REPUBLIC OF CYPRUS
MINISTRY OF HEALTH

Survey on "Monitoring of the socioeconomic inequalities in the family and how they related to injuries and poisoning in children aged 3 - 5 $^{10}/_{12}$"

June 2021

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Acknowledgments

Warm thanks to all the people who helped for the accomplishment of this survey: Dr. Olga Kalakouta, Chief Health Officer, Ministry of Health, Dr. Elena Hatzikakou, Chief Officer of the Cyprus Pedagogical Institute, Ministry of Education, Culture, Youth and Sports, Ms. Giasemina Karagiorgi, Head of the Research and Evaluation Center, Cyprus Pedagogical Institute, Ministry of Education, Culture, Youth and Sports, Ms. Christiana Nikolaou, Officer of the Research and Evaluation Center, Cyprus Pedagogical Institute, Ministry of Education, Culture, Youth and Sports, Ms. Maria Athanasiadou, Statistical Officer, Health Monitoring Unit, Ministry of Health and Ms. Anna Demetriou, Statistical Officer, Health Monitoring Unit, Ministry of Health.

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Abbreviations	Full name
n.a.	not available
%	Percentage
N	number of
JAHEE	European Joint Action on Health Inequalities
WHO	World Health Organization
ISCO-08	International Standard Classification of Occupations

Introduction

The survey was conducted by the Ministry of Health within the framework of the European Joint Action on Health Inequalities (JAHEE) program for the work package 5 (WP5). It studies the socio-economic inequalities that exist in Cyprus in terms of the main types of accidents (road traffic accidents, drowning/suffocation, poisoning, burns, falls) for children 3 - 5 $^{10}/_{12}$ years. All the required approvals have been obtained from the Ministry of Education, Culture, Sports and Youth as the competent authority for the promotion of the questionnaires in all kindergartens.

The results of the research can be used to improve the monitoring in health inequalities, and can play an important role for decisions and actions that can be taken in the near future regarding the formulation of a policy for the reduction of inequalities through the National Committee for the Prevention of Child Accidents and Poisoning. The research can be repeated every three years in order to evaluate the actions that will be carried out taking into account the results of the research (success rate). The survey will be compared with the previous corresponding survey conducted in 2006 by the National Committee for Child Accidents and Poisoning in Children, on "Assessment of the problem of accidents and poisoning in children aged 4-6 years in Cyprus"[1].

Objectives of the study are:

1. The recording of child accidents in children aged 3 - 5 $^{10}/_{12}$ years.
2. The correlation with socio-economic inequalities and whether the possible weaknesses ('gaps') of the current situation in Cyprus are reflected in increasing rates of child accidents.

[1] Ministry of Health (unpublished data), Assessment of the problem of accidents and poisonings in children aged 4-6 years in Cyprus, Advisory Committee for the Prevention of Accidents and Poisonings in Children, 2006.

Literature review

Injury is any intentional or unintentional damage to the body resulting from acute exposure to thermal, mechanical, electrical or chemical energy or a lack of heat or oxygen, (Peden M. et al, 2003)[2].

Accidents and consequent childhood injuries are a major public health problem worldwide and are responsible for causing early mortality and disability.

According to the World Health Organization (WHO), accidents are the leading cause of death for children aged 5-19. In 2004, there were 42,000 deaths of children and adolescents aged 0-19 in accidents across the WHO Europe Region[3]. In addition to the deaths, millions of injuries were reported in hospitalized children due to injuries, (Sethi et al., 2008)[2].

Typically, accident injuries account for about one third of the total number of deaths in the 0-14 age group. The World Health Organization estimates for 2011 that more than 630,000 children worldwide under the age of 15 were lost in accidents. (Peden et al., 2008)[4].

The cost of the loss of a child's life as well as large number of children who will suffer from permanent severe disabilities for the rest of their lives is huge. Children are very vulnerable to injury and therefore need to take special precautions to ensure their right to a healthy and safe environment. Every society has a responsibility to ensure that this fundamental right of children is achieved. Countries that have implemented child accident prevention action plans at national level have seen a significant reduction in injuries and deaths due to them, (Sethi et al., 2008)[2].

Research has shown that if all the countries in the European Region of WHO succeed in reducing child accident rates at the lowest country rates, then child accidents across Europe can be reduced by around 85%, (Peden et al., 2008)[3]. This indicates the inequalities that exists between countries in Europe regarding the impact of child accidents.

[2] Injury: a leading cause global burden of disease, 2000. Geneva, Peden M. et al, World Health Organisation, 2003 https://apps.who.int/iris/bitstream/handle/10665/66160/WHO_HSC_PVI_99.11.pdf?sequence=1&isAllowed=y

[3] European report on child injury prevention, Sethi et al, 2008. https://www.euro.who.int/__data/assets/pdf_file/0003/83757/E92049.pdf

[4] World report on child injury prevention appeals to “Keep Kids Safe”, Dr M Peden, Unintentional Injury Prevention, Department of Violence and Injury Prevention and Disability, 20 Avenue Appia, 1211 Geneva 27, Switzerland

The participation of Cyprus in this problem is not negligible, since our country presents similar percentages to those of European countries, where one in three child deaths is due to injury, (Table A)[5].

For the period 2004-2018, 50 deaths of children aged 0-6 years have been recorded due to external causes. 44 deaths out of 50 are due to accidents/poisonings. Specifically, for the whole period 2004-2018, 3 (6.8%) child accidents are due to fall, 1 (2.3%) is due to poisoning, 7 (15.9%) are due to drowning/swallowing, 21 (47.7%) are due to road accident and 12 (27.3%) due to other accident, (Table B)[6].

Table A: Total causes of death for children 0-19 years old, Cyprus 2004-2018

Causes of death in children 0-19 years	**Total**	**% Of all causes of death**
External causes of morbidity and mortality	273	29%
Certain conditions originating in the perinatal period	249	26%
Congenital malformations and chromosomal abnormalities	92	10%
Neoplasms	88	9%
Diseases of the nervous system and the sense organs	45	5%
Diseases of the circulatory system	43	5%
Other causes	150	16%
All causes of death for children 0-19 years (period 2004-2018)	**940**	**100%**

[5] Source: Causes of Death Registry, Health Monitoring Unit, Ministry of Health, https://www.moh.gov.cy/moh/moh.nsf/page70_en/page70_en?OpenDocument
[6] Source: Causes of Death Registry, Health Monitoring Unit, Ministry of Health, https://www.moh.gov.cy/moh/moh.nsf/page70_en/page70_en?OpenDocument

