Problems of health education in rural areas in Poland

Marianna Charzyńska-Gula¹, Katarzyna Sygit², Marian Sygit^{2,3}, Małgorzata Goździewska⁴, Beata Dobrowolska⁵, Edyta Gałęziowska¹

¹ Chair of Oncology and Environmental Health Care, Medical University, Lublin, Poland

² Department of Health Education, Szczecin University, Szczecin, Poland

³ Institute of Rural Health, Lublin, Poland

⁴ Department of Health Informatics and Statistics, Institute of Rural Health, Lublin, Poland

⁵ Chair of Nursing Development, Medical University, Lublin, Poland

Charzyńska-Gula M, Sygit K, Sygit M, Goździewska M, Dobrowolska B, Gałęziowska E. Problems of health education in rural areas in Poland. Ann Agric Environ Med. 2013; 20(3): 515–522.

Abstract

Health promotion is aimed at the reduction of the differences in society's access to factors determining the frequency of occurrence of pro-health behaviours. This means the construction of health resources and increase in the level of egalitarianism in access to these resources. Health education carried out on a high level in rural schools provides actual possibilities for gaining these resources. Many examples of educational practices confirm that the establishment of health conditioning and health behaviours of schoolchildren, and the diagnosis of rural school on the background of the specificity of the community in which it functions. These are a basis for the construction of effective educational programmes, and not analysis of the differences between urban and rural children and adolescents. In Poland, the performance of health education in rural schools encounters many problems associated both with the lack of infrastructure for health promotion, insufficient perception of the importance of health education at school by the educational authorities, underestimation of primary health care, low activity of the local governments, and lack of qualified rural health promoters. Current health education in Polish rural schools deepens inequalities in access to the resources which condition the maintenance or even an enhancement of health. The objective of the study is to present selected problems in the performance of health education in a Polish rural school in the light of international trends, experiences and discussions related with an optimum form of health promotion in the environment of rural a school and the community.

Key words

health education, rural school, rural schoolchild, school nurse, inequalities in health

INTRODUCTION

Despite the achievement of spectacular successes in, among other things, the reduction in premature mortality on the level of the general population, the maintenance of considerable inequalities in health between population groups occupying high and low positions in the social structure is still observed. The differences in standardized coefficients according to education level are tremendous and maintain themselves in time, despite prophylactic actions focused mainly of the prevention of diseases and the problem of alcohol addiction which are carried out under health promotion campaigns [1]. Studies of inequalities in the access to health among Polish society have confirmed on many occasions the thesis that university education and living in a rich neighbourhood are associated with both better health and a greater chance for its maintenance by health promoting behaviours which decrease the risk of disease [2].

Health promotion is aimed at the reduction of the differences in the access of society to the resources determining the frequency of occurrence of pro-health behaviours. This goal may be achieved provided that health

Address for correspondence: Marianna Charzyńska-Gula, Chair of Oncology and Environmental Health Care, Medical University, Lublin, Jaczewskiego 7, 20-090 Lublin, Poland e-mail: jaligula@o2.pl

Received: 20 December 2012; accepted: 15 March 2013

promotion is a conferred status of a multi-sector strategy which would regulate the process of solving health problems by constructing health resources and increasing the level of egalitarianism in access to these resources. This means the use of the socioeconomic and not biomedical paradigm in health policy [1]. Among these resources is health awareness which is shaped as a result of proven educational programmes inbuilt in evidence based, interdisciplinary health promotion strategies [3, 4, 5, 6]. Health education carried out in a rural school creates real chances for acquiring this resource.

In literature, there is much evidence supporting the thesis the formal system of education provides a great opportunity for exerting a positive effect on children and adolescents. In the socialization process, the family is of dominant importance for a small child, and many studies confirm that the examples of behaviours, e.g. nutritional, associated with tobacco smoking or physical activity, are fixed in childhood, and most frequently continued later in adult life [7]. However, in the general strategy of health promotion, school as a place of education cannot be omitted. School is the place in which 'health is created'. As a mass and common organization it enables the systematic health education of the young population, and also indirectly, of their parents and caregivers, thus being the most cost-effective, long-term investment in the health of society [8, 9]. In the discussion about the effectiveness of actions undertaken in the fields of health promotion and health education, attention is paid to

the differences between so-called short-term parameters of effectiveness and the effect of these parameters on long-term results finally observed in the sphere of health [10, 11]. The most direct parameters of effectiveness concern changes in individual mentality and skills, which are the effects, among other things, of school educational actions within the framework of a wide popularization of health [12].

The objective of the study is the characteristics of problems in the performance of health education in Polish rural schools with regard to international trends, experiences and discussions concerning the optimum shape of health promotion engaging rural local rural communities, and particular consideration of the importance and tasks of a rural school.

School health education – a brief historical outline. In the presented study the term 'health education' was adopted, being aware of the terminology problems occurring while considering education on behalf of health in the school environment [13, 14, 15, 16, 17].

Various forms of teaching people how to avoid diseases and what to do in illness, how to maintain health, as well as hygienic indications and guidelines, have accompanied the development of medicine since the dawn of time. The genesis of school health education was the year 1950, when the WHO Expert Committee on School Services was founded in Geneva [18]. The subsequent report by the Expert Committee on Health Education of the Public, published by the WHO in 1954, became the foundation for contemporary schools promoting health [19, 20, 21]. In the 1960s, awareness of the necessity to lead towards a social change consisting in the popularization of health promoting behaviours very clearly increased, and was accompanied by a simultaneous fascination with school health education as the primary tool to obtain this change. Ascribing health education the greatest importance resulted from, on the one hand, a conviction that formal institutions, especially schools, are the driving force of new thinking about changes in the lifestyle of the population, and on the other hand, searching for the sources of the majority of behaviours of importance for health during the period of childhood and youth [22]. The famous report by Lalonde drew attention to the necessity for supporing individuals - also those functioning in the role of schoolchildren - in their everyday struggles [12, 17, 20]. The discussion concerning the place of health education in health promoting actions, finally ended up with the Declaration of the Alma Ata. At that time, it was assumed that only integrated actions in many sectors provided the opportunity to exert a positive effect on the health of the population, and icrease the chances for the effectiveness of health education - including in schools [3].

