Enabling more days at home

Optimising patient discharge

Evaluating OPTICA shared use of the system by Local Authorities and Acute Trusts



IMPERIAL COLLEGE HEALTH PARTNERS

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Executive summary

This report evaluates the impact of the Optimised Patient Tracking and Intelligent Choices Application (OPTICA) during its implementation from June to August 2024.

OPTICA formally launched in July at two North West London (NWL) test sites:

1. Hillingdon Hospital with Hillingdon Local Authority
2. Chelsea and Westminster Hospital with the Royal Borough of Kensington and Chelsea, Hammersmith & Fulham; and Westminster (Tri-borough service) Local Authorities

It focuses on:

- Early impact on discharge workflows and outcomes
- Effectiveness of implementation support provision by Imperial College Health Partners (ICHP)

The report concludes with five recommendations to guide future implementation and support wider adoption.

Context

One of NWL's three Missions for Research and Innovation is focused on enabling residents to spend more days at home by improving patient flow and optimising discharge coordination through the implementation of technology solutions. OPTICA, a secure, cloud-based application that tracks admitted patients and discharge tasks in near real-time across different trusts and local authorities, was identified as a potential solution.

ICHP led pre-implementation planning, training, and change management support using a mixed-methods approach informed by the Greenhalgh NASSS (Non-Adoption, Abandonment, Scale-up, Spread, Sustainability) framework. Due to challenges around inconsistent cross-site implementation in the preceding year, implementation standardisation and evaluation were key areas of focus in this work.

We evaluated two areas:

1. Impact of OPTICA on:
    a. Discharge-related workflows and staff experience
    b. Discharge metrics: patient length of stay (LOS) and discharge times
2. Implementation of OPTICA: quality and effectiveness of ICHP's implementation support

Key findings

- OPTICA significantly reduced staff time spent on discharge planning, which could represent notable cost savings.
- OPTICA was felt to be easy to use, integrated well with existing tools, and enhanced workflow efficiency without adding to workload.
- Hillingdon Hospital reported freeing up over 990 staff hours annually for other activities due to improved efficiency and reduced administrative burden.
- This amounts to £62,675.63 estimated annual productivity savings.
- Staff found OPTICA valuable for tracking discharge details, identifying delays, and improving coordination across teams, including between Trusts and Local Authorities (LAs).

- Staff also reported that it provided timely updates in fast-changing hospital settings and reduced time spent in meetings.
- OPTICA's impact on discharge metrics was generally positive, though some findings were mixed.
- In Hillingdon, NCTR (No Criteria to Reside) bed days showed a 23% reduction ($p = 0.031$).
- In Chelsea and Westminster, individual-level analysis showed a 26% reduction in the odds of patients being classified as NCTR post-implementation ($p = 0.026$). However, aggregate-level analysis showed more ambiguous results, indicating the need for longer-term study.
- Unexpectedly, at Chelsea and Westminster, after OPTICA implementation, there was a 27% decrease in the likelihood of patients being discharged before 5pm ($p=0.045$).
- Methodological limitations and wide confidence intervals limit certainty about the true impact, indicating a need for further study.
- Staff gave positive feedback on the quality and availability of the support provided and reported feeling confident using OPTICA following receipt of training.

Recommendations

The OPTICA product offers a major opportunity to improve discharge planning and coordination across health and social care in NWL. Drawing on best practice in digital transformation and system integration, these recommendations outline how OPTICA can be embedded, scaled, and sustained to deliver meaningful impact for patients, professionals, and providers.

1. Embed OPTICA within system priorities
    - Position OPTICA as a strategic enabler within ICS digital and operational priorities
    - Establish multi-agency governance to ensure shared accountability across acute, community, and social care
2. Foster collaboration, shared learning, and user-centred design
    - Create cross-sector forums to share best practice, address challenges, and expand access to community and brokerage teams
    - Guide development through frontline input via co-design, usability testing, and real-time feedback
3. Standardise, improve data quality, and enable interoperability
    - Align workflows through a cross-sector discharge group, shared taxonomy, Standard Operating Procedures (SOPs), and strong data governance
    - Explore opportunities to more fully integrate OPTICA with Electronic Patient Records (EPRs), such as enabling writeback functionality
4. Drive adoption and build workforce capability
    - Replace legacy tools with clear guidance and a unified communications strategy, empowering leaders to drive cultural change
    - Provide digital onboarding, tailored training, peer support, and simplified access to embed OPTICA in daily practice
5. Embed evaluation, continuous improvement, and scalable roll-out
    - Use rolling evaluations with analytics, staff feedback, and patient outcomes, supported by independent benefits reviews
    - Prioritise roll-out by local authority readiness and impact, addressing barriers through alignment with provider goals and staff engagement

Introduction

Background

In April 2023, 14% of beds in NWL were occupied by patients whose discharges were delayed – the highest proportion in London. Contributing to this are challenges around continuity of care, disjointed communication and variability between providers within the discharge system.

