

December 19, 2012 9 AM to 12 PM

Illinois State Board of Education Christopher A. Koch, EdD State Superintendent of Education

Illinois Department of Public Health

LaMar Hasbrouck, MD, MPH

Director

Task Force Member Introductions

Training Requirements

- 2012 Ethics
- Open Meetings Act

Illinois State Board of Education Christopher A. Koch, EdD State Superintendent of Education

Enhance P.E. Task Force

Illinois Department of Public Health
LaMar Hasbrouck, MD, MPH
Director

Bylaws

Shawn Backs



Public Act 97-1102 and Task Force Charge

David Carvalho

Illinois State Board of Education Christopher A. Koch, EdD State Superintendent of Education

Enhance P.E. Task Force

Illinois Department of Public Health
LaMar Hasbrouck, MD, MPH
Director

Public Act 97-1102

Purpose #1

- this State, including and health curriculum in elementary and secondary schools in "Promote and recommend enhanced physical education programs that can be integrated with a broader wellness strategy
- educating and promoting leadership on enhanced physical education among school district and school officials;
- developing and utilizing metrics to assess the impact of enhanced physical education;
- education for teachers and other school and community stakeholders; promoting training and professional development in enhanced physical
- identifying and seeking local, State, and national resources to support enhanced physical education;
- and such other strategies as may be identified by the task force."

Public Act 97-1102

Purpose #2

- on updating the standards based on research in of the Illinois Learning Standards for Physical physical activity and learning." General Assembly on Goals 19, 20, 21, 22, 23, and 24 **neuroscience** that impacts the relationship between Development and Health. The Task Force shall focus "Make recommendations to the Governor and the
- Report must be filed with GA and Governor by August 31,

Illinois State Board of Education Christopher A. Koch, EdD State Superintendent of Education

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Illinois Department of Public Health
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Physical Development and Health Illinois Learning Standards:

Sandy Noel



Physical Development and Health Illinois Learning Standards:

- Adopted in 1997
- Developed using:
- NASPE National Standards for Physical Education,
- National Health Education Standards,
- 1985 State Goals for Physical Development and Health,
- other states' standards
- and local outcomes from Illinois school districts

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Illinois Department of Public Health LaMar Hasbrouck, MD, MPH Director

Physical Development and Health Illinois Learning Standards:

- Goal 19 Movement Skills
- Goal 20 Physical Fitness
- Goal 21 Team-Building
- Goal 22 Health Promotion, Prevention and Treatment
- Goal 23 Human Body Systems
- Goal 24 Communications and Decision-Making



Physical Development and Health Illinois Learning Standards:

- The changing context:
- New NASPE standards
- New neuroscience research on the relationship between physical activity and learning
- Health crisis among Illinois youth

The standards will serve as a the latest research and the enhanced PE model. development of curriculum, which will align with guide in the

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Sample: Breakdown of a Goal

engage in health-enhancing physical activity. STATE GOAL 19: Acquire movement skills and understand concepts needed to

motor, non-motor and manipulative skills. Learning in this area is developmental, building simple movements into more complex patterns. Learning to follow directions and rules enhances enjoyment and success in both recreational and competitive sports. Working toward higher levels of competence, students learn how to maintain health and fitness as individuals and as members Why This Goal Is Important: Physical performance involves competency in a wide range of

and leisure and work-related activities Demonstrate physical competency in individual and team sports, creative movement

EARLY	TATE	MIDDLE/JUNIOR	EARLY HIGH	HOIH ALVT
ELEMENTARY	ELEMENTARY	HIGH SCHOOL	SCH00L	SCH00L
19.A.1 Demonstrate	19.A.2 Demonstrate	19.A.3 Demonstrate	19.A.4 Perform skills	19.A.5 Demonstrate
control when perform-	control when	control when	efficiently in a variety	knowledge and skills in
ing fundamental	performing	performing	of leisure activities,	a self-selected
locomotor, non-	combinations and	combinations and	sports, creative	individual sport, a
locomotor and	sequences in	sequences of	movement and work-	team sport, creative
manipulative skills.	locomotor, non-	locomotor, non-	related activities.	movement and work-
	locomotor and	locomotor and		related activities.
	manipulative motor	manipulative motor		
	patterns.	patterns in selected		
		activities, games and		
		sports.		



