

# Analysis of changes in the nutrition of women in the last 25 years

Michał Filip<sup>1</sup>, Anita Wdowiak<sup>1</sup>, Grzegorz Bakalczuk<sup>2</sup>,  
Magdalena Lewicka<sup>2</sup>, Magdalena Sulima<sup>2</sup>, Andrij Bazylewicz<sup>3</sup>,  
Oksana Hdyrya<sup>4</sup>, Khristina Kaminska<sup>5</sup>, Yaroslav Kleban<sup>6</sup>

<sup>1</sup> Medical University of Lublin, Poland

<sup>2</sup> Department of Obstetrics, Gynecology and Obstetrical-  
-Gynecological Nursing Faculty of Nursing and Health  
Sciences, Medical University, Lublin, Poland

<sup>3</sup> Vice-rector of Lviv National Medical University n.a. Danylo Halytsky,  
President Lviv Ukrainian Medical Association, Lviv, Ukraine

<sup>4</sup> Assistant of Professor of Lviv National Medical  
University n.a. Danylo Halytsky Lviv, Ukraine

<sup>5</sup> Dr. Lviv Clinical Cardiological Center, Lviv, Ukraine

<sup>6</sup> Head of Polyclinic department of Railway Clinical  
Hospital №2 (Kyiv, Ukraine), Assistant of Professor of  
National Medical University n.a. O. Bohomoltsa

**European Journal  
of Medical Technologies**

2015; 4(9): 45-53

Copyright © 2015 by ISASDMT  
All rights reserved

www.medical-technologies.eu

Published online 24.12.2015

**Adres do  
korespondencji:**

anita.wdowiak@gmail.com

## Abstract

Nutrition is the process of providing every living cell collected foods in their natural state or after processing into a variety of food and drinks in order to maintain basic life functions, proper development and health. It must be nourished every cell of our body. Organic substances from digested food in the form of simple nutrients are distributed by the blood to whole human body. Nutrition is a basic need of every human being. The way we eat is the determinant of our style, standard of living, a place in society and, of course, health. Health is inseparably linked to our diet. Type of food and the way we eat helps in maintaining a healthy lifestyle. The aim of the study was to assess changes

## Key words:

nutritions, fast  
foods, diet

in the diet of women in living in Lublin region over the last 25 years. The study included 300 women living in Lublin region, in three age groups: 20-25, 35-40, 55-60. We chose an anonymous questionnaire as a research technique. In the questionnaire we ask about the type of diet, frequency of eating fruits, meat, fast foods, snacking between meals and consumption of vegetables to meals. The study shows growing trend of eating fast food among women aged 20-25 years old over the past 25 years. This food probably contributes to many diseases such as heart disease, cancer, obesity, or anorexia, bulimia. Scientists have no illusions that eating quickly prepared and cheap food must undergo a changes, because people are becoming more aware of what they eat. The frequency of meals should be individually tailored to each human, its demand for energy, climate, age and many other factors.

## Introduction

Nutrition is the process of providing every living cell downloaded foods in their natural state or after transforming them into a varied dishes and drinks in order to maintain basic life functions, proper development and health. It must be nourished every cell of our body. From digested food organic substances in the form of simple nutrients are distributed by the blood throughout the body. Nutrition is fundamental to life for every body [1]. Also determines the maintenance of good health [2]. Too poor nutrition or poor absorption and digestion causes malnutrition and underweight. On the other hand excessive eating, or eating the wrong foods can cause overweight or obese. Appropriate (healthy) nutrition requires so consuming adequate amounts of well-prepared food.

Healthy eating is a way of nutrition, through the taken of substances beneficial to health in order to provide or improve health. It is important to reduce the risk of diseases such as obesity, cancer, heart disease [3]. A healthy diet is to receive adequate amounts of essential nutrients and water.

Nutrients can be supplied in the form of various products and therefore many eating habits and diets can be considered healthy. Provide adequate amount of macronutrients (fats, proteins, carbohydrates), micronutrients (minerals) and energy needed for the proper functioning of the body [4]. The World Health Organization has issued Recommendations for Populations and Individuals should include the following: achieve energy balance and a healthy

weight, limit energy intake from total fats and shift fat consumption away from saturated fats are unsaturated fats and towards the elimination of trans-fatty acids, increase consumption of fruits and vegetables, and legumes, whole grains and nuts limit the intake of free sugar, limit salt (sodium) consumption from all sources and ensure code that salt is iodized.

Proper nutrition avoids many diseases that develop sometimes for many years as a result of consumption of excessive or insufficient amounts of certain nutrients [5]. The most common diseases include cardiovascular disease, hypertension, type 2 diabetes, obesity, gallstones, anemia, osteoporosis and some cancers (stomach, colon, breast). The wrong diet can also lead to more prosaic issues such as limiting the possibility of acquiring knowledge, chronic exhaustion and weakness attention. Eating disorders are classified by the American Psychiatric Association, they include: bulimia (anorexia nervosa), obesity, binge eating. Eating disorders are a problem that can not be ignored. In ancient times the primary function was to ensure survival food. The man received food, guided mainly by hunger and ended the meal, when he had a sense of satiety. Over time, the role of food began to expand with the needs of the body for the purposes of the psyche [6]. Action of eating began to play a variety of roles. You can eat out of boredom, sadness, anxiety and sympathy for the person who treats us with a sense of duty (meeting at the table, during which served one after the other dishes). Food acts not only by mechanical irritation of the gastrointestinal tract. During the consumption

of carbohydrates in the central nervous system serotonin release occurs, there is a better mood. The problem of eating disorders is growing for years, long concealed from the whole world, and especially my family and immediate surroundings [7]. It is a cry for help, but people affected by eating disorders do not know who to turn to. They often do not realize that the problems with the food is really problems with the psyche rather than the body.

