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## Current Epidemiological Situation of Tuberculosis in Ukraine and Possible Ways for its Improvement

**Introduction.** Tuberculosis (TB) epidemic is observed throughout the world, and it develops according to certain laws. However, the speed with which TB bursts out in a certain region and its scale may vary depending on multiple factors, namely, the initial epidemiological indicators, the time when the implementation of systematic measures to combat this disease started, the material capabilities of the health care system and the socio-economic development of the country, other diseases comorbidity etc. Ukraine occupies poor conditions with regard to TB, especially its chemoresistant forms. Since 1995, a TB epidemic has been registered, and it continues to spread actively. Annually 10-11 thousand patients die from TB in Ukraine, which means more than 30 deaths every day. This epidemic continues to gain momentum and is becoming a threat even to the state's economy. According to the information provided by the Public Health Center, more than 18.500 people are suffering from TB in Ukraine today. In 2022, the number of TB cases decreased by 2.5 %, and in January 2023, 1821 new cases of this disease were registered [5].

In general, it is well known that TB processing is influenced by more than a hundred of different factors. Many of the epidemiological indicators are tightly interrelated, and changes in one can lead to corresponding changes in others. However, in the literature there are different points of view on the role and priority of various factors in influencing the spread of TB among population. Most authors recognize the insufficient efficiency of the current system of anti-tuberculosis measures in the new conditions of the epidemic process.

The World Health Organization (WHO) considers TB, alongside with HIV infection, viral hepatitis and malaria, one of the most dangerous infectious diseases and an urgent problem for the whole world due to the increase in morbidity, mortality and other epidemiological indices [17]. Tuberculosis is considered one of the 10 leading causes of mortality in the world among infectious diseases [1, 3]. According to WHO experts, the complex epidemiological situation regarding TB in the world

should worsen if the appropriate efforts are not made to control it [1].

According to the Global tuberculosis report 2023 [2], in 2024 approximately 7.5 million people in the world will be diagnosed with TB for the first time, and they will be officially registered as TB patients (figure). This will exceed the pre-epidemic index (7.1 million in 1919), 16.0 % more than the 2021 index, 28.0 % more than the 2020 index, and top one-year index since WHO implemented global TB monitoring in the mid-1990s. The substantial increase in 2022 suggests that big number (but not all) countries identified significant improvements in access to and delivery of health services. It is also likely to consider the diagnosis of a significant number of people who developed TB in previous years, but whose diagnosis was delayed due to the COVID pandemic, as well as an increase in the number of people who developed TB [4].



Fig. Global trends in TB case reports, 2010-2022.

Some specific tendencies of TB processing in within the Ukraine and the rest of the world were covered in our previous publications [8-16]. However, new and new challenges and circumstances arise in society that can affect the development of tuberculosis, therefore the relevance of our work and the goal we set for ourselves is undeniable.

**The aim of the study.** To conduct an analysis of the tuberculosis epidemic situation in Ukraine during 2018-2022 and propose measures for its improvement.

**Materials and methods.** Fundamental provisions and methodological foundations of modern evidentiary and health care statistics were used. To analyze the indices and spread of TB as a mass phenomenon and object of statistical study, the dialectical method, systematic approach, methods of generalization, dynamics, structures and comparisons were used. Tabular and graphic methods were attributed to visualize the obtained results. The adequacy of the obtained data is ensured by the use of a system of statistical criteria. The official statistical information of the State Statistics Service and the Ministry of Health (MoH) of Ukraine, publications of domestic and foreign authors, materials of international conferences and periodicals, Internet resources were subjected to statistical analysis. Eight scientists and phthisiatric service organizers from Ukraine and Poland, as well as representatives of public organizations, dealing with TB issues, were involved as experts to interpret statistical indices and identify cause-and-effect relationships in their dynamics.

**Results and discussion.** According to information from the Center for Medical Statistics of the Ministry of Health of Ukraine [4-7], from 2018 to 2022, the incidence of TB, along with relapses, decreased by 27.3 % (tabl. 1).

