Hygienic Analysis Of Morbidity Indicators Of Patients: On The Example Of The Endocrine System

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Abstract: In this article, the quantitative and qualitative indicators of the hygienic analysis of protein, fat, oil, carbohydrates, vitamins and minerals in the daily diet of patients with endocrine system diseases in the Bukhara region of our country, the role of protein, fat, oil, carbohydrates, vitamins and minerals in the diet and its importance in disease prevention is assessed and practical recommendations are given to prevent unhealthy nutrition and hypodynamia during the development of the disease.

Keywords: Diseases Of the Endocrine System, Diet, Quantity and Quality Indicators, Hygienic Analysis.

1. INTRODUCTION

In the last decade, not only in our country, but also in all developed countries of the world, the incidence of diseases of the endocrine system among the population is increasing day by day.

It's no secret that overweight, obesity, arterial hypertension, diseases of the endocrine system, iron deficiency anemia and the conditions that develop as a result of it, oncological diseases are increasing day by day among the population of our country [1], [2], [3], [4].

Today, among the population of our country, the incidence of diabetes mellitus type II from diseases of the endocrine system is increasing sharply, not only among those with overweight and obesity, but also among other communities [5], [6], [7], [8], [9], [10], [11], [12], [13], [14], [15], [16].

The main reason for this is the hypodynamic state of the population, disordered eating habits and behavior, various food additives, excessive consumption of monosaccharides, excessive eating habits with high-grade flour products, changes in the nervous system of various dyed drinks, periodic increase in blood pressure. It has been noted in the works of a number of scientists that it depends on the circumstances [17], [18], [19], [20], [21], [22], [23], [24], [25], [26], [27], [28].

Based on the results of our research, the next task was a socio-hygienic analysis of the incidence of diabetes in the last 15 years in the Bukhara region.

2. STUDY PROBLEM AND QUESTIONS

The purpose of the study is to develop measures aimed at improving the hygienic and socio-hygienic assessment of the risk factors of endocrine system diseases, taking into account the diet of the population of the ecologically disadvantaged area.

3. METHOD AND PROCEDURES

Hygienic, analytical, socio-hygienic, statistical and event-control methods were used to improve socio-hygienic measures related to regional nutrition in the development of endocrine system diseases.

4. STUDY RESULTS AND DISCUSSION

Table 1 shows the gender distribution of the population living in Bukhara region.

Table 1: The level of distribution of women and men in the permanent population of Bukhara region

Region	Total population	Including	
		Female	Male
2009			
Republic of Uzbekistan	27533,4	13760,8	13772,6
Bukhara region	1588,8	798,1	790,7
2010			
Republic of Uzbekistan	28001,4	13986,4	26388,9
Bukhara region	1612,5	809,6	1612,5
2011			
Republic of Uzbekistan	29123,4	14555	14568,4
Bukhara region	1683,8	846,2	837,6
2012			
Republic of Uzbekistan	29555,4	14762,9	14792,5
Bukhara region	1707,4	857,7	849,7
2013			
Republic of Uzbekistan	29993,5	14974,8	15018,7
Bukhara region	1729,7	868,1	861,6
2014			
Republic of Uzbekistan	30492,8	15215,3	15277,5
Bukhara region	1756,4	880,4	876
2015			
Republic of Uzbekistan	31022,5	15470,3	15552,2
Bukhara region	1785,4	894,1	891,3
2016			
Republic of Uzbekistan	31575,3	15736,4	15838,9
Bukhara region	1815,2	908,3	906,9
2017			
Republic of Uzbekistan	32120,5	15999,5	16121
Bukhara region	1843,5	921,8	921,7
2018			
Republic of Uzbekistan	32656,7	16258,8	16397,9
Bukhara region	1870,2	934,6	935,6

2019			
Republic of Uzbekistan	33255,5	16544,9	16710,6
Bukhara region	1894,8	946,5	948,3

In Bukhara region, the general incidence rate of endocrine diseases among the general population is presented in Table 2.

Table 2: General incidence of endocrinological diseases in Bukhara region (per 100,000 populations, over the years)

Years	General morbidity
2009	3950,7
2010	3715,1
2011	3234,9
2012	2797,4
2013	3635,2
2014	4210,1
2015	3488,6
2016	3350,4
2017	3303,7
2018	2709,4
2019	3339,5
Average (M)	3452,2

As can be seen from Table 2, the incidence rate of diseases of the endocrine system in the province was 3950.7 in 2009 and 3339.5 in 2019 based on the population's appeals. If it is taken into account that the incidence rate of endocrine system diseases is increasing day by day in the developed countries of the world, specific deficiencies in recording the incidence rate in the medical system have been shown, that is, deficiencies in the management of the health care system.

