
International Forum
Vol. 13, No. 1
April 2010
pp. 39-52

FEATURE

New Perspectives in Promoting a Healthy Lifestyle

Hilario J. dela Torre, Jr.

Abstract: *The dramatic increase in so-called chronic or “lifestyle-related” diseases in most countries today has become one of the greatest threats to our health. These major lifestyle-related diseases share common risk factors such as smoking, lack of exercise, obesity and unhealthy dietary practices, which can be modified using community-based approaches that will have a long-term impact and will be more cost-effective than diagnosis and treatment.*

This paper looks at one specific population, the youth, which are the most significant focus for promoting healthy lifestyle, since positive or negative behaviors are initiated childhood and early adolescence. Young people also make the earliest possible target for the prevention of leading lifestyle-related diseases. This article examines the role of schools, which significantly can provide an ideal and effective venue as “new frontiers” for information and education about healthy lifestyle for children and young people, with the potential to influence their health throughout their lives for generations to come.

It is clear from the Scriptures that the Creator’s purpose for humankind throughout all generations up to this day is “to preserve us alive” (see Deut 6:20-24). Yet, undeniably human life faces many uncertainties. In this regard, what can be considered as among the current greatest threats to our lives? A quick web inquiry would lead us to a number of answers, including global warming, climate change, biohazards, heart disease, diabetes, obesity, AIDS, and swine flu. It is clear from this list that diseases are indeed major threats to our lives, particularly, the so-called chronic, or lifestyle-related diseases, or non-communicable diseases. These include cardiovascular diseases, cancer, diabetes, obesity, chronic obstructive pulmonary diseases, osteoporosis and dental diseases (World Health Organization, 2008; hereafter, WHO,). Almost half of the total chronic disease deaths are attributable to cardiovascular diseases; and

obesity and diabetes are also showing worrying trends, not only because they have already affected a large proportion of the population, but also because they have started to appear earlier in life.

These lifestyle diseases have seen a dramatic increase in recent years. The WHO, in a joint report with the Food and Agriculture Organization (FAO) recently reported that “the burden of chronic diseases is rapidly increasing worldwide” (2003b, p. 4). “In 2001, chronic diseases contributed to approximately 60% of the 56.5 million total reported deaths worldwide, and approximately 46% of the global burden of disease. The proportion of the burden of NCDs is expected to increase to 57% by 2020” (WHO, as cited in Boume & McGrowder, 2009, Introduction section, para. 1).

The Global Burden of Disease report in 2004 (WHO, 2008) described that chronic diseases currently account for about 60% of the total reported deaths worldwide, but the study projected that they will account for more than 75% of the total deaths by 2030. In other words, about 2 out of 3 deaths today, and 3 out of 4 by 2030, are due to the way we live. The same 2004 report found that 9 out of 10 deaths in high-income countries are due to chronic diseases (WHO, 2008). Significantly, lifestyle-related diseases increasingly have been the leading cause of premature death globally. The burden is great and calls for urgent prevention and control of these diseases, yet the cost of diagnosis and treatment is beyond the resources of many.

Aside from the rising accounts of premature deaths, lifestyle-related diseases also produce various forms of disabilities, such as in movement and speech from stroke; blindness and leg/foot amputations from diabetes; the same and more from cancer, obesity and osteoporosis. Specific chronic diseases such as ischemic heart disease, chronic obstructive pulmonary disease, and cerebrovascular disease are among the leading disabling conditions (WHO, 2008). In 2004 the WHO reported that out of the close to 6.5 billion world population, “18.6 million (2.9%) were severely disabled and 79.7 million (12.4%) had moderate long-term disability” (WHO, 2008, p. 34).

Poor quality of life, brought about by the increasing economic and social costs to the individual, to the family and to society in general, is another critical adverse result of lifestyle-related diseases. A recent WHO report on what it calls the *global tobacco epidemic* (2009) claims that “tobacco use kills or disables many people in their most productive years, which denies families their primary wage-earners, consumes family budgets, raises the cost of health care and hinders economic development” (p. 7).