Defining Enhanced PE

Paul Zientarski

Illinois State Board of Education Christopher A. Koch, EdD State Superintendent of Education



Illinois Department of Public Health
LaMar Hasbrouck, MD, MPH
Director

Learning is a Moving Experience

Illinois Enhance Physical Education Task Force

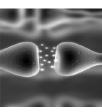
Paul Zientarski Naperville, Illinois pzientarski@naperville203.org





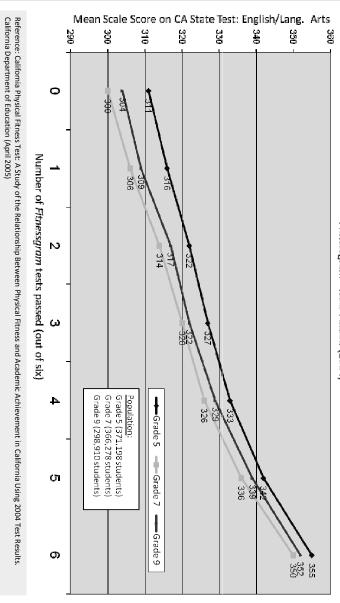






Fitness Correlation between standardized test scores and fitness and Academic Achievement

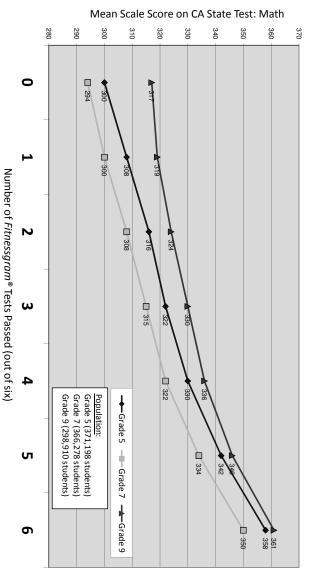
Figure 1. English-Language Arts Mean Scale Score (California State Test) by the Number of Fitnessgram® Tests Passed (2004)



Fitness and Academic Achievement

Correlation between standardized test scores and fitness

370 Figure 2. Mathematics Mean Scale Score (California State Test) by the Number of Fitnessgram® Tests Passed (2004)



Reference: California Physical Fitness Test: A Study of the Relationship Between Physical Fitness and Academic Achievement in California Using 2004 Test Results. California Department of Education (April 2005)

Researchers at West Virginia University ...

Wood County, West Virginia

Cohort of 725 students followed from

Grade 5 Grade 7

After two years, evaluated:

- fitness levels

- standardized academic test



Reference: Northrup, K. L., Cottrell, L. A., and Wittberg, R. A. (2008, February). L.I.F.E.: A School-Based Heart-Health Screening and Intervention Program. Journal of School Nursing. 24(1): 28-35. doi: 10.1177/10598405080240010501

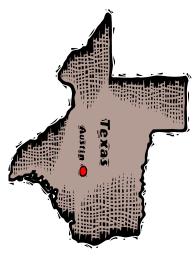
The study found that academic performance

- dipped when the students' fitness declined
- increased when students' fitness improved

were the ones who were deemed fit at the start and end of the study. reading, math, science and social studies, standardized test scores, which included Children with the highest average

What were the findings in Texas?

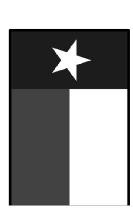
2.47 million students tested



Texas Youth Fitness Study (2007-2008 school year)
Test results represent:

Grades 3-12 6,222 schools in 1,052 districts 248 of the 254 counties

2.47 million youth



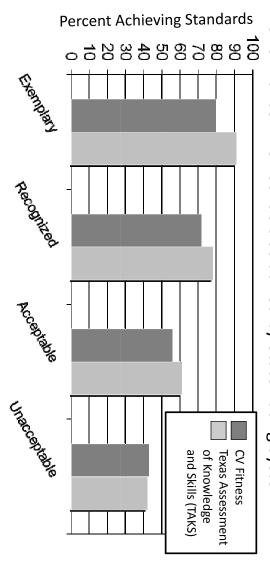
Most telling test for academic success

· Cardiovascular Fitness

Reference: Welk, G. J., Jackson, A. W., Morrow, J. R., Jr., Haskell, W. H., Meredith, M. D., & Cooper, K. H. (2010). The association of health-related fitness with indicators of academic performance in Texas schools. Res. Q. Exerc. Sport, 81 (3 Suppl); 516-523.

