State Claims Agency

Risk Research Series

Report 02: Needlestick and Sharps

A 10-year review of incidents and claims across the health and social care sector (2010-2019)

Gníomhaireacht Bainistíochta an Chisteáin Náisiúnta
National Treasury Management Agency

An Ghníomhaireacht um Éilimh ar an Stát
State Claims Agency

Contents

Abbreviations

BBV	Blood Borne Virus
CHI	Children's Health Ireland
CHO	Community Healthcare Organisation
CIS	Clinical Indemnity Scheme
CISM	Critical Incident Stress Management
DSA	Delegated State Authority
DMHG	Dublin Midlands Hospital Group
EC	European Commission
EU	European Union
ERMS	Enterprise Risk Management Section
GIS	General Indemnity Scheme
HIV	Human Immunodeficiency Viruses
HSE	Health Service Executive
HSA	Health and Safety Authority
IMF	HSE Incident Management Framework
IEHG	Ireland East Hospital Group
IV	Intravenous
MOP	Member of the Public
NCHD	Non-Consultant Hospital Doctor
NHSF	HSE National Health and Safety Function
NIMS	National Incident Management System
NSI	Needlestick injury
NSS	National Support Services
NTMA	National Treasury Management Agency
PEP	Post-exposure prophylaxis
RCSI	Royal College of Surgeons Ireland Hospital Group
S38 Comm	Section 38 Community Agencies
Saolta	Saolta Hospital Group
SCA	State Claims Agency
SI	Statutory Instrument
SSWHG	South / South West Hospital Group
ULHG	University Limerick Hospitals Group
WHO	World Health Organisation
WPCI	Work Positive Critical Incident

Introduction

The National Treasury Management Agency (NTMA) is known as the State Claims Agency (SCA) when managing personal injury and property damage claims against the State and State authorities, as delegated to it, and in providing related risk management services. The SCA's claims and risk management objectives are:

- while acting fairly and ethically in dealing with people who have suffered injuries and / or damage, and their families, manage claims taken against the State so that the liability of the State is contained at the lowest achievable level
- advise and assist State authorities on the management of litigation risks to a best practice standard, in order to enhance the safety of employees, service users / patients and other third-parties and minimise the incidence of claims and the liabilities of the State.

The SCA's Enterprise Risk Management Section (ERMS) examined needlestick and sharps-related claims and incidents managed under the General Indemnity Scheme (GIS), during the period 2010-2019, across the health and social care sector. Needles and sharps instruments are commonly used across the health and social care sector and, in particular, in acute hospitals. In the HSE, there are approximately 62.5 million infusion consumables procured annually, which include hypodermic needles, needle and syringe combinations, peripheral cannulas, connector caps / stoppers and others.

The European Commission (EC) has reported that injuries caused by needles and other sharp instruments are one of the most common and serious risks to health and social care workers in Europe and represent a significant cost for health systems and society in general. It is recognised that hospital and health and social care workers (nurses, doctors, surgeons, etc), particularly in certain departments and activities (emergencies, intensive care, surgical operations, etc), frequently risk infection due to injuries caused by needles or other sharp instruments (scalpels, suture equipment, etc).[1] A published systematic review of the economic evaluations of needlestick and sharps injuries among health and social care personnel demonstrates that such injuries generate significant, direct, indirect, potential, and intangible, costs, possibly increasing over time.[2]

In March, 2010, the EU Employment and Social Affairs Ministers adopted a Directive which aimed to prevent injuries and blood borne infections to hospital and health and social care workers from sharp objects. The Directive[3] provides a legislative framework for the agreement on the prevention of sharps injuries in hospitals and the health and social care sector. The Regulations[4] transposed the Directive into Irish law. The Regulations relate to the risks posed by needlestick and sharps instruments to those working in health and social care. They implement specific control measures to protect employees at risk, and require an appropriate response in the event of an incident occurring.

Purpose

The purpose of this **Risk Research Report** is to provide health and social care enterprises with up-to-date information on needlestick and sharps claims and incident trends occurring across the health and social care sector. This analysis was undertaken by the SCA with a view to informing an action plan at HSE national level (by the National Health and Safety Function (NHSF)) to assist health and social care enterprises with the prevention of needlestick and sharps incidents and associated claims. The analysis also aims to help improve the information being captured on the National Incident Management System (NIMS) and thus improve the collective knowledge to help manage the risk in the future.

Scope

This review analysed needlestick and sharps incidents which occurred across the health and social care sector in the period 2010-2019. It also analysed claims (received and resolved) arising from these incidents. Needlesticks and sharps are defined as objects or instruments necessary for the exercise

1 Commission of the European Communities – Proposal for a Council Directive implementing the Framework Agreement on prevention from sharp injuries in the hospital and health and social care sector concluded by HOSPEEM and EPSU.

2 How much do needlestick injuries cost? A systematic review of the economic evaluations of needlestick and sharps injuries among health and social care personnel. Infection Control & Hospital Epidemiology. 2016, 37(6): 635-646.

3 Council Directive 2010/32/EU of 10th May 2010.

4 The European Union (Prevention of Sharps Injuries in the Health and Social Care Sector) Regulations 2014 (S.I. No. 135 of 2014).

of specific health and social care activities, which are able to cut, prick or cause injury or infection. This includes equipment such as needles, blades (scalpels) and other sharp medical instruments. Sharps are considered to be work equipment within the meaning of Regulation 2 of the Safety, Health and Welfare at Work (General Application) Regulations 2007.[5]

Analysis was carried out on incidents and claims across four 'types of person' groupings:

- **Staff members** – this includes employees, agency staff, locums, volunteers, work placement personnel working in health and social care settings
- **Member of the public (MOP)** – this includes members of the public and visitors to health and social care settings
- **External contractors** – this includes contract cleaners, attendants, caterers, porters and security personnel working in health and social care settings
- **Service users** – this includes service users, patients and residents in health and social care settings

Incidents and claims involving needlestick and sharps-related incidents arising from and during the practice of medicine and surgery, and which lead to personal injuries to patients, are typically managed under the Clinical Indemnity Scheme (CIS). These incidents and claims **did not** form part of this review.

Methodology

All Delegated State Authorities (DSAs), covered by the GIS, are required to report adverse incidents to the SCA as soon as may be[6]. Such incidents are reported on NIMS. Personal injury claims that arise from these incidents are managed by the SCA using NIMS. The SCA used the powerful analytical functionality of NIMS to analyse the data relating to needlestick and sharps incidents over the period of 2010-2019 and claims arising from those incidents.

5 HSA, 2014. Guide to the European Union (Prevention of Sharps Injuries in the Health and Social Care Sector) Regulations 2014.

6 National Treasury Management Agency (Amendment) Act, 2000.

Section 1: CLAIMS ANALYSIS

What is the cost of needlestick and sharps[7] claims?

As of 31 January 2020, there were **382 claims received** for needlestick and sharps related incidents that occurred in the period 2010-2019.

Of these claims, **91%** related to a needlestick injury and **9%** related to a sharp instrument-related injury.

Claims Received	Number of Records	Paid Total	Estimated Liability
Active Claim	97	€0.21m	€3.35m
Finalised Claim	285	€4.13m	–
Total	**382**	**€4.34m**	**–**

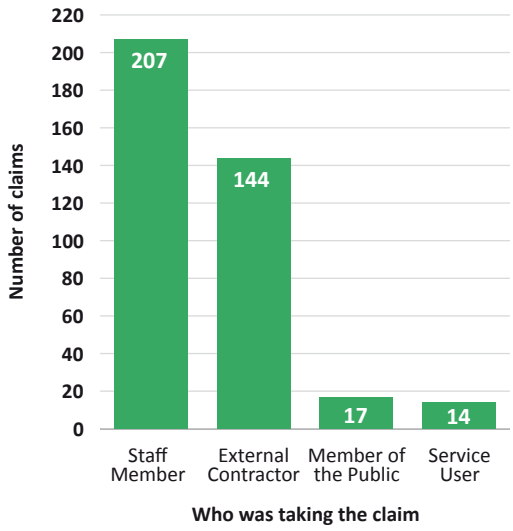
In order to predict future costs, the SCA assigns an **estimated liability** value to all claims received. This is based on the SCA's best estimate of the ultimate cost of resolving a claim. It includes all foreseeable costs such as settlement amounts, claimant legal costs and defence costs (such as fees payable to legal counsel, engineers, consultants, etc). This estimated value is revised on a regular basis in light of new information.

The current **total claims costs** associated with needlestick and sharps claims is calculated by adding the total estimated liability for active claims with the total paid on finalised claims to date. This amounts to **€7.48 million**.

