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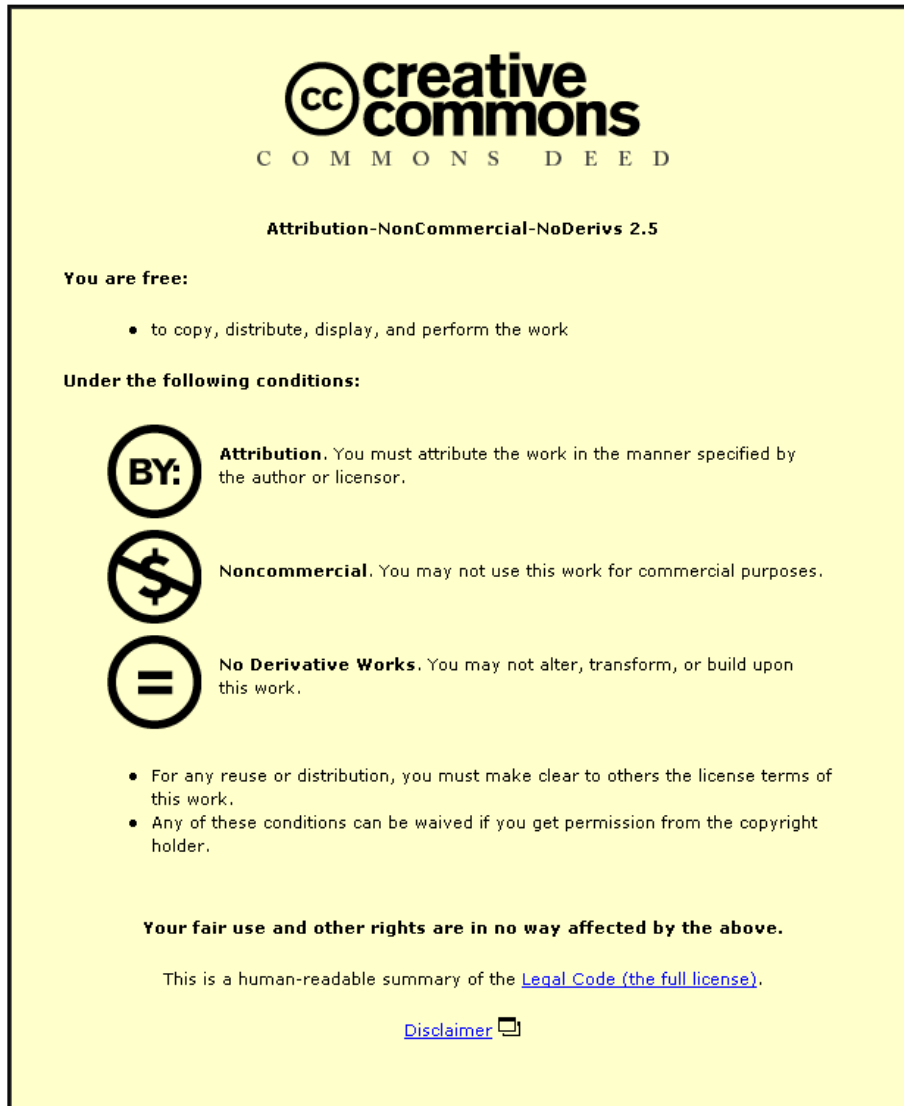
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Deliverable 5.10: Review of the Methodologies Used to Develop the Fatal Accident and Accident Causation Databases

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Integrated Project, Thematic Priority 6.2 "Sustainable Surface Transport"

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Table of contents

EXECUTIVE SUMMARY.....3

1 INTRODUCTION.....4

1.1 Structure of the report 5

1.2 Respondent information..... 6

2 QUESTIONNAIRE RESPONSES 7

2.1 The importance of European data.....7

2.2 Linking in-depth data with macroscopic data..... 8

2.3 Combining data and ensuring representativeness.....9

2.4 Suitability of the general approach of WP5.....10

2.5 Treatment of different investigation methods.....11

2.6 Determination of variables.....12

2.7 Level of data collected.....13

2.8 Sampling and data quality.....14

2.9 Usefulness of in-depth fatal accident data.....15

2.10 Usefulness of in-depth accident causation data.....15

2.11 Future development of European in-depth data.....16

2.12 Further comments.....16

3 DISCUSSION AND CONCLUSIONS.....18

4. ANNEX A: WP5 REVIEW QUESTIONNAIRE.....19



Executive summary

In July 2008, Work Package 5 (WP5) distributed a questionnaire to the broader SafetyNet partnership, with the aim of consulting on the investigation techniques and data gathering methods used in the creation of two European accident databases, SafetyNet Fatal Accident Database and SafetyNet Accident Causation Database.

