

Green and Healthy Schools

Kansas Green Schools Conference

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Goddard, KS

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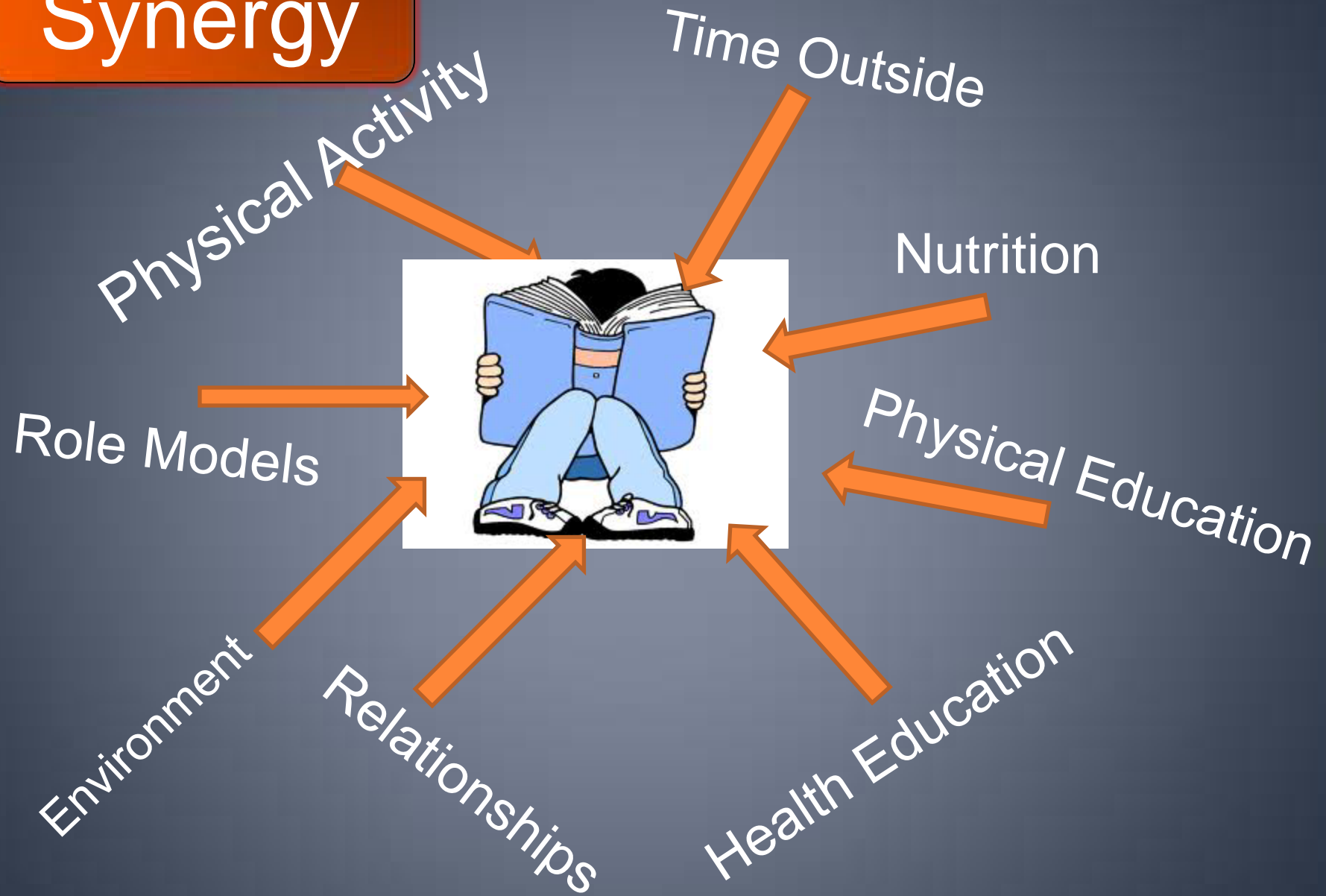
Essential Components of Learning

