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# AGE INFLUENCE ON DAIRY PRODUCTS CONSUMPTION HABITS

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ABSTRACT. The paper presents some associations between age and dairy products consumption. There were found relevant correlations between age and chosen distribution outlets, self-provisioning and consumption's frequency of milk and hard cheese.

Key words: consumer, consumption, dairy products, age, elderly

## Introduction

Milk plays an important role in human life mainly as an excellent source of nutritive components (**Adamczyk** et **al.** 2002) desired in every stage of life for milk and its derivatives are rich in proteins, easily absorbed calcium and vitamins  $B_2$ ,  $B_9$ ,  $B_{12}$  and phosphorus (**Rejman** and **Kowrygo** 2002). Sticking to balanced diet is impossible without dairy products, which should be present in it with no regard for age or gender (**Maruszewska** et **al.** 2003).

Age is an essential factor that alters consumers' needs and ways of meeting them. Changing age structure of society results in a growing demand for certain products and falling demand for others. Generally young consumers sacrifice more time to professional work what enforces them to use time saving convenience food. As they mature the concentration on own needs decreases, because children modify consumption priorities. During retirement consumers again concentrate on own needs therefore some habits from childhood and youth become important drivers of behaviour (**Żelazna** et al. 2002).

Demographic data indicate that ageing-growing percentage of older people appears nearly in all developed countries, also in Poland (**Kowrygo** and **Kutermankiewicz** 2001). Increasing number of old people and rising knowledge, that diet rich in dairy products can mild or even eliminate lots of diseases connected with advanced age results in interest in dairy products for elder people (**Roszkowski** 1997).

Rocz. AR Pozn. CCCLXVII, Ekon. 4: 59-65 © Wydawnictwo Akademii Rolniczej im. Augusta Cieszkowskiego w Poznaniu, Poznań 2005 PL ISSN 1731-0261 Purpose of this paper is to present selected aspects of consumers' behaviour observed by dairy products consumption with focus on age influence on product preferences, distribution channels, self-provisioning and frequency of consumption.

#### Materials and methods

The data originate from country survey conducted by scientists from Agricultural University of Poznań, Department of Food Management Economics. The purpose of the research was to collect consumption habits data. Survey was based on a questionnaire as an interviewing tool. The questionnaire consisted of closed questions divided into main topics and metrics where information about age was included. The object population was determined by deliberated choice based on quota, proportionally. 1663 filled questionnaires were submitted in 2003.

The analysis of questions related to purchases of dairy products, self-provisioning with dairy products and frequency of consumption will be presented in this paper.

The mentioned areas were filtered by respondents' age as a factor that differs the behaviour and consumption habits of Poles. Deliberately consumers were divided into six categories: 1st - 15-19 years old, 2nd - 20-29 years old, 3rd - 30-44 years old, 4th - 45-54 years old, 5th - 55-59 years old, 6th - 60 years old and more.

## Results and discussion

#### **Purchases**

Foods can be obtained from many sources. The two of them play the most important role, i.e. food from own production called self-provisioning, and food bought on market belonged to market purchases. Consistently with economic growth we observe switching from own production to market purchases (**Gutkowska** et al. 2001).

The research conducted by **Baruk** (2003) and also **Jeznach** (2003) indicate, that the majority of respondents buy foods in convenient stores – small groceries, what is explained by easy and fast access to basic products, high service level and also by a kind of habit. This type of stores as Baruk relates, is chosen by aged people mainly because they are near from their places of residence. The second best outlet for retail purchases is supermarket as every third person buys there food.

Also our survey confirms these results according to dairy products. 42% of respondents buy milk and its derivatives in convenience stores independently of the age, but a supermarket is chosen by every third person from the 1st group (15-19 years) and only by every seventh person from the last group, i.e. over 60 years old.

For elder people from the 6th group discount stores are an attractive distribution channel for dairy products as 20% of them buy there, what is probably caused by limited budget which is directed to food. Among youngsters this kind of stores is not as popular as 12% of this group indicated this option. Rest of the outlets plays marginal role with popularity no more than 10%. Selection of distribution channels is presented on Figure 1.

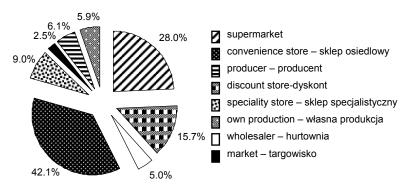


Fig. 1. Distribution channels for dairy products Ryc. 1. Źródła pozyskiwania produktów mlecznych

As expected there is collation concerning extend of own production and direct purchases from farmers or producers. The older are respondents the more eagerly they buy from a producer or process milk for their own. The percentage ranges from 4% for the youngest group to 16% for the oldest group considering buying from producer and to 12% in case of self-provisioning (Fig. 2).