The questionnaire contained 11 questions which addressed the importance of collecting in-depth data, its potential usefulness, and the suitability of the methods used in addressing the aims of the study. For those unfamiliar with WP5, each question was preceded by a short explanatory text. In addition to answering the questions, respondents were invited to make additional comments explaining or elaborating on their opinion.

The questionnaire was returned by 20 people from a range of institutes within the partnership.

The majority of the work completed in work package 5 was judged to be appropriate for the type of study being conducted. The feedback received through the questionnaire responses and associated remarks generally supported the methodologies and working practices. This reflects the feedback received from the workshop which was held in June 2008 (D5.9 WP5 Methodology Workshop Report, SafetyNet 2008)

1. Introduction

Work Package 5 (WP5) of the SafetyNet project aims to design, develop and complete two European accident databases concerning (1) Fatal accidents and (2) Accident Causations. The combination of these two databases will contribute to a major advance in in-depth knowledge of accidents at an EU level despite having different characteristics.

The first database (Task 1 of Work Package 5) relates to a European Fatal Accident Database, and involves the collection of data from approximately 1,300 fatal accidents from 7 European member states. The second database (Task 2 of Work package 5) relates to a European Accident Causation Database and involves the collection of data from approximately 1,000 on-scene in-depth accident investigations across 6 European member states.

As a first step the two components of the project, (tasks 5.1 and 5.2) completed a thorough methodology development stage. This period included the determination and development of the basic data variable list, the team structures including the investigation processes and procedures and the method of recording, storing and using the data. This preliminary stage formed the basis for all the data collection work completed in the project and is reported in Deliverables D5.1 (WP.1) and D5.2 (WP5.2), however before full scale data collection commenced a pilot stage was conducted.

Between the first step (the Methodology Development), and the second step, (the Pilot Phase) a specific SafetyNet work package 5 database was designed and developed by a team based at the Department of "Idraulica, Trasporti, Strade", University of Rome, (DITS). This database consisted of two sections - one for task 5.1 and the second for task 5.2, with a common 'spine' of data collected by both work packages. This database was also designed for remote data transfer to enable all partners to upload or download case information across the internet.

The Pilot data collection phase consisted of the respective partners in both task 5.1 and task 5.2 collecting a small sample of data using the full scale data collection protocols. This process involved utilising the prototype database version for case input in order to detect any problems experienced by the teams whilst collecting or processing the data. This process was also used as preparation for the full scale activities to determine where possible difficulties were evident. A full report of this section is available in Deliverable D5.3 and Deliverable D5.4 (for task 5.1 and task 5.2 respectively).

A final iteration of the data variables and associated database modifications was made in accordance with recommendations arising from the pilot phase. These final modifications proceeded full-scale data collection for both the Fatal Accident and Accident Causation data sets.

The first external consultation on the activities conducted and procedures used within work package 5 consisted of a workshop held on the 18th June 2008 in Gothenburg, Sweden. This activity was designed to gather feedback

from road safety stakeholders on the key decisions and subsequent working practices employed in the work package. The workshop dealt predominantly with the methods used for data sampling, data sourcing and representivity to both partner Member States and Europe Union as a whole. In addition to this, a section was dedicated to the SafetyNet Accident Causation System (SNACS) as this was a significant undertaking of the task 5.2 data collection activities. For a detailed description of the workshop and its results, refer to D5.9 WP5 Methodology Workshop Report, (SafetyNet 2008)

The questionnaire activity described in this report was intended to complement the workshop, by gathering similar feedback from within the SafetyNet consortium. However, it is by necessity less detailed. Resource constraints prevented the methods and activities being described to the respondents in as much depth as they were to workshop attendees. However, most of the questionnaire respondents would have had some familiarity with WP5 from attendance at SafetyNet conferences and plenary meetings.