Recognising this, one of NWL's three Missions for Research and Innovation is focused on enabling residents to spend more days at home by improving patient flow and optimising discharge coordination through the implementation of technology solutions. (Figure 1).

Figure 1: The NWL Research and Innovation Board Mission



To achieve this goal, ICHP collaborated on optimising discharge coordination through supporting the implementation of the OPTICA product.

About OPTICA

OPTICA is a secure cloud-based platform designed to support hospitals in tracking admitted patients and tasks related to their discharge in near real-time (**NHS North of England Commissioning Support Unit, n.d.**). OPTICA is one of the products available via **NHS Federated Data Platform (FDP)** and supports the NHSE's strategy for securely connecting data, breaking down silos, and providing actionable insights to improve decision-making, reduce costs, and enhance patient outcomes through use of the national data platform. The OPTICA workstream is part of a broader system-wide approach to discharge optimisation in NWL.

OPTICA aims to support streamlining of discharge processes by fostering collaboration between teams across multiple care settings. It provides the ability for health and social care teams to collaborate and share information, with the goal of improving discharge planning and potentially reducing delays.

By offering insights into the reasons for and duration of discharge delays, as well as identifying responsible parties, OPTICA supports teams in managing hospital capacity and resource utilisation effectively.

Implementation timelines

NWL Integrated Care System (ICS) initially implemented OPTICA within its four acute hospital discharge hubs in 2023. Each hub implemented it within their existing discharge pathways in the absence of a standardised Standard Operating Procedure (SOP) across sites. As a result, discharge tasks and pathways lacked consistent definitions, leading to varied implementation across sites. This created barriers to achieving NWL ICS's original aspiration of cross-site coordination and planning, and inhibited data pooling for strategic planning.

In early 2024, it was agreed that OPTICA use would be expanded to all NWL LA's discharge teams, starting with two initial test implementation partnerships:

1. Hillingdon Hospital and Hillingdon LA
2. Chelsea and Westminster Hospital and the Royal Borough of Kensington and Chelsea, Hammersmith & Fulham; and Westminster (Tri-borough service) LAs

In February 2024, ICHP established an OPTICA workstream to provide implementation and evaluation support for the two test implementation sites.

From February to May 2024, ICHP conducted the pre-implementation and change work for the programme, including pathway mapping and co-designing NWL processes and SOPs.

From July 2024, both test partnerships went 'live' using OPTICA as a shared 'single version of the truth' discharge planning platform.

Implementation support offer

To support implementation and adoption, ICHP delivered a comprehensive training programme for LA and integrated discharge hub staff from June to August 2024. This was to ensure that ICHP equipped staff across the implementation sites with the knowledge and skills needed to effectively use the system.

The training programme included a diverse range of training formats and accessible resources:

- One-on-one training and team training sessions (virtual and in-person)
- Training documentation, OPTICA user guides, quick-reference sheets and scenario-based examples
- Development of SOPs
- Quality improvement
- Evaluation

Evaluation aims

This report focuses on two areas of evaluation:

1. Impact evaluation:
    a. Discharge-related workflows and staff experience
    b. Discharge metrics: Patient length of stay (LOS) and discharge times
2. Implementation evaluation: Quality and effectiveness of ICHP's implementation support

The evaluation covers two implementation sites: Hillingdon LA with Hillingdon Hospital and the Tri-borough service with Chelsea and Westminster Hospital.

Our research questions were as follows:

Impact of OPTICA

- On discharge-related workflows and staff experience:
    a. *Does OPTICA provide greater visibility of discharge activity and a 'single source of truth'?*
    b. *Has OPTICA reduced the time taken to complete discharge-related tasks?*
    c. *Has OPTICA improved communication between LA and trust staff?*
- On patient LOS and discharge times:
    a. *Has OPTICA reduced patient LOS on LA discharge pathways?*
    b. *Has OPTICA reduced NCTR bed days on LA discharge pathways?*

Implementation of OPTICA

a. *What has been the staff experience of OPTICA implementation training and support provided by ICHP?*
b. *To what extent have different roles and teams adopted and integrated OPTICA into their workflows?*

