INTELECTUAL OUTPUT 01
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Research on European Emergency Number 112 & Psychological methods/technics for 112 dispatchers in United Kingdom

CONTENTS

I. THE EUROPEAN EMERGENCY NUMBER 112

The Council Decision of 29 July 1991 (91/396/EEC) and Universal Service Directive of 7 March 2002 (Directive 2002/22/EC), amended by Directive 2009/136/EC of 25 November 2009 creates the single European emergency number, adopted by Council decision in order to enable citizens of the EU to call all the emergency services by using the same number from anywhere in the EU.

This has become more and more important as increasing numbers of European citizens travel to other EU countries for work, study or leisure.

Since the end of 2008, it has been a requirement for all EU Member States to ensure that anyone can call the emergency services from fixed and mobile phones by using the 112 number.

According to EU legislation, Member States must ensure that users of any type of telephone, fixed or mobile are able to call the emergency services free of charge by using the European emergency number 112.

This number is now available in all Member States.

National differences in the availability of emergency numbers

Before the formal EU adoption, the 112 emergency number had already been used for several decades as an emergency number in some EU Member States; for example, for the German fire brigade and for the Italian police forces. Nevertheless, most Member States were not familiar with the 112 number.

Its adoption at national level led to two categories of countries:

a) Countries where 112 is the sole/main Emergency Number (7)

In seven Member States, 112 has become the main national emergency number, promoted as the number to be used to contact all emergency services (i.e. police, fire and ambulance). The countries where this is the case are Denmark, Finland, Malta, the Netherlands, Portugal, Romania and Sweden.

However, some other previous national emergency numbers may still route callers to the emergency services in these countries. It is assumed, on the basis of the yearly COCOM reports from the Member States, that these previous emergency numbers are no longer publicly advertised for that purpose but are only kept in

operation with marginal usage for reasons of public safety.

b) Countries where 112 operates alongside other emergency numbers (20)

In 20 EU countries 112 is in operation alongside other emergency numbers. Most Member States have decided to introduce 112 as a number that will work along side their national emergency numbers. Here, both 112 and national numbers are in service as a way of contacting some or all emergency services.

U.K is one of this 20 EU countries. **In the UK citizens can either call 112 or the national number 999 in the event of an emergency.**

1. INTRODUCTION

Dialing 112 is a fast way to communicate with the emergency dispatcher centers (police, fire department, ambulance) in case of emergency.

The 112 Emergency System works as a service with a unique dialing number, operational nationwide, on all telephone networks, fixed or mobile.

The 112 system aims at ensuring citizen protection and providing the highest level of assistance, regardless of their location. The Unique National System for Emergency Calls consists of emergency calls answering centers (Public Safety Answering Points) and their associated equipment - an operative telecommunications system, designed to notify, receive, process and transfer the emergency calls to the requested services, in a centralized and unitary way. The system is also used for communication between specialized response systems of the Police, the Fire Brigade, the Ambulance, which have the obligation to respond in case of emergency calls. In the future, depending on the developing necessities, new response agencies will be gradually encompassed: the Gendarmerie, The Civil Protection and Antiterrorism units.

The work of this integrated system is set up with the purpose of ensuring the protection of the citizens' life and goods and will help restore a state of normality in Romania, similar to that of the other European countries. The efficiency of this system will largely depend on the prompt response of the emergency agencies (The Police, The Ambulance, The Fire Brigade, etc) to the crisis situations reported by the emergencies calls.

The main objective of 112 is to safeguard lives, property and environment.

The Unique System for Emergency Calls establishes the contact between the caller asking for help in an

emergency situation and the public safety agencies (their dispatcher centers).

According to Directive no 98/10/EC (ONP: provisions for the open telephone networks and the universal service in telecommunications), the 112 is the unique number for emergency calls throughout all European Union countries, being answered to in several foreign languages; it is a free of charge call that can be made from all terminals connected to the fix, mobile telephone, or other systems, to be at first implemented alongside the already existing systems.

In Directive no. 22EC/07.03.2002 of the European Parliament and Council (Universal Service Directive), the issue of 112 implementation is tackled under many articles (article no 6, 26 and Annex 1). The actions taken by the EU countries until 2001 for the implementation of the 112 system were included in the document entitled "State of implementation of the single European emergency call number", issued in October 2001 by the European Commission and which had as groundwork:

• the monitoring situation of the 112 implementation in EU on 06.01.1999 at the request of the Commission (DG Information Society, Communications Services: Policy and Regulatory Framework),

• the questionnaire developed by the Luxembourg Workshop (10-12 May 2000),

• the data provided by the member states.

Actions were also taken, aimed at analyzing and publicizing the implementation of the 112 system in the EU:

• the information campaign targeted at Belgian tourists traveling abroad (Belgium, September 2001);

• the workshop organized in Sweden (Rosersberg, 08-09.03.2002) on the effective use of emergency calls;

• the "Review of Telecommunication's Regulatory" Framework, on which proposals were made with respect to the future of the 112 system, in the context of the development of the European Information Society;

• appointment by the Commission of a coordination group called CGALIES (Co-ordination Group on Access to Location Information by Emergency Services), with the mission of defining the pan-European requirements with respect to location, necessary for the "112 European community" and the emergency agencies call takers;

• the campaign organized by EENA - The European Emergency Number Associations for the introduction and popularization of the 112 system in Europe. This institution was set up drawing on the not-for-profit

corporation model that emerged in USA as early as 1982 (National Emergency Number Association);

• the campaign of the "SOS 112 Europe" organization, aimed at attracting as many emergency services as possible, and providing the public with information on 112, but especially establishing an information exchange with the various emergency agencies in Europe, particularly with those connected to the 112 unique number for emergency calls.

The implementation in the European Union of the 112 unique number for emergency calls involved the analysis of certain issues regarding the set-up of the Public Safety Answering Points:

• multi-lingual (ensure that the calls can be answered in the European Union's official languages);

• choosing a coordination method for the emergency calls received on 112 lines (specific to each of the following emergency center types):

1 integrated (which handles all emergency call types and which, although is the best solution in the long term, is implemented on a lesser scale, maybe also on account of the disadvantages some countries have pointed out, regarding burden-sharing and the non-disclosure obligation);

2 coordination of the emergency calls (which can be done by the police, fire brigade or ambulance); - already in place (by mere call diversion); - commercial (having no competence in handling emergency services);

3 already in place (by mere call diversion);

4 commercial (having no competence in handling emergency services).

• call location (confidentiality, the costs payment, the protocols with the communications operators, the licenses provisions upon their issuance, the database availability and update, as well as the responsibilities of the network operators and the emergency calls dispatchers);

• roaming;

• service definition provided by the Public Safety Answering Points;

• emergency definition (the events that can put in danger human life, the property and the environment);

• informing the citizens of the existence and the level of implementation of the unique number for emergency calls in the European countries;

• training PSAP call takers (ensuring uniform training, developing their communication abilities, training them in stress and crisis management).

2. RESPONSIBILITIES OF THE UNIQUE NATIONAL SYSTEM FOR EMERGENCY CALLS

The Unique National System for Emergency Calls has, according to Law no.398/14th June, 2002, the following attributions:

1 Receives and automatically records the emergency calls received by: telephone, radio, automatic announcement devices, signaling, alarming by other methods, confirming and locating, as much as possible, the received calls;

2 Analyzes, organizes and promptly transfers the emergency calls to: specialized response agencies, competent authorities (depending on the nature of the events and their consequences);

3 Transfers the calls immediately, the data and the information received in case of disaster to the Permanent Technical Secretary of the Government Commission for Defense against Natural Disasters;

4 Receives and records the data and information regarding the events and response development;

5 Centralizes, stores and makes available for the competent authorities the data regarding the emergency calls being handled.

The Unique National System for Emergency Calls enables as well the handling of emergency calls in the languages of the national minorities in their administrative–territory units or, as the case may be, in one of the internationally spoken languages.

The services specialized in emergency response have the following attributions:

• to permanently ensure, through their own dispatchers, the handling of emergency calls transferred to them by the Public Safety Answering Points;

• to alert right away the response personnel;

• to maintain the connection with the forces and resources dispatched at the incident site.

The Unique National System for Emergency Calls is made available for all citizens nationwide (both Romanian and foreign) who are in an emergency situation.

The Public Safety Answering Points have a database helping 112 call takers to locate the call, to identify the nature of incident and the adequate response resources. This is possible by using two identification indicators:

• ANI automatic number identification : Automatic number identification: displays the caller's telephone

number.

• ALI automatic location identification : Displays the caller's address, the place he calls from and further information needed to find the optimal solution, so that the response should reach the incident site in time.

In responding to an emergency, the AVL application (Automatic Vehicle Location) is also used to identify the position of the vehicles responding to emergency situations, equipped with (conventional or digital) radio communications equipment, including a GPS subsystem. In order to route the data between the mobile terminals and AVL server, the AVL application uses digital radio and /or analog (conventional) networks, to locate the response vehicles and identify the best routes to get to the incident site.

2.1 The call handling process

• a caller dials 112 to report serious accidents, resulting in human casualties.;

• the system identifies the caller's phone number;

• the caller's name and address is then determined by database automatic search (the same as in the European Union countries, USA and Canada), this being a measure needed to confirm call authenticity;

• the call taker requests from the caller information about the nature of the incident;

• all data will be transmitted to the Police, the Fire Brigade and Ambulance dispatcher, depending on the nature of the case (this operation will take 2-3 seconds);

• the dispatchers rapidly identify the means of response participating in the case resolution, using the AVL application (Automatic Vehicle Location);

2.2 What does 112 bring new?

According to the law, confidentiality is peremptory for the personnel of the Unique National System for Emergency Calls.

Use of material and human resources in the emergency response is more efficient and represents a useful management tool in dealing with emergency situations. Thus, the response teams closest to the incident site will be able to arrive there in time to save human lives.

112 is a number used throughout the European Union, beneficial for tourists and foreign business people visiting Romania.

112 will enable the use of a single communication path simultaneously mobilizing all agencies providing

emergency services.

All the premises are created to efficiently utilize the material and human resources in an emergency situation as to decrease the time of an intervention. This is accomplished by the uniqueness of the number and by simultaneous data transfer to the adequate emergency agencies.

The calls entering the 112 system are recorded.

The automatic emergency number and location identification allows swift identification of false and/or abusive calls.

2.3 The 112 call is universal and free of charge.

112 calls are free of charge for any kind of telephone, public, fixed or mobile.

The subscribers dialling 112 do not pay extra taxes on the telephone bill.

2.4 The Public Safety Answering Points are permanently on duty, 24 hours a day, 7 days a week.

The PSAP call taker will ask the caller certain questions regarding the nature of the emergency he is reporting and will determine which emergency agency can respond properly to the caller's needs.

If you are calling 112, you must announce:

• Where the emergency location is;

• Where you are;

• What telephone number you are calling from;

• What your name is;

The emergency call taker assesses the caller's emergency, depending on received information and reports them to the emergency agencies authorized in managing that problem. If the situation implies the intervention of all the agencies, the preliminary data are simultaneously reported in maximum 2–3 seconds.

After providing these data you must remain on line to be transferred to the emergency agency you need and receive the recommendations.

If the connection with 112 is interrupted, you should try again. Stay patiently on line and answer all questions; do not hang up until you are told to.

Only dial 112 if you have an emergency.

3. STATISTICS REGARDING THE EUROPEAN EMERGENCY NUMBER 112

Based on the survey "The European Emergency Number 112" (No262), requested by the Directorate-General for Information Society and Media the report deals with the following aspects relating to the emergency number 112:

• Opinions about the usefulness of the European emergency number 112 and about facilitating access to it for people with disabilities

• Opinion about the adequacy of information on the European emergency number 112, and details about the actual information received about 112 and about other national emergency numbers

• Knowledge of 112 as an emergency number available from within one's own country and when travelling to other EU countries

• Usage of the European emergency number 112 and a comparison with usage of other emergency numbers.

3.1 Usefulness of the European emergency number 112

Over nine out of 10 EU citizens (94%) totally agreed, or tended to agree, about the usefulness of having an emergency number available anywhere in the EU. Respondents in the UK were again the least convinced about the value of such a number (87% totally agreed or tended to agree).

Nine out of 10 (89%) EU citizens agreed (they agreed totally or tended to agree) that access to emergency services via 112 for users with disabilities should be improved, but the individual country responses varied from 75% in the Netherlands to 97% in Greece.

3.2 Information about the European emergency number 112

Just over six out of 10 EU citizens (63%) did not agree that people were adequately informed about the existence of the European emergency number 112. Only in three EU countries (Luxembourg, Romania and the Czech Republic) did the majority think the information was adequate.

The majority of respondents had not received information about the EU-wide emergency number or other emergency numbers during the last 12 months (69%, down two percentage points). Only one in five interviewees (21%) said they had seen or heard information about 112.

The proportion of respondents who said they had received information about 112 as the European

emergency number in the past 12 months ranged from 7% in the UK to 60% in Bulgaria.

