

Application for Federal Education Assistance (ED 424)

ORIGINAL



U.S. Department of Education
Form Approved
OMB No. 1875-0106
Exp. 11/30/2004

Applicant Information

1. Name and Address
 Legal Name: Lake Benton Public School
 Address: 100 Strong Street
 City: Lake Benton
 State: MN ZIP Code: 56149 - 0659
 County: Lincoln ZIP Code + 4: 030802

2. Applicant's D-U-N-S Number: (b)(2)

3. Applicant's T-I-N: 41-6001452

4. Catalog of Federal Domestic Assistance #: 84215F
 Title: Carol M White : Physical Education Program

5. Project Director: Bruce Houck
 Address: 100 Strong St
 Tyler: MN State: 56178 - 0659 ZIP Code + 4
 City: _____ Tel. #: (507) 247-5913 Fax #: (507) 247-3876
 E-Mail Address: _____

6. Novice Applicant Yes No

7. Is the applicant delinquent on any Federal debt? Yes No
 (If "Yes," attach an explanation.)

8. Type of Applicant (Enter appropriate letter in the box.) F

- A State
- B Local
- C Special District
- D Indian Tribe
- E Individual
- F Independent School District
- G Public College or University
- H Private, Non-Profit College or University
- I Non-Profit Organization
- J Private, Profit-Making Organization
- K Other (Specify): _____

Application Information

9. Type of Submission:
 PreApplication Construction Application Construction
 PreApplication Non-Construction Application Non-Construction

10. Is application subject to review by Executive Order 12372 process?
 Yes (Date made available to the Executive Order 12372 process for review): _____
 No (If "No," check appropriate box below.)
 Program is not covered by E.O. 12372.
 Program has not been selected by State for review.

11. Proposed Project Dates: Start Date: 9/1/2003 End Date: 8/30/2004

12. Are any research activities involving human subjects planned at any time during the proposed project period?
 Yes (Go to 12a.) No (Go to item 13.)

12a. Are all the research activities proposed designated to be exempt from the regulations?
 Yes (Provide Exemption(s) #): _____
 No (Provide Assurance #): _____

13. Descriptive Title of Applicant's Project:

Estimated Funding	
14a. Federal	\$ 173,502.00
b. Applicant	\$ (b)(4)
c. State	\$.00
d. Local	\$.00
e. Other	\$.00
f. Program Income	\$.00
g. TOTAL	\$ (b)(4)

Authorized Representative Information

15. To the best of my knowledge and belief, all data in this preapplication/application are true and correct. The document has been duly authorized by the governing body of the applicant and the applicant will comply with the attached assurances if the assistance is awarded.

a. Authorized Representative (Please type or print name clearly.)
Bruce Houck

b. Title
Superintendent

c. Tel. #: (507) 247-5913 Fax #: (507) 247-3876

d. E-Mail Address: bhouck@tr.mntm.org

Signature of Authorized Representative: Bruce Houck Date: 5/8/2003



**U.S. DEPARTMENT OF EDUCATION
BUDGET INFORMATION
NON-CONSTRUCTION PROGRAMS**

OMB Control Number: 1890-0004

Expiration Date:

Name of Institution/Organization
Lafayette Public School

Applicants requesting funding for only one year should complete the column under "Project Year 1." Applicants requesting funding for multi-year grants should complete all applicable columns. Please read all instructions before completing form.

**SECTION A - BUDGET SUMMARY
U.S. DEPARTMENT OF EDUCATION FUNDS**

Budget Categories	Project Year 1 (a)	Project Year 2 (b)	Project Year 3 (c)	Project Year 4 (d)	Project Year 5 (e)	Total (f)
1. Personnel	7,600					7,600
2. Fringe Benefits	1,037					1,037
3. Travel	16,400					16,400
4. Equipment	116,649					116,649
5. Supplies	9,826					9,826
6. Contractual	21,990					21,990
7. Construction						0
8. Other						0
9. Total Direct Costs (lines 1-8)	173,502	0	0	0	0	173,502
10. Indirect Costs						0
11. Training Stipends						0
12. Total Costs (lines 9-11)	173,502	0	0	0	0	173,502

(b)(4)

(b)(4)

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Abstract
Fit and Healthy for Life
Carol M. White Physical Education Program

The School Board of Lake Benton is the largest school district in the county serving over 900 students in grades K-12. Fit and Healthy for Life is a demonstration program in 3 of the districts elementary, middle and high schools to combat overweight and obesity in children by redesigning the physical education program. This program introduces technology into physical education curriculum providing individualized education program to provide a more individualized and balanced approach to health and physical fitness.

The Fit and Healthy for instruction and authentic assessments. Health and physical education are coordinated into a balanced program of overall wellness culminating in the development of a wellness portfolio, with personal fitness goals and a wellness plan for each student. Two levels of implementation allow 4 schools to use wireless heart rate monitors to assess each student's fitness level and set individual fitness goals. The advanced level of implementation has 3 schools designed as Health and Wellness Demonstration m, and partnership with local health care providers. The Lincoln County Health Department provides educational outreach and Wellness Fairs to involve parents and the community through its prevention project.

