

Results from  
The national online survey  
“**SOCIETY AND FIRST AID**”

Andrian Georgiev, Mariana Manusheva

## Contents

Introduction.....	3
Main results of the study.....	4
Demographics .....	6
Cardiopulmonary resuscitation (CPR) .....	8
Automatic external defibrillation (AED).....	11
First Aid (FA) .....	12
Additional case issues related to the provision of FA.....	17
Would you enroll in a first aid course? .....	18

## Introduction

The need for first aid skills is increasingly urgent. Accidents happen often and the likelihood of witnessing one increases significantly. As there are no modern statistics in Bulgaria on the attitude of the society to the topic of first aid, as well as the degree and scale of the people trained in the modern guidelines for first aid, the team of the First Three Minutes Foundation prepared this study to learn more on the subject.





The length of the study is 5-7 minutes and was conducted in the period February-October 2019. It is divided into 5 sections as follows:


- 1. Demography**
- 2. Cardiopulmonary resuscitation (CPR)**
- 3. Automatic external defibrillator (AED)**
- 4. First aid (FA)**
- 5. Three case questions related to the provision of FA in different situations**

All responses received in the survey were processed solely as a collection of data and were not considered as individual records.

The First Three Minutes Foundation reserves the right to disseminate and publish the results of the study in a manner it deems appropriate for the purposes of promoting modern first aid and the use of the automated external defibrillator.

## Main results of the study

Section	Findings/Conclusions
 <p>Demographics</p>	<ul style="list-style-type: none"> <li>• Period of implementation: <b>February-October 2019</b></li> <li>• Total number of participants: 3334, of which 756 male and 2578 female.</li> <li>• The survey covered all 28 districts of Bulgaria, and the initial goal of reaching a minimum of 15 people per district was met.</li> <li>• The majority of participants in the study are women aged 25 to 44 who live in Sofia, Bulgaria, and have a university degree, bachelor's, or master's degree.</li> </ul>
 <p>Cardiopulmonary resuscitation (CPR)</p>	<ul style="list-style-type: none"> <li>• Nearly half of the participants have been trained in CPR, about 1/5 in the last 1 year.</li> <li>• Over 98% of the participants believe that the population should undergo CPR training and would spend between 4 hours and 2 days every 2-3 years to be trained.</li> <li>• More than 86% of participants would perform CPR on a stranger if necessary, and most know that delaying CPR for a person with a cardiac arrest can lead to permanent brain damage. Those who would not perform the CPR of a stranger are most often worried about their insufficient preparation.</li> </ul>
 <p>Automatic external defibrillation (AED)</p>	<ul style="list-style-type: none"> <li>• Nearly 92% of the participants believe that placing AED in public places is important.</li> <li>• More than half know what AED is and more than 2/3 of them would use AED if necessary.</li> </ul>
 <p>First Aid (FA)</p>	<ul style="list-style-type: none"> <li>• More than 1/3 of the respondents found themselves in a situation where first aid had to be provided and 76% of them did so, driven by the desire to help. Those who did not intervene most often felt insecure about their skills and remained passive while others acted.</li> <li>• The largest number of people have undergone first aid training in their lifetime in preparation for candidate drivers and over 70% believe that this has prepared them for action in the situation in which they find themselves.</li> </ul>

	<ul style="list-style-type: none"><li>• Most of those who believe that first aid courses have not adequately prepared them for the emergency situation in which they find themselves, say that this was most often due to little practical exercise and lack of refresher knowledge.</li><li>• The most frightening for the participants are CPR, defibrillation, severe bleeding control, which are life-saving measures and the survival of the victim depends on their proper application by witnesses of the incident until the arrival of a team of EMS. Among the listed measures that people would not take, there are exclusively medical manipulations that are not applied by non-medical persons in providing first aid.</li></ul>
 <p>Additional questions</p>	<ul style="list-style-type: none"><li>• The answers to the questions on specific first aid situations show that the majority of participants know the basic modern first aid algorithms, but the combination with answers from the section for measures they would not implement shows the need to refresh and consolidate the knowledge to acquire of confidence and security in a critical situation.</li><li>• Nearly half of the participants would enroll in a first aid course, most often if it focuses on daily risks, family and children and is held in the vicinity of non-working hours and is free or paid by the employer.</li></ul>

