

THE NEW DUTCH APPROACH TO INVESTIGATING AND LEARNING FROM ACCIDENTS

Introduction

The health and social care (HeSCare) sector plays a significant role in European society, in terms of overall health and wellbeing as well as for the economy in general. The HeSCare sector is an important job generator in the EU economy. According to Eurostat Labour Force Survey statistics, over 21.5 million people were employed in the HeSCare sector (NACE Q) in 2022. Most of these workers work in the healthcare subsector, numbering around 12.5 million employees. Employment levels in the HeSCare sector have been steadily increasing over the past 10 years, something seen to be occurring across all subsectors. The HeSCare sector accounts for 11% of all employment across the total economy (EU-OSHA, 2024b).

Many organisations take extensive proactive measures to identify, evaluate and reduce occupational risks via the legally obligated risk assessment as described in the EU Framework Directive on Occupational Health and Safety.¹ However, despite these efforts things still go wrong and unintended events occur, possibly leading to accidents. After accidents, conducting an accident investigation is generally a step that is taken to improve working conditions. A thorough accident investigation may uncover previously overlooked weaknesses in safety management or safety culture, as well as underestimated risks, unknown risks or insufficient control over known risks (EU-OSHA, 2024a). The Framework Directive also stimulates this, by stating that employers shall draw up, for the responsible authorities and in accordance with national laws and/or practices, reports on occupational accidents suffered by their workers.²

This case study describes the new Dutch approach to accident investigation and its effect on the prevention of accidents. Within the case study, several guidelines for accident investigation from different EU Member States are shared and discussed.

This case study is part of a research project³ carried out to provide an overview of research on accidents at work in the HeSCare sector.

Description of the case

▪ The Dutch context

The Working Conditions Act in the Netherlands requires employers to immediately report work-related accidents that are subject to mandatory reporting (accidents resulting in permanent injury, hospitalisation or a fatal outcome) to the Netherlands Labour Authority (Nederlandse Arbeidsinspectie (NLA)). In the past, the NLA would always conduct its own investigation following such a report to determine whether there was (potentially) a direct causal link between a violation of the Working Conditions Act by the employer and the workplace accident. In such cases, the NLA could impose sanctions based on the Working Conditions Act or other occupational safety and health (OSH) laws.

What was done and how

▪ The new approach: 'employer self-reporting'

Since 2018, the NLA has been exploring whether an alternative approach could have a greater learning effect regarding workplace safety in enterprises and organisations where a reportable workplace accident has occurred. To this end, the effects of various interventions have been studied, including the

¹ See: <https://osha.europa.eu/en/legislation/directives/the-osh-framework-directive/1>

² See: <https://osha.europa.eu/en/legislation/directives/the-osh-framework-directive/1>

³ The full report is available at: <https://osha.europa.eu/en/publications/accidents-work-health-and-social-care-sector>

‘employer self-reporting’ intervention (Nederlandse Arbeidsinspectie, 2022). This intervention aligns with a wish from the Dutch Parliament that requested the government to examine whether the NLA, in addition to imposing fines, could also require enterprises to develop and implement safety improvement plans following a reportable accident.

Research, including that conducted by the NLA, has shown that this intervention has positive effects on safety awareness in enterprises and their implementation of additional improvement measures. This was particularly the case for enterprises that would not ordinarily conduct their own investigation into a workplace accident on their own initiative. These findings led to the new accident investigation approach, which has been in effect since 1 January 2023. When a workplace accident (which is subject to mandatory reporting) is reported, the NLA visits the site, briefly records what happened, and secures evidence and documents. The NLA then offers the employer the opportunity to conduct its own investigation into the causes of certain reportable workplace accidents.⁴ In doing so, the employer is expected to examine not only the direct cause(s) of the accident that occurred within the enterprise but also any underlying or root causes.

Based on this investigation, the employer must prepare a report that includes an improvement plan with adequate corrective measures and a timeline for implementation. The NLA assesses the employer’s report and improvement plan. If the labour inspector initially deems the report and/or improvement plan insufficient, the employer is given a second opportunity to revise them. If the report and improvement plan are approved, the NLA does not proceed with enforcement unless the inspector identifies a violation during a follow-up inspection, which usually takes place a couple of months after the accident.

