1. Medical provision and civil protection of the population due to fires in Bulgaria – statistical survey

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Fires are typical disasters for Bulgaria. The month of August for Bulgaria is characterized by the risk of natural fires. Industrial fires and those due to human error are a possible risk throughout the year. Big fires create an outbreak of traumatic defeat with plurality striking factors. In conditions of strong wind significant fire broke out and developed in Haskovo region in Bulgaria on 08.12.2019 with reduced risk to the population, but the fire at the landfill in Plovdiv region has a direct risk of damage to the human respiratory system. (Photo 1.) However, there is a risk to public health due to the risk factors that accompany any major fire. The victims need timely and reliable **medical provision**, which in the country is covered at all levels of the health care system - pre-hospital, hospital, post-hospitalization, reconstructions and rehabilitation procedures, and including preventive medicine methods. Fundamentally, **health consequences** for society due to fires in Bulgaria are a serious challenge front of **medical provision system** in the country and are closely linked to the civil protection mechanism (CPM). (1-6)

The legislation defines the medical provision of the population in case of emergencies, disasters, accidents and catastrophes, including fires as a national priority and part of the national security of the country.

Purpose. The aim of the study is to examine and analyze the **medical provision of the population** aspects and the health consequences due to fires in Bulgaria for the last 20 years period.

Materials and methods. Certain statistical survey about disasters on the territory of the country for the period 2013-2017 and for casualties of fires for the period 1995-2017 is described.

Results. During the surveyed period, the most affected by fires are: **Stara Zagora** (over 2300), **Dobrich** (over 1800) and **Burgas** (near 1500) regions. (Table 1.) The data indicate that the most common causes of the fires are technogenic - over 85%, and nearly 10% are deliberate. Among the population the largest number (144 people) **died** in 2017, and the highest number (349) **injured** in 2012.(Table 2.)

Table 1. Fires for the period 2010 - 2016 - total for the country and by region (Source NSI)

Region	Number/Year						
	2010	2011	2012	2013	2014	2015	2016
TOTAL	1630	2185	3010	764	2245	2474	2448
Blagoevgrad	8	103	61	20	12	346	30
Burgas	34	659	786	-	-	-	6
Varna	5	174	333	25	67	57	109
Veliko Tarnovo	138	84	43	22	101	120	91
Vidin	-	-	-	-	-	6	34
Vratsa	-	118	83	27	19	48	88
Gabrovo	59	108	206	70	251	53	20
Dobrich	194	475	348	-	212	291	332
Kardzhali	31	-	-	-	-	38	43
Kyustendil	62	153	23	122	135	211	97
Lovech	1	-	-	-	-	-	-
Montana	14	-	1	43	65	105	112
Pazardzhik	2	11	8	31	18	2	4
Gingerbread	19	48	-	-	-	3	3
Pleven	1	-	-	-	116	-	253
Plovdiv	88	3	24	1	-	-	-
Razgrad	-	-	81	59	41	55	47
Ruse	64	-	8	26	3	73	70
Silistra	42	-	-	1	-	-	-
Sliven	393	-	-	-	-	218	-
Smolyan	57	140	148	8	9	38	47
Sofia (capital)	3	3	3	5	-	-	-
Sofia	62	106	212	155	273	246	310
Stara Zagora	237	-	641	115	526	540	741
Targovishte	1	-	1	-	-	-	-
Haskovo	2	-	-	1	-	24	11
Shumen	-	-	-	28	371	-	-
Yambol	113	-	-	5	26	-	-

Key words: medical provision of the population; major fires; injured; Bulgaria

Sources:

1. D. Dimitrova, Outbreak of traumatic defeat fires in Bulgaria – Public health aspects, Trakia Journal of Sciences, Vol.16, Suppl.1, pp139-142, 2018
2. National programme for disaster protection 2020, (in BULGARIAN)
3. <http://www.stz.riew.e-gov.bg/Informatsiya-c251>, (in BULGARIAN)
4. Evidence base date of Mol, 2018
5. Evidence base date of NSI, 2018
6. Map base date of NIMH, 2019

Photo 1. An extreme fire hazard index is in effect for 14 regions of the country on August 12, 2019 (source NIMH)

Table 2. Statistics data on fires, deaths and injuries for the period 1995 to 2016 (Source GD"FSKP" - Mol)

DECEASED										
AGE	1995	2000	2005	2010	2011	2012	2013	2014	2015	2016
Up to 7	14	1	6		5	2	5	4	1	10
8-14	1	1	1	3			1	1		1
15-18		1								1
19-60	56	40	46	32	37	35	39	30	33	38
61-70	9	21	16	11	18	20	19	22	19	24
over 70	27	34	33	32	60	60	40	42	55	55
UNKNOWN				1	2	4	2	4	1	0
TOTAL	107	98	102	79	122	121	106	103	109	129

INJURED										
AGE	1995	2000	2005	2010	2011	2012	2013	2014	2015	2016
Up to 7	14	12	9	14	14	21	3	7	10	5
8-14	7	5	11	6	10	7	7	2	9	4
15-18		4	4	3	7	8	6	3	9	8
19-60	86	147	134	160	185	190	168	144	185	189
61-70	9	36	15	47	45	48	35	41	44	39
over 70	11	33	50	54	73	72	76	63	78	53
UNKNOWN				8	3	3	10	3	4	0
TOTAL	127	237	223	292	337	349	305	263	339	298

Conclusions . There is a large number of people killed and injured in the country due to fires. Medical teams of the unified rescue system 112 have an action plan for fires as part of **medical provision for the population**. Since 2016 there is a methodology and mapping of the risk of fires on the territory of the country which improves the **health management and the medical provision activities**.