

The consumption frequency of consumed dairy products in the course of different meals in Hungary

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ABSTRACT

The consumption frequency of consumed dairy products and margarine in the course of different meals was examined from the data of the 1000-strong representative survey carried out in Hungary. It can be clearly stated that Hungarian citizens consume some kind of dairy products on 240 days of the year for breakfast, followed by supper at 188 times a year, and lunch is last at 62 times a year. If we examine the composition of the products consumed in the course of different meals, it can be stated that liquid milk is head and shoulders above other dairy products for breakfast. It is followed by cheeses, but these are consumed 30% less often than liquid milk, with flavoured dairy products third. Sour cream and curds are the most popular dairy products for lunch. The number of non-consumers here is the highest, with 19% of the answerers claiming never to consume any dairy products for lunch. Liquid milk and cheeses are also the most popular dairy products at supper. Yoghurt appears third, though it was not among the five most consumed products in case of the two previous meals.
(Keywords: consumption habits, dairy products, consumption frequency)

Tejtermékek fogyasztási gyakorisága a különböző étkezések alkalmával Magyarországon

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ÖSSZEFOLGLÁS

Egy általunk magyarországon végzett 1000 fős reprezentatív felmérés adataiból kiindulva vizsgáltuk az egyes étkezések alkalmával fogyasztott különböző tejtermékek és a margarin fogyasztási gyakoriságát. A kutatás egyértelmű eredményeként megállapítható, hogy a magyar lakosság az év 240 napján fogyaszt valamilyen tejterméket reggelire, ezt a vacsora követi évi 188 alkalommal, míg a sort az ebéd zárja mindenkor 62 alkalommal éves szinten. Az egyes étkezések alkalmával fogyasztott tejtermékek összetételét vizsgálva megállapítható, hogy a reggeli esetében a folyadék tej vezet toronymagasan. Az ezt követő sajtokat több mint 30%-al kevesebben fogyasztják, míg az ízesített tejtermékek állnak a harmadik helyen. Az ebédre fogyasztott tejtermékek között a legkedveltebb a tejföl illetve a túró. A nem fogyasztók aránya itt a legmagasabb, a válaszadók 19%-a egyáltalán nem fogyaszt semmilyen tejterméket ebédre. A vacsora esetében szintén a folyadék tej illetve a sajtok állnak az első két helyen. Harmadikként megjelent a joghurt, ami az előző két étkezés esetében az első öt leginkább fogyasztott termék közé sem tudott bekerülni.
(Kulcsszavak: fogyasztási szokás, tejtermék, fogyasztási gyakoriság)

INTRODUCTION

The consumption of milk and dairy products was characterized as stagnating - similarly to several foods – in the last decade with a moderate increase due to population increase expected in the next few years (*Berke, 2003*).

The dairy industry executed several innovations in Western Europe in the 1980s and in consequence of this the supply of soured dairy products, milk desserts and cheeses could grow, while the demand for butter, milk and traditional mass-produced character cheeses declined (*Szabó és Szakály, 1998*).

The consumption of dairy products is behind the level of consumption in developed countries. Dairy products equivalent to 296 kgs milk were consumed by the citizens of the European Union while Hungarians consumed less than the half this amount (*De Crook, 1995*).

This survey aims at measuring the consumption frequency of milk and dairy products in the course of different meals.

MATERIALS AND METHODS

Our survey is based on a 1000-strong representative questionnaire inquiry. The base of the representative sampling were the figures of 2001 census, and with their help we chose one-one county in the seven regions of Hungary. The quotasystem is drawn up representing the Hungarian population in sex, age, educational qualification. The request of the answerers happened on the basis of this quota. The questionnaires are filled in the homes of answerers. A questionnaire took about 20-25 minutes to answer. The data were analyzed by SPSS for Windows suite.

RESULTS AND DISCUSSION

Demonstration of the consumption frequency of the milk and dairy products and of dairy products consumed in the course of different meals

We focused on the consumption frequency of the consumed diary products and the products consumed at the different meals - breakfast, lunch, supper. We considered important how the dairy products are divided between meals or how often consumers consume them.

The consumption frequency of the consumed products is shown on *Figure 1*. The consumption frequency of these products was examined on an eight-part frequency scale. Consumers had to mark how often they eat milk and dairy products and margarine on this scale (e.g.: 1: the product is never consumed, 4: it is consumed at the weekends, 8: it is consumed several times a day).

