Northern Ireland
Audit Office

Ambulance Handovers in Northern Ireland

Report by the Comptroller and Auditor General

Published
11 March 2025

For further information about the Northern Ireland Audit Office:

Northern Ireland Audit Office
106 University Street
Belfast, BT7 1EU

028 9025 1000
info@niauditoffice.gov.uk
www.niauditoffice.gov.uk

This report has been prepared under Article 8 of the Audit (Northern Ireland) Order 1987 for presentation to the Northern Ireland Assembly in accordance with Article 11 of the Order.

The Comptroller and Auditor General is the head of the Northern Ireland Audit Office. She and the Northern Ireland Audit Office are totally independent of Government.

She certifies the accounts of all Government Departments and a wide range of other public sector bodies; and she has statutory authority to report to the Northern Ireland Assembly on the economy, efficiency and effectiveness with which departments and other bodies have used their resources.

Dorinnia Carville
Comptroller and Auditor General

Northern Ireland Audit Office
11 March 2025

Contents

List of Abbreviations

AACE	Association of Ambulance Chief Executives
A-tED	Alternatives to Emergency Departments
CRH	Compensatory Rest Hour
DoH	Department of Health
DoS	Directory of Services
ED	Emergency Department
GIRFT	Getting it Right First Time
HSC	Health and Social Care
NI	Northern Ireland
NIAS	Northern Ireland Ambulance Service
NMS	No More Silos
RCC	Regional Coordination Centre
RCEM	Royal College of Emergency Medicine
SAI	Serious Adverse Incident
SEDIT	Summary Emergency Department Indicator Table
SPPG	Strategic Planning and Performance Group
SWAH	South West Acute Hospital
UEC	Urgent and Emergency Care

Key Facts

7 per cent

The proportion of ambulance handovers completed within the 15-minute target last year

£1.3 million

Funding allocated towards ambulance handover zones between 2021 and 2023. Their actual operation was limited

£50 million

The cost of handover delays to NIAS over the past five years

25 per cent

The proportion of NIAS' operational capacity wasted last year as a result of ambulance handover delays

11,000

The number of ambulance handovers taking more than 3 hours in 2023-24

Over 23 hours

The length of time to complete an ambulance handover in December 2024

£3.6 million

The amount spent on private ambulances in 2023-24 for emergency purposes. There is no regulation of private ambulances in Northern Ireland

3,800 patients

The number of patients potentially subject to severe harm last year as a result of handover delays

£37.8 million

NIAS overtime payments to staff in the last five years. Meeting handover targets would contribute notably to reducing these costs

Executive Summary

Executive Summary

1. The Northern Ireland Ambulance Service (NIAS) provides front line emergency and urgent care in Northern Ireland (NI), 24 hours every day. A primary responsibility of NIAS is responding to 999 calls from the public. This often results in ambulances and their crews being sent to provide initial assessment and treatment to patients and, if necessary, transport them to hospital emergency departments (EDs) for further care.

2. Once ambulances arrive at EDs, NIAS crews and ED staff are jointly responsible for completing an 'ambulance handover' as quickly and effectively as possible. Prompt handovers will help ensure patients receive the timely specialist care required in an ED setting and release ambulance crews to respond to other urgent calls. Conversely, delayed handovers can potentially compromise patient safety.

Handover times are unacceptable and targets are being missed

3. Targets stipulate that all ambulance handovers should be completed within 15 minutes. Despite this, this target has been comprehensively missed since 2019. In both 2022-23 and 2023-24, only 7 per cent of NIAS handovers met this target. In contrast, 37 per cent of handovers in England were completed within 15 minutes in 2023-24.

4. In 2023-24, more than a third (34 per cent) of ambulance handovers in NI took longer than one hour to complete, which is significantly higher than in England (10 per cent). The number of local handovers taking longer than three hours has also risen sharply from 402 (less than 1 per cent) in 2019-20, to just over 11,000 (9 per cent) in 2023-24.

5. In February 2023, Trust Chief Executives gave a commitment that no ambulance would wait longer than 2 hours to hand over their patient at an ED. Despite this, handover times have deteriorated. While our review has focused on the period from 2019 to 2024, the months prior to publication of this report have seen some exceptionally poor performance. NIAS is recording multiple handovers every day that are longer than 10 hours. In December 2024, one ambulance handover at the Ulster Hospital took over 23 hours.

6. In addition to these overall trends, ambulance handover performance has deteriorated considerably between 2019 and 2024 at all nine local hospitals with major EDs. The Ulster Hospital (South Eastern Trust) has consistently recorded the longest handover times.

7. Some slightly more encouraging recent trends are apparent. In the last two years, the percentage of handovers taking over one hour has reduced marginally at both Northern Trust hospitals (Causeway and Antrim). The number of handovers exceeding three hours has also collectively reduced at four of the nine hospitals, from 2,771 to 2,176. However, performance generally remains very concerning.

Adequate patient flow through hospitals is essential to improve ambulance handovers

8. Timely ambulance handovers require appropriate capacity and resources throughout the hospital, including in EDs and adequate care capacity within the community to enable timely patient discharges. However, waiting times in EDs have increased to the extent that 21 per cent of patients wait more than 12 hours (July to September 2024). If patients are then admitted to hospital, sufficient bedspaces are also needed but this relies on fit patients being promptly discharged. 'Complex discharges', which require support arrangements, including domiciliary care and care home packages, are however often delayed, having a knock-on effect on patient flow, handover to ED, and ultimately on ambulance response times. In 2020-21, 21 per cent of complex discharges exceeded the 48-hour target, but this had risen to 42 per cent in 2023-24.

9. As the percentage of delayed complex hospital discharges has been increasing, ambulance handover performance has been deteriorating over the same period. Our report highlights how timely ambulance handovers rely significantly on other aspects of the emergency care system functioning effectively and the importance of NIAS and Trusts working collaboratively to improve outcomes.

More than 3,800 patients may have been subject to severe harm last year

10. The Association of Ambulance Chief Executives (AACE) estimated that 85 per cent of patients whose ambulance handovers are delayed beyond one hour potentially experience some harm, with 9 per cent potentially subject to severe harm. Based on this, there were close to 36,300 instances in 2023-24 when local patients may have experienced some harm, and over 3,800 occasions when patients were potentially subject to severe harm.

11. The number of Serious Adverse Incidents (SAIs) which NIAS has attributed to delays in responding to patients, has also risen considerably, from eight in 2020-21 to 35 in 2023-24. Although the number of these which directly relate to ambulance handover delays cannot currently be identified, handovers may be contributing significantly to the rising SAI trends.

Delayed handovers have cost £50 million over the last five years

12. The deteriorating handover performance impacts significantly on NIAS efficiency. In both 2019-20 and 2020-21, 14 per cent of NIAS' operational capacity was lost due to ambulance handovers exceeding 15 minutes. By 2023-24, this had reached 25 per cent. As a result, NIAS has lost an estimated £50 million between 2019-20 and 2023-24. Annual losses have increased by over 80 per cent from £7.3 million in 2019-20, to £13.2 million in 2023-24.

13. With ambulances increasingly tied up waiting outside EDs, NIAS performance in responding to 999 calls has also deteriorated:

- Category 1 calls (deemed as immediately life threatening), have a target response time of 8 minutes. This has not been met in any year since 2019-20, and in 2023-24 average response was over 11 minutes.
- The 18-minute target for Category 2 calls (emergencies and potentially serious incidents), has consistently been missed since 2019-20, with 2023-24 performance being over 48 minutes.

Northern Ireland is increasingly reliant on private ambulances, but they remain unregulated

14. The impact of delayed ambulance handovers means NIAS has also become increasingly reliant on the private ambulance sector to address service provision gaps. This includes providing cover at EDs, which releases NIAS crews to respond to other calls. In 2019-20, NIAS commissioned private sector ambulances to provide ED relief on just over 20 occasions. However, by 2023-24 this had risen to just over 1,100 occasions. In England, private sector ambulances are regulated by the Care Quality Commission. In NI, however, there is no formal or independent regulation and the only oversight is within NIAS' contract management procedures.

15. NIAS expenditure on private ambulance providers has also risen significantly. Spend on commissioning the private ambulance sector to provide emergency care increased every year since 2020 from £1.3 million to £3.6 million, mainly due to the sector increasingly providing ED cover. Despite this increased spend, handover delays have continued to increase.

16. Delayed handovers also contribute to NIAS incurring significant overtime costs, which have amounted to £37.8 million between 2019-20 and 2023-24. An interim agreement between NIAS and trade unions requires that all NIAS ambulance staff have a 12-hour break before commencing a new shift to mitigate the impact of late staff finishes which the unions have highlighted as a safe staffing issue. This results in delays to upcoming planned shift patterns after paramedics have worked overtime, as staff receive compensatory rest hours (CRHs). In 2023-24, NIAS staff had 5,214 CRHs, representing considerable unavailable staff resources. Reduced handover times would help reduce overtime costs and the number of CRHs and therefore improve ambulance response times.

The Department of Health commissioned a report into Emergency Medicine in NI that highlighted improvements needed in the system

17. The Getting It Right First Time (GIRFT) project is a UK-wide programme which aims to improve patient care across the public healthcare system. The Department of Health (DoH) commissioned the GIRFT team to review Emergency Medicine in NI in June 2023. Whilst its report was finalised in January 2024, it has not yet been formally published. Nonetheless, we accessed and reviewed this report.

18. GIRFT identified that delays in the urgent and emergency care system throughout NI are "almost certainly causing harm". It identified that the impact of handover delays on poor ambulance response times is "clearly the biggest single risk to patients in the emergency care system of Northern Ireland," reinforcing our findings. GIRFT cited prevailing attitudes, behaviours and cultures in hospitals as the most important issues impacting performance in the local urgent and emergency care system.

19. The GIRFT report made 46 recommendations for the overall Health and Social Care (HSC) system to improve urgent and emergency care, alongside individual recommendations for specific EDs. It also recommended that NIAS should contribute to this improvement, largely through limiting the rate of conveyance of patients to EDs. To date, neither DoH nor the Trusts have published responses to the GIRFT report.

Northern Ireland has the highest rate of emergency department attendance in the UK

20. Northern Ireland has consistently had the highest rate of ED attendance per 1,000 population in the UK. To reduce pressure on EDs, ensure patients receive the most appropriate care and improve patient flow through the system, it is important to ensure that ED attendances are appropriate. However, the steps taken by NIAS and others to try and reduce the proportion of patients it brings to EDs, and alleviate pressures on the emergency care system to help reduce ambulance handover delays, have had limited success.

The rate of conveyance of patients to emergency departments has remained high

21. NIAS began implementing alternative care pathways in 2017, aimed at diverting patients away from EDs who could be suitably treated elsewhere. However, the proportion of emergency calls to NIAS which result in these being used has not increased. In 2019-20, the rate was 3 per cent and in 2023-24, it was 2 per cent.

22. Access to alternative care pathways involve NIAS using the 'hear and treat' methodology, which involves paramedics managing calls to determine if they can utilise an alternative care solution to avoid conveying patients to EDs. Similar logic is applied by paramedics who arrive at incidents, through applying a 'see and treat' methodology. However, from 2021-22 to 2023-24, the rate at which these have been applied has not increased. Moreover, the rate of immediate conveyance of patients to EDs by NIAS has remained high during this time, at between 81 and 88 per cent. Analysis of the latest data suggests NIAS continues to convey patients to EDs at a significantly higher rate than the UK average.

23. In addition to reviewing Emergency Medicine in NI, DoH commissioned GIRFT to undertake further work specifically centred around Alternatives to Emergency Departments (A-tED). This focused on the availability and accessibility of relevant alternative care pathways to NIAS paramedics, who currently source details of these pathways through a digital Directory of Services (DoS).

There are a number of gaps in alternative care pathways

24. The review found that the range of alternative care pathways available to NIAS paramedics was limited in some instances, with provision of these either not visible, not commissioned, or extremely variable depending on location within NI. GIRFT created 29 hypothetical patient cases requiring NIAS support to identify if these could be addressed via current arrangements. In over half of these cases (15), GIRFT found there were no alternative care pathways to EDs. Gaps identified included cases of surgical wound infections, displaced feeding tubes, patients requiring advice about control of diabetes or respiratory conditions and adults relapsing with psychosis.

25. Furthermore, of the 32 alternative care pathways currently listed on NIAS' DoS, variations across Trusts in terms of opening times and referral arrangements mean that only nine are currently accessible 24/7 in every HSC Trust region. Aside from these services, there are notable limitations within NIAS' DoS in the availability of alternative care pathways. Regional standardisation across Trusts around opening hours and referral arrangements would improve the accessibility of alternative care pathways across NI.