1.1. Structure of the Report

The main body of the report is organised to reflect the structure of the questionnaire. Chapter 2 covers each of the eleven questions of the questionnaire. Each section includes a summary of the responses, followed by a record of any comments made by respondents. Chapter 3 introduces the combined conclusions of the questionnaire activity and highlights any issues that need addressing for the completion of future WP5 work. The questionnaire itself is appended (A).

1.2. Respondent information

The SafetyNet consortium has partners in 17 countries. 20 responses were received from a range of institutes across Europe, based in Italy, Germany, UK, Denmark, Norway, Greece, The Netherlands, Czech Republic and Sweden. Since involvement in SafetyNet varies per institute, it is difficult to make a statement about the representativeness of these respondents. Many organisations have a number of people undertaking work for SafetyNet, whereas others have only one or two key people. In either case there may be one contact person nominated for the organisation as a whole or many. However, it was felt that 20 responses was likely to be an adequate number to gain a good understanding of views within the project.

The following chapter discusses each question subsequently, outlining the rationale for including the question, an overview of the responses (with any additional comments where relevant), conclusions and analysis of the implications for WP5 or similar work which follows from it in the future.

2. Questionnaire Responses

2.1 The importance of European-level data

Question 1:

“Do you think it is important to gather accident data at a European Level in order to meet EU targets on overall casualty reduction?”

The EC casualty-reduction targets are European (not national) in nature, therefore collecting data at the European level for policy development and monitoring purposes is important. However, how this should be achieved, what the scope of this activity should be and which countries should participate has not been formally established.

The purpose of this question is to examine whether the respondents feel that collecting data at European (rather than national) level is important in order to monitor the European targets for casualty reduction.

All respondents agreed that there is a need for gathering data at the European level in order to meet casualty reduction targets. A number of respondents highlighted the strong link between national and European casualty reduction targets;

“EC casualty-reduction targets cannot be distinguished from the national targets. These are definitively linked up to a certain point. Therefore the collected EU accident data should be a sub-set of the accident data collected at national level by the countries across the EU”

Other respondents pointed out that when talking about Europe there is a need to ensure that those countries which are not members of the European Union are also included, in order to ensure that the broader European picture is accurately represented. It was also highlighted by a number of participants that collecting data does not, by itself, ensure targets are met but also serves a broader policy-design and monitoring objective;

“The gathering of data has nothing to do with meeting the target. It is only a way of showing whether the target is met”

“Where there are quantitative targets it is important to collect data to show to what degree the targets are met”

“Data collection...allow [us] to understand how different approaches carried out at national level are effective in increasing road safety”

This broadly supports the findings from the Workshop, where 16 out of 18 respondents felt that gathering data at European level was important. (D5.9 WP5 Methodology Workshop Report, SafetyNet 2008)

2.2. Linking in-depth data with macroscopic data

Question 2;

“Do you think in-depth data can be used to complement macroscopic data (such as national databases or CARE) in order to provide the most effective support for road safety policy or should they be seen as two entirely separate tools?”

ETSC (2001)¹ recommended the introduction of in-depth accident and injury causation studies on a European level.

Determining whether macro and microscopic data should be thought of as linked and complementary elements of road safety information, or as separate entities which serve different objectives may be important in designing future data collection activities. If they are linked, for example, then it is important that they are compatible, and CARE variables and values should be considered when designing in-depth data collection. If they are entirely separate entities compatibility becomes less crucial.

In all cases, respondents indicated that in-depth can be used to complement macro level data.

Many respondents provided examples of the ways in which in-depth data can add to the understanding of accident and injury trends reported at national level. Comments included;

“In depth data is anyway important and can help the understanding of road accidents but in-depth data can be more effective if they are used as complement of macroscopic data”

“in-depth data is needed to complement the statistical data on a deeper level”

“the complementary part in my opinion has to do with data validation”

However, some respondents also gave examples of how in-depth data can be a useful stand-alone tool to gain insights into areas where macroscopic data is more limited;

“In-depth data can provide information about causation factors both regarding circumstances and casualties”

“Definitely in-depth data could give a better insight of road accident causation... However... Special attention should be given to compatibility issues related to the collected data”

“also as a separate tool with more possibilities for analysis”

¹ <http://www.etsc.be/documents/accinv.pdf>

This question was not posed by the workshop questionnaire. However, a question asking whether a European in-depth accident investigation programme was important received an overwhelmingly positive response.

