Public perception as an alternative method for estimating health status

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Abstract

Background: A great number of indicators and quality of life indices in terms of health are reported in the current statistical statements of general morbidity, although having plenty of information; they also have low reliability and poor analytical capabilities. Therefore, the above indices currently lose their relevance, being based only on data of population visits to health care providers for medical advice.
Material and methods: Questioning, as the basic method of sociological research, makes it possible to obtain information quickly and cost-effectively, being recognized as a method with full right to monitor public health.
Results: Subjective information during the accumulation process becomes objective public characteristic and it can be integrated into the actions for planning and evaluation of activities in the field of health care. Insured persons (in comparison with uninsured persons) are more sensitive to their health status also caring about being health insured in any possible demand; insured persons care more about their health, accounting for a higher percentage in the follow-up group of persons with both chronic and acute diseases. This contributed to the fact that the cases of incapacity for work due to illness amongst insured persons were met a third less frequently comparing to uninsured persons.
Conclusions: There were problems identified, which deserve special attention of decision makers in the field of health care. These are: people avoid addressing to the family doctor in case of health concerns, whereas insured persons prefer to appeal mainly to hospital in-patient services, and uninsured persons prefer to appeal for services to private medical centers. In the case of illness almost every third uninsured person (34.8%) does not seek medical attention, and only every fourth uninsured person (25,6%) addresses to the family doctor.

Key words: perception, insured persons, uninsured persons, questionnaire.

Introduction

Accessibility of data on state of health representative for the entire population is the main background for identification and understanding of public health problems and for planning and evaluation of health protection activities [1].

The purpose of human development is the possibility to live a long, fulfilling and healthy life. An essential element of human well-being is considered a good state of health and at societal level it is also a key element of human capital of each country, which contributes to its competitiveness compared to other countries [2]. The statement of some scientists [3] that a good state of health at individual level is an important component of human capital, allowing people to pursue their activities, achieve their goals, have a full life and be members of the society, is indisputable.

One of the most important factors that determine the state of status is health. Health is a vital value ranking the top in the hierarchy of values. Therefore, the importance of identifying and maintaining the state of public health in a country cannot be doubted. Knowing the incidence of certain population groups by age and sex makes it possible to identify those priority groups that need the most attention from the state [4]. Health for most of its representatives is not just absence of diseases, but also presence of vital energy, lack of stress conditions, etc., so it is not a purely physiological well-being, but also a social and psychological one [5]. Health indicators also are a basis for planning health resources required to meet existing needs in different types of medical services.

Throughout several decades of the last century up to the present the main method of determining the state of health of population in our country has been recording morbidity based on referrals of population to medical and sanitary institutions. But estimation of population incidence based only on referrals is now impossible, because a large percentage of population do not seek medical assistance, even if they suffer from serious diseases. People may feel their health deteriorating, but do not seek medical assistance. There is also self-treatment and referral to alternative sources of help. Estimation of the volume and quality of such practices is difficult [6].

More commonly health in researches of scientists on the quality of life is approached from two distinct perspectives [7]. A health dimension consists in considering health as an area of the quality of life being described by indicators by referring to health sector, which are at different levels of analysis: assessment of their own state of health, perceived constraints imposed by the state of health, perception of access to medical services, evaluation or satisfaction with them, life expectancy at birth, morbidity or mortality rates, rate of GDP (gross domestic product) of expenses for medical services, etc. The second dimension in quality of life researches from a health perspective focuses on how patients with different health problems feel the quality of life, people's perceptions that describe different state of health or time of survival of recipients of medical treatment, etc., as a large number of indicators and indices of the quality of life are developed in this approach as well.

Current statistics of total morbidity have information in abundance, but with a low reliability and poor analytical capabilities [8]. Annual general records of data on causes of referrals for medical consultations taken as a source of morbidity study have now lost their relevance. This weakly informative method is maintained only by traditions [9]. This raises a well-founded doubt about the possibility of the estimated incidence calculated based on referrals to be a tool for rapid assessment of the situation related to the health of population in a given administrative area.

A promising direction for estimation of incidence at present consists in using different methods of sociological researches. In economically developed countries data on public health obtained on the basis of sociological surveys became much sought [10].

Perceived state of health reflects the general perception of people of their physical and mental health. Several OECD (Organisation for Economic Cooperation and Development) countries conduct health surveys, which allow respondents to evaluate different aspects of their state of health. Despite the subjective nature of questions of the questionnaire, indicators of perception of the state of health allow making correct forecasts on evolution of morbidity and needed medical services as a whole. Perception or self-evaluation of the state of health is an important indicator of the state of health. It reflects the overall assessment a person makes about his/her health, integrating objective and subjective aspects, especially his/her knowledge and experience about health or disease [11].

