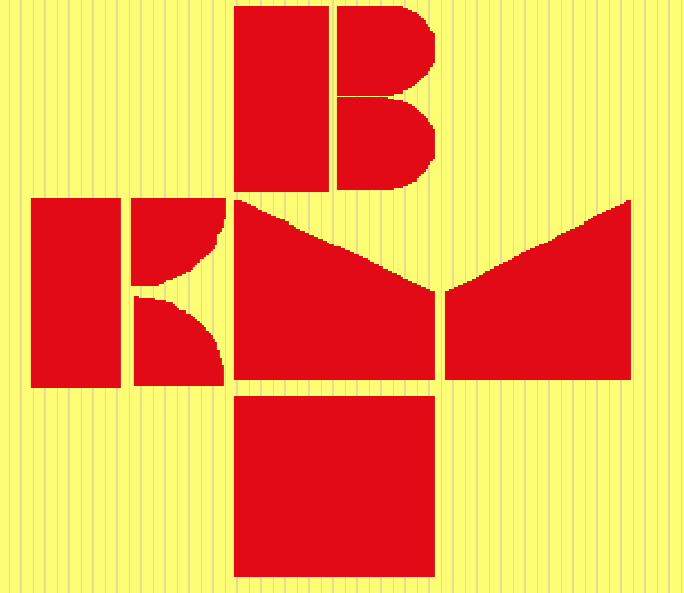




Dietary habits of patients treated with hemodialysis

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Introduction

Impaired renal function inhibits the removal of fluids, salts and substances derived from the degradations of proteins. With the active hemodialysis, proper nutrition plays a substantial role in the treatment and outcome in the disease. Eating disorders and nutritional status are the very common in the group of patients treated with intermittent hemodialysis. Diet recommendations are mostly related to fluid, protein, sodium, potassium and phosphorus intake.

Objectives

To examine the dietary habits of hemodialysis patients and the frequency of consumption of a non-recommended food. To examine correlation between the consumption of non-recommended food and the length of hemodialysis treatment.

Patients and methods

The study included 92 patients treated with chronic hemodialysis in three dialysis centers in Croatia; 64 men and 28 women with average age of $62,16 \pm 16,25$ years and the average length of dialysis treatment $4,18 \pm 4,51$ years.