Evaluation methodology

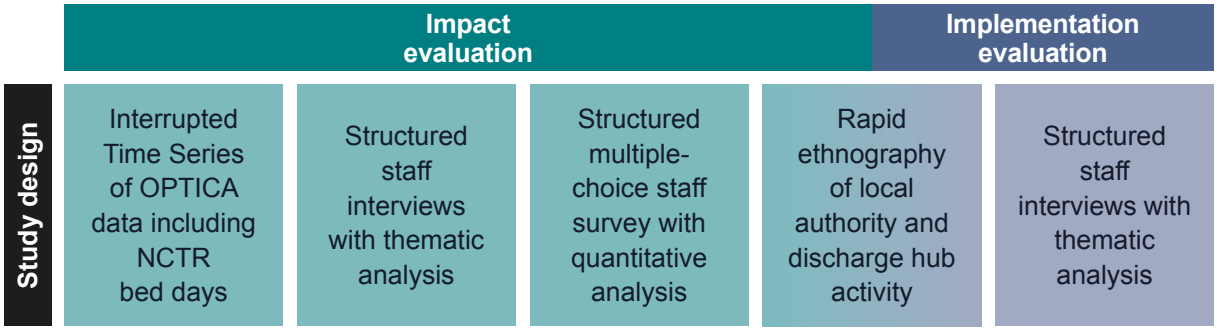
Overview

In this evaluation, we used a mixed methods approach in response to the complexities of evaluating a live innovation within a health system. We used the Greenhalgh **NASSS framework** (Non-Adoption, Abandonment, Scale-up, Spread, Sustainability) to structure and inform the evaluation approach and to understand the context of implementation.

- The impact evaluation looks at the effectiveness of OPTICA within LAs and Trusts in NWL by comparing trends before and after the intervention using historical data.
- The implementation evaluation looks at the support delivered by ICHP in the implementation of OPTICA within LA and acute Trusts in NWL.

Figure 2 shows how the evaluation data was used for the impact and implementation evaluations. We detail the different study designs below:

Figure 2: Overview of the evaluation methodology



Structured staff interviews with thematic analysis

To inform both the implementation and impact evaluations of OPTICA, we used structured 30-minute remote interviews with LA and discharge hub staff involved in discharge coordination at the implementation sites. A sample of seven staff members across both sites with a variety of roles participated, of which 80% were new LA users; the remaining were representatives from each of the discharge hub teams.

Interviews were recorded and transcribed for retrospective analysis and review. We coded transcripts using thematic analysis in **NVivo** to identify recurring patterns and divergent experiences.

Structured staff feedback survey

We employed a quantitative survey-based evaluation to assess the implementation and impact of OPTICA across LA and acute trusts. We designed two structured surveys with multiple-choice questions to gather consistent, measurable feedback from users: one was distributed to LA users, and the other to staff within the discharge hub.

We analysed data collected from both groups using a comparative visual analysis of the survey data, employing column charts to understand user views. The discharge hub survey had four responses; the LA survey had two responses.

Observation of LA and discharge hub activity

Rapid ethnography and user observation are used in studies, evaluations, and improvement initiatives within the NHS to understand how things work amid everyday practice (**Black et al 2021**; **Burton et al. 2019**; **Isaac et al. 2019**; **Vindrola-Padros and Vindrola-Padros 2018**).

For this evaluation, conducting user observation enabled triangulation of some of the differences in the findings from the surveys and interviews carried out. Two evaluation team members each carried out a day of observation at Chelsea and Westminster and Hillingdon discharge hubs. Across these visits, 13 staff members across a variety of roles were observed whilst using OPTICA.

Casual analyses of OPTICA data

We identified the patient population impacted by OPTICA implementation, which comprised the study cohorts:

COHORT 1 Chelsea and Westminster Hospital NHS Foundation Trust (Chelsea and Westminster)

- **Treatment:** Adults (18+) discharged on pathways 1 or 3 from Chelsea and Westminster Hospital NHS Foundation Trust between 1 July 2023 and 31 December 2024 and registered to a GP Practice within Kensington and Chelsea, Hammersmith & Fulham, or Westminster LAs at the time of discharge.
- **Comparison:** Adults (18+) discharged on pathways 1 or 3 from Chelsea and Westminster Hospital NHS Foundation Trust and registered to a GP Practice within Hounslow at the time of discharge.

COHORT 2 Hillingdon Hospitals NHS Foundation Trust (Hillingdon)

- **Treatment:** Adults (18+) discharged on pathways 1 or 3 from Hillingdon Hospitals NHS Foundation Trust between 1 July 2023 and 31 December 2024 and registered to a GP Practice within Hillingdon LA at the time of discharge.
- **Comparison:** It was not possible to assign a comparison group within the Hillingdon Cohort since most of the patients were registered to a GP Practice within the Hillingdon LA. See below for more detail.

