

## **Demographic situation of Poland and Europe in the context of the risk of premature retirement from the profession of nurse**

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### **SUMMARY**

This paper presents the current demographic situation in Poland and Europe, with particular emphasis on the ageing of the population. Attention was drawn to the difficult situation of Polish nursing in the context of staff shortages and the alarmingly high average age of staff. The ageing of the working population is particularly visible in the group of professional nurses. In 2014 (as of 31 December), the average age of nurses registered in the Central Register of Nurses and Midwives was 48.4 years. Over the past years, there has been an upward trend

in the value of this indicator. In 2015, only 29. 5% of nurses in Poland were mobile at working age. The remaining ones were either at the working immobile age (50. 6% of the total number registered) or at the post-working age (19. 9%). The employment rate decreases with age. Its low value in the older age group is partly due to the fact that at present some 55-64 year olds retire, but a significant part of them are unable to continue working and leave before reaching retirement age. It is important to adapt working conditions to the needs of older people. This would significantly reduce early school leaving. Faced with the challenges of staff shortages in nursing, this seems to be the overriding goal.

**Key words:** demographic change, ageing of the working population, inability to work

## DEMOGRAPH

For many years now, both Poland and Europe have been experiencing a slowdown in demographic development and significant changes in the age structure of the population. Longer life expectancy with a low fertility rate and a significant emigration of young people are deepening the process of population ageing. According to the demographic nomenclature, an ageing population means increasing the proportion of older people and, at the same time, reducing the proportion of children. Changes in the age structure of the Polish society are presented in Figure 1. 7,305,000 Poles were of post-working age (men 65 and over, women 60 and over) in 2014. For comparison, in 1980 there were 4,227,000 of them, i. e. 3,078,000 fewer. In 2014, the percentage of the population at pre-working age (0-17 years) was 18.0%, at working age (men 18-64 years, women 18-59 years) 62.0%, and at post-working age 19.0%. The same ratios in 1980 were 28.8% vs. 59.4% vs. 11.8%, respectively. There is a clear downward trend in children's participation in society in favour of an increase in the number of elderly people [1].

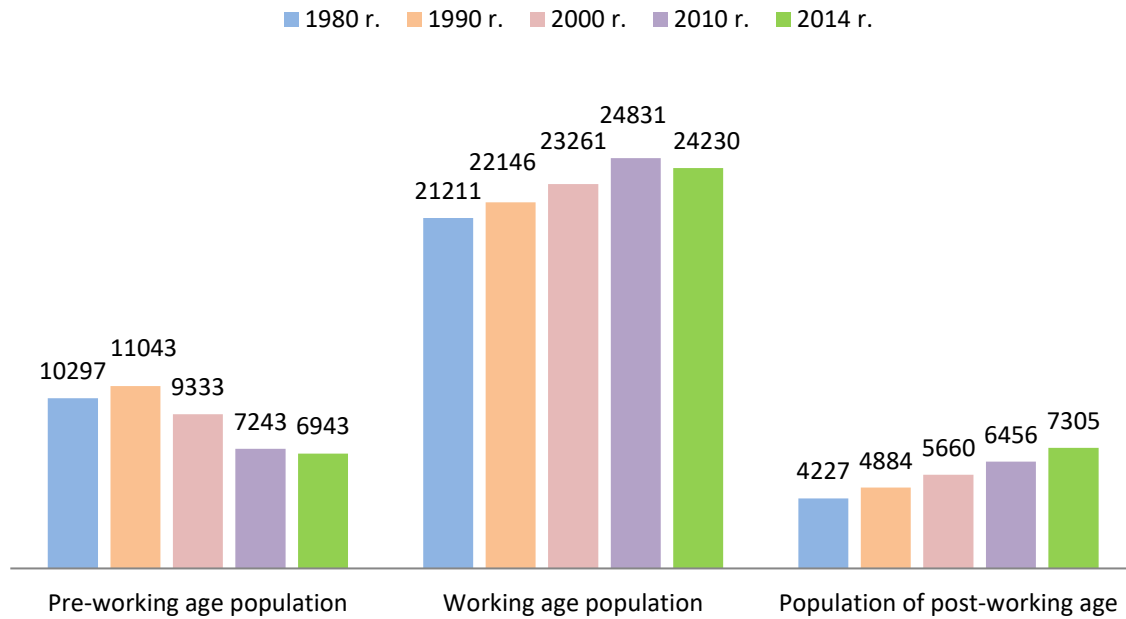


Fig. 1. Polish population in pre-working, production and post-working age [in thousands].