Prevention is Better than Cure

Most chronic or lifestyle related diseases can be prevented. The close connection of lifestyle to health may need more investigation, yet there are enough valid reasons to take preventive measures at present, considering the huge amount of available scientific evidence. Lalonde (1974) first introduced the idea of prevention being much more important than cure. He coined the idea of the “health field concept,” which he divided into four areas. He explained the problem with the traditional scientific focus on medicine as follows:

Until now most of society’s efforts to improve health, and the bulk of direct health expenditures, have been focused on the HEALTH CARE ORGANIZATION. Yet, when we identify the present main causes of sickness and death, we find that they are rooted in the other three elements of the concept: HUMAN BIOLOGY, ENVIRONMENT and LIFESTYLE. It is apparent, therefore, that vast sums are being spent treating diseases that could have been prevented in the first place. Greater attention to the first three conceptual elements is needed if we are to continue to reduce disability and early death” (Lalonde, 1974, p. 32, emphasis in original).

On a similar note, Brody (as cited in a presentation by Salamante, April 2004) expounded on the idea that medical treatment services contribute to less than 10% of the health status of an individual, and that the much larger 90% is the outcome of both environmental factors (air, water and food supply), and lifestyle factors such as dietary practices, physical activity, smoking and drinking habits,

Lalonde’s 1974 ideas have been expanded and built on by others. One WHO report suggested that rather than focusing on medical requirements, “the primary prevention approach on healthy lifestyle promotion and disease prevention is considered to be the most cost-effective, the most affordable and sustainable course of action to address the chronic disease epidemic worldwide” (WHO, 2003a, p. 5). This prioritization of prevention recognizes lifestyle as largely within the control of the individual, and encourages everyone to take responsibility for their own personal health by making the right choices. The burden for promoting healthy lifestyle is great, as there is an urgent need for prevention and control of chronic or lifestyle related diseases.

New Perspectives

Accepting the challenge of promoting a healthy lifestyle, the concept of “new perspectives” considers the best practices in the field. Significant related areas that are explored include the most common risk factors of lifestyle related diseases; the specific population group that has the greatest promotion impact in terms of longer lasting results; and the most ideal, cost effective community-based approach for the program.

Common Risk Factors

The emphasis on the most common risk-factors approach to chronic or lifestyle-related diseases prevention is a major development in the concept behind a combined health promotion program. The World Health Organization reported that “a few major risk factors account for much of the morbidity and mortality in most countries of the world” (WHO, 2004, p. 2). Significant common risk factors for lifestyle diseases included high blood pressure, tobacco use, high blood glucose levels, physical inactivity, overweight or obesity, and high blood cholesterol levels (Venkat Narayan, Ali, & Koplan, 2010; WHO, 2004). Another report (WHO, 2004) stated that in all countries that have available information, the primary causes of chronic or lifestyle-related diseases are largely found to be similar. Primary causes related to the escalating prevalence of lifestyle diseases included “elevated consumption of energy-dense, nutrient-poor foods that are high in fat, sugar and salt; reduced levels of physical activity at home, at school, at work and for recreation and transport; and use of tobacco” (p. 2). Hence, the basic common risk factors for lifestyle diseases are focused on tobacco smoking, unhealthy dietary practices, and a lack of physical activity or a sedentary lifestyle (WHO, 2004). Stress as a common risk factor was also pointed out (WHO, 2003a).

As for what can be done about the causes of these serious lifestyle-related diseases, the WHO suggests the following:

Risk factors for non-communicable or lifestyle-related disease frequently coexist and interact. As the general level of risk factors rises, more people are put at risk. Preventive strategies should therefore aim at reducing risk throughout the population. Such risk reduction, even if modest, cumulatively yields sustainable benefits, which exceeds the impact of interventions restricted to high-risk individuals. Healthy diets and physical activity, together with tobacco control, constitute an effective strategy to contain the mounting threat of non-communicable diseases. (WHO, 2004, p. 4)

Tobacco smoking. Of all the major factors that lead to the development of non-communicable diseases, smoking is the most common and poses significant health danger to most people. The WHO (as cited in Nordqvist, 2010) reported that tobacco smoking is considered to be the leading preventable cause of death, causing about one in ten adult deaths worldwide, one death every 6 seconds, more than 5 million deaths per year, with up to half of regular smokers eventually dying of smoking-related diseases.