2.3. Combining data and ensuring representativeness

Question 3;

“Do you think it is reasonable to combine data from different countries to provide a representative sample of Europe”

In the Fatal Accident Database, (task 5.1) data were collected by partners in 7 EU Member States. Those participating were Italy, France, Germany, Sweden, The Netherlands, Finland and the UK. In the Accident Causation Database (task 5.2), data were collected by partners in 6 EU Member States. These were the same as in task 5.1 above with the exception of France.

The Member States listed above are predominantly from Western Europe and have a good overall road safety record. Through data sampling reviews and analysis the data have been shown to be representative of the respective countries for 5.1. However this method is not necessarily representative of the EU-27.

Since data from different countries was combined by WP5 it was important to gather opinions on the appropriateness of this approach.

All respondents agreed that it is reasonable to combine data; however, many had comments addressing the issue of how representative such combined data might be. Most of these were prompted by the limited number of countries in which data was collected for SafetyNet WP5. However, one also highlighted again the issue of determining whether data should be representative of the EU, or representative of Europe. It was also suggested by one respondent that as long as a full sample plan for the data was available, combining data in this way would not be problematic. Comments included;

“I think it is important to analyse the differences between the countries as well”

“I believe that the methodologies developed within WP5 should be further tested to more EU countries (especially to ones from Eastern Europe and most recent member states) in order to verify that they can be representative for all (or at least most) EU countries”

“It is very difficult for this kind of activities to become representative of Europe. WP5.2 is not representative [of] either a national or European level and was never meant to be. To reflect the situation across Europe it is important to

collect data from several EU member states but it is very difficult to say that it will be representative for Europe”

“It is possible to test the representativity of the collected samples in relation to CARE data”

There was one comment which appeared to contradict the majority view on the issue of number of countries in which data was collected;

“It is however preferable to keep the number of participating countries limited”

These comments are broadly in-line with those resulting from the workshop questionnaire; in general respondents support the principle of combining data in this way, subject to some caveats about the extent to which limitations are known and understood. There was much support for extending the number of countries involved, though this could not be done within the scope of SafetyNet.

2.4 Suitability of the general approach of WP5

Question 4;

“Do you think the approaches used by WP5 were suitable for the purpose of collecting in-depth data at a European level?”

WP5 used a two-fold approach to accident data collection; Fatal Accident data (task 5.1) and Accident Causation data (Task 5.2). In task 5.1, 1,296 Fatal Accident cases involving all road user types were collected using a retrospective methodology. Task 5.2 used a new accident investigation methodology developed for WP5 and collected data from 1006 accidents of all severities and all road user types using a mainly on-scene methodology.

Whilst the work of the SafetyNet project is now almost complete, and it is therefore too late to make any changes to the approaches adopted, should this work be continued and developed in future projects, it is useful to explore the suitability of the approach for collecting European-level data. It may be that improvements could be identified which could usefully inform future similar work.

The majority of respondents (16) felt that the approach was suitable. However, 2 felt they did not have an adequate knowledge of the approach (or of any alternative approaches) to judge. One respondent felt that the approach was not suitable, and one specified that the approach was suitable in the case of task 5.1, but in the case of task 5.2 it may not be suitable for all countries. The respondent who felt that the approach was not suitable commented that;

“WP5.1 used several sources of information for intermediate level of data. In the introduction to this question it is said that a new accident investigation methodology was developed for (task) 5.2 but since all teams used their own method of collecting the data it is not a harmonised investigation method. On the other hand, the protocols were harmonised and a common way of categorising the contributing accidents was used by all partners which is suitable”

Other comments included;

“The next step will be to harmonize the data collection methodologies, but it will require a long time”

“Even though a bigger sample from more countries would allow for more concrete conclusions on the collection methodologies, I believe that the work within SafetyNet WP5 is an important step towards in-depth road accident data collection”

It would appear that providing more information to respondents on the approach used by WP5 would have been useful. The final questionnaire represented a compromise between the need to give respondents enough information to form an opinion, without over-whelming them or discouraging them from responding by sending a long questionnaire. In the more flexible environment of the workshop, more detail was provided on this element.

The related questions on the workshop questionnaire reflected that, breaking the general approach into more detailed sections. For this reason it is difficult to directly compare the two sets of feedback. However, in both cases there is broad support for the methodology adopted.