We sourced time-ordered data from OPTICA, measuring bed days and discharges in two separate FDP tenancies (see **Appendix B** for full list of measures). We searched for discharges between 1 July 2023 and 31 December 2024. We classified index dates between 1 July 2023 and 30 June 2024 intervention as ‘pre-intervention’, with index dates between 1 July 2024 and 31 December 2024 classified as ‘post-intervention’.

Due to differences in availability of a comparable control group for each cohort, different modelling approaches were applied:

- As we were able to set up a comparable control group with the Chelsea and Westminster evaluation dataset, we used a Difference-in-Difference (DID) model for Cohort 1.
- As it was not possible to assign a comparison group within the Hillingdon Cohort since most of the patients were registered to a GP Practice within the Hillingdon LA, we used an Interrupted Time Series (ITS) method for Cohort 2 to evaluate trends before and after the intervention while adjusting for potential confounders.

The descriptive analysis comprises of the above measures broken down by demographic variables (see **Appendix C** for full list of variables).

Limitations

We have highlighted limitations to keep in mind when interpreting results. Specific incidences are highlighted in **Findings and evaluations**.

- **Small sample size**
  A limited number of staff participated in the implementation evaluation (n= 13), potentially affecting the generalisability of findings.
- **Attribution challenges**
  The complexity of the system made it difficult to isolate the impact of OPTICA from other potential factors influencing the discharge process. Other ongoing initiatives aimed at improving discharge processes may have influenced outcomes, making it challenging to attribute changes solely to OPTICA.
- **No qualitative baseline**
  The absence of baseline qualitative data introduced the possibility of recall bias in staff feedback.
- **Seasonal variation**
  Hospital discharge and demand varies seasonally without enough lapsed time to see correlation in seasonality trends. To correct for this, the analysis examined both absolute and relative measure to ensure volume of service was considered. The use of comparison group in Cohort 1 also help address some seasonal variations, but this was not available for Cohort 2.
- **Implementation delays**
  Despite the defined go-live date of 29 July the rollout of OPTICA experienced slow uptake, limiting its immediate impact during the evaluation period.
- **Methodological limitations**
  ITS requires a sufficiently long time series to model and is susceptible to confounding factors that change over time. Whilst the use of a control cohort attempts to account for some of these time-variant confounding factors, it may not completely mitigate effects. With a limited post-intervention period, a simplified ITS model was used to examine short-term effects. It is also to be noted that the effects of intervention and the cohort composition could vary over time. We attempted to mitigate this effect through the application of visual assumption checks and robust clustering.
- **Variability across organisations**
  Cohort data was affected by variable definitions of discharge pathways (e.g. pathway 3) by different trusts.

Findings and evaluation

Impact of OPTICA on discharge-related workflows and staff experience

Findings from qualitative methods

To evaluate the impact of OPTICA on discharge-related workflows and staff experience, we carried out staff interviews, surveys, and observation of OPTICA use in practice.

Five cross-cutting themes relating to the impact of OPTICA were identified:

1. Hospital-LA collaboration
2. Access to discharge information
3. Alternative communication methods
4. Expanding OPTICA to additional LA Staff
5. Impact on patient outcomes

A high-level summary of findings from each method and quotes from staff interviews are found below. All findings and themes are summarised in **Table 1**.

- **Findings from interviews**
  The interviews findings indicate that OPTICA helped improve communication and decision-making and streamlined workflows by providing real-time access to discharge information, reducing reliance on traditional communication methods when used appropriately.
- **Findings from surveys**
  There was a small sample size and low response rate to the surveys, which limits generalisation of feedback. Some discharge hub and LA users found the OPTICA integration with LAs saved time, although reduction in use of other communication methods was limited. Most users surveyed reported OPTICA's integration with LAs had a positive impact on their day to day working. Survey findings were less positive compared to interview responses.
- **Findings from user observation**
  Overall, feedback on OPTICA's usability was positive, with staff giving examples of how it has improved efficiency and collaboration. Whilst other communication channels remain, use of these has declined since the introduction of OPTICA. Improving confidence in the accuracy of information in OPTICA, and expanding access to wider partners, were the main improvement areas identified. Across both sites, information entry and task management largely remained the responsibility of Discharge teams. The co-located Chelsea and Westminster teams seeing less direct OPTICA use by the LA team, with verbal updates the core communication channel pre and post implementation.
- **Quotes from interviews:**

  > ***"[OPTICA is] the only platform where I can cross check all discharge details. I can check up on pathway 3 discharges and follow up where they are… the needs-based assessment status is on there, so I can see if there is a delay on the next step."***

