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Instytut Ekonomiki Rolnictwa i Gospodarki Żywnościowej - PIB, Warszawa, Poland
wrzochalska@ierigz.waw.pl, chmielewska@ierigz.waw.pl

Economic and social changes in rural areas in Poland

Abstract: Poland's accession to the European Union has had a significant effect on the socio-economic situation of rural dwellers. The quality of life in rural areas is worse than in the cities, which is primarily due to lower income of rural residents. Also, the level of expenditure is lower, mainly with respect to higher needs. The equipment of households with basic technical installations and durable goods, especially modern, is also worse in rural areas than in the urban areas. The rural population evaluates subjectively their quality of life as worse than the urban population and they also believe that the ability to satisfy their needs is worse than in the cities. Rural development policy should continue pursuing actions contributing to the development of entrepreneurship, renewal and development of villages, in order to ensure sustainable development of rural areas, also with regard to technical infrastructure, which contributes to improvement in the living conditions and the conditions of business operations of the inhabitants of rural areas. This will contribute to bridging a gap of economic and social disparities between urban and rural population.

Keywords: Poland, rural areas, economic and social situation

Rural areas in Poland occupy 90.3 per cent of the country. Over 15 million people (nearly 40 per cent of the population of Poland) live in villages. Poland's accession to the European Union (EU) in 2004 has had a significant effect on the socio-economic situation of rural dwellers. The level of schooling and educational activity changed significantly, and life expectancy has increased. In the past two decades the changes in lifestyles were accompanied by the development of information and communications technologies. The contribution of the agricultural sector, which employs only a certain number of people, to the rural economy has declined. These factors are important for social change in the Polish countryside. Besides these problems, the paper analyses the social activity of the rural population.

Over time, rural areas and their inhabitants underwent significant and multidirectional transformations. The Polish rural areas have always been characterised by the economic, social and intellectual diversity of their inhabitants. They were shaped by two basic directions of changes: on the one hand – ‘the countryside was catching up with cities’, and on the other hand – ‘cities were moving to the countryside’. Improvement in the area structure of agricultural holdings and their adoption of new functions, as well as the progressing urbanisation processes and the accompanying phenomenon of dissemination to rural areas of the so-called urban lifestyle, changed rural areas and their inhabitants. However, despite the significant improvement, there are still disproportions between the countryside and the city, mainly in terms of the development of technical infrastructure (water and sewerage, gas, road and institutional infrastructures), as well as the standard of living of their inhabitants (Terziev et al., 2016).

Also, many farming families have more than one source of livelihood. Both employment opportunities and the amount of salary for non-agricultural work are important in the process of the shaping and distribution of the general budget of each family. In addition to agricultural income, they gain income from paid employment, pensions and annuities and self-employment. This trend is permanent. Income of rural and agricultural holdings is more and more dependent on a possibility of getting employment in the non-agricultural labour market and on the level of salaries in the national economy.

Methodology

The purpose of the study is to assess the economic and social situation of the rural population in the period 2005-2014. The study was conducted on the basis of the results of the European Survey on Income and Living Conditions (EU-SILC) and household budgets GUS¹. Another source of information is the survey conducted by the Institute of Economics of Agriculture and Food –

¹ Budżety gospodarstw domowych w 2006 r. (2007), Budżety gospodarstw domowych w 2014 r. (2015), GUS, Warszawa.

National Research Institute in 2011 among nearly 8.5 thousand rural families, of which 3.3 thousand families had agricultural holdings with an area of more than 1 ha of agricultural land. Each time, the surveyed entities accounted for about one five hundredth of the actual number of individual agricultural holdings. Virtually, all surveyed farms (99.7 per cent) pursued agricultural activity. The assessment of the quality of life of the rural population was based on indicators characterising the objective living conditions (income, expenses, infrastructure, environment, housing and furnishings, educational activity) and subjective assessment. Basic indicators relate to individuals or households. As a basic working instrument, the descriptive analysis was applied using the quantitative and comparative methods, including the structure and intensity ratios of the analysed phenomena and growth rates.

