

History Buff:

Understanding the Goals of Physical Activity Programs and Exhibits at History Museums

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Abstract

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Physical activity has been proven to result in a number of health benefits, yet many Americans do not get the recommended amount of exercise. Museums have started to address this issue by developing programs and exhibits that incorporate physical activity. However, little is known about the specific goals of these programs and the impact they have on their participants. Furthermore, history museums represent a very small percentage of museums that offer opportunity for physical activity, despite the fact that they are well-suited for this type of program and exhibit.

This mixed-methods study, which included a document analysis, questionnaire, and interviews with museum professionals, sought to understand the goals that physical activity programs and exhibits at history museums are working to achieve, and to create a framework that can be used to evaluate these programs. Findings suggest that the goals that are most common to physical activity programs and exhibits include learning information about museum content, ways to be physically active, and the importance of a healthy lifestyle; engaging in physical

activity; having fun; and learning new skills. These findings were used to create a framework consisting of outcomes and indicators that can be used to evaluate these programs and exhibits. Recommendations for future research include considering the ways in which partnerships with other organizations can benefit physical activity in museums, as well as studying the long-term impact of these programs and exhibits.

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Chapter 1: Introduction & Problem Statement

According to the Centers for Disease Control and Prevention (2013), almost 80 percent of American adults and 74 percent of children do not meet the federal government's physical activity recommendations. Childhood obesity rates have tripled over the last three decades, and nearly one in three children in the United States is either overweight or obese (Let's Move!, n.d.b). Research has shown, however, that just thirty minutes of physical activity three times a week for adults (Medina, 2008) and sixty minutes for children (Let's Move!, n.d.a) results in a number of physical, emotional, and cognitive health benefits. In addition to helping to control weight, build lean muscle, and promote strong bone and joint development (Let's Move!, n.d.a), exercise can also work to prevent dementia, stroke, and myriad other health issues (Medina). Regular exercise has also been proven to affect cognitive capabilities in both children and adults. Physically-fit children tend to display increased concentration and focus, better classroom attendance and behavior, and improved academic performance (Let's Move!, n.d.c). These benefits are not unique to children: as John Medina explains, "A lifetime of exercise can result in a sometimes astonishing elevation in cognitive performance, compared with those who are sedentary. Exercisers outperform couch potatoes in tests that measure long-term memory, attention, [and] problem-solving" (p. 14).

In recent years, many museums have started to address this issue by developing programs and exhibits that incorporate physical activity. Some of these institutions expand on the traditional museum walking tour to include running, bike, and kayak tours, while others integrate activity such as dancing, playing games, and climbing stairs into their programs and exhibits. The Chicago History Museum, for example, offers *Chicago24*, which "features exclusive tours designed to reveal essential stories and lead you off the beaten path" that all take place over the

course of twenty-four hours (Chicago History Museum, 2015b). These tours are designed to appeal to participants with a wide variety of interests, and range from a sunset river cruise that features a talk about the city's architectural growth and transformation to "a leisurely 75-minute running tour of the Gold Coast and Old Town" (Chicago History Museum, 2015a). In Birmingham, Alabama, the Vulcan Park and Museum encourages children to get active through different programs including *Girl Scouts- Iron Kids*, during which scout groups learn how the city's residents maintained their health and fitness throughout history and get active themselves by running up staircases, sliding down hills, and developing their own health and fitness plans (Vulcan Park and Museum, 2015).

Museums that offer physical activity programs and exhibits often do so in order to affect their communities in ways that extend beyond conveying traditional content knowledge. In addition to teaching their visitors facts and information regarding the museum's subject area, these museums are also able to educate about the importance of a healthy lifestyle and different modes of physical activity in ways that can greatly contribute to their visitors' all-around health. Indeed, as Roland (2010) explains, museums that address physical activity

do so as part of a commitment to their communities, for whom health and the human condition are central to everything else. They are able to do so because they are effective in addressing different learning styles and helping visitors develop lifelong fascinations. And what better fascination than health? (p. 173)

The *Let's Move! Museums & Gardens Toolkit for Participating Institutions* (Let's Move! Museums & Gardens, n.d.b) also speaks to the ways in which museums' ability to reach a wide range of audiences places them in a position "to influence real and sustained behavior change," (p. 3), while a publication released by the American Alliance of Museums in 2013 draws

attention to the ways in which museums can “play an important role in addressing numerous health issues and [how] the public is warmly embracing—and greatly benefitting from—these initiatives...museums continue to build on their long-standing commitment to public service” (p. 11).

Many of the museums that currently offer physical activity programs and exhibits do so as a result of the 2011 expansion of First Lady Michelle Obama’s *Let’s Move!* campaign to include a specific museum and garden component. As part of this initiative, participating institutions work toward the common goal of eradicating childhood obesity within the next generation by focusing on four priorities that include eat healthy, get active exhibits; learning about healthy foods choices and physical activity through afterschool, summer and other programs; healthy food service; and learning about healthy food choices and physical activity using food service operation (Let’s Move! Museums & Gardens, n.d.c). At the time of this publication, there were 672 institutions in all fifty states that are affiliated with *Let’s Move!* (Let’s Move Museums & Gardens, 2015), and many others that offer physical activity programs and exhibits without any connection to the initiative.

While many different types of museums offer physical activity programs and exhibits, history museums represent only a very small percentage of institutions that encourage visitors to be physically active. In 2013, art and history museums together comprised only 21 percent of all *Let’s Move!* institutions (Brown, 2013), despite the fact that 55.5 percent of all museums in the United States fall into a history category (American Association for State and Local History, 2014). By not offering this type of programming, many history museums are missing out on an opportunity to make a difference in the health and lifestyles of their visitors and otherwise positively impact their communities. As one of the official statements released by *Let’s Move!*

Museums & Gardens explains, “with 35,000 museums, 850 million visits, and two-thirds of adult Americans visiting museums and gardens each year, these institutions have the ability to reach millions of children and their families with messages about how to live healthier lives” (Let’s Move! Museums & Gardens, n.d.a, para. 15). The initiative’s official *Toolkit for Participating Institutions* (n.d.b) echoes this sentiment by drawing attention to how “museums and gardens have great collective power to reach families with important health messages. [They] have the ability to educate and inform to spur action in the areas of health, wellness, nutrition, and physical activity” (p. 3). Clearly, these museums have the potential to lead to great change within their communities.

History museums are exceptionally well-suited to offer physical activity programs for a number of reasons. Many programs that these institutions have traditionally offered, such as walking tours, can easily be adjusted to include a larger physical activity component. Furthermore, as Peterson (2012) notes, living history museums, in particular, are structured in a way that lends itself to teaching how healthy lifestyle choices can contribute to a decrease in obesity:

these museums educate the public about farming, gardening, cooking, and family life, each of which provides many opportunities to foster discussions about the changes that have occurred in America and how those changes have impacted modern living. These changes have contributed to the obesity epidemic, and learning about them and seeing how America’s ancestors lived and worked in the past can provide insight on healthier options for today. (p. 2)

Many history museums also offer walking tours of their grounds and significant locations in their neighborhoods and cities, which fit closely with recent studies that have demonstrated how

walking can result in a number of health benefits, especially for previously-sedentary people (Hardman & Stensel, 2009; U.S. Department of Health and Human Services, 2008).

By offering programs and exhibits that incorporate physical activity, history museums can also work to increase their relevance and attract new audiences at a time when “children are not expected to learn [history] in schools...[and] engagement in history seems to be an occasional pleasant pastime, not something especially relevant to [people’s] lives” (History Relevance Campaign, n.d.a, para. 1). The History Relevance Campaign believes that history is essential for many different reasons (including nurturing personal identity, teaching critical skills, and fostering engaged citizens), and that it is important for “museums and historic sites [to] connect the people, events, places, stories, and ideas of the past with people, events, places, stories, and ideas that are important and meaningful to us today” (History Relevance Campaign, n.d.b, para. 1). As museums that present opportunities for physical activity have the potential to engage new audiences (Let’s Move! Museums & Gardens, n.d.b), history museums may find that they are able to bring these lessons and share their stories of the past with visitors as they also contribute to their overall health and well-being.

Research Goal

While only a small percentage of history museums currently offer programs and exhibits that incorporate physical activity, there are nevertheless a number of institutions that do focus on the ways in which they can impact the health and lifestyles of their visitors while also teaching the historical content that the museum aims to share. The purpose of this study is to understand the goals that physical activity programs and exhibits at history museums are working to achieve. This research will also result in the creation of a framework that can be used to evaluate these programs. Although some of these institutions do measure the success of their programs and

exhibits, Peterson (2012) notes that “the biggest drawback of the *Let’s Move* program is that there is no required evaluation of the participating institutions...institutions can conduct their own independent evaluations, but it is not encouraged by the program” (p. 24). Indeed, she continues, “Though in theory each of these programs has the potential to teach visitors healthy habits and work to reduce obesity, without evidence it is difficult to determine how much of an impact they are having” (p. 28). Chatterjee and Noble (2013) agree with this statement, and note that there is a “lack of unified, agreed evaluation or measurement approach for assessing the contribution of museums to individual and/or community health and well-being” (p. 14). By creating a framework that describes both desired outcomes that are common throughout many physical fitness programs, as well as potential indicators of these outcomes, this research will enable museum staff to not only evaluate these programs at their own institutions, but also to gain an increased understanding of how these programs impact both the museum and its visitors. This increased understanding will allow museums to make any necessary changes to their programs to ensure that the institution and its visitors alike will experience positive and lasting effects as a result of their participation in programs and exhibits that incorporate physical activity.

Chapter 2: Review of the Literature

Physical Activity and Health

Museums that incorporate physical activity into their programs and exhibits are addressing what has become a serious issue in the United States and around the world. As everyday life in modern times requires relatively little daily physical activity and energy expenditure (Hardman & Stensel, 2009; U.S. Department of Health and Human Services, 2008), “the amount of physical activity we do is largely a matter of personal choice and the environmental conditions under which we live” (U.S. Department of Health and Human Services, 2008, p. 45). Unfortunately, these personal choices and conditions seem not to be enough, as 38 percent of adults in the United States report that they engage in no physical activity in their free time, and only one third of adults are sufficiently active. Likely related to this inactivity, obesity rates in North American have risen at least three times in the last thirty years, to the point where nearly one third of American adults are obese (Hardman & Stensel, 2009).

Childhood obesity has also increased at an alarming rate in recent years. Since the 1980s, the number of children who are obese has tripled, and nearly one in three children in the United States today is either overweight or obese (Let’s Move!, n.d.b). Furthermore, many health issues that were once associated only with adults, such as type 2 diabetes, are becoming increasingly common in overweight and obese children (Carmona, 2004). Even for children who do not have health issues, regular physical activity during childhood can help to prevent disease in adulthood by reducing risk factors for chronic diseases such as heart disease, hypertension, type 2 diabetes, and osteoporosis (U.S. Department of Health and Human Services, 2008). As with adults, much of the reason for this increase in childhood obesity and disease is likely due to low levels of

physical activity in the daily lives of children and adolescents. Children spend a considerable amount of time sitting in front of various screens, and often do not walk or cycle to school or play outside as much as they once did (Hardman & Stensel, 2009; Let's Move!, n.d.b). While it is estimated that half of all schoolchildren walked to school in 1969, fewer than 15 percent of children used "active modes of transportation" to travel to and from school in 2004 (Morbidity and Mortality Weekly Reports, 2005, as quoted in Hardman & Stensel, 2009). Physical activity also is not a reliable component of the educational system, as only 6 percent of American high schools offer daily physical education classes (Ratey & Hagerman, 2008), and enrollment in these classes declined by 17 percent between 1991 and 1995 alone (U.S. Department of Health and Human Services, 1996).

Physical health. These low rates of physical activity are especially troubling when one considers the significant positive effects that regular exercise can have on the physical health of children and adults alike. Many studies have found that participating in physical activity reduces one's risk of premature death (Hardman & Stensel, 2009). In fact, as the *2008 Physical Activity Guidelines for Americans* notes, there are "only a few lifestyle choices [that] have as large an effect on mortality as physical activity. It has been estimated that people who are physically active for approximately 7 hours a week have a 40 percent lower risk of dying early than those who are active for less than 30 minutes a week" (p. 10). Manini's (2006) "Health, Ageing, and Body Composition" study found that death rates were two-thirds lower in a group that participated in high levels of physical activity compared to a low-level group (as quoted in Hardman & Stensel, 2009), while the "Harvard Alumni Health Study" conducted by Lee and Paffenbarger (1996), which was an ongoing study that looked at the long-term health of men who enrolled at Harvard University between 1916 and 1950, also discovered that "physically

active individuals have a lower risk of dying prematurely compared with their sedentary counterparts” (as quoted in Hardman & Stensel, 2009, p. 42).

Regular physical activity can also provide a number of cardiovascular benefits, including actually preventing cardiovascular disease, which is the leading cause of death for both men and women in the United States (Agarwal 2012; Hardman & Stensel, 2009). In addition to lowering levels of mortality and preventing cardiovascular disease, physical activity—and, by extension, lowered rates of obesity—has also been proven to lower blood pressure and reduce the risk of stroke, type 2 diabetes, cholesterol, asthma, and cancer (Hardman & Stensel 2009; Let’s Move!, n.d.b; U.S. Department of Health and Human Services, 1996). Danaei et al. (2005) found that “of the seven million deaths from cancer world-wide in 2001, an estimated 35% have been attributed to nine potentially modifiable risk factors, including physical activity” (as quoted in Hardman & Stensel, 2009, p. 166). Furthermore, physical activity is also crucial in maintaining muscle, bone, and joint health (U.S. Department of Health and Human Services, 1996).