To learn effectively, students need to:

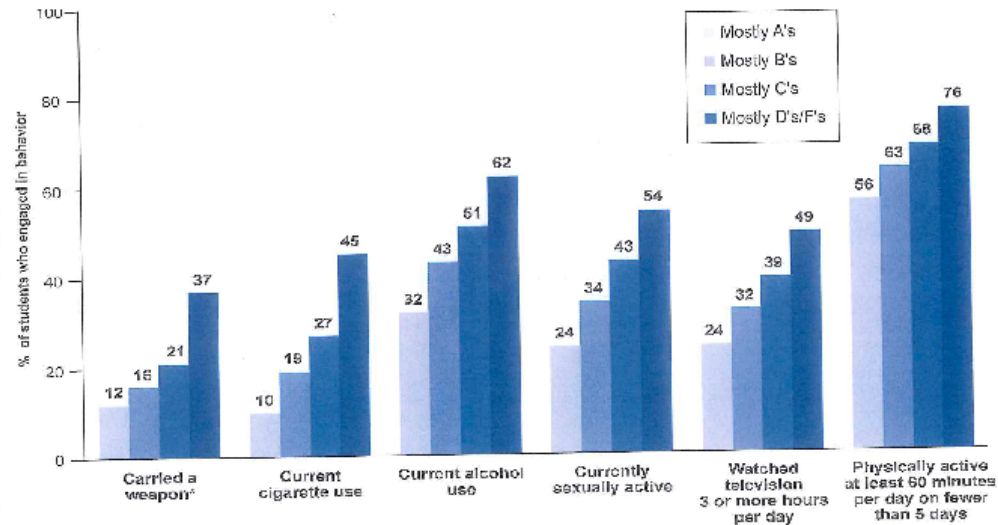
- Attend
- Be physically active
- Have their nutritional needs met
- Be emotionally and mentally present
- Feel secure and valued