Table 1

**Incidence of tuberculosis among the entire population in Ukraine (% per 100,000 population)**

N	Administrative region	2018	2019	2020	2021	2022
1	2	3	4	5	6	7
1	Autonomous Republic (AR) of Crimea	-	-	-	-	-
2	Vinnytsia	40,9	44,6	27,6	21,1	37,1
3	Volyn	52,7	50,3	37,9	48,0	48,7
4	Dnipropetrovsk	61,1	63,9	50,5	56,5	92,6
5	Donetsk	59,6	56,2	46,7	40,9	11,9
6	Zhytomyr	60,3	57,9	36,0	40,0	46,1
7	Zakarpattia	59,8	60,6	44,0	49,2	59,8
8	Zaporizhzhia	61,4	54,5	41,0	39,0	25,3
9	Ivano-Frankivsk	47,1	42,4	24,5	25,0	30,3
10	Kyiv	63,6	61,5	41,3	40,6	37,7
11	Kirovohrad	65,7	68,0	45,8	41,2	66,2
12	Luhansk	58,6	50,4	37,7	39,7	5,4
13	Lviv	51,9	50,4	35,2	38,6	43,2
14	Mykolaiv	57,5	54,8	40,6	41,7	36,9
15	Odesa	115,2	113,1	73,6	84,9	73,7
16	Poltava	48,6	41,4	30,2	26,8	42,8
17	Rivne	41,8	41,5	30,6	31,7	37,5
18	Sumy	55,1	49,9	32,9	33,4	34,5

Contin of the tabl. 1

1	2	3	4	5	6	7
19	Ternopil	33,3	34,6	18,3	18,8	27,4
20	Kharkiv	39,8	40,2	28,1	29,0	18,0
21	Kherson	65,3	60,9	44,4	39,3	21,9
22	Khmelnysk	46,6	45,9	30,0	26,3	28,6
23	Cherkasy	46,2	45,1	32,3	33,5	40,5
24	Chernivtsi	27,7	34,7	18,4	20,7	25,0
25	Chernihiv	57,5	46,9	36,1	42,5	35,6
26	Kyiv city	38,7	39,6	24,5	24,5	20,7
27	Sevastopol city	-	-	-	-	-
Ukraine		50,5	49,2	34,3	35,5	36,7

During the analyzed period, the incidence of TB among children aged 0-14 years decreased by 16.9 % (tabl. 2), and among children aged 15-17 years – by 45.8 % (tabl. 3).

Table 2

**Incidence of tuberculosis (new cases + relapses) among children aged 0-14 years (% per 100,000 population)**

N	Administrative region	2018	2019	2020	2021	2022
1	AR of Crimea	-	-	-	-	-
2	Vinnytsia	8,6	12,8	7,1	6,8	5,7
3	Volyn	7,8	6,4	7,4	12,0	8,1
4	Dnipropetrovsk	20,1	16,7	10,2	11,8	12,6
5	Donetsk	5,4	7,8	4,5	2,0	1,2
6	Zhytomyr	15,1	13,3	2,5	3,6	7,9
7	Zakarpattia	7,6	7,2	3,2	10,6	8,7
8	Zaporizhzhia	23,3	23,1	21,1	26,6	12,5
9	Ivano-Frankivsk	6,3	7,2	2,6	10,5	4,9
10	Kyiv	8,8	10,6	6,5	6,7	6,6
11	Kirovohrad	6,9	11,9	11,5	24,2	69,1
12	Luhansk	12,3	4,6	5,9	6,1	1,2
13	Lviv	5,6	6,8	2,7	1,5	3,3
14	Mykolaiv	7,3	4	6,4	6,5	3,0
15	Odesa	15,4	16,1	9	7,5	11,2
16	Poltava	5,5	3,5	2,5	3,1	6,9
17	Rivne	3,8	5,9	3,4	6,0	5,2
18	Sumy	8,9	9,8	2,1	8,7	2,3
19	Ternopil	2,4	1,2	2,4	0,0	1,3
20	Kharkiv	9,5	9,8	13,7	14,0	3,4
21	Kherson	7,7	14,3	4,2	4,9	3,2
22	Khmelnysk	4,5	5	2	3,1	4,7
23	Cherkasy	15,8	10,1	10,3	15,4	8,9
24	Chernivtsi	5,1	1,3	0,6	2,0	5,3
25	Chernihiv	10,1	9,6	4,5	6,2	13,6
26	Kyiv city	4	5	1,8	0,4	2,7
27	Sevastopol city	-	-	-	-	-
Ukraine		19,0	9	5,9	7,4	7,4

