous variation in how Play Streets are designed, implemented, and evaluated. One benefit of this variation is that communities can adapt and host Play Streets in a way that is most beneficial to their community and residents.^{12,61} These same variation and flexibility also make assessing intervention fidelity, transferability, and evaluation challenging.⁶² Elements that work well in one Play Street may not work in a different location and/or community.

This review revealed that information regarding the effectiveness of Play Streets is lacking. When information on effectiveness was collected, it mainly occurred via observational counts; formal evaluations were rarely conducted by hosting organizations. Few organizational reports for Play Streets included surveys with participants. While knowing the number of people who attended and which activities were being utilized most is helpful information, having consistent, detailed outcome measures would allow community organizers to easily compare outcomes across Play Streets. More comprehensive representation of RE-AIM information can facilitate the evaluation of

[§]References 28, 29, 33-37, 40, 42, 44, 46-49, 54.

[¶]References 28, 29, 33-37, 40, 42, 44, 46-49, 54.

^{||}References 29-31, 33, 34, 39, 44, 53, 54, 56.

[#]References 29-31, 33, 35, 40, 42, 45, 46, 49, 50.

**References 29, 31, 33, 36-38, 40, 45-47, 50, 55, 57.

short- and long-term effectiveness.⁶³ One potential solution is to incorporate a set of common evaluation metrics to support future Play Streets–specific evaluations. Information such as motivation to host Play Streets and cost/staffing requirements to maintain Play Streets could help community organizations influence policy change to sustain them moving forward.

Most documents did not specifically state why locations were selected or how recruitment for Play Streets occurred. About two-thirds of resources discussed hosting Play Streets in multiple neighborhoods. On the basis of the locations, it seems that Play Streets were hosted in places that lacked parks,^{35,44} or areas that included low-income neighborhoods,^{35,42,44,46} or neighborhoods prone to violence^{42,44} in hopes of reversing negative influences that may be attributed to these areas. This trend is consistent with approaches previously used in other Play Streets.^{12,64}

Many documents provided little detail regarding how Play Streets were adopted or plans for maintenance. In 26 documents, organizers reported keeping Play Streets initiatives^{††} ongoing but provided no additional information about how they maintain success and sustain the initiative(s) in their communities. More research is needed regarding how communities sustained these interventions.

This review underscores the importance of documenting implementation strategies of Play Streets in more detail to help inform others interested in implementing Play Streets interventions. The RE-AIM framework could be used to inform the creation of a “how to” implement Play Streets guide, which could be extremely useful for communities implementing Play Streets for the first time. A guide could facilitate more consistent implementation and evaluation of Play Streets and other temporary Play Streets–style interventions.^{24,63} Providing community organizers with access to implementation steps and tips for avoiding potential challenges that might arise during implementation could help bolster the success of Play Streets in a community.

Limitations

While the authors believe all existing documents were identified, it is possible that relevant articles were missed. Any Play Streets that did not have any type of written report published in the grey literature are missing from this review. In addition, some intervention reports and/or articles could have been

missed because of the inconsistency in the name “Play Streets.” Although broader search terms were used to avoid this limitation, it is possible that programs with unique names or event identifiers were missed in this review. Also, while the systematic methods used to search and synthesize the grey literature were rigorous, grey literature itself is not as rigorous as academic, peer-reviewed literature, due to the variability of how grey literature sources reported methods and results and the lack of peer review in grey literature. Furthermore, the information reported in this review is only based on the information provided in the grey literature resources the authors identified. Therefore, the information in this review is limited to the type of information and level of detail that were reported by the authors of the resources included in this review.

Conclusions

Play Streets encourage the availability of safe places for children to be physically active outdoors in their community. This review of the grey literature examined how Play Streets have been implemented—information that was lacking in the peer-reviewed literature.²¹ This systematic review was conducted to facilitate a broader comparison of the grey and academic literature.²¹ Within the grey literature, there were several inconsistencies in how implementation was reported, which suggests a need for more systematic reporting of implementation components to support future replications. More research is needed to understand all dimensions of implementing Play Streets, including those in the RE-AIM

Implications for Policy & Practice

- The grey literature suggests that Play Streets have potential to encourage outdoor active play for children and positively impact communities, but there is limited implementation information to help inform policy change to sustain these efforts.
- Creating and widely disseminating a “how to” implement Play Streets guide could lead to a more systematic approach for implementing and sustaining them and serve as a resource for practitioners who want to begin implementing Play Streets.
- Future evaluations of Play Streets should use consistent and detailed implementation measures to help the field better understand how Play Streets should be effectively planned, implemented, and evaluated.

^{††}References 27, 28, 31–38, 42, 45–47, 50, 60.

framework. Specifically, the focus should be on areas where detailed information is greatly lacking or currently absent, such as effectiveness, adoption, and maintenance. With more complete information, the RE-AIM framework could be used to help establish the sustainability of Play Streets and the impacts at the individual and community levels.^{23,24}

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