An evaluation of the Mental Health Urgent Assessment Centre within Lincolnshire Partnership NHS Foundation Trust (LPFT)

March 2023

Contents

1. Executive Summary

When people are in mental health crisis they are at their most vulnerable. It is essential that they receive the care and support they need as quickly as possible, in a place they can feel safe, and they are supported by people who understand their needs. However, patients presenting to the Emergency Department (ED) in mental health crisis often face long wait times, inappropriate environments and are seen by non-specialist staff. These presentations also put additional strain on already stretched NHS resources.

The Mental Health Urgent Assessment Centre within Lincolnshire Partnership Foundation Trust was designed as a new service delivery model to offer a safe and therapeutic environment for patients experiencing mental health crisis. The aim is to reduce whole system pressures by directing patients away from ED and enabling onward referral and liaison with other co-located Mental Health Services.

To determine whether the project can be adopted and rolled out at further sites, this evaluation utilises both quantitative analysis of MHUAC data and qualitative analysis from patient and staff surveys and interviews to assess the impact on patients and care pathways within the Provider Trust as compared to presentations to ED.

Our analysis has demonstrated that this innovative service delivery transformation has been incredibly well-received by patients and all staff involved in the mental health crisis pathway, with approximately 85% of both staff and patients suggesting this is a better alternative to ED for patients in mental health crisis.

Alongside the extremely positive feedback from staff and patients, there is also evidence to suggest that this pilot has been cost effective. So far, this pilot has seen measurable benefits, such as, a reduction in inpatient attendances (£789,239 saved) and relapses (£61,473 saved). When scaled across the Midlands region, these benefits could reach over £14.4 million annually.

Therefore, we report the MHUAC has a benefit cost ratio of 3.5. This ratio may also still improve with time, with a number of significant benefits, including societal benefits, not possible to quantify at this early stage of the pilot.

Given the significant potential of this initiative, it is important the right processes are in place to maximise the benefits it delivers. To aid with this, the evaluation also generated several considerations to improve the service both at the Lincolnshire site and to aid other Trusts if the MHUAC were to expand to other sites.

These considerations include the processes in place to ensure staff safety, the design of the MHUAC and the process for roll-out. The evaluation also considers the impact of further roll-out or expansion on current workforce shortages. Although found to be both cost-effective and beneficial to both staff and patients, the finite staffing resources cannot be ignored when considering creating new teams and should be fully considered before a MHUAC is deployed at a new trust.

2. Overview of Mental Health Services in Lincolnshire

Diagnosed mental health conditions are growing in prevalence around the UK, with significant health costs associated. These costs grow further when individuals either without a diagnosed mental health condition or those following a treatment plan end up in crisis, described by The Mental Health Foundation as *"an emergency that poses a direct and immediate threat to physical or emotional wellbeing".* Across England in 2021/22 Adult Community crisis care spend alone reached £640.1m[1].

Ensuring patients in crisis receive exceptional care and go on to live healthy, happy lives is essential to lower costs to the health system and wider society. However, it is widely acknowledged that the quality and accessibility of care for people in crisis is highly variable. There remains a parity of esteem between emergency physical and mental health care.

2.1. Service Structure in Lincolnshire

In Lincolnshire, mental health services, both crisis and standard care are provided primarily by Lincolnshire Partnership NHS Foundation Trust (LPFT) with additional services provided by Lincolnshire County Council. Services are set up to both prevent and treat mental health conditions. Simply, this pathway has been identified as[2]:

The focus of this evaluation is the pathway once urgent and emergency access to crisis care is required. In Lincolnshire, crisis and emergency services include, crisis resolution and home treatment teams, approved mental health professionals, inpatient beds, health-based place of safety and a psychiatric intensive care unit.

Many people in urgent need of mental health support present to the Emergency Department (ED) where, if they present with primary or secondary mental health problems, they can get support through a Mental Health Liaison Service or Crisis Resolution and Home Treatment Teams. When detention is required or when concerns for the safety of the individual experiencing a mental health crisis or of others exist, Lincolnshire Police is involved in the crisis support pathway.

2.2. Key Challenges to the Service

In May 2018, a multiagency steering group comprised of partners in Lincolnshire conducted a review of mental health crisis services across the region[3]. The review was initiated to try and solve some of the key challenges facing crisis services in Lincolnshire. There had also been intelligence that suggested that mental health crisis services were not configured to meet the needs of local people experiencing crisis.

2.2.1. Rising Crisis Care Demand

The first significant challenge is a rising demand for mental health services nationally, including crisis care. Mental health demand is set to further increase in the coming years as mental health worsened during and after the COVID-19 pandemic. An estimated 26% of adults and 18% of young

[1] NHS Mental Health Dashboard. NHS England.
[2] Rhodes, 'Review of Mental Health Crisis Services in Lincolnshire'.
[3] Rhodes, 'Review of Mental Health Crisis Services in Lincolnshire'.

people experienced mental distress for the first time during the pandemic. People who presented mental health problems before the pandemic were even more heavily impacted with 65% of adults saying that their mental health has got worse since the first national lockdown[4].

There are also now concerns that the Cost of Living crisis could add further pressure to the system.

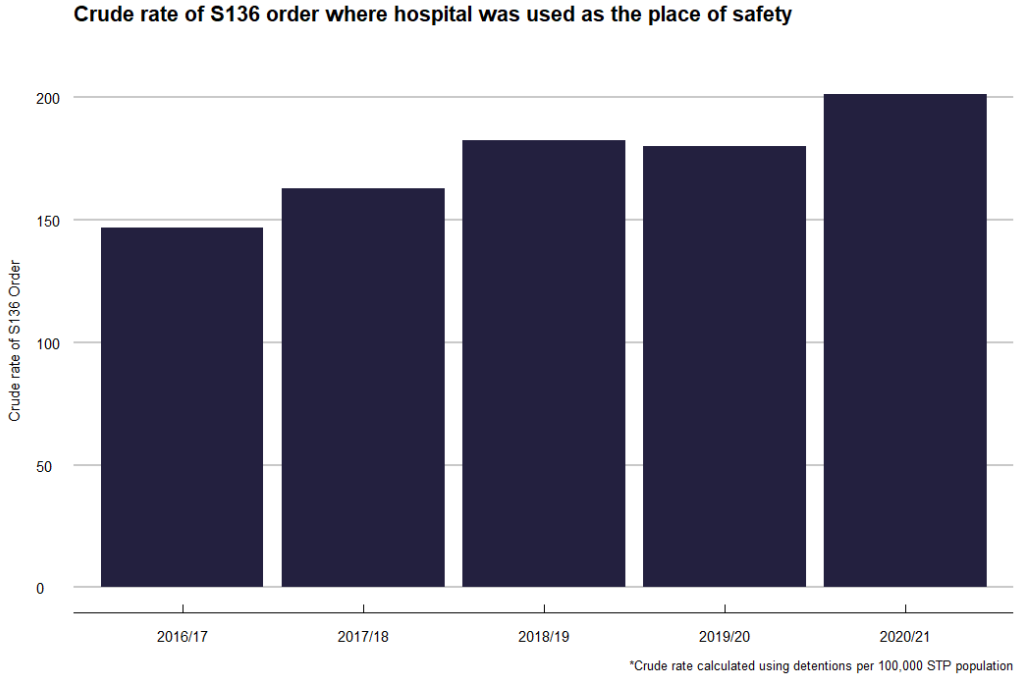
The impact of these crises means that the number of new mental health referrals is increasing – nationally there were 24% more new referrals to mental health services for people of all ages in June 2021 compared to June 2020. An estimated 1.6 million people were waiting for treatment from mental health services in 2021.[5]

2.2.2. Rising Section 136 Detentions

Rising demand challenges are compounded by a rise in the number of individuals held under Section 136 of the Mental Health Act (2005) and using a hospital as the designated place of safety. This Order allows police officers to bring an individual who appears to be suffering from mental disorder and to be in immediate need of care or control from a public space to a place of safety, often the local ED, where the individual will receive a Mental Health Assessment.

Across England, the number of patients being detained under short term orders (Section 136) has been increasing rapidly over the past 5 years, as shown in Figure 1.

Figure 1. Detentions under Section 136 of the Mental Health Act (2005) over time

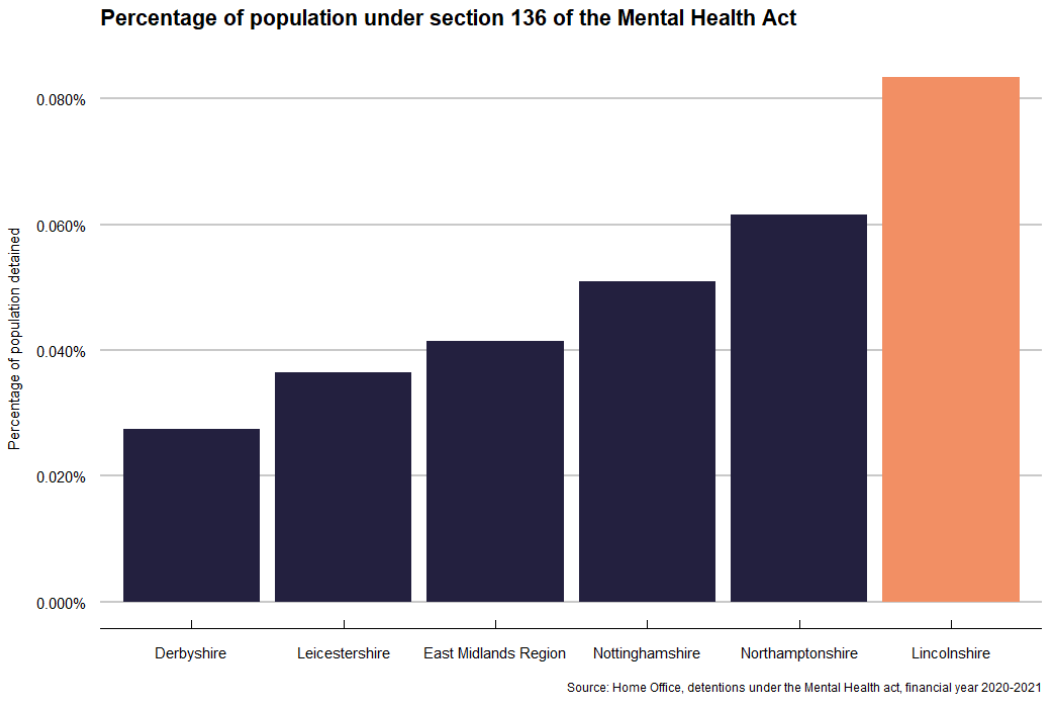


This challenge is clear in Lincolnshire. In June 2022, 16,405 people were detained in hospital in England under the Mental Health Act, 641 of which were detained in Lincolnshire. This represents the highest proportion of the total population across the region (Figure 2).

[4] Mind, 'Coronavirus: the consequences for mental health'

[5] 'Pandemic Impact on Mental Health Backlog Catastrophic, Says Royal College of Psychiatrists'.

Figure 2. Detentions in the East Midlands under Section 136 of the Mental Health Act (2005)



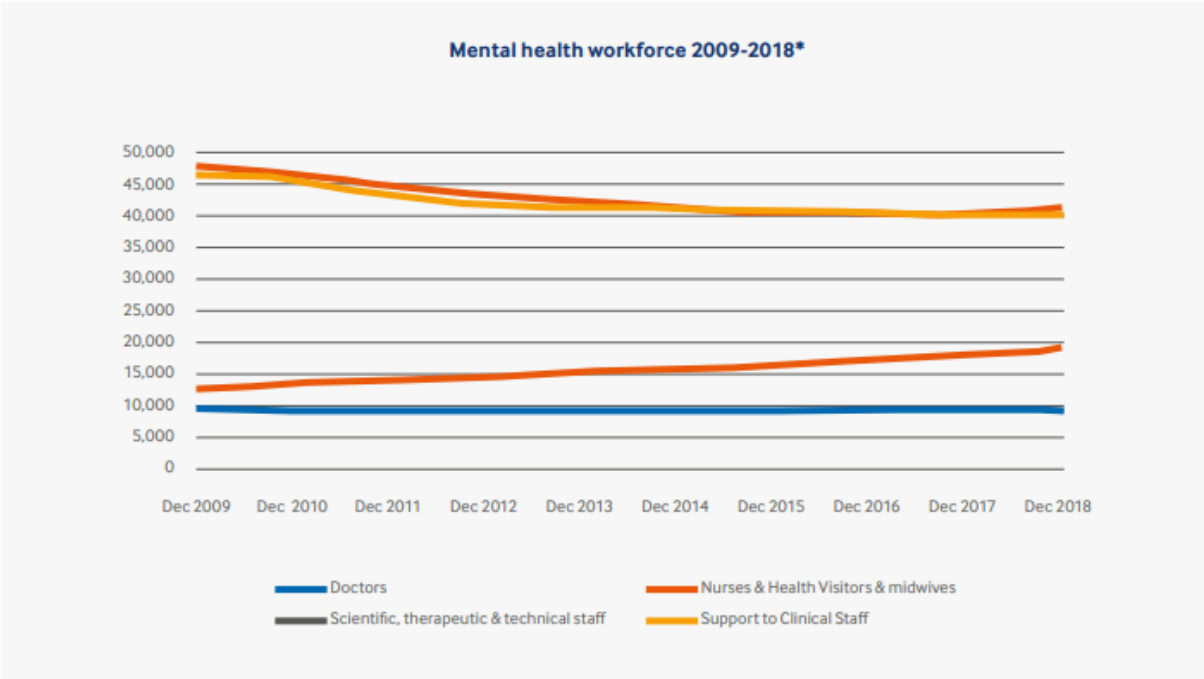
2.2.3. Workforce

It is clear that the demand for crisis services is increasing for a number of reasons and is a significant challenge both nationally and within Lincolnshire. To meet rising demand, there must be sufficient capacity within crisis services. This means there must be adequate specialist NHS staff available to deliver mental health support to those who need it. However, the NHS is facing a significant workforce crisis, particularly within mental health care.

Despite a renewed focus on improving mental health in the NHS Long Term Plan, mental health services in England (and across the UK) continue to suffer from inadequate staffing and funding in the face of rising demand, limiting the ability to achieve parity between mental and physical health set out in 2013/14.

As outlined in Figure 3, there has been little growth in the mental health workforce in England over the last 10 years, with many of the key staff groups either remaining at a similar level or declining. Additionally, many key sub-specialties are facing under-recruitment each year.

Figure 3. Mental health workforce from 2008 – 2018[6]



The struggling mental health workforce is also visible in Lincolnshire. Approximately, 2,800 staff were employed by the NHS trust for mental health across Lincolnshire and North East Lincolnshire, meaning that there was 1 worker per 330 people in Lincolnshire and North East Lincolnshire[7,8]. With the number of new referrals increasing and the workforce stagnating or decreasing, mental health services are under pressure in Lincolnshire and all across the country.