Teachers at participating schools will need extensive professional development and an annual Institute to provide a forum to share effective practices at the demonstration schools with the entire school district's health and physical education staff. The coordinated program will help Lake Benton public schools meet the challenging Minnesota State Standards for Physical Education. Students will learn to respect people of all levels, appreciate the enjoyment and benefits of regular physical activity and a healthy life style; leading to an enhanced quality of life through reduced risk of chronic disease related to overweight and obesity.

Carol M. White Physical Education Program
Lake Benton Public Schools' *Fit and Healthy for Life* Program

Need for Project:

- (a) **The magnitude of the need for services to be provided or activities to be carried out by the proposed project.**

It is established that regular physical activity provides numerous health benefits including leaner bodies, lower blood pressure, reduced incidence of chronic disease, and improved mental health and cognitive functioning. Yet, more and more Americans, and in particular, American youth, are becoming overweight and less active each year and the human and monetary costs are mounting. According to the Surgeon General's 2001 *Call to Action To Prevent and Decrease Overweight and Obesity*, in 1999 and estimated 61% of Americans were overweight and the total direct and indirect costs attributed to the problem amounted to \$117 billion in the year 2000. The prevalence of overweight children and adolescents has nearly tripled in the last two decades with 13% of children aged 6 to 11 and 14% of adolescents aged 12-19 being overweight. The most immediate human cost to these children is social discrimination associated with poor self-esteem and depression. A 2000 report from the Centers for Disease Control estimated the hospital costs associated with childhood obesity to have tripled in the last 20 years, reaching \$127 million. These overweight youth have a 70% chance of being overweight as adults with increased risk for heart disease, high blood pressure, cancer and other illnesses.

Specifically, more children are suffering Type 2 diabetes, previously thought an adult onset disease, which is more common in overweight individuals. The underlying causes of overweight and obesity in children appears to be an overall decline in physical activity,

an increasingly sedentary lifestyle dominated by television, computer and video games, and unhealthy eating patterns.

These facts have led to a call for what many term a “new Physical Education” that emphasizes the promotion of lifelong physical activity that will enhance workplace skills, fitness and wellness associated with quality of life. This “new PE” also incorporates healthy lifestyle choices regarding physical activity, diet, risk behavior avoidance and disease prevention into a wellness education program for the whole child. Lake Benton Public Schools proposes to meet this challenge by revisiting the physical education in its schools enrolling 900 students. The *Fit and Healthy for Life* program proposed here will introduce technology into physical education curriculum and provide staff development allowing more authentic fitness assessments. Health and physical education will become more coordinated into a balanced program of overall wellness. The training and assessments will contribute to individualization and personalization of physical education instruction culminating in the development of a wellness portfolio, with personal fitness goals and a wellness plan for each student. Two levels of implementation will allow 4 schools to use wireless

Sites that incorporated a complete health/fitness management system heart rate monitors to assess each student’s fitness level and set individual fitness goals. The remaining school is designated health and wellness magnet or focus school that will also incorporate a complete health/fitness management system, which measures flexibility, blood pressure, body composition, upper body strength, and cardiovascular health. This TriFit health/fitness management system utilizes custom testing protocols, with individual recommendations to improve performance. Software modules include a “meal

planner” to develop nutrition plans based on individual body composition and activity levels. These schools will also subscribe to an on-line Wellness Library with a wealth of information on health and physical education, instruction on how to properly exercise, and Interactive Health Risk Appraisals to provide student feedback and teacher statistical reporting on topics like nutrition, drug & alcohol use and other topics.

During the 2002-2003 school year Lake Benton Schools conducted a comprehensive needs assessment to compare local student fitness and health data and national figures. The needs assessment also analyzed the current physical education and health program’s ability to meet the challenging Minnesota State Standards, the National Standards for Physical Education and the framework of the “new PE.” National trends are supported by local and state data and some of the findings are alarming.

On traditional tests of fitness like the Presidents Fitness Test and Physical Best that measure strength and endurance, 81% of elementary students tested failed to score at the 50th percentile, which is considered passing. Body Mass Index (BMI) is often measured or calculated based on height and weight and is used to draw conclusions about a person being overweight or obese. The BMI between 25 and 29.9 is considered overweight and over 30 is considered obese. The 1999 data from the Surgeon General’s report states that 13-14% of children are overweight. Preliminary 2003 data obtained from the Minnesota Department of health, coordinated School Health Program reports 20.1% of high school students sampled were overweight. The complete state report will be available in August 2003. In Lincoln County, middle and high school students’ BMI was calculated from height and weight data. 26.4% of Lake Benton’s high school students were overweight including 7.9% being characterized as obese. For middle

school students, 17.5% were overweight of which 6.3% were considered obese with the BMI of over 30. These numbers show a significant problem in Lake Benton, with the percentages of overweight students surpassing the state and national figures.

The annual Youth Risk Behavior survey (YRBS) provides some insight into the underlying causes for poor fitness levels and overweight statistics described above. In addition to the nationally recognized high school YRBS; Lake Benton Schools also conducted a local YRBS for the middle school students in 2000-2001.