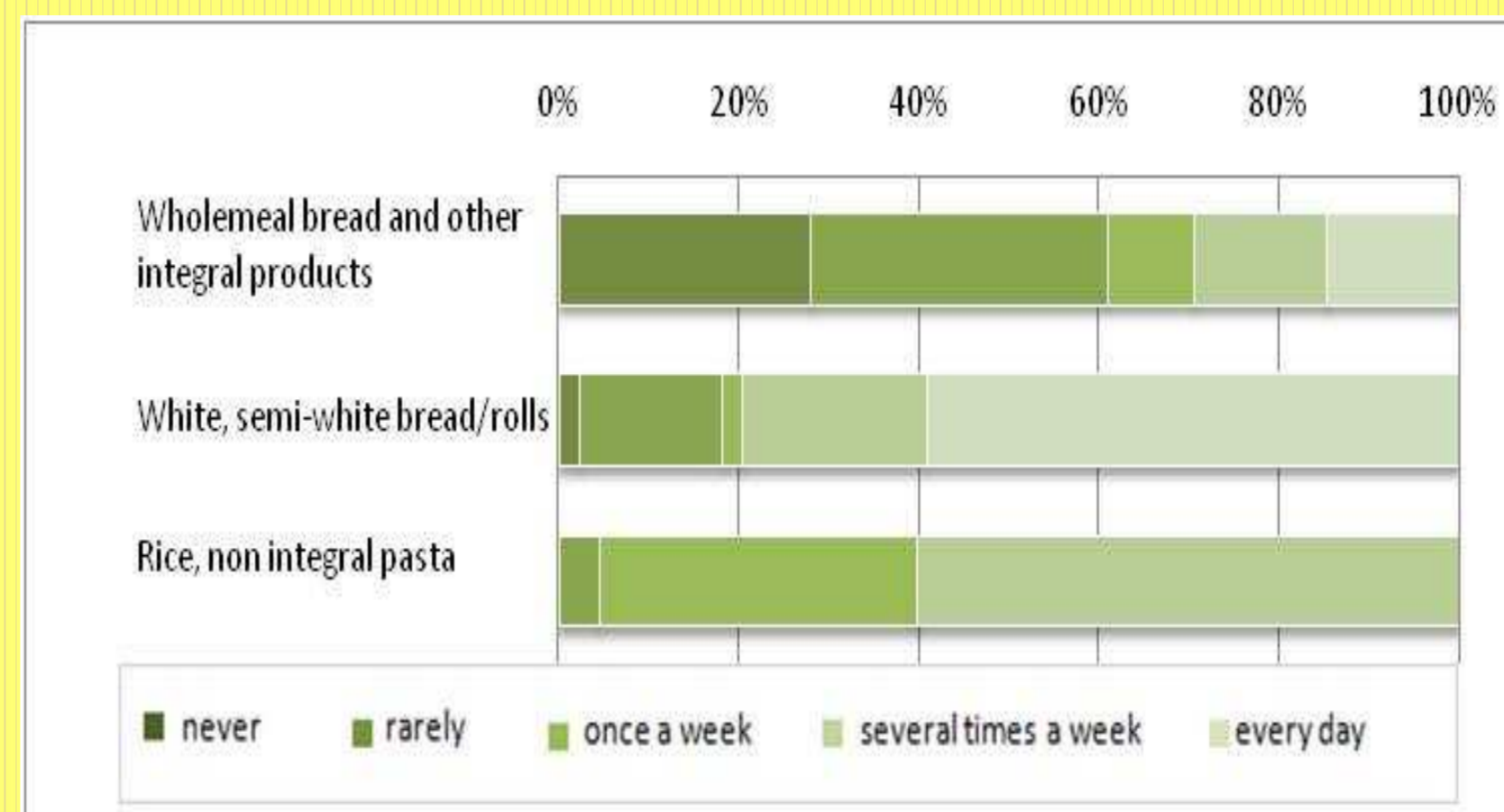
Dietary habits were investigated by a questionnaire on the frequency of consumption of recommended or non-recommended food. Correlation between the numbers of non-recommended food and the length of hemodialysis treatment was examined by Pearson's correlation coefficient.

Characteristics of patients								
Gender		Age				Length of treatment		
F	M	<30	31-50	51-70	>70	2 years	3-5 years	6 and >6 years
28	64	2	23	27	40	31	35	26
30,40%	69,60%	2,20%	25%	29%	43,50%	33,7	38%	28,30%

