We've Come a Long Way, Baby!
Or Have We?

Thom McKenzie
Professor Emeritus, Exercise and Nutritional Sciences
San Diego State University, California
(tmckenzie@sdsu.edu)

Overview

- Background on 1991 Paper and HOPE
- Progress since 1991
- Limitations and Barriers

Public Health Goals for Physical Educators

To foster school and community environments that:

- encourage and support the full involvement of all students
- in every aspect of physical activity, including physical education, recreation, sport, and active lifestyles

Health Optimizing Physical Education (HOPE)

- Provides students with a proportion of the recommended amounts of physical activity
- Prepares students for an active lifestyle, including one that continues into adulthood

"...For maximum public health benefit, school PE programs should prepare children for a lifetime of physical activity..."
Contribution of PE to Physical Activity During School

Grade 0 10 20 30 40 50
Tot Act-with PE
Tot Act-no PE

(N=14711 reports; CATCH cohort, 96+ schools)

Physical Education is the Only Required PA Program...
and is especially important for:

• Those at risk for cardiovascular disease, diabetes, obesity, osteoporosis
• The poor & those living in disadvantaged communities
• Females
• Persons of color

Support from Health Organizations

Support from Foundations

PART 1
We’ve Come a Long Way!

Support within the Profession
In most states, PA promotion is a curricular goal of PE. E.g., “adoption of physically active lifestyles” (NASPE).

Support from within the White House

School Wellness Policies

- Involve parents, students, school food personnel, school board, administrators, public
- Address nutrition education, physical activity, and other wellness activities
- Set nutrition guidelines for all foods available on each school campus during the school day
- Plan for implementation, designate person charged with oversight
- By June 30, 2006

Guidelines for School and Community Programs to Promote Lifelong Physical Activity Among Young People

1997

Coordinated School Health Programs

SHPPS

School Health Policies and Programs Studies

- National survey to assess school health policies and programs
- State, district, school, & classroom levels
- In 1994, 2000, 2006, 2012 ($7.2 million)
- 45 min to administer
- Elementary, middle/junior, & senior high school levels
- 8 components
School Health Index: USA

• Self assessment and planning guide
• Designed to:
  − identify strengths and weaknesses of school policies and programs for promoting health and safety
  − develop an action plan for improving student health
  − involve teachers, parents, students, and community in improving school policies, programs, and services

2008 Physical Activity Guidelines for Americans

Recommended Amounts of Physical Activity for Children and Adolescents

“60 minutes or more of PA daily”

- most as moderate- and vigorous-intensity, and include vigorous intensity at least 3 days a week
- include muscle-strengthening PA at least 3 days a week
- include bone-strengthening PA at least 3 days a week

Toolkits and strategies

- comprehensive set of policies, programs, and initiatives aimed to increase physical activity in all segments of the population

2009
Education is one of 8 sectors - each sector has strategies related to increasing PA

Education has 7 strategies - most relevant to today's talk are Strategies 1 & 2

**STRATEGY 1**
Provide access to and opportunities for high-quality, comprehensive PA programs, anchored by PE, in P-K through grade 12.

**STRATEGY 2**
Develop & implement state and school district policies requiring school accountability for quality & quantity of PE and PA programs.

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**Quality Evidence-based PE Research**

- Randomized trials
  - Schools assigned to intervention condition
- Well-funded objective assessment
- Separate intervention and measurement teams
- Interventions compared to usual practice
- Collaborative
  - Trans-disciplinary
  - Across agencies (university, school, community)

**Evidence-Based PE (EBPE)**

- EBPE programs have been developed and provide substantial research base for improving health-related behavior/outcomes **
  - CATCH PE
    http://www.sph.uth.tmc.edu/catch/curriculum_pe.htm
  - SPARK PE
    http://www.sparkpe.org

**Implementation of EBPE curricula have been shown to increase PA levels as much as 18%**

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**Large Scale PA Intervention Studies**

**Education**
- Active by Choice Today
- CHIC
- FitKid Project
- Know Your Body
- LEAP
- PATHWAYS
- Planet Health
- PLAY
- Project FAB
- SPARK
- CATCH
- MSPAN
- TAAG
- Aventuras
- MOVE
- GRAD

**Evidence-Based Physical Education**

- Controlled research trials
- Peer reviewed dissemination
  - Adiposity (Sallis et al., 1993)
  - Physical fitness (Sallis et al., 1997)
  - Physical skill (McKenzie et al., 1994)
  - Lesson context & teacher behavior (McKenzie et al., 1997, 2004)
  - Enjoyment of PE (McKenzie et al., 1994)
  - Activity levels outside of school (Marcoux et al., 1999)
  - Scores on academic tests (Sallis et al. 1999)