## Aim

The aim of our research was to assess changes in the diet of women living in Lublin region over the last 25 years.

## Research method and group

As a research technique chosen an anonymous questionnaire. It was carried out among 300 women in 2015. The questionnaire was intended for women living in Lublin region in three age groups: 20-25, 35-40, 55-60 years. It has been formulated to evaluate in the best possible way, selected diet and nutrition. It consisted of different closed questions, which concerned diet, eating of meat, fruits and Fast food. Before test, all the respondents were informed about the purpose of these research and voluntary participation in them. In addition, also received information on how to complete the questionnaire. The results were statistically analyzed.

## Results

The first question was if the person eats a prescribed diet. In the youngest group 23% of respondents are on specific diet, in the intermediate group – 27%, and 16% of the oldest group. These differences were not statistically significant ( $\text{Chi}^2=3.613$ ,  $p=0.164$ ,  $p>0.055$ ) (Fig. 1).

Regular meals declares in the youngest group 40% of patients, in the intermediate group – 48%, and the oldest 33%. These differences were not statistically significant ( $p=0.0744$ ,  $p>0.055$ ) (Fig. 2).

In the youngest group and in the intermediate 54% of respondents as the main meal considers dinner, while 53% of the oldest group. These differences were not statistically significant ( $\text{Chi}^2=4.68165$ ,  $p=0.096$ ,  $p>0.055$ ) (Fig. 3).

In the youngest group 67% of the respondents fry between meals, in the intermediate 56%, and 64% of the oldest group. These differences were not statistically significant ( $\text{Chi}^2=2.754$ ,  $p=0.252$ ,  $p>0.055$ ) (Fig. 4).

Another question related to eating vegetables with every meal. In the youngest group 22% eat vegetables at every meal, in the intermediate- 27%, and 21% of the oldest group. These differences were not statistically significant ( $\text{Chi}^2=1.155$ ,  $p=0.561$ ,  $p>0.055$ ) (Fig. 5).

The next question to which respondents answers related to the amount of fruit consumed within a week. In the youngest group average intake of fruit is 5.28, 4.74 – in the intermediate group. In the oldest group average of 4.76. These differences were not statistically significant ( $p=0.0863$ ,  $p>0.055$ ) (Fig. 6).

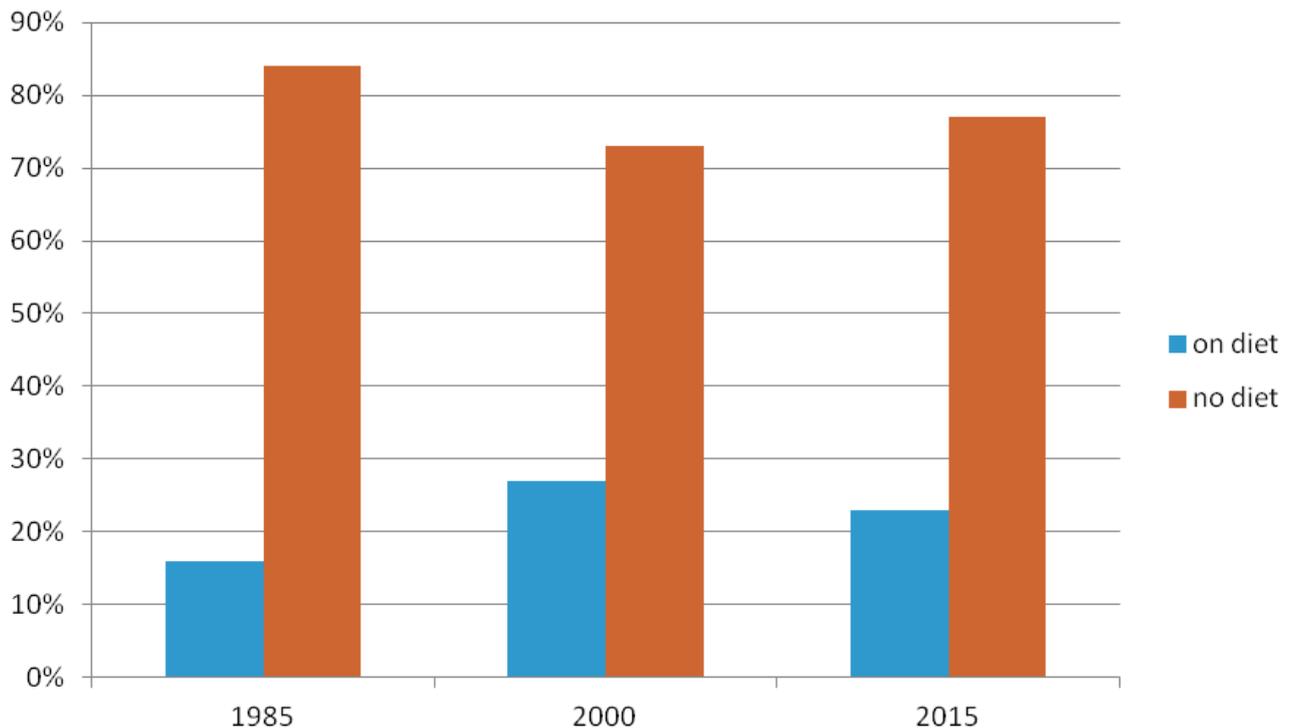
The next questions related to fast food. In the youngest group 78% of the respondents consume fast food, indirect – 63%. In the oldest group only 27% of respondents. These differences were statistically significant ( $\text{Chi}^2=55.76299$ ,  $P=0.000$ ,  $p<0.055$ ) (Fig. 7).