In addition, it is worrying that demographic forecasts predict a deepening of the ageing process of the Polish population in the coming years. It is estimated that by 2020 the number of people at pre-working age will have decreased to 6,733,000 and the number of people at post-working age will have increased to 8,617,000, while the share of people at working age will have decreased. If these trends continue and the projections confirm, in 2050 the disproportion between the number of people of working age and the number of people of post-working age will be small (the forecasted number of both groups will be 16,583,000 vs. 12,405,000, respectively). (Fig. 2) [1].

This will force older people to remain economically active for longer. The inefficiency of the pension system will make it impossible for them to retire [2].

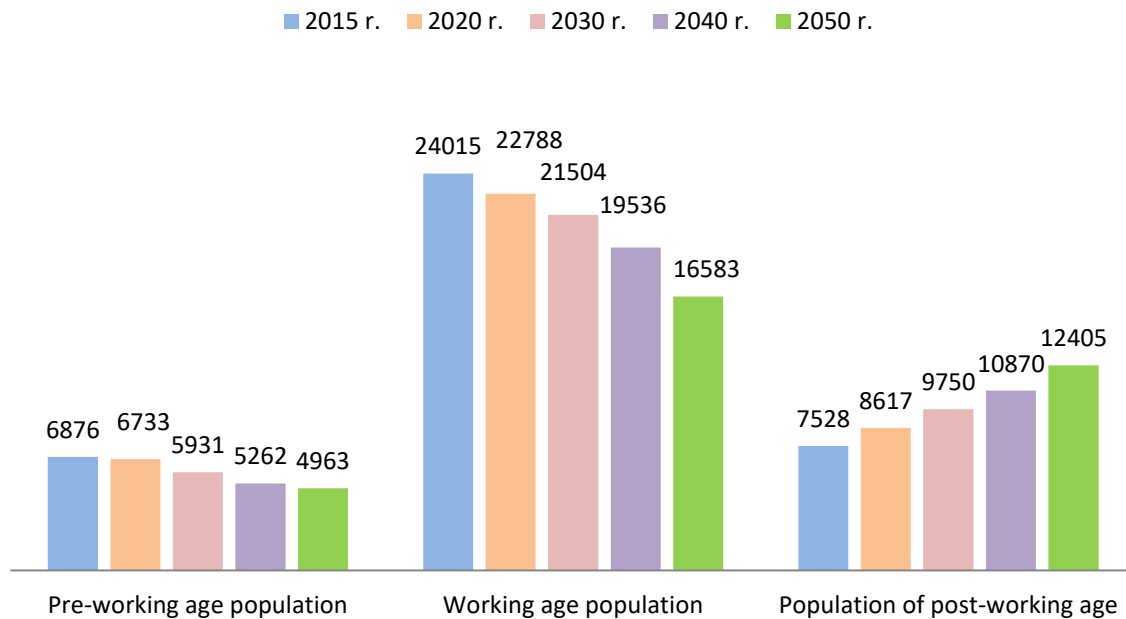


Fig. 2. Projection of the Polish population by economic age groups [in thousands].

Similar trends have been observed throughout Europe for many years. According to Eurostat estimates, the median age of the EU-28 population as of January 1, 2015 was 42. 4 years. Children and youth aged 0-14 constituted 15. 6% of the population, people aged 15-64 - 65. 6%, people aged 65 and over - 18. 9%. The same rates for Poland were 15. 0% vs. 69. 5 vs. 15. 4. The highest percentage of older people was recorded in Italy (21. 7%), Germany (21. 0%) and Greece (20. 9%), while the lowest in Ireland (13. 0%). The ageing of the population is observed in all the countries covered by the survey [3].

