

## MEMORANDUM

**To:** Arlington School Board  
**From:** Health and Physical Education Advisory Committee  
**Date:** February 23, 2011  
**Subject:** Recommending Year Report, 2010-2011

### Introduction

The Health and Physical Education Advisory Committee (HPEAC) first met in October 2009 to commence with the biannual process of identifying and making HPE curriculum recommendations to the Advisory Committee on Instruction (ACI). We continued to meet throughout the 2010-2011 school year to work towards our goals and objectives as described in our initial status report dated April 28, 2010.

This report summarizes our work and findings to date, and includes our current recommendations for changes to the HPE curriculum. However, we also believe these recommendations form the basis for follow-on work – and future recommendations – over the coming two years.

The HPEAC members for the 2010-2011 year included the following:

- Edmund Pendleton – Chairman
- Debbie DeFranco – APS Supervisor
- Claire Cifaloglio
- Faith Claman
- Karen Duncan
- Lynn Durbin
- Sarah Hynes (2010 only – graduated from HB Woodlawn HS)

Over the next several months, we will focus on recruiting new members for the committee. The recruiting process slowed in the past several months due to our focus on preparing this report, but we expect to make this our top priority in preparation for next year.

## **1.0 Summary of Work for 2009-2010 – The Non-reporting Year**

Last year, the HPEAC identified and explored several topical areas of interest. As part of this vetting process, the committee met with several groups – both within and outside of APS – to gather additional information from other community resources. After considerable discussion and debate, the committee narrowed its choices to the two following focus areas for 2010-2011.

### **1.1 *Physical Education and Lifetime Fitness in 11<sup>th</sup> and 12<sup>th</sup> Grade***

This was a follow-up to the previous recommendation by the HPEAC in the prior year. We believed this topical area was particularly worthwhile and deserved further exploration. We cited several motivating reasons behind our interest in this topic, including:

- Academic performance – recognizing the positive correlation between higher academic performance and physical activity.
- Obesity epidemic – noting that 11<sup>th</sup> and 12<sup>th</sup> grade years are critical in forming long-term, healthy lifestyles.
- Underage Drinking – identifying the need to continue, and enhance, the educational efforts to make 11<sup>th</sup> and 12<sup>th</sup> graders fully aware of the dangers of drug and alcohol use.

### **1.2. *Alcohol and Other Drug (AOD) Use Prevention***

The HPEAC also chose to review and strengthen APS curriculum related to alcohol and other drug (AOD) use prevention. The decision to focus on AOD issues was motivated by several key factors:

- Far too many youth use alcohol in dangerous ways. This has been identified in every Youth Risk Behavior Survey<sup>1</sup> in Arlington.
- Current and emerging research that emphasizes the significant deleterious effects of AOD on developing brains.
- The momentum of other community organizations related to AOD, such as the Arlington Partnership for Children, Youth, and Families.

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<sup>1</sup> 2008 Report Card on the Status of Children, Youth, and Families ~ Arlington VA, page 7; Arlington Partnership for Children, Youth, and Families.

## **2.0 Summary of Work for 2010-2011 – The Reporting Year**

With the topical areas of interest chosen in the spring of 2009, the HPEAC spent the summer and fall of 2010 gathering and analyzing data, while evaluating options for specific recommendations. This section summarizes the activities and findings that led to our recommendations (found in Section 3.0).

### ***2.1 Physical Education and Lifetime Fitness in 11<sup>th</sup> and 12<sup>th</sup> Grade***

In response to a prior HPEAC recommendation, we heard from staff that most students were simply too busy to participate in the currently offered HPE 11<sup>th</sup>/12<sup>th</sup> grade elective. However, we wanted to be more empirical – and less anecdotal – in determining the true underlying reasons why this elective has a very low participation rate (about 10% of students take the course).

With these goals in mind, we set out to accomplish three main objectives:

1. Evaluate the current elective curriculum and compare it to other local school jurisdictions.
2. Better identify the obstacles currently preventing students from participating in this curriculum.
3. Investigate alternative programs that: (a) are flexible and appealing, (b) incorporate activities that will interest students in upper high school grades, and (c) establish physical activity as a life-long, integral part of daily life.

