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# Analysis of national health prevention programs based on implemented actions aimed at reducing tobacco use in Poland

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### Abstract

#### Objective

The aim of this study is to compare selected national health prevention programs regarding their proposed actions aimed to reduce the use of tobacco products in Poland and to assess their performance indicators.

#### Methods

Twelve national health prevention programs coordinated by the Ministry of Health were analyzed, all relating to the reduction of tobacco use. We analyzed the websites and publications by the Ministry of Health and the subordinate agencies responsible for the implementation of each program.

Three programs were selected for the final analysis:

- the Prevention of tobacco-related disorders program (including COPD);
- the National Oncology Strategy,
- the National Health Program.

#### Results

The public administration agency responsible for the implementation of public national anti-smoking prevention programs in Poland is the Ministry of Health. The legal basis for the operation of the national campaigns is usually the regulations of the Council of Ministers. In the three analyzed programs, the proposed strategic objectives for anti-smoking prevention may be considered the same. The programs are primarily focused on providing counseling to smokers and training medical staff on how to support patients in their efforts to quit smoking.

#### Conclusions

The lack of a single comprehensive anti-smoking program leads to proposed actions being reiterated several times. There is currently no institution that coordinates anti-smoking actions. Because anti-smoking measures are multidisciplinary, it is difficult to identify the direct impact of a single health program on i.e. reduced incidence of tobacco-related disorders. It is, therefore, appropriate to maintain the overall performance indicators without setting specific targets.

### Introduction

The World Health Organization states that the tobacco smoking epidemic remains the largest international public health challenge killing more than 8 million people annually, including 1.2 million deaths from passive smoking.<sup>[1]</sup>

In Poland, it is estimated that tobacco is used by 26% of adult Poles (32% of men and 20% of women) every day, and so Poland ranks 12th in the European Union. Most smokers are found in Greece - 42%, followed by Bulgaria - 38% and Croatia - 36%, while the least smokers are in Sweden - 7%, the Netherlands - 12%, and Finland - 15%. The anti-smoking activities in Poland in recent years may be considered effective since the number of people using tobacco products decreased by 9% compared to 2006.<sup>[2]</sup>

The current research suggests that exposure to tobacco smoke contributes to many disorders (including lung disorders and myocardial infarction, chronic pulmonary disease, cancer, and diabetes). At the same time, considering the COVID-19 epidemic which may exacerbate those diseases, promotion of smoking cessation seems even more important.<sup>[3]</sup> All the more so that the vast majority of smokers in Poland declare that knowing the negative impact of COVID-19 on the respiratory system did not lead to them reducing their nicotine consumption. The youngest smokers are particularly discernible here, who generally declare no limitations in that respect.<sup>[4]</sup>

Taking all of this into account, it is important to implement educational programs aimed at raising awareness among Poles about the consequences of tobacco smoking. Since 1997, the activities carried out at the central level have been included in the Program for Prevention of Health Consequences of Smoking in Poland published by the Council of Ministers based on Article 4 of the Act on health prevention against consequences of tobacco and tobacco product use of November 9th, 1995 (Journal of Laws of 2021, item 276).<sup>[5]</sup> Since 2007, under the authority of the Minister of Health, the implementation, and coordination of this program was the responsibility of the Chief Health Officer. Due to the interpretation issues of Article 4 of the Act regarding the financing of the program, while working on the Public Health Act.<sup>[6]</sup> it was decided to repeal Article 4 and to include actions to limit smoking of tobacco products in the National Health Program from 2018 onwards.

Recently, at the national level, actions have also been taken for primary prevention and detection of selected tobacco-related disorders (such as the Prevention of chronic obstructive pulmonary disease "Take a deep breath" program.<sup>[7]</sup> the Polish national cerebrovascular disease prevention program (ICD10: I60-I69).<sup>[8]</sup> the Prevention and treatment of cardiovascular diseases program POL-KARD.<sup>[9]</sup> or the National Oncology Strategy.<sup>[10]</sup>

Due to a large number of anti-smoking programs implemented in Poland, it seems appropriate to carry out an analysis of whether the selected programs do not duplicate the same proposals for action and whether the proposed indicators for their implementation adequately assess their effectiveness.