The aging of the population means that there is an increasing demand for nursing care both in Poland and in the EU as a whole. The health condition of the population decreases with age. Older people are more likely to suffer from long-term health problems, reduced organ efficiency and reduced mobility on a daily basis. Surveys conducted by the Central Statistical Office show that only one in eight older people in Poland assessed their health as at least good (13% of respondents).

Against the background of international comparisons, this is a very poor result, as out of 32 European countries participating in a similar survey, Poland was ranked fourth in this respect from the end. Only older Hungarians, Latvians and Lithuanians assessed their state of health less favourably [4]. Meanwhile, despite high demand, Poles face limited access to nursing services. The employment rate of nurses in direct patient care in Poland is alarmingly low. It is only 5. 4 per thousand inhabitants, and compared to selected countries in the world, it puts our

country in the infamous final position (Fig. 3). For example, in Switzerland this ratio is almost three times higher and amounts to 16.0 [5]. The growing demand for nursing care as well as the lack of staff in this profession are challenges for the aging Polish society.

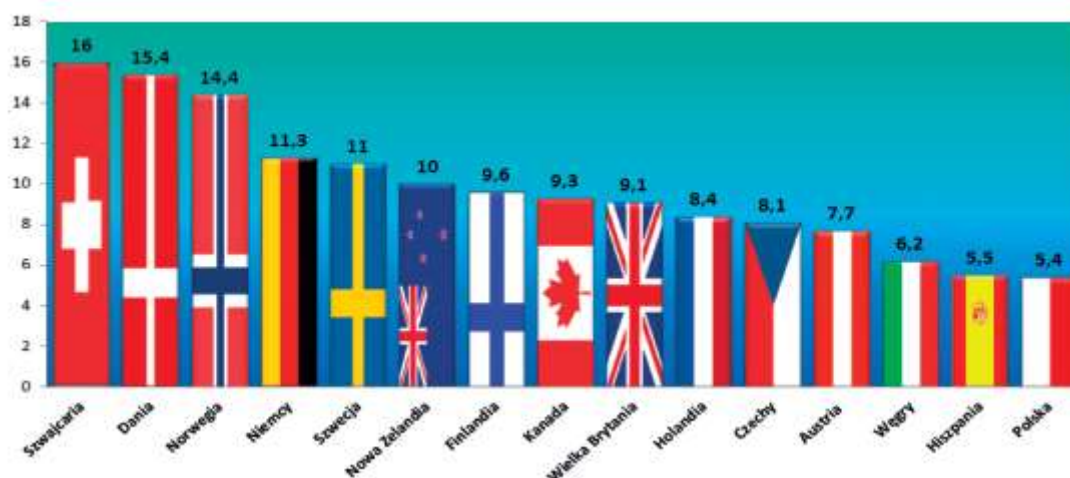


Fig.3. Employment rate of nurses per thousand inhabitants in direct patient care.

The ageing of the population also affects the working age population. In demography, this economic group is divided into people at mobile age, i. e. 18-44 years old, and people at immobile age, i. e. men 45-64 years old, women 45-59 years old. In 2014, all Poles at working age accounted for 37.0% of the total number of people at immobile age (Fig. 4). Compared to 1980, this percentage increased by nearly 6%. The ageing of the working population is a natural consequence of this. The Polish workforce will be older than ever before [1]