According to last year's YRBS, at the high school level 29.4% of the districts students describe themselves as overweight compared to 30% nationally. This number is 25% for middle school students. 23% of Lake Benton high school and 15% of middle school students report they did not engage in any strenuous physical activity in the last 7 days; this is almost equivalent to the percentage of overweight students. 75.3% of Lake Benton high school students report eating less than one serving of fruit per day. 80% of Lake Benton high school and 87.6% of middle school students report watching more than 1 hour of television on school nights and 51.7% of the district's high school and 56.9% of middle school students report using the computer "a lot of the time."

2002-2003 Lake Benton Schools Youth Risk Behavior survey (YRBS) Results

	Body Mass Index (BMI) >25 = overweight	No strenuous Activities (20 min & made you sweat) In last 7 days	Eat less than 1 Serving of fruit Per day	Watch TV More than 1Hr./day-"on School nights"	Participate in computer chat rooms/web surfing/ computer games-"A lot of the time"
High School Students	25.7%	23%	75.3%	87%	51.7%

The local data supports the national data establishing a need to address the increasing overweight youth population and its underlying causes. In response, Lake Benton Public Schools proposes the Fit and Healthy for Life program to redesign physical education with technology and the framework of the "new PE."

(b) the nature and magnitude of those gaps or weaknesses. The extent to which specific gaps or weaknesses in service, infrastructure, or opportunities have been identified and will be addressed by the proposed project, including

The district's needs assessment process included completion of the National Association for Sport and Physical Education (NASPE), *Physical Education Program Improvement and Self Study Guide*. This assessment compared Lake Benton Public School's current program to the National and Minnesota State Standards for physical education to identify gaps or weaknesses in meeting these challenging standards. The results of this district needs assessment and the applicable standards are attached as Appendix B. This analysis identifies 5 areas in need of improvement to be addressed.

1. Technology needs to be incorporated into the physical education curriculum on a regular and on-going basis.

100% of Lake Benton Public School physical education personnel responding to the NASPE survey said that technology is not utilized in the Lake Benton School PE curriculum. Minnesota State Standards expect students to use technology to assess, enhance and maintain fitness and skill. (PE.B.1.4.3) State standards also expect students to know how to maintain continuous aerobic activity and target heart rate (PE.B.1.3.1); this has been difficult with stopwatches and hand pulse taking. The polar wireless and downloadable heart rate monitors included in this proposal give students immediate feedback on aerobic activity enabling them to meet this standard, exercise safely, and allow teachers to use data to plan an individual fitness program with each student. The

TriFit health/fitness management systems, software and Internet technology at the designated wellness demonstration schools will further enable students to access health and fitness information in order to make lifelong wellness decisions.

2. Physical Fitness programs need to be individualized and personalized to meet the needs of all students. Students should self-select fitness as part of a long-term wellness plan.

55% of Lake Benton Schools physical education personnel responding to the NASPE survey said that the program was not sensitive enough to all students, did not personalize instruction to the skill, maturity or size level of students or provide for individualized improvement with personalized student feedback. Minnesota's State Standards expect students to plan and participate in an individualized fitness program (PE.B.1.3.10). The tracking of student progress with the hardware, software and teacher training in the *Fit and Healthy for Life* program will provide each student the personal feedback to plan and self-select appropriate fitness activities.

3. Assessments need to be more meaningful, accurate and used by teachers and students to guide instruction, set individualized goals and to develop long-term wellness plans.

48% of Lake Benton's physical education personnel responding to the NASPE survey felt that current assessments need improvement to provide formative evaluation information to set personal goals and to understand how these assessments can be relevant to the development of a lifelong healthy lifestyle. The Minnesota State Standards expect students to analyze the results of fitness assessments to guide changes in a personal fitness program (PE.B.1.3.11). With the training and equipment in the *Fit and Healthy for life* program, teachers will be able to credit students for how well they do in relation to their personal fitness level and how fast they run. By adopting the framework of the "new PE" and working to integrate health and physical education, this

fitness assessment data can be used by students to develop a wellness portfolio, personal goals and a long term wellness plan.

4. Curriculum needs to stress cooperation over competition.

Traditionally the physical education curriculum has emphasized team sports and competition. 63% of Lake Benton's physical education personnel responded to the NASPE survey felt it was true of the current program. The program proposed here will provide staff development and tools for teachers to integrate cooperative learning and the importance of seeking out, participating with and showing respect for people of like and different abilities (PE.B.2.2.3). This approach will take the focus off winning and redirect it towards achieving personal performance goals at which each child can succeed.

5. Applying problem solving and critical thinking within the physical education curriculum needs improvement; enabling students to understand the connection between a wellness plan and long-term health and quality of life benefits.

21% of Lake Benton's physical education personnel responding to the NASPE survey saw a need to improve the application of knowledge in math, reading, science and health to connect the benefits of regular physical activity and lifestyle decisions to a healthy quality of life. (PE.A.3.2.1). Specific lesson plans utilizing heart rate monitors and fitness testing systems are designed to integrate academic disciplines into the health and physical education curricula. Cross-curricular activities are designed for students to study the physiological effects of stress, anger and emotions. This integration and application of core academics in the physical education and health curricula supports the district's goal of highest student achievement for all students.