The survey also asked about the frequency of eating fast food. In the youngest group 43% of monthly eats fast-food dishes, in intermediate – 38%. In the oldest group only 26% of people consumed fast food once a month. These differences were statistically significant ( $\text{Chi}^2=17.57269$ ,  $P=0.024$ ,  $p<0.055$ ) (Fig. 8).

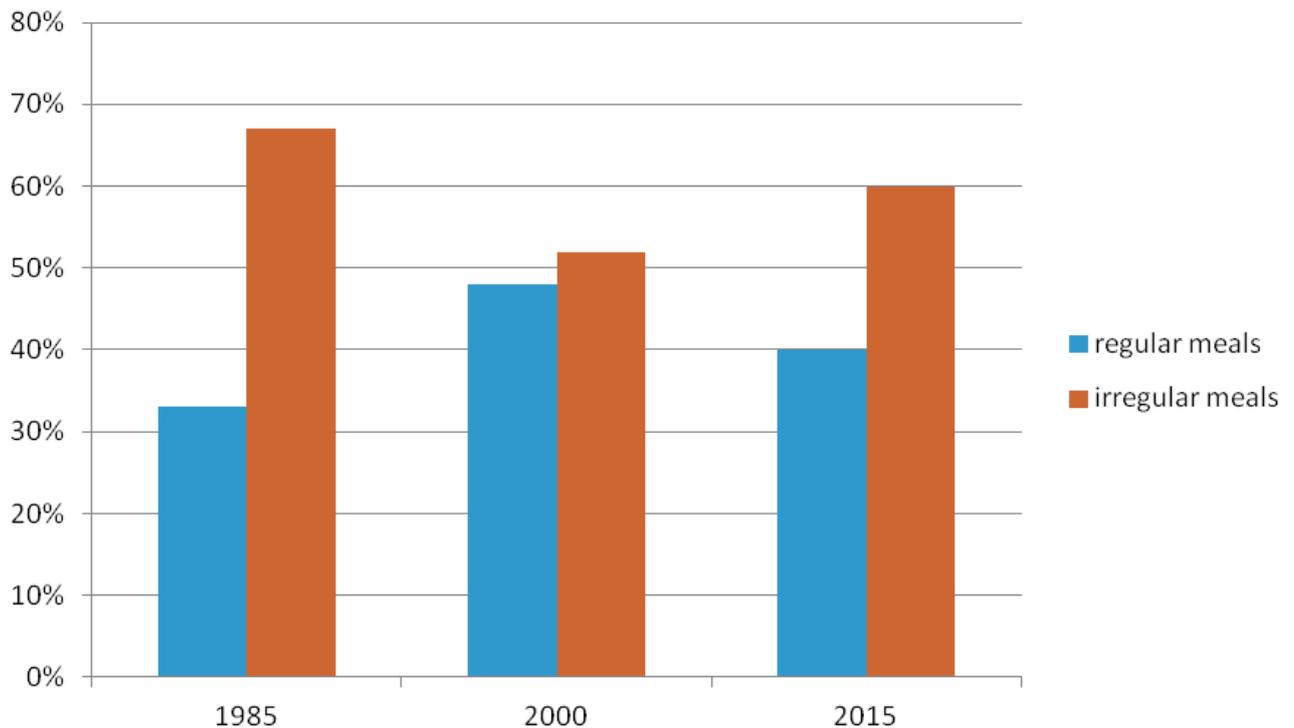
## Discussion

Nutrition is a basic need of every human. The way we eat is the determinant of our style, standard of living, a place in society and, of course, health. It is not surprising that this is an issue that people deal with from the beginning of civilization. It affects directly or indirectly on every area of our lives.