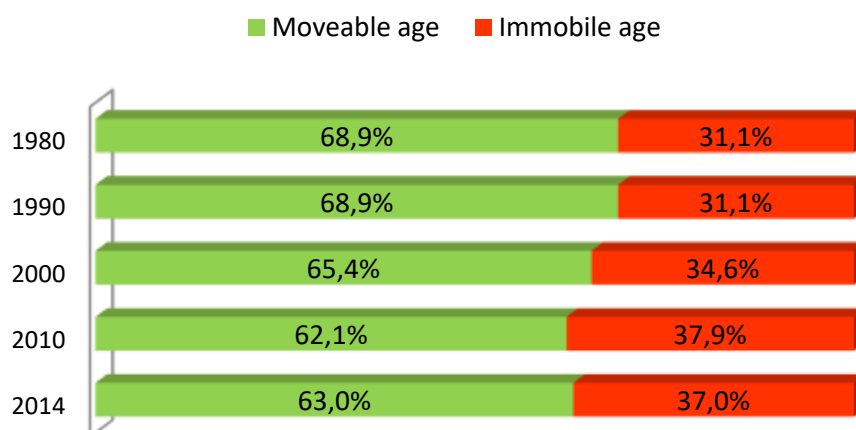


Fig. 4. Percentage of people at mobile and immobile age among the working age population in Poland [%].

The ageing of the working population is particularly visible in the group of professional nurses. In 2014 (as of 31 December), the average age of nurses registered in the Central Register

of Nurses and Midwives was 48. 4 years. Over the past years, an upward trend in the value of this indicator has been observed (Fig. 5). In 2008, the average age increased by 4. 2 years [5]. On the basis of the data of the Supreme Chamber of Nurses and Midwives, the percentage of nurses registered in 2015 in particular economic age groups was calculated (ranges for women were adopted) [6]. It turns out that only 29. 5% of nurses in Poland are of working age (Fig. 6). The remaining ones are either at working immobile age (50. 6% of the total number registered) or at post-working age (19. 9%).

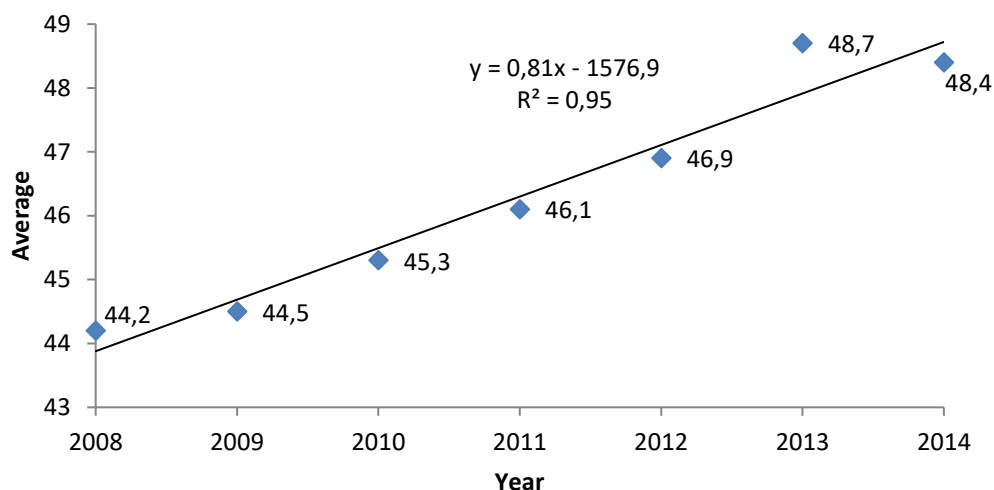


Fig. 5 Average age of nurses registered in the Central Register of Nurses and Midwives.