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**Something Can Be Done!**

**Effects on Student MVPA Minutes**

- Baseline
- Year 1
- Year 2

N=24 Schools; 214 Teachers; 1847 Lessons (McKenzie et al., 2004, MSSE)
PE INTERVENTIONS
Essential Components

- Active curricula
- Staff development (i.e., inservice training)
- On-site follow-up

School Settings

PE Classes
Recess/Playtime
School Sports
(Intermural/Interscholastic)
Classroom PA Breaks
Clubs; Free Play
Active Transport

CATCH: Short- and Long-Term Effects on MVPA in PE Settings

Semester
1991 1994 1999

Control

Follow-up

Percent MVPA

30 35 40 45 50 55

(H=96 Elementary Schools; 2650 Lessons; McKenzie et al., Prev Med, 1996; Whe Ed & Beh, 2003)

Percent of Lessons Cancelled (1999-2006)

*Of lessons scheduled for observation

Lack of regulation (policy, accountability)
- Dosage (frequency, duration, intensity)
- Prescriber (training)
- Content (appropriateness, sound)
- Delivery (palatable)

If Exercise is Medicine, PE is the Pill Not Taken*

PART 2
Or Have We?

McKenzie & Lounsbery (2009)
American Journal of Lifestyle Medicine
The No Child Left Behind (NCLB) Act of 2001

**Results on Physical Activity Accrual**

- Reduced PE requirements (frequency, duration, quality)
- Reduced recess and optional activity programs
- Reduced funding for PA programs & staff development
- Perhaps reduced PA at home to accommodate increased studying and out-of-school classes

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PE mandates differ by state, district, and school:

1. Frequency & length of lessons
2. No of years required
3. If required for graduation
4. Substitutions

Range in scheduled PE hours per year:

\[ 53.8 \text{ to } 155.5 \]

(SC/CA; Moe et al., 2006)

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**Barriers to Adopting EBPE**

(Lounsbery et al., 2011, *JPAH*)

- Principal & PE teachers in 154 schools in 34 states

- Satisfaction with current programs and lack of program evaluation barriers to adopting EBPE
- Limited accountability for PE programs
- Principals not fully aware of PE programs in their schools, and not motivated to change PE without some outside accountability
- PE teachers are in position to influence principals

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**Is Physical Education missing the boat?**

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**What is being taught in PE?**

**Current Model – Standards Based Education**

- Based on national/state professional standards
  - are general and broad
  - advisory & without legal status or funding
  - accommodate a spectrum of educational philosophies and practices

(McKenzie & Lounsbery, *AJLM*, 2009)
PE = Knowledge

PE = Games for International Understanding

San Diego
Timbuktu

PE = Sport Development

PE = Development of Personal Attributes

Feeling Fit

Cooperation

Self-concept

Self-responsibility

Multiculturalism

Interdisciplinary Learning
No matter how it is delivered, PE cannot possibly do all these things.

We need HOPE, not HYPE!

How much MVPA do PE classes provide?

The Goal = 50%

(HP 2010; 22-10)

The Usual = 36%

CATCH and NICHD baselines = 36% MVPA

(900 schools, third grade; McKenzie 1995, Nader, 2003)

TAAG Baseline = 37% MVPA

(36 middle schools, 6 states, McKenzie et al, MSSE, 2006)
Class Size & Activity Levels

- Students less active in larger classes
- They spend:
  - More time Sitting (p < .002)
  - Less time Walking (p < .001)
  - Less time Vigorously Active (p < .001)

[McKenzie et al., 2000, RQES]

Do PE teachers spend class time promoting physical activity beyond the lesson?

Hardly any......

....less than 1% of lesson time

TAAG Baseline: observations in 431 lessons; 36 middle schools; 6 US states

Do Instructors Teach Behavioral & Self-Management Skills?

- Goal setting
- Self-monitoring
- Scheduling for activity
- Signs & reminders
- Self-reward
- Obtaining social support
- Positive self-talk
- Problem solving

Do Universities Develop Teacher Promotion, Advocacy, & Politicking Skills?

- Emphasize collaboration & communication skills
- Develop advocacy skills for school and other PA programs

Closure

- We have come a long way in 20 years
- Sedentary living—global public health concern
- Schools in position as most cost effective resource of PA promotion
- PE is the only required PA program, but it has a muddled mission
- There is still much to do! Vast changes in teacher preparation are needed.
THANK YOU!

(tmckenzie@sdsu.edu)