



# INCIDENCE AND PREVALENCE OF INFLAMMATORY BOWEL DISEASE IN OSIJEK-BARANJA COUNTY, CROATIA, 2000-2014

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\*This study was supported by the Faculty of Medicine Osijek institutional research project IP1 in 2016.

**SUMMARY** – The etiology of inflammatory bowel disease (IBD) is unknown. Data on the incidence and prevalence in different regions can help identify factors relevant to the occurrence of IBD. From 2000 to 2014, 517 patients were newly diagnosed with IBD, including 329 (63.6%) patients with ulcerative colitis (UC) and 188 (36.4%) patients with Crohn's disease (CD). The incidence of UC was 71.4/100,000 in the 2000-2010 period and 30.5/100,000 in the 2011-2014 period. The incidence of CD was 37.5/100,000 in the 2000-2010 period and 21/100,000 in the 2011-2014 period. The prevalence of IBD showed an increasing trend during the study period. It increased from 3/100,000 in 2000 to 109.5/100,000 in 2014 for UC, and from 2.5/100,000 in 2000 to 63.3 in 2014 for CD. The results from Osijek-Baranja County are consistent with most studies on IBD, except for the distribution by gender and education. There was a statistically significantly higher number of males with CD compared to UC, and patients diagnosed with CD had a significantly higher level of education.

**Keywords:** *Inflammatory bowel disease; Crohn's disease; Colitis, lcerative; Incidence; Prevalence; Croatia; Medical anthropology*

## Introduction

Inflammatory bowel disease (IBD) is an idiopathic disorder commonly occurring in the gastrointestinal tract, which includes two entities, i.e., ulcerative colitis (UC) and Crohn's disease (CD)<sup>1,2</sup>. Their differentiation

is established by use of clinical, endoscopic, histologic, and radiologic diagnostic tools<sup>3</sup>.

Inflammatory bowel disease greatly burdens quality of life of those diagnosed with it. The quality of life in patients and their families is particularly affected by the disease symptoms<sup>4-7</sup>. Although it is difficult to compare conditions in different countries, in Germany, most of the costs caused by CD and UC are due to early retirement and sick leave among patients<sup>6</sup>.

The prevalence of IBD is increasing worldwide<sup>8</sup>, although the incidence is stagnant in some countries<sup>9</sup>. There are differences in its prevalence between

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Received September 8, 2022, accepted September 29, 2022

certain regions<sup>8,10-12</sup>, suggesting that the prevalence of IBD depends on particular environmental factors or that particular groups are more susceptible to IBD. Some genetic studies suggest that there are certain risk alleles that are strongly associated with the disease subphenotype<sup>13,14</sup>. However, there is no suggestion that these alleles are more likely to occur in a particular racial or ethnic group. Studies of the association in specific racial/ethnic groups have shown that there are differences by race<sup>15-17</sup>. Thus, socioeconomic factors appear to play an important role in the development of CD. For example, people with IBD are more likely to have higher educational attainment and income than the general population<sup>15</sup>. Therefore, Straus *et al.* attribute racial disparities to socioeconomic factors<sup>18</sup>. It is worth noting that some studies show that members of certain Asian ethnic groups have an increased risk of developing IBD after moving to the United Kingdom<sup>19,20</sup>. However, it is unclear whether this is due to changes in socioeconomic situation and environmental factors or to the fact that IBD is misdiagnosed in immigrant countries of origin<sup>19</sup>. Information on the relationship between the

prevalence and environment is important to identify the possible factors relevant to the occurrence of IBD. Our aim was to collect and analyze data on patients in Osijek-Baranja County (OBC) in eastern Croatia primarily to determine the prevalence and incidence rates, but we also examined patient demographic characteristics and highlighted those that showed a statistically significant difference between UC and CD patients.

## Materials and Methods

This research was conducted as a retrospective cohort study during the 2000-2014 period in the OBC adult population. Study subjects were adult patients from OBC diagnosed with IBD during the 2000-2014 period. To observe the mean effect in the difference of numerical variables among three independent groups of subjects (three five-year periods), with a significance level of 0.05 and power of 0.8, the minimum required sample size was 159 subjects (calculation made using G\*Power version 3.1.2 (Franz Faul, University of Kiel, Kiel, Germany)).