#### **Step 1: Questionnaire to Neighboring School Jurisdictions**

As a first step, we sent out a questionnaire to six neighboring school jurisdictions to better understand how APS compared. Specifically, we wanted to determine if any these jurisdictions required HPE in 11<sup>th</sup>/12<sup>th</sup> grades, what comprised their 11<sup>th</sup>/12<sup>th</sup> HPE curriculum (regardless if required or elective course), and what the participation rates were for 11<sup>th</sup>/12<sup>th</sup> HPE when offered as an elective.

Sample Size: We sent the questionnaire, and received responses, from six jurisdictions, including: Fairfax, Alexandria, Prince William County, Manassas Park H.S., Osborne Park – Manassas City, and Loudoun County.

Summary Findings: None of the jurisdictions required 11<sup>th</sup>/12<sup>th</sup> grade HPE. However, all of them offered it as an elective. So this finding was consistent with APS practice.

In terms of curriculum, several jurisdictions offered slightly different activities than APS – but due to differences in school sizes and facilities, it was difficult to determine a consistent theme. However, we plan to take a closer look at some of these programs as we look for potential curriculum changes to attract more students.

Finally, the reported “participation rate” was also low (typically 10% or lower) for these elective HPE classes. Once again, this is consistent with APS data. So while we may want to surpass our peers in this regard, it is also clear that we are not lagging behind them in any substantial way.

In conclusion, we will need to look more broadly for a “best practices” model as we look to increase participation rates in our 11<sup>th</sup>/12<sup>th</sup> grade HPE elective. This could be a task for next year (see recommendations).

## **Step 2: Review “Shape of Nation” Report**

Over the summer, the National Association for Sport and Physical Education (NASPE) and the American Heart Association (AHA) released their joint “*Shape of the Nation Report*.” Conducted every five years, the *Shape of the Nation Report* seeks “to track our success, as a nation, in physically educating children to help ensure that physical activity is an important part of a healthy lifestyle.”

While the sponsors of the Shape of the Nation report admittedly have reasons to promote HPE in general, the report did include several interesting findings that support our effort to increase 11<sup>th</sup>/12<sup>th</sup> grade HPE participation.

The following list summarize some of the more relevant recommendations by NASPE and AHA pertaining to high school students<sup>2</sup>:

- Schools provide 225 minutes per week (45 minutes per day) of instructional physical education for middle and high school students for the entire school year. (Currently, only Alabama aligns with these nationally recommended guidelines at all levels).
- Quality physical education is provided to all students as an integral part of K-12 education. (Today, only Illinois, Iowa, Massachusetts, New Mexico and Vermont require physical education in *every* grade level).
- Successfully meeting minimum standards in physical education become a requirement for high school graduation.

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<sup>2</sup> 2010 Shape of the Nation Report, Status of Physical Education in the USA, National Association for Sport and Physical Education and the American Heart Association, page 10.

Taken at face value, the Shape of the Nation Report makes a compelling case for mandatory PE instruction at all grade levels. In addition to highlighting the motivating reasons for this recommendation, the report also suggests standards for instruction and assessment of satisfactory curriculum completion. The report may be downloaded in full at: [www.naspeinfo.org/shapeofthenation](http://www.naspeinfo.org/shapeofthenation).

### **Step 3: HPE Questionnaire for APS 10<sup>th</sup> Grade Students**

Finally, we wanted to get a true sense for what current students thought about HPE in 11<sup>th</sup>/12<sup>th</sup> grade. Rather than relying on “conventional wisdom” or “common knowledge”, we decided to ask the students directly. Specifically, we wanted to determine the real drivers behind the lack of participation in the 11<sup>th</sup>/12<sup>th</sup> grade elective, and whether a curriculum change might entice them to participate.

(Note: We determined in this process that we simply did *not* have enough time this year to determine precisely what curriculum offerings would be most popular. Rather, we wanted to find out if “any” such change might interest them.)

