

# Fitness During COVID-19 Pandemic: What Now?

Heidi Stanish, PhD  
Fitness Advisor, SOI  
Associate Professor

Dept. of Exercise & Health Sciences, UMass Boston

# Recap: Special Olympics Fitness

Optimal health and performance through adequate physical activity, nutrition and hydration.





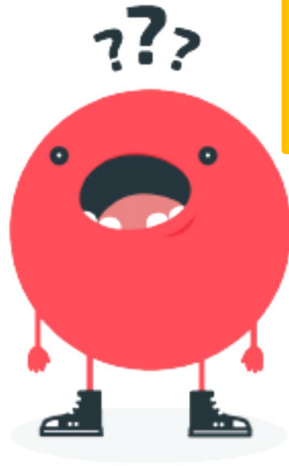
# Achieving Fitness: PA and Dietary Guidelines for Children and Youth

How much activity do I need?

If you're between age 6 and 17, you need at least

**60 minutes**

of activity each and every day.



So, what kind of activity do I need?

**Get a mix of activity. Do things that:**



Strengthen your bones



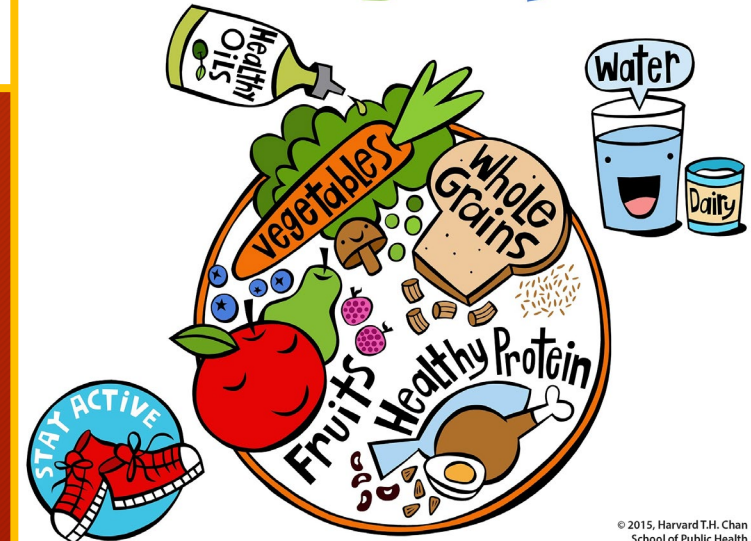
Build your muscles



Make your heart beat faster



## Kid's Healthy Eating Plate



# Achieving Fitness: PA and Dietary Guidelines for Adults

## How much physical activity should you do?



This can also be achieved by 75 minutes of vigorous activity across the week or a mixture of moderate and vigorous.

All adults should undertake muscle strengthening activity, such as



exercising with weights



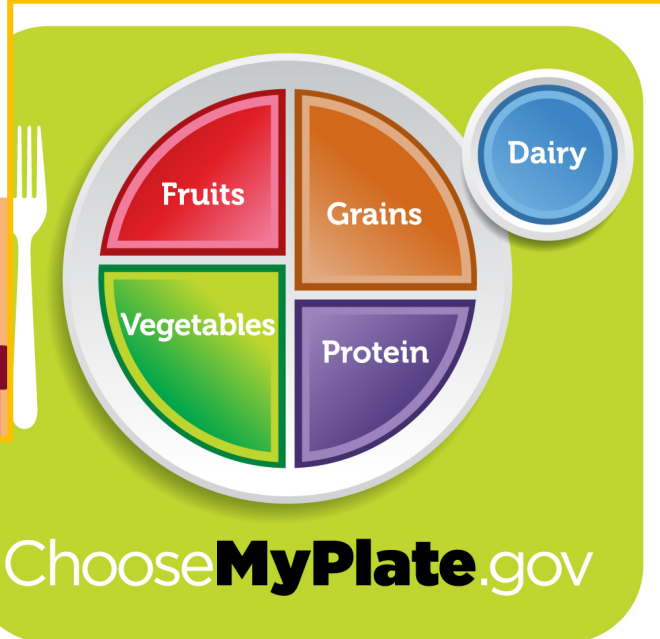
yoga



or carrying heavy shopping

at least 2 days a week

Minimise the amount of time spent sedentary (sitting) for extended periods



## The American Heart Association Recommendations for Physical Activity in Adults

At least **30 minutes** of moderate-intensity aerobic activity **At least 5 days** per week for a total of **150 minutes**

OR

At least **25 minutes** of vigorous aerobic activity **At least 3 days** per week for a total of **75 minutes**

or a combination of the two

AND

Moderate to **HIGH INTENSITY** muscle-strengthening activity **At least 2 days** per week for additional health benefits