### **Materials and Methods**

This study is a retrospective analysis of data on national health prevention programs for tobacco-related disorders implemented in Poland between 2016 and 2022. We analyzed the national health prevention programs coordinated by the Ministry of Health between 2016 and 2022. Based on the data available on the official websites of the Ministry of Health and the National Health Fund, including the Public Information Bulletin of the Ministry of Health, twelve national health prevention programs were identified coordinated by the Ministry of Health relating to tobacco use reduction (Table 1). The objectives of each program were analyzed, emphasizing the type of intervention and the target group. The scope of the programs usually covered prevention and early diagnosis of selected tobacco-related disorders (cancer, COPD, stroke, heart disease, type 2 diabetes). For 9 out of the 12 programs, the anti-smoking measures were considered a secondary objective without any specific and targeted anti-smoking interventions. Three programs were included in the final analysis, which covered anti-smoking actions as one of their main objectives.

The following programs were analyzed in detail:

- the Prevention of tobacco-related disorders program (including COPD);
- the National Oncology Strategy;
- the National Health Program.

The detailed analysis included the publications by the Ministry of Health and the subordinate agencies responsible for the implementation of each program. During the analysis, we compared the strategic objectives regarding tobacco, the proposed target groups, the planned actions, and the performance indicators.

A detailed analysis of those programs was conducted

as they all include comprehensive preventive measures while identifying the precise tasks involved in reducing tobacco consumption. In addition, the prevention program for tobacco-related disorders (including COPD) is currently the only program dedicated entirely to smoking reduction. Moreover, on July 7th, 2022, the National Oncology Strategy was significantly amended.

Since 1997, anti-smoking actions have been a part of the Program for the reduction of health consequences of tobacco smoking in Poland. This program was implemented in accordance with the provisions of Article 4 of the previously mentioned Act on health prevention against consequences of the use of tobacco and tobacco products, which states that the Council of Ministers establishes a program setting out health, social and economic policies aimed at reducing the use of tobacco products, which should be financed by the state budget at the level of 0.5% of the excise tax on tobacco products. Due to the interpretation issues regarding the financing of anti-smoking actions, while working on the Public Health Act of September 11th, 2015 (Journal of Laws of 2015, item 1916), this Article has been repealed. Since January 1st, 2018, the activities relating to reducing exposure to tobacco smoke have been included in the operational objective 2: Prevention of addiction, contained in the Regulation of the Council of Ministers of March 30th, 2021 on the National Health Program for years 2021 - 2025 (Journal of Laws item 642).

### Results

A comparative analysis of each national program for the prevention of tobacco-related disorders is presented in Table 2. The public administration responsible for the implementation of national anti-smoking prevention programs in Poland is the Ministry of Health. The co-ordination of a program is also transferred to agencies subordinate to the Ministry of Health (e.g. the Maria Skłodowska-Curie National Research Institute is responsible for the implementation of the National Oncology Strategy).<sup>[11]</sup>

The legal basis for the operation of national campaigns is usually the regulations of the Council of Ministers, which describe the objectives, scope, and expected effects of a program in detail (e.g. the Regulation of the Council of Ministers of March 30th 2021on the National Health Program for years 2021 - 2025.<sup>[12]</sup> the Regulation of the Minister of Health of November 6th, 2013 on guaranteed services of health programs (Journal of Laws of 2020, item 2209).<sup>[13]</sup>

The current prevention programs implement comprehensive health-promoting activities, one of which is the reduction of tobacco consumption. This is directly reflected in the financing of such activities.

In the three studied programs, the proposed strategic objective of anti-smoking prevention can be considered the same, namely, it is supporting the reduction of tobacco product consumption, which is supposed to reduce the number of tobacco-related disorders (particularly the incidence of tobacco-related cancer).

The authors of the National Health Program and the Prevention of tobacco-related disorders program (including COPD) do not set a specific target for the reduction of tobacco-related disorders by using general performance indicators such as 'reducing mortality in tobacco-related disorders'. The performance indicators are clearly defined in the National Oncology Strategy, which sets specific targets, but the methodology of their estimation remains unclear.

The target groups of the three studied programs were defined as the general public over the age of 15. As part of the prevention of tobacco-related disorders program (including COPD), the Regulation of the Minister of Health of June 10th, 2022 amending the Regulation on guaranteed services of health programs.<sup>[14]</sup> was published on July 7th, 2022; one of the most important elements of this program is that the specialty care level should be offered to patients over the age of 16 (until now the program has only been dedicated to adults).

