CREATING A SCHOOL SYSTEM RATHER THAN A SYSTEM OF SCHOOLS

Greg Erickson, Bob Lutz, and Marysville Health & Fitness Staff March 20, 2015

SYSTEMS

"While many organizations thrive on chaos, teachers, students, and the learning environment require and thrive on predictability, routine, and some variety." (Masci et al., 2008)

HEALTHY PEOPLE 2020 – PHYSICAL ACTIVITY

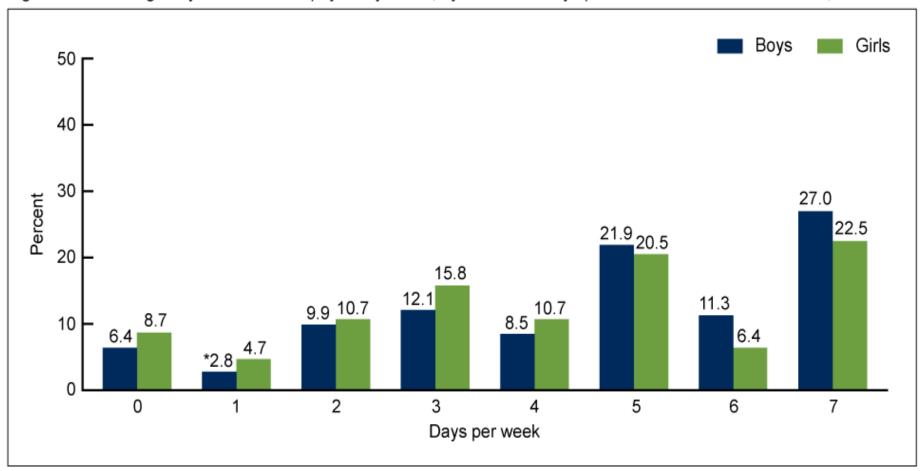
- PA-3 —Increase the proportion of adolescents who meet current Federal physical activity guidelines for aerobic physical activity and for musclestrengthening activity
- PA-4 –Increase the proportion of the Nation's public and private schools that require daily Physical Education for all students

2010 NAT'L. YOUTH PA & NUTRITION STUDY

Among U.S. high school students in 2010—

- 12.2% met the HP 2020 objective for both aerobic & muscle strengthening activities
- 15.3% met the objective for daily aerobic activity; 51.0% met the objective for muscle strengthening activity
- 5.8% girls vs. 18.5% boys met the objective for both
- Decreasing rates with age 10.3% 12th vs. 10.7% 11th vs. 12.3% 10th vs. 15% 9th
- 7.3% obese vs. 13.6% overweight vs. 13.3% under/normal weight met both

Figure 1. Percentage of youth who were physically active, by number of days per week and sex: United States, 2012

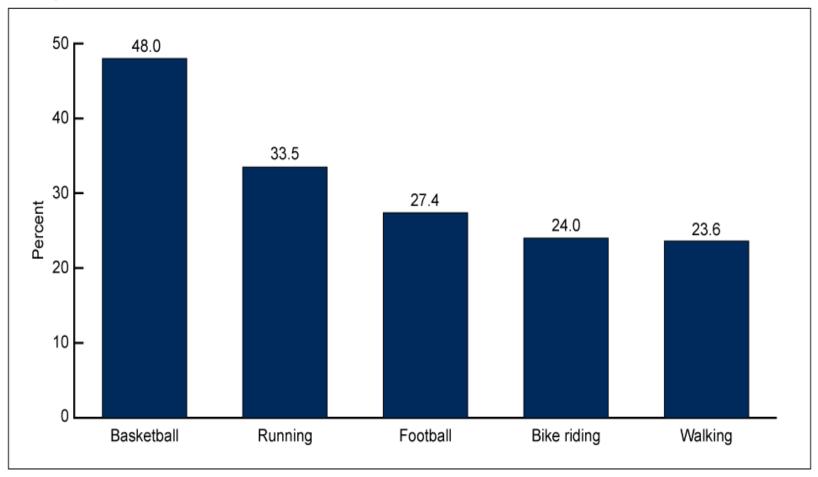


Does not meet standard of statistical reliability and precision (relative standard error of ≥30% but <40%).

NOTES: Physically active is defined as engaging in any kind of moderate-to-vigorous physical activity, including activities both in school and outside of school, that increased heart rate and made breathing harder some of the time for at least 60 minutes. Weighted percentages are shown. Access data table for Figure 1 at: http://www.cdc.gov/nchs/data/databriefs/db141_table.pdf#1.

SOURCE: CDC/NCHS, National Health and Nutrition Examination Survey and National Youth Fitness Survey, 2012.

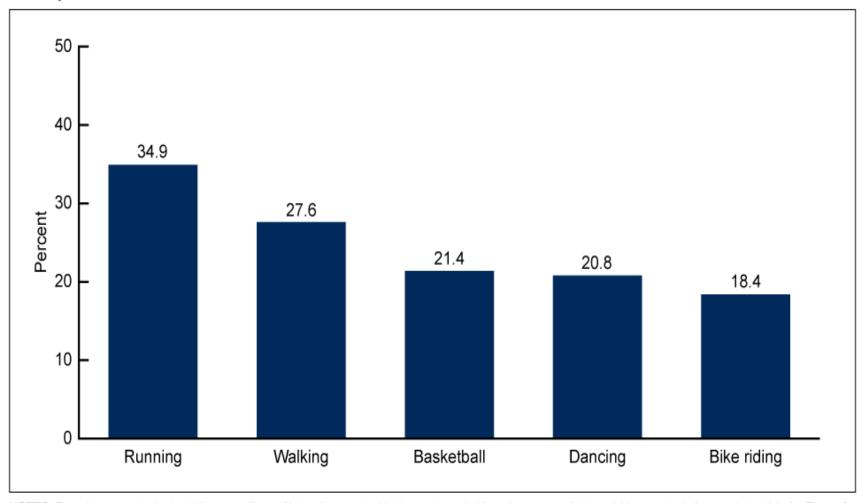
Figure 2. The top five activities outside of school-based physical education and gym classes reported among boys aged 12–15 years: United States, 2012



NOTES: Based on any physical activity, regardless of intensity, reported in the past week. More than one activity could be reported. Access data table for Figure 2 at: http://www.cdc.gov/nchs/data/databriefs/db141_table.pdf#2.

SOURCE: CDC/NCHS, National Health and Nutrition Examination Survey and National Youth Fitness Survey, 2012.