7 Needlesticks and sharps are defined as objects or instruments necessary for the exercise of specific health and social care activities, which are able to cut, prick or cause injury or infection. This includes equipment such as needles, blades (scalpels) and other sharp medical instruments. Sharps are considered to be work equipment within the meaning of Regulation 2 of the Safety, Health and Welfare at Work (General Application) Regulations 2007.

Who is taking the claims?

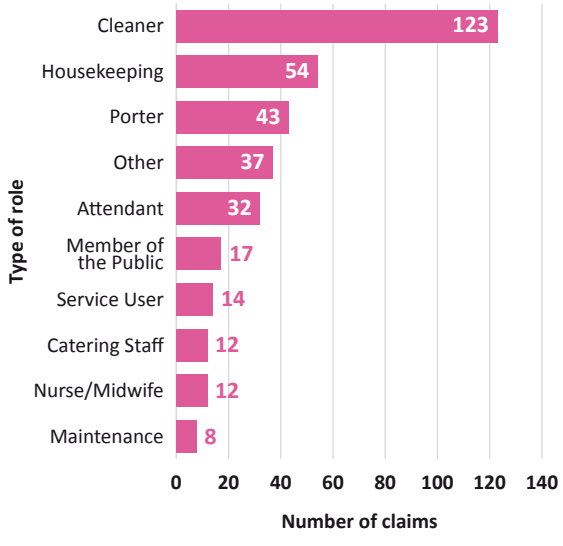
Claims received by who was involved



In **54%** of claims received, the claim was taken by a staff member, **38%** of claims were taken by external contractors, **4%** of claims were taken by members of the public and **4%** were taken by service users.

The **majority of claims costs** are associated with staff members' claims with an estimated liability in the region of **€2.5 million**[8].

Number of claims received by type of role (Top 10)



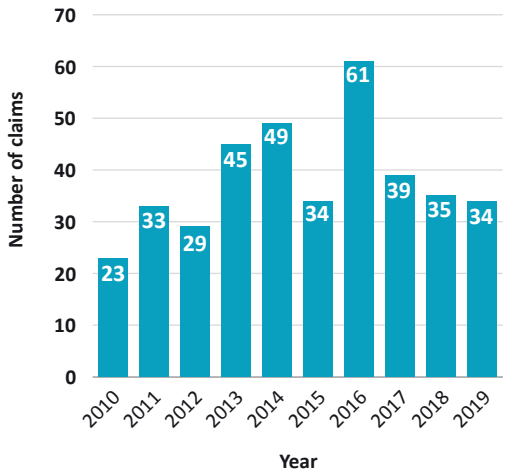
8 Claims costs - the sum of estimated liability and total paid on finalised claims.

NIMS enables the SCA to further breakdown the 'types of person' groupings. The above chart illustrates claims received, further broken down by the 'category of person', in particular for staff and external contractors.

33% of claims relate to cleaning staff, **11%** porters, **14%** housekeeping and **9%** attendants.

How many incidents happened between 2010 and 2019 that resulted in claims?

The number of claims that resulted from incidents that happened 2010-2019

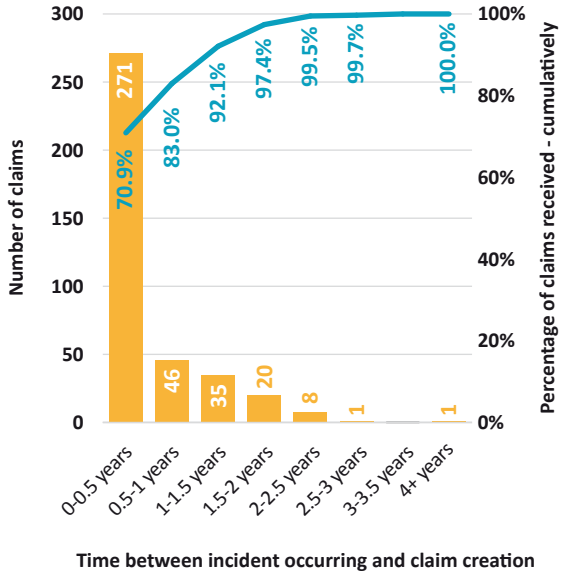


The Statute of Limitations for personal injury claims in Ireland is the time limit within which an injured party can issue proceedings.

The Courts and Civil Liability Act[9] amends the Statute of Limitations (Amendment Act) and lays out the statutory periods for the making of a claim. In the majority of circumstances, a potential claimant has two years from the date on which his / her cause of action accrued or the date of knowledge (if later) to initiate proceedings. However, there are exceptions to this.

How long is the lag period between an incident occurring and a claim arising?

Time from incident to claim



In contrast with other types of claims reviewed by the SCA, many needlestick and sharps claims are received relatively shortly after the incident occurs. **71%** of claims are received **within six months, 83% within one year** and **97% within two years**.

The **median**[10] **days to report** needlestick and sharps incidents from its date of occurrence is **31 days**.

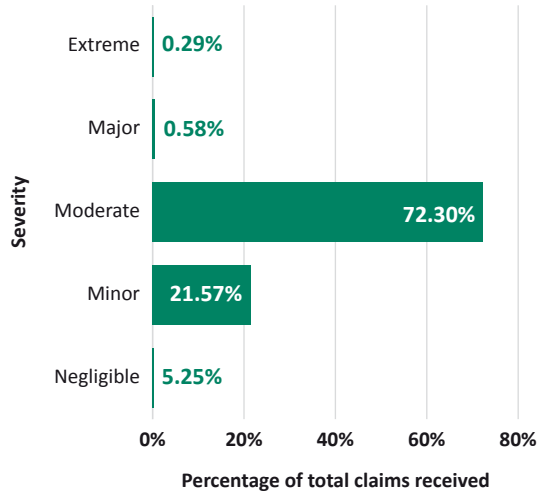
Previous analysis by the SCA determined that the average cost of managing a claim increases when incident reporting is delayed. On average, for all types of claims, where an incident has taken ten or more weeks to report, **the cost of resolving the claim increases by 41%**.

9 Section 7, Civil Liability and Courts Act 2004.

10 Note – definitions available at rear of report.

What was the severity of the injury being claimed for?

Claims received by severity of injury



The graph above reflects the severity breakdown of claims received. At the time of reporting, needlestick and sharps incidents are typically reported as minor physical injuries, for example, a puncture to the skin. However, the severity rating may be impacted at a later date due to the risk of infection or illness which may arise following the incident. This change in severity can be captured on NIMS.

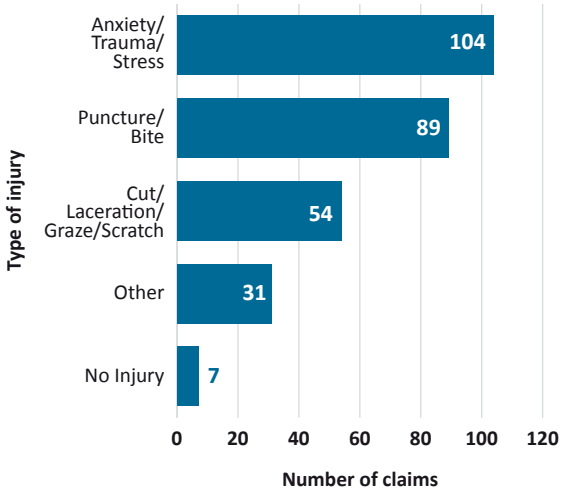
NIMS applies a severity rating to all incidents and claims using an algorithm which is based on the details of the incident. These incident severity ratings are as follows:

- **Negligible:** Near miss / no injury / injury not requiring first aid
- **Minor:** Injury or illness, requiring first aid
- **Moderate:** Injury requiring medical treatment
- **Major:** Long-term disability / incapacity (including psychosocial)
- **Extreme:** Permanent / incapacity (including psychosocial) / death

72% of claimants had injuries that were rated as moderate. Approximately **1%** of claimants' injuries were rated as major or extreme.

Claims finalised by type of injury

Claims finalised by type of injury



The above graph illustrates that **36%** of all finalised needlestick and sharps-related claims related to an anxiety / trauma injury. **Fewer than five claims** relate to a blood borne virus contracted as a result of a needlestick or sharp injury.

Studies have shown that while there is a risk of contracting a blood borne virus due to an exposure to a needlestick or sharp instrument, the risk of contracting an infection is considered low[11].

In addition, in a High Court ruling in 2010[12], it was noted that where an assailant is definitely Human Immunodeficiency Virus (HIV) positive and an individual is subjected to an NSI (needlestick injury), the risk of the victim contracting HIV is 1:300. Globally, according to a WHO report, the risk of transmission of HIV to the health and social care workers following a needlestick injury is 0.3%[13].