By adopting a modest physical activity routine, even people who had previously been unfit can achieve significant health benefits. Wartburton, Nicol, and Bredin (2006) discovered that “people who went from unfit to fit over a 5-year period had a reduction of 44 percent in the relative risk of death compared with people who remained unfit,” while Hardman and Stensel (2009) note that “moderate-intense activity is sufficient to improve fitness in previously sedentary people...and benefit some health-related outcomes” (p. 273). Furthermore, while people with heart disease were once discouraged from engaging in physical activity, studies now show that such activity benefits people with established cardiovascular disease, although older adults, in particular, should consult their physician before beginning an exercise routine (U.S. Department of Health and Human Services, 1996).

Cognitive health. Exercise has also been shown to have a positive effect on cognitive health in both children and adults. In *Brain Rules: 12 Principles for Surviving and Thriving at Work, Home, and School*, John Medina (2008) shares that people who exercise have better long-term memory, reasoning, attention, and problem-solving skills than people who are not active. Although he acknowledges that relatively few studies have been conducted to determine how exercise affects children, the research that does exist demonstrates that “physically-fit children are better able to identify stimuli, concentrate better, have high self-esteem, and other qualities that improve academic performance and attentiveness” (p. 18). In one study of children who jogged for thirty minutes two or three times per week, researchers found that “after twelve weeks, their cognitive performance had improved significantly compared with pre-jogging levels. When the exercise program was withdrawn, the scores plummeted back to their pre-experiment levels” (p. 14-15). Other studies have verified these findings to concur that being active for sixty minutes each day helps children by increasing their concentration and focus, improving their classroom attendance and behavior, and boosting their academic performance (Let’s Move!, n.d.b).

Ratey and Hagerman (2008) have also explored the ways in which exercise can improve cognitive function, and explain that

emerging research shows that physical activity sparks biological changes that encourage brain cells to bind to one another. For the brain to learn, these connections must be made; they reflect the brain’s fundamental ability to adapt to challenges. The more neuroscientists discover about this process, the clearer it becomes that exercise provides an unparalleled stimulus, creating an environment in which the brain is ready, willing, and able to learn. (p. 10)

In addition to preparing the brain to learn and improving cognitive abilities, Ratey and Hagerman also describe how high levels of physical fitness can play an important role in improving mood, lowering levels of anxiety and stress, and helping with issues surrounding addiction, aging, and hormonal changes.

Eric Jensen (2005) agrees that movement and learning are closely connected in the brain, and that “movement can be an effective cognitive strategy to (1) strengthen learning, (2) improve memory and retrieval, and (3) enhance learner motivation and morale” (p. 60). In particular, he highlights a number of studies that demonstrate how children can benefit from physical activity. Terrence Dwyer found that exercise leads to improvement in classroom behavior and academic performance, while Donevan and Andrew’s (1986) research suggests that “students who are engaged in daily physical education programs consistently show not just superior motor fitness, but better academic performance and a better attitude toward school than the students who do not participate in daily P.E.” (as quoted in Jensen, 2005, p. 63). Furthermore, Jensen notes that this physical activity does not need to be intense exercise; rather, simple play can benefit intellectual growth, as “many play-oriented movements have the capacity to improve cognition” (p. 64).

Others have conducted research that confirms what Medina, Jensen, Ratey, and Hagerman argue. Erickson and Kramer (2009) report that while aerobic activity is better than nonaerobic activity for some cognitive functions, engaging in just six months of moderate levels of aerobic exercise can result in significant improvements in cognitive functions. Indeed, “moderate levels of exercise can serve as both a preventative measure against age-related cognitive and brain deterioration and a treatment to reverse decay and cognitive deficits already present in older adults.” Hardman and Stensel (2009) also note that “regular participation in physical activity also appears to reduce depression and anxiety, improve mood, and enhance

ability to perform daily tasks throughout the life span” (p. 5). They also reference many studies that point to a correlation between physical activity and reduced instances of depression and anxiety and an increase in general well-being, and conclude that people “who are inactive are twice as likely to have symptoms of depression than are more active persons” (p. 136).

Recommendations for Physical Activity

Although many of the studies that demonstrate the positive connection between physical activity and health were conducted throughout the twentieth century, and some recommendations on physical activity were also made during that time (Hardman & Stensel 2009), it was not until the mid-1990s that the federal government began to address and inform the general public about the amount, intensity, and type of physical activity necessary to achieve and maintain good health. In 1995, the Centers for Disease Control and Prevention (CDC) and the American College of Sports Medicine (ACSM) first “published physical activity recommendations for public health. The report stated that adults should accumulate at least 30 minutes a day of moderate-intensity physical activity on most, preferably all, days per week” (U.S. Department of Health and Human Services, 2008, p. 5). One year later, *Physical Activity and Health: Report of the Surgeon General* (1996) was first published in an attempt “to catalyze a new physical and fitness movement in the United States” (p. i). In addition to reporting on the risks of inactivity and the many ways in which physical activity can improve health and general quality of life, this report echoed the recommendations by the CDC and ACSM to suggest how people can best engage in physical activity in order to achieve these benefits:

a regular, preferably daily regimen of at least 30-45 minutes of brisk walking, bicycling, or even working around the house or yard will reduce your risk of developing coronary heart disease, hypertension, colon cancer, and diabetes...[and] people who are already

physically active will benefit even more by increasing the intensity and duration of their activity. (p. i)

Furthermore, these recommendations declared that physical activity can benefit people of all ages, both male and female, and that even just moderate amounts of physical activity can have an impact on health and quality of life. This report also described how sessions of physical activity can be divided into multiple smaller segments, as fitness gains are the same as a result of both several short sessions or one longer session of the same total amount and intensity.

The *2008 Physical Activity Guidelines for Americans*, which was published by the U.S. Department of Health and Human Services, was the first comprehensive document on physical activity ever to be issued by the federal government and served to review the research and knowledge gained in the time since the *Report of the Surgeon General* was issued twelve years earlier. This publication was compiled by a group of thirteen exercise science and public health experts, and was created in order to inform “policy makers, physical educators, health providers, and the public on the amount, types, and intensity of physical activity needed to achieve many health benefits for Americans across the life span” (U.S. Department of Health and Human Services, 2008, p. i). Like the *Report of the Surgeon General*, the *2008 Physical Activity Guidelines for Americans* sought to inform readers that regular physical activity can prevent many health issues, and that some physical activity is better than none. This publication recommends that, in order to achieve maximum health benefits, adults should exercise at a moderately-intense level for at least 150 minutes each week or engage in vigorously-intense aerobic activity for 75 minutes each week (or some combination of the two), while children should participate in at least sixty minutes of physical activity each day, with at least three days per week of vigorous or intense activity. However, while the CDC/ACSM and the Surgeon

General's reports both recommended that the total of 150 minutes be achieved by participating in physical activity for thirty minutes for five days each week, these new guidelines allow people the flexibility to accumulate the total of 150 minutes in whatever way they wish. While many prior publications focused heavily on aerobic activity, this report also notes the importance of muscle-strengthening physical activity, and suggests that muscle- and bone-strengthening exercise should be done at least three days each week.

One of the recommendations from each of these publications that is perhaps most relevant to museums is that physical activity does not have to be vigorous, intense, or sustained in order to be beneficial. As Nieman (1998) notes, the American College of Sports Medicine maintains that "An active lifestyle does not require a regimented, vigorous exercise program. Instead, small changes that increase daily physical activity will enable individuals to reduce their risk of chronic disease and may contribute to enhanced quality of life" (p. 18). The *2008 Physical Activity Guidelines for Americans* notes that all activity can be divided into two categories: baseline activity, which incorporates "the light-intensity activities of daily life, such as standing, walking slowly, and lifting lightweight objects," and health-enhancing activity, which includes activities such as "brisk walking, jumping rope, dancing, lifting weights, climbing on playground equipment at recess, and doing yoga" (p. 2). While baseline activities generally only last for short bursts of time, and therefore do not carry many health benefits when performed on their own, a combination of both health-enhancing physical activity and baseline activity results in many health benefits.

Low-level leisure activities, such as walking, cycling, and gardening, are especially beneficial in improving the health of sedentary adults, especially as "it is easier for a person who is currently sedentary to adopt and maintain modest lifestyle activities such as walking than to

participate in a structured programme of vigorous aerobic exercise” (MacAuley, 1999, p. 2).

While public health recommendations once placed an emphasis on vigorous activity, these recommendations have evolved to include “the option of moderate levels of activity for numerous health benefits” (U.S. Department of Health and Human Services, 1996, p. 6).

Children, in particular, should not participate in physical activity that is unduly rigorous. Instead,

children and adolescents should meet the Guidelines by doing activity that is appropriate for their age. Their natural patterns of movement differ from those of adults. For example, children are naturally active in an intermittent way, particularly when they do unstructured active play. During recess and in their free play and games, children use basic aerobic and bone-strengthening activities, such as running, hopping, skipping, and jumping, to develop movement patterns and skills...Adolescents may meet the Guidelines by doing free play, structured programs, or both. (U.S. Department of Health and Human Services, 2008, p. 16-17)

This type of “natural” activity is incorporated in a number of physical activity programs and exhibits at history museums, including the *Pittsburgh Plays!* preschool tours at the Heinz History Center, which provides children with the opportunity to “practice large motor activities such as jumping, marching, and hopping” (Heinz History Center, n.d.a)., and the *Early Learning Playscape* at Naper Settlement, where children can enjoy the outdoors in a “playscape playground and splash pad [that] provides opportunities for early childhood physical, imaginative and social development while promoting increased connections to the natural environment, local history and community engagement” (Naper Settlement, n.d.).

Walking is another form of physical activity that fits closely with programs, such as walking tours, that have long been offered at history museums. In fact, some sources, including the July 2014 *Harvard Health Letter*, suggest visiting a museum as a way to walk a few miles as part of a daily routine. Walking is especially recommended for older adults, who “should strongly consider walking as one good way to get aerobic activity. Many studies show that walking has health benefits, and it has a low risk of injury. It can be done year-round and in many settings” (U.S. Department of Health and Human Services, 2008, p. 32-33). MacAuley (1999) agrees, stating that

lifestyle activities such as walking seem likely to reach this [recommended] intensity in older individuals [although they] are unlikely to do so in young adults. A growing number of controlled longitudinal studies of brisk walking programmes have shown gains in aerobic fitness,” (p.1)

as well as other benefits for risks such as blood pressure and bone density. Walking can also be an exceptionally effective form of exercise for people who are already fit (Ratey & Hagerman 2008); however, it leads to the most benefits when done at a fast pace. As Hardman & Stensel (2009) summarize,

In the National Health Interview Survey it was estimated that one death per year may be prevented for every 61 people who could be persuaded to walk for at least two hours per week. The Health Professional Follow-up Study identified an association between both the amount of speed of walking and CVD [cardiovascular disease] risk—those who reported walking at a very brisk pace...experienced an 83% lower risk of CVD than those who reported walking at an easy pace. (p. 116)

Ultimately, with its many health benefits, along with the fact that it is “cheap, safe, popular and sociable, [walking] is the obvious starting point for previously sedentary people” (p. 282), as well as one that is often incorporated into museum programming.

Physical Activity and Community Organizations

In order to achieve these health benefits for the greater public, many of these resources also consider the ways in which community and social groups can play a role in encouraging people to engage in physical activity, and call for a “massive national commitment” (U.S. Department of Health and Human Services, 1996, p. i) to reverse the country’s recent trend of inactivity. As the *2008 Physical Activity Guidelines for Americans* explains,

providing guidance [regarding recommended types and amounts of physical activity] by itself is not enough to produce change. Action is necessary. Regular physical activity needs to be made the easy choice for Americans. To accomplish this goal, public health research suggests the use of a ‘socio-ecologic’ approach. This comprehensive approach involves action at all levels of society: individual, interpersonal, organization, community, and public policy. (p.45)

This publication continues by describing some of the ways each of these “levels of society” can provide opportunities for physical activity, including distributing messages that promote the importance of physical activity, providing social support systems such as walking groups and community dances, and enhancing access to places to be physically active, including walking trails, playgrounds, and community centers.

The 1996 *Report of the Surgeon General* also mentions the importance of approaching physical activity from a community-wide perspective, and explains that

communitywide prevention programs have evolved from the concept that a population, rather than an individual, approach is required to achieve primary prevention of disease through risk factor reduction (Luepker et al. 1994). Behaviors and lifestyle choices that contribute to an individual's risk profile are influenced by personal, cultural, and environmental factors (Bandura 1977). (p. 227)

Some recent studies have found that school-based interventions that also involve families and the community can play an important role in increasing physical activity in children and adolescents (Hardman & Stensel, 2009). As van Sluijs et al. (2007) note,

Interventions targeted at children and adolescents appear an attractive way to increase activity levels before sedentary behaviors become entrenched. However, simply increasing school physical education classes does not increase activity sufficiently to meet recommended thresholds. At least in adolescents, effective interventions generally have many components and are undertaken in multiple settings (school, home, environment, community), facilitating physical activity by providing opportunities and a supportive environment. (as quoted in Hardman & Stensel, 2009, p. 280)

The role that community organizations, such as museums, can play in encouraging physical activity is one of the reasons why First Lady Michelle Obama launched the *Let's Move!* initiative in 2010. Recognizing that in order to increase their levels of activity, children need “parks, playgrounds, and community centers where they can play after school, and activities like sports, dance or fitness programs that are exciting and challenging enough to keep them engaged,” *Let's Move!* works to encourage community organizations to partner together to create programs that incorporate physical activity and therefore make their neighborhoods into healthier places to live (Let's Move!, n.d.b).

Physical Activity and Museums

Although physical fitness programs and exhibits in museums are a relatively recent development, there are nevertheless some professional resources that have started to address why museums are well-suited to contribute to the physical and mental health of their communities, and how they can effectively do so. In a publication entitled *Museums on Call: How Museums are Addressing Health Issues* (2013), the American Alliance of Museums highlights the myriad ways in which museums can contribute to healthcare and how both institutions and the public can mutually benefit from this involvement. While museum visitors are able to learn new information and skills from a “trustworthy source of information” (American Alliance of Museums, 2013, p. 12) and participate in meaningful experiences, the museums themselves have the potential to deepen relationships within their community by offering these experiences. As one museum program manager explained, ““The more relevant we are to our community, the more likely our work will be funded and the more likely we can expand our work and serve more people”” (American Alliance of Museums, 2013, p. 11).