Results

Income

Income is an economic guarantee to meet human needs. The average rural resident has an income below the average income per capita in the city. In the post-accession period, the ratio of rural income to urban income improved. In 2006, nominal available income of the rural population (average annual per capita) was PLN 659.3, which accounted for 69.8 per cent of income of urban residents; in 2014, it was at the level of PLN 1,067.4, and the share was 70.4 per cent (Household budgets in 2006, 2007, pp. 50 and 57; Household budgets in 2014, 2015, pp. 100 and 113).

In the post-accession period, the improvement in rural income in relation to urban income was primarily a result of a growth in available income in the countryside of 61.9 per cent, while in the city, on average, that growth was lower –60.6 per cent. An increase in income of rural families resulted mainly from the more than double growth of income from paid employment (from PLN 259 to PLN 527 monthly average per capita). Also, agricultural income rose but mostly in families with agricultural holdings, which resulted, inter alia, from financial support for agricultural holdings under the Common Agricultural Policy.

The primary source of income in rural areas is paid employment. In the structure of available income of the average rural household, the share of income from paid employment is the highest and in the analysed population it amounted to 39.4 per cent in 2006 and 49.4 per cent in 2014. In the compared years, in the shaping of the rural family budget, more important as a source of income was also self-employment (in the structure of income: 6.1 and 7.7 per cent respectively); of lower importance were work in agriculture and social benefits. The share of income from the individual holding in the structure of available income in 2006 was 14.1 per cent and in 2014 only 9.7 per cent; however, the share of income from social benefits was: 35.9 and 29.6 per cent respectively (Figure 1).

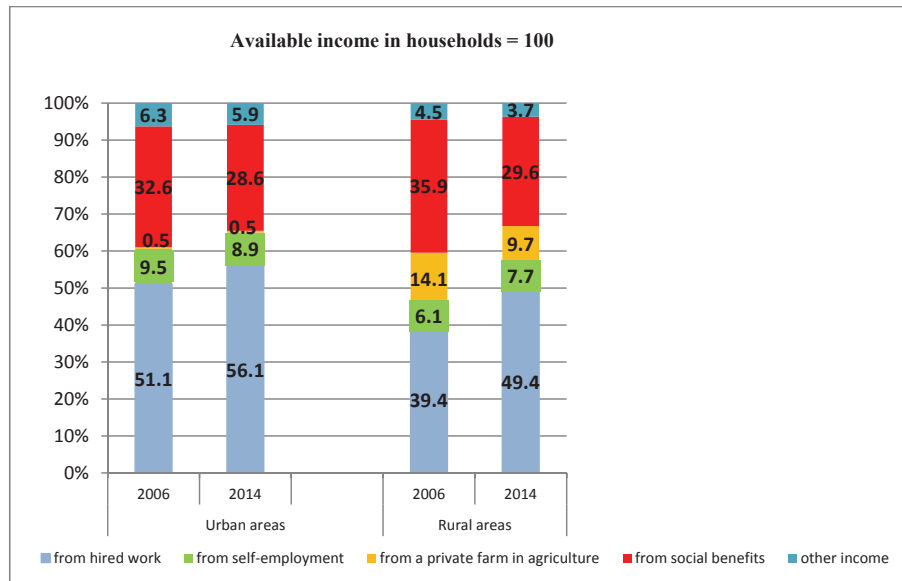


Figure 1. Structure of available income in Polish households by sources of acquisition in 2006 and 2014, in percentage terms

Data source: GUS.

After Poland's accession to the EU, incomes from agriculture increased relatively the most. In the structure of incomes of the rural population, incomes from employment constitutes a high share. The income growth was higher in rural than urban households. This growth was due to the improvement of farmers' income (EU subsidies). Currently, the rural migrants are not only old-age pensioners but also more often freelancers and managers (Zegar, 2015). The village becomes a place of residence for people employed in cities and towns, often with high incomes. This group contributes mainly to the growth in rural incomes, as well as to the prevalence of incomes from off-farm work over that from agriculture.