11 EMI Guidelines – Appendix 21 Hepatitis B virus: epidemiology and transmission risks.
Paintsil E, He H, Peters C, Lindenbach BD, Heimer R. Survival of hepatitis C virus in syringes: implication for transmission among injection drug users. J Infect Dis 2010;202(7):984-90.

12 An Garda Siochána Compensation Acts 1941, Carey and Others versus Minister for Finance, judgement of Ms Justice Mary Irvine.

13 World Health Organization. Aide-Memoire for a strategy to protect health workers from infection with bloodborne viruses. Geneva, Switzerland: WHO, November 2003.

Employees who are exposed to needlestick and sharps incidents should be provided with appropriate support through a structured Critical Incident Stress Management (CISM) programme. Research has shown that CISM approaches are effective in reducing the negative psychological aftermath of a wide variety of critical incidents.[14]

In Ireland, **Work Positive**[CI] (WPCI) is available to organisations to assist in conducting a psychological risk assessment to help identify measures for managing stress and critical incident stress in the workplace. WPCI was developed by the SCA, Health and Safety Authority (HSA) and CISM Network Ireland. It is currently being rolled out nationally across the HSE by the NHSF.

How many incidents that became claims were reviewed[15] by health and social care enterprises?

The requirement to report and review incidents in the health and social care sector is set out in the HSE Incident Management Framework (IMF). This is also a requirement under EU legislation[16].

NIMS enables health and social care enterprises to capture incidents (including serious reportable events, complaints and dangerous occurrences). NIMS also supports the management of reviews, recording of review conclusions, recording of recommendations arising from incident reviews, tracking of recommendations to closure and the analysis of incident reviews and recommendations data. Using the severity rating applied by NIMS, and as part of the SCA's risk management mandate, the ERMS reviews all new claims received on NIMS.

Of the needlestick and sharps claims analysed, **17%** of **moderate** claims and an additional **33%** of **major and extreme** claims were identified as requiring a review (moderate, major and extreme); **5%** were recorded as having been reviewed on NIMS. This suggests that only a small number of incidents which became claims are being reviewed by health and social care enterprises and recorded on NIMS. As all claims ultimately arise from previously occurring incidents, the issue of "incomplete" or "failure to carry out" incident reviews is addressed further in the 'Incident Analysis' section of this **Risk Research Report**.

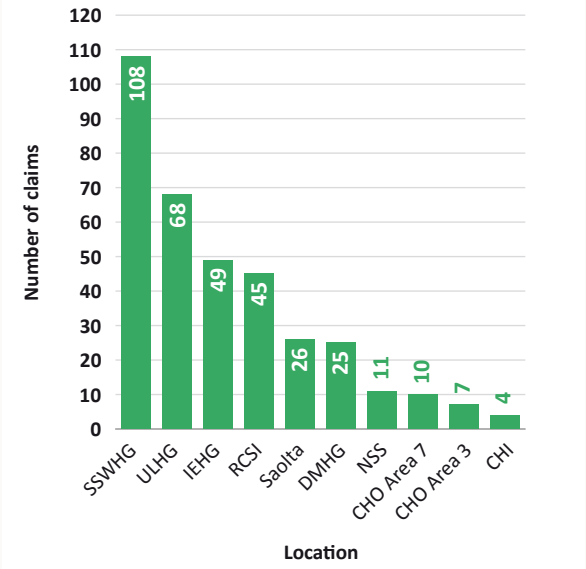
14 Harrison R, Albert Wu. Critical Incident Stress Debriefing After Adverse Patient Safety Events 2017.

15 Incident review is a structured analysis conducted using best practice methods, to determine what happened, how it happened, why it happened, and whether there are learning points for the service, wider organisation, or nationally (HSE Incident Management Framework).

16 S.I. No. 135/2014 – European Union (Prevention of Sharps Injuries in the Health and Social Care Sector) Regulations 2014, Section 8 and 9.

Where are the incidents occurring that result in a claim?

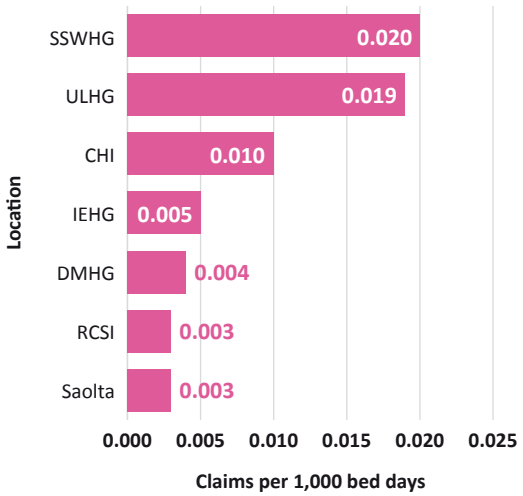
Claims received by location (Top 10)



The above chart illustrates the top ten claims received across group health and social care enterprise locations. When reviewing the above data, it is important to consider the greater frequency of use of needlestick and sharps instruments in acute health and social care settings in comparison with the community health and social care sector.

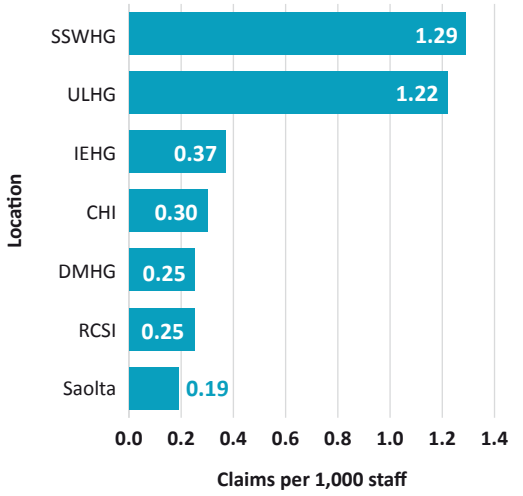
Claims received by Acute Hospital Group – Using bed days and staff numbers as a comparative illustrator

Claims received by Hospital Group (2017-2019) per 1,000 bed days



Having normalised the data by bed days, the above chart illustrates claims received in the period 2017-2019 across the seven Acute Hospital Groups, per 1,000 bed days.

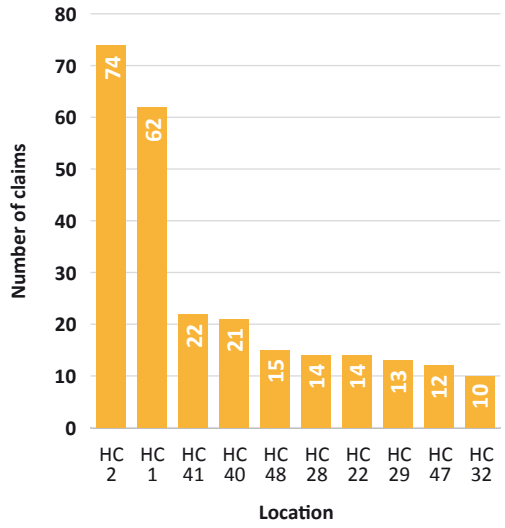
Claims received annually by Hospital Group (2017-2019) per 1,000 staff



Having normalised the data by staff numbers, the above chart illustrates claims received in the period 2017-2019 across the seven Acute Hospital Groups, per 1,000 staff.

Claims received by acute hospital

Claims received by acute hospital (Top 10)

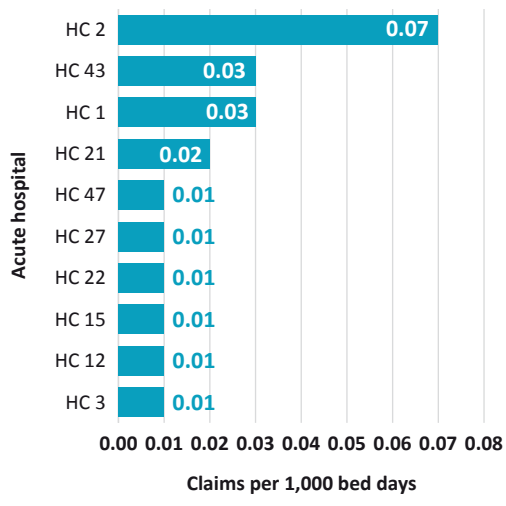


85% of all claims received are from **acute hospitals**. The above chart illustrates claims received across the top ten acute health and social care enterprise locations. A number of locations with high incident reporting rates have received low numbers of claims and so feature outside of this top 10 chart.

HC2 and HC1 account for **42%** of all claims received across the acute health and social care sector.