## Demographics



**3334**

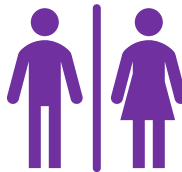
total number of  
participants in the study

**3162**

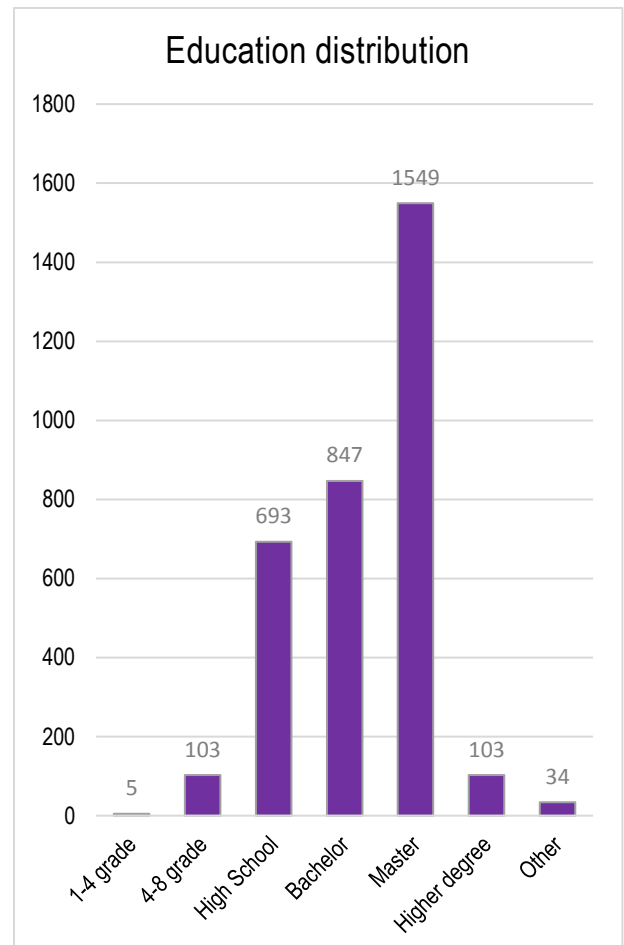
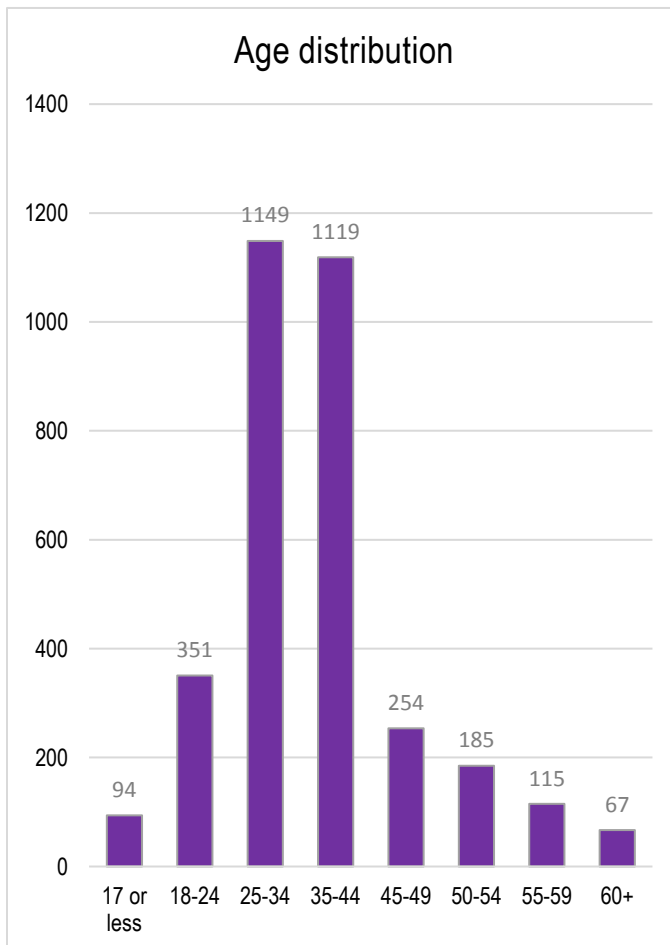
or **94.8%** of the  
participants