Expenditures

Another important indicator of quality of life is the expenditures to meet the basic needs. In the post-EU accession period (2006-2014), the overall level of expenditures (in current terms) increased (in rural areas by 45.2 per cent and in urban areas by 45.1 per cent). The expenditures of rural households accounted for 72 per cent of urban households. Since the accession to the EU these relationships have remained stable. In 2006-2014, the urban-rural disparities in spending on clothing, housing (equipment and maintenance), transport and communication, recreation and culture and restaurants and hotels decreased (Figures 2 and 3).

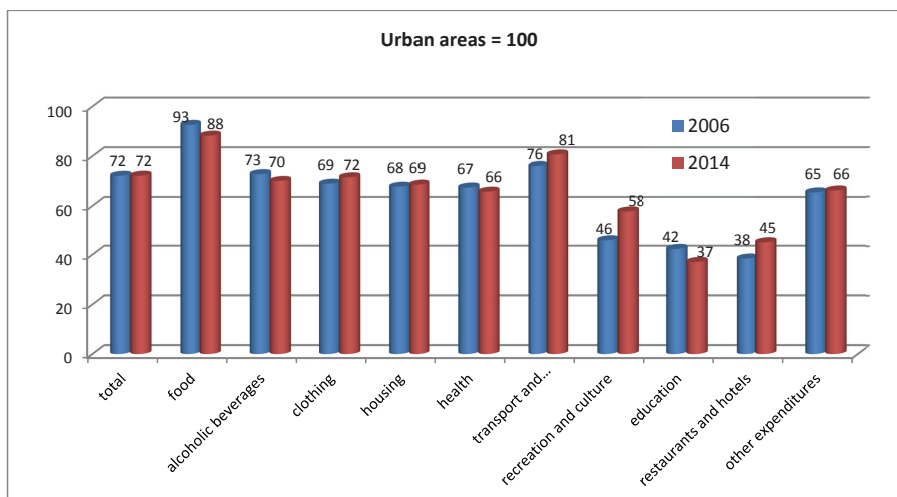


Figure 2. Structure of expenditures in Polish rural and urban households
Data source: GUS.

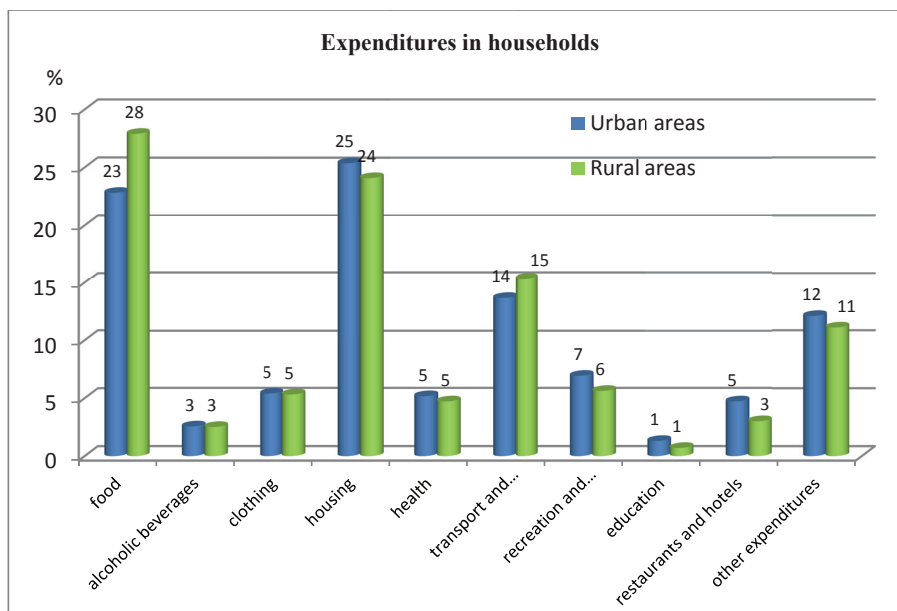


Figure 3. The structure of expenditure in Polish households, 2014
Data source: GUS.

