

McDowell CHOICES Planning Grant Report

Submitted on
June 4, 2013

This Report has been prepared by the McDowell CHOICES Project Team. Members of the McDowell CHOICES project team are identified in the initial grant proposal and have shared responsibility for carrying out all aspects of this planning effort. These WVU faculty members include Eloise Elliott, William Neal, Sean Bulger, Emily Jones, Alfgeir Kristjansson, Andrea Taliaferro, and Ishonte Allar.

The McDowell CHOICES Project Planning Grant Summary

Following preliminary discussions with representatives from the Highmark Foundation during the spring and summer of 2012, an interdisciplinary group from West Virginia University (WVU) submitted a grant proposal for the McDowell CHOICES Project (Coordinated Health Opportunities Involving Communities, Environments, and Schools) last fall. The stated purpose of that proposal was to develop, implement, evaluate, and disseminate an integrated approach to improving physical activity using evidence-based strategies across multiple settings (school, community, and family) in McDowell County, WV. The stated goals included: (1) Environmental and policy modification related to physical activity promotion; (2) Improvement of health-related behavior among school-aged children and adolescents; and (3) Community transformation through identification of the facilitators and barriers to physical activity as a basis for behavior change. It is expected that this project and the resultant lessons learned will provide a model for other Appalachian communities challenged to address chronic health disparities through the use of a social-ecological approach (see Table 1, Appendix A).

Based on the review of our initial proposal, the Highmark Foundation requested the submission of a planning grant as a pre-requisite to funding the implementation of McDowell CHOICES. The intent of the planning grant was to gain a more complete understanding of the contextual issues within McDowell County including the numerous facilitators and barriers to the proposed intervention. After receiving approval from the Highmark Foundation, the McDowell CHOICES project team completed a six-month planning process that focused on the achievement of three primary goals: (1) Capacity building and networking at the local level to facilitate buy-in among community leaders and their constituents; (2) Completing a community-based and school-based needs assessment as a basis for validating and refining the planned intervention; and (3) Conducting baseline measurement of targeted health-related behaviors in school-aged children and adolescents (see Table 2, Appendix A).

In relation to Goal 1 capacity building and networking, we searched for and hired a Project Director to facilitate all grant-related activities at the county level, met periodically with local community leaders and partners to achieve a more coordinated effort, established a project advisory board, and hosted two town hall meetings in cooperation with McDowell County Schools. These interactions were critical to ensure buy-in from key stakeholders including school principals and teachers, students, parents, and community leaders.

With respect to Goal 2 community-based needs assessment, we conducted focus groups with school personnel and other interested community leaders, completed eleven site visits to learn more about current school-based physical activity programming, and surveyed school-aged children and adolescents regarding their physical activity interests using an online format. These needs assessment activities were critical because they enabled us to adjust the proposed intervention to better meet the unique needs of McDowell County residents.

During baseline data collection for Goal 3, we measured the Body Mass Index (BMI) for all students in grades 2, 5, and 8. We also administered a self-report questionnaire to those same students to learn more about their targeted health-related behaviors and attitudes (e.g., physical activity, dietary behavior, sedentary activity). These data are important because they allow for the establishment of more precise goals for the targeted health-related behaviors, and a clearer understanding of the complexity of the problem in McDowell County.

This report provides a detailed description of the planning process and is organized in accordance with its five component parts: (1) Securing stakeholder engagement and support; (2) Establishing a leadership structure to enhance project effectiveness; (3) Conducting a formal school- and community-based needs analysis; (4) Aligning plans for implementation with complementary local, state, and national initiatives; and (5) Developing a sustainability plan for McDowell CHOICES following the initial funding period. The project timeline is located in Appendix A (Table 3).

Planning Component 1: Stakeholder Engagement and Support

Prior to the Planning Grant award, the project team met with numerous county stakeholders during the McDowell CHOICES Project development process. Once the planning effort began, our team continued to collaborate with school and community leaders to ensure that our implementation plan included their input and represented their needs. In order to garner as much support as possible from many different stakeholders throughout the county, we scheduled or were invited to a number of meetings with various individuals and groups to talk about McDowell CHOICES and discuss the intended benefits for both schools and communities. (see Appendix B-1: Brief Project Description for Stakeholder Meetings) These meetings resulted in a better understanding of (1) the needs of the people of McDowell County, (2) the key stakeholders in the county, (3) prior and existing efforts related to physical activity, and (4) those existing programs that would enhance and be enhanced by McDowell CHOICES through collaboration. A schedule of meetings can be found in the Project Timeline (Appendix A: Table 3). Some are highlighted and described below:

McDowell County Schools

Our initial step to establishing a collaborative relationship with the schools was to meet with Superintendent Nelson Spencer to earn his support and approval. We met with Superintendent Spencer during the grant writing process, and again in December and mid-January. He then asked us to attend a county-wide Principal's Meeting on January 31, 2013 to discuss the project, to answer questions, and to gain their support and participation. The principals all seemed enthusiastic about the project, and agreed to BMI screening, to student survey distribution, to sending two teachers to the school focus group meeting (February 28), and to participating in a school site visit that was scheduled with each individual principal (March 18-19). We have continued to meet with Superintendent Spencer regularly and have an open line of communication via email. He is very supportive of increased and enhanced physical activity for students during and after school, and he sees McDowell CHOICES as an enhancement to the community schools initiative that he will be implementing in the fall of 2013. This initiative, which is part of the newly passed School System Collaborative Innovation Zone legislation, gives local school systems flexibility in responding to community needs in the school setting, including increased opportunities for physical activity (see Appendix B-2: Press Release about McDowell County Schools-May 9, 2013). McDowell County Schools and WVU College of Physical Activity and Sport Sciences have signed a Memorandum of Understanding that outlines the intentions of both to work together to increase physical activity opportunities for students and the community. (Appendix B-4: Memorandum of Understanding)