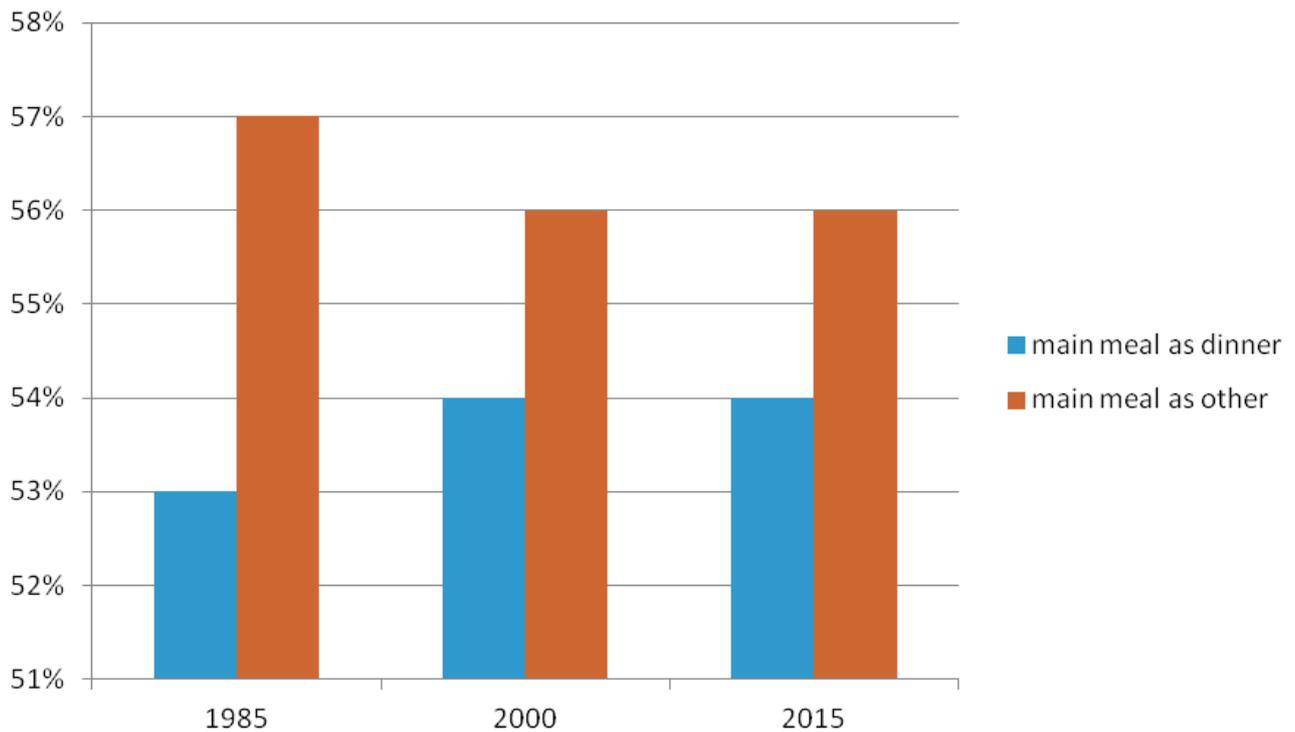
Quick lifestyle in developed countries has caused the need to shorten any activities that we do. Unfortunately, this also applies to our diet. In our work we observe the increase of eating fast food, especially among young women. But this is not without impact