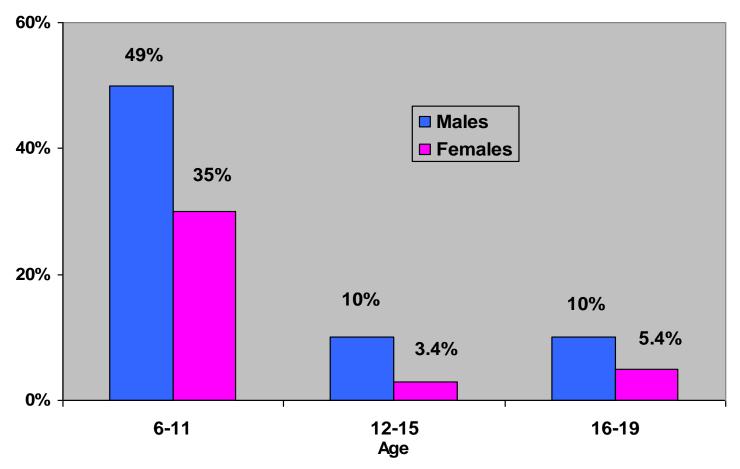
Figure 3. The top five activities outside of school-based physical education and gym classes reported among girls aged 12–15 years: United States, 2012



NOTES: Based on any physical activity, regardless of intensity, reported in the past week. More than one activity could be reported. Access data table for Figure 3 at: http://www.cdc.gov/nchs/data/databriefs/db141_table.pdf#3.

SOURCE: CDC/NCHS, National Health and Nutrition Examination Survey and National Youth Fitness Survey, 2012.

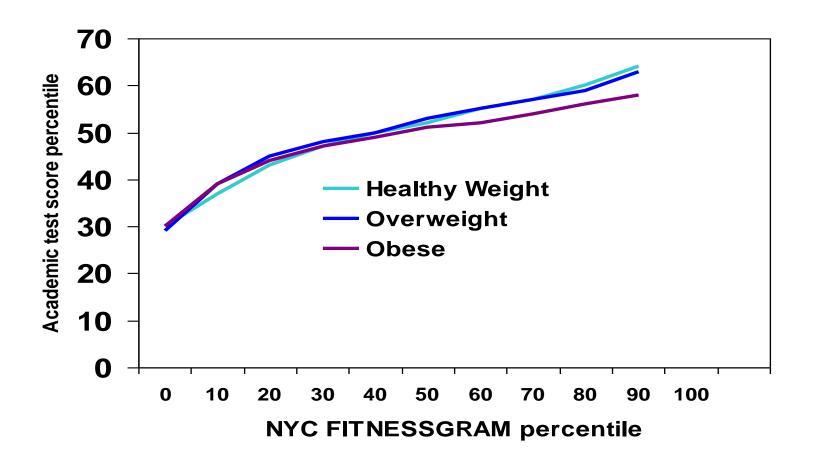
Percentage of youth ages 6-19 meeting 60 min/day physical activity guidelines. Based on accelerometers. NHANES 2003-4



Troiano RP, Berrigan D, et al. Physical activity in the United States measured by accelerometer. *Medicine & Science In Sports & Exercise* 2008; 40(1):181-188.

HEALTHY PEOPLE 2020 – PHYSICAL ACTIVITY

- PA-3 —Increase the proportion of adolescents who meet current Federal physical activity guidelines for aerobic physical activity and for musclestrengthening activity
- PA-4 —Increase the proportion of the Nation's public and private schools that require daily Physical Education for all students





SYSTEMS - EDUCATION

Structure → **behavior**

- Structure includes the perceptions, goals, rules, and norms people use to make decisions
- Organizational perceptions, goals, and norms are agreed upon by practice and repetition
- Organizational structure influences behavior because students are taught the goals and norms of the organization

△ Structure → different patterns of behavior

SYSTEMS - EDUCATION

- School change efforts are more likely to succeed when –
 - A visionary leader
 - Innovation matches school culture (Kame'emui & Simmons, 1998; Ringeisen, Henderson, &Hoagwood, 2003)
 - School staff care about the issue change is intended to address (Hall & Hord, 2001)
- Failure may result from the absence of systemic support from persons in key leadership positions and policymakers



QPE

- Key points
 - Opportunity to learn
 - Meaningful content
 - Appropriate instruction
 - Student & program assessment
- Promotes lifelong activity & fitness

http://www.aahperd.org/naspe/publications/teachingTools/key-points-of-QPE.cfm

FIVE FOR LIFE

- Fitness- & Health-based program that aligns with national & state standards
- "Seeks to intrinsically motivate students to pursue an active & healthy lifestyle that leads to lifelong wellness"