Those who have seen/heard about the European emergency number 112, four out of five (81%) named media outlets (television, radio, newspapers, the Internet) as their source of information. Nine percent reported telecommunications operators as their information sources.

3.3 Knowledge of the European emergency number 112

The general public is still generally unfamiliar with 112 as the European emergency number. Only one in four interviewees (24%, up two percentage points) could spontaneously identify 112 as the number to call for emergency services anywhere in the EU. Many more citizens (45%, up four percentage points) said they would call 112 for emergencies within their own country.

Knowledge of 112, as the number to call in an emergency situation anywhere in the EU, still greatly depends on the respondent's own country (from 3% in Italy to 58% in the Czech Republic). The proportion of respondents who mentioned 112 for emergencies within their own country ranged from 1% in Greece to 98% in Sweden.

It is still the case that having knowledge of 112 as an emergency number to call from one's own country does not necessarily mean that respondents were also aware of this number as the European emergency number.

3.4 Experiences of calling emergency numbers

A quarter of EU citizens were seen to have called an emergency number in the last five years. There were fewer of these calls addressed to 112 than to other national emergency numbers.

The last time they needed assistance, more than half of the respondents called a national emergency number (57%), and four in 10 (41%) called 112 for emergencies in their own country. Of the calls made to 112 in one's own country, 69% were calls in countries where 112 operates along with other emergency numbers, and 31% were calls in countries where 112 is the only/main emergency number.

The majority of the most recent emergency calls were made from a fixed-line telephone (53%).

A minority of the respondents who called emergency services experienced difficulties in establishing or maintaining the communication (7%, down one percentage point). Polish respondents were the ones that had most frequently encountered such difficulties (17%).

There was a low proportion of problems attributable to the telecommunications operators (1%), 3% of respondents got a busy tone or got no reply from the emergency service, and another 3% reported other problems.

Such communication problems were reported more frequently by mobile phone users (9%) than by fixed-line phone users (5%). The respondents who made an emergency call in another EU country were more likely, than those who made it in their own country, to have encountered technical difficulties.

Approximately three out of 10 (29%) respondents who called emergency services when visiting another EU country said they had language-related problems when communicating with the emergency services.

Respondents who made an emergency call with a mobile phone were less likely to provide the emergency services with the exact address of the emergency (83% compared to 94% for fixed-line telephone users).

Respondents who made an emergency call while visiting another EU country were less likely to be able to provide the emergency services with an exact address (70% for calls to 112 and 80% for calls to other emergency numbers vs. 87% -90% of those who called the emergency services in their own country).

Regarding the follow-up given to the call, in a large majority of cases an emergency unit arrived on the spot (83%, up two percentage points).

3. 5 Adequacy of information about the European emergency number 112

The majority of EU citizens disagreed that people were adequately informed about the existence of the European emergency number 112 (63%).

The highest proportion of respondents satisfied with the information about the European emergency number 112 was found in Luxembourg (70%). Only in three EU countries (Luxembourg, Romania and the Czech Republic) did the majority think the information received was adequate.

Despite Member States being obliged to inform citizens about the existence of 112, only one in five interviewees (21%) said they had received information about 112 as the European emergency number in the past 12 months. Sixteen percent of EU citizens said they had seen or heard information about the European emergency number 112, and an additional 5% reported having received information about the EU-wide number and other national emergency numbers.

Citizens of countries that joined the EU after 2004 were much more likely to have received such information about the EU-wide number for emergencies than the EU15 citizens: on average, 45% of the respondents from countries that joined the EU after 2004 had seen or heard something about 112 or about both the

European emergency number 112 and other national emergency numbers, while only 15% of the EU15 respondents stated the same thing. Bulgaria (60%), Romania (57%) and Lithuania (50%) were the countries with the highest proportions who claimed they had seen or heard information about 112, or about both the European emergency number 112 and other national emergency numbers. **Respondents in the UK, Slovenia, Ireland, Denmark, Greece, Italy and Germany (not more than one in 10) were the least likely to say they had received information about 112.**

3.6 Calling the emergency services from another EU member state

Although the 112 number is available in all Member States, the public is still generally unfamiliar with 112 as the European emergency number. Only one in four interviewees (24%, up two percentage points) could spontaneously identify 112 as the number to call for emergency services anywhere in the EU. The

majority of respondents (69%) said they did not know which number would enable them to call emergency services anywhere in the EU.

It is still the case that having knowledge of 112 as an emergency number to call from one's own country does not necessarily mean that respondents were also aware of this number as the European emergency number. Only 39% of respondents who reported that they would call 112 in the event of an emergency in their own country also knew that this number could be used to reach the emergency services anywhere in the EU. Knowledge of 112, as the number to call in an emergency situation anywhere in the EU, still greatly depends on the respondent's own country. While at least half of the respondents in the Czech Republic (58%), Luxembourg (56%) and Poland (50%) correctly answered that 112 was the telephone number that enabled them to call emergency services anywhere in the EU, the number 112 was practically unknown to interviewees in Italy (3% correctly stated the number), Greece (4%) and **the UK (8%)**. It is worth noting that although the European emergency number 112 was recently introduced nation-wide in Bulgaria (September 2008), half (49%) of Bulgarian respondents were already familiar with 112 being the number that would enable them to call emergency services anywhere in the EU.

4. CONCLUSIONS

A single emergency number 112 that is accessible for all emergencies and to all people living and travelling in the EU is easy to remember. As such, promoting the use of 112 helps to save lives. As European citizens are increasingly travelling to other countries, for business or pleasure, there is a need for a single number, identical across the EU, to call in an emergency. Especially for travelers, safety in emergencies is the other side of the coin of the single market and the freedoms it offers.

INCIDENT AND CALL STATISTICS

Flash Eurobarometer - **E.E.N.A EUROPEAN EMERGENCY NUMBER ASSOCIATION**

The Flash Eurobarometer of E.E.N.A surveys *on "The European emergency number 112"*.

This report deals with the following aspects of the EU-wide emergency number 112:

• awareness of 112 as an EU-wide emergency number when calling the emergency

services in another EU country

• awareness of 112 as an EU-wide emergency number among travellers
• awareness of 112 as an emergency number when calling the emergency services

from within one's own country (as a national emergency number)

• use of the European emergency number 112 as opposed to other national emergency numbers the level
   of information about the European emergency number 112, and details of the sources of information

The results of previous waves were published in 2008, 2009, 2010, 2011, 2012 – Flash Eurobarometer surveys No.228, No. 262, No. 285, No. 314 No. 338 and No. 339, respectively.

Methodological note on the survey

The interviews were carried out by telephone (fixed-line and mobile phone) between 7 and 9 January 2013 with nationally representative samples of EU citizens (aged 15 and older) living in the 27 Member States as well as Croatia. The target sample size in most countries was 1,000 interviews; in total, 26,624 interviews were conducted. Statistical results were weighted in order to correct known demographic discrepancies.

Note 1: In this report, countries are referred to by their official abbreviation.

ABBREVIATIONS

BE Belgium LV Latvia

CZ Czech Republic LU Luxembourg

BG Bulgaria HU Hungary

DK Denmark MT Malta

DE Germany NL The Netherlands

EE Estonia AT Austria

EL Greece PL Poland

ES Spain PT Portugal

FR France RO Romania

IE Ireland SI Slovenia

IT Italy SK Slovakia

CY Republic of Cyprus* FI Finland

LT Lithuania SE Sweden

UK The United Kingdom

HR Croatia

II.   KNOWLEDGE OF THE EUROPEAN EMERGENCY NUMBER 112

1.1 What is 112 number?

112 is the common emergency telephone number that can be dialed free of charge from most mobile telephones and, in some countries, fixed telephones in order to reach emergency services (ambulance, fire and rescue, police).

1. EU common emergency number - not unique
2. It's available in all EU 27 Member States
3. Access to Fire, Police and EMS Free of charge Functions 24/7
4. Managed and financed by each Member State (not EU)
5. 112 is free of charge
6. From landline, mobile and some VOIP
7. In all EU countries (and EEA)
8. Access to all services (fire, police, EMS)
9. (Accurate) caller location provided to ES free of charge
10.   Accessibility for people with disabilities

QUESTION 1

Can you tell me what telephone number enables you to call emergency services anywhere in the European Union?

Knowledge of 112 as the EU-wide emergency number

Base: all respondents

Source:FLASH EUROBAROMETER 368 "The European emergency number 112"

Most EU respondents are not familiar with 112 as the single European emergency number: only slightly over a quarter (27%) correctly identify it as the number to call anywhere in the EU in the event of an emergency. Nevertheless, this is a slight increase on the 26% who correctly identified 112 in the 2012 survey, and a 5-point increase on the 22% who did so in the 2008 wave.

About two-thirds (65%) of respondents say that they do not know which number they could call to contact emergency services anywhere in the EU, while a further 8% named an incorrect telephone number (i.e. a number other than 112).

QUESTION 2

Can you tell me what telephone number enables you to call emergency services anywhere in the European Union?

Knowledge of 112 as the EU-wide emergency number

Base: all respondents

Source: FLASH EUROBAROMETER 368 "The European emergency number 112"

Awareness of 112 as the European emergency number varies considerably according to

the Member State in question.

In five EU countries, 50% or more respondents spontaneously identified 112 as the number to call for emergency services from anywhere in the EU: Poland (57%), Slovakia (55%), Finland (54%), Luxembourg (53%) and the Czech Republic (50%). In Croatia (26%), familiarity with 112 is close to the EU average.

But at the other end of the scale, less than a fifth of respondents know that they can reach emergency services anywhere in the EU by calling 112 in Italy (5%), Greece (7%), the UK (13%) and Germany (17%).

QUESTION 3

In the past 12 months have you travelled in another EU country?

Travel to other EU Member States within the past 12 months

Base: all respondents

Source: FLASH EUROBAROMETER 368 "The European emergency number 112"

Over a third of respondents (36%) say that they travelled to another EU country at least

once in the past 12 months: 16% made one journey to another EU country, 16% made

between two and five trips, and 4% went to different EU countries more than five times

within the past 12 months. This is down slightly on the 39% of people who say that they

travelled to another EU country at least once during the previous wave of the survey.

Over six out of 10 respondents (63%) say that they did not go to any other EU country.

QUESTION 4

Source :FLASH EUROBAROMETER 368 "The European emergency number 112"

QUESTION 5

Fonts:FLASH EUROBAROMETER 368 "The European emergency number 112"

Those who have travelled to an EU country two times or more in the past 12 months

were much more likely to be able to name the correct EU-wide emergency telephone

number than non-travellers (39% vs. 23%). Just over half of frequent travellers were not

able to cite this number, compared to slightly under 70% of non-travellers.

QUESTION 6

Can you tell me what telephone number or numbers you would call in the event of an emergency?

Telephone number or numbers EU citizens would call in the event of an emergency in their own country

Base: all respondents

Fonts:FLASH EUROBAROMETER 368 "The European emergency number 112"

Across the EU, a majority of respondents (51%) would call 112 in the event of an

emergency in their own country, up from 47% in 2012. The same number of respondents

(51%) say that they would call an official national emergency number, which is also an

increase on the 45% of people who gave this answer in 2012. While the proportion of respondents who say they would call 112 has been steadily increasing since 2008, the number of people who say they would call a national numberhad been steadily declining (from 58% in 2008) until this year. The relatively large, sixpointincrease recorded this year is therefore a significant result in the historical context of the survey.

One in seven respondents (15%) say that they would call 'other number(s)'. 'Other number' responses were recorded when respondents listed an incorrect number (e.g. "1012" instead of "112") or when respondents listed a telephone number that was not an official emergency number in their country (e.g. the telephone number of their localpolice force or a roadside assistance telephone number). The proportion of EU

respondents giving this answer has risen slowly but steadily since 2008, when only 9% of

people said they would call 'other number(s)'

III.   USAGE OF THE EUROPEAN EMERGENCY NUMBER 112

Number called during an emergency situation in the 2013

Base: all respondents

Fonts:FLASH EUROBAROMETER 368 "The European emergency number 112"

Countries with 112 as the sole/main emergency number are: Denmark, Finland, Sweden, the Netherlands, Portugal, Romania and Malta

Across the EU, 46% of respondents (no change compared with 2012) who called an emergency number called only 112, while 52% (no change) say that they called only a national emergency number. Just 3% of respondents (+1) say that they called both.

For this question, the sample of respondents was divided into two halves (the 'split ballot' method). As a result, the responses can be separated into those that were prompted by the interviewer, as described above (Q2a), and those given spontaneously, as described below (Q2b).

In the Group 1 countries, where 112 is the sole or main emergency number, a large majority of respondents say that they called only 112 in Romania (98%) and Finland (96%). Fewer people give this answer in the Netherlands (64%) and Denmark (68%), where a relatively high number of respondents (35% and 21% respectively) say that they called only another national number3.

In the Group 2 countries, where national emergency numbers are also in use, the number of people who only called the EU-wide emergency number 112 was highest in

Bulgaria (90%), Spain (85%) and Lithuania (80%). In Croatia, 67% of respondents say

they called 112 only. But less than a tenth of respondents called only 112 in Greece

(3%), **the UK (4%)** and Austria (8%). In these three Member States, a very high

proportion of people say that they called only a national number: 95% say this in the UK,

as do 94% in Greece and 90% in Austria.