The total incidence was 3715.1 in 2010, 4210.1 in 2014, 2709.4 in 2018, and 3339.5 in 2019, while the average for 2009 and 2019 was 3452.2.

As can be seen from the above, the 10-year dynamic data on the incidence of diseases of the endocrine system showed inconsistent sharp differences. For example, the incidence rate was 2797.4 in 2012, and it was 2709.4 in 2018, indicating that the disparity in the level of morbidity indicated errors in the organization of medical services.

One of our next tasks was to assess the distribution of the disease rate between the sexes, its main causes, the gender difference and dependence of their distribution.

From our conducted research, it is worth noting that among different layers of the population, non-observance of the daily routine, its main components and changes in it, loss of sleep and its physiological indicators, non-observance of eating habits and behavior, decrease in physical activity, increase in the incidence of various diseases among women, The decline in the quality of life has created conditions for a sharp increase in susceptibility to disease. The prevalence of endocrine system diseases by gender is presented in Table 3.

Table 3: Indicator of the distribution of the incidence rate of endocrine system diseases between sexes (%)

Years	Female	Male
2009	74,2	25,7
2010	64,1	35,8
2011	65,0	35,0
2012	66,3	33,5
2013	64,4	35,5
2014	55,7	44,2
2015	56,3	43,7
2016	66,4	33,5
2017	67,4	32,5
2018	63,7	36,2
2019	59,8	39,4
standard deviation squared (σ)	5,1	5.2
Total (M±m)	63,9±1,65	35,9±1,64

As can be seen from the socio-hygienic analysis of the data presented in Table 3, the highest prevalence rate among women was recorded in 2009, 74.2%, 67.4% in 2017, and 66.4% in 2016. , in 2012 it was 66.3%, in 2018 it was 63.7%, the lowest rate was 55.7% in 2014, and 59.85 in 2019. If we see them in Figure 2, it will be possible to compare the percentage of women and men in terms of total incidence in 2009 and 2019.

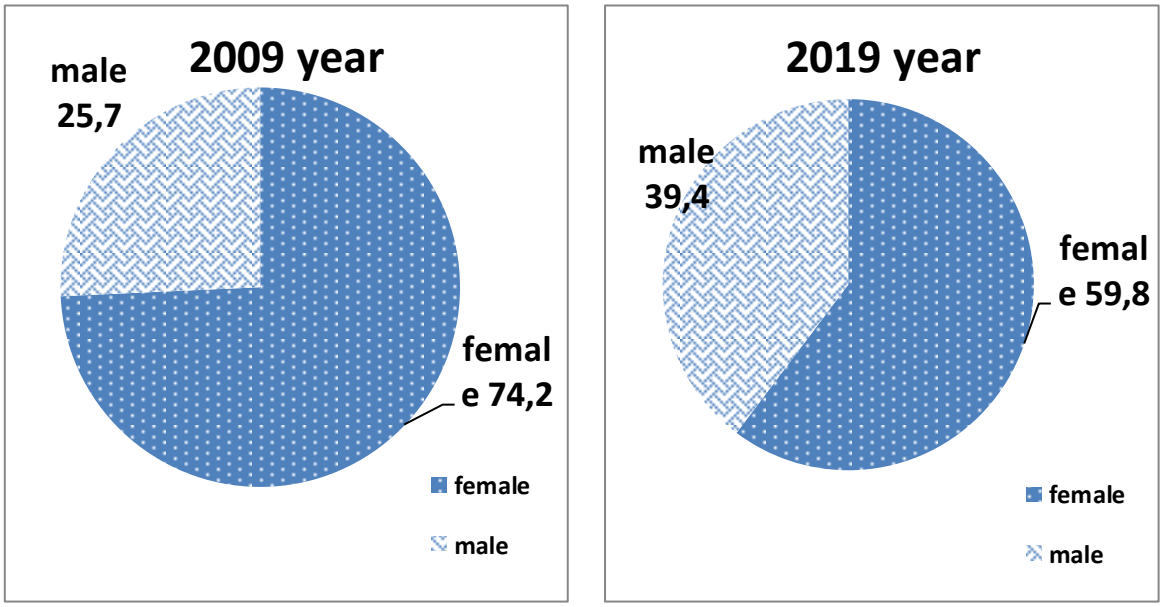

Figure. Percentage of men and women in the total incidence rate in 2009 and 2019 %.