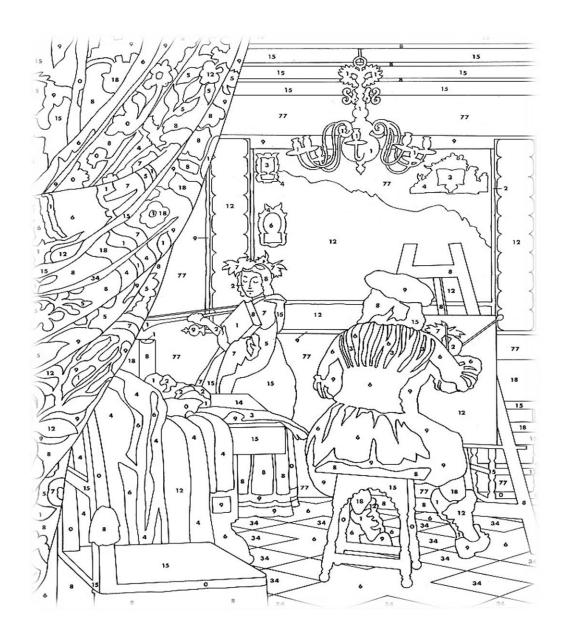






QUANTITATIVE

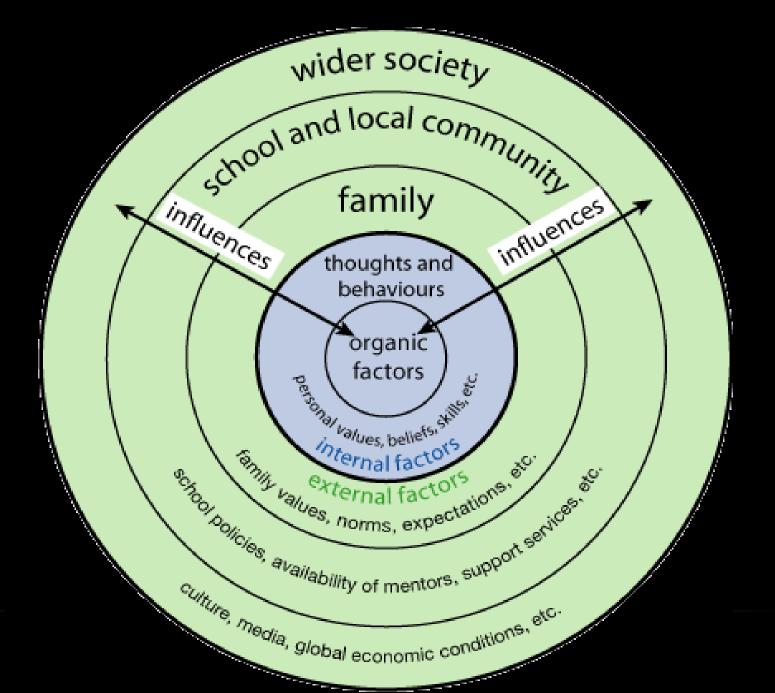
- GPRA
 - 1. Fitness measurements
 - 2. Level of PA
 - Pedometer logs
 - 3D-PAR
 - 3. Fruit & Vegetable consumption
 - YRBSS (grades 5-12)
 - SPAN (grades K-4)



QUALITATIVE

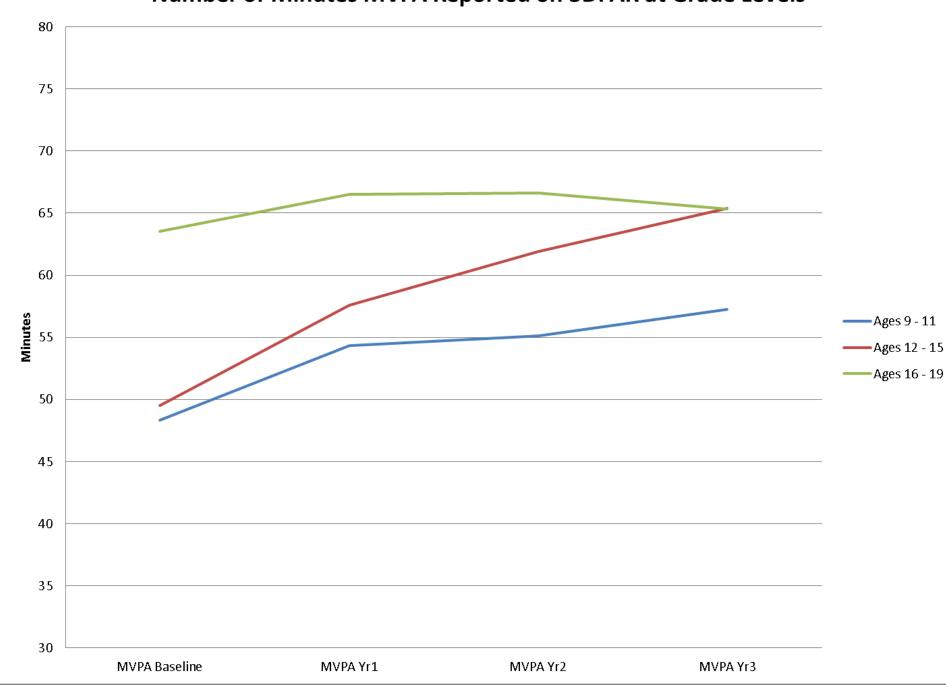
- Iterative process
 - Year-1 baseline
 - Year-2 student experience
 - Year-3 review, sustainability
- Design
 - Cross-sectional (site visit)
 - Longitudinal (updates, documents)



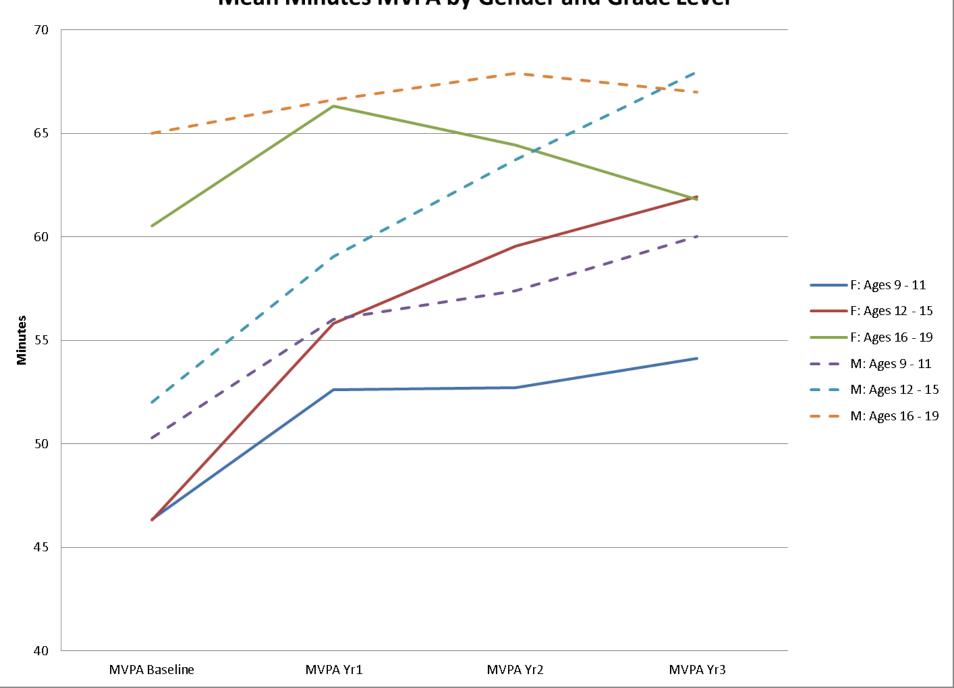


DID WE MAKE A DIFFERENCE?