Housing and equipment

From the surveys it results that, when compared to 2005, rural houses were better furnished with technical and sanitary installations in 2011. In the survey

(in 2011), it was recorded that 87 per cent of the rural families had running water from the water supply, and 45 per cent of the families were connected to the sewage system. 93.4 per cent of the houses had bathrooms and WC and 7.4 per cent of the families had even their own backyard water treatment plant (Table 1). The farming families (i.e. those having agricultural holdings of more than 1 ha of Utilised Agricultural Area) were relatively better furnished with sanitary and technical installations than the landless households (Figure 4).

Table 1. Percentage of households (dwellings) of the rural population by furnishing with sanitary and technical installations in 2005 and 2011

Specification	2005	2011
Sewage system	22.5	45.0
Running water		
<i>water supply</i>	80.0	87.0
<i>hydrophore</i>	21.6	20.8
Boiler/domestic hot water	74.4	89.4
Bathroom	84.8	93.4
WC	82.3	
Central heating	73.7	85.7
Backyard water treatment plant	1.9	7.4

Data sources: IAFE-NRI Surveys, 2005, 2011.

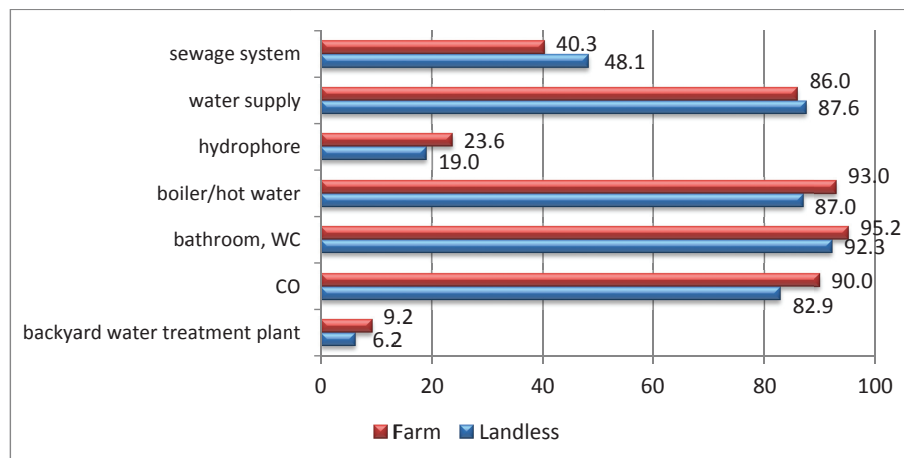


Figure 4. Furnishing of rural farming and landless households in Poland with technical and sanitary installations in 2011

Data source: IAFE-NRI Survey, 2011.

In Poland, more than 80 per cent of rural families live in single-family houses. They are equipped with running water (hot and cold), bathroom with bath or shower, flushable toilet and gas installation (often from a bottle rather than from the network). About 5 per cent of the rural population live in single-fa-

mily homes in terraced houses, the remaining 12-13 per cent live in buildings with multiple dwellings (Table 2). In the countryside the life quality level in terms of infrastructural facilities has increased. Still, the percentage of apartments with access to water, sewage and gas systems is lower in rural areas than in the urban areas.

Table 2. Housing situation in Polish rural areas (% of households)

Item	2006	2014
Single Family Detached	81.2	82.4
Single Family Row	4.8	5.4
Faucet with cold running water	93.1	97.3
Bathroom with bath or shower	81.8	91.6
Gas cylinder	72.6	73.7

Data source: GUS.

Furnishing of rural households with durable goods is, in addition to the level of income they obtain, an important factor that informs about the level and quality of life of the surveyed population. These goods are consumption goods with a long period of use, and the duration of their use depends on the type of needs that satisfy and the speed of their consumption, and often also on their quality and workmanship. Rural families possess the most modern and prestigious durable goods (home cinema sets, DVD player) less frequently than urban families. Rural families possess the more traditional equipment (landline telephone, refrigerator) or very useful on the farm, like a car, which in rural areas is the primary means of transportation (Table 3). From the point of view of the spatial dispersion of villages and specific transport difficulties, it is also very important to have vehicles. In rural areas, having a car was relatively common. Also, with regard to furnishing with the vehicles, the situation has improved when compared to 2005. In general, in 2011, almost one-third of the families had vehicles, and almost every tenth had even two cars. The farming families were slightly better furnished with cars than the landless families (Table 4). However, those vehicles were generally more than ten years old. The average age of a car in 2011 was 11.6 years, regardless of the status of the rural family.