Synergy



Risk Behaviors and Academic Success



Synergy

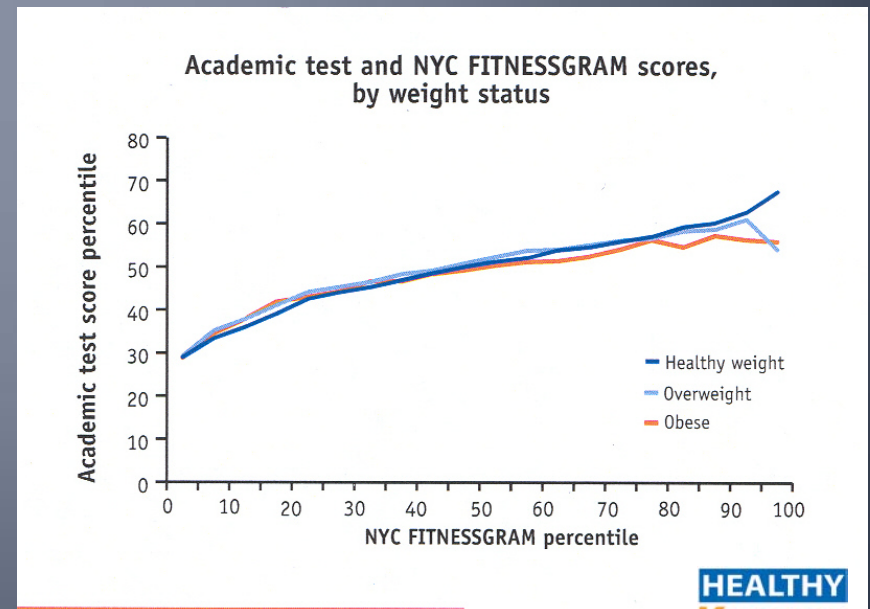
Physical Activity and Academic Success

Both health and education win with physical activity

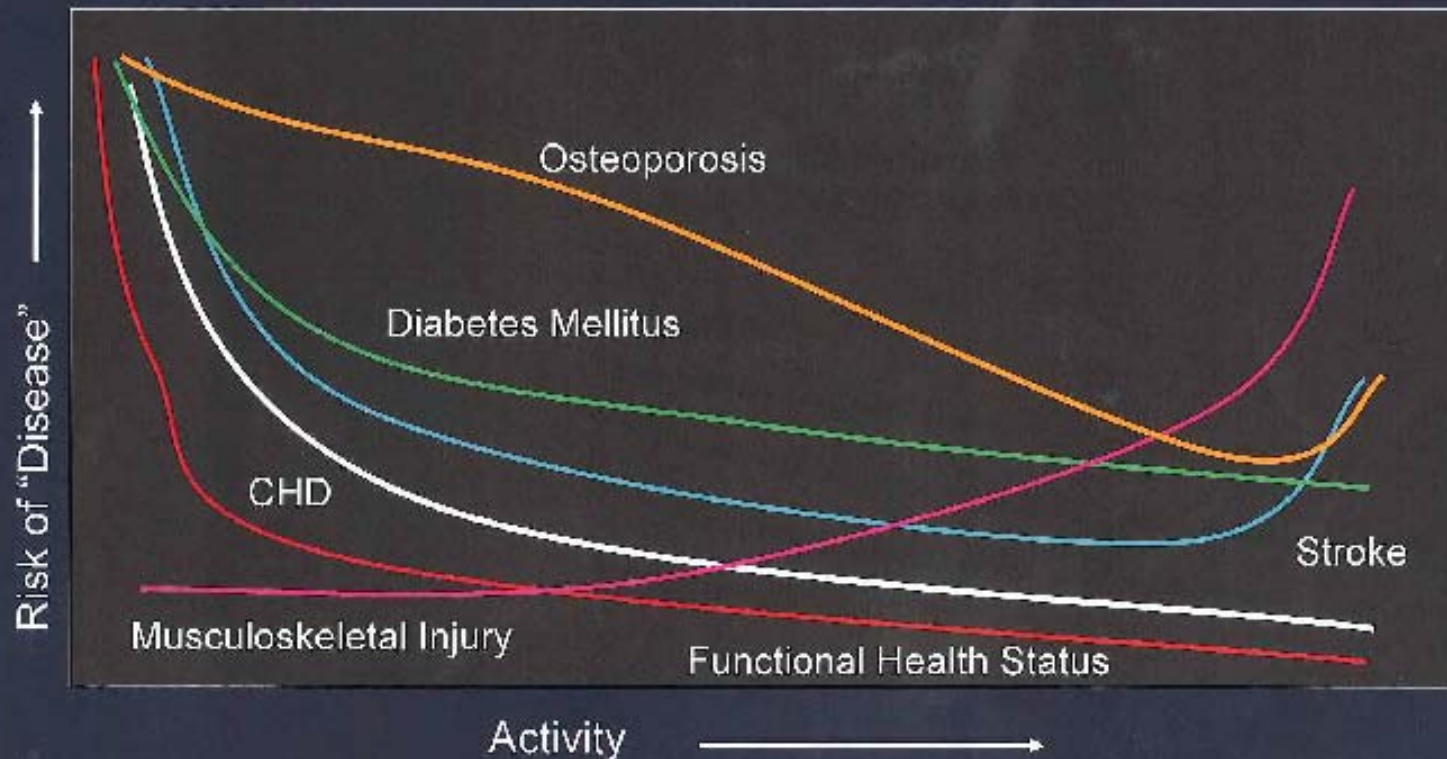
Research demonstrates a positive relationship between physical activity and academic success

The Association Between School-based Physical Activity, Including Physical Education, and Academic Performance.