2.5 Treatment of different investigation methods

Question 5;

“Do you think it is reasonable to treat different data collection methods (such as on-scene and retrospective) as equivalent sources of data?”

A number of teams in task 5.2 used a combination of on-scene and retrospective investigations. There are advantages and disadvantages to both: on-scene studies can capture volatile data such as skid marks, vehicle rest positions and weather/road conditions. However, the time available for the investigation may be constrained by (for example) the need to reopen the road. Retrospective studies do not have this limitation but do not always have the capability to accurately record volatile data.

This question serves a similar objective to that of question 4; whilst the approach of SafetyNet will not be modified on the basis of these questionnaire

responses, they could nevertheless be used to inform future European in-depth data collection activities.

The response to this aspect of the study was mixed: Five respondents did not feel that it was reasonable to treat the data from different collection methods as equivalent. The following reasons were given;

“I don’t think the methods mentioned are equivalent but both have their advantages and disadvantages”

“Data may be useful and reliable in both collection methods. However, the different properties and limitations (especially the limitations) of the collection method should be taken into account by the data users and this may require important effort”

“I think it is important to provide information about the collection method with the data”

These comments indicate that it is important to make clear what data sources have been used and what the advantages and disadvantages of each may be. It is also essential that there is transparency about the methods, so that data users are able to make informed judgements about how the data can be used and what caveats and limitations must be borne in mind when undertaking analysis.

2.6 Determination of variables

Question 6;

“Do you think the procedures used to determine the number and type of variables are satisfactory for this type of study?”

The number and type of data variables used throughout task 5.1 was based on a pilot study of the source material (Police reports, Insurance data etc). This allowed a level of data that was achievable and reliable for most partners to be determined. This process reduced the number of “unknown” variables recorded but may have restricted the total amount of data available.

The majority of respondents (15) agreed that the procedure was satisfactory. Only one felt that the procedures were not satisfactory;

“Level should be lower still”

The importance of limiting the impact of missing variables was understood by at least one respondent;

“We want to compare the data on a European level, then we can’t have data missing from several countries”



4 respondents felt that the questionnaire did not provide them with enough material to make this judgement.

Following the workshop, respondents indicated that the procedures used in WP5 were good, despite the fact that variable reliability could not be definitively established within the scope of SafetyNet.

2.7 Level of data collected

Question 7;

“Do you think the level of data collected in both tasks was satisfactory for this type of study?”

For every accident case, Work Package 5 collected data in 4 distinct areas which were combined to produce a complete overview of the accident. These were (1) the accident level, (2) the vehicle level, (3) the road way level and (4) the road user level. In addition to this, task 5.2 collected further information about accident causation using the SNACS causation coding system.

Task 5.1 collected approximately 130 data variables (spread over the 4 data levels), whilst task 5.2 collected approximately 300 data variables. Where necessary further information could also be added in ‘free text’ comment fields so that all relevant data on each accident could be recorded.

Two respondents felt unable to judge whether or not the level of data was satisfactory, whilst a further two felt that the level should be higher. The remainder thought it suitable. The reasons given for thinking it should be higher were;

“Especially for WP5.1 the level of data collected was not very much higher than for example within CARE – which is already available. If the effort is made to collect data next to existing data, it should be able to provide a much higher level of information. For WP5.2 it would be interesting to have results of accident reconstruction before coding accident causes.”

Comments from those who agreed with the suitability of the level of data included;

“The data collected reflects the aim of the study”

“I think that a step by step approach should be followed. Require from the beginning a higher level of data would give problems to partners with less experience in the road safety field. I think that in future a higher level of data should be collected but a step by step approach should be defined to allow all countries to reach that level”

The level of data collected reflects the need to balance the practical problems of data collection (ease of collection, cost, reliability) with the potential uses of the data for scientific research. It is important that stakeholders have the opportunity to comment on this, and perhaps influence how this balance is struck in future projects

2.8 Sampling and data quality

Question 8;

“Do you think the combination of sampling methodologies and data sources used in the collection of case material will affect the overall data quality in WP5?”

The WP5 partners used a number of different approaches to sampling and data-collection. The pilot stage and data-variable development processes were used to verify that these methods were broadly equivalent, although small discrepancies were evident.