Table 3. Furnishing of Polish rural households with the selected appliances and devices (% of households)

Item	2006	2014
Mobile phone	66.5	89.9
Home theater system	10.0	20.6
Satellite TV or Cable TV	29.1	66.1
Computer	34.3	68.9
Internet Connection	15.1	66.2
Car	57.4	74.0

Data source: GUS.

The ability to use information has become a prerequisite for economic and cultural development. In addition, access to modern information media eliminates many difficulties and limitations related to the distance and spatial dispersion (Kowalski, 1998). Currently, a factor which to the greatest extent differentiates rural equipment in relation to urban equipment is to have a computer and Internet access, although the changing reality and a number of conditions in a specific way enforce the use of a computer and the Internet to an increasing extent. It should be stressed, however, that in rural areas this situation has clearly improved in recent years.

Table 4. Cars in Polish rural families in 2005 and 2011

Rural families	Percentage of the families having	
	car	two cars
2011		
TOTAL	63.5	9.7
Farming	77.9	12.2
Landless	54.1	8.1
2005		
TOTAL	54.0	6.4
Farming	69.5	9.5
Landless	42.3	5.3

Data source: GUS.

The presence of a computer has been recorded in 59.9 per cent of the rural families. Almost all of these families also had access to the Internet. Relatively better access to those media and devices was held by the farming families rather than by the landless families. In 2011, more than two-thirds of the farming families had a computer while in the landless families – more than half. The surveys also show that the farming population, more often than the landless population, uses computers and the Internet for professional activities. In every third farming family, a computer and access to the Internet were used to pursue the economics of agricultural activity and among the landless families that figure was lower (Figure 5). In this case, just every eleventh family used a computer and the Internet for economic activity, mainly to contact customers. The farming families relatively often logged onto the websites of the MARD and ARMA, in addition, half of the families logged onto the websites of the AMA, slightly less often onto the websites of the APA, ASIF and agricultural portals, and only almost every tenth landless family visited those websites. Farmers treat these devices in a more professional way. The use of the Internet in the professional activities of farmers translates into the benefits and effects of their production activities.

54.4 per cent of the total population of the surveyed villages rated positively the furnishing of their houses, a little over a third considered it average and only less than one fifteenth considered it bad. This rating was relatively better in case of the farming families (Figure 6).

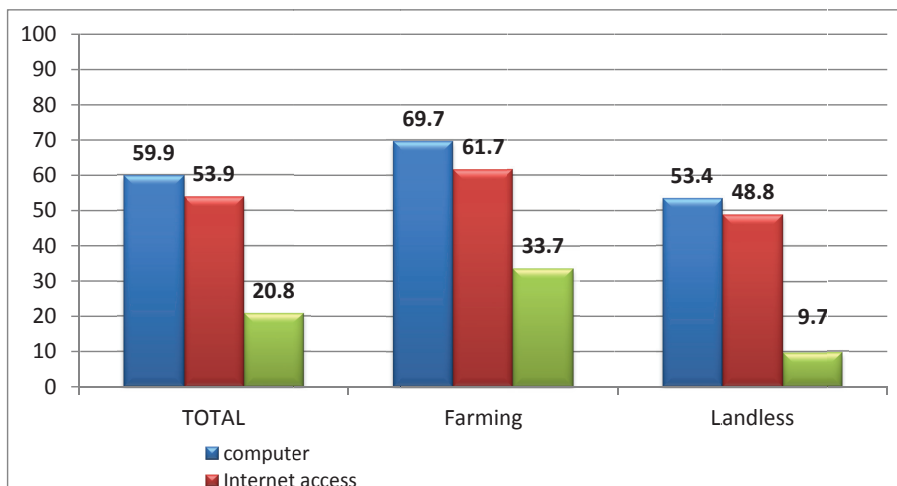


Figure 5. Computers, Internet access and use of computers in the Polish countryside in 2011

Data source: IAFE-NRI Survey, 2011.

