

Sarah Brandsen
Pella Christian High School
Pella, IA
Czech Republic, Factor 12

Combating Obesity in the Czech Republic

Malnutrition is a plague of humanity. Vast areas of the world struggle to feed starving populations. Militias ransack small towns and take away the farmer's meager food supply. Small children, who should be attending pre-school, are instead too frail and weak to survive. Other areas of the world suffer from a completely different, but equally devastating form of malnutrition- obesity. Excess weight now affects more lives than starvation- the World Health Organization (WHO) estimates there are now one billion overweight adults, compared to the 800 million who do not have enough to eat. And out of the overweight adults, a large 300 million are obese (22 million children are obese.) And though obesity was once considered a problem of rich countries, the developing world is catching up quickly making obesity a problem of poverty as well. Ensuing health problems such as heart disease, diabetes, and stroke could soon overwhelm health services everywhere.

Eastern Europe is one area where obesity has risen dramatically; going from an aesthetic problem to a lethal disorder responsible for 10-13% of deaths in some areas. And the Czech Republic is one of several Eastern European countries needing a health and nutrition overhaul. It isn't shockingly overweight when compared to places such as the South Pacific islands. In fact, it has relatively "normal" statistics: just over half the population is overweight and 23.4% are obese. Because it is an average country struggling with obesity, it is a good case study to understand what health and nutrition reforms can be made in the other "average" countries.

Nestled between Germany, Poland, Slovakia, and Austria, the Czech Republic is a temperate land about the size of Virginia with low mountains and hills. About 39% of the land is arable, and agricultural products include wheat, rye, oats, barley, hops, potatoes, sugar beets, and fruit. Livestock includes hogs, cattle, and poultry. Only 5% percent of the country's work force is engaged in farming, and 73% of the people live in an urban setting.

A post-communist country, the people of the Czech Republic are liberal, and only 19% believe in a God. The country is a multiparty parliamentary democracy with a population of 10.3 million people, and it is a member of the European Union. Citizens earn an average salary of \$20,858 and live in reasonable economic comfort.

Alexandra, Josef, and Vesta comprise a typical, but hypothetical, family living in the country's capitol of Prague. Alexandra and Josef work in a shoe factory (same jobs, but Alexandra makes a third less), and Vesta is a 15-year-old in school. Thanks to a stable and prosperous economy, this family does not worry about basic needs of food, shelter, water, and clothing. Alexandra serves traditional Czech cuisine, which is heavy with meats, creams, butter, and snacks. Each morning begins with Medovnik, a sweet honey cake, or crepes made with butter and whipped cream. Lunches and dinners are often three-course affairs that begin with a creamy soup such as garlic with fried bread, cabbage soup with minced sausage, or potato soup. The main course is usually beef, chicken, goose, duck, or rabbit with potatoes and dumplings. Dessert is often apple strudel, blueberry dumplings, or an ice cream sundae. Like most Czechs, Alexandra and Josef eat fresh produce only when it is in season and they do not bother with raising a home garden. Beer—the Czech Republic's drink of choice—is served at nearly every meal. In fact, the country is the world's top consumer of beer, a drink that offers little nutritional value and about 180 empty

calories per can. Disturbingly, more than 28% of Czech girls Vesta's age skip two meals a day, drink alcohol, and are inactive.

Contributing greatly to the Czech's "obesity epidemic" is something called Westernization. Fast food restaurants are rampant and cheap. Portions have become bigger, vending machines can be found in nearly every building, and junk food is both more accessible and cheaper than healthy food. Combined with a sedentary lifestyle of sitting in an office, working with a laptop, and watching TV, the end result is a high-calorie diet with too little exercise to burn off the calories. Although common, obesity is anything but benign. Those who fall into a high risk zone from obesity are likely to develop dyslipidemia (unhealthy fat levels), hypertension (high blood pressure), and cardiovascular diseases, such as coronary heart disease, atherosclerotic disease, type 2 diabetes, and sleep apnea). All of these diseases can be fatal. Even if the afflicted person is able to cope with them, their quality of life is greatly diminished. And the longer one stays in the high-risk category, the more likely they are to develop one of the complications. People who become obese or high-risk at childhood and stay that way throughout their life risk taking up to 20 years off their life span.

What exactly places someone into the risk zone? When does carrying excess weight cross the line from an "aesthetic problem" to a serious health concern? Scientists have come up with three major ways of assessment: waist circumference, Body Mass Index, and general health (whether the at-risk individual is exhibiting symptoms of weight-related problems such as high blood pressure or heart disorder.)

