

INSTRUCTIONS FOR USE:

This model resolution incorporates numerous local methods available to reduce injury, chronic disease and obesity with increased physical activity and improved nutrition through your local built environment. Municipal boards of health may choose to incorporate all the methods listed or select just the ones that pertain to your municipality.

- (1) Fill in [city/town] – 5 instances (one in title);
- (2) Fill in effective date; and
- (3) Add board member signatures after vote.

IF YOU WANT ASSISTANCE, PLEASE CALL:

D.J. Wilson, Public Health Liaison, Massachusetts Municipal Association at 617-426-7272
OR
Cheryl Sbarra, Director, Tobacco Control and Chronic Disease Prevention Program,
Massachusetts Association of Health Boards at 781-721-0183

**Resolution of the [city/town] Board of Health
PLANNING FOR A HEALTHIER FUTURE THROUGH
THE BUILT ENVIRONMENT AND COMMUNITY DESIGN**

Decades of evidence indicate that there is a relationship between land use planning decisions and public health outcomes. The planning department and health department can work together to improve our community's health through changes to [city/town]'s built environment.

WHEREAS, conclusive evidence exists that:

Physical Activity

"To a large degree, the major chronic disease killers are an extension of what people do, or not do, as they go about the business of daily living. Health-damaging behaviors, in particular, tobacco use, lack of physical activity, and poor nutrition, are major contributors to heart disease and cancer, our nation's leading killers."ⁱ

In the United States, physical inactivity is responsible for an estimated 200,000 deaths per year, costing at least \$117 billion each year in health care expenditures.ⁱⁱ;

The U.S. Centers for Disease Control recommends 30 minutes of moderate physical activity on most days per week for adults and 60 minutes of moderate physical activity on most days per week for children and adolescents.ⁱⁱⁱ;

Alarming, only 10% of public school students walk to school compared to a majority of public school students one generation ago.^{iv};

Here in Massachusetts, only 25% of youth engage in moderate physical activity^v, while among Adults, nearly 60% **do not** meet moderate physical activity recommendation.^{vi};

Arthritis is the most common cause of disability in the United States. Luckily, effective strategies exist that reduce the impact of arthritis and include physical activity and maintaining a healthy weight. In Massachusetts, roughly 26% of adults in 2005 have diagnosed arthritis; of those with arthritis, 67% are obese and 21% are physically inactive.^{vii};

Overweight/Obesity Prevention

Nationally, in the last 20 years, obesity rates have increased by more than 60% in adults resulting in today's obesity epidemic.^{viii} Additionally, obesity and its complications have cost the nation \$117 billion annually.^{ix};

In Massachusetts, from 1999 to 2005, the number of overweight teens rose by 53%,^x while more than half (56%) of Massachusetts adults are above a healthy weight.^{xi} The risk for diabetes increases as a person's weight increases. In Massachusetts, overweight adults have diabetes more than twice as often as adults at a healthy weight.^{xii}

Chronic Disease

Nationally, 20.8 million children and adults, or 7% of the population, have diabetes. One in three children born today in the United States will develop diabetes, while one in two minority children will develop diabetes.^{xiii};

Diabetes is the leading cause of kidney failure^{xiv} and new cases of adult blindness. Additionally, people with diabetes have more than twice the rate of heart disease and triple the rate of stroke than do people without diabetes.^{xv};

In 2005, roughly 9% of Massachusetts adults reported they have heart disease and 3% reported that have had a stroke.^{xvi} Heart disease is the number one killer in Massachusetts, while stroke is the third.^{xvii};

Air pollution has been suggested as an important factor in the increased incidence of asthma. Children with asthma were statistically significantly more likely to live in close proximity to a higher volume of traffic than children without asthma. This finding stresses the importance of programs to reduce gaseous pollutants and particulates from vehicles.^{xviii};

Among people 65 years of age and older, falls are the leading cause of injury deaths and the most common cause of nonfatal injuries and hospital admissions for trauma. In the United States, each year nearly one third of older adults experience a fall. Exercise is one of the most important ways to lower your chances of falling by making you stronger, improving balance and coordination.^{xix};