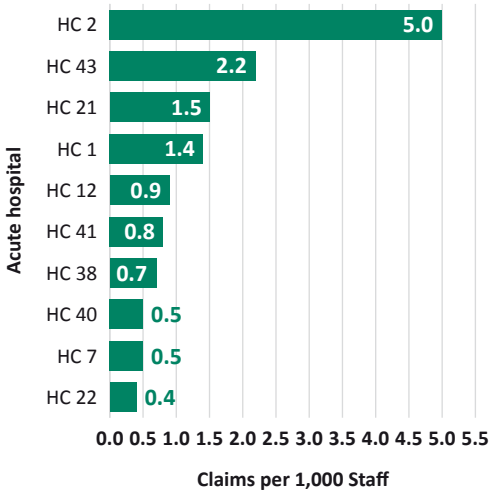
Claims received by acute hospital – Using bed days and staff numbers as a comparative illustrator

Claims received by acute hospital (2017-2019) per 1,000 bed days



Having normalised the data by bed days, the above chart illustrates that HC2 has received a higher number of claims per 1,000 bed days than other locations.

Claims received annually by acute hospital (2017-2019) per 1,000 staff



Similarly, when using staff numbers as a comparative illustrator, the same location (HC2) has received a higher number of claims per 1,000 staff than other acute hospital locations.

Claims received in Community Healthcare Organisations

Given the nature of services provided within the community sector, the number of claims received is significantly lower than the acute hospital sector. **10% of all claims received relate to CHOs**, therefore CHO claim location data has not been presented within this report.

How much do needlestick and sharp claims cost?

The total cost associated with a claim can vary significantly and is dependent on a number of factors. For example, a needlestick injury may result in an employee suffering psychological injuries and stress. This may impact the level of compensation awarded and the legal costs associated with the management of the claim.

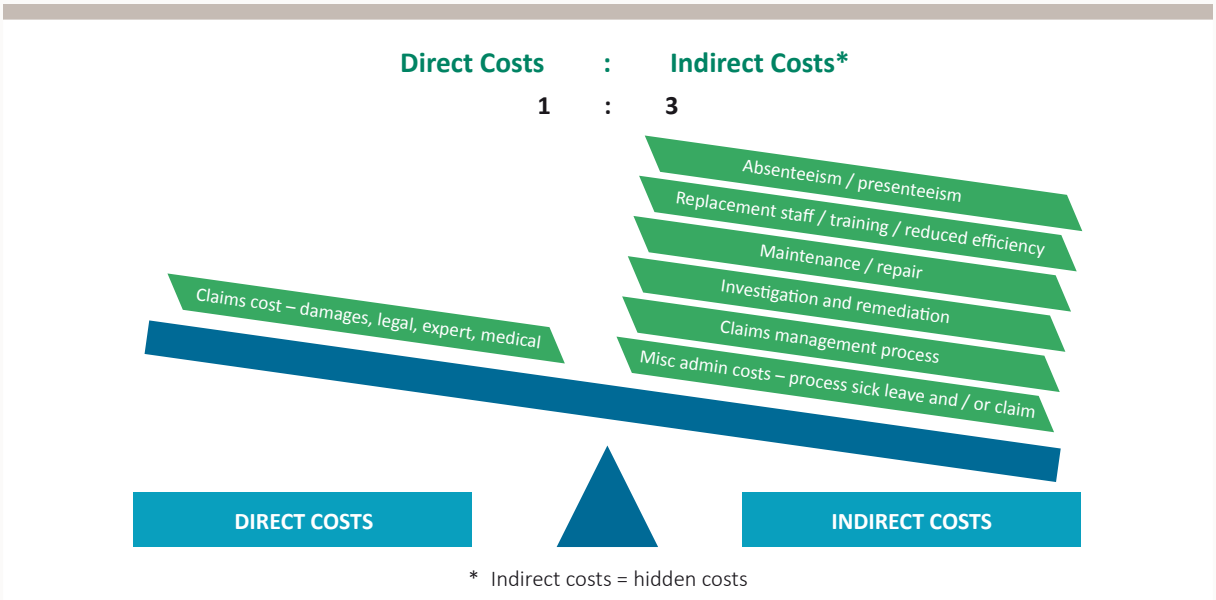
Of the claims analysed, **285 were finalised**. Of those finalised, compensation was paid in **251** claims. The remaining **34** claims resulted in no compensation, with **five** incurring some minor legal costs related to the management of the claim.

Claims that resulted in no compensation paid, include claims that were successfully defended by the SCA based on the facts of the case; claims that were statute barred; and claims where the SCA received an indemnity from another party (no negligence was found on behalf of the health and social care enterprise).

Of the **251** claims which occurred in the period 2010-2019, that were finalised and resulted in compensation being paid, the following is noted:

- The **average cost** of a **claim** was **€16,377**. This includes the legal costs, expert costs and agreed or awarded damages.
- The **average level of damages** for a claim was **€9,698**.
- The **average legal costs** for claims finalised was **€6,497**. This includes plaintiff legal costs and agency (i.e. SCA) legal costs.
- The median cost of all claims received was **€14,307**.
- The **range** of the cost of all claims received in this period was between **€4,211** and **€96,717**.
- The **average duration** of a claim was **1.7 years**. This is calculated from the date claim correspondence was received up until the date the claim was finalised[17].

17 Note – definitions available at rear of report.



* Indirect costs = hidden costs

Do you know the true cost of needlestick and sharps claims?

People are generally aware of the **direct costs** associated with a claim. However, there are significant **indirect costs** which also arise. To understand the total costs of claims for health and social care enterprises, the direct and indirect costs must be taken into consideration.

The **total estimated claims costs associated** with needlestick and sharps claims arising from incidents that occurred in the period 2010-2019 were in the region of **€7.5 million**.

When estimating the indirect costs of claims, it is generally recognised that indirect costs tend to be a multiple of direct costs[18]. Indirect costs associated with claims include absenteeism, substitution of personnel resulting from absenteeism, additional administration, loss of service, loss of expertise, presenteeism and extra supervisory time.

Claims involving injuries to employees have the biggest potential impact in terms of indirect costs due to employee absences associated with such claims. Personal injury claims relating to members of the public and external contractors can also carry indirect costs. However, these are lower than indirect costs relating to incidents involving employees.

The NIMS dataset indicates that needlestick and sharps-related incidents typically result in injuries involving stress, anxiety and trauma to employees. Research has shown that due to the nature of these injuries, they typically result in higher absences from work[19].

Information obtained from NIMS illustrates that health and social care enterprises are not capturing employee absence from work on NIMS. For all needlestick and sharps incidents involving employee absenteeism, **85%** of these did not indicate a return to work date.

When needlestick and sharps incidents result in absence from work, health and social care enterprises should ensure that this information is captured on NIMS. This can be updated on the NIMS Incident Review screens.

In a separate study, the SCA has undertaken a review of claims involving employees to ascertain the ratio of direct to indirect costs[20]. **The SCA conservatively estimates, based on a study of its claims portfolio, that a ratio of 1:3 (direct costs to indirect costs)** may be appropriate in the claims relating to injuries to employees.

Applying this approach, the SCA conservatively estimates the total direct and indirect cost of needlestick and sharps claims to be in the region of **€25 million**.

18 The Costs of Poor Safety in the Workplace, DCU Business School, Research Paper Series, Paper No. 21, April 1997.
Mottiar, Ziene. (2004) Feasibility Study on Estimation of Costs of Workplace Accidents, work-related ill-health and non-injury incidents in Ireland.

19 Psychiatric consequences of needlestick injury B. Green and E. C. Griffiths.

20 State Claims Agency (2013): A Study of the Impact of Personal Injury (non-clinical) Adverse Events in the HSE.

Section 2: INCIDENTS ANALYSIS

What is the national risk profile of needlestick and sharps incidents?

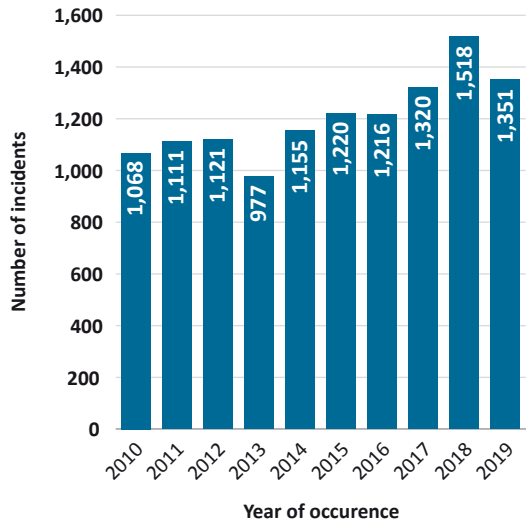
12,057 needlestick and sharps **incidents** were reported on NIMS between **2010 and 2019**.

Of these incidents, **73%** related to a needlestick injury and **27%** related to a sharp instrument-related injury.

The number of incidents reported should not be considered as indicative of a level of harm. In fact, higher levels of incident reporting are acknowledged nationally and internationally as indicators of a stronger safety culture[21].