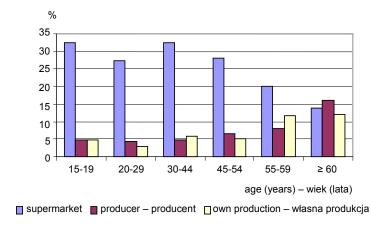
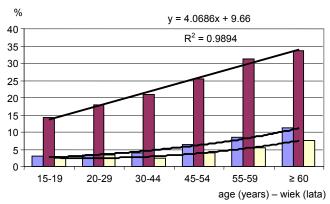


Fig. 2. Selected distribution channels of dairy products in relation to age Ryc. 2. Wybrane źródła pozyskiwania produktów mlecznych w zależności od wieku

## **Self-provisioning**

The mentioned earlier own production called self-provisioning or natural consumption establishes the oldest form of food supply (**Gutkowska** 1997). In recent years an increase of self-provisioning has been recorded in rural areas (**Kowrygo** and **Rejman** 2000). The basic reasons for that are: a need of sense of safeness in food consumption, separation inclination for economic independence of households and poverty in rural areas (**Gulbicka** and **Kwasek** 2000).

In the questionnaire the respondents were asked what sorts of dairy products they process. The most popular product was sour milk (22.4%), later quark (11.1%), and butter (5.2%). Kefir, processed cheese, yoghurt were less important, for the average count for them was below 5%. According to the age we observe a growing importance of self-provisioning in elder groups, as only 14.1% of respondents in the 1st age group (15-19 years) but 33.6% in the 6th group (over 60 years) process sour milk. Similar association is observed in butter processing, here self-provisioning rises from 2.9% in youngest group to 11.2% in the oldest group. Similar situation is observed by processed cheese production, which is also specific for old persons. Above correlations between age and self-provisioning under age influence are presented on Figure 3.



■ butter – masło ■ sour milk – kwaśne mleko □ processed cheese – ser topiony

Fig. 3. Self-provisioning of sour milk, butter and processed cheese in association with respondents' age yc. 3. Przetwórstwo domowe kwaśnego mleka, masła oraz sera topioneg

Ryc. 3. Przetwórstwo domowe kwaśnego mleka, masła oraz sera topionego w zależności od wieku ankietowanego

## Frequency of dairy products consumption

Most of dairy products like hard cheeses, quarks, yoghurts and milk drinks and milk is consumed once, twice a week. In turn processed cheeses, cream, and homogenized cream are used mostly a few times a month. Mould cheeses and kefir gained highest score for "I don't eat" answer. Answers are presented in Table 1.

Age influence on dairy products consumption is not as strong as it could be expected. There are only two essential associations with age in case of milk and hard cheese, when we consider consumption in majority of days during a week. Positive association for milk with increasing age started from 18% in the youngest group rising to 25.2% in the oldest group, from cheese it is 18.8% and 30.8% respectively, what is depicted on Figure 4.

Table 1
Frequency of dairy products consumption (%)
Częstotliwość spożywania produktów mlecznych (%)

Product Produkt	More than once a day Więcej niż raz dziennie	Once a day Raz dziennie	Majority of days in a week Więk- szość dni w tygo- dniu	Once, twice a week Raz – dwa razy w tygodniu	Few times a month Kilka razy w miesiącu	I don't eat Wcale
Yoghurts and milk drinks Jogurty i napoje mleczne	8.2	21.3	17.9	21.4	19.8	11.4
Kefir – Kefir	1.3	6.5	9.0	18.5	31.0	33.7
Milk – Mleko	9.0	18.7	19.9	20.2	16.6	15.6
Mould cheeses Sery pleśniowe	0.4	2.1	6.9	13.9	25.9	50.8
Processed cheeses Sery topione	1.1	3.4	10.9	24.7	36.0	23.9
Quark – Twaróg	1.6	7.0	16.9	33.7	31.0	9.8
Hard cheeses Sery żółte	2.6	8.4	25.5	34.8	23.2	5.5
Cream and homogenized cream Śmietana i śmietana homogenizowana	1.7	7.0	17.7	24.4	30.4	18.8