The received results on a frequency scale were compared with an index worked out by *Szakály Z. (1994)* and modified by us. This index can show how often margarine and different kind of dairy products are consumed during a year or which day the different products are consumed on.

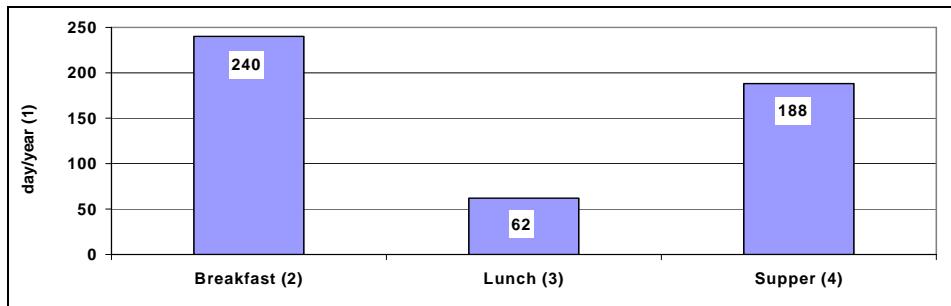
It can be stated that dairy products are consumed for breakfast most frequently. It means that some kinds of dairy products get on the consumers' table every other a half day in the mornings. In other words, some kind of dairy product are consumed 240 times a year.

The consumption frequency of dairy products in case of supper is similar. The consumption every other day means 188 occasions a year.

According to the survey we consume dairy products most rarely for lunch. It means 62 occasions a year, that is a product of milk origin get on the consumers' table every 5,9 day.

Figure 1

How often do you consume any kind of dairy products in the course of different meals? (in days) n=1000



1. ábra: Milyen gyakran fogyaszt tejterméket a különböző étkezések során? (napokban kifejezve)

Nap/év(1), Reggeli(2), Ebéd(3), Vacsora(4)

For the more detailed analysis we need to analyze the certain data separately, in other words to compare the percentage division of the given answers and to evaluate the results in the respect of more important background variables.

During the analysis of the genders it turned out that there are significant differences in the respect of the breakfast consumption. It is of vital importance to get to know the differences between the genders. The results are shown in *Table 1*.

Table 1

**The consumption frequency of the dairy products in respect of genders (%)
(n=1000)**

Consumption frequency (1)	Sex (2)	
	Male (3)	Female (4)
Never (5)	6,7	3,5
Rarer than a month (6)	1,7	1,6
1-2 times a month (7)	2,2	2,4
Weekends (8)	6,0	7,5
1-2 times a week (9)	17,3	11,0
3-4 times a week (10)	18,6	16,3
Daily (11)	47,5	57,8

1. táblázat: Tejtermékek reggelire történő fogyasztási gyakorisága nemek szerinti bontásban (%)

Fogyasztási gyakoriság(1), Nem(2), Férfi(3), Nő(4), Soha(5), Ritkábban, mint havonta(6), Havi 1-2 alkalommal(7), Hétvégente(8), Heti 1-2 alkalommal(9), Heti 3-4 alkalommal(10), Naponta(11)

It can be stated that there are considerable differences between the genders in case of daily dairy product consumption. 57.8 percent of women consume some kind of dairy products daily, and this value is lower with 10 percent in case of men. It is a good thing that almost half of men consume some kinds of dairy products. If we interpreted the data in a wider range and add to the previous values to the rate of the consumers who consume them several times a week, then we can get a more balanced picture. Although women consume dairy products more frequently in this case for breakfast, too, but the difference between the constant consumers is already negligible. This value is 85.1% in case of women and in case of men it is 83.4%. The rate of the non-consumers is almost twice in case of men as women.

We think that the development of dairy products with sharper taste that express of men's taste better could increase their comsumption frequency in the circle of men.

Significant differences can be observed concerning the consumption frequency among berakfast-consumers in case of region, income and qualifications. The results were the following in a few words. Dairy products are consumed most frequently in Budapest (61,4%) and the Central Hungarian Region in the mornings. 60.9% of the consumers consume dairy products daily, and the rate of the non-consumers is the lowest in the region. If we add this value to the rate of the consumers who eat dairy products weekly then the rate of the consumers who often consume them in the mornings is 85.8%.