The proposed anti-smoking prevention actions are primarily aimed at supporting the creation of the Clinics for Support of Smokers, as well as organizing training for medical staff, covering so-called 'rapid anti-smoking interventions'.

The detailed comparative analysis is presented in Table 2.

### Discussion

Currently, anti-smoking actions financed by the state budget are implemented as part of national health programs, such as the National Health Program or the National Oncology Strategy. The lack of one comprehensive anti-smoking program makes the proposed actions redundant and focused primarily on creating Clinics for Support of Smokers and training of medical staff to assist patients. Those actions are most often carried out because they have proven effective. Even a short intervention (< 3 minutes) given to a person addicted to tobacco affects the rate of smoking reduction (OR = 1.66; 95% CI, 1.42 – 1.94) and is highly cost-effective.<sup>[15]</sup> It is necessary to implement those actions because, according to the information in the commentary to the previously mentioned amendment to the Regulation on guaranteed services of health programs, there are currently ten anti-smoking clinics nationwide representing the specialty care level in the anti-smoking program.<sup>[16]</sup>Ensuring an adequate number of clinics is one of the most important elements in the update of the Prevention of tobacco-related disorders program (including COPD). The next step should be to ensure adequate funding for this program. Allocating financial resources is necessary for the implementation of Article 14 of the Framework Convention on Tobacco Control (FCTC).<sup>[17]</sup> to which Poland is also a party.<sup>[18]</sup> indicating the need to develop and implement effective programs to encourage smoking cessation. Considering Article 26 of the FCTC, each Party should provide financial support for its own national efforts aimed at achieving the objective of the Convention, in accordance with its national plans, priorities and programs.

There are many possible ways to finance health programs by transferring the costs of their implementation to industry and retail outlets selling tobacco products, for example by developing appropriate taxation, licensing fees for tobacco production, import and sales, implementing registration fees or introducing annual fees for control of tobacco products.<sup>[19]</sup>

The definition of a single comprehensive anti-smoking program could improve the effectiveness of anti-smoking actions by adapting their content to different target groups (e.g. appropriate for the consumer's age). The development of such programs would make it possible to determine the amount of financial resources allocated to anti-smoking actions alone, because currently the overall funding for all actions is determined for each health program, which certainly makes it difficult to plan its implementation.

In addition, there is currently no institution that could fully coordinate anti-smoking activities carried out under a single program through e.g. adequate funding and quality control of the developed actions. According to the Polish experts in this field: a continued cooperation between governmental institutions and NGOs, as well as adequately funded health programs themselves, would make Poland one of the leading countries in terms of tobacco control, and would significantly improve public health indicators.<sup>[20]</sup>

Another challenge is to establish verifiable performance indicators. Reducing the incidence of tobacco-related disorders is an interdisciplinary challenge. Smoking cessation support consists of a number of elements such as increasing tobacco prices, increasing excise tax, or implementing provisions of directives governing the tobacco market. With this in mind, it is difficult to identify the direct impact of a program on e.g. achieving reduction in the rate of tobacco-related disorders. It is, therefore, appropriate to keep the general performance indicators without providing any specific values. Moreover, continuation of the current anti-smoking intervention programs could reduce premature deaths (before age 65) by up to half.<sup>[21]</sup> which would allow Poland to catch up with public health leaders such as Sweden.

Training of medical staff is an important element of anti-smoking prevention; however, young people who start using nicotine-based products acquire knowledge about the harmful effects of smoking in their school environment. Therefore, educational activities should be taken to promote anti-smoking attitudes among children and adolescents. Young people are keen to participate in such education programs, however, it is important to regularly update materials and adapt to the new public health challenges such as electronic cigarettes and heated tobacco products. It is estimated that about 28% of boys and 18.6% of girls aged 13 - 15 use e-cigarettes in Poland. Poland has one of the highest rates of e-cigarette use among teenagers.<sup>[22]</sup>

Moreover, since 2019, we have seen an increase in the percentage of users of heated tobacco products (from 0.4% to 4%); interestingly, the rate of daily heated tobacco consumption almost tripled in the economically active population.<sup>[23]</sup>