Lake Benton schools teaches health and Physical Education as separate and distinct courses of study. Lake Benton Schools recognizes that fully reinventing physical education in the spirit of the "new PE" will require more collaborative and cooperation between health and Physical Education to guide students in understanding the relationship between fitness, healthy eating habits, avoiding risk behaviors and making healthy lifestyle choices in a program of life-long wellness. As a result of the *Fit and Healthy for Life* program, every student at the participating schools will maintain a wellness portfolio and develop annually revised personal wellness plan with individual goals and activities.

Significance

- (a) **The likelihood that the proposed project will result in system change or improvement.**

The Lake Benton *Fit and Healthy for Life* program will establish demonstration schools that will serve as models for the rest of the district. Fit and Healthy for Life will include 3 schools, 900 students and two levels of implementation. These schools will use the training and technology purchased with grant funds to create a cooperative inclusive environment, with developmentally appropriate, and instructionally engaging activities that teach students the importance of a physically active lifestyle. More importantly the teachers at these demonstration schools will evaluate the Lake Benton physical education curriculum and instructional activities identifying elements that are most effective in improving the fitness of students. This information on "what works" will be shared with physical education teachers throughout the district at an annual Wellness Institute. Teachers at the demonstration schools will share their program results with physical education and health teachers at the other schools to assist them in redesigning their curriculum to best meet the needs of all K-12 students in the district and area. These

institutes will also include professional development opportunities for all the district's physical education teachers and strategies to obtain additional funding to expand the *Fit and Healthy for Life* demonstration program to other schools. The first Wellness Institute will be held during the summer of 2004.

The *Fit and Healthy for Life* program is further significance in that it will include 2 levels of implementation at these demonstration sites. The basic model, which is being established in 2 schools, provides tools and training to effectively assess and monitor student heart rates. These schools were selected based upon their excellent history of reporting fitness and BMI data to the district physical education supervisor and a commitment of funds for a dedicated computer and release time for training. Wireless heart rate monitors, software, and training will allow teachers and students at these sites to closely monitor physical activity, assuring that all students are working within the target heart rate range for optimal, safe physical conditioning. This fitness data will be used in conjunction with health teachers to maintain a wellness portfolio for each student. This basic level of implementation provides a relatively inexpensive model that any school can adopt to improve fitness, reduce the incidence of overweight students and maintain a wellness portfolio incorporating the development of a personal wellness plan for each student.

The advanced model will be implemented at two schools that have identified health, wellness, or athletic studies as a focus for their curriculum. In addition to the heart rate monitors, these schools will incorporate a complete health/fitness management system, which measures flexibility, blood pressure, body composition, upper body strength, and cardiovascular health. All this information is compiled with computer

software to create a complete health portfolio, with nutrition plans, for each student. These schools will also subscribe to an Internet based Wellness Library with a wealth of information on health and physical education, instruction on how to properly exercise, and Interactive Health Risk Appraisals to provide student feedback and teacher statistical reporting on topics like nutrition, drug and alcohol use and other topics. Teachers at these schools will use handheld computers to create individual performance rubrics and input fitness data in the field that can be later downloaded into the student database contributing to the wellness and fitness portfolio for each student. The schools will also partner with the local hospitals and health care providers to include blood tests, and health screenings in their wellness portfolio and wellness plans and encourage life-long healthy lifestyles. This advanced level of implementation provides a comprehensive model for monitoring the complete fitness and wellness of participating students over their entire K-12 educational experience. This provides a unique opportunity to study the effects of new adaptations to the physical education curriculum and promotion of healthy lifestyle choices over a child's development.

(b) The extent to which the proposed project involves the development of demonstration of promising new strategies that build on, or are alternatives to, existing strategies.

Current physical education curriculum and instructional strategies often focus on team sports, competition and stress speed and ability. Traditional physical education programs meet the needs of only the most talented 25 to 30 percent of students. The *Fit and Healthy for Life* program will emphasize individual fitness gains and well being over athleticism. Activities and strategies will focus on the concepts of low-visibility and non-elimination. Low-visibility in the sense that every student is involved in developmentally appropriate fitness activities. No one student is singled out, for lack of skill or talent,

ending long lingering bad memories of being ridiculed by teachers or fellow student for being to slow or clumsy or being the last chosen for a team. Non-elimination means that no one is excluded or standing by watching. Waiting your turn to shoot baskets or run an obstacle course leaves too much idle tome during physical education class and students do not receive the recommended 30-45 minutes of physical activity. By providing individual fitness activities, like aerobic dance, tennis and a 12 minute run/walk, and the ability for each student to immediately monitor their own performance with heart rate monitors, every student participates at his or her safe and appropriate level of activity. There is no need to subscribe to “the no pain-no gain” philosophy to get an effective workout. Exercise becomes more enjoyable and increases the likelihood for regular exercise throughout life.

