



MISSION: READINESS

MILITARY LEADERS FOR KIDS

Walking and Biking in Pennsylvania:

A MATTER OF NATIONAL SECURITY?

Who We Are

MISSION: READINESS is the national security organization of more than 300 retired generals, admirals and other senior military leaders who call for policies and investments that will help young Americans succeed in school and later in life, thus enabling more young adults to join the military if they choose to do so.



The retired admirals and generals of Mission: Readiness are concerned that **75 percent of young Americans are unable to join the military.**¹

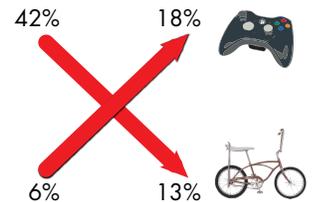
About a quarter of all young Americans cannot join because they are overweight.²

Obesity rates among children have tripled within three decades, threatening not only the overall health of America, but also the future strength of our military.³

The Centers for Disease Control and Prevention, using a wider definition of who is overweight than the military uses, concluded that **four out of ten young adults in Pennsylvania are either overweight or obese.**

Within roughly one generation, two trends have gone in opposite, and dangerous directions:

- **A third as many children walk or bike to school,⁴ while**



- **Childhood obesity has tripled.⁵**

Healthy lifestyles that include adequate physical activity are ultimately a matter of personal responsibility, however, elected officials can help individuals bear this responsibility better by creating environments where the healthy choice is also the easy choice.

Investing wisely in infrastructure that promotes walking and biking can help more young Americans become fit again.

For decades, transportation and community planning has often overlooked how our reliance on cars has impacted our health. Our communities are frequently disconnected without safe walking and biking routes between community recreational facilities, schools, residential neighborhoods and commercial corridors. Changes to the built environment, like bike and pedestrian lanes and trails with proper signage, as well as wider shoulders on roads, provide safe and active transportation options that can increase physical activity and will ultimately help prevent weight gain.



The military's TRICARE health insurance system serves active duty personnel, their dependents and veterans. It spends well over \$1 billion a year on treating weight-related diseases such as diabetes and heart disease. Many of those costs can be eliminated once America becomes more proactive in helping all its citizens to routinely become more active and consume less calories.

– Dall, et.al., *American Journal of Health Promotion*



Schuylkill River Parks Connector Bridge, Philadelphia.

Physical Inactivity is Unhealthy and Harms our Military:

The Lancet recently reported that **physical inactivity, by itself, is the fourth leading cause of death worldwide, “on par with both smoking and obesity.”**⁶

The American Heart Association reports that, “Nearly 50 percent of U.S. adults and 65 percent of adolescents do not currently get the recommended amount of physical activity each day.⁷ And only 5 percent report any kind of vigorous activity.”⁸ Pennsylvania teenagers are not getting enough exercise. **Only two out of ten Pennsylvania high school students attend physical education classes daily and too few children and youth are now walking or biking to school.**⁹ That needs to change.



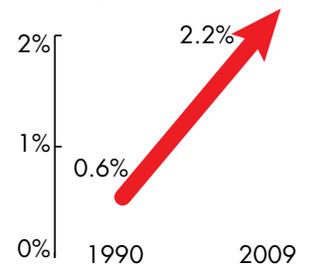
The military will need to have more fit young men and women if it is going to keep finding enough recruits with the excellent qualifications needed for a modern military. Poor nutrition and too much body fat not only limits who can get into the military, lack of physical fitness also impacts those who do get in. In one study, **14 percent of new Army male recruits said they had not exercised or done any sports in a typical week prior to joining.**¹⁰ Of recruits who could not do 11 pushups upon entry, 45 percent did not complete boot camp.¹¹ We also know from military research that **less fit recruits are more prone to leg and ankle injury.**¹² **More soldiers were evacuated from Iraq or Afghanistan for serious sprains and fractures than for combat injuries.**¹³

To keep children and young people from gaining weight and to improve their physical fitness, it is important to provide safe active transportation options that can facilitate walking and biking more when they go to school, to the store, to a friend’s house or to the park.