... have indicated that they live  
in Bulgaria

**756 / 22.7%**  
male

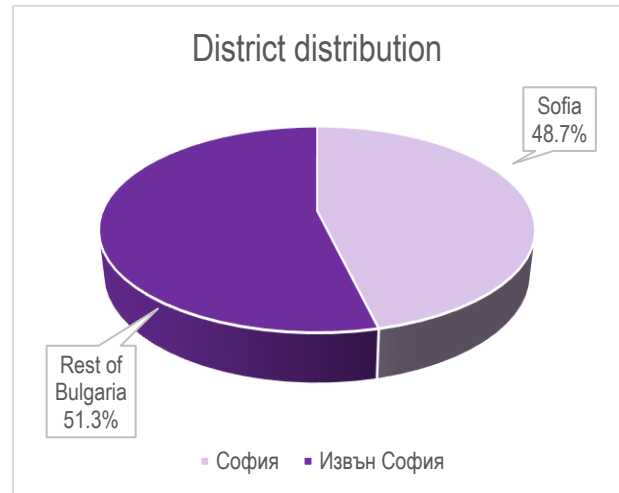


**2578 / 77.3%**  
female



**Number of participants, broken down by district (sorted in descending order)**

1541	Sofia city	48	Haskovo
215	Varna	43	Kyustendil
210	Plovdiv	39	Dobrich
106	Burgas	39	Gingerbread
96	Rousse	36	Vratsa
82	Stara Zagora	36	Gabrovo
75	Pleven	36	Razgrad
65	Blagoevgrad	35	Sliven
65	Veliko Tarnovo	26	Targovishte
55	Montana	23	Vidin
54	Sofia district	23	Yambol
54	Shumen	21	Kardzhali
53	Silistra	21	Smolyan
48	Pazardzhik	17	Lovech



The survey covered all 28 districts of Bulgaria, and the initial goal of reaching a minimum of 15 people per district was met.



The majority of participants in the study are women aged 25 to 44 who live in Sofia, Bulgaria and have a university degree, bachelor's or master's degree.

## Cardiopulmonary resuscitation (CPR)

**37%**  
1235 / 3334

... think they know what  
cardiopulmonary resuscitation  
(CPR) is.

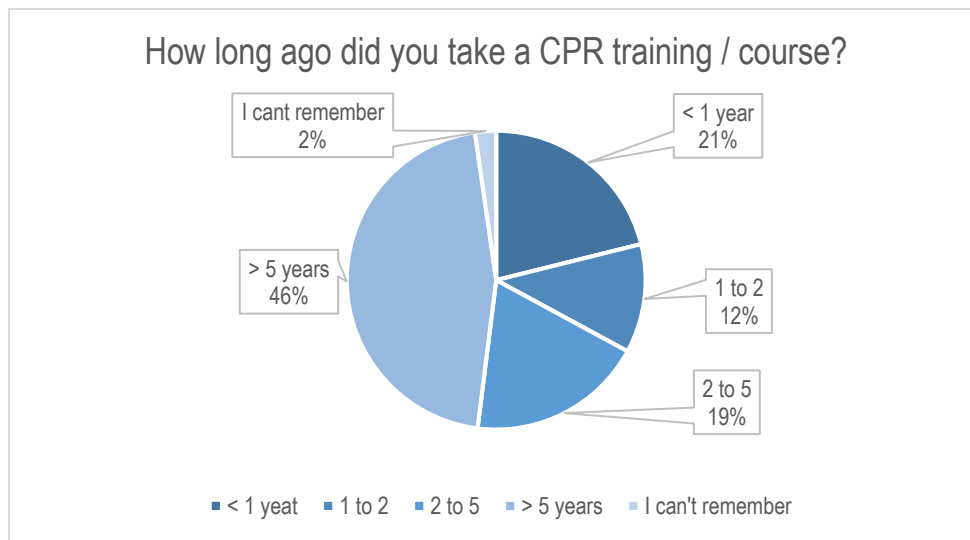
**48.9%**  
1629 / 3334

... claim to have  
completed a CPR  
training / course.



**21.1%**  
344 / 1629

... have undergone  
training / course on CPR  
*in the last 1 year.*



Nearly half of the participants have been trained in CPR, about 1/5 in the last 1 year.

