

IMPROVING NUTRITION AND PHYSICAL ACTIVITY LEVEL AMONG CHILDREN IN A COMMUNITY-BASED SETTING



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INTRODUCTION

Problem

Community-based obesity prevention programs are needed for children in Adams County, IL as:

- Obesity has tripled in the past three decades (CDC, 2014)
- Approximately 41% of Adams County, IL children ages 10-17 years old are reported to be overweight or obese (University of Illinois and the Adams County Health Department, 2010)
- On average, Illinois kids consume only 2.1 of the 5 recommended fruits and vegetables each day (CDC, 2013)
- Illinois has the 14th highest childhood obesity rate in the U.S., with 33.6% of youth in Illinois overweight or obese (Child and Adolescent Health Measurement Initiative, 2011)

Literature Review

- Children who participated in the community-based obesity prevention intervention consumed fewer carbonated beverages ($p = 0.04$) and fruit drinks ($p = 0.03$) and more fruit servings/3 days ($p < 0.01$) (Taylor et al., 2007)
- Improved access to community-based facilities gave children the opportunity to engage in safe, indoor exercise and play activities reduced participants' waist and BMI z-score by 0.47 ($p < 0.0001$) and sustained physical activity over a 12-month period (Sacher et al., 2010)
- Family-based, lifestyle interventions that combined dietary, physical activity, and behavioral components were effective at meaningfully decreasing the overweight rates in children and adolescents studied (Oude Luttikhuis et al., 2009)

PICOT

PICOT Statement: In children ages 5-12 years old (P), does a monthly community and family-based physical activity and nutrition education program (Friday Night Family Play Night [FNFNPs]) (I) improve dietary habits and increase daily physical activity levels among child participants (O), over an eight month period (T)?

Objectives/Short-term Outcomes

- 5% increase in the number of participants (children 5-12 years old and their parents) in the Friday Night Family Play Nights
- 5% increase in the number of individuals reporting their child(ren) (ages 5-12)
 - consume 5 or more fruits and vegetables per day
 - spend less than 2 hours engaging in screen time per day
 - engages in 1 hour or more of physical activity per day
- 2% increase in the number of individuals reporting their child(ren) (ages 5-12) drink zero sugary-sweetened beverages per day