Texas Youth Fitness Study

Performance when Schools Stratified by State Rating System Cardiovascular (CV) Fitness Corresponds with Academic



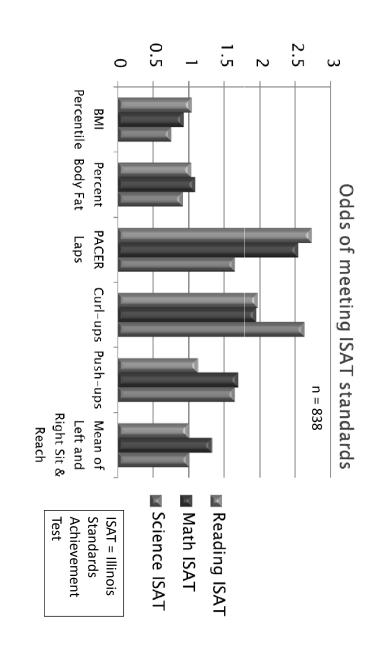
The Texas Education Authority's (TEA) rates schools as exemplary, recognized, acceptable, or unacceptable based on TAKS achievement, TAKS completion rate, and school dropout rate. Age- and gender-specific health-related fitness standards (FITNESSGRAM®) were calculated for each school.

Sample represents 6,222 schools and 2.47 million students.

Reference: Welk, G. J., Jackson, A. W., Morrow, J. R., Jr., Haskell, W. H., Meredith, M. D., & Cooper, K. H. (2010). The association of health-related fitness with indicators of academic performance in Texas schools. Res. Q. Exerc. Sport, 81 (3 Suppl); S16-S23..

RELATIONSHIP OF FITNESS & ACADEMIC ACHIEVEMENT IN MIDDLE SCHOOL

Ron Bass, Dale D. Brown, Kelly Laurson and Margo Coleman. (2010). Relationships between Physical Fitness and Academic Achievement in Middle School Students. Medicine and Science in Sports and Exercise. 42(5): (abstract t#1665).



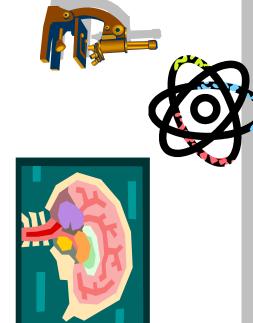


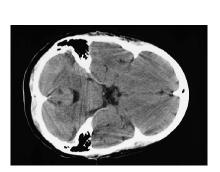
Swedish Study



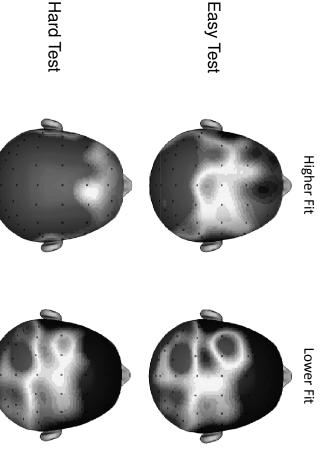
- on physical fitness at 15 and 18 and made their analyses. and test scores on entering military at 18. As well they had information entered the MILITARY— At age 18 They had grades and test scores at 15 Performed - study of all Swedish men born between 1950 on 1976--- who
- 270,000 were siblings
- 3100 were fraternal twins
- 1432 were identical twins
- The sample included a total of 1,221,727 men
- The finding was that higher IQ scores were found in conditioning, even when comparing **TWINS!** those men with the better cardiovascular

substantiate these findings? What is the science or empirical evidence to





Correlation Between Fitness and Brain Activity



9 and 10 year olds students

Find a Partner





Rock, Paper, Scissors

1st time beat your opponent



Rock, Paper, Scissors

2nd time lose to your opponent



Rock, Paper, Scissors

2 handed beat your opponent





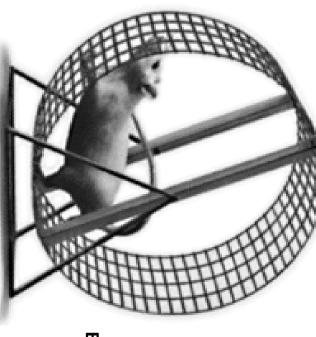
Enhanced Academic Performance

"Consistent exercise, and certain types of specific exercises, can both temporarily and permanently affect the way your brain is able to focus, its ability to deal with stress and anxiety, and its ability to learn ...