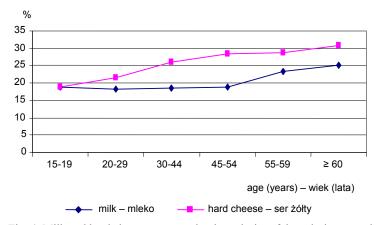


Fig. 4. Milk and hard cheese consumption in majority of days during a week Ryc. 4. Konsumpcja mleka i sera żółtego w większości dni tygodnia

#### **Conclusions**

- 1. Age is a factor that differentiates consumption habits and customs of Poles. Growing population of older people causes an increase of interest in needs of this powerful group.
- 2. Polish consumers purchases dairy mainly in convenience stores (42%). Supermarkets play also an important role in dairy supply, but they are chosen mainly by youngsters (over 30%), discount stores are popular mainly among the oldest respondents as 20% of them buy dairy products there.
- 3. There is a positive association between age and self-provisioning of dairy as only 4.7% of the young surveyed consumers produce dairy for their own needs but 12.1% of the oldest consumers declare they process dairy. The most popular dairy products were: sour milk, quark and butter. The older consumers more often declare self-provisioning of the mentioned products.
- 4. Hard cheeses, quark, yoghurts and milk drink are consumed usually once or twice a week. Age diversifies consumption of hard cheese and milk only in frequency's dimension as "majority of days in a week". Positive association is observed.

#### Literature

- **Adamczyk G., Tarant Sz., Trębacz A.** (2002): Zachowania konsumentów na rynku mleka spożywczego. Rocz. AR Pozn. 343, Ekon. 1: 43-52.
- Baruk I. (2003): Zwyczaje zakupowe polskich nabywców na rynku produktów żywnościowych. In: Marketing w strategiach rozwoju sektora rolno-spożywczego. Ed. M. Adamowicz. Wyd. SGGW, Warszawa: 134-144.
- **Gulbicka B., Kwasek M.** (2000): Zróżnicowanie spożycia żywności w Polsce w świetle wyników badań budżetów gospodarstw domowych. IERiGŻ, Warszawa.
- Gutkowska K. (1997): Rodzinne gospodarstwa domowe w warunkach gospodarki rynkowej. SGGW, Warszawa.
- **Gutkowska K., Ozimek I., Laskowski W.** (2001): Uwarunkowania konsumpcji w polskich gospodarstwach domowych. Wyd. SGGW, Warszawa.
- **Jeznach M.** (2003): Postrzeganie zmian na rynku produktów mleczarskich. Rocz. Nauk. SERiA 5, 3: 53-57.
- **Kowrygo B., Kutermankiewicz J.** (2001): Starzenie się polskiego społeczeństwa wyzwanie dla rynku żywności. Przem. Spoż. 6: 6-9.
- **Kowrygo B., Rejman K.** (2000): Źródła pozyskiwania żywności w polskich gospodarstwach domowych. Przem. Spoż. 8: 36-37.
- Maruszewska A., Bolesławska I., Przysławski J. (2003): Preferencje i czynniki wyboru produktów mlecznych wśród osób dorosłych z regionu Wielkopolski. Żyw. Człow. Metab. 30, 1/2: 165-170.
- **Rejman K., Kowrygo B.** (2002): Mleko i przetwory mleczne w wyżywieniu ludności Polski. Przem. Spoż. 2: 8-11.
- Roszkowski W. (1997): Specyfika żywienia ludzi starszych. Przem. Spoż. 6: 11-14.
- Żelazna K., Kowalczuk I., Mikuta B. (2002): Ekonomika konsumpcji. Elementy teorii. Wyd. SGGW, Warszawa.

## WPŁYW WIEKU NA KONSUMPCJĘ PRODUKTÓW MLECZNYCH

#### Streszczenie

Artykuł ma na celu zbadanie zależności pomiędzy wiekiem a zwyczajami żywieniowymi związanymi z konsumpcją produktów mlecznych. W związku ze zmianami w strukturze wiekowej ludności – powiększaniem się liczby osób starszych – zbadanie potrzeb i specyfiki poszczególnych grup wiekowych nabiera szczególnego znaczenia. W rezultacie przeprowadzonych analiz wykazano, że wraz z wiekiem zmieniają się preferencje dotyczące miejsc zakupu artykułów mlecznych. Starsi konsumenci chętniej wybierają sklepy osiedlowe, także większy odsetek starszych osób korzysta ze sklepów dyskontowych. Również starsi respondenci częściej podejmowali się samodzielnego wytwarzania podstawowych produktów mlecznych w swoich gospodarstwach. Jeśli chodzi o częstotliwość spożycia, to zaobserwowano pozytywną korelację z wiekiem w kategorii mleka i sera dojrzewającego.