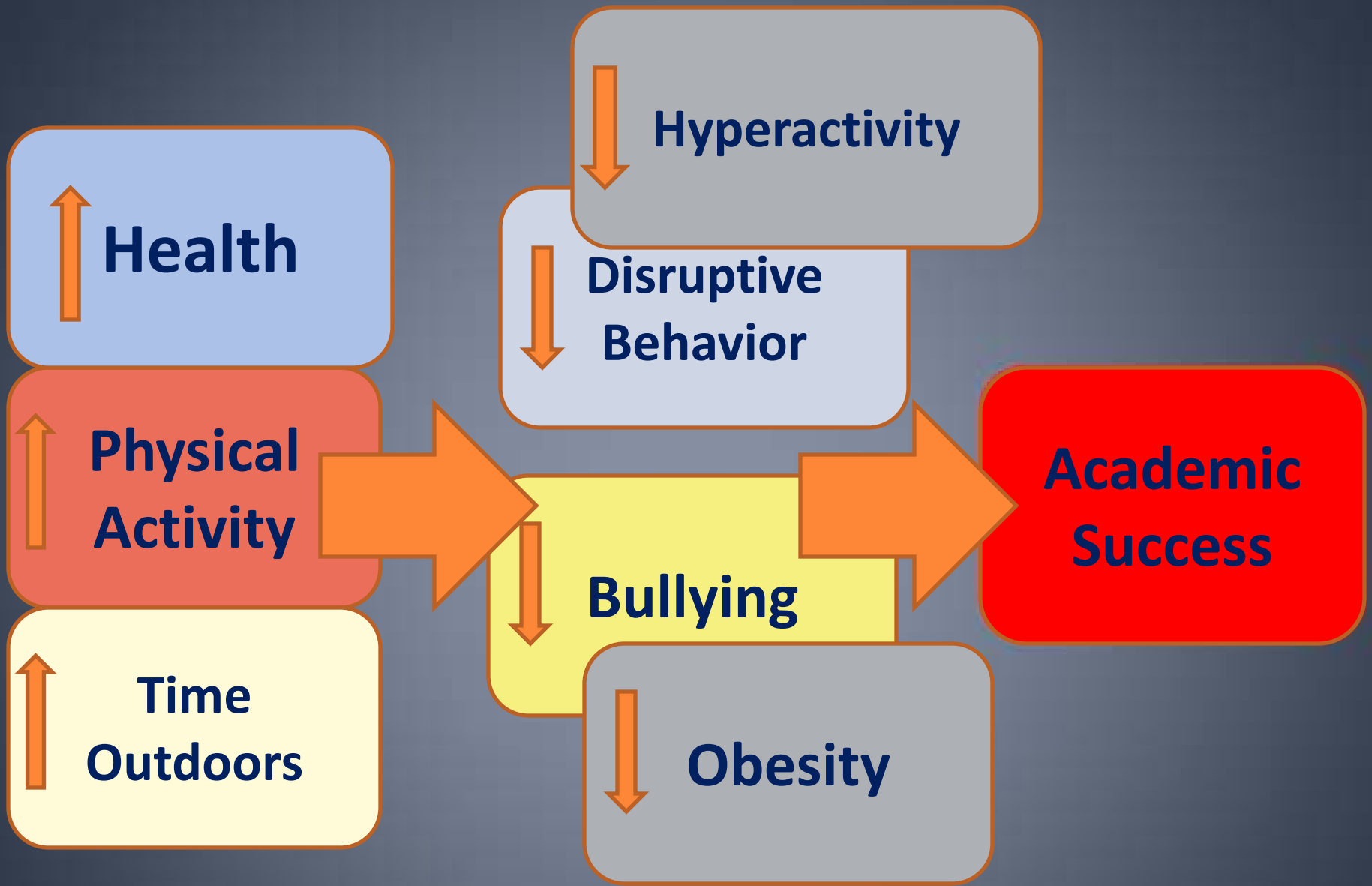
www.cdc.gov/HealthyYouth



Physical Activity Health Effects



Synergy



Why should we all be concerned?