"Exercise is like fertilizer for the brain ... it's so good, it's like Miracle Gro".

- Dr. John Ratey, Harvard Brain Researcher

Exercise Creates New Brain Cells

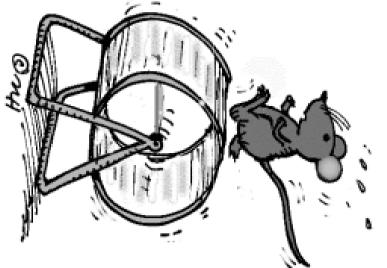


Brain Derived Neurotrophic Factor

whose status as a regulator of the survival, growth & differentiation of neurons during development has matured to include the adult nervous system.

BDNF functions to translate activity into synaptic & cognitive plasticity in the adult animal.

BDNF - Brain Derived Neurotrophic Factor



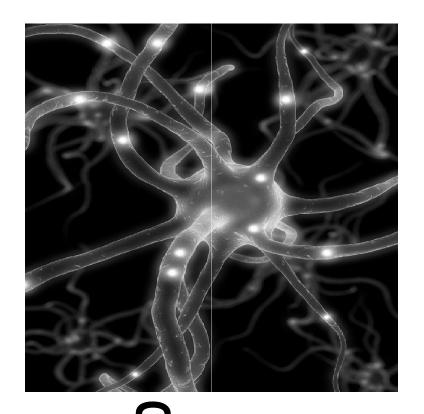




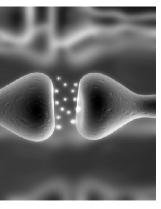


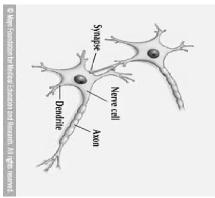
Low BDNF is no small thing

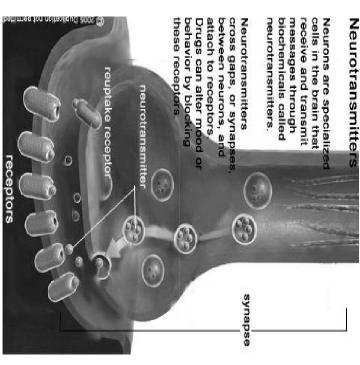
Rett Syndrome, and Schizophrenia. **Huntington's Disease,** and other dementias, as it has also been associated with Obsessive-Compulsive Disorder, Depression, Alzheimer's disease,

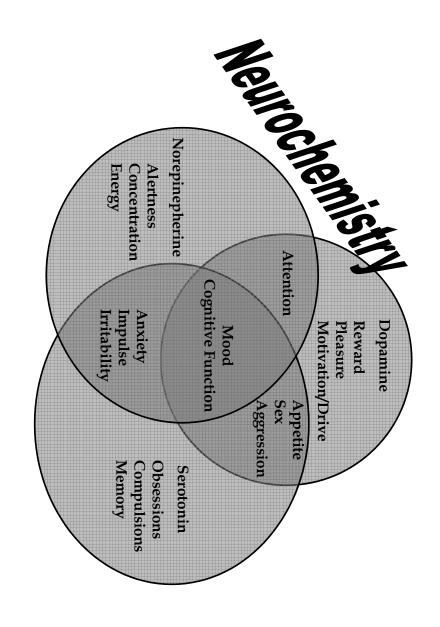


CELL BRAIN





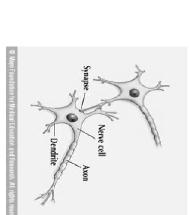




EXERCISE PREPARES THE







- Improves Impulse Control
- Improves Behavior
- Improves Attention
- Decreases Restlessness
- Improves Arousal Lessens Fatigue
- Improves Motivation



Exercise Prepares the Mind Continued)







- **Helps Mood and Anxiety Regulation**
- **Combats Depression**
- Improves Self-esteem
- Reverses "Learned Helplessness"
- **Combats Toxic Effects of Stress Hormones**



