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# HEALTH TECHNOLOGY ASSESSMENT OF PUBLIC HEALTH PROGRAMMES IN POLAND, YEARS 2010 AND 2013

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#### **ABSTRACT**

**BACKGROUND.** In Poland, among other responsibilities, local governments are obliged to organize public health activities for local communities. To fulfill their obligations in this respect, authorities can organize preventive care in the form of health programs. Prior to their implementation, local governments must seek however opinion of the Polish HTA (Health Technology Assessment) agency. HTA recommendations do inform final decision making process but are not obligatory to be followed.

**OBJECTIVE.** Firstly, It was to provide an insight into what extend local governments utilize health programs in their endeavors and the scope of health topics included. Secondly, it was to elicit recommendations for future authors of health programs in order to increase the chances of positive HTA recommendation.

**METHODS.** The retrospective analysis of HTA recommendations issued by the Polish HTA agency (AHTAPol) in 2010 and 2013 was conducted. Results: There were 67 and 294 HTA recommendations issued in 2010 and 2013 respectively of which 47.8% and 34.4% were negative. Among authors, city councils and communes dominated. Vaccinations were the most commonly chosen target health intervention. In total, six key recommendations for local governments interested in the implementation of health programs were elicited.

**CONCLUSIONS.** To increase the chances for positive HTA recommendations, the health program has to be designed for health problems supported by sound clinical evidence which is not covered by the scope of reimbursement offered by National Health Fund. The targeted health intervention has to be supported by the evidence of proven clinical efficacy and safety and utilize available epidemiological data

## INTRODUCTION

Polish law imposes a number of tasks on local authorities related to meeting the collective needs of the community including measures to promote health. They mainly relate to activities in the field of public health such as prevention and health promotion and health education (1). In this scope tasks are implemented in the form of government healthcare programmes. They are defined as "health-related activities, including educational, non-routine health care implemented in order to achieve the social objectives of health rather than meeting the individual health needs of selected members of the population" (2). The effect of changes to the law on healthcare services financed from public funds and the Act on prices (3) is required to submit to a recommendation by the Agency for Health Technology Assessment (AOTiM) on health programmes developed by the ministers, local government units or the National Health fund (NFZ) after 12 August 2009. In recent years there appears to be increasing interest in the implementation of local authority tasks in the scope of health care in terms of healthcare programmes. When the AOTMiT gave its recommendation in 2010 on only 67 local authority programme, it had increased to 294 by 2013 (4). It is therefore a legitimate question as to what is the main reason for such a significant increase in interest in local government meeting its objectives in the field of medical care through the implementation of local authority healthcare programmes.

The subject of this paper was a retrospective analysis of HTA recommendations issued by the President of the AOTMiT Agency regarding local authority programmes. The aim was determined in two ways: Firstly, it provided the answer as to what extend local authorities were most interested in this form of financing their health care proj-

ects and what therapeutic areas lie mostly in their scope of interest. Secondly, it was to create a list of helpful tips for future health programmes of local authors.

#### STUDY METHODOLOGY

An overview of reviews issued by the President of the Agency for Health Technology Assessment (AOT-MiT) relating to government health care programmes was carried out. It was limited to two years i.e. 2010 and 2013 for the purposes of this study. The overview covered all reviews posted to the AOTMiT website on the programs proposals for the years provided.

Bearing in mind the first aim of the research, the analysis began with a review of the positive and negative recommendations from the AOTMiT from a cross section of applicants and health problems.

In carrying out the second aim of research, the analysis of negative HTA guidances was undertaken. Firstly, the underlying reasons for negative recommendations were examined. Secondly, the evaluation of any negative feedback based on the guidelines of the American Public Health Association, referred to by the AOTMIT Agency. It mentions the following features of a well-designed health programme (5):

Table I The classification of types of local government submitting health programs' proposals to the AOTMiT, 2010 and 2013

		2010			2013	
Type of local government	Total	Negative HTA	%	Total	Negative HTA	%
Municipalies	16	5	31,3%	100	26	26,0%
Community	5	-	-	27	7	25,9%
City hall	17	7	41,2%	110	35	31,8%
County council	13	11	84,6%	39	24	61,5%
National program	2	-	-	2	-	-
Voivodoship	12	8	66,7%	16	9	56,3%
Lack of data	2	1	50,0%	-		-
TOTAL	67	32	47,8%	294	101	34,4%