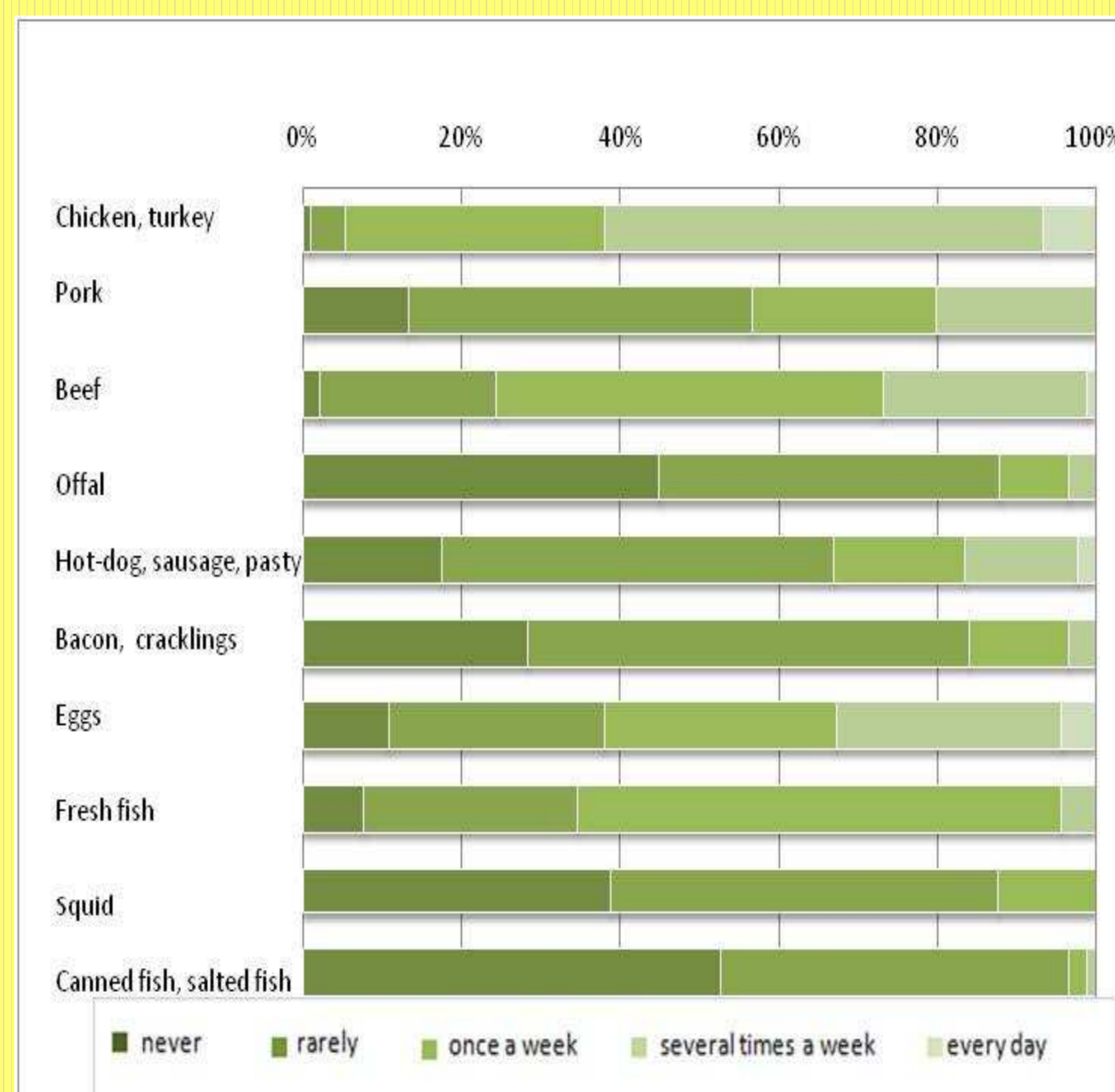
Non-recommended food		
Hot-dog, sausage, pasty	Spinach, chard	Pickled and canned vegetables
Squid	Tomatoes, tomato sauce	Banana, kiwi, orange
Canned fish, salted fish	Beans, peas	Dried figs and prunes
Cheese spread	Soy beans	Hazelnut, almonds, walnuts
Full fat cheese	Potatoes	Roasted peanuts