# Fitness Models and Resources



# Impact of SO Fitness Programming

- *Fitness in Schools:*

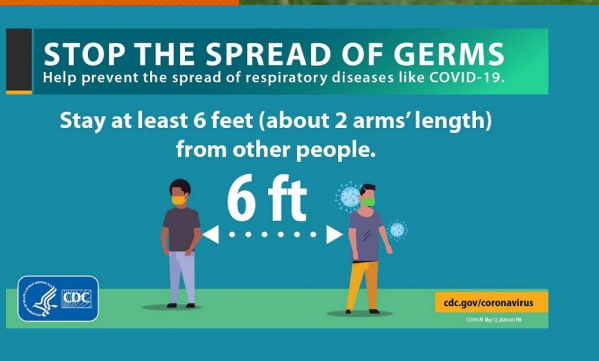
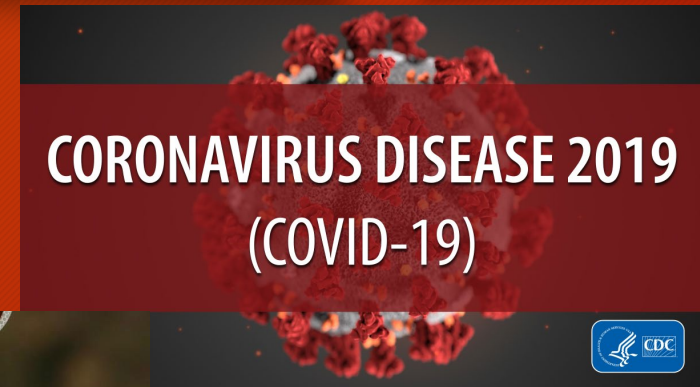
- 433 students - 48% with ID
- Grip Strength
  - Increased in all age groups.
  - 8-10 yo scores almost doubled.
- 6-minute Walk Test
  - Increased from 465m to 506m.
  - 80m improvement in 14-16 yo.

- *Fitness in Community:*

- 35% reported eating 1+ serving of fruits and veggies/day.
- 32% reported increased PA by at least 1 day/week.
- BP decreased; particularly among those with highest readings.

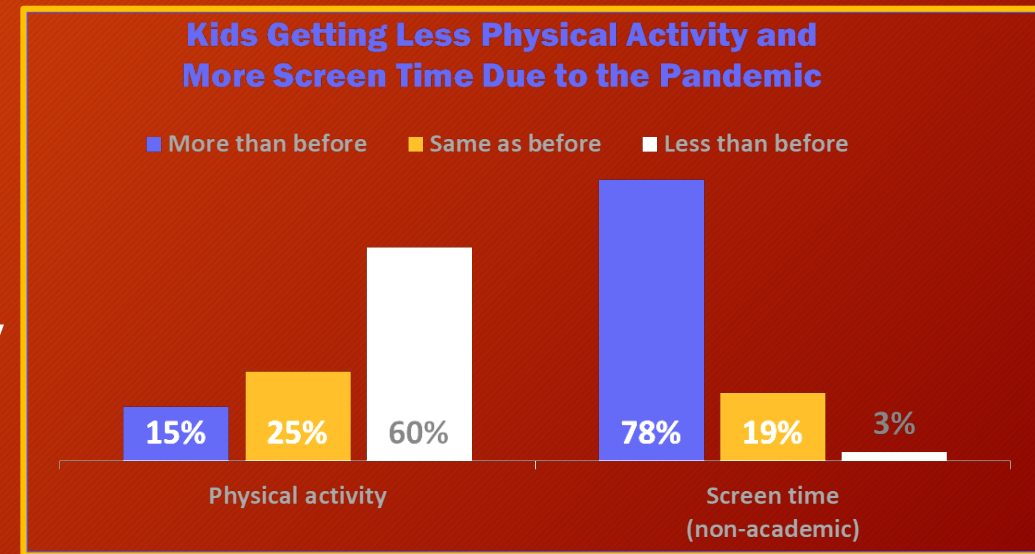


# An Unexpected and Unprecedented Challenge



# Collateral Effects of Quarantine: Reduced Opportunities for PA

- No school-based PE, recess, or athletic programs.
- Recreational spaces/facilities closed (trails, playgrounds, pools).
- Fitness centers closed.
- Cardiac rehab. programs suspended.
- Increased screen time = greater sedentary behavior.
- Food insecurity.
- Stock up on shelf-stable foods.