Source: own analysis based on AHTAPoL website

Table II The classification of health problems covered in the health programs' proposals submitted to AOTMiT, 2010

		w tym:		
Zakres tematyczny programów zdrowotnych	Total	positive opin- ion AOTM	negative opin- ion AOTM	conditional positive opinion AOTM
HPV (vaccination)	16	16		
Breast cancer	8		5	3
Prostate cancer	7		7	
Dental care	4	2	2	
Influenza (vaccination)	4	2		2
Pneumoconiosis (vaccination)	4	3	1	
Prenatal course	3		3	
cancer colorectal	2		2	
Rehabilitation - Faulty posture	2	1	1	
Addiction treatment therapies	2		2	
Rehabilitation - Faulty posture with children	2		2	
Mental health	2		2	
Transmutative diseases- HCV	1			1
Cardio-diabetology	1		1	
Diabetology	1	1		
Access to speciality treatment designed for sleep apnea	1		1	
Health promotion	1		1	
Cardiology	1	1		
Transplant medicine	1	1		
Ophtamology	1		1	
Oncology	1	1		
Health promotion- breast feeding	1	1		
Health promotion - obesity	1		1	
Total	67	29	14	6

Source: own analysis based on AHTAPoL website

Specifying objective and measurable factors that are susceptible to modification and are a threat to the state of health or quality of life of citizens.

Taking into account the particular characteristics of the needs and preferences of the target group.

Defining actions proven effective in a particular health problem.

Ensuring the optimal use of available resources. Defining the criteria for measuring the effectiveness of implementation of a given health problem.

# **RESULTS**

The division into individual local authority units among health programme applicants in 2010 and 2013 are presented in Table I. While, in 2010 most health programmes came from city councils, municipal governments and county governments, most health programs in 2013 were developed by representatives of municipal and local governments.

The review of HTA recommendations showed that the percentage of health care programmes negatively appraised in 2010 was as high as 47.8%. The corresponding number for 2013 was 34.4%. As it is shown in Table I the most of the negative feedback related to the submissions done by the districts and voivodships.

In 2010, local governments prioritized mainly programmes related to the prevention of infectious diseases such as HPV virus (Table II). All programmes of this group obtained positive HTA recommendation. In contrast, majority of initiatives related to the implementation of preventive tests for the detection of prostate cancer, breast cancer, and prevention, prenatal (antenatal) education programmes did not receive a positive HTA guidance. Among the reasons for the negative feedback, the lack of scientific data and non-compliance with clinical recommendations was mentioned at most occasions. This was the case for both programmes relating to breast cancer and prostate cancer as well as antenatal classes. In other programmes, the most frequently mentioned arguments was the overlap with benefits financed by the National Health Fund (NFZ).

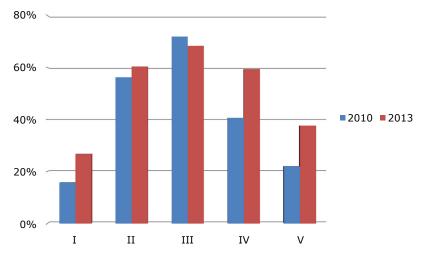
In 2013, health care programmes concerning the vaccination against HPV prevailed (Table III). Majority were granted a positive HTA recommendation. In contrast, most of programmes in the field of mental health received a negative appraisal (22 out of the 27). The unsatisfactory scope of the project and non-compliance with AOTMiT guidelines contributed to such outcome to the greatest extend. The insufficient scientific rationale was the key reason for the negative HTA guidance of programmes on the prevention of tooth decay and lung disease through early detection as well. Again the overlap with public funded projects was raised as well.

Table III. The classification of health problems covered in the health programs' proposals submitted to AOTMiT, 2013

Topic Total  HPV (vaccination) 40 Pneumoconiosis (vaccination) 29 Mental health 27 Rehabilitaiton 25 Dental care 18 Cardiology 13 Breast cancer 8 Emergency services 8 Pulmonology 7 Meningococcal (vaccination) 5 Pulmonology 5 Oncology 5 Oncology 5 Prostate cancer 5 Vaccination 5 Prenatal course 5 Access to special care disease of veins 4 Addiction treatment therapies 5 Diabetology 3 NPL 3 Ophtamology 3 Colorectal cancer 3 Palliative care 3 Prevention of thyroid diseases Public healthcare 3 Autism 2 Transmissive diseases 2 Adolescent oncology 2 Cervical cancer 2 ADHD, dyslexia 2 Health promotion 2 Noncommunicable diseases 1 Obstuctive sleep apnea syndrome- diagnosis	positive  39  27  28  5  20  11  8  1  6  1  1	negative  1 3 1 22 5 7 5 7 2 6 1 5 2	conditional
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Obstuctive sleep apnea syndrome- diagnosis 1	1	1	
syndrome- diagnosis	1		
	1	1	
Blood supply 1	1	1	
Nephrology 1	1	-	
Ovarian cancer: 1	1	1	
Orthopedy 1			
vaccination hepatitis a 1			1
Call center (toxicology) 1	1		
Total 294	1		

Source: own analysis based on AHTAPoL website

On the other hand, programmes for early detection of breast cancer were granted a similar recommendation as it was the case three years earlier.



Source: own analysis based on AHTAPoL website

Fig. 1 Negative AOTMiT's recommendations issued in 2010 and 2013 stratified by non-compliance with the American Public Health Association's criteria.