The majority of current publications that focus specifically on the intersection between museums and health have been created as part of the *Let’s Move! Museums & Gardens* initiative. The official *Let’s Move!* website speaks to exactly how museums can impact the well-being of their communities: “with their impressive reach and great potential for impact, museums and gardens can launch community efforts to create a healthier generation using interactive exhibits, outdoor spaces, gardens and programs that encourage families to eat healthy foods and increase physical activity” (Let’s Move! Museums & Gardens, n.d.c). Although this initiative focuses primarily on eradicating obesity in children, it nevertheless recognizes that, as museums are visited by people of all ages and backgrounds, institutions that participate in *Let’s Move!* will be

able to teach both children and their families about healthy food choices and the importance of physical activity. As museums are “core community institutions,” the website continues, “they are trusted in their communities and have the capacity to influence real and sustained behavior change” (Let’s Move! Museums & Gardens, n.d.c, para. 3).

The *Let’s Move! Museums & Gardens Toolkit for Participating Institutions* also explains how participating institutions can positively change the lives of their visitors. As these museums are able to draw from a wide network of *Let’s Move* tools, people, and resources that are all working toward a common goal, they “have great collective power to reach children and their families with important health messages. [These museums] have the ability to educate and inform to spur action in the areas of health, wellness, nutrition, and physical activity...by [developing] enhanced visitor experiences by adapting existing programs or implementing new initiatives” (Let’s Move! Museums & Gardens, n.d.b, p. 3). Ultimately, as museums already provide visitors with “high impact learning opportunities,” the addition of wellness-related programs and exhibits will only increase their “capacity to influence real and sustained behavior change” in their visitors’ lives by providing them with knowledge and resources that will enable them to make important and healthy lifestyle changes (Let’s Move! Museums & Gardens, n.d.b, p. 3).

Although these publications focus primarily on the ways in which the public can benefit from visiting a *Let’s Move!* institution, it is worth noting that there are also ways in which the museum itself can experience gains by addressing nutrition and physical activity. Both *Museums on Call* (American Alliance of Museums, 2013) and the *Toolkit for Participating Institutions* (Let’s Move! Museums & Gardens, n.d.b) note that by offering programs and exhibits that focus

on health and wellness, museums will be able to reach new and more diverse audiences and otherwise better foster their relationships in the community.

Other literature has also considered why it is important for museums to address healthcare and the importance of a healthy lifestyle. In their book *Museums, Health and Well-Being*, Chatterjee and Noble (2013) note that

public health is about the organised efforts of society in preventing disease, encouraging well-being, and building resilience for when ill health strikes. All sectors have a role to play in creating the context for better health and museums can contribute significantly to our 'social capital' for better health. (p. ix)

Whitney T. Brown (2013) also argues that, as a public entity, museums should be concerned for the health of their communities and offer educational programs that provide opportunities for participants to be physically active. As "museums are held in a position of trust by the public," she notes,

the accountability placed on museums requires them not only to take care of objects, but serve their public by means of effective, exciting, and educational programming. One way this can be done is by implementing exercise programs that benefit the health and overall well-being of the community. (p. 22)

Museums and Mission

While museums are able to effectively offer programs and exhibits that incorporate physical activity, however, it is important that these programs also relate to the broader mission and goals of the organization. Both the American Alliance of Museum's (AAM) *National Standards & Best Practices for U.S. Museums* (2008) and the American Association for State and Local History's *Standards and Excellence Program for History Organizations* (2012) state

that “all aspects of [a] museum’s operations [should be] integrated and focused on meeting its mission,” while the AAM continues by proclaiming that “activities of the museum should support, directly or indirectly, the mission.” Brown (2013) applies these standards directly to physical activity programs at museums by arguing that, in order to stay true to their mission, these programs should be based on, inspired by, and created out of the museum’s preexisting exhibits and collections. Although some museums offered physical activity programs before the creation of *Let’s Move!*, Brown notes that very few of these related to anything else that the museum was hoping to achieve. Even though

general workout programs are beneficial to the public... If the workout programs do not teach from the museum’s objects and exhibits, the class might as well be held at a local gym. Relating the program to the collections or exhibits makes better use of what museums already have and gives participants a chance to learn about the objects or themes within the museum. (Brown, 2013, p. 13-14)

While, in theory, museums are able to offer physical activity programs and exhibits in any manner they wish, ones that align closely with the museum’s mission and content area better fit with the institution’s strengths and enable these programs to offer a unique event that participants are unable to experience anywhere else.

Evaluation of Physical Activity Programs and Exhibits

While there is considerable literature that demonstrates how museums are well-suited to offer programs and exhibits that incorporate physical activity and contribute to the health and well-being of their communities, not much is known about the specific goals that these programs are working to achieve, as well as if and to what extent they actually impact the lives of their participants. *Museums on Call* claims that “the public is warmly embracing—and greatly

benefitting from” (American Alliance of Museums, 2013, p. 11) museums that focus on health issues, while various *Let’s Move! Museums & Gardens* publications also speak to the ways in which these programs can deeply impact a wide range of visitors:

With 35,000 museums, 850 million visits, and two-thirds of adult Americans visiting museums and gardens each year, these institutions have the ability to reach millions of children and their families with messages about how to live healthier lives. If museums and gardens incorporate healthy messages into their online exhibits and programs, these messages could be viewed an additional 542 million times each year through virtual exhibits. (Let’s Move! Museums & Gardens, n.d.a, para. 15)

The *Toolkit for Participating Institutions* (Let’s Move! Museums & Gardens, n.d.b), which provides resources for museums that are implementing the initiative, also considers how museums are capable of making a difference. In the initiative’s official approved quotation from the Institute of Museum and Library Services Director Susan Hildreth, she states that museums “are trusted institutions with deep community connections, knowledgeable staff and the ability to provide immersive interactive experiences that can help children, parents, and caregivers to make healthy changes in their lives” (p. 4).

Yet despite these well-stated and impactful goals, there seems to be little in the way of consistent evaluation that measures exactly how these programs affect their participants. Although some museums that offer physical activity programs and exhibits do conduct evaluation, Peterson (2012) bemoans the fact that “The biggest drawback of the *Let’s Move* program is that there is no required evaluation of the participating institutions... Institutions can conduct their own independent evaluations, but it is not encouraged by the program” (p. 24). Furthermore, she continues,

The lack of required evaluation is perhaps the *Let's Move! Museums and Gardens* initiative's biggest fault. Participating institutions must submit the numbers of individuals served by the program, but are not asked to do formative or summative evaluations of the program's impact. Though in theory each of these programs has the potential to teach visitors healthy habits and work to reduce obesity, without evidence it is difficult to determine how much of an impact they are having. (p. 28)

Chatterjee and Noble (2013) also express their concern about what they and others consider to be a lack of consistent evaluation of these programs. While it is important for museums to be able to prove that the programs and services that they provide are effective, and there are some that do attempt to describe the impact that these programs have on the health and well-being of their participants, they note that there is a "lack of unified, agreed evaluation or measurement approach for assessing the contribution of museums to individual and/or community health and well-being" (p. 14). Others agree with this sentiment, with Froggett et al. (2011) pointing out that

the absence of a common framework to evaluate these effects is problematic. Clift is in agreement, stating that 'progress in the field of arts and health is crucially dependent upon the development of coherent theoretical frameworks for understanding how involvement in the arts can result in benefits for well-being and health (Clift et al. 2009:17).' (as quoted in Chatterjee & Noble, 2013, p. 9)

The importance of utilizing a common framework to measure the success of similar programs and exhibits has also been described by many evaluation experts, including Weiler & Ham (2010), who determined a common set of indicators and developed a generic instrument to

evaluate interpretation at a range of heritage-based settings. In doing so, they referenced findings by Screven (1976) and Falk (1993) to note that

Although many studies have produced evidence of the outcomes of interpretation, most of this research has been time- and site-specific... A common thread within these studies is also the tendency to use customized methods, making comparisons across studies a difficult task and pointing to the merits of a generic instrument and set of indicators for cross-site comparison (Falk, 1993). (p. 190)

A 2008 report from a National Science Foundation Workshop also describes the process of creating a common framework for programs that share similar goals. The authors of this report, which focuses on the Informal Science Education program at the National Science Foundation (Friedman, 2008), share one of the reasons why it is important to evaluate like programs in the same way:

The evaluations...can also help to advance the entire field of informal science education. Several decades of support for informal science by NSF and others should have advanced the field to a point where we are actually discovering more generalizable insights into learning. To capture that advance, a consistent knowledge base of summative findings is needed. (p. 14)

In other words, in addition to comparing programs with similar goals in order to better measure their impacts, using a consistent evaluation method and framework can help to better understand how these programs affect their field more broadly.

By working to understand the goals that physical activity programs and exhibits at history museums are working to achieve, and by creating a framework that can be used to evaluate these programs, this research will address one of the largest gaps regarding physical activity in

museums. Although there is extensive literature that explores the importance of engaging in physical activity, as well as the ways in which community organizations such as museums are well-suited to offer programs that encourage visitors to be physically active, there is currently no method for measuring the success of these programs in a uniform manner. By utilizing the framework that resulted from this research, museums that currently do not evaluate these programs will be able to use this framework in order to develop evaluation plans, while those that do evaluate will be able to do so in a way that is common among all physical activity programs.

Chapter 3: Methodology

Research goal

The purpose of this study was to understand the goals that physical activity programs at history museums are working to achieve. This research also resulted in the creation of a framework that can be used to evaluate these programs. The research used a mixed-methods approach comprised of a document analysis, a questionnaire, and two exploratory interviews that supported the findings of the first two methods.

Sample

A combination of thirty programs and exhibits at twenty different museums were selected for this study. Many of these institutions were chosen from ones that are highlighted in materials including *Let's Move!* publications and the results of the American Alliance of Museums' study entitled *Museums on Call: How Museums are Addressing Health Issues*. Programs were also identified as a result of a general Internet search. Specific programs and exhibits were selected based on two criteria: a dedicated emphasis on physical activity and a strong alignment between the information taught during the program and the museum's mission and content area. A full list of the programs and exhibits selected for this study are included in the Appendix.

Instruments, protocol, and analysis

After the sample was selected, a document analysis looked at descriptions of these programs and exhibits. These documents included museum websites and other publicity materials, such as newspaper articles, press releases, and official *Let's Move!* blog posts and newsletters. The content of each document was examined in order to understand details of these programs and exhibits, including the type of physical activity they incorporate and the extent to which program content relates to the museum's subject matter and mission. The results of this

analysis were then entered into an Excel spreadsheet that listed the types of documents that exist for each of the programs. Each document that was reviewed for each program and exhibit was marked in the appropriate column of museum website or promotional materials, grant proposal or grant award announcement, program evaluation, scholarly articles and books, and other publicity materials. The last category included *Let's Move!* promotional materials, blog posts, and newsletters. The document analysis also noted the institution and program names and location, staff contact information, links to information that was found on the Internet, as well as miscellaneous other information. One category also noted whether or not the museum is a participating *Let's Move!* institution.

| Museum | Program name | Staff contact | Location | Museum website/ promotional materials | Grant proposal or award | Program evaluation | Articles and books | Other publicity materials (Let's Move! blog, etc.) | Let's Move institution? |
|--------|--------------|---------------|----------|--|-------------------------|--------------------|--------------------|--|-------------------------|
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All of the documents were then analyzed to identify descriptive information about the selected programs. This information was coded for key words and phrases in order to create an analysis of potential outcomes for these programs as defined by both the Generic Learning Outcomes (GLOs), which include Knowledge and Understanding; Skills; Attitudes and Values; Enjoyment, Inspiration, and Creativity; and Activity, Behavior, and Progression, and the Generic Social Outcomes (GSOs), which are comprised of Stronger and Safer Communities, Health and Well-Being, and Strengthening Public Life. These outcomes were originally created by England's Museum, Libraries and Archives Council as part of the Learning Impact Research

Project between 2001 and 2004. Both the GLOs and the GSOs work to provide a system through which cultural institutions can “define, capture, and measure learning” (Graham, 2013, p. 4) and determine the extent to which activities offered by these institutions benefit their communities.

Table 1 explains each of these outcomes in more detail and offers examples of how physical activity programs and exhibits endeavor to achieve these outcomes.

Table 1: GLO and GSO definitions and examples

| Outcome | Definition | Example |
|--|---|---|
| Knowledge and Understanding | <ul style="list-style-type: none"> • Knowing what or about something • Learning new facts or information • Making sense of something | <ul style="list-style-type: none"> • “Learn about key aspects of the American Revolution.” • “Participants learn the story of health and fitness in Birmingham” |
| Skills | <ul style="list-style-type: none"> • Knowing how to do something • Being able to do new things • Intellectual skills • Social skills • Physical skills | <ul style="list-style-type: none"> • “Collaborate with peers” • “This program will help each Girl Scout develop physical skills and historical awareness.” |
| Attitudes & Values | <ul style="list-style-type: none"> • Feelings • Perceptions • Opinions about ourselves • Increased motivation | <ul style="list-style-type: none"> • “Values physical activity for health, enjoyment, challenge, self-expression, and social interaction.” |
| Enjoyment, Inspiration, and Creativity | <ul style="list-style-type: none"> • Having fun • Being surprised • Creativity • Being inspired | <ul style="list-style-type: none"> • “It’s time to have fun and play!” • “Enjoy a healthy treat and camaraderie” |
| Activity, Behavior, and Progression | <ul style="list-style-type: none"> • What people do • What people intend to do • A change in the way people manage their lives | <ul style="list-style-type: none"> • Leave the museum “with their own health and fitness plan” |
| Health and Well-Being | <ul style="list-style-type: none"> • Encouraging healthy lifestyles and contributing to mental and physical well being | <ul style="list-style-type: none"> • “Participate in new and challenging physical activities” |
| Stronger and Safer Communities | <ul style="list-style-type: none"> • Encouraging familial ties and relationships | <ul style="list-style-type: none"> • “families are invited to work together” |
| Strengthening Public Life | <ul style="list-style-type: none"> • Providing safe, inclusive and trusted public spaces | <ul style="list-style-type: none"> • None of the programs or exhibits identified this goal |

Once each document was coded for evidence of the GLOs and GSOs, descriptions of each outcome was placed in the appropriate outcomes category in an Excel spreadsheet:

| Program or exhibit | Knowledge & Understanding | Skills | Attitudes & Values | Enjoyment, Inspiration, Creativity | Activity, Behavior and Progression | Health and Well-Being | Stronger and Safer Communities | Strengthening Public Life |
|--------------------|---------------------------|--------|--------------------|------------------------------------|------------------------------------|-----------------------|--------------------------------|---------------------------|
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

These categories were then analyzed to determine which outcomes and goals were the most common to all—or most—of the thirty programs and exhibits included in this study.