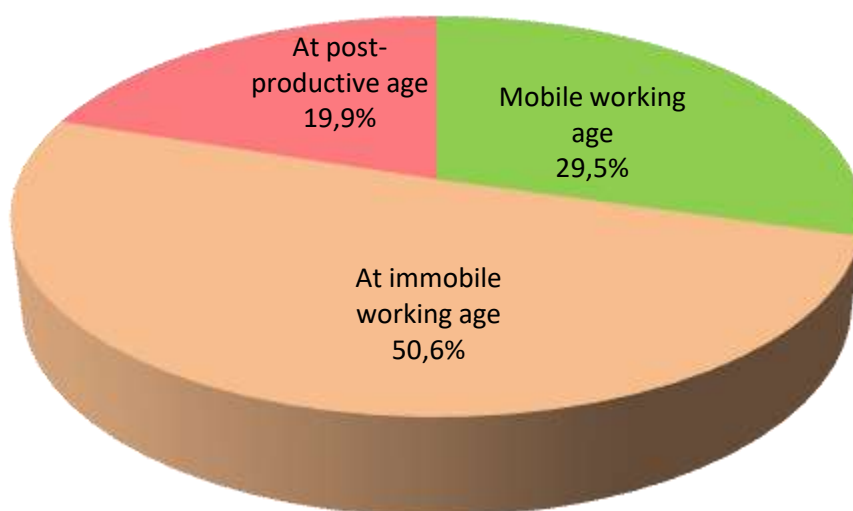


Fig. 6. Percentage of nurses by economic age group registered in the Central Register of Nurses and Midwives (as of 31. 12. 2015) [%].

As mentioned earlier, due to the lack of generational replacement, older Poles will be forced to continue working longer. Eurostat estimates that the employment rate (% of the working population) among Poles aged 55-64 has been increasing steadily since 2004. In 2013 it amounted to 41%. On the other hand, the employment rate of people aged 65 and over is slightly decreasing (in 2013 it was 4.6%). It is close to the EU-27 average (around 5%). Figure 7 presents the employment rate of Polish residents in four age groups in the period 2000-2013. Looking at the figure, there is a large difference in the height of the indicators between the 25-54 age group and the 55-64 age group. Its low value in the older age group is partly due to the fact that at present some of the 55-64 age groups retire, however, a significant part of them is unable to continue employment and leave before reaching retirement age [7].

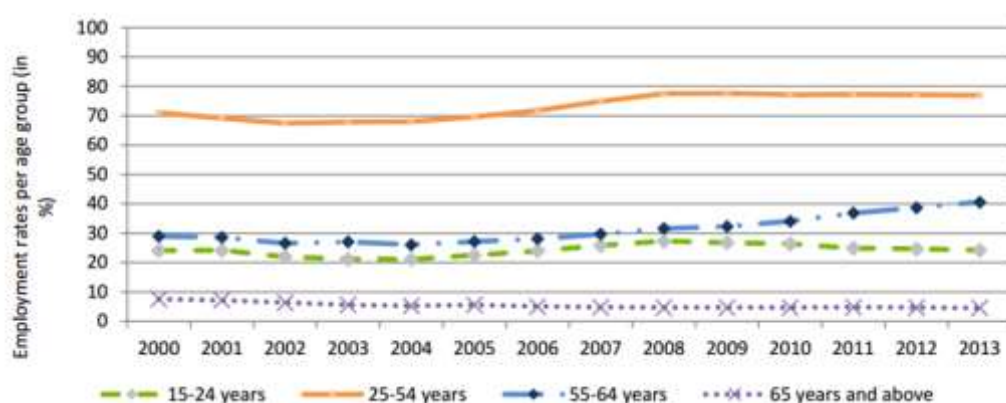


Fig. 7: Employment rates of the Polish population divided into 4 age groups in the years 2000-2013 [%].

Inability to work within the meaning of the Act of 17 December 1998 on pensions from the Social Insurance Fund is a person who: "has lost all or part of his/her earning capacity due to a physical impairment and is not likely to regain his/her earning capacity after retraining. If a person has significantly lost the ability to work according to his or her qualification, he or she shall be declared partially unfit for work. If, on the other hand, she is not capable of any professional work, she is considered completely incapable of working [8].

On the basis of data from the Social Insurance Institution (ZUS) on the number and structure of persons examined for the first time for disability purposes, it can be stated that in 2015, the majority of those whose medical examiners determined the degree of inability to work were 50-59 year-olds. This group included more than a half (56.9%) of all women with disabilities and 44.1% of men. More than one fifth of women receiving a certificate of inability to work (23.9%) were aged 40-49 (Fig. 8) [9]. There is therefore a justified need to monitor the

employability of older workers and their health status so as to be able to implement measures that create the conditions for better and longer careers.