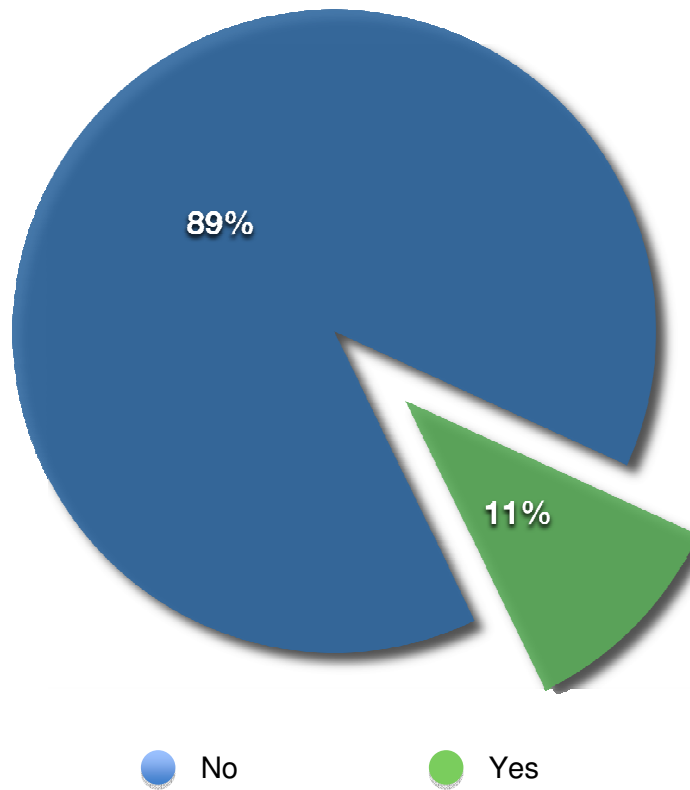
Approach: The HPEAC, in cooperation with APS staff, prepared a brief questionnaire (attached as Appendix A) for current 10<sup>th</sup> graders. Due to the timing of the questionnaire – and the logistics of distributing it and collecting responses – we decided to limit the survey to current 10<sup>th</sup> graders. This allowed students to complete the questions during their current HPE class.

Sample Size and Statistical Significance: Based on APS staff recommendations, the questionnaire went out to 300 students. This sample size gave us a confidence level of 95% with a margin of error of 5%. Or put in “plain English”, this means that we could be 95% confident that if we spoke to every 10<sup>th</sup> grader, our results would be accurate within +/- 5%. This is the typical standard used by APS for other questionnaires and surveys.

Findings: The responses to the questions are summarized in the following charts. To date, we have received about 188 completed responses. This falls slightly short of our 95% confidence level with a margin of error of 5%. However, the results do represent a 95% confidence level with a margin of error of 7%. In summary, we feel reasonably confident that we have statistically significant results. (See charts for actual results.)

The first question we asked was whether the student planned to take the HPE elective in 11<sup>th</sup> grade. The results were overwhelming in favor of “No” (89%). This corresponds to the historical data that show about 10-12% of students – on average – participating in the elective.

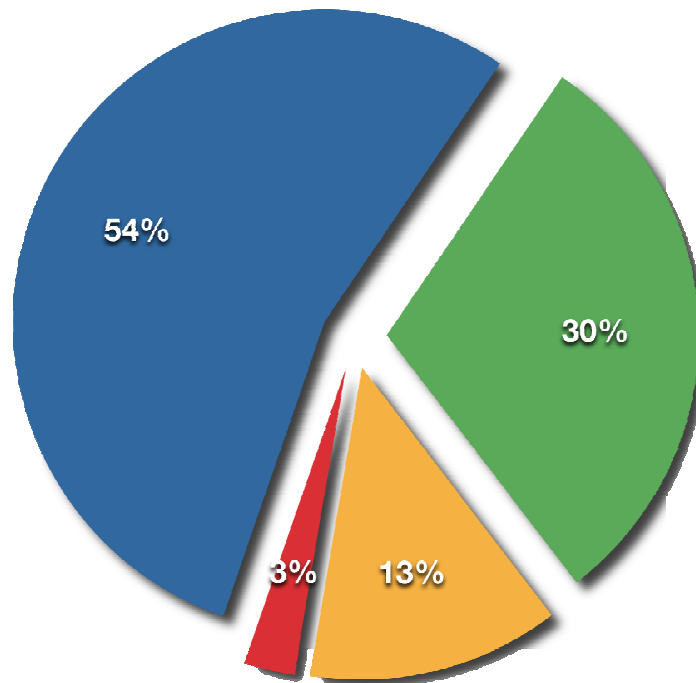
**Do you plan to take HPE in 11<sup>th</sup> grade?**