The Department's 'No More Silos' plan has not delivered improvements in handover times

26. In October 2020, DoH launched the No More Silos (NMS) Action Plan. One of the plans 10 key actions focused on 'ambulance arrival and handover zones', to try and address the issues posed by handover delays.

27. This highlighted that EDs needed to provide physical space for assessment and triage of patients arriving by ambulance, with the five largest EDs needing to accommodate a minimum of six ambulance arrivals to be handed over as soon as possible. However, Trusts did not prioritise funding to develop ambulance arrivals and handover zones at the Royal Victoria Hospital or the Ulster Hospital. Whilst £1.3 million was allocated in 2021-22 and 2022-23 towards handover zones in Craigavon Area Hospital, Altnagelvin Hospital and Antrim Area Hospital, the evidence indicates that the operation of these zones in practice was limited.

28. Under a reprioritisation of NMS actions, DoH provision for funding ambulance arrival and handover zones was discontinued from October 2022. Whilst DoH emphasised to Trusts the ongoing importance of continuing to prioritise these facilities, it also stated that Trusts would need to fund these from their own budgets from November 2022 onwards.

29. In November 2023, DoH launched a 'Delayed Ambulance Handover Standard' protocol, which stated that "Trusts are required to provide an ambulance handover area which allows the patient to be handed over to the ED team". However, if handover zones are not in place and functioning as intended, the protocol is meaningless. The protocol also advised that "where the Trust is unable to staff a handover area…an appropriate Ambulance Cohorting Area should be provided where one ambulance crew can manage up to four patients, thus releasing three crews to respond to other calls". 'Despite this, NIAS has told us that since February 2020 when the COVID-19 pandemic commenced, there has been no cohorting of patients at any HSC Trust. Such arrangements however were operating prior to this.

Best practice elsewhere stresses the importance of clinical leadership and positive cultures in emergency departments

30. Our report highlights four best practice cases within Health Trusts in England - three in which hospitals and Trusts have worked closely with local ambulance services to successfully minimise ambulance handover times, and a fourth in which a Trust has improved both handover times, and wider emergency care patient flow. The positive performance achieved has been attributed to various factors, primarily work by senior leadership which reinforces a positive culture around it being safer for patients to be admitted to EDs than left in ambulances for extended periods.

VFM conclusion

31. There is clear and concerning evidence that the serious deterioration since 2019 in the time taken to complete ambulance handovers to EDs is placing significantly increased numbers of patients at risk of harm, or even significant harm. This has largely arisen through patients having to remain in ambulances rather than being cohorted into EDs as was previously the case prior to the COVID-19 pandemic. These risks are compounded by the impact on NIAS response to emergency calls, which have reached unacceptably long times. There are also very poor operational outcomes for NIAS with a quarter of its operational capacity currently being lost to handover delays. At a cost of £50 million over the last five years, value for money is clearly not being achieved.

32. Whilst NIAS can take some steps to improve its performance it cannot resolve the problems alone, and the Department and HSC Trusts also have significant responsibility for reducing ambulance handover delays. Delays are a symptom of poor patient flow across the emergency care system. It is essential that organisations now work together, to ensure that the improvements, outlined by the GIRFT review of Emergency Medicine and in examples of best practice elsewhere in the UK, are implemented. Silo working to date has resulted in poor value for money and poor outcomes for patients.

Recommendations

Recommendation 1

Ambulance handover delays in Northern Ireland are unacceptable. They have worsened significantly in recent years and are causing harm to patients and to public finances. Each HSC Trust (hospital and NIAS) must work collaboratively to implement decisive measures to improve ambulance handover performance as a matter of urgency.

Recommendation 2

Given the increasing reliance on the private ambulance sector, the Department should take immediate action to improve oversight and regulation of this sector, taking account of the best practice requirements in England.

Recommendation 3

Given the significant ongoing reliance and associated expenditure on deploying the private ambulance sector, it is important that NIAS assesses if this represents best value for money or whether building additional in-house capacity would represent a better and more sustainable use of resources.

Recommendation 4

It is crucial that recent work done by NIAS to reduce its sickness absence rate is sustained and improvements continue to be made in line with peers elsewhere in the UK.

Recommendation 5

This report has identified examples from elsewhere in the UK where handover performance has been positive. There have also been some minor improvements in local ambulance handover performance identified earlier in the report. Any learnings and good practice from elsewhere and locally should be identified by HSC Trusts and DoH, and incorporated into action plans to reduce ambulance handover delays across Northern Ireland.

Recommendation 6

Each HSC Trust must ensure their plans in response to the GIRFT report achieve effective and sustained outcomes. Improving attitudes, behaviours and cultures should be central to these plans. DoH must ensure that Trusts abide by this.

Recommendation 7

NIAS must increase the proportion of patients it refers to alternative care pathways and reduce the rate of conveyance of patients to EDs. This should be, in part, achieved by NIAS increasing its use of 'hear and treat' and 'see and treat' methodologies.

Recommendation 8

HSC Trusts must ensure the capacity of their alternative care pathways are increased, where necessary, to meet NIAS referrals and therefore reduce the pressures on EDs. Referral and acceptance data for alternative care pathways must also be recorded for performance management purposes. To ensure these pathways have maximum impact and improve accessibility, Trusts should work to standardise referral criteria and operational hours across NI.

Recommendation 9

In collaboration with each HSC Trust, NIAS must review and update its current Directory of Services for alternative care pathways immediately. This process should be repeated every 12 months to ensure progress is sustained. Where alternative care pathways do not exist across the different HSC Trust areas, DoH must lead collaborative work to address these service provision gaps.

Recommendation 10

HSC Trusts must have well-functioning handover zones at each of their major EDs. These must be used and managed appropriately. Protections must be put in place to ensure these zones are not used as overflow from EDs. DoH should have oversight of this, taking account of evidence from NIAS and HSC Trusts.

Recommendation 11

HSC Trusts must develop and agree arrangements for cohorting at each of their major EDs, which both ambulance crews and ED staff can use.

Part One:
Introduction

Part One: Introduction

Background

1.1 The Northern Ireland Ambulance Service (NIAS) is responsible for providing front line emergency and urgent care to almost two million people in Northern Ireland (NI), 24 hours a day, every day of the year. Its fleet of 116 ambulances operate from 46 stations or deployment points. It employs 1,599 members of staff, 1,325 (83 per cent) of whom are ambulance staff.

1.2 A primary responsibility of NIAS is appropriately responding to 999 calls from members of the public. This will often result in ambulances and their crews being sent to provide initial assessment and treatment to patients and, if necessary, transport them to hospital Emergency Departments (EDs) for further review and care.

1.3 Once these ambulances have arrived at EDs, Health and Social Care (HSC) Trust staff have clinical responsibility for patients which have been conveyed there. However, NIAS crews and ED staff are jointly responsible for completing an 'ambulance handover', which represents the process of moving a patient from an ambulance into ED to be seen by medical and nursing staff.

1.4 The time taken to complete this is measured as the period between the patient arriving at the destination hospital and being physically transferred into the care of the receiving hospital authorities.

1.5 Ambulance crews and hospital staff are jointly responsible for ensuring the handover process is completed as quickly and effectively as possible. Prompt handovers can help ensure that patients receive the timely specialist care required in an ED setting and also free up ambulance crews to respond to other urgent calls.

1.6 Conversely, delayed handovers can potentially compromise patient safety as patients wait in ambulances outside EDs for lengthy periods and others await NIAS responses to 999 calls.

1.7 Based on recognised good practice, targets stipulate that ambulance handovers should be completed within 15 minutes. Crews have a further 15 minutes to make ready and clear from an ED giving a total ambulance turnaround standard of 30 minutes.

1.8 However, recent years have seen a major deterioration in ambulance handover performance. The overall proportion of handovers exceeding 15 minutes has increased from 73 per cent in 2019-20 to 93 per cent in 2023-24, with the percentage taking longer than an hour also rising from 9 per cent to 34 per cent over this period.

1.9 Deteriorating handover performance has significantly impacted on NIAS' wider operational efficiency. For instance, in 2023-24, 123,059 NIAS operational hours were lost due to handovers exceeding target times.

1.10 This equated to 25 per cent of NIAS' operational capacity, which includes ambulances and crews, being lost. This resulted in a loss, in financial terms, of £13.2 million. There is also substantial evidence that poor ambulance handover performance in Northern Ireland has led to negative outcomes for patients.

1.11 Performance deterioration is attributable to various factors, some of which are outside of NIAS' control. For example, the lengthy time often taken to discharge fit patients from hospitals increases the time taken to admit patients from ED into hospital, which then lengthens the time patients wait outside EDs in ambulances before handovers are completed. In turn, this impacts significantly on the time taken by NIAS to respond to calls from the public.

Scope and Approach

1.12 This report quantifies and assesses performance related to ambulance handovers across Northern Ireland from 2019 to 2024 and the associated risks to both patients and NIAS operational efficiency. It also reviews the main causes of delayed ambulance handovers and the effectiveness of actions taken by NIAS to address the problem, reduce pressures on EDs, and transform its services.

1.13 Within our work, we have considered relevant best practice from other UK regions which have attained high-performance levels and significant improvements in relation to ambulance handovers.

1.14 We have also engaged with key stakeholders including the Association of Ambulance Chief Executives (AACE) and the Getting It Right First Time (GIRFT) project team, to identify what further steps NIAS can take to improve performance in this key aspect of its service provision.

1.15 Specifically, our review sought to identify steps which can be taken and improvements which can be implemented by NIAS and other HSC stakeholders to try and secure various improvements in patient handover performance, including:

- reducing the length of time ambulances wait outside EDs in NI;
- limiting the loss of operational time for NIAS' ambulances;
- improving ambulance response times to calls due to additional NIAS capacity being freed up;
- improving NIAS financial efficiency through reduced operational downtime;
- reducing the degree to which NIAS bring patients to EDs as a first option when alternative suitable treatment pathways may be available;
- potentially contributing to reducing blockages in hospitals which contribute significantly to delayed ambulance handovers (although progress in this area is also heavily dependent on action being taken by HSC Trusts); and
- supporting NIAS to transform its service delivery.

1.16 'Bed-block' within hospitals contributes significantly to delayed ambulance handovers. These problems mainly arise through inadequate patient discharge arrangements within hospitals, particularly associated with difficulties in arranging care packages for patients who are well enough to leave hospital.

1.17 The Department of Health (DoH) and the HSC Trusts have not yet developed Official Statistics, on the time taken to discharge fit people from local hospitals, which have been formally published. However, there is significant management information collected on hospital discharges which is used for performance management which we have examined as part of our work.

1.18 In addition to examining the steps taken by NIAS internally to try and improve handover performance and best practice in the area across the rest of the UK, we have also analysed the work of the GIRFT project team on emergency care in NI, to measure the extent to which best practice is currently followed locally and identify any key aspects of this which have not yet been implemented locally.

Report Structure

1.19 The report assesses the following issues relating to delayed ambulance handovers:

- Key performance trends (Part Two);
- Impact of delayed ambulance handovers (Part Three);
- Best practice and the GIRFT report (Part Four);
- Action by NIAS to address delayed ambulance handovers (Part Five).

Methodology

1.20 Our early research identified how the major deterioration in ambulance handover performance began shortly after the commencement of the COVID-19 pandemic, with the first lockdown commencing in March 2020. We therefore agreed with NIAS that analysis of data between 2019-20 and 2023-24 would be sufficient to capture and measure key performance metrics and trends to meet the steps referenced in the scope of our report.

1.21 It should also be noted that NIAS ambulance handover data, from April 2019 to October 2021, is not as precise as the more recent information analysed in our review. This is because improvements were introduced to data collection and recording methods in late 2021. However, we are assured that the earlier data is sufficiently robust to meaningfully assess and conclude on ambulance handover performance trends and associated risks in NI.

1.22 In addition, our report has focused on key performance metrics in relation to ambulance handovers at the nine hospitals in NI which have major EDs. These are the Royal Victoria Hospital and Mater Hospital in the Belfast Trust, Antrim Area Hospital and Causeway Hospital in the Northern Trust, the Ulster Hospital in the South Eastern Trust, Craigavon Hospital and Daisyhill Hospital in the Southern Trust, and Altnagelvin and South West Acute Hospital in the Western Trust. We decided that analysis of performance and trends at these sites was most relevant to our study. Other relevant data assessed in this report, for instance, regarding hospital discharges of patients, has also largely focused on these hospitals.

Part Two:

Key performance trends

Part Two: Key performance trends

NIAS aims to complete ambulance handovers within 15 minutes

2.1 In March 2022, the target for completing ambulance handovers in England changed from the longstanding 15-minute target. Since then, the English target has stipulated that all ambulance handovers should take place within 60 minutes, 95 per cent within 30 minutes and 65 per cent within 15 minutes. However, NIAS and hospitals in Northern Ireland continue to apply the longstanding 15-minute target for completion of ambulance handovers.