M. Demel divided the history of health education in Poland from the pre-history of health education to the period of the Polish People's Republic [15]. The latest history of health education was supplemented by E. Charońska [13] who distinguished the phase of health pedagogy with a most important event – the report by M Demel entitled: *About health education* [14], phase of stagnation in 1980s, and health education in health promotion related with the health promotion in schools movement.

Health education – its dimensions and importance for health. Health education is an important, supporting element of repair actions (therapy of diseases), prevention of diseases and health promotion. In order to actively participate in the process of treatment of diseases, prevent diseases, control health and strengthen its potential we must know, understand, and wish to do so [23, 24, 25]. Health education is needed by patients suffering from chronic diseases, the disbled, as well as those in states of acute illnesses and injuries. Each contact by a physician, nurse, physical or other therapist with a patient should contain an educational component. Education of chronically ill people is currently considered as a basic component of the overall therapeutic procedure, and should be present at all stages of diagnosing and treatment. This exerts a beneficial effect on the results of treatment, improvement in general wellbeing and quality of life of those who are ill, satisfaction with medical care and reduction in the costs of such care; it also allows patients to make proper, conscious decisions in the process of treatment.

'Therapeutic education' is especially important in the process of treatment of chronically ill children - often functioning as schoolchildren. Education accompanies each prophylactic action, at each stage of prophylaxis, including the prevention of diseases and various disorders, risky health and social behaviours creating a serious risk of disease, disability and decrease in the quality of life, not only of individuals, but frequently entire families and local communities. Health education is also the key component of health promotion. Adequate competences obtained in the process of health education are necessary to participate in promotion actions, change own life style and own environment, in order that these changes translate into 'health benefits'. Health education is a component of actions undertaken in all areas of health promotion. In the health promotion model biased towards its empowerment, health education performs two basic functions:

- creation of conditions in which individuals learn about health and diseases, strengthen their capabilities to act on behalf of own health and the health of others, and become subjects of these actions. Thus, empowerment is a direct effect of education; people may change their life style and, consequently, improve their own health and form communities capable for actions. In this way, a social change may take place which is the goal for which health promotion strives;
- exerting an effect on the desiderate occupational groups which create public policy on various levels and create environments supporting health [24].

Various changes, especially cultural and socioeconomic, associated with the change of the health paradigm, resulted in the development of three relationships present in the health education process, between the sender and recipient. The character and dimension of these relationships is especially important for an understanding of the conditions which should be satisfied by health education.

In the authoritative model ('medical' and 'paternalistic'), based on the precise transfer of information and values (which to do not to loose health), the information transferred travels in one directon – from the teacher – e.g. physician, school nurse – to the schoolchild. This is an emotionally neutral instruction aimed at protecting a schoolchild against the occurrence of health rtisk and disease. According to the extreme approach, this model is based on Pascal's principle: 'The recognition of hygienic principles should be enforced by means of standards, health principles, the basis of health, because law without power is powerless' [11, 12, 26]. The effectiveness of this model is very low. An individual obtains new information, but does not put them into practice because e.g. that individual has not been convinced about the presence of various variants for the implementation in own life of a change which should be made. The reflection of the low effectiveness of this model is the precentage of patients who fully respect the recommendations obtained from a physician, which is one-third of the total number of patients who have been given such recommendations – irrespective of the fact whether they concern pharmacotherapy, or the desired changes in the style of life of a patient.

The participant model is based on the exchange of information between the teacher and the student who actively seeks advice, knows own living conditions, wishes to improve own state of health, wants to exchange with an expert and establish, if he/she thinks and does well. Here, information passes in two directions, and both sides trust each other. In this model, the student is approached 'seriously' - i.e. as a person capable of revaluation and using the advice provided. In this model, the primary goal is the shaping of specified skills facilitating the adaptation of individuals and groups to various difficult situations and limitations encountered in daily life which negatively affect health. The participant model considers also the teacher-group relationship which concerns active groups. The main objective of information exchange is establishing the best way of implementing a social change - from among other options. This means a specific 'opposing confrontation' to inequalities in health with the participation of the 'victims' themselves - those whom this inequaoity concerns. This aspects of the participant model occurs in the settings approach [20, 27]. The effects of the application of this model are considerably greater than those of the previously discussed model; however, it is not entirely sufficient because it still concerns the elimination of what is bad for health (prevention), while the activity of an individual or group occurs in relation with the willingness to avoid some threat or level out an inequality. Also, in this relationship, the expert/teacher still dominates.

The promotion model assumes mutual provision of services between two parties in the educational process in which there is neither a classic teacher nor a student. There are people who have different competences and approaches, but to an equal degree are interested in the change which is supposed to be brought about by the education which has begun. Their contact consists in the establishemnt of the differences occurring between the educator and the person who is educated, in order that the latter person, acting with the support of the educator, changes own experiences by selfreflection and self-organization. In this model, the climate of the relationship between both parties in the education process is extrremely important. On assumption, it should be conducive to coopersation, and consequently, result in 'acting with someone' and not 'on behalf of something' [20, 28]. In this model, the chance to achieve permanent success, i.e. equip the person who is educated in the skills of living healthily, is the greatest. Despite the fact that the first model, the mertis of which cannot be denied, is very much rooted in the Polish awareness, one should incline towarsd the selection and implementation of educational strategy consisting in the creation of a combination of all relationships. The experiences of many researchers analyzing the conditions of effectiveness of school health education

unequivocally indicate that the criterion which decides which model will be dominant is a concrete, widely understood, individual and environmental situation of the peer group of the schoolchild, adults surrounding the child, and members of the local community who need or seek for a professional adviser/teacher in health matters [12, 20, 29, 30, 31, 32].

The rural and urban schoolchild – similarities and differences. Studies concerning the differences between children and adolescents living in rural and urban areas do not provide uniquivocal results, and many reserarchers mention difficulties in the diagnosing of clear differences [31, 32, 33, 34].

A similar presumption may be made while considering reports pertaining to Polish children and adolescents. No significant differnces are observed in body weight of rural and urban adoelscents [35]; however, clear and alarming differences are noted with respect to actively spent time and preferences concerning leisure in combination with physical activity. Rural adoelscents more frequently declared a passive way of spending leisure time and devoted less hours weekly to various forms of active leisure, also after school [36, 37, 38]. According to some studies, rural adolescents significantly more often consume alcohol, compared to their urban contemporaries - including inebriation and alcohol addiction, and more frequently addiction to smoking tobacco [39]. The studies within the last, sixth edition, of the Health Behaviour In School-Aged Children (HBSC) of 2010 showed that young people from urban areas significantly more often smoked tobacco [40, 41]. This result is consistent with the results of studies concerning the attidudes of Poles towards tobacco smoking: rural inhabitants are most rarely regular smokers; nevertheless, simultaneously they are more tolerant with respect to smoking at home and in the presence of nonsmokers [42]. Also, no significant differences are noted in the analysis of the pattern of alcohol consumption by rural adolescents, compared to the all-Polish tendencies.