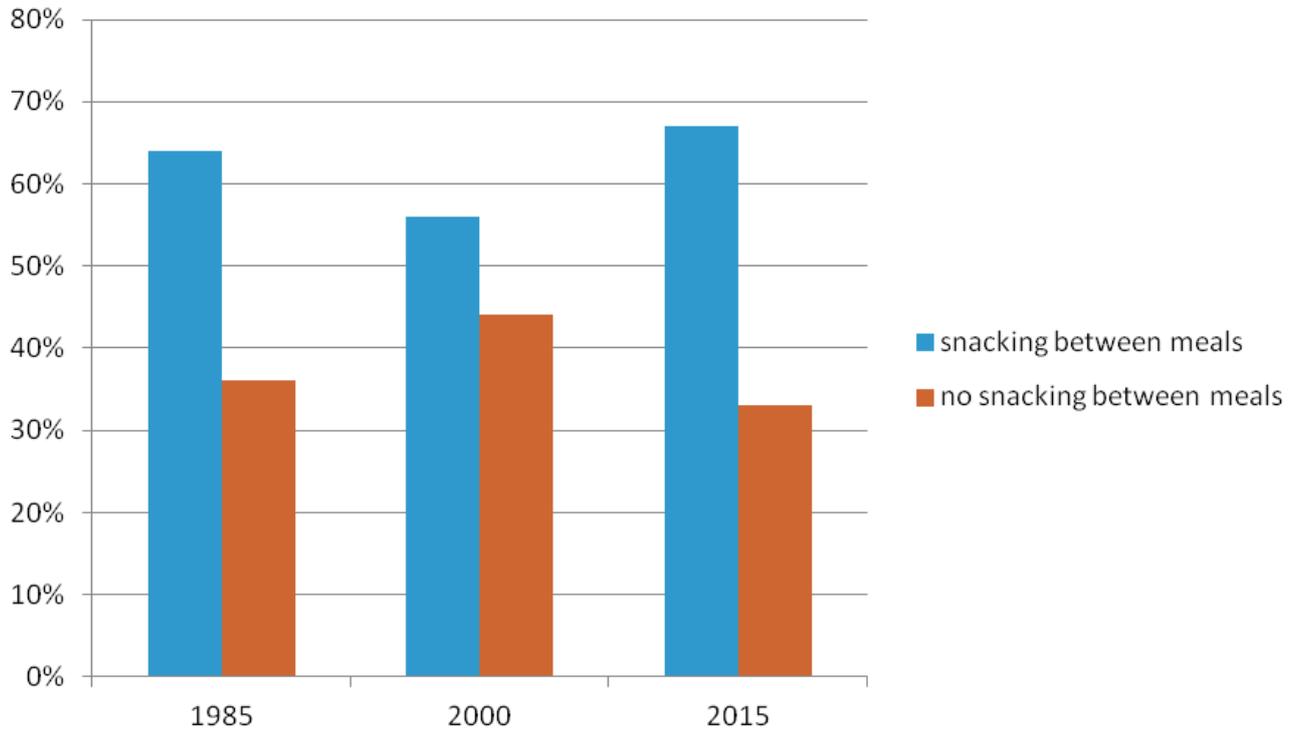
**Fig. 1**  
Being on the special diet



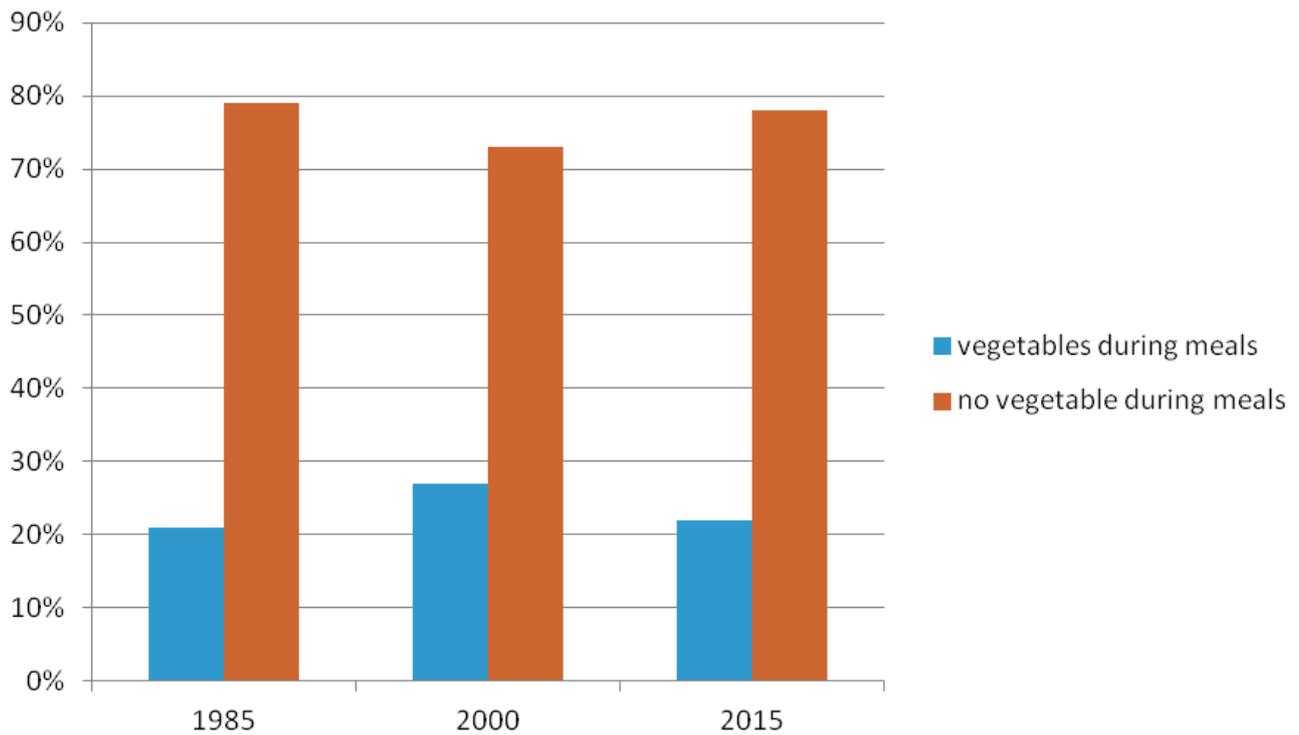
**Fig. 2.**  
Eating a regular meals



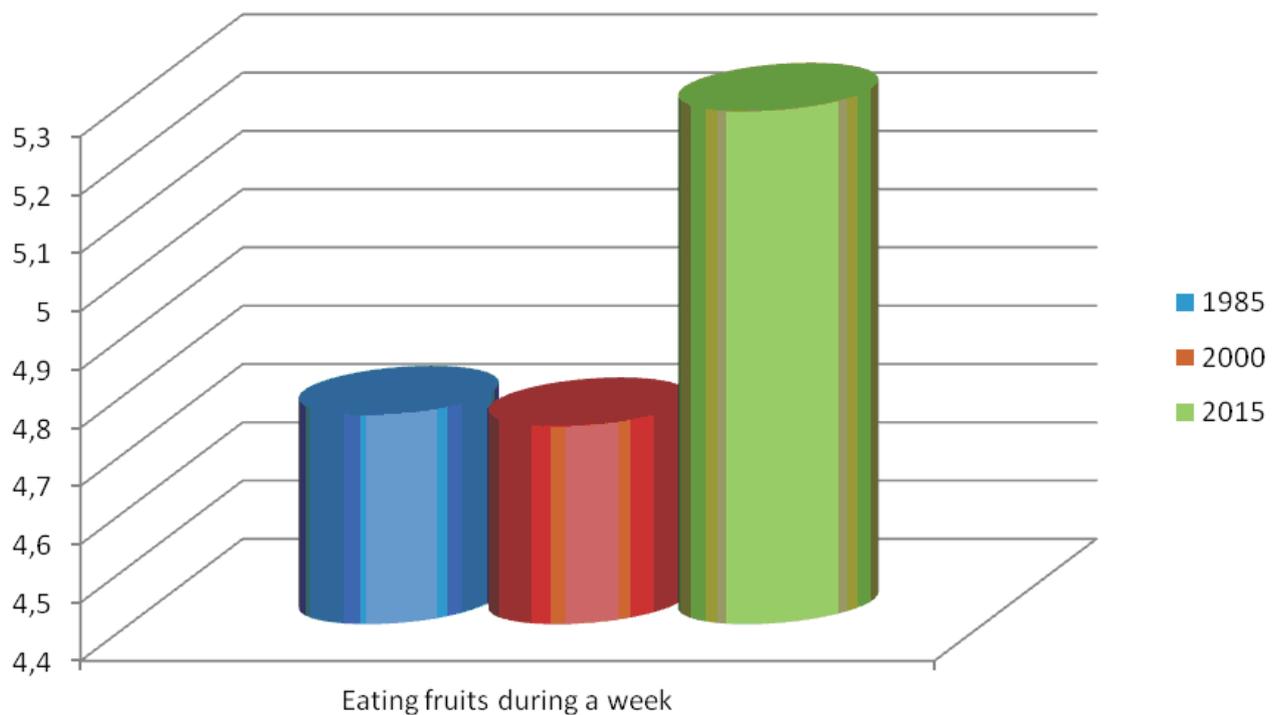
**Fig. 3.**  
Diner as a main meal



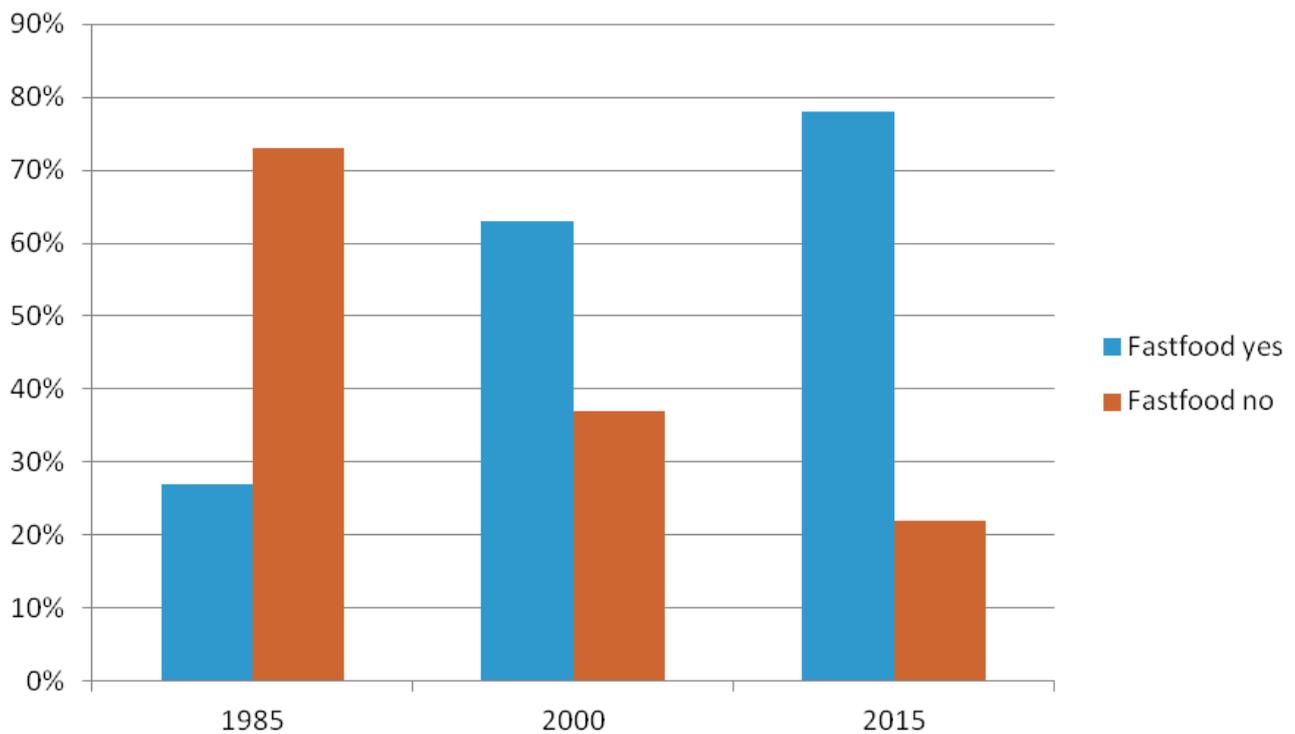
**Fig. 4.**  
Snacking between meals



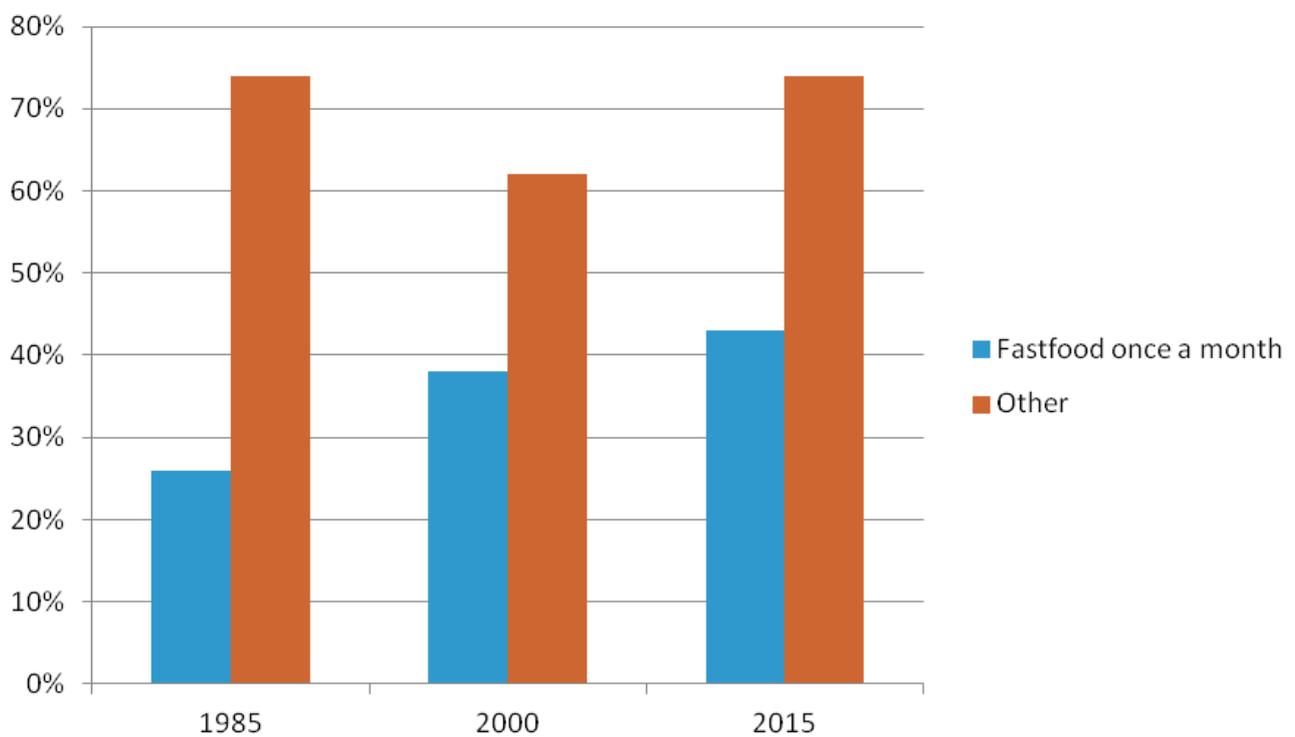
**Fig. 5.**  
Eating vegetables during every meal



**Fig. 6.**  
Eating fruits during a week



**Fig. 7.**  
Eating the Fast foods



**Fig. 8.**  
The frequency of eating Fast foods during a month

on their health. These products are high-energy, and their regular consumption causes deterioration in health status [8]. News from the world of science about the pernicious effects of burgers and fries, which cause an increase in body weight and percentage of body fat came to public awareness because of fashion for healthy lifestyle [9]. American scientists have no illusions that eating quickly prepared and cheap food must undergo a change, because people are becoming more aware of what they eat. Fast food industry also noticed and slowly introduces healthier food to their menus [10].

Fruits and vegetables are irreplaceable nutritional products, it would be difficult to imagine a complete meal without their contents. Increasing their consumption has a positive effect on quality of life and prevention of serious chronic diseases. Silveira EA et al. showed that increased consumption of fruits and vegetables observed in the group of older, well-educated women [11]. The disadvantage of women from the Lublin Region operates the fact that, compared to the Brazilians, they consume almost 2x less of vegetables and fruits per day.