In this scientific work, we aimed to analyze the available statistical data, and it revealed errors in documentation, statistical disproportions or differences in morbidity rates in treatment and prevention institutions in the primary system. For example, in 2013, the incidence rate was 64.4%, and in 2014, it was 55.7%. This situation revealed the problems in the organization of health care if it is considered that the rate of morbidity decreased by 8.7% in one year, or if the level of recovery in 1 year is considered to be much higher, the level of recovery from this disease is

abstract or there is a deficiency in the diagnosis process. At the same time, the incidence rate decreased by 3.9% in 2019 compared to 2018, indicating the existence of a correlational relationship.

The highest incidence rate among women over the years was 74.2% in 2009, 67.4% in 2017, 66.4% in 2016, 66.3% in 2012, and 63.7% in 2018. and the lowest rate was 55.7% in 2014 and 59.85% in 2019.

The incidence rate among men was recorded between 25.7 and 44.2% during 2009-2019.

The increased incidence among women is mainly due to a higher intake of monosaccharides combined with lower physical activity among women.

Despite the fact that there are nutritional deficiencies among men, there are sharp differences in the incidence rate compared to women.

In comparison to women, the rate of disease in men is found to be one less. The highest incidence rate in women was 74.2% in 2009, while the lowest rate was recorded in men this year. The difference in incidence rate between men and women was 48.5%. In 2019, the incidence rate was 59.8% in women and 39.4% in men, that is, the difference was 20.4%.

The index of primary incidence of endocrine diseases of the population of Bukhara region is presented in Table 4.

According to the hygienic analysis of the level of primary morbidity with diseases of the endocrine system, the average primary morbidity was 1530.8. In 2009, this indicator was 1648.9, and in 2019 it was 1256.1.

The highest indicator was 2348.0 in 2012, and the lowest indicator was 1112.6 in 2018. Primary morbidity is 1293.0 in analogical order from 2014; 1208.2 (2015); 1136.7 (2016); 1214.3 (2017); It was 1112.6 (2018) and 1252.1 (2019).

Table 4: Primary incidence of endocrine diseases in Bukhara region (per 100,000 populations, over the years)

№	Years	General morbidity
1	2009	1648,9
2	2010	1615,9
3	2011	1333,9
4	2012	2348,0
5	2013	2397,4
6	2014	1293,0
7	2015	1208,2
8	2016	1136,7
9	2017	1214,3
10	2018	1112,6
11	2019	1256,1
12	жами	1530,8

In the above five years, although the incidence rate has a tendency to decrease, the tendency of disease susceptibility and incidence rate among the population is still increasing. General and primary morbidity rates according to nosologies in the endocrine system were diabetes mellitus, especially type 2 diabetes (53.8 - 61.2%), followed by thyroid gland diseases (34.1 - 41.5%).

Table 5: Prevalence ratio of endocrine diseases by common nosologies

Diseases	2019, %	2020, %	2021, %	σ	M±m
Type 1 diabetes	4,7	4,5	4,7	**0.12**	**4,63±0,08**
Type 2 diabetes	53,8	57,2	61,2	**3.70**	**57,4±2,62**
Thyroid diseases	41,5	38,3	34,1	**3.71**	**37,9±2,62**

According to nosologies in the endocrine system, diabetes mellitus, especially type 2 diabetes (53%-61%), followed by thyroid gland diseases (34-41%) accounted for the general and primary morbidity.

Table 6: The incidence rate of the most common endocrinological diseases by sex, in 2019-2021 (%).

Nosologies	genders	2019	2020	2021	Total
Type 1 diabetes	male	42	45	44	100
	female	58	55	56	
Type 2 diabetes	male	47	48	47	100
	female	53	52	53	
Thyroid diseases	male	7	8	6	100
	female	93	92	94	

If we look at the share of women and men in endocrine diseases, it can be seen that the incidence of women (55-93%) is higher than that of men (Table 6).

If we compare the last three years (2019, 2020, 2021), the most common diseases are Type 1 diabetes type and Type 2 diabetes, as well as thyroid gland diseases, and the percentage of women (%) is higher. In particular, the majority of women had thyroid diseases (92%-93%).

CONCLUSION

According to the study:

1. It has been proven that among the population of the Bukhara region, the prevalence of type 1 and type 2 diabetes mellitus and thyroid gland diseases is at different levels.

2. The highest incidence was 2348.0 in 2012, and the lowest was 1112.6 in 2018.

3. The primary morbidity rate is 1293.0 in analog order from 2014; 1208.2; 1136.7; 1214.3; It was 1112.6 and 1252.1.

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