

Comparing two SOPARC methodologies for use at Play Streets

Prochnow T.¹, Umstadd Meyer M. R.¹, Bridges C. N.¹, McClendon M. E.¹, Arnold K. T.², Wilkins E.¹, Williams T. D.³, Carlton T.⁴ & Pollack Porter K. M.²
¹Baylor University, ²Johns Hopkins Bloomberg School of Public Health, ³Gramercy Research Group, ⁴Warner University

Background and Purpose

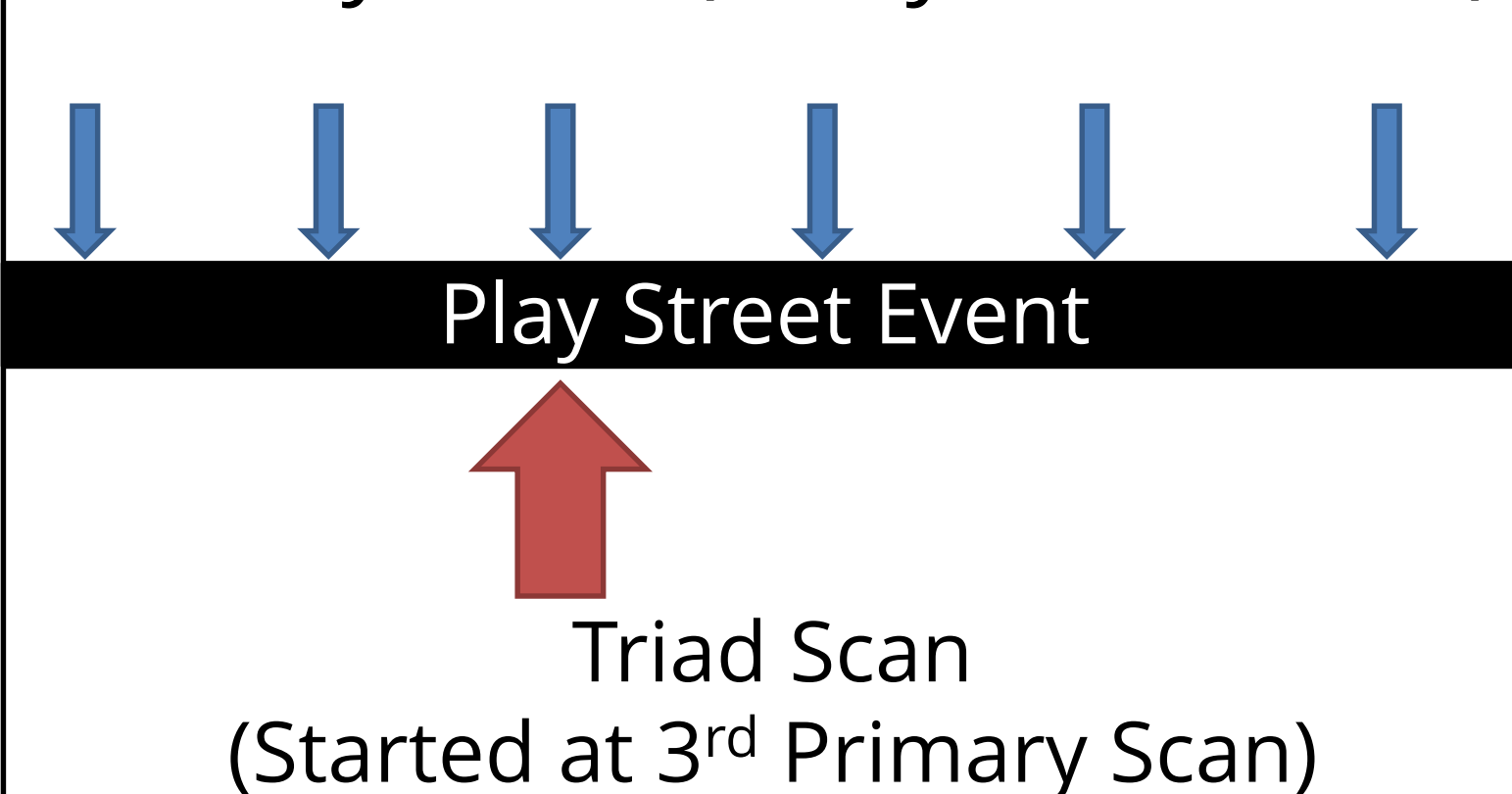
- Understanding how community physical activity (PA) spaces are used is critical for promoting PA.
- System for Observing Play and Recreation in Communities (SOPARC) is a systematic observation tool that records information on PA areas and people that use them utilizing momentary sampling.
- SOPARC has been used to assess permanent spaces (parks).
- Documentation on SOPARC use for temporary spaces, like Play Streets (PS), is lacking.
- Play Streets involve temporary closure of streets for a specified time period (around 3-4 hours) that create a safe space for play.
- Due to the dynamic nature of PS, assessment of activity can be complex.



Methodology

- Research staff were trained in SOPARC / iSOPARC methodology.
- Staff conducted iSOPARC observations using two methods at 6 PS occurring in 4 diverse low-income rural communities across the U.S.
- A primary researcher completed 6 iSOPARC observations during the 3-hour time period for each PS.
- An observation consisted of systematically scanning a target area (TA) and noting individuals' PA level and demographic information, within the TA.
- An alternative method, triad scan (TS), was also conducted starting when the primary observer would begin the 3rd set of observations.
- A given TA was scanned 3 consecutive times (10 seconds between each scan) before moving to next TA.
- Scans for each TA were then averaged and compared to the 3rd observation and to averages of the original method.
- Paired t-tests were used to determine significant differences in total observations and observations in each activity level between primary and TS.