Sampling:

Countries sample either nationally or regionally. In both cases the final sample was shown to be largely representative of individual Member States for the 5.1 cases..

Source material:

The 5.1 data was derived from a number of different sources, for example; Police data, Insurance data, Road Authority data and Judiciary data. The variable list was developed from samples of these sources such that the number of completed fields in the final data-set remains very high

Only one respondent felt that the combination of data sources and sampling methodologies would not affect the data quality, stating;

“I do not think it would affect the quality of the data but I would prefer to see more on-scene activity from the member states.”

Three respondents felt that they did not have enough information to answer the question. The remainder felt that the data quality would be affected, explaining that;

“Different methods always affect quality in different ways”

“Quality may be affected once different entries for the same variable are found in different data sources for the same accident (e.g. injury severity in Police records vs insurance records”

“Yes different approaches would affect the data, on the other hand national databases would not be so effective as common EU database. I think that the

second aspect (EU common database) would have more importance than the first one (different approaches)”

2.9 Usefulness of in-depth fatal accident data

Question 9;

“If you had access to in-depth European fatal accident data, would you use it in your research/other work activities? If yes, could you please give us an example of how you would use it? ”

This question resulted in a completely positive response as all respondents agreed that they would. Examples of how the data might be used included;

“It is good to be able to compare fatal data from other countries to the national situation”

“Firstly I would use it to examine specific road safety topics and compare the outcomes of analyses with the respective outcomes of the national accident data. Based on the results, counter measures for specific problem areas can be developed”

“There are several difficulties in drawing conclusions when analysing fatal accidents alone, ie without a control group of non fatal accidents. Nevertheless, the increased reliability of in-depth data would make this a very useful additional data source”

“especially causation data is becoming more and more important for active safety issues”

The level of interest in using the data which the respondents expressed is very much in-line with the enthusiasm expressed by the workshop attendees: All of the 18 respondents replied that they would like some access to the data in order for use in their specific field of research or work. This result is very encouraging as it demonstrates the need for this kind of data at a European level.

2.10 Usefulness of in-depth accident causation data

Question 10;

*“If you had access to in-depth European accident causation data, would you use it in your research/other work activities?
If yes, could you please give us an example of how you would use it?”*

Only one respondent was unsure whether or not they would use in-depth accident causation data, the rest were confident they would. The suggested

uses to which the data could be put were similar to those given for fatal accident data;

“Apart from the exploitation of the increased level of detail and reliability of in-depth data, accident causation data including both fatal and non fatal accidents would be very useful in the identification of the effects of key variables such as impairment, use of safety equipment, speed etc which are seldom available in macroscopic databases”

“Accident causation combined with macroscopic accident data could be the solution for the identification of several road safety issues”

“It would be interesting to look at both databases and with the help of the general variables find differences and similarities between fatal and non-fatal accidents. In terms of the causation data it will hopefully be a good tool to learn more about driver behaviour in different countries”

It is very encouraging to see this level of interest, which was reflected in the responses to the workshop questionnaire.

2.11 Future development of European in-depth data

Question 11;

“Do you think in-depth accident investigation on a European level should be further developed? This could involve wider inclusivity of participating Member States, greater numbers of cases collected etc.”

All respondents agreed that in-depth data collection should be further developed. Most commonly the comments addressed the extension of the work to more countries and more partners;

“...should be increased to include more member states and perhaps more partners in each member state to strive to make the study more representative of each state and ultimately Europe.”

“In-depth accident investigation is very important when trying to explain the actual causes of an accident, as it provides information which is not available in macroscopic databases and certainly a common pan-European framework for in-depth investigation should be formulated and adopted by all EU countries”

2.12 Further comments

The final section of the questionnaire invited respondents to make any final comments or raise any additional issues they felt should be taken into account in future in-depth data collection activities. Three respondents made additional comments;



“It is very difficult for me to see how this information can be of interest to ITS systems.. Here macro information is more likely to be used... On the other hand this information could be valuable information to national in-depth investigations widening the amount of data. In DK each theme investigated typically covers 40 – 50 accidents. Therefore similar information on European level could strengthen the conclusions”

“My experience with in-depth data is that this kind of data are so detailed that it is difficult to generalise from them. This must be even more difficult if the data come from different countries”

“In-depth accident databases and macroscopic accident databases at EU level should be compatible in their common parts (the common variables and values should be defined in the same way) allowing for combining data and enabling maximum exploitation”

The themes of linking in-depth European data with national data, how to generalise from in-depth investigations to national issues, and how to ensure compatibility with existing databases such as CARE are all ones which must be given careful consideration in any future extensions of this work. However, it is worth mentioning that many of the variables adopted by WP5 were incorporated precisely because they were incorporated in to the CARE database.