Community Members

Town hall meetings were conducted in conjunction with McDowell County Schools to give community members an opportunity to learn more about McDowell CHOICES and to voice their opinions. The meetings were held at two locations on opposite sides of the county in order to provide access for more citizens. More details about the town hall meetings are provided in *Planning Component 3: Multi-Component Needs Assessment* below. (Appendix B-5: Town Hall meeting announcement)

McDowell Chamber of Commerce

We were asked to speak at the monthly Chamber's Lunch and Learn series on March 1, 2013 to better educate the county business leaders about McDowell CHOICES and to garner their support. (Appendix B-6: Local Newspaper-McDowell CHOICES at the Chamber of Commerce Meeting) We also used this meeting to facilitate the community focus groups as part of the needs assessment. Details are provided in *Planning Component 3: Multi-Component Needs Assessment* below.

McDowell County Commission

Because of their desire to provide more physical activity opportunities in communities, the County Commission took a particular interest in McDowell CHOICES, and asked us to present details of the proposed project at their December of 2012 meeting. They expressed a particular interest in the project's potential for economic

development in McDowell County, including the two new positions for leaders with expertise in health promotion.

Economic Development Authority (EDA)

We continue to work closely with the Executive Director of the McDowell EDA to assist in their mission to encourage and promote recreation and education development to enhance the economic culture of the county.

County Healthcare

The Director of the School-based and Community Health Centers in McDowell County met with us on various occasions to offer advice on health promotion efforts, and to discuss development of physical activity facilities for the county.

Local nonprofit organization leaders

Meetings were held with a number of leaders of local nonprofit organizations to learn more about their programs, and to discuss collaborative efforts. Two of those stakeholders included the Director of Five Loaves and Two Fishes, the local food bank, and the Executive Director of Community Crossings, a faith-based organization.

Please see letters of support for McDowell CHOICES in Appendix B (B-7) from WV House of Delegates member Clif Moore, Superintendent of Schools, Mr. Nelson Spencer, and WV AFT and Reconnecting McDowell Project Manager, Bob Brown.

Planning Component 2: Leadership Structure

McDowell CHOICES Advisory Group

Although the grant will allow for two program leaders who work in McDowell County (the Program Director and the Activities Coordinator), it is also imperative to have key stakeholders at the local level to advise the project on a regular basis, and to support the program through their various positions, including those in county government, education, healthcare, businesses, faith-based organizations, nonprofit organizations, and others. In January 2013, a McDowell CHOICES Advisory Group was established. Members were invited by project team members based on attendance at previous meetings, on their leadership representing different societal sectors and organizations/agencies, and on recommendations by other key leaders in the county. Additionally, we made sure to include leaders of existing programs that have similar goals related to improving the health of McDowell County citizens. The Advisory Group consists of 22 members with varied backgrounds (see Appendix C-1 for the complete Group list). The Group initially met on March 1, 2013 where they were introduced at a monthly community luncheon hosted by the county Chamber of Commerce, and then participated in the community focus group sessions. They reconvened on May 13, 2013 for a meeting with the project team to review findings from the planning effort, to provide feedback for the implementation grant revisions, and to meet the new McDowell CHOICES Project Director (see Appendix C-2 for meeting agenda). The Advisory Group has agreed to serve through project completion, and will participate in a face-to-face meeting at least once a year, along with group email correspondence and scheduled webinars periodically.

McDowell CHOICES Project Director

Rather than waiting for the larger implementation grant to be awarded, we proceeded with the search and screen process for a Project Director so that he/she could be present from the beginning with “boots on the ground” in McDowell County. In accordance with standard WVU protocol, a search and screen committee was established that included both project team members and community representatives from McDowell County. This committee was responsible for developing the position description, recruiting potential candidates, screening and interviewing, forwarding a list of names for final consideration, and maintaining compliance with all human resources rules and regulations. (see Appendix C-3: McDowell CHOICES Program Director Position

Description) Following an exhaustive search, Nathan Acosta was offered and accepted the Project Director position. Nathan is a resident of McDowell County with expertise in the areas of community outreach, social marketing, event management, and communications. The committee determined that in combination, his work experiences, skills set, and knowledge of the community uniquely qualify him for this position and its related responsibilities which include managing/coordinating grant-related activities, providing administrative support, maintaining good public relations, and collaborating with other community services and programs. Nathan was initially hired on a six-month contract with future employment contingent upon the availability of additional funds.

Planning Component 3: Multi-Component Needs Assessment

Health and human service programs are designed to serve people in need, facilitate positive development, and provide prevention and treatment resources. When developing these programs, needs assessments provide the critical first step in deciding whether there is indeed a need to be met, identifying the information to be gathered to understand the need, and beginning the planning process in determining the types of programs and resources that should be offered.