The type of school attended by a young person, gender, and difficulties in access to alcohol at the place of residence are more important than the place of residence [43, 44]. A relationship was confirmed between the registered behaviours of rural children and adolescents and education of their parents, and the economic situation of the farm. This relationship is dirtectly proportional. The higher the education level and material status of the child's family, the better and more healthy promoting profiles of nutritional behaviours of the child [29, 45]. Generally, young people from the rural areas more frequently than their urban contemporaries place health on the highest position among life values, and evaluate their state of health in slightly more positive terms, compared to the urban inhabitants [46]. Rural and urban adoelscents differ less with respect to behaviours, attitudes, and values diagnosed in the context of health, but more by the possibilities created by the surrounding health promoting infrastructure, rather than the lack of this infrastructure [47].

A comprehensive characteristic of the differences in behaviours, opinions and attitudes in the group of rural and urban adolescents attending secondary and higher schools was provided by studies by the Department of School Medicine at the Institute of Mother and Child in 2006 [48]. At that time, urban adoelscents evaluated their state of health in slightly better terms than their rural contemporaries; however, they more frequently reported the occurrence of chronic diseases and disabilities, more often used computer for a long time (4 hours and longer), more frequently never had breakfast during schooldays, smoked cigarettes every day, had consumed marihuana more than twice in their lives, and more often started sex life earlier. In turn, rural more rarely than urban adolescents considered that others care for them very much and are interested in them, that they can easily obtain practical assistance from their family, acquaintances, neighbours, and that teachers encourage them to express their own opinions and are kind. In addition, rural adoelscents more rarely liked their school, more rarely mentioned that they eagerly attended school and liked the classes at their school, and more rarely spent five or more evenings with their friends outside home.

Rural adolescents more often lived in complete families, with many children, with grandmother and grandfather or another person, had parents who possessed an education level lower than secondary school, both parents had no employment, evaluated their family as poor, did not possess a computer, and did not go on vacations with their family. The last result may be associated with the overloading of the vast majority of children from agricultural families with work activities, which are not only maladjusted to their physical capacity, but are also dangerous [49, 50, 51].

The Health Behaviour in School-Aged Children (HBSC) study indicates that it is justifiable to consider in the analysis the conditioning of health behaviours of schoolchildren, the socio-economic situation of the surroundings where the schoolchild lives, socio-economic status of the family and relations within the family. Very often the above-mentioned factors are important for both the type and intensity of risky behaviours among children and adoelscents. Although there is no doubt about the effect of socio-economic status on the health of small children and adults, the conclusions prertaining to adolescents are not so unequivocal and may be related with the stronger effect of the peer groupo than family on choices and health behaviours [41]. The results obtaind int he latest HBSC study of 2010 confirm the protective role of good family relations for health and wellbeing of adolescents [52, 53], although while analyzing the conditioning of health behaviours of rural children and adolescents the problem of importance of health awareness of their parents is also mentioned. Frequently, despite good communication with children, they are not good patterns of such behaviours and do not know what behaviours their children show [54].

Good education prctices in a rural school

Experiencesd in health promotion and education related with the educational-didactic environment such as school or nursery school univocally indicate the concept of Health Promoting School as the concept which brought about the greatest effects. This concept is nearly thirty years old. It was developed in Europe as the second, following 'Healthy Towns' health promotion programmes. In Poland, the Health Promoting School was implemented in 1991. Then the WHO Regional Office for Europe initiated this project in four countries which were undergoing a political transformation. Apart from Poland, these were the Czech Republic, Slovakia and Hungary [27]. School promotes health and its value, behaviours enhancing and protecting health, plays an integrating role with respect to undertakings supporting health, develops health culture combining it with the cultural heretage and regional traditions.

Similar to prophylactic programmes, many teams of researchers worldwide encounter difficulties with the measurement of the effectiveness of health education. This problem was best solved in the United States, where the National Health Education Standards are in effect, which specify what should schoolchildren know and be able to do. Since 1987 in the USA helth education is one of eight components of the overroll health programme at school. These are: healkth education, physical education and activity, health services, psychological health and social services, school meals, school policy, physical environment, health promotion among teachers and other staff, including contacts between school, and parents and local community [24, 33, 31, 55].

In the relevant literature many reports are found which confirm the value and effectiveness of various health education programmes performed in the environment of a rural school. For example:

- the Malaysian programme engaging many people from the environment of a young schoolchild (teacher, parent) in order, among other things, to reduce the weight of the school satchel [56];
- the Swedish programme is an example of a multi-sector health promotion programme for nursery schoolchildren and young schoolchildren [57];
- Greek proposals for the health promotion of young schoolchildren indicate the way for the improvement of the quality of life of the population, and the socio-economic development of the country [58];
- the Brazilian project focused on a reduction in the consumption of high calorie snacks by schoolchildren [59];
- and the four-year American programmee for a health Promoting School, effective in the modification of nutritional behaviours and level of physical activity of adolescents attending schools in poor ruralk regions, confirmed the importance and effectiveness of a specialist infrastructure in the form of technical assistance 'adjusted' to the specificity of individual schools and environment in which they functioned [60, 61].

Reports concerning the participation of members of the rural community health education, representatives of primary health care – nurses, physicians and others specially prepared for the role of a 'rural health educator' are also very interesting. For example:

- the programe for good communication with the parents of overweight and obese schoolchildren in order to implement changes in the nutrition of these children, developed by American school and family nurses [62, 63];
- the Australian programme CHAMPS, performed by school medical services in elementary schools, activization of treachers, parents and schoolchildren to the desired nutritional changes and physical activity [64];
- oral health promotion programmes performed in Canada and Uganda in the environment of rural schools which confirmed the effectiveness of the work of an educatordentist [65];
- the American programe for 'rural medical educators' supporting family physicians in school health education, and adressed to the members of the local community [66];
- the medical-pedagogic programe for levelling out inequalities in access to health in American junior high schools in rural areas, focused on searching for partners in

pro-health change who come from the school environment and local community in which the school functions [67];

 and the school programme for safe use of cross-country vehicles in the rural areas, combined with the use of original film techniques and stimulation [68].