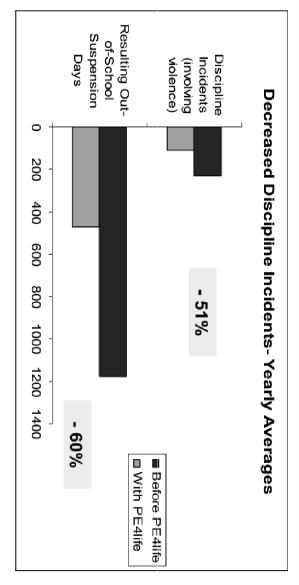


Fitness Changes Academics and Behavior Anthony Elementary in Leavenworth, Kansas

Anthony had three remarkable changes in one year: In 2004, Anthony Elementary increased PE and PA from 1 to 5 days a week revamped their school lunch program, and added vitamins to the daily menu.

- There was a 1300+% increase in those passing the Presidential Fitness Test.
- 7 Math (in a district with 10 elementary schools) to The school went from 10th in Reading and 9th in 2nd in Reading and 1st in Math.
- ω Office referrals for discipline were reduced from 438 to 18.

PE Association with Disciplinary Outcomes



WOODLAND ELEMENTARY
Kansas City Public School District #33

Reference: PE4Life, Year Two Project Update, Grades 4 and 5 , Fall 2006 – Spring 2007

Here Comes A

Big

Take Away Moment!



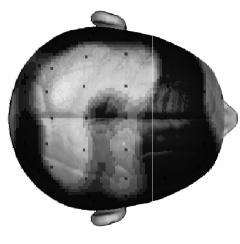


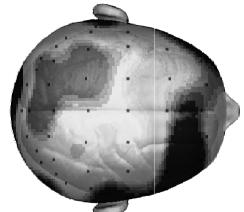


brain activity that prepares them for learning Kids that are physically active have enhanced

Brains after sitting quietly

Brains after 20 minute walk





Average Composite of 20 Student Brains Taking the Same Test

Research/scan compliments of Dr. Chuck Hillman University of Illinois

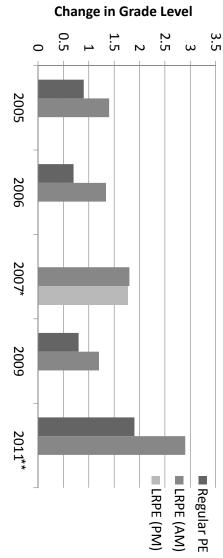


How have we used the Research?

We collected data!



Performance on Standardized Reading Test Learning Readiness PE and



Grade level evaluated with Nelson-Denny Reading Test

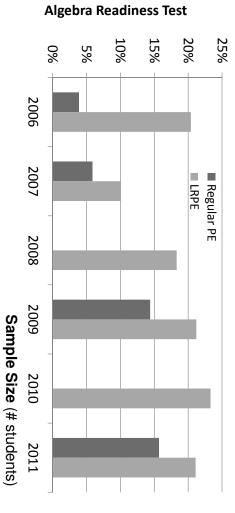
* No students permitted to opt-out of LRPE in 2007

** 2011 data also includes students from Naperville North High

Sample Size (# students)

				,
Year	Regular PE LRPE (AM) LRPE (PM)	LRPE (AM)	LRPE (PM)	Total
2005	7	9	0	16
2006	16	16	0	32
2007	0	16	16	32
2009	15	33	0	48
2011	25	74	0	99

Performance on Standardized Math Test Learning Readiness PE and



% Improvement on

Math skills evaluated using the *Algebra Readiness Test*

	2010 0 92	2009 24 51	2008 0 48	2007 12 36	2006 12 12	Year Regular PE LRPE
75 75	92					LRPE Total

What does Learning Readiness PE (LRPE) look like?

- Based on Fitness
- Cardiovascular Intensity
- Cross Lateral Activities
- Core Strength
- Team Building
- Balance and Gymnastics
- Traditional Team
 Sports (small sized)