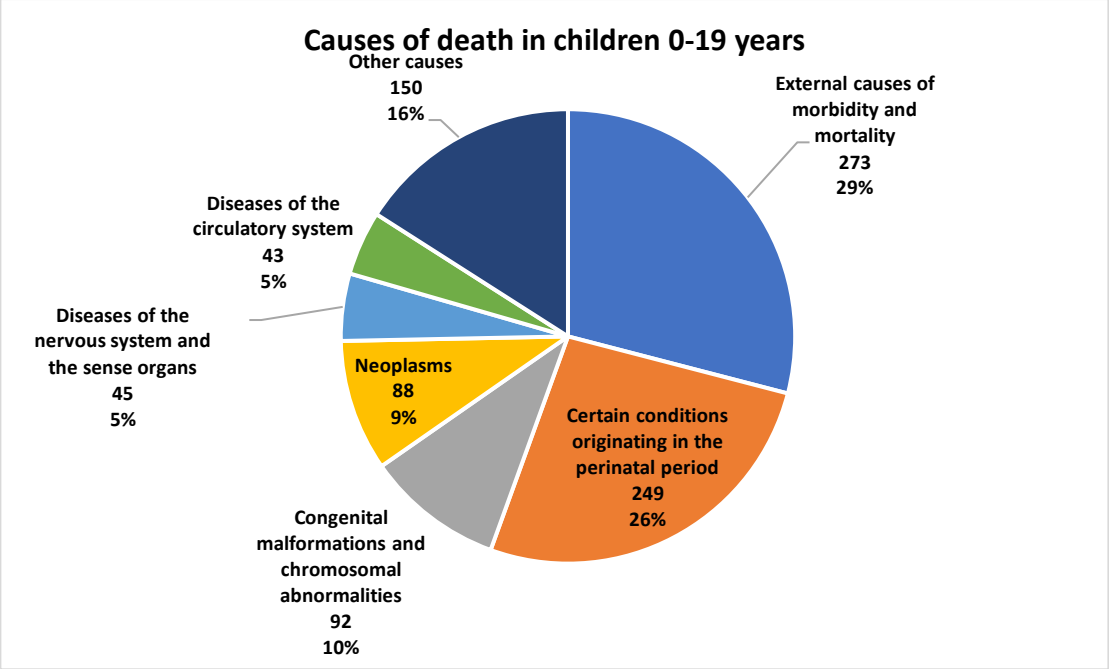
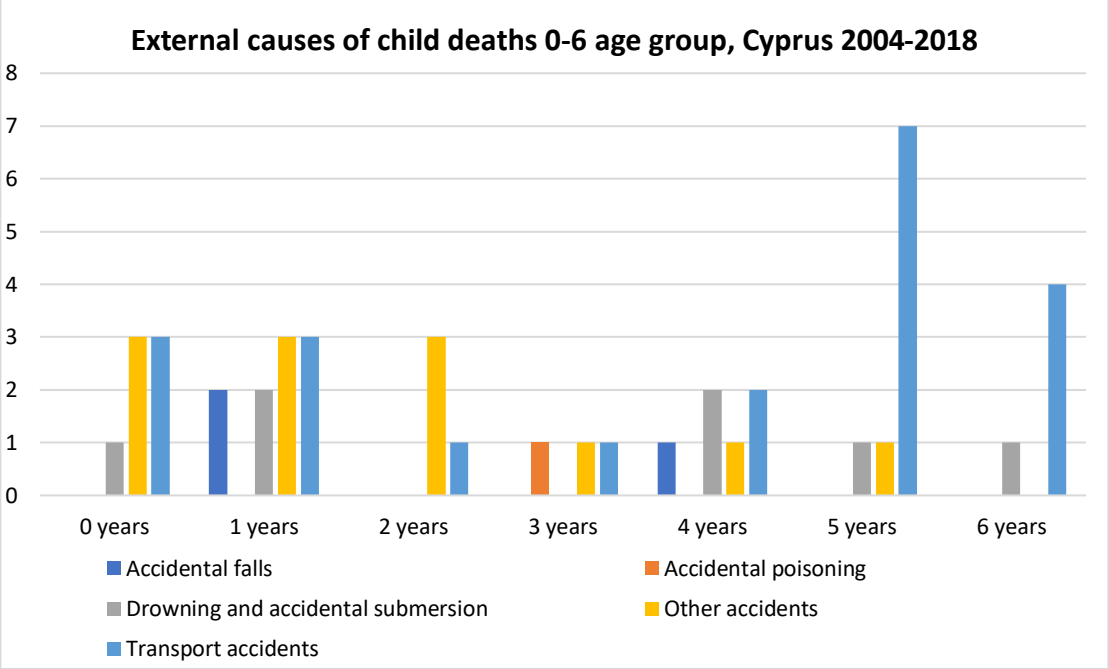


Table B: External causes of child deaths 0-6 age group, Cyprus 2004-2018

External causes		2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2017	2018	Total
Accidents/Poisoning	Accidental falls	0	0	1	0	0	0	0	1	1	0	0	0	0	0	**3**
	Accidental poisoning	0	0	0	0	0	1	0	0	0	0	0	0	0	0	**1**
	Drowning and accidental submersion	1	0	0	1	0	1	0	1	0	1	1	0	0	1	**7**
	Other accidents	1	0	2	1	1	1	1	0	0	1	1	1	1	1	**12**
	Transport accidents	0	10	0	3	1	2	2	1	0	0	0	1	0	1	**21**
Events of undetermined intent		0	0	0	0	0	1	0	0	0	0	0	0	0	0	**1**
Homicide, assault		0	0	0	0	1	0	0	1	1	0	0	0	0	2	**5**
Total of external causes		**2**	**10**	**3**	**5**	**3**	**6**	**3**	**4**	**2**	**2**	**2**	**2**	**1**	**5**	**50**

Accidents/Poisoning per external cause and age group	External causes of child deaths 0-6 age group, Cyprus 2004-2018							
	0 years	**1 years**	**2 years**	**3 years**	**4 years**	**5 years**	**6 years**	**0-6 years**
Accidental falls	0	2	0	0	1	0	0	**3**
Accidental poisoning	0	0	0	1	0	0	0	**1**
Drowning and accidental submersion	1	2	0	0	2	1	1	**7**
Other accidents	3	3	3	1	1	1	0	**12**
Transport accidents	3	3	1	1	2	7	4	**21**



Accidents are a multidimensional issue that requires the involvement of different agencies/services/organizations to prevent. The experience of other countries that have implemented appropriate intervention strategies and programs has shown that the problem can be tackled and significantly reduced. (Sethi et al., 2008). In Cyprus there is not a unique registration system for accidents and some departments have their own registry, (e.g., the police keep a record of fatal road injuries, the Ministry of Education keeps a record of child injuries at school, etc.) Recognizing the dimension of the problem, this survey will record the accident rates that occur in our country in order for the government to take actions and build policies for its reduction.

Methodology

Method justification:

The recording of child accidents was done using a digital questionnaire. This method was preferred in order to allow us to use a large sample of data and make the statistical analysis easier and adequate. The data will be collected easier as the presence of the researcher will not be needed and therefore the way of data collection will be more economical, as well.

Sampling:

The study population is all children attending public and private kindergartens and nurseries, aged 3 to 5 years and ten months. Specifically, the total size of the population is 19,769, from all districts that are under the effective control of the Republic of Cyprus and specifically, 7026 children from Nicosia district, 5023 children from Limassol district, 3625 children from Larnaca district, 2738 children from Paphos district and 1357 children from Famagusta district.

Ethical issues:

The survey was conducted after submitting a research protocol to the Ministry of Education and Culture to grant a license for the distribution of the questionnaire to the parents of children who attend public kindergartens and nurseries. The questionnaires were answered by the parents of children of the target population. The questionnaire is anonymous for the securing of the personal data of the children and their parents. At the same time, the completed questionnaires were used only by the main researchers and the data subjects are confidential.

Description and justification of how the data collected:

The questionnaire accompanies a letter addressed to the parents stating the purpose of the survey, the age group of target population, the short time required to complete the questionnaire and the importance of their positive response. The letter also mentions the names and the contact details of the main researchers, as well as the delivery time and the way of returning the questionnaire. Through the letter, the parents were invited to complete the questionnaire honestly and anonymously, giving information about an accident that may have happened to their child during the last 3 months, a period of time that parents are expected to be able to remember the accident. Specifically, they were asked to answer whether their child had an accident/poisoning (severe or light, accident or poisoning that required care in a doctor's office, hospital or at home), in November and/or December 2020 and/or January 2021.