The second question was intended to determine the primary reason that a student answered “No” (i.e., will choose not to take the HPE elective). The question required the respondent to “choose only one” answer that *best* represented his or her viewpoint. As conventional wisdom predicted, the majority of respondents (54%) indicated that they “had no time due to academic requirements.” However, a significant portion (30%) indicated that they were not enrolling in the elective because the “curriculum was not interesting.”

The other two options for answers received much smaller percentages, with “do not like to sweat and shower” garnering 13% and “uncomfortable in mixed gender classes” with 3%. So while the HPEAC initially thought these might be important deterrents to the HPE elective, students did not weigh these heavily.

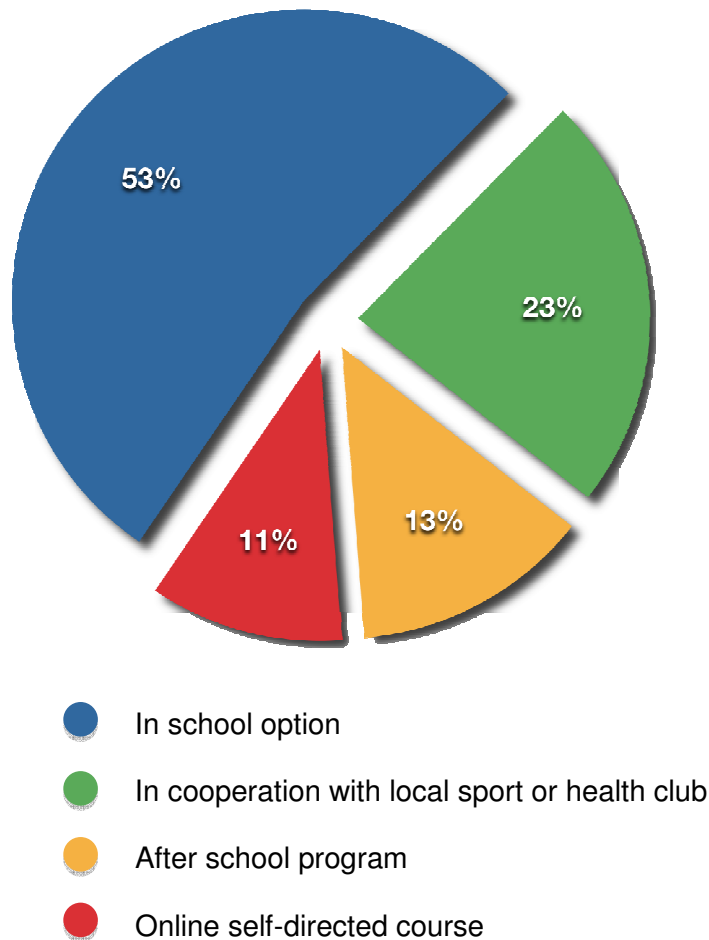
**If “no”, primary reason why...**



- No time due to academic requirements
- Curriculum not interesting
- Do not like to sweat and shower at school
- Uncomfortable in mixed gender settings

The third question was intended to determine *if a curriculum change were made*, what format would best meet the students' needs. Again, the respondent was given a list of possible answers and instructed to pick the one that best represented his or her perspective. The majority of students (53%) indicated a preference for an "in school option." The second most popular choice (23%) was an activity "in cooperation with a local sport or health club." The other two options, "an after school program" and an "online self-directed course", received modest support at 13% and 11% respectively.