The following chart illustrates the number of incidents occurring in the period 2010-2019.

Number of incidents by year of occurence



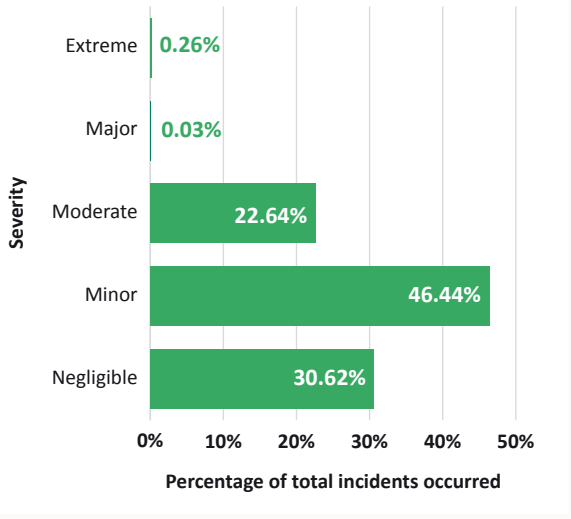
In the period 2010-2019 an average of **1,206** needlestick and sharps incidents were reported annually on NIMS. The SCA expects the number of incidents to continue to rise, as NIMS is further embedded across health and social care enterprises and the incident reporting culture continues to improve.

There has been an increase in the number of incidents reported over the period 2010-2019. This increase is mainly reflective of the SCA's expanding health and social care client portfolio and the rollout of NIMS in this period (a key initiative to improve incident reporting and management).

S.I. No. 135/2014 – European Union (Prevention of Sharps Injuries in the Health and Social Care Sector) Regulations 2014 has also heightened awareness of the requirement to report incidents relating to needlestick and sharps injuries in the workplace.

What was the severity of the injury resulting from the incident?

Incidents occurred by severity of injury



NIMS applies a severity rating to all incidents using an algorithm based on the details of the incident. These incident severity ratings are as follows:

- **Negligible**: Near-miss / no injury / injury not requiring first aid;
- **Minor:** Injury or illness, requiring first aid;
- **Moderate:** Injury requiring medical treatment;
- **Major:** Long-term disability / incapacity (including psychosocial);
- **Extreme:** Permanent / incapacity (including psychosocial) / death.

46% of incidents which occurred were rated as minor, **31%** as negligible, **23%** as moderate and fewer than **1%** of incidents were rated as major or extreme.

21 Patients safety incident reporting: the who, what, where, when and why, Clinical Risk Unit State Claims Agency.
Hutchinson, et al. (2009) Trends in healthcare incident reporting and relationship to safety and quality data in acute hospitals: results from the National Reporting and Learning System. BMJ Quality & Safety, 18(1): 5-10.

What incidents were reviewed[22] by health and social care enterprises?

As previously set out in Section 1 – Claims Analysis, NIMS enables health and social care enterprises to capture incidents (including serious reportable events, complaints and dangerous occurrences). NIMS also supports the management of reviews, recording of review conclusions, recording of recommendations arising from incident reviews, tracking of recommendations to closure and the analysis of incident reviews and recommendations data.

Using the severity rating applied by NIMS, as part of the SCA's risk management mandate, the ERMS review all extreme and major severity rated incidents using the powerful reporting tools of NIMS.

Of the needlestick and sharps incidents analysed, **none** of **the extreme / major** and **5%** of **moderate** rated incidents were recorded as having been reviewed on NIMS. This suggests that health and social care enterprises are reviewing incidents but not using NIMS to capture the information or that no review has been carried out. The requirement to report and review incidents in the health and social care sector is set out in the HSE Incident Management Framework (IMF) and under legislation, as previously set out under the 'Claims Analysis' section of this report.

Additionally, risk management audits undertaken by the SCA have also confirmed that there is a low rate of incident review taking place and a low level of engagement with this NIMS functionality across health and social care enterprises.

Health and social care enterprises are in breach of statutory requirements when there is a failure to report incidents arising from needlestick and sharps-related injuries in the workplace[23].

Health and social care enterprises should ensure that incident reviews are carried out in accordance with the requirements of the **HSE IMF**. NIMS is available to record information arising from these reviews. It should be utilised to support the incident review process and capture key learnings to help prevent reoccurrence.

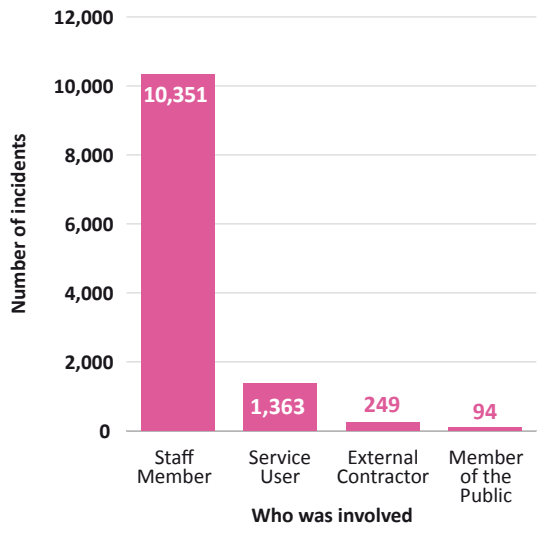
When managing a claim, SCA claims managers actively review information provided by health and social care enterprises on NIMS. This information is invaluable to the SCA's claims management process.

22 Incident review is a structured analysis conducted using best practice methods, to determine what happened, how it happened, why it happened, and whether there are learning points for the service, wider organisation, or nationally (HSE Incident Management Framework).

23 National Treasury Management Agency (Amendment) Act 2000.

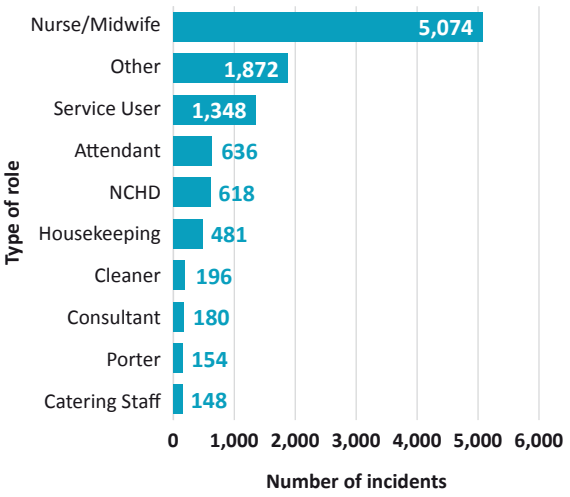
Who is the party involved in the incident?

Incidents occurred by who was involved



Approximately, **86%** of all incidents involved **staff members, 11%** involved **service users, 2%** involved external contractors and the remaining **1%** involved **members of the public**.

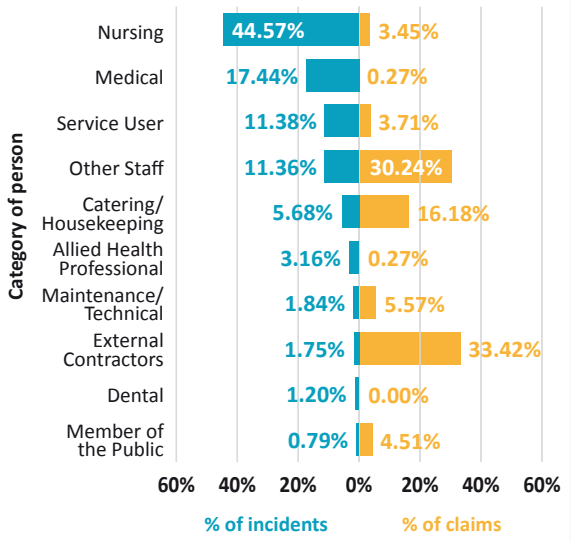
Incidents occurred by type of role (Top 10)



The above chart illustrates the number of incidents occurred by the category of person. Nursing / midwifery staff account for **42%** of all incidents arising across the health and social care sector.