Excess fat can be stored either abdominally or peripherally. Peripheral fat is more evenly distributed around the body, whereas abdominal fat hangs solely on the waist and presents a much greater health risk. If a man's waist circumference is greater than 40 inches or a woman's waist circumference measures more than 35 inches, he or she is at a high health risk from excess abdominal weight, regardless of other contributing factors.

Body Mass Index (BMI) is a second assessment tool. Even if the waist circumference is within a reasonable range, a high percentage of body fat will put a strain on the person's health. (BMI is calculated by multiplying the subject's weight in pounds by 703, then dividing that number by height in inches squared.) Less than 18.5% is considered dangerously underweight. The "golden range" tends to be 18.5 to 24.9% and 25% to 29.9% is classified as overweight. Class I Obesity spans 30-34.9%; Class II Obesity is 35-39.9%; and severe clinical obesity or Class III Obesity is any BMI greater than 40.

The last factor in determining health risk is whether weight-related symptoms have appeared. Some symptoms that denote high risk are coronary heart disease, atherosclerotic disease, type 2 diabetes, and sleep apnea. Other diseases that increase risk but do not immediately mean absolute high risk are osteoarthritis, gallstones, stress incontinence, and gynecological abnormalities such as amenorrhea and menorrhagia. Hypertension, cigarette smoking, high low-density lipoprotein cholesterol, low high-density lipoprotein cholesterol, impaired fasting glucose, and family history of early cardiovascular heart disease can also affect risk.

What causes obesity? Genetics play a big part. There are 200 known genes that govern weight control, and scientists are still researching the human genome further. Also, after years of struggling to find enough food for survival, human genetics have adapted to not having enough. That means the human body is more fit to survive periods of starvation than an overload of food, and the human brain is programmed to want to "store up" food for the next famine.

Obviously, it is difficult to develop a treatment that is both effective and has long-lasting results. Once obese, many individuals develop low self-esteem due to weight stigmatism. Food becomes an emotional outlet, and that causes further weight gain, which increases the amount of prejudice they receive from others. This vicious cycle can be broken, but without support, most people lose weight quickly by extreme dieting and then gain it back just as quickly in a bout of frustration.

To effectively lose weight and keep it off requires diet and lifestyle changes. A recommended goal for an obese person is to either lose two pounds a week or to lose 10% of their weight over a six-month period. Their new diet should be 500-1,000 calories less per day and filled with nutrient-dense foods. Physical activity should be incorporated as well. But for a nation fond of highly processed snacks, animal fats, and rich butters and creams in their diet, the process of impacting change is daunting.

Addressing this complex and multifaceted crisis takes the cooperation of international, national, and local governments and organizations, as well as grassroots movements and the private sector.

On a broad level, international organizations such as the WHO of Europe and special United Nations agencies are necessary to help heighten political awareness and garner government commitment, provide technical support and policy advice, and encourage collaboration among countries.

On a national level, the Czech government needs a multifaceted plan that begins at the top and trickles down to a grassroots level. The Ministry of Health can head the initiative—and they have already committed to working with the WHO to develop stronger public health policies focusing on the prevention of obesity, especially in children. Among the collaborative ideas are: 1.) Provide doctors with post-graduate training and national workshops in obesity management; 2.) Improve availability and affordability of nutritious fruits and vegetables by reducing trade barriers to imports and providing technical advice and market incentives for local horticulture; and 3.) Develop a savvy communication strategy, utilizing various media to promote healthy lifestyle choices. Regulate commercials promoting unhealthy foods and targeted at young children. In addition, here are 4 major areas where the Czechs will need to invest resources:

DIETARY GUIDELINES AND MARKETING SUPPORT: The first point of the campaign should target the Czech diet, because a healthy diet will lay a foundation for other improvements. Experts working with the Ministry of Health should consider the current customs and eating habits of the Czechs, then factor in how to make the necessary changes. These changes include less dependency on animal fats, sugars, and highly processed foods, while introducing more locally produced foods, fresh fruits, and vegetables into the diet. Agricultural, media, and trade agencies can support these changes by implementing several small changes. Foods should have mandatory adequate labeling to support healthy choices (namely showing trans fats). Taxes and subsidies should be considered to make nutritious foods more affordable and “junk food” less appealing. An additional 15% tax on unhealthy foods (with the extra tax money used to fund health programs) could significantly decrease the purchase of junk food because junk food is often purchased for its cheap prices and convenience. Restaurants should be given incentives to offer healthier menu choices, and to offer “half-sized” portions of regular menu items. Other ideas could range from isolating all highly processed foods in one section of a grocery store to ridding schools and workplaces of vending machines to improving the quality of school lunches.