# Multiple Pandemics and Epidemics Collide

## KIDS NEED HEALTHY OPTIONS

Lack of physical activity and an unhealthy diet contribute to the obesity epidemic that affects **nearly one in three** children and teens in the United States.

Of kids ages 6-11, only 42% get enough daily physical activity

Of kids ages 2-18, only 40% eat enough fruit and 10% eat enough vegetables



Learn more at [www.afterschoolalliance.org/AA3PM](http://www.afterschoolalliance.org/AA3PM)  
<http://jama.jamanetwork.com/article.aspx?articleid=1832542>  
[www.ncbi.nlm.nih.gov/pubmed/18091006](http://www.ncbi.nlm.nih.gov/pubmed/18091006)  
[www.cdc.gov/vitalsigns/fruitvegetables/index.html](http://www.cdc.gov/vitalsigns/fruitvegetables/index.html)



## Adult physical activity levels

Health Survey for England 2012 (base aged 16 and over)

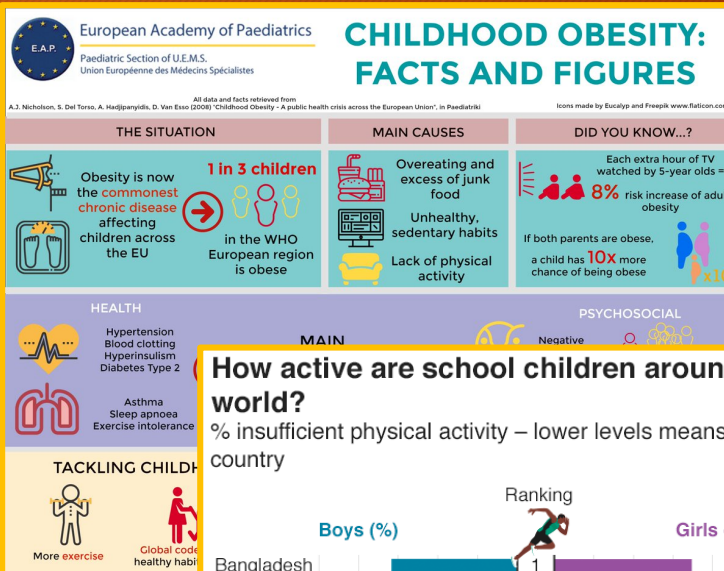
Two thirds of **men** meet national physical activity recommendations\* (67%)



Around half of **women** meet national physical activity recommendations\* (55%)

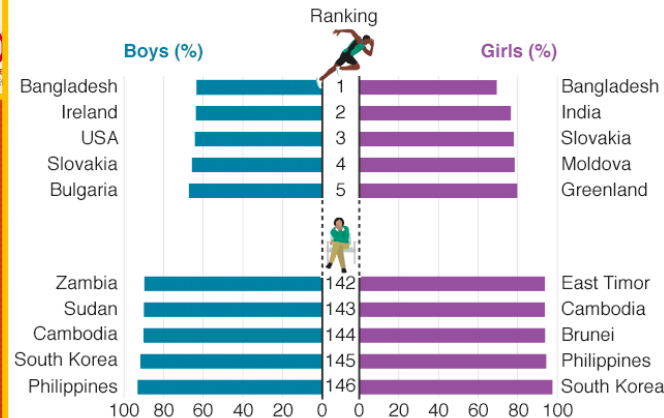


\*150 minutes of moderate intensity physical activity per week

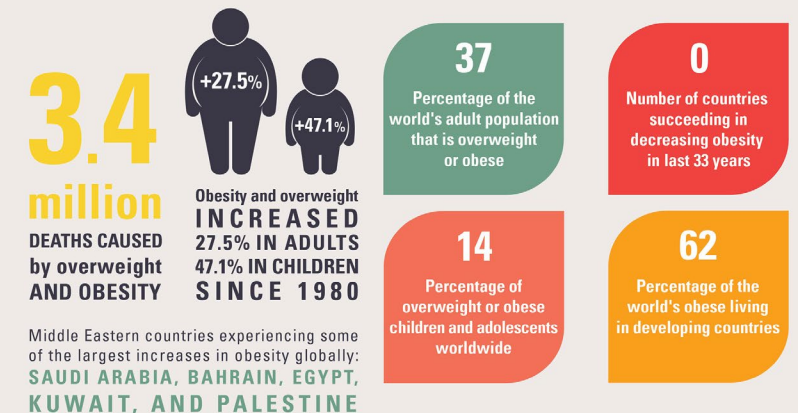


## How active are school children around the world?

% insufficient physical activity – lower levels means more active country



## OBESITY AND OVERWEIGHT INCREASING WORLDWIDE



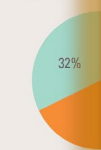
THE US ACCOUNTS FOR **13%** OF THE NUMBER OF OBESE PEOPLE GLOBALLY BUT JUST **5%** OF THE WORLD'S POPULATION

OBESITY AND OVERWEIGHT CONTRIBUTE TO:



**7** COUNTRIES EXCEPT TONGA, KUWAIT, AND MICRONESIA

GLOBAL BURDEN



Globally, around 31% of adults aged 15+ were insufficiently active in 2008 (men 28%, women 34%). Approximately 3.2 million deaths each year are attributable to insufficient physical activity.