2.3. ED implications of these challenges

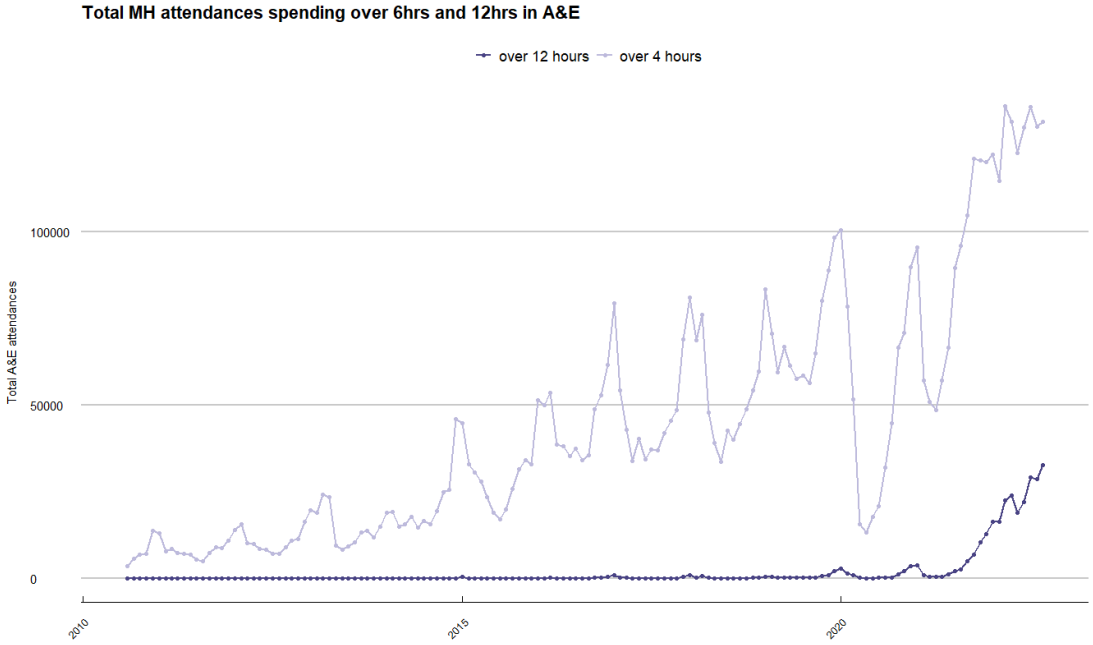
These challenges with mental health crisis care have knock-on effects to EDs, with an estimated 5% of all ED attendances being mental health related[9]. With demand for urgent mental health care rising and capacity within crisis care not increasing, patients face significant challenges with access to services.

2.3.1. Rising wait times for all patients attending ED

The NHS is currently facing a significant urgent care crisis across the health system. This is leading to a rising number of attendances in ED and therefore high numbers of breaches to both the 4-hour and 12-hour targets for all patients attending ED (Figure 4). The crisis is also leading to significant wait time for ambulances dropping patients off at hospital.

[6] Plot: British Medical Association, Measuring progress: Commitments to support and expand the mental health workforce in England, 2019
[7] 'Workforce Shortages in Mental Health Cause "Painfully" Long Waits for Treatment'.
[8] Royal College of Psychiatrists, 'Census 2021'
[9] 'Two-Fifths of Patients Waiting for Mental Health Treatment Forced to Resort to Emergency or Crisis Services'.

Figure 4. ED attendances with waits over 4- and 12-hours across England[10]



This nationwide issue is seen in Lincolnshire. In September 2022, United Lincolnshire Hospitals NHS Trust ED saw fewer patients within the 4-hour target across all attendance types compared to the nationwide average. For example, for all attendances to the emergency departments 59.9% of patients within 4 hours, compared to 71% across England[11,12].

These excessive wait times not only have significant impacts on patient experiences, but also have a significant risk of causing harm to patients.

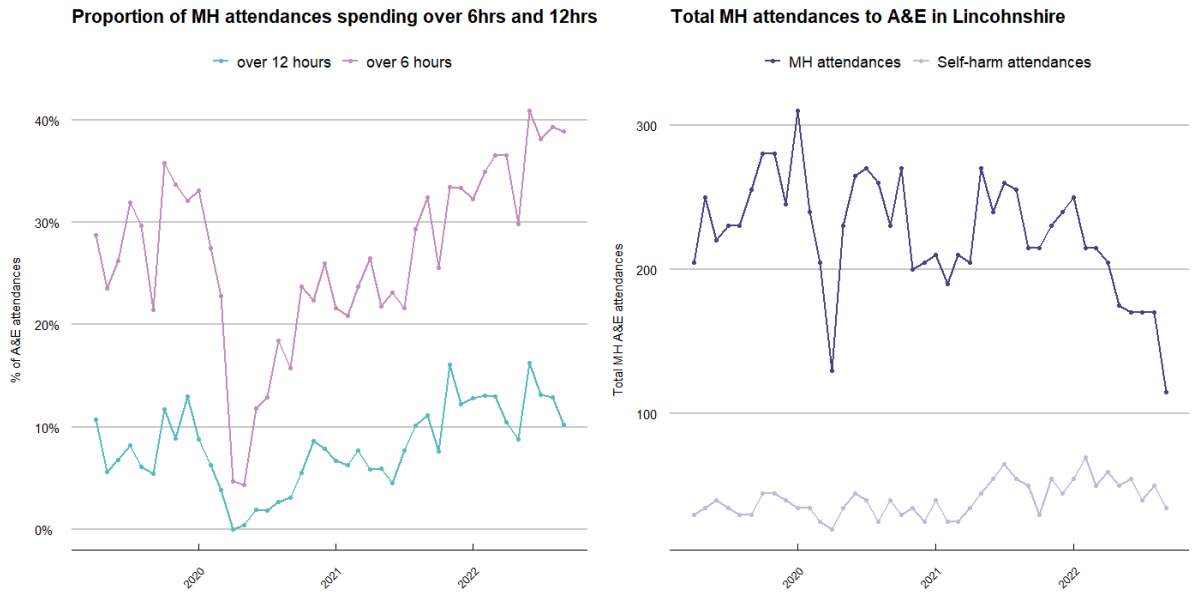
2.3.2. Rising wait times for mental health patients attending ED

These wait times are also disproportionately long for patients with mental health needs. The combination of widespread pressures on urgent care and the historic parity of esteem between mental and physical health has led to growing wait times for patients.

In Lincolnshire, the percentage of mental health patients waiting over both 6- and 12-hours in ED have exceeded pre-pandemic levels (Figure 5). In October 2022, 40% of patients were waiting over 6-hours within ED. As the total mental health attendances has not increased over time, the data suggests this trend is not caused by rising mental health or self-harm presentations in ED.

[10] NHS England. ED Attendances and Emergency Admissions 2022-23.
[11] NHS England. ED Attendances and Emergency Admissions 2022-23.
[12] There are some concerns around the data quality of mental health ED admissions.

Figure 5. Rising Mental Health Wait Times in Lincolnshire County Hospital ED



2.3.3. Out of Area Placements (OAPs)

The strain experienced by mental health services is also shown by the number of Out of Area Placements (OAPs). These are placements in units not part of the usual catchment area for the patient, meaning that they cannot be visited regularly by their care co-ordinator to ensure continuity of care and effective discharge planning. In some cases, OAPs are considered appropriate, for example if patients need to be protected from an abuser in their family circle or conversely if they become unwell while away from their family. However, if the reason for an OAP is the lack of bed availability, it is deemed inappropriate as patients will often be far from their support network who are an important part of their recovery.

Inappropriate OAPs, often in private facilities, are meant to be used to plug gaps in capacity but have become the norm is many Trusts around the country. This is a significant problem as OAPs cost 65% more than in-borough placements.

With the MHUAC enabling staff to have enough time and expertise to assess the needs of the patient, it is believed the number of patients who have an inappropriate OAP placement should reduce, enabling significant benefits to patients. However, real-world evidence of this benefit is now needed to confirm this hypothesis.

Lincolnshire has reduced their inappropriate OAPs to zero in recent years. However, there is evidence to suggest that the pressure on emergency care pathways, particularly Mental Health Liaison Services, is responsible for these placements. Limited time to assess patients can lead to unnecessary out of area inpatient admittances. Therefore, if demand for mental health services continues to rise there is risk that, the MHUAC could help in minimising these pressures on these teams and therefore could maintain the positive recent record for inappropriate OAP and lower the future associated costs.

2.3.4. Crisis Pathways Underperforming

The combined impact of these challenges has led to the crisis support pathway underperforming across all of England. Nationally, 23% of people did not get the help they needed or could not

contact crisis care services and 26% of people would not know who to contact out of office hours in the NHS if they had a crisis. As a result, individuals who are experiencing a mental health crisis present to ED where they face further challenges.

In the 2021 NHS Community Mental Health Survey Benchmark Report for Lincolnshire Partnership NHS Foundation Trust, it was found that LPFT performed about the same compared to other trusts across England in crisis care provision[13].

Therefore, innovation is needed to help combat these challenges and improve the performance of crisis services in Lincolnshire.

[13] Lincolnshire Partnership NHS Foundation Trust, 'NHS community mental health benchmark report 2021'

3. Pilot Overview

3.1. Background to the MHUAC

When people are in mental health crisis they are at their most vulnerable. It is essential that they receive the care and support they need as quickly as possible, in a place they can feel safe, and they are supported by people who understand their needs.

At the moment, patients requiring emergency mental health services often present to ED. With EDs under extreme pressures, waiting times for mental health patients attending ED has increased substantially. The busy, often noisy and sometimes crowded ED is also not considered the best environment for patients in mental health crisis to wait to be seen.

To address the needs of patients in mental health crisis who attend ED, Camden and Islington NHS trust implemented a Mental Health Assessment Centre to support those in mental health crisis in a different way. This involved the mobilisation of a Mental Health Urgent Assessment Centre (MHUAC), to offer those that were medically fit a service that did not require attendance at ED for support. The service offered rapid assessment of mental health need and an additional place of safety in an environment that was appropriate and calming. The benefits of the service were identified as lessened 12-hour breaches in ED, decreased footfall through ED, improved patient and system partner satisfaction.

Similarities between the challenges faced by Camden and Islington NHS trust and Lincolnshire Partnership Foundation Trust with mental health crisis care led to the decision that Lincolnshire would benefit for a service similar to Camden and Islington's Model.

3.2. The Pilot in Lincolnshire

3.2.1. Key Dates

The decision to pilot a MHUAC was taken in late November 2021 as part of winter pressures planning and the service was mobilised by the 17th January 2022. Funding was agreed for 12 Months via Lincolnshire Integrated Care Board (ICB) as a proof of concept for the service up until January 2023. All system partners were involved in the development of the service and Standard Operating Procedure (SOP) via the project group. The project group agreed a phased approach to allow staff within the new service to adapt to a new way of service delivery, as outlined in Table 1.

Table 1. Implementation Timeline

Phase	Date	Description
1	January 2022	Accident and Emergency/Urgent Treatment Centre diverts
2	April 2022	Ambulance Dropoff/Handover
3	May 2022	Police Dropoff's with joint risk assessment completed & Alternative Health Based Place of Safety for those detained on Section 136 of the Mental Health Act
4	July 2022	Walk-in presentations

3.2.2. The Design

The MHUAC within Lincolnshire Partnership Foundation Trust was designed as a new service delivery model for the mental health care pathway to offer a safe, therapeutic environment. Here individuals who have no identified medical need will be able to receive an assessment of their mental health needs and risks and be offered an appropriate care plan and support to access the right care

pathway. The aim is to reduce whole system pressures by directing patients away from ED and enabling onward referral and liaison with other co-located Mental Health Services.

The MHUAC, based within Peter Hodkinson Centre at University Hospital Lincolnshire, consists of a waiting room, three assessment rooms and an office space. The MHUAC is co-located next to the Psychiatric Clinical Decisions Unit and the Section 136 Suite.

The staff team work across all three services which helps to provide continuity of care throughout the pathway. Crisis Team, Mental Health Liaison Service and the Bed Management Team are also based within the same building. This has the added benefit of having all Urgent Mental Health Services for Lincoln based together providing improved communication and improved collaborative working to improved outcomes for patients.

3.2.3. The Area

The service currently covers Lincoln City and surrounding towns and villages. This decision was taken as it would be a long distance for those in Crisis to travel any further due to geography of Lincolnshire.

4. Existing Research and Evidence on the Benefits of MHUAC

As pressure on ED services in England and demand for mental health services grow, it is important that steps are taken to minimise costs and prevent any negative impacts on patient care and staff satisfaction.

It is equally important that the mounting evidence that ED is not appropriate nor effective in responding to people in mental health crises is addressed. This will help the NHS achieve parity between mental and physical health as set out in the NHS Mandate 2013/14.

This is where Mental Health Urgent Assessment Centres could deliver significant benefits to patients, staff and the health system.

In the literature, there is growing interest in the potential benefits of Mental Health Urgent Assessment Centres as a new service delivery model for urgent mental health care. Through implementation of Mental Health Urgent Assessment Centre there is the hope that some of the pressures on ED could be alleviated and patients in mental health crisis could have better experiences with emergency care. Existing research has identified the following benefits of MHUACs:

- Improve experience of ED staff
- Improve experience of MHUAC staff
- Improve experience of ED patients
- Improve experience of MHUAC patients
- Reduced inequalities
- Reduced Out of Area Placements
- Reduced relapses
- Overall cost savings

The rest of this section reviews the available literature in more detail.

4.1. Benefits to Staff

4.1.1. ED Staff

The NHS is currently facing an emergency care crisis putting incredible pressures on ED staff. Within the high volumes of patients presenting to ED, a significant number are attending in mental health crisis.

This has a significant impact on staff. Disruption to treatment and alter the flow through ED[14] from "psychiatric boarding" can be distressing for both the staff and patients and cause challenges with treating other patients. This is when patients are waiting in the hallways and ED rooms for a mental health inpatient admission and is often caused by disproportionately long wait times for patients presenting with mental health crisis.

This is compounded by clinical staff working within ED lacking the necessary training to provide care confidently and competently to mental health patients. The lack of appropriate training leaves staff feeling unprepared when confronted to patients with mental health needs[15]. ED staff can feel scared or irritated when treating mental health patients because they do not know how to react to "aggressive or bizarre behaviour" and can experience frustration due to the absence of follow-up.

[14] Roennfeldt et al. Subjective Experiences of Mental Health Crisis Care in Emergency Departments: A Narrative Review of the Qualitative Literature

[15] Care Quality Commission (2020), AMSAT Report.

Both challenges to staff have been found to be alleviated by the opening of a MHUAC. Real-world benefits to ED staff by opening a MHUAC have been shown at a pilot in Camden and Islington. On the 23rd of March 2020, the Mental Health Crisis Assessment Service (MHCAS), opened in the Camden and Islington NHS Foundation Trust. This service was found to substantially reduce the number of mental health ED presentations in the Trust's catchment area. For example, the number of liaison psychiatry service referrals decreased 22.7% in Camden and Islington during the pilot[16,17].

This reduction in mental health attendances to ED will both reduce the occurrence and likelihood of "psychiatric boarding" as well as reduce the need for ED staff to be confronted with patients they feel undertrained to be able to handle and treat.