The Fit and Healthy Life program includes the training and tools to integrate the following strategies to create an environment of low-visibility and non-elimination:

- Integration of fitness into an individual plan for health and wellness
- Data driven instruction and authentic assessment of individual performance
- Safety in assessing and addressing cardiovascular fitness
- Instead feedback to modify performance
- Demonstrating the enjoyable aspects of physical activity and personal success instead of embarrassment and exclusion
- Stressing cooperation and inclusion through physical activity
- Integration of math and science into PE curriculum

c) The importance or magnitude of the results or outcomes to be attained by the proposed project, especially improvements in teaching and learning.

The problems associated with overweight and obesity and the associated long-term health risks and disease costs are directly addressed with the *Fit and Healthy for Life* program. The technology and training proposed allows teachers to develop activities that provide safe and effective levels of physical activity for each student based on their developmental, fitness and skill level. An environment of low-visibility and non-elimination allows for regular physical activity with optimal cardiovascular conditioning. Health teachers will receive professional development and supplementary curriculum materials focused on nutrition education and healthy eating habits. With coordinated health information regarding proper nutrition and reduction of risk behavior each student will maintain a wellness portfolio to set individual wellness goals addressing the student related objectives of the *Fit and Healthy for Life* program. These improvements in teaching offer students the opportunity to truly learn about the benefits and enjoyment of a lifelong healthy lifestyle.

Anticipated outcomes will reduce the percentage of overweight and obese students ($BMI \geq 25$) at participating schools and maintain or improve the physical fitness of students as measured by a decrease in resting heart rate and improved passing rates on standardized fitness assessments by 25%. Additionally, students will report increases in physical activities, healthy eating habits and decreases in sedentary activities on the district's annual Youth Risk Behavior Surveys for elementary, middle and high school students.

These outcomes are expected for the 900+ students at participating schools. The real magnitude of these effects will be realized for far greater numbers of students over time, as teachers in these demonstration schools share with teachers at other district schools through the annual Wellness Institutes. The knowledge of "what works" and how to monitor student fitness and promote healthy lifestyles in an environment of low-visibility and non-elimination can lead to more engaging and effective physical fitness activities for students throughout Southwest Minnesota and the school district.

Quality of the project design

- (a) **The extent to which the proposed activities constitute a coherent, sustained program of training in the field.**

Fit and Healthy for Life is a comprehensive program designed to align physical education and health education into balanced program of wellness of all students. The specific program activities and new equipment discussed here are part of this coordinated effort to redefine the physical education curriculum in the spirit of the "new PE". The purchase of classroom sets of heart rate monitors and its accompanying computer software at the schools provides teachers a new tool to safely and accurately monitor student fitness and guide instruction. The two health and wellness demonstration schools will extend these capabilities with a complete health/fitness management system, handheld computers for data collection in the field and Internet wellness resources.

A lead physical education teacher at each participating school has been identified and the school principal has signed an agreement to provide a Windows operating system personal computer to interface with the heart rate monitors and release time for this teacher to receive training. Training will also be provided to the staff at the 2 wellness demonstration schools. All the districts physical education teachers will be trained

Representatives from Polar/Health First, the vendor that markets the heart rate monitors and health management systems, will provide these lead teachers with Functional Training in the proper use and care of this technology as well as Curriculum Integration of these technologies. Training will last 2 days at the basic implementation level sites to 4 days at the advanced implementation sites. These lead teachers will then return to each individual school to share this information and train the remaining physical education staff at each site. Health education teachers at the participating schools will receive professional development in Nutrition Education and the "Team Nutrition" curriculum materials to instruct students on the importance of proper diet. In addition to the purchase of this fitness assessment equipment and training, curriculum resources and lesson plans for effective use of the new technology will be purchased with grant funds. Physical and health education teachers at participating schools will also attend State or National physical education conferences to receive continued professional development for best practices in physical and health education.

Heart rate monitors are highly effective new tools to guide the redesign of physical education curriculum focusing on individual success for each student. In redefining the P.E. education curriculum focusing on individual success for each student. In redefining the P.E. curriculum in the spirit of the "new P.E." the focus shifts from competition, team sports and physical ability to cooperation, inclusion, and meeting individual fitness goals during self selected activities. Schools will receive sets of 34 monitors, that allows for data to be stored and downloaded into a computer database with the ability to print charts of heart rate data during exercise. Part of the program's plan to individualize instruction is the creation of a wellness portfolio for each student. This

allows each student to showcase fitness data, track individual progress and develop a comprehensive wellness plan with individual goals.

Lake Benton Public Schools has embraced the Malcolm Baldrige National Quality Program criteria and the use of an integrated management system to create systems that align resources to enable each student to succeed at their highest level. A critical part of this process is the Classroom Learning System (CLS) that teaches students to collect and analyze personal achievement data to guide the setting of personal achievement goals. All teachers in the Lake Benton Public Schools have received training in the Classroom Learning System (CLS) that teaches students to collect and analyze personal achievement data to guide the setting of personal achievement goals. All teachers in Lake Benton Public Schools have received training in the Classroom Learning System and introducing a wellness portfolio to collect health and fitness data to physical education program aligns well with the Classroom Learning System and the district's three strategic directions: highest student achievement, a safe learning environment, and effective and efficient operations. The Wellness portfolio will be a coordinated effort between physical and health education teachers. Monthly printouts showing the student's heart rate during exercise, resting heart rate, time in the target heart rate zone and recovery time will be included in the portfolio. Additional health information regarding nutrition, disease prevention and risk behavior avoidance will be included in the portfolio. District health and physical education staff will develop a simple template that teachers can use with their students to gather personal health habits and transform this information into an individual wellness plan for each student. These

wellness plans will adopt Classroom Learning System processes including setting personal goals based upon the information and data contained in each student's portfolio.