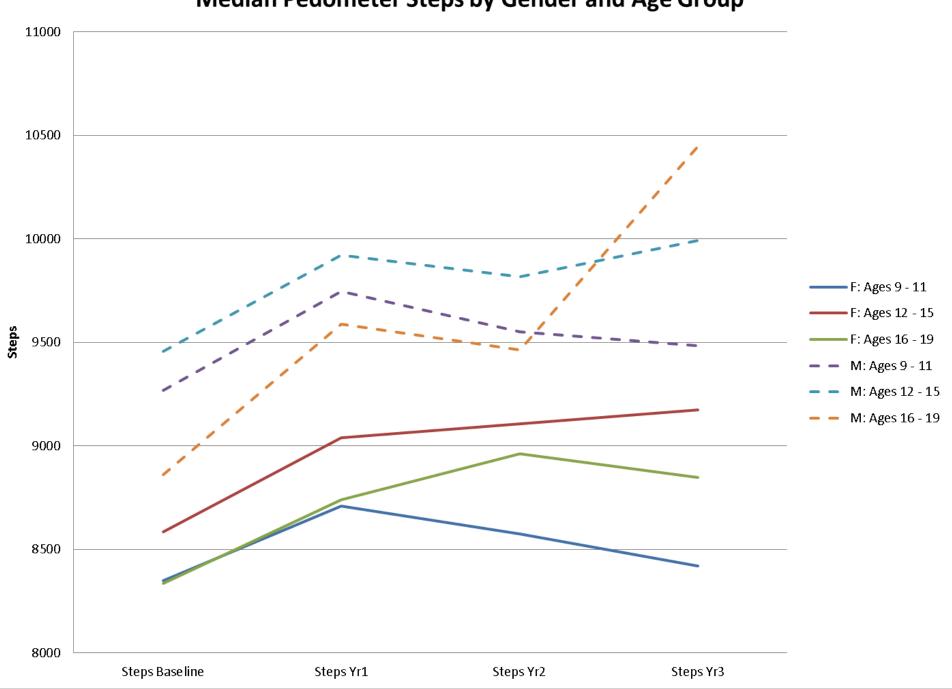
Number of Minutes MVPA Reported on 3DPAR at Grade Levels

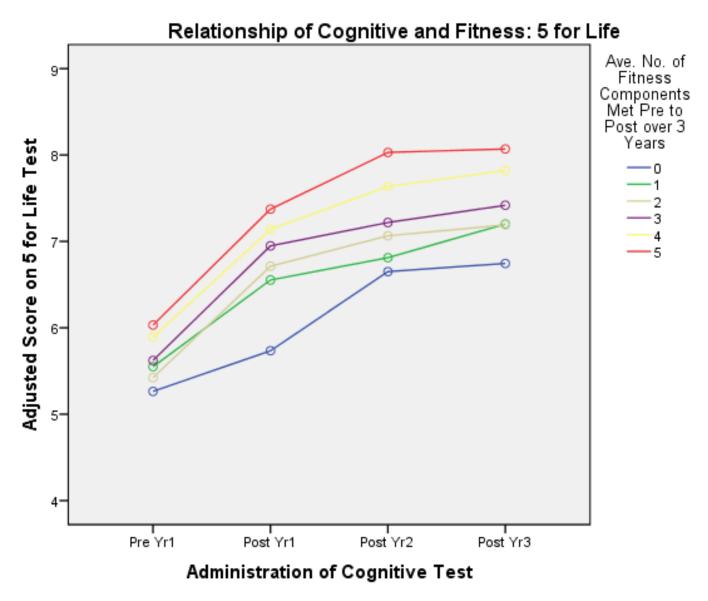


Mean Minutes MVPA by Gender and Grade Level

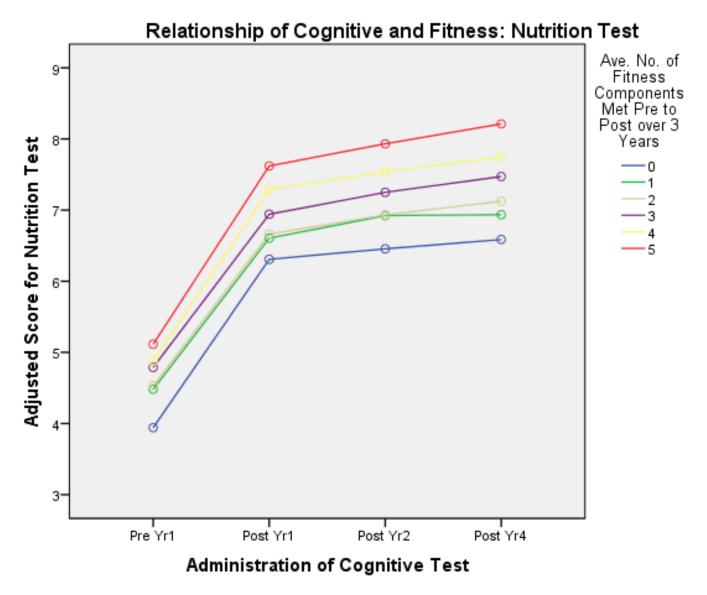


Median Pedometer Steps by Gender and Age Group

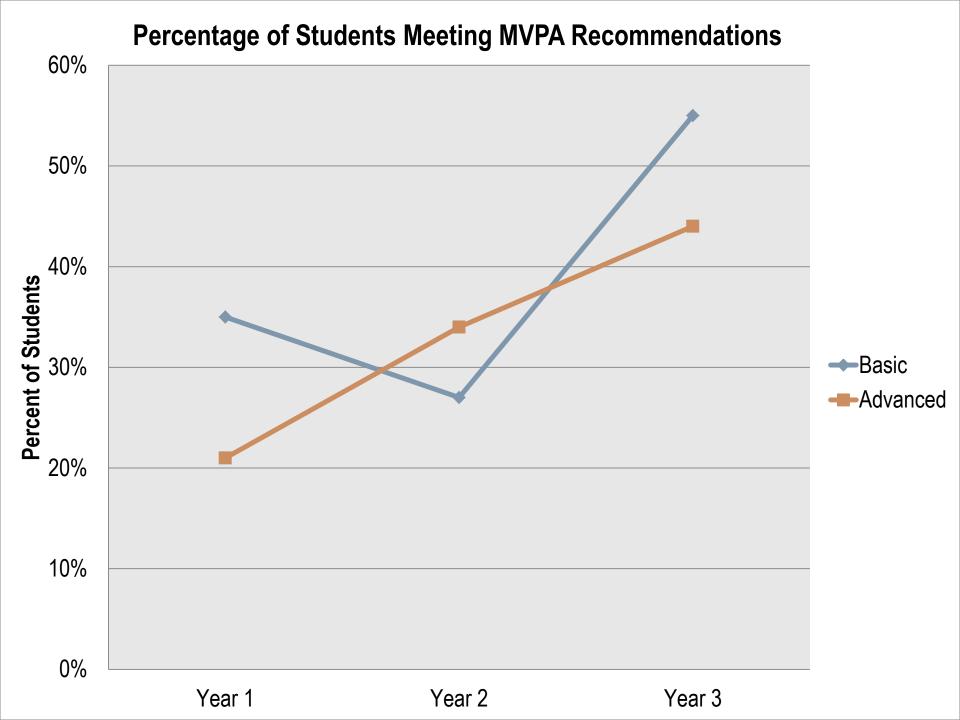




Covariates appearing in the model are evaluated at the following values: Age in Project Year 1 = 12.16