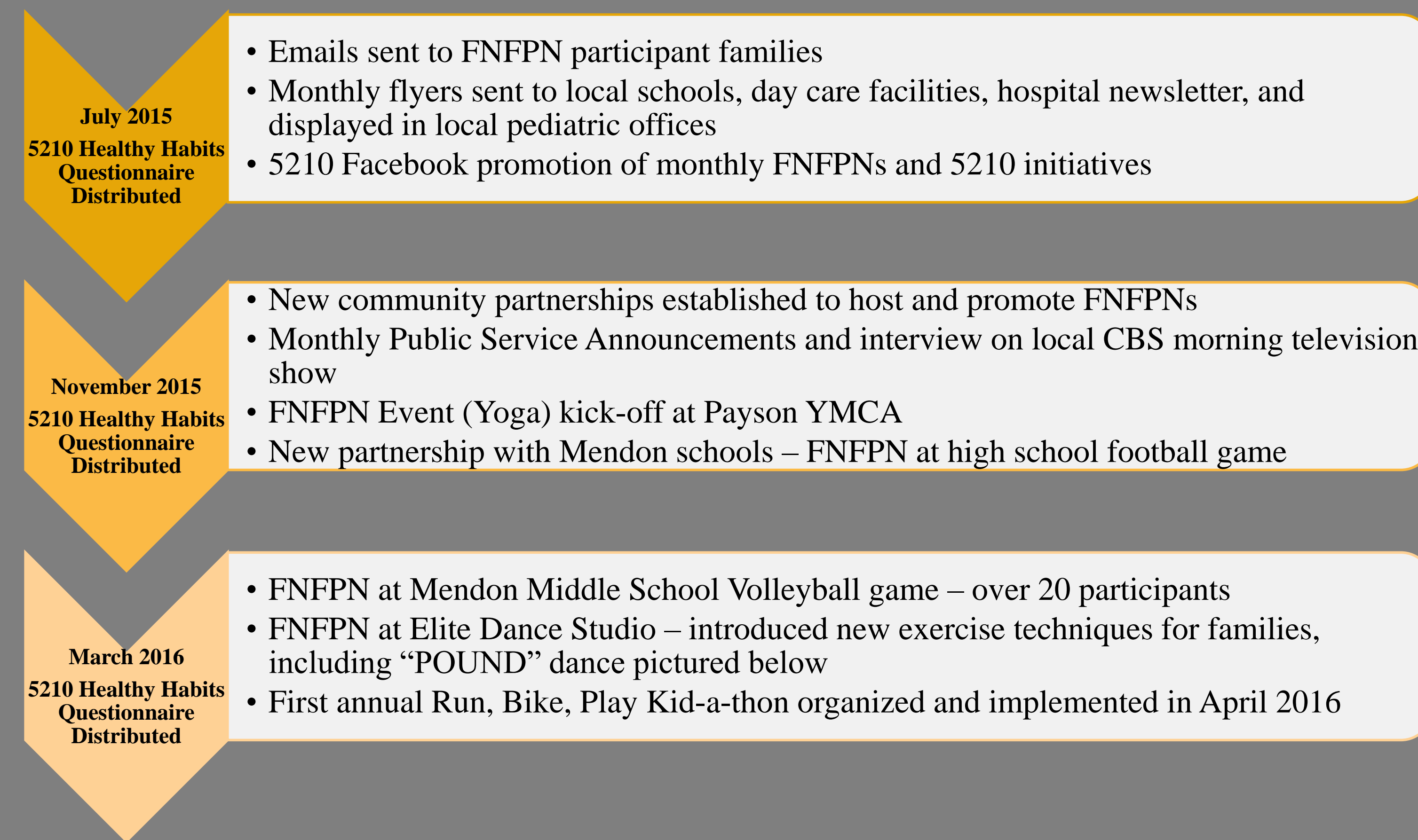
All objectives are to achieved by March 2016

MATERIALS AND METHODS

Setting & Population: The setting for the FNFNPs included various locations in Adams County, including local parks, school gymnasiums, YMCAs, exercise and fitness facilities, pools, yoga studios, and dance studios. The population included all Adams County children and their families, particularly targeting 5-12 year olds.

Design: Intermediate testing post-test design using convenience with purposive sampling and snowball/network/chain sampling