Needs assessments typically examine epidemiological profiles of the community, levels of social problems, and the agencies, institutions, and programs currently serving the community or addressing a specific need in order to define and reconcile the discrepancy between available resources and facilitate improvement. Approaches will vary, but major sources of relevant information include existing, archival data about the condition, the experiences and conclusions of experts who know the situation well, and the facts and opinions provided by those directly affected, the members of the community.

The project team carried out a multi-component needs assessment in McDowell County between January and May 2013. Five sources of data were collected, in addition to forming a local advisory board: (1) Two town hall meetings were held that introduced the project and collected data from citizens pertaining to physical activity; (2) A total of six focus groups were carried out, three with school personnel and another three with other community members; (3) School site visits were carried out with each of the eleven public schools in the county to collect data from principals and physical education teachers, and to take inventory around equipment and facilities; (4) A student survey was carried out in all 5th and 8th school grades in the county. This survey will be repeated twice during the implementation grant, for the second time among 5th, 6th, and 9th graders, and at the third time with 5th, 7th and 10th graders. This data collection exercise will also serve as the main evaluation data collection for the implementation grant over the next two years; (5) Finally, a short internet-based physical activity interest survey was carried out with a cross-section of students in the county to facilitate understanding around preferences for particular types of physical activity or sports. The Institutional Review Board at West Virginia University approved all parts of the project, the needs assessment and evaluation (Protocol # 1301010629).

A short summary of findings from each of the needs assessment components follows.

Town Hall Meetings

In cooperation with McDowell County Schools, members of the McDowell CHOICES project team hosted two town hall meetings at Mountain View High School (February 18th, 2013) and River View High School (February 20th, 2013). The primary purpose of these town hall meetings was to provide an overview of Senate Bill 371 (Governor's School System Collaborative Innovation Zone) and solicit feedback from community members. This legislation enables county school systems that are under state board of education control to apply for designation as a School System Collaborative Innovation Zone, with McDowell County receiving the first opportunity to initiate this process.

Any school district that proposes a plan to become a School System Collaborative Innovation Zone is required to conduct two town hall meetings to solicit feedback from community members, parents, school district personnel, business partners, and other interested parties to share information and gather feedback. The resulting plan-of-action must then be shared with all education employees and voted on by teachers and other school service personnel using the prescribed protocol. When passed, the School System Collaborative Innovation Zone designation affords school districts increased flexibility when partnering with outside government, business, higher education, and not-for-profit organizations to effectively respond to a wide range of community needs including health and wellness, job creation and economic development, infrastructure improvement, teacher recruitment, and so forth.

As initially proposed, the McDowell CHOICES Project closely aligns with the intended outcomes of this landmark legislation. Recognizing the related opportunity for collaboration, the McDowell County Superintendent of Schools invited project team members to present at the previously described town hall meetings and solicit feedback related to participant interests and recommendations for enhancing physical activity levels as an important health indicator at the school and community levels. An immediate response system was used to survey the participants ($N=80$) at both meetings and facilitate discussion. The key findings are summarized as follows:

Key findings related to physical activity environment:

- 68% live within 5 miles of the nearest school
- 82% have not used an indoor school facility to be physically active in the last year
- 75% have not used an outdoor school facility to be physically active within the last year
- 96% agreed somewhat or strongly agreed that McDowell County would benefit from having more outdoor play areas available to everyone
- 98% agree somewhat or strongly agree if a suitable outdoor recreational space was available close to home, they would use it at least once a week to be physically active

Key findings related to physical activity opportunities:

- 100% agree somewhat or strongly agree it would be beneficial to have physical activity opportunities available at local public school sites in the evenings and weekends
- 97% agree somewhat or strongly agree it would be beneficial to have physical activity opportunities available at senior centers
- 74% agree somewhat or strongly agree that it would be beneficial to have physical activity opportunities available in church buildings
- 99% agree somewhat or strongly agree there is a need for more children's after-school physical activity programs and clubs
- 100% agree somewhat or strongly agree there is a need for more children's summer physical activity programs and clubs
- 95% agree somewhat or strongly agree they would participate in an organized evening physical activity class if it was available

Key findings related to communications:

- 92% have access to the Internet in their home
- 92% have access to the Internet on a regular basis somewhere else other than their home

The town hall meetings yielded several take-home messages that have influenced our decision-making moving forward: (1) Following the town hall meetings, McDowell County school personnel voted to approve their designation as a School System Collaborative Innovation Zone. This vote confirms that McDowell will be the first county in WV with a legislative mandate to develop and implement county-wide education policy. This is significant in that it mediates many impediments to policy-related strategies such as joint-use agreements and

other approaches to community partnership; (2) Despite a reasonable degree of proximity to school facilities and a strong belief that physical activity opportunities in schools should be accessible in the evenings and weekends, residents infrequently access school facilities outside of regular hours for their own physical activity. Furthermore, new and improved outdoor play spaces are needed in McDowell County; (3) There was uniform agreement among residents that there is a demand for additional organized school-based and community-based physical activity opportunities within McDowell County; and (4) Internet access does not appear to be a significant impediment to using various forms of social media (e.g., Facebook, Twitter, project website) for community outreach and interaction.