Performance of health education in Polish school. Since 2009, in Polish State schools, a basis for elementary education, as well as being the starting point for the development of selfdesigned educational programes, has been the regulation by the Minister for National Education of 23 December in the matter of core curriculum of nursing education and general education in individual types of schools (Official Journal No. 4, Clause 17). The 'health education' module is within the core curriculum of the subject 'physical education', and the teacher of this subject has been indicated as the main performer of the total school education programme, despite the fact that as a subject its contents basically do not go beyond the area of physical education. This is certainly a solution which would neither respond to the contemporary culturalcivilisational challenges in the field of health education in the system of general education, nor to the expectations of many circles, and is described by some specialists as a 'dummy' [69, 70, 71, 72].

Earlier, during the period 1997–2009, school education was clearly present in school life in the form of an 'interdisciplinary path' and in the curricula of the remaining disciplines, despite the fact that within the framework programme a place and time for the performance of contents within health education have never been distinguished, e.g in the form of a separate subject 'health education'[73]. The solution adopted in the core programme of general education, which is still in effect, has been critically evaluated. It was indicated that in the future efforts to distinguish this sector of education should continue to be undertaken in order to create conditions for its modern and effective performance, and the staff which would guarantee its high quality [74].

The problems of Polish health education in schools are enhanced by the state of performance of physical education. The supervision by the Supreme Control Chamber carried out during the period 2007-2009 indicated that in every fifth elementary and junior high school the new physical education core curriculum has not been implemented. In 75% of schools, no actions were undertaken to prevent a downward tendency in the active participation of schoolchildren in PE classes, and there was a lack of provision of safe conditions for PE classes, and a lack of implementation of rehabilitation gymnastics for schoolchildren with detected postural defects. The PE teachers were not interested in the contents of the core curriculum of the subject they taught, and did not develop its self-desined versions expanded by other contents in the field of health promotion. All the negative elements of this evaluation were more intense in rural than urban schools [75].

The activity of a school nurse, and her presence in the school consultation room as an adviser, is an important element affecting the quality of actions undertaken in school. Unfortunately, in the school year 2009–2010, 70% of elementary schools, more than a half of junior high schools, and nearly a half of technical schools and special schools functioning in rural areas, had no such consultation room, and the situation was clearly worse than in the school year 2004–2005 [76, 77, 78]. Generally, the bad situation of school

health education is enhanced by the lack of coherence in creating prophylactic health care of children and adolescents in the education environment [78].

Despite the lack of logistic, financial and political support, and many other difficulties, in Poland there are programmes of school health education which are worth copying on an all-Polish scale. From 1997, in many schools – mainly those rural areas and in small towns – the *Environmental programme of health education at school* has been carried out, called the Lublin Project. This project assumes the undertaking of long-term, 12-year actions in primary, junior high, and high schools. The main goals of the project are addressed to schoolchildren and representatives of their families and the school environment [79, 80]. The effects of the programme were registered in each group of its adressees, i.e. schoolchildren, their parents and teachers in charge of the programme [12].

An example of a promotional programme which is the germ of systemic solutions is the Schools for European Health Programme (formerly the Health Promoting Schools Programme). In 2010, the list of members of the network of these institutions (schools and nursery schools) exceeded 2,000 [1]. Unfortunately, the concept of Health Promoting Schools in Poland evolved in the wrong direction. When the project started it was assumed that the Health Promoting Schools Programme had three features:

- 1) health education as an indispensable element of the school curriculum;
- ethos of health at school, i.e. a 'disguised' programme for changing the physical environment, atmosphere, policy, and organization of school activity supporting health of the members of the local community;
- 3) cooperation with parents and the local community, i.e. health promoting activities extending outside the school [27].

The new Polish model of Health Promoting Schools (since 2002) contains five standards for the quality of school activity, and clearly refers to the key document in Polish schools - the core curriculum of general education, and other legal acts currently in effect – which, in the situation of the lack in the core curriculum of a strrong position of health education, exerts an unfavourable effect of the total project [27, 69]. In rural schools, good health education programmes are carried out, addressed mainly to schoolchilren, but sometimes also to their parents and adult members of the local school and rural community where these programmes function (e.g. addictions prevention programmes 'Look differently' by A. Kołodziejczyk et al. [81], anti-tobacco programmes 'Please do not smoke in my presence', and 'Find the right solution' by J. Szymborski et al. [82], or the 'Keep fit' project coorganized by the Chief Sanitary Inspectorate and the Polish Federation of Food Producers Association of Employers within the performance of the WHO strategy concerning diet, physical activity and health [83]). However, due to the attractiveness of these projects, a relatively short period of performance and lack of proven evaluation instruments, despite the great effort made in the preparation of these programmes, they do not contribute to obtaining permanent effects in the form of pro-health changes in the behaviours of schoolchildren, or expected transformations in their families and local communities.

Schools in the rural area – new challenges for health education. As many as 94% of communes in Poland are settlements with a population of up to 1,000 inhabitants [47], and very strongly centralized. In these 'communal' locations are focused all institutions and places which, either due to authority and competence, or their appointment, may and do undertake activities related with health education and health promotion: the commune office, primary and junior high schools, cultural centre, library, playing field ('young eagle' sports fields, or others with a lower standard). Inhabitants of outlying places considerably less often use 'services', offers and 'non-compulsory' actions (compulsory activities are, e.g those asociated with settling matters in an office or participation in so-called "parents' evenings", participation in outdoor parties or active participation in bicycle tours starting from school). In turn, in the outlying areas, activities related with health apromotion are rare. Considering the success of the programes of health prophylaxis and prevention in rural communities, their small size has both positive and negative aspects. People are united by strong relations, it is easier to obtain assistance from neighbours in a health crisis, and the sense of union is much stronger.

On the other hand, however, the social networks in the rural areas are less extensive, while an extensive netork of acquaintances, even if only superficial, usually presents various possibilities, brings about proposals for other activities and spending leisure time, participation in various types of events, undertakings, acquiring new ideas, knowledge, and information. The basic differences in the functioning of rural and urban children and adolescents concern the access to various places, public spaces, social contacts, experiences, and also contact with young adults from whom ideas may be taken of another, more healthy life and activity.