Basal cell and squamous cell carcinomas, which are highly curable, are the most common forms of skin cancer cancers in the United States. However, melanoma, the 3rd most common skin cancer, is more dangerous. Overwhelmingly, 65-90% of melanomas are caused by exposure to sunlight.^{xx} In Massachusetts, for every 100,000 men and women, on average, approximately 22 were diagnosed with melanoma, higher than the national average of 17 for every 100,000 men and women.^{xxi};

Transportation

Per one million Massachusetts residents in 2005, for one pedal cyclist death there were 12 pedestrian fatalities, 49 motor vehicle occupant fatalities and 69 unintentional motor vehicle traffic fatalities. For one pedestrian injury, there were 2 pedal cyclist injuries, 17 motor vehicle occupant injuries and 19 unintentional motor vehicle traffic injuries.^{xxii};

The probability of pedestrian death from a vehicle collision is 5% at 20 mph, 40% at 30 mph, 80% at 40 mph and nearly 100% at 50 mph.^{xxiii};

The older adult population (65+ years) is expected to double by 2030 with those 85 years of age and older being the most rapidly growing group.^{xxiv} This population will want to age in their community, requiring considerations for those that cannot or should not drive.;

About 25% of all trips in the United States are less than one mile in length and 75% of those are made by auto.^{xxv};

Americans spend an average of 25 minutes to commute to work each way (27 minutes in the Northeast census region). The number of workers walking to work has declined by 50% since 1980.^{xxvi};

Increasing evidence continues to show that easy access to recreational spaces promotes its usage.;

People who report having sidewalk access are 28% more likely to be physically active.^{xxvii};

Development

Dispersed, lower density development results in greater travel distances to jobs, schools, shopping and entertainment. The resulting increase in driving leads to worse air quality and higher rates of vehicle collisions and injuries.

Clustering residential areas, schools, retail, recreation and other destinations together promotes a sense of community, fosters walking and social connectedness and provides more “eyes on the street” for improved neighborhood surveillance and safety.^{xxviii} Infrastructure costs are lower when growth is centrally focused.;

Traditional neighborhoods that have higher residential density, a mix of residential and commercial land uses and grid-like streets with good connectivity and short block lengths result in more walking and cycling trips for transport as compared to sprawling neighborhoods.^{xxix};

Today’s zoning laws historically share both police powers and public nuisance concerns with public health laws by regulating land use through laws that prohibit activities that harm the public’s health.^{xxx};

NOW, THEREFORE, it is the intention of the [city/town] Board of Health to encourage increased physical activity, injury prevention and improved nutrition through local efforts; to promote the most appropriate use of land throughout [city/town] in accordance with a comprehensive plan; to preserve and increase its amenities; to reduce injury and to lessen street congestion and automobile dependence by recommending the following:

- (1) Minimize land disturbance and the removal of existing trees during new construction.;
- (2) Preserve farmland, conservation land and open green space as much as possible.;