As smoking initiation starts at school age, promoting the reduction of tobacco use, including heated tobacco products and electronic cigarettes, should be prioritized in this target group, accompanied by adapting education campaigns to specific disorders caused by tobacco smoking. Gender, age, and smoking are indeed correlated with the level of awareness of smoking-related disorders, and it is, therefore, also important to implement educational campaigns that clearly point out the health effects of tobacco use (especially non-respiratory diseases), adapted to different disease groups.<sup>[24]</sup> The available data suggest that up to 50% of patients who smoked before the diagnosis of cancer still smoke during treatment, unaware of the harm associated with continued tobacco use, and the underestimated benefits of smoking cessation after the diagnosis of cancer; such benefits include reduced risk of death by 30% up to 40%.<sup>[25]</sup>

Our study has practical implications for actions undertaken as part of health programs aimed at reducing tobacco smoking. First of all, it pointed out the need to establish a single comprehensive anti-smoking program, which is guaranteed to limit double funding of the same activities carried out in different preventive programs. Furthermore, it was pointed out that there is currently no single coordinating institution in Poland for anti-smoking prevention and that there is no education on tobacco-related disorders adapted to different target groups. The limitations of our study should also be mentioned. Only three national programs have been selected for the analysis; at the same time, the role of local authorities should be emphasized, which have their own public funds dedicated to the implementation of local prevention activities. It is the local authorities that are largely responsible for developing appropriate health programs for disease prevention and health promotion, including activities aimed at reducing tobacco smoking.

## Conclusions

At the national level, there is currently no single comprehensive program to limit the use of nicotine products. Such activities are currently one of the elements of many health programs targeted toward the general public. Therefore, some actions are the same in different programs (including the promotion of anti-smoking counseling and medical staff training).

To effectively reduce smoking, it is necessary to develop a single comprehensive program with adequate funding. It should take into account different target groups and it should be coordinated by one of the agencies subordinate to the Minister of Health.

It is also important that the developed performance indicators are achievable; also, it is important to be aware that reducing the incidence of tobacco-related disorders is an activity that is influenced by various components, which indicates its interdisciplinary nature.

Authors disclose no conflict of interest.