The improving access to the Internet does not change the situation much. In the surroundings of rural schoolchildren there are no people who could and would like to show them something interesting on websites, expand their scope of interest in health and methods of its enhancement, and critically evaluate various sources of health information. Health education in rural schools should also consider some kind of environmental segmentation. Rural schoolchildren have different parents: local elite (teachers, employees of commune office, commune cultural centre, physican, etc.), children of rich farmers, children of 'ordinary' inhabitants, and children from blocks of flats in previous State farms. These groups may have different plans for the future, a different system of values and the position of health in this system, a different level of 'neglect' in the context of health culture, and a different 'business' in returing to the native village after completing education. All these factors affect both the concept and contents and - which is extremely important - the degree of attractiveness of health education carried out in a rural school. An investment in health awareness of rural schoolchildren is often an invesment in future adult inhabitants of this village.

The poor state of health education in rural schools in Poland is exacerbated by the reorganization of the network of educational facilities, especially elementary schools, justified by the rationalization of costs. This leads to the closing down of some small rural schools which are often culture-creating centres in the villages, and is therefore important for the safety and health of the youngest schoolchildren, and for health culture in small local communities [83]. This situation cannot be balanced even by the best indices of 'nursing schools' in Polish rural areas. In the studies of the quality of rural nursery school education, where health education is of key importance, its very low quality is indicated [85]. The closing down of a rural school will irretrievably destroy the social capital which has been worked out and has existed for years – also in the area of inititatives and health promoting attitudes.

The cooperation between rural school and the local environment becomes especially important. Apart from impartng knowledge, the school promotes a positive style of life by the preference of specified values, behaviours, and health promoting attitudes. It exerts a much stronger effect on the school surroundings within the sphere of health culture than in the urban environment. Here, the settings approach to health promotion is of a special character [86].

SUMMARY

According to the European Union formulating, three health priorities for the years 2008–2013 (improvment of health safety of citizens, health promotion, exchange of knowledge and proven solutions) the improvement of the state of health of children and adolescents, promotion of a healthy life style and prophylactic behaviours should occupy the prime position [87, 88].

The rural school has always had other tasks than an urban school: it cooperated with the local environment, organized additional classes and events, which in urban areas are offered by other facilities. A change in the concept and quality of health education should take into consideration the elevation of the role of a rural school to the rank of a centre of development of the local community and life-long learning. It would be a meeting place for children, adolescents, seniors, entitre families, a place for health education, both formal and informal, access to various sources of health information, entertainment enhancing health, and exchange of experiences from good health promoting practices. Irrespective of the features of individual rural schools and wealth of the local self-governments functioning in each rural environment, there is a potential for performance by schools of a programme of high level health education [65].

Poverty is also determined by the lack of satisfaction of health demands and lack of possibilities for solving problems related with it. Regional poverty is also the consequence of a limited access, not only to health care, but also to good sources of information handled within the health education programme [89]. Levelling-out inequalities in access to health observed in Polish rural areas must consider a systematic school health education based on good practices and local diagnosis. Unfortunately, at present, the undertaking of adequate actions still depends on the good will of public administration institutions responsible for the health of schoolchildren. Maintenance of the to-date solutions is more beneficial for them, because it does not require the development of new procedures and organizational schemes, such as the development of databses containing evidence of the effectiveness of various educational interventions in the rural school and local environment [4]. In Poland, the equalization of opportunities in access to prophylactic heralth care for all schoolchildren requires urgent systemic solutions and coopertaion between the sectors of health and education.

REFERENCES

- Słońska Z. Promocja zdrowia jako strategia rozwiązywania współczesnych problemów zdrowotnych; In: Zdrowie publiczne i polityka ludnościowa. [Health education as a strategy for solving contemporary health problems. In: Public health and demographic policy] ed. Szymborski J, Warszawa 2012; 2: p.110–118.
- Romundstad P, Janszky I, Vatten L, Bjørngård JH, Langhammer A, Mańczuk M, Zatoński WA. Cancer risk factor in Poland: Ann Agric Environ Med. 2011; 18(2): 251–254.
- 3. Boyle P. Improving Health in Central and Eastern Europe. Ann Agric Environ Med. 2011; 18(2): 281–282.
- Krajewski Siuda K, Kaczmarek K. Promocja zdrowia oparta na dowodach. [Evidence based health promotion]. Przegl Epidemiol. 2006; 60: 823–833 (in Polish).
- Zatoński WA, Przewoźniak K, Sułkowska U, West R, Wojtyła A. Tabacco smoking in countries of the European Union. Ann Agric Environ Med. 2012; 19(2): 181–192.
- 6. Zatoński WA, and the HM project team. Epidemiological analysis of health situation development in Europe and its causes until 1990. Ann Agric Environ Med. 2011; 18(2): 194–202.
- Kapka-Skrzypczak L, Bergier B, Diatczyk J, Niedźwiecka J, Biliński P, Wojtyła A. Dietary habits and body image perception among Polish adolescents and young adults – population based study. Ann Agric Environ Med. 2012; 19(2): 299–308.
- Charzyńska-Gula M. Szkolna edukacja zdrowotna jako priorytet zdrowia publicznego; In: Zdrowie publiczne i polityka ludnościowa [School health education as a public health priority, In: Public health and demographic policy] Szymborski J. (ed) Warszawa 2012; vol.2: p.119–130 (in Polish).
- Nakaijma H. Wprowadzenie w szkołach wszechstronnego program edukacji zdrowotnej i promocji zdrowia [Implementation of a comprehensive health education and health promotion programme] Lider, 1993; 5: 3–4 (in Polish).
- Nutbam D. Achieving "best practice" in health promotion: improving thefit between resaerch and practice. Health Educ Res. 1996; 11: 317–325.
- 11. Nutbeam D. The challenge to provide "evidence" in heath promotion. Health Prom Int. 1999; 14(2): 99–101.
- 12. Charzyńska-Gula M. Szkolna edukacja zdrowotna jako element strategii działań na rzecz zdrowia publicznego [School health education as an element of strategy of actions on behalf of public health] Wyd. LIBER, Lublin 2001.
- Charońska E. Zarys wybranych problemów edukacji zdrowotnej [Outline of selected health education problems] Centrum Edukacji Medycznej. Warszawa 1997 (in Polish).
- Demel M. O wychowaniu zdrowotnym [About health education]. PZWS, Warszawa 1968 (in Polish).
- Demel M. Z dziejów promocji zdrowia w Polsce. [From history of health promotion in Poland]. AWF w Krakowie, Studia i Monografie No. 13. Kraków 2000 (in Polish).
- Oświata zdrowotna. Teoria. Metody [Health education. Theory. Methods] Wentlandowa H (ed.) Warszawa 1980 (in Polish).
- 17. Sygit M. Zdrowie publiczne [Public health]. Wolter Kluwer Polska Sp. z o.o. Warszawa 2010 (in Polish).
- World Health Organization, Technical Report Series 30: Expert Committee on Health Education of the Public. WHO Geneva 1951.
- Jones J, Kickbusch I, O,Byrne D. Comprehensive approach to school health, working together to create health promoting schools, school health promotion. Background working paper to Health Promoting Schools, Singapore 1995.
- 20. Leger St LH. The opportunities and effectiveness of the health promoting primary school in improving child health--a review of the claims and evidence. Health Educ Res. 1999; 14(1): 51–69.
- 21. World Health Organization, Technical Report Series89: Expert Committee on Health Education of the Public. WHO Geneva 1954.
- 22. World Health Organization, Planning for Health Education in Schools, WHO, Geneva 1966.
- 23. Charzyńska-Gula M. Organizowanie edukacji zdrowotnej osób chorujących przewlekle. In: Zrozumieć promocję zdrowia. Przewodnik do zajęć. [Organization of health education for chronically ill, In: To understand health promotion. Guide for classes] Charzyńska-Gula M. (ed.), Wyd. MakMed, Lublin 2010: p. 155–159 (in Polish).
- 24. Woynarowska B. Edukacja zdrowotna a terapia i profilaktyka chorób oraz promocja zdrowia. In: Edukacja zdrowotna [Health education and therapy and prophylaxis of diseases and health promotion]. Podręcznik akademicki. Woynarowska B. (ed.) Wydawnictwo Naukowe PWN. Warszawa 2007: vol.1: p. 126–139.
- 25. Lewandowska A, Zajchowska J, Adamiec I, Huk J, Filip R. The importance of health awareness during arterial hypertension treatment. JPCCR 2012; 6(1): 42–44.