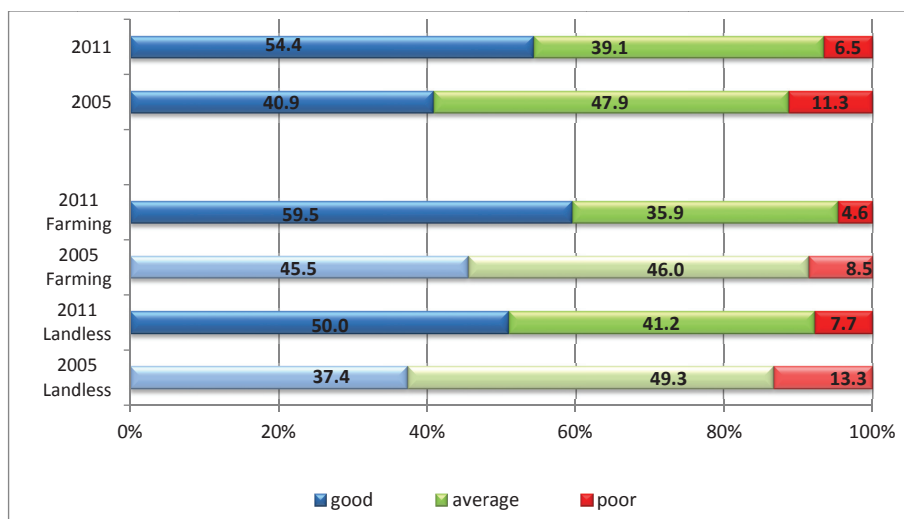


Figure 6. Furnishing of Polish households with durable goods – as rated by the rural residents

Data sources: IAFE-NRI Surveys, 2005, 2011.

In total, when compared to 2005, there was an increase in the percentage of the families which rated positively their furnishing with durable goods. The farming families rated their furnishings better than the landless population. In the past, it was the landless population which adopted the urban patterns in the countryside, now the situation is changing.

The major deficiencies in households and a specific difficulty in the work related to the household were indicated in 48.5 per cent of the surveyed families. Those deficiencies related mainly to technical infrastructure – no sewage system in the case of 11.6 per cent of the families, the absence of central heating and bathrooms was reported less often (less than every twentieth family reported such difficulty). In the household, the work was made most difficult by the lack of a dishwasher (11.6 per cent of the responses). In nearly every twentieth family, the lack of a washing machine made its functioning difficult.

Health condition²

Factors affecting the health of society can be grouped into those that result from the conditions of the surrounding environment, i.e. those associated with both the environmental situation, working conditions and with healthcare infrastructure. At the same time, health is directly affected by health behaviour and lifestyle of society. In defining the determinants of the health condition of the rural population, account must also be taken of the very nature of work of those engaged in agriculture, which is characterised by a variety of activities performed during the day, various working conditions, irregular working hours – often 10-12 hours per day, resulting in different meal times. Negative factors also include unfavourable climatic conditions, such as continuous temperature changes, sunlight, air humidity variations or winds.

In rural areas, there are many fewer healthcare institutions and consequently the number of people per such facility is almost twice that in urban areas (Table 5). Also the number of medical visits per 100 inhabitants in rural areas is much lower than in urban areas (Table 6). However, it should be emphasised that, although slowly, the situation has improved in the last decade. Although the number of dental visits per capita is still much lower in rural areas, it should be noted that this value is relatively low also among the urban population.

Table 5. Number of people (in thousand) per healthcare facility in Polish rural and urban areas in 2006-2014

Item	2006	2014
<i>Rural areas</i>		
Per healthcare facility	4.6	3.4
Per doctor's office	9.6	9.8
<i>Urban areas</i>		
Per healthcare facility	2.6	1.6
Per doctor's office	3.9	5.2

Data source: GUS.