School Focus Groups

Project team members conducted three school focus groups on February 28, 2013 in Welch, WV to identify participant ($N=22$, Females=15) perceptions regarding existent strengths, weaknesses, opportunities, and threats relative to physical activity promotion in McDowell County.

Strengths. Students in McDowell County are generally excited to be involved in physical activity events throughout the school year. This enthusiasm was reinforced in a comment made by a physical educator; "... kids do, when they have an opportunity to be physically involved, they really enjoy it. They look forward to it. They really participate and a lot of times the kids who participate the most are the kids who may not participate in classroom activity." Participants agreed that a contributing factor to student (and emerging family) excitement is that schools are implementing new physical activity initiatives (e.g., Let's Move, Jump Rope for Heart, fitness testing), new sports programs, and afterschool programs with active components. In sum, the school environment can provide the structure for students to make healthy choices in their daily lives both in and out of school.

Weaknesses. Participants agreed that sedentary lifestyles of students and families in McDowell County were linked to a lack of accessible and proximal physical activity resources that would accommodate for the prevalence of multigenerational families being headed by grandparents and great grandparents. The issue of lacking appropriate, safe, and accessible facilities and equipment contributes to a narrow view and sheltered perspective of physical activity and exercise possibilities. The following comment by one teacher resonated with others in the group, "Most of the equipment that we have is based on the sports that the school has, football, volleyball, baseball, ... [but when] I had [the gopher magazines] and I had some of my kids look at it and said 'pick stuff out of there that you'd like' and they [picked] hockey and lacrosse...so I marked down a lot of stuff that they like. I think people would get more interested if we had a [greater] variety." Therefore, recognizing the current weaknesses and limitations allows for greater focus on location/proximity of physical activity opportunities and increasing variety of facilities and equipment in and around schools.

Opportunities. The people of McDowell County are genuinely enthusiastic and interested in physical activity opportunities around their schools to benefit the health of all citizens. One physical educator described, "We were talking about opening up our school for the community... [we are] trying to get people in there and get them physically fit, exercise[ing], [and] get them up and moving, not just our kids but people in the community." School stakeholders emphasized that teaching new content areas in physical education could improve interest and participation among youth, and that a conversion or renovation of existing school facilities for community wellness could improve the well-being of community members. Therefore, one recommendation is to invest resources into school physical activity programming and school-based activity facilities that can serve students and their families. Another trend described the stakeholder's vision for multiple community fitness centers in McDowell County that offered year-round programming and transportation for people of all ages.

Threats. Current threats described by focus group participants include a variety of issues such as: poverty, multi-generational/aging families, condition and rampant vandalism of facilities, drug use/abuse, and road/travel conditions. These macro-level issues alongside the concern of who would step up to run/supervise

new physical activity programs threaten the viability of sustainable change in McDowell County schools. This notion was reinforced by a comment made by a participant, "...a lot of the people that volunteer are usually the people who are already working there, even if it come down to [the hiring of] a volunteer position, the people who would volunteer would predominantly be your people who are already there who are already willing to do it either way." To address this in the short term, training local persons to have the skill sets needed to plan and deliver physical activity programming can promote positive change and alleviate some of the strain on current volunteers and provide an incentive for others to become more engaged.

Community Focus Groups

Project team members conducted three community focus groups on March 1, 2013 in Welch, WV to identify participant ($N=22$, Females=17) perceptions regarding existent strengths, weaknesses, opportunities, and threats relative to physical activity promotion in McDowell County.

Strengths. Children, adolescents, and adults in McDowell County want to be physically active. The few structured activities that are available such as the league basketball for school children and Zumba class for adults have been popular and well attended. General interest in physical activity is therefore not of much concern. The schools represent the most frequently mentioned facilities available for physical activity but they are usually not open to adult citizens which may constitute an opportunity for future utility. In the words of one participant: "...you've got all these nice schools with nice gymnasiums and try to get them. It's like having an audience with the pope to try to get to use the school facility paid for by taxpayers' money." Additionally, several outside spaces are available, such as playgrounds with basketball hoops and county and state parks. However, many of them need renovation to be applicable.

Weaknesses. A recurring key theme in the focus groups was the geographical size of McDowell County relative to the number of inhabitants and the time it takes to travel between places due to the rural nature of the area. A participant describes; "I think where McDowell County is so spread out it's, you know [a] fitness center, if we had one you actually would probably need one in each community because where it's so spread out and it takes so long to get from one place to the other." Moreover, relative deprivation (poverty), lack of promotion in opportunities for physical activity, and lack of suitable platforms of communication (e.g., radio, newspaper, etc.) all represent additional weaknesses concerning physical activity in the area. These issues are mirrored by the absence of suitable indoor facilities to be used over the winter months in most communities in the county. A web site that would include a comprehensive listing of season-based physical activity opportunities might be a feasible way of promoting activity in the county.

Opportunities. Most participants in the community focus groups believed that increase in availability and promotion of both organized and unorganized physical activity programs and facilities would be welcomed by citizens of all ages in the county. In this respect carrying out several smaller scale projects or programs may be more feasible than promoting fewer larger ones. A community member speaks; "I think that smaller programs scattered throughout the county would be more beneficial to the county than one huge something in Welch because of the geography, the distance and transportation." In line with this notion and for the immediate benefit to the citizens of McDowell County, working on renovating existing facilities may represent a sensible starting point in this regard.