Table 1. Patients newly diagnosed with inflammatory bowel disease in Osijek-Baranja County, 2000-2014

Year of diagnosis	Number of patients (%)			p*
	Ulcerative colitis	Crohn's disease	Total	
2000	6 (1.8)	4 (2.1)	10 (1.9)	0.95
2001	21 (6.4)	9 (4.8)	30 (5.8)	
2002	6 (1.8)	4 (2.1)	10 (1.9)	
2003	19 (5.8)	12 (6.4)	31 (6)	
2004	24 (7.3)	15 (8)	39 (7.5)	
2005	28 (8.5)	14 (7.4)	42 (8.1)	
2006	27 (8.2)	14 (7.4)	41 (7.9)	
2007	33 (10)	9 (4.8)	42 (8.1)	
2008	20 (6.1)	11 (5.9)	31 (6)	
2009	30 (9.1)	18 (9.6)	48 (9.3)	
2010	22 (6.7)	14 (7.4)	36 (7)	
2011	20 (6.1)	14 (7.4)	34 (6.6)	
2012	26 (7.9)	18 (9.6)	44 (8.5)	
2013	20 (6.1)	15 (8)	35 (6.8)	
2014	27 (8.2)	17 (9)	44 (8.5)	
Total	329 (100)	188 (100)	517 (100)	

The research was carried out by analyzing medical documentation of the Osijek University Hospital Center (UHC) and Našice General Hospital as the only two centers that provide secondary health care in the OBC area. A list of people diagnosed with IBD during the 2000-2014 period was obtained.

#### Statistical methods

Categorical data were expressed as absolute and relative frequencies. Numerical data were described by the median and interquartile range limits. Differences in categorical variables were tested with  $\chi^2$ -test and, if necessary, with Fisher exact test. The normality of distribution of numerical variables was tested with the Shapiro-Wilk test. Differences in numerical variables between two independent groups were tested with the Mann-Whitney U-test. The incidence and prevalence were calculated on the basis of the data collected. All p values were two-sided. The level of significance was set at  $\alpha=0.05$ . The statistical program MedCalc Statistical Software version 14.12.0 (MedCalc Software bvba, Ostend, Belgium; <http://www.medcalc.org>; 2014) was used on statistical analysis.

#### Results

During the 2000-2014 period, 517 new patients were diagnosed with IBD in OBC, including 329 (63.6%) patients with UC and 188 (36.4%) patients with CD, with no significant differences in the observed period (Table 1). The overall incidence of UC in OBC was 71.4 patients *per* 100,000 in the 2000-2010 period, and 30.5 patients *per* 100,000 in the 2011-2014 period (Table 2). The overall incidence of CD in OBC was 37.5 patients *per* 100,000 in the 2000-2010 period, and 21 *per* 100,000 in the 2011-2014 period (Table 3).

During the 2000-2014 period, 3845 patients were diagnosed with IBD in OBC, including 2473 (64.3%) patients with UC and 1372 (35.7%) patients with CD, with no significant differences in the observed period. Regarding gender, there were more newly diagnosed women ( $n=276$ ; 53.4%) than men, but men were more frequently diagnosed with CD than women ( $\chi^2$ -test,  $p<0.001$ ) (Table 4).

A total of 133 (98.5%) newly diagnosed patients had been living in OBC for more than five years, while 289 (55.9%) subjects lived in an urban setting.