The WHO (2003a) has documented that tobacco smoking is related to a minimum of 40 different diseases, which include a number of cancers, cardiovascular and lung diseases. Both active smokers and passive, or second-hand smokers are equally at risk for contracting these diseases. Moreover, smoking brings other harmful effects such as impotence, infertility, harmful

effects to pregnant women and their unborn babies, and socio-economic concerns such as productivity loss due to smoking-related illnesses and premature deaths.

The best practices to promote smoke-free behavior and a smoke-free environment are presented through a variety of strategies, including chiefly, legislation and education (Economo, 2010; Christiansen, Commons, Olen, & Remington, 2003). Mackay and Eriksen (2002) stated that “education is essential for sustained progress in tobacco control. Many legislative or tax interventions will not be effective if there is no public understanding, support and demand for such changes” (p. 80).

Unhealthy dietary practices. Out of the six risk factors of lifestyle related diseases initially indicated, five were closely related to unhealthy dietary practices and lack of physical activity and exercise. The WHO *Global Strategy on Diet, Physical Activity and Health* (2004) reported that the leading non-communicable diseases which play a major role in the global burden of disease, death and disability, such as cardiovascular diseases, type 2 diabetes and certain types of cancer, are mainly caused by lifestyle factors involving unhealthy diets and physical inactivity. Other widespread diseases including dental caries and osteoporosis are associated too to diet and physical activity.

The WHO (2003b) has described the concept of “nutrition transition” along with the present trend towards a more sedentary lifestyle as the underlying factor in the development and growth of chronic diseases. Long-established standard diets mainly composed of grains, roots and tubers have been substituted for meat, dairy products, and foods high in sugar and animal fats. This transition has paved the way to a constantly high average consumption of calories and fat in countries worldwide. Only a small number of individuals include adequate quantities of fruits and vegetables in their diet.

To deal with the increasing epidemic of chronic diseases, dietary modifications are necessary, or to return to the previous diet and concepts. Specific dietary recommendations which were made at the annual meeting of the WHO (2004) include to limit fat intake; to avoid saturated (animal) fats; to eliminate transfatty acids; to consume adequate quantities of fruits and vegetables, legumes, whole grains and nuts; to limit free sugars and salt (sodium) intake; and to maintain a healthy weight.

A sedentary lifestyle. One of the latest developments in nutrition promotion and practice today is the inclusion of physical activity or exercise as a component. Lawrence and Worsley (2007) explained that this additional focus is due to the increasing threat of chronic or lifestyle-related diseases such as cardiovascular diseases, diabetes mellitus and osteoporosis, that are primarily due to both unhealthy dietary practices and inactivity, where a nutrition approach alone is insufficient to address the growing concerns.

Physical activity essentially improves physical and mental health. Though diet and physical activity and/or exercise are jointly observed to benefit our health, particularly related to energy balance and weight control (WHO, 2004), physical activity and/or exercise alone provide health benefits by themselves.

The *Global Strategy on Diet, Physical Activity and Health* report (WHO, 2004) enumerated the health benefits of physical activity and stated that the recommended minimum of thirty minutes, moderate intensity physical activity or exercise, on most days of the week, is shown to lower the risks of cardiovascular diseases, diabetes mellitus, colon and breast cancer. Such benefits occur due to the effects of exercise to lower blood pressure, to raise high density lipoprotein cholesterol level, and to regulate blood glucose level even among individuals with unresolved weight problems. Moreover, strengthening and stretching exercises provides more adaptability to changing situations especially among older adults.

Specific Population Group

The emphasis on specific populations considers the different ages throughout the life cycle that might have the greatest impact in general for promoting healthy lifestyles. Earlier emphasis on the common risk factors approach to health promotion is a significant foundation for the selection.

Children and adolescents. According to various studies in the field, the findings show that the youth is the most significant focus for promoting healthy lifestyle, taking into account that positive or negative behaviors are initiated during this stage of the life cycle. The *U.S. Youth Risk Behavior Surveillance* (Eaton, et al., 2006) reported that the “priority health-risk behaviors, which contribute to the leading causes of morbidity and mortality among youth and adults, often are established during childhood and adolescence” (p. 1). Therefore, the youth are the best and earliest possible target for change and modification of the most common risk factors for lifestyle-related diseases particularly tobacco smoking, unhealthy dietary practices and a sedentary lifestyle. Other factors found to be important include the impact of advertisements directed at the youth, as well as the health consequences and various ill effects of unhealthy lifestyle practices.