Threats. Several ongoing macro level threats may stand in the way of physical activity promotion in McDowell County. The most frequently mentioned are; poverty, multi-generational families (grandparents, sometimes even great grandparents, raising children), drug abuse, especially with prescription drugs, unemployment, geographic isolation and travel conditions. Many people in the more rural parts of the county are unable to travel long distances for physical activity. Together these issues call for local level actions and programs for physical activity, but they also highlight the structural problems faced in the county. In the short

term, locally-based actions would promote physical activity of all people; children, youth, and adults, but in the long run the county needs economic development as well. Ideally these two factors should be tied together.

School Site Visits

Members of the McDowell CHOICES project team visited each of the eleven schools in McDowell County from March 18-19, 2013. The primary purpose of the half-day site visits was to formatively evaluate the school-based physical activity environments and opportunities in McDowell County, with aim of identifying school-specific Comprehensive School Physical Activity Program (CSPAP) strengths, weaknesses, and areas for improvement.

While at the schools, members of the project team conducted one-on-one interviews with principals and physical education teachers to learn more about the physical activity opportunities for students before, during, and after the school day that exist and ones they would like to see offered (see Appendix A: Table 4). Team members were also given a tour of the school building, grounds, and play/athletic spaces and facilities to evaluate the availability and condition of existent physical space. Additional information collected from the physical educators included school specific equipment inventory and wish lists (see Appendix A: Table 5), listing of professional development needs (see Appendix A: Table 6), and curriculum scope and sequence.

Data collected during the school site visits were summarized into 11 school-specific narratives that described the context, space and facilities, and the schools physical activity and physical education strengths (assets) and areas for improvement (needs). The narratives were shared with the school superintendent and principals to verify the accuracy of the information. Once approved, members of the McDowell CHOICES project team conducted a qualitative analysis of the narratives to see if there were themes or commonalities across the schools. The following reflects the six themes that emerged from the school site visit data:

1. **Comprehensive School Physical Activity.** School personnel in McDowell County are aware of CSPAP and its components and are making strides in providing school-based physical activity opportunities for students beyond time already designated for physical education. Yet, many schools reported a need for more before, during, and after school physical activity programming and necessary resources to support them (e.g., equipment, paid leaders, and teacher professional development). Schools also described a need for greater focus on staff wellness and family/community-based physical activity programs, gatherings or events. Related to CSPAP, seven of the eleven schools indicated they had a School Wellness Committee that helps make decisions about physical activity opportunities in the school. Members of the committees include administrators, PE teachers, school nurses, counselors, classroom teachers, and administrative support persons who each bring a unique perspective, set of skills, and level of influence.
2. **School-based PA Programming.** Currently students in McDowell County have the opportunity to participate in various school-based programs, many of which are offered after school. Program topics range from tutoring, dance, physical activity, the Health Sciences and Technology Academy, and beyond. The high enrollment and participation is evidence of the programs' popularity and success. However, continuation of several of such programs remains contingent upon the renewal of external funding and returning staff/personnel. Many of the schools expressed a desire for these programs to continue, but were interested in new school-based physical activity programs for students as well.
3. **Physical Education Equipment/Storage.** The majority of students in McDowell County receive physical education between 3 and 5 days per week, which translates to 90 to 250 minutes of weekly physical education time. Given the amount of physical education time offered to students, there appears to be a disconnect between the quantity and quality of available equipment and instructional materials for teachers to use. To plan and implement

developmentally appropriate, relevant learning experiences for students, it is important for physical education teachers to have sufficient, safe, and reliable equipment.

4. **Reporting Fitness Results.** The WV Department of Education requires annual collection and reporting of physical fitness scores for all 4th-12th grade students statewide. Principals and physical education teachers in McDowell County indicated that this requirement is being fulfilled in the county and that at the beginning of each school year there is a FITNESSGRAM refresher workshop for physical education teachers. Unfortunately, however, there is not a system in place for teachers to effectively manage and report results to students, parents/guardians, and county and state-level administrators. Having such a system could assist physical education teachers in using physical fitness progress reports to set individual student goals, track growth trends, and inform physical education curricular and instructional priorities.
5. **Outdoor PA Space Revitalization.** Most of the schools in McDowell County have adequate indoor physical education/physical activity spaces (e.g., gymnasiums, multi-purpose rooms, lunch rooms), but lack effectively used or maintained outdoor facilities. This issue limits the potential for teachers to plan and implement physical activity opportunities for students, which in turn affects the amount of time students can safely spend in health-enhancing levels of physical activity during the school day.
6. **Joint-Use Agreements.** This spring in McDowell County the School System Collaborative Innovation Zone passed, granting schools greater flexibility when partnering with outside organizations to respond to community needs such as health and wellness. Five schools identified establishing joint-use agreements or building community partnerships as important next steps in the promotion of physical activity to their students and families. Given that most schools have the best indoor and/or outdoor physical activity spaces in the community; it makes sense to consider how these entities might better share resources.

The school site visits yielded several take-home messages that have implications for future decision-making: (1) increase capacity and resources for School Wellness Committees to promote CSPAP; (2) extend and enhance existing school-based physical activity programming; (3) increase quality and variety of school physical education/physical activity equipment and resources; (4) establish a system for county-wide fitness testing and reporting; (5) revitalize school outdoor physical activity space; and (6) foster joint-use agreements between school and community organization.