Csongrád county stands in the worst place considering the rate of the daily consumers: this number is 38.8%. On the other hand the rate of the non-consumers is relatively high: 6.8%. It is important to mention that the rate of the consumers who consume dairy products daily or weekly is not under 75% anywhere.

The rate of the consumers who consume dairy products for breakfast increases with ageing. 47.1% of them consume dairy products daily in the age group between 15-29, but 61.3% of the age group over 60 –with continuous increase – is the same. The opposite process can be experienced in case of the non-consumers. The rate of the consumers who consume dairy products at the weekends is relatively high in the circle of the young. This rate (10%) is double of the experienced value of the age group between 30-39 and triple of the age group over 60. It can perhaps be caused by the family meals which are eaten by together the family at the weekends.

Dairy products are consumed on every sixth days for lunch as it can be seen on *Figure 1*. Let us analyze these in more detail. There are important differences in respect of genders according to the survey.

31.2% of men never consume any dairy products for lunch. This value is 24.2% in case of women. It is an interesting result that the daily consumption frequency is higher in case of men (4.5%) than women (3.4%). The products of milk origin are mainly consumed 1-2 times a week for lunch. Men consume them rarer (23.4%) than women (28.2%).

It is a good thing that the rate of the daily consumers is the highest among students (10.3%), on the other pole are pensioners and white collar workers with 1.7%.

Sygnificant differences are experienced in the respect of age. According to the lessons of our survey people aged betwen 40-59 consume the lowest dairy products for lunch and people aged between 15-29 consume most (8%). There are a lot of students in this age group and this confirms our previous result.

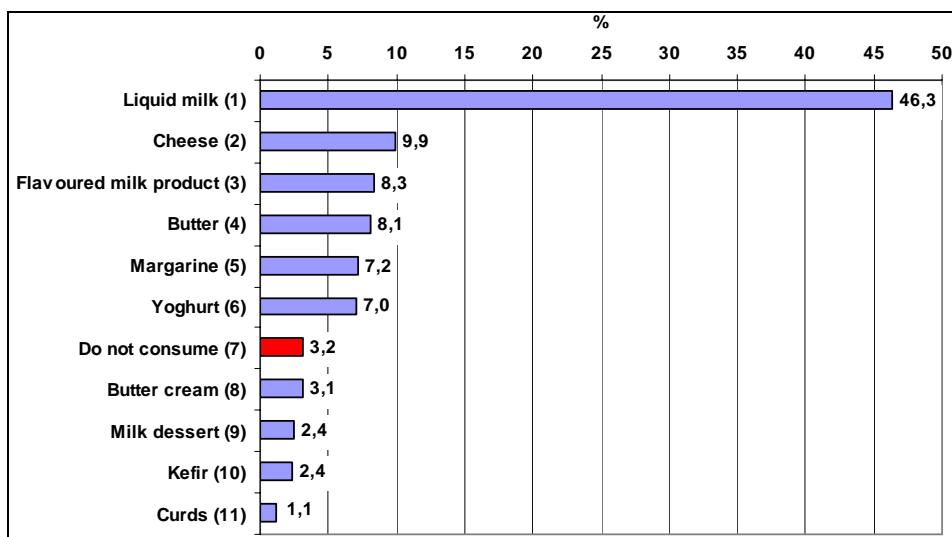
Now let us see the consumption frequency of consumers who consume dairy products for supper. As it has already been showed dairy products get on the consumers table every other day. Our results show that there are not differences between genders in respect of how often they consume dairy product for supper. This value is 80.2% in case of men and 81.4% of women in the circle of those consumers who consume dairy products daily or several times a week.

The results stand near to the results of breakfast consumption frequency in case of all variables, so these are not stated here.

We finish demonstrating our consumption habits by showing the consumed dairy products for different meals. We considered important to ask consumers of what kind of products are consumed in the course of different meals. The question ran as follows: „Please, specify what kind of dairy products you consume most frequently.” There are two reasons for this question being highlighted. One is because some answerers named more than one product, so the sample volume is more than 1000. The other reason is that margarine and imitated dairy products were identified as dairy products (morning drink is mentioned 51 times, the fresh cream 6 times). The percentage division of the consumed dairy products for breakfast, lunch and supper is demonstrated on *Figure 2 a, b and c*.