The special value of sociological assessments of public health consists in the ability to analyse massive data on pathology, with which people for various reasons do not seek medical assistance. Questioning as a basic method of sociological research makes it possible to obtain information quickly and cost-effectively. Subjective information in the accumulation process becomes an objective population feature [12].

In recent decades in many countries the availability and quality of questioning results on the state of public health have been significantly increased. Currently, questioning is recognized as a method with a full right to monitor health of population, along with recording [1]. Patient's opinion on his/her experiences in the use of health care services becomes an important tool for improving and monitoring access and quality of health services. According to the OECD and WHO (World Health Organization) descriptions the studies of patient's satisfaction with the quality and access to health services is an important part in the overall assessment of the health care system, as well as a foundation for national health policies [13, 14].

According to some authors [15], some countries constantly conduct a systematic monitoring of patient's satisfaction (ex. Denmark, UK, USA, Canada, Norway, the Netherlands). In other countries (ex. Ireland, Czech Republic, Estonia, Spain, Israel, Slovenia, Lithuania) conducting patient satisfaction surveys both at national and institutional level is sporadic. A number of examples illustrate the fact that patients' experience is a tool widely recognized and used in improving the quality of health services.

Material and methods

In this context, we planned to conduct a study on perception of population of the changes of the health system of the Republic of Moldova, with a focus on medical and social factors that influence the state of health, focusing on access and quality of medical services.

We used as a tool a Questionnaire for assessment of medical and social factors influencing health of insured/uninsured persons related to major health problems that the population face, the ways the health system addresses these problems, awareness of new structures and mechanisms involved along with implementation of mandatory health insurance in the Republic of Moldova, insurance coverage and health services, barriers to accessing medical services.

Separate analyses were performed on the main levels of medical assistance, including pre-hospital emergency medical assistance, primary medical assistance, specialized outpatient and hospital medical assistance, evaluating and analysing perception of population of a number of aspects specific to each type of assistance in part, such as: quality of services, waiting time, attitude of medical staff, cooperation between levels of medical assistance, costs of medical assistance.

Data collection was performed by means of survey based on the Questionnaire prepared by the author, of 1067 insured/uninsured persons in 3 geographical areas of the Republic of Moldova both urban and rural ones, such as: Northern Zone (Briceni district), Central Zone (Chisinau municipality, Criuleni and Ialoveni districts) and Southern Zone (Causheni district).

The findings of the study were processed and analysed using Excel, SPSS application and were presented graphically in tables and charts.

The sample of respondents (1067 people) consisted of: 760 insured persons (71.2 ± 1.64%) and 307 uninsured persons (28.8 ± 2.58%) ($t = 13.8459$, $p < 0.001$); by area of residence - 533 persons from urban areas (49.95 ± 2.17%) and 534 persons from rural areas or 50.05 ± 2.16% ($t = 0.0327$, $p > 0,05$). Uninsured persons in proportion of 37.1 ± 2.09% are from rural areas, as compared to 20.5 ± 1.75% of those from urban areas ($t = 6.0909$, $p < 0.001$).

Results and discussion

Perception of the state of health through self-evaluation is considered a relevant indicator of well-being and quality of life and is one of the internationally recommended indicators in the performance of analysis of the state of public health. The fact of influencing the social and cultural environment on perception of the state of health is relevant. Perceived state of health was determined based on 5 variants of answers to the question: "How do you appreciate your current state of health?": very good, good, satisfactory, bad and very bad.

Thus, according to the data of the study (fig. 1), the state of health within the range "satisfactory – very good" is appreciated by 71.7 ± 1.38% of insured persons and by 80.1 ± 1.22% of uninsured persons ($t = 4.5585$, $p < 0.001$), included in the total study group; from urban areas, respectively by 76.4 ± 1.84% of insured persons and 87.2 ± 1.45% of uninsured persons ($t = 4.6165$, $p < 0.001$) and in rural areas – respectively, 66.0 ± 2.05% and 76.3 ± 1.84% ($t = 3.7371$, $p < 0.001$), indicating that insured persons are more sensitive to the state of health, taking care of benefiting from health insurance in case of a possible need. This is also confirmed by assessment of the state of health as "bad" and "very bad" by 10.1 ± 0.92% of uninsured persons of the study group compared to 17.6 ± 1.17% by insured persons ($t = 5.0449$,

p < 0.001); from urban areas - respectively 7.3 ± 1.13% and 14.9 ± 1.54% and in rural areas – 11.6 ± 1.39% and 20.9 ± 1.76%, respectively (t = 2.4076, p < 0.05; t = 2.5643, p < 0.05).