Comparing the number of claims with incidents by category of person

Number of incidents and claims by category of person

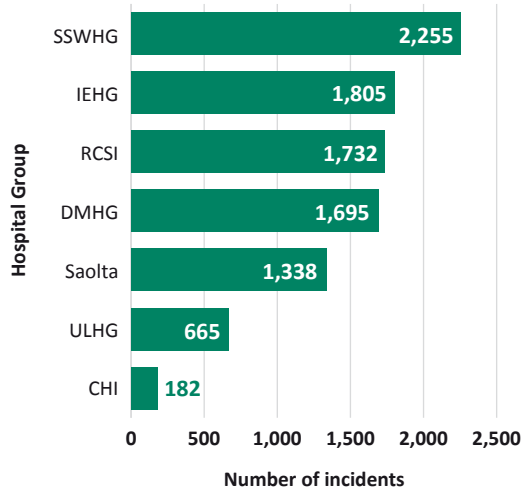


When comparing claims data to that of the incident data:

- Nursing and other medical staff are involved in **62%** of incidents reported. Fewer than **4%** of claims are associated with this same cohort of staff.
- 'External contractors' are involved in fewer than **2%** of incidents reported. Over **30%** of claims are associated with this same cohort of staff. 'External contractors' include personnel engaged on a contract for service and who work in roles such as cleaners, attendants, caterers, porters and security.
- 'Other Staff' are involved in **11%** of incidents reported. **30%** of claims are associated with these staff. 'Other Staff' are employees of the health and social care enterprise engaged in similar activities to 'external contractors', for example, in-house cleaning staff, security staff, attendants, etc.

Where are the incidents occurring?

Incidents occurred by Acute Hospital Group

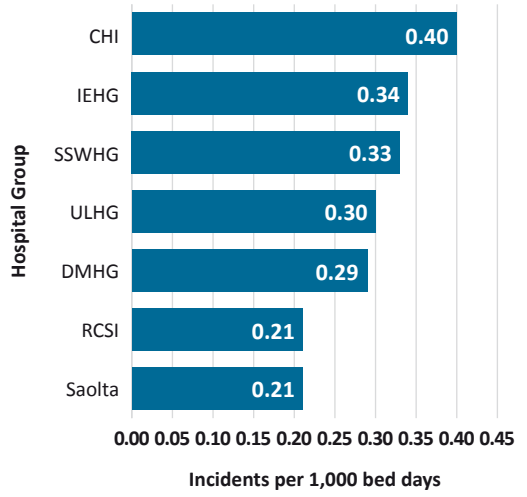


Acute hospitals account for **80%** of all needlestick and sharps incidents occurring across health and social care enterprises.

The above chart illustrates the number of incidents occurred across Acute Hospital Groups in the period 2010-2019.

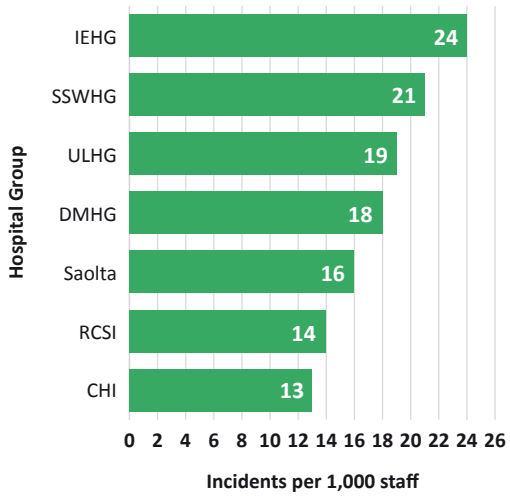
Incidents occurred – Using bed days and staff numbers as a comparative illustrator

Incidents occurred by Hospital group (2017-2019) per 1,000 bed days



Having normalised the data by bed days, the above chart illustrates incidents occurred in the period 2017-2019 across the seven Acute Hospital Groups, per 1,000 bed days.

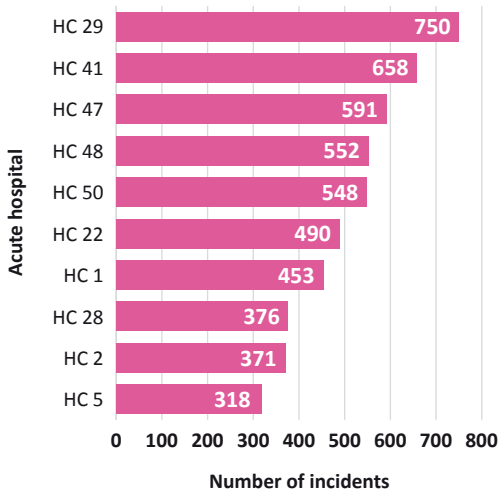
Incidents occurred annually by Hospital Group (2017-2019) per 1,000 staff



Having normalised the data by staff numbers, the above chart illustrates incidents occurred in the period 2017-2019 across the seven Acute Hospital Groups, per 1,000 staff.

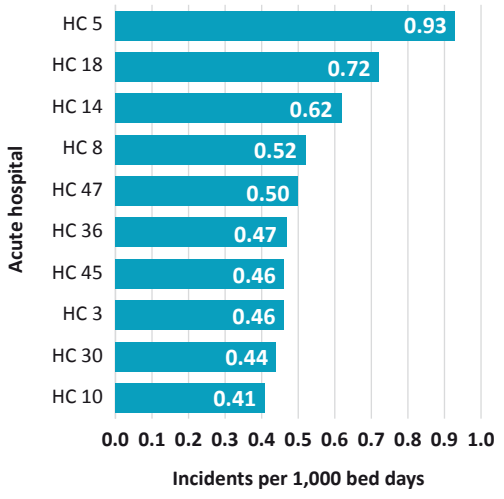
Incidents occurred by acute hospital

Incidents occurred by acute hospital



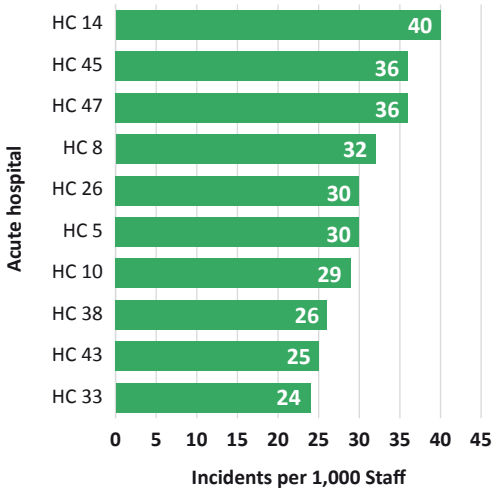
The above chart illustrates the number of incidents occurred across acute hospitals in the period 2010-2019.

Incidents occurred by acute hospital (2017-2019) per 1,000 bed days



Having normalised the data by bed days, the above chart illustrates incidents occurred in the period 2017-2019[24] across acute hospitals, per 1,000 bed days.

Incidents occurred annually by acute hospital (2017-2019) per 1,000 staff



Having normalised the data by staff numbers, the above chart illustrates incidents occurred in the period 2017-2019 across acute hospitals, per 1,000 staff.

High incident reporting can be an indicator of good risk management practices and generally, results in fewer claims. Analysis of incident and claim data has found that some locations with indicators of good incident reporting, have received **five, or fewer than five claims**.

24 Data contained within the normalised data charts reflect the period 2017-2019.

% of incidents which became claims

On average, **4%*** of incidents arising within acute hospital locations become claims. The chart below illustrates locations which had a higher than average incident to claim conversion rate:

Location	% of incidents which became claims
HC2	20%
HC1	14%
HC40	10%
HC32	8%
HC43	8%
HC21	5%
HC33	5%
HC12	4%
HC28	4%

* Note – data reflects locations that have received claim(s)

Incidents arising in Community Healthcare Organisations

Given the nature of services provided within CHOs, the number of incidents arising is significantly lower than the acute hospital sector. **16% of all incidents occurred are from CHOs**, therefore CHO incident location data has not been presented within this report.

Closed Claims Analysis

Lessons learned from claims can assist health and social care enterprises with the implementation of risk management controls to help minimise the incidence of claims and contain the liabilities of the State. As part of the SCA's risk management mandate, the SCA analysed over 200 finalised claims, relating to needlesticks and sharps, arising within the scope of this report.

The analysis identified the importance of developing and implementing appropriate policies, procedures, training and equipment in relation to the management of needlesticks and sharps in health and social care environments. A number of other specific findings arose, including:

- **Incorrect disposal**
  - The most common root cause of an incident resulting in a claim was the incorrect disposal of needlestick and sharps instruments in clinical waste or general waste bags.
  - A number of claims arose from undisposed needlestick and sharps through careless practices. Typically needlestick and sharps were found on the floor, windowsills and shelves.
  - A number of claims related to poor disposal practices of needles and lancets following self-medication by service users. Needles were typically left at the bedside resulting in injuries to attendants, cleaners, nursing and medical staff. This was particularly evident for diabetic treatment. A review conducted by the NHSF on needlestick and sharps incidents identified similar findings.
  - A number of claims arose from sharps bins overfilled by clinical staff.
- **Policies / procedures** – A number of claims arose from a failure to comply with the appropriate local policies and procedures. Such policies included national and local needlestick and sharps policies, local cleaning policies / procedures, etc.
- **Training** – Inadequate training and poor management of records arose as a contributory factor in a number of claims. This resulted in the SCA not being in a position to robustly defend needlestick and sharp claims on behalf of health and social care enterprises.