III. INFORMATION ABOUT THE EUROPEAN EMERGENCY NUMBER 112

QUESTION: 112 is the emergency number that can be used to call emergency services anywhere in the European Union.

During the last 12 months, have you seen or heard any information regarding the emergency number "112"?

Base: all respondents

Fonts:FLASH EUROBAROMETER 368 "The European emergency number 112"

According to EU legislation, it is the responsibility of individual Member States to inform

the public about the existence and use of the European emergency number 112. Since

2009, telecommunications providers have also been obliged to send a text message with

information about 112 to people using their mobile phones when they visit another EU

country.

Seven respondents out of ten (69%) did not come across any information during the

previous year, while just over a quarter (28%) say that they saw or heard some

information about it. This result is the same as that obtained in 2012, when only 28% of

respondents said that they had come across information about the 112 emergency

Number.

IV. EMERGENCY SERVICES ACCESSIBILITY IN EUROPE

HOW TO REACH 112

- Fax

It is used in several EU countries. Based on A4 sheet to be sent to a long number (not 112 or other short numbers). Pros

Pre-filled sheets provide clear information about the intervention needed Cons

Fax is not widely spread

Very slow procedure

Works only from home or office and at the local level only

Special number needed

Fax may not be received by 112 call-takers

- Location-based solutions

Used in few countries. Based on GPS location and pre-defined messages. Pros

Very accurate caller-location (outdoor)

Pre-defined messages speed the intervention Cons

Usable only for emergency or assistance, not for other communications (thus not widely spread)

Cost is an issue

- Proprietary chats/112apps

Chat service with pre-registration. Usually developped by 112 organisations with deaf organisations at local/regional level. Pros

More conversational

Users are familiar with chat services (MSN, Skype) Cons

Usable only for 112, not for other communications (thus not widely spread)

Works only at local/regional level

- 112 SMS

SMS to 112 (or long numbers) with or without pre-registration. Usually developped by 112 organisations with deaf organisations at national or regional level. Pros

Very widely spread

Caller-location is possible

Very inexpensive Cons

Delays (no priority in networks)

Conversation may last for more than 10 minutes

Not functioning when roaming

In U.K you can use call, fax, sms

V.   DIFFERENT EMERGENCY PROTOCOL CALLS MODELS

5.1 Model 1 - The « LOCAL PSAP»

Local Public Safety Answering Point

Main characteristic: calls to 112 routed to a local emergency service. The call-taker belongs to one discipline (fire, police or EMS)

5.2 Model 2 - The « STAGE 1 & 2 PSAP »

2 stages public safety answering point

Main characteristic: call filtered through PSAP stage 1 and transferred to regional emergency service

This is the model adopted by United Kingdom.

The difference with the model 1 is that it is not the user that calls directly the emergency service but this choice is made by an operator who filters and transfer the call to the regional emergency service.

5.3 Model 3 - The « INTEGRATED CONTROL ROOM »

Main characteristic: gathering of all disciplines in a single location at the regional level

5.4 Model 4 - The « 112 AGENCY »

Main characteristic: highly trained civilian call-takers who handle both 112 calls and dispatch

5.5 Model 5 « INTERCONNECTED PSAPs »

Main characteristic: 112 PSAPs using the same technology interconnected in a single network. Call in province X can be responded and handled in

VI. 112 EMERGENCY NUMBER IN UNITED KINGDOM

The British citizens in case of emergency prefer to call the traditional number.

The historic emergency number for the United Kingdom is 999.

Calls are also accepted on the European Union emergency number 112.

It is noted that the present moment even half of the population uses the 112 for emergency calls.

All calls are answered by 999 operators.

Calls are always for free.

6.1 Emergency services

Distribution of emergency calls between service ECCs in the United Kingdom (based on 2011 data).

In the United Kingdom there are four emergency services which maintain full-time Emergency Control Centres (ECC), to which 999 emergency calls may be directly routed by emergency operators in telephone company Operator Assistance Centres (OAC). These services are as follows, listed in the order of percentage of calls received:

- Police
- Ambulance service
- Fire Brigade
- Coastguard

Other emergency services may also be reached through the 999 system, but do not maintain permanent Emergency Control Centres. All of these emergency services are summoned through the ECC of one of the four principal services listed above:

- Lifeboat service
- Mountain rescue service
- Cave rescue service
- Moorland search and rescue service (particularly in Cornwall and Yorkshire)
- Quicksand search and rescue service (operating in the extensive quicksands of Morecambe Bay)
- Mine rescue service
- Bomb disposal (provided by the military)

6.2 History

First introduced in the London area on 30 June 1937, the UK's 999 number is the world's oldest emergency

call telephone service. The system was introduced following a fire on 10 November 1935 in a house on Wimpole Street in which five women were killed. A neighbour had tried to telephone the fire brigade and was so outraged at being held in a queue by the Welbeck telephone exchange that he wrote a letter to the editor of *The Times*, which prompted a government inquiry.

The initial scheme covered a 12-mile radius around Oxford Circus and the public were advised only to use it in ongoing emergency if "for instance, the man in the flat next to yours is murdering his wife or you have seen a heavily masked cat burglar peering round the stack pipe of the local bank building." The first arrest – for burglary – took place a week later and the scheme was extended to major cities after World War II and then to the whole UK in 1976.

The 9-9-9 format was chosen based on the 'button A' and 'button B' design of pre-payment coin-operated public payphones in wide use (first introduced in 1925) which could be easily modified to allow free use of the 9 digit on the rotary dial in addition to the 0 digit (then used to call the operator), without allowing free use of numbers involving other digits; other combinations of free call **9** and **0** were later used for more purposes, including multiples of 9 (to access exchanges before STD came into use) as a fail-safe for attempted emergency calls, e.g. 9 or 99, reaching at least an operator.

As it happens, the choice of 999 was fortunate for accessibility reasons, compared with e.g. lower numbers: in the dark or in dense smoke, 999 could be dialled by placing a finger one hole away from the dial stop (see the articles on rotary dial and GPO telephones) and rotating the dial to the full extent three times. This enables all users including the visually impaired to easily dial the emergency number. It is also the case that it is relatively easy for 111, and other low-number sequences, to be dialled accidentally, including when transmission wires making momentary contact produce a pulse similar to dialling (e.g. when overhead cables touch in high winds).

Hoax calls and improper use are an issue. For these reasons, there are frequent public information campaigns in the UK on the correct use of the 999 system.

Alternative three-digit numbers for non-emergency calls have also been introduced in recent years. 101 was introduced for non-urgent calls in England and Wales The scheme was extended to Scotland and Northern Ireland.

Trials of 111 as a number to access health services in the UK for urgent but not life-threatening cases began in England in 2010. The main roll-out occurred from 2011 to 2013, with a number of delays, and was completed by February 2014. In Scotland, the NHS24 service moved from 0845 424 2424 to 111 on 29 April 2014.[NHS Direct Wales continues to use 0845 46 47.

In 2008–2009, Nottinghamshire Police ran a successful pilot of *Pegasus*, a database containing the details of people with physical and learning disabilities or mental health problems, who have registered with the force because their disabilities make it difficult for them to give spoken details when calling the police. Those registered on the database are issued with a personal identification number (PIN) that can be used in two ways. By phone – either 999 or the force's non-emergency 101 number can be used – once a person is put through to the control room, they only need to say "Pegasus" and their PIN. Their details can then be retrieved from the database and the caller can quickly get on with explaining why they have called. In person – the *Pegasus* PIN can be told or shown to a police officer. Pegasus is also used by the City of London Police, Dyfed Powys Police, Surrey Police & Lincolnshire Police.

The introduction of push-button (landline, cordless and mobile) telephones has produced a problem for UK emergency services,[15] due to the ease of same-digit sequences being accidentally keyed, e.g., by objects in the same pocket as a telephone (termed 'pocket dialling') or by children playing with a telephone. This problem is less of a concern with emergency numbers that use two different digits, such as 112 and 911 although on landlines 112 suffers much of the same risk of false generation as the 111 code which was considered and rejected when the original choice of 999 was made.

The pan-European 112 code was introduced in the UK in April 1995 with little publicity. It connects to existing 999 circuits.

The GSM standard mandates that the user of a GSM phone can dial 112 without unlocking the keypad, a feature that can save time in emergencies but that also causes some accidental calls.

1. All mobile telephones will make emergency calls with the keypad locked. Originally a valid SIM card was not required to make a 999/112 emergency call in the UK. However, as a result of high numbers of untraceable hoax calls being made, this feature is now blocked by all UK networks.
2. Most UK mobile telephone handsets will dial 999/112 without a SIM inserted (or with a locked/invalid SIM), but the call will not be connected. Following the blocking of SIM-less calls, in 2009 the UK networks introduced emergency call roaming. This allows a user with a valid SIM of a UK network to make emergency calls on any network for which they have coverage.

6.3 U.K EMERGENCY SERVICE PROTOCOL

999 or 112 is used to contact the emergency services upon witnessing or being involved in an emergency.

In the United Kingdom, the numbers 999 and 112 both connect to the same service, and there is no priority or charge for either of them.

An emergency can be:
- A person in immediate danger of injury or whose life is at risk
- Suspicion that a crime is in progress
- Structure on fire
- Another serious incident which needs immediate emergency service attendance

All telecoms providers operating in the UK are obliged as part of their licence agreement to provide a free of charge emergency operator service. As of 2014 emergency calls made on any network in the UK are handled predominantly by BT, although other emergency operator services are provided by Vodafone (ex-Cable&Wireless) and Level 3 Communications (ex-Global Crossing, previously British Rail Telecoms).

On dialling 999 or 112 an operator will answer and ask, "Emergency. Which service?"

Previously operators asked "Which service do you require?" (approximately up to the mid-90s).

The operator will then transfer the call to the appropriate service's own call-taker. If the caller is unsure as to which service they require, the operator will default the call to the police, and if an incident requires more than one service, for instance a road traffic accident with injuries and trapped people, depending on the service the caller has chosen, this service will alert the other services for the caller (while the operator has to also contact each emergency service individually, regardless of whether the caller has remained on the line). The caller will be connected to the service which covers the area that they are (or appear to be) calling from.

On 6 October 1998, BT introduced a new system whereby all the information about the location of the calling telephone was transmitted electronically to the relevant service rather than having to read it out (with the possibility of errors). This system is called EISEC (Enhanced Information Service for Emergency Calls). Previously, the operator had to start the connection to the emergency service control room by stating the location of the operator, followed by the caller's telephone number, e.g. "Bangor connecting 01248 300 000". It was common for the person calling to be confused as to why the operator was talking to the emergency service, and the caller frequently talked over the operator. Only around 50% of the emergency authorities have EISEC, although the number is ever increasing, so, in those cases without EISEC present, the operator still has to pass their location and the caller's number.

The rooms in which operators work are called operator assistance centres (OACs). There are BT OACs in

Bangor, Blackburn, Dundee, Glasgow, Newport, Nottingham andPortadown. The rooms in which emergency response operators work are called Emergency Control Centres (ECCs) and are operated by local authorities.

In some situations there may be specific instructions on nearby signs to notify some other authority of an emergency before calling 999. For example, bridges carrying railways over roads may carry signs advising that if a road vehicle strikes the bridge the railway authority (Network Rail in most instances) (on a given number) should be called first to alert the railway operator of the potential of a major incident occurring should a train pass over the damaged bridge. Network Rail has its own procedures to alert trains to the emergency and to stop them if necessary. The instructions on the signs then state 999 should then be dialled.

Access to the 999/112 service is provided for the hearing-impaired via Textphone and use of the RNID "Typetalk" relay service. The number is 18000.

999 is also accessible via SMS for pre-registered users.

6.4 Awareness of location

It is important for the caller to be aware of their location when phoning for the emergency services; the caller's location will not be passed onto the emergency services immediately, and finding the location requires a combination of efforts from both parties. However it is possible to trace both landline and mobile telephone numbers with the BT operator; the former can be traced to an address. The latter can be immediately traced to a grid reference according to the transmitter being used,[18] however this is only accurate to a certain wide area — for more specific traces senior authority must be acquired and an expensive operation can be conducted to trace the mobile phone to within a few metres. A number of smartphone apps can now be downloaded that assist with caller location by using the smartphone's satellite navigation features.

Since 2014, smartphones will detect that an emergency call is being placed, and use any available location services (WiFi or GPS based location) to send an emergency SMS which also contains an identifier for the call. This is intended to be received by the mobile operator whilst the call is in progress.

On some occasions callers will be put through to the wrong area service – this is called a "misrouted nines". The most common reason for this is when a mobile phone calls 999 and is using a radio transmitter that is

located in another force; most frequently these are calls that are made within a few miles of a border. Upon establishing the incident location, the emergency service operator will relay the information to the responsible force for their dispatch. In most areas, other forces will respond to incidents just within the border if they could get there quicker, assist, and then hand over to the other force when they arrive.