Table 3

**Incidence of tuberculosis (new cases + relapses) among children aged 15-17 years (% per 100,000 population)**

N	Administrative region	2018	2019	2020	2021	2022
1	AR of Crimea	-	-	-	-	-
2	Vinnitsia	13,8	9,3	11,3	6,7	13,1
3	Volyn	23,5	3,0	17,3	22,1	10,6
4	Dnipropetrovsk	28,5	22,3	16,3	15,8	16,2
5	Donetsk	27,5	31,7	10,8	12,9	6,5
6	Zhytomyr	17,1	14,4	11,1	19,0	5,3
7	Zakarpattia	21,9	24,4	18,7	20,2	13,0
8	Zaporizhzhia	31,4	32,8	40,4	17,5	2,1
9	Ivano-Frankivsk	24,1	21,9	7,1	6,9	6,6
10	Kyiv	21,6	34,7	12,9	17,9	11,2
11	Kirovohrad	20,3	28,5	11,9	7,8	34,4
12	Luhansk	12,2	36,7	18,1	5,9	0,0
13	Lviv	7,0	19,4	8,0	3,9	3,8
14	Mykolaiv	40,9	10,0	16,2	6,3	9,3
15	Odesa	50,6	59,6	38,9	30,2	30,4
16	Poltava	8,8	14,8	14,5	8,5	16,3
17	Rivne	5,1	5,1	7,4	9,6	6,9
18	Sumy	15,5	19,8	11,7	15,4	7,4
19	Ternopil	3,3	13,4	0,0	15,9	6,1
20	Kharkiv	24,4	20,3	10,4	14,6	2,8
21	Kherson	32,0	28,0	41,1	16,9	9,8
22	Khmelnysk	11,4	14,4	2,8	13,9	8,1
23	Cherkasy	16,6	16,8	23,2	13,1	15,9
24	Chernivtsi	10,9	11,2	3,6	3,5	6,8
25	Chernihiv	16,3	20,7	8,1	8,0	31,0
26	Kyiv city	7,6	9,4	12,2	9,6	9,1
27	Sevastopol city	-	-	-	-	-
Ukraine		8,9	20,0	14,2	12,5	10,3

The highest morbidity rate among the regions of Ukraine for five years subjected to analysis was identified in the Odesa region, although this rate decreased in 2022 compared to 2018 by 36.0 %. The lowest TB incidence rate was documented in Luhansk (5.4 per 100 000 population), Donetsk (11.9 per 100 000 population), Kharkiv (18.0 per 100 000 population) and Kherson (21.9 per 100 000 population). In our opinion, these favourable indices reflect imperfection of statistics in the temporarily occupied territories. It was also recorded a 40.7 % decrease in the prevalence of all forms of active TB among the population of Ukraine during 2018-2022 (tabl. 4).

The prevalence of TB among children under the age of 14 and 15-17 years also tended to decrease by 34.1 and 49.7 %, respectively. The highest rates of TB prevalence and primary TB incidence in 2018-2022 were registered in Odessa region. The lowest rates of prevalence of all forms of active TB (with the exception of temporarily occupied territories) in 2022 were documented in

Ternopil region (27.5 per 100000 population) and Kyiv (22.1 per 100000 population).