Risk management considerations arising from this claims analysis are set out under the section **"What can you do to manage the risk?"**

Section 3: CASE STUDIES

Failure to implement policy

Marie, a staff nurse working in an acute hospital, sustained a needlestick injury to her right inner forearm while trying to close the lid of a sharps bin. She pressed down on the lid to ensure it was closed securely. However, the lid of the sharps bin could not be closed as it was overfilled. A needlestick was protruding from the sharps bin and pricked her inner forearm.

The HSE was held liable as there was a failure to implement an appropriate needlestick / sharps policy in the hospital.

The total paid on the claim was **€24,000**. When considering the indirect cost of the claim, the total cost to the hospital is estimated to be in the region of **€96,000**.

Sharps bin

Clare, a contract cleaner working in a hospital, was changing a clinical waste bag in a treatment room when an incorrectly disposed needle penetrated through the bag causing an injury to her leg. Clare received medical treatment and underwent relevant testing.

On investigation it was found that the contractor received instruction and training and was made aware of the risk assessment associated with her duties. However, the claim ultimately arose from a failure of clinical staff to correctly dispose of the needlestick in a sharps bin.

The SCA obtained a 50 / 50 sharing arrangement with the third-party contractor's insurance company.

Careless disposal

Timothy, a healthcare assistant working in an acute hospital, was moving a clinical waste bag when he was pricked by a needle in his left hand, hidden in the rubbish bag. Timothy had been wearing gloves at the time, and needlestick injury protocol was followed.

On investigation, the HSE was held liable for the incident. The total paid on the claim was **€14,500**. When considering the hidden cost of the claim, the total cost to the HSE is estimated to be in the region of **€58,000**.

Undisposed needle

Marian, a household attendant at an acute hospital, was tasked with cleaning the doctors' kitchenette area alongside Catherine, a fellow household attendant.

Later on, Catherine emerged with Marian and reported to their supervisor that Marian had suffered a needlestick injury from a needle discovered on one of the presses in the kitchenette.

Upon investigation, the HSE was held liable for the incident and the total estimated cost of the claim was **€13,000**. When considering the hidden cost of the claim, the total cost to the HSE is in the region of **€52,000**.

Failure to implement sharps policy

Paul, a paramedic with the HSE, sustained an injury to his hand from an unsheathed blood sugar lancet when cleaning the shelving area in the rear of an ambulance.

The HSE was held liable as medical staff had failed to dispose of the blood sugar lancet appropriately.

The total paid on the claim was **€13,000**. When considering the indirect cost of the claim, the total cost to the HSE is estimated to be in the region of **€54,000**.

What can you do to manage the risk?

The analysis and findings of this report indicate that, despite the introduction of specific legislation to prevent injuries and blood borne infections to hospital and health and social care workers from needlesticks and sharps, this hazard needlessly remains in some health and social care environments. Introducing simple control measures, specifically relating to the safe disposal of needlesticks and sharps, and by enhancing education and training of staff and external contractors, the number of claims arising from these incidents can be reduced. The SCA's analysis indicates that many hospitals are actively managing the risk of needlestick and sharps and have received low numbers of claims.

> International studies have shown that the combined use of various control measures, such as education, Universal Precautions (an approach to infection control that treats all human blood as if it was infectious for blood-borne diseases), elimination of needle recapping, and the use of sharps containers can reduce needlestick injuries by 80%.[25]

The report illustrates that the number of incidents relating to needlesticks and sharps is under-reported. There is a duty on health and social care enterprises to promote incident reporting within the workplace. Incident reporting can positively impact the culture of safety within organisations, which can, in turn, help reduce the occurrence of personal injury claims.

Under common law and by reference to statutory requirements, employers and those who control workplaces to any extent, must identify hazards in the workplace under their control and assess the risk presented by any hazards. This applies to hazards such as those which present a risk of injury from needlesticks or sharps in the work environment. It is therefore expected that health and social care enterprises would have the necessary risk management arrangements in place to manage needlestick and sharps-related risks in the workplace.

Aside from the general advices in relation to risk management that apply to hazard identification and risk assessment, the following guidance sets out information for health and social care enterprises on how to manage needlestick and sharps related incidents within their organisation. This guidance is based on the findings of this Risk Research Report; the incident and claim risk review process undertaken by the SCA; and the SCA's high-level observations derived from completing on-site risk management audits.

25 Preventing needlestick injuries among health workers: a WHO-ICN collaboration. *International Journal of Occupational and Environmental Health*, 2004; 10: 451-456.

Key Report Findings

Following analysis of the claim and incident data, a number of key findings have arisen. This includes trending claim locations, personnel most at risk, incident reporting performance and trends relating to practices on the handling and disposal of needlesticks / sharps-related products.

Claims analysis	Incident analysis
• **Trending claim locations** – a number of acute hospital locations, in particular HC1 and HC2, have received a high number of personal injury claims relating to needlesticks and sharps. When comparing incident reporting performance in HC1 and HC2 with other acute hospital locations of a similar size and level of activity, the high claims numbers corresponds to under-reporting of needlestick and sharps related incidents.	• **Trending incident roles** – a significant number of needlestick and sharps' incidents arise in relation to nursing and other medical staff in health and social care environments. The number of incidents arising may not be surprising, given that these personnel actively use needlestick and sharps-related equipment as part of their role. Nursing and medical staff are generally aware of the source of the needle / sharp and can satisfy themselves that there is little risk arising from a blood borne virus. However, it is not acceptable that needlestick / sharps-related incidents become part of a person's day-to-day work activities, particularly for those who actively handle and use these devices. Needlestick / sharps-related injuries can be reduced and every effort should be made to reduce them.
• **Prevalence of contractor claims** – the number of claims arising from employees of external contractors does not correspond to the low level of incidents reported for these roles. Claims are particularly high in relation to roles such as cleaners, housekeeping and attendants. Where efforts are made to trace the source of the needle / sharp in health and social care environments this can significantly help alleviate anxiety and concern.	• **Contractor roles involved in few incidents** – the number of incidents reported involving contractor roles are very low. This indicates that, either the role is less likely to be involved in these types of incidents in the work environment or, there is a failure to report incidents, if / when they do arise. The claims analysis indicates the latter is most likely.
• **Handling / disposal of needlesticks** – a significant number of claims arise as a result of self-medicating practices. These primarily arise from poor practices in relation to the disposal of needlestick and sharps-related equipment by health and social care personnel and / or service users. Such practices include a failure to replace an overfilled sharps bin, failure to dispose of a needlestick or sharp, or disposal of sharps in the incorrect waste bin.	• **High incident reporting locations** – high incident reporting across a range of severities of injury by a health and social care service is generally associated with a strong safety culture. Analysis of incident and claim data validates this study as it has demonstrated that locations with high incident reporting levels receive fewer claims.

Key Risk Management Considerations

Targeted needlestick and sharps risk management programmes should be implemented to help reduce the number and cost of claims arising across the health and social care sector.

In relation to claims, particular focus should be given to HC1 and HC2 in relation to targeted needlestick risk management programmes. For incidents, nursing and medical staff should receive particular consideration as they are actively exposed to needlestick and sharps incidents in the workplace.

Claims analysis	Incident analysis
• **Control of external contractors** practices should be in place, in particular for contractors who work in roles such as cleaning, attendants, catering, portering and security personnel. Arrangements with external contractors should be formalised via contract agreements and, in particular, should include: ▪ Education and training on needlestick / sharps ▪ The importance of prompt incident reporting ▪ Availability of employee assistance programmes ▪ Appropriate indemnity and insurance clauses[26]	• **Education and training** on needlestick and sharps should be provided to all those at risk, in particular nursing and medical staff. Training programmes should consider disposal practices, including communicating that sharps bins should not be overfilled.
• **Policies and procedures** should be in place to help improve correct disposal practices of needlestick and sharps equipment. Compliance with policies should be monitored and where a breach of health and safety rules arises, disciplinary action should be taken.	• **Safe disposal** practices should include using sharps bins provided at the point of use, for example, at the bedside, or following a medical procedure. Bins should not be filled passed the 'fill line', which is designed to prevent the overfilling and accidental spillage of the contents.
• **Consultation with other health and social care acute locations and the NHSF** to enable learning and promote shared practices. This will also help with the standardisation of practices across the wider health and social care sector.	• **Medical devices** incorporating safety-engineered sharps protection mechanisms should be provided, where those mechanisms are available and appropriate. Needle free or needle safe devices should be used where possible.