4.1.2. MHUAC Staff

Alongside benefits to ED staff through fewer patients presenting to ED in mental health crisis, staff working with patients within the MHUAC have also reported benefits. For example, staff working in alternative environments to ED report feeling 'valued' when working in an environment dedicated to mental health[18]. They experience less pressure as they do not have to meet attendance time targets that are only set for ED. This allows staff to take their time to assess individuals who present to the service thoroughly and gives them the opportunity to reassure and comfort patients in distress.

Research in this area is currently limited and it would benefit from a deeper insight into understanding the impact of opening mental health urgent assessment centres on the staffing teams.

4.2. Benefits to Patients

4.2.1. Improved Patient Experience

The opening of a MHUAC also has patient benefits. Evidence suggests that ED is not the ideal place for patients experiencing a mental health crisis to receive support[19]. ED attendance is often viewed as a last resort option for people experiencing mental health crises and most individuals do not access ED voluntarily. ED has been consistently scored as the place of care with the lowest quality, least effective and most judgmental and cold interactions with staff by patients in a mental health crisis[20]. Individuals with a mental health condition also report receiving worse treatment than individuals without a mental health condition when attending ED. Furthermore, they raise that they are less frequently comforted by members of staff, more likely to experience long waits, and to leave without being seen.

In addition, ED is often seen as overwhelming and can increase an individual's feeling of distress[21]. Patients are sometimes denied contact with their friends and family especially for OAPs, increasing their feeling of isolation, and aggravating their suffering[7,22]. EDs often lack adequate facilities to provide care to individuals experiencing a mental health crisis. For example, a survey of 60 EDs in the

[16] Sampson et al., 'Psychiatric Liaison Service Referral Patterns during the UK COVID-19 Pandemic'.
[17] 'Mental Health Crisis Assessment Service Receives Award | Healthwatch Haringey'.
[18] Parmer, N & Bolton, J. Alternatives to emergency departments for mental health assessments during the COVID-19 pandemic
[19] Care Quality Commission (2015), "Right Here Right Now".
[20] Care Quality Commission (2015), "Right Here Right Now".
[21] Harris B, Beurmann R, Fagien S, Shattell MM. (2016) Patients' experiences of psychiatric care in emergency departments: A secondary analysis. International Emergency Nursing.
[22] National Audit Office, 'Investigating the characteristics of ED attendances by mental health service users: patient-level matching of two large datasets'.

United Kingdom (UK) reported that only 23% had a psychiatric assessment room that met all the safety criteria and was judged to be safe and private.[23]. One patient also said of her experience,

> *"Being acutely psychotic and in pain is hard enough, but the environment of 'safe rooms' in emergency departments often makes this harder. I'm left to sleep on the floor – sometimes for days on end – while waiting for a mental health bed. Often, I don't have access to proper food, aside from sandwiches (which I can't eat as I need a gluten-free diet). My antidepressant medication is stopped suddenly; it's taken away from me when I arrive, and the emergency department don't stock it. This leads to horrendous withdrawal symptoms including nausea, vomiting, tremors, anxiety – and a worsening of my psychotic state"*[13]

The MHUAC seeks to overcome the challenges that individuals experiencing a mental health crisis endure when presenting to ED and to allow ED staff to focus on patients with physical symptoms, leading to higher patient satisfaction[17]. Similar care pathways and services were established in the UK during the COVID-19 pandemic as an alternative to EDs to assess patients with mental health concerns and were well-received [24].

The most common perceived benefit was a more appropriate environment for patient care (36% of respondents), likely in relation to the fact that smaller and quieter services can help calm the patients and contribute to the resolution of their crisis[16]. The availability of specialist staff on site also contributed to improving patients' experiences.

The MHUAC also aims to reduce the wait time for acute mental health patients. Evidence suggests that patients presenting to ED with mental health crisis have disproportionately long waits for inpatient beds, compared to patients requiring a bed for physical health needs[25].

4.2.2. Reduction in Inequalities

The literature is currently limited on the impact of patients in mental health crisis being seen away from ED. However, there are indications that these centres can have other significant benefits to patients.

This includes reducing inequalities caused by poor experiences in ED. Patients reporting poor experiences with crisis care within busy EDs is not a new phenomenon. As a result, significant inequalities have developed. Unequal healthcare provision for patients with mental health conditions compared to only physical health needs, has been reported as a key reason why people with severe mental illness have an increased the risk of physical illness, including cardiovascular and respiratory illnesses[26].

The most deprived areas of the country have higher rates of IAPT referrals, but have suffered the largest drop during the pandemic, raising the issue that easier access to mental health care is paramount in addressing wider inequalities[27]. Furthermore, patients are often reluctant to access ED

[23] Bolton, J., Palmer, L., & Cawdron, R. (2016). Survey of psychiatric assessment rooms in UK emergency departments. BJPsych Bulletin, 40(2), 64-67. doi:10.1192/pb.bp.114.049742
[24] Royal College of Psychiatrists (2020), Alternatives to emergency departments for mental health assessments during the COVID-19 pandemic
[25] Care Quality Commission (2018/29). The state of health care and adult social care in England
[26] UK Health Security Agency (2018). Health Matters: Reducing health inequalities in mental illness
[27] C. Baker (2021), Mental health statistics (England), House of Commons Library

unless at 'desperation point'[28], often because of poor prior experiences. As mental health conditions have been found to disproportionately affect minority and vulnerable groups[29], this represents a large cohort that feels unable to access care when needed, further deepening inequalities.

By providing a better experience and more equal access to specialist care for patients in mental health crisis through the implementation of the MHUAC, it is believed that these inequalities could be reduced.

4.2.3. Reduction in inappropriate Out of Area Placements (OAPs)

Although limited evidence to date, there is also hope that MHUACs could reduce the number of inappropriate OAPs. Inappropriate OAPs are often caused by the limited time ED staff have to make clinical decisions and have a significant impact on patient experiences and outcomes. The number of cases with a distance of over 100km from the patient's local catchment has been rising year-on-year since 2016 (NHS Digital).

This is significant given patients admitted inappropriately to an inpatient ward outside of their catchment and often away from their support networks, have been found to negatively influence their recovery rate. For example, one study found patients who went to out-of-area placements had significantly longer admissions on average (77 days versus 33 days), received significantly more contacts with services during the follow-up year (31.2 versus 26.6) and self-harmed on a significantly greater number of occasions (1.61 versus 0.4 times)[30].

The MHUAC enables staff to have enough time and expertise to assess the needs of the patient and it increases the potential for timely intervention to reduce further deterioration in Mental Health and therefore, need for admission away from their local area. Both of these are believed to help reduce the number of patients who have an inappropriate OAP, enabling significant benefits to patients.

However, real-world evidence of this benefit is now needed to confirm this hypothesis.

4.3. Benefits to the Health System

4.3.1. Reduced Out of Area Admissions

The reduction of OAPs is not only a benefit to the patient, there are also possible cash-releasing benefits to the health system. Sending a patient to an OAP is a complex and far more expensive endeavour than admitting a patient to a local bed. Not only does it require significant staff resources to coordinate a transfer of care, but it also often results in longer hospital stays for the patient, which are often unnecessary and lead to greater spending. These significant cost implications of OAPs mean the NHS has spent more than £102 million on inappropriate out of area placements between January and March 2022 alone.

Through a MHUAC reducing inappropriate OAPs by giving specialists more time to determine the best treatment plans for their patients and find available beds in their catchment, these costs could be significantly reduced, delivering significant benefits to the health system.

[28] Healthwatch Gloucestershire (2020). Experiences of urgent mental health care in accident & emergency: A Gloucestershire perspective

[29] Centre for Mental Health, Mental Health Inequalities Factsheet

[30] Galante J., Humphreys R., Molodynski A., (2019) Out-of-area placements in acute mental health care: the outcomes

4.3.2. Reduction in relapses

Although no real world evidence can support this proposed benefit, there is some rationale [31]to suggest that the specialist, fast care provided by a MHUAC can reduce the proportion of patient who relapse. The evidence that mental health service users constitute a disproportionate number of frequent same-year ED attenders suggests that the current model of care is failing in managing acute mental health issues[32]. Interventions provided by purpose-built, specialist mental health programmes that are provided outside of hospitals have shown promising results in reducing relapses and inpatient admissions[33]. Although these findings preceded the establishment of MHUACs, similarities such as the ease of access to a specialist psychiatric team through self-referral or through families, GPs and the police, and the abilities of these services to bypass ED allow for some comparisons to be drawn, highlighting the potential benefits of MUHACs. Patients have also reported the lack of appropriate follow-up following discharge from ED, which has contributed to their feeling of a crisis episode 'not being over'[25]. MUHACs and their onsite specialist team would be able to provide better continuity of care for mental health conditions, further reducing the risk of repeated attendances and relapses.

4.3.3. Cost savings

There is an increasing body of evidence suggesting that sites offering emergency access to mental health services can result in a significant economic benefit. This is largely a result of reduction in inappropriate general hospital inpatient admissions, in length of stay in general hospital wards as well as reduced rate of re-attendances at emergency departments[34].

For instance, a recent evaluation of the RAID model at Birmingham's City Hospital identified a saving of £4 for each £1 spent on the service, amounting to a total of £3.35 million[35].

In addition to extended inpatient stays leading to significant costs, the potential reduction in relapses attributed to MUHAC care can have a further impact on expenditure. A study showed that the 6-month direct cost of healthcare services for individuals who experience a relapse is four times higher than for those who do not (£8212 v. £1899)[36]. Reducing the number of relapses a patient has can therefore result in significant savings.

[31] My Health London, 'Why early intervention matters'
[32] Audit insight Health (2017), Investigating the characteristics of ED attendances by mental health service users: patient-level matching of two large datasets
[33] Murton C et al (2014) Does a home treatment acute relapse prevention strategy reduce admissions for people with mania in bipolar affective disorder?
[34] Tadros G, Salama RA, Kingston P, Mustafa N, Johnson E, Pannell R, et al. (2013) Impact of an integrated rapid response psychiatric liaison team on quality improvement and cost savings: the Birmingham RAID model. The Psychiatrist.
[35] Parsonage M, Grant C, Stubbs J. (2016) Priorities for Mental Health. Economic Report for the NHS England Mental Health Taskforce. London: Centre for Mental Health
[36] Almond, S, Knapp, M, Francois, C, Toumi, M, Brugha, T. (2004). Relapse in schizophrenia: costs, clinical outcomes and quality of life. Br J Psychiatry

5. Aims and Objectives of Evaluation

In January 2022, the MHUAC was opened in Lincolnshire. This independent evaluation of the MHUAC pilot aims to both quantitatively and qualitatively assess the impact and benefits of the MHUAC at Lincolnshire Partnership NHS Foundation Trust and identify whether it is cost effective. It will also be possible to use this evaluation to determine whether the project can be adopted and rolled out at further sites to help support trusts in their managing of patients in mental health crisis.

6. Evaluation Methodology

The evaluation uses a mixed method methodology, combining surveys, interviews with patient and staff as well as data obtained from the MHUAC.

Surveys were designed and developed to allow our team to undertake quantitative and qualitative analysis of staff and patients perceptions of the MHUAC at LPFT. The approach places emphasis on experience and perception of clinical and non-clinical staff who are directly involved with the MHUAC.

Interviews were conducted to develop a deeper understanding of emerging themes from the surveys. Interviews were transcribed and anonymised. The interviews were then analysed thematically with key themes across the different interviews identified.

Quantitative analysis was completed using RStudio[37]. Data on MHUAC activity during the pilot period was also obtained from the MHUAC, covering the period from January 2022 when the pilot started and October 2022 when the evaluation took place.

[37] RStudio Team (2021). RStudio: Integrated Development Environment for R. RStudio, PBC, Boston, MA URL http://www.rstudio.com/.

7. Pre- and post-MHUAC patient pathways

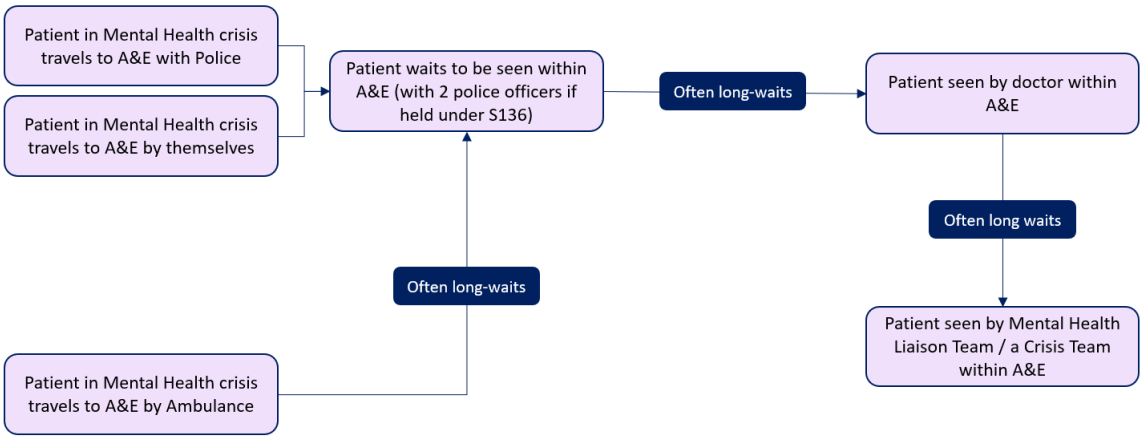
7.1. Pre-intervention patient pathway

Prior to the implementation of the MHUAC, patients in mental health crisis accessed care through ED (Figure 6). They could reach ED through a number of routes; patients could travel there themselves, with a police officer (patients held under a Section 136 Order or simply accompanied by police) or arrive by ambulance. Patients arriving by ambulance often faced long waits due to wider NHS emergency care demands.

Once the patient arrived at ED they then were required to wait to be seen by an emergency care doctor. As set out in the Handbook to the NHS Constitution, the operational standard is that at least 95% of patients attending ED should be admitted, transferred or discharged within four hours However, EDs are under extreme pressure and therefore, this target is often missed, meaning patients attending ED often experience extremely long waits to be seen.

Once patients are seen by an emergency care doctor, if the patient is found to be in mental health crisis, they are referred to the Mental Health Liaison Team or the Crisis Team. These teams are under extreme pressure to meet targets (<1 hour).