The 15-minute target has been comprehensively missed since 2019 and performance is much worse than elsewhere in the UK

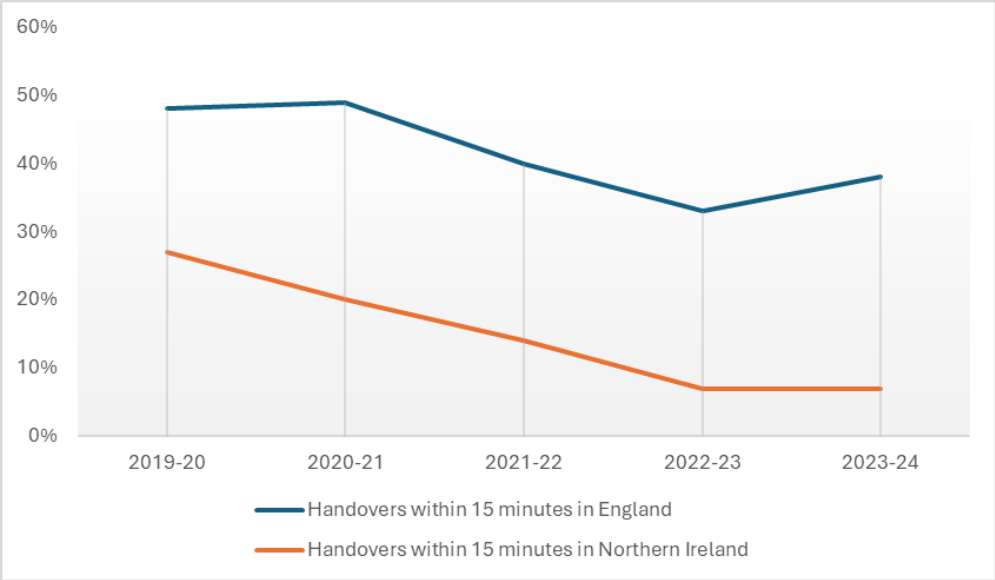
2.2 Analysis shows the extent to which NIAS has missed the 15-minute target and to which its performance relating to timely ambulance handovers has deteriorated. Performance has slipped at the overall NI level, with serious problems also evident at all individual hospitals focused on in this report (the nine hospitals in NI with major EDs).

2.3 In 2019-20, 27 per cent of all ambulance handovers were completed within the 15-minute target, with ambulance handover performance deteriorating. However, this has fallen in each subsequent year, to only 7 per cent in both 2022-23 and 2023-24.

2.4 This performance is comparatively very poor compared to the situation in both England and Wales. In England, almost half of ambulance handovers were completed within the 15-minute target between 2019 and 2021. This fluctuated between 40 per cent in 2021-22, 33 per cent in 2022-23 and 37 per cent in 2023-24 **(Figure 1)**.

2.5 In Wales, performance levels have dropped significantly in recent years, but not to the same extent as in NI. For instance, no month in the five-year period from 2019-20 to 2023-24, saw the Welsh Ambulance Services University NHS Trust record under 15 per cent of handovers being completed within 15 minutes. Scottish data is not easily comparable.

Figure 1: Although there is scope for significant performance improvements around ambulance handovers in England, performance in Northern Ireland is much worse



Source: NIAO, using available NIAS and English data

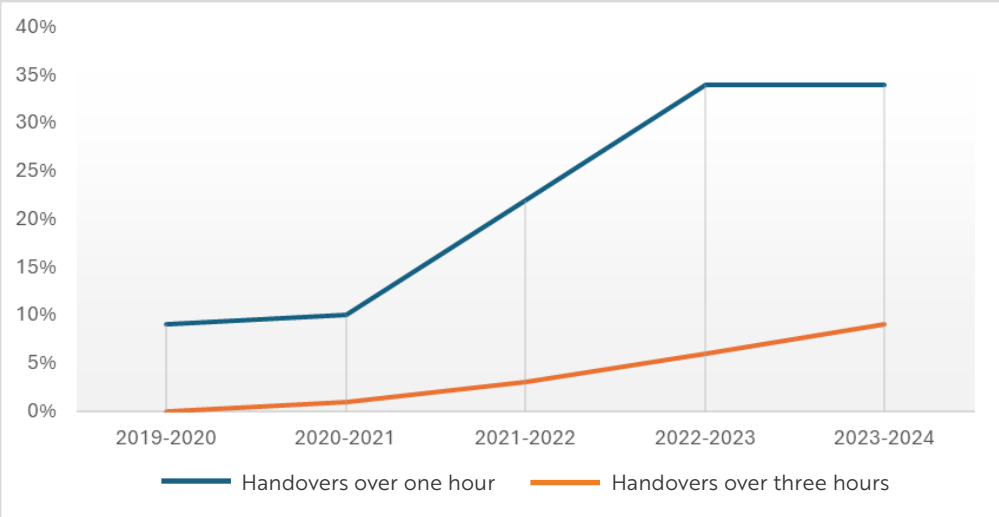
Northern Ireland has a higher proportion of very long ambulance handovers than England

2.6 The percentage of handovers that take at least an hour has increased from 9 per cent in 2019-20 to 34 per cent in both 2022-23 and 2023-24. Performance in NI in this regard, is again well below England, where just 10 per cent of handovers took an hour in 2023-24.

2.7 The very sharp increase in the number of ambulance handovers taking longer than three hours in NI is also evident. In 2019-20, just 402 ambulance handovers (less than 1 per cent) took longer than this. Again, this figure has increased consistently since then, standing at just over 11,000 handovers in 2023-24. This represents 9 per cent of all handovers **(Figure 2)**.

2.8 In February 2023, all HSC Trust Chief Executives gave a commitment that no ambulance would wait longer than two hours to complete a handover. However, our analysis of data from 2023-24 shows this commitment was completely ineffective.

Figure 2: Ambulance handover performance has seriously deteriorated in Northern Ireland since 2019

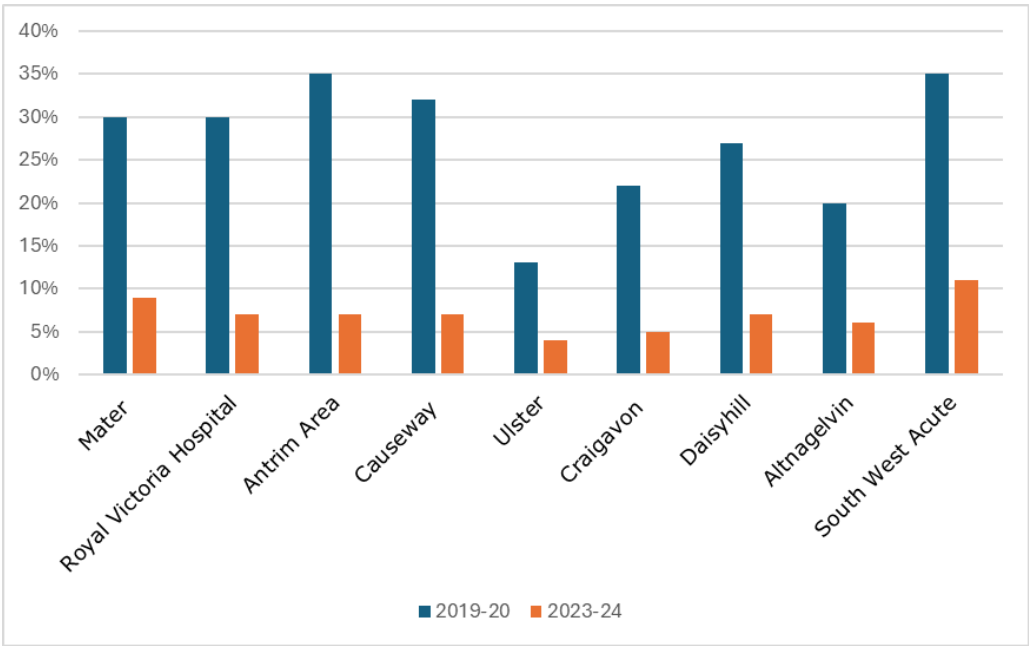


Source: NIAS performance data

Ambulance handovers are taking longer at local hospitals

2.9 **Figure 3** sets out the reduction in the percentage of handovers completed within the 15-minute target between 2019 and 2024 across all nine hospitals where the vast majority of ambulance handovers in NI take place.

Figure 3: Ambulance handover performance has significantly deteriorated against the 15-minute target across all major emergency departments

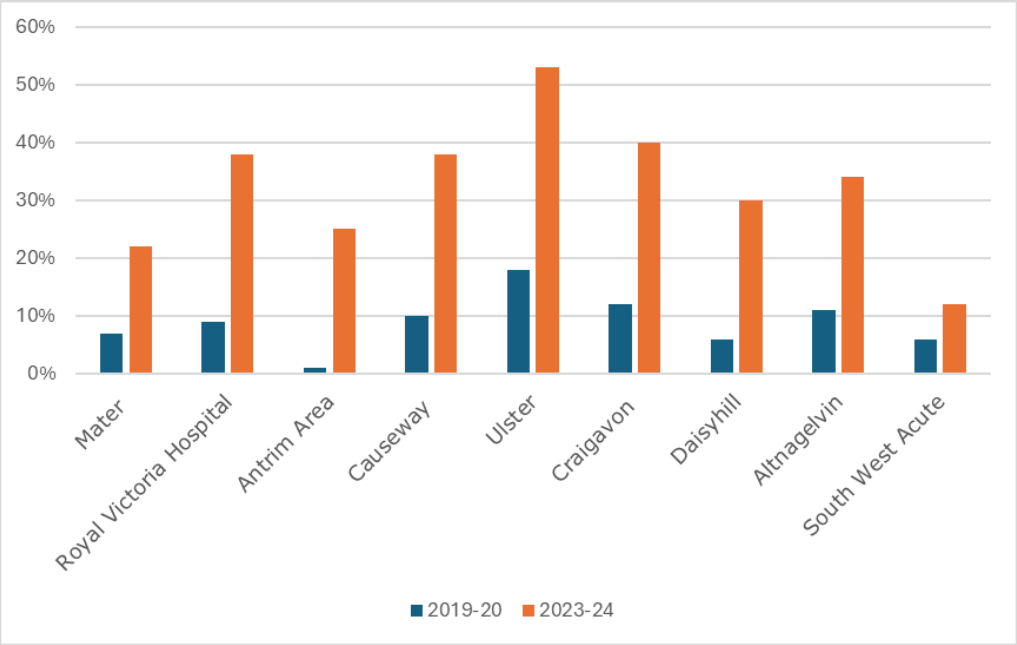


Source: NIAO, using NIAS performance data

2.10 The poorest performance has been at the Ulster Hospital (South Eastern Trust) where the proportion of handovers completed within 15 minutes has reduced from 13 per cent to just 4 per cent. In 2023-24, fewer than 10 per cent of handovers were competed in under 15 minutes at all nine hospitals except for SWAH.

2.11 We also reviewed the number of very long ambulance handovers at individual hospitals. We firstly examined the proportion of handovers which took longer than one hour to complete since 2019. The overall percentage of handovers taking over one hour has increased from 9 per cent to 34 per cent between 2019 and 2024. Again, the proportion exceeding one hour has risen at all nine hospitals **(Figure 4)**.

Figure 4: The proportion of ambulance handovers exceeding one hour has increased in all major emergency departments



Source: NIAO, using NIAS performance data

2.12 In 2023-24, the proportion of handovers taking longer than one hour ranged between 30 per cent and 53 per cent at six of the nine hospitals, with the Ulster Hospital again having by far the poorest performance. The South West Acute Hospital (SWAH) had the lowest proportion of such handovers (12 per cent) although this was still twice the level recorded in 2019-20.

2.13 However, a slightly more encouraging trend from the recent data is that the percentage of handovers taking over one hour actually recently reduced between 2022-23 and 2023-24 at both Northern Trust hospitals (from 37 per cent to 25 per cent at Antrim Area Hospital, and from 49 per cent to 38 per cent at Causeway Hospital). However, these still represented a high proportion of handovers taking longer than one hour.

The proportion of handovers taking more than three hours has increased at all major emergency departments

2.14 We also analysed performance in respect of ambulance handovers which took over three hours. In overall terms, the proportion of these increased from under 1 per cent in 2019-20 to 9 per cent in 2023-24. However, analysis of the actual numbers of these very seriously delayed handovers best illustrates the problems which have arisen since 2019-20.