The aim of the new employer self-reporting approach in which an employer conducts an accident investigation and develops improvement plans to prevent workplace accidents is to enhance learning capacity. The overall goal of the approach is to increase awareness of risks within an enterprise and to encourage employers to take appropriate measures to reduce safety and health risks, similarly as one would do in a risk assessment.

▪ Development of guidelines and tools

The NLA published a set of documents⁵ and an online self-inspection tool, accompanying the new accident investigation approach. The set of documents consists of:

- An investigation guideline (available in Dutch, English⁶ and German) that contains information as to how and why the employer itself investigates an accident at work. It contains:
 - Information regarding a joint approach regarding the accident investigation.
 - A four-step approach for investigating accidents. Each step includes a description of what is to be done, including practical guidance and examples. The steps are:
 1. collecting information;
 2. analysing information;
 3. identifying appropriate measures; and
 4. formulating, implementing, evaluating, improving and implementing the improvement plan again, etc.
 - Information on the role of human action as a factor within accidents.
 - Guidelines for conducting investigation interviews.

⁴ In the case of workplace accidents with a fatal outcome, an investigation is carried out by the NLA. The same applies to incidents where the victim is under 18 years old or when a family member of the employer is involved. The NLA also conducts investigations if, for example, the enterprise’s history warrants it or if the accident has a significant societal impact.

⁵ Available at: <https://www.nlarbeidsinspectie.nl/onderwerpen/ongevalsonderzoek/documenten/publicaties/2023/01/01/documenten-ongevalsonderzoek>

⁶ Available at: <https://www.nlarbeidsinspectie.nl/binaries/nlarbeidsinspectie/documenten/publicaties/2023/01/01/documenten-ongevalsonderzoek/20230220-investigation-guideline.pdf>

- An Appendix (also available in Dutch, English⁷ and German) that contains more information about the inquiry and the points that are the subject of assessment in the report and the improvement plan.
- An online tool called 'self-inspection'⁸ that guides employers through the investigative process. This tool contains the information in the guideline but gives employers a step-by-step approach to conduct the accident investigation.

With these tools, employers are able to conduct an accident investigation on their own and in this way comply with the Dutch OSH legislation that applies when an accident at work that is subject to mandatory reporting occurs.

Although this new Dutch approach is originally designed for accidents that are subject to mandatory reporting, all the documents and the tool could be used by anyone wanting to improve safety and health by analysing accidents and establishing effective preventive measures. Due to the fact that it is available in multiple languages, it can be used by enterprises or employers throughout Europe.

Figure 1: Screenshot of the self-inspection tool (automatically translated)

Nederlandse Arbeidsinspectie
Ministerie van Sociale Zaken en
Werkgelegenheid

Home > Accident Investigation > Information Gathering

< Question 3 of 12

Have you spoken to those involved?

In most accident investigations, you will get the majority of your evidence by interviewing people. Therefore, you should talk to the people involved. These are all the people who were close to the accident when it happened. Be sure to talk to anyone who saw the accident happen or knows anything about the circumstances that

? More information

Yes No Still checking

■ Similar tools in Europe

The Dutch self-inspection tool shows its potential as a learning tool for enterprises. Enterprises can learn a lot about the causes and circumstances of accidents and improve in terms of accident prevention by performing thorough accident investigation. The Dutch self-inspection tool guides enterprises through this process. Similar tools have also been developed in other EU Member States. For instance, in Denmark the Danish Working Environment Authority has developed a similar tool (see Box 1 for more information), and in Spain the National Institute for Safety and Health at Work (Instituto Nacional de

⁷ Available at: <https://www.nlarbeidsinspectie.nl/binaries/nlarbeidsinspectie/documenten/publicaties/2023/01/01/documenten-ongevalsonderzoek/20230220-appendix-1-to-make-inquiries-and-to-report.pdf>

⁸ Available at: <https://www.zelfinspectie.nl/zelfinspecties/ongevalsonderzoek>. This website allows the automatic translation of some of the webpages into other languages.

Seguridad y Salud en el Trabajo (INSST)) has developed several databases providing information about hazardous workplace situations and accidents that occurred, with the idea that enterprises are able to learn from these accidents (see Box 2 for more information).

Box 1: Guide to learn from accidents – Denmark

Arbejdstilsynet, the Danish Working Environment Authority, has also developed a tool to analyse occupational accidents. Enterprises can obtain this knowledge by using the tool, called 'Guide to learn from accidents' to analyse work accidents. The tool helps identify the causes of the accident and establishes the situations in which safety must be improved to prevent recurrences.