Once these goals were identified, a questionnaire was emailed to a staff member at each of the twenty different institutions to have these museum professionals verify the extent to which these goals correspond with the goals of their program or exhibit. When contact information for a staff member affiliated with the program could be located, the questionnaire was emailed directly to that person. When specific contact information could not be found, the questionnaire was emailed to the museum's general email address or submitted through a contact form on the museum's website. This questionnaire asked participants to rank how important it is that participants in their program or exhibit achieve each of the following six goals: learn new facts or information about museum content, learn new facts or information about ways to be physically active, learn new facts or information about the importance of a healthy lifestyle, engage in physical activity, have fun or enjoy the program, and learn new skills. Participants were also asked to indicate any other outcomes their program or exhibit seeks to achieve, if they currently or if they have ever conducted evaluation for this program, and if they would be willing to be contacted for a follow-up interview.

Based on the results of the questionnaire, follow-up interviews were scheduled with two of the respondents to probe more deeply into their answers and to understand more about their programs and exhibits and the goals they hope to achieve. These interviews also served as an opportunity to discuss and identify real indicators that museum staff look for or have observed to know that they are achieving their goals. These two participants were emailed in order to schedule this interview and were later interviewed via telephone. Each interview was recorded with a digital voice recorder as well as commercially-available audio recording software. The interview questions that participants were asked to answer were largely based on the results of the document analysis and the questionnaire. Participants were asked to describe their programs in more detail, including how and why these programs were initially developed, and to explain how each of the outcomes mentioned in the questionnaire applies to their programs. They were also asked to explain how they know if these outcomes are being achieved and if, and how, they measure the success of their programs and exhibits.

The combined results of the document analysis, questionnaire, and interviews informed the evaluation framework. Outcomes and goals that were identified from the document analysis—and confirmed as important by questionnaire participants—were included on this framework as the goals that are most common to a wide range of physical activity programs and exhibits. Indicators of these goals, which were mentioned by interview participants, were also included as potential examples of what evaluators can look for to determine the extent to which programs and exhibits are achieving these goals. As these specific examples were drawn from outcomes that are most common to all of the programs, this framework can therefore be used to evaluate a wide range of programs that incorporate physical activity.

Methodologies that were used in the creation of other frameworks, including one for interpretation at heritage settings and one for informal science education programs, were also consulted in the creation of this framework. Aspects of framework development that were considered important by these authors were replicated in the creation of this framework for physical activity programs and exhibits. In particular, Weiler & Ham (2010) noted that “it was important to first determine and define the precise indicators in the outcome domains” (p. 191). These authors did so by conferring with staff at different institutions in order to learn “what they felt were the most important indicators of ‘successful’ or ‘effective’ interpretation at those sites” (p.191). Both Weiler & Ham and a 2008 report from a National Science Foundation workshop also acknowledge that while the outcomes and indicators included in their frameworks are those that museum staff members identified as being the most important, many programs and exhibits will likely have goals and indicators that are unique to their site. As such, this framework also includes an “other” category in which each site that utilizes this framework can customize to their own needs. The “other” category also allows evaluators to include any unexpected outcomes. By including opportunities for flexibility within the framework, this tool can better be adapted and utilized by a wide range of museums that incorporate physical activity into their programs and exhibits.

Chapter 4: Results and Discussion

Summary of Data Collected

Document analysis. The document analysis looked at museum websites and promotional materials, grant proposals, program evaluations, scholarly articles and books, and other publicity materials from each of the thirty different physical activity programs and exhibits in order to gain an understanding of the type of physical activity that is incorporated into the program and how program content relates to the museum's subject matter and mission. The majority of documents that were analyzed were program descriptions that were found on museum websites; in fact, twenty-seven of the thirty programs and exhibits were described in some capacity on museum websites. Other forms of publicity articles, including newspaper articles, press releases, and *Let's Move!* newsletters and blog posts, were the second most-frequent type of document, with seventeen programs described in this format.

Although the document analysis also sought to examine grant proposals, program evaluations, and scholarly publications, it appears that very few of these materials are publically available. No evaluation reports of physical activity programs or exhibits at history museums were located. Furthermore, while many awarded grant announcements for this type of programming exist for children's museums, zoos, and science museums, as of winter 2015, a grant award for only one history museum was found. In 2012, the Mount Airy Museum of Regional History received a grant from the North Carolina Humanities Council to expand its *Geocaching for History* program, which utilizes "GPS technology to provide a new way to experience regional history" (North Carolina Humanities Council, 2012). Two years later, this program was also awarded a North Carolina Museums Council Award of Excellence.

Outcomes analysis. Once each of the documents was identified, each was analyzed and coded for key words and phrases in order to understand the goals that each program works to

achieve. Document content was coded in terms of both the Generic Learning Outcomes (GLO) and Generic Social Outcomes (GSO). These sets of outcomes were selected primarily because of the high level of awareness of both the GLOs and the GSOs within the museum field. As many museums already use these outcomes as they develop and evaluate their programs and exhibits, the results and framework created by this study will be better and easier applied to a range of museums across the country and around the world. Each individual outcome, and the extent to which physical activity programs at history museums are working to achieve these outcomes, is described in greater detail in the following sections.

Knowledge and understanding. Knowledge and Understanding is described by the Museums, Libraries, and Archives Council as “Knowing what or about something; Learning facts or information; Making sense of something; Deepening understanding; How museums, libraries, and archives operate; [and] Making links and relationships between things” (Museums, Libraries and Archives Council, 2008a). This outcome was considered to be a goal of physical activity programs and exhibits when documents contained words and phrases including, but not limited to, “learn,” “discover,” “reveal stories,” “explain,” “teach,” “facts,” “awareness,” “understand,” “explore,” and “educate.” Some program and exhibit descriptions also include specific mention of learning outcomes and the ways in which the program relates to and includes content that satisfies state learning standards.

The results of this analysis found that Knowledge and Understanding in physical activity programs and exhibits takes a number of different forms. In addition to teaching participants new facts or information about museum content, many of these programs and exhibits also seek to share information about ways to be physically active and the importance of a healthy lifestyle. Specific examples of programs and exhibits that reference Knowledge and Understanding

include *Class on the Grass* at Vulcan Park and Museum, during which students dance “to learn how stories can be told through creative movement” (Let’s Move! Museums & Gardens, November 2011), the *Early Learning Playscape* at Naper Settlement, where children can “play ‘Pack Your Wagon’ and learn what the pioneers brought with them on their journey to the Illinois frontier” (Naper Settlement, n.d.), and *SmartSteps* at the Heinz History Center, which endeavors to “spread the message about the benefits of incorporating light exercise into your day” (“History Center Enhances Healthy Initiatives,” 2011). In total, twenty-four of the thirty physical activity programs and exhibits made reference to Knowledge and Understanding. Some of these programs and exhibits are listed in Table 2, while a complete list is included in the Appendix.

Table 2: *Knowledge and Understanding in Physical Activity Programs and Exhibits*

| Museum | Program | Example |
|-----------------------------------|---|---|
| Bartow-Pell Mansion | 19 th Century Toys and Games | “Play parlor and lawn games from long ago and learn about the pastimes of 19 th -century children.” |
| Chicago History Museum | ChicaGO24 | “Discover Chicago’s unexpected history with our expert guides.” “Discover the history of the wide variety of residents—from Catholic cardinals to Playboy Bunnies—who have called these neighborhoods home.” “Pedal past sites related to the World’s Columbian Exposition and discover its lasting influence on Chicago. Uncover Daniel Burnham’s grand plans and the devilish doings of H.H. Holmes.” “History fit tours combine history and fitness to explore sites throughout the city. These active tours provide insights into Chicago neighborhoods and landmarks in fun and engaging ways.” |
| Fort Ticonderoga | To Act as One United Body | “They learn about the training used to prepare soldiers to meet a powerful enemy, what soldiers ate, where they slept, and experience the confusion of battle.” “Learn about key aspects of the American Revolution.” |
| Naper Settlement | Early Learning Playscape | “Play ‘Pack Your Wagon’ and learn what the pioneers brought with them on their journey to the Illinois frontier.” |
| Senator John Heinz History Center | SmartSteps | “featuring innovative facts and artifacts related to Pittsburgh history.” “We hope this initiative will be a fun and easy way to spread the message about the benefits of incorporating light exercise into your day” |

Enjoyment, inspiration, and creativity. Program descriptions also indicate that Enjoyment, Inspiration, and Creativity is another important goal of physical activity programs and exhibits. This outcome, which entails “Having fun; Being surprised; Innovative thoughts; Creativity; Exploration, experimentation and making, [and] Being inspired” (Museums, Libraries and Archives Council, 2008a) was mentioned by seventeen of the programs and exhibits that were included in this study. Programs with descriptions that contained words such as “fun,” “create,” “exhilarating,” “enjoy,” and other terms and phrases that suggest fun or inspiration were considered to include this outcome as one of their goals. Examples of programs and

exhibits that endeavor to provide an enjoyable, inspirational, and creative environment for their participants are included in Table 3, while a complete list can be found in the Appendix.

Table 3: *Enjoyment, Inspiration, and Creativity in Physical Activity Programs and Exhibits*

| Museum | Program | Example |
|---|-----------------------------------|---|
| Conner Prairie Interactive History Park | Fun and Games in 1836 Prairietown | “It’s time to have fun and play!” “We encourage you to get involved in the games and toys available in 1836 Prairietown. Who knows, after a visit here you might try inventing your own game!” |
| Hagley Museum and Library | All-American Day | “Enjoy a historically-accurate nineteenth century ‘Base Ball’ game” “All-America Day is a great way to get kids outside, moving, and having lots of fun!” |
| Old World Wisconsin | Life on the Farm | “Our museum supports this initiative through events that promote physical exercise while having fun.” “The museum highlighted programs that aligned with Let’s Move! priorities, reinforcing the message that you can get active while having fun.” |
| Senator John Heinz History Center | Pittsburgh Plays! | “Imagine what it was like growing up in Western Pennsylvania as you explore the museum and discover favorite play things from long ago.” |
| Vulcan Park and Museum | Class on the Grass | “A half day of outdoor fun and interdisciplinary learning!” “Students create their own Vulcan-inspired artwork and participate in a short dance project.” “Create a dance that communicates a topic from another content area; create a dance project utilizing abstract concepts that bridge content areas.” |

Skills. Twelve programs indicate that learning or improving skills, which is described as “Knowing how to do something; Being able to do new things; Intellectual skills; Information management skills; Social skills; Communication skills; [and] Physical skills” (Museums, Libraries and Archives Council, 2008a) is included as one of their many goals. While some publicity materials specifically stated the word “skills,” program descriptions that include language that indicates that participants learn or practice how to actually *do* something new were also considered to be indicative of this outcome. The types of skills that participants gained as a result of their involvement varied widely depending on the program. Some programs, such as

Girl Scouts- Iron Kids at Vulcan Park and Museum, place an emphasis on developing physical skills: “This program will help each Girl Scout develop physical skills and historical awareness” (Vulcan Park and Museum, 2015). Others, including *19th Century Toys and Games* at the Bartow-Pell Mansion, which is targeted toward scout and school groups, seek to provide an opportunity to practice skills including collaboration and teamwork. Table 4 offers a complete list of some skill-related outcomes, while a complete list is included in the Appendix.

Table 4: *Skills in Physical Activity Programs and Exhibits*

| Museum | Program | Example |
|---|---------------------------|---|
| Conner Prairie Interactive History Park | Self-Guided tours | Compare, describe, identify, and explain Listen actively and ask and answer questions Perform locomotive and manipulative skills |
| Fort Ticonderoga | To Act as One United Body | “Learning teamwork and discipline as they undergo a typical day in the life of soldiers.” “This program is a strong cooperative activity.” |
| Minnesota History Center | Then, Now, Wow | “Demonstrates competency in motor skills and movement patterns needed to perform a variety of physical activities.” “Exhibits responsible personal and social behavior in physical activity settings.” |
| Senator John Heinz History Center | Pittsburgh Plays! | “Build connections between story, objects, and experiences; Practice large motor activities such as jumping, marching, and hopping; participate in group discussions about story events and artifacts” |
| Vulcan Park and Museum | Girl Scouts- Iron Kids | “This program will help each Girl Scout develop physical skills and historical awareness.” |

Attitudes and values. Relatively few descriptions indicate that physical activity programs and exhibits seek to address their participants’ attitude and values, although affecting people’s “Feelings; Perceptions; Opinions about ourselves (e.g. self esteem); Opinions or attitudes towards other people; Increased capacity for tolerance; Empathy; Increased motivation; Attitudes towards an organization; [and] Positive and negative attitudes in relation to an experience” (Museums, Libraries and Archives Council, 2008a) does appear to be a goal of seven separate programs. This outcome was one of the most difficult for which to code; however, descriptions

that indicated some degree of long-term effect on a participant's lifestyle and views were ultimately included under this category. For the purpose of this study, this goal often includes perceptions regarding physical activity, such as the *PPHMfit* activity at the Panhandle-Plains Historical Museum, which values "encouraging visitors to think about lifelong health and the benefits of exercise" (Globe-News staff, 2013). A full list of programs that work to achieve this outcome is available in Table 5.