What is the reason for not having completed a CPR training / course so far? <i>(more than 1 answer is possible)</i>	Number
I'm too busy	217
I don't think I need that	47
Too difficult to learn	43
<b>I prefer to leave it to the emergency specialists</b>	<b>301</b>
My physical / health condition does not allow me	15
I already know how to perform CPR	187
Something else	1010



**98.1%**  
3271 / 3334

... respond that society must undergo CPR training / courses (for example, as part of driving courses) in order to be prepared in the event of an accident.

**86.4%**  
2881 / 3334

... share that they would make the CPR of a person they do not know (for example, a passer-by).

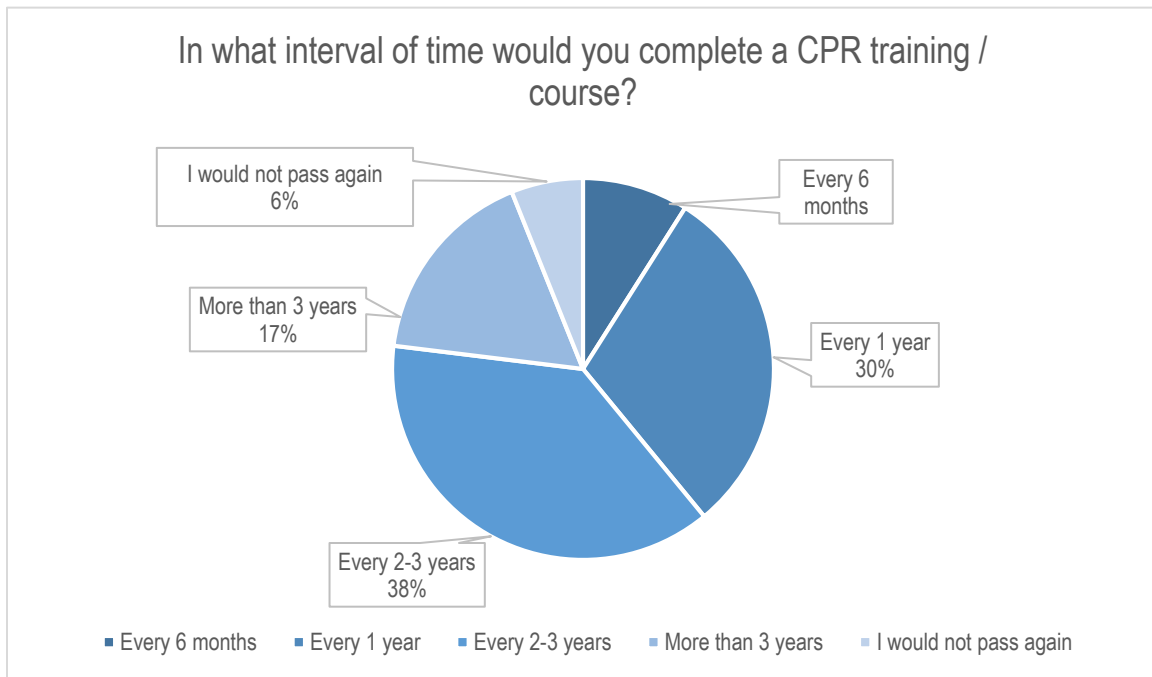
Of interest are the reasons why the remaining **13.6% / 453** people do not want to make a checkpoint for a passer-by, if necessary.

Why wouldn't do it? <i>(more than 1 answer is possible)</i>	Number
In order not to hurt the casualty	256
I'm worried about mouth-to-mouth breathing	128
I'm afraid of infection	120
I'm worried about legal issues	85
Delaying the CPR will not lead to a bad result for the casualty	8
<b>I am worried about the lack of knowledge</b>	<b>278</b>
My physical / health condition does not allow me	12
Something else	29

Which prerequisite would increase your willingness to apply the CPR to a stranger (eg a bystander)? <i>(more than 1 answer is possible)</i>	Number
"The Good Samaritan Rule That Offers Legal Protection to First Aiders"	71
<b>Delaying the CPR can cause permanent brain damage</b>	<b>186</b>
Perform hands only CPR	134
The CPR will not cause serious injuries	131
I refuse to answer	108

How much time would you spend on a CPR training / course? <i>(only 1 answer is possible)</i>	Number	%
30 minutes	169	5.07%
60 minutes	518	15.54%
90 minutes	177	5.31%
2:00	407	12.21%
<b>4 hours (half day)</b>	<b>571</b>	<b>17.13%</b>

8 hours (all day)	479	14.37%
2 days or more	521	15.63%
I have no interest	33	0.99%
I do not know	459	13.77%
<b>TOTAL</b>	<b>3334</b>	<b>100%</b>



Over 98% of the participants believe that the population should undergo CPR training and would spend between 4 hours and 2 days every 2-3 years to be trained.