Communities are transforming themselves:

Community planning that accounts for active transportation is happening. Philadelphia is investing in bicycle and walking infrastructure such as over 200 miles of bicycle lanes, pedestrian and bicycle access on the 40th Street Bridge, and the Schuylkill River Parks Connector Bridge. **The number of adults who bike to work in Philadelphia has more than tripled: from 0.6 percent in 1990 to 2.2 percent in 2009.** The increase in walking and biking among adults and children may be one of the reasons why Philadelphia experienced an impressive 5 percent decline in the obesity rates among its K-12 students.¹⁴

Biking in Philadelphia



During the same years that Philadelphia saw its bicycle use triple, **Portland, Oregon actively promoted bicycle**

“Physical activity has been engineered out of our world.”

–Tom Farley, author of *Prescription for a Healthy Nation*



Transportation enhancements that promote safety are key to increasing walking and biking in our communities.

Quick Facts Regarding Biking and Walking:

- Pedestrians are more than twice as likely to be struck by a vehicle in locations without sidewalks.¹⁹
- Streets with bike lanes had injury rates 50 percent lower than roads with no bike infrastructure.²⁰
- Roadways with shoulders at least 4 foot wide experienced 71% reduction in struck pedestrian crashes with automobiles.²¹



use and the percentage of people who biked to work in that city rose from 1 percent to almost 6 percent. Bicycle use on Portland's four bicycle-friendly bridges has grown 322 percent since 1991, while automotive trips have not increased at all. **The city's planning goal is to have a quarter of all trips made by bicycle in 2030.**¹⁵ Portland already reports that **39 percent of its students now bike to school.**¹⁶

Cities like Philadelphia and Portland are ahead of the curve in expanding biking and walking infrastructure. But these efforts pale in comparison to the infrastructure found in European cities.¹⁷ To see a short video about a trip that transportation planners from Chicago, Washington, D.C. and Miami made to the Netherlands, see: <http://bit.ly/ABMF1d>. One city in the video, Utrecht, reported that **85 percent of its children now travel to school by bike.**



Time to make decisions:

As Pennsylvania policy makers debate a comprehensive transportation funding solution for the

Commonwealth that accounts for all modes of transportation, the admirals and generals of Mission: Readiness are urging investments in active modes of transportation - biking and walking. Specifically MISSION: READINESS supports a substantial

portion of the proposed multi-modal fund being dedicated to bicycle and pedestrian projects. Additionally, Mission: Readiness supports equipping the Pennsylvania Department of Transportation with a Bicycle and Pedestrian Office and Coordinator to plan and implement such projects through the relevant PennDOT offices and bureaus; i.e. multi-modal, highway and design. These efforts would proactively assist municipalities and counties in the planning, design and construction of off- and on-street biking and walking facilities



Bike parking at a German train station. One parking facility in the Netherlands holds 10,000 bikes.

The author of *Prescription for a Healthy Nation*, Tom Farley, has it right when he says, **“Physical activity has been engineered out of our world.”** We need to engineer it back in. People do not need to run marathons or even have a gym membership to be healthy, but they certainly have to build routine physical activity into their lives just like brushing their teeth.¹⁸

By supporting safe and active transportation options such as biking and walking, Pennsylvania's policy makers can improve public health and help ensure our future national security.