  > ***"OPTICA has been really helpful with providing regular updates because things can change really quickly. As you can imagine, in a hospital setting, we can get a referral, the patient might be medically optimised, ready to go. And then we start our process, allocating a social worker or organising care and then in that time the patient becomes unwell again. Within 24 hours, things can change really drastically."***

> *"For me [OPTICA] is an addition [to other communication methods], but it doesn't create any more work."*

> *"It was easy to get the information I needed from the system."*

> *"It has really reduced the time adult social care need to stay on the daily meeting."*

Table 1: Summary table of thematically organised findings from the staff interviews, surveys, and observation of OPTICA use in practice

Theme	Staff interviews	Surveys	Observations
Access to OPTICA	Enabled new users, some initial delays	N/A	N/A
Training and usability	Tailored support appreciated, intuitive system	High confidence, easy access for LA users	Positive feedback, easy navigation
Hospital-LA collaboration	Enhanced communication, consistent approach	Positive impact on day-to-day working	System tracks patient status effectively
Access to information	Up-to-date access, some improved efficiency	N/A	Use for both strategic reporting and operational use for patient journey tracking, some concerns about data consistency and Cerner-OPTICA lag time
Use of alternative communication methods	Decreased dependence on phone and email	Some reduction in non-OPTICA tools, continued use of spreadsheets	Combination of non-OPTICA tools still used
Expanding OPTICA access	Felt OPTICA expansion would improve effectiveness, streamline processes	N/A	Wider OPTICA access to partners and teams such as the Discharge Lounge, Brokerage, Housing, and UCB desired
Impact on patient outcomes	Not always clear day-to-day patient impact, but some expedited task allocation, social worker involvement	Potential reduction in provision of care delays	Improved communication between teams, enhanced visibility of tasks

Findings from staff cost saving analysis

In addition to qualitative methods detailed above, Hillingdon Hospital's Digital Programmes team conducted an estimated cost savings analysis for the impact of OPTICA's implementation in discharge hub during the evaluation period.

Based on staff time saved, the analysis concluded that estimated annual savings would include:

- Estimated 992.6 hours freed up annually across different staff levels
- £62,675.63 estimated annual savings from improved efficiency and reduced admin burden (See Table 2 below)
- Better utilisation of staff capacity allowing focus on higher-priority tasks
- Additional savings potential from LOS and workflow enhancements (not quantified here as monitored separately)
- These figures are estimated based on the current operation to illustrate potential time and cost savings

Table 2: Estimated annual cost savings from use of OPTICA at Hillingdon hospital

Area	Annual time savings	Estimated cost savings
Hillingdon Discharge calls duration reduced	120 hours	£9,304
Freed-up capacity from handover removal	160 hours	£39,448
NWL Discharge escalation calls eliminated	78 hours	£2,578
Ealing Discharge meeting calls duration reduced	34.6 hours	£1,146
Reduced email traffic	600 hours	£10,200
Total Savings (excluding LOS impact)	**992.6 hours**	**£62,676**

Impact of OPTICA on patient LOS and discharge times

Both Chelsea and Westminster and Hillingdon showed some significant improvements in discharge metrics after implementing OPTICA. However, given the high-level of uncertainty presented in the model results, some of these findings should be interpreted with caution. We have detailed specific limitations below.

Hillingdon Hospitals NHS Foundation Trust findings

For the Hillingdon cohort, 2,329 discharge records were included in the analysis. An ITS with weekly aggregated data was carried out as individual-level analysis was less suitable given the high degree of nuance at individual level.

We found that the weekly number of NCTR bed days was significantly reduced by 23% per week after the implementation of OPTICA (RR = 0.77, 95% CI = [0.6, 0.98], p = 0.031).

However, when we looked at the average number of these days per patient discharged, although reduced the change was not statistically significant. This could imply that, despite statistical significance, the reduction was not substantial enough relative to the scale of discharge activities.

Because of wide confidence interval and that it nearly includes no effect, there's uncertainty about how much benefit OPTICA provides, so the findings should be interpreted with care. More data points with a longer post-intervention period are recommended to access both short- and medium-term effects.