Table 4

**Prevalence of all forms of active tuberculosis among the entire population of Ukraine (% per 100,000 population)**

N	Administrative region	2018	2019	2020	2021	2022
1	AR of Crimea	-	-	-	-	-
2	Vinnitsia	57,1	63,9	52,8	46,6	57,4
3	Volyn	66,9	61,6	42,8	45,0	39,8
4	Dnipropetrovsk	110,5	109,6	73,2	74,1	79,2
5	Donetsk	75,0	69,6	54,1	38,5	7,1
6	Zhytomyr	96,8	87,0	50,7	46,9	41,6
7	Zakarpattia	89,8	93,9	73,7	73,4	70,9
8	Zaporizhzhia	105,9	93,4	68,8	50,4	36,3
9	Ivano-Frankivsk	56,3	50,1	32,3	24,4	28,0
10	Kyiv	93,1	84,3	55,8	52,6	47,9
11	Kirovohrad	97,6	95,3	88,1	71,9	67,6
12	Luhansk	87,7	77,0	65,4	51,4	1,9
13	Lviv	53,0	49,5	31,3	31,6	34,4
14	Mykolaiv	125,9	113,9	92,7	95,5	87,3
15	Odesa	161,0	150,3	117,3	136,7	125,1
16	Poltava	74,3	71,2	57,9	50,9	52,1
17	Rivne	64,2	63,7	50,8	44,4	46,5
18	Sumy	63,5	55,7	22,2	25,0	26,2
19	Ternopil	46,3	41,1	23,9	23,1	27,5
20	Kharkiv	58,9	55,9	45,1	39,8	37,4
21	Kherson	96,8	85,6	72,1	59,7	47,6
22	Khmelnysk	59,3	56,6	41,1	35,1	36,0
23	Cherkasy	71,5	66,5	45,5	38,6	36,2
24	Chernivtsi	53,0	53,6	39,7	39,1	45,8
25	Chernihiv	90,6	76,3	61,0	61,5	49,3
26	Kyiv city	47,5	44,0	29,9	23,0	22,1
27	Sevastopol city	-	-	-	-	-
Ukraine		19,0	69,4	50,9	47,6	43,9

The incidence of tuberculosis in health care institutions workers is presented in tabl. 5.

Table 5

**Incidence of tuberculosis (new cases + recurrences) in workers of health care institutions of Ukraine (% per 100 thousand)**

N	Administrative region	2018	2019	2020	2021	2022
1	2	3	4	5	6	7
1	AR of Crimea	-	-	-	-	-
2	Vinnitsia	3,9	5,3	3,0	2,2	1,9
3	Volyn	5,4	5,5	5,2	4,0	5,5
4	Dnipropetrovsk	8,9	5,8	4,4	5,1	4,2
5	Donetsk	7,7	9,2	9,0	6,1	1

Contin of the tabl. 5

1	2	3	4	5	6	7
6	Zhytomyr	6,3	4,6	4,3	1,7	5,8
7	Zakarpattia	3,4	1,2	4,5	2,0	4,2
8	Zaporizhzhia	9,9	6,2	3,5	6,4	6,5
9	Ivano-Frankivsk	6,4	5,0	4,1	2,8	2,4
10	Kyiv	5,4	4,9	2,1	5,1	0,4
11	Kirovohrad	2,3	5,9	3,9	3,4	7,7
12	Luhansk	3,7	3,8	2,1	4,3	0
13	Lviv	3,3	4,6	4,2	1,3	4,3
14	Mykolaiv	10,3	10,2	6,2	7,7	3,7
15	Odesa	7,1	8,8	4,7	3,3	7,9
16	Poltava	5,6	6,0	7,1	4,6	4,8
17	Rivne	3,4	3,4	4,3	1,7	2,9
18	Sumy	5,4	2,6	5,9	1,2	2,5
19	Ternopil	4,9	4,5	1,8	1,8	0
20	Kharkiv	7,2	5,2	2,5	4,3	1,5
21	Kherson	8,5	7,7	7,1	0,8	4,1
22	Khmelnysk	3,3	3,9	3,2	2,2	1,7
23	Cherkasy	4,6	4,3	4,3	1,6	1,7
24	Chernivtsi	5,4	3,5	2,9	1,5	2,4
25	Chernihiv	6,0	3,1	4,2	3,1	6
26	Kyiv city	5,5	4,8	2,4	2,0	2,4
27	Sevastopol city	-	-	-	-	-
Ukraine		6,0	5,3	4,2	3,3	3,4

An important problem is that TB affects a large number of people of working age, which leads to permanent disability. Among the adult and able-bodied population, the absolute rate of primary disability due to TB decreased in 2022 compared to the previous year by 11.4 and 3.9 %, respectively (tabl. 6). However, these indicators tended to decrease not in all regions of Ukraine: in the Vinnytsia region over the past two years, absolute indicators of primary disability among the adult and able-bodied population tended to increase by 15.8 and 18.9 %, respectively, in Dnipropetrovsk region by 18.4 and 14.3 %, in Zhytomyr - by 7.1 and 3.4 %, in Zakarpattia - by 6.2 and 10.3 %, in Zaporizhzhia - by 55.8 and 55.1 %, in Ivano-Frankivsk - by 32.3 and 71.9 %, in Kyiv - by 19.0 and 14.0 %, in Lviv - by 19.7 and 21.8 %, in Odesa - by 30.4 and 30.1 %, in Poltava - by 41.2 and 39.3 %, in Rivne - by 42.9 and 56.3 %.