Figure 2a

**Percentage division of consumed products for breakfast (%)
n=1218**



2. a ábra: A reggelire fogyasztott különböző tejtermékek és a margarin százalékos megoszlása (%)

Folyadéktej(1), Sajt(2), Izesített tejtermék(3), Vaj(4), Margarin(5), Joghurt(6), Nem fogyaszt(7), Vajkrém(9), Tejdesszert(10), Túró(11)

The data of *Figure 2a* show that the most popular product is the liquid milk for breakfast. Very high proportion of the consumers (46.3%) said that they consumed this kind of dairy product most frequently for breakfast. The answerers did not distinguish the milk carton from the milk in plastic bag, so this number means the different milks together.

The second frequently mentioned product which is consumed for breakfast is the cheese with a share of 9.9%. If we take into consideration that cheese is not affordable for an „average Hungarian citizen” then this value cannot be considered low.

The mentioned products are followed by flavoured dairy products (8.3%) butter (8.1%) and margarine (7.2%) – it is considered a dairy product by some of the answerers - then by the jogurt (7%). This favourable position of the flavoured milk products and yogurt is due to their popularity in the circle of the younger generation, and the consumption of the yogurt is increasing year by year as a colleague of AC Nielsen pointed on (*Élelmiszer*, 2003).

The proportion of the non-consumers is really favourable, only 3.2%, which means that most inhabitants consume some kind of dairy products for breakfast. But if the rate of the consumers who think that margarine is a dairy product, and the rate of the imititated dairy product consumers are added to the mentioned number, then the circle of the non-consumers is more than 10%.

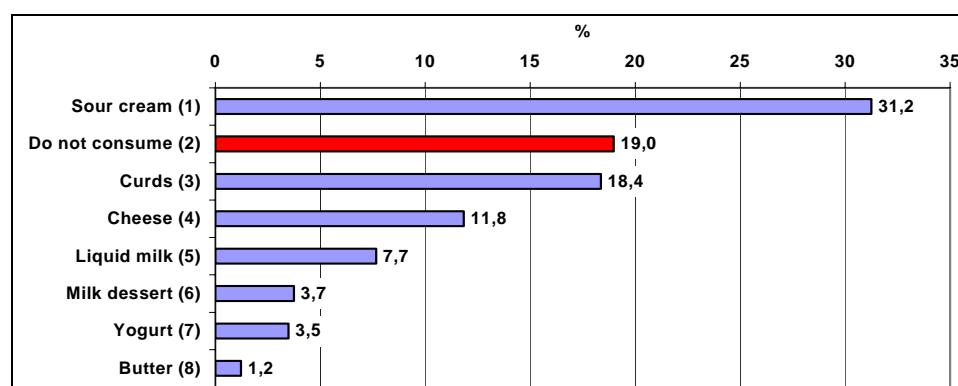
All the other dairy products are consumed only by an insignificant part of the inhabitants, so we take no notice of the demonstration of these products. The products whose consumption is more than 1% are shown on *Figure 2a*.

The most important dairy products, which are consumed for lunch, are shown on *Figure 2b*. The most important difference is that the rate of the non-consumers is higher (19%) than in case of those consumers who consume dairy products for breakfast. On the other hand less products are mentioned due to the determined 1% limit. Sour cream (31.2%) and curds (18.4%) are consumed most often for lunch according to the results of the survey. It may be caused by different kind of Hungarian dishes or dairy products for different milk origin. Cheese is in the third place (11.8%) because of similar reasons and the liquid milk is in the fourth place.

Milk desserts and yogurts can appear as an additional product to the main meal but the titbit eaters and gourmets play a role, too.

Figure 2b

**Percentage division of consumed products for lunch (%)
(n=1150)**



2. b ábra: Az ebédre fogyasztott tejtermékek megoszlása (%)