The health of children is especially important, as they are the next generation. Schools should be required to remove unhealthy foods from their lunch and provide at least one fresh produce item per lunch. Also, teachers should be banned from supplying candy or unhealthy food as a reward for academic performance. Prohibiting the sale of unhealthy foods to minors is a still bigger

change, one that would make it less convenient for tweens and teens to grab an unhealthy snack. Restricting advertising of unhealthy foods on TV during family hours may take away the temptation to snack.

In addition, local governments and urban planners need to find ways to encourage people to make horticulture part of the urban landscape. On a grassroots level, there could be free plans and seeds for a small garden plot, the development of community gardens and schoolyard gardens, and the introduction of vibrant farmer's markets where local growers offer produce and health agencies offer information, free recipes, and nutrition education.

PHYSICAL ACTIVITY: Alongside the dietary guidelines, there should be a push for more active lifestyles. Overall the Czech Republic needs to create opportunities for people to engage in physical activity and to encourage children to get moving. Public awareness campaigns should promote how exercise improves mind and body—selling people on the many benefits they will personally receive.

The Labor Department could encourage businesses to add workout facilities for their employees or offer health club discounts—noting that these incentives will pay off as worker productivity will improve. (A radical idea is the Japanese Metabolaw that requires workers to keep their waistline below a set number of inches or undergo weight counseling.)

The Education Department should work with schools to strengthen their commitment to physical education, perhaps taking a cue from Norway, which implemented 60 minutes of physical education into each school day. (If this threatens learning time, then perhaps look at lengthening the school day.) Physical education should be mandatory in all schools, and time spent in physical education class should require more activity as opposed to time spent sitting, talking, or doing casual activity. Licensed child-care facilities should have a limit on TV time and encourage activity instead. In addition, more kids should be encouraged to engage in some type of recreation for the physical and social benefits as well as the advantage of learning about teamwork

The Transportation or Parks Departments and urban planners could establish biking and walking paths. On a more local level, recreation agencies can look for ways to make activity affordable to all—free Saturday morning workouts in the park, nominal-cost sports, campaigns to get kids involved, grassroots sports clubs, etc. And the media can offer ideas on how to incorporate activity into your regular routine so it will become a part of your daily life.

HEALTH CARE: The Czech Republic deserves credit for offering post-graduate training to pediatricians about childhood obesity, and it is impressive that some Czech doctors are actually prescribing physical activity to their patients with notable success. Health insurance companies can make a difference by offering health insurance discounts to people who are in good health or who are making measurable improvements in their overall health. Perhaps they could also offer incentives for members who take nutritional counseling or attend educational health and nutrition classes or workshops.

EDUCATION AND AWARENESS: The last category targets the need for nutritional awareness. Various forms of media can contribute to this goal with everything from nutrition tweets to blogs on affordable healthy dinners to TV reports about the physical and emotional benefits of changing diet. One of the keys to success is letting people know that they will personally benefit from healthier lifestyle choices and that making the change can be a rewarding social challenge. For instance, neighbors can form a grassroots walking club or a healthy dinner club. Social media (facebook, twitter, blogs) can provide lots of ideas in ways that seem fresh and current.

In addition, schools should be required to teach a unit on nutrition and get “health” speakers to come and talk to the student body. Libraries and grocery stores should provide pamphlets with health information. The government should offer free obesity or nutrition counseling. The government should also sponsor public awareness campaigns about the danger of alcohol and people should be offered counseling such as Alcoholics Anonymous. As the world’s top consumer of beer, the Czech Republic has a huge challenge to reduce alcohol consumption. But small steps can be taken by eliminating alcohol advertising and running smart campaigns touting moderation.

The Czech Republic is a nation facing an obesity epidemic and serious health issues that echo the state of much of our world. In fact, obesity is the greatest health challenge we face in the 21st century. Unhealthy eating habits combined with a sedentary lifestyle have turned obesity into a more common problem than starvation. It will take dedication on the part of international agencies, governments, local organizations, and private sectors to get people to buy into the personal benefits. For many, food is like a drug, and it can be incredibly hard to change entrenched lifestyle and eating habits.

The Czech citizens enjoy economic stability, peace with neighboring countries, and a relatively carefree lifestyle. With an improved diet, greater physical activity, better health care, and government sponsored education; there is no reason why they shouldn’t be able to add one more thing to their accomplishments: “a healthy population.”

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