- Cómo cuidar la salud. Su educación y promoción. J.del Rey Calero (ed.), Madrit 1998.
- Edukacja zdrowotna i promocja zdrowia w szkole. Wydanie specjalne. [Health education and health promotion at school. Special edition] Zeszyt 10–11. Centrum Metodyczne Pomocy Psychologiczno-Pedagogicznej. Warszawa 2006 (in Polish).
- Słońska Z. Edukacja zdrowotna a promocja zdrowia. [Health education and health promotion). In: Promocja zdrowia. Karski JB. (ed.). Wyd. Ignis. Warszawa 1999, p.304–317.
- Čoffield JE, Metos JM, Utz RL, Waitzman NJ. A Multivariate Analysis of Federally Mandated School Wellness Policies on Adolescent Obesity. J Adol Health. 2011; 49: 363–370.
- 30. Ingram JC, Deave T, Towner E, Errington G, Kay B, Kendrick D. Identifying facilitators and barriers for home injury prevention interventions for pre-school children: a systematic review of the quantitative literature. Health Educ Res. 2012; 27(2): 258-268.
- 31. Schetzina KE, et al. Developing a coordinated school health approach to child obesity prevention in rural Appalachia: results of focus groups with teachers, parents, and students. Rural Remote Health. 2009; 9: 1157.
- Yoshimura N, Jimba M, Poudel KC, Chanthavisouk C, Iwamoto A, Phommasack B, Saklokham K. Health promoting schools in urban, semi-urban and rural Lao PDR. Health Promot Int. 2009; 24(2): 166–76.
- Coomber K, et al. Rural Adolescent Alcohol, Tobacco, and Illicit Drug Use: A Comparison of Students in Victoria, Australia, and Washington State, United States. J Rural Health. 2011; 27(4): 409–415.
- 34. Tambalis KD, Panagiotakos DB, Sidossis LS. Greek Children Living in Rural Areas Are Heavier but Fitter Compared to Their Urban Counterparts: A Comparative, Time-Series (1997–2008) Analysis. J Rural Health. 2011; 27(3): 270–277.
- Saczuk J, Olszewska D, Wasiluk A, Olszewski J. Physical fitness of boys with overweight and obesity living in the eastern provinces of Poland. Zdr Publ. 2011; 121(4): 350–354.
- Bergier J, Kapka-Skrzypczak L, Biliński P, Paprzycki P, Wojtyła A. Physical activity of Polisch adolescents and young adults according to IPAQ: a population based study. Ann Agric Environ Med. 2011; 19(1): 109–115.
- Czaprowski D, Stoliński Ł, Szczygieł A, Kędra A. Zachowania sedenteryjne dziewcząt i chłopców w wieku 7–15 lat. [Sedentary behaviours of girls and boys aged 7–15]. Zdr Publ. 2011; 121(3): 248–252 (in Polish).
- Hoffmann K, Bryl W, Marcinkowski JT, Strażyńska A, Pupek-Musialik D. Estimation of physical activity and prevalance of excessive body mass inn rural and Urban Polish adolescents. Ann Agric Environ Med. 2011; 18(2): 398–403.
- Sygit K, Kołłątaj W, Wojtyła A, Sygit M, Bojar I, Owoc A. Engagement in risky behaviours by 15–19-year-olds rural areas. Ann Agric Environ Med. 2011; 18(2): 404–409.
- 40. Social determinants of health and well-being among Young people. Health behaviour in school-aged children (HBSC) study: International report from the 2009/2010 survey. WHO REGIONAL OFFICE FOR EUROPE 2012.
- Wyniki badań HBSC 2010. Raport techniczny. [Results of HBSC 2010 study. technical report]. IMiDz Warszawa 2011 (in Polish).
- 42. Raport z ogólnopolskiego badania ankietowego na temat postaw wobec palenia tytoniu. [Report from an all-Polish survey concerning attitudes towrds tobacco smoking)]. Warszawa 2011 (in Polish).
- 43. Hartmann P, Jackowska T, Wielgórska-Grzelczyk M, Słowikowska R, Grygalewicz J. Nadużywanie alkoholu przez dzieci i modzieży jako przyczyna hospitalizacji w oddziale pediatrycznym. [Alcohol abuse by children and adolescents as the cause of hospitalization in paediatric ward] Post Nauk Med. 2011;12: 1019–1024 (in Polish).
- Makara-Studzińska M, Urbańska A. Alcohol consumption patterns among young people from rural areas of Lublin province. Ann Agric Environ Med. 2007; 14(1): 45–49.
- 45. Kołłątaj W, Sygit K, Sygit M, Karwat ID, Kołłątaj B. Eating habits of children and adolescents from rural regions depending on gender, education, and economic status of parents. Ann Agric Environ Med. 2011; 18(2): 393–397.
- 46. Młodzież na wsi. Raport z badania. [Youth in villages. Study report]. Oprac. Strzemińska A, Wiśnicka M, Polsko-Amerykańska Fundacja Wolności, Warszawa 2011 (in Polish).
- 47. Giza-Poleszczuk, Informacja o sytuacji młodzieży na wsi; w: Warunki życia na wsi. Szanse edukacyjne na obszarach wiejskich. [Information copncerning the situation of adolescents in rural areas. In: Life conditions in rural areas: Educational opportunities in rural areas]. Biuletyn. Forum debaty publicznej nr 6, Kancelaria Prezydenta Rzeczpospolitej Polskiej, czerwiec 2011: p. 33–38 (in Polish).
- 48. Zdrowie subiektywne, zadowolenie z życia i zachowania zdrowotne uczniów szkół ponadgimnazjalnych w Polsce w kontekście czynników psychospołecznych i ekonomicznych. Raport z badań [Self-reported health, life satisfaction and health behaviours of adolescents attending junior high schools in Poland in the context of psycho-social and