More than 86% of participants would perform CPR on a stranger if necessary, and most know that delaying CPR for a person with a stopped heart can lead to permanent brain damage. Those who would not take the CPR of a stranger are most often worried about their insufficient preparation.

## Automatic external defibrillation (AED)

**62.2%**  
2075 / 3334

... claim to know what an Automatic External Defibrillator (AED) is.



**70.5%**  
2350 / 3334

... claim that if they find themselves in a situation that requires the use of an AED and there is such a device around them (eg airport, train station, mall, library), they would feel confident to use it immediately.

*Defibrillation, in the first 3-5 minutes after a sudden cardiac arrest, increases the chance of survival from 2-5% to 50-70%.*

**91.9%**  
3065 / 3334

... consider that placing AEDs in public places (eg airport, train station, shopping center, library) is an investment worthwhile.



Nearly 92% of the participants believe that placing AED in public places is important. More than half know what AED is and more than 2/3 of them would use AED if necessary.

## First Aid (FA)

**39.9%**  
1329 / 3334

... claim to know what FA is  
according to the guidelines of the  
*European Resuscitation Council (ERC)*  
and the *American Heart Association (AHA)* from 2015.

**37.6%**  
1255 / 3334

... have found themselves in a  
situation that requires them to  
have adequate first aid skills.



**76.4%**  
959 / 1255

... of the people have rendered  
FA in this situation.

The main reasons why these **959 people** have performed FA are listed in the table below:

Reason	Number	Reason	Number
Desire to help	146	Heart attack	8
Humanity	85	Broken bone	8
Saving a human life	84	Drowning	8
Something else	74	I feel obligated	7
Confidence to help	65	Stroke	4
I was the only one present	50	Collegiality	4
The victim was a relative	46	Altitude injury	3
Fainting	44	Necessity	3
Choking	43	Electric shock	3
Professional vocation	36	Hypoglycemia	3
Severe bleeding	36	Allergic reaction	2
Disaster	35	Burns	1
Epileptic seizure	30	Bleeding from the nose	1
Heart attack	22	Panic attack	1
Swallowed tongue	21	Pneumothorax	1
Man unconscious	21	Psychological support	1
Instinct	18	Head injury	1
Delay the ambulance	16	Satisfaction	1
Saving lives	15	Shock	1
Choking	11	<b>TOTAL</b>	<b>959</b>

Of those 1,255 people who found themselves in a situation where they needed to provide FA, **23.6% / 296 people** did not do so for the following reasons:

What was the most important reason you DIDN'T do it? <i>(only 1 answer is possible)</i>	Number	%
<b>Others intervened</b>	<b>105</b>	<b>35.5%</b>
I was afraid of doing harm / doing something wrong	51	17.2%
I wasn't sure what I should do	88	29.7%
I couldn't do anything	23	7.8%
Something else	29	9.8%
<b>TOTAL</b>	<b>296</b>	<b>100%</b>