Youth tobacco smoking. Reports on youth smoking show that the “overwhelming majority of smokers begin tobacco use before they reach adulthood” (Mackay & Eriksen, 2002. p. 28), between the ages of 10 and 13 (Eaton, et al., 2006), and that approximately “90 percent of adult smokers began smoking before the age 19” (American Cancer Society as cited in Moffett, 2009. para.1). More youth smoking reports from the *Global Smoking Statistics in 2002* (as cited in Martin, 2007) indicated that about one in five young teens (aged 13

to 15) smokes worldwide, and that around 50% will continue to smoke for 15 to 20 years.

Tobacco smoking is particularly hazardous to children and adolescents. For more than 50 years in the past, an updated record of the health dangers of tobacco smoking has been kept. (Christiansen, et al., 2003). Even though the majority of the youth do not smoke, just the same, they can be affected by the dangers of secondhand smoke from their associations at home, at school, and elsewhere where others are found smoking. Young people can still be stricken with lifestyle-related diseases and suffer their subsequent effects (Moffett, 2009). The American Lung Association (n.d.), indicated that “breathing secondhand smoke is especially bad for small children, for they absorb more nicotine and other toxins per kilogram of body weight than adults” (“Health effects of secondhand smoke” section, para. 2). And the problem gets even worse, considering that nicotine is very addictive. The exposure along with youthful curiosity may lead to the first attempt, and on to developing a life-long habit and addiction.

Besides those reasons already mentioned, evidently tobacco advertisements as well as images such as celebrities portrayed smoking in movies and TV shows glamorize tobacco smoking. They target the younger population as their prospective customers. They transmit information that smoking is “cool,” the behavior as normal and associated with being mature, and therefore make the smoking behavior difficult for some young people to resist (Morrow & Barraclough, 2003; Moffett, 2009).

Edwards and Gold (2010) explained that “studies show if people do not begin to smoke as teenagers or children, it is unlikely they will ever do so.” (para. 2) Hence, smoke-free promotion interventions specially focused on the youth will block tobacco smoking initiation and stop the habit before it has started or before the youth succumb to increased peer and social pressures afterwards. Effective smoke-free youth promotions especially among early adolescents (11-13 years old) will prevent 90 percent of additional future smokers in the next 19 years, taking into account that 90 percent of smokers start before age 19, and will also reduce future long-term health and economic costs associated with smoking (Christiansen, et al., 2003).

Youth dietary and physical activity practices. With the increase in labor saving devices and the trend toward knowledge workers rather than manual labor, children are growing up with much less physical activity in their lives than in previous generations (Downs, 2005; WHO, 2003a). Not surprisingly, this decrease in activity is being accompanied by an increase in childhood obesity (WHO, 2003a). There is particular concern about this lack of physical activity among minority populations, and girls (Pearson, Atkin, Biddle, Gorely, & Edwardson, 2009; Zapata, Bryant, McDermott, & Hefelfinger, 2008).

The decrease in physical activity would be serious, if it were alone, but it is accompanied by a shift in eating habits that is cause for even greater concern. Simply put, “there is growing evidence that many young children are consuming a diet inconsistent with recommendations” (Spurrier, Margarey, Golley, Curnow, & Sawyer, 2008, Introduction section, para. 2). Reports from multiple sources show that few children and adolescents eat sufficient fruits and vegetables (Pearson et al., 2009; Zapata et al., 2008), that they prefer foods high in calories and fat (Spurrier et al., 2008), that their diet is simply unhealthy (WHO, 2003a).

This behavior not only increases the risk of obesity, but also, childhood eating patterns are predictors of adult eating patterns (Gellar, Schrader, & Nansel, 2007), which means that the problem will be compounded in the future. Lifestyle diseases such as cardiovascular diseases and type 2 diabetes are becoming more prevalent in adolescent children (Gellar et al., 2007), which is a cause for concern as we look toward the future.

As a group, these findings on adolescent health behavior patterns are clear indication that concerns about healthy lifestyle can not wait until the adult years to be addressed. Youth is the time when habits are developed. Before bad habits are already entrenched, this is the time to encourage good habits, and to help adolescents understand the consequences of their behavior. Advertising should be screened, to avoid encouraging poor dietary practices, and to ensure that physical activity is promoted (WHO, 2004). In short, the WHO recommends a complete package of health information for adolescents in school. “Nutrition and physical activity education and acquisition of media literacy, starting in primary school, are important to promote healthier diets, and to counter food fads and misleading dietary advice” (WHO, 2004, p. 47).