1. Time spent outside results in increased physical activity
2. Impacts health (physical and mental) :
 - Asthma
 - Obesity
 - ADD
 - Bullying
 - Mental health
 - Vision
 - What else?

Synergy

Sun Exposure Skin Damage

- Increased risk
 - Many moles
 - Fair skin and blond hair
 - Family history of skin cancer

- **Interventions**

- Time of day
- Sunscreen
- Hats

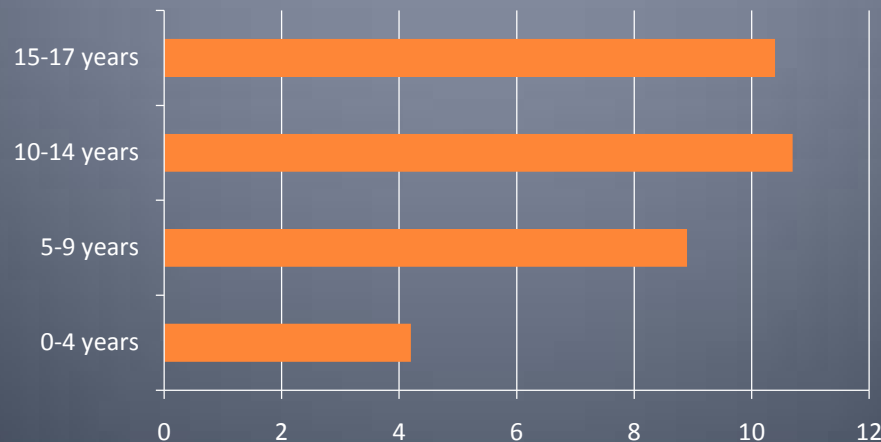
More Info: www.epa.gov/sunwise



Asthma

Most common childhood illness

- 10.7% of Ks children 10 – 14 years old have “current asthma”
- Highest in African American children living in urban or semi-urban settings.
- Genetic or environmental triggers
- Children with asthma miss more school and may be less physically active