Table 3: Descriptive data on the Hillingdon cohort that was analysed for the ITS

Group	No criteria to reside			Actual discharge pathway				
	No criteria to reside	Criteria to reside	Not stated	Pathway 0	Pathway 1	Pathway 2	Pathway 3	Repat/ transfer to another Trust
Pre-OPTICA	1,102	189	48	1,025	229	11	73	1
Post-OPTICA	793	153	44	641	310	7	32	0

Group	Master delay reason group					
	Awaiting hospital action	Care transfer – discharge hub process	Community bed / care / resource unavailable	Social / community care decisions underway	Wellbeing concerns including safeguard / MCA	None
Pre-OPTICA	0	0	0	0	0	1,339
Post-OPTICA	202	6	18	54	2	708

Group	IMD									
	1	2	3	4	5	6	7	8	9	10
Pre-OPTICA	0	66	231	145	265	72	114	115	189	57
Post-OPTICA	0	42	167	133	167	68	103	75	146	37

Chelsea and Westminster Hospital NHS Foundation Trust findings

After screening for study period and planned discharge pathway, 2,721 and 3,032 discharge records were included as the intervention and comparison group. The primary analysis for the Chelsea and Westminster data was a DiD model on weekly aggregated data and individual data.

Note that there was some variation in findings between a DiD analysis of weekly aggregated data and individual-level data, so the findings should be interpreted with some caution. Compared to the DiD with weekly aggregated data, the DiD with individual data had increased statistical power and provided more data points and control on confounding factors.

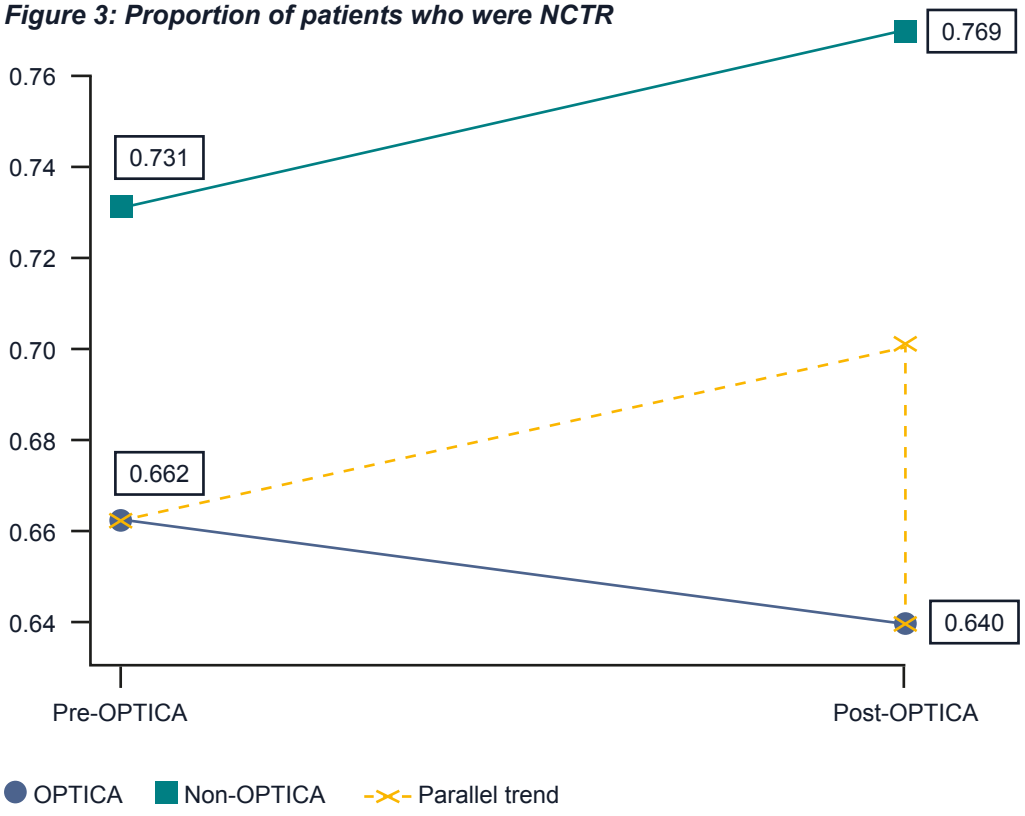
Findings for the DiD with weekly aggregated data:

- While there are statistically significant differences between treatment and control groups, these patterns were likely to be consistent before and after the OPTICA implementation when comparing the treatment pathway against the comparison group.
- There are some significant differences between the tri-boroughs (RBKC, H&F and Westminster) and Hounslow in discharging patients, regardless of the OPTICA implementation.
- The results show that OPTICA had *not* caused additional reduction in weekly number of NCTR patients, weekly number of bed days (i.e. the length of stay) or weekly number of NCTR bed days in the treatment group compared to the control.