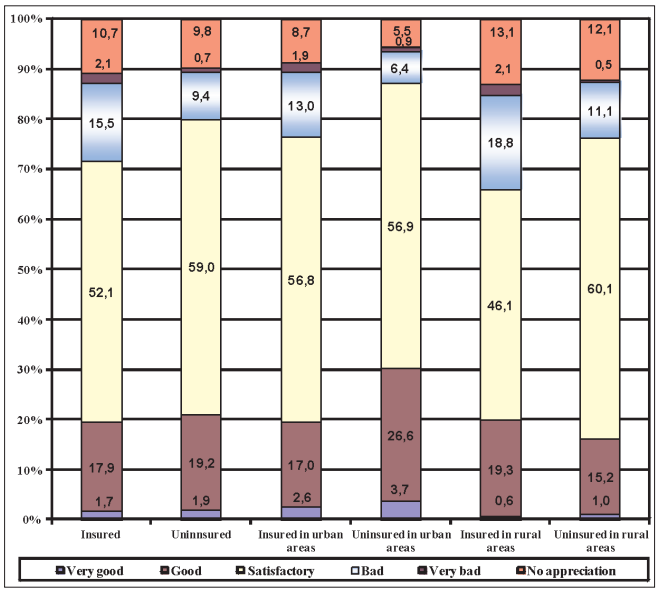

Fig. 1. Perception of current state of health of insured/uninsured persons, %.

Upon conduct of the survey respondents (based on the results of access to the medical system) stated the following: 78.4 ± 1.26% of insured persons suffered from chronic diseases or 56.8% more than uninsured persons (21.6 ± 1.26%) (t = 31.8809, p < 0.001); acute diseases – 65.9 ± 1.45% and 34.1 ± 1.45% (t = 15.4944, p < 0.001) respectively or 31.8% more, confirming a more increased care of insured people for their own health (fig. 2).

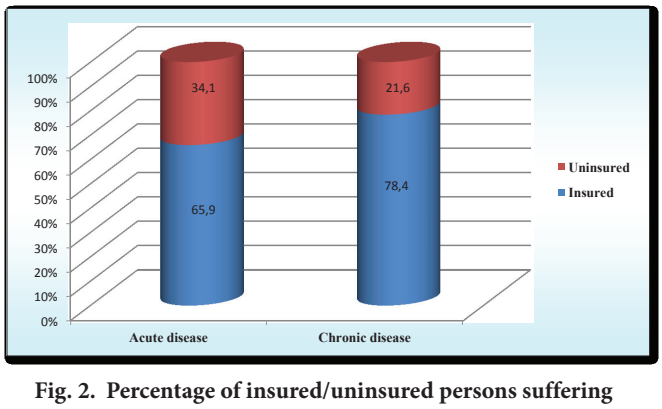

Fig. 2. Percentage of insured/uninsured persons suffering from acute and chronic diseases, %.

Confirmation of the above conclusion is also substantiated by the data on how many times it happened to a person over the last year not to work. Thus the insured 1.5 times less than the uninsured did not work because of diseases.

In case of health problems, depending on availability of health insurance, we find that the insured mainly seek hospital services (90.0 ± 1.09%), consult a family doctor (74.4 ± 1.58%), a medical specialist (74.3 ± 1.57%), seek ambulance services (73.8 ± 1.59%), pharmacy services (62.5 ± 1.76%), and in 65.0 ± 1.73% of cases do not refer to anyone, while the uninsured in these situations refer mainly in 47.1 ± 2.85% to private medical centers, seek the services of nurse – 40.7 ± 2.80% of cases, pharmacy – 37.5 ± 2.76%, ambulance – 26.2 ± 2.51% of cases, consult a medical specialist – 25.7 ± 2.49%, a family doctor – 25.6 ± 2.48% and in 34.8 ± 2.72% of cases do not refer to anyone.

Diseased insured persons from urban areas more frequently seek hospital services (95.1 ± 0.94%), consult a family doctor (83.2 ± 1.62%) and in 77.9 ± 1.79 % of cases seek emergency medical assistance as compared to the uninsured, who in 30.1 ± 1.98% – seek the pharmacy services, in 30.0 ± 1.98% - medical services provided by private centers and 25.0 ± 1.75% of cases – seek the services of nurse or do not refer to anyone (p < 0.001).

Diseased insured persons from rural areas seek mainly hospital services (85.7 ± 1.51%) (t = 5.2802, p < 0,001), ambulance services (69.3 ± 1.99%) (t = 3.2019, p < 0.01), consult a medical specialist (68.4 ± 1.55%) and in 64.7 ± 2.07% of cases - a family doctor (t = 7.0431, p < 0.001), while the uninsured in 71.4 ± 1.96% of cases refer to private medical centers, in 48.3 ± 2.16% of cases – seek nurses' assistance and in 46.7 ± 2.16% of cases – pharmacy services, and 45.5 ± 2.15% of them do not refer to anyone (t = 7.1757, p < 0.001).