In the United Kingdom the Highways Agency have placed blue signs with the location printed on them, at approximately 500-metre intervals on their managed routes, such as motorways and major A-Roads. These signs contain a code which can be given to the emergency operator to locate you quickly. For example, a sign may say "M1 A 100.1". This translates as the M1 motorway, on the "Alpha" carriageway, at 100.1 kilometres from its start (or nominal start). The "Alpha" and "Bravo" carriageways are designated by the Highways Agency to each side of the road, dependent upon which direction it travels; other letters are used for additional carriageways at intersections.

December 11, 2014

VI.   AN INTERESTING ARTICLE

Emergency call transfer to 4G raises concern in UK

Note of Financial Times

High quality global journalism requires investment.

Please share this article with others using the link below, do not cut & paste the article. See our Ts&Cs and Copyright Policy for more detail. Email ftsales.support@ft.com to buy additional rights. http://www.ft.com/cms/s/0/57ce4a88-814a-11e4-896c-00144feabdc0.html#ixzz46r9V7PRm

VII. EMERGENCY SERVICE IN UNITED KINGDOM

7.1 Statistics Emergency Service

•UK Population –61.4 million citizens [England(84%), Northern Ireland (3%), Scotland(8%) and Wales (5%)]

•UK Area -22.6 million hectares

•UK 112 organisation :-

-Stage 1 and Stage 2 PSAPs (Model 2)

-*UK Office for National Statistics 2008

7.2 Public Emergency numbers

-999/112,

-18000 (ITU v21 text over voice, ie real time text using special terminals)

•Stage 1 is financed by Telecommunications Industry

•Stage 2 financed and organised by a combination of local and national Government : --separate Departments for Police, Fire, Ambulance and Coastguard

•Common issues co-ordinated by Government-chaired "999/112 Liaison Committee"

Source: "UK Emergency calls- ESW 14 April 2011 - British Telecom

7.3 UK Citizen's knowledge of 112

➢**8% of UK citizens knew 112 as number to call emergency services anywhere in the EU**

➢UK Government gradually developing channels to the traveller:

★The Foreign and Commonwealth Office website has 112 in "useful numbers"

★Passport service includes 112 on leaflet sent with new passports

★Ofcom (Regulator) is to consider encouraging mobile networks to include knowledge of 112 in it's welcome messages to travellers

➢Communication Providers mention 112 (alongside 999) in Public Payphones and Telephone Directories

7.4 UK PSAPs -overview

➢**Stage 1 PSAPs** (UK-wide coverage) operated by two telcos -all CPs contract with either BT and C&W to connect their 112s-BT, C&W use different switches, databases and call handling software

➢**Stage 2 PSAPs :** 92 Control Rooms for Police, 59 for the Fire, 34 for the Ambulance and 19 for Coastguard-all in separate sites

★with diverse network access

★usually separate call taking and despatch (in same room)

★wide range of hardware and software currently used-

★some moves to co-ordinated approach

1. Airwave Digital Radio for most services

2. Ambulance use same medical questions for prioritisation

3. Fire may move to smaller number of regional controls

➢Stage 2 PSAPs of same type operate back-up arrangements for neighbours/near neighbours

7.5 112 Access to PSAPs

All calls from anywhere in UK routed first to Stage 1 PSAPs

•Automatic location for Fixed and Mobile calls

•At stage 1 PSAPs :--Fixed calls routed using civic location (match postcode map coordinates to Stage 2 PSAP coverage areas)

-Mobile routing uses Cell IDs (map cell coverage to PSAPs) -VoIP calls use a default civic location (registered address) which is confirmed verbally where possible

•UK Mobile networks allow Limited Service State calls with SIM (national "roaming" for 112)

•Calls from Private Networks (eg Campus, or large organisation) are tagged to alert PSAPs of possible address issues

•Automatic Alarms go first to specialised Monitoring Companies before connecting to any PSAPs

7.6 Statistics for emergency calls (112 + 999) -1

•Approximately 31 million calls each year to stage 1 PSAPs, 60% from mobile phones

•95% of calls answered within 5 seconds (stage 1)

•Around 60% are connected to Stage 2 PSAPs (usually within 10 seconds)

•40% "false calls" carefully filtered-out (accidental calls from mobiles, children playing with fixed phones, fault generated 112s)

•Peak days are at weekends (daily peaks are late afternoon, or when pubs/clubs close at weekends)

•Extreme weather peaks and "winter pressures" for Ambulance

•Different call answer targets for stage 2 PSAPs : between 5 and 10 seconds

•Different caller conversation times : typically 30 seconds at stage 1, 60 seconds with Fire, 120 seconds with Police and 180 secs for Ambulance.

•Inappropriate calls :-

-accidental (mobile handset in pocket)-Children playing (no request for help)

-inappropriate (need help but not an emergency)

-hoax, where caller asks for specific help to a certain location

•Language :–-Stage 1 : around 2% of calls would benefit from language assistance (many Asian in UK) -Stage 2 conference-in Interpreters or use a Voice Call Server

7.7 Call handling

Stage 1 :

-Quick answer, select stage 2 PSAP, check connection, reassure caller

-filter out false calls : standard questions/criteria to safely filter "silent"calls, agreed with Police ; use of Police IVR

-Call details automatically recorded and stored

Stage 2 :

-Call-takers confirm incident location and identify problem

-Prioritise (eg AMPDS for Ambulance)

-Send details (data) to Despatch team within Control Room

-Send details (often as data) to response vehicles (which may have been already selected and mobilised as soon as location known)

-Fire services use pre-determined response based on incident type and any information in local database

-Some medical advice given by Ambulance call-takers when help is on the way

VIII. STATISTICS

8.1 Statistical bulletin ONS National Statistic

Crime in England and Wales: Year ending December 2015

Crime against households and adults, also including data on crime experienced by children, and crimes against businesses and society

Main points

The Crime Survey for England and Wales (CSEW) for the year ending December 2015 shows there were an estimated 6.4 million incidents of crime against households and resident adults aged 16 and over. This represents a 7% decrease from the estimated 6.9 million incidents in the previous year. The survey also estimated that there were 829,000 incidents of crime against children aged 10 to 15.

The decrease shown by the CSEW was largely driven by falls in theft offences (down 7%) and criminal damage (down 14%).

There was a 7% increase in police recorded crime compared with the previous year, with 4.4 million offences recorded in the year ending December 2015. Most of this rise is thought to be owing to improved crime recording by the police leading to a greater proportion of reports of crime being recorded in the last year.

Improvements in recording of crime are thought to have particularly affected some categories of violent crime recorded by the police. There was a 27% rise in "violence against the person" offences (an additional 198,658 offences) which was largely driven by increases within the "violence without injury" subgroup (up by 143,239 offences; a 38% increase). The CSEW estimate for violent crime showed no statistically significant change compared with the previous year's survey.

National Statistics.png**Summary by crime type**

Table 1: Number of CSEW incidents for year ending December 2015

England and Wales		Adults aged 16									

Offence group2	Number of incidents (thousands)	Jan '15 to Dec '15	Jan '95 to Dec '95	percentage change and significance3	Apr '04 to Mar '05		Apr '09 to Mar '10		Jan '14 to Dec '14	
				January 2015 to December 2015 compared with:						
Violence		1.285	-67	*	-36	*	-24	*	-2	
with injury		618	-73	*	-47	*	-31	*	0	
without injury		667	-57	*	-21	*	-16		-3	
Robbery		124	-63	*	-50	*	-61	*	18	
Theft offences		3.812	-67	*	-34	*	-23	*	-7	*
Theft from the person		403	-41	*	-29	*	-22	*	-15	
Other theft of person		789	-62	*	-29	*	-22	*	3	

al property									
Unwei ghted base - number of adults		34.98 5							
Domes tic burglar y		713	-70	*	-33	*	-22	*	-10
Domes tic burglar y in a dwellin g		499	-71	*	-33	*	-23	*	-11
Domes tic burglar y in a non- connec ted buildin g to a dwellin g		214	-67	*	-31	*	-20	*	-8
Other househ old theft		701	-55	*	-17	*	-20	*	-10
Vehicl e- related theft		874	-80	*	-52	*	-27	*	-3
Bicycle theft		332	-50	*	-15	*	-29	*	-15	*
Crimin al damag		1.210	-63	*	-51	*	-49	*	-14	*

e											
Unweighted base - number of households		34.923									
ALL CSEW CRIME		**6.432**	**-66**	*****	**-39**	*****	**-31**	*****	**-7**	*****	
The 7% decrease in the estimate of all CSEW crime for the year ending December 2015 compared with the previous year's survey											

was largely driven by decreases in theft offences (down 7% to 3.8 million offences) and criminal damage (down 14% to 1.2 million offences). Police recorded crime increas										

ed by 7% in the year ending December 2015 compared with the year ending December 2014. This was largely driven by increases in "violence against the person" offence										

s (up 27% to 939,518 offences) along with increases in public order offences (up 28% to 193,310 offences), criminal damage and arson offences (up 6% to 531,693									

offences), sexual offences (up 29% to 103,614 offences) and fraud (up 4% to 617,618 offences). While total theft offences have remained broadly similar, there have been										

increases in the subcategories of vehicle offences (up 3% to 364,468) and shoplifting (up 2% to 333,671) offset by decreases in burglary (down 4% to 401,718) and bicycle theft										

(down 7% to 87,895). National Statistics.png Source: Crime Survey for England and Wales, Office for National Statistics Note: In the table statistically significant change at the 5% level is indicated by an asterisk.										

National Statistics.png				

Table 2: Number of police recorded crimes for year ending December 2015

England and Wales				
Offence group		January 2015 to December 2015 compared with:		
	Jan '15 to Dec '15	Apr '04 to Mar '05	Apr '09 to Mar '10	Jan '14 to Dec '14
	Number		Percentage change	
VICTIM-BASED CRIME	**3.388.070**	**-33**	**-10**	**8**
Violence against the person offences	939.518	11	34	27
Homicide	573	-34	-8	11
Violence with injury4	418.261	-19	4	15
Violence without injury5	520.684	58	75	38
Sexual offences	103.614	70	95	29
Rape	34.741	148	130	30
Other sexual	68.873	47	82	29

offences				
Robbery offences	50.772	-44	-32	-2
Robbery of business property	5.463	-31	-33	-1
Robbery of personal property	45.309	-45	-32	-2
Theft offences	1.762.473	-38	-17	0
Burglary	401.718	-41	-26	-4
Domestic burglary	193.851	-40	-28	-3
Non-domestic burglary	207.867	-42	-24	-5
Vehicle offences	364.468	-56	-26	3
Theft of a motor vehicle	81.158	-67	-31	8
Theft from a vehicle	239.336	-52	-29	-3
Interfering with a motor vehicle	43.974	-43	16	35
Theft from the person	82.384	-33	-11	2
Bicycle theft	87.895	-17	-20	-7
Shoplifting	333.671	19	8	2
All other theft offences6	492.337	-41	-16	-1
Criminal damage and arson	531.693	-55	-34	6
OTHER CRIMES AGAINST SOCIETY	429.759	-5	-15	7
Drug offences	150.780	3	-36	-16
Trafficking of drugs	26.257	9	-21	-6
Possession of drugs	124.523	2	-38	-17
Possession of weapons offences	24.621	-39	-14	15
Public order offences	193.310	1	3	28
Miscellaneous crimes against society	61.048	-19	17	22

TOTAL RECORDED CRIME - ALL OFFENCES INCLUDING FRAUD7	**4.435.447**	**-21**	**2**	**7**
Source: Police recorded crime, Home Office				
1. Police recorded crime data are not designated as National Statistics.				
2. Police recorded crime statistics based on data from all 44 forces in England and Wales (including the British Transport Police).				
3. Appendix table A4 provides detailed footnotes and further years.				
4. Includes attempted murder, intentional destruction of viable unborn child, causing death by dangerous driving/careless driving when under the influence of drink or drugs, more serious wounding or other act endangering life (including grievous bodily				

harm with and without intent), causing death by aggravated vehicle taking and less serious wounding offences.				
5. Includes threat or conspiracy to murder, harassment, other offences against children and assault without injury (formerly common assault where there is no injury).				
6. All other theft offences now includes all 'making off without payment' offences recorded since year ending March 2003. Making off without payment was previously included within the fraud offence group, but following a change in the classification for year ending March 2014, this change has been applied to previous years of data to give a consistent time series.				

7. Total fraud offences cover crimes recorded by the National Fraud Intelligence Bureau via Action Fraud, Cifas and Financial Fraud Action UK. Action Fraud have taken over the recording of fraud offences on behalf of individual police forces. Percentage changes compared with earlier years are not presented, as fraud figures for year ending March 2005 and year ending March 2010 covered only those crimes recorded by individual police forces. Given the addition of new data sources, it is not possible to make direct comparsions with earlier years.				