Asthma

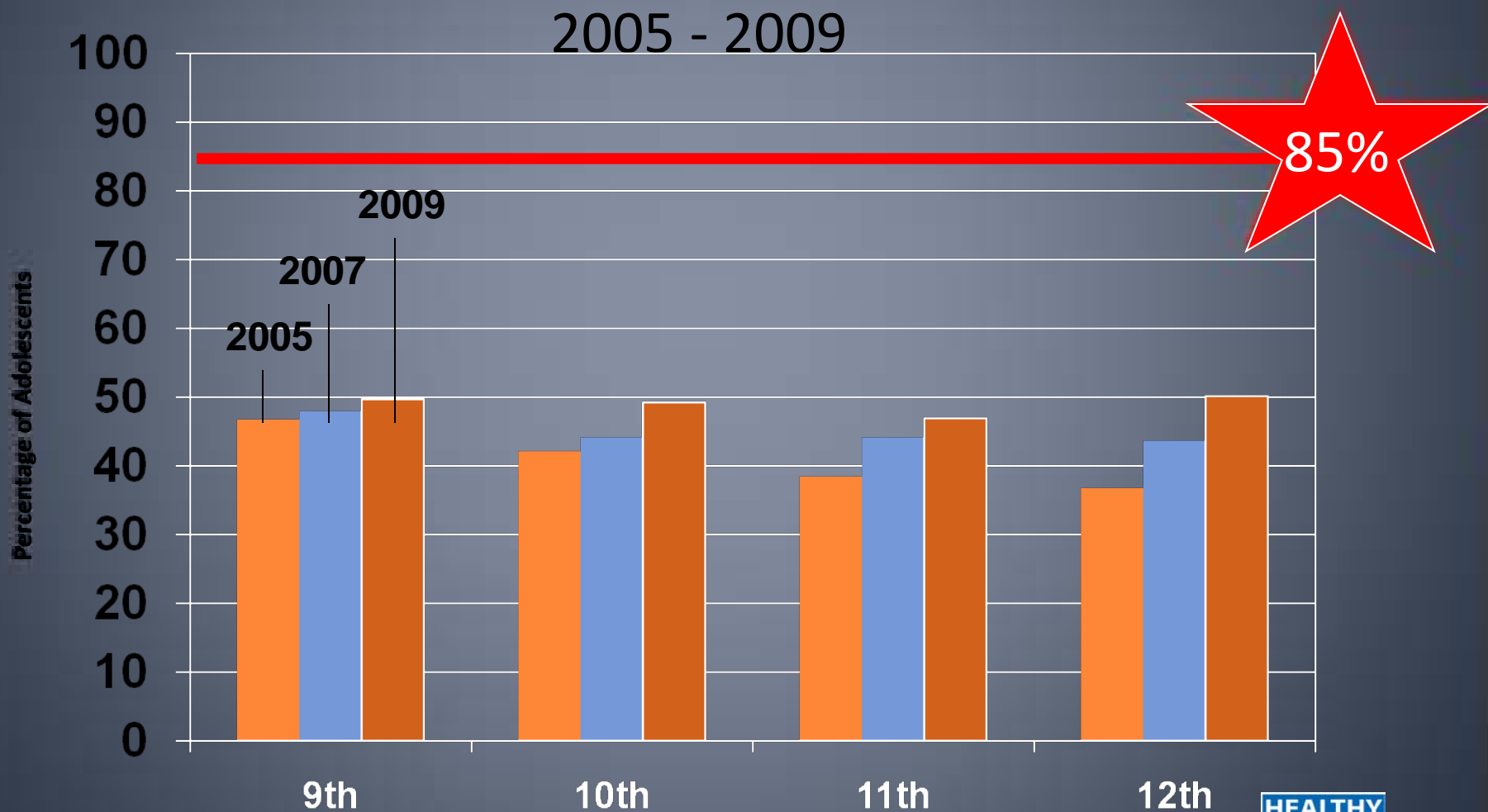
- Risks of being physically active in polluted air
- Related to:
 - Time of day
 - Proximity to roadways
 - Individual susceptibility
- Control of environmental triggers could reduce asthma with significant cost savings
- Air quality index in use in many areas for determining higher risk times



Asthma

- Current - benefits of being active, even in polluted air, outweigh the risks of being inactive (study in adults)
- Promote physical activity and work to minimize exposure
- During ozone season - Best time for outdoor PA is before noon and after 6:00 p.m.
- One study showed streets with higher tree density were associated with lower prevalence of early childhood asthma
- Anti-idling policies esp at schools

Percentage of Kansas Adolescents (grades 9-12) Who Meet Current Recommendations for Physical Activity by Grade Level (60 min per day most days of the week)



Obesity



- Overweight children have 70-80% chance of becoming overweight adults
- Diabetes – on current pace for 1 in 3 US children to develop
- With BMI > 95%ile, 1:10 chance also have hypertension
- Most overweight children have at least one CV disease risk factor

Synergy

- Childhood obesity is associated with poor self-esteem, lower level of adult education, lower family income, lower marriage rate
- Increased incidence of sleep apnea
- Increased incidence of asthma
- ***Best Rx for obesity is increased physical activity and healthy eating!***



Nutrition

- Many lifestyle and behavior choices develop during school-age years
- Meals from school lunch and breakfast programs may constitute more than half the daily caloric intake for children who participate in both programs, particularly for those from low-income families
- Learning opportunities regarding making healthier choices



Nutrition

- School Gardens – PA, nutrition education, increased intake of F and V, role modeling, family involvement, community relationships
- Farm-to-School programs - many of the same benefits



