Reduce obesity to improve quality of life

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It is well known that smoking is the leading preventable cause of death in the United States. However, within the next few years it is expected to be passed by one of the most prominent chronic diseases affecting the world. A chronic disease is a one that lasts longer than three months and usually cannot be cured by medication. Man or woman, rich or poor, this chronic disease affects us without discretion, even though it has some particular consequences in men. What is responsible for the deaths of almost one thousand Americans daily and will be the biggest killer on the planet by 2020? The answer is obesity.

In the United States, 17 percent of children, 32 percent of adult males, and 36 percent of adult females are obese according to Suzanne Johnson, PhD, who is a research professor at FSU College of Medicine. Obesity is defined as having a body mass index of greater than 30, while 25 to 30 is considered overweight. BMI is calculated based on an individual's height and weight, so it is not a direct measure of body fat. However, research has shown that BMI correlates to direct measures of body fat, leading to its use in helping define what it means to be overweight as well as obese. An article published by Harvard Health Publications stated a total of two-thirds of Americans need to lose weight, and the numbers are only growing. There are a variety of causes for the rise of obesity during the last 40 years, but overall the rise is due to the consequences of living in a society that promotes inactivity and overeating.

For example, one contributing factor is the amount of high fructose corn syrup we consume in the United States. According to the Medical Director at Cleveland Clinic's Center for Functional Medicine, from 1980 to present day the consumption of high fructose corn syrup, extensively used in sweetened beverages and processed foods, has increased 3.7 times. High fructose corn syrup is low in cost, but it disrupts the intestinal lining allowing partially digested food and byproducts of

toxic gut bacteria to enter the blood stream. This triggers body-wide inflammation that is already known to be at the root of obesity, diabetes and accelerated aging just to name a few. This is by no means the sole cause of any of these issues, but it is advisable to avoid foods with high fructose corn syrup as much as you can.

Based on the 2015 Community Health Assessment Survey results, in Montgomery County the average BMI for all males is 28.9 while it is 29.6 for females. For those who make more than $75,000 a year, the average BMI is 28.4 while it is 30.6 for those who make less than $25,000. While the lower income group is the only one with an average BMI in the obese range, there is little difference overall. As said before, being overweight as well as obesity are equal opportunity employers that affect all strata of society. As a whole, Indiana has a higher number of adults who report no leisure time physical activity and a lower number of adults who meet aerobic and muscle strengthening guidelines as compared to the national average. This is not surprising, as all of the average BMI's presented above from Montgomery County are closer to the obese range, if not in it, than they are to the healthy weight range.

While obesity itself affects men and women comparably, it takes a special toll on men's hormone levels, sexuality and prostrate health. With respect to hormone levels, obesity decreases testosterone leading to symptoms of testosterone deficiency. It affects men's sexuality by increasing the risk of erectile dysfunction and fertility impairment. Obesity affects prostrate health by increasing the risk of prostate cancer by 8 percent in overweight individuals and 20 percent in obese individuals according to the American Cancer Society. In addition, it also increases the chance that the cancer will spread beyond the prostrate.

For both men and women, obesity increases the risk of diseases and disorders such as heart attack, stroke, diabetes, cancer, obstructive sleep apnea and mental disorders. Some of the

mental disorders it may trigger are eating disorders, distorted body image, low self-esteem and depression. In regards to depression, a wide range of studies have found that obese people have higher rates of depression. The results from the Swedish Obese Subjects study shows clinically significant depression is three to four times higher for highly obese individuals than in similar non-obese counterparts. A report from Sahlgrenska University Hospital reported that depression scores were as bad if not worse for obese people when compared to those with chronic pain. Interestingly, obesity is associated with an increased risk of depression five years down the road, but depression is not indicative of an increased risk of future obesity according to a study from Texas Health Science Center at Houston. Combine the immediate issues of obesity, the increased risk of a plethora of diseases, and the increased risk of mental disorders and you will not have to look hard for a reason to seek out a physician.

With all of the issues associated with obesity and the increased medical needs, how big of an impact do you think it has on the U.S. economy? Believe it or not, obesity costs the healthcare industry $150-$210 billion annually. These costs aren't just felt by obese individuals seeking medical attention either, but shared among everyone. On top of that, obesity costs another $4.3 billion annually due to job absenteeism associated with the complications that come along with obesity. Even at work, obesity has been shown to inhibit productivity, costing employers an estimated $506 per obese worker every year. The consequences of having a significant portion of the adult U.S. population living with obesity affects employers, the economy as a whole, and the healthcare costs of every American citizen. Solving this crisis would bring benefits on a personal, local, and national level, but how do we find solutions?

You might be surprised to find out that one of the best ways to battle this epidemic is by promoting investment in local community-based programs to increase physical activity, improve nutrition, and prevent tobacco use. A study conducted in part by the New York Academy of Medicine found that just a $10 investment per American citizen would save the United States $16 billion annually within five years. That is a return of over five dollars for every dollar invested. Here in Montgomery County, the Montgomery County Wellness Coalition launched one such local campaign earlier this year called "Wellness Begins with ME!" #MontCoCommitted2Wellness. The goal of this campaign is to improve the overall health of our community; however, this will only be possible if it begins at the individual and family level. To accomplish this, this wellness campaign focuses on committing to three things you and your family will do to improve health and wellness in your home and community.

The obesity epidemic is a worldwide problem, with consequences ranging from an increased risk

of depression to a $200 billion dollar healthcare burden on the American people. The best way to try to reverse the issue and increase the overall quality of life and health of American citizens is to create and invest in community-based programs. Not only would participation in these programs decrease your waistline a few inches, it could improve your standard of living, mental health, and may quite literally save your life. Remember, #WellnessBeginsWithME!

Cameron Brown, Wabash College '17 and an intern with the Montgomery County Health Department, contributed this guest column to the Journal Review.