Endnotes

- 1 Gilroy, C. (March 3, 2009). *Prepared statement of Dr. Curtis Gilroy, Director of Accession Policy in the Office of the Under Secretary of Defense for Personnel & Readiness*. Before the House Armed Services Personnel Subcommittee. "Recruiting, Retention and End of Strength Overview."
 - 2 Center for Accessions Research (CAR), United States Army Accessions Command, Fort Knox, KY. Data provided by Lt. Colonel Gregory Lamm, Chief, Marketing and Research Analysis Division, February 25, 2010; Cawley, J., & Maclean, J.C. (2010). *Unfit for service: The implications of rising obesity for US Military recruitment*. Cambridge, MA: National Bureau of Economic Research. The Accession Command's estimate that 27 percent of 17- to 24-year-old Americans are too heavy to join is based in part on a survey done for them by the Lewin Group in 2005. The National Bureau of Economic Research (NBER) study is an analysis of data from the National Health and Nutrition Examination Survey (NHANES) study. The NBER analysis looks at eligibility rates for males and females based on BMI, body fat and exclusion criteria broken out for the different services. Based on the NBER analysis, we conclude that approximately 23 percent of adults eligible by age would not be able to join the Army because of excess body fat. Taking both studies into account – the NBER analysis of NHANES data and the Accessions Command's analysis – we conclude that approximately one-quarter of young Americans would be too heavy to join the military if they chose to do so. For a more recent military reference to the one in four figure see: Associated Press. (February 10, 2012). Military to fight fat in food upgrade. *Boston Globe*. Retrieved on February 24, 2012 from <http://www.bostonglobe.com/news/nation/2012/02/10/military-fight-fat-food-upgrade/9Aw1M6HORuUVXJFzAA6BAP/story.html>
 - 3 Ogden, C.L., Carroll, M.D., Kit, B.K., & Flegal, K.M. (2012). Prevalence of obesity and trends in body mass index among US children and adolescents, 1999-2010. *JAMA*, January 12, 2012 (Online), E1-E8; Ogden, C.L., Flegal, K.M., Carroll, M.D., & Johnson, C.L. (2002). Prevalence and trends in overweight among US children and adolescents, 1999-2000. *JAMA*, 288(14), 1728-1732. Childhood obesity has increased from about 6 percent in 1976 to about 18 percent in 2010.
 - 4 Federal Highway Administration. (2001). *2001 National Transportation Survey*. Washington, DC: US Department of Transportation. Retrieved from <http://nhts.ornl.gov/>. Walking and biking declined from 42 percent in 1969 to 13 percent in 2001.
 - 5 Ogden, C.L., Carroll, M.D., Kit, B.K., & Flegal, K.M. (2012). Prevalence of obesity and trends in body mass index among US children and adolescents, 1999-2010. *JAMA*, January 12, 2012 (Online), E1-E8; Ogden, C.L., Flegal, K.M., Carroll, M.D., & Johnson, C.L. (2002). Prevalence and trends in overweight among US children and adolescents, 1999-2000. *JAMA*, 288(14), 1728-1732.
 - 6 Kohl, H.W., Craig, C.L., Lambert, E.V., Inoue, S., Alkandari, J.R., Leetongin, G., et al. (2012). The pandemic of physical inactivity: Global action for public health. *The Lancet*, 380(9838), 294-305.
 - 7 Centers for Disease Control and Prevention. (2007). *The Obesity Epidemic and United States Students*. Washington, DC: US Department of Health and Human Services. Retrieved on February 27, 2013 from http://www.cdc.gov/healthyyouth/yrbs/pdf/us_obesity_combo.pdf
 - 8 American Heart Association. (2012). *Creating spaces: Changing the built environment to promote active living*. Washington, DC: Author. Retrieved on February 27, 2013 from http://www.heart.org/idc/groups/heart-public/@wcm/@adv/documents/downloadable/ucm_323233.pdf; Centers for Disease Control and Prevention. (2007). *The Obesity Epidemic and United States Students*. Washington, DC: US Department of Health and Human Services.
- Retrieved on February 27, 2013 from http://www.cdc.gov/healthyyouth/yrbs/pdf/us_obesity_combo.pdf; Johnson, W.D., & Katzmarzyk, P.T. (2010). Frequently reported activities by intensity for U.S. adults: The American Time Use Survey. *American Journal of Preventive Medicine*, 39(4), e13-e20.