**If a change to the curriculum were made, what time or format best suits your needs?**





In summary, we feel confident in drawing the following conclusions from our survey of current 10<sup>th</sup> grade students:

- Assuming no curriculum changes, the vast majority will continue to opt-out of the elective, with participation rates in the 10% range most likely.
- Clearly the perception that academic requirements are “crowding out” time for HPE is very real. Any effort to increase participation in an elective will have to address this issue.
- A change in curriculum to the 11<sup>th</sup>/12<sup>th</sup> grade HPE has the potential of significantly increasing participation rates – even with the limitation imposed by academic requirements.
- Given a choice, students would clearly prefer an “in school” option for any HPE curriculum changes. However, if a program could be offered through local sports and health clubs – which could minimize staffing and facility cost for APS – then a significant portion of students (about a quarter) may take advantage of the opportunity.

## **2.2 Alcohol and Other Drug Use Prevention**

In addition to our work on 11<sup>th</sup>/12<sup>th</sup> grade HPE, the HPEAC also spent time discussing and reviewing two alcohol and other drug (AOD) use programs currently in use by APS: (1) “Too Smart to Start” – used for elementary school students, and (2) “Too Good for Drugs” – used for middle and high school students. Both programs are intended to reduce risk factors and enhance protective factors related to alcohol, tobacco, and other drug use.

Active parental involvement is critical to the effectiveness of any program hoping to prevent AOD use in children. However, we noticed several findings that run counter to this goal. Specific examples included:

- Consistent low attendance at “Too Smart to Start” *Family Events* – and varying degrees of effectiveness in presenting the material – at many elementary schools across the county.
- With few exceptions, recent parent-focused and countywide programs – on topics such as the teen brain and substance abuse – have had very low/disappointing turnouts.
- Well-documented experience shows a significant decline in parental involvement between the elementary and secondary school years (specifically between elementary and middle school).

We recognized that to be most effective, an AOD use prevention program *must* involve parents. If parents do not support the curriculum – or are not aware of recent statistics regarding youth AOD use – then APS would not be able to engage students effectively through curriculum alone.

Furthermore, our research (and experience as parents) indicated that we were not effectively “spreading the word” about the negative impact alcohol has on teenage brain development. This rapidly growing field of study continues to generate empirical results that show the deleterious effect alcohol has on brain development *well* into a person’s mid-20s – not just in the teenage years<sup>3</sup>.

However, many parents appear largely unaware of these “relatively” new findings. In fact, anecdotal evidence – and casual conversations with friends – will likely uncover many parents that still believe in the “European method” of allowing teens to gradually be introduced to alcohol, despite mounting evidence that disputes this approach.

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<sup>3</sup> “Scientists try to assess impact of binge drinking on the brains of teens”, by Laura Hambleton, Washington Post, December 6, 2010.

Finally, the HPEAC also wanted to leverage and build upon the work of other Arlington-based organizations, so we researched and reviewed their programs. We have several committee members with direct experience or contacts with the Arlington Partnership for Children, Youth, and Families (Ready Coalition, Teen Network) and the Partnership for a Healthier Arlington.

As a result of our research into AOD prevention, the HPEAC decided that our recommendations should specifically focus on answering two related questions:

1. *How could we engage parents better?*
2. *How could we better spread the word about the most recent research on the effects of AOD use on brain development?*

### 3.0 Recommendations for 2010-2011

Based on our work over the past two years (detailed in the preceding sections of this report), the HPEAC makes the following recommendations on HPE curriculum for 2010-2011.

**Recommendation #1:** Identify alternative HPE offerings for 11<sup>th</sup>/12<sup>th</sup> grade that will appeal to a broader audience of students, with the primary objective of increasing participation rates in the current elective. The HPEAC realizes this could be an extended effort, and would like to help in shaping changes to the curriculum over the coming year. Part of this effort would also explore how to “best fit” the elective into the busy academic schedules of our students.