# **Charts and Figures**

Table I	National health prevention	programs were identified coordinated by the Ministry of Health re	ating to tobacco use reduction.
DISEASE	PROGRAM	DESCRIPTION	LINK
STROKE	The Polish National Cerebrovascular Disease Prevention Program (ICD10: I60-I69)	Prevention and early diagnosis of cerebrovascular disorders, including stroke and transient ischemic attacks (TIA) in middle-aged individuals (aged 40 - 65) at the time and place of program operation	https://www.gov.pl/web/zdrowie/profilakty- ka-chorob-naczyn-mozgowych
COPD	Prevention of chronic obstructive pulmonary disease: 'Take a deep breath'	The main goal of the program is to raise society's awareness about chronic obstructive pulmonary disease, reduce morbidity and premature mortality due to pulmonary disorders, and minimize the health risk associated with tobacco smoking.	https://pacjent.gov.pl/programy-profilaktyczne/ wiem-wiecej-o-pochp
COPD	Prevention of tobacco-re- lated disorders program (including COPD)	The goal is to reduce the morbidity of tobacco-related disor- ders, reduce COPD-related morbidity, disability, and mortality through complex educational and therapeutic interventions among high-risk groups, together with early detection of COPD and other tobacco-related disorders, and improve access to thera- py for smoking addiction and lung disorders.	https://pacjent.gov.pl/program-profilaktyczny/ program-profilaktyki-chorob-odtytoniowych
COPD	The National Program for Mortality Reduction in Chronic Lung Disorders by Creation of Non-Inva- sive Mechanical Ventila- tion Units (NiMV)	The aim of this health policy program is to reduce mortality in chronic lung disorders in the Republic of Poland by: organizing 220 (NiMV) units in the lung disease departments equipped with devices crucial for conducting and monitoring NiMV, increasing access to NiMV, controlling and monitoring the effectiveness of the program.	https://www.gov.pl/web/zdrowie/ krajowy-program-zmniejszania-umi- eralnosci-z-powodu-przewleklych-cho- rob-pluc-poprzez-tworzenie-sal-nieinwazy- jnej-wentylacji-mechanicznej-na-lata-2016-2019
HEART ATTACK	Cardiovascular disease (CVD) prevention	The aim of this program is to reduce morbidity and mortality by about 20% in cardiovascular diseases covered by the program by early detection and reduction of frequency and severity of risk factors, increasing detection and therapeutic efficacy in cardiovascular diseases (CVD), early identification of individuals with an increased risk of CVD, promoting healthy lifestyle and smoking cessation, healthy diet, and physical activity.	https://pacjent.gov.pl/programy-profilaktyczne/ program-profilaktyki-chorob-ukladu-kraze- nia-chuk
HEART ATTACK	Prevention of cardiovas- cular diseases (KORD- IAN)	The main goal of this program is to raise awareness and improve the detection of cardiovascular diseases in economically active individuals, including identification of patients with hereditary familial hypercholesterolemia (FH) at the time and place covered by the program.	https://pacjent.gov.pl/programy-profilaktyczne/ program-profilaktyki-chorob-kardiologicznych
HEART ATTACK	Prevention and Treat- ment of Cardiovascular Diseases Program POL- KARD	The main goal is to equip hospitals with medical devices as well as to: - keep medical registers to evaluate treatment efficacy, - increase access to novel therapies, care, and modern screening programs.	https://www.gov.pl/web/zdrowie/program-pro- filaktyki-i-leczenia-chorob-ukladu-sercowo-na- czyniowego-polkard-na-lata-2017-2020
HEART AT- TACK	40 PLUS program	The main goal of the '40 PLUS' program is to assess the organiza- tion and efficacy of screening in patients aged above 40 regarding the most common health problems. It should be noted that due to the coronavirus pandemic, prophylaxis has been negatively affected, i.e. fewer patients presented to their physician in 2020. Many disorders, especially at an early stage, do not produce wor- rying symptoms. Thanks to screening programs, it is possible to detect a disease early on and prevent long-term or even ineffective treatment as a result of delayed diagnosis.	https://www.gov.pl/web/zdrowie/profilakty- ka-40-plus

LUNG CANCER	The Polish National Pro- gram for Early Detection of Lung Cancer (EDLC) by low-dose computed tomography (LDCT)	The goal of this health policy program is to improve the early detection of lung cancer by providing appropriate prophylaxis for a selected population of Polish residents.	https://pacjent.gov.pl/programy-profilaktyczne/ profilaktyka-raka-pluca
LUNG CANCER	The National Oncology Strategy (NOS)	Action 3 of NOS: Raising awareness among adults about the impact of a healthy lifestyle on cancer Increasing the extend of social campaigns by 50% by standardiz- ing and intensifying educational activities promoting a healthy lifestyle, including: - promotion of physical activity and healthy diet, - promotion of a tobacco-free lifestyle, - raising awareness about the risks of UV radiation. Activity 17 of NOS: Implementation of complex and coordinated oncology care in Poland. New organizational model for patient care ("Cancer Units") for key cancers: lung, colorectal, gynecologic and urologic cancers.	https://www.gov.pl/web/zdrowie/naro- dowa-strategia-onkologiczna-nso
TYPE 2 Diabetes	The National Health Program (NHP)	Task V.4 of NHP: Education directed towards diabetic patients and their families or caregivers to reduce diabetes-related complications and to improve the quality and length of their lives.	https://www.gov.pl/web/zdrowie/naro- dowa-strategia-onkologiczna-nso
TYPE 2 DIABETES	The support program for outpatient manage- ment of the diabetic foot syndrome	As a part of the program, it is intended to equip the diabetic foot syndrome centers, which play two roles: - a reference role, i.e. they operate as an outpatient unit of a hos- pital diabetology department as coordinators in the voivodeship, - a primary role, i.e. they operate at ambulatory diabetology care centers.	https://www.gov.pl/web/zdrowie/program-wspar- cia-ambulatoryjnego-leczenia-zespolu-sto- py-cukrzycowej