The completion of the questionnaire was done electronically, in a link that is written in the letter sent to the parents. This method is considered the most suitable for fast and massive data collection, (Appendix A, Questionnaire). It is important to note that before the final questionnaire, a pilot survey was conducted with a small number of parents answering the questionnaire, in order to identify and correct any weaknesses presented in the questionnaires.

Data analysis and processing:

The aim of the data analysis is to correlate the accident with the socio-economic inequalities and whether the possible weaknesses ('gaps') of the current situation in Cyprus are reflected in increasing the rates of child accidents.

The SPSS statistical program and the Microsoft EXCEL program have been used for the processing, quality control and analysis of the data.

The indicators selected for the survey identify the possible inequalities that may exist between the socio-economic factors of the family of the child being evaluated.

The variables used present the characteristics of the child accident, such as the location and the type of the accident, the part of the body of the child affected, and how the child was treated after the accident. In addition, they present the correlation of the accident with the characteristics of the parents and the family, such as the age, the level of education, the professional status of the parents, the monthly family income, the type and the size of their house, the origin and the district residence of the parents, as well as, the number of children in the family. They present, also, the correlation of the accident with the characteristics of the child who had the accident, such as the sex of the child, the order of birth of the child in the family, and whether the child has an underlying disease.

Main results

The results of the survey are presented below and a comparison is made with a previous corresponding survey that conducted in 2006 by the Advisory Committee for the Prevention of Accidents and Poisonings in Children, "Assessment of the problem of accidents and poisonings in children aged 4-6 years in Cyprus".

The response rate was unfortunately very low, specifically 3.2% and this is probably mainly due to the pandemic that prevails at this stage both in our country and worldwide.

The results are summarized as follows: Most accidents occurred in the child's home, under the care of the parents. Most were due to a fall and the part of the child's body that was affected was the head. A large percentage of the children received medical care after the accident and no child had to be admitted and hospitalized for medical treatment. Most cases of child accidents concern Greek Cypriot parents, over 30 years old, with a high level of education, senior employees with relatively good financial situation. In addition, most child accidents occur in boys than girls, as well as in the first-born child in the family.

A. Descriptive statistics

In the question "Did your child have an accident/poisoning (serious or light) in November and/or December 2020 and/or January 2021?", 5.3% of the respondents mentioned that their child had an accident/poisoning, (Table 1). This percentage is lower compared to the 2006 survey, which was 6.9%.

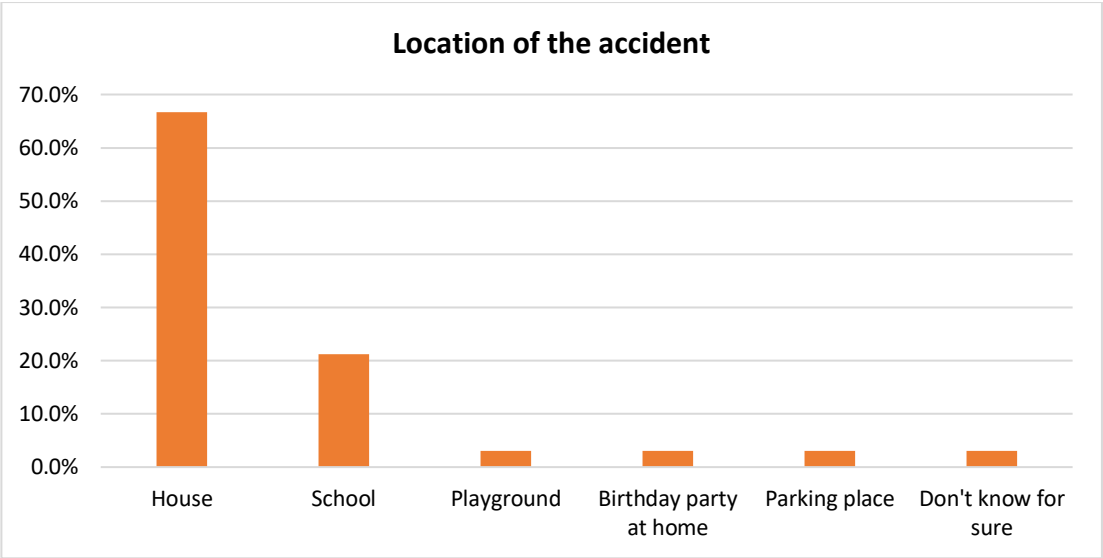
Table 1: Question: "Did your child have an accident/poisoning (severe or light) in November and/or December 2020 and/or January 2021?"

Accident/poisoning	Total	Percentage
Yes	33	5.3%
No	582	92.7%
Not remember	13	2.1%
Total	**628**	**100.0%**

Regarding the location of the accident, 66.7% of the accidents were located at the child's home, 21.2% of the accidents occurred at school, while lower rates had accidents located either in the playground or in a party at home or in a vehicle parking place, (Table 2). Considering the pandemic, though, and the trafficking measures that were during the study period of the sample, the results are to be expected. Compared to 2006 for "home" 52.8%, the percentage in the present study is higher (66.7%), while for "school" 22.6% the percentage is slightly lower (21.2%).

Table 2: Location where the accident occurred

Location of the accident/poisoning	Child accident	Percentage
House	22	66.7%
School	7	21.2%
Playground	1	3.0%
Birthday party at home	1	3.0%
Parking place	1	3.0%
Don't know for sure	1	3.0%
Total	**33**	**100.0%**



The highest percentage, 72.7%, of who had the care of the child when the accident happened held by parents. Lower rates percentages are attributed to the domestic helper, school, grandmother/grandfather, nanny, (Table 3).

Table 3: Question: "Who was taking care of the child when the accident happened?"

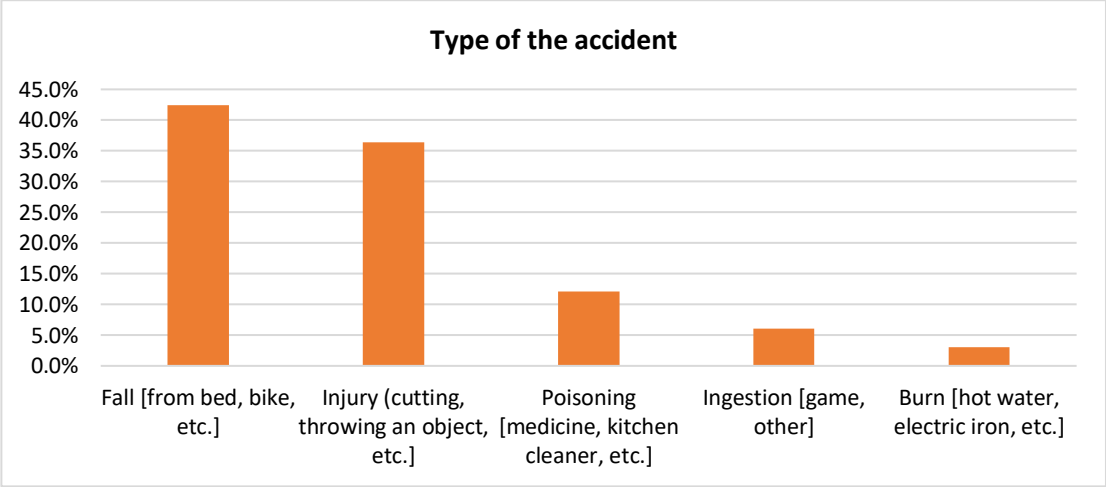
Care of the child during the accident	Child accident	Percentage
Mother	14	42.4%
Father	6	18.2%
Father and mother together	4	12.1%
Domestic helper	3	9.1%
Teacher/School	3	9.1%
Grandmother/grandfather	1	3.0%
Nanny	1	3.0%
Unknown	1	3.0%
Total	**33**	**100.0%**

Regarding the type of the accident, 42.4% of the accidents are due to a fall from the bed or from the bicycle and etc., 36.4% are due to injuries such as cutting or throwing an object, 12.1% to poisoning, 6,1% in ingestion of an object and 3% in burns from hot water or from an electric iron etc. (Table 4). The results of the 2006 survey were for "fall" 43.6%, for "injury such as cutting" 25.5%, for "poisoning" 1.8%, for "ingestion" 1.8%, for "burn" 10.9%, for "car accident" 3.6%.