The Lake Benton Public Schools has followed the Youth Risk Behavior Surveys developed by the State of Minnesota for Elementary and Middle School students in addition to the national survey for high school students. This data will be collected annually and the SDSU College of Public Health will be contracted to evaluate the *Fit and Healthy for Life*. The Health Education Supervisor will also develop a personal wellness plan template modeled after the YRBS. This wellness plan template will allow health teachers to guide students through nutrition and risk behavior related questions. Students will use their individual responses to guide the development of their individual wellness plans and personal goals.

The County Health Department has agreed to partner with the participating Lincoln and Lyon County Schools in the *Fit and Healthy for Life*. The health department will conduct two annual wellness fairs for students and parents. One fair will be held in the northern and another in the southern part of the counties where students and their families are invited to receive health screening, and information on healthy lifestyle choices, disease prevention and lifelong wellness. The County health Department has also recently launched a Chronic Disease Prevention Project and has agreed to provide educational outreach to each participating school with presentations explaining the connection between obesity, hygiene, poor diet and risk behaviors in chronic diseases.

The three wellness magnet or focus schools will expand the student wellness portfolio to an online database that can be accessed via the Internet. The health and wellness information in these students' portfolios will include medical information

regarding blood pressure, flexibility, muscle strength and the results of health screenings conducted by community medical partners. Tyler Medical Center will work with these schools to conduct on campus health screenings, including blood tests, for a more comprehensive wellness profile.

Ongoing professional development will include collaboration and reflection between district physical education and health teachers at an annual Wellness Institute. At the initial institute, held during the summer of 2004, physical and health education teachers from participating schools will share best practices, successful instructional activities, and receive ongoing training in the use of the Polar Heart Rate monitors and TriFit Health Management systems. The Wellness Institute will reinforce the nine standards of the National Association for Sport and Physical Education (NASPE) for beginning physical education teachers: content knowledge, growth and development, diverse learners, management and motivation, communication, planning and instruction, learner assessment, reflection and collaboration.

The ongoing training and strategies to balance physical fitness and health education into a coordinated wellness program is carefully aligned to the goals and objectives of the *Fit and Healthy for Life* program and the framework of the "new P.E.". This quality physical education program, taught by well-trained physical and health education teachers will help promote the improved health of Lincoln County children and, ultimately, adults.

(b) The extent to which the design of the proposed project reflects up-to-date knowledge from research and effective practice.

The Lake Benton Schools' *Fit and Healthy for Life* program is based upon the sound framework of a physically educated person established by the National Association

for Sports and Physical Education (Moving into the Future: National Standards for Physical Education, A Guide to Content and Assessment, NASPE, 1995). Many elements of *Fit and Healthy for Life*, specifically program objectives, guidelines to use appropriate equipment for safe participation and curricula and instructional recommendations are from the Centers for Disease Control and Prevention report, Guidelines for School and Community Programs to Promote Lifelong Physical Activity Among Youth (MMWR, March 1997; 46 (No. RR-6). Beyond that, *Fit and Healthy for Life* has embraced the broad concept of the “new P.E.” and the integration of health and physical education into a comprehensive program for lifelong wellness. The National Association of State Boards of Education’s report *Fit, Healthy, and Ready to Learn: A School Healthy Policy Guide part i. Physical Activity, Healthy Eating, and Tobacco-Use Prevention* (Bogden, J. 2000) provides direction on establishing an overall policy framework for school health programs and specific policies on physical activity, healthy eating; and tobacco use prevention and was used to guide development of the activities described above. *The Fit and Healthy for Life* program provides the tools and training for teachers to implement these recommendations for designing a physical education program that teaches the importance of a lifelong physical active, healthy lifestyle.

Fit and Healthy for Life stresses health education and risk behavior avoidance along with an engaging, developmentally appropriate, inclusive and instructionally powerful program “designed to teach students about the importance of leading physically active lives”. (Lambert, L. Educational Leadership, March 2000).

Many of the activities included in *Fit and Healthy for Life* are supported in educational and medical literature. Exercise combined with behavior modification is

effective for reducing body fat composition in pediatric obesity (LaMura, L. & Maziekas, M., *Medicine & Science in Sports and Exercise*, 2002). The use of heart rate monitors has been shown to be very effective in motivating students to increase physical activity and physical educators have developed a practical guide for effectively using this technology in the physical education classroom (Swaim, D. & Edwards, S. *Middle School Healthy Hearts in the Zone*, 2002). This resource will be purchased for each participating school.