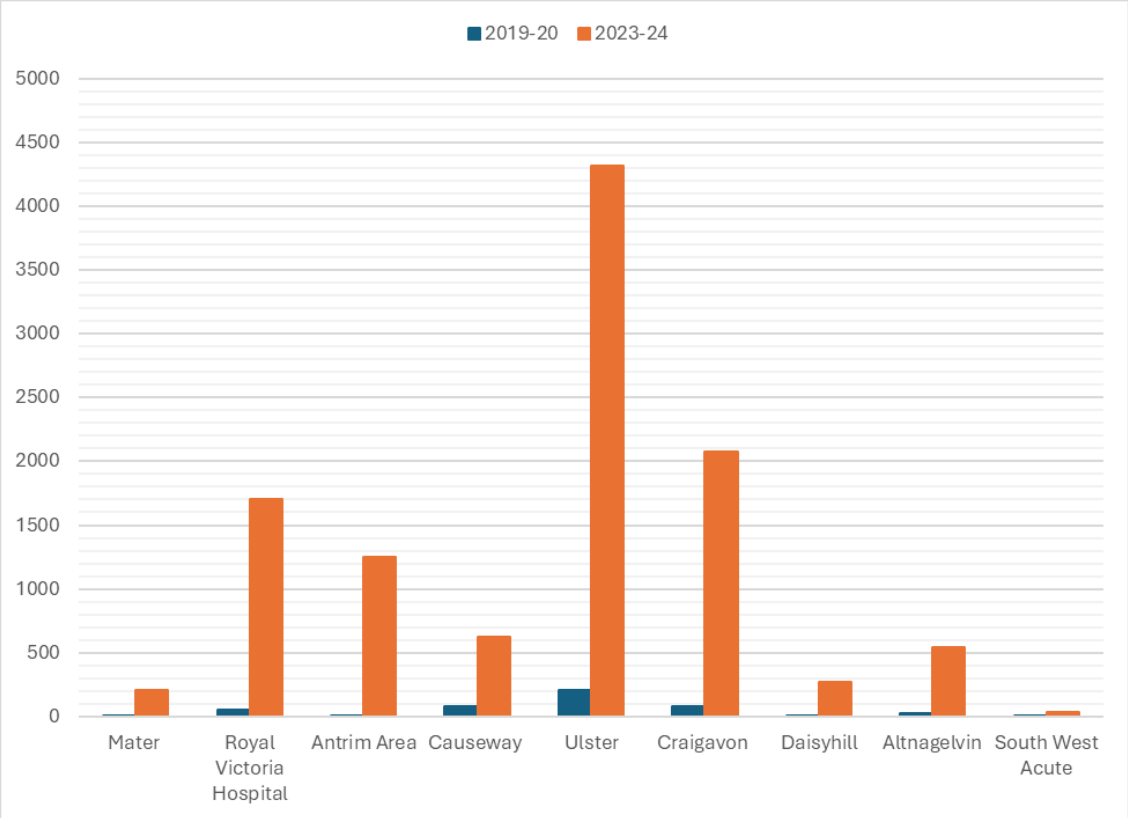
2.15 Overall, NI recorded 402 ambulance handovers lasting longer than three hours in 2019-20, with this rising to 11,074 in 2023-24. This 2023-24 figure is more than 27 times higher than in 2019-20. These increases are coming at a time when the total number of ambulance arrivals have not been increasing at most hospitals.

2.16 The performance at the Ulster Hospital is once again stark, with handovers exceeding three hours increasing from 207 in 2019-20 to just over 4,300 in 2023-24. This accounted for 39 per cent of all such handovers in 2023-24 across NI.

2.17 While the number of ambulance handovers which exceeded three hours increased at all nine hospitals from 2019-20 to 2023-24, some small improvements were recently recorded between 2022-23 and 2023-24 at Antrim (Northern), Causeway (Northern), Daisyhill (Southern) and SWAH (Western). The number of these handovers at these four hospitals collectively reduced during this period by almost 22 per cent, from 2,771 to 2,176 **(Figure 5)**.

2.18 While our review has focused on the period from 2019-20 to 2023-24, the more recent months prior to publication of this report have seen some exceptionally poor performance. NIAS is recording multiple handovers of longer than 10 hours on a daily basis. In December 2024, one ambulance handover at the Ulster Hospital took over 23 hours.

Figure 5: The number of ambulance handovers exceeding three hours has increased at all major emergency departments since 2019-20



Source: NIAO, using NIAS performance data

Delays in the flow of patients through the health and social care system negatively impact handover performance

2.19 The ambulance handover process is just one part of an HSC emergency and acute care system whose levels of performance (and arising outcomes) are closely interlinked. Timely ambulance handovers require availability of appropriate capacity and resources in EDs, and throughout hospitals.

2.20 If patients then require admission to hospital from EDs, sufficient available bedspaces are needed, but this relies on fit patients being discharged as quickly as possible to free up bedspace after. However, this process is often delayed due to issues with securing support arrangements, with particular challenges in arranging domiciliary care and care home placements. This is often the case for elderly and frail patients. This demonstrates how, if the wider emergency care flow process is to operate effectively, adequate capacity is also required within the community care sector.

There are particular challenges with ensuring timely hospital discharges for patients with complex support needs

2.21 A hospital discharge is categorised as complex if it requires significant home-based or community-based services to be arranged before it can take place. Non-complex cases are classed as simple discharges. They do not require these post-discharge arrangements.

2.22 In August 2023, DoH established a new target which stipulated that all complex discharges in NI should take place within 48 hours of a patient being declared medically fit. The previous target required that 90 per cent of complex discharges took place within this timeframe.

2.23 To date, DoH has not formally published hospital discharge statistics as the information available is not deemed sufficiently robust. However, it has gathered and monitored management information on this area, which we reviewed for the period between 2020-21 and 2023-24.[1]

The percentage of complex discharges delayed by more than 48 hours has doubled since 2020

2.24 Analysis of this period indicates that, performance levels in NI, relating to the 48-hour complex patient discharge target, have deteriorated in recent years. In 2020-21, 21 per cent of complex discharges were delayed for longer than this, but this has risen to 42 per cent in 2023-24.

2.25 As complex hospital discharge performance has worsened, the proportion of ambulance handovers completed within 15 minutes has been reducing over the same period. This shows how timely ambulance handovers are reliant on other aspects of the emergency care system functioning effectively **(Figure 6)**.

2.26 This is the case both in overall terms and at individual hospitals. Local complex discharge performance has deteriorated most significantly at the Ulster Hospital (South Eastern Trust), where the proportion exceeding 48 hours has increased from 37 per cent in 2020-21 to 66 per cent last year[2]. This hospital has also had the longest ambulance handover delays in NI over broadly the same period.

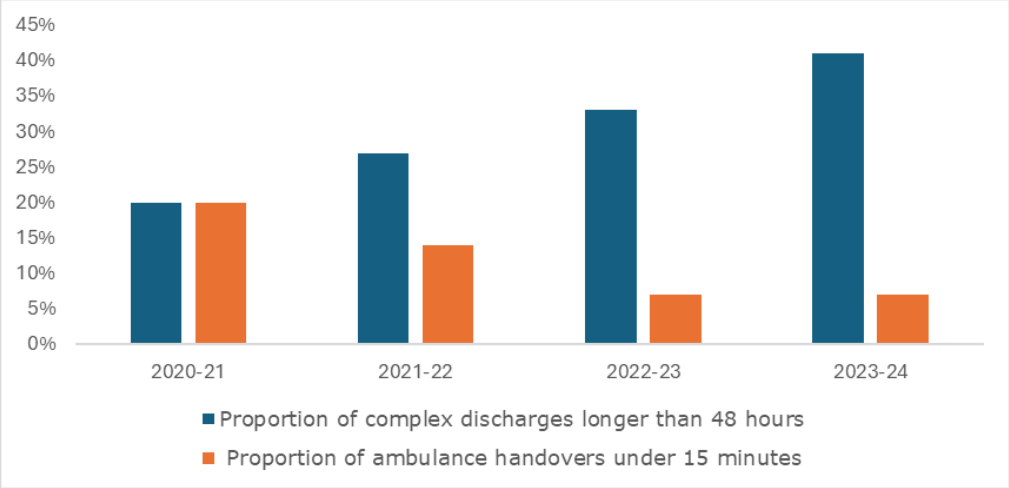
2.27 Performance against the six-hour simple discharge target[3] has been much better than complex patient discharge performance. Simple patient discharges also represented between 84 and 85 per cent of all discharges during each year from 2020 to 2024. However, delayed complex discharges, whilst smaller in number, impact to a much greater degree on HSC patient flow. This is because patients requiring complex discharges tend to remain in hospitals for much longer periods of time.

1 While our report focused on ambulance handovers during the period 2019-20 to 2023-24, hospital patient discharge data for 2019-20 was not available for analysis. It should also be noted that patient discharge data assessed focused on target hospitals, which largely relate to the nine hospitals with major EDs.

2 Last year's data for the South Eastern Trust only covers April 2023 to October 2023.

3 This was changed to a four-hour target in August 2023.

Figure 6: As the proportion of complex patient discharges exceeding 48 hours has been increasing, the proportion of timely ambulance handovers has been falling



Source: DoH's Strategic Planning and Performance Group (SPPG)

2.28 Delays in complex hospital discharges are frequently attributable to major difficulties in accessing both care home placements and domiciliary care packages. The available data shows that, between 2020-21 and 2023-24, these factors combined were linked to between 60 and 66 per cent of delayed complex discharges.

2.29 From 2020-21 to 2023-24, the proportion of complex hospital discharge delays that were due to difficulties in accessing care home placements ranged between 25 and 34 per cent.[4] Meanwhile, the proportion of these delays attributable to challenges in accessing domiciliary care packages ranged from 29 per cent to 37 per cent **(Figure 7)**.

Figure 7: Over 60 per cent of delayed complex hospital discharges relate to issues in either accessing care home placements or domiciliary care packages

Year	Care home placements	Domiciliary care packages	Combined total
2020/21	29%	32%	60%
2021/22	25%	37%	62%
2022/23	30%	36%	66%
2023/24	34%	29%	63%

Source: DOH (SPPG)

4 It should be noted that we included cases in this percentage where care homes were clearly referenced in connection with the delay of the complex discharge. It is possible that some additional cases of delay, where such an explicit reference has not been made in assessed data, also in some way relate to challenges in accessing care home placements. This is also applicable for the domiciliary cases referenced in the next sentence in the report.

These challenges result in patient flow problems in emergency departments which then impact ambulance handovers

2.30 The problems with discharges result in poor ED waiting times because they limit the availability of the necessary staff and bedspace in hospitals. The latest figures show extremely high ED waiting times in NI.

2.31 From July 2024 to September 2024, NI saw 21 per cent of patients waiting more than 12 hours in EDs. This became the worst quarter on record in NI. By contrast, from July 2017 to September 2017, NI recorded just 1 per cent of patients waiting this long in EDs before being admitted into the hospital or discharged[5].

2.32 From July 2024 to September 2024, almost 32,000 people waited longer than 12 hours in EDs in NI. This is 19 times more people than waited this long in EDs from July 2017 to September 2017. Such substantial delays in EDs significantly limit the speed at which paramedics in NI can complete their handovers of patients to ED staff. It is also concerning because when ambulance handovers of patients occur into over-crowded EDs, positive patient experiences are unlikely[6].

Reasons for handover delays are not recorded by NIAS in all cases

2.33 Data which NIAS has recently commenced gathering also confirms how congestion in hospitals and unavailability of staff and medical facilities significantly contributes to delayed ambulance handovers. In both 2022-23 and 2023-24, around 70 per cent of cases where NIAS recorded reasons for delays, were impacted by these factors.

2.34 NIAS did not record reasons for delayed handovers in 29 per cent of cases in 2022-23 and 42 per cent in 2023-24. It is important that where possible, NIAS record reasons for delayed handovers. However, more complete monitoring of this area, whilst beneficial, will only likely reinforce the already clear finding that patient flow issues across the HSC system are a key influencing factor on ambulance handover performance. This also underscores that NIAS, by itself, can only take limited steps to improve the current ambulance handover situation, and that major improvements also need to be delivered by hospitals in HSC Trusts.