8.2 Statistical Buletin NHS - National Health Service

Note: Ambulance Quality Indicators (AQI)

Source. National Health Service U.K

The latest Systems Indicators for October 2015 for Ambulance Services in England showed the standards in the Handbook[1] to the NHS constitution were not met, although there was an increase in calls resolved by telephone advice.

The latest Clinical Outcomes data for patients transported by Ambulance Services for July 2015 showed, for patients who were assessed face to face for suspected stroke, a significant increase in the proportion, who received an appropriate care bundle.

The AQI **include calls made by dialling either the usual UK-wide number 999** or **its international equivalent 112.**

As described in the specification guidance in section C1, calls made to NHS 111 are not included in the AQI measures for calls abandoned, re-contacts, frequent callers,time to answer calls and calls resolved by telephone advice.

All other Systems Indicators involve the dispatch of an ambulance, and include ambulances dispatched as a result of a call to NHS 111, as well as 999 or 112.

The latest Systems Indicators for October 2015 for Ambulance Services in England showed the standards in the Handbook1 to the NHS constitution were not met, although there was an increase in calls resolved by telephone advice.

Emergency response in 8 minutes

In October 2015, of Category[2] A Red 1 calls in England resulting in an emergency response, the proportion arriving within 8 minutes was 73.3%.

In October 2015, of Category A Red 2 calls in England resulting in an emergency response, the proportion

arriving within 8 minutes was 68.8%.

1   Page 34 of the July 2015 Handbook to the NHS Constitution has Ambulance   response   time standards,   www.gov.uk/government/publications/the-nhs-constitution-for-england.

2   On 1 June 2012, Category A (immediately life-threatening) calls were   split into Red 1 and Red 2. Red 1 calls are the most time critical, and cover cardiac arrest patients who are not breathing and do not   have a pulse, and other severe conditions such as airway obstruction. Red 2 calls are serious, but less immediately time   critical,   and   cover   conditions   such   as   stroke   and   fits.   www.gov.uk/government/news/changes-to-ambulance-response-time-categories

NHS 111 Minimum Data Set, England, February 2016

This publication contains information covering; calls offered, calls abandoned, calls transferred, caller call-backs, calls triaged and detail on call referral. It will include figures on user experience every six months. This publication contains data to help assess the efficiency and effectiveness of the 111 service in England.

Summary

There were 1,218,365 calls offered to the NHS 111 service in England in February 2016, a 18.6% increase on the 1,027,000 in February 2015. As 2016 was a leap year, February 2016 contains more days than February 2015. Comparing the average daily calls offered the increase was 14.5%.

Of calls offered to NHS 111 in February 2016, the proportion abandoned after waiting longer than 30 seconds was 5.03%, higher than in previous months and above the national quality requirement that no more than 5% of calls should be abandoned after waiting 30 seconds.

Of calls answered by NHS 111, 79.7% were answered within 60 seconds, considerably lower than the 93.2% recorded in February 2015.

Of calls answered, 13.9% were offered a call back in February 2016. This is the highest proportion of callers

being offered a call back since this reporting began in August 2010. This also gave the highest daily average of 5,244.

Of call backs offered, 34.7% were within 10 minutes in February 2016, a large drop on the 45.7% in the previous February and the lowest proportion since the service achieved full national coverage in February 2014.

Of calls answered, 21.6% were transferred to a clinical advisor in February 2016 similar to the 21.7% in January 2016.

The average episode length of a call was 17 minutes 42 seconds in February 2016. An increase on the 16 minutes 20 seconds reported in January 2016.

Of calls answered, 87% were triaged in February 2016. This proportion has ranged between 85% and 87% for the last seventeen months. Calls triaged are those where the NHS 111 call handler opens and uses the clinical assessment tool (NHS Pathways).

Calls not triaged include, for example, follow-ups of previous calls, calls where the caller is unable or unwilling to give specific details about the patient's condition or enquiries about contact details for pharmacists or other local care services.

Of calls triaged in February 2016, 12% had ambulances dispatched, 8% were recommended to A&E, 62% were recommended to primary care, 4% were recommended to another service, and 14% were not recommended to any service.

The number of calls resolved by the 111 service giving health advice was the highest ever recorded in February 2016. This was for both calls that were triaged and subsequently given health advice (13,634) and calls that were resolved without triage and given health advice (6,248).

Of calls transferred, the proportion live transferred was 35.4% in February 2016. This is considerably down on January 2016 and the lowest proportion reported since the service started in August 2010.

Of calls which were not recommended to any service, the proportion recommended home care was 5.5% in February, the lowest proportion since the service started in August 2010.

CHART 1 - VOLUME AND ACCESS ISSUES

CHART 2: DURING THE CALL ISSUES FOR COMMISSIONING REGIONS

8.3   A&E Department Accident and Emergency Statistics

SUMMARY STATISTICS ON AMBULANCES

SUMMARY STATISTICS ON AMBULANCES

Attendance & Admissions

• In 2014/15 there were 22.4 million attendances at England's A&E departments, of which 65% were at type 1 (major) emergency departments. Total attendance increased by 2.7% compared with 2013/14 – the largest increase in four years and equivalent to an average of 1,600 more people attending A&E each day.

• There were 4.0 million emergency admissions to hospital via A&E in 2014/15 – up 4.8% on the previous year.

• The elderly are most likely to attend A&E, and are most likely to arrive by ambulance. Of working age adults, those aged 20-24 have the highest rate of attendance at A&E.

• Most A&E attendances occur between 9am and 6pm. Monday and Sunday are the two busiest days in terms of attendance levels.

• Dislocation/joint injury/fracture/amputation is the most common category of first diagnosis for A&E patients, followed by gastrointestinal conditions.

Performance

• There are a variety of measures of waiting times at A&E, including average time to treatment, average time spent in A&E, and percentage of patients spending less than four hours in A&E.

• The number and percentage of patients spending over four hours in A&E has risen in recent years. In the quarter to March 2015, 12.5% of patients in type 1 departments spent over 4 hours in A&E – the highest for over a decade.

• Long waits for admission have also become more frequent, with the numbers waiting over 4 hours for admission after a decision to admit had been made increasing by 81% in 2014/15 compared to 2013/14.

UK Countries

• Relative to population size, Northern Ireland has the highest rate of attendance at major A&E departments of UK countries. Once we include minor A&E departments, England's total rate of attendance is higher.

• On the four-hour measure, recent performance at hospital A&Es in Scotland is slightly better than in England. Wales has a higher proportion of A&E episodes lasting over 4 hours than England or Scotland. Northern Ireland has the highest percentage in the UK, with over a quarter of patients spending over 4 hours in major A&E departments in 2014/15.

8.4 FIRE INCIDENT AND CALL STATISTICS

Source: Buckinghamshire & Milton Keynes
2016

Number of 999 calls received in March 2016: **1,096**

Emergency incidents attended in March 2016: **512**

Ambulance co-responder incidents attended in March 2016: **165**

Number of 999 calls received in February 2016: **1,002**

Emergency incidents attended in February 2016: **513**

Ambulance co-responder incidents attended in February 2016: **167**

Number of 999 calls received in January 2016: **937**

Emergency incidents attended in January 2016: **531**

Ambulance co-responder incidents attended in January 2016: **102**

2015

Number of 999 calls received in December 2015: **995**

Emergency incidents attended in December 2015: **541**

Ambulance co-responder incidents attended in December 2015: **85**

Number of 999 calls received in November 2015: **929**

Emergency incidents attended in November 2015: **519**

Ambulance co-responder incidents attended in November 2015: **122**

Number of 999 calls received in October 2015: **1,006**

Emergency incidents attended in October 2015: **504**

Ambulance co-responder incidents attended in October 2015: **153**

Number of 999 calls received in September 2015: **1,149**

Emergency incidents attended in September 2015: **502**

Ambulance co-responder incidents attended in September 2015: **193**

Number of 999 calls received in August 2015: **1,341**

Emergency incidents attended in August 2015: **614**

Ambulance co-responder incidents attended in August 2015: **228**

Number of 999 calls received in July 2015: **1,559**

Emergency incidents attended in July 2015: **707**

Ambulance co-responder incidents attended in July 2015: **234**

Number of 999 calls received in June 2015: **1,157**

Emergency incidents attended in June 2015: **598**

Ambulance co-responder incidents attended in June 2015: **141**

Number of 999 calls received in May 2015: **1,113**

Emergency incidents attended in May 2015: **575**

Ambulance co-responder incidents attended in May 2015: **165**

Number of 999 calls received in April 2015: **1,169**

Emergency incidents attended in April 2015: **512**

Ambulance co-responder incidents attended in April 2015: **150**

Number of 999 calls received in March 2015: **1,257**

Emergency incidents attended in March 2015: **570**

Ambulance co-responder incidents attended in March 2015: **155**

Number of 999 calls received in February 2015: **944**

Emergency incidents attended in February 2015: **443**

Ambulance co-responder incidents attended in February 2015: **102**

Number of 999 calls received in January 2015: **980**

Emergency incidents attended in January 2015: **439**

Ambulance co-responder incidents attended in January 2015: **112**

2014

Number of 999 calls received in 2014: **14,697**

Emergency incidents attended in 2014: **6,208**

2013

Number of 999 calls received in 2013: **14,796**

Emergency incidents attended in 2013: **6,556**

2012

Number of 999 calls received in 2012: **14,906**

Emergency incidents attended in 2012: **6,887**

2011

Number of 999 calls received in 2011: **16,068**

Emergency incidents attended in 2011: **6,966**

2010

Number of 999 calls received in 2010: **17,310**

Emergency incidents attended in 2010: **7,661**

2009

Number of 999 calls received in 2009: **17,598**

Emergency incidents attended in 2009: **7,724**

2008

Number of 999 calls received in 2008: **17,117**

Emergency incidents attended in 2008: **7,974**

2007

Number of 999 calls received in 2007: **18,738**

Emergency incidents attended in 2007: **8,822**

2006

Number of 999 calls received in 2006: **20,856**

Emergency incidents attended in 2006: **9,903**

IX.   PSYCHOLOGICAL SUPPORT OF 112 CALL TAKERS

Source:
EENA Operations Document
Psychological support of 112 call takers
Title:
Psychological support of 112 call takers
Version:
1.0

9.1 The role of the call taker – tasks and factors affecting performance

The emergency setting related to 112 call-taking brings a set of questions to the fore — how do workers in an emotionally charged setting, with features of vivid and interruptive experiences that possibly interrupt decision making, interact with standard operating procedures that are supposed to provide the necessary stability and support, so that recurring decisions can be made under similar conditions? How do the call takers relate to the emotional landscape of emergency call taking and the callers' emotional expressions? How do they cope with related stress? How do call takers make decisions, use intuitive and emotional capabilities to complement or challenge rational aspects of the available decision-support systems? How do they use rational and formal procedures as well as non-formal, intuitive and emotionally based, individual processes to make their decisions and how can they be effectively supported in the decision-making process? These questions require a reflection in an organisational context, in order to identify limitations to the development of situation-specific expertise, obstacles for organisational learning and tools for effective on-job call taker support.2

The 112 service chain defines the basic framework of tasks and thus the context, in which we can start searching for answers to these and other relevant questions - in modern dispatch systems, the call taker will fill a number of critical functions.3 These functions are determined by and will vary in relation to the defined

service chain at organisational level.4

The Emergency Alarm Sequence:5

The response interval of the public:

1) The incidence occurs

1 All definitions of terms and acronyms related to 112 are available in the 112 Terminology 2 Source: Svensson, Martin (2012), Routes, Routines and Emotions in Decision Making of Emergency Call Takers, Blekinge Institute of Technology, Doctoral Dissertation Series No. 2012:04.

3 Source: http://en.wikipedia.org/wiki/Emergency_medical_dispatcher

4 Source: http://www.eena.org/ressource/static/files/2011_06_10_1_1_1_servchain_v1.0.pdf

5 Source: Castrén et al., 2008

2) The emergency call is made

The emergency response interval:

3) The call is answered by the service

4) A need is identified

5) A priority is decided

6) A response is defined

7) The response/resource is dispatched

8) Assistance may be given online if indicated

9) The call is terminated

In most systems, the telephone remains almost a singular point of access for those needing assistance, but the deployment of new alerting mechanisms such as public access defibrillators, personal safety alarms and vehicle monitoring systems represent new challenges for call takers processing incoming emergency calls at the PSAPs.

The responsibility of the call taker involves the triage of incoming calls, providing expert systematised caller interrogation, in order to determine the likely severity of the problem, illness or injury, so that the most appropriate type of response by emergency services is triggered. All calls are prioritised, in the case of injuries or illness by the medical symptom/condition acuity. This process may be further complicated by panic-stricken callers who scream, cry, or make unreasonable demands. The trained call taker uses interpersonal and crisis management skills to sort through these distractions, taking control of the conversation, calming the caller, and extracting the necessary information. This inquiry begins with the

obvious questions regarding the situation or the patient. The questioning will continue until the call taker is able to qualify (a potentially life-threatening) condition, to which the closest appropriate response can be triggered, dispatching required emergency service's resources (such as a paramedic-staffed ambulance service, fire and rescue service or police units).