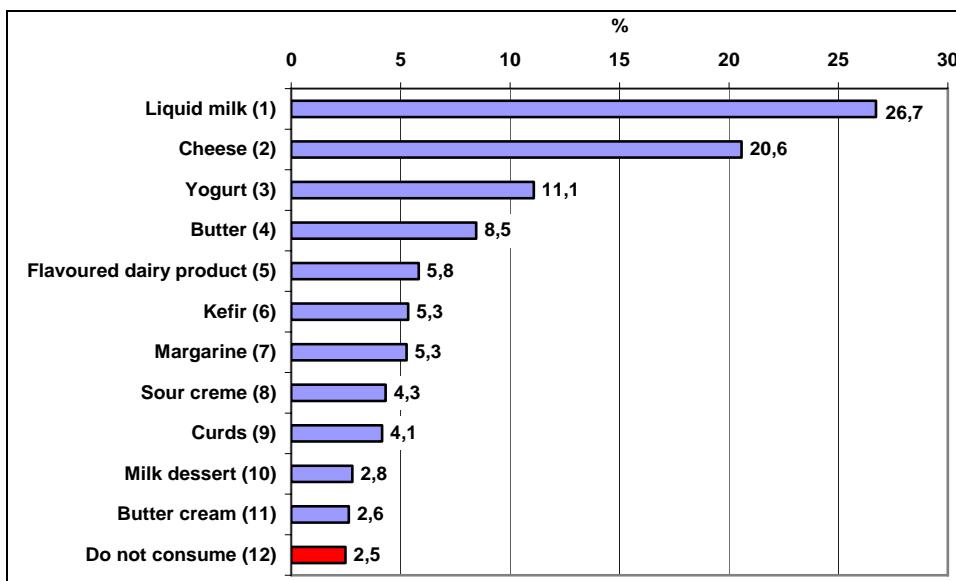
Tejföl(1), Nem fogyaszt(2), Túró(3), Sajt(4), Folyadéktej(5), Tejdesszert(6), Joghurt(7), Vaj(8)

Finally let us survey what kinds of products are consumed for supper. The most frequently consumed dairy products for supper are shown on *Figure 2c*.

It can be stated that the consumption of the dairy products which are consumed for supper is similar to the consumption of those which are consumed for breakfast. Liquid milk comes first but its consumption is less with 20% than in case of breakfast. The consumption of the different kinds of cheeses stands near to the consumption of the liquid milk and it is the second most frequently mentioned product. 11.1% of the answerers consume some kind of yogurt for supper, preceding the „spreadable dairy products”. Kefir is consumed by 5.3% of the inhabitants for supper and it is important because it is under 1% in case of breakfast. 2.5% of the consumers said that they never consume any dairy products for supper.

Figure 2c

**Percentage division of consumed products for supper (%)
(n=1254)**



2. c ábra: A vacsorára fogyasztott tejtermékek és margarin százalékos megoszlása

Folyadéktej(1), Sajt(2), Joghurt(3), Vaj(4), Ízesített tejtermék(5), Kefir(6), Margarin(7), Tejföl(8), Túró(9), Tejdesszert(10), Vajkrém(11), Nem fogyaszt(12)

The following can be stated on the basis of the research of consumed dairy products for breakfast, lunch and supper.

The concretely answerers named 227 times what kind of cheese they consume. Trappista is mentioned 192 times (84.6%) Pannónia type 35 times (15.4%). It cannot be called representative because the most of them wrote only „cheese”, but it stands near to the Hungarian fact data (*Mai Piac*, 2002).

17.7% of the inhabitants said that they consume butter for one of the three meals and 13.3% of them eat margarine in belief that margarine is a dairy product. Knowing the ignorance of the consumers in the margarine-butter question these results confirm that consumers are not aware of the differences between the two mentioned products.

CONCLUSIONS

This survey aims to get to know the Hungarian consumption habits of milk and dairy products, based on a 1000-strong representative questionning by questionnaire inquiry. Data processing happened with SPSS for Windows suite. The following conclusions could be concluded in respect of consumption frequency and consumed products during the different meals.

- Most part of inhabitants are not aware of the differences between butter and margarine. Considerable part of them consume margarine in the belief that it is a dairy product.
- The imitated dairy products (e.g.: morning drinks, fresh cream) deceive or rather cheat shoppers just like margarine. Consumers think these products are of milk origin, too.
- Dairy products are consumed most frequently for breakfast as the results of the survey verify. It means that dairy products get on the consumers' table every other and a half day. It is the liquid milk that is consumed most frequently. 46.3% of the answerers said that this kind of dairy product is consumed for breakfast most frequently.
- Dairy products are consumed on every sixth day for lunch, mainly sour cream (31.2%) and curds (18.4%).
- Some dairy products are consumed every six days by the average Hungarian citizen. Liquid milk consumption is the most characteristic (26.7%), followed by cheeses. Yoghurt could overtake cheeses as it is consumed by 11.1% of consumers.

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