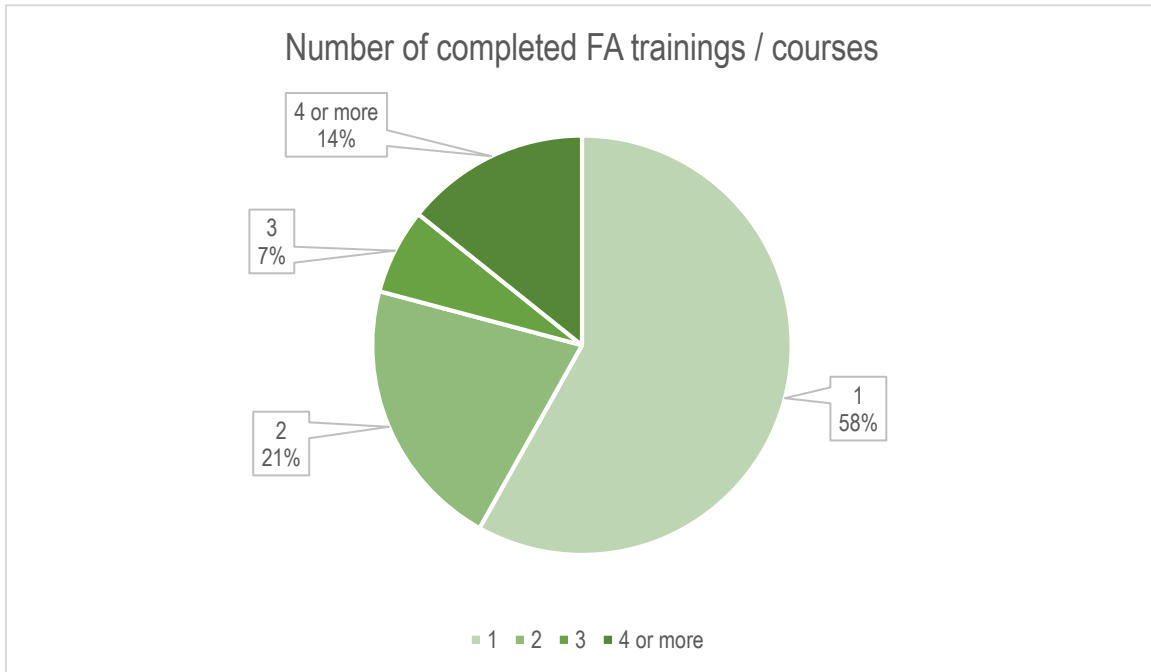
More than 1/3 of the respondents found themselves in a situation where first aid had to be provided and 76% of them did so, driven by the desire to help. Those who did not intervene most often felt insecure about their skills and remained passive while others acted.

**71.8%**  
2393 / 3334

... claim to have completed a training / course in FA.

Where did you go through this training? <i>(more than 1 answer is possible)</i>	Number
To an organization or Vocational Training Center (VTC)	312
To a specialized first aid training center	256
At the workplace	333
For military/scout/water rescue/security or other types of training	225
<b>As part of a first aid course for a prospective driver</b>	<b>1625</b>
Something else	331

The chart below shows the number of completed trainings as a percentage of all **2393 people** who have completed FA courses.



**31.6%**  
756 / 2393

... have found themselves in a situation that requires them to provide FA after completing a FA training / course.



**73%**  
552 / 756

... consider that the FA training / course has prepared them for such a situation.



The largest number of people have undergone first aid training in their lifetime in preparation for candidate drivers and over 70% believe that this has prepared them for action in the situation in which they find themselves.

Out of all 756 people who have been in a situation where they have to provide FA, **27% / 204 people** think that the FA training / course has not prepared them to have an adequate FA skill. The table below shows what these people most often lacked in order to feel confident in their actions.

Reason	Number	Reason	Number
Practice	101	Courage	3
Refreshing knowledge	27	More theory	3
Knowledge	17	In-depth skills	2
Adequate training	12	Adequacy	1
Confidence	12	Time	1
More information	8	Depth	1

Something else	7	Materials	1
Attitude	4	More explanations on the topic	1
Experience	3	<b>ОБЩО</b>	<b>204</b>

Към днешна дата:

**37.2%**

1241 / 3334

... think they **WILL KNOW** what to do in case of an emergency.

**34.9%**

1164 / 3334

... think they are **NOT CONFIDENT** in their knowledge of the subject.

**27.9%**

929 / 3334

... think they **WILL NOT KNOW** what to do in case of an emergency.



**62.8% / 2093** people state that to date they either definitely do not feel prepared to provide FA in case of emergency/injury, or they do not feel confident in their knowledge and/or skills. Here are the reasons why they share this:

Reason	Number	Reason	Number
Need for refresh of knowledge and skills	434	I never had to have a PP	66
It depends on the situation	297	Something else	65
Lack of (in-depth) training	296	Panic / severe stress from the situation	65
Lack of preparation	211	Lack of skills	50
Lack of confidence	173	Fear of harming the casualty	40
Lack of knowledge	147	I do not know	38
Lack of practice	106	Disinterest	13
	85	I'm not an expert	7



Most of those who believe that first aid courses have not adequately prepared them for the emergency situation in which they find themselves, say that this was most often due to little practical exercise and lack of refresher knowledge.


**21.4%**

713 / 3334

... claim that there is a measure to provide FA, which they would certainly **NOT** provide / implement.