Results

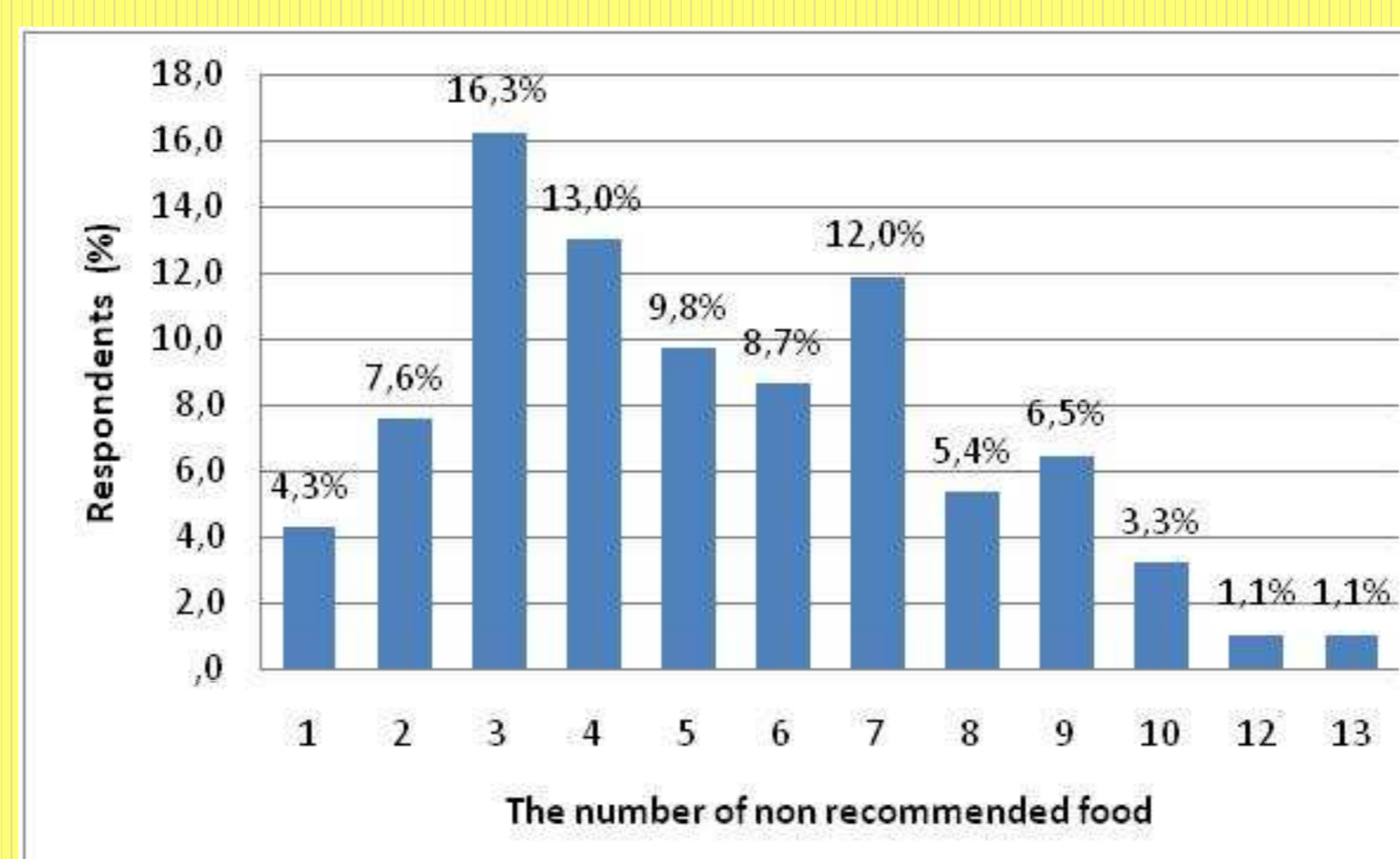
Graph 1. The frequency of consumption of bread and cereal products