Table 2. Incidence of ulcerative colitis (number of newly diagnosed patients per year/100,000) in OBC, 2000-2014

Year of diagnosis	*OBC population	Number of patients newly diagnosed with UC	Incidence (100,000)	95% Confidence interval
2000	367,193	6	1.6	0.66-3.39
2001	330,506	21	6.4	4.04-9.55
2002	330,506	6	1.8	0.74-3.78
2003	330,506	19	5.7	3.56-8.81
2004	330,506	24	7.3	4.76-10.64
2005	330,506	28	8.5	5.74-12.08
2006	330,506	27	8.2	5.49-11.72
2007	330,506	33	10.0	6.99-13.86
2008	330,506	20	6.1	3.80-9.18
2009	330,506	30	9.1	6.24-12.79
2010	330,506	22	6.7	4.28-9.91
2011	305,032	20	6.6	4.12-9.95
2012	305,032	26	8.5	5.69-12.31
2013	305,032	20	6.6	4.12-9.95
2014	305,032	27	8.9	5.95-12.7

\*Results for 2000 are based on the 1991 census; for the 2001-2010 period on the 2001 census; and for the 2011-2014 period on the 2011 census; OBC = Osijek-Baranja County; UC = ulcerative colitis

Table 3. Incidence of Crohn's disease (number of newly diagnosed patients per year/100,000) in OBC, 2000-2014

Year of diagnosis	*OBC population	Number of patients newly diagnosed with CD	Incidence (100,000)	95% Confidence interval
2000	367,193	4	1.1	0.35-2.62
2001	330,506	9	2.7	1.33-4.99
2002	330,506	4	1.2	0.38-2.92
2003	330,506	12	3.6	1.97-6.17
2004	330,506	15	4.5	2.64-7.32
2005	330,506	14	4.2	2.41-6.94
2006	330,506	14	4.2	2.41-6.94
2007	330,506	9	2.7	1.33-4.99
2008	330,506	11	3.3	1.75-5.79
2009	330,506	18	5.4	3.33-8.44
2010	330,506	14	4.2	2.41-6.94
2011	305,032	14	4.6	2.61-7.52
2012	305,032	18	5.9	3.61-9.15
2013	305,032	15	4.9	2.86-7.93
2014	305,032	17	5.6	3.36-8.74

\*Results for 2000 are based on the 1991 census; for the 2001-2010 period on the 2001 census; and for the 2011-2014 period on the 2011 census; OBC = Osijek-Baranja County; CD = Crohn's disease

Table 4. Newly diagnosed cases of inflammatory bowel disease in OBC (2000-2014) according to gender

Gender	Number of subjects (%)			p*
	Ulcerative colitis	Crohn's disease	Total	
Male	144 (43.8)	97 (51.6)	241 (46.6)	0,09
Female	185 (56.2)	91 (48.4)	276 (53.4)	
Total	329 (100)	188 (100)	517 (100)	

\* $\chi^2$ -test; OBC = Osijek-Baranja County

Table 5. General sociodemographic characteristics of patients newly diagnosed with IBD according to IBD type

		Number of newly diagnosed patients (%)			p*
		Ulcerative colitis	Crohn's disease	Total	
Residence in OBC	Up to 1 year	1 (1.1)	0	1 (0.7)	0.57 <sup>†</sup>
	1-5 years	1 (1.1)	0	1 (0.7)	
	More than 5 years	85 (97.7)	48 (100)	133 (98.5)	
	Total	87 (100)	48 (100)	135 (100)	
Environment	Urban	181 (55)	108 (57.4)	289 (55.9)	0.59
	Rural	148 (45)	80 (42.6)	228 (44.1)	
	Total	329 (100)	188 (100)	517 (100)	

Table 5. *ctnd.*

		Number of newly diagnosed patients (%)			p*
		Ulcerative colitis	Crohn's disease	Total	
Marital status	Married	62 (68.9)	30 (60)	92 (65.7)	0.08 <sup>†</sup>
	Single	16 (17.8)	16 (32)	32 (22.9)	
	Divorced	0	1 (2)	1 (0.7)	
	Widowed	12 (13.3)	3 (6)	15 (10.7)	
	Total	90 (100)	50 (100)	140 (100)	
Education level	Elementary	15 (34.1)	2 (6.5)	17 (22.7)	<b>0.02</b>
	Secondary	20 (45.5)	19 (61.3)	39 (52)	
	Tertiary	9 (20.5)	10 (32.3)	19 (25.3)	
	Total	44 (100)	31 (100)	75 (100)	
Employment status	Employed	24 (25.5)	25 (53.2)	49 (34.8)	<b>0.01<sup>†</sup></b>
	Self-employed	3 (3.2)	0	3 (2.1)	
	Unemployed	15 (16)	5 (10.6)	20 (14.2)	
	Retired	47 (50)	14 (29.8)	61 (43.3)	
	Housewife	5 (5.3)	2 (4.3)	7 (5)	
	Student	0	1 (2.1)	1 (0.7)	
	Total	94 (100)	47 (100)	141 (100)	