The purpose of the tool is to:

- identify the chain of events occurring prior to the accident;
- identify the interaction between physical problems, personal carelessness and oversights in planning;
- investigate whether similar accidents could occur, including at other places in the enterprise; and
- identify where safety could be improved.

The Danish 'Guide to learn from accidents' is a relatively simple tool, especially compared to the more elaborate Dutch tool that also focuses on reporting. The Danish guide includes 15 categories of possible causes of an accident at work. It enables the enterprise to learn more about the causes of the accident and thus carry out effective and long-lasting preventive measures.

It also contains a so-called Dialogue tool for analysing accidents at work, which can be used to help increase worker participation.

The guide is also available as an editable document, making it possible to adapt it to a specific sector or enterprise and specific types of accidents.

<https://at.dk/en/topics-tools/learning-from-work-accidents/>

Box 2: Learning from previous accidents from a database – Spain

The '**Hazardous Workplace Situations**' database (Situaciones de Trabajo Peligrosas (STP) in Spanish⁹) is developed by the INSST.

The tool is a comprehensive database that provides detailed information on specific case studies of real hazardous workplace situations where harm to workers' health has occurred. Described case studies are selected and deemed valuable for dissemination by a group of technical experts in occupational risk prevention from various autonomous communities in Spain. This collective approach ensures that the database reflects a wide array of experiences and knowledge, leading to well-rounded and effective preventive solutions. For each described case, the following information can be found:

- **Description of the situation** → A detailed narrative of the work scenario, including the tasks being performed, equipment used and environmental conditions, as well as supplementary graphical and technical information to enhance understanding of the case study.

⁹ See: <https://www.insst.es/stp>

- **Identified risks** → An analysis of the inherent risks associated with the described situation, highlighting potential hazards to workers' health and safety and the associated causes of the accident.
- **Preventive measures** → Recommendations for effective preventive actions and safety protocols tailored to each of the specific risks identified.

The STP database includes three specialised sub-portals, each focusing on distinct types of hazardous work situations:

- **BINVAC database** (Investigated Workplace Accidents) → This sub-portal provides access to thoroughly investigated workplace accidents, providing insights into the causes and preventive measures associated with each incident.
- **BASEQUIM database** (Situations Involving Exposure to Chemical Agents) → This sub-portal analyses potential chemical hazards and outlines appropriate safety measures.
- **BASEMAQ database** (Hazardous Situations Caused by Machines) → This sub-portal offers analyses and preventive guidelines related to dangerous situations arising from machinery use.

The databases can be found at <https://www.insst.es/stp/binvac> (BINVAC), <https://www.insst.es/stp/basequim> (BASEQUIM) and <https://www.insst.es/stp/basemaq> (BASEMAQ).

What was achieved?

At the end of 2024, the NLA published the 'Impact study on the new approach to accident investigation 2024'.^{10,11} In this study, the initial results of the new approach based on 540 follow-up inspections were published. During the research period between December 2023 and June 2024, the NLA conducted an average of approximately 80 follow-up inspections per month after the employer report and improvement plan were approved. The study presented the following results:

- 84% of enterprises implemented all measures outlined in the improvement plan by the time of the follow-up inspection.
- 90% of enterprises had implemented all measures related to the direct and indirect causes of the accident at the time of the follow-up inspection.
 - 2% did not implement all measures related to the direct cause of the accident.
 - 9% did not implement all measures related to the underlying causes of the accident.
- 97% of enterprises included broader safety measures in their improvement plans.
 - In 7% of these cases, the follow-up inspection revealed that not all broader safety measures had been implemented (yet).
- During 11% of follow-up inspections, the inspector enforced compliance on one or more aspects.

The results show that the new approach is yielding positive outcomes in many areas. By the time of the follow-up inspection, a large majority of companies had implemented all the measures they had committed to in their improvement plans. Additionally, 39% of companies implemented extra measures that were not required and went beyond the improvement plan.

¹⁰ See: <https://www.nlarbeidsinspectie.nl/publicaties/rapporten/2024/12/12/effectonderzoek-nieuwe-aanpak-ongevalsonderzoek-2024>

¹¹ In 2025, a report on the qualitative part of the impact study will be published. This report will describe the experiences of employers and accident victims with the new approach based on interviews.