Figure 6. Pre-intervention patient pathway



7.2. Post-intervention patient pathway

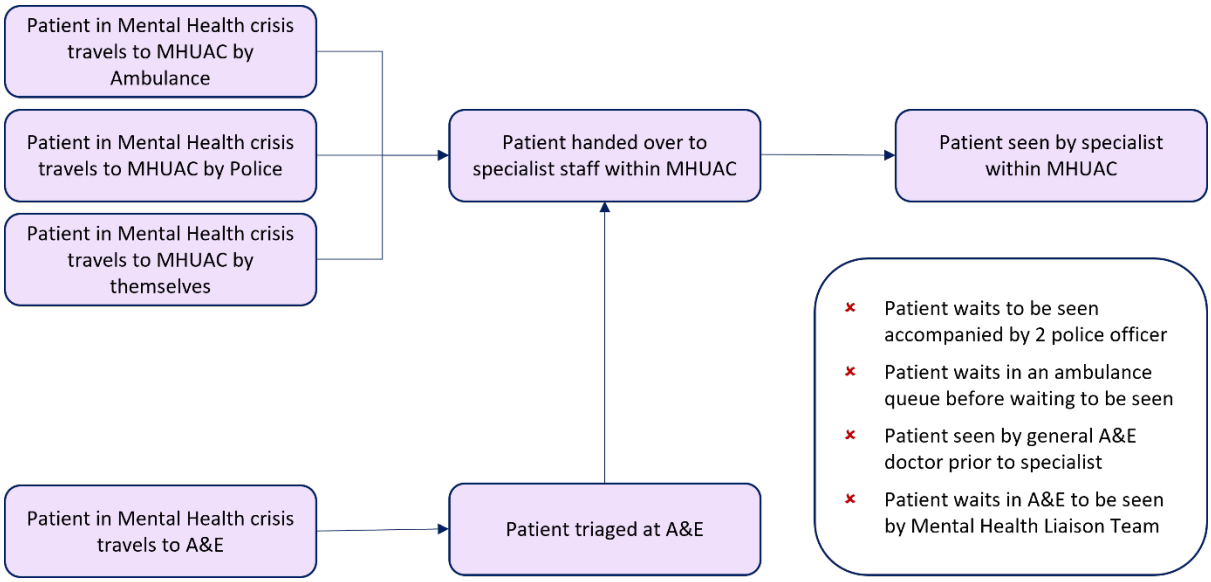
This pilot implementation of a MHUAC, a new service delivery model for the mental health care pathway, provides an alternative route to care for patients in mental health crisis who do not have physical health needs (Figure 7).

Patients can access care at the MHUAC in the same ways they would previously have accessed the ED: by themselves, by police or by ambulance. Patients who are eligible for the MHUAC who try to access care through ED can be redirected to the MHUAC when triaged on arrival. Due to the close proximity of the MHUAC and ED, it is easy to move patients.

Once patients arrive at the MHUAC, they can be handed over to specialist staff within the MHUAC. For patients held under Section 136, police officers escorting the patient are clear to leave at this stage.

The patient is then seen by a mental health specialist.

Figure 7. Post-intervention patient pathway



8. MHUAC Impact Pathways

Taking together the information in the literature on Mental Health Urgent Assessment Centres and through speaking to staff involved in the patient pathways at the MHUAC in Lincolnshire, impact pathways have been developed to identify how the MHUAC impacts staff, patients and the public.

The diagrams below (Figures 8, 9, 10, 11, 12) set out a preliminary logic model. Further data analysis and engagement will be completed to confirm this initial thinking.

Figure 8. Patient and Carer Impact Pathway

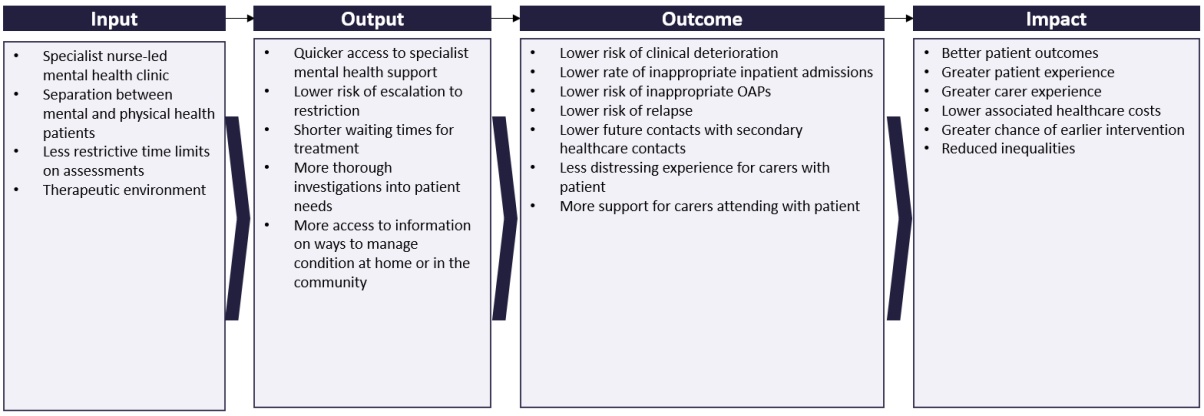


Figure 9. East Midlands Ambulance Service (EMAS) Impact Pathway

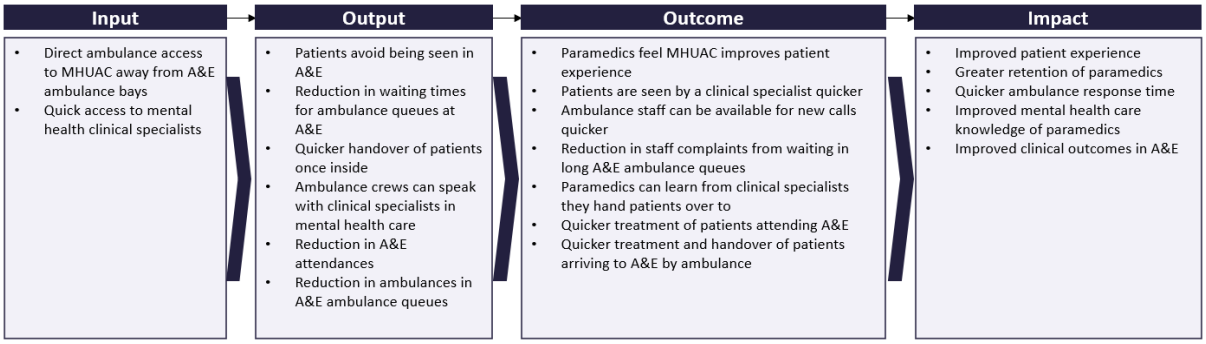


Figure 10. Police Impact Pathway

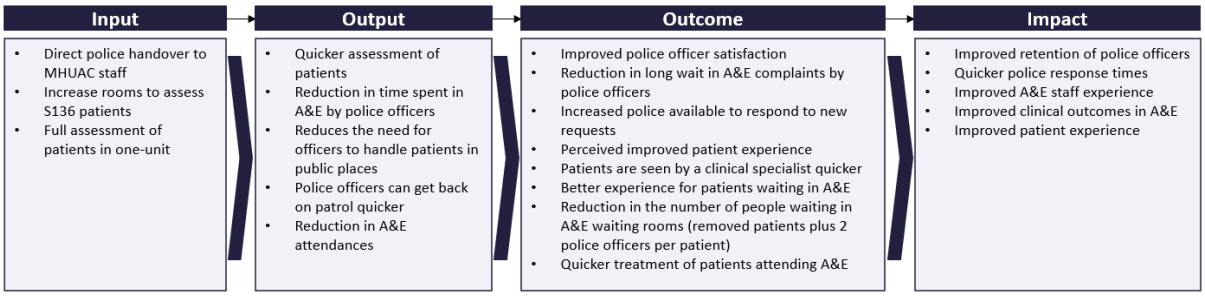


Figure 11. ED Staff Impact Pathway

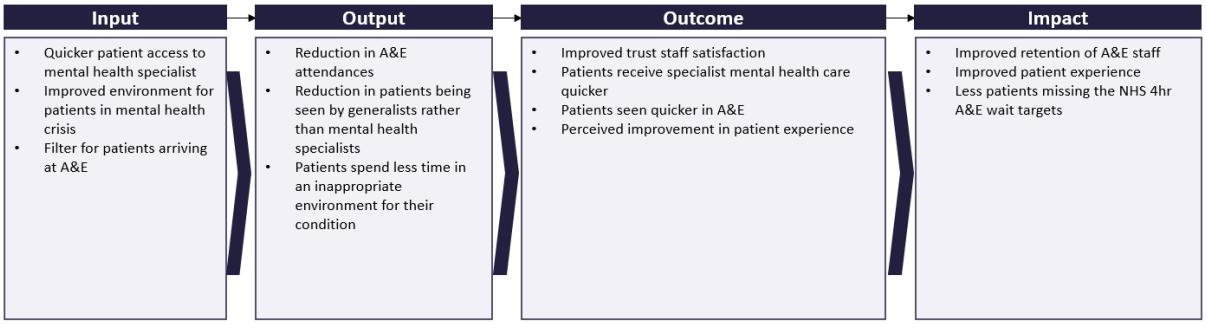
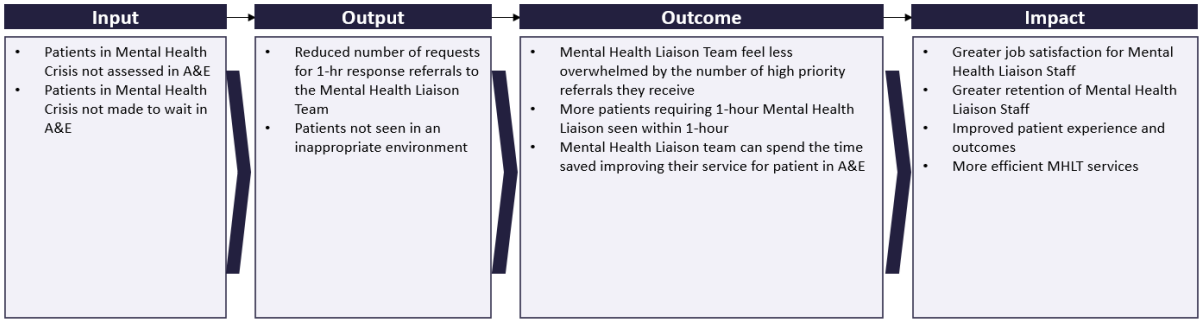


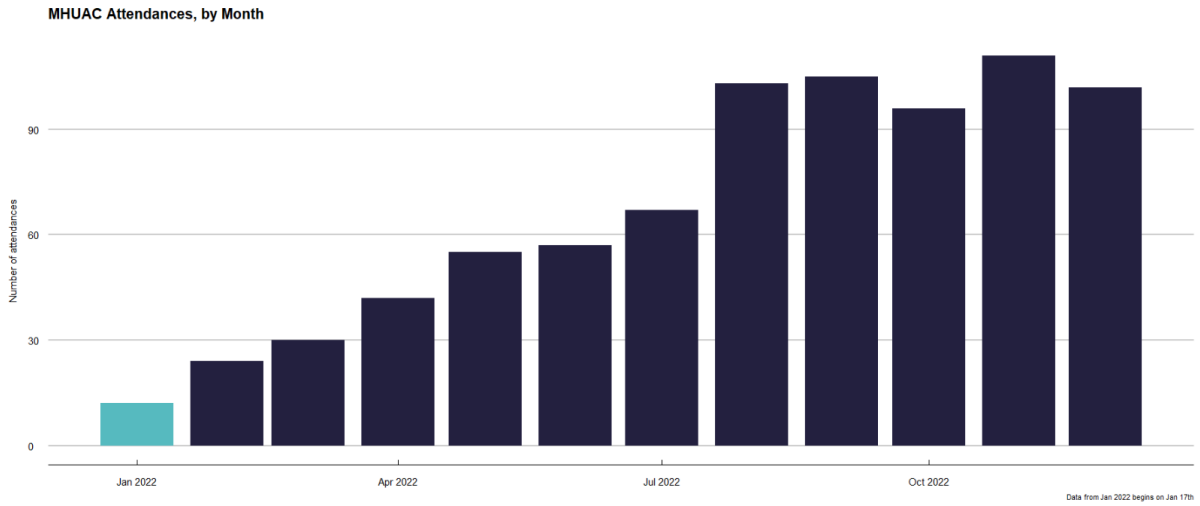
Figure 12. Mental Health Liaison Impact Pathway



9. Current Use of the MHUAC

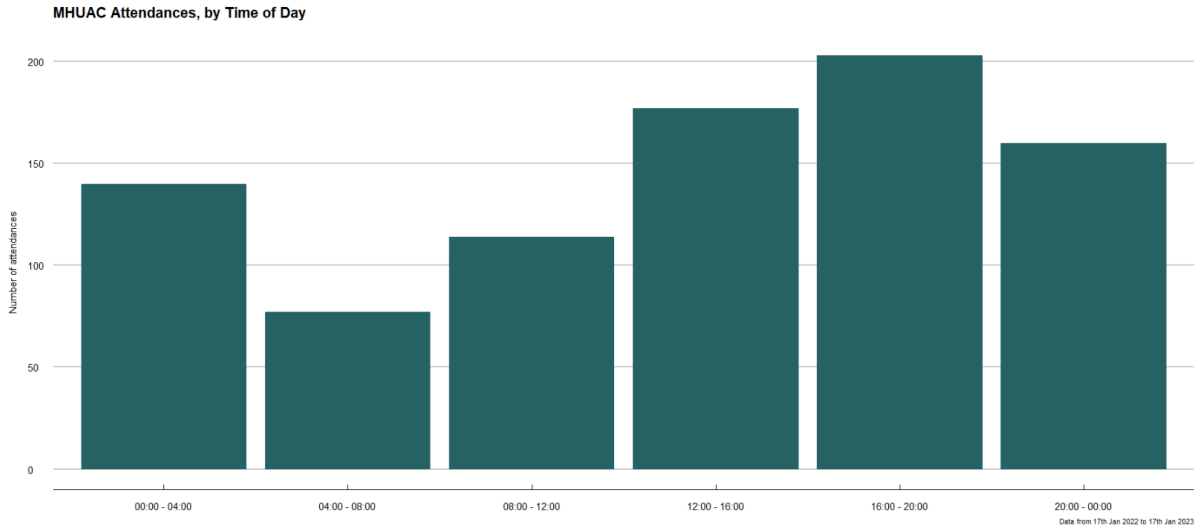
Since its implementation, the MHUAC has seen an increasing number of attendances month-on-month, as shown in Figure 13. For the past 2 months, the MHUAC has seen over 100 attendances a month. It is not anticipated for the MHUAC in its current form to see more than 100-110 patients per month and therefore has been fully rolled out.

Figure 13. MHUAC attendances per month



These attendances are spread across all time periods, with the highest volume of patients seen between 16:00 and 20:00. The distribution can be seen in Figure 14.

Figure 14. Total MHUAC attendances by time of day



These patients are also across all age groups, ranging from 17 to 86 (Figure 15). Majority of patients are between 30 and 45 years old.