5 Data from the Royal College of Emergency Medicine (RCEM).

6 Data from RCEM.

Part Three:

The impact of delayed ambulance handovers

Part Three: The impact of delayed ambulance handovers

Deteriorating ambulance handover performance is placing a significant and increasing number of patients at potential risk of harm or even significant harm

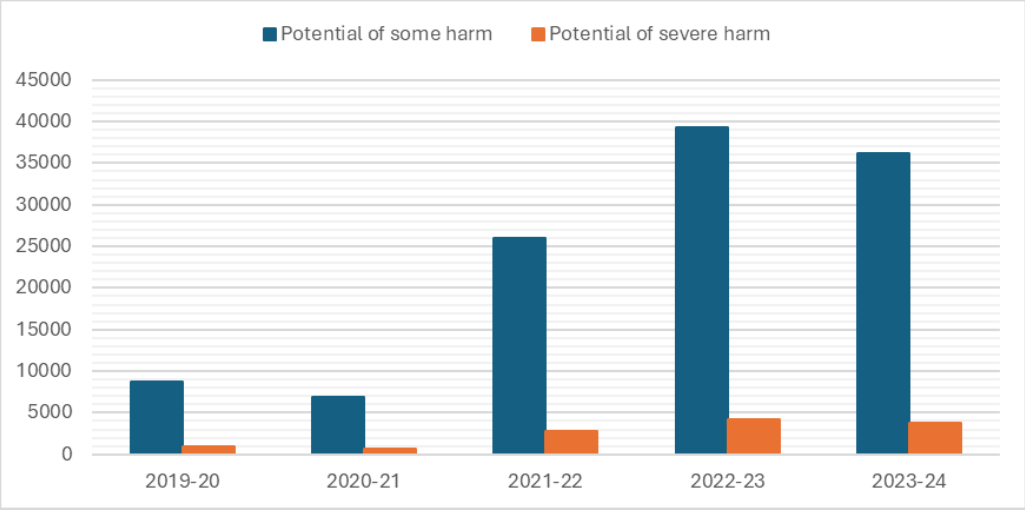
3.1 The Association of Ambulance Chief Executives (AACE) published a report in November 2021 which outlined the results of an expert clinician-led structured review it had commissioned to assess "the potential harm that patients experience as a result of extended delays in their handover between ambulance and hospital clinicians". A key purpose of this review was to enable providers to work together to reduce the patient safety risks inherent in ambulance handover delays.

3.2 Overall, the review concluded that "the proportion of patients identified as experiencing actual or potential harm is significant". It estimated that 85 per cent of patients whose ambulance handover was delayed beyond one hour were assessed as potentially experiencing some level of harm, with 9 per cent potentially subject to severe harm.

3.3 Based on these findings and conclusions, the worsening ambulance handover performance in NI strongly suggests that the likelihood of local patients potentially experiencing harm, including severe harm, has increased substantially.

3.4 Applying the AACE findings to the available local handover data suggests that in 2023-24 there were around 36,300 instances when patients potentially experienced some harm and 3,800 occasions when patients were potentially subject to severe harm **(Figure 8)**. In total, based on the AACE research, more than 12,000 people in NI may have been subject to severe harm in the last five years as a result of delayed handovers. It should also be noted that these figures only reflect patients whose handovers to hospitals have been delayed and do not take account of patients in the community who experience delays in ambulances responding to calls due to vehicles sitting outside EDs. As such, an even higher number of patients could be impacted.

Figure 8: The likelihood of harm being caused to patients through delayed ambulance handovers has risen substantially since 2019



Source: NIAO using NIAS performance data and ACCE research findings

3.5 The AACE report also found that "the longer the patient waited, the greater the likelihood they would experience some harm, and the severity of that harm increased over time". This is acutely relevant in NI, given that the number of ambulance handovers here which took longer than three hours has increased so sharply, from just over 400 in 2019-20 to just over 11,000 in 2023-24.

3.6 Further AACE findings suggested that delayed handovers meant older patients were more likely to experience harm, and that people with multiple co-morbidities were also at an increased risk of both harm and severe harm. This is again significant as both groups are likely to use ambulances at a significant rate. However, it should be acknowledged that when ambulance handovers of patients occur into over-crowded EDs, positive patient experiences are unlikely.

3.7 It is also notable that the number of Serious Adverse Incidents (SAIs) recorded by NIAS, which the service has attributed to delays in responding to patients, has risen considerably in recent years. In 2020-21, eight of these SAIs were recorded. The number of these cases has consistently increased annually since then, with 35 recorded in 2023-24.

3.8 Although it is not possible to further disaggregate these SAIs to specifically identify the numbers directly related to ambulance handover delays, we consider it plausible that links exist between these and the rising SAI trends.

Delayed ambulance handovers since 2019-20 have led to costs for NIAS of £50 million along with significant operational capacity wasted

3.9 The deteriorating handover performance levels have also had implications for NIAS operational efficiency. These have become increasingly significant since 2019-20. In both 2019-20 and 2020-21, 14 per cent of NIAS' operational capacity (working crew and ambulance staff) was lost due to ambulance handovers taking longer than the 15-minute target. This lost capacity increased to 22 per cent in both 2021-22 and 2022-23. Most recently, it has risen again, with 25 per cent (one quarter) of NIAS' operational capacity lost in 2023-24 due to handover delays.

3.10 This has considerable financial implications for NIAS. Between 2019-20 and 2023-24, the failure to meet ambulance handover targets has led to a total loss of £50 million to the service due to crews and ambulances being delayed outside EDs. These losses have been increasing year-on-year, from £7.3 million in 2019-20, to £13.2 million in 2023-24 **(Figure 9)**.

Figure 9: The loss of both operational resources and financial losses to NIAS due to delayed handovers has risen substantially since 2019-20[7]

Year	Percentage of operational resources lost	Financial losses (£) million
2019-20	14	7.3
2020-21	14	7.2
2021-22	22	11.1
2022-23	22	11.4
2023-24	25	13.2
Total	N/A	50.2

Source: NIAS

Delayed ambulance handovers also impact on the ability of NIAS to respond in a timely manner to other 999 calls

3.11 The time taken to respond to 999 calls from the public is a further key aspect of NIAS performance, and this has also been significantly impacted by delayed handovers at hospitals since 2019-20. With ambulances increasingly tied up sitting outside EDs for prolonged periods, the ability of NIAS to meet response time targets has been considerably undermined.

3.12 **Figure 10** outlines how NIAS currently categorises and prioritises calls for assistance received from the public.

Figure 10: NIAS' current categorisation of calls received from the public

Call type definitions	Standard	Target
999 Immediately Life Threatening	Category 1	8-minute average response time
999 Emergency – Potentially Serious Incident	Category 2	18-minute average response time
Urgent Problem	Category 3	2-hour average response time to 90th centile of calls
Less Urgent Problem	Category 4	3-hour average response time to 90th centile of calls
Routine	Category 5	N/A

Source: NIAS

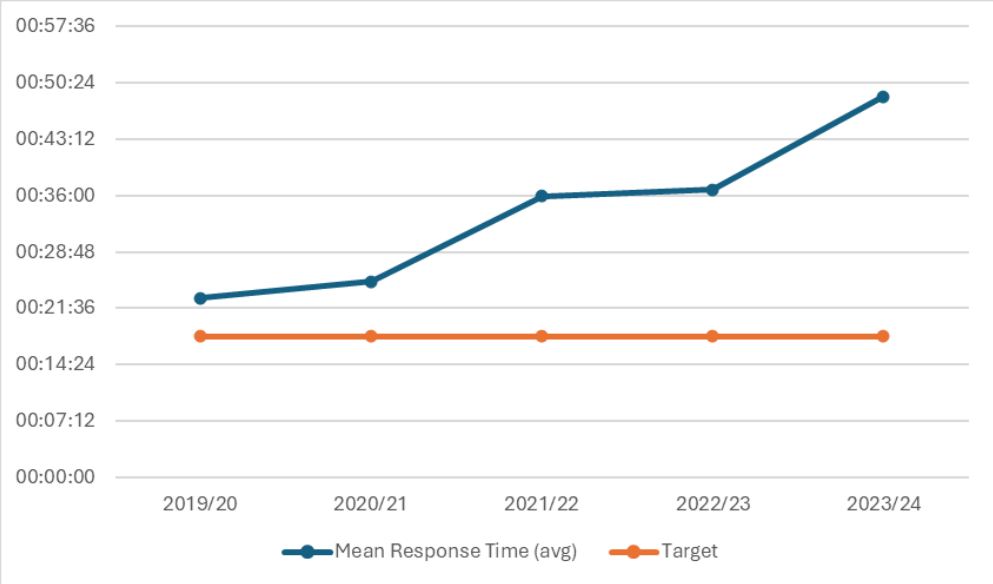
7 Improved data collection and recording methods were adopted by NIAS, in relation to ambulance handovers, from October 2021 onwards. The figures in this section, which predate October 2021, are therefore not as robust as the subsequent figures. However, this data is still sufficiently robust to present an accurate reflection of the statistical trends.

Ambulances are taking longer to respond to Category 2 calls

3.13 NIAS performance in responding to Category 2 calls (emergencies and potentially serious incidents) has seriously deteriorated since 2019[8]. In 2019-20 the average ambulance response time to Category 2 calls was 22 minutes and 55 seconds.

3.14 NIAS performance in response times have worsened each subsequent year, standing at 48 minutes and 35 seconds in 2023-24. The longstanding 18-minute target for average response time to these calls has consistently been missed since 2019-20 **(Figure 11)**.

Figure 11: Average ambulance response times to Category 2 calls have not met the 18-minute target since 2019-20



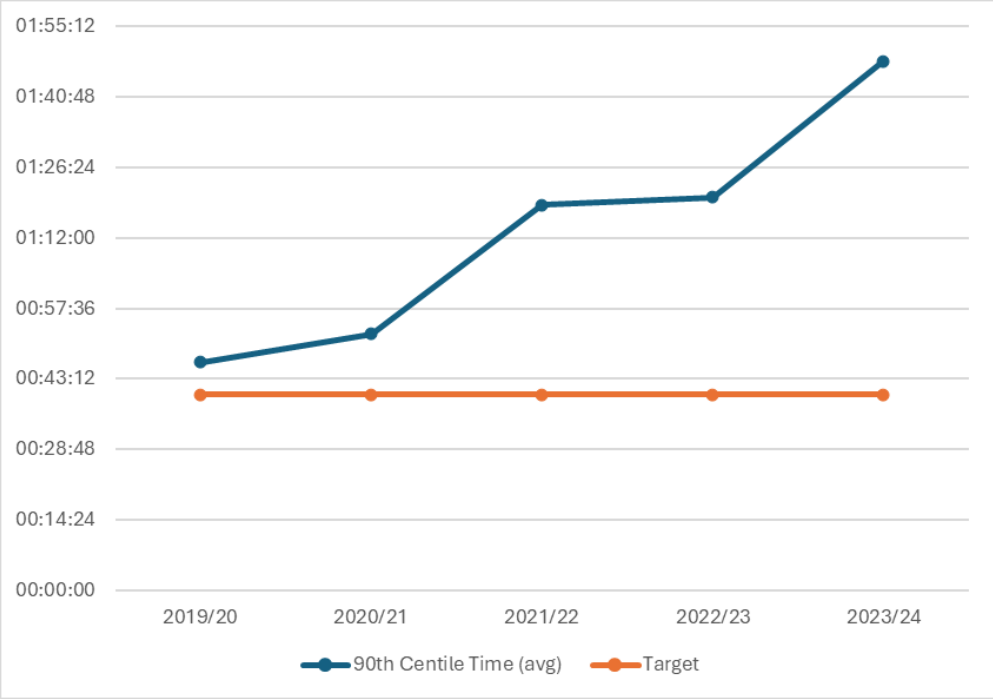
Source: NIAS.

3.15 Underlying the overall trends, average response times for the 90th centile of Category 2 cases have also increased annually since 2019-20[9]. These have increased from 46 minutes and 39 seconds to just over 1 hour 48 minutes in 2023-24 **(Figure 12)**.

8 Ambulance call response data for the entirety of 2019-20 is not easily comparable with the following years' data assessed in this report because of changes to call categorisation by NIAS. Therefore, all statistics relating to ambulance call responses in 2019-20 only repre sent the period December 2019 to March 2020 when data is comparable with following years.

9 90th centile means the cut-off data point at which 90 per cent of the data falls below, whilst 10 per cent remains higher than.

Figure 12: Average ambulance response times to 90th centile of Category 2 calls have also increased since 2019-20



Source: NIAS

Responses to both urgent and less urgent calls are getting slower

3.16 NIAS response performance for both urgent (Category 3) and less urgent (Category 4) calls has exhibited similar downward trends between 2019-20 and 2023-24.

3.17 The target for average response times for the 90th centile of Category 3 calls throughout this period is 2 hours. This target was never met by NIAS in the period examined. Performance has been progressively worse each year up to 2023-24 when the longest average response times for the 90th centile of Category 3 calls was recorded, at 5 hours 51 minutes.

3.18 For Category 4 calls, the target for average response times for the 90th centile of cases is 3 hours. This was achieved only once during the period examined (2020-21) but has worsened every year since then, with 2023-24 recording an average response time of 7 hours, 7 minutes and 52 seconds for 90th centile of these cases.