The Wellness portfolio is an important element in the *Fit and Healthy for Life* program. The development of a wellness plan that includes nutrition education and teaching skills to plan healthy meals, assess healthy habits, set goals for improvement, and resist social pressures to make unhealthy eating choices are recommendations from the Centers for Disease Control, *Guidelines for School Health Programs, Promoting Lifelong Healthy Eating* (May, 2002, [Http://www.cdc.gov/nccdphp/dash/guidelines/nutraag.htm](http://www.cdc.gov/nccdphp/dash/guidelines/nutraag.htm)). In total, the *Fit and Healthy for Life* program was developed with the consideration of current research and effective practices.

© The extent to which the goals, objectives, and outcomes to be achieved by the proposed project are clearly specified and measurable.

The goal of the *Fit and Healthy for Life* program is to improve physical fitness and promote individual programs of lifelong wellness for students of all abilities in Lincoln County. This goal will lead to reducing the incidence of overweight and obese children and adults leading to fewer health problems later in life. To accomplish this goal, physical education and health teachers will work together to coordinate the design and delivery of a healthier more balanced physical education program. Lake Benton

Public Schools has developed the following objectives designed to achieve this goal and meet previously described needs.

Objective 1: Reduce the percentage of overweight and obese students (BMI>25) from baseline data.

Objective 2: Maintain or improve the physical fitness of students as measured by a decrease in resting heart rate and a 25% increase in passing score in standardized fitness assessments.

Objective 3: Youth Risk Behavior Survey Data will show increases in student fitness activities, healthy eating habits and decrease in sedentary activities, 10% improvement in each area.

Objective 4: 80% of teachers will use technology and authentic assessments to individually assess students' fitness and design developmentally appropriate activities for each student. Regular data collection and target heart rate charts, included in each student's wellness portfolio, will be used to measure the teacher's appropriate use of these new technologies.

These goals and objectives are directly related to the specific needs of the students in Lincoln County and weakness identified in meeting the Minnesota State Standards for physical and health education.

The extent to which the design of the proposed project is appropriate to, and will successfully address, the needs of the target population or other identified needs.

The 2002-2003 Lake Benton Public Schools district physical education program needs assessment identified needs in two distinct categories; student needs and gaps in meeting challenging state physical education standards. The *Fit and Healthy for Life*

program is specifically designed to address these needs and to bring a healthier more balanced approach that integrates health and physical education instruction in the spirit of the "new P.E."

Utilizing heart rate monitors and the fitness management system proposed here gives teachers and students specific tools to address the poor fitness levels and growing population of overweight, obese and sedentary students in Lincoln County. The immediate feedback provided to students wearing heart rate monitors during physical education class ensures that each student is working in his or her target heart rate zone to provide the maximum benefits of physical activity. These tools to measure individual success and opportunities to self-select fitness activities encourages cooperation over competition, individual success over speed and natural ability, and demonstrates the opportunities for enjoyment, and social interaction of regular physical activity. By eliminating the stigma of poor athletic performance and stressing individual progress and cooperation, students will be encouraged to be more physically active and less sedentary in their daily lives. According to the U.S. Surgeon General, regular physical activity is one of the most important things people can do to maintain and improve their physical health, mental health, and overall well-being. To stress a more balanced approach between physical education and health education, and overall well-being. To stress a more balanced approach between physical education and health education, health teachers will receive "Team Nutrition" curriculum kits and training to enhance instruction regarding diet and nutrition. Student Wellness Portfolios will include this fitness data and will stress proper nutrition, and risk behavior avoidance in adopting an overall healthy lifestyle. These activities are specifically designed to address the

identified needs of improving the poor fitness levels and reducing the numbers of overweight and obese students in the Lake Benton Public Schools.

The district needs assessment also identified gaps in the current physical education curriculum for meeting Minnesota's State Standards for Physical Education. Specifically, the current program did not integrate technology, needs to be more individualized, needs to allow students to analyze fitness assessments to guide personal fitness choices, and stress cooperation over competition to show the importance of seeking out, participating with, and showing respect for people of like and different abilities. The *Fit and Healthy for Life* program will provide the technology and training for physical education teachers to provide immediate and accurate feedback to each student via heart monitoring and fitness assessment. Student Wellness Portfolios put focus on the individual performance, healthy lifestyle choices and cooperation among classmates. Students can cheer for each individual's success rather than embarrassing and ostracizing overweight and less talented athletes. *Fit and Healthy for Life* clearly focuses on the specific gaps the current program must address to meet the demands of Minnesota's State Standards for physical education and health.

Quality of project evaluation

(a) The extent to which the methods of evaluation are thorough, feasible, and appropriate to the goals, objectives, and outcomes of the proposed project.

The *Fit and Healthy for Life* will be evaluated to determine the extent of program implementation and program effectiveness. Lake Benton public Schools' staff will work in collaboration with evaluation specialists from the School District, as well as independent evaluator, to implement the evaluation and report on results. The Evaluation

Plan features three complementary evaluation strategies: formative, summative and longitudinal.