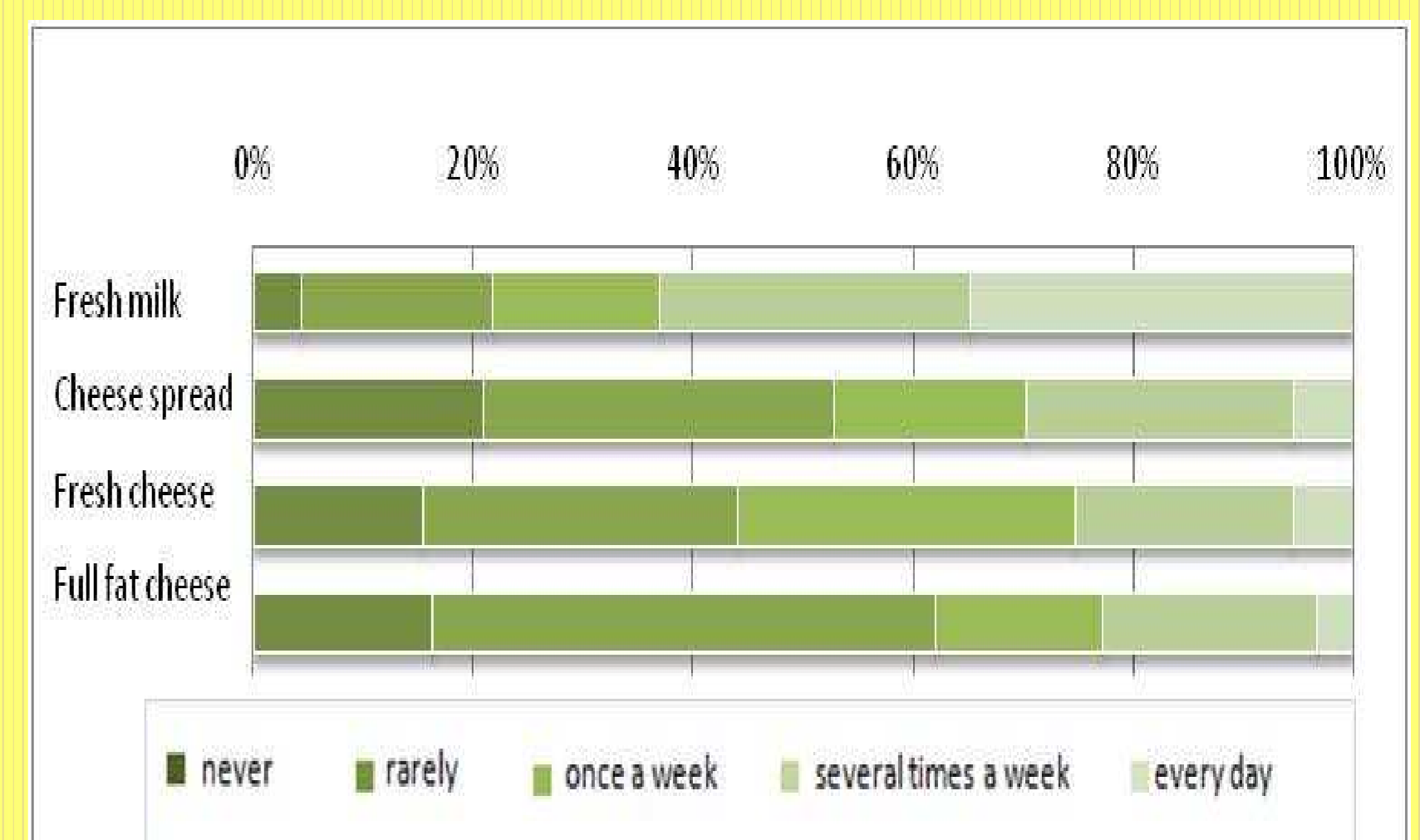
Graph 3. The frequency of consumption of meat and meat products, fish and eggs