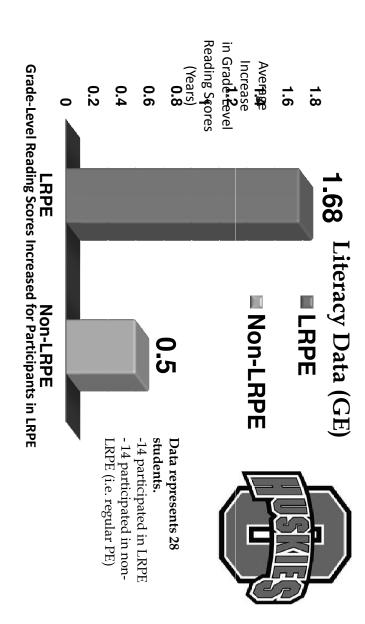


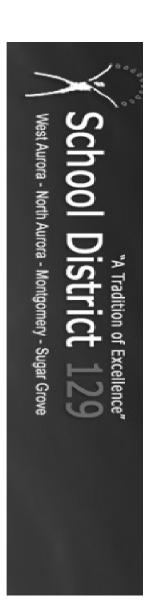
Can this be replicated in another district



2008 Data

Oak Park River Forest High School





West Aurora School District

9th graders from 2011-2012 school year were evaluated on:

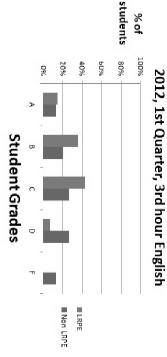
- Algebra tests
- Gates reading test
- Level of improvement between fall and winter
- Behavior

two groups: 1) Learning Readiness PE (i.e. PE before English class) and 2) regular PE Those with the lowest outcomes on all levels were randomized and evenly divided into

Performance differences among 10th graders at West Aurora High School

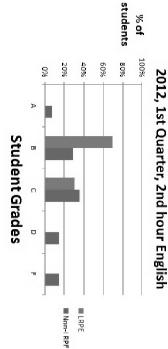
Data set 1 represents 29 students

- -14 participated in LRPE
- 15 participated in non-LRPE (i.e. regular PE



Data set 2 represents 27 students

- -13 participated in LRPE
- 14 participated in non-LRPE (i.e. regular PE

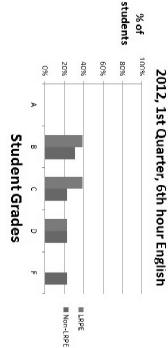


*Grade is based on classroom performance

Performance differences among 10th graders at West Aurora High School

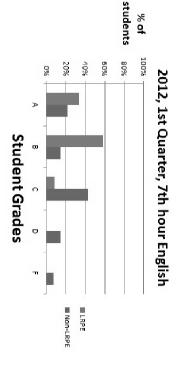
Data set 1 represents 26 students

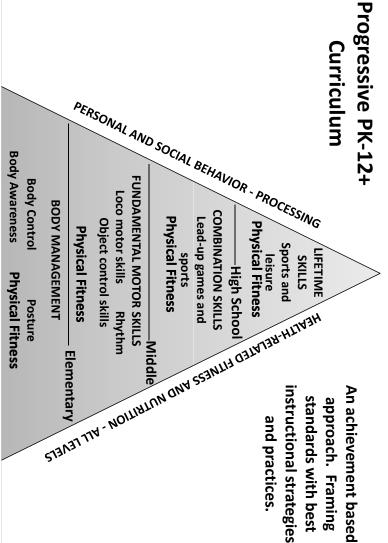
- -13 participated in LRPE
- 13 participated in non-LRPE (i.e. regular PE



Data set 2 represents 26 students

- -12 participated in LRPE
- 14 participated in non-LRPE (i.e. regular PE





ACADEMIC INTEGRATION - PREPARING STUDENTS FOR LEARNING

















<u>pzientarski@naperville203.org</u>

Physical Activity Break

Sandy Noel

Illinois State Board of Education Christopher A. Koch, EdD State Superintendent of Education



Illinois Department of Public Health
LaMar Hasbrouck, MD, MPH
Director

Overview of Assistive Resources: Enhanced P.E. Strategic Plan

Elissa Bassler





Illinois Enhanced P.E.