The review of negative HTA recommendations issued by the AOTMiT in 2010 (Figure 1) with respect to the compliance with the American Public Health Association's criteria established for a well-designed health programme, it was noted that as many as 72% of the proposals did not meet criterion III. In other words, the scientific evidence of the program effectiveness was missing. The criterion II was the second largest on the list of noncompliance. Namely, it turned out that 56% of negatively appraised programme did not take into account the specific characteristics, needs and preferences of the target group. Moreover, in 40% of cases the optimal allocation of available financial resources (criterion IV) was missed as well. Lack of implementation of criterion I - and V respectively, was reported in 16% and 22% of negative HTA guidance.

In 2013, as many as 68% of the public health programmes' proposals did not fulfill criterion III. Secondly, it was criterion II which affected 60% of the cases and criterion IV with 59% of negative ones. Overall it has to be mentioned that programmes not fulfilling criteria V and I obtained 38% and 27% negative HTA recommendation respectively.

The review of the reasons for negative appraisals was conducted to establish a list of recommendations to assist future authors of public health programmes: the proposed measures must demonstrate a proven clinical outcome and be based on the available scientific evidence, the health problem should be illustrated by the available epidemiological data relating to the patient population in interest, healthcare services already funded by the National Health Fund should not be considered, the target population should be accurately estimated, the impact of health program implementation on the optimal use of available resources should be considered, in particular, it is necessary to evaluate the organizational impact and the expected benefits beyond

health outcomes, The health effects should be defined in a way accessible for ease of monitoring.

It is necessary to review the recommendations available from the President of AOTMiT Agency posted on the Agency's website and the use of best practices at the same time avoiding duplication of errors (6).

#### DISCUSSION

In relation to the first objective of the research, it can be contested that most public health programs submitted in 2010 originated from the municipal and poviat authorities. The representatives of municipal and local governments prevailed among authors in 2013. The greatest interest related to the prevention of infectious diseases such as the prevention of occurrence of HPV. It was the case in both years in question.

In comparison to 2010, the number of negative reviews issued by the President of the AOTMiT Agency decreased in 2013. It should be emphasized that 2010 was the first year for public health programs to be appraised by the AOTMiT (7). Unsurprisingly, there were by far more significant deviations from the AOTMiT guidelines in 2013 compared to 2010. It should be suspected that this is due to the lack of experience of authors of public health programs, which meant that the requirements laid down by law was been fulfilled in most cases (8). The improvement in 2013 was certainly due to better access to the information and best practice sharing on the implementation of previous health care programmes. A good example here would be the "Dobre Programy Samorządowe.pl" portal whose mission is modern and substantive support for the activities of local government units to improve the state of health in the local community (9). The developers of the portal devote special attention to the process of creating

health care programme. The extensive experience was gathered thanks to an innovative wizard interface that can support the work on new health projects. It is a tool embodying designs of "model programmes" consistent with the AOTMiT guidelines facilitating the preparation of individual points in the health programme scheme.

It is also worth emphasizing the development of cooperation between local authorities through joint projects such as the preparation of programmes for neighboring districts or the use of good and proven public health programme templates, developed by other local authorities. The widespread success of several Kielce health programmes carried out for the prevention of pneumococcal infections could be a case in point. To quote Anna-Ciechanowska Dusza from the Municipal Office of Kielce, "the city did not even expect such a success. Information has been received about children registering in Kielce in order to be able to benefit from the programme. Local authorities from all over Poland are asking for details regarding its introduction and implementation." (10).

Despite a smaller share of negative HTA recommendations in 2013 compared to 2010, it can be concluded that authors of health care programmes were analogically committing similar mistakes with regard to criteria II and III in both years. Thus, target populations were badly selected in programme projects, and there was no reference to the clinical effectiveness of planned interventions.

It is surprising that the percentage of negative HTA guidane with which health problem being poorly defined (criterion I) increased by 11% in 2013 compared to 2010. Based on the data presented in Figure 1, an increase in relation to the criterion IV and V can also be noticed. In analyzing health programmes that received a negative appraisal in 2013, it should be noted that four of these programmes have fulfilled all the criteria from I to V, despite not receiving a positive HTA outcome. The rationale was overlapp with health benefits covered already by the National Health Fund. In 2010, there was no case of such health care programme.

## **CONCLUSIONS**

The development a of a public health programme requires basic knowledge of pharmaco-economics and health technology assessment. The carried out review indicates a number of reasons for the negative AOTMiT's opinion. It is important that the proposed programme addresses the needs of the target group in question and takes into account epidemiological data, but above all, develops a concept based on a justifiable clinical outcome. It is important to seek solutions to ensure optimal allocation of available resources, based

on reliable data with respect to the calculation of the target group, the expected health effects and the appropriate method of monitoring the effectiveness of the proposed programme. It is also important not to focus on the health problems remaining outside of benefits basket guaranteed by the National Health Fund.

Preparing a public health programme based on the above guidelines should increase the likelihood of obtaining a positive HTA recommendation and thus ensure the effective realization of the health needs of local communities.

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