² In the Constitution of 1948, the World Health Organisation (WHO) defines health as: “a state of complete physical, social and mental well-being, and not merely the absence of disease or infirmity”. In recent years, this definition has been extended by: “leading a productive social and economic life”.

Table 6. Number of visits in healthcare facilities and doctor's offices per one hundred persons Polish in rural and urban areas in 2006-2014

Item	2006	2014
Rural areas		
In total, in healthcare facilities	252.1	310.2
Medical facilities	237.9	274.7
Dental facilities	14.3	35.6
As part of private medical practice	34.3	22.5
Urban areas		
In total, in healthcare facilities	859.4	1118.3
Medical facilities	793.3	997.9
Dental facilities	66.1	120.4
As part of private medical practice	75.7	50.7

Data source: GUS.

From the point of view of the rural population, not only the number of healthcare facilities is most important, but above all, their spatial distance, i.e. their proximity to a place of residence and how long it takes, if need be, to get to them. The IAFE-NRI surveys show that in 2011, only 12 per cent of villages provided access to pharmacies, 14.5 per cent to doctors' surgeries, and 13.2 per cent to clinics (health centres). However, the inhabitants of nearly half of the villages surveyed had to travel at least 5 km to reach a specific facility (Table 7). According to the IAFE-NRI surveys almost half of the respondents declared that their needs concerning the health care were met (Figure 7).

Table 7. Spatial accessibility of healthcare facilities in Polish villages surveyed in 2000-2011 (%)

Year	In rural areas	1-2 km	3-4 km	5 km and more
Pharmacies				
2005	16.3	8.0	32.0	44.0
2011	12.0	9.3	28.0	50.7
Doctors' surgeries				
2005	13.1	9.2	30.3	47.4
2011	14.5	6.5	30.3	48.7
Dentists' surgeries				
2011	13.2	7.9	29.0	49.9
Clinics				
2005	13.1	7.9	31.6	47.4
2011	13.2	9.2	30.3	47.4

Data source: IAFE-NRI, Survey 2011.

All the aforesaid positive changes related to healthcare in rural areas and environmental values (own food, fresh air, recreation opportunities), as well as physical effort constantly required in the course of work make, as already stated, the rural population live long compared to the urban population (Stoeva and Valcheva, 2016). Moreover, life expectancy increased significantly during the survey period. In 2014, rural areas were inhabited by over 1.5 million people aged 70+, including 556 thousand people aged 80+. In recent years, the

size of this group has increased (by 120 thousand people compared to 2005). Providing care to those people, including actions not only at the family level, but above all, at the level of local authorities, is clearly a problem.

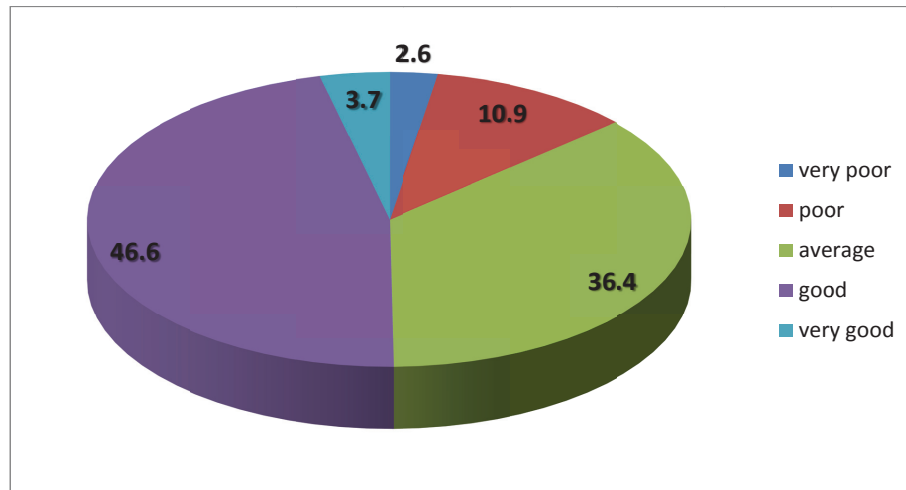


Figure 7. Assessment of the needs of the Polish rural population concerning medical care

Data source: IAFE-NRI Survey, 2011.