Physical Activity Interest Survey

In an attempt to capture what physical activities McDowell County students (grades 6-12) would most like to participate in, we asked teachers to allow students to complete a web-based interest survey in a school computer lab. The students were asked to rate 35 activities according to their interest in participating in the activity during physical education class, other times during the school day, or after school and in their community. The survey presented the students with the name and a picture of each activity. The rating scale was *1-No way, 2-Not that interested, 3-Looks like fun, 4-So cool*. The survey also included seven questions about their current physical activity and diet habits, and four questions to rate their feelings about physical activity.

Participants ($N=384$) represented all five middle and high schools, and all grades. Seventh graders made up the largest sample (29.9%), while twelfth graders were the lowest (1%). Those activities ranking the highest (3-Looks like fun or 4-So Cool) were swimming/water aerobics, archery, bowling, climbing wall, kayaking, active gaming, basketball, mountain biking, and fly fishing. Other high ranking activities included fitness course, low ropes course, ski/snowboard club, exercise machines, and softball/wiffle ball.

When asked if they would like to participate in some of these activities in their communities, 90.9% strongly or somewhat agreed. Similarly, 78% responded favorably to participating in an after-school club that offered some

of these activities. Sadly, only 37.8% of the students strongly agreed that they are currently physically active at least 60 minutes a day on most days of the week, and less than half (47.9%) knew that the national recommendation for the minimum amount of daily physical activity is 60 minutes.

Body Mass Index

The CARDIAC Project has completed its fifteenth year of comprehensive heart disease and diabetes risk factor screening available to all 5th graders throughout the state of West Virginia. It allows us to calculate the risk of hypertension, abnormal cholesterol, and pre-diabetes based on BMI status. Additionally, specific to the McDowell CHOICES Project we are conducting BMI status on the same cohort of children each year for three years as they matriculate through middle and high school. This longitudinal assessment will allow us to document any change, hopefully improvement in health status, among these school children.

Results of BMI screenings reveal that of the 550 students screened, 52.9% overall were above the 85th percentile (overweight/obese). Even more alarming is that 57.0% of 5th graders are overweight/obese, compared to the WV average of 46.9%. Second grade results showed 48.1% in this category, compared to 38.5% statewide. (see Appendix A: Tables 7 and 8). The key message here is that increased healthy behaviors must be taught and practiced regularly by children and their families in order to curb this childhood obesity problem in McDowell County.

Health-Related Behavior Questionnaire

As a part of the needs assessments, and an on-going evaluation of program impact, a student survey was carried out among all 5th and 8th grade students in all schools in McDowell County during May 2013. Identical surveys will be repeated twice during the implementation grant, for the second time among 5th, 6th, and 9th graders in the spring of 2014, and at the third time with 5th, 7th, and 10th graders during the spring of 2015. This method enables the project team to both compare cross-sectional trends among children in 5th grade during each year of the project period, as well as to assess within group trends by collecting data with the same students on three occasions.

The survey data collected during May of 2013 resulted in 383 completed responses out of 533 enrolled students, which makes a 72% response rate (49.6% girls). The questionnaire includes 30 single-item questions about the current frequency of various forms of physical activity, sedentary lifestyle, and nutrition. Also, the likelihood of physical activity in the near future, as well as several questions that measure attitudes and ideas about physical activity in the present and future, opportunities for physical activity in the community, and the recommended daily minimum of physical activity and servings of fruits and vegetables.

Around a third of boys and even fewer girls in 5th and 8th grade in McDowell County meet the national physical activity 60 minutes or more per day. Increasing the proportion of children who are active for at least 60 minutes per day is therefore a priority during the implementation phase of the grant (see Appendix A: Table 9). Sedentary lifestyles are also very common among children in McDowell County. Lowering these numbers should be a priority for the implementation grant as well (see Appendix A: Table 10). Various types of unhealthy and healthy behaviors among children and adults go hand in hand. In line with inadequate levels of physical activity and high levels of sedentary lifestyles as shown in Tables 9 and 10, children in McDowell County do not consume enough fruits and vegetables and drink a lot of sweetened beverages such as punch and soda (see Appendix A: Table 11). Reducing this consumption should coincide with increased physical activity.

The future view of children in McDowell County for physical activity reflects their current levels of physical activity shown in Table 12 (Appendix A). Emphasis should be made to increase the number of children that plan to be active on a daily basis. Table 13 (Appendix A) shows that the majority of children in McDowell County believe that physical activity is important and that their parents think so too. Other numbers indicate a lack of

emphasis and opportunities for physical activity, which should be of central importance for the implementation phase of the project.

Planning Component 4: Alignment with Existing Programs

Our grant team has focused on aligning efforts with existing programs and initiatives already in place in the schools and communities in McDowell County. We have also helped to facilitate new programs that will serve to enhance physical activity opportunities. Some of the most noted are briefly discussed below.