Comparing the two studies, there is a difference in the rates of poisoning, ingestion and burns. With regard to traffic accident, there was no incident in the present investigation.

Table 4: Type of the accident

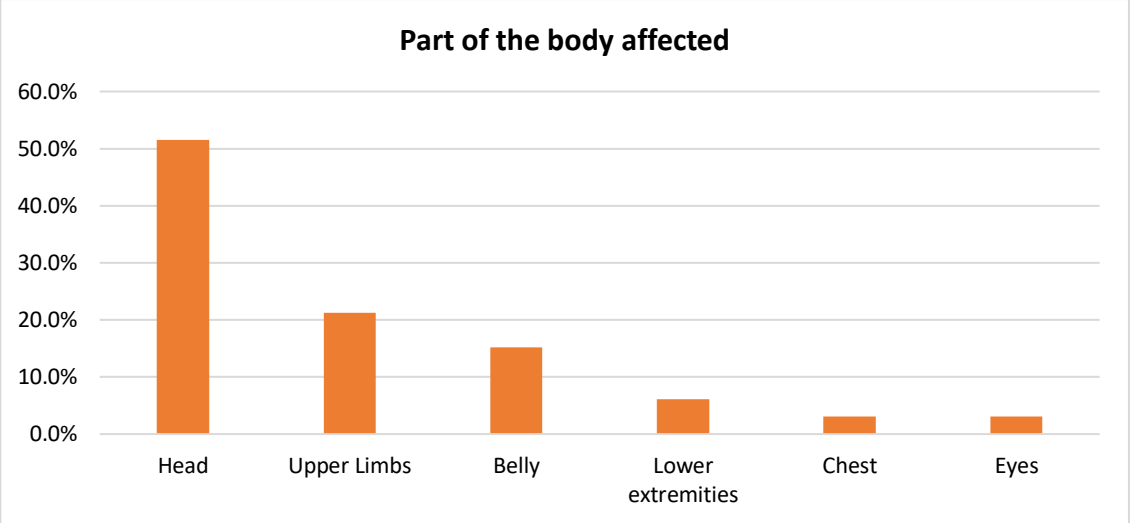
Type of the accident	Child accident	Percentage
Fall [from bed, bike, etc.]	14	42.4%
Injury (cutting, throwing an object, etc.]	12	36.4%
Poisoning [medicine, kitchen cleaner, etc.]	4	12.1%
Ingestion [game, other]	2	6.1%
Burn [hot water, electric iron, etc.]	1	3.0%
Total	**33**	**100.0%**



Regarding the part of the child's body affected by the accident, the most accidents, with a percentage of 51.5% affected the head, while with a percentage of 21.2% affected the upper extremities, 15.2% the abdomen, 6,1% the lower extremities, 3% the thorax and 3% the eyes, (Table 5). In 2006 the percentage that the accident affected the "head" was higher, 63.5%.

Table 5: Part of the body affected

Body part	Child accident	Percentage
Head	17	51.5%
Upper Limbs	7	21.2%
Belly	5	15.2%
Lower extremities	2	6.1%
Chest	1	3.0%
Eyes	1	3.0%
Total	**33**	**100.0%**



78.8% of the children received medical care after the accident, (Table 6). 69.7% of the children received medical care either in the First Aid Department, or in a doctor's office or clinic, while 9.1% did not need any visit to a doctor's office or clinic, they were only instructed by the doctor by phone, (Table 7). 30.8% of the accidents that received medical care, had insurance coverage, (Table 8). Compared to 2006 for "medical care" 82%, the percentages are relatively close. This means that parents in Cyprus often seek professional help from specialist doctors in such matters.

Table 6: Question: "Did the child receive medical care after the accident?"

Medical care	Child accident	Percentage
Yes	26	78.8%
No	7	21.2%
Total	**33**	**100.0%**

Table 7: Question: "Where did the child receive medical care?"

Place of medical care	Child accident	Percentage
First Aid Department	12	36.4%
Clinic	11	33.3%
Telephone communication with a doctor	3	9.1%
Not receive medical treatment	7	21.2%
Total	**33**	**100.0%**

Table 8: Insurance coverage after medical treatment

Insurance coverage (yes/no) after medical care	Child accident	Percentage
Yes	8	30.8%
No	18	69.2%
Total	**26**	**100.0%**

No child admitted and hospitalized for medical treatment after the accident. Of the 69.7% of children who received medical care either in the First Aid Department or in a doctor's office or clinic, 45.5% were examined and returned home with treatment, while 24.2% were examined and returned home without treatment, (Table 9). The percentages in the 2006 survey "examination + treatment" 50%, "examination + no treatment" 34.1%, are higher in both cases. Also, in 2006 we had incidents related to "admission and hospital stay" 15.9%, while no response to the present study concerned admission and hospital stay.

Table 9: How to deal with an accident

How to deal with an accident*	Child accident	Percentage
Examination and return home with treatment	15	45.5%
Examination and return home without treatment	8	24.2%
Without examination with telephone instructions from a doctor	3	9.1%
Without examination	7	21.2%
Total	**33**	**100.0%**

**There is not incident of a child accident that needed hospital admission*

B. Correlation between the accident and the parents' and family characteristics

Most of the parents participated in the survey were married. Thus, the correlation between marital status and child accident is proportional to a percentage of 90.9%, (Table 10).

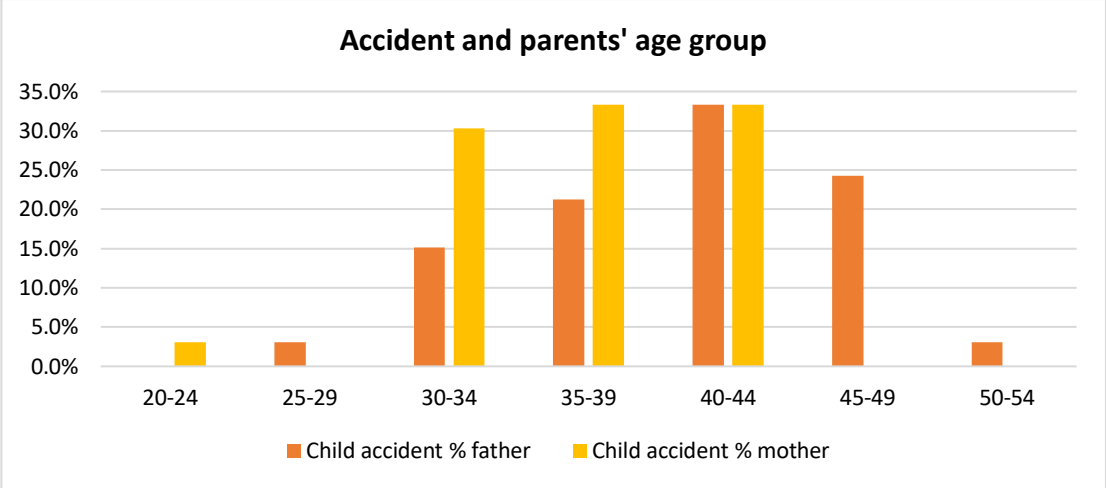
Table 10: Number of accidents in relation to marital status

Marital status	Child accident	Percentage
Married	30	90.9%
Divorced	1	3.0%
Single	2	6.1%
Total	**33**	**100.0%**

Most cases of child accidents occur in the older age groups of the parents. Specifically, for the father between 40-44 years, and for the mother 30-44 years, (Table 11). In 2006 the average age for the father was 36.15 and for the mother 31.94. In both surveys the mother is younger.