Table 5: *Attitudes and Values in Physical Activity Programs and Exhibits*

| Museum | Program | Example |
|------------------------------------|--------------------------|---|
| Hull Lifesaving Museum | Rowing clubs | "learn about teamwork and personal development" |
| Minnesota History Center | Then, Now, Wow | "Values physical activity for health, enjoyment, challenge, self-expression, and social interaction." |
| Naper Settlement | Early Learning Playscape | "support a young child's curiosity, discovery, and sense of wonder, thereby promoting their growth in all developmental domains." "When children are engaged in age-appropriate activities at the playscape, we hope that they will develop a love of history that stays with them forever." |
| Panhandle-Plains Historical Museum | PPHMfit | "encouraging visitors to think about lifelong health and the benefits of exercise." |
| Senator John Heinz History Center | SmartSteps | "The SmartSteps exhibit will motivate History Center visitors to exercise their body while engaging their minds with Western Pennsylvania history." |
| Seward House Museum | Victorian Games | Mentions that this program is part of <i>Let's Move!</i> , which is "designed to motivate America's children to get outside and participate in healthy activities." |
| Vulcan Park and Museum | Girl Scouts- Iron Kids | "Empowering students to be active in Vulcan Park." |

Activity, behavior, and progression. Only one program, *Girl Scouts- Iron Kids* at Vulcan Park and Museum, mentions an aspect of the program that aligns with Activity, Behavior, and Progression, which considers "What people do; What people intend to do; What people have done; Reported or observed actions; [and] A change in the way people manage their lives" (Museums, Libraries and Archives Council, 2008a). As Girl Scouts who take part in this

program leave the museum “with their own health and fitness plan” (Vulcan Park & Museum, n.d.) one can infer that one of the long-term goals of the program is that participants will follow this plan in the future in order to lead fit and healthy lives.

Health and well-being. Health and Well-Being is the Generic Social Outcome that was most common to physical activity programs and exhibits at history museums. As each of the thirty programs included in this study incorporates some degree of physical activity, it is not surprising that nineteen of them explicitly state the ways in which “Encouraging healthy lifestyles and contributing to mental and physical well being; Supporting care and recovery; Supporting older people to live independent lives; [and] Helping children and young people to enjoy life and make a positive contribution” (Museums, Libraries and Archives Council, 2008b) are important program components. Examples of these programs can be found in Table 6; a complete list is included in the Appendix.

Table 6: *Health and Well-Being in Physical Activity Programs and Exhibits*

| Museum | Program | Example |
|---|--|--|
| Chicago History Museum | ChicaGO24 | “Grab your sneakers and join us for a leisurely 75-minutes running tour of the Gold Coast and Old Town.” “Cycle your way back to 1893” “History Fit tours combine history and fitness to explore sites throughout the city.” |
| Conner Prairie Interactive History Park | Self-Guided tours | “Participate in new and challenging physical activities; engage in the challenge of new activities; engage in challenging new physical activities” |
| Minnesota History Center | Then, Now, Wow | “Participates regularly in physical activity” “Achieves and maintains a health-enhancing level of fitness.” |
| Surratt House Museum | Let’s Move: The 19 th Century Way | “get moving as you play games, assist with farm chores and do household tasks that helped the Surratt family stay healthy” |
| Vulcan Park and Museum | Class on the Grass | “This educational program supports the <i>Let’s Move!</i> initiative by encouraging students to get active through the art of dance.” |

Stronger and safer communities. Six programs describe how their activities contribute to stronger and safer communities, which incorporates “Improving group and inter-group dialogue and understanding; Supporting cultural diversity and identity; Encouraging familial ties and relationships; Tackling the fear of crime and anti-social behaviour; [and] Contributing to crime prevention and reduction” (Museums, Libraries and Archives Council, 2008b). Most of the programs in this study focus on the “familial ties” aspect of this outcome, as they encourage families to experience the museum together. A full list of these programs is included in Table 7.

Table 7: *Stronger and Safer Communities in Physical Activity Programs and Exhibits*

| Museum | Program | Example |
|---------------------------------|--|---|
| Fort Ticonderoga | To Act as One United Body | “Fun for the whole family!” |
| Hagley Museum and Library | All-American Day | “This afternoon will be a homerun with families!” |
| Historical Society of Princeton | National Nutrition Month | “families are invited to work together” |
| Hull Lifesaving Museum | Rowing clubs | “Different kinds of people, with varied backgrounds and political affiliations, get together to have fun.” “I do think in some ways it is the community that for other people is church.” |
| Naper Settlement | Walking Tours and Wednesday Walking Club | Camaraderie and making new friends |
| Panhandle-Plains Museum | PPHMfit | “PPHMfit has proven to be an excellent inter-generational learning activity for our visitors. It has been rewarding to see grandparents, parents and children find each station and read the information” |

Strengthening public life. None of the programs or exhibits included in this study explicitly state goals relating to Strengthening Public Life, which includes “Encouraging and supporting awareness and participation in local decision-making and wider civic and political engagement; Building the capacity of community and voluntary groups; Providing safe, inclusive and trusted public spaces; Enabling community empowerment through awareness of rights,

benefits and external services; [and] Improving the responsiveness of services to the needs of the local community, including other stakeholders” (Museums, Libraries and Archives Council, 2008b).

Outcomes conclusion. The document and outcomes analyses found that the most common goals of physical activity programs and exhibits at history museums are to encourage Knowledge and Understanding (of museum content, ways to be physically active, and the importance of a healthy lifestyle); Health and Well-Being; Enjoyment, Inspiration, and Creativity; and Skills.

Table 8: Frequency of GLOs and GSOs in Physical Activity Programs and Exhibits

| Outcome Category | Frequency |
|--|------------------|
| Knowledge and Understanding | 80% |
| Health and Well-Being | 63% |
| Enjoyment, Inspiration, and Creativity | 57% |
| Skills | 40% |
| Attitudes and Values | 23% |
| Stronger and Safer Communities | 20% |
| Activity, Behavior, and Progression | 3% |
| Strengthening Public Life | 0% |

Questionnaire. The findings of the document and outcomes analyses were confirmed by the results of a questionnaire that was emailed to museum staff at each of the twenty different institutions. Staff members were asked to answer how important it is that program participants achieve six separate goals by selecting one of three options: not important, somewhat important, or very important. This questionnaire also asked respondents to describe any other outcomes that their program seeks to achieve, as well as whether or not this program is currently, or has ever been, evaluated. Six staff members from six different institutions responded to this questionnaire.

Knowledge and understanding. Of the six museum staff members who responded to this questionnaire, four replied that it is very important that participants learn new facts or

information about museum content, while two responded that this is somewhat important. Responses to “learn new facts or information about ways to be physically active” were slightly more varied, with two staff members selecting each of the three options. One respondent indicated that it is very important that participants learn new facts or information about the importance of a healthy lifestyle; three replied that this is somewhat important, while two answered that this is not important. Three of the respondents also alluded to Knowledge and Understanding while listing other outcomes that the program seeks to achieve. One replied that “these active tours provide insights into [the city’s] neighborhoods and landmarks in fun and engaging ways,” while another expressed their goal “to help participants understand how art (dancing) can be a way to express emotions and tell a story.” Finally, another respondent answered that their program seeks to “introduce visitors to the history of the town.”

Figure 1: *The Importance of Museum Content in Physical Activity Programs & Exhibits*

How important is it that participants in your program learn new facts or information about museum content?
(n=6)

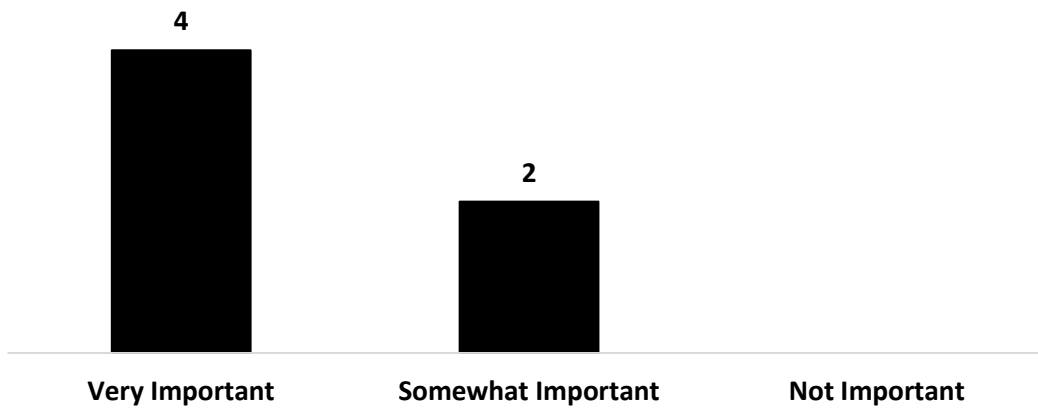
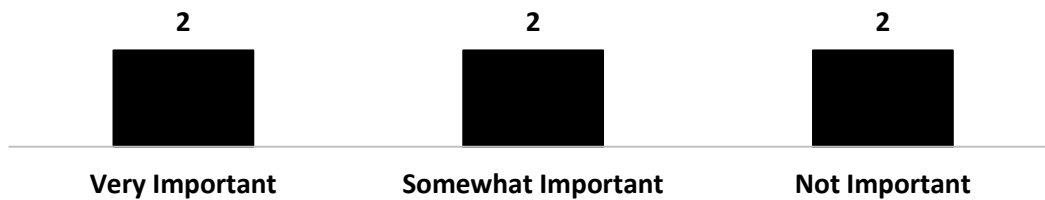
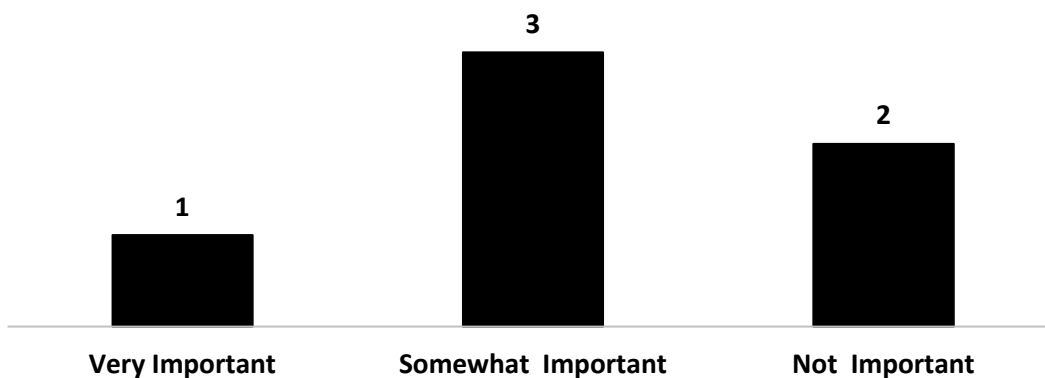


Figure 2: *The Importance of Learning about Physical Activity*

How important is it that participants in your program learn new facts or information about ways to be physically active? ($n=6$)

Figure 3: *The Importance of Learning about Healthy Lifestyles*

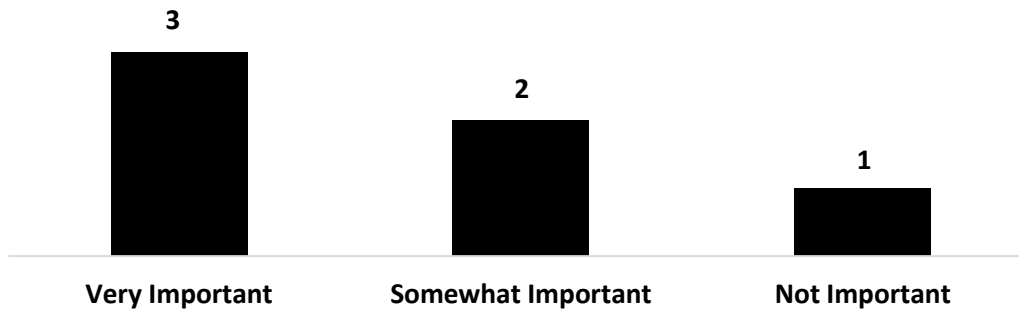
How important is it that participants in your program learn new facts or information about the importance of a healthy lifestyle? ($n=6$)



Skills. Answers to the question of how important it is that participants learn new skills resulted in a broad range of responses. Three replied that this outcome is very important, with two answering “somewhat important” and one “not important.”

Figure 4: *The Importance of Learning New Skills*

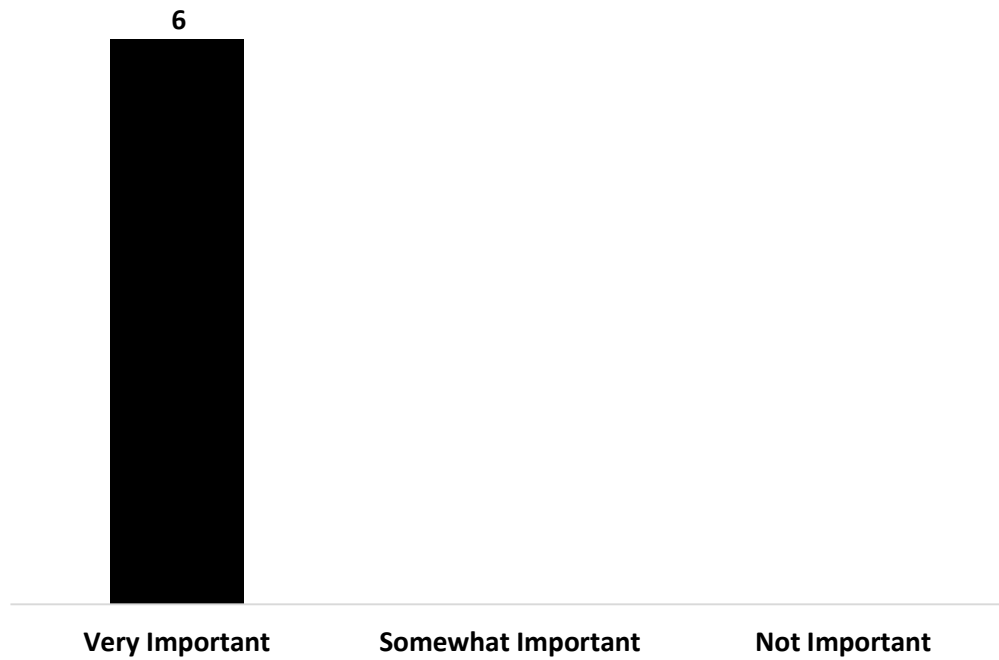
How important is it that participants in your program learn new skills? ($n=6$)



Enjoyment, inspiration, and creativity. All six respondents unanimously replied that it is very important that participants have fun or enjoy the program.