Covariates appearing in the model are evaluated at the following values: Age in Project Year 1 = 11.98



STUDENTS

- Engagement/enthusiasm by
 - Age, gender, "athletic"
- What's important?
 - Moving, fun, socializing, variety & choice
- Learning's ok & important (no place else)
- Fitness vs. games/sports
- Self-efficacy
- Context (i.e., culture) matters
- Teacher-effect

TEACHERS

- "What we're doing is important, with the health issues affecting students"
- Years teaching, education, PD
- Priority Physical Educator vs. "Coach"
- Leadership & advocacy
- Connectedness (collaboration) & PD
- Perceptions
- Administration

BUILDING

- Leadership
 - Culture
- Perceived value-add
- Knowledge of fitness/activity ←→ academics
- Priorities school vs. district vs. community vs. other (mandates)
- Communication with staff

DISTRICT

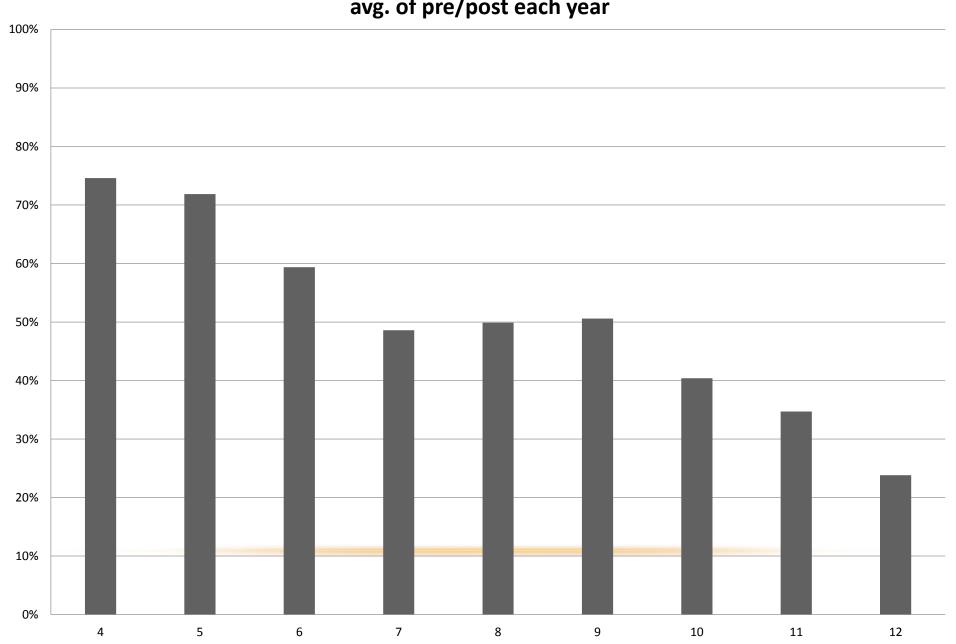
- Leadership
 - Priorities & culture
- External pressure academics
- Accountable to Board & community
- Physical Education Ø accountability
- Financial challenges never-ending
- Infrastructure
 - Policies, accountability, alignment

COMMUNITY

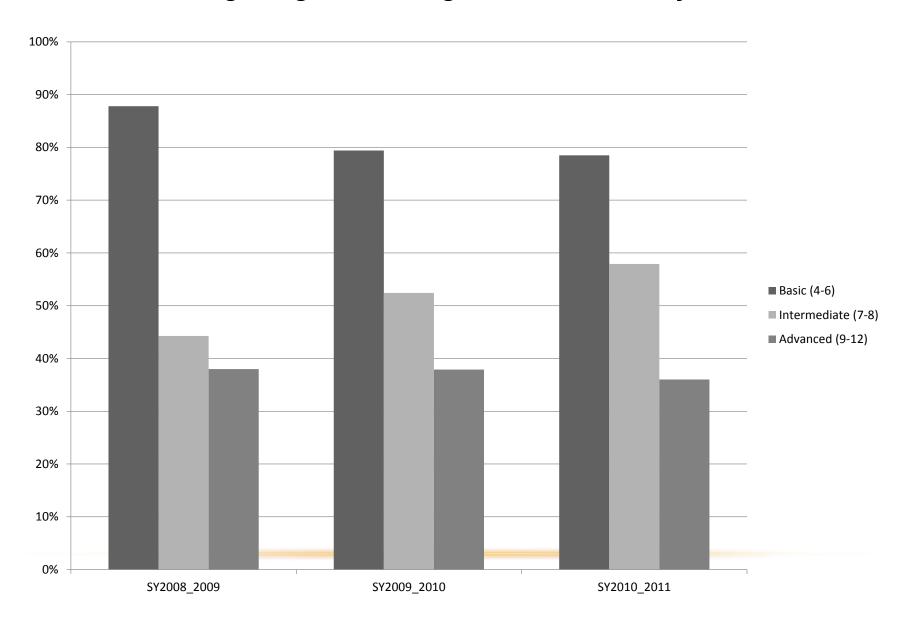
- Essential for sustaining program after funding
- Size, geography & demographics
- Relationship with District
- Partnerships
- Priorities, vision



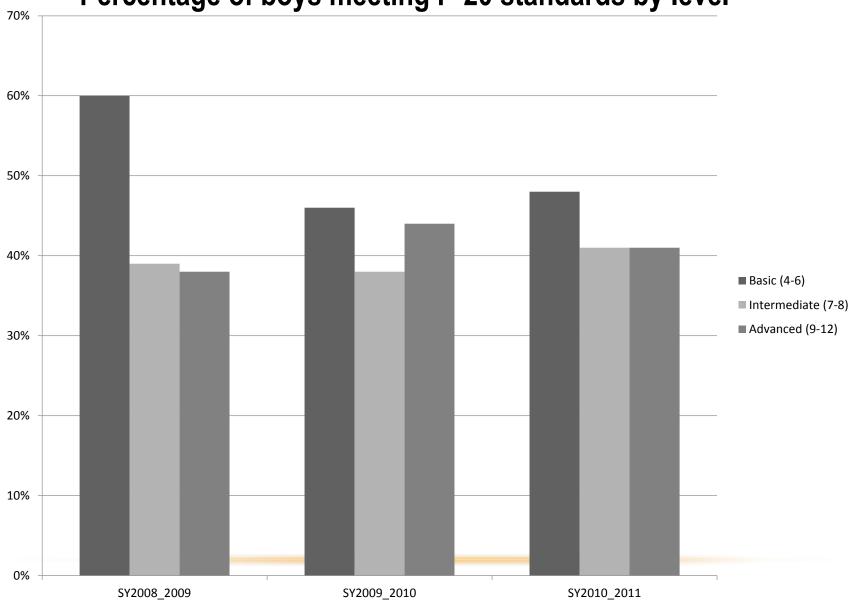
Percentage meeting P-20 target by grade, all years, avg. of pre/post each year