\* $\chi^2$ -test; <sup>†</sup>Fisher exact test; bold values denote statistical significance; IBD = inflammatory bowel disease; OBC = Osijek-Baranja County

Table 6. *Prevalence of inflammatory bowel disease in OBC, 2000–2014*

Year	Number of patients (%)			p*
	Ulcerative colitis	Crohn's disease	Total	
2000	11 (0.4)	9 (0.7)	20 (0.5)	0.99
2001	32 (1.3)	18 (1.3)	50 (1.3)	
2002	38 (1.5)	22 (1.6)	60 (1.6)	
2003	57 (2.3)	34 (2.5)	91 (2.4)	
2004	81 (3.3)	49 (3.6)	130 (3.4)	
2005	108 (4.4)	63 (4.6)	171 (4.4)	
2006	136 (5.5)	77 (5.6)	213 (5.5)	
2007	169 (6.8)	86 (6.3)	255 (6.6)	
2008	189 (7.6)	97 (7.1)	286 (7.4)	
2009	219 (8.9)	115 (8.4)	334 (8.7)	
2010	242 (9.8)	129 (9.4)	371 (9.6)	
2011	262 (10.6)	143 (10.4)	405 (10.5)	
2012	288 (11.6)	161 (11.7)	449 (11.7)	
2013	307 (12.4)	176 (12.8)	483 (12.6)	
2014	334 (13.5)	193 (14.1)	527 (13.7)	
Total	2473 (100)	1372 (100)	3845 (100)	

\* $\chi^2$ -test; OBC = Osijek-Baranja County

Additionally, 92 (65.7%) of them were married. Patients with elementary school were significantly more likely to be diagnosed with UC, whereas CD patients were statistically significantly more likely to have a tertiary education degree ( $\chi^2$ -test,  $p=0.02$ ). There was a statistically significant difference in employment status and IBD type. A significantly higher number of CD patients were employed (Fisher exact test,  $p=0.01$ ) compared with retired and unemployed patients, who were more likely to have UC (Table 5).

In the 2000-2014 period, there were 3845 patients suffering from IBD in OBC, out of which 2473 (63.4%) were diagnosed with UC and 1372 (35.7%) with CD (Table 6). Men were statistically significantly more likely to be diagnosed with CD than women ( $\chi^2$ -test,  $p<0.001$ ) (Table 7).

The majority of patients, 1125 (99.5%), had been living in OBC for more than five years, with most of

them residing in an urban setting ( $n=2168$ ; 56.4%). Regarding marital status, 762 (66.4%) patients were married. Patients who had elementary school were significantly more likely to be diagnosed with UC, while CD patients were significantly more likely to have secondary or tertiary education ( $\chi^2$ -test,  $p<0.001$ ). A significant difference was also recorded according to employment status. CD patients were significantly more likely to be employed (Fisher exact test,  $p<0.001$ ) than retired or unemployed patients, who were significantly more likely to have UC (Table 8).

The overall prevalence of UC in OBC was 71.4 *per* 100,000 in the 2000-2010 period, and 30.5 *per* 100,000 in the 2011-2014 period (Table 9). The overall prevalence of CD in OBC was 37.5 *per* 100,000 in the 2000-2010 period, and 21 *per* 100,000 in the 2011-2014 period (Table 10).