economic factors]. Oblacińska A, Woynarowska B. (eds.) Warszawa 2006 (in Polish).

- Lachowski S, Zagórski J. Child labour for the benefit of the family in rural Poland. Ann Agric Environ Med. 2011; 18(2): 386–392.
- Lachowski S. Engagement of children in agricultural work activities scale and consequences of the phenomenon. Ann Agric Environ Med. 2009; 16: 129–135.
- 51. Marlenga B, Pahwa P, Hagel L, Dosman J, Pickett W. Impact of Long Farm Working Hours on Child Safety Practices in Agricultural Settings. J Rural Health 2010; 26(4): 366–372.
- 52. Wyniki badań HBSC 2010 Raport 2. Społeczne determinanty zdrowia młodzieży szkolnej [Results of HBSC studies 2010. Report 2. Social determinants of health among school adolescents]. IMiDz, Warszawa 2011 (in Polish).
- 53. Zdrowie dzieci i młodzieży w Polsce. Szymborski J, Jakóbik K, (eds.) Warszawa 2008 (in Polish).
- 54. Sygit K. Zachowania zdrowotne młodzieży ze środowiska wiejskiego [Health behaviours of adolescents from the rural environment]. Zdr Publ. 2009; 119(4): 387–390 (in Polish).
- 55. Smith TK, Brener ND, Kann L, Kinchen SA, McManus T, Thore J. Methodology for the school health policies and programs study 2000. J School Health. 2001; 7: 260–265.
- 56. Syazwan A, et al. Poor pitting posture and a heavy schoolbag as contributors to musculoskeletal pain in children: an ergonomic school education intervention program. J Pain Res. 2011; 4: 287–296.
- 57. Edvardsson K, et al. Sustainable practice change: Professionals¢ experiences with a multisectoral child health programme in Sweden. Health Services Res. 2011; 11: 61–63.
- Ifanti AA, Argyriou AA, Kalofonos HP. Health promotion education politics and schooling: The Greek case. Educ Res Rev. 2011; 10: 671–67.
- Da Silva Vargas IC, Sichieri R, Sandre-Pereira G, Da Veiga GV. Evaluation of an obesity prevention program in adolescents of public schools. Rev Saúde Pública 2011; 45(1): 33–38.
- Beam M, Ehrlich G, Black JD, Block A, Leviton LC. Evaluation of the Healthy Schools Program: Part I. Interim Progress. Preventing Chronic Dis. 2012; 9: 11.
- Beam M, Ehrlich G, Black JD, Block A, Leviton LC. Evaluation of the Healthy Schools Program: Part II. Role of Technical Assistance. Preventing Chronic Dis. 2012; 9: 18.
- 62. O'Grady ET, Hanson Ch, Rudner Lugo N, Hodnicki D. Unleashing the Nation's Nurse Practitioners. J Rural Health. 2012; 28(1): 1–3.
- 63. Steele RG, ABPP, et al. School Nurses' Perceived Barriers to Discussing Weight With Children and Their Families: A Qualitative Approach. J School Health. 2011; 81(3): 128–137.
- Mobach P, Catlow L. CHAMPS—Children's Healthy Activities Mentoring Program for Schools: www.9thnrhc.ruralhealth.org.au/ program/docs/papers/mobach_D2.pdf (access: 25.09.2012).
- Macnab A, Kasangaki A, Gagnon F. Health Promoting Schools Provide Community-Based Learning Opportunities Conducive to Careers in Rural Practice. Int J Family Med. 2011: 5–8.
- 66. Longenecker R, Zink T, Florence J. Teaching and Learning Resilience: Building Adaptive Capacity for Rural Practice. A Report and Subsequent Analysis of a Workshop Conducted at the Rural Medical Educators Conference, Savannah, Georgia, May 18, 2010. J Rural Health. 2012; 28(2): 122–127.
- Edwards MB, Miller J, Blackburn L. After-School Programs for Health Promotion in Rural Communities: Ashe County Middle School 4-H After-School Program. J Public Health Manag Pract. 2011; 17(3): 283–287.
- 68. Williams RS, Graham J, Helmkamp JC, Dick R, Thompson T, Aitken ME. A Trial of an All-Terrain Vehicle Safety Education Video in a Community-Based Hunter Education Program. J Rural Health 2011; 27(3): 255–262.
- 69. Charzyńska-Gula M. Skuteczność szkolnej edukacji zdrowotnej i szanse na jej osiągniecie w obecnej podstawie programowej. [Effectiveness of school health education and chances to achieve this effectiveness in the poresent core curriculum]. Zdrowie-Kultura Zdrowotna-Edukacja, AWFiS w Gdańsku, 2009; 3: p.59–64 (in Polish).
- Kawczyńska-Butrym Z. Glosa o wychowaniu zdrowotnym. [Glosa about health education]. Zdrowie-Kultura Zdrowotna-Edukacja, AWFiS w Gdańsku, 2009; 3: 89–90 (in Polish).
- Kulmatycki L. Edukacja zdrowotna w szkole polskiej 2009 uwagi krytyczne; [Health education in polish school 2009 – critical comments]. Zdrowie-Kultura Zdrowotna-Edukacja, AWFiS w Gdańsku, 2009; 3: 25–28 (in Polish).
- 72. Syrek E. Promocja zdrowia poprzez edukację zdrowotną w systemie kształcenia ogólnego dzieci i młodzieży – współczesna potrzeba i konieczność [Health promotion through health education in the system of genertal education of children and adolescents – contemporary demand and necessity]. Zdrowie-Kultura Zdrowotna-Edukacja, AWFiS w Gdańsku, 2009; 3: 17–24 (in Polish).