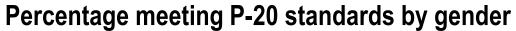


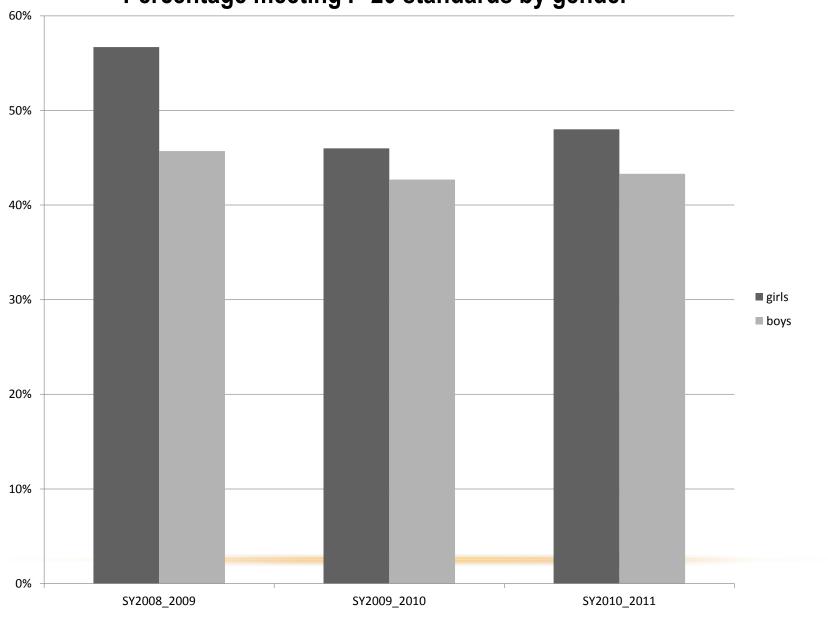
Percentage of girls meeting P-20 standards by level





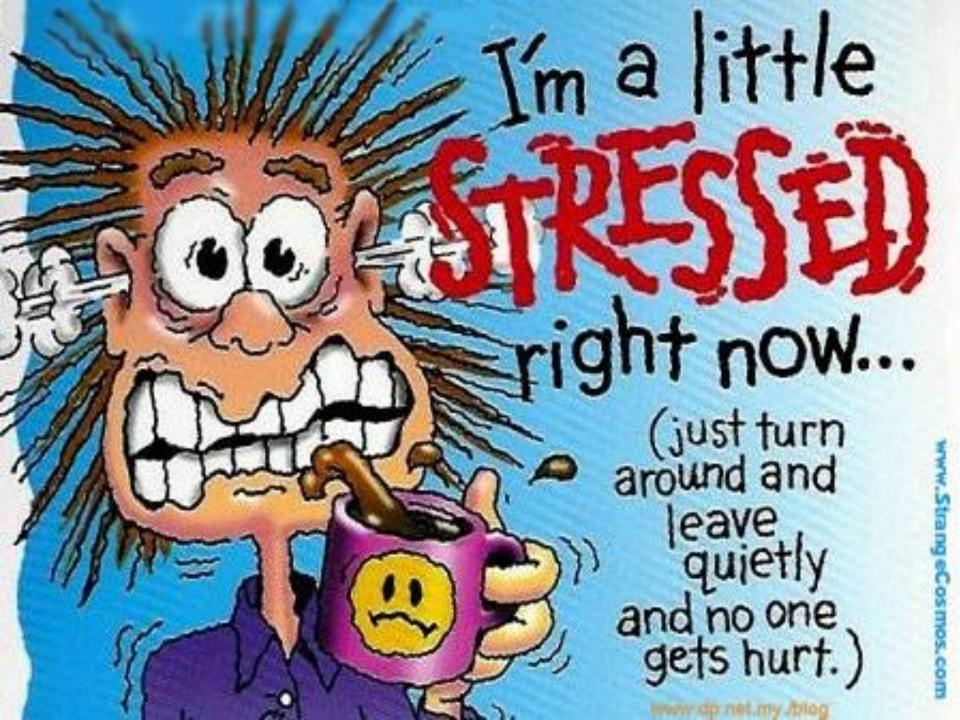






PRINCIPALS YEAR-1

- The main goals and intents of the Physical Education program are the life-long component, and the fitness and the health and the healthy lifestyles that are an integral part that we educators need to emphasize to our students so that they can be healthy.
- We need kids to get smarter about both movement and nutrition, so that they can lead as healthy and productive a life as they can.



TEACHERS YEAR-1

- I love the academic pieces of it and bringing in the knowledge, materials, and actually having the kids feel like it's a school subject rather than just play time and I'm more than just a planning time now.
- I like we're all on the same page now, that we all have a similar curriculum we can pull from.
- If we're not all buying into it, it looks bad... And the teachers who don't buy in, what's going to happen after three years? Is it going to fall apart?



STUDENTS YEAR-2

- We <u>learned</u> about intensity levels and it helps us outside of school because it helps you be active.
- Sometimes, I'll want to eat a piece of candy, but then I realize it's unnatural sugar while a piece of fruit has sugar, but it's natural sugar...
- ...if we start early, it'll help later. It helps you learn how to stay fit and healthy, so you don't overeat, I mean, like eat fat food like junk food.

STUDENTS YEAR-2

- I feel more lazy this year. <u>But we don't want to run, we just want more sports</u>; like we don't want to run a mile, we want to play basketball.
- The teacher would kind of incorporate it into little games, like where you have little fitness games and things represented carbs and fats. It was kinda weird, but I guess it was fun, I guess...

STUDENTS YEAR-2

- I think she makes it fun...that's an important part, it makes you want to do it more...The teacher's ridiculously energetic. That makes it good...she never stops moving.
- If you see the <u>teacher doesn't have</u> <u>motivation</u> to do something, like if they don't even want to be there, <u>it makes it so you don't want to push yourself.</u>



 One thing I did envision was to bring everyone together as a District Fitness staff. There's now thirty-four people who have a relationship, to varying degrees. Prior, this didn't exist. Now, we have a district of Fitness people who have a relationship with each other such that they can talk about curriculum, a common terminology, and for the most part a common goal.