FA in the case of...	Number	FA in the case of...	Number
CPR	177	Head injury	5
Something else	161	Epileptic seizure	3
Neither one	81	Choking	3
Tracheotomy	64	Chemical burns	3
Defibrillation	56	Allergic reaction	2
Severe bleeding control	40	Thermal burns	2
Immobilization of fractures	33	Heart attack	2
Moving the victim	22	Pneumothorax	2
Depends on the injury	19	Stroke	1
Open wounds	16	Crash syndrome	1
Unconsciousness	8	Recovery position	1
Amputation	5	Snake bite	1
Intubation	5	<b>TOTAL</b>	<b>713</b>


 The most frightening for the participants are CPR, defibrillation, severe bleeding control, which are life-saving measures and the survival of the casualty depends on their proper application by witnesses of the incident until the arrival of a EMS team. Among the listed measures that people would not provide, there are exclusively medical manipulations that are not applied by non-medical persons in providing first aid.



## Additional case issues related to the provision of FA

We asked several case questions about the rendering of the FA in order to check how the respondents would react. We have marked the correct answers in green.

What medications can you give to a casualty in first aid? <i>(only 1 answer is possible)</i>	Number	%
Only those that are sold without a prescription.	94	2.4%
Only those that are within the expiration date and I am well acquainted with their indications and dosages.	804	24.1%
<b>Only those that the casualty himself has or asked me to bring him and helped to take and he knows when, how much and how to take.</b>	<b>1640</b>	<b>49.2%</b>
Mild painkillers such as Analgen, Paracetamol or Buclizine, for example.	426	12.8%
Something else	370	11.1%
<b>TOTAL</b>	<b>3334</b>	<b>100%</b>

What would you do if, in front of your eyes, a colleague fainted and remained unconscious? <i>(only 1 answer is possible)</i>	Number	%
I will check if he has "swallowed his tongue" and I will take it out, I will call 112.	908	27.2%
<b>I will call for help, take his head back and lift the chin up and check if he is breathing; I'll put him in a recovery position and will call 112.</b>	<b>2235</b>	<b>67%</b>
I will start breathing mouth to mouth, I will call for help.	55	1.6%
Something else	136	4.2%
<b>TOTAL</b>	<b>3334</b>	<b>100%</b>

What would you do if a broken glass case cut your friend and a serious amount of blood gushed from the wound? <i>(възможен е само 1 отговор)</i>	Number	%
<b>I will press the wound, put it to lay down, and lift the injured limb; I will call for help and make a tight compression bandage on the wound.</b>	<b>1360</b>	<b>40.8%</b>
I will put him to lay down, I will apply a tourniquet 15 cm above the injury, I will mark the time and then I will make a bandage on the wound	1021	30.6%
I will call 112, make a sterile dressing of the wound and monitor the condition of the victim.	822	24.7%
Something else	131	3.9%
<b>TOTAL</b>	<b>3334</b>	<b>100%</b>



The answers to the questions on specific FA situations show that the majority of participants know the basic modern FA algorithms, but the combination with answers from the section for measures they would not implement shows the need to refresh and consolidate the knowledge to acquire of confidence and security in a critical situation.

## Would you enroll in a first aid course?

Finally, we asked if people would enroll in a first aid course, offering different options:

Would you enroll in a first aid course? <i>(only 1 answer is possible)</i>	Number	%
Yes.	1475	44.2
Yes, if the agenda is focused on extreme sports, survival in nature, outdoor activities.	78	2.3
Yes, if the agenda is focused on daily risks, children, family.	795	23.9
Yes, if it meets the requirements for my job or when applying for a job.	30	0.9
Yes, if I receive a certificate for the course.	58	1.7
Yes, if it can be held outside working hours.	199	6
Yes, if it is conducted in my city.	204	6.1
Yes, if it was free or paid by my employer.	258	7.8
No.	30	0.9
No, because I'm scared / sick of blood.	36	1.1
No, because this is for specialists / doctors / professionals.	17	0.5
No, because I have enough knowledge and skills to provide first aid.	42	1.3
No, because I can't / wouldn't spend money on it.	11	0.3
No, because I can't / wouldn't make the time to do it.	30	0.9
Something else.	71	2.1
<b>ОБЩО</b>	<b>3334</b>	<b>100%</b>



Nearly half of the participants would enroll in a first aid course, most often if it focuses on daily risks, family and children and is held in the vicinity of non-working hours and is free or paid by the employer.