A School-Based Approach to Lifestyle Promotion

The healthy lifestyle promotion perspective considered in this approach signifies the concepts that provide the longest-lasting results, the greatest cost effectiveness, and the greatest impact. Considering various community-based approaches, schools can provide an ideal and effective venue for the best healthy lifestyle educational experiences for children and young people, henceforth affecting and influencing their health throughout their lives and in the generations to come.

The Philippine Department of Health (2003) described a number of concepts referring to the school as an ideal and effective venue for healthy lifestyle promotion program, as follows:

- The school primarily provides the best educational experience for children and youth, taking into account that they spend in schools almost all of their waking hours and therefore it is the key setting in the development of their health;

- The school provides education in a safe and secure environment, which protects and promotes the wellbeing of the students and other members of the school community;
- Schools can provide an ideal venue not only to teach about the harmful effects of unhealthy lifestyle practices, but also to teach students refusal skills and an understanding of the behavior of the tobacco, food and other related industries, which includes analyzing the manipulation of young people by their marketing schemes, such as equating smoking with growing up, freedom, and being cool.

Studies show that research-based school curricula programs can reduce or delay tobacco use among our youth by teaching them the skills they need to resist social pressure to smoke (Tarwars, 2007). School healthy lifestyle promotion programs and practices can include school health policies, school physical environment, school social environment, community relationships, personal health skills, and health services (Lee et al., 2008).

Schools influence the lives of most children in all countries. They should protect their health by providing health information, improving health literacy, and promoting healthy diet, physical activity, and other healthy behaviors. Schools are encouraged to provide students with daily physical education and should be equipped with appropriate facilities and equipment (WHO, 2004). Behaviors can be influenced especially in schools, workplaces, and educational and religious institutions.

The school is the key setting in the development of health in young people. Here, efforts to discourage tobacco use and advocate and/or promote smoke-free environment as models of good health and wellbeing can best be started (Philippine Department of Health, 2003; Mackay & Erikson 2002). Data on correlates of youth tobacco smoking show that the best predictor of early adolescent smoking and attitudes about smoking are school and peer smoking influences (dela Torre, 2009). Unfortunately, relatively few schools appear to have adopted any effective programs, (Tarwars, 2007). This is definitely one place we need to start if we intend to reach the goal of a healthier lifestyle for all.

Conclusion

It is clear that chronic or lifestyle-related diseases are an overwhelming health concern in the 21st century. Evidence shows that the problem will continue to become more serious each year unless a more effective approach is discovered along the way. According to Nakajima, Director General of the WHO, in his statement during the World Health Report in 1998, “the progress and achievements of the past 50 years are solid foundations for a healthier and

better world. It is already time to build on them. Life in the 21st century could and should be better for all. We can pass no greater gift to the next generation than a healthier future” (WHO, 1998, p. vi) Nakajima went on to say that “the 21st century offers a bright vision of better health for all. It holds the prospect not merely of longer life, but superior quality of life, with less disability and disease” (WHO, 1998, p. 1). But if this is to happen, we are going to need to make some changes in the way we live.

The “new perspectives” concept in promoting a healthy lifestyle examined various possible emphases in the field amongst current trends and best practices. This is an effort to arrive at the most logical and convincing approaches that will particularly work to address the escalating lifestyle diseases problem and help to bring about this “vision of better health for all” that health workers all over the world are dreaming of. Emphasis on the most common risk factors of lifestyle diseases such as DIETARY PRACTICES, PHYSICAL ACTIVITY and EXERCISE, and TOBACCO SMOKING, targeting the YOUTH (particularly CHILDREN and EARLY ADOLESCENTS), at the SCHOOLS where nearly all of them are practically found, is a significant “new perspective” in effectively and successfully promoting a healthy lifestyle.

This “new perspective in promoting a healthy lifestyle” is a combined health education approach to deliver strategically adequate information leading to desirable practices and habits in the first place, at the earliest possible age. It is very interesting that the 1998 World Health Report already set the direction when it said that individuals “must take greater responsibility for their health at the earliest opportunity. This means adopting habits such as healthy diet, adequate exercise and avoidance of tobacco early in life and maintaining them for the rest of their years” (p. 105).