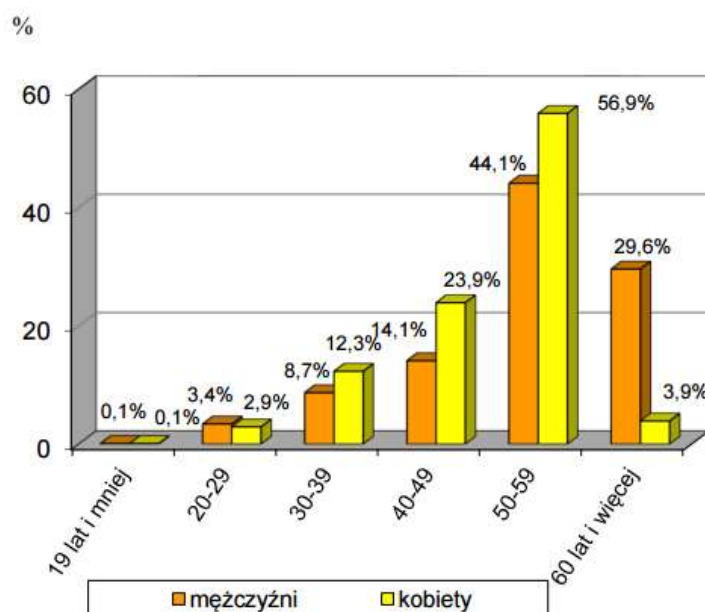


Fig. 8: Age structure of first-time respondents for disability purposes, who were assessed by ZUS practitioners to be incapable of working in 2015 in Poland [%].

Analysing the health causes of inability to work, it turns out that among women the dominant groups of diseases which constituted the basis for making the first-ever decision for disability purposes in 2015 were, in turn: tumours (30. 2% of all decisions on inability to work), diseases of the osteoarticular system (16. 9%) and mental disorders (16. 0%). In men the triad of diseases was slightly different and was as follows: cardiovascular diseases (26. 4%), cancers (19. 8%) and diseases of the musculoskeletal system (13. 0%). The structure of the certificates issued by selected disease groups and sexes is illustrated in Figure 9.