ADD

- Approximately 4% to 5% of children have some form of attention deficit disorder
- Research has demonstrated:
 - Green, outdoor activities showed greater reduction in symptoms than similar activities in other settings
 - Very promising but needs more research
 - Rx daily dose of “green time” – walk to school, sit by window, play outside

Other

- Mental Health
 - All kids have increased stress levels today
 - Since 1970, 25% decrease in free play time and 50% decrease in unstructured outdoor activities
 - One study showed exposure to nature decreased stress levels in children
 - Surgical outcomes improved with “green view”

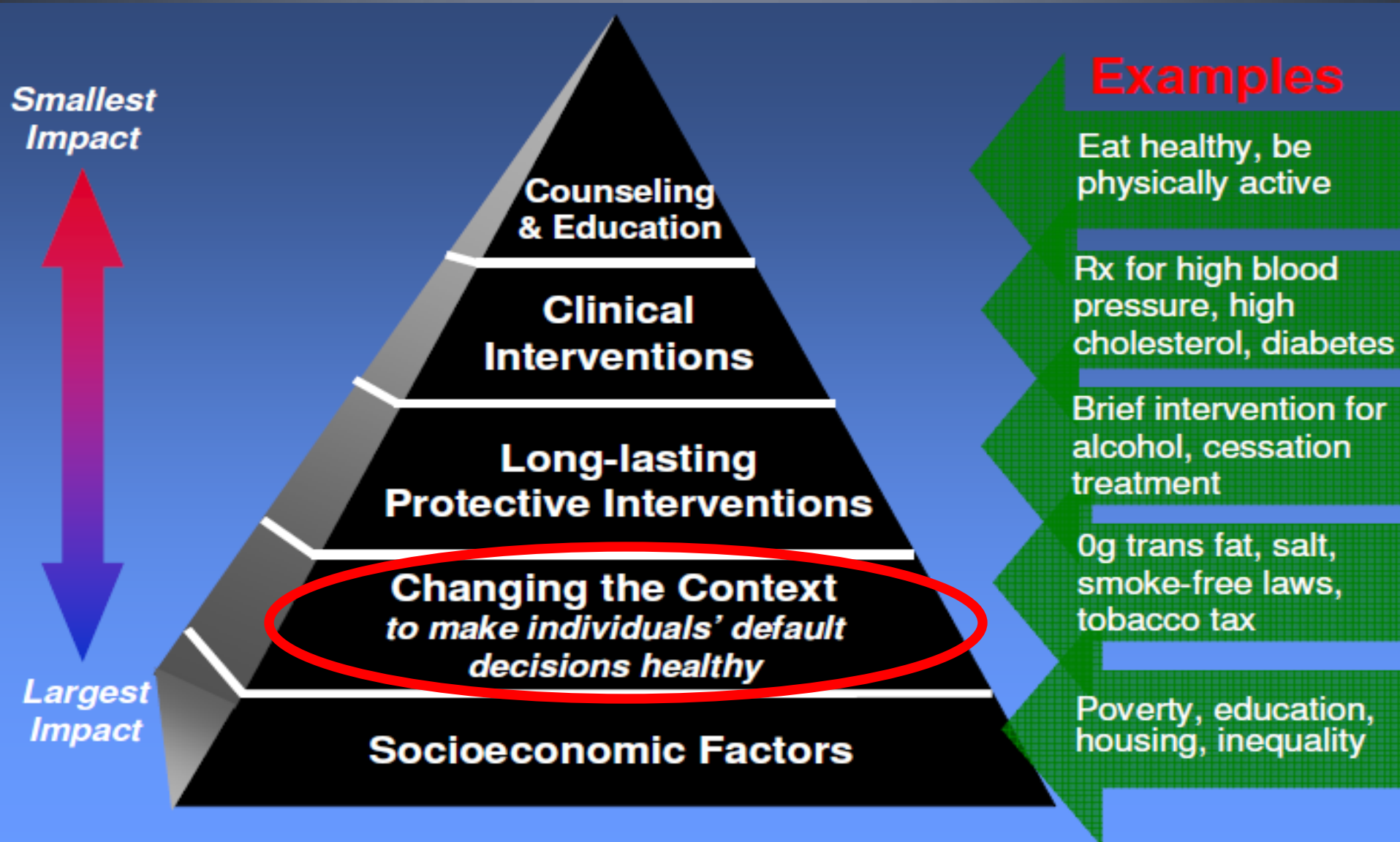


Other



- Vision
 - Higher levels of outdoor time were shown to be associated with less myopia and better far vision
 - Needs further research!
- **Finally - FREE PLAY**
 - stimulates brain development, imagination, increased dexterity and greater emotional strength

Factors That Affect Health



The Power of Supportive Environments



www.thefuntheory.com

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SITTING IN FRONT OF A TV SCREEN FOR MORE THAN FOUR HOURS CAN DOUBLE YOUR RISK OF HEART PROBLEMS.



BETTER?



HEALTHY Kansas SCHOOLS



A Prescription for Change at School

- Fund-raising that incorporates physical activity and the outdoors
 - Bedding plants, seed sales, lap-a-thons, other outdoor contests
- Schools provide and encourage access to all outdoor facilities (remove concerns about liability)
- School gardens
- Outdoor literacy programs such as proposed in the Kansans for Children in Nature

www.kacee.org

A Prescription for Change at School



Promote Biking and Walking to school

- <http://www.ksdot.org>
- Conduct assessments, walkable design, remove barriers

A Prescription for Change at School

- **Playground design and supervision**
- At Haven Schools, the teachers have identified 10 games to be played routinely at recess. All teachers and all students are taught the rules to decrease opportunities for problems of all kinds.
- At St. Mark's, working on consistency of monitors



A Prescription for Change at School

- **Anti-idling policies**

The Olathe School District implemented an idle-free zone program as an effort to reduce vehicle emissions around school buildings.