Table II. Comparative analysis of programs which covered anti-smoking actions as one of their main objectives. PROGRAM NAME					
The Prevention of tobacco-related disorders program (including COPD)	The National Oncology Strategy	The National Health Fund			
LEGAL BASIS					
The Regulation of the Minister of Health of November 6th, 2013 on the guaranteed services of health prevention programs (Journal of Laws of 2020, item 2209).	The Resolution of the Council of Ministers of February 4th, 2020 (M.P. [Official Journal of the Republic of Poland (Monitor Polski)], item 189) on the adoption of the long-term 'National Oncology Strategy' Program for the years 2020 - 2030	The Regulation of the Council of Minis- ters of March 30th, 2021 on the National Health Program for the years 2021 - 2025			
	PROGRAM PROVIDERS REGARDING TOBACCO				
The National Health Fund	The Ministry of Health, the National Research Institute of Oncology (Narodowy Instytut Onkologii - Państwowy Instytut Badawczy, NIO-PIB)	Providers indicated individually for each task			
	FINANCING				
Primary care stage: 114,000 PLN (2021) Specialty care stage: 58,000 PLN (2021)	In the given years, all planned government spending on all activ- ities of the NOS cannot exceed: • in 2020 – 250M PLN, • between 2021 and 2023 – 450M PLN annually, • between 2024 and 2030 – 500M PLN annually.	The financing from the Gambling Problem Fund and the state budget for a goal/task called: addiction prevention (including nicotine addiction) - no more than 30M PLN.			
STRATEGIC GOALS REGARDING TOBACCO					
In order to gradually reduce the number of smokers, it is necessary to undertake multidirectional actions, and hence one of the most important health interventions is the treatment of nicotine addiction.	Investments in education, primary prophylaxis, and lifestyle Reducing cancer incidence by limiting risk in terms of primary cancer prevention. The actions are aimed at implementing the European Code Against Cancer recommendations including reducing tobacco smoking as well as involving physicians, particularly general practitioners (GP) and occupational medicine physicians, in primary prophylaxis.	The strategic goal of the National Health Program for the years 2021 - 2025, re- ferred to hereinafter as NHP, is to increase the number of healthy years and to reduce social inequalities in health.			

	PERFORMANCE INDICATORS	
The greatest demand for the program has been identified for the following voivodeships: Masovian (76k), Silesian (65k), Greater Poland (50k), Lesser Poland (49k), and Lower Silesian (42l). Assuming that one in four adult Poles trying to quit smoking will decide to participate in the program, resources for 274,000 people should be allocat- ed; however, if 75 out of 100 people trying to quit smoking decided to take part in the program, the number of individuals would rise up to 823,000.	<ul> <li>Mortality rate (per 100,000) for colorectal cancer (ICD10: C18-C21, ESP2013): Values observed in 2017: 52.9 in males; 26.4 in females Target values for 2025:* 49.3 in males; 22.4 in females</li> <li>Mortality rate (per 100,000) for breast cancer in females (ICD10: C50, ESP2013) Value observed in 2017: 32.7 The target value for 2025: 27.8</li> <li>Mortality rate (100,000) for cervical cancer (ICD10: C53, ESP2013) Value observed in 2017: 7.9 The target value for 2025: 4.9</li> <li>Mortality rate (per 100,000) for skin melanoma (ICD10: C43, ESP2013) Values observed in 2017: 5.3 in males; 3.5 in females Target values for 2025: 6.8 in males; 4.0 in females</li> <li>Mortality rate (per 100,000) for lung cancer: Values observed in 2017: 108.3 in males; 38.3 in females Target values for 2025: 78.5 in males; 38.9 in females</li> <li>By the end of 2030, Poland will increase the number of girls and boys aged below 15 declaring that they do not consume tobacco products - from 87.5% and 88.2%, respectively, up to 92%.</li> <li>By the end of 2030, Poland will reduce the number of females and males consuming tobacco products - from 18% and 24% down to 15% and 20%, respectively.</li> </ul>	Reducing mortality for lung cancer and reducing the number of regular smokers (including children and adolescents) in Poland.
	TARGET GROUPS	
Primary level: Individuals aged 18 or above consum- ing tobacco or novel tobacco products or electronic cigarettes. Specialty level: Individuals aged 16 or above addicted to tobacco, including novel tobacco products (ICD-10: F17), or addicted to electronic cigarettes, referred from the primary level or from the hospital, or presenting without referral.	Males and females aged 15 or above.	Conducting medical staff training in the management of nicotine addiction, and running the Telephone Clinics for Support of Smokers (by NIO-PIB based on the contract with the Ministry of Health upon the request of NIO-PIB) Facilitating smoking cessation, including novel tobacco products and electronic cigarettes, by providing access to specialty care for the whole nation.
	ACTIONS	
Anti-nicotine counseling Considering the earlier points and in order to help reduce consumption of all nicotine-containing products, the program has been supplemented by supporting to quit novel tobacco products and electronic cigarettes.	Until 2023, there will be Clinics for Support of Smokers in each voivodeship, to coordinate educational actions in terms of anti-smoking prevention as part of the National Network for Supporting Smokers. Until the end od 2021, the prevention of tobacco-related disor- ders program will be modified (including COPD) and will be adapted to the challenges stated in the map of health needs. Until 2024, the process of medical staff training (hospital, primary care, and occupational medicine) in terms of primary prophylaxis, particularly regarding the management of tobacco addiction will be intensifed. Until the end of 2030 no less than 50,000 medical staff in Poland will be familiarize with the recommendations of the European Code Against Cancer.	Implementing medical staff training in management of nicotine addiction and running the Telephone Clinic for Support of Smokers Facilitating smoking cessation, including novel tobacco products and electronic cigarettes, by providing access to specialty care. Reducing physical and economic availability of tobacco and other related products. Promoting international cooperation on policy to reduce health consequences of tobacco use, including novel tobacco products, electronic cigarettes, and refill fluids.