3.19 It should also be noted that demand has not increased greatly during this period. Between 2019-20 and 2023-24, the annual number of calls received by NIAS has fluctuated slightly, with around 200,000 (2019-20) being the lowest number of annual calls received and 222,000 (2021-22) being the highest.

3.20 Category 1 calls are those which NIAS deems to be immediately life threatening. In contrast to other call categories, ambulance response times to these calls have remained relatively steady between 2019-20 and 2023-24. However, the Category 1 targets for both average ambulance response times and the average ambulance response times to the 90th centile of cases have still been missed each year.

3.21 The target response to Category 1 calls is 8 minutes. Throughout the five years examined, the average ambulance response times has ranged between 10 minutes 19 seconds (2020-21) and 11 minutes 26 second (2023-24). Furthermore, the average ambulance response times to the 90th centile of cases has ranged between 20 minutes 1 second (2020-21) and 22 minutes 13 seconds (2023-24) when the target is 15 minutes.

3.22 While the targets have not been achieved in relation to Category 1 calls at any stage during this period, in relative terms, standards have not dropped as sharply as responses to Category 2,3 and 4 calls.

3.23 The number of recorded incidents where a patient has passed away while awaiting an ambulance has also increased every year since 2020-21. There were 31 such cases in 2023-24, which is almost eight times the number in 2020-21 when four of these deaths were recorded.

Recommendation 1

Ambulance handover delays in Northern Ireland are unacceptable. They have worsened significantly in recent years and are causing harm to patients and to public finances. Each HSC Trust (hospital and NIAS) must work collaboratively to implement decisive measures to improve ambulance handover performance as a matter of urgency.

NIAS has become increasingly reliant on unregulated private sector ambulances

3.24 The considerable impact of delayed ambulance handovers on NIAS' operational capacity has also led to it becoming increasingly reliant on the private ambulance sector to address gaps in service provision.

3.25 This includes providing relief cover at EDs, whereby privately operated ambulances arrive outside EDs, transfer patients from NIAS ambulances, and look after them until the handover to the ED is completed. This releases NIAS ambulances and crews to respond to other calls and service priorities.

3.26 In 2019-20, NIAS commissioned private sector ambulances to provide relief at EDs on just over 20 occasions. However, by 2021-22 this had risen to just over 400 occasions, and in 2022-23, NIAS commissioned such vehicles to provide relief at EDs on almost 1,600 occasions. This then reduced, but remained high, at just over 1,100 occasions in 2023-24.

3.27 NIAS also commissions privately operated ambulances for two other main purposes. The sector plays a role in emergency conveyance of patients (i.e. responding to 999 calls) having been used by NIAS for this purpose on between 9,600 and 13,700 occasions annually. It has also provided planned transport (i.e. routinely transferring patients from one location to another) on between 1,000 and 2,400 occasions annually during this period **(Figure 13)**.

Figure 13: The use of private ambulances to provide relief at EDs has risen significantly

Service type	2019-20	2020-21	2021-22	2022-23	2023-24
Planned transport	1,023	2,432	1,672	1,421	1,660
Emergency conveyance	10,649	13,681	11,409	9,609	11,771
Relief at ED	21	39	425	1,596	1,107

Source: NIAS

3.28 In England "any vehicle designed or modified to transport people who need treatment" (including private sector ambulances) are subject to regulation by the Care Quality Commission. However, no similar regulatory arrangements have been established to date in NI, despite NIAS having become increasingly dependent on the sector in recent years to provide services.

3.29 As such, there is no formal regulatory system for ensuring local private ambulance providers meet the following standards on an ongoing basis:

- good governance arrangements;
- train and recruit staff properly;
- adhere to cleanliness and hygiene requirements;
- adopt adequate safeguarding standards;
- have good medicines management;
- possess the necessary vehicles and equipment;
- have appropriate infection control measures; or
- learn from serious incidents or maintain records efficiently.

3.30 While NIAS has a framework agreement which the private ambulance sector service providers must sign up to, and which requires a commitment to certain standards, this does not represent a formal system of regulation.

Recommendation 2

Given the increasing reliance on the private ambulance sector, the Department should take immediate action to improve oversight and regulation of this sector, taking account of the best practice requirements in England.

Expenditure on private ambulances has increased significantly

3.31 As the use of the private ambulance sector has increased, NIAS expenditure on commissioning providers has also risen significantly. It spent £1.31 million on commissioning vehicles to provide relief at EDs and the emergency conveyance of patients in 2020-21, which is less than the previous year when it spent £2 million for these purposes.

3.32 However, these costs have increased annually since then, reaching £3.6 million in 2023-24 (175 per cent higher than in 2020-21). This mainly reflects a rising dependence on the sector to provide cover outside EDs whilst in contrast use of the sector for emergency conveyance has stayed relatively stable.

3.33 Total NIAS expenditure on using the sector to provide both emergency and non-emergency related services, including routine patient transfers, has increased by 41 per cent between 2019-20 and 2023-24 from £4.9 million to almost £7 million. Underlying this, spend on emergency services has increased over this period by 83 per cent. Whilst spend on non-emergency services has fluctuated, it was 13 per cent higher in 2023-24 compared to 2019-20 **(Figure 14)**.

Figure 14: NIAS spend on the private ambulance sector for emergency related service provision has risen steeply

Year	Spend on emergency services (£ million)	Spend on non-emergency services (£ million)	Total spend (£ million)
2019-20	1.97	2.97	4.93
2020-21	1.31	2.75	4.06
2021-22	2.91	6.42	9.33
2022-23	3.02	5.88	8.90
2023-24	3.60	3.36	6.97
Percentage increase 2019-20 to 2023-24	82.7%	13.1%	41.4%

Source: NIAS

3.34 Despite having had to significantly increase its reliance on the private ambulance sector for providing relief at EDs, this has not helped deliver improved performance levels in relation to ambulance handovers, and the time taken to complete these has instead continued rising.

Recommendation 3

Given the significant ongoing reliance and associated expenditure on deploying the private ambulance sector, it is important that NIAS assesses if this represents best value for money or whether building additional in-house capacity would represent a better and more sustainable use of resources.

Lengthy handover delays cause significant disruption to ambulance staff deployment and shift planning

3.35 Another outworking of delayed ambulance handovers is that they result in ambulance staff working longer hours than they were initially scheduled to. This frequently results in NIAS incurring overtime costs.

3.36 Between 2019-20 and 2023-24, NIAS has made payments to its staff of almost £37.8 million for working overtime. The lowest annual amount paid out during this period was just over £6.4 million in 2019-20. This rose to almost £7.5 million in 2020-21 and over £7.8 million in 2021-22, but then increased to almost £9 million in 2022-23. However, overtime costs did more recently reduce to just over £7 million in 2023-24.

3.37 Overtime costs incurred by NIAS are attributable to a range of factors and cannot be solely attributed to handover delays. However, meeting the handover targets would contribute to notably reducing overtime costs.

3.38 Overtime results in delays to upcoming planned shift patterns for paramedics as staff receive compensatory rest hours (CRHs). These hours represent the time between when staff are initially scheduled to commence their shift and when they actually begin working following overtime, due to the 12-hour rest requirement.

3.39 An interim agreement between NIAS and trade unions requires that all NIAS ambulance staff have a 12-hour break before commencing a new shift to mitigate the impact of late staff finishes which the unions have highlighted as a safe staffing issue.

3.40 NIAS has only recently begun official recording of CRHs with no reliable data prior to 2023-24.

3.41 However, in 2023-24, NIAS recorded that its staff had 5,214 CRHs. This equates to the service having to plan for and administer, on average, over 14 CRHs per day, representing considerable unavailable staffing resources. If ambulance handover performance in NI could be improved, this would again contribute notably to reducing the number of CRHs amongst NIAS staff.

3.42 The evidence shows that a greater number of CRHs have been recorded at NIAS deployment stations which have a greater distance to travel to EDs than those stations which are located closer to EDs. This is because, when crews finish, it takes them longer to return to their stations.

3.43 For instance, crews from Downpatrick, Omagh, Dungannon and Cookstown all recorded the highest number of CRHs from January 2023 to September 2024. These stations are all in rural areas. By contrast, all the ambulance stations in Belfast have recorded lower than average CRHs. This highlights how many rural stations are, therefore, disproportionately impacted by the disruption caused by CRHs to the management of staff shift patterns. Capacity lost in CRHs, in turn, impacts more significantly on response times to calls in rural areas.

NIAS has failed to meet staff sickness absence targets in recent years and delayed ambulance handovers likely contribute to this

3.44 While NIAS met staff sickness absence targets in 2019-20 and 2020-21, these have been missed in all subsequent years up to 2023-24, at a time when ambulance handover performance has also been worsening. **Figure 15** outlines both the NIAS sickness absence targets and actual absence levels between 2019 and 2024. Aside from 2020-21, it demonstrates a consistent increasing annual trend in sickness absence.

Figure 15: NIAS has not achieved its sickness absence targets in the last three years

Year	NIAS sickness absence target %	NIAS sickness absence levels %
2019-20	10.92	10.49
2020-21	9.77	8.00
2021-22	7.55	10.77
2022-23	10.12	12.30
2023-24	11.24	14.64

Source: NIAS

3.45 In contrast to NIAS' 14.64 per cent sickness absence rate in 2023-24, the highest sickness absence rate recorded by the Welsh Ambulance Services University NHS Trust during any month that year was 9.66 per cent. In England's ambulance Trusts, the highest sickness absence rate recorded in any month during the latest year was 7.78 per cent.

3.46 Whilst there are numerous factors that impact on staff absence, evidence collected during our audit has highlighted how these issues are partly linked to delayed ambulance handovers. For instance, in 2021-22, NIAS staff were missing rest periods during their shifts because of handover delays. Moral distress was also experienced by ambulance crews and control room staff, who felt unable to provide good standards of care, with mental health-related sickness a major reason for absence.

3.47 In addition, in 2023-24 mental health-related sickness was a cause of approximately one-third of all staff absence in NIAS. The service has said its sickness absence levels are "at the highest levels" in comparison with HSC and NHS Trusts.

3.48 NIAS has also said "despite improved absence management and health and well-being initiatives being in place to support staff to return to work... hospital turnaround times resulting in late finishes and missed rest breaks are undoubtedly contributing to the current higher than normal sickness absence levels".

3.49 However, it should be noted that since 2023-24, attendance management has continued to be a high priority area for NIAS, with significant focus and escalated performance management and oversight. A particular focus on line manager leadership with related training, support and performance processes along with work related to occupational health support and redeployment processes has secured notable recent improvements. At November 2024, absence levels stood at 10.44 per cent which whilst still high, was significantly lower than the previous year.

Recommendation 4

It is crucial that recent work done by NIAS to reduce its sickness absence rate is sustained and improvements continue to be made in line with peers elsewhere in the UK.

Part Four:

Best practice and the GIRFT report

Part Four: Best practice and the GIRFT report

Some Trusts in England have significantly improved their ambulance handover and wider emergency flow performance

4.1 We sought to identify best practice introduced across England in recent years around hospitals and Trusts taking steps and working with local ambulance services to try and minimise handover times and achieve successful outcomes. Our liaison with AACE highlighted three specific examples (Berkshire, Salford and North Tees Trusts).

4.2 The AACE analysis of these cases shows that:

- in 2022-23, Berkshire has recorded just over 5 per cent of ambulance handovers taking over one hour;
- from April 2018 until March 2023, Salford has had just under 5 per cent of such handovers and
- North Tees achieved the best performance of the three English cases, with just under 1 per cent of ambulance handovers taking over one hour in 2022-23.

4.3 In comparison, in 2023-24, 34 per cent of ambulance handovers in NI took longer than one hour.

4.4 These positive performance levels have been achieved despite the three Trust areas having to regularly deal with proportionately more ambulance handovers than the national average in England.

4.5 The strong performance has been attributed to a range of factors, many of which are linked to a positive approach adopted by senior leadership and staff which can help to reinforce collaborative working and a positive culture around it being safer for patients to be admitted to EDs than left in ambulances for extended periods. These factors are summarised in **Figure 16**.

Figure 16: A range of factors have contributed to improved and effective ambulance handover performance at Berkshire, Salford and North Tees Trusts

- senior hospital leadership working twilight shifts;
- a 'director of the day' working onsite every day;
- all specialist doctors spending some working time in EDs;
- a zero tolerance of corridor care in EDs;
- flexible working arrangements which mean staff can move between different areas of hospitals as required;
- EDs which operate zonal care;
- dedicated, appropriately proportioned areas outside EDs for ambulances to arrive;
- suitably qualified staff on hand to meet ambulances;
- senior nurses and doctors taking the lead on managing ambulance handovers;
- early patient diagnostics; and
- ED staff and ambulance crews having access to 'stream' patients to a wide range of services in hospitals.