- What disappoints me at the District level is that I've not seen a curiosity or want-to-know-more attitude? I've not been asked to bring something to the Board; I have to ask if I can go to them...The Board is inquisitive when I'm there, but no ones ever asked, "Hows that grant going?"
- I think it takes longer to get the kind of change I envisioned.

 Principals are under so much pressure that there's not enough room on their plate, it's not a high enough priority.

And what I continually tell my people is that if they don't self-promote within their buildings, they'll have no one to blame but themselves if they see them lacking in value.

- At a conceptual level, I believe they recognize it's important, but when it comes down to the day-to-day operations, based on finances, it gets the same recognition [as before].
- It's not a lack of value, but rather maybe a lack of recognized importance...how do we ensure Health and Fitness is kept as a core subject area, rather than less than Reading and Math that gets the publicity and the attention of the School Board?

- Not everybody's comfortable doing something they're not used to. We all believed we're good at what we do, we're professionals. But to have someone say, "Let's try it this way."
- But we have Greg right now and they do it because they have to. But next year, without the money, who's going to make them do it?

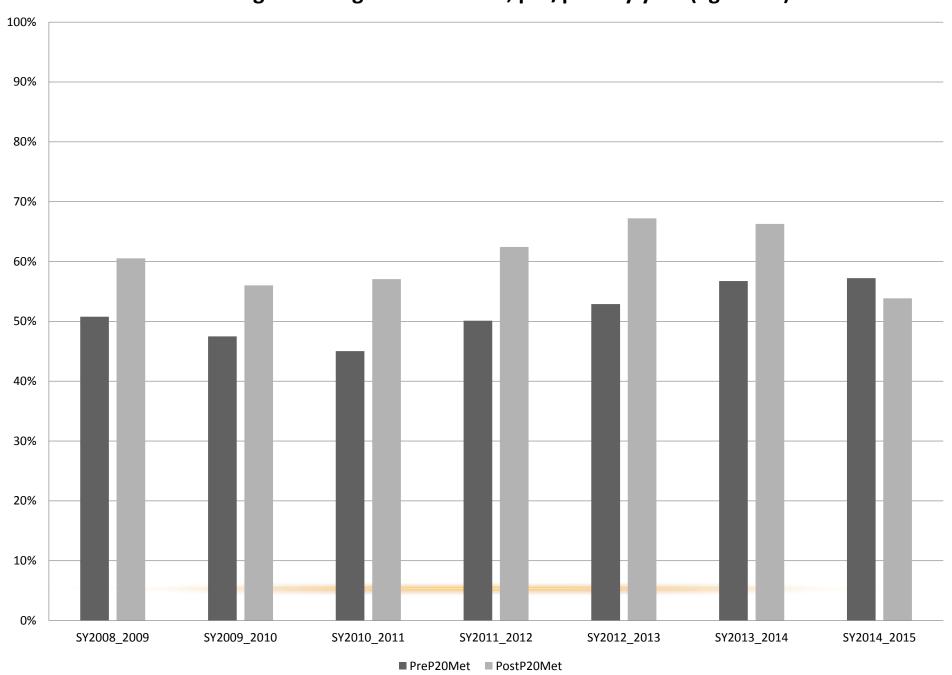
 How are we going to get the sustainability of our program? We need stakeholder buy-in...we need to be vocal advocates at each of our buildings and our grade levels. We have to talk it up with our principals; presentations with the School Board, and bringing in the community members that are high profile. One of the most impactful things is kids - it has their attention.

- The <u>community outreach</u>, support from outside agencies... That keeps it out there in another realm, supporting what we're trying to do.
- Newsletters and fitness nights at open houses. So there's potential to actually take information home and bringing it back that involves their parents that make it a PR piece for us.

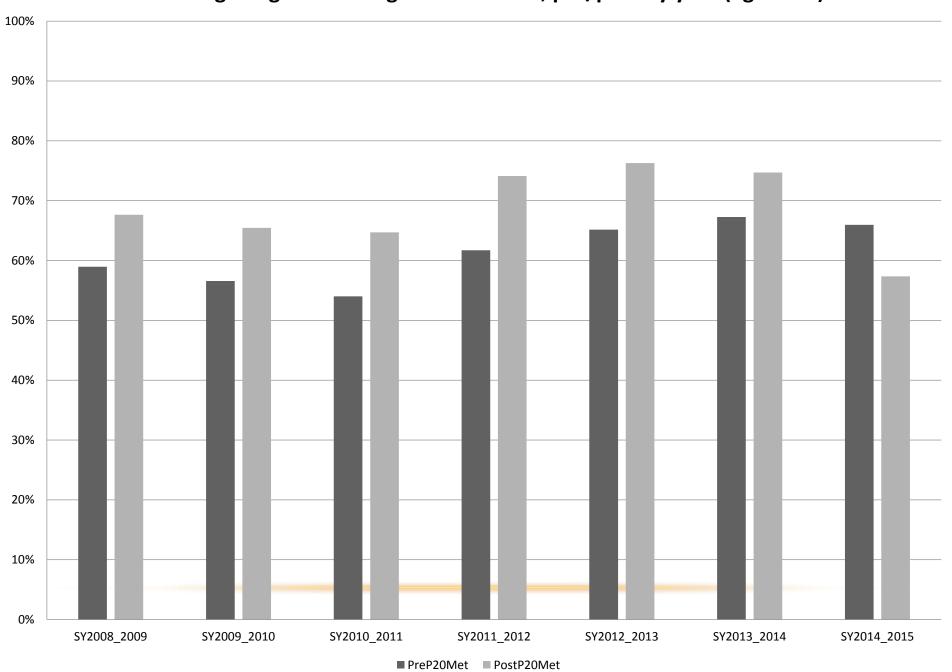
- We need to have <u>data</u>... If we can agree as a District that we're going to continue on this path, then everyone needs to be on board and maybe there's something written up... It's an <u>accountability</u> piece.
- We need to <u>continue to meet</u>...And we need to have <u>training</u> sessions.