- 9 Centers for Disease Control and Prevention. (2013). *Youth online: High school YRBS*. Atlanta: Author. Retrieved on February 27, 2013 from <http://apps.nccd.cdc.gov/youthonline/App/Default.aspx>
 - 10 Swedler, D.I., Knapik, J.J., Williams, K.W., Grier, T.L., & Jones, B.H. (n.d.). *Risk factors for medical discharge from United States Army basic combat training*. Aberdeen Proving Ground, MD: US Army Center for Health Promotion and Preventive Medicine.
 - 11 Six percent of young male recruits could not do eleven pushups. Allison, S., Knapik, J. & Sharp, M. (2006). *Preliminary derivation of test item clusters for predicting injuries, poor physical performance, and overall attrition in basic combat training*. USARIEM Technical Report T07-06. Natick, MA: US Army Research Institute of Environmental Medicine.
 - 12 Cowan, D.N., Bedno, S.A., Urban, N., Yi, B., & Niebuhr, D.W. (2011). Musculoskeletal injuries among overweight army trainees: Incidence and health care utilization. *Occupational Medicine*, 61(4), 247-252.
 - 13 Cohen, S.P., Brown, C., Kurihara, C., Plunkett, A., Nguyen, C., & Strassels, S.A. (2010). Diagnoses and factors associated with medical evacuation and return to duty for service members participating in Operation Iraqi Freedom or Operation Enduring Freedom: A prospective cohort study. *Lancet*, 375, 301-09.
 - 14 Robert Wood Johnson Foundation. (2012). *Health policy snapshot: Childhood obesity*. Princeton, New Jersey: Author. Retrieved on September 11, 2012, www.rwjf.org/healthpolicy; Robbins, J.M., Mallya, G., Polansky, M., & Schwartz, D.F. (2012). Prevalence, disparities, and trends in obesity and severe obesity among students in the Philadelphia, Pennsylvania, School District, 2006-2010. *Preventing Chronic Diseases*, 9. Retrieved on September 11, 2012 from http://www.cdc.gov/pcd/issues/2012/12_0118.htm
 - 15 Portland Bureau of Transportation. (2013). *Bicycle counts*. Portland, OR: Author. Retrieved on February 27, 2013 from <http://www.portlandoregon.gov/transportation/44671>
 - 16 Oregon Safe Routes to School. (2010). *Walk and bike challenge month*. Retrieved on February 27, 2013 from <http://www.walknbike.org/walk-bike-challenge-month>
 - 17 Groningen railway station cycle parking revisited. See: <http://bit.ly/13ljfHZ>
 - 18 Associated Press. (August 24, 2005). *What helps keep Oregon's obesity rates steady?* Retrieved on February 27, 2013 from <http://www.msnbc.msn.com/id/9059762/ns/health-fitness/t/what-helps-keep-oregons-obesity-rate-steady/#.UQGVpqXZxww>
 - 19 Safe Routes to School. (n.d.). *Quick facts*. Retrieved on March 7, 2013 from <http://www.saferoutespartnership.org/resourcecenter/quick-facts>
 - 20 Schmidt, A. (October 22, 2012). *Study: Protected bike lanes reduce injury risk up to 90 percent*. Retrieved on March 7, 2013 from <http://dc.streetsblog.org/2012/10/22/study-protected-bike-lanes-reduce-injury-risk-up-to-90-percent/>
 - 21 Federal Highway Administration. (n.d.). *Safety benefits of walkways, sidewalks, and paved shoulders*. Washington, DC: Author. Retrieved on March 7, 2013 from http://safety.fhwa.dot.gov/ped_bike/tools_solve/walkways_trifold/

Acknowledgments

MISSION: READINESS is supported by tax-deductible contributions from foundations, individuals, and corporations. MISSION: READINESS accepts no funds from federal, state, or local governments.

Major funding for MISSION: READINESS is provided by: Alliance for Early Success • The Boeing Company • The California Education Policy Fund • The California Endowment • The Annie E. Casey Foundation • Early Care and Education Funders Collaborative of The Washington Area Women's Foundation • The Grable Foundation • The Leona M. and Harry B. Helmsley Charitable Trust • Robert Wood Johnson Foundation • W.K. Kellogg Foundation • The Kresge Foundation • The David & Lucile Packard Foundation • William Penn Foundation • The Pew Charitable Trusts. The opinions expressed are those of the author(s) and do not necessarily reflect the views of The Pew Charitable Trusts.

MISSION: READINESS

105 North Front Street - Suite 305 - Harrisburg, PA - (717) 233-1521 - www.MissionReadiness.org