Figure 5: *The Importance of Enjoying the Program*

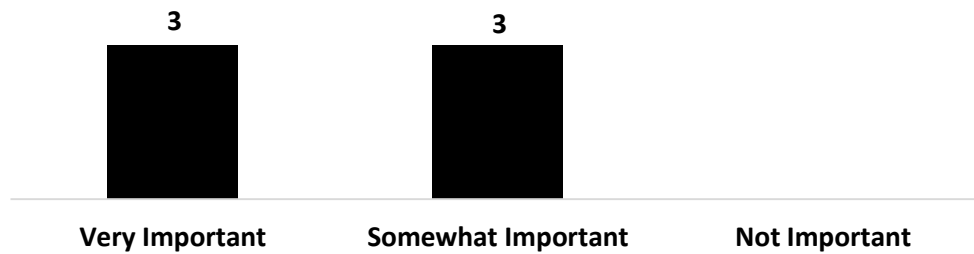
How important is it that participants in your program have fun or enjoy the program? ($n=6$)



Health and well-being. Questionnaire respondents indicated varying levels of physical activity in the programs that they offer. Engagement in physical activity is very important in three of the programs, while it is somewhat important in the other three.

Figure 6: *The Importance of Engaging in Physical Activity*

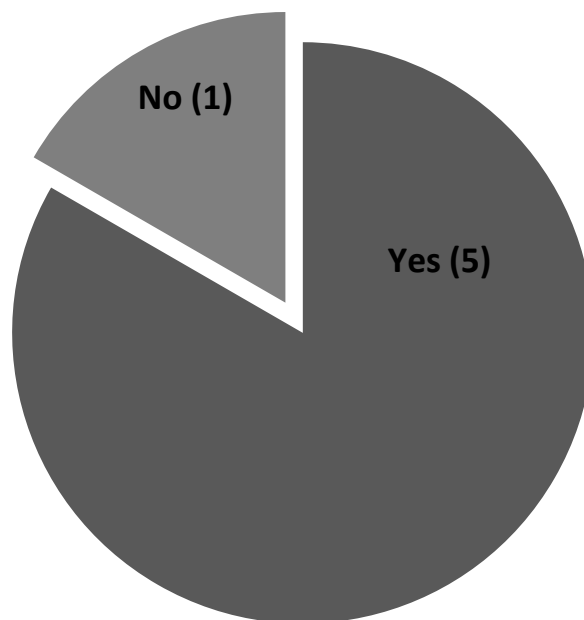
How important is it that participants in your program engage in physical activity? ($n=6$)



Evaluation. Although no published evaluation reports of physical activity programs and exhibits at history museums were found during the original document analysis, five of the six respondents answered that their program has been evaluated, either currently or in the past. Only one program in this sample has never been evaluated.

Figure 7: *Evaluation of Physical Activity Programs*

Do you currently, or have you ever, conducted evaluation for this program? (n=6)



Interviews. The two interviews were designed primarily to understand indicators that suggest that these goals and outcomes are being achieved. The first interview was conducted with the Museum Project Manager and Curator of Food and Fitness at the Senator John Heinz History Center in Pittsburgh, PA. The Heinz History Center offers a number of programs and exhibits that incorporate physical activity, including *Hop into History*, a *Pittsburgh Plays!* preschool tour, and *SmartSteps*. This interview focused primarily on *SmartSteps*, an exhibit that encourages visitors to climb the stairs between the museum's six floors instead of taking the elevator. Information about Pittsburgh history, wellness tips, and other health information is on

display throughout the stairwell. Visitors who take the stairs are able to stamp a punch-card on each floor, and those who climb to all of the six floors are rewarded with a small prize (Heinz History Center, n.d.b).

Although this exhibit was not formally evaluated, museum staff are able to speak anecdotally about the success of *SmartSteps*. The interviewee, who frequently takes the stairs herself, often observes visitors in this exhibit stopping to read the information and talking to each other about the content of both the historical and health-related information, which suggests that they are actually learning about these subjects. Furthermore, she was able to speak about the extent to which museum visitors actually engage in physical activity in this exhibit by climbing the stairs. After visitors climb to each of the six levels and stamp their card on each floor, they bring their card to the museum shop to receive their prize. Although the museum does not officially count how many visitors complete all six levels, the staff member who distributes the punch-cards estimates that she must print approximately 1000 new cards each month in order to keep up with the demand. Clearly, many of the museum's visitors are interacting with this exhibit and engaging in physical activity as they learn new information about a range of topics.

The second interview, which was conducted with the Public Programs Manager at the Chicago History Museum, focused on tours of neighborhoods throughout the city, which the museum considers to be its greatest artifact. Different tours offer participants the opportunity to engage in different types of physical activity, including walking, running, and bicycling. Most of these tours have been developed since 2006, when the museum received a research grant to speak with adults in Chicago and learn about their interests. Among other results, this research found that many people were interested in exploring the city, being outside, and learning more about the history of Chicago. With this in mind, the Chicago History Museum began to develop a

wide range of tour offerings that allow participants to choose a tour based on the type of physical activity it incorporates or the neighborhood or theme that it explores.

In both 2014 and 2015, the Chicago History Museum began its summer tour season with *Chicago24*, which offers thirty-five tours in twenty-four hours. Many of these “urban adventure” tours are *History Fit* tours that incorporate physical activity. The *History Hustle*, for example, leads participants on a three-mile run of the city’s Gold Coast and Old Town neighborhoods, while *Ride Like the Devil* and *Wicker Park Pedal* take participants on a twenty-mile and fifteen-mile bike ride, respectively, past important sites from Chicago’s history. The museum also uses *Chicago24* as an opportunity to experiment with “out-of-the-norm” types of tours, such as the *History of the Hangover* walking tour that covers one-and-a-half miles and invites participants to “indulge in hangover folklore on this walking tour of Old Town, as we visit healing spots, discover local cures, and talk about the history of drinking in Chicago” (Chicago History Museum, 2015a). Many of the experimental tours that were offered during *Chicago24* in 2014 were successful and have become part of the museum’s regular tour schedule.

Unlike the *SmartSteps* exhibit at the Heinz History Center, the Chicago History Museum does not conduct formal evaluation by surveying participants at the conclusion of every tour. Anecdotal evidence also allows museum staff to gauge the success of these tours. Conversing with and asking questions of the tour guides, for example, suggests that participants are interested in and learning something about the content of the tours, while laughing and smiling throughout the tours—which are all highly social experiences—indicate that participants are having fun. Furthermore, as this interviewee noted, the “buzz” that is created following each of these tours is highly indicative of how much participants enjoy these tours. Many sign up for

additional tours following their first experience and invite friends and family members to join them.

Discussion and Implications

With the exception of Strengthening Public Life, all of the Generic Learning Outcomes and Generic Social Outcomes are represented in at least one of the programs and exhibits that were included in this study. However, some of these outcomes are more common throughout physical activity programs and exhibits than others, with Knowledge and Understanding; Health and Well-Being; Enjoyment, Inspiration, and Creativity; and Skills appearing far more frequently in program descriptions and publicity materials than Attitudes and Values; Activity, Behavior, and Progression; and Stronger and Safer Communities. As such, it appears that some of the primary goals of physical activity programs and exhibits are to teach participants new facts or information about museum content, ways to be physically active, and the importance of a healthy lifestyle, while also encouraging them to be physically active, to have fun, and to learn new skills, such as working collaboratively with others and practicing and performing locomotor skills.

By placing such a strong emphasis on teaching museum content, these programs and exhibits fall clearly within their institutions' overarching mission while also providing participants with the opportunity to be physically active. Although Whitney T. Brown (2013) found that, one year after *Let's Move! Museums & Gardens* was first implemented, physical activity programming often "did not relate to the museum's mission, collections or exhibits" (p. 2), presenting information that relates to the museum's content area is a priority for many of the programs and exhibits that were included in this study. All of the six institutions that responded to the questionnaire answered that learning about museum content was at least somewhat

important, with four of these museums replying that this goal was a very important component of their program. Similarly, many of these programs listed learning about museum content in their publicity materials, from learning “about the pastimes of 19th-century children” during the *19th Century Toys and Games* school program and Scout tour at the Bartow-Pell Mansion to discovering “the history of the wide variety of residents—from Catholic cardinals to Playboy Bunnies—who have called these neighborhoods home” during the running and bicycling tours at the Chicago History Center.

Although not all of the museums that were included in this study participate in the *Let’s Move!* initiative, many of the programs’ goals nevertheless strongly correlate with what *Let’s Move! Museums & Gardens* was designed to achieve. Although some of the priorities of the initiative focus specifically on nutrition and food service, and were therefore outside of the scope of this study, *Let’s Move* requires all participating institutions to offer at least one of two priorities that encompasses physical activity: “eat healthy, get active exhibits,” and “learning about Healthy Choices through afterschool, summer and other programs” (*Let’s Move! Museums & Gardens*, n.d.c). All of the thirty programs that were included in this study offer programs or exhibits that allow participants to “get active,” while many others also teach participants about the importance of and ways to achieve a healthy lifestyle, such as *PPHMfit* at the Panhandle-Plains Historical Museum, which seeks to “increase awareness of cardiovascular health and the benefits of exercise while promoting physical activity to children and healthy lifestyle habits” (Panhandle-Plains Historical Museum, n.d.).

It is interesting to note that five of the six respondents to the questionnaire answered that they have evaluated their physical activity program or exhibit, either currently or in the past. However, as Jenna E. Peterson (2012) observed, the *Let’s Move!* initiative itself does not require

its programs to conduct or submit a formal evaluation, which makes it “difficult to determine how much of an impact [physical activity programs] are having” (p. 28). Furthermore, as many of the museums that offer this type of programs and exhibits are affiliated with *Let’s Move!*, a common framework would be a useful tool to measure the impact of these programs and exhibits and the extent to which they are achieving their goals. As such, this study has worked to develop a framework with which all physical activity programs and exhibits can begin to measure their success. Although this framework was designed specifically with history museums in mind, it can also be used to evaluate programs that incorporate physical activity at any type of museum or educational institution.

This framework includes the four Generic Learning Outcomes and Generic Social Outcomes that were found to be most common to many different physical activity programs and exhibits, as well as specific outcomes within these categories that relate specifically to physical activity at museums. It also includes potential indicators of each of these outcomes. Evaluators will be able to consider this framework as they create evaluation plans for physical activity programs and exhibits by looking for ways in which participants demonstrate these indicators and, as a result, the extent to which these outcomes are—or are not—being achieved. As each program or exhibit will likely have its own site-specific goals, this framework also includes an “other” category in recognition of each program and exhibit’s unique goals.

Evaluation Framework for Physical Activity Programs & Exhibits at History Museums

| Outcome Category | Outcome | Indicators |
|--|--|--|
| Knowledge and Understanding | Learn new facts or information about museum content | Reading signage Discussing exhibit materials with group member Sharing or teaching facts or information to others |
| | Learn new facts or information about ways to be physically active | Reading signage Discussing exhibit materials with group member Sharing or teaching facts or information to others |
| | Learn new facts or information about the importance of a healthy lifestyle | Reading signage Discussing exhibit materials with group member Sharing or teaching facts or information to others |
| Health and Well-Being | Engage in physical activity | Completing the activity in its entirety |
| Enjoyment, Inspiration, and Creativity | Have fun or enjoy the program | Smiling and laughing Repeating program participation Encouraging others to participate |
| Skills | Learn new skills | Participating in a new activity Supporting and encouraging other participants Sharing or teaching facts or information to others |
| Other (Site-specific) | Other (site-specific) | |

Limitations

One of the primary limitations of this study is the small number of museums and programs selected for the document and outcomes analyses and the museum professionals who participated in the questionnaire and follow-up interview. Although the programs and exhibits included in this study were selected specifically for their physical activity component, as well as the extent to which they seek to teach participants information about the museum's content area, they are in no way suggested to be representative of every program or exhibit that incorporates physical activity. Additionally, while the responses of museum staff members in the questionnaire and interview were used to confirm the findings of the document analysis and to create the framework, they are once again are not representative of the viewpoints of all museum professionals.

Chapter 5: Conclusions & Recommendations

There are many history museums in the United States today that are incorporating physical activity into their programs and exhibits—and simultaneously helping to address one of the country’s most significant problems. Although engaging in physical activity has been proven to result in a number of positive health benefits—ranging from reducing the risk of cardiovascular disease, diabetes, and early mortality (U.S Department of Health and Human Services, 2008) to improving concentration, focus, and academic performance (Let’s Move!, n.d.a)—the majority of American adults and children do not get the recommended amount of exercise (Centers for Disease Control and Prevention, 2013). By offering programs such as running and cycling tours or exhibits that encourage visitors to climb the stairs, however, these museums are taking advantage of what *Let’s Move! Museums & Gardens* describes as their “capacity to influence real and sustained behavior change” in order to promote physical activity and to teach their community about the importance of a healthy lifestyle.