Figure 15. Total MHUAC attendances by age range of patient

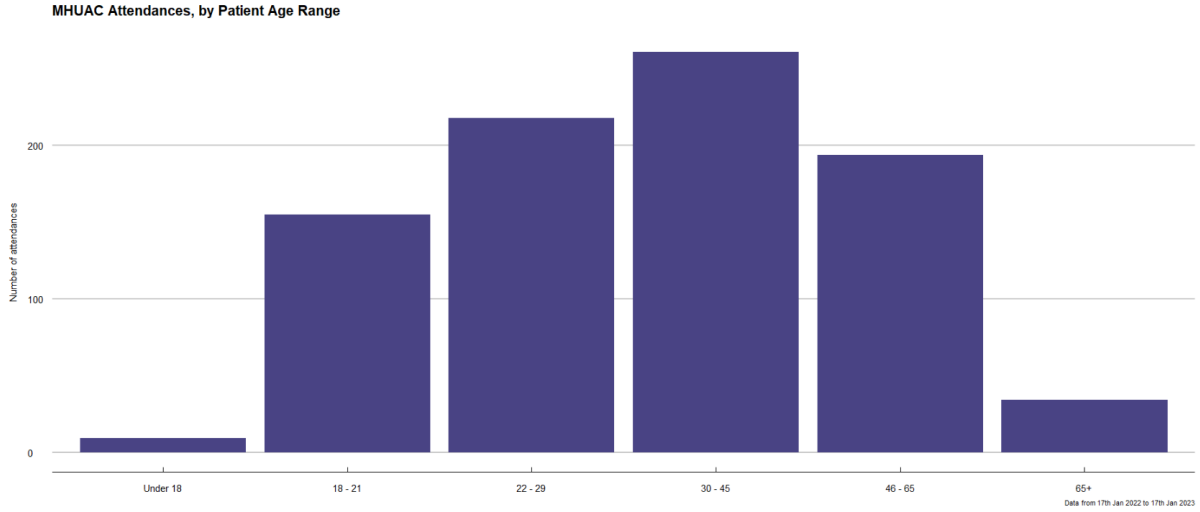
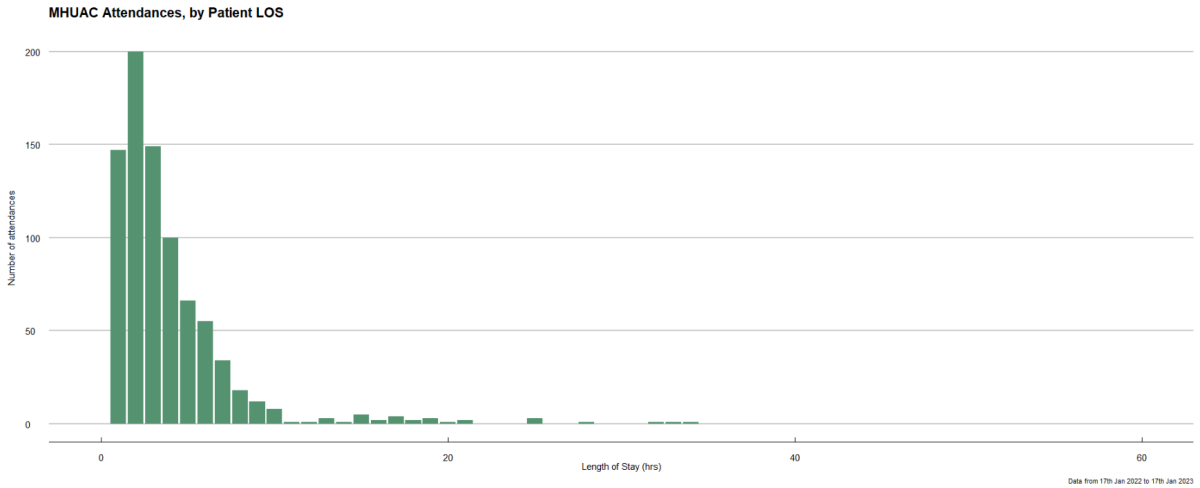


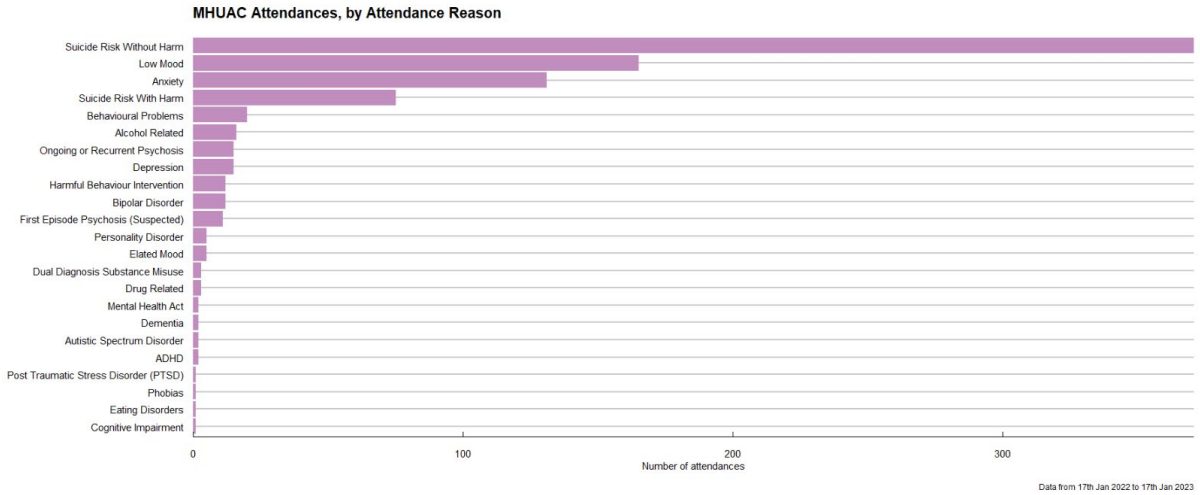
Figure 16 shows the length of stay from the start of the assessment, formulation of risk and onward planning for the patient. This shows that majority of patients complete this process within 3 hours of attendance at the MHUAC. There are a few patients represented on this plot with longer length of stays. These cases represent occasions where searching for a bed took longer than expected and inappropriate referrals (e.g. a patient with Autism) presenting to the MHUAC. Some of these patients may also have required an extensive Mental Health Assessment which can take a significant amount of time to complete.

Figure 16. MHUAC attendance by length of stay at the MHUAC



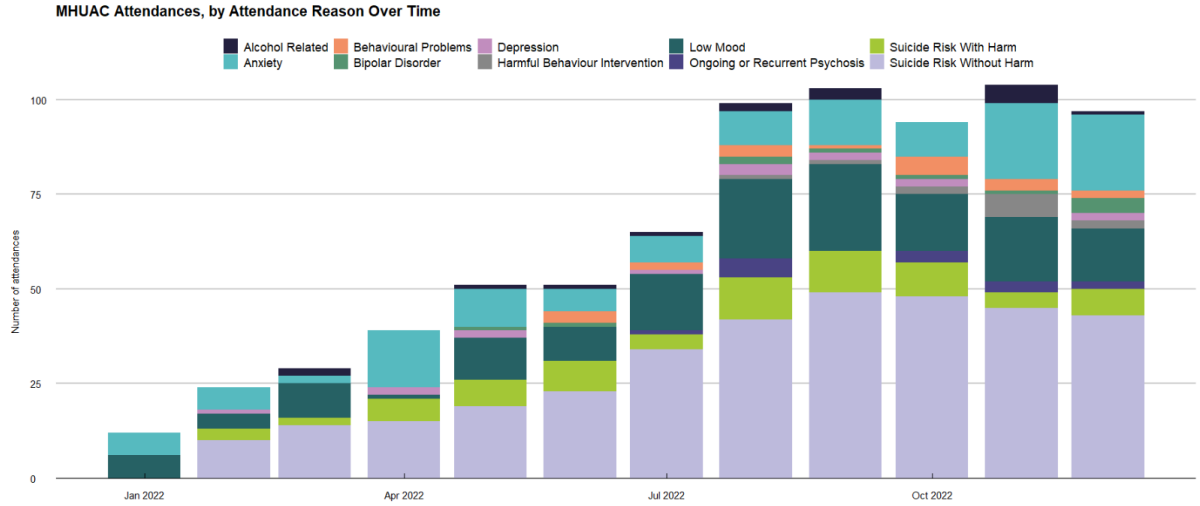
MHUAC attendances have so far fallen within 22 categories, as shown in Figure 17. The most common reason for attendance has been “suicide risk without harm” follow by “low mood”, “anxiety” and “suicide with harm”.

Figure 17. Total MHUAC attendances by attendance reason



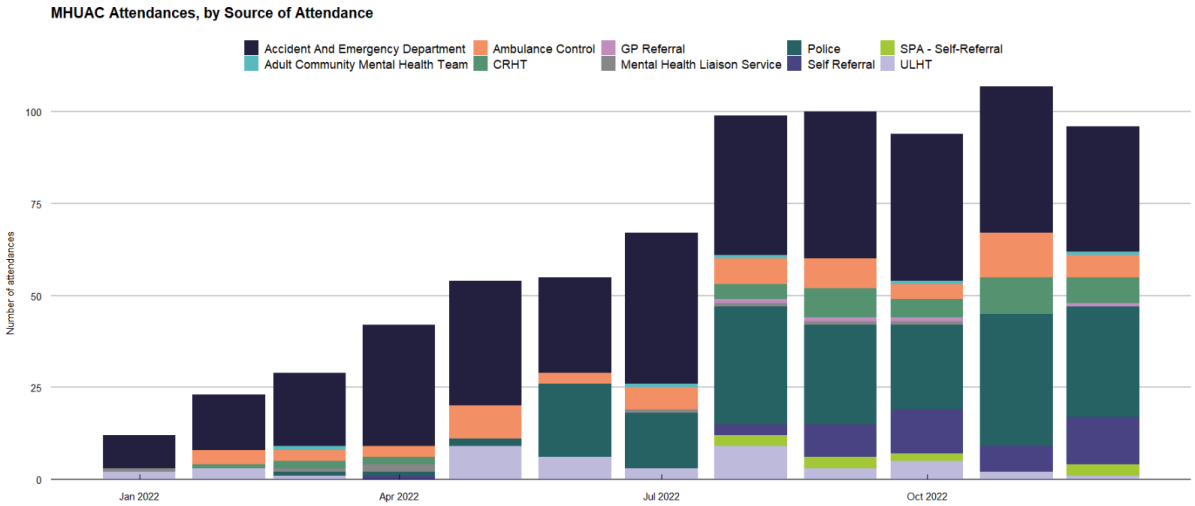
Attendance reasons over time show proportionate increases in the number of attendances for "suicide risk without harm" (Figure 18). Over time, however, there has been an increase in the proportion of patients attending for "low mood".

Figure 18. MHUAC attendances by reason for attendances



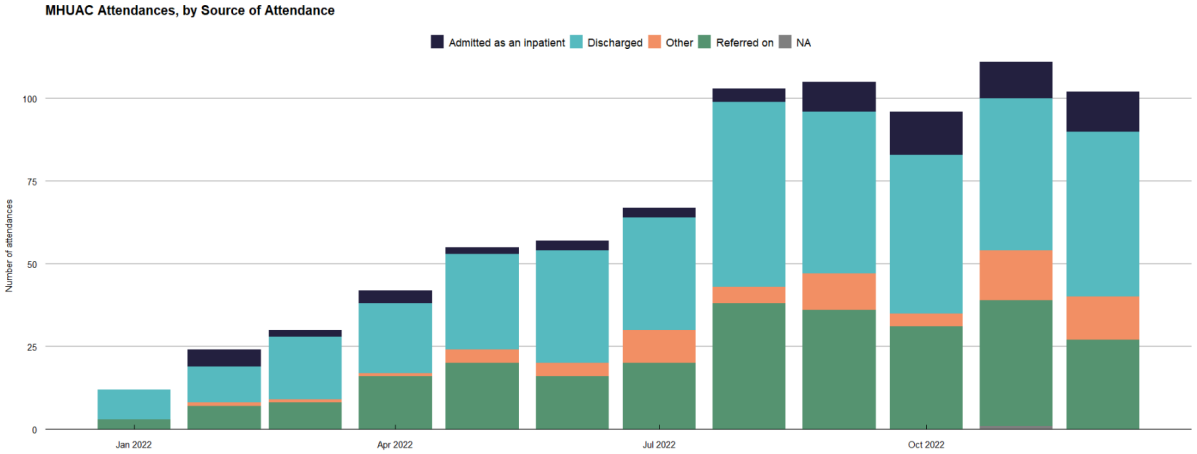
For attendance source over time, majority of attendances have come from "Accident and Emergency Department" followed by "Police" (Figure 19). Patients have also attended the MHUAC through "Self-Referral", "GP referral" and "Ambulance Control". The proportions of reason for attendance are changing with a decrease in A&E and police referrals resulting in a growth in self-referral attendances. Self-referrals may be representing an alternative route to A&E and police referrals. Therefore, it is not anticipated that the increase in their numbers will lead to increased attendances.

Figure 19. MHUAC attendance by source



Finally, analysis of the outcome of the attendance to the MHUAC indicates that majority of patients are discharged after assessment followed by being referred on (Figure 20). Only a small proportion of patients are admitted as an inpatient.

Figure 20. MHUAC attendance by outcome of attendance



10. Patient, Carer and Staff Experiences

As part of this evaluation, patient/carers and staff opinions on the MHUAC have been collected through both surveys and interviews. The following section outlines the findings from these data collections.

10.1. Patient and Carer Survey Findings

10.1.1. Patient and Carer Demographics

To date, 40 patient/carer surveys have been returned. Of those that have been returned, 85% were completed by patients alone, with a small minority completed by carers alone or patients with a carer. Overall, 65% of respondents reported this was their first attendance at the MHUAC and 65% of respondents reported that they had previously attended ED in mental health crisis. The number of patients who declined to fill out the surveys is not known.

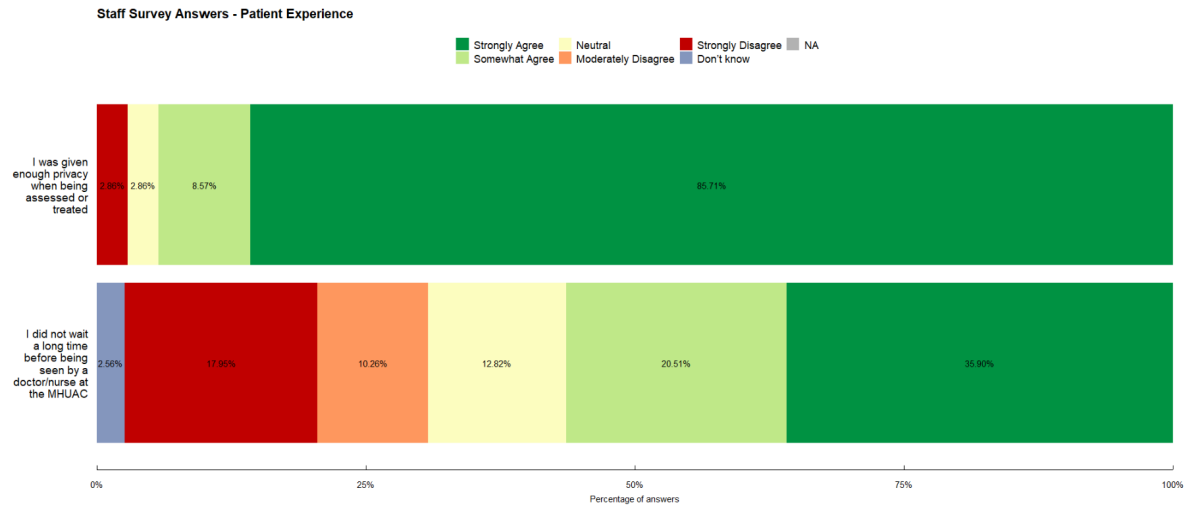
10.1.2. Patient and Carer Experience

Patients and carers reported largely positive experiences in the surveys. Over 85% strongly agreed than they were given enough privacy when being assessed or treated (Figure 21).