When this occurs, the call taker will continue the questioning, attempting to gather additional relevant information, useful to determine response speed, the type of resources dispatched, or the type of equipment that the rescue services units will bring to the site when they arrive. In most cases, this 'pre-alert' function will not be required, and the resource will simply be dispatched when all of the required information has been gathered. Ultimately, the decision on how to proceed, or when to interrupt the established process, requires the judgment of the call taker handling the call. Otherwise, the manner in which this questioning proceeds is often governed by protocols, or by decision-support software.

The third function, relevant in some selected cases (depending on the specific emergency services organisation and its service chain), is the selection and assignment of the most appropriate type of response resource, (such as an ambulance), from the closest or the most appropriate location, depending on the nature of the problem, and ensuring that the crew of the response resource receive all of the appropriate information. The call taker is responsible for the management and work assignment (in some cases physicians and supervisors provide the work direction) for all of the response resources in the system. In many cases, the call taker is responsible for managing multiple response resources simultaneously and providing first aid guidance (basic or advance life support) or other potentially live saving advice to the caller. This requires a constant level of awareness of the location and status of each resource, so that the closest available and appropriate resource may be sent to each call, but also effective communication skills, a sound knowledge base (training) enabling the call taker to provide active support to the caller facing an emergency.

The call taker is generally also responsible for providing information support to the responding resources. This may include call-backs to the call originator to clarify information. It may involve clarifying the exact location of the emergency/patient, or sending a bystander to meet the ambulance and direct paramedics to the patient. It may also include requests from the onsite rescue services crew to provide support resources, such as additional ambulances, rescue equipment, or a helicopter. The call taker also plays a key role in the safety of staff onsite. They are the first with the opportunity to assess the situation that the crew is responding to, will maintain contact on the scene in order to monitor crew safety, and are frequently responsible for requesting emergency police response to 'back up' paramedics when they encounter a violent situation. PSAPs are often responsible for monitoring the status of local hospitals, advising paramedics on which

hospitals are accepting ambulance patients, and which are on 're-direct' or 'divert'. In many cases, they may also be responsible for notifying the hospital of incoming patients on behalf of the response resource crew.

Finally, the call taker ensures that the information regarding each call is collected in a consistent manner, for both legal and quality assurance purposes. In most jurisdictions, all records, including both patient care and dispatch records, and also recordings of dispatch radio and telephone conversations, are considered to be legal documents. Dispatch records are often a subject of interest in legal proceedings, particularly with respect to the initial information obtained, statements made by the caller, and response times for resources. The gathered information may be at some point demanded by a criminal court or civil court or a public inquiry and may have to be produced as evidence. It is not uncommon in some jurisdictions for call takers to be summoned to court, in order to provide evidence regarding their activities. As a result, there is frequently a legal requirement for the long-term storage of such information, and the specific requirements are likely to vary by both country and jurisdiction. As a direct result of these two factors, there is a requirement for all call information to be collected and stored in a regular, consistent, and professional manner, and this too, will often fall to the call taker, at least in the initial stages.

Multi-tasking is the central feature of call taking and dispatch work. Numerous factors and barriers can affect the realisation of these tasks, including decision-making under time constraints, quality of available support in management of resources and decision-making, effective communication, coordination, cooperation and mutual awareness within a broader team of involved specialists. As a result, the psychological factors at an individual level such as interpersonal skills, adaptive behaviour and coping strategies play an important role.[6]

Decision Making in Emergency Settings

Making fast decisions at the same time as making complex analytic decisions may imply quality tradeoffs. Moreover, fast and analytic decision making draws on different assumptions of how information is processed. Even though reason-based and non-reason-based conceptualisations may be grossly oversimplified depictions of these phenomena, they have earned attention across research programs (cf. Kahneman, 2003; Sloman, 1996) and it has also been brought up in the emergency room context (cf. Coget & Keller, 2010).[7]

Decision-making can be hampered and stress-levels increased by lack of available resources and institutional support (call overload, insufficient staffing, decisions about priority status, shortage of ambulances, precision imperative, absence of down time)[8] and these factors are more closely analysed in the section 4 of the document related to the ergonomics of the call taking.

9.2 Psychological aspects of emergency call taking

Emergency call takers listen to callers describing mundane problems but also to callers describing severe accidents, agony and deaths.

The emergency setting is further complicated by having to perform triage quickly, but without the possibility of seeing the patient. The setting rests on an imperative of speedy management—there is little possibility of postponing or reconsidering a decision. At the same time, the model of communication (telephone) may cause an overflow or lack of information, resulting in an uncertain and ambiguous decision-making setting.

Thus emergency call takers need to possess multiple competencies in terms of medical, technical, and emotional skills but also have access to continuous education (training) and psychological support. A Swedish study9 described the setting of emergency call taking as an uncertain setting, filled with communication difficulties and insufficient resources.

Further related research found that individual skills, knowledge, experience, sensitivity, insight, empathy and intuition helped bridge the difficulties related to the call taking tasks.10

6 Source: Julie Dudgale, Bernard Pavard, Jean Luc Soubie, The Ergonomic Analyses of an emergency call centre and the subsequent design of a computer based simulation

7 Source: Svensson, Martin (2012), Routes, Routines and Emotions in Decision Making of Emergency Call Takers, Blekinge Institute of Technology,Doctoral Dissertation Series No. 2012:04.

8 Source: Frontline stress behind the scenes: Emergency medical dispatchers www.tema.ca/Dispatcher_Stress.pdf

9 Source: study conducted by Forslund, Kihlgren and Kihlgren (2004)

10 Source: Svensson, Martin (2012), Routes, Routines and Emotions in Decision

Making of Emergency Call Takers, Blekinge Institute of Technology, Doctoral Dissertation Series No. 2012:04.

The tasks of the call taker consist of interconnected processes, administered in a cooperative work situation, with an awareness of dealing with clients in potentially life threatening situations, which ultimately results in an increased sense of responsibility and higher pressure to perform.

Processing of an emergency call requires a sequence of complex cognitive, emotional and behavioural reactions by the call taker collecting key information about the emergency, often in an emotionally and socially complex situation. The situation analyses require a process of synthesis, abstraction, specification and prioritization of acquired information in the context of a decision-making process.

A seemingly simple task of call taking requires a fast, effective and flexible coordination of mental processes. Each call places a rather high demand on the exact perception of the sensory systems (mainly hearing and sight), good coordination of sensory perception and fine motor skills, which are used in listening and the parallel work with the computer, concentration and quick division of attention, spatial orientation (in working with maps), imagination, ability to memorise quickly, the ability to differentiate heard facts from own interpretations. Synthetic and analytical thinking as well as logic are required for the mentioned tasks.

The task of call taking integrates several professions and places high demands on the mental processes, condition and personality of the call takers. The complexity factors of the call taker tasks 11 can be divided into 3 groups:

1. mental workload and decision-making, based on possibly unreliable information, potentially conflicting requirements, realising activities with potentially damaging effect on other people, the employer (own organisation) or the call taker,

2. interpersonal complexity, due to the necessity of obtaining trust and cooperation of various agents (stakeholders), emotional distress,

3. demand factors related to time and energy, especially related to tasks with very limited time available for their completion and limited or no space for correction of mistakes.

Stress factors in call taking can include:

1. feelings of helplessness in critical situations with limited ability to influence the situation of the caller facing an emergency and emotional strain of extreme situations (such as incidents with children dying, mass emergencies and incidents with many severely injured, incidents involving own family members),

2. competing demands for executing rapid and precise assessments while working with a limited environment in relation to the decision-making autonomy and information availability, with constrained decision-making capacity by working within a frequently unsupervised, non-visual access environment, relying on secondary (potentially inaccurate) information delivery, (a common experience is "being reprimanded for dispatching too little or too much help"), 12

3. frequent emergency line abuse, conversational difficulties with callers with limited capacity for conveying accurate information, complicated by rapidly shifting features of the emergency scene,

4. frequently disrupted functioning of support systems (such as communication lines, call centre software) without back up options, outdated equipment

5. lack of necessary resources (such as ambulances) available to be deployed to an emergency,

6. problems in the organisation of work, overload of tasks, perceived inadequate working conditions, perceived inadequate remuneration, compromised work place relationships, physically confining and isolating workspace (and the resulting inability to relieve stress physically and socialise with colleagues) and lack of available quiet space,

7. inadequate formal training and preparation for tasks and the arising insecurity and problems in decision-making,

8. enduring lack of public acknowledgment for the work of emergency call takers (media attention is usually focused on rescue units onsite) and the resulting less robust social support (demonstrated for example by negative citizen responses) as well as perceived underestimation of the degree of stress that dispatchers face and lack of recognition in the part of management (sometimes based on the assumption, that call taker-dispatcher stress is negligible to paramedics or other onsite rescue services staff stress).

11 Source: Herbert in Hladký, 1993, Slovakia

12 Source: Frontline stress behind the scenes: Emergency medical dispatchers www.tema.ca/Dispatcher_Stress.pdf

Literature on occupational stress among emergency personnel emphasizes the direct contact with distress, injury, violence and death as central causes of stress.[13] The tension between competing exigencies of call takers (dispatchers) to act instantaneously while simultaneously not overstepping decision-making power, combined with inadequate resources contribute to escalating powerlessness and cumulative stress levels. [14] The sense of responsibility is complicated by their role as intermediaries between the distressed, frequently panicked and incoherent public and paramedics.

Based on these factors and research results[15] its possible to conclude, that the work of emergency call takers represents a set of complex tasks, challenging the endurance of call-takers and carry along relatively high stress factors and thus a risk of burnout.[16]

As illustrated above, increased stress results in increased productivity – up to a point, after which things go rapidly downhill.

However, that point or peak differs for each of us, so one needs to be sensitive to the early warning symptoms and signs that suggest a stress overload is starting to push him/her over the hump.

Such signals also differ for each individual and can be so subtle that they are often ignored until it is too late. Not infrequently, others are aware that one may be headed for trouble before the affected person. 17

Given the demands of the job, the common experience is that call takers are being much more comfortable providing help than requesting it or making use of it once it's offered. Therefore it is recommendable to include relevant topics such as recognition of signs of depression and burnout but also the difference between critical incidents related stress and cumulative stressors which are characteristic of the call takers' daily work environment into the formal training programme.

In order to avoid unwanted impact on human resources and institutional capacities, these identified stress factors require systematic attention at institutional level of PSAPs. In an ideal setting, they should translate to the development, implementation, evaluation and maintenance of stress management programmes in work settings (of the PSAPs), with a clearly defined purpose of the programme, delineated individual and organisational goals and defined mechanisms of organisational support to the programmes, which are to be integrated into existing occupational health and safety strategies.

13 Source: Jenkins 1997

14 Source: Frontline stress behind the scenes: Emergency medical dispatchers www.tema.ca/Dispatcher_Stress.pdf

15 Source: Research conducted by Baštecka, 2005; Šeblova,2005 and Franěk, 2005, Slovakia

16 Source: Katarina Cajkovicova, Psychological load and stress in EMS call takers, Trnava 2008, Slovakia

17 Source: http://www.stress.org/topic-definition-stress.htm

Stress management methods at individual level can include methods like muscle relaxation, meditation, biofeedback and cognitive strategies, taught to employees as a means of reducing psycho-physiological and subjective distress providing the individual with skills for recognising and coping with work related stress.18

The Croatian experience shows that call takers should be qualified to manage the stress to which they are

exposed. It is important for every call taker to have a psychological baseline data (psychological test results). In Croatia, once a year, testing of call takers is conducted to determine how they manage with stress. They are taught different relaxation techniques that can be applied at work and at home. Quality supervision is significantly affected by the reduction of stress. The Croatian PSAP management recommends, based on gained experiences, conducting analyzes of the impact of stress on the call takers after each demanding stressful event in the presence of a psychologist and that each centre 112 should have a Stress management plan. Psychologist should also be available to each call taker.

The development of stress management programmes at (PSAPs) institutional level should be based on a complex analyses of the exposure of employee target groups (such as call takers) to stress factors in the defined settings and task context, the work setting ergonomics and result in comprehensive actions, embedded in the institutional human resources management strategies.19

9.3 Psychological load in the work performance of emergency call takers

The role of the 112 call takers and dispatchers is critical to the outcome of emergency calls and thus the psychological load related to their work performance requires systematic attention. If we assume the psychological load refers to the subjective (mental and emotional) responses of employees (call takers) to the requirements of their job, the level of this load depends on the difficulty of task, the impact of both the internal and the external working environment and individual capabilities. 20

112 call takers are exposed to various factors increasing the psychological load of their work including:

The essence of their tasks, processing dozens of emergency calls per working shift, carrying legal responsibility and the resulting increased pressure not to make mistakes;

Work place related factors like noise, inadequate circulation of air, work place set up;

Socio-pathological factors in social interaction, conflicts and frustrating experiences with callers (for ex. abusing the emergency line and thus increasing the work load of call takers, abusive, intoxicated or vulgar callers) or with team members (with conflicting agenda or expectations, such as frequent and/or inadequate questioning the relevance of the call takers dispatch decisions by rescue units crews sent onsite);

Limited or no availability of adequate outlets for the expression of difficult emotions, effective, proximal and non-intrusive supervision as well as lack of social support in general.