- 73. Woynarowska B. Historia edukacji zdrowotnej w podstawach programowych kształcenia ogólnego 1997–2009 [History of heralth education in core curricula of general education 1997–2009]. Zdrowie-Kultura Zdrowotna-Edukacja, AWFiS w Gdańsku, 2009; 3: 29–40 (in Polish).
- 74. Woynarowska B, Cendrowski Z. Sprawozdanie z prac zespołu problemowego ds. edukacji zdrowotnej. [Report from activities of problem team for the matters of health education] In: Materiały z VII Sejmiku Szkolnej Kultury Fizycznej, Warszawa November 2010: p. 35–37 (in Polish).
- 75. Informacja o wynikach kontroli "wychowanie fizyczne i sport w szkołach publicznych" [Information about control 'physical education and sports in public schools]. Najwyższa Izba Kontroli, Departament nauki, oświaty i dziedzictwa narodowego, Warszawa, lipiec 2012 (in Polish).
- 76. Nierówności w dostępie uczniów do profilaktycznej opieki zdrowotnej w Polsce w ostatnim roku wdrażania Rządowego Programu "profilaktyczna opieka zdrowotna nad dziećmi i młodzieżą w środowisku nauczania i wychowania". [Inequalities in access of Polish schoolchildren to prophylactic health care in the last year of implementation of government project 'Prophylactic heaoth care of children and adolescents in the environment of education]. Instytut Matki i Dziecka, Warszawa 2007 (in Polish).
- 77. Profilaktyczna opieka zdrowotna na uczniami w roku szkolnym 2009/2010 i zmiany w jej realizacji w latach 2005–2010. [Prophylactic health care of schoolchildren in the school year 2009–2010 and changes in its performance during the period 2005–2010]. Instytut Matki i Dziecka, Warszawa 2010 (in Polish).
- 78. Wojciechowska M, Piejak M. Problemy w realizacji świadczeń pielęgniarki szkolnej w zakresie profilaktycznej opieki zdrowotnej udzielanej w środowisku nauczania i wychowania [Problems in the provision of prophylactic health care services by school nurse in the educational environment]. Krajowe Stowarzyszenie Pielęgniarek Medycyny Szkolnej, Szczecin 2012 (in Polish).
- Piechaczek W. Edukacja zdrowotna w klasach I-III chorzowskich szkół podstawowych. Zdr Publ. 2002; 112(4): 456–459 (in Polish).
- Šrodowiskowy program wychowania zdrowotnego w szkole. [Environmental programme of health education at school]. Charzyńska-Gula M. (ed.) Polskiego Towarzystwa Kardiologicznego, Lublin 1997; Vol. I-VI (in Polish).
- Kołodziejczyk A, Czemierowska E, Kołodziejczyk T. Spójrz inaczej. Program zajęć wychowawczo-profilaktycznych dla klas 1–3 szkół podstawowych [Look different. Educational-prophylactic curriculum for elementary school grade 1–3 schoolchildren]. Skarżysko-Kamienna 1999 (in Polish).
- Szymborski J, Łukasiuk E, Zatoński W, Korzycka-Stalmach M, Sito A, Małkowska-Szkutnik A. Program edukacji antytytoniowej dla uczniów klas I—III szkół podstawowych [Anti-tobacco education programme for children attending elementarty schools grade 1–3]. Warszawa 2009 (in Polish).
- Podstawy teoretyczne programu Trzymaj formę, Poradnik dla nauczycieli [Theoretical basis of the Keep Fit project. Hhandbook for teachers]. wydanie IV, Warszawa 2010 (in Polish).
- 84. Tołwińska-Królikowska E. Mała wiejska szkoła podstawowa niezbędny ośrodek rozwoju społeczności lokalnej. In: Warunki życia na wsi. Szanse edukacyjne na obszarach wiejskich [Small elementary school – an indispensable center of development of local community. In: Life conditions in rural areas. Educational opporetunities in rural areas]. Biuletyn. Forum debaty publicznej nr 6, Kancelaria Prezydenta Rzeczpospolitej Polskiej, June 2011: p.91–97 (in Polish).
- 85. Ogrodzińska T. Szanse edukacyjne dzieci na wsi. In: Warunki życia na wsi. Szanse edukacyjne na obszarach wiejskich. [Educational opportunities of rural children. Conditions of life in rural areas. Educational opportunities in rural areas]. Biuletyn. Forum debaty publicznej nr 6, Kancelaria Prezydenta Rzeczpospolitej Polskiej, June 2011: p.98–102 (in Polish).
- 86. Woynarowska B. Siedliskowe podejście do zdrowia i jego realizacja w praktyce. In: Promocja zdrowia [Settlement approach to health and itw performance in practice]. In: [Health promotion] Karski JB. (ed.). Warszawa 1999: p. 367–369 (in Polish).
- World Health Organization Regional Office for Europe: European Strategy for Child and Adolescent Health. Copenhagen 2005.
- Zdunek K, Kulik TB, Janiszewska M, Bogusz R. Zdrowie a Unia Europejska. Unia Europejska a globalizacja [Health and European Union. European Union and globalization]. Zdr Publ. 2011; 121(3): 283–287 (in Polish).
- Peterson LE, Litaker DG. County-Level Poverty Is Equally Associated With Unmet Health Care Needs in Rural and Urban Settings. J Rural Health 2010; 26(4): 373–382.