Providing a place for visitors to be physically active, however, is not the only goal that many of these programs hope to achieve. Findings from this study—which sought to understand the goals that physical activity programs and exhibits at history museums are working to achieve—identified six different outcomes that are important to many of these programs and exhibits. The results of a document and outcomes analysis of thirty programs and exhibits, a questionnaire that garnered responses from six different institutions, and interviews with two museum professionals found that the majority of these programs endeavor to contribute to their participants’ knowledge and understanding; health and well-being; enjoyment, inspiration, and creativity; and skills. In fact, Knowledge and Understanding is the goal that is most common to the programs and exhibits that were included in this study, with 80 percent of all program

publicity materials explicitly mentioning learning, discovering, or understanding. This result was echoed by museum staff who were interviewed or responded to the questionnaire, who unanimously agreed that learning about museum content was at least a “somewhat important” program goal. Furthermore, while some respondents did acknowledge that learning about new ways to be physically active or the importance of a healthy lifestyle was not an important part of their programs or exhibits, two-thirds of those who replied to the questionnaire stated that these two outcomes were either very important or somewhat important.

Although the only programs and exhibits that were included in this study are ones that place a dedicated focus on physical activity, only 63 percent of publicity materials and other documents place a clear emphasis on this goal. Every questionnaire respondent, however, indicated that engaging in physical activity is an important aspect of their program or exhibit. A similar importance was placed on having fun or enjoying the program, as every respondent answered that it is very important that participants achieve this goal, and 57 percent of all documents mention words and phrases such as “fun,” “thrill,” and “enjoy.” Finally, 40 percent of publicity materials and 83 percent of questionnaire respondents indicated that learning new skills is an important goal that their programs and exhibits work to achieve. These skills vary largely between programs; however, examples include working collaboratively with peers, learning how to row and compete in races, and practicing motor activities.

This study also found that, despite the fact that museums that participate in the *Let’s Move!* initiative are not required to formally evaluate their programs, many of these programs do conduct some form of evaluation. Nevertheless, as Jenna E. Peterson (2012) notes, “the lack of required evaluation is perhaps the *Let’s Move! Museums and Gardens* initiative’s biggest fault... Though in theory each of these programs has the potential to teach visitors healthy habits

and work to reduce obesity, without evidence it is difficult to determine how much of an impact they are having” (p. 28). As such, this study has also resulted in the creation of a framework that can be used to evaluate these programs. By utilizing this framework to measure the success of their programs and exhibits and gain a fuller understanding of the extent to which they are achieving their goals, museums that provide opportunities for physical activity will be able to better understand the ways in which they are impacting their community.

Future Research

There are a number of ways that future research can strengthen the results of this study. Although this research both determined the goals that many physical activity programs and exhibits are working to achieve and created a framework that can be used to evaluate these programs and exhibits, the framework has not yet been used in practice. As such, this framework should be used to evaluate physical activity at museums in order to determine not only the success of the program or exhibit, but also the reliability, validity, and ease of use of the framework itself.

It was beyond the scope of this research to look at partnerships between museums and other community organizations or wellness institutions; however, it may be beneficial to explore the ways in which partnerships could bring additional expertise to physical activity programs and exhibits and help them to reach a broader audience. Although publications such as *Let's Move! Museums & Gardens* monthly newsletters seek to connect participating institutions and provide shared resources, there is very little literature that focuses on the ways in which museums may be able to collaborate with other organizations. Some museums, including the Heinz History Center (which works with the University of Pittsburgh Medical Center on its *SmartSteps* exhibit) and The Henry Ford (which collaborates with Oakwood Healthcare System for *Health through*

History) do partner with other local groups, yet this research suggests that these museums are in the minority. As such, it may be beneficial for future research to consider if and how museums may be able to benefit from collaboration with other institutions, such as hospitals or the YMCA, in order to develop safe and effective programs and exhibits and to reach new audiences.

Lastly, it would also be interesting to conduct a long-term study in order to determine the extent to which these programs and exhibits impact the lives of their participants not only at the time of their museum visit, but also in the future. These programs have the potential to “influence real and sustained behavior change;” however, to what extent do they actually achieve a long-term impact on the lives of their participants? Do visitors who participate in these programs continue to engage in physical activity as a result of the information they learned and the physical activity in which they participated during these museum visits? In order for physical activity programs and exhibits to measure to true extent of their success and impact, it may be interesting to learn if participants continue what they have experienced at the museum into the future.

This research surrounding long-term impact could also address the Generic Learning Outcomes of Attitude and Values and Activity, Behavior, and Progression, which were the GLOs that were identified as being least common to physical activity programs and exhibits. Although much of the language that supports the importance of physical activity in museums addresses the ways in which visitors’ lives and behaviors can be changed, it appears that this is not an explicitly-stated goal of many of the programs and exhibits included in this study. Because of this, it would be worthwhile to explore how museums might seek to include and successfully implement programs and exhibits that not only encourage participants to be physically active onsite, but also inspire them to continue this behavior into the future.

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Appendix A: Physical Activity Programs and Exhibits at History Museums

| Museum | Program or Exhibit |
|---|---|
| Adirondack Museum | Yoga |
| Bartow-Pell Mansion | 19 th Century Toys and Games |
| Bartow-Pell Mansion | Urban Park Ranger Hike: Historic New York |
| Chicago History Museum | ChicaGO24 |
| Chicago History Museum | Running and bicycling tours |
| Conner Prairie Interactive History Park | Fun and Games in 1836 Prairietown |
| Conner Prairie Interactive History Park | Self-guided tours |
| Fort Pitt Museum | Frontier Women's Day |
| Fort Ticonderoga | To Act as One Unified Body |
| Hagley Museum and Library | All-American Day |
| Hagley Museum and Library | Walking tours |
| The Henry Ford | Health through History |
| Historical Society of Princeton | National Nutrition Month |
| Hull Lifesaving Museum | Rowing club and races |
| Lewes Historical Society | Kayak Tour |
| Minnesota History Center | Then, Now, Wow |
| Mount Airy Museum on Regional History | Geocaching for History |
| Naper Settlement | Early Learning Playscape |
| Naper Settlement | Wednesday Walking Club |
| Old World Wisconsin | Catch Wheel Fever! |

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| Old World Wisconsin | Life on the Farm |
| Panhandle-Plains Historical Museum | PPHMfit |
| Senator John Heinz History Center | Hop into History |
| Senator John Heinz History Center | Pittsburgh Plays! |
| Senator John Heinz History Center | SmartSteps |
| Seward House Museum | Victorian Games |
| State Historical Society of North Dakota | Heritage Outbound Winter Adventure |
| Surratt House Museum | Let's Move: The 19 th Century Way |
| Vulcan Park and Museum | Class on the Grass |
| Vulcan Park and Museum | Girl Scouts- Iron Kids |

Appendix B: Questionnaire

Physical Activity Program Outcomes

If you manage or have developed a museum program that incorporates physical activity, please take a moment to complete this survey about the goals of your program. If you have any questions, please contact me at jkmacdow@uw.edu. Thank you in advance for your help.

How important is it that participants in your program:

| | Not important | Somewhat important | Very important |
|--|-----------------------|-----------------------|-----------------------|
| learn new facts or information about museum content | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| learn new facts or information about ways to be physically active | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| learn new facts or information about the importance of a healthy lifestyle | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| engage in physical activity | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| have fun or enjoy the program | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| learn new skills | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

Are there any other outcomes that this program seeks to achieve? If so, what are these outcomes?

Do you currently, or have you ever, conducted evaluation for this program?

- Yes
- No
- Unsure

Would you be willing to be contacted for a follow-up interview? If so, please leave your name, your museum's name, and your email address.

Appendix C: Interview Questions

Physical Activity Programs at History Museums Consent Form and Interview Questions

University of Washington

Researcher's Name: Jennifer MacDowell

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Thesis Advisor: Kris Morrissey, Director of the Museology Graduate Program

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I am asking you to participate in an interview that is part of my Master's Thesis work at the University of Washington. The purpose of this research is to understand the goals of physical activity programs and exhibits at history museums and to create a framework that can be used to evaluate these programs. I will record this interview for my research purposes only. Your participation is voluntary; refusal to participate will involve no penalty or loss of benefits, and you may discontinue participation at any time. I may use your title and name of your institution in my final paper. If I directly quote you, you will have the opportunity to review this quotation for accuracy. If you have any questions now or in the future, you may contact me through the information on this document.

1. What physical activity programs and exhibits does your museum offer? Could you give me more details about these programs?
2. How and why were these programs and exhibits first developed?
3. Has your involvement with Let's Move impacted these programs?
4. You answered that it is very important that participants learn new facts and information about museum content. What does that look like to you?
5. You answered that it is very important that participants learn new facts and information about ways to be physically active and the importance of a healthy lifestyle. What does that look like to you?
6. You answered that it is very important that participants engage in physical activity. What does that look like to you?
7. You answered that it is very important that participants have fun and enjoy the program. What does that look like to you?
8. You answered that it is somewhat important that participants learn new skills. What does that look like to you?
9. Do you measure the success of these programs? If so, how? OR How do you evaluate these programs?

Appendix D: Coding Scheme*Knowledge and Understanding in Physical Activity Programs and Exhibits*

| Museum | Program | Example |
|---|---|---|
| Bartow-Pell Mansion | 19 th Century Toys and Games | “Play parlor and lawn games from long ago and learn about the pastimes of 19 th -century children.” |
| Bartow-Pell Mansion | Urban Park Ranger Hike: Historic New York | “hike that explores the legacies of the Pells, Anne Hutchinson, the Siwanoy, and the great city of New York” “learning about the Bartow-Pell and the grand country estates that were its neighbors.” |
| Chicago History Museum | Bicycling and Running Tours | “Our guided tours will take you across the city’s neighborhoods and reveal stories waiting to be discovered.” “We’ll learn about the wide variety of residents—from Catholic cardinals to Playboy Bunnies—who have called these neighborhoods home.” |
| Chicago History Museum | ChicaGO24 | “Discover Chicago’s unexpected history with our expert guides.” “Discover the history of the wide variety of residents—from Catholic cardinals to Playboy Bunnies—who have called these neighborhoods home.” “Pedal past sites related to the World’s Columbian Exposition and discover its lasting influence on Chicago. Uncover Daniel Burnham’s grand plans and the devilish doings of H.H. Holmes.” “History fit tours combine history and fitness to explore sites throughout the city. These active tours provide insights into Chicago neighborhoods and landmarks in fun and engaging ways.” |
| Conner Prairie Interactive History Park | Fun and Games in 1836 Prairietown | “Take a break and learn how kids had fun all those years ago.” |
| Conner Prairie Interactive History Park | Self-Guided field trip tours | State standards that are listed in the field trip guides list outcomes such as “explain relationships and conflict between settlers and Native Americans on the frontier.” |
| Fort Pitt Museum | Frontier Women’s Day | “Brownie and Junior Girl Scouts will learn about 18 th century women, games, toys, trades, and lifestyles to work on badge activities.” |
| Fort Ticonderoga | To Act as One United Body | “They learn about the training used to prepare soldiers to meet a powerful enemy, what soldiers ate, where they slept, and experience the confusion of battle.” “Learn about key aspects of the American Revolution.” |
| Hagley Museum and Library | Walking Tours | “Discover the fascinating stories of the immigrant workers who lived along the Brandywine and worked for the DuPont Company in the black powder manufactory.” “Learn about DuPont Company’s development of water |

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| | | power from the water wheel to the steam engine and how its innovation contributed to the success of the company.” |
| The Henry Ford | Health through History | “While you step forward, you’ll be taking a step back in time as you amble by historic attractions that give you a glimpse of the past.” |
| Lewes Historical Society | Kayak Tour | “learn about our maritime heritage...hear about shipwrecks, pirates, lighthouses, and more” |
| Minnesota History Center | Then, Now, Wow | “engage children in exploring and understanding the past.” “Explore Minnesota’s history in the prairies, forests, and cities, interacting with the people and animals who have made their homes here.” “The exhibit complements the state’s history curriculum and was built to appeal to teachers and students on field trips as well as kids who come with their families.” |
| Mount Airy Museum of Regional History | Geocaching for History | “see additional interpretive material about the site, including local history about the location and sometimes corresponding video and photos. ‘This is a great way for us to teach history where it happened, not just within the four walls of a museum.’” “explore the history of Mount Airy and the surrounding areas using technology.” |
| Naper Settlement | Early Learning Playscape | “Play ‘Pack Your Wagon’ and learn what the pioneers brought with them on their journey to the Illinois frontier.” |
| Naper Settlement | Walking Tours and Wednesday Walking Club | “Discover Naperville in a whole new way as a knowledgeable museum guide leads you on an engaging walk through some of the community’s most historic and picturesque neighborhoods.” |
| Old World Wisconsin | Catch Wheel Fever! | “We’re trying to create a sense of what it was like in Wisconsin in the late 1890s when wheel fever was sweeping the state.” “the childlike thrill of pedaling a giant tricycle around a short gravel track is more than enough to keep visitors entertained and learning.” |
| Old World Wisconsin | Life on the Farm | “You will get the chance to discover what life was really like working and living on a late 19 th -century farm in the Upper Midwest.” “Imagine the type of life that the Kruegers would have known. They will guide you through the Kruegers’ typical chores, teach you about their farm animals, and show you how they used authentic farm implements.” “by encouraging movement and hands-on participation at the site, the experience is elevated, creating a memorable way to learn history through play, rather than through standing or a run-through tour.” |

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| Panhandle-Plains Historical Museum | PPHMfit | <p>“We want to increase awareness of cardiovascular health and the benefits of exercise while promoting physical activity to children and healthy lifestyle habits.”</p> <p>“By all accounts, it is achieving the program’s goals of increasing awareness of healthy habits.”</p> <p>“PPHMfit will encourage visitors to walk the entirety of the museum not only to see the exhibitions, but also to increase awareness of cardiovascular health and the benefits of exercise.”</p> |
| Senator John Heinz History Center | Hop into History | “The Hop into History program will help very young children explore current exhibits at the museum.” |
| Senator John Heinz History Center | Pittsburgh Plays! | “See the toys, games, and activities that kids growing up in Western Pennsylvania would have enjoyed.” |
| Senator John Heinz History Center | SmartSteps | <p>“featuring innovative facts and artifacts related to Pittsburgh history.”</p> <p>“We hope this initiative will be a fun and easy way to spread the message about the benefits of incorporating light exercise into your day”</p> |
| Seward House Museum | Victorian Games | <p>“maintain a connection with the Swards by doing games the family might have played in the Victorian age.”</p> <p>“We tried to find games that might have been played by the descendants of the Swards themselves, so we could educate and still have fun.”</p> <p>“encourage outdoor play while also teaching children about history.”</p> <p>“It’s a great opportunity for the kids to see how kids played back then.”</p> <p>“designed to teach children the importance of an active lifestyle”</p> |
| State Historical Society of North Dakota | Heritage Outbound Winter Adventure | <p>“On the trail, we will discuss various historic maps of the area and how the Missouri River has changed its course.”</p> <p>“Share a trail snack while learning about Hidatsa village life and the Knife and Missouri Rivers through the lenses of archaeology, history and oral tradition.”</p> <p>“Annual day of activities and learning”</p> <p>“overview of the historical uses and cultural significance of plants found along the Missouri River in North Dakota.”</p> |
| Vulcan Park and Museum | Class on the Grass | <p>“tells the story of the Roman god of the forge and offers lessons in language arts, science, history, and fine arts.”</p> <p>“students... also danced, to learn how stories can be told through creative movement.”</p> |
| Vulcan Park and Museum | Girl Scouts- Iron Kids | “participants learn the story of health and fitness in Birmingham, looking at how people left farms and |

factories, changing the way they ate and expended energy in the process.”