### References

- World Health Organization (WHO): Tobacco. Available from: https://www.who.int/health-topics/tobacco#tab=tab\_1
- 2. Special Eurobarometer 506 Report "Attitudes of Europeans towards tobacco and electronic cigarettes", European Union, 2021;https://europa.eu/eurobarometer/surveys/detail/2240
- 3. WHO report on the global tobacco epidemic 2021: addressing new and emerging products. Geneva: World Health Organization; 2021. Licence: CC BY-NC-SA 3.0 IGO; https://www.who.int/publications/i/ item/9789240032095
- 4. Konsumpcja nikotyny raport z badań ilościowych dla Biura do Spraw Substancji Chemicznych Edycja III, Centrum Badania Opinii Społecznej, Warszawa listopad 2020; https://www.gov.pl/web/chemikalia/ monitorowanie-rynku-e-papierosow
- 5. Ustawa z dnia 9 listopada 1995 r. o ochronie zdrowia przed następstwami używania tytoniu i wyrobów tytoniowych (Dz. U. z 2021 r. poz. 276); https://isap.sejm.gov.pl/isap.nsf/download.xsp/ WDU19960100055/U/D19960055Lj.pdf
- 6. Ustawa z dnia 11 września 2015 r. o zdrowiu publicznym (DZ. U. z 2021 r. poz 1956, 2469); https:// isap.sejm.gov.pl/isap.nsf/download.xsp/ WDU20150001916/U/D20151916Lj.pdf
- 7. https://pacjent.gov.pl/programy-profilaktyczne/wiemwiecej-o-pochp
- https://www.gov.pl/web/zdrowie/profilaktyka-chorob-naczyn-mozgowych
- https://www.gov.pl/web/zdrowie/program-profilaktyki-i-leczenia-chorob-ukladu-sercowo-naczyniowego-polkard-na-lata-2017-2020;
- https://www.gov.pl/web/zdrowie/narodowa-strategia-onkologiczna;
- Uchwała nr 10 Rady Ministrów z dnia 4 lutego 2020 r. w sprawie przyjęcia programu wieloletniego pn. Narodowa Strategia Onkologiczna na lata 2020-2030; https://isap.sejm.gov.pl/isap.nsf/download.xsp/ WMP20200000189/O/M20200189.pdf
- 12. Rozporządzenie Rady Ministrów z dnia 30 marca 2021 r. w sprawie Narodowego Programu Zdrowia na lata 2021-2025; https://isap.sejm.gov.pl/isap.nsf/download. xsp/WDU20210000642/O/D20210642.pdf
- Obwieszczenie Ministra Zdrowia z dnia 10 listopada 2020 r. w sprawie ogłoszenia jednolitego tekstu rozporządzenia Ministra Zdrowia w sprawie świadczeń

gwarantowanych z zakresu programów zdrowotnych; https://isap.sejm.gov.pl/isap.nsf/download.xsp/ WDU20200002209/O/D20202209.pdf