▪ **Additional impacts: safety awareness, reflective capacity and safety culture**

The new accident investigation approach aims both to improve actual workplace safety and to enhance the safety awareness and reflective capacity of employers and workers. As previously mentioned, in most enterprises where a follow-up inspection took place, all measures from the improvement plan were implemented. Additionally, after the follow-up inspection, inspectors assess the extent to which safety awareness has improved within the enterprise. The study shows that, according to the inspectors' assessment:

- 78% of enterprises saw increased safety awareness/occupational health awareness among employers;
- 73% of enterprises experienced greater safety awareness/occupational health awareness among managers;
- 63% of enterprises saw improved safety awareness/occupational health awareness among employees; and
- 74% of enterprises showed increased reflective capacity regarding their own functioning and actions related to safety among employers.

Inspectors also assessed whether the safety culture of the enterprise has changed or improved after the investigation and the implementation of the improvement plan measures. Inspectors reported that:

- in 25% of cases, the safety culture improved in the part of the enterprise where the accident occurred;
- in 56% of cases, the safety culture changed or improved across the entire enterprise; and
- in 19% of enterprises, inspectors observed no change or improvement in safety culture.
 - This lack of change can be due to various reasons: it includes both enterprises where inspectors deemed no cultural change necessary and enterprises where such a change was needed but did not take place.

▪ **Reasons for safety improvement(s), safety awareness and reflective capacity**

The report further mentions the main reasons for safety improvement as well as improvements in safety awareness and reflective capacity. Those are recorded during the follow-up inspection, in which the inspector records the three most important factors mentioned by the employer. For both issues, the same main reasons come up:

- The accident itself is cited as the most important factor followed by three factors directly linked to the new accident investigation approach:
 - conducting the investigation themselves (51%);
 - preparing the employer report (38%); and
 - the discussion with the inspector (30%).

Although the report shows many positive signs, according to the NLA there is still room for improvement. Among the enterprises that had not fully implemented all measures at the time of the follow-up inspection, the most frequently unaddressed measures were related to the underlying or root causes of the accident. The NLA hopes to gain more insight into why companies struggle with these measures after completing the qualitative part of the impact study, which will be published later in 2025.

Transferability to other EU Member States

Although the legal framework regarding the self-inspection and reporting of the accident analysis may differ in other EU Member States compared to the Netherlands, the self-inspection approach could be valuable for all EU Member States.

The self-inspection tools, guidelines and framework for reporting and setting up an improvement plan can be regarded as a valuable tool when improving both safety and safety culture after an accident at work has occurred. It can be used for all types of accidents, regardless of sector/industry and the scale of the accident. It can also be used to determine causes of near misses¹² and to improve safety by learning from near misses.

The core principles of a thorough accident investigation are well explained in the tools and the step-by-step approach makes it easier to conduct an investigation, leading to improved safety at work and possibly in improvements in safety culture as well as reflective capacity of employers regarding safety. The fact that the information is available in multiple languages (English, German, French and Dutch) makes the information better transferable to other EU Member States.

Finally, the initiative aligns with broader EU priorities on workplace health and safety, particularly reflected in the current 'EU Strategic Framework on Health and Safety at Work 2021-2027', which stresses among other elements the importance of improving prevention activities of work-related diseases and accidents across various sectors.

Further information

- Netherlands Labour Authority: <https://www.nl labour authority.nl/>
- Arbejdstilsynet, the Danish Working Environment Authority: <https://at.dk/en/about-us/about-arbejdstilsynet/>

References

EU-OSHA – European Agency for Safety and Health at Work, *Accident investigation and analysis*, 2024a. Available at: <https://oshwiki.osha.europa.eu/en/themes/accident-investigation-and-analysis>

EU-OSHA – European Agency for Safety and Health at Work, *OSH in figures in the health and social care sector*, 2024b. Publications Office of the European Union. Available at: https://osha.europa.eu/sites/default/files/documents/HeSCare-OSH-Figures_EN.pdf

Nederlandse Arbeidsinspectie. (2022). *Monitor Arbeidsongevallen 2021*. <https://www.nlarbeidsinspectie.nl/publicaties/rapporten/2022/09/05/monitor-arbeidsongevallen-2021>

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¹² An unplanned event that had the potential to result in injury, illness or damage: <https://oshwiki.osha.europa.eu/en/themes/near-misses#:~:text=in%20the%20workplace.-,Definition%20of%20near%20misses,the%20potential%20to%20do%20so>