Enjoyment, Inspiration, and Creativity in Physical Activity Programs and Exhibits

| Museum | Program | Example |
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| Chicago History Museum | ChicaGO24 | “These active tours provide insights into Chicago neighborhoods and landmarks in fun and engaging ways.” |
| Conner Prairie Interactive History Park | Fun and Games in 1836 Prairietown | “It’s time to have fun and play!” “We encourage you to get involved in the games and toys available in 1836 Prairietown. Who knows, after a visit here you might try inventing your own game!” |
| Hagley Museum and Library | All-American Day | “Enjoy a historically-accurate nineteenth century ‘Base Ball’ game” “All-America Day is a great way to get kids outside, moving, and having lots of fun!” |
| Hull Lifesaving Museum | Rowing clubs | “She loves being with this group of people and being out on the water.” |
| Minnesota History Center | Then, Now, Wow | “TNW has a well-tuned sense of what fascinates children.” “TNW encourages historical imagination by engaging perspectives and a combination of multi-sensory and full body experience.” “With its sod house, canoe, tipi, and boxcar, TNW relies on authentic and full-scale icons and generally does so in ways that spark imaginations and engage children in physical activity.” “It reflects the museum’s effort to please young visitors who increasingly expect to be entertained as they learn.” “This is engaging and physical and interactive.” |
| Naper Settlement | Early Learning Playscape | “When children are engaged in age-appropriate activities at the playscape, we hope that they will develop a love of history that stays with them forever.” |
| Naper Settlement | Walking Tours and Wednesday Walking Club | “Enjoy a healthy treat and camaraderie with fellow walkers.” “Engaging walk” |
| Old World Wisconsin | Catch Wheel Fever! | “Old World Wisconsin captures the excitement of this era in the new ‘Catch Wheel Fever!’ experience.” “they also wanted to make sure the experience would be something that people of all ages would enjoy...adults had just as much fun pedaling around as the kids.” “the childlike thrill of pedaling a giant tricycle around a short gravel track is more than enough to keep visitors entertained and learning.” |
| Old World Wisconsin | Life on the Farm | “Our museum supports this initiative through events that promote physical exercise while having fun.” “The museum highlighted programs that aligned with Let’s Move! priorities, reinforcing the message that you can get active while having fun.” |

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| Panhandle-Plains Historical Museum | PPHMfit | “My boys had a GREAT time finding the red boxes and getting their cards stamped...What a wonderful tool to get kids excited about being in the museum and exploring all the floors.” |
| Seward House Museum | Victorian Games | “outdoor opportunities for children to enjoy Victorian games in the garden” “We tried to find games that might have been played by the descendants of the Swards themselves, so we could educate and still have fun.” “the boy seemed to be enjoying the activity. Every time he coaxed the hoop into a successful rotation, a smile crossed his face and he triumphantly declared he was the winner of the game.” “They’re high-energy, very active games to get the kids moving around and having fun, too.” |
| Senator John Heinz History Center | Hop into History | “These fun and lively sessions will be led by museum educators and music instructor Lynda Wingerd.” |
| Senator John Heinz History Center | Pittsburgh Plays! | “Imagine what it was like growing up in Western Pennsylvania as you explore the museum and discover favorite play things from long ago.” |
| Senator John Heinz History Center | SmartSteps | “fun and fit exhibit” “Visitors who forego the elevator and take the steps to explore the History Center’s six floors are inspired by this unique stairwell exhibit that blends artifacts and fun history facts related to local people, places, and events that tie into History Center exhibits.” “Also featured in the exhibit are UPMC Health Plan health and wellness tips, such as how many calories participants have burned, that will help guide and encourage visitors toward a healthier lifestyle.” |
| State Historical Society of North Dakota | Heritage Outbound Winter Adventure | “Participants will enjoy a traditional feast while hearing stories.” |
| Vulcan Park and Museum | Class on the Grass | “A half day of outdoor fun and interdisciplinary learning!” “Students create their own Vulcan-inspired artwork and participate in a short dance project.” “Create a dance that communicates a topic from another content area; create a dance project utilizing abstract concepts that bridge content areas.” |
| Vulcan Park and Museum | Girl Scouts- Iron Kids | “We make Vulcan’s Iron Kids patch an exhilarating experience, combining history with lots of physical activity.” |

Skills in Physical Activity Programs and Exhibits

| Museum | Program | Example |
|--|---|--|
| Bartow-Pell Mansion | 19 th Century Toys and Games | “Collaborate with their peers to create a summary or narrative.” |
| Conner Prairie Interactive History Park | Fun and Games in 1836 Prairietown | “You’ll learn new skills” |
| Conner Prairie Interactive History Park | Self-Guided tours | Compare, describe, identify, and explain Listen actively and ask and answer questions Perform locomotive and manipulative skills |
| Fort Ticonderoga | To Act as One United Body | “Learning teamwork and discipline as they undergo a typical day in the life of soldiers.” “This program is a strong cooperative activity.” |
| Historical Society of Princeton | National Nutrition Month | “focuses attention on the importance of making informed food choices and developing sound eating and physical activity habits.” |
| Hull Lifesaving Museum | Rowing clubs | “Some of my fellow rowers were experts. . . . She watched her son grow up in the museum’s youth rowing program, and then tried rowing herself.” “[She] stretched her abilities, entering races even though she had never competed at anything before.” |
| Minnesota History Center | Then, Now, Wow | “Demonstrates competency in motor skills and movement patterns needed to perform a variety of physical activities.” “Exhibits responsible personal and social behavior in physical activity settings.” |
| Naper Settlement | Early Learning Playscape | “Provide opportunities for early childhood physical, imaginative and social development while promoting increased connections to the natural environment, local history, and community engagement.” |
| Senator John Heinz History Center | Pittsburgh Plays! | “Build connections between story, objects, and experiences; Practice large motor activities such as jumping, marching, and hopping; participate in group discussions about story events and artifacts; Relate to concepts of time and examine objects from the childhood experience of parents and grandparents; understand the concept of calendar time; Identify toys and games from the past; Initiate an understanding of past, present, and future” |
| State Historical Society of North Dakota | Heritage Outbound Winter Adventure | “check out your skills using atlatls to throw spears or compete with fellow adventurers using ice gliders.” “newly acquired skills” |
| Vulcan Park and Museum | Class on the Grass | “apply music concepts to movement, including tempo, beat, accent, meter, and rhythm; demonstrate sequences of |

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| | | movements that combine elements of space, including shape, level, direction, and relationships; analyze movement for content...” |
| Vulcan Park and Museum | Girl Scouts- Iron Kids | “This program will help each Girl Scout develop physical skills and historical awareness.” |

Attitudes and Values in Physical Activity Programs and Exhibits

| Museum | Program | Example |
|------------------------------------|--------------------------|---|
| Hull Lifesaving Museum | Rowing clubs | “learn about teamwork and personal development” |
| Minnesota History Center | Then, Now, Wow | “Values physical activity for health, enjoyment, challenge, self-expression, and social interaction.” |
| Naper Settlement | Early Learning Playscape | “support a young child’s curiosity, discovery, and sense of wonder, thereby promoting their growth in all developmental domains.” “When children are engaged in age-appropriate activities at the playscape, we hope that they will develop a love of history that stays with them forever.” |
| Panhandle-Plains Historical Museum | PPHMfit | “encouraging visitors to think about lifelong health and the benefits of exercise.” |
| Senator John Heinz History Center | SmartSteps | “The SmartSteps exhibit will motivate History Center visitors to exercise their body while engaging their minds with Western Pennsylvania history.” |
| Seward House Museum | Victorian Games | Mentions that this program is part of <i>Let’s Move!</i> , which is “designed to motivate America’s children to get outside and participate in healthy activities.” |
| Vulcan Park and Museum | Girl Scouts- Iron Kids | “Empowering students to be active in Vulcan Park.” |

Health and Well-Being in Physical Activity Programs and Exhibits

| Museum | Program | Example |
|---|--|--|
| Bartow-Pell Mansion | 19 th Century Toys and Games | “Students engage in physical activity by playing traditional outdoor games such as graces and hoops.” |
| Chicago History Museum | ChicaGO24 | “Grab your sneakers and join us for a leisurely 75-minutes running tour of the Gold Coast and Old Town.” “Cycle your way back to 1893” “History Fit tours combine history and fitness to explore sites throughout the city.” |
| Conner Prairie Interactive History Park | Self-Guided tours | “Participate in new and challenging physical activities; engage in the challenge of new activities; engage in challenging new physical activities” |
| Fort Ticonderoga | To Act as One United Body | “During their participation in this program, students observe a musket demonstration and practice formation tactics.” “This program is part of Fort Ticonderoga’s partnership with Let’s Move! Museums and Gardens’ program of the Institute of Museum and Library Services, a national initiative among member institutions to fight childhood obesity.” |
| Hagley Museum and Library | All-American Day | “This is a Let’s Move event.” |
| Hagley Museum and Library | Walking tours | “This is a Let’s Move event.” |
| The Henry Ford | Health through History | “Exercise your mind and body!” |
| Historical Society of Princeton | National Nutrition Month | “indoor/outdoor scavenger hunt that promotes physical activity” |
| Minnesota History Center | Then, Now, Wow | “Participates regularly in physical activity” “Achieves and maintains a health-enhancing level of fitness.” |
| Naper Settlement | Walking Tours and Wednesday Walking Club | “Hey, it’s good for you!” “When it comes to outdoor activity, there is no better way than an active stroll...” |
| Old World Wisconsin | Catch Wheel Fever! | “Hop aboard tricycles and bicycles replicated from the era; Take a spin around the twists and turns of the bicycle track.” “We began thinking about what we could do that was physical in nature as well as connected to Wisconsin history, and we came up with the idea of riding bicycles.” |
| Old World Wisconsin | Life on the Farm | “Our museum supports this initiative through events that promote physical exercise while having fun.” “A chance for visitors to gain health benefits from walking across more than 500 acres of land...connect the idea of walking around the space with health benefits and |

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| | | physical activity and provided additional channels to relay this message to the public.” |
| Panhandle-Plains Historical Museum | PPHMfit | “increase awareness of cardiovascular health and the benefits of exercise while promoting physical activity to children and healthy lifestyle habits” “This program is part of the Let’s Move! initiative” |
| Seward House Museum | Victorian Games | “encourage children to move” “designed to teach children the importance of an active lifestyle” |
| Senator John Heinz History Center | Hop into History | “Young children will be transported back in time through music, dance, and games.” “It will combine songs, stories, movement, and activities in our galleries.” |
| Senator John Heinz History Center | SmartSteps | “Also featured in the exhibit are UPMC Health Plan health and wellness tips, such as how many calories participants have burned, that will help guide and encourage visitors to a healthier lifestyle.” “SmartSteps ties into the national initiative ‘Let’s Move! Museums and Gardens’” “The SmartSteps exhibit and ‘Let’s Move!’ program is the latest of our wellness initiatives.” |
| Surratt House Museum | Let’s Move: The 19 th Century Way | “get moving as you play games, assist with farm chores and do household tasks that helped the Surratt family stay healthy” |
| Vulcan Park and Museum | Class on the Grass | “This educational program supports the <i>Let’s Move!</i> initiative by encouraging students to get active through the art of dance.” |
| Vulcan Park and Museum | Girl Scouts- Iron Kids | “Participants run up the 150-step slide on the grassy hills, leaving Vulcan with their own health and fitness plan.” |

Stronger and Safer Communities in Physical Activity Programs and Exhibits

| Museum | Program | Example |
|---------------------------------|--|---|
| Fort Ticonderoga | To Act as One United Body | “Fun for the whole family!” |
| Hagley Museum and Library | All-American Day | “This afternoon will be a homerun with families!” |
| Historical Society of Princeton | National Nutrition Month | “families are invited to work together” |
| Hull Lifesaving Museum | Rowing clubs | “Different kinds of people, with varied backgrounds and political affiliations, get together to have fun.” “I do think in some ways it is the community that for other people is church.” |
| Naper Settlement | Walking Tours and Wednesday Walking Club | Camaraderie and making new friends |
| Panhandle-Plains Museum | PPHMfit | “PPHMfit has proven to be an excellent inter-generational learning activity for our visitors. It has been rewarding to see grandparents, parents and children find each station and read the information” |