Findings for the DiD with individual data:

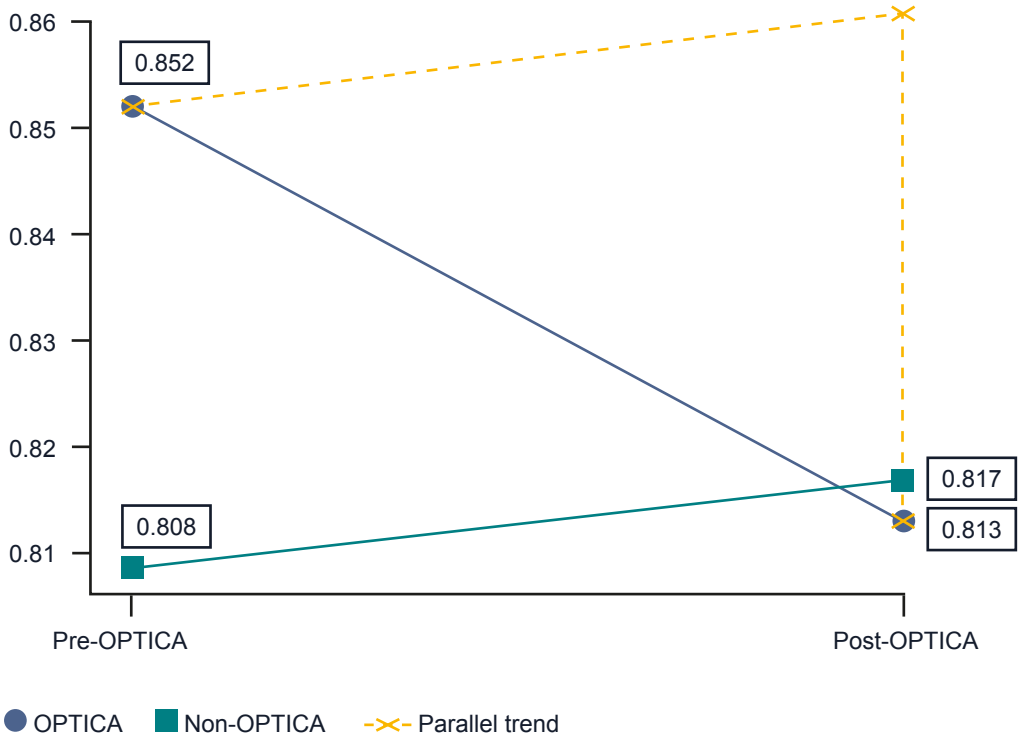
- Compared to the non-OPTICA group, the patients who discharged with the use of OPTICA were 26% less likely to remain in the hospital when they were medically fit (OR = 0.74, 95% CI = [0.57, 0.96], p = 0.026) after the introduction of OPTICA.

Figure 3: Proportion of patients who were NCTR



- Compared to the non-OPTICA group, the patients who discharged with the use of OPTICA group were 27% less likely to be discharged before 5pm (OR = 0.73, 95% CI = [0.53, 0.99], p = 0.045) after the introduction of OPTICA.

Figure 4: Proportion of patients who discharged before 5pm



Note: The wider 95% CI indicates a high level of uncertainty to the effect size and these results should be interpreted carefully.

This divergence may point to a scenario where OPTICA improves discharge experiences on a case-by-case basis, but such improvements are diluted when assessed at the weekly aggregated level. The current investigation also does not capture the operational variation or the potential variance and impact of the case-mix of the patients. More data are required to reach better model fitting.

We recommend further investigation with a longer observation period, including to understand unexpected finding that patients are less likely to be discharged before 5pm with OPTICA use.

Table 4: Descriptive data on the Chelsea and Westminster and comparative

Group	No criteria to reside			Actual discharge pathway					
	No criteria to reside	Criteria to reside	Not stated	None	Pathway 0	Pathway 1	Pathway 2	Pathway 3	Unstated
Pre-OPTICA	2,273	725	34	3	2,359	405	1	61	203
Post-OPTICA	1,783	688	250	0	2,120	389	4	56	152

Group	Master delay reason group					
	Awaiting hospital action	Care transfer – discharge hub process	Community bed / care / resource unavailable	Social / community care decisions underway	Wellbeing concerns including safeguard / MCA	None
Pre-OPTICA	143	29	29	77	4	2,750
Post-OPTICA	65	21	15	63	3	2,554

Group	IMD									
	1	2	3	4	5	6	7	8	9	10
Pre-OPTICA	10	230	460	784	515	496	135	31	16	13
Post-OPTICA	74	271	269	350	313	287	246	293	130	36

Implementation of OPTICA

To support implementation and adoption, ICHP delivered comprehensive training programme for LA and integrated discharge hub staff from June to August 2024, consisting of a diverse range of training formats and accessible resources. To evaluate the quality and efficacy of this support we carried out staff interviews, surveys, and observation of OPTICA use in practice.