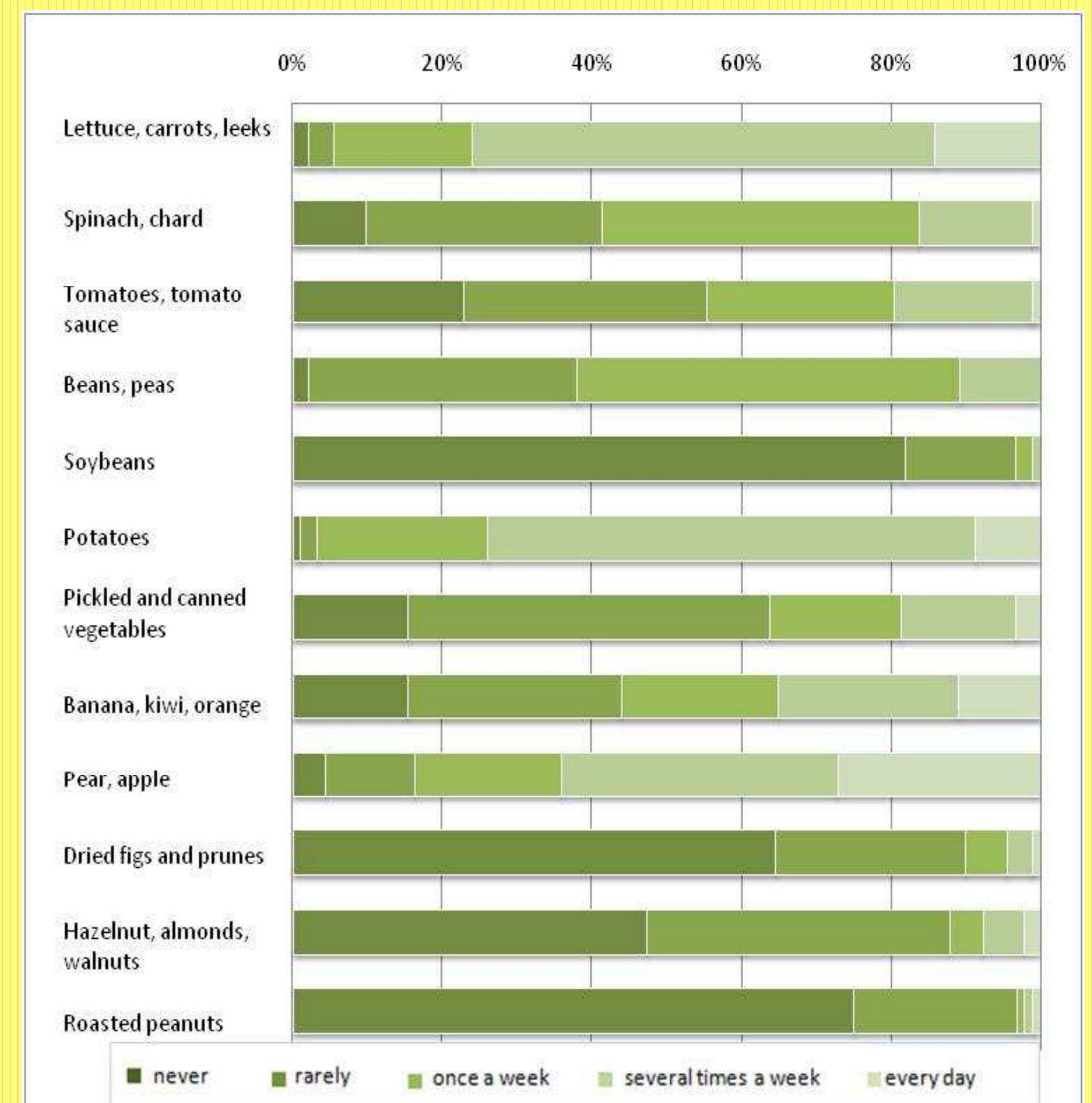
Graph 5. Consumption of non-recommended foods