It should also be emphasised that, at the same time, the infant mortality rate significantly decreased in rural areas and its level in 2014 was comparable to that of urban areas (4.8 in rural areas compared to 4.5 in urban areas). In 2005, their values in rural and urban areas reached 6.5 and 6.3 respectively.

The causes of death in both urban and rural communities are also similar. Thus, its structure is dominated by cardiovascular diseases (nearly half of deaths) and cancers (nearly one quarter of deaths). In recent years, numerous factors were observed in the rural environment, which adversely affect the level of stress among this population group³. These factors include not only the changing economic situation in Poland and worldwide, but also unpredictable weather, time pressure, unpredictable events (natural disasters), government decisions (regulatory developments), the price volatility of products, difficulties in selling products, as well as the geographical isolation of farmers. Agricultural holding managers are a group of farmers that are subject to intense stress, as they are mainly the ones responsible for the state of their agricultural holdings. In consequence, all of these factors causing long-term stress lead to behaviour which significantly reduces the level of work safety⁴ and may contribute to other health problems.

³ In accordance with the U.S. National Institute for Occupational Safety and Health (NIOSH), the agricultural profession is among the top ten of (130 surveyed) most stressful professions.

⁴ In accordance with GUS statistics, in 2014, mental or physical stress caused 9.8 per cent of recorded workplace accidents in agricultural holdings, *Rocznik Statystyczny*, GUS 2015, Dział VI. Rynek pracy.

Conclusions and summary

Economic and social situation (quality of life) in rural areas is worse than in the urban areas. This is mainly due to the lower incomes of the rural population. In the post-EU accession period (2006-2014) income relationships between the rural and urban population improved in favour of the former. In rural areas agriculture is increasingly less important as a source of income. The tendency of increasing share of income from employment in the structure of income of rural population is permanent.

Rural population and farming families spend more of their income to meet basic needs (food, clothing and footwear, transport and communications) than urban households; and less on other needs (education, recreation and culture). In 2006-2014 the disparities in the level of spending between rural and urban areas decreased in favour of the former.

The level of equipment of households with basic technical systems (mainly sewerage and gas) and durable goods, especially modern (Internet, satellite and cable TV) was higher in urban areas than in rural areas. In rural areas the quality of road infrastructure and transportation was relatively lower. Therefore, the rural residents have more difficult access to basic services and new technologies.

In rural areas, there are many fewer healthcare institutions and consequently the number of people per such facility is almost double that in urban areas. Also the number of medical visits per 100 inhabitants in rural areas is much lower than in urban areas. However, it should be emphasised that the situation has improved in the last decade, albeit slowly. All the aforesaid positive changes related to healthcare in rural areas and environmental values (own food, fresh air, recreation opportunities), as well as physical effort constantly required in the course of work make, as already stated, the rural population live long compared to the urban population. Moreover, life expectancy increased significantly during the survey period. The health condition and health predispositions of society are also supported by other processes conditioning progress and opportunities for the socio-economic development of the country. Good health condition is directly reflected in commitment and performance of an individual, his/her educational achievements, all of which translate into achieving social well-being.

Taking into account the basic indicators of life quality of household, the level and changes in income, expenditures, housing condition, health condition and technical infrastructure in rural areas, the research results indicate that after Poland's accession to the EU the general situation of the rural population has improved much more than in urban areas. But still in the case of rural areas significant disparities remain. The biggest gap is compared to the urban centres and cities. The rural population evaluates their quality of life lower than the urban population (as well as the possibility of meeting the needs).

Lowering the gap between the rural and urban quality of life requires, above all, the income situation improvement of the former, as well as the widely-understood sustainable rural development. In rural areas it is necessary to improve the road infrastructure and access to water, sewage and gas systems, which will not only facilitate the everyday life of people, but also will contribute to the creation of new jobs, mainly in services, trade and small and medium-sized enterprises.

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