- (3) Promote safe, inviting and efficient routes and trails for walking and cycling.;
- (4) Consider the use of “greyfields” (economically obsolescent and/or underutilized real estate) such as unused or underutilized parking lots for development.;
- (5) Encourage construction and maintenance of playing fields and playgrounds.;
- (6) Encourage the use of pervious pavement to reduce rain puddles that are a source of mosquito breeding.;
- (7) Design roads using “Complete Street” ideas. “Complete Streets” are roads that offer safe and convenient options for drivers, pedestrians, bicyclists and transit riders including bike lanes, wide shoulders, adequate crosswalks, continuous sidewalks, refuge medians, bus pullouts and sidewalk bulb-outs.;
- (8) Engineer traffic calming measures to reduce vehicle speed and improve pedestrian crossing safety through measures such as, but not limited to, modest street widths, raised crossings, “bump outs”, speed bumps and traffic signal modifications, such as countdowns for walkers.;
- (9) Maximize sidewalk usage with adequate lighting and curb cuts for safety.;
- (10) Incorporate a 5- or 10-year plan with developers for sidewalk and crosswalk maintenance and snow removal.;
- (11) Maximize access from residential areas to commercial areas to increase walking, generate pedestrian activity and reduce traffic congestion.;
- (12) Minimize cul-de-sac and dead-end developments and promote grid layouts for streets. If cul-de-sacs are necessary, limit their length. Encourage connectivity with other neighborhoods to reduce arterial road use and improve fire apparatus and emergency access.;
- (13) Use universal design concepts whenever possible. “Universal design” is the design of products and built environments that are flexible in use, require low physical effort and can be used by all people regardless of physical limitations without the need for special adaptation.
- (14) Decrease frontage, when the building code allows, for better emergency access and to promote village living with easy walkability.;
- (15) Create safer routes to existing schools for students on foot or on bike.;
- (16) Reduce vehicle idling near schools, playgrounds and outside venues where the public congregates.;
- (17) Consider siting new schools and municipal buildings in locations proximate to population centers to encourage walking or biking to these facilities.;
- (18) Discourage residential building and school building near highways to reduce asthma incidence due to vehicular emissions.;

(19) Encourage vehicle pick-up areas to be built away from building and school entrances to reduce inhalation of vehicle exhaust.;

(20) Promote residential building in areas with access to full-service grocery stores and other goods and services for those residents, especially elderly residents, who may not drive.;

(21) Develop transportation strategies that enable older adults and people with disabilities to remain socially engaged and independent.;

(22) Discourage the construction of drive-through windows for retailers and fast-food outlets near schools.; and

(23) Incorporate public health data and goals into **[city/town]**'s Master Plan.

BOARD OF HEALTH SIGNATURES

DATED: _____

ENDNOTES

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- ⁱ U.S. Centers for Disease Control, National Center for Chronic Disease Prevention and Health Promotion, 2005.
- ⁱⁱ U.S. Dept. of Health and Human Services, Centers for Disease Control, *Physical Activity and Health: A Report of the Surgeon General*, 1996 and U.S. Dept. of Health and Human Services, Public Health Service, Office of the Surgeon General, *The Surgeon General's call to action to prevent and decrease overweight and obesity*, 2001.
- ⁱⁱⁱ U.S. Centers for Disease Control and Prevention, Division of Nutrition, Physical Activity and Obesity, National Center for Chronic Disease Prevention and Health Promotion. Nutrition and Activity Recommendations. 2001.
- ^{iv} U.S. Dept. of Transportation, FHA, 1995 Nationwide Personal Transportation Survey, 2001.
- ^v Youth Risk Behavior Surveillance System survey data. Malden (MA): Massachusetts Department of Education; 2005.
- ^{vi} A profile of health among Massachusetts adults, 2005: Results from the Behavioral Risk Factor Surveillance System. Boston (MA). Health Survey Program, Center for Health Information, Statistics, Research and Evaluation, Massachusetts Department of Public Health; 2006.
- ^{vii} Centers for Disease Control and Prevention (CDC). *Behavioral Risk Factor Surveillance System Survey Data*. Atlanta, Georgia: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, 2005.
- ^{viii} Dietz, W. H. *CDC's Role in Combating Obesity and the scientific basis of diet and physical activity*. House Committee on Government Reform, Washington, DC, July 25, 2002.
- ^{ix} *The Surgeon General's Call to Action to Prevent and Decrease Overweight and Obesity*. U.S. Department of Health and Human Services, Washington, DC, December 13, 2001.
- ^x Youth Risk Behavior Surveillance System survey data. Malden (MA): Massachusetts Department of Education; 1999-2005.
- ^{xi} A profile of health among Massachusetts adults, 2006: Results from the Behavioral Risk Factor Surveillance System. Boston (MA): Health Survey Program, Center for Health Information, Statistics, Research and Evaluation, Massachusetts Department of Public Health; 2007.