Primary Scans (every 30 minutes)



Results

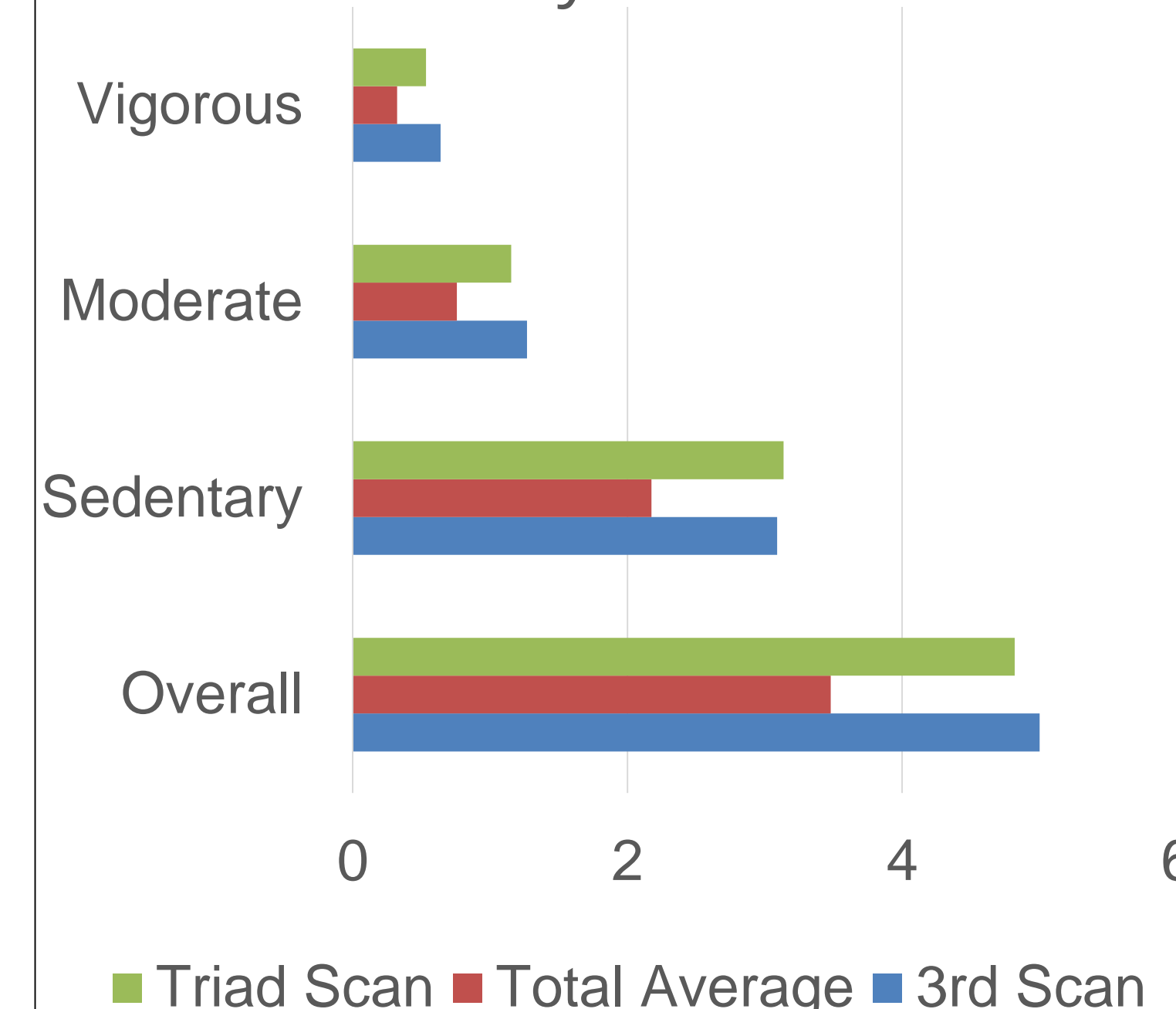
- There were no significant differences in TS averages and 3rd observation primary frequencies for overall activity ($p=0.42$) and for sedentary ($p=0.47$), moderate ($p=0.35$), and vigorous activity levels ($p=0.33$).
- There were no significant differences in TS averages and total primary averages for overall activity ($p=0.12$) and for sedentary ($p=0.15$).
- There were significant differences for moderate ($p=0.04$) or vigorous activity levels ($p=0.048$).

Mean Comparisons

	3 rd Scan	Total Average	Triad Scan
	Mean (SD)	Mean (SD)	Mean (SD)
Overall	5.00 (8.49)	3.48 (4.92)	4.82 (10.02)
Sedentary	3.09 (7.04)	2.18 (4.05)	3.14 (8.32)
Moderate	1.27 (2.19)	0.76 (0.70)	1.15 (2.01)
Vigorous	0.64 (2.10)	0.32 (0.71)	0.53 (1.10)

SD - Standard Deviation

Mean Comparisons by Activity Level



P-values for t-tests

	1 Scan vs. Triad	Scan Average vs. Triad
Overall	0.42	0.12
Sedentary	0.47	0.15
Moderate	0.35	0.04
Vigorous	0.33	0.05

Conclusion

- Using TS method did not significantly impact frequencies of observations when compared to a single primary observation.
- While a TS method may reduce amount of time spent on assessment, it may miss vital variation in PA at PS events when compared to overall averages.

Implications for Practice and Policy

- Play Streets are dynamic play environments that require unique assessment.
- This presentation adds to information regarding conducting systematic observations for temporary activity spaces.

Funding Source

Funding provided by Robert Wood Johnson Foundation through Physical Activity Research Center (PARC).



Tyler Prochnow

Baylor University

262-945-0275

Tyler_prochnow1@baylor.edu