Strategic Plan



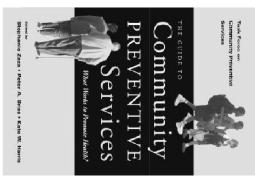
Background

In 2011, Illinois was awarded a small grant to implement an evidence-based public health practice from *The Guide to Community Preventive Services* (the "Community Guide").









www.thecommunityguide.org

Evidence-Based Public Health

Community Guide Task Force Recommendations & Findings

Promoting Physical Activity: Behavioral and Social Approaches

viewing and video game playing	Classroom-based health education to reduce TV	Family-based social support	College-based physical education and health education	Enhanced school based physical education	Social support interventions in community settings	Individually-adapted health behavior change programs
	Insufficient Evidence	Insufficient Evidence	insufficient Evidence	Recommended	Recommended	Recommended

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Enhanced P.E. Task Force Process

Strategic Plan Development

Meetings: April, May, and Aug. 2011

Participants: (partial list)

- Director, IDPH (co-chair)
- Superintendant of Schools ISBE (co-chair)
- Recreation, and Dance Illinois Association of Health, Physical Education,
- ISBE, Student Advisory Board members
- American Heart Association
- Health Univ. of IL, Dept of Kinesiology and Community
- Children Consortium to Lower Obesity in Chicago
- Northern Illinois Public Health Consortium
- YMCA Statewide Alliance

Outcome: Strategic Plan

Approach: Cultural Shift

professional development, measurement, leveraging Leadership development, resources/infrastructure Tactics:

Strategic Plan



VISION:

promote academic education in order to daily, high-quality physical students will participate in All Illinois K-12 schools lifetime benefits of fitness. achievement and realize the

www.isbe.state.il.us/EPESP Plan is available at:









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Strategic Plan



PARTNERS

(local decision-makers)

- School Boards
- Superintendants
- Principals

GOALS

- Leadership development
- Professional development
- Measurement
- Leveraging resources & infrastructure

PUBLIC

Thank you!

Illinois State Board of Education Christopher A. Koch, EdD State Superintendent of Education



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LaMar Hasbrouck, MD, MPH
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Overview of Assistive Resources: Shape of the Nation

ISBE



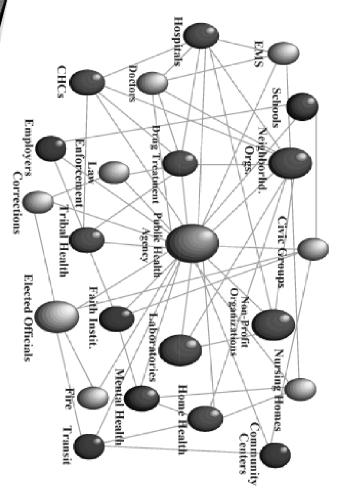
State Health Improvement Plan (SHIP) and the Implementation **Coordination Council**

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Public Health System



SHIP Vision

voluntary partners comprised of active public, private and high-functioning public health system being for all people in Illinois through a Optimal physical, mental and social well-

SHIP ICC Charge per legislation:

voluntary sector stakeholders and participants in the public health Coordinate the efforts and engagement of the public, private and system to coordinate the implementation of the SHIP.

- Serve as a forum for collaborative action
- Coordinate existing and new initiatives
- Develop detailed implementation steps with mechanism for action
- Implement specific projects
- Identify public and private funding sources at the local, State and federal level

- Promote public awareness of the SHIP
- Advocate for the implementation of the SHIP
- Develop an annual report regarding the status of the implementation of SHIP
- No authority to direct any public or private entity to take specific action to implement SHIP

SHIP Implementation Framework

 \bigcap **Partners** Raise Awareness & Engage

 \bigcirc Outcomes **Monitor Activities & Evaluate**

State Coordination

Workforce/Capacity

Policy/Advocacy

GUIDING PRINCIPLES

PH System Health Equity Self-determined Innovation

Statewide

Alignment

Drugs Natural/Built Environment Mental Health Workforce Measure/Manage PH System Social Determinants Data & Health IT **SHIP Priorities** Violence Unintentional Injury Patient Safety/Quality Oral Health Obesity/Nutrition/PA Alcohol/Tobacco Access to Care

Establish Goals, Timelines, and Committees

Public Act 97-1102

Purpose #1

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Public Act 97-1102

Purpose #2

- on updating the standards based on research in of the Illinois Learning Standards for Physical "Make recommendations to the Governor and the physical activity and learning." **neuroscience** that impacts the relationship between Development and Health. The Task Force shall focus General Assembly on Goals 19, 20, 21, 22, 23, and 24
- Output: Report must be filed with GA and Governor by August 31, 2013



Public Comment

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Illinois Department of Public Health LaMar Hasbrouck, MD, MPH Director

Notes: Promoting Enhanced PE

Notes: Revising Learning Standards

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