The study shows worrying fact that in case of disease almost every third uninsured person (34.8%) does not refer to anyone and only each fourth (25.6%) person consults a family doctor, despite the fact that they benefit from the entire amount of medical services provided for by the Unique Programme of Mandatory Health Insurance (fig. 3).

Conclusions

Perception of state of health, reflects the overall assessment what a person makes about his/her state of health, integrating objective and subjective aspects, especially his/her knowledge and experience about health or disease, becomes an alternative method for estimating state of health and an adequate important indicator of state of health of the population.

Using in research questioning of the population as a basic method becomes particularly valuable by being able to get information quickly and cost-effectively, to analyse large massive data on pathology, while subjective information in the accumulation becomes an objective population characteristic, which generally allows making correct forecasts of evolution of morbidity and needs for medical assistance.

The study's results reveal that the insured are more sensitive to their state of health, taking care to benefit from health insurance in case of a possible need, as confirmed by assessing state of health with the respective qualifications, and namely: state of health within the range "satisfactory - very good" is appreciated by 71.7% of insured persons and by 80.1% of uninsured persons; from urban area by 76.4% of insured persons and 87.2% of uninsured persons respectively, and from rural area by 66.0% and 76.3% respectively. This thesis is confirmed by the assessment of the state of health as "bad" and "very bad" by 10.1% of uninsured persons of the

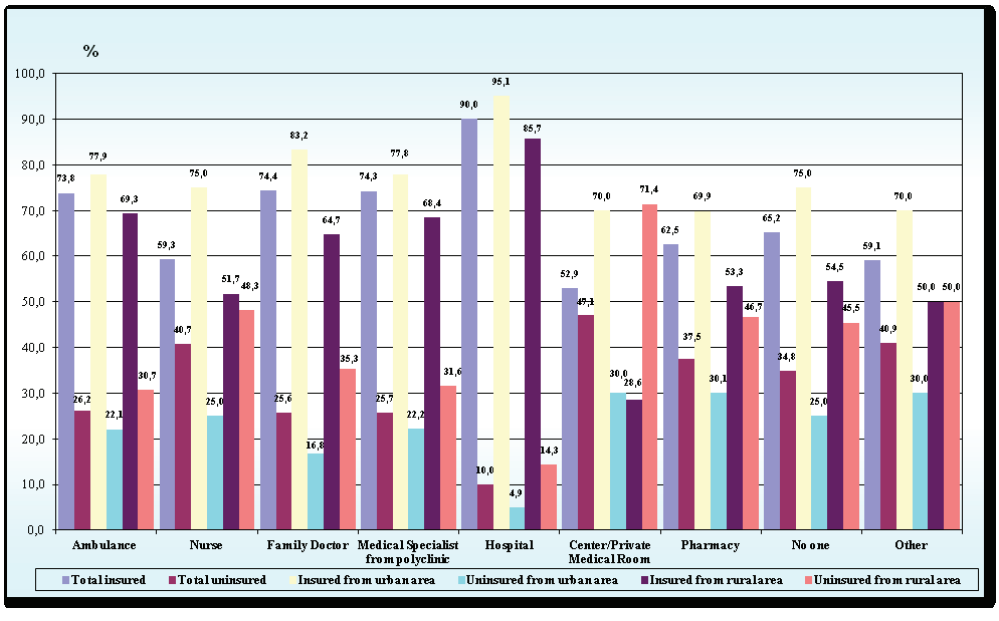

Fig. 3. Medical assistance in case of disease sought by insured/uninsured persons, %.

study group as compared to 17.6% of the insured; from urban area – 7.3% and 14.9% respectively and from rural areas – 11.6% and 20.9% respectively.

It was found that the insured care more for their own health: respondents, based on the results of assessment of the medical system, stated the following: 78.4% of insured persons suffered from chronic diseases or 56.8% more than the uninsured (21.6%); acute diseases – 65.9% and 34.1%, respectively or 31.8% more. Similarly the insured 1.5 times less than the uninsured did not work because of diseases.

In the case of health problems insured persons seek mainly hospital services (90.0%), while uninsured persons in these situations refer mainly to private medical centers (47.1%), avoiding consulting a family doctor.

It is worrying that in case of disease almost every third uninsured person (34.8%) does not refer to anyone and only every fourth person (25.6%) consults a family doctor, despite the fact that he/she benefits from all medical services provided for by the Unique Programme of Mandatory Health Insurance.

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