Health is inseparably linked to our diet. Type of food and the way we eat helps in maintaining a healthy lifestyle. The frequency of meals should be individually tailored to each human, its demand for energy, climate, age and many other factors. It turned out that health is also relevant company while nourishing herself. Americans have demonstrated a correlation between the consumption of meals in the company of family and better health [12]. With a variety of research into the eating habits know that it is better to eat more healthily, in smaller quantities than less frequent but more [13]. The myth is the belief that snacking is unhealthy because it depends on what you snack in the framework of snacks. Smaller numbers of healthy snacks is associated with the risk of overweight and obesity. Our research has shown that for snacking between meals admits 56%-67% of women. This result seems to be high, especially that snacking has nothing to do with the feeling of hunger. Satiety is associated with the frequency of the meals but not with the frequency of snacks [14]. Studies show that snacking between meals is not bad if you eat healthy food, however snacks are usually candy bars, candy

or cookies, or other products that contain a lot of calories [15].

As mentioned above, all of this should be individually tailored to the needs of each human. For example, may be cite the fact that in a randomized study, Czech scientists have shown that a diet of two meals a day better impact on the health of patients with diabetes type 2. People with type 2 diabetes who eat only breakfast and lunch better reduce body weight compared with patients who eat 6 meals a day [16].

## Results

1. Over the last 25 years it is present a growing trend of eating fast food among women aged 20-25 years.
2. In this study there were no statistically significant changes in the diet of women Lublin region since 1985.

## References

1. Park J.I., Baek H., Jung H.H. CKD and Health-Related Quality of Life: The Korea National Health and Nutrition Examination Survey. *Am J Kidney Dis.* 2015 Dec 16. pii: S0272-6386(15)01399-2. doi: 10.1053/j.ajkd.2015.11.005
2. Wardle J., Parmenter K., Waller J. Nutrition knowledge and food intake. *Appetite* 2000; 34(3): 269-275.
3. Story M., Resnick M.D., Adolescents' views on food and nutrition. *Journal of Nutrition Education*, Volume 18, Issue 4, August 1986, Pages 188-192
4. Popkin Barry M. The Nutrition Transition and Obesity in the Developing World, *J Nutr* 2001; 131(3): 871S-873S
5. Canada N.L., Mullins L., Pearo B., Spoede E., Optimizing Perioperative Nutrition in Pediatric Populations, *Nutr Clin Pract* 2015 Dec 24. pii: 0884533615622639.
6. Yee L.M., McGuire J.M., Taylor S.M., Niznik C.M., Simon M.A. Social and Environmental Barriers to Nutrition Therapy for Diabetes Management Among Underserved Pregnant Women: A Qualitative Analysis. *J Nutr Educ Behav* 2015 Dec 16. pii: S1499-4046(15)00736-8. doi: 10.1016/j.jneb.2015.11.003.

7. Brown-Riggs C. Nutrition and Health Disparities: The Role of Dairy in Improving Minority Health Outcomes. *Int J Environ Res Public Health* 2015 Dec 22; 13(1). pii: E28. doi: 10.3390/ijerph13010028.
8. French S.A., Story M., Neumark-Sztainer D., Fulkerson J.A., Hannan P. Fast food restaurant use among adolescents: associations with nutrient intake, food choices and behavioral and psychosocial variables. *International Journal of Obesity and Related Metabolic Disorders* 2001; 25(12): 1823-1833.
9. French S.A., Harnack L., Jeffery R.W. Fast food restaurant use among women in the Pound of Prevention study: dietary, behavioral and demographic correlates. *International Journal of Obesity and Related Metabolic Disorders* 2000; 24(10): 1353-1359.
10. Brown W.V., Carson J.A., Johnson R.K., Kris-Etherton P. J.C.L., roundtable: fast food and the American diet. *Journal of Clinical Lipidology* 2015; 9(1): 3-10.
11. Silveira E.A. et. al. Low consumption of fruit, vegetables and greens: associated factors among the elderly in a Midwest Brazilian city. *Ciênc. saúde coletiva*. Volume 20 no.12 Rio de Janeiro December 2015.
12. Newman S.L., Tumin R., Andridge R., Anderson S.E. Family Meal Frequency and Association with Household Food Availability in United States Multi-Person Households: National Health and Nutrition Examination Survey 2007-2010. *PLoS One* 2015; 10(12): e0144330.
13. Azadbakht L., Hajishafiee M., Golshahi J., Esmailzadeh A. Snacking Behavior and Obesity among Female Adolescents in Isfahan, Iran. *Journal of the American College of Nutrition*. November 2015; 23:1-8.
14. Perrigue M.M., Drewnowski A., Wang C.Y., Neuhouser M.L. Higher Eating Frequency Does Not Decrease Appetite in Healthy Adults. *The Journal of Nutrition*. November 2015. pii: jn216978.
15. Bellisle F., Dalix A.M., Mennen L., Galan P., Hercberg S., de Castro J.M., Gausseres N. Contribution of snacks and meals in the diet of French adults: a diet-diary study. *Physiology & Behavior* 2003; 79; 2: 183-189.
16. Kahleova H., Belinova L., Malinska H., Oliyarnyk O., Trnovska J., Skop V., Kazdova L., Dezortova M, Hajek M, Tura A, Hill M, Pelikanova T. Eating two larger meals a day (breakfast and lunch) is more effective than six smaller meals in a reduced-energy regimen for patients with type 2 diabetes: a randomised crossover study. *Diabetologia* 2014; 57(8): 1552-1560.