Individual capabilities, including motivation, and the ascribed value to the role/performed tasks influence performance, both in positive and negative ways.21

9.4 Most common psychological problems of call takers

Given the unique features of call taking (dispatch) work as compared to paramedic work (e.g. its status as the first point of entry for emergency calls; its role as the conduit for information between civilians and emergency workers; its limited intervention status and its sedentary nature), there are implications for both empirical explorations of call taker stress and intervention development.

Despite the numerous similar stressors faced by both paramedics and dispatchers, chronic and/or traumatic stress may be experienced differently in the context of dispatch work. For instance, while paramedics might struggle with lingering visual images from a difficult call, call takers might be left with auditory reminders. That is, involuntary recollections resulting from calls might take the form of auditory reverberations.

18 Source: Job related stress, http://www.cdc.gov/niosh/pdfs/87-111.pdf

19 Source: Stress management in work settings, DHHS (NIOSH) publication n.87-111

20 Source: Gawel G. Analyses of psychological workload in nursing positions, In: Ksykiewicz-Dorota A., editor, Management in nursing, Lublin 2005, p.434-8

21 Source: Timko, 1986, Slovakia

Moreover, visual images that may be elicited by listening, in the absence of verifiable visual information, may lead to different symptoms and may require different intervention possibilities. A recent unpublished UK project comparing paramedics and call takers (dispatchers) has begun to explore some of these issues. Similar levels of intrusive visual imagery were reported by dispatchers and paramedics, and dispatchers who presented with post-traumatic symptoms exhibited false visual re-experiencing symptoms[22]. Notably, visual imagery ability was a moderator of the relationship between post-traumatic symptoms and call-related visual imagery among dispatchers in particular. This suggests potential differential intervention pathways for paramedics versus dispatchers.

The lack of control imposed by the call taking (dispatch) role in providing on-the-scene, hands-on help, may also elicit a specific type of second-guessing about decision accuracy or sense of helplessness that may be different from the kind of struggles paramedics report in relation to retracing their decision-making for a call.

Moreover, the self-selection process that might be operating in choosing to become a paramedic versus a dispatcher may also have implications for how emergency work-related stress is experienced and managed.

Although some have performed both roles at different points in their career, for the most part these are discrete positions.23

9.5 Individual coping strategies

The difference between experiences that result in stimulating stress and those that result in distress is determined by the disparity between an experience (real or imagined) and personal expectations and resources to cope with the stress. Reactions to call taker load and stress can be adequate, inadequate or pathological and can, under certain circumstances, result in acute stress reaction, post-traumatic stress disorder or burn-out syndrome.

Call taker coping strategies in disaster management context24

Disasters may range from severe to minor and having an awareness of the potential deployment environment, conditions, duties, and constrains (including possible limits to the ability to communicate to or assist own family members) can prepare a call taker to cope more effectively in these mentally challenging situations.

The working conditions in a disaster area may vary depending on the type of disaster, the length of time that has passed since the disaster, and the magnitude of the emergency response effort. The nature of the disaster deployment and the role assumed by the call taker will vary, as will the degree of coping skills necessary to overcome stress and fatigue. Stress and fatigue may easily progress to depression and, in some cases post-traumatic stress disorder.

Research into the coping strategies used by and found effective by emergency responders has generally focused on law enforcement and fire department responders. An important factor related to call takers is their dynamic working conditions, with adaptability and flexibility identified as the key considerations in working effectively in disaster areas.

Nevertheless, research has found the following general strategies have been effective in relieving and preventing stress in disaster management context: 25

Sleep/work schedule – Maintain these schedules as best as possible. If you are "off" take advantage of the time to rest, exercise, or to otherwise relax.

Nutrition – Eat at regular intervals and eat healthy to the most extent possible.

Exercise – Walk or engage in some other form of exercise to "de-stress".

Avoid Alcohol/Drugs – These not only jeopardize job performance, but also increase stress after intoxication.

22 Source: Bevan & Wild, 2007

23 Source: Frontline stress behind the scenes: Emergency medical dispatchers www.tema.ca/Dispatcher_Stress.pdf

24 Source: Disaster Preparedness for TERT Members - Participant Guide v5.0

25 Source: Keane, T.M. & Piwowarczyk, L.A. (2006). Trauma, terror, and fear: Mental help professionals respond to the impact of 9/11 – an overview. In L.A. Schein, H.I. Spitz, G..M. Burlingame, and P.R. Muskin (Eds). Psychological effects of catastrophic disasters. Binghamton, NY: Haworthpress.

Beaton, R., Murphy, S., Johnson, C., Pike, K., & Cornel, W. (1999). Coping responses and posttraumatic stress symptomatology in urban fire service personnel. Journal of Traumatic Stress, 12(2), 293-308.

McCammon, S., Durham, T.W., Allison, E.J., & Williamson, J.E. (1987)

Humour – The use of humour is often a natural expression to relieve stress and to make the best of a situation. However, there may be times when humour is inappropriate.

Breaks – Take adequate breaks with your team and other call takers. The diversion from work and the opportunity to talk with others in a similar situation will help relieve stress.

Think About Other Things – Take a "mental vacation" and think about non-work-related and pleasant events.

Take a Deep Breath and Relax – Take a deep breath and remember you have the strength, training, and experience to handle the situation. If you act calm, you will start to feel calm.

Remember, It Could Be Worse – Regardless of how bad things may seem, it could always be worse. As a result, this perception may enable you to reduce the stress and to appreciate the situation better.

Talk to Others – Talk to others in your team or from the PSAP. Discuss what has occurred, what is occurring, and what will happen.

Out of Place, Out of Mind – Some people deal with stress better alone and by withdrawing from others, while others may need to talk to someone. Others can simply ignore the current situation and dedicate their

efforts to helping more.

Professional and Peer-Assistance

Depending on the nature of the deployment and disaster, the emotional impact of active engagement in disaster management may necessitate professional and/or peer assistance. Under some disaster related circumstances, it might be necessary for call takers to assist another temporary, alternate, or permanent PSAP when assistance is needed and this represents an extra challenge. The mental preparation for disaster deployment is an integral component of pre-deployment. The ability to recognize the characteristics of disaster areas and the associated stress typically resulting from working in these areas, as well as different coping strategies can have a significant impact on a call takers ability to function in a disaster area.

Changes in sleep, appetite, relationships, recurring dreams, or other indicators of depression may be signs of long-term emotional trauma and should be seen as signals to seek support. The long-term consequences for failing to seek help, if necessary, can lead to a number of physical and mental illnesses. Unfortunately, rescue services professionals (including call takers) are often very independent and rarely acknowledge the need for help.26

9.6 Psychological intervention possibilities

Most commonly used tools of intervention include:

Critical Incident Stress Management, which is an intervention protocol developed specifically for dealing with traumatic events. It is a formal, highly structured and professionally recognized process for helping those involved in a critical incident to share their experiences, vent emotions, learn about stress reactions and symptoms and given referral for further help if required. It is not psychotherapy. It is a confidential, voluntary and educative process, sometimes called 'psychological first aid'. First developed for use with military combat veterans and then civilian first responders (police, fire, ambulance, emergency workers and disaster rescuers), it has now been adapted and used virtually everywhere there is a need to address traumatic impact in people's lives. 27

There are several types of Critical Incident Stress Management interventions that can be used, depending on the situation. Variations of these interventions can be used for groups, individuals, families and in the workplace and include:

Debriefing is a proactive intervention involving a group meeting or discussion about a particularly distressing critical incident. Based on core principles of crisis intervention, the CISD is designed to mitigate the impact of a critical incident and to assist the persons in recovery from the stress associated with the

event. The CISD is facilitated by a specially trained team which includes professional and peer support personnel. Also called Critical Incident Stress Debriefing (CISD). Ideally it is conducted between 24 and 72 hours after the incident, but may be held later under exceptional circumstances.

26 Source: Kilburg, R.R., Nathan, P.E., & Thoreson, R.W. (1986). Professionals in distress. Hyattsville, MD: APA.

27 Source: http://www.criticali ncidentstress.com/what_is_cism_

Defusing is an intervention that is a shorter, less formal version of a debriefing. It generally lasts from 30 to 60 minutes, but may go longer and is best conducted within one to four hours after a critical incident. It is not usually conducted more than 12 hours after the incident. Like a debriefing, it is a confidential and voluntary opportunity to learn about stress, share reactions to an incident and vent emotions. The main purpose is to stabilize people affected by the incident so that they can return to their normal routines without unusual stress. Where appropriate, a formal debriefing also be required.

Grief and Loss Session is a structured group or individual session following a death and assists people in understanding their own grief reactions as well as creating a healthy atmosphere of openness and dialogue around the circumstances of the death.

Crisis Management Briefing is a large, homogeneous group intervention used before, during and after crisis to present facts, facilitate a brief, controlled discussion, Q & A and info on stress survival skills and/or other available support services. May be repeated as situation changes.

Critical Incident Adjustment Support provides multi-faceted humanitarian assistance to individual, families or groups for coping with the aftermath of an incident and overcoming the ongoing impact of a death or injury.

Pre-Crisis Education provides a foundation for CISM services. It includes incident awareness, crisis response strategies and develops stress management coping skills that can prevent major problems should an incident occur. It takes the form of an employee handbook, e-book and/or workshops and training seminars.

Individual crises intervention - while dealing with crisis, both personal and societal, there are five basic principles outlined for intervention. Those affected by crises are initially at high risk for maladaptive coping or immobilization, thus intervening as quickly as possible is imperative. Resource mobilization should be

immediately enacted in order to provide them with the tools they need to return to some sort of order and normalcy, in addition to enable eventual independent functioning. The next step is to facilitate understanding of the event by processing the situation or trauma. This is done in order to help the victim gain a better understanding of what has occurred and allowing him or her to express feeling about the experience. Additionally, the counsellor should assist the victim(s) in problem solving within the context of their situation and feelings. This is necessary for developing self-efficacy and self-reliance. Helping the victim get back to being able to function independently by actively facilitating problem solving, assisting in developing appropriate strategies for addressing those concerns, and in helping putting those strategies into action. This is done in hopes of assisting the victim to become self-reliant. An example of an intervention program based on crises intervention principles is the Assessment Crisis Intervention Trauma Treatment (ACT) model of crisis intervention developed by Roberts as a response to the September 11, 2001 tragedy.28

Trainings, workshops

The potential benefits of crises related training include:

- staff members becoming more confident in their ability to manage crisis situations, increasing their confidence as a team in handling crisis situations;

- staff members and supervisors adopting a more consistent approach to callers in crisis, thus providing higher quality support/service;

- staff members obtaining increased knowledge of crisis intervention and management techniques;

- selected supervisory staff members obtaining basic and sophisticated techniques to conduct effective and long-lasting training programs, benefiting the human resources of the PSAP.

Peer and supervision support programmes

The concept of psychological support based on peer assistance is relatively new, and one which has developed from industrial settings. In essence, assistance is offered by a group of specially trained

28 Further reference to be found: Roberts, A. (2006). Assessment, crisis intervention, and trauma treatment: the integrative act intervention model. Brief Treatment and Crisis Intervention, 2(1), 1-22. A.R. Roberts, Crisis Intervention Handbook 2005 p.157

employees so to assist their co-workers in coping with personal or job related problems. While peer support

programs may seem similar to the earlier developed self help movement, in fact they are quite different. Peer support programs focus on everyday experiences of everyday typical people. The helpers are themselves employees who can relate to other employees of their common trade, profession or working environment. Peer support programs are preventative in their orientation and they encourage people to seek assistance in the early stages of a problem. Peer programs are ultimately based on the premise that people who experience a common circumstance or find themselves in a common predicament can, by virtue of their understanding, facilitate recovery in others. 29

The mission of a peer support programme is to provide fellow PSAP personnel psychological and emotional support through pre-incident education, spousal/family support, on-scene support and demobilisation intervention, post-incident defusing or one-on-one interaction. The peer support team would/should be comprised of agency members who have been specially trained in crisis intervention and stress management techniques and who work in conjunction with mental health professionals who specialise in providing support to emergency service personnel. 30

Mental health services

Like other members of the general population, emergency call takers (similar to first responders of onsite rescue services) may have pre-existing mental health conditions that are exacerbated by emergencies or they may develop new mental health conditions as a result of constant exposure to emergencies. Yet, the emergence or aggravation of mental health conditions may occur at higher rates when compared to the general population, because of the stresses associated with their duties. 31 If emergency call takers have access to mental health screenings, they may be more likely to receive timely diagnoses and treatment. Therefore, mental health screening should, ideally, be offered, especially after exposure to situations or emergencies perceived as potentially traumatising for those involved.