In the Scriptures, the Lord instructed the world to “train children in the right way,” stating that when they got older, “they will not stray” (Prov 22:6). To promote and encourage healthy lifestyle practices to children and youth who have not yet acquired bad habits is an important and effective way to prevent disease and promote health. The Lord charges parents to tell their children to keep His instructions “for our good always, that He might preserve us alive” (Deut 6:20-24).

References

- American Lung Association. (n.d.). *Effects of secondhand smoke exposure on children and families*. Retrieved from <http://www.co.sanmateo.ca.us/sites/Human%20Resources%20Department/Other/HR%20Files/13933081HealthEffectsofSecondhandsmoke.pdf>
- Boume, P. A., & McGrowder, D. A. (2009). Health status of patients with self-reported chronic diseases in Jamaica. *North American Journal of Medical Science, 1*, 356-364. doi:10.4297/najms.2009.7356
- Christiansen, A. L., Commons, J. L., Olen, A. M., & Remington, P. L. (2003). *Youth smoking in Wisconsin: An assessment of trends in use and the progression to established smoking*. Madison, WI: University of Wisconsin Comprehensive Cancer Center and Wisconsin Division of Public Health, Monitoring and Evaluation Program. Retrieved from http://sep.uwcarbone.wisc.edu/downloads/Documents/trends_reports/YouthTrendsSummer2003final.pdf
- dela Torre, H. (2009). Correlates of smoking knowledge, attitude & behavior among early adolescents: A basis for the development of smoke-free health education program (Unpublished doctoral dissertation). Adventist University of the Philippines, Puting Kahoy, Silang, Cavite.
- Downs, A. M. (2005, June). Pediatric physical activity and fitness. *Cardiopulmonary Physical Therapy Journal, 16*(2), 12-20. Retrieved from http://cpptjournal.org/pdfs/members/fulltext/2005/Vol_16_No_2.PDF
- Eaton, D. K., Kann, L., Kinchen, S., Ross, J., Hawkins, J., Harris, W. A., Lowry, R., . . . et al. (2006, June 9). Youth risk behavior surveillance - United States, 2005. *Surveillance Summaries. Morbidity and Mortality Weekly Report, 55*(No. SS-5). Retrieved from www.cdc.gov/mmwr/pdf/ss/ss5505.pdf
- Economo, K., Stewart, S., Sullivan, D., Jalleh, G., Carter, O., & Lin, C. (2010). The importance of public education campaigns in raising awareness and support for smoke-free car legislation in Western Australia. *Australian & New Zealand Journal of Public Health, 34*(1), 92-93. doi:10.1111/j.1753-6405.2010.00483
- Edwards, D., & Gold, M. (1999). *Teen Smoking*. Retrieved from <https://www.achievesolutions.net/achievesolutions/en/Content.do?contentId=403>
- Gellar, L. A., Schrader, K., & Nansel, T. R. (2007). Healthy eating practices: Perceptions, facilitators, and barriers among youth with diabetes. *Diabetes Education, 33*(4), 671-679. doi:10.1177/0145721707303807