- 14. Rozporządzenie Ministra Zdrowia z dnia 10 czerwca 2022 r. zmieniające rozporządzenie w sprawie świadczeń gwarantowanych z zakresu programów zdrowotnych (Dz. U. z 2022 r. poz. 1433); https://isap.sejm.gov.pl/isap.nsf/download.xsp/ WDU20220001433/O/D20221433.pdf
- 15. U.S. Department of Health and Human Services. Smoking Cessation. A Report of the Surgeon General. Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 2020 [accessed 2020 May 21];
- https://legislacja.rcl.gov.pl/projekt/12355501/katalog/12847785#12847785;
- WHO Framework Convention on Tobacco Control, WHO Document WHA56.1; https://apps.who.int/gb/ archive/pdf\_files/WHA56/ea56r1.pdf;
- Oświadczenie Rządowe z dnia 16 stycznia 2007 r. w sprawie mocy obowiązującej Ramowej Konwencji Światowej Organizacji Zdrowia o Ograniczeniu Użycia Tytoniu, sporządzonej w Genewie dnia 21 maja 2003 r. (Dz. U. z 2007 r. Nr 74 poz. 488); https://isap.sejm.gov.pl/isap.nsf/download.xsp/ WDU20070740488/O/D20070488.pdf
- WHO Framework Convention on Tobacco Control: guidelines for implementation Article 5.3; Article 8; Articles 9 and 10; Article 11; Article 12; Article 13; Article 14 – 2013 edition; https://apps.who.int/iris/ handle/10665/80510
- Jassem J, Przewoźniak K, Zatoński W. Tobacco control in Poland-successes and challenges. Transl Lung Cancer Res. 2014 Oct;3(5):280-5. : 10.3978/j. issn.2218-6751.2014.09.12. PMID: 25806312; PMCID: PMC4367772
- Witold A. Zatoński; Mateusz Zatoński; Kinga Janik-Koncewicz; Katarzyna Połtyn-Zaradna; Katarzyna Wijatkowska; Arlen Marciniak Hundred years of cigarette smoking in Poland: three phases of the tobacco epidemic. Journal of Health Inequalities, ISSN: 2450-5927, Vol: 3, Issue: 2, Page: 118-122 doi:10.5114/ jhi.2017.74200
- 22. Jankowski M, Ostrowska A, Sierpiński R, Skowron A, Sytnik-Czetwertyński J, Giermaziak W, Gujski M, Wierzba W, Pinkas J. The Prevalence of Tobacco, Heated Tobacco, and E-Cigarette Use in Poland: A 2022 Web-Based Cross-Sectional Survey. Int J Environ Res Public Health. 2022 Apr 18;19(8):4904. https//doi:

10.3390/ijerph19084904. PMID: 35457771; PMCID: PMC9031359.

- Szymański, J.; Ostrowska, A.; Pinkas, J.; Giermaziak, W.; Krzych-Fałta, E.; Jankowski, M. Awareness of Tobacco-Related Diseases among Adults in Poland: A 2022 Nationwide Cross-Sectional Survey. Int. J. Environ. Res. Public Health 2022, 19, 5702. doi. org/10.3390/ijerph19095702
- 24. Koczkodaj P, Didkowska J, Balwicki Ł, Cedzyńska M, Dominiak M, Hanke W, Jankowski P, Jassem J, Juszczyk G, Krzakowski M, Pinkas J, Przepiórka I, Przewoźniak K, Rutkowski P, Śliż D, Wesołowski S, Zdrojewski T, Walewski J. World Tobacco Quitting Day 2020 the united voice of Polish experts on tobacco prevention and control. NOWOTWORY J Oncol 2020; 70: 278–279.
- 25. Koczkodaj, P., Cedzyńska, M., Rutkowski, P., Janiak, A., Przepiórka, I., Ciuba, A., Mańczuk, M., Przewoźniak, K., Didkowska, J. (2021). Smoking cessation help for cancer patients – a pilot project "Quitting Supports Treatment". Nowotwory Journal of Oncology, 3, 176-178. doi: 10.5603/NJO.2021.0033