3. Discussion and Conclusions

As was the case with the workshop, a number of issues were raised by the questionnaire respondents. In general comments were probably less detailed in this questionnaire than was the case with the workshop, due to the lower level of knowledge of the work which the questionnaire assumed.

Areas of the work package which caused concern centred on the issues of representivity and sampling. These two areas are notoriously complex for simple regional studies (for example), so it was perhaps somewhat unsurprising that concerns were raised when these processes were expanded across a European field.

One comment that was reiterated by a number of workshop attendees on the subject of European representivity, and was also important to questionnaire respondents was the need for more European Member States to be involved. Of course, the involvement of more Member States does not automatically guarantee additional representivity, accuracy, reliability or overall quality: Indeed, it could be argued that these may be adversely affected. However, this measure may prove necessary in order to make European representivity more achievable.

SafetyNet work package 5 could be considered a pilot study for the development of larger scale European fatal and causation studies in the future. Some of the potential difficulties have already been faced, not least of which is the complexity involved in getting 6 or 7 countries collecting data to the same level. It is therefore useful to understand how these complexities could multiply as more countries are added to future studies.

A legacy of SafetyNet work package 5 should be the methods and working practices used to complete the tasks. There is no scope for new countries to be added to the remainder of the WP5 study. Therefore the lessons learnt should be documented for future reference in similar projects where additional countries could be more easily incorporated into a framework.

As a final remark, it was very encouraging to find that the overwhelming majority of workshop attendees and questionnaire respondents agreed that they would like access to the data. This shows that there is both the apparent need for the two types of data collection activities that form WP5 of SafetyNet and that there is significant confidence that these two activities will provide useful and reliable data for research purposes.

Annex A



SafetyNet – Building the European Road Safety Observatory

SafetyNet WP5 Review Questionnaire

Introduction

Work-package 5 of SafetyNet deals with the development of two databases;

- (1) A Fatal accident database which has been formulated primarily on the basis of information contained within Police accident investigation reports.
- (2) An accident causation database involving new accident investigations (conducted by the WP5 partnership) – the main aim of this database is to examine the main causation factors involved in accidents but the task has also been responsible for developing a new Accident Causation model.

It is expected that both databases can be exploited for the purposes of the progression of Intelligent Transport Systems (ITS) and therefore the information contained within the databases will be of special interest to road safety practitioners, vehicle engineers, policy-makers and road infrastructure experts.

Because the data collection protocols used in WP5 have essentially been developed 'from scratch' by the partnership, we are aware that we may not necessarily have perfect data collection systems. Therefore we feel that it is important to seek independent views regarding these data collection systems. In part, this has already been achieved via a workshop that was held in Gothenburg (in June 2008) which was attended primarily by external stakeholders. The views of the workshop participants are currently being collated and will be reported on as a separate deliverable of WP5. However, we are also very interested in hearing the views of internal SafetyNet partners as we feel that you will be able to provide us with an expert opinion of our activities. This will help us to further refine our protocols so that we will have an even more robust data collection process next time such in-depth

investigations are conducted within the EU. Completion of this questionnaire should not take more than 20 minutes.

Overview of the questionnaire

Protected This document is protected. The protected mode only enables you to enter information in selected areas. Information is recorded in either a pre-defined drop down list or free text boxes. The free text boxes will expand to accept text.

Name:

Affiliation (institution):

Country: (Please select from drop down list)

Email address:

Relationship to SafetyNet work package 5:

Have you reviewed any WP5 material? Yes

(1) The EC casualty-reduction targets are European (not national) in nature, therefore collecting data at the European level for policy development and monitoring purposes is important. However, how this should be achieved, what the scope of this activity should be and which countries should participate has not been formally established.

? Do you think it is important to gather accident data at a European Level in order to meet EU targets on overall casualty reduction?