26 State Indemnity Guide (SIG) 03 – State Indemnity and Use of Contractors.

Other risk management considerations

✓	Ensure accurate hazard identification and risk assessment in accordance with the **HSE Integrated Risk Management Policy**. All hazards associated with exposure to blood and bodily fluids from needlestick and sharps-related injuries must be identified, the risks assessed, control measures identified and implemented.
✓	Consult the **EMI Guidelines for the Emergency Management of Injuries and Post-Exposure Prophylaxis (PEP)**, which provide comprehensive guidance on the appropriate management of injuries where there is a risk of transmission of BBVs and other infections.
✓	Encourage the reporting of all needlestick and sharps incidents in accordance with the **HSE Incident Management Framework (IMF)**. Health and social care enterprises are reminded that it is a **statutory requirement to report all incidents to the SCA via NIMS**. This is primarily to allow for the ongoing management of risks but also to provide early warning and important information for any subsequent claims that might arise. Full compliance with the HSE IMF will ensure that health and social care locations are fulfilling their statutory requirement to report to the SCA. Claims costs can increase when there is a failure to report incidents or when incident reporting is delayed.
✓	Carry out incident reviews on incidents and claims to determine the root cause and develop key learnings to prevent recurrence and to share recurring themes nationally across the wider health and social care sector. The **NIMS Incident Review** screens should be used to support the incident review process, in accordance with the HSE's IMF.
✓	**Ensure compliance with** the European Union (Prevention of Sharps Injuries in the Health and Social Care Sector) Regulations 2014 (S.I. No. 135 of 2014).
✓	Ensure the HSE's "**Policy on the Prevention of Sharps Injuries**" and the **"Policy for Preventing and Managing Critical Incident Stress**" is implemented.
✓	**Provide support services**, including Employee Support Services and Employee Assistance Service, to those that may be impacted by needlestick / sharps in the workplace. Use **WPCI** to conduct a psychological risk assessment to help identify measures to be put in place for managing stress and critical incident stress in the workplace.
✓	**Health and safety committees** should actively set and review **key performance indicators (KPIs)** for needlestick and sharps incidents / claims, and monitor their compliance on an ongoing basis.
✓	Develop a structure for **internal auditing** of departments with respect to procedures for the management of needlestick and sharps, in accordance with the HSE's national policies and procedures.

What can you do to improve data quality?

The following data quality issues arise with needlestick and sharps incident-related data on NIMS:

✓	Health and social care enterprises, in colloboration with the SCA, should further improve the **'category of person'** categorisations on NIMS, particularly for 'member of public' and 'other staff'.
✓	Incidents are being recorded with an **'unknown'** time of incident. Health and social care enterprises should determine, where possible, the time of an incident and accurately record this information on NIMS. Gathering information on the time an incident occurs may help inform risk management solutions.
✓	Health and social care enterprises are not capturing **employee absence from work**, where this arises, on NIMS. When needlestick and sharp incidents result in absence from work, health and social care enterprises should ensure that this information is captured on NIMS. This can be updated on the NIMS Incident Review screens.
✓	**Inconsistencies** can arise for incident data recorded on NIMS, for instance the 'brief summary of the incident' does not always correlate with the 'injuries sustained' or the 'outcome at time of reporting'.
✓	Incidents are being recorded with an **'unknown' problem / cause**. Health and social care enterprises, in collaboration with the SCA, should review whether the option 'unknown' should be removed as a 'problem / cause' category from the mandatory field on the NIMS incident entry screen.
✓	Should new information arise that was not known when the incident was reported, the 'additional outcome since incident reporting' field should be updated with this new information. **NB:** The 'outcome at the time of incident reporting' field should not be overwritten with this new information.

Terms and Definitions

Active claim

A claim is initiated when one of the following notices is received:

- A written or oral communication by or on behalf of a claimant seeking compensation or threatening action to seek compensation
- A formal solicitor's letter indicating legal action to seek compensation on behalf of a claimant
- The issue and or service of legal proceedings seeking compensation on behalf of a claimant
- Personal Injuries Assessment Board (PIAB) formal notice of claim by a claimant seeking compensation

A claim is deemed active when it is being managed by a SCA claims manager and is in one of the following stages within the lifecycle of a claim i.e. claim received, claim investigation, claim litigation or claim conclusion.

Clinical Indemnity Scheme

The SCA-managed State indemnity scheme which manages the liabilities accruing from personal injury risks and the subsequent claims / liabilities arising from the negligent act or omission associated with the provision of, or failure to provide professional medical services.

Claim

A claim, in the context of this report, refers to notification of intention to seek compensation for personal injury and / or property damage where it is alleged the State / agency was negligent. The application may be in the form of a letter of claim, a PIAB application or a written / oral request.

Delegated State Authority

All bodies, where management of personal injury and third-party property damage claims against the body is delegated to the SCA. This includes State agencies, health and social care enterprises, community and comprehensive schools and prisons.

Estimated liability

The SCA's best current estimate of the ultimate cost of resolving a claim. It includes all foreseeable costs such as settlement amounts, claimant legal costs and defence costs (such as fees payable to legal counsel, engineers, consultants etc). The estimated liability may be revised on a regular basis in light of any new information received.

External contractors

For the purpose of this report, this includes: contract cleaners, attendants, caterers, porters and security personnel working in health and social care settings.

Finalised claim

A claim has been finalised when all damages, legal and other costs have been agreed (but not necessarily paid). There may be some outstanding payments waiting to be processed.

General Indemnity Scheme

The SCA-managed State indemnity scheme which provides personal injury and third-party property damage risk and subsequent claims / liabilities arising from the negligent act or omission on the part of the DSA, its servants, agents or employees.

Incident

An incident can be a harmful adverse event, no harm event, near miss, dangerous occurrence (reportable circumstance) or complaint.

Median

Denoting or relating to a value lying at the midpoint of a data set.

Member of public (MOP)

For the purpose of this report, this includes: members of the public and visitors to health and social care settings.

Needlesticks

Hypodermic syringes and other needle equipment.

NIMS

NIMS, the National Incident Management System, is a confidential highly secure web-based incident management tool developed by the SCA for the management of incidents throughout the incident lifecycle. It is used by members of the State indemnity schemes managed by the SCA to fulfil the statutory requirement to report incidents to the SCA, as well as for their own risk management purposes. NIMS is also used by the SCA to support the implementation of its claims and risk management mandates. NIMS facilitates the reporting of incidents, management of incident reviews / investigations, recording of incident review / investigation conclusions and recommendations, tracking of recommendations to closure, and analysis of incident and claims data.

Service users

For the purpose of this report, this includes: service users, patients and residents in health and social care locations.

Sharps instruments

Sharp tips of intravenous (IV) sets, contaminated slides, stitch cutters, guide wires, razors, glass etc.

Staff members

For the purpose of this report, this includes: servants and / or agents who work on behalf of health and social care enterprises, such as employees, agency staff, locum, volunteers, and people on work placements.

Work Positive^{CI}

Work Positive^{CI} was developed by the SCA, HSA and CISM Network Ireland and comprises a systematic, validated approach to address workplace stress, psychological distress, and critical incident stress in the workplace as set out in the WPCI website (www.workpositive.ie). The WPCI process involves four key stages: Prepare, Measure, Action Plan and Review.

Notes:

The data is correct as of 31 January 2020.

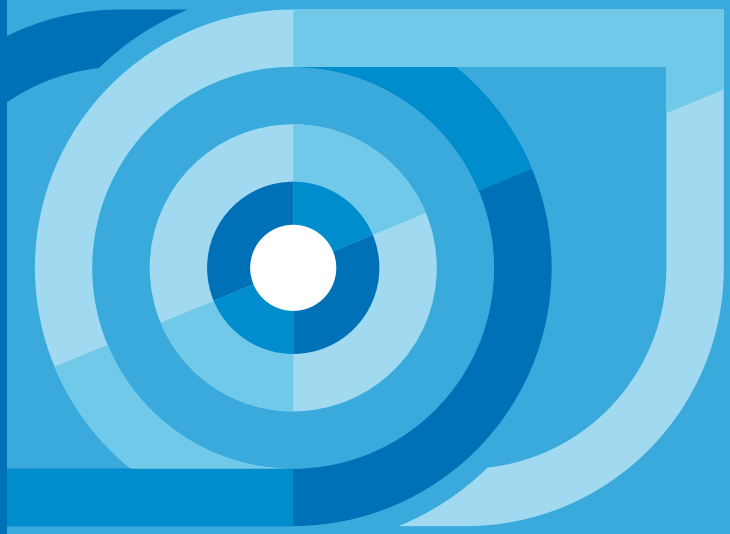
All percentages within the report are rounded to the nearest whole number.

Sections of this report contain anonymised locations.

Prepared:

Enterprise Risk Management Section
State Claims Agency

July 2020



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National Treasury Management Agency

An Ghníomhaireacht um Éilimh ar an Stát
State Claims Agency