Table 6

**Indicators of primary disability due to tuberculosis among the adult population and persons of working age in 2021-2022 (% per 10 thousand of the relevant population)**

N	Administrative region	Adult population		Persons of working age	
		2021	2022	2021	2022
1	2	3	4	5	6
1	AR of Crimea	-	-	-	-
2	Vinnytsia	1,01	1,20	1,43	1,70

Contin of the tabl. 6

1	2	3	4	5	6
3	Volyn	0,81	0,70	1,09	1,00
4	Dnipropetrovsk	0,76	0,90	1,05	1,20
5	Donetsk	0,69	0,20	1,01	0,30
6	Zhytomyr	0,84	0,90	1,16	1,20
7	Zakarpattia	1,13	1,20	1,36	1,50
8	Zaporizhzhia	1,13	0,50	1,56	0,70
9	Ivano-Frankivsk	0,68	0,90	0,64	1,10
10	Kyiv	0,84	1,00	1,14	1,30
11	Kirovohrad	1,06	0,80	1,42	1,10
12	Luhansk	0,86	0,00	1,27	0,00
13	Lviv	1,17	1,40	1,56	1,90
14	Mykolaiv	0,74	0,70	0,95	0,90
15	Odesa	0,92	1,20	1,23	1,60
16	Poltava	0,85	1,20	1,22	1,70
17	Rivne	0,49	0,70	0,64	1,00
18	Sumy	0,28	0,30	0,39	0,40
19	Ternopil	0,48	0,50	0,66	0,70
20	Kharkiv	0,48	0,20	0,65	0,30
21	Kherson	2,24	0,70	3,05	1,00
22	Khmelnysk	0,50	0,50	0,69	0,70
23	Cherkasy	0,78	0,50	1,08	0,70
24	Chernivtsi	0,07	0,10	0,08	0,10
25	Chernihiv	0,81	0,70	1,19	1,00
26	Kyiv city	0,46	0,20	0,28	0,20
27	Sevastopol city	-	-	-	-
Ukraine		0,79	0,70	1,04	1,00

So, it can be stated that TB shows aggressiveness and vulnerability to all social and age groups of the population, without exception, but its negative impact is especially felt among children and adolescents. The analysis of statistical indicators that reflect the epidemic situation and measures to combat TB provides an opportunity to objectively assess the trends of the epidemic process and determine priorities for reducing the spread of this disease among the population. The assessment of epidemiological indicators that highlight the state of TB requires special attention, since in recent years there has been a tendency to underestimate the significance of the TB problem, which is the result of various material, technical and economic factors.

We believe that in order to overcome the TB epidemic, it is necessary to organize and carry out the following three priority and most significant tasks:

1. Timely detection of TB patients.
2. Isolation of patients with TB of the respiratory organs (except for cases of TB of the pleura and TB of the intrathoracic lymph nodes without broncho-nodular fistulas).
3. Correctly controlled treatment until complete recovery.



If at least one of these components is not performed properly, the epidemic will not be overcome. At the same time, the most objective and demonstrative result of effective work in the fight against TB is the absence or significant reduction of infection of the population with the causative agent of TB.

Ensuring the success of measures to combat TB in Ukraine, in our opinion, is possible by implementing the following main measures:

- implementation of mandatory preventive medical examinations of the entire population in order to timely identify cases of TB disease;
- implementation of mandatory preventive medical examinations for TB of internally displaced persons during their registration and receipt of assistance, or when traveling abroad, etc.;
- creation of a sufficient bed fund to ensure inpatient treatment of TB patients;
- development of an effective law on forced treatment or isolation of TB patients who evade treatment because they pose a threat of infection to healthy persons.

**Conclusions.** 1. Since 2020, there is a trend to decreased the incidence of tuberculosis in Ukraine, although pre-

viously it was the opposite. It is believed to have been induced by the COVID-19 pandemic.

2. It was detected the decrease of the prevalence of all forms of active tuberculosis among the population of Ukraine during 2018-2022 by 40.7 %.

3. The highest morbidity rate of Ukrainian healthcare institutions employees was recorded in 2018 – 6.0 per 10 000 employees.