School/Community Programs

1. **US Department of Education School Improvement Grants.** These federal grants are awarded to states to help turn around their lowest-performing schools. We are currently working with two of the schools in McDowell County to integrate physical activity through active gaming in various aspects of the school day, including recess and after-school programming, in an effort to improve academic performance.
2. **21st Century Community Learning Centers Program.** This federally-funding program is currently in three schools in McDowell County and provides at-risk students a safe environment during non-school hours. The county submitted a continuing grant application in May of 2013, and we have agreed to collaborate on the physical activity component of that after-school program for the first two years, pending funding.
3. **Title I Dance Program Grant.** The McDowell County Office of Title I was awarded a grant to support dance programs for students in 3rd – 8th grades in three improvement schools this year. The program brings opportunities to these students that they would not, otherwise, be afforded. We are participating in the culminating community events on June 8, 2013 and hope to continue to work with this program to provide an excellent venue for building self-esteem and confidence while being physically active.
4. **The Health Sciences and Technology Academy (HSTA) Program.** This state program is a 9th-12th grade math and science enrichment program developed to empower minority and underrepresented students and communities. Currently there are 74 HSTA students in McDowell County that have 119 parents, and 5 HSTA teachers. McDowell CHOICES is working with the local HSTA director to engage HSTA students in physical activity promotion as part of their 75 hours of community service, and to include some of the students in a designed research component as part of their yearlong projects.
5. **National Foundation for Governors' Fitness Councils (NFGFC) Fitness Center Grant.** We assisted the principal of Southside K-8 school in submitting this grant in May, and we were notified May 31 that the grant had been awarded to the McDowell County school. The NFGFC selected three schools in WV to receive \$100,000 in fitness center equipment to improve youth fitness and to recognize a school that actively promotes physical activity and wellness to students.
6. **Action for Healthy Kids School Grant.** We also assisted the principal of Fall River Elementary in submitting a grant to Action for Healthy Kids for \$5,000 in playground enhancements. The awards have not been announced at this time.
7. **WVU Extension Service.** The 4-H Camping Program is very strong in McDowell County, and provides many children the opportunity to attend either day camps or residential camps during the summer that provides healthy alternatives and teaches them important life skills. This summer we are participating in programming events at the camps to teach campers about the importance of healthy lifestyles. We

want to continue supporting this important program throughout the year by working with the McDowell County Extension Agent to provide physical activity programming.

8. **WV Free.** This nonprofit organization that advocates for reproductive and overall health coordinates a Sky's the Limit summer program in McDowell County. We are working with the Education and Outreach Director to promote physical activity as an important component of a healthy lifestyle.

State Initiatives

1. **ActiveWV: The WV Physical Activity Plan.** ActiveWV is a statewide initiative that provides a strategic direction to increase/maintain healthy physical activity levels of all citizens of WV. Strategies and tactics for each societal sector are identified. McDowell CHOICES is a comprehensive intervention that demonstrates the implementation of best practices, particularly related to the education, public health, and parks, recreation, fitness and sports sectors (www.wvphysicalactivity.org).
2. **Reconnecting McDowell.** The Reconnecting McDowell Initiative is a state/national project headed by the American Federation of Teachers (AFT), and supported by the WV Legislature. (see Appendix B-2: Press Release about McDowell County Schools-May 9, 2013) Their over 100 partners work to seek solutions to McDowell's complex problems, including health disparities and unhealthy lifestyles. McDowell CHOICES has joined forces with Reconnecting as a member of the Health, Social, Emotional/ Wrap-Around Services Subcommittee, and is responsible for the committee's strategies and next steps for improving physical activity (www.reconnectingmcdowell.org).
3. **Let's Move WV – WVDE Office of Healthy Schools.** The WV Department of Education Office of Healthy Schools *Let's Move WV* campaign is focused on increased physical activity during the school day. The CSPAP approach encourages schools to identify a variety of ways for children to be physically active, in addition to physical education and recess. Project team members are working with the Office of Healthy Schools to provide expertise and resources to increase physical activity opportunities at school, including quality physical education, before and after school, in the classroom, and other family opportunities outside of school time. Collaboratively we are also working with all 11 schools to become nationally recognized *Lets Move! Active Schools* (www.letsmoveschools.org)

Planning Component 5: Project Sustainability

As with any intervention, sustainability is a primary concern beyond the initial funding period. Our plan is to use a four-pronged approach to sustainable health-related behavior change moving forward:

Use of Existent Infrastructure

We will use existent organizational infrastructures to support all grant-related activities (The CARDIAC Project and Lifetime Activities Program). The CARDIAC Project (<http://www.cardiacwv.org/index.php>) oversees a range of surveillance and intervention efforts across WV, including McDowell County. The national reputation of The CARDIAC Project and its high visibility within the state has provided a solid starting point for coalition building within McDowell County and the human resources (in the form of regional area coordinators) that will allow for the maintenance of school-based intervention efforts beyond the initial funding period. The Lifetime Activities Program (<http://cpass.wvu.edu/lap/lap>) is a community-based, service oriented program managed by the College of Physical Activity and Sport Sciences at West Virginia University. This program has a long history of providing a wide assortment of physical activity programs for all ages including aquatics, martial arts, gymnastics, fitness and more. Based on preliminary discussions, we have reached an agreement with the Lifetime Activities Program that will allow us to extend their community-based programming into McDowell County using schools, senior centers, and faith-based facilities as the locations.