Source: AACE

4.6 AACE has also identified approaches within these Trusts which have helped limit the numbers of patients coming to EDs. These include:

- hospital staff engaging with GPs to establish if patients should attend EDs;
- a wide range of alternative care pathways being available to ambulance services;
- community response teams capable of providing a wide range of services; and
- suitable technology which enables leadership to take informed, strategic decisions.

4.7 In addition to these three cases, our fieldwork identified Walsall Healthcare NHS Trust as having achieved significant performance improvements in recent years in both ambulance handovers, and in the wider sense hospital patient flow over the last three to four years. For example:

- just over 90 per cent of ambulance handovers have been completed within 30 minutes over the last three years, and the Trust is consistently ranked first or second of 14 West Midland Trusts for this metric;
- the Trust is now in the best performing quartile nationally for the majority of Summary Emergency Department Indicator Table (SEDIT)[10] indicators; and
- the Trust has gone from being in the longest national quartile for non-elective length of stay in 2019-20 to the shortest quartile in 2023-24.

4.8 In summary, the steps which the Walsall Trust has taken to help achieve high performance levels span four main themes:

- culture, leadership and ownership approach to admitting patients to ED – central to this is a recognition that the patient who has dialled 999 and needs conveying to hospital is the Trust's patient and that it is their responsibility to ensure they are promptly handed over to ED;
- providing a range of effective alternatives to EDs;
- workforce growth and development; and
- taking effective steps to ensure good patient flow out of EDs.

Recommendation 5

This report has identified examples from elsewhere in the UK where handover performance has been positive. There have also been some minor improvements in local ambulance handover performance identified earlier in the report. Any learnings and good practice from elsewhere and locally should be identified by HSC Trusts and DoH, and incorporated into action plans to reduce ambulance handover delays across Northern Ireland.

10 SEDIT is an online tool developed by GIRFT which assists emergency departments in managing capacity and patient flow measures.

DoH commissioned experts to undertake a review of Emergency Medicine, but to date, its report has not been formally published

4.9 The Getting It Right First Time (GIRFT) project is a UK-wide programme which aims to improve patient treatment and care across the public healthcare system. It involves comprehensive reviews of various services and medical specialities, benchmarking performance between regions and the presentation of data-driven evidence to facilitate positive change.

4.10 The GIRFT reviews combine wide-ranging data analysis with the input and professional knowledge of senior clinicians within its project team, to examine how services are performing and how they could be improved.

4.11 In June 2023, DoH's Strategic Planning and Performance Group (SPPG) commissioned the GIRFT project team to review Emergency Medicine in NI. This review was completed through the GIRFT project team visiting all the EDs referenced in our report, during two visits to NI in June 2023.

4.12 The GIRFT project team finalised its report in January 2024. However, this has not yet been formally published by DoH. Decision-making in relation to publication remains a matter for the Health Minister. Nonetheless, as part of our study, we have accessed and reviewed the final version of the report.

4.13 In summary, the report identified three main problems currently impacting on the delivery of urgent and emergency care in NI:

- ambulance handover delays;
- ED exit block for patients requiring hospital admission; and
- poor patient flow in hospitals.

Key issues identified by the GIRFT team around ambulance handovers and emergency care flow are consistent with our review's analysis

4.14 The GIRFT report found that delays in the urgent and emergency care system throughout NI are "almost certainly causing harm". It cited how ambulance handover delays significantly contribute to poor ambulance response times, referencing this as "clearly the biggest single risk to patients in the emergency care system of Northern Ireland". This reflects and reinforces the findings of our review.

4.15 GIRFT also referenced how poor patient flow is often being caused by hospital exit block for patients who require social and community care, concluding that the current urgent and emergency care system is unsustainable and wasteful. These observations again mirror our conclusions.

4.16 Importantly, the GIRFT team cited prevailing attitudes, behaviours and cultures in hospitals as the most important issues impacting performance levels in the urgent and emergency care system in NI. This is a key point as the success achieved within the best practice case studies we identified, relating to ambulance handovers and patient flow in England (paragraphs 4.1 to 4.8), have largely been within hospitals and Trusts which have demonstrated a pro-active and committed leadership approach to improving ambulance handover and patient flow performance.

4.17 In addition to producing a report, DoH also commissioned the GIRFT project team to create the Summary Emergency Department Indicator Table for Northern Ireland (SEDIT-NI) Overtime. The SEDIT-NI database highlights how, in respect of 'demand' for urgent and emergency care services and the actual 'capacity' of those services to cope with demand, NI's EDs compare well with EDs in England and Wales.

4.18 Despite this, the database also shows that in terms of the 'flow' of patients throughout the urgent and emergency care system, and 'outcomes' for those patients, NI EDs compare unfavourably with those in England and Wales. Our own comparison has also shown how ambulance handover performance in NI has consistently been worse than in England and Wales.

4.19 Our analysis shows that many of the issues in NI are not due to insufficient capacity to manage demand presenting at hospitals but rather are the result of poor flow through the hospitals. Solutions to these issues must be resolved not solely by EDs, but by collaborative working across the whole Trust and HSC sector.

The GIRFT report made recommendations for improving both the overall emergency care system and for NIAS

4.20 The GIRFT team made a number of recommendations for the overall HSC system to improve the urgent and emergency care system in NI, together with 'local' recommendations for specific EDs. The overall recommendations include introducing improvements to the social care and community care systems, improving the flow of patients through the hospital system and diverting patients away from EDs who could be effectively treated elsewhere.

4.21 The GIRFT report also recommended that NIAS should improve its performance through addressing a series of specific points. These largely related to limiting the rate of conveyance of patients to EDs, by:

- making increased use of 'hear and treat' and 'see and treat' methodologies;
- making increased use of alternative care pathways instead of EDs; and
- having a more robust and accessible 'directory of services' which NIAS crews should, in turn, also make greater use of.

4.22 The GIRFT report also highlights issues with patients attending EDs at hospitals which don't have the required services for their needs. For example, there is no on-site trauma and orthopaedics service in Antrim Area Hospital. Patients with fractured hips, therefore, often wait days in ED corridors in Antrim before being transferred to the Royal Victoria Hospital.

4.23 GIRFT recommended that each hospital with major EDs should have an "adequate range of medical specialties". However, it also said in cases where specialties aren't available at such hospitals "there should be clear, time-specific transfer agreements" with other hospitals which have these services. Furthermore, GIRFT said bypass arrangements should be in place, where necessary, for NIAS paramedics to use. This supports them to avoid bringing patients with specific needs to certain EDs whose hospital cannot treat them effectively.

4.24 While not all patients can have a definitive diagnosis prior to being conveyed to hospital, many can. The current situation is unlikely to lead to the best care for some patients and increases the impact on NIAS. This is because the service is often required to initially take patients to EDs and later transport them again to an alternative hospital where they can receive appropriate treatment.

4.25 The GIRFT team stated that its "recommendations should be easily achievable and they have already been largely agreed with stakeholders". However, to date, neither DoH nor the Trusts have published responses to the GIRFT report.

Recommendation 6

Each HSC Trust must ensure their plans in response to the GIRFT report achieve effective and sustained outcomes. Improving attitudes, behaviours and cultures should be central to these plans. DoH must ensure that Trusts abide by this.

Part Five:

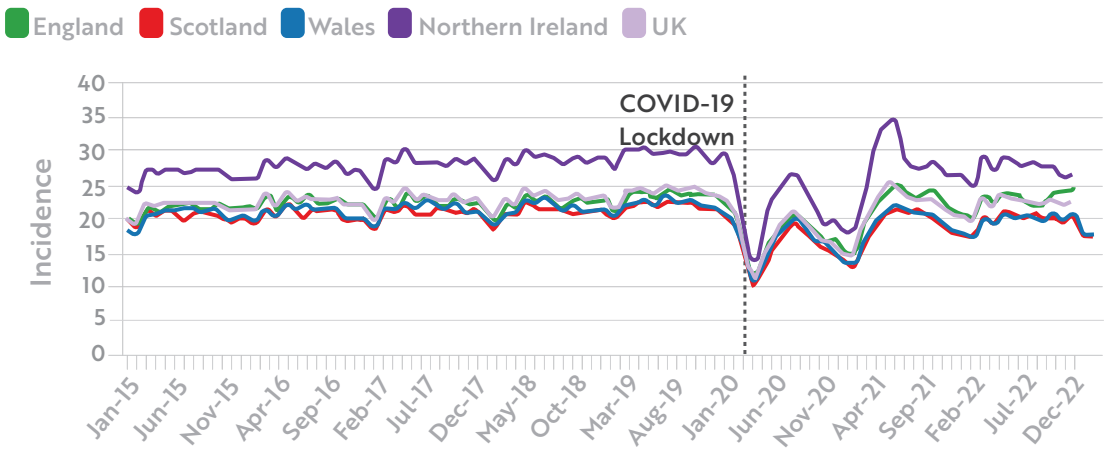
Action by NIAS to address delayed ambulance handovers

Part Five: Action by NIAS to address delayed ambulance handovers

Northern Ireland has the highest rate of emergency department attendance per head of population in the UK

5.1 NI has long had the highest rate of ED attendance per 1,000 population **(Figure 17)**. The majority of attendees are`walk ins' with a smaller number of patients conveyed to ED by NIAS. However, our review sought to assess whether NIAS has taken steps to try and reduce the proportion of patients it brings to EDs, and the effectiveness of any measures introduced in contributing to easing pressures on the emergency care system.

Figure 17: Type 1 ED attendances, per 1,000 population of each UK nation



Source: RCEM

The rate of use of alternative care pathways has not increased since 2019-20

5.2 NIAS began implementing the use of alternative care pathways in 2017. These were aimed at diverting patients away from EDs who could be suitably treated elsewhere, including in community or medical facilities. Alternative care pathways include using minor injuries units, treatment for falls, out-of-hours palliative care, community respiratory teams, and treatment for diabetes and epilepsy.

5.3 It was envisaged that using these pathways would have the dual benefits of improved treatment options for patients and helping reduce pressure on the urgent and emergency care system by limiting the rate at which ambulance crews conveyed patients to EDs. In turn, this also aimed to support better ambulance handover performance.

5.4 However, our review found that the proportion of emergency calls to NIAS which result in alternative care pathways being used has not increased since 2019-20. Analysis of NIAS data shows that in that year, 3 per cent of emergency calls led to alternative care pathways being utilised.

5.5 This was unchanged in 2021-22 when 3 per cent of emergency calls to NIAS resulted in alternative care pathways being used.[11] This rose to 4 per cent in 2022-23 but dropped to 2 per cent in 2023-24 **(Figure 18)**. Analysis of the latest data suggests NIAS continues to convey patients to EDs at a significantly higher rate than the UK average.

Figure 18: The proportion of emergency calls leading to alternative care pathways was lower in 2024 than in 2019

Year	Percentage of Emergency Calls to NIAS resulting in Alternative Care Pathways being used
2019-20	3%
2020-21	N/A
2021-22	3%
2022-23	4%
2023-24	2%

Source: NIAS

5.6 Alternative care pathways are accessed by NIAS executing 'hear and treat' or 'see and treat' outcomes for patients. 'Hear and treat' involves trained paramedics managing calls remotely through telephone triage to try and determine if they can utilise an alternative care pathway and limit conveyance of patients to EDs. A similar approach is used by paramedics who arrive at incidents, through applying clinical skills to determine a 'see and treat' outcome to try and find alternatives to ED.

5.7 Throughout the three-year period, when data is available, the rate at which a 'hear and treat' outcome has been achieved has remained fairly consistent. From 2021-22 to 2023-24, between 4 and 5 per cent of calls had 'hear and treat' outcomes.[12]

5.8 Whilst 14 per cent of calls were referred or discharged through a 'see and treat' outcome in 2021-22, this dropped to 8 per cent in 2022-23 but rose slightly to 11 per cent in 2023-24. Moreover, the rate of immediate conveyance of patients to EDs by NIAS remained high from 2021-22 to 2023-24, ranging between 81 and 88 per cent annually **(Figure 19)**. This is unsurprising, given the limited progress made in increasing capacity and the use of alternative care pathways.

Figure 19: The rate at which NIAS conveys patients to EDs has not reduced notably in recent years

Year	Percentage of patients conveyed to EDs by NIAS
2021-22	81%
2022-23	88%
2023-24	85%

Source: NIAS

11 Data for 2021-22 excludes April and May 2021.

12 Data for 'hear and treat' is not easily contrastable to elsewhere in the UK due to differences in data recording methods.