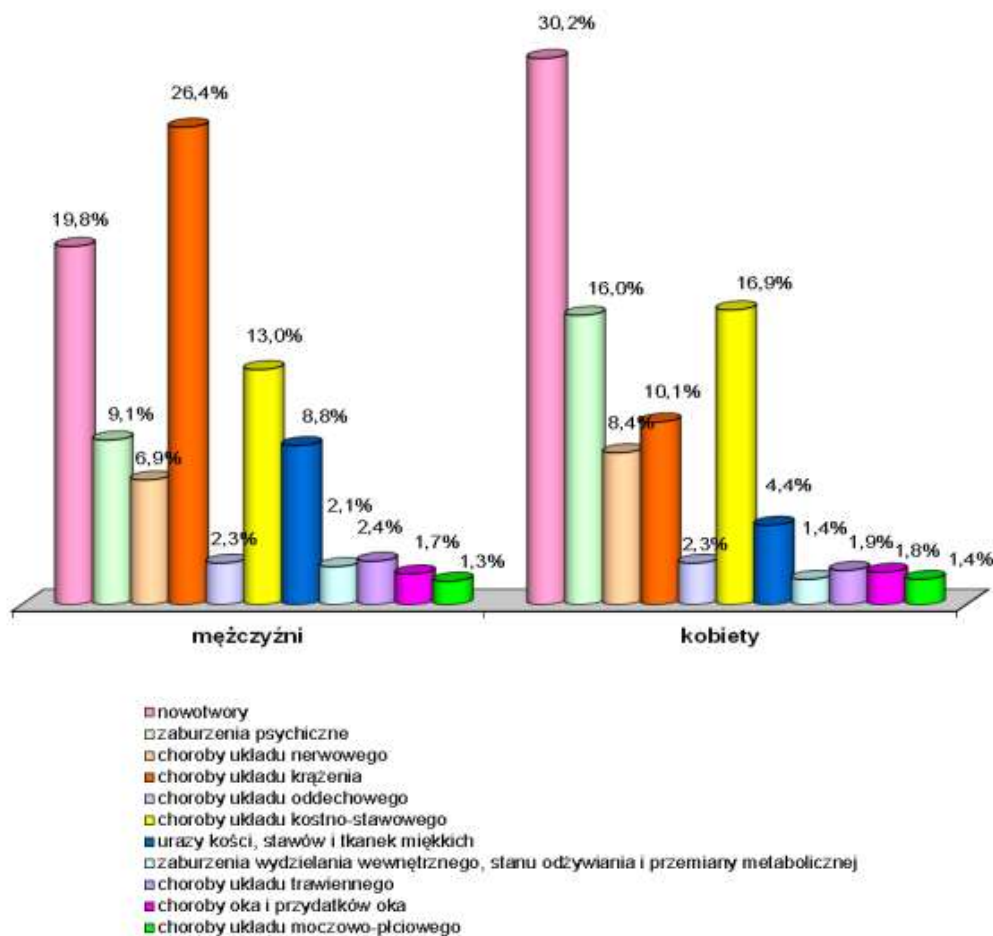


Fig. 9. Structure of first and second disability decisions of the Social Insurance Institution (ZUS), in which the degree of inability to work was determined by selected disease groups and sex of persons surveyed in 2015 in Poland [%].

In order to reduce premature inability to work, it is necessary to search for factors predisposing to the development of diseases and disabilities. Many health problems of Poles are caused by their professional background. In 2015, out of 43,902 incapacitated decisions, 366 were based on occupational diseases, 1,049 on accidents at work or in special circumstances and 42,487 on general ill health. Among those who received a ruling as a result of an accident at work, 79. 8% were partially incapable of working, 15. 4% were totally incapable of living independently and 4. 8% were unable to live independently (Fig. 10). In the case of disability caused by occupational diseases, the percentage of people with total inability to work and to live independently was lower and amounted to 7. 1% vs. 0. 6%, respectively [9].

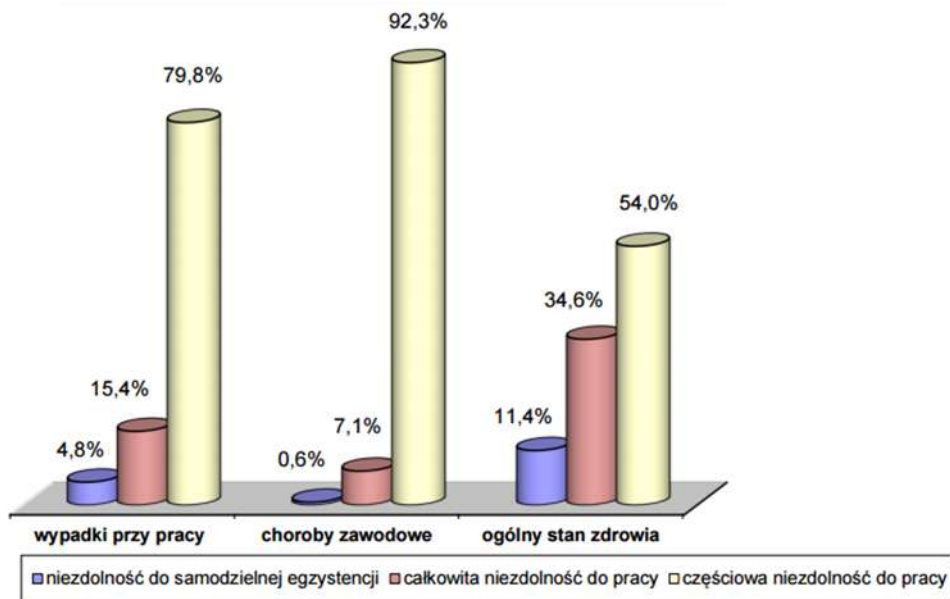


Fig. 10. Structure of first and second disability decisions of the Social Insurance Institution (ZUS) in which the degree of inability to work was determined according to the circumstances in which the inability arose [%].

The ageing of the workforce is also a natural consequence of the ageing of the population. It is important to adapt working conditions to the needs of older people. This would significantly reduce early school leaving. Faced with the challenges of staff shortages in nursing, this seems to be a key objective.

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