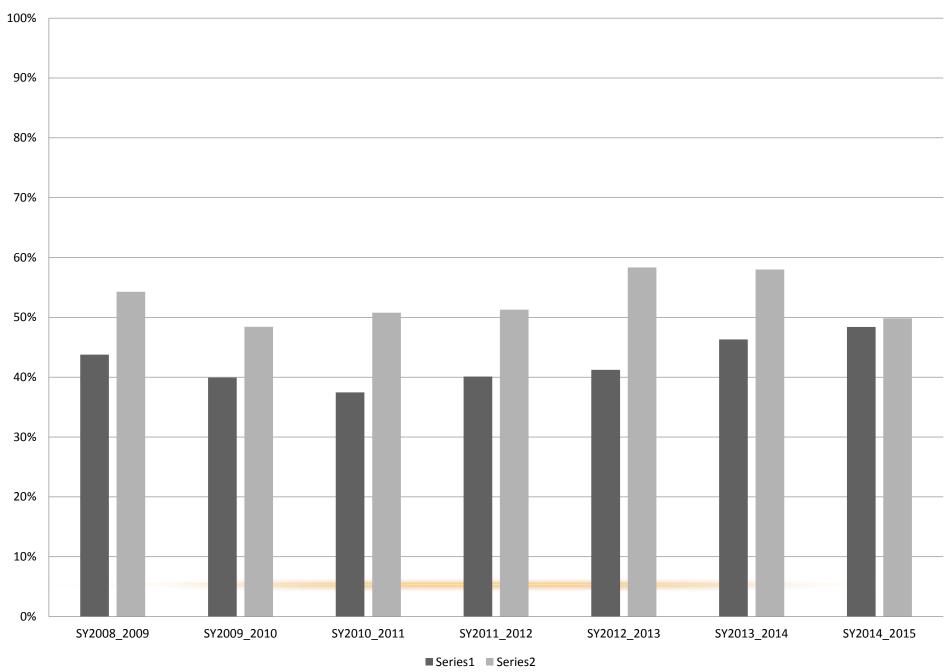
Percentage meeting P-20 standard, pre/post by year (ages 10+)



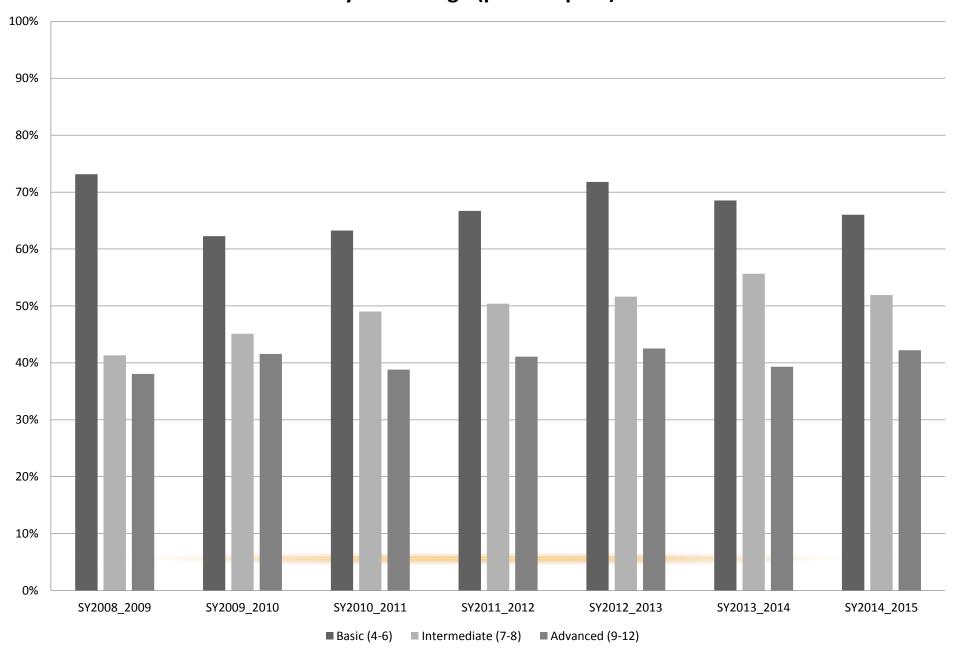
Percentage of girls meeting P-20 standard, pre/post by year (ages 10+)



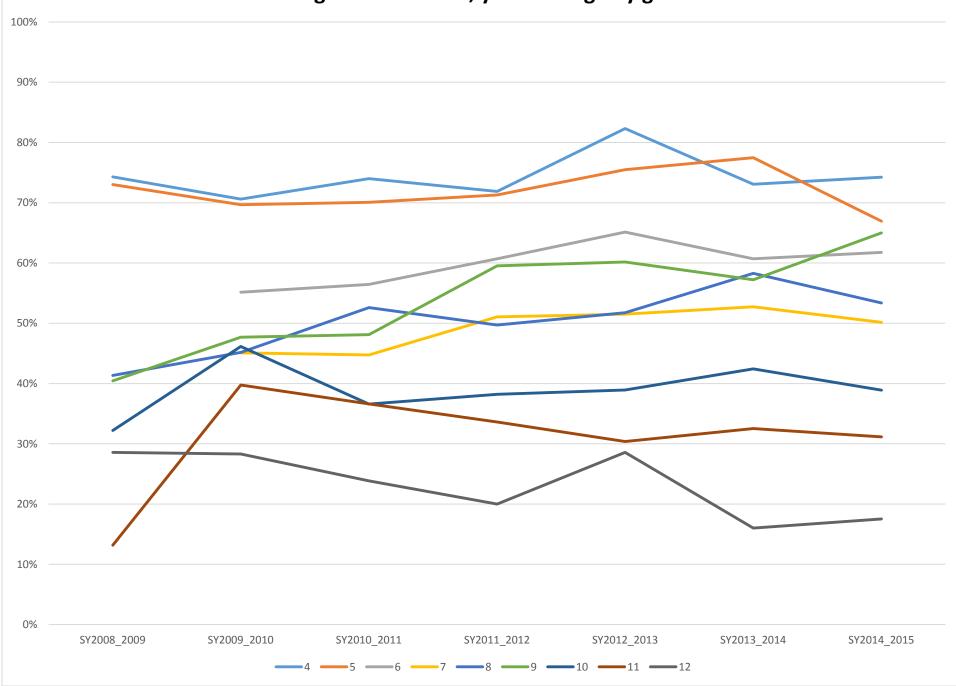
Percentage of boys meeting P-20 standard, pre/post by year (ages 10+)



Percentage meeting P-20 standard, by level over time, year average (pre and post)



Percent meeting P-20 standard, year average by grade over time



MEAN PERCENTAGE MEETING P-20 STANDARD

Grade	'08 – '09	'09 – '10	'10 – '11	'11 – '12	'12 – '13	'13 – '14	'14 – '15
4	74	71	74	72	82	73	74
5	73	70	70	71	75	77	67
6		55	56	61	65	61	62
7		45	45	51	52	53	50
8	41	45	53	50	52	58	53
9	42	48	48	60	60	57	65
10	32	46	37	38	39	42	39
11	13	40	24	34	30	33	31
12	29	28	24	20	29	16	18

MEAN PERCENTAGE MEETING STANDARD P-20

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