Signage

Cleaner air and reduced fuel consumption are two benefits.

- **School and community gardens**

Learning lab, F and V sources, healthy fundraising

Let's Move in Kansas Schools

- New project developed by NASPE and pilot for Kansas
- Train 200 Directors of Physical Activity to lead PA in schools in Ks
- PA Program needs to be:
 - Cost effective
 - Unobtrusive
 - User friendly
 - Sustainable



Kansas Fitness Information Tracking: The Missing Puzzle Piece?

- K-FIT is a 3-year KCSH project funded by the Kansas Health Foundation to provide FitnessGram 9.0[®] to 900 schools
- Opportunity for schools to better assess fitness of students, set individual goals and validate PE and PA programs
- Data on 5th, 7th and 9th grade students will be linked to academic data for analysis of potential relationships





A Prescription for Change in Our Communities

- Pediatricians “write” prescriptions for physical activity and include time spent outdoors
- Communities identify park areas that need improvement or need to be established
 - Within parks, people tend to be more physically active on trails, playgrounds, and sports facilities (skate parks)
- Promote the use of technology to connect better with outdoor opportunities
www.goplaykansas.com
- Involve families



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The Latest

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Use of Technology – Geocaching

Connect with
other subject
areas

Outdoor
Activity

Novel physical
activity

Connect with
community
and/or families

Technology
component

Geocaching

- Geocaching.com
- Rules
 - If you take from the cache, you must leave something for the cache
 - Write about your visit in the log book
 - Enter condition of the cache on website
- Equipment
 - GPS Unit



So where have we gone astray?



Parks tend to be seen as optional amenities rather than as necessary components of urban and rural infrastructure.

“Time in nature reduces stress, fosters psychological well-being, boosts immunity, enhances productivity and promotes healing ... it is essential for human development.”

"We don't stop hiking because we grow old,
we grow old because we stop hiking."

-- Finis Mitchell



Questions?

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