Table 7. Gender distribution of IBD patients in OBC, 2000-2014

Sex	Number of patients (%)			p*
	Ulcerative colitis	Crohn's disease	Total	
Male	1091 (44.2)	748 (54.5)	1839 (47.9)	<b>&lt;0.001</b>
Female	1380 (55.8)	624 (45.5)	2004 (52.1)	
Total	2471 (100)	1372 (100)	3843 (100)	

\* $\chi^2$ -test; bold value denotes statistical significance; IBD = OBC = Osijek-Baranja County

Table 8. Baseline demographics of IBD patients in OBC (2000-2014) according to IBD type

		Number of patients (%)			p*
		Ulcerative colitis	Crohn's disease	Total	
Residence in OBC	Up to 1 year	4 (0.6)	0	4 (0.4)	0.17 <sup>†</sup>
	1-5 years	2 (0.3)	0	2 (0.2)	
	More than 5 years	703 (99.2)	422 (100)	1125 (99.5)	
	Total	709 (100)	422 (100)	1131 (100)	
Setting	Urban	1384 (56)	784 (57.1)	2168 (56.4)	0.48
	Rural	1089 (44)	588 (42.9)	1677 (43.6)	
	Total	2473 (100)	1372 (100)	3845 (100)	
Marital status	Married	487 (70.6)	275 (60.2)	762 (66.4)	<b>&lt;0.001<sup>†</sup></b>
	Single	114 (16.5)	163 (35.7)	277 (24.1)	
	Divorced	0	3 (0.7)	3 (0.3)	
	Widowed	89 (12.9)	16 (3.5)	105 (9.2)	
	Total	690 (100)	457 (100)	1147 (100)	

Table 8. *ctnd.*

		Number of patients (%)			p*
		Ulcerative colitis	Crohn's disease	Total	
Education	Elementary	140 (41.1)	9 (2.7)	149 (22.1)	<b>&lt;0.001</b>
	Secondary	123 (36.1)	210 (63.3)	333 (49.5)	
	Vocational	0	15 (4.5)	15 (2.2)	
	Tertiary	78 (22.9)	98 (29.5)	176 (26.2)	
	Total	341 (100)	332 (100)	673 (100)	
Employment status	Employed	152 (20.4)	219 (53.8)	371 (32.2)	<b>&lt;0.001<sup>†</sup></b>
	Self-employed	30 (4)	0	30 (2.6)	
	Unemployed	77 (10.3)	27 (6.6)	104 (9)	
	Retired	423 (56.9)	138 (33.9)	561 (48.7)	
	Housewife	62 (8.3)	9 (2.2)	71 (6.2)	
	Student	0	14 (3.4)	14 (1.2)	
	Total	744 (100)	407 (100)	1151 (100)	

\* $\chi^2$ -test; <sup>†</sup>Fisher exact test; bold values denote statistical significance; IBD = inflammatory bowel disease; OBC = Osijek-Baranja County

Table 9. *Prevalence of ulcerative colitis in OBC, 2000-2014*

Year of diagnosis	*OBC population	Patients	Prevalence /100,000	95% Confidence interval
2000	367,193	11	3.0	1.6-5.2
2001	330,506	32	9.7	6.7-13.5
2002	330,506	38	11.5	8.3-15.6
2003	330,506	57	17.2	13.2-22.2
2004	330,506	81	24.5	19.6-30.3
2005	330,506	108	32.7	26.9-39.3
2006	330,506	136	41.1	34.7-48.5
2007	330,506	169	51.1	43.9-59.3
2008	330,506	189	57.2	49.5-65.8
2009	330,506	219	66.3	57.9-75.5
2010	330,506	242	73.2	64.4-82.9
2011	305,032	262	85.9	75.9-96.7
2012	305,032	288	94.4	83.9-105.8
2013	305,032	307	100.6	89.8-112.4
2014	305,032	334	109.5	98.2-121.7

\*Results for 2000 are based on the 1991 census; for the 2001-2010 period on the 2001 census; and for the 2011-2014 period on the 2011 census; OBC = Osijek-Baranja County