Table 11: Number of accidents in relation to the age of the parents

Parents age group	Child accident			
	Father	% father	Mother	% mother
20-24	0	0.0%	1	3.0%
25-29	1	3.0%	0	0.0%
30-34	5	15.2%	10	30.3%
35-39	7	21.2%	11	33.3%
40-44	11	33.3%	11	33.3%
45-49	8	24.2%	0	0.0%
50-54	1	3.0%	0	0.0%
Total	**33**	**100.0%**	**33**	**100.0%**

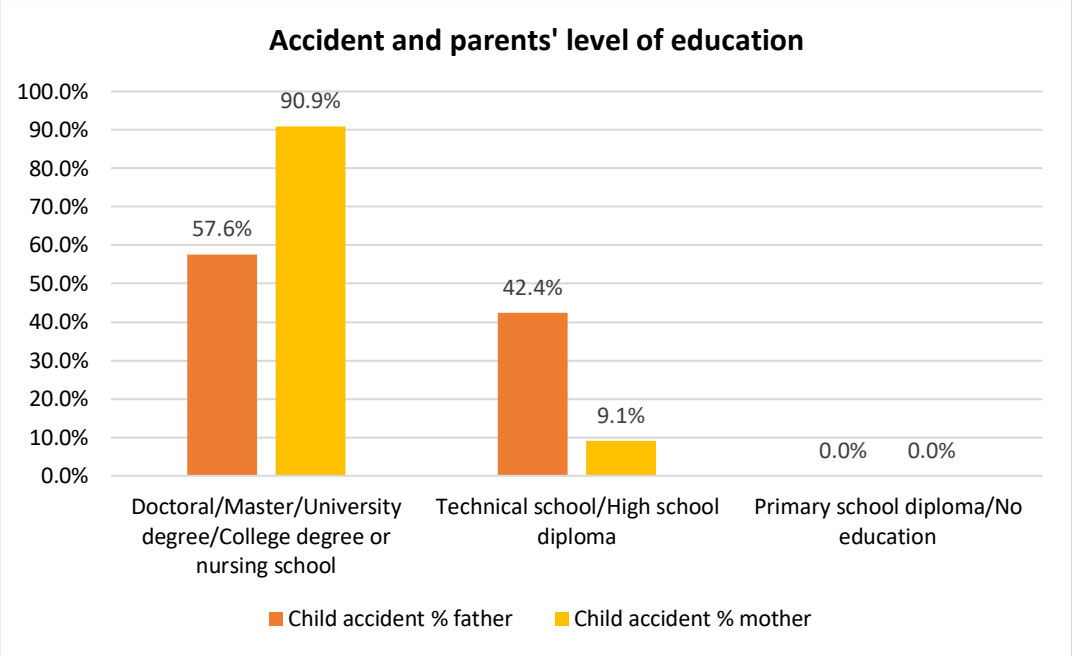


The percentage of accidents in children that have parents with a higher level of education is higher than the expected one, especially of the mother, (Table 12). Compared to 2006 the results are similar, so, the high level of education does not indicate a higher level of knowledge in relation to child safety.

Table 12: Number of accidents in relation to the level of education of the parents

Father's educational level	Child accident					
	Yes	% yes	No	% no	Not remember	% not remember
Doctoral/Master/University degree/College degree	19	57.6%	378	64.9%	5	38.5%
Technical school/High school diploma	14	42.4%	188	32.3%	5	38.5%
Primary school diploma/No education	0	0.0%	11	1.9%	2	15.4%
n.a	0	0.0%	5	0.9%	1	7.7%
Σύνολο	**33**	**100.0%**	**582**	**100.0%**	**13**	**100.0%**

Mother's educational level	Child accident					
	Yes	% yes	No	% no	Not remember	% not remember
Doctoral/Master/University degree/College degree	30	90.9%	502	86.3%	0	0.0%
Technical school/High school diploma	3	9.1%	79	13.6%	3	60.0%
Primary school diploma/No education	0	0.0%	0	0.0%	0	0.0%
n.a	0	0.0%	1	0.2%	2	40.0%
Σύνολο	**33**	**100.0%**	**582**	**100.0%**	**5**	**100.0%**



In the families where there was a child accident, all the fathers work, while for the mothers the percentage for work is 84.8%, (Table 13). 69.7% of the fathers work in the private sector, while for the mothers, 30.3% work in the private sector and 51.5% work in the public sector, (Table 14). Incidents of child accidents where the parents are qualified in science, engineering, health, technology, information, communication, teachers, accountants, business consultants (21-26)[7], are more than those where the parents have other occupations, (Table 15). The 2006 survey showed a tendency for a higher impact on children of self-employed or senior employees (71-72, 21-26).

Table 13: Number of accidents in relation to the professional status of the parents

Parents professional status	Child accident			
	Father	% father	Mother	% mother
Employed	33	100.0%	28	84.8%
Unemployed	0	0.0%	4	12.1%
Permanently unable to work due to long-term health problems	0	0.0%	1	3.0%
Total	**33**	**100.0%**	**33**	**100.0%**

[7] International Standard Classification of Occupations, ISCO-08, 2-digit categories. https://www.ilo.org/public/english/bureau/stat/isco/isco08/

Table 14: Number of accidents in relation to the occupation of parents by sector

Parents professional status by sector	Child accident			
	Father	% father	Mother	% mother
Private sector	23	69.7%	10	30.3%
Public sector	9	27.3%	17	51.5%
n.a	1	3.0%	6	18.2%
Total	**33**	**100.0%**	**33**	**100.0%**

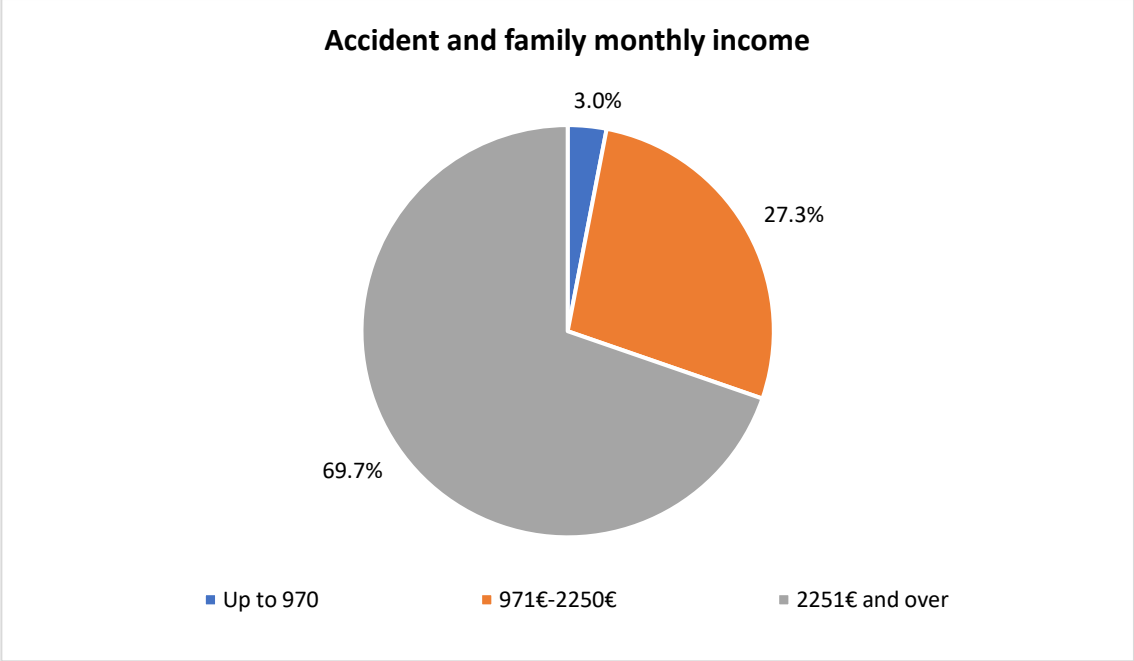
Table 15: Number of accidents in relation to the occupation of parents by occupation category ISCO08