Focus on Policy Change and Environmental Modification

Policy change and environmental modification have been identified as two of the most easily sustainable approaches to behavior change. The intervention will incorporate a number of strategies related to policy and environment including (a) curricular resources and equipment for school physical education and physical activity programs; (b) new physical activity spaces; and (c) joint use agreements between schools and other community organizations. Recent actions taken by community leaders in these areas suggest that McDowell County is receptive to these types of changes, an important consideration pertaining to sustainability. Most significantly, the previously described Governor's School System Collaborative Innovation Zone legislation presents a number of interesting possibilities related to the establishment of CSPAPs that incorporate alternative programming before, during, and after school. Furthermore, the McDowell County Commission has been awarded \$100,000 by the WV Housing Development Fund to initiate an Environmental Blight Abatement Program (EBAP) designed around the three "R" approach (Raze, Recycle, and Rebuild). The purpose of this endeavor is to rid the county of unsafe, unoccupied and dilapidated structures, and recycle those parcels for other rebuilding projects. The McDowell County Commission has adopted the community play/activity space program as its top priority. In that regard, a community play/activity space was constructed in the city of War that serves as a model of what is yet to appear on the horizon. Utilizing blended funding in the amount of \$96,000 and donated labor from inmates of the Stevens Correctional Facility, a state-of-the-art play/activity space continues to thrive in War. WV Delegate Clif Moore has reported that the goal of the Commission is to develop construct play/activity spaces in other strategically located places throughout McDowell County on developable parcels derived from the EBAP.

Invest in the People of McDowell County

Professional development for school and community personnel will remain a focus of this intervention. It is our intention to develop a core group of local leaders who are capable of delivering quality physical activity programming that meets the needs of McDowell County residents who have various interests, goals, and capabilities. It is expected that these continuing education efforts will serve McDowell County well beyond the funding period as individuals move forward with their own physical activity promotion initiatives. The related social marketing efforts (e.g., Facebook, Twitter, and project website) will continue to target increased public awareness regarding the benefits of regular physical activity, recommended amounts of physical activity, strategies for overcoming common barriers, opportunities for enjoyable participation, and incentives for getting started. All of these determinants have been found to influence physical activity behavior based on an individual's stage of readiness. This summer we will complete a community asset mapping process to specifically identify additional community resources (people, places, and programs) that might contribute to the sustainability of the McDowell CHOICES Project.

Build Community-Based Partnerships

Current partners in this project include the West Virginia University College of Physical Activity and Sport Sciences; The CARDIAC Project; WV Department of Education's Office of Health Schools; McDowell County School District; Reconnecting McDowell; WV Physical Activity Plan Sector Leaders and Team; state associations such as WV Association for Health, Physical Education, Recreation, and Dance; along with other state legislators and local community leaders. As the intervention moves forward, we will conduct regular meetings with stakeholders in the community in the interest of expanding this list of local collaborative partners. From a sustainability standpoint it is our expectation that the McDowell CHOICES project will stimulate other external funding opportunities and there is already evidence to that effect. Based on interactions with school principals during the planning process, McDowell CHOICES project team members collaborated with Southside K-8 School in McDowell County to prepare and submit a facility improvement grant to the National Foundation for Governor's Fitness Councils. This competitive grant, which was recently awarded, provides \$100,000 in funding to support the development of a brand new school-based fitness center. The Southside Fitness Center will allow opportunities to teach students important fitness concepts and skills during physical education that could also

be extended to interdisciplinary opportunities in the classroom, and during recess time. Additionally, the Fitness Center will give our students an incentive to participate in physical activity after regular school hours. This school and another have also received School Improvement Grants which they invested in a Dance Dance Revolution (DDR) Classroom Edition that will be implemented in the fall.

Conclusion

The data summarized in this report provide evidence that the McDowell CHOICES Project Team was successful in accomplishing our three primary goals of (1) capacity-building and networking, (2) community-based and school-based needs assessment, and (3) baseline measurement of health-related behaviors. Across the six-month planning process we have established important relationships with a variety of key stakeholders in the community. Most notably, our partnership with the McDowell County Schools has been a productive one to date and this resolves the most important pre-conditions for implementation: access to facilities, equipment, personnel, children, and families. In combination with the lessons learned from the multi-component needs assessment, our relationships with the schools and other groups described have significantly improved our understanding of the various contextual facilitators and barriers to behavior change in McDowell County. While the basic conceptual framework for the initial intervention plan has been validated, including the related focus on schools, the lessons learned with respect to context will allow for much more targeted physical activity programming at both the school and community levels. We have invested a significant amount of discretionary time and effort learning more about each school and the unique communities they serve within McDowell County. Our proposed focus on comprehensive school physical activity programming, allocation of equipment and other curricular resources for physical education, increased access to school facilities during non-traditional times, outdoor play space enhancement and development, family and community outreach, and school-community partnership are very well-aligned with the needs described by McDowell County residents and future directions proposed by their leaders. The research-quality data that we were able to collect regarding basic health-related behaviors and status (physical activity, sedentary activity, dietary behavior, and BMI) allow for the establishment of more precise and meaningful program effectiveness goals. Prior to this planning process, there were limited data available relative to these health-related behaviors specific to McDowell County. In summary, we are thankful for having received the opportunity to learn more about the very special people, places, and programs that are already existent in McDowell County and look forward to the opportunity to submit our revised proposal for intervention following your acceptance of this report.