Table 10. Prevalence of Crohn's disease in OBC, 2000–2014

Year of diagnosis	*OBC population	Patients	Prevalence /100,000	95% Confidence interval
2000	367,193	9	2.5	1.2-4.5
2001	330,506	18	5.4	3.3-8.4
2002	330,506	22	6.7	4.3-9.9
2003	330,506	34	10.3	7.2-14.2
2004	330,506	49	14.8	11.1-19.4
2005	330,506	63	19.1	14.8-24.2
2006	330,506	77	23.3	18.5-28.9
2007	330,506	86	26.0	20.9-31.9
2008	330,506	97	29.3	23.9-35.6
2009	330,506	115	34.8	28.9-41.6
2010	330,506	129	39.0	32.7-46.2
2011	305,032	143	46.9	36.6-50.8
2012	305,032	161	52.8	41.6-5.67
2013	305,032	176	57.7	45.8-61.6
2014	305,032	193	63.3	50.6-67.1

\*Results for 2000 are based on the 1991 census; for the 2001–2010 period on the 2001 census; and for the 2011–2014 period on the 2011 census; OBC = Osijek-Baranja County

## Discussion

We compared results of the studies previously conducted in Croatia during the same period, at least in part. Health care is the same in all Croatian counties, but there are notable regional differences in lifestyles in Croatia, especially with regard to dietary habits<sup>21</sup>. For example, there is a higher prevalence of cardiovascular risk factors in the inland region, as well as in rural areas<sup>22</sup>.

Earlier IBD studies were performed in the Vukovar-Srijem County (VSC), a county adjacent to OBC, which overlapped in the 2000–2010 period<sup>23</sup>, and two studies were conducted in coastal region, in the Primorje-Gorski Kotar County (PGC), overlapping in the 2000–2004 period<sup>24</sup> and Zadar County (ZDC) overlapping in the 2000–2010 period<sup>25</sup>. The incidence of UC was highest in ZDC in the 2000–2010 period, but it was decreasing, whereas in OBC it was plateauing and in VSC it was still increasing (Fig. 1).

The incidence of CD was also highest in ZDC, but it was decreasing, while it was plateauing both in OBC and VSC (Fig. 2).

There was a statistically significant gender difference in the distribution of UC and CD, so we compared this parameter with the VSC and ZDC studies<sup>23,25</sup>. Data on PGC were not comparable. In all three studies, more male patients were diagnosed with CD (Fig. 3) and more females were diagnosed with UC (Fig. 4), which is consistent with some other studies, for example, in the United States<sup>15</sup>. Patients with a higher level of education were more likely to be diagnosed with CD than UC, which has also been found in other studies (Fig. 5).

It was possible to compare the level of education between patients with UC and CD in OBC, VSC<sup>23</sup> and ZDC<sup>25</sup>. Patients with a higher level of education are more likely to be diagnosed with CD than UC, which has also been found in other studies<sup>26</sup>.

Gender and educational differences could be related to eating habits because according to a 2009 study<sup>21</sup>, there are differences among Croatian regions, but also between genders. Men do not have the same eating habits as women. In addition, a higher socioeconomic level, which is associated with a higher level of education, is associated with change in

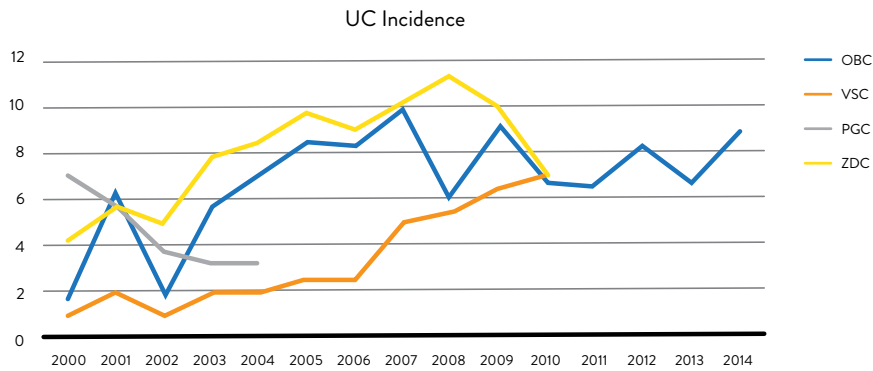


Fig. 1. Ulcerative colitis (UC) incidence in four Croatian counties in the 2000-2014 period.