Parents professional status by occupation category ISCO08	Child accident			
	Father	% father	Mother	% mother
Commissioned and Non-commissioned Armed Forces Officers and other members of the armed forces (01-03)	0	0.0%	0	0.0%
General, Administrative, Commercial Managers and Senior Management (11-14)	0	0.0%	2	6.1%
Qualified science, engineering, health, technology, information, communication, educators, accountants, business consultants (21-26)	10	30.3%	18	54.5%
Technical Assistants in Science, Engineering, Health, Information, Communication, Assistant Accountants, Business Consultants, Legal, Social, Cultural (31-35)	2	6.1%	4	12.1%
General Duties, Customer Service, Numerical Data / Material Recorders and Keyboard Machine Operators (41-44)	7	21.2%	3	9.1%
Employed in the provision of personal/care services, protection services, sales (51-54)	3	9.1%	0	0.0%
Skilled farmers, stockbreeders, foresters, fishermen, hunters (61-62)	1	3.0%	0	0.0%
Construction and finishing technicians of buildings, metal constructions, machinery, handicrafts, goldsmiths, potters, ceramists, typographers, electrical and electronics technicians (71-75)	6	18.2%	0	0.0%
Operators of fixed industrial installations and machinery, drivers of vehicles and operators of mobile equipment (81.83)	2	6.1%	0	0.0%
Cleaners and assistants, unskilled agricultural, forestry and fishing workers, cook assistants, street vendors and service providers, garbage workers and other unskilled workers (91,92,94-96)	1	3.0%	0	0.0%
n.a	1	3.0%	6	18.2%
Total	**33**	**100.0%**	**33**	**100.0%**

In the correlation between child accidents and the financial situation of the family, the survey showed that most child accidents occurred in families with an income of more than 2250 euros per month, at a percentage of 69.6%, (Table 16). In the 2006 survey there was no relevant question about the financial situation/income of the parents. Also, no statistically significant difference was observed in the incidence of accidents in relation to socio-economic class, district of residence, type of residence and number of children in the family that will be analysed in the next tables and graphs.

Table 16: Number of accidents in relation to the monthly income of the family

Monthly income of the family	Child accident					
	Yes	% yes	No	% no	Not remember	% not remember
Up to 970	1	3.0%	29	5.0%	4	30.8%
971€-2250€	9	27.3%	185	31.8%	3	23.1%
2251€ and over	23	69.7%	333	57.2%	4	30.8%
n.a	0	0.0%	35	6.0%	2	15.4%
Total	**33**	**100.0%**	**582**	**100.0%**	**13**	**100.0%**



Regarding the impact of the accident in relation to the type and size of the family home, it is observed that most accidents occurred in families living in a detached house (72.7%) rather than in an apartment, as well as with a house size over 100 sqm. Of course, a large percentage of respondents, 30.8%, answered that they do not know the size of their home, (Table 17).

Table 17: Number of accidents in relation to the type and size of the family home

Type of the family home	Child accident					
	Yes	% yes	No	% no	Not remember	% not remember
Detached house	24	72.7%	429	73.7%	5	38.5%
Apartment	9	27.3%	151	25.9%	6	46.2%
n.a	0	0.0%	2	0.3%	2	15.4%
Total	**33**	**100.0%**	**582**	**100.0%**	**13**	**100.0%**

Size of the family home	Child accident					
	Yes	% yes	No	% no	Not remember	% not remember
Less than 50 sqm	0	0.0%	1	0.2%	0	0.0%
50-99 sqm	7	21.2%	61	10.5%	4	30.8%
100-149 sqm	8	24.2%	103	17.7%	3	23.1%
150-199 sqm	5	15.2%	146	25.1%	2	15.4%
200-299 sqm	9	27.3%	167	28.7%	0	0.0%
More than 300 sqm	2	6.1%	45	7.7%	0	0.0%
n.a	2	6.1%	59	10.1%	4	30.8%
Total	**33**	**100.0%**	**582**	**100.0%**	**13**	**100.0%**

Most child accidents occurred in Greek Cypriot families (72.7%). The rest in families with mixed origin (21.2%) or from parents outside Greek Cypriot origin (6.1%). However, the fact that the majority of the parents who answered the questionnaire are Greek Cypriots probably has an effect in this, (Table 18).

Table 18: Number of accidents in relation to the origin of the parents

Parents' origin	Child accident					
	Yes	% yes	No	% no	Not remember	% not remember
Greek Cypriot (mother, father)	24	72.7%	483	83.0%	6	46.2%
Greek Cypriot (mother), Non-Greek Cypriot (father)	4	12.1%	32	5.5%	2	15.4%
Non-Greek Cypriot (mother), Greek Cypriot (father)	3	9.1%	34	5.8%	0	0.0%
Non-Greek Cypriot (mother, father)	2	6.1%	30	5.2%	3	23.1%
n.a	0	0.0%	3	0.5%	2	15.4%
Total	**33**	**100.0%**	**582**	**100.0%**	**13**	**100.0%**

Cyprus consists of six districts, Nicosia district, Limassol district, Larnaca district, Paphos district, Famagusta district and Kyrenia district. Five of them are under the effective control of the Republic of Cyprus (excluding Kyrenia district). The survey shows that most parents who had a child in which an accident occurred, live in Nicosia district (54.5%), (Table 19). The results are proportional to the population in each district.

Table 19: Number of accidents in relation to the district of residence of the parents

Parents' district of residence	Child accident					
	Yes	% yes	No	% no	Not remember	% not remember
Nicosia	18	54.5%	282	48.5%	7	53.8%
Limassol	5	15.2%	103	17.7%	1	7.7%
Larnaca	2	6.1%	91	15.6%	0	0.0%
Paphos	3	9.1%	55	9.5%	1	7.7%
Famagusta	2	6.1%	30	5.2%	1	7.7%
n.a	3	9.1%	21	3.6%	3	23.1%
Total	**33**	**100.0%**	**582**	**100.0%**	**13**	**100.0%**

Regarding the correlation of child accident and the number of children in the family, the research showed that most accidents with a percentage of 63.6%, occurred in families with two children in the family, (Table 20).