4. It is noteworthy that tuberculosis affected a high scale of the working population, which leads to a permanent loss of working capacity. Among the adult and able-bodied population, the absolute rate of primary disability due to tuberculosis decreased in 2022 compared to the previous year by 11.4 % and 3.9 %, respectively. Significant underdiagnosis of tuberculosis is likely due to the impact of the COVID-19 pandemic and war`.

5. To overcome the tuberculosis epidemic, it should be taken into consideration and carried out three priority tasks as follows: (1) Timely detection of tuberculosis patients; (2) Isolation of patients with respiratory tuberculosis; (3) Correctly controlled treatment until complete recovery.

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#### Conflict of interest

The authors declare no conflicts of interest

## Current Epidemiological Situation of Tuberculosis in Ukraine and Possible Ways for Its Improvement

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**Introduction.** The epidemiological situation with tuberculosis in the world and in Ukraine remains difficult. Ukraine is in a hard position, especially with regard to its chemoresistant forms. Since 1995, an epidemic of this disease has been registered, and it continues to spread actively. Annually 10-11 thousand patients die from TB in Ukraine, accounting for more than 30 deaths every day. This epidemic continues to gain momentum and is becoming a threat even to the state's economy. The World Health Organization (WHO) considers TB, alongside with HIV infection, viral hepatitis and malaria, one of the most dangerous infectious diseases and an urgent problem for the whole world due to the increase in morbidity, mortality and other epidemiological indicators. Tuberculosis is included to the 10 leading causes of death in the world among infectious diseases. According to WHO experts, the difficult epidemiological situation regarding TB in the world will increase if an appropriate efforts are not made to control it. Some aspects of the TB current situation in Ukraine and the rest of the world have been covered in our previous publications. However, new and new challenges and circumstances arise in society that can affect the tuberculosis situation, therefore the relevance of our work and the goal we set for ourselves is undeniable.

**The aim of the study.** Conduct an analysis of the tuberculosis epidemic situation in Ukraine in 2018-2022 and propose measures for its improvement.

**Materials and methods.** The data of the official statistical information of the State Statistics Service and the Ministry of Health of Ukraine, scientific works of domestic and foreign authors were analyzed. 8 scientists and organizers of the phthisiatric service from Ukraine and Poland were involved in order to interpret statistical data and identify cause-and-effect relationship.

**Results.** According to the data of the Center of medical statistics of the Ministry of Health of Ukraine, during 2018-2022 the incidence of tuberculosis, together with relapses, decreased by 27.3 %. In this period, the incidence among children aged 0-14 years decreased by 16.9 %, and among children aged 15-17 years - by 45.8 %. So, it can be stated that TB shows aggressiveness and vulnerability to all social and age groups of the population, without exception, but its negative impact is especially felt among children and adolescents. The analysis of statistical indicators that reflect the epidemic situation and measures to combat TB provides an opportunity to objectively assess the trends of the epidemic process and determine priorities for reducing the spread of this disease among the population. The assessment of epidemiological indicators that highlight the state of TB requires special attention, since in recent years there has been a tendency to underestimate the significance of the TB problem, which is the result of various material, technical and economic factors.

Ensuring the success of measures to combat TB in Ukraine, in our opinion, is possible by implementing the following main measures: (1) implementation of mandatory preventive medical examinations of the entire population in order to timely identify cases of TB disease; (2) implementation of mandatory preventive medical examinations for TB of internally displaced persons during their registration and receipt of assistance, or when traveling abroad, etc.; (3) creation of a sufficient bed fund to ensure inpatient treatment of TB patients; (4) development of an effective law on forced treatment or isolation of TB patients who evade treatment because they pose a threat of infection to healthy persons.

**Conclusions.** Starting from 2020, there is a tendency to decrease the incidence of tuberculosis in Ukraine, although previously it was the opposite. A decrease in the prevalence of all forms of active tuberculosis among the population

of Ukraine from 2018 to 2022 by 40.7 % was recorded. The highest morbidity rate of employees of healthcare institutions of Ukraine was recorded in 2018 - 6.0 per 10 000 employees.