OBC = Osijek-Baranja County; VSC = Vukovar-Srijem County; PGC = Primorje-Gorski Kotar County; ZDC = Zadar County

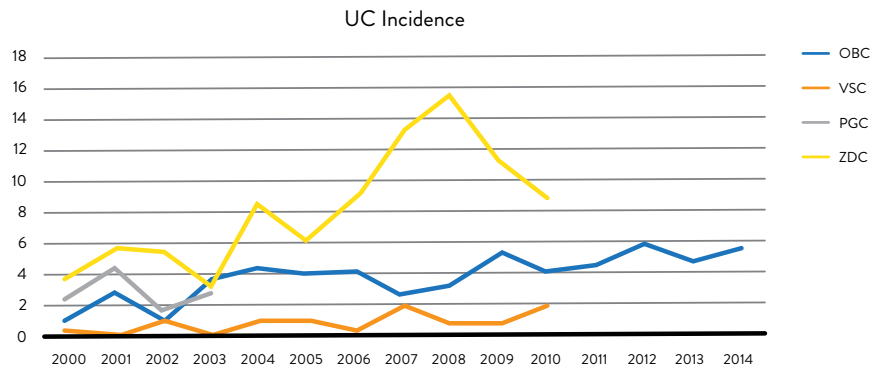


Fig. 2. Crohn's disease (CD) incidence in four Croatian counties in the 2000-2014 period.

OBC = Osijek-Baranja County; VSC = Vukovar-Srijem County; PGC = Primorje-Gorski Kotar County; ZDC = Zadar County

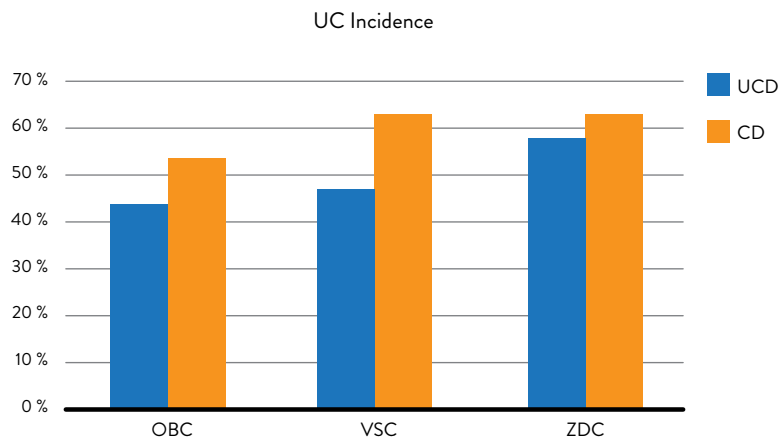


Fig. 3. Percentage of male patients with ulcerative colitis (UC) and Crohn's disease (CD).

OBC = Osijek-Baranja County; VSC = Vukovar-Srijem County; ZDC = Zadar County

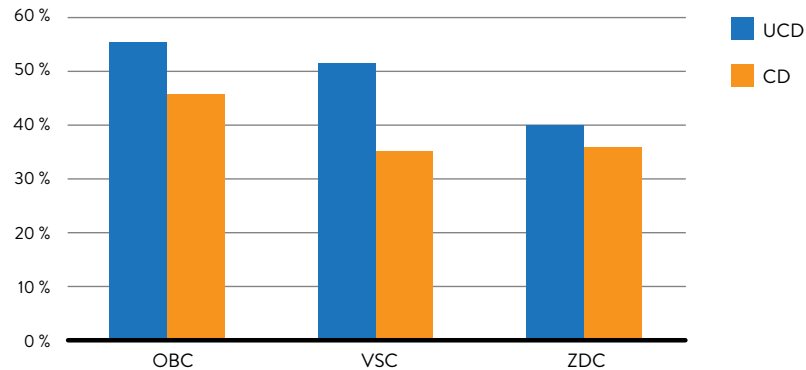


Fig. 4. Percentage of male patients with ulcerative colitis (UC) and Crohn's disease (CD).