- Lalonde, M. (1974). *A new perspective on the health of Canadians: A working document* (the Lalonde report). Government of Canada, Ministry of National Health and Welfare. Retrieved from http://www.hc-sc.gc.ca/hcs-sss/alt_formats/hpb-dgps/pdf/pubs/1974-lalonde/lalonde-eng.pdf
- Lawrence, M., & Worsley, T. (eds.). (2007). *Public health nutrition: From principles to practice*. Maidenhead, England: Open University Press.
- Lee, A., Wong, M. C. S., Keung, V. M. W., Yuen, H. S. K., Cheng, F., & Mok, J. S. Y. (2008). Can the concept of health promoting schools help to improve students' health knowledge and practices to combat the challenge of communicable diseases?: Case study in Hong Kong. *BMC Public Health*, 8(42). doi:10.1186/1471-2458-8-42. Retrieved from <http://www.biomedcentral.com/1471-2458/8/42>
- Mackay, J., & Eriksen, M. (2002). *The tobacco atlas*. Geneva, Switzerland: World Health Organization. Retrieved from <http://www.who.int/tobacco/en/atlas33.pdf>
- Martin, T. (2007). *Global smoking statistics for 2002: Overall stats and youth smoking facts*. Retrieved from <http://quitsmoking.about.com/cs/antismoking/a/statistics.htm>
- Moffett, T. (2009, November 3). Youth smoking causes & effects. *eHow*. Retrieved from http://www.ehow.com/facts_5580920_youth-smoking-causes-effects.html
- Morrow, M., & Barraclough, S. (2003). Tobacco control and gender in Southeast Asia. Part I: Malaysia and the Philippines. *Health Promotion International*, 18(3), 255-264. doi:10.1093/heapro/dag021
- Nordqvist, C. (2010, May 31). Tobacco kills one person every six seconds, says World Health Organization. *Medical News Today*. Retrieved from <http://www.medicalnewstoday.com/articles/190424.php>
- Pearson, N., Atkin, A. J., Biddle, S. J. H., Gorely, T., & Edwardson, C. (2009). Patterns of adolescent physical activity and dietary behaviours. *International Journal of Behavioral Nutrition and Physical Activity*, 6(45). doi:10.1186/1479-5868-6-45
- Philippine Department of Health (2003). *Smoke free school DOH leaflet*. Manila, Philippines: National Center for Health Promotion.
- Rainey, J. & Lammers, J.W. (2000). An application of the social development model of tobacco use prevention. *Journal of Health Education*, 31(4), 189-195. Retrieved from <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2365730/>

- Salamante, R. (2004). 3rd Public Health Alumni Update. College of Health. Adventist University of the Philippines. Bayview Hotel, Manila, Philippines.
- Spurrier, N. J., Magarey, A. A., Golley, R., Curnow, F., & Sawyer, M. G. (2008). Relationships between the home environment and physical activity and dietary patterns of preschool children: a cross-sectional study. *International Journal of Behavioral Nutrition and Physical Activity*, 5(31). doi:10.1186/1479-5868-5-31
- Tar Wars. (2007). A tobacco-free education program for kids from the American Academy of Family Physicians. Retrieved from <http://www.tarwars.org/online/tarwars/home/presentations.html>
- Venkat Narayan, K., Ali, M., & Koplan, J. (2010). Global non-communicable diseases: Where worlds meet. *The New England Journal of Medicine*, 363, 1196-1198. Retrieved from <http://www.nejm.org/doi/full/10.1056/NEJMp1002024>
- World Health Organization. (1998). *The world health report 1998: Life in the 21st century - a vision for all* (Executive Summary). Geneva, Switzerland: Author. Retrieved from http://www.who.int/whr/1998/media_centre/executive_summary1/en/index.html
- World Health Organization. (2003a). A training manual for health workers on promoting healthy lifestyles. *A national publication of the Philippine Department of Health researched and prepared by the University of the Philippines Manila, College of Nursing, and funded by the WHO, Western Pacific Regional Office. (Editors: Tuazon, J., Dones, L., & Bonito, S.)*
- World Health Organization. (2003b). *Diet, nutrition and the prevention of chronic diseases*. Report of a Joint WHO/FAO expert Consultation. Geneva, Switzerland. Retrieved from http://www.who.int/hpr/NPH/docs/who_fao_expert_report.pdf
- World Health Organization. (2004). Global strategy on diet, physical activity and health. Resolution WHA 57.17 of the *Fifty-seventh world health assembly*, Geneva, Switzerland, May 17-22, 2004. Retrieved from http://apps.who.int/gb/ebwha/pdf_files/WHA57/A57_R17-en.pdf
- World Health Organization. (2008). *The global burden of disease*. Retrieved from http://www.who.int/healthinfo/global_burden_disease/GBD_report_2004update_full.pdf
- World Health Organization. (2009). *WHO report on the global tobacco epidemic, 2009: implementing smoke-free environments*. Retrieved from www.who.int/tobacco/mpower/2009/en/index.html

Zapata, L. B., Bryant, C. A., McDermott, R. J., & Hefelfinger, J. A. (2008).
Dietary and Physical Activity Behaviors of Middle School Youth: The
Youth Physical Activity and Nutrition Survey. *Journal of School Health*,
78(1), 9-18, 65-67.

*Hilario dela Torre, Jr., DrPH
Public Health Department
Adventist International Institute of Advanced Studies
Silang, Cavite*