Is COVID-19 making the world move  
even less than before?

Will these increased sedentary  
behaviors persist and become the new  
societal norms?





# New Commentary on COVID and PA

- Effects of home Confinement on Lifestyle Behaviours during the COVID-19 outbreak (ECLB-COVID19) - International survey.
  - Minutes/day of PA decreased 33.5%.
  - Hours/day of sitting increased 28.6%.
  - Eating out of control “most of the time” increased to 20.4% from 9.7%.
- Survey of 1491 Australian adults.
  - Negative changes in PA (48.9%), sleep (40.7%), alcohol intake (26.6%) and smoking (6.9%).
  - Higher scores in 1+ psychological distress states for females, those aged 18-45 years, or with a chronic illness.

- Kids are less active when out of school.
- Survey of 2426 youth in China.
  - PA decreased 435 min/week - 7 hours!
  - Screen time increased 1730 min/week - 30 hours!
- Survey of 3075 Portuguese families.
  - Being younger, having an outdoor space, other kids in household, and one parent free from work = more active.

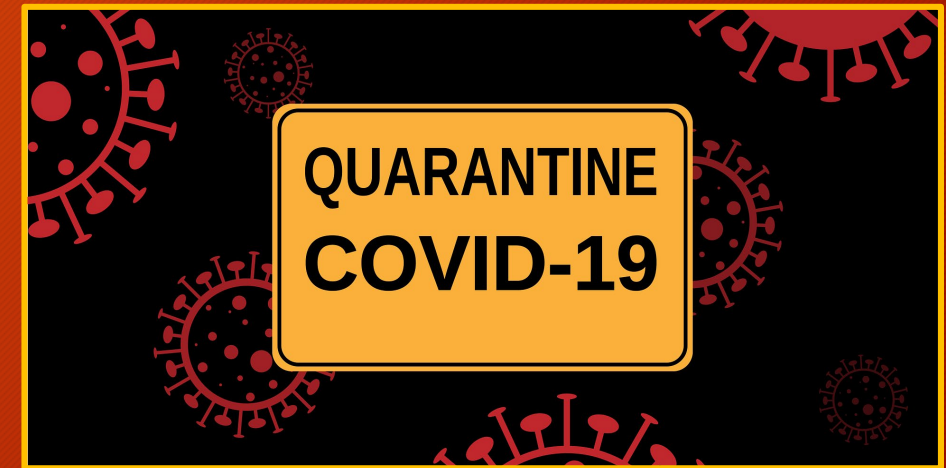


“...the evidence linking a significantly higher risk for chronic disease if you are physically inactive and lead a sedentary lifestyle is beyond dispute. If the prevalence of chronic conditions brought about by unhealthy lifestyles were lower, would the catastrophic effects of the COVID-19 pandemic be lessened?”

*“at an absolute minimum, we have to hold the line”*

# The Psychological Effect of Quarantine

- Quarantine can induce:
- Stress and anxiety
- Depression
- Irritability
- Insomnia
- Emotional disturbance
- Confusion and anger
- Boredom



doi: 10.1016/j.numecd.2020.05.020

doi.org/10.1016/ S0140-6736(20)30460-8



# Physical Activity: A Simple Strategy to Mitigate Effects of Isolation

- Increase emotional resilience.
- Reduce stress and anxiety; reduce worry and fear.
- Promote sleep.
- Reduce depressive symptoms.
- Limit weight gain.
- Improve immune system and reduce risk for disease.



# WHO Guidance on Staying Physically Active

- Take short active breaks throughout the day.
- Follow an online exercise class.
- Walk.
- Stand up.
- Relax.
- Eat healthily and stay hydrated.





# Now What?

- Ramp up!
- Use all available resources.
- Novel, innovative, accessible approaches to fitness.
  - People with ID may experience disparities in access to opportunities.
- Coordinated and multidisciplinary team.



# Role of Fitness

- Without sport, PE, group activities, fitness programming takes center stage.
  - Small space, minimal equipment, low organization, low skill.
- Catalyst to inclusion.
  - Creating connections through fitness.