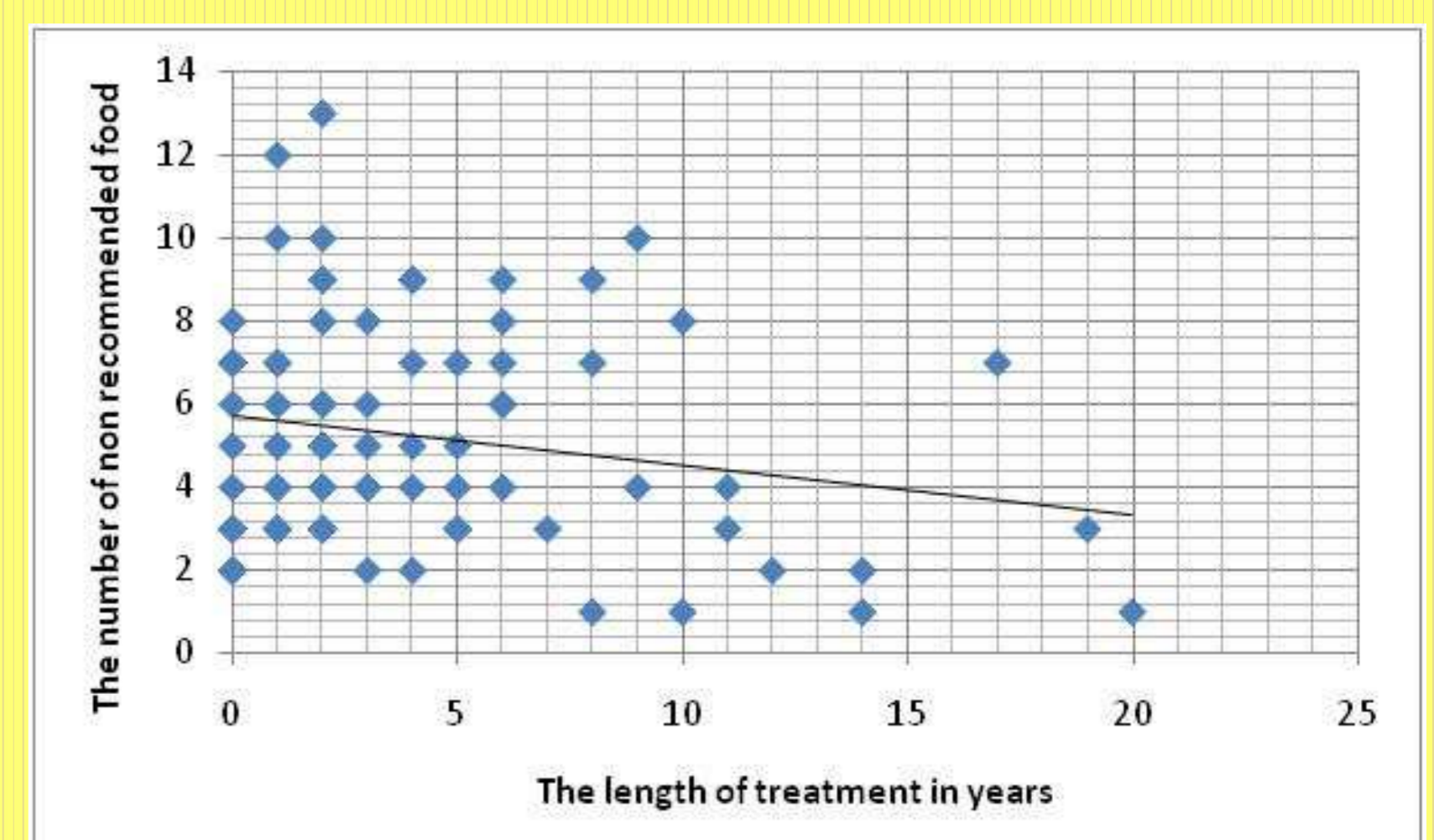
Graph 2. The frequency of consumption of milk and milk products



Graph 4. The frequency of consumption of vegetables and fruits



Graph 6. Correlation between the number of non-recommended foods and length of treatment



Results show that patients, once a week and/or more frequently consume food from all food groups high in potassium, phosphorus and sodium, and an average of $5,24 \pm 2,67$ patients consumed such food. The largest percentage of patients (16,3%) consumed three non-recommended food. There was no correlation between the length of hemodialysis treatment and the number of non-recommended food that patients consumed once a week or more often ($r = -0,201, p > 0,05$).

Conclusion

A large proportion of patients did not follow the recommendations on proper diet and consumed food with a high content of sodium and phosphorus. The results indicate the importance of conducting continuing education of patients. Despite the limitations of the diet, patients would be able to eat well and choose good quality food, if provided with good education. An important issue is the individual approach to the patient education, because of different habits and nutritional needs of each patient.