The barriers to such resource utilization may stem both from perceived or actual stigma associated with revealing specific symptoms such as anxiety, depression or intrusive thoughts and from a belief that their disclosure would undermine one's ability to perform the job.32 Research results advocate for integrated models for dealing with occupation stress that addresses both personal and organisation features. Rather than viewing stress management as an individualized, privatized problem of the employee, coping can be conceptualized as an organisational or joint venture. 33

This approach is also compatible with the finding that resilience in response to even deeply disturbing events is the rule rather than the exception for the majority of individuals. 34 It is important to underscore, however, that this propensity for natural recovery can be either facilitated by appropriately-timed and calibrated,

supportive responses or undermined by their absence. Intrusive interventions or those incongruent with the recipient's needs may be potentially even more damaging than the doing nothing.35

Work-related stress can be both exacerbated and mitigated by institutional factors. Issues such as decision-making latitude, scheduling, stress-leave policies, and peer and management support repeatedly emerge as central and frequently outweigh concerns over specific critical incidents36. The organisational structure can, thus, be appropriately galvanized to build prevention and intervention approaches that foster both individual and organisational resilience.37

29 Source: http://www.kingcounty.gov/healthservices/health/ems/community/~/media/healthServices/publichealth/do cum ents/ems/peer_support_development.ashx

30 Source: A guide for developing a peer support programme, www.kingcounty.gov/health

31 Source: S. DeWolfe, Field Manual for Mental Health and Human Service Workers, DHHS Publication No. ADM 90-537 (2000)

32 Source: McCammon, Durham, Allison, & Williamson, 1988

33 Source: Fineman, 1996; Newton, 1995

34 Source: Bonanno, 2004

35 e.g., Lilienfeld, 2007; McNally, Bryant, & Ehlers, 2003

36 e.g., Beaton & Murphy, 1993; Bevan & Wild, 2007; Shuler, 2001

37 Source: Frontline stress behind the scenes: Emergency medical dispatchers www.tema.ca/Dispatcher_Stress.pdf

9.7 Ergonomics of call taking

Call taker perspective

The profession of call takers is being taken up by staff with varying educational profiles across Europe. Scope of experiences, the knowledge base and professional skills of a call taker have a direct impact on the performance of the complex set of tasks and the quality of support provided to the callers and rescue services involved in intervention.

Their tasks are carried out in a sheltered environment of (restricted access) call centres with special regime

and 24h/365 day per year operations. They work in 8 or 12 hour shifts, followed by a defined period of rest (which varies from 12, 24 to 48 hrs). According to general experience (data collected in research activities in Slovakia), the defined periods of rest are often shortened due to participation on educational activities, other jobs or overtime needs due to other staff illnesses.

According to some studies38 addressing the relation between the length of the working shift and performance indicators, it is not generally recommended to exceed an 8 hours shift of call takers, as 40 working hour weeks showed lowest impact on absences, highest level of performance and employee satisfaction. The practice in defined length of call taker shift varies across European PSAPs. Breaks during working hours vary in length and frequency, according to the general experience they are rather short and tend to be sporadic.

The tempo of the task performance can not be defined by the call taker him/herself as it depends to a large extent on the frequency and type of emergency calls, specifics of the situation to be managed and the interaction of the call taker with the caller and other stakeholders involved in the response.

The most immediate work settings of the call takers are defined by the computer work station and the physical organisation of the emergency call centre (its operations room). The work station usually consists of an ergonomic chair and table, a computer station with multiple screens and specialized computer software, tele-and radio-communication equipment, hard copy manuals and maps.

According to research the call takers most often complain about problems associated with increased noise, long-term use of headsets, swelling feet due to lengthy sitting and complicated interaction (communication) with other team members due to the working stations placement.39 Thus call centre ergonomics are another crucial factor determining the well/being and performance of call takers.

Call centre ergonomics

Call centres have a unique working environment characterised by working practices that can present hazards, and systems of work that differ from those of other computer-based office jobs and can potentially influence the wellbeing and performance of call takers. Creating an ergonomically correct call centre can help workers avoid such discomforts and injury. Ergonomics can be used to improve the well-being and productivity of workers by ensuring that workstations and work methods are designed to meet their needs and capabilities and thus conducting ergonomic analyses of the emergency call centre and addressing potential hazards and risks systematically is highly recommendable.

Ergonomics match the task, tool and environment to fit the needs of people and the work they do, with the

endeavour to adapt the working environment to the anatomical and physiological requirements of the body of a working individual by the utilization of all available measures. The performance of ergonomic analyses for workplaces is justified by the fact that the safe and comfortable conditions for employees are required and crucial for their performance and thus the quality of provided services and ergonomic methods and techniques are also applied in the rationalization of work processes. The obtained results can be used to facilitate the implementation of organisational changes in the PSAPs.

38 Conducted by Daniel, Pikala and co. (Slovakia)

39 Survey conducted by Branikova, Beňuškova, Sopka, Heretik jr., Slovakia 2007

Psychological load together with fatigue resulting from physical discomfort are important factors of work performance. 40Call centre workers usually need to sit for extended periods of time doing several tasks on the computer and phone. The advent of technology in call centres has brought speed and accuracy, however, with all its benefits, technology in the call centre can also take a toll on workers in the form of physical ailments, such as muscle soreness, lower back pain, eye fatigue and more serious conditions like repetitive strain injuries (such as the carpal tunnel syndrome) and work stress related psychological problems.41

Policy context

Basic framework is provided by the national legal frameworks (such as Occupational Health and Safety Acts) and human resources management standards, setting out the legal and institutional obligations for various parties (in particular, employers and employees) in the workplace.42 The purpose of the legislation is to prevent injury and illness in the workplace.

Examples of the regulations include the obligation of employers to ensure that:

Sufficient workspace is provided to allow persons to work safely;

Floors and surfaces are constructed and maintained to minimise the possibility of slips, trips and falls; and

Persons are not hindered and able to move safely around a place of work.

In relation to employees:

A safe workplace, and safe means of entry to and exit from the workplace

Use of equipment, machinery or chemicals that are safe, when used properly

A safe and healthy working environment, and safe and healthy methods and procedures (systems) for working

Adequate information, instruction, training and supervision to be provided for all workers

Adequate facilities and first aid for employees made available

A process for consultation with workers

Processes for identifying hazards, assessing risks and eliminating or controlling those risks put in place.

Potential Hazards

Any workplace may present hazards to a worker's physical and/or psychological health and safety. Although the following list does not address every hazard within call centres, it provides a framework for identifying and managing workplace hazards. Each workplace may present hazards unique to that workplace. It was developed through consultation with industry and a review of call centre literature, reflects the nature of the work carried out by call centre operators, the work environment of call centres, and workers compensation claims data. The list identifies factors that may give rise to hazards in the workplace, due to poor design or other causes. They include:

Workstation design and ergonomics (including problems related to shared work stations)

Working space

Lighting

Ventilation

Telephone headset use

Background noise

Manual handling tasks (including repetitive keyboard tasks)

Psychological environment.43

Risk management process 44

The risk management process provides employers with the information they need to make decisions about how best to avoid or control the impact of workplace hazards. The process is comprised of a four-step cycle:

40 Szczurak T., Kaminska B., Szpak A. (2007), Estimation of the psychological load in the performance of nurses' work based on subjective fatigue symptoms, Poland

41 Source: Paul Allie, Call Center Ergonomics, November 1996 issue of Telemarketing & Call Center Solutions ©1996

42 More information at http://unionsafe.labor.net.au/hazards/109106749528582.html#Heading28

43 Source: http://unionsafe.labor.net.au/hazards/109106749528582.html#Heading28

44 Source: http://unionsafe.labor.net.au/hazards/109106749528582.html#Heading28

1. Identification of hazards in the work place

Hazards associated with call centres can arise in many broad contexts and can be related to:

Manual tasks (e.g. working postures, repetition and duration)

Work environment (e.g. workstation, psychological factors, lighting)

Noise (e.g. background noise, headset use)

Plant (e.g. equipment, machinery, appliances)

Substances (e.g. chemicals)

Energy (e.g. Electricity, electro-smog exposure)

When looking for hazards employers should consider:

The suitability of workers' equipment and their work location

How people use equipment and materials

How people might be affected by noise, fumes, lighting, and other environmental factors

The potential for people to be hurt by equipment, machinery or tools

The potential for people to be affected by chemicals and other substances used in the workplace.

2. Assessment of risks

Assessment is conducted to determine the likelihood of an incident arising from the identified hazard, and the severity (i.e. seriousness) of the outcome if an incident did occur.

In assessing the risk, it is recommended to:

Review the available health and safety information relevant to the hazard

Identify the factors contributing to its risk, including:

– The work environment

– The capability, skill, experience and age of the people ordinarily doing the work

– The system of work being used

– Any reasonably foreseeable abnormal conditions

Identify what records are necessary.

3. Risk control

This is achieved by deciding and applying what needs to be done to remove or control the risks to health and safety. Measures can include:

Elimination: In a call centre, excessive keying to record large amounts of data may give rise to the risk of musculoskeletal injury as a result of overuse of soft tissue in the neck, shoulders, back, hands and/or wrists. Employers may decide that this information can be entered in other ways that requires less keying, for example by using improved software design.

Substitution: Replace the hazard with a less hazardous option. For example, replace a work process, material or equipment. In a call centre, the chemical currently used to clean/disinfect headsets might be replaced with another cleaning fluid that gives rise to less risk than the current chemical being used.

Isolation/Engineering: Isolate the hazard from people by making changes to the work environment or practices so that exposure is minimised, or redesign equipment or work practices so that work can be done differently. For example, office resources such as photocopiers, printers and faxes may be creating excessive background noise affecting employees. The employer should relocate such office equipment to a separate

area away from employees.

Administrative Controls: Reduce the risk by improved supervision, instruction, training, job rotation or adjusting rosters, etc. For example, employers should introduce regular breaks away from calls into call centre rosters to reduce the exposure of employees to risks of physical and psychological injury.

In a call centre, you can apply 'substitution' to control 'prolonged static working postures' by redesigning the job and furniture or equipment to encourage changes in posture. This control measure should be supplemented by training (i.e. administrative control) to ensure employees have a good understanding of the risks associated with the identified hazard and how job redesign can control exposure to the risk.

To ensure that control measures operate effectively, you should consider the following:

Develop safe work procedures to ensure employees know how to do the job properly and safely

Communicate and consult with employees and others about the control measures and the reasons for their implementation

Provide training for employees, particularly where changes in work procedures occur as a result of the implementation of the control measures

Supervise employees to verify that the control measures are effective and that they are following procedures

Maintain the control measures to ensure their ongoing effectiveness. Also, specify review and maintenance procedures for the new control measures as part of routine work practices.

Monitoring and review of measures

Monitoring and review of the measures that were applied can be realised by consulting with employees to ensure they are working, and identify safer ways of doing things. Here are some things employers need to consider when monitoring and reviewing control measures:

Are they in place?

Are they being used?

Are they being used correctly?

Are they working?

Hazards may change from time to time as the workplace and procedures change. Employers should thus set

up a routine of periodic hazard checks (e.g. performing regular inspections and safety audits) and establish a date to review the entire risk management process. It is crucial to recognise the importance of organisational climate for both contributing to and mitigating the effects of occupational stress for emergency call takers. 45

The emphasis on management and organisational features as significant and often more common sources of chronic stress than operational demand and acute stressful incidents is a further argument in support of systematic attention, focused on the workplace ergonomics and organisational management.

Potentially helpful resources - Employer Safety Checklist for Call Centres49

This checklist is based on the potential hazards identified in the Guidelines. It is not a comprehensive list of all hazards within call centres.

If a box is not ticked, something should be done about that issue

Tick if YES

Training

Have employees been educated/trained to recognise poor ergonomic risk factors (i.e. awkward postures, repetitive and sustained movements, and forces) associated with Occupational Overuse Syndrome (OOS)?

Have employees been trained in the correct adjustment of workstation furniture to enable them to achieve neutral postures (as shown in Diagram 1)?

Chairs

Is the seat height adjustable for the range of users within the workforce?

From a seated position, can the height of the chair be easily adjusted?

From a seated position, can the backrest be easily adjusted for height and angle?

Is the seat pan width and depth adequate and comfortable when sitting?

Do employees' elbows avoid hitting the backrest and armrest (if provided) when performing their job?

Can the computer screen be adjusted for height and viewing distance from the seated position?

Desks

Is the desk height adjustable between 580mm & 730mm?

If 'no', is there a height adjustable chair and footrest available to achieve neutral postures (as shown in Diagram 1)?

Is the desk depth sufficient for the computer screen, keyboard, and document holder?

Is the desk wide enough for the task?

Is the top surface non-reflective?

Is there adequate leg space under the desk?

Other equipment

If necessary, do employees have the choice of using footrests to achieve correct lower limb postures?

If necessary, do employees have the choice of using document holders?

Telephone headset use

Is the background noise level low enough that operators do not have to turn up the volume of their headsets?

Are the operators' headsets free from sudden bursts of loud noise, such as line interference?

Are operators provided with individual headsets?

Is there a system of maintaining and exchanging faulty headsets?

Are the headsets cleaned on a regular basis, and cleaned prior to issuing to another operator

X.   ANNEX - REFERENCES

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