Table 20: Number of accidents in relation to the number of children in the family

Number of children in the family	Child accident					
	Yes	% yes	No	% no	Not remember	% not remember
1	6	18.2%	124	21.3%	3	23.1%
2	21	63.6%	339	58.2%	8	61.5%
3	5	15.2%	95	16.3%	0	0.0%
4	1	3.0%	20	3.4%	0	0.0%
5	0	0.0%	3	0.5%	0	0.0%
n.a	0	0.0%	1	0.2%	2	15.4%
Total	**33**	**100.0%**	**582**	**100.0%**	**13**	**100.0%**

C. Correlation between the accident and the characteristics of the child who had the accident

Examining the relationship between child accidents and sex of the child, it is observed from the results of the survey that more of the accidents occurred in boys than in girls of this age, (Table 21). We had the same results in the survey of 2006.

Table 21: Number of accidents in relation to the sex of the child

Child sex	Child accident	Percentage
Male	21	63.6%
Female	12	36.4%
Total	**33**	**100.0%**

Regarding the relationship between child accidents and the order of birth of the child in the family, it is observed that accidents are more frequent in the first child in the family, (Table 22). In 2006, however, more accidents occurred in the second child in the family.

Table 22: Number of accidents in relation to the order of birth of the child

Child order of birth	Child accident	Percentage
1	20	60.6%
2	10	30.3%
3	1	3.0%
4	1	3.0%
n.a	1	3.0%
Total	**33**	**100.0%**

According to the research data, the accident rate in children with underlying diseases is relatively low, 15.2%, (Table 23).

Table 23: Number of accidents in relation to the underlying disease of the child

Child underlying disease	Child accident	Percentage
Yes	5	15.2%
No	28	84.8%
Total	**33**	**100.0%**

Conclusions

Comparing this research with the research conducted in 2016, it seems that some of the results converge and some diverge. There is convergence in the type of accident where "fall" is the most common cause of a child accident, as well as in the part of the body most often affected which is "the head". In the case of other European countries, there is no research on the ages studied, 3-5 $^{10}/_{12}$ to make a specific comparison, but studies for children aged 0-19 have the same results.

In terms of medical care, in both surveys the parents after the accident of their child turn to the doctors, but in the present investigation no child had to be admitted and hospitalised, contrary to the results of the 2006 survey. Parents in Cyprus seek medical help more easily for accidents that have happened to their children than parents of children from other developed countries.

Regarding the impact of the accident in relation to the characteristics of the parents and the family, the results converge, as well. In relation to the level of education of the parents and to their profession, the observed tendencies are not compatible with the reports in other countries. Internationally accepted risk factors in relation to family characteristics have not been confirmed in the present study, nor in the 2006 study[8].

Regarding the impact of the accident in relation to the characteristics of the child, it is observed in both studies that boys have more frequent accidents than girls of this age. There is a discrepancy, however, in the fact that in the present research accidents occur more often in the 1st child in a row in the family, while in that of 2006 the 2nd child in a row had more frequent accidents. In other countries, studies for children aged 0-19 have the same results for the sex of the child who had the accident.

Existing legislation[8] compares favourably with other EU countries and there are effective interventions to reduce child deaths and serious injuries. Actions for the prevention of child injuries in Cyprus are promoted through the National Action Plan for Accidents and Poisoning in Children, 2016-2020[9].

[8] Injuries: a call for public health action in Europe - An update using the 2011 WHO Global Health Estimates, 2017 https://www.euro.who.int/__data/assets/pdf_file/0011/252569/Injuries-in-WHO-European-Region-A-call-for-public-health-action-Eng-revised.pdf

[9] National Action Plan for Accidents and Poisoning in Children 2016-2020. http://www.moec.gov.cy/seayp/stratigikes/stratigikes_ethniko_schedio_drasis_gia_ta_atychimata_kai_tis_dilitiriaseis_sta_paidia_2016_2020.pdf

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2. European report on child injury prevention, Sethi et al, 2008
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The Global Burden of Unintentional Injuries and an Agenda for Progress.
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2912603/#:~:text=The%20worldwide%20rate%20of%20unintentional,%2Dincome%20countries%20(65%20vs

9. Mortality in children and adolescents from unintentional injuries (falls, drowning, fires and poisoning).
https://www.euro.who.int/__data/assets/pdf_file/0004/96979/2.2.-Mortality-from-unintentional-injuries-EDITED_layouted_V3.pdf

10. World report on child injury prevention
https://www.unicef.org/media/files/PDF.pdf

Annexes

Annex 1: Questionnaire

ΚΥΠΡΙΑΚΗ ΔΗΜΟΚΡΑΤΙΑ
ΥΠΟΥΡΓΕΙΟ ΥΓΕΙΑΣ

ΕΡΩΤΗΜΑΤΟΛΟΓΙΟ

Έρευνα για τη «Συσχέτιση των κοινωνικό - οικονομικών ανισοτήτων στην οικογένεια με τα Ατυχήματα και τις Δηλητηριάσεις των παιδιών στις ηλικίες 3 - 5 10/12 ετών»

Αγαπητοί γονείς,

Το Υπουργείο Υγείας στα πλαίσια του ευρωπαϊκού προγράμματος για την ανισότητα στην υγεία (Joint Action on Healthy inequalities), διεξάγει έρευνα με σκοπό την αξιολόγηση της συσχέτιση των Παιδικών Ατυχημάτων και Δηλητηριάσεων με την κοινωνική και οικονομική κατάσταση της οικογένειας στην Κύπρο. Το ερωτηματολόγιο απευθύνεται μόνο στις **ηλικίες παιδιών 3 - 5 10/12 ετών.**

Σας παρακαλούμε όπως το συμπληρώσετε με ΕΙΛΙΚΡΙΝΕΙΑ και ΑΝΩΝΥΜΙΑ, δίνοντας στοιχεία σχετικά με ατύχημα / δηλητηρίαση (σοβαρό ή ελαφρύ, ατύχημα ή δηλητηρίαση που να χρειάστηκε φροντίδα σε ιατρείο, νοσοκομείο ή στο σπίτι) που πιθανόν να συνέβηκε στο παιδί σας, τους **μήνες Νοέμβρη ή/και Δεκέμβρη του 2020 ή/και Γενάρη του 2021.** Η συμπλήρωση του ερωτηματολογίου είναι ολιγόλεπτη και όχι πέραν των 5 λεπτών. Η συμμετοχή σας στην παρούσα έρευνα είναι εντελώς εθελοντική. Ωστόσο, η συμμετοχή σας θα προσφέρει πολύτιμες πληροφορίες για τη διαμόρφωση πολιτικής που θα εξασφαλίζει την ασφάλεια των παιδιών.

Οι απόψεις σας θα είναι ΕΜΠΙΣΤΕΥΤΙΚΕΣ και κανένας άλλος εκτός από τα μέλη της ερευνητικής ομάδας δε θα έχει πρόσβαση στα συμπληρωμένα ερωτηματολόγια. Όλα τα δεδομένα που θα συλλεχθούν θα αποθηκευτούν με ασφάλεια.

Για οποιασδήποτε πληροφορίες παρακαλώ αποταθείτε :

- Θεοπίστη Κυπριανού 22605391, tkyprianou@moh.gov.cy
- Ειρήνη Γεωργίου 22605738, igeorgiou@moh.gov.cy

Ευχαριστούμε για την ανταπόκριση σας.