5.9 Since December 2024, a change in approach has been applied by NIAS with a greater number of senior paramedics overseeing the remote triage of patients and calls to improve 'hear and treat' outcomes. This represents an attempt to increase the proportion of incidents being handled using this approach. The purpose of this is to reduce the rate of conveyance to EDs by increasing the use of alternative care pathways in these cases.

5.10 This change of approach has meant NIAS has had to seek to enhance the staffing complement of the team responsible for handling 'hear and treat' calls. Previously, the team had 12 staff members. Whilst recruitment is still ongoing, the intention is that this will ultimately be increased to around 30 staff by October 2025.

5.11 In conclusion, we found little evidence that the rate of use of 'hear and treat' and 'see and treat' outcomes by NIAS has been increasing in recent years, or that the application of these approaches have been increasingly effective in both utilising alternative care pathways for patients and limiting the rate of conveyance of patients to EDs.

5.12 Since their introduction, it is also evident that these approaches have not led to any improved ambulance handover performance. It must be acknowledged though that the revised approach introduced by NIAS to overseeing `hear and treat' and 'see and treat' is still being developed, and that this could ultimately lead to greater use and improved outcomes. This could, in turn, increase the use of alternative care pathways and reduce the rate of conveyance of patients to ED.

5.13 However, NIAS told us that to realise the improvements of both 'hear and treat' and 'see and treat', it is imperative that the capacity within these services is available for NIAS to utilise throughout NI.

Recommendation 7

NIAS must increase the proportion of patients it refers to alternative care pathways and reduce the rate of conveyance of patients to EDs. This should be, in part, achieved by NIAS increasing its use of 'hear and treat' and 'see and treat' methodologies.

Recommendation 8

HSC Trusts must ensure the capacity of their alternative care pathways are increased, where necessary, to meet NIAS referrals and therefore reduce the pressures on EDs. Referral and acceptance data for alternative care pathways must also be recorded for performance management purposes. To ensure these pathways have maximum impact and improve accessibility, Trusts should work to standardise referral criteria and operational hours across NI.

The GIRFT project team also assessed NIAS' ability to access alternative care pathways

5.14 Following its review of Emergency Medicine in NI, DoH commissioned the GIRFT project team to undertake further work which specifically centred around Alternatives to Emergency Departments (A-tED).

5.15 The A-tED review was undertaken via engagement with NIAS, but without the input of the five other HSC Trusts in NI. It focused on the availability of relevant alternative care pathways which NIAS paramedics have access to. NIAS paramedics currently source details of these alternative pathways through a Directory of Services (DoS) which operates via a digital application.

5.16 The A-tED review was finalised by the GIRFT project team in 2024. Overall, it was critical over the range of alternative care pathways available to NIAS paramedics. The GIRFT team found that the provision of these pathways was either not visible, not commissioned or extremely variable depending on location within NI. As a result, it made six recommendations:

- develop a care coordination model to assist with the navigation to and accessibility of services;
- review the variations across NI to ensure parity of services for all patients;
- review the potential for in-hospital alternatives to ease overcrowding in EDs, and make these directly accessible to NIAS;
- review the provision of community services;
- ensure that all services outside hospital can operate over a longer period; and
- review NIAS' DoS to ensure all services are profiled optimally.

No alternative care pathways are available in many cases when they could conceivably be created

5.17 As part of the A-tED review, the GIRFT project team created various hypothetical patient cases requiring NIAS support to see if these issues could be addressed via current available alternative care pathways. In over half of these cases (15 out of 29), the review found there were no alternative care pathways to EDs. Examples of key gaps identified are summarised at **Figure 20**:

Figure 20: The GIRFT team identified gaps in alterative care pathways available to NIAS

The gaps identified in alternative care pathways included:

- Cases of surgical wound infections.
- Displaced feeding tubes.
- Patients requiring advice about control of diabetes or respiratory conditions.
- Adults relapsing with psychosis.
- Patients with asthma who required a replacement salbutamol inhaler.

Source: GIRFT

5.18 It should also be acknowledged that the A-tED review only involved the GIRFT team engaging with NIAS and analysing NIAS' DoS and other information it provided. It did not include input from any of the other HSC Trusts in NI.

5.19 As such, alternative care pathways may exist in parts of NI which NIAS is not organisationally aware of, which cannot be accessed by its paramedics using the DoS. They, therefore, could not limit the conveyance of patients to EDs and support reduction in ambulance handover times. This highlights the importance of NIAS continuing to liaise with Trusts to confirm that the ambulance service is fully aware of the available range of alternative pathways and Trusts making these fully available to NIAS to use where appropriate.

Many alternative care pathways which exist in Northern Ireland are only accessible in specific regions at certain times

5.20 Of the 32 alternative care pathways currently listed on NIAS' DoS, only nine are recorded as being accessible 24/7 in every HSC Trust region within NI. These relate to diabetes treatment, district nursing, ED waiting rooms, epilepsy treatment, treatment for falls, home fire safety visits, lifeline crisis response helpline, medicines adherence and safeguarding.

5.21 Aside from these services, there are notable limitations in the availability of alternative pathways which are currently listed in the NIAS DoS. For instance, whilst the community respiratory team operates in every HSC Trust area from Monday to Friday, it is not available on a 24/7 basis in any region and closes at between 15:00 and 17:00 across the Trust areas. There is also no hospital at home pathway, in the Northern Trust, even though it operates elsewhere.

5.22 These limitations mean that even if NIAS were to increase its use of the 'hear and treat' and `see and treat' methodologies, the restricted availability of alternative care pathways means it may encounter difficulties in reducing the rate patients are conveyed to EDs. All available evidence suggests scope exists for NIAS to undertake additional work along with Trusts to improve the availability and accessibility of alternative pathways to its paramedics. If such work is carried out effectively, it could not only help ease congestion at EDs, but also help improve ambulance handover times.

Recommendation 9

In collaboration with each HSC Trust, NIAS must review and update its current Directory of Services for alternative care pathways immediately. This process should be repeated every 12 months to ensure progress is sustained. Where alternative care pathways do not exist across the different HSC Trust areas, DoH must lead collaborative work to address these service provision gaps.

An independent Urgent and Emergency Care (UEC) Review was commissioned in November 2018, but a proposed creation of ambulance handover zones was limited

5.23 The main purpose of the Urgent and Emergency Care (UEC) review, which DoH commissioned in November 2018, was to establish a regional care model for NI In October 2020, DoH's SPPG launched the No More Silos (NMS) Action Plan which built on the learning from the UEC Review and sought to implement some of its emerging findings, while also aiming to respond to COVID-19 challenges. This plan had 10 key actions, one of which focused on 'ambulance arrival and handover zones'.

5.24 This key action stated: "There has been increasing concern about the growing problem of patient handovers from ambulances to Emergency Departments during the pandemic... There should be no doubt that the delays have an adverse impact on patients' experience of the service and may increase risk to patient safety."

5.25 The NMS document highlighted the main problems associated with ambulance handover delays. It cited "increased risk to patients on-site due to delays in diagnosis and treatment, increased risk in the community due to limited NIAS capacity to respond to calls, the ability to respond to a serious or major incident being seriously compromised and reduced ambulance response performance due to lost time".

5.26 To address this, NMS highlighted that EDs "need to put in place arrangements for physical space for the assessment and triage of patients arriving by ambulance" with the five largest EDs (Royal Victoria, Craigavon, Altnagelvin, Ulster and Antrim) needing to "put in place arrangements for space for a minimum of six ambulance arrivals to be handed over as soon as possible".

5.27 However, in practice, no NMS funding allocated by SPPG, to Belfast and South Eastern Trusts, was ever used to develop ambulance arrival and handover zones at either the Royal Victoria Hospital or the Ulster Hospital in the South Eastern Trust.

5.28 **Figure 21** summarises how Trusts used funding, which SPPG allocated, for handover facilities at the other three hospitals in 2021-22 and 2022-23[13].

13 It should also be noted that this funding was non-recurrent.

Figure 21: Whilst £1.3 million of funding was allocated towards ambulance handover zones, their actual operation was very limited

Hospital and Trust	Funding allocated in 2021-22	Funding allocated in 2022-23
Antrim Area Hospital (Northern Trust)	£0.63 million allocated which led to the creation of a five-bed ambulance handover area which became operational in June 2021.	£0.26 million allocated to continue operation of this facility. At April 2022, the Northern Trust planned to develop an additional waiting area for `fit to sit' ambulance patients by June 2022.
Craigavon Area Hospital (Southern Trust)	Almost £0.07 million funding allocated to support the creation of a six-bay arrival bay for ambulances, and a patient handover point plus additional staff to function in this area.	No funding allocated for ambulance handover zones and the handover area did not become operational.
Altnagelvin (Western Trust)	Almost £0.22 million allocated to facilitate the creation of a six-bed ambulance handover area and associated staff to operate it.	Almost £0.16 million allocated to this facility. However, the service was stood up and down depending on whether staffing levels were adequate and it was also used for overspill for mental health patients.

Source: NIAO using DoH information

5.29 The available evidence demonstrates, despite the funding provided, how limited the establishment of ambulance handover zones was in practice. Furthermore, the NMS funding allocated for these was discontinued in October 2022.

5.30 SPPG's letter confirming this did however state: "This does not mean that these key actions are no longer important, and the Minister's clear expectation is that Trusts will continue to prioritise such services as key component parts of the UEC Review. Trusts will need to fund activity in these areas from within own budgets from 1 November 2022 onwards."

5.31 However, NIAS have told us their crews have had very limited opportunities to use handover zones as they are often used as overflow from EDs.

Recommendation 10

HSC Trusts must have well-functioning handover zones at each of their major EDs. These must be used and managed appropriately. Protections must be put in place to ensure these zones are not used as overflow from EDs. DoH should have oversight of this, taking account of evidence from NIAS and HSC Trusts.

Cohorting arrangements in emergency departments are inadequate

5.32 In November 2023, SPPG launched an official protocol called the 'Delayed Ambulance Handover Standard'. This advised NIAS clinicians to actively seek ED staff to identify the most appropriate area where their patient can be left in hospital care. The protocol also stated: "Trusts are required to provide an ambulance handover area which allows the patient to be handed over to the ED team and from the NIAS crew."

5.33 However, if handover zones are not in place and functioning as intended, the NIAS protocol is meaningless. The protocol also advised that "where the Trust is unable to staff a handover area…an appropriate space (Ambulance Cohorting Area) should be provided where one ambulance crew can manage up to four patients, thus releasing three crews to respond to other calls".

5.34 Despite this, NIAS has told us that since February 2020 when the COVID-19 pandemic commenced, there has been no cohorting of patients at any HSC Trust. Such arrangements however were operating prior to this. Limited Trust provision of cohorting arrangements is likely to impede ambulance handover performance.

5.35 The NIAS Protocol was to be implemented by a new team established in December 2023 called the Regional Coordination Centre (RCC). The RCC's roles and responsibilities involve providing regional oversight and daily coordination of unscheduled care pressures at hospital, Trust and regional levels, and communicating changes in regional pressures with NIAS.

5.36 Commissioned by the Trust Chief Executives Group, who have agreed to give delegated authority to RCC to take decisions on behalf of the provider system, it was originally contracted until just March 2024. However, RCC's contract was extended and the group continues to operate.

Recommendation 11

HSC Trusts must develop and agree arrangements for cohorting at each of their major EDs, which both ambulance crews and ED staff can use.

NIAO Reports: 2024

NIAO Reports 2024

Title	Date Published
Tackling the Public Health Impacts of Smoking and Vaping	30 January 2024
Major Capital Projects: Follow-up Report	27 February 2024
Child Poverty in Northern Ireland	12 March 2024
Access to General Practice in Northern Ireland	20 March 2024
Water Quality in Northern Ireland's Rivers and Lakes	25 March 2024
Funding water infrastructure in Northern Ireland	27 March 2024
Budgeting and Accountability	24 May 2024
Review of Waste Management in Northern Ireland	05 July 2024
Continuous Improvement Arrangements in Policing	05 July 2024
Public Bodies' Response to Misrepresented Soil Analysis	05 July 2024
Developing the skills for Northern Ireland's future	18 September 2024
Northern Ireland Non-Domestic RHI Scheme: Progressing implementation of the Public Inquiry recommendations - 2nd Report	15 October 2024
Local Government Auditor's Report 2024	25 October 2024
Managing the Schools' Estate	12 November 2024
Road Openings by Utilities	02 December 2024
Report on Financial Audit Findings 2024 – Central Government	09 December 2024

Northern Ireland
Audit Office

Independence and excellence in audit to improve public services

Northern Ireland Audit Office
106 University Street, Belfast, BT7 1EU • 028 9025 1000 • www.niauditoffice.gov.uk

ISBN 978-1-068589-25-6