Yes

Comments

(2) ETSC (2001)² recommended the introduction of in-depth accident and injury causation studies on a European level.

? Do you think in-depth data can be used to complement macroscopic data (such as national databases or CARE) in order to provide the most effective support for road safety policy or should they be seen as two entirely separate tools?

Unknown

Comments

(3) In the Fatal Accident Database, (task 5.1) data were collected by partners in 7 EU Member States. Those participating were Italy, France, Germany, Sweden, The Netherlands, Finland and the UK.

In the Accident Causation Database (task 5.2), data were collected by partners in 6 EU Member States. These were the same as in task 5.1 above with the exception of France. The Member States listed above are predominantly from Western Europe and have a good overall road safety record.

Through data sampling reviews and analysis the data have been shown to be representative of the respective countries and hence an EU-6 or EU-7. However this method is not necessarily representative of the EU-27.

² <http://www.etsc.be/documents/accinv.pdf>

? Do you think it is reasonable to combine accident data from different countries to provide a representative sample of Europe?

Unknown

Comments

(4) WP5 used a two-fold approach to accident data collection; Fatal Accident data (task 5.1) and Accident Causation data (Task 5.2). In task 5.1, 1,300 Fatal Accident cases involving all road user types were collected using a retrospective methodology. Task 5.2 used a new accident investigation methodology developed for WP5 and collected data from 1000 accidents of all severities and all road user types using a mainly at-scene methodology.

? Do you think the approaches used by WP5 were suitable for the purpose of collecting in-depth accident data at a European level?

Unknown

Comments

(5) A number of teams in task 5.2 used a combination of on-scene and retrospective investigations. There are advantages and disadvantages to both: on-scene studies can capture volatile data such as skid marks, vehicle rest positions and weather/road conditions. However, the time available for the investigation may be constrained by (for example) the need to reopen the road. Retrospective studies do not have this limitation but do not always have the capability to accurately record volatile data.

? Do you think it is reasonable to treat different data collection methods (such as on-scene and retrospective) as equivalent sources of data?

Unknown

Please comment

(6) The number and type of data variables used throughout task 5.1 was based on a pilot study of the source material (Police reports, Insurance data etc). This allowed a level of data that was achievable and reliable for most

partners to be determined. This process reduced the number of unknown variables recorded but may have restricted the total amount of data available.

? Do you think the procedures used to determine the number and type of variables are satisfactory for this type of study?

Unknown

Please Comment

(7) For every accident case, Work Package 5 collected data in 4 distinct areas which were combined to produce a complete overview of the accident. These were (1) the accident level, (2) the vehicle level, (3) the road way level and (4) the road user level. In addition to this, task 5.2 collected further information about accident causation using the SNACS causation coding system. Task 5.1 collected approximately 130 data variables (spread over the 4 data levels), whilst task 5.2 collected approximately 300 data variables. Where necessary further information could also be added in 'free text' comment fields so that all relevant data on each accident could be recorded.

? Do you think the level of data collected in both tasks was satisfactory for this type of study?

Unknown

Please Comment

(8) The WP5 partners used a number of different approaches to sampling and data-collection. The pilot stage and data-variable development processes were used to verify that these methods were broadly equivalent, although small discrepancies were evident.

Sampling:

Countries sample either nationally or regionally. In both cases the final sample was shown to be largely representative of individual Member States.

Source material:

This was derived from a number of different sources, for example; Police data, Insurance data, Road Authority data and Judiciary data. The variable list was developed from samples of these sources such that the number of completed fields in the final data-set remains very high

? Do you think the combination of sampling methodologies and data sources used in the collection of case material will affect the overall data quality in WP5?

Unknown

Comments

? If you had access to in-depth European fatal accident data, would you use it in your research/other work activities?

Yes

If yes, could you please give us an example of how you would use it?

? If you had access to in-depth European accident causation data, would you use it in your research/other work activities?

Yes

If yes, could you please give us an example of how you would use it?

? Do you think in-depth accident investigation on a European level should be further developed? This could involve wider inclusivity of participating Member States, greater numbers of cases collected etc.

Unknown

Comments

Is there anything else that you would like to add that should be taken into account in future in-depth accident data collection activities?

THANK YOU FOR COMPLETING THIS QUESTIONNAIRE. WE VALUE YOUR INPUT AND YOUR RESPONSES.