OBC = Osijek-Baranja County; VSC = Vukovar-Srijem County; ZDC = Zadar County

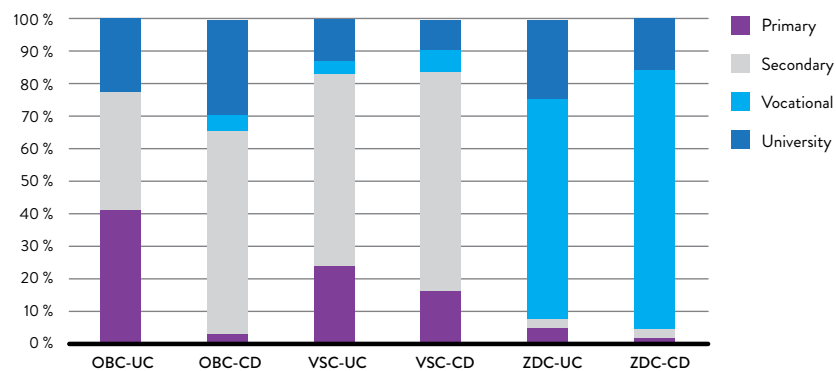


Fig. 5. Educational level (elementary, secondary, vocational, or university degree) in patients with ulcerative colitis (UC) and with Crohn's disease (CD).

OBC = Osijek-Baranja County; VSC = Vukovar-Srijem County; ZDC = Zadar County

lifestyle habits. Since the same health conditions prevail throughout Croatia, misdiagnosis, etc., can be excluded to a certain extent. Therefore, we attribute the regional differences exclusively to differences in lifestyle. Interestingly, the incidence is higher on the coast, where people traditionally speak of Mediterranean diet, while it is lower, especially in case of CD, in the inland area where more red meat is eaten, etc. However, it is possible that the higher incidence is due to changes in dietary habits. This would be similar to the research showing that immigrants from some countries in the former East Germany have a higher propensity to develop IBD.

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### Sažetak

## INCIDENCIJA I UČESTALOST UPALNIH BOLESTI CRIJEVA U OSJEČKO-BARANJSKOJ ŽUPANIJI OD 2000. DO 2014. GODINE

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Etiologija upalne bolesti crijeva (IBD) je nepoznata. Podaci o incidenciji i učestalosti u različitim regijama mogu pomoći u identificiranju čimbenika relevantnih za pojavu IBD-a. Od 2000. do 2014. godine IBD su dijagnosticirane u 517 bolesnika, uključujući 329 (63,6%) bolesnika s ulceroznim kolitisom (UC) i 188 (36,4%) bolesnika s Crohnovom bolešću (CD). Incidencija UC-a bila je 71,4/100.000 od 2000. do 2010. i 30,5/100.000 od 2011. do 2014. godine. Incidencija CD-a bila je 37,5/100.000 od 2000. do 2010. i 21/100.000 od 2011. do 2014. godine. Učestalost IBD-a pokazala je uzlazni trend tijekom proučavanog razdoblja. Porasla je s 3/100.000 u 2000. na 109,5/100.000 u 2014. za UC te s 2,5/100.000 u 2000. na 63,3/100.000 u 2014. godini za CD. Rezultati iz Osječko-baranjske županije u skladu su s većinom studija o IBD-u, osim distribucije prema spolu i obrazovanju. Statistički značajno je veći broj muškaraca s CD-om u usporedbi s UC-om, a također su bolesnici s dijagnosticiranom CD imali statistički značajno višu razinu obrazovanja.

*Ključne riječi: Upalna bolest crijeva; Crohnova bolest; Kolitis, ulcerativni; Incidencija; Učestalost; Hrvatska; Medicinska antropologija*