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- ^{xii} Behavioral Risk Factor Surveillance System survey data. Boston (MA): Center for Health Information, Statistics, Research and Evaluation, Massachusetts Department of Public Health; 2001.
- ^{xiii} Diabetes Projects. Atlanta (GA): Centers for Disease Control and Prevention. <http://www.cdc.gov/diabetes/projects/cda2.htm>. Accessed April 10, 2008.
- ^{xiv} Complications of Diabetes in the United States. Alexandria (VA): American Diabetes Association. <http://www.diabetes.org/diabetes-statistics/complications.jsp>. Accessed April 10, 2008.
- ^{xv} Behavioral Risk Factor Surveillance System survey data. Boston (MA): Center for Health Information, Statistics, Research and Evaluation, Massachusetts Department of Public Health; 2001.
- ^{xvi} A profile of health among Massachusetts adults, 2005: Results from the Behavioral Risk Factor Surveillance System. Boston (MA): Health Survey Program, Center for Health Information, Statistics, Research and Evaluation, Massachusetts Department of Public Health; 2006.
- ^{xvii} Massachusetts Deaths 2005. Boston (MA): Center for Health Information, Statistics, Research and Evaluation, Massachusetts Department of Public Health; 2007. http://www.mass.gov/Eeohhs2/docs/dph/research_epi/death_report_05.pdf.
- ^{xviii} *Air Pollution and Pediatric Asthma in the Merrimack Valley, Final Report*, Mass. Dept. of Public Health, Bureau of Environmental Health, 2008.
- ^{xix} Centers for Disease Control and Prevention, National Center for Injury Prevention and Control. Web-based Injury Statistics Query and Reporting System (WISQARS) [online]. (2006) [cited Jan. 15 2007]. Available from URL: www.cdc.gov/ncipc/wisqars.
- ^{xx} Centers for Disease Control and Prevention. *Guidelines for School Programs to Prevent Skin Cancer*. MMWR 2002;51(No. RR-4):1–16.
- ^{xxi} U.S. Cancer Statistics Working Group. *United States Cancer Statistics: 2004 Incidence and Mortality Web-based Report*. Atlanta: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention and National Cancer Institute; 2007. Available at: www.cdc.gov/uscs.
- ^{xxii} Registry of Vital Records and Statistics, Mass. Dept. of Public Health; Mass. Hospital Discharge Database, Mass. Division of Health Care Finance and Policy; Mass. Outpatient Observation Stay Database, Mass. Division of Health Care Finance and Policy; Mass. Emergency Department Discharge Database, Mass. Division of Health Care Finance and Policy. Nonfatal injuries include hospital discharges, observation bed stays, and emergency department visits.

^{xxiii} Pasanen, E. *Driving Speeds and Pedestrian Safety; a mathematical model*. Technical Report No. REPT-77, and Nordisk Kabel- og Traadfabriker, Copenhagen, Denmark, 41 pp., 1992. Helsinki University of Technology, Laboratory of Traffic and Transportation Engineering, Espoo, Finland.

^{xxiv} Roland J. Thorpe, Jr., PhD, National Association of Chronic Disease Directors Healthy Aging Council, February 28, 2007.

^{xxv} U.S. Dept. of Transportation, FHA, 1995 Nationwide Personal Transportation Survey, 2001.

^{xxvi} *Commuting in America III*, Alan E. Pisarski, Transportation Research Board, 2006.

^{xxvii} Brownson R, et al., Environmental Determinants of Physical Activity in the United States. *American Journal of Public Health*, Vol. 81, No. 12, 2001.

^{xxviii} *Land Use Planning for Safe, Crime-Free Neighborhoods*, Local Government Commission, 2004.

^{xxix} Saelens BE, Sallis JF, Frank LD. Environmental correlates of walking and cycling, findings from the transportation, urban design, and planning literature. *Ann Behav. Med.* 2003;25:80-91.

^{xxx} *The Public Health Roots of Zoning*, J. Schilling and L. Linton, *American Journal of Preventative Medicine*, Vol. 28, No. 282.