**Rationale:** Our survey of current APS high school students found that a curriculum change could potentially lead to a significant increase in participation in the 11<sup>th</sup>/12<sup>th</sup> grade HPE elective (Section 2.1).

**Budgetary Implication:** \$1,040

We estimate that APS staff would spend about 40 teacher hours (4 teachers at 10 hours each), with a cost of \$26/hour, researching various curriculum options. The HPEAC would also contribute significant time to this effort, at no cost to APS.

**Committee Vote:** 5-0

**Recommendation #2:** Continue to update all HPE curriculum (elementary through high school) to reflect the current “state of knowledge” regarding the negative effects of drug and alcohol use on the brain development of adolescents and teenagers – with the goal of making primary and secondary school curricula consistent and equally up-to-date (e.g., APS staff recently updated the “Too Smart Too Start” curriculum for primary school students).

**Rationale:** The current state of knowledge in this field is growing rapidly, and the APS curriculum needs to reflect it – from primary through secondary school. Currently, we feel the secondary curriculum (in particular) needs an update.

**Budgetary Implication:** \$2,600

We estimate this effort would take about 100 teacher hours (10 teachers, 10 hours each) to complete at a cost of \$26/hour.

**Committee Vote:** 5-0

**Recommendation #3:** Incorporate homework assignments into the HPE curriculum – specifically at the secondary level – that *require* discussion between students and parents. The goal should be to promote dialog between students and parents, and to engage parents more directly in the HPE curriculum – not create “busy work”.

**Rationale:** Parental involvement often drops off significantly in the middle school and high school years. However, parental involvement is critical to any successful AOD prevention program.

**Budgetary Implication:** \$2,600

We estimate this effort would also take about 100 teacher hours (10 teachers, 10 hours each) to complete at a cost of \$26/hour.

**Committee Vote:** 5-0

**Recommendation #4:** Enhance the effort to “strengthen family bonds and reinforce skills at home”, as advocated by the current “Too Good for Drugs” curriculum, by:

- Maintaining information about the program, including the newsletters designed for parents, on the APS website.
- Sharing the “Too Good for Drugs” newsletters more broadly with the APS parent and staff communities.

**Rationale:** While existing APS curriculum material is often very good, the *distribution* of the material could be improved. We specifically believe this to be the case for the “Too Good for Drugs” program.

**Budgetary Implication:** No cost

We suggest implementing this effort through “electronic” means – using the APS website and email newsletters – as opposed to printing and mailing material. In addition, we expect to use materials that already exist or will be created as part of existing programs.

Consequently, the primary “costs” of this effort come from uploading the material to the APS site and electronic distribution of newsletters. However, these should be relatively minor efforts and will incur no significant cost.

**Committee Vote:** 5-0

## Appendix A: Questionnaire for 10<sup>th</sup> Grade HPE Students

The Arlington Public Schools **Health/Physical Education Advisory Committee** is seeking information to help them make recommendations to the curricular program. The committee appreciates your honest answers. Thank you.

### Health & Physical Education II Questionnaire

Grade: \_\_\_\_\_

Date: \_\_\_\_\_

1. Do you plan on taking at least one health and/or physical education elective in 11<sup>th</sup> grade? (circle the answer)

Answers:     Yes (if yes, skip to Question 3)  
               No (if no, go to Question 2)

2. If No, please indicate the *primary* reason why. Please select only one answer (circle the letter) that best represents your opinion.

Answers:

- a) No time due to academic requirements
- b) Do not like getting sweaty and having to shower or clean-up
- c) Uncomfortable in mixed gender classes
- d) Do not find the current curriculum offering interesting

3. If changes to the HPE curriculum could be made that would interest you (e.g., new activities), what time or format would best fit your needs? Please select only one answer (circle the letter) that best represents your opinion.

Answers:

- a) During the school day
- b) An after school program
- c) In cooperation with local sports or health club
- d) Online self-directed course