Additionally, just under 30% of respondents reported waiting a long time before being seen at the MHUAC. This is supported by the data; majority of patients attending the MHUAC complete the assessment process within 3 hours. This compares to 40% of patients presenting to ED with a mental health complaint waiting over 6 hours for care[38].

Interestingly, a trend is emerging where patients/carers who attended the MHUAC who had previously attended ED in mental health crisis reported more favourable responses about time waited. A significant proportion of the patients who reported negatively on time wasted had not previously attended ED for a mental health crisis. Therefore, comparatively to patient experience at ED, the MHUAC is more favourable.

Figure 21. Distribution of responses to patient and carer experience questions in the patient survey



10.1.3. Staff interactions

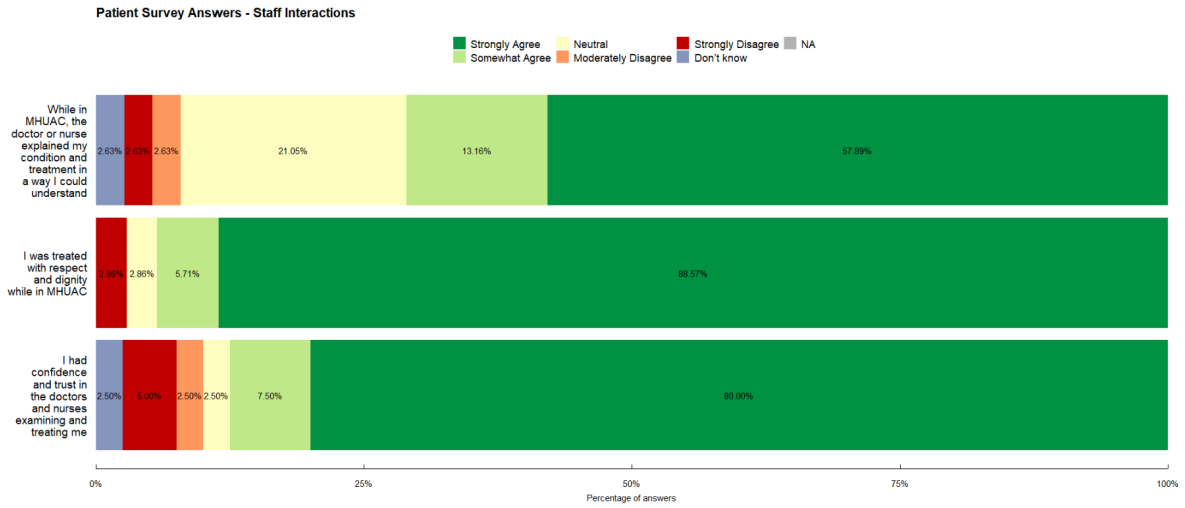
Patients and carers reported positive interactions with staff (Figure 22). A vast majority had confidence and trust in the members of staff examining them (87.5%) and felt treated with respect

[38] NHS England. ED Attendances and Emergency Admissions 2022-23.

and dignity (94.28%). The latter was one of the main complains in patients attending ED for mental health issues, further indicating a comparative advantage of the MHUAC to ED.

Further, 71% agreed or strongly agreed that they were explained their condition clearly, 21% were neutral on this question (Figure 13). Feedback suggested this could be due to the patients already knowing their condition before presenting to the MHUAC. It may also be due to the MHUAC functioning as an assessment centre before a diagnosis is made. Therefore, similarly to ED, staff do not have the information available to provide a full explanation of the patient's condition and this explanation should be provided once further assessments are completed during onward care.

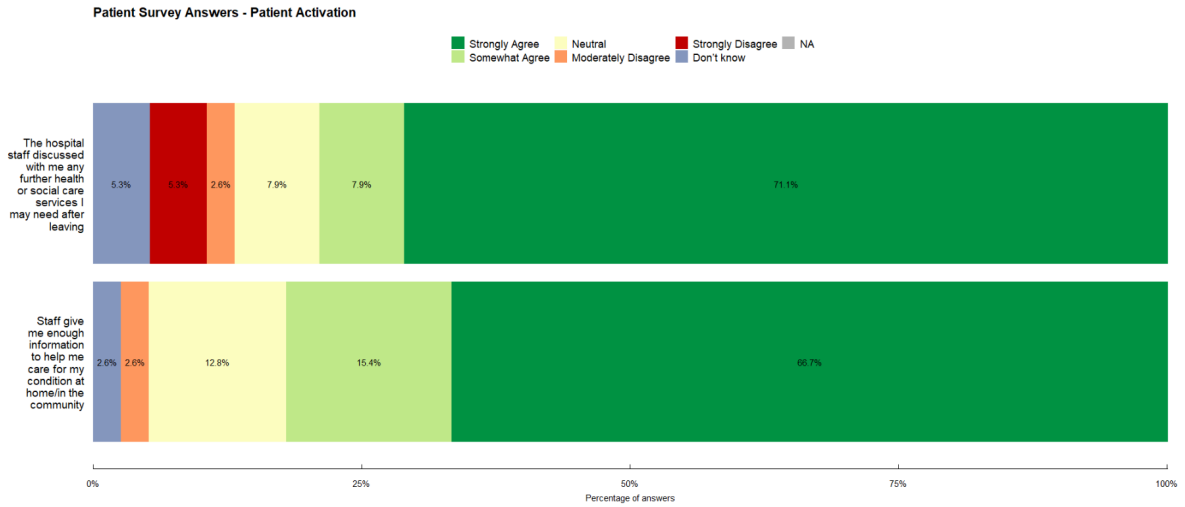
Figure 22. Distribution of responses to staff interaction questions in the patient and carer survey



10.1.4. Patient Activation

The MHUAC appeared to be successful at patient activation in the survey (Figure 23). The majority of respondents (82%) believed that staff had given them enough information to help them care for their condition at home/in the community and 79% agreed that they had the knowledge to complete onward care.

Figure 23. Distribution of responses to patient activation questions in the patient and carer survey



10.1.5. Comparison to ED and Recommendation

Patients and carers were also asked about whether they would recommend the service to friends and family, a question used across the NHS as part of the Friends and Family Test (FTT) (Figure 24)[39]. Our survey found that 82% of patients agreed that they would recommend the service.

This is a positive finding given results from the FTT conducted in ED at Lincoln County Hospital reported only 67% of patients/carers would recommend the ED to friends and family in September 2022. Although this is for all patients and not specifically those in mental health crisis, the percentage is likely to be lower for mental health patients. This is supported by the literature, which shows that mental health experiences in ED are worse than physical health, a trend also found in our survey[40,41,42].

Additionally, patients and carers were asked about whether they believe the MHUAC is a better alternative for patients in mental health crisis compared to ED. Close to 90% of respondents agreed that the MHUAC is a better alternative to ED. Some of the patients who agreed explained their answers with the following responses:

"It is good to have separate departments for mental and physical triage as psychological assessment may be more complete",

"More of a private environment",

"I feel as though being seen straight away by a mental health professional is really important as it helps de-escalate situations quicker instead of waiting in A&E",

"Great to be away from the chaos in A&E",

"Quick access to trained to mental health nurses and doctors in a quiet, relaxed setting has been much more beneficial than the stress of ED and waiting times",

"Sitting in ED waiting room makes me anxious",

"Because it is not as busy",

"Not as busy, not as anxiety provoking",

"They help you understand what you need to do to support yourself".

Only two respondents (5.8%) disagreed that the MHUAC is a better alternative to patients in a mental health crisis being sent to ED and would not recommend the MHUAC to friends and family. However, interestingly these patients also reported never attending ED in a mental health crisis before. Therefore, the patient did not have lived experience to compare to. The 3 other patients surveyed without having a prior ED attendance for mental health crisis either responded "Don't Know", left it blank or "Strongly Agreed" with both statements.

All other respondents preferred the MHUAC to ED.

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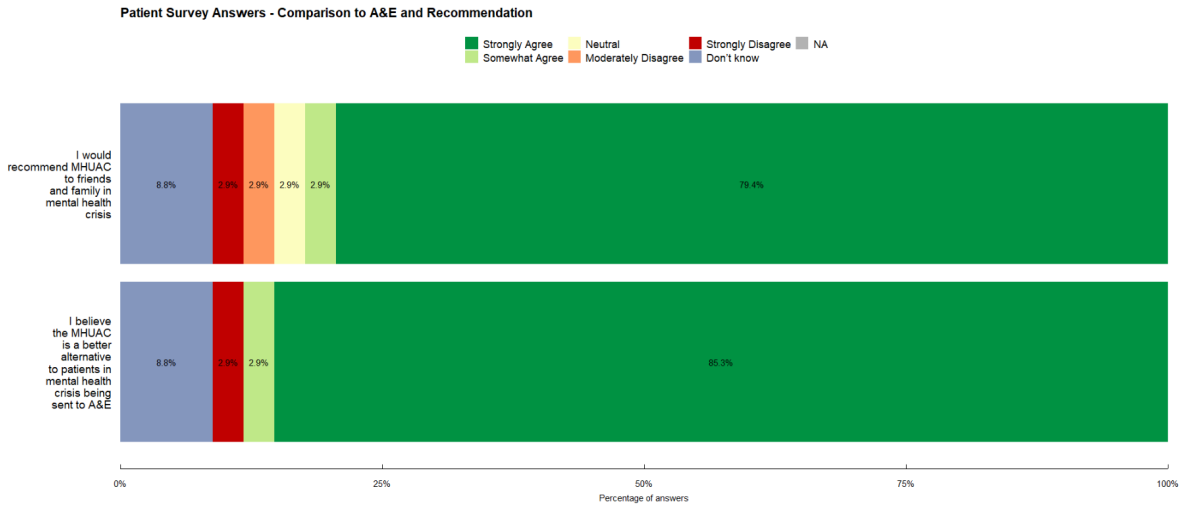
[39] The NHS Friends and Family Test (FFT) was created to help service providers and commissioners understand whether patients are happy with the service provided, or where improvements are needed.

[40] Royal College of Psychiatrists, 'Census 2021'

[41] Royal College of Psychiatrists (2020), Alternatives to emergency departments for mental health assessments during the COVID-19 pandemic

[42] Healthwatch Gloucestershire, 'Experiences of urgent mental health care in accident & emergency'

Figure 24. Distribution of responses to comparison to ED and recommendation questions in the patient survey



10.2. Staff Experiences

10.2.1. Staff Demographics

To date, 13 staff surveys have been returned across a range of roles. Of those that have been returned, 62% of the staff had previous experience in ED. Additionally, duration of employment in the MHUAC ranged from 2 months to the full pilot period.

Six staff interviews were conducted in-person. These interviews were used to go in depth into survey questions to which the answer stood out (e.g., safety concerns) and to ensure that no key points had been missed.

10.2.2. Care Quality

Staff agreed that patients are treated with respect and dignity whilst at the MHUAC, which is consistent with the results of the patient survey (Figure 25).

Additionally, the majority of staff respondents (69.2%) believe that patients are better prepared to manage their own care after their visit, which was also supported by the results of the patient survey. In interviews, staff reported giving information on places to go to when experiencing a mental health crisis alternative to the MHUAC, such as night cafes or support groups specific to a patient's condition (e.g., trauma support groups). The list of recommended community offers can be regularly updated by the specialists, a benefit they believe sets the MHUAC ahead of presentation to ED.

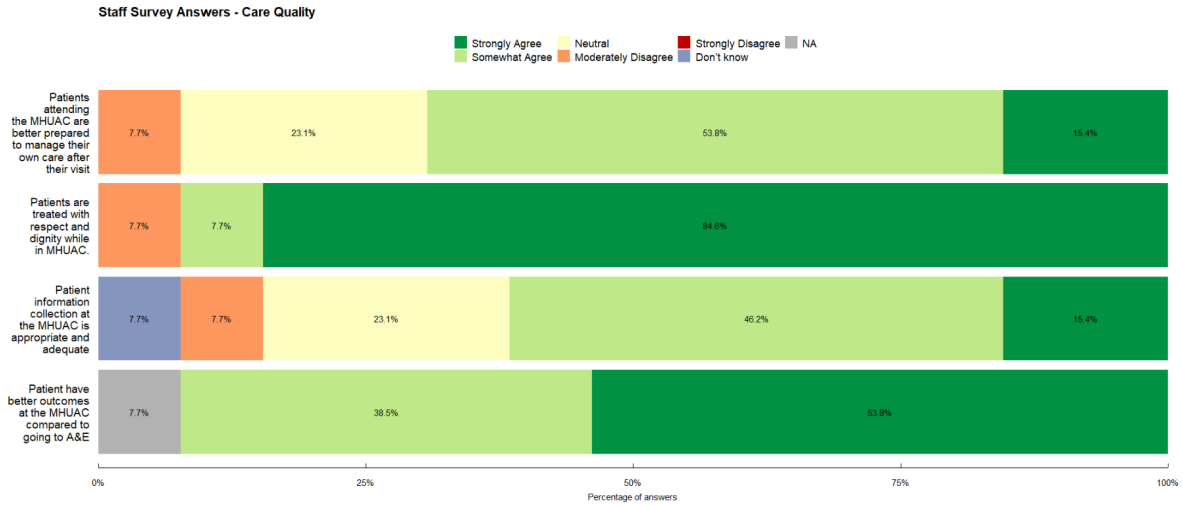
However, while staff said that they give all sort of information to patients, some may not be receptive and take further action.

All those who expressed an opinion on patient outcomes after attending the MHUAC compared to ED agreed that MHUAC is superior (Figure 25). They highlighted lower waiting times during which a patient's condition is less likely to deteriorate. Although overall very positive, one response suggested that the MHUAC was insufficient alone to improve outcomes, with this also relying on patient liaison services and those in charge of the patients onward care.

Most of staff respondents (61.6%) reported patient information collection at the MHUAC being adequate. Yet, when probed on this question in verbal interviews, all said that patient information

collection prior to a MHUAC attendance was inadequate as staff often lacked important information when patients were referred from ED or the liaison team, for example on the patient's condition or aggressiveness. They linked this to their answers on safety within the MHUAC *(see section 9.2.2).*

Figure 26. Distribution of responses to quality of care questions in the staff survey



10.2.3. MHUAC Processes

Safety processes were the main concern of MHUAC staff, both in the survey and during the interviews (Figure 26). More than half (61.6%) disagreed with the statement that there are sufficient processes in place to keep staff safe when filling out the survey and all interviewees pointed out areas for improvement.

The most common worry surrounded night shifts where the MHUAC felt short-staffed. However, management indicate that the staffing levels are the same at night and the day and the data suggests attendance number are lowest during the night (Figure 14). This potentially indicates that patients who present during night hours are perceived as more threatening than patients who present during the day. More research is needed to clarify this concern.