ΕΡΩΤΗΜΑΤΟΛΟΓΙΟ

Παρακαλούμε όπως συμπληρώσετε το ερωτηματολόγιο που ακολουθεί

Συγκατάθεση συμμετοχής στην έρευνα **ΝΑΙ** ☐ **ΟΧΙ** ☐

1. Το ερωτηματολόγιο συμπληρώθηκε (από τον πατέρα / από τη μητέρα / από άλλο άτομο, προσδιορίστε …)

ΜΕΡΟΣ Α: ΧΑΡΑΚΤΗΡΙΣΤΙΚΑ ΟΙΚΟΓΕΝΕΙΑΣ

2. Οικογενειακή κατάσταση (άγαμοι / έγγαμοι / διαζευγμένοι / σε διάσταση / χήρος/α που δεν έχει ξαναπαντρευτεί, άτομα που συζούν)
3. Ηλικία πατέρα (<20, 20-24, 25-29, 30-34, 35-39, 40-44, 45-49, 50-54, 55-59, >=60)
4. Ηλικία μητέρας (<20, 20-24, 25-29, 30-34, 35-39, 40-44, 45-49, 50-54, 55-59, >=60)
5. Επίπεδο Μόρφωσης πατέρα (κανένα / απολυτήριο δημοτικού / απολυτήριο γυμνασίου / απολυτήριο λυκείου ή τεχνικής σχολής / πτυχίο κολλεγίου ή ΑΤΙ ή ΤΕΙ ή ΑΞΙΚ ή νοσηλευτικής σχολής / πτυχίο πανεπιστημίου / μεταπτυχιακό / διδακτορικό)
6. Επίπεδο Μόρφωσης μητέρας (κανένα / απολυτήριο δημοτικού / απολυτήριο γυμνασίου / απολυτήριο λυκείου ή τεχνικής σχολής / πτυχίο κολλεγίου ή ΑΤΙ ή ΤΕΙ ή ΑΞΙΚ ή νοσηλευτικής σχολής/ πτυχίο πανεπιστημίου / μεταπτυχιακό / διδακτορικό)
7. Τόπος Διαμονής (Ταχυδρομικός κώδικας, …)
8. Επάγγελμα πατέρα (εργαζόμενος, καθορίστε ακριβώς …. / άνεργος / συνταξιούχος / μόνιμα ανίκανος για εργασία λόγω μακροχρόνιων προβλημάτων υγείας / άλλο / ο πατέρας εργάζεται στον δημόσιο ή ιδιωτικό τομέα / καθορίστε ακριβώς το επάγγελμά του πατέρα)
9. Επάγγελμα μητέρας (εργαζόμενη, καθορίστε ακριβώς …. / άνεργη / συνταξιούχος / μόνιμα ανίκανη για εργασία λόγω μακροχρόνιων προβλημάτων υγείας / άλλο / η μητέρα εργάζεται στον δημόσιο ή ιδιωτικό τομέα / καθορίστε ακριβώς το επάγγελμά της μητέρας
10. Καθαρό εισόδημα οικογένειας μηνιαίως (μέχρι 970€ / 971€-1250€ / 1251€-1550€ / 1551€-1900€ / 1901€-2250€ / 2251€-2650€ / 2651€-3200€ / 3201€-3800€ / 3801€-5000€ / 5001€ και άνω / Δεν γνωρίζω, δεν είμαι σίγουρος, δεν θυμάμαι)
11. Τύπος και μέγεθος κατοικίας (μονοκατοικία / διαμέρισμα / συνολικός αριθμός δωματίων κατοικίας / τετραγωνικά μέτρα κατοικίας)

12. Καταγωγή πατέρα (Ελληνοκυπριακή / Τουρκοκυπριακή / Ευρωπαϊκή (εκτός Ελληνοκυπριακής) / Άλλη, προσδιορίστε

13. Καταγωγή μητέρας (Ελληνοκυπριακή / Τουρκοκυπριακή / Ευρωπαϊκή (εκτός Ελληνοκυπριακής) / Άλλη, προσδιορίστε …)

14. Αριθμός παιδιών στην οικογένεια (…)

ΜΕΡΟΣ Β: ΧΑΡΑΚΤΗΡΙΣΤΙΚΑ ΠΑΙΔΙΟΥ ΠΟΥ ΑΞΙΟΛΟΓΕΙΤΑΙ

15. Ημερομηνία Γέννησης Παιδιού, μόνο μήνας και έτος (…)

16. Φύλο (αγόρι / κορίτσι)

17. Σειρά γέννησης παιδιού στην οικογένεια (π.χ. 1ο , 2ο, 3ο κ.λ.π.) (…)

18. Αντιμετωπίζει το παιδί σας κάποιο πρόβλημα υγείας; (Ναι / Όχι / Αν η απάντηση είναι ΝΑΙ, προσδιορίστε …)

ΜΕΡΟΣ Γ: ΧΑΡΑΚΤΗΡΙΣΤΙΚΑ ΑΤΥΧΗΜΑΤΟΣ/ ΔΗΛΗΤΗΡΙΑΣΗΣ

19. Συνέβη στο παιδί σας κάποιο ατύχημα/δηλητηρίαση (σοβαρό ή ελαφρύ, ατύχημα/δηλητηρίαση τον μήνα Αύγουστο ή/και Σεπτέμβρη ή /και Οκτώβρη του 2020;) (Ναι / Όχι / Δε θυμάμαι)

Αν η απάντηση είναι ΝΑΙ προχωρήστε στην συμπλήρωση των υπόλοιπων στοιχείων

20. Τοποθεσία που συνέβηκε το ατύχημα/ δηλητηρίαση (κατοικία / δρόμο / σχολείο / παιδική χαρά / αλλού, προσδιορίστε……)

21. Ποιος είχε τη φροντίδα του παιδιού όταν συνέβηκε το ατύχημα/δηλητηρίαση; (πατέρας / μητέρα / παππούς/γιαγιά / οικιακή βοηθός / άλλος, προσδιορίστε.....)

22. Σημειώστε το είδος του ατυχήματος και προσδιορίστε ανάλογα (πτώση [από κρεββάτι, ποδήλατο κ.λ.π.] / έγκαυμα [καυτό νερό, ηλεκτρικό σίδερο κ.λ.π.] / δηλητηρίαση [είδος φαρμάκου, καθαριστικό κουζίνας κ.λ.π.] / ηλεκτροπληξία [γυμνό σύρμα, πρίζα κ.λ.π.] / πνιγμός [πισίνα, θάλασσα, μπανιέρα, αντικείμενο κ.λ.π.)] / τραυματισμός (κόψιμο, ρίξιμο αντικειμένου κ.λ.π.] / κατάποση αντικειμένου [παιχνίδι, άλλο] / Δάγκωμα [από ζώο, φίδι κ.λ.π.] / τροχαίο [πεζός, επιβάτης, ποδήλατο, μοτοποδήλατο, αυτοκίνητο κ.λ.π.]

23. Προσδιορίστε το μέρος του σώματος που επηρεάστηκε (π.χ. κεφαλή, αυχένας, θώρακας, κοιλιά, άνω άκρα, κάτω άκρα) (…)

24. Το παιδί σας έτυχε ιατρικής φροντίδας για το ατύχημα/δηλητηρίαση; (ναι / όχι)

Αν η απάντηση είναι ΝΑΙ προχωρήστε στις υπόλοιπες ερωτήσεις

25. Που έτυχε ιατρικής φροντίδας το παιδί σας; (Ιατρείο / Κλινική / Τμήμα Πρώτων Βοηθειών)
26. Με ποιο τρόπο αντιμετωπίστηκε το ατύχημα/δηλητηρίαση (εξέταση και επιστροφή στο σπίτι χωρίς θεραπεία / εξέταση και επιστροφή στο σπίτι με θεραπεία / εισαγωγή στο Νοσοκομείο / δε θυμάμαι)
27. Η περίθαλψη καλύφθηκε από ασφάλεια; (ναι / όχι)