Summary of findings on training and adoption

- The interview findings indicated that onboarding and training support successfully enabled users to adopt OPTICA. The implementation successfully enabled seven new adult social care (ASC) users from the LA to access OPTICA. These users included discharge hub staff and ASC team leads and managers.
- Interview findings indicated that users appreciated the provision of tailored support, which addressed specific questions and needs. Staff commented on the usefulness of the training:

  > ***"I could just drop in whenever, and that worked really well."***

  > ***"I could ask very specific questions to resolve issues."***

  > ***"I didn't need to do the training in a fixed time slot... I could drop in when it was convenient."***

- Discharge hub users surveyed reported high confidence in using OPTICA. LA users surveyed reported they found it easy to access all the patient information they needed and are confident in using the system to update tasks.
- During on-site observation, discharge team members across both sites were positive about OPTICA's usability and demonstrated confidence in navigating the system, including newer staff and those who considered themselves less technical.
- While some initial resistance was noted – particularly from staff who preferred paper-based systems or were more accustomed to using Cerner – those who used OPTICA regularly indicated that they found it beneficial. Staff such as Patient Flow and Discharge Coordinators reported finding OPTICA efficient for accessing relevant patient information.

Recommendations

The OPTICA programme represents a significant opportunity to improve discharge planning and coordination across health and social care in NWL. Drawing on best practice in digital transformation and system integration, this set of recommendations outlines how OPTICA can be embedded, scaled, and sustained to deliver meaningful impact for patients, professionals, and providers.

Embed OPTICA within system priorities

- OPTICA should be positioned as a key strategic enabler within ICS digital and operational priorities. Establishing a multi-agency governance structure will ensure shared accountability and alignment across acute, community, and social care sectors.
- To support this, formalise NHS–LA interface data governance protocols to ensure compliance with IG standards, clarify data ownership, and enable safe data sharing across organisational boundaries.

Foster collaboration, shared learning, and design around user needs

- Cross-sector learning forums should be established to share best practice and surface implementation challenges. Expanding OPTICA access to community and brokerage teams will strengthen coordination across the discharge pathway.
- Future rollouts should include mental health and intermediate care settings to assess broader applicability and foster whole-system collaboration.
- OPTICA's development should be guided by frontline experience. Co-design workshops, usability testing, and real-time feedback loops will ensure the system remains responsive to operational realities and local variation.
- Regular feedback loops should be implemented to improve confidence in data accuracy and system trust. Visual indicators of data freshness and task status should be considered to support decision-making.

Strengthen standardisation, data quality, and enable interoperability

- Operational consistency is critical. A cross-sector discharge group should be convened to harmonise workflows, supported by a co-developed taxonomy and standard operating procedures. Robust data governance and performance management will underpin reliable, timely data input.
- Future implementations should include mandatory data entry protocols for critical fields, real-time validation prompts, and regular audits to reduce exclusions from analysis and improve data completeness.
- To reduce duplication and improve decision-making, explore opportunities to more fully integrate OPTICA with Electronic Patient Records (EPRs), such as enabling writeback functionality.

Support adoption and build workforce capability

- Clear guidance on replacing legacy tools, coupled with a unified communications strategy, will support uptake. Senior leaders should be empowered to use OPTICA to provide strategic oversight and drive cultural change.
- Communications should articulate the value proposition of OPTICA using case studies, testimonials, and impact metrics to drive engagement and reinforce shared purpose.
- Digital onboarding, tailored training, and peer support mechanisms will be essential to ensure staff confidence and competence. Simplifying access and providing ongoing support will help embed OPTICA into daily practice.
- Training should be modular and role-specific, with scenario-based learning and drop-in sessions to support staff with varying levels of digital confidence. Peer-led support through super-users or champions should be encouraged.

Embed evaluation, continuous improvement, and plan for scalable roll-out

- A rolling evaluation cycle, incorporating analytics, staff feedback, and patient-reported outcomes, will support ongoing refinement. Independent benefits realisation reviews will help validate impact and inform future investment.
- Future evaluations should span at least 12 months to capture seasonal variation and phased adoption effects. Mixed-methods approaches should be strengthened with larger sample sizes and baseline qualitative data to reduce recall bias.
- A structured roll-out strategy should prioritise local authorities based on readiness and potential impact. Organisational barriers must be addressed through clear alignment with provider objectives and staff engagement.
- Use benefits realisation data, such as the estimated £62,675.63 annual savings at Hillingdon, to build compelling business cases for expansion and reinvestment into frontline support and system enhancements.

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