Many respondents also called for improvements in the level of information surrounding patients when they first present to the MHUAC. The centre must accept everyone who presents, not knowing if they are aggressive or even armed, and staff are sometimes alone with a patient. The MHUAC is perceived as an isolated environment with limited options for help. These safety concerns were also suggested to cause safety concerns for other patients and visitors.

This is supported by data collected on DATIX, the trust incident reporting system. Of the 3 reported incidents relating to staff, all incidents occurred on the late or night shift. These were all described as incidents involving "abusive, violent, disruptive or self-harming behaviour" against staff. An incident was also reported where a patients caused moderate, short term harm to a visitor of the MHUAC.

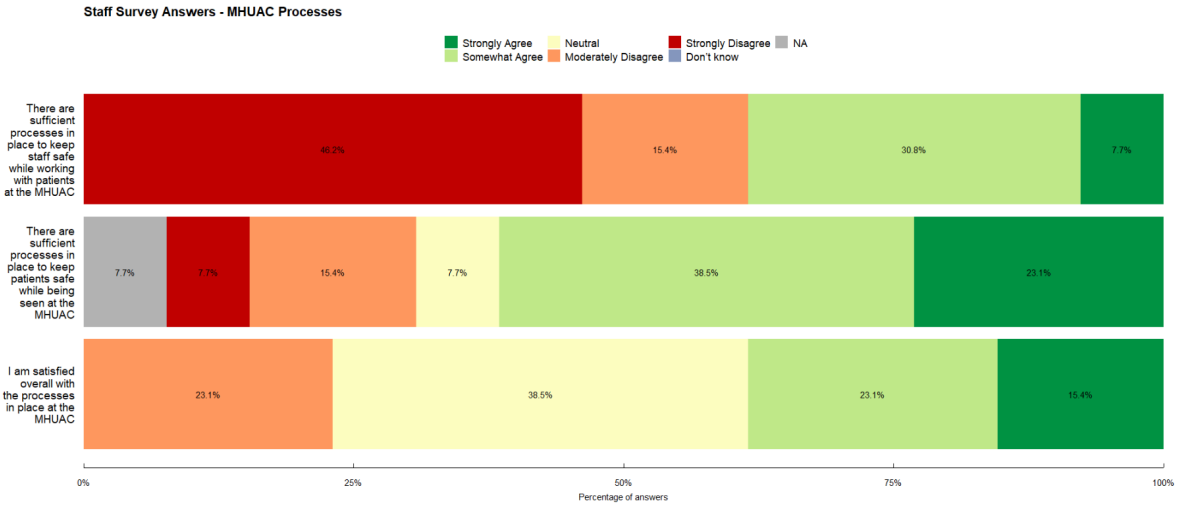
Staff made recommendations to increase the feeling of safety in the centre. Better triage was most frequently mentioned, either through an air lock system where staff would be separated from presenters by a glass window and could ask questions to evaluate aggressivity, or by better communicating with police and the East Midlands Ambulance Service (EMAS) to obtain similar information from them before they bring a patient in. Having security on site as is done in ED was also suggested by some interviewees, but others argued that it might feel threatening to patients. In

addition, security staff would have no more power to control a situation than staff under common law.

Most survey respondents (38.5%) felt neutral about the quality of the processes in place at the MHUAC. In interviews, they emphasised once again that patients should be triaged before presenting at the MHUAC as it would not only increase staff safety but also reduce the number of inappropriate attendances. However, triaging could also be detrimental to some patients as they could be turned down because deemed too risky, potentially incorrectly.

Staff reported that every time these concerns had been raised with managers of the MHUAC, processes had been put in place quickly to mitigate any issues and that they were working on solving the aforementioned concerns. In a separate interview, managers confirmed that an airlock system would be put in place at the end of 2022 to guarantee better protection.

Figure 27. Distribution of responses to MHUAC processes questions in the staff survey



10.2.4. Recommendations and comparison of ED

Although staff identified some areas for improvement at the MHUAC, majority of those surveyed believed that the MHUAC is a better alternative to patients in mental health crisis being sent to ED (76.9%) and that they would recommend the MHUAC for expansion to other trusts (92.3%) (Figure 27).

Staff reported they believe that the MHUAC is a better alternative to patients in mental health crisis being sent to ED for a number of reasons. The most common reasons include:

"The environment is warmer, calmer and less stimulating than ED making it more appropriate for patients in mental health crisis.",

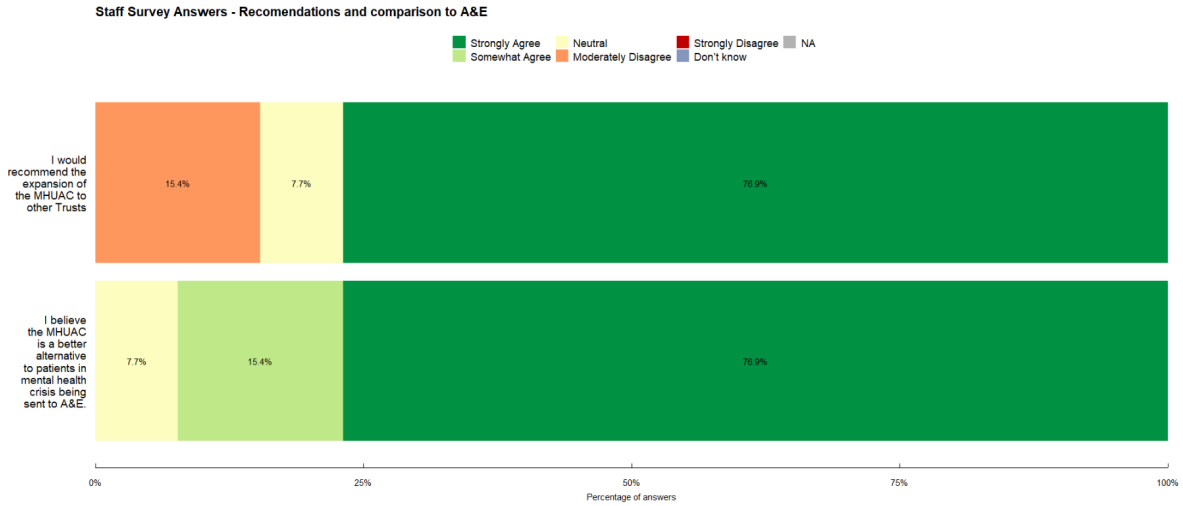
"The speed at which the patients are seen in MHUAC is much quicker than in ED meaning patients receive help more quickly and their condition is less likely to deteriorate.",

"The ability to better signpost to other services and encourage patients to be able to care for themselves at home or in the community.",

"The staff interactions with the patients are more person-centred, with staff trained in dealing with patients in mental health crisis having better understanding of patient needs allowing them to be more empathetic and compassionate and also able to better assess risk levels.".

When looking at the respondents who were either “Somewhat agree” or “Neutral” about the services being a better alternative to ED, only 1 of the 3 respondents had previously worked in ED.

Figure 27. Distribution of responses to MHUAC expansion and comparison to ED questions in the staff survey



10.2.5. Other Staff Interview Feedback

Before expanding the MHUAC to other trusts, all members of staff who took part in the interviews recommended a design that is different from the one in Lincoln. The pilot MHUAC is in the same building as the Psychiatric Clinical Decisions Unit (PCDU) and the two share an entrance. Patients presenting to the MHUAC must go through the PCDU before entering the MHUAC which is seen as a significant issue by staff, especially with the growing number of MHUAC attendances. The constant traffic to MHUAC is perceived as disruptive for PCDU patients and an invasion of privacy that could undermine the anonymity of both PCDU and MHUAC patients. While staff think that having a mental health hub is beneficial, they also spoke in favour of a separate access to MHUAC.

All members of staff agreed that the MHUAC should be trialled in other parts of the country, even with the current workforce crisis. They highlighted that the novelty of the MHUAC might attract staff and increase retention as it is a more valuable environment. This is because the MHUAC is made of MH workers only but also because it is nurse-led. One member of staff described their role as ‘very fulfilling’ as they were given more responsibility than in other services. However, staff also recognised that increasing the number of staff in the MHUAC would also deplete other services. They also reported that when the MHUAC has too many staff, some of them are redeployed to another service, which might dissuade new joiners.

11.Improved Value for Money

For the purposes of this evaluation, we have used estimates for the ED comparisons. This is due to a data quality issue with ED data at ULHT. At the Trust, all patients who have been flagged for needing mental health support by an ED clinician will have this mental health flag for all subsequent presentations. This makes it difficult to identify the share of total ED presentations that are for mental health crisis. Therefore, where ED data is not available, assumptions have been made based on the literature.

11.1. The Cost

The MHUAC team has also looked at the total cost per patient treated within the MHUAC. The analysis found that the average cost per patient is £392.36.

To date, the MHUAC have seen 871 patients[43]. Therefore, the cost for these patients at this stage of the pilot is **£341,746**.

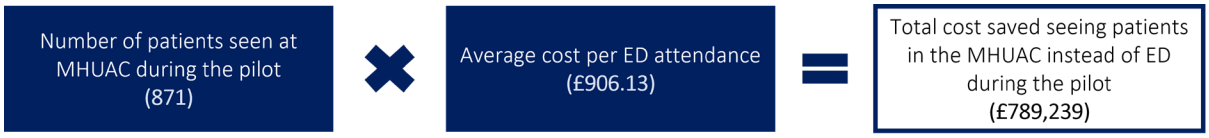
11.2. Quantified Benefits

11.2.1. ED costs saved

Alongside costs for the MHUAC, the costs avoided by a patient in mental health crisis not attending ED is also important to consider as part of cost benefit analysis.

To calculate this, the cost per ED attendance (£429.13[44]) plus the cost of mental health liaison services (£477.00[44]) is multiplied by the number of patients seen in the MHUAC to date.

Given the MHUAC saw 871 presentations[45] in its first year, the ED costs saved equals **£789,239**.



11.2.2. Reduction in Inpatient Admissions

In addition to reducing the number of attendances to ED, greater time for more specialist staff to assess patients reduces the number of patients admitted to inpatient acute wards. The reduced wait times reported in the MHUAC compared to ED may also prevent deterioration in conditions, thereby further reducing the risk of a patient's requiring inpatient admissions.

To calculate the savings on inpatient costs from the MHUAC, the cost of an inpatient episode has been estimated using the assumptions that the average length of stay (LOS) in an inpatient acute mental health ward is 22 days and the average cost per day is £429. Therefore, each avoided inpatient admissions saves £9,438.

A study conducted in Europe found that as many as 28% of presentation to ED lead to admittance to a mental health unit. To be conservative with our estimate, we have assumed 14% instead of 28% of

[43] Data from 17th January 2022 to 16th January 2023
[44] Data received from ULHT. This cost includes both staffing and estate costs. This is therefore the cost per patient if the MHUAC sees 105 patients per month.
[45] Data from 17th January 2022 to 16th January 2023

patients would have been admitted to an inpatient bed within 31 days when presenting to ED. Using this assumption for the 871 presentations to the MHUAC to date, there would have been 122 admittances to inpatient mental health wards after presenting to ED.

To date, the MHUAC has seen 84 inpatient admittances within 31 days of attendance at the MHUAC or 9.6% of presentations.

The MHUAC has therefore saved 38 mental health inpatient admissions in its first year. This equates to a **£358,644** saving to the health system.

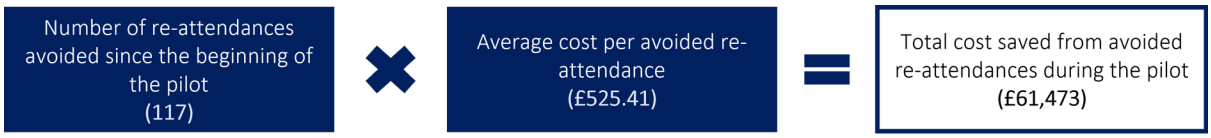
11.2.3. Reduction in Reattendances

One of the significant challenges with mental health conditions is the risk of relapse after treatment. To estimate the savings due to the reduction in relapses, the number of avoided MHUAC attendances was calculated.

One study found that as many as 50% of patients who have received NHS treatment for severe mental illness relapse, with 79% of these relapses occurring within 6 months[46]. If the re-attendance rate for the 871 MHUAC presentations was the same, 344 re-attendances would be expected[47].

Within the MHUAC, there were 227 re-attendances.

Therefore, 117 re-attendances have been prevented so far during the pilot. Using the average cost per presentation of £525.41, the reduced number of re-attendances means that **£61,473** have been saved.



11.3. Benefit Cost Ratio (BCR)

Using just benefits that are possible to quantify at this stage of the pilot, the benefit to cost ratio is 3.5 (Table 3). Therefore, for each pound spent, the health system receives £3.50 in benefits.

Table 3. Benefit Cost Ratio

Description	Pilot to date (£)
ED costs saved	789,239
Inpatient costs saved	358,644
Reduction in relapses	61,473
Total Quantified Benefits (to date)	**1,209,356**
MHUAC costs (to date)	**-341,746**
Benefit Cost Ratio	**3.5**

[46] https://bjgp.org/content/70/691/54

[47] This uses the assumption that all patients would have presented to ED for their relapse.

12.Improved Population Health

Additionally to monetary savings and improved experiences, there will also be societal benefits which will lead to an improvement in population health. Given the pilot has only been running for 12 months at the time of the evaluation, not all of these savings can be quantified at this time.

12.1. Reduction in Relapses

As stated previously, there is a potential for the MHUAC to reduce the number of patients who relapse within 6 months of attendance. This has both associated health costs (detailed previously) and a societal benefit. This occurs through the quality adjusted life-years (QALYs).

Through using the reduction in relapses mediated through the MHUAC compared to ED, we can estimate the QALYs saved through this service delivery model. We previously found that in the first year of the MHUAC, 117 patients have no longer relapsed due to attending the MHUAC instead of ED.

A total saving from this reduction in relapses, can be calculated using an adjustment to the total annual QALY. The QALY adjustment for severe mental illness has been calculated to 0.352 and the total QALY is £28,561. Therefore, through preventing relapse which would require reattendance at the MHUAC, the saving is £10,053 per patient. We have assumed the benefit only covers the year of their attendance, with the benefit attributable to the first MHUAC attendance diminishing after this time.

Therefore, across 117 patients, this equates to **£1,176,201** in societal QALY savings.

12.2. Improved Outcomes from lower LOS

Another benefit that has been identified qualitatively by staff at the MHUAC is patients at the MHUAC having better outcomes than patients who attend ED.

One of the reasons for this is the reduction in time waiting for care within the MHUAC compared to ED. This has been reported in both the data from ED and the MHUAC and through feedback from patients who have experienced both pathways.

Although not possible to accurately evaluate the impact of this reduction in time waiting on patient outcomes without further data collection, there has been ample evidence published in the literature. When waiting times are extremely long, as seen often in ED, the patient often deteriorates whilst waiting. This deterioration can then negatively influence their recovery. These poorer outcomes have a negative societal impact.

12.3. Reduction in Inequalities

There is a significant concern and evidence across mental health care that significant inequalities exist. These inequalities have lasting impacts on population health. Identified inequalities include individuals from more deprived areas accessing ED in mental health crisis more than those from less deprived areas. This is due to these patients having worse experiences with and access to community care.