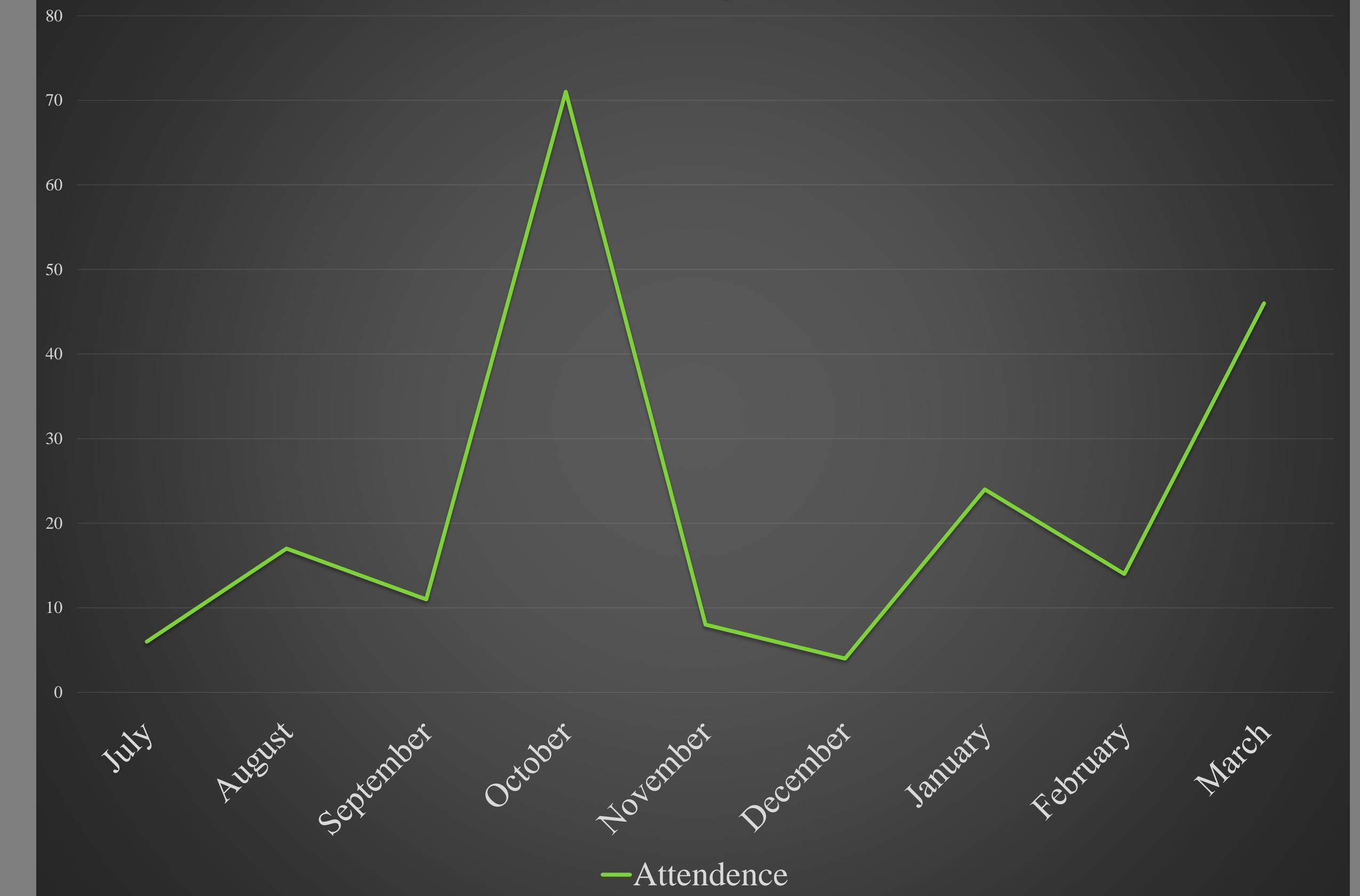
- Modified version of the 5210 Healthy Habits Questionnaire (Ages 5-12) was administered to participants of FNFNP in Adams County, IL at three time periods (July 2015, November 2015, & March 2016)



RESULTS

- **OUTCOME 1 MET:** Nearly a 700% increase in FNFNP participation
- **OUTCOME 2 NOT MET:** There was 0% increase in people reporting they consume 5 servings of fruit or vegetables per day over the eight month period. There was also a notable improvement in overall fruit/vegetable consumption, with 5% of participants in July 2015 consuming three to four servings of fruits or vegetables/day to 27% in March 2016.
- **OUTCOME 3 MET:** There was a 67% increase in participants reporting that their child engaged in ≤ 2 hours of screen time per day.
- **OUTCOME 4 MET:** There was a 55% increase in participants reporting daily engagement of ≥ 60 minutes of physical activity
- **OUTCOME 5 MET:** There was a 76% increase in participants reporting consumption of zero sugary- sweetened beverages

FNFNP Monthly Attendance



CONCLUSIONS

- Study limitations: varied FNFNP respondents, poor follow-up and limited data collection due to limited repeat survey respondents.
- While increased report of outdoor play by families participating in the monthly FNFNPs was the only statistically significant data from this study, there were several noted improvements in healthy food and beverage consumption, increased daily physical activity, and positive lifestyle modifications among FNFNP participant families.
- Partnerships with local schools and community organizations and local businesses strengthens the ability to expand obesity prevention programs, increases attendance, and improves sustainability.

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