1. Formative: Formative evaluation efforts are generally process oriented and focus on internal program issues. Formative data are used to provide information regarding the operation of the program in relation to the grant proposal. Questions addressed include:

- Have all project equipment and materials been purchased?
- Has appropriate staff development been held?
- Has the summer Wellness Institute been scheduled?
- Has baseline data been collected on student fitness and Body Mass Index?
- Have student wellness portfolio's been initiated?

2. Summative: Summative information captures the outcome related information associated with attainment of project objectives at the end of the service cycle.

Summative information is of use to internal project management and can also be used for public reporting of project success. Student weight, height, Body Mass Index, fitness test results, student heart rate charts, and Youth Risk Behavior results are the types of data that will be collected for the summative aspect of the evaluation.

Summative data can be used to give a measure of project effectiveness over the course of service delivery through a comparative analysis of intended and observed results. Questions addressed are:

- Has the percentage of students with BMI>25 been reduced?
- Did student resting heart rate, appropriate for age, decrease, indicating improved fitness?

- Has the percentage of students scoring above the 50th percentile on fitness assessments increased by 25%?
- Are teachers utilizing the new technology as evidenced by monthly printouts of student heart rate during exercise being placed in each student's wellness portfolio?

3. Longitudinal: Longitudinal evaluation efforts focus on the long-term effects of the project. The use of a longitudinal evaluation approach is consistent with sound quantitative methodology, which requires more than two data points to interpret student progress in the context of a program. The Health First software maintains a student database with records of resting heart rate, time in target heart rate zone and other fitness and health data. Student responses to the Youth Risk Behavior Survey, including BMI, will be maintained in a standard database. These databases can be compared over several school years to track the long-term effects on individual students. Questions addressed:

- DO students continue to show improved fitness over time?
- Have students attitudes and behaviors changed as a result of the program?

This evaluation approach creates a cycle of feedback to federal, state, local and program management. It also quantifies program impact, which will be used for public reporting accountability.

(b) The extent to which the methods of evaluation include the use of objective performance measures that are clearly related to the intended outcomes of the project and will produce quantitative and qualitative data to the extent possible.

The project evaluation will utilize fitness data collected by each school's physical education teacher, and the annual Youth Risk Behavior Surveys conducted by the health education teacher. The Evaluation Matrix on the following page aligns each measure

with specific program objectives and identifies the time and person responsible for each measurement.

Fit and Healthy for Life Evaluation Matrix

Project objectives	Measures	Timelines	Person Responsible
Objective 1: Reduce the percentage of overweight and obese students	Percentage of students with body Mass Index BMI>25	August, January and May BMI measurements	Physical Education teacher, Coordinated school health services, nurses
Objective 2: Maintain or improve physical fitness of students	Student resting heart rate declines Physical Fitness tests results show 25% increase in students scoring at the 50 th percentile	Monthly printout of student heart rate during exercise for each students wellness portfolio August, January and May fitness assessments	Physical Education teacher District supervisor of Physical Education
Objective 3: Youth Risk Behavior Survey Data will show increases in student fitness activities, improved eating habits and decreased in sedentary activities.	10% increase in students reporting engaging in strenuous activity 10% increase in reports of healthy nutrition habits. 10% decrease in sedentary activities like watching TV and computer use.	Annual Youth Risk Behavior Survey Personal Wellness Plan with individual goals for all students	Health teacher District Supervisor of Health Education
Objective 4: 80% of teachers will use technology and authentic assessments	Timely reporting of data to supervisor Heart rate charts printed and placed in student wellness portfolio	August, January and May fitness assessments Monthly printouts of student heart rate during exercise for each students wellness portfolio	Physical Education teacher District Supervisor of Physical Education

© **The extent to which the methods of evaluation will provide performance feedback and permit periodic assessment of progress toward achieving intended goals**

The focus of the *Fit and Healthy for Life* program is on changing the individual behavior of students resulting in increased fitness and healthy lifestyle choices. The preceding Evaluation Matrix identifies the periodic assessments that will be used to guide program progress and the timetable for these events. The individual wellness portfolios and monthly printouts of student heart rate during exercise provide the teacher and student information to make regular adjustments to each student's personal wellness/fitness plan and activities. The nature of the heart rate monitor technology is to provide immediate feedback to students as they participate in fitness activities. By wearing a monitor students can instantly adjust the intensity of their exercise program to gain maximum aerobic benefits leading to enhanced fitness, weight reduction, and personal success without competition. This approach will foster an appreciation for the benefits of regular physical activity and lifestyle decisions leading to a healthy quality of life.

The National Association of Sport and Physical Education (NASPE), Physical Education Program Improvement and Self Study Guide will be re-administered at the end of the year to evaluate *Fit and Healthy for Life's* effect of the Lake Benton Public Schools' physical education and health program's meeting the challenging Minnesota State and National Standards for physical and health education.

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Appendix D

Lake Benton Public Schools – Fit and Healthy for Life

Project Partners

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Tyler Medical Center

100 Danabod Street
Tyler, MN 56178

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Lincoln/Lyon County Health Services

100 Denoadte Street
Marshall, MN 56188

Providing Public Health for Two Minnesota Counties

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