Due to the MHUAC only having been open for a year at the point of this evaluation, it is hard to quantify the impact the opening of the MHUAC has had on these systemic inequalities which have long existed within the health system.

That being said, through interviews with staff and supported by survey data, we have found that the MHUAC provides patients with significant resources to help them better access community services and/or care for their conditions better at home. This should help patients from all backgrounds to

have prompt access to community mental health services, leading to better outcomes and a reduced burden on secondary mental health services.

13. Further Benefits

Alongside the benefits outlined above, there are also a number of other benefits which are important to consider.

13.1. Preventing Out of Area Placements

The current number of inappropriate OAPs in Lincolnshire is 0. However, this number fluctuates with demand, and it could change. Based on current data, a hypothetical maximum value of 5 inappropriate OAPs per month could be reached in months where mental health demand is high.

The savings attributable to the reduction in OAPs can be estimated using data from the Camden and Islington Trust, where a service similar to the MHUAC was implemented in March 2020. This Trust saw the number of inappropriate OAPs decrease to 0, 21 months after the MHUAC opened. However, since the reduction in inappropriate OAPs might not entirely attributable to the MHUAC but also to measures such as commissioning additional and appropriately staff inpatients beds, a conservative assumption would be that the opening of the MHUAC could reduce the number of inappropriate OAPs in Lincolnshire by 50%.

Data shows that the average daily cost per OAP in £611 per bed day[48] and the mean LOS of OAP is 77 days[49], meaning that each OAP costs on average £47,047.

Based on the observations from the Camden and Islington Trust, through patients being seen by mental health specialists who have sufficient time to assess the patient, it is expected that this number could be reduced to up to 3 inappropriate OAPs per month. This alone would save the health system £94,094 per month were the number of inappropriate OAPs is at its maximum. Since the number of OAPs would not have reached the hypothetical maximum value of 5 every month of the year even without the MHUAC, the annual savings attributable to reduced inappropriate OAPs could be about **£564,564**.

13.2. Emergency Services

Through conversations with a number of stakeholders, we have also identified a number of benefits to wider stakeholders, outside of staff in ED and the MHUAC. These include both to the East Midlands Ambulance Service (EMAS) and the Police. To date, the data collected by these services does not allow comparisons between interaction with the MHUAC and ED. Therefore, it is not possible to quantify these benefits at this time. However, they are important to consider.

13.2.1. East Midlands Ambulance Service

The NHS is currently facing an emergency care crisis which is having significant impacts on ambulance services. This is causing large waits outside ED due to overstretched EDs not being able to accept the patients quick enough and not having beds in ED to meet the demands. While these ambulances wait, it prevents an ambulance and the paramedics from reaching more patients. This is leading to patients waiting longer than is acceptable for an ambulance to arrive. The hypothesis was that through diverting patients away from the ED in Lincolnshire through the MHUAC, these pressures on ambulance services would be reduced.

Although data on ambulance turnaround times cannot be split between MHUAC and ED at this point, qualitative findings have indicated the MHUAC has significantly cut ambulance turnaround times. When data becomes available, we anticipate significant savings in terms of paramedic time

[48] OAP data for ULHT, NHS digital, July 2022

[49] Galante et al. (2019), Out-of-area placements in acute mental health care: the outcomes.

savings and patient waiting times savings. The patient time savings may have impacts on risk of deterioration and paramedic response times could have knock-on effects to ambulance response times across the service.

13.2.2. East Midlands Police Service

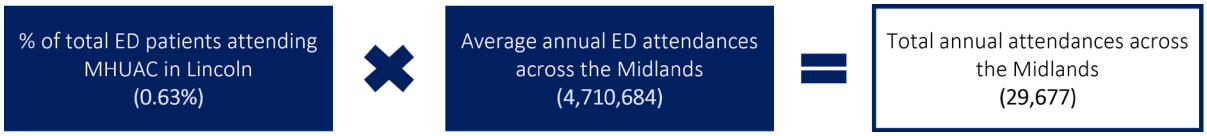
Similarly to EMAS, the East Midlands Police Service is also under considerable pressure. A significant part of this pressure has come from rising Section 136 orders. These often take up a considerable amount of time from police officers as they must wait in ED until they can hand over to a trained specialist. This has a significant impact on available police officers to respond to other calls. It also has a significant impact on the flow through ED with 2 police officer per patient held under Section 136.

The MHUAC aims to reduce these pressures through having specific Section 136 suites where the police can hand over patients quickly. However, there is currently no data available which could help evidence this but it may be possible in the future.

14. Midlands-Wide Scaling

The benefits we have quantified can be scaled nationally to estimate the potential savings if the MHUAC pilot expanded to other sites. To calculate this, the proportion of monthly ED attendances at ULHT which are diverted to the MHUAC can be scaled up to the regional average ED attendances.

Monthly, 0.63% of patients attending ED at the United Lincolnshire Hospitals NHS Trust turn to the MHUAC. Across the Midlands region, approximately 4.7m ED attendances are recorded annually[50]. If a MHUAC was opened in each site of the Midlands region and if the same proportion of ED patients attended the MHUAC at a regional scale as in Lincolnshire (0.63%), there would be an estimated 29,677 MHUAC attendances in a year in the Midlands.



14.1. Net savings of MHUAC Attendances

Assuming the average cost of an attendance at ULHT ED and a MHUAC is the same across the Midlands region, we have calculated the annual net cost of MHUAC attendances (Table 4). This, as outlined above, assumes 29,677 MHUAC attendances in a year across the Midlands.

The net additional annual savings of running the MHUAC compared to ED is **£15.2m.**

Table 4. Benefit Cost Ratio for the Midlands region

Description	Annual Cost (£)
ED costs saved	+26,891,220
MHUAC costs	- 11,644,068
Net costs of patients attending the MHUAC	**+ 15,247,152**

14.2. Midlands Potential Savings

Again assuming 29,677 MHUAC attendances in a year across the Midlands, we have scaled the previously quantified benefits (Table 5). This estimates the annual savings as **£14.4m**[51].

Table 5. Benefit Cost Ratio for the Midlands region

Description	Annual Savings (£)
Inpatient costs saved	12,324,027
Reduction in re-attendances	2,105,000
Annual Benefits	**14,429,027**

14.3. Total Opportunity

The MHUAC presents an opportunity to improve quality of care whilst also generating significant savings for the health system both within Lincolnshire and across the Midlands region. Therefore, this signals cost effectiveness of roll-out across the region.

[50] 6-month average for April-September 2022 using publicly available NHS ED attendance data

[51] This assumes all clinics will run at the same cost per patient as the MHUAC.

15. Findings and Considerations

15.1. Key Findings

Our analysis of the Mental Health Urgent Assessment Centre in Lincolnshire as compared to standard of care has demonstrated that this innovative service delivery transformation has been incredibly well-received by patients and all staff involved in the mental health crisis pathway. This includes police and ambulance services, MHUAC staff and trust staff.

Alongside the extremely positive feedback from staff and patients, there is also evidence to suggest that this pilot has been cost effective. So far, this pilot has seen measurable benefits, such as, a reduction in inpatient attendances (£789,239 saved) and relapses (£61,473 saved). When scaled across the Midlands region, these benefits could reach over £14.4 million annually.

Therefore, we report the MHUAC has a benefit cost ratio of 3.5. This BCR does not yet account for all potential savings, meaning this could be significantly higher. As data collection for the MHUAC becomes more robust within the wider health system landscape, e.g., within EMAS, there is the potential for further benefits identified to be quantified. Other benefits only mentioned qualitatively in this report, including a reduction in inequalities, will be possible to quantify as the pilot matures and we can assess the longer term impact of this service on the population and the way they interact with the system. This is not possible at the 8 months point in the pilot.

Time may also bring an opportunity to assess the impact of the MHUAC on the contentious issue of inappropriate out of area placements. The government set a national deadline to eliminate inappropriate OAPs in mental health services for adults in acute inpatient care by the end of March 2021. Lincolnshire has met this target but the Trust cannot get complacent. Pressures on the system are continuing to increase and therefore it may one day again reach a point where inappropriate OAPs return. With time, we can see if the MHUAC helps the trust continue to prevent inappropriate OAPs as bed pressures rise.

15.2. Future Considerations

Although this evaluation has found the MHUAC to be positive for patients, staff and the Trust, there are some things that needs to be considered to help optimise the MHUAC in Lincoln and ensure a strong case for further expansion to other Trusts.

15.2.1. Staff Safety Processes

This first consideration is around the processes in place at the MHUAC to make staff feel safe at work. Although not unique to the MHUAC, most of the staff interviewed during this evaluation flagged staff safety processes as a key area for improvement within the unit.

Staff in the MHUAC are highly skilled and trained professionals who are able to often able to de-escalate even the most challenging situations and reduce the risk of an incident. In the event of an emergency, staff in the MHUAC have an alarm which they can pull if they feel they are in danger and signals to other staff that they need help.

These processes have so far been successful at preventing any serious incidents. However, these processes need to be constantly reviewed to ensure they meet the evolving risks associated with a walk-in clinic. It is also important that staff feel they have the tools and resources to rely on if the worst were to happen.

A key suggestion from staff to maximise their safety whilst in the unit was improving information collection by emergency services and other community mental health specialist prior to the patient

attending the MHUAC. Staff reported they often walk into assessment rooms without patient risk assessments done and without any knowledge of the state of the patient. They noted sometimes they entered rooms without knowing patients were carrying weapons or had previously been aggressive to medical staff. Although this risk is also present in A&E and will always be with a walk-in assessment centre, maximising data available where possible could reduce the risks considerably.

It is noted, however, that there are open lines of communication with those relevant individuals at referring organisations where MHUAC staff can submit complaints if referring data is inadequate. However, ensuring staff are aware of these channels and the reports are actioned by the referring organisation when raised is key to ensuring this is an effective solution to the challenge.

Other suggestions proposed, included, introducing security at the MHUAC[52], introducing an airlock system and ensuring panic buttons in all rooms. The MHUAC is currently working to resolve some of these concerns. For example, a new airlock system should be in place before the end of 2022.

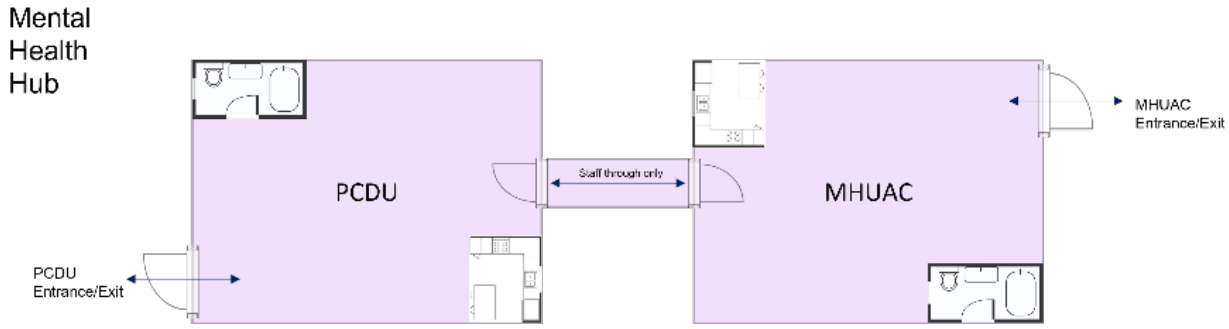
15.2.2. Design of the MHUAC

A further consideration, particularly before implementation at another Trust, is how the MHUAC is designed. All staff interviewed at the MHUAC mentioned both challenges and benefits of having a mental health hub at the hospital. This hub consists of the PCDU and the MHUAC. Benefits included, the free movement of staff between the units and easy transfer of patients, where clinically appropriate.

However, to ensure these benefits are delivered without compromising the therapeutic environment and the safety and privacy of patients and staff, many staff believe changes to the layout of the hub are required (Figure 28). By adding a separate patient and carer entrance for the MHUAC and limiting the through access between both units to staff (and patients when accompanied), the units can be distinct but remain interconnected. To aid with this, staff also believe both units should have all necessary facilities. Both the PCDU and the MHUAC should have a patient bathroom, waiting room and drinks area.

Other design changes which could be considered for future sites is the furnishing of the building to maximise the therapeutic environment. Suggestions included less clinical chairs and softer lighting.

Figure 28. Diagram of optimal MHUAC design



15.2.3. Workforce

Another key consideration before the MHUAC expands, both in Lincoln and elsewhere, is the current workforce crisis across the NHS. The significant challenges around recruitment and retention of staff,

[52] Requires consultation on whether this will have a net positive or net negative impact on staff and patients.

and particularly mental health staff in the NHS cannot be ignored when considering the roll-out of a new mental health team.

Staff at the MHUAC suggested that recruiting staff for the MHUAC would not be challenging. This is due to the interesting, innovative and specialist nature of the unit. The MHUAC also has the benefit of being nurse-led, granting nurses greater responsibility than work on many wards. Although considerations are[53] and must be made to upskill staff, this was seen as a positive for many staff and something that could aid with both retention and recruitment of further MHUAC staff members.

However, the number of specialist mental health staff is finite and therefore, the impact of employing staff into a new unit on other services cannot be ignored. The recruitment of staff into a MHUAC team could leave gaps in other services which then cannot be back filled. This could pose a significant challenge to other mental health services, even potentially negating the reduction in pressure on the system generated by the MHUAC. Therefore, the wider impact on the Trusts workforce must be considered by each potential site before further roll-out.

15.2.4. Speed of Roll-Out

The final recommendation is related to the way in which further MHUACs are set up, building on learnings from the MHUAC is Lincoln. Feedback from staff highlighted that the speed and process of the implementation was rushed. Although the timeline was short for reasons outside the control of the MHUAC team (e.g., winter pressure), the rapid roll-out meant that a lot of the processes were developed through trial and error.

Although this has led to a highly effective service which is already delivering significant benefits to patients, staff and the Trust, this process put additional pressure and stress on staff. It also could have slowed down benefit realisation.

Through allowing more time to work through the processes and logistics of the MHUAC, the design of the MHUAC in Lincoln could have been co-produced with staff. This could have limited the stress to MHUAC staff and may have made for a smoother and quicker ramp up of activity.

Therefore, if more MHUACs open at other sites, sufficient time should be allocated to the design and implementation. Learnings from the MHUAC in Lincoln should also be considered.

16.Conclusion

The current pilot in Lincolnshire has shown that there are significant benefits to separating emergency care for physical and mental health, where appropriate. It is also clear that with minor modifications in the implementation schedule, design and processes, the MHUAC model deployed within the Lincoln MHUAC, would prove beneficial to patients, staff and trusts across the Midlands region.

However, before scale-up in Lincoln or roll-out elsewhere, discussions must take place around the impact of implementation of a MHUAC on the Trust's workforce. The availability of staff to fill key roles in the MHUAC without leaving gaps elsewhere in the system will vary place to place. Therefore, a decision must be made by the Trust about whether the benefits of the MHUAC outweigh the risks to further mental health staff vacancies elsewhere.

[53] Minimum of 1 month supernumerary for new staff to be implemented.