**Keywords:** tuberculosis, morbidity, prevalence, treatment.

## Сучасна епідеміологічна ситуація з туберкульозу в Україні та можливі шляхи її поліпшення

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**Вступ.** Усесвітня організація охорони здоров'я (ВООЗ) вважає туберкульоз (ТБ), поряд із ВІЛ-інфекцією, вірусними гепатитами та малярією, однією із найнебезпечніших інфекційних хвороб і актуальною проблемою для всього світу із огляду на зростання захворюваності, смертності та інших епідеміологічних показників. Епідеміологічна ситуація щодо ТБ в світі та в Україні складна. Україна, зокрема, стикається з труднощами щодо його хіміорезистентних форм. Від 1995 р. зареєстровано епідемію цієї хвороби. Щороку в Україні від ТБ вмирають 10–11 тис. людей, що означає понад 30 смертей щодня. Епідемія набуває обертів і стає загрозливою навіть для економіки країни.

Деякі аспекти епідеміологічної ситуації з ТБ в Україні та світі ми висвітили в попередніх публікаціях. Проте в суспільстві виникають нові й нові виклики та обставини, дотичні до ТБ, і актуальність нашої роботи й мети, яку ми ставимо перед собою, є беззаперечною.

**Мета.** Проаналізувати епідеміологічну ситуацію щодо туберкульозу в Україні у 2018–2022 рр. і запропонувати заходи щодо її поліпшення.

**Матеріали й методи.** Ми проаналізували офіційну статистичну інформацію Державної служби статистики та Міністерства охорони здоров'я України, наукові праці вітчизняних і зарубіжних авторів. Для інтерпретації статистичних даних і виявлення причинно-наслідкових зв'язків залучили вісім науковців і організаторів фтизіатричної служби в Україні та Польщі.

**Результати.** Згідно з показниками Центру медичної статистики МОЗ, в Україні з 2018 по 2022 рр. захворюваність на туберкульоз, разом із рецидивами, зменшилась на 27,3 %. Захворюваність серед дітей віком 0–14 років у цей період зменшилась на 16,9 %, а серед дітей віком 15–17 років – на 45,8 %.

Отже, можна констатувати, що ТБ виявляє агресивність і вразливість серед усіх соціальних і вікових груп населення, проте його негативний вплив особливо відчутний серед дітей і підлітків. Аналіз статистичних показників, які відображають епідеміологічну ситуацію та заходи для боротьби з ТБ, уможливило об'єктивно оцінити тенденції епідемічного процесу й визначити пріоритети з метою загальмувати поширення хвороби серед населення. Оцінка епідеміологічних показників, які висвітлюють стан із ТБ, потребує особливої уваги, оскільки в країні роки спостерігається тенденція до недооцінювання значення проблематики ТБ, що є наслідком різних матеріально-технічних і економічних чинників.

Успішність заходів боротьби з ТБ в Україні, на нашу думку, можна забезпечити за умови таких основних заходів:

- упровадження обов'язкових профілактичних медичних оглядів усього населення з метою своєчасного виявлення випадків захворювання на ТБ;
- упровадження обов'язкових профілактичних медичних оглядів на ТБ внутрішньопереміщених осіб під час взяття їх на облік і отримання допомоги, виїзду за межі держави тощо;
- створення достатнього ліжкового фонду для забезпечення стаціонарного лікування хворих на ТБ;
- ухвалення дієвого закону про примусове лікування або ізолювання хворих на ТБ, що ухиляються від лікування, оскільки вони створюють загрозу інфікування здорових людей.

**Висновки.** Від 2020 р. спостерігається тенденція до зростання захворюваності на туберкульоз в Україні. Зафіксовано зниження поширеності всіх форм активного туберкульозу серед населення України з 2018 по 2022 рік на 40,7 %. Найбільшу захворюваність серед працівників закладів охорони здоров'я України зафіксовано 2018 р. (6,0 на 10 тис. працівників). Серед дорослого і працездатного населення абсолютний показник первинної інвалідності внаслідок туберкульозу знизився 2022 р. порівняно з попереднім роком на 11,4 і 3,9 % відповідно. Для подолання епідемії туберкульозу пропонуємо організувати й виконати три першочергові завдання: своєчасне виявлення хворих на туберкульоз; ізолювання хворих на туберкульоз органів дихання; оптимальне контрольоване лікування аж до повного вилікування.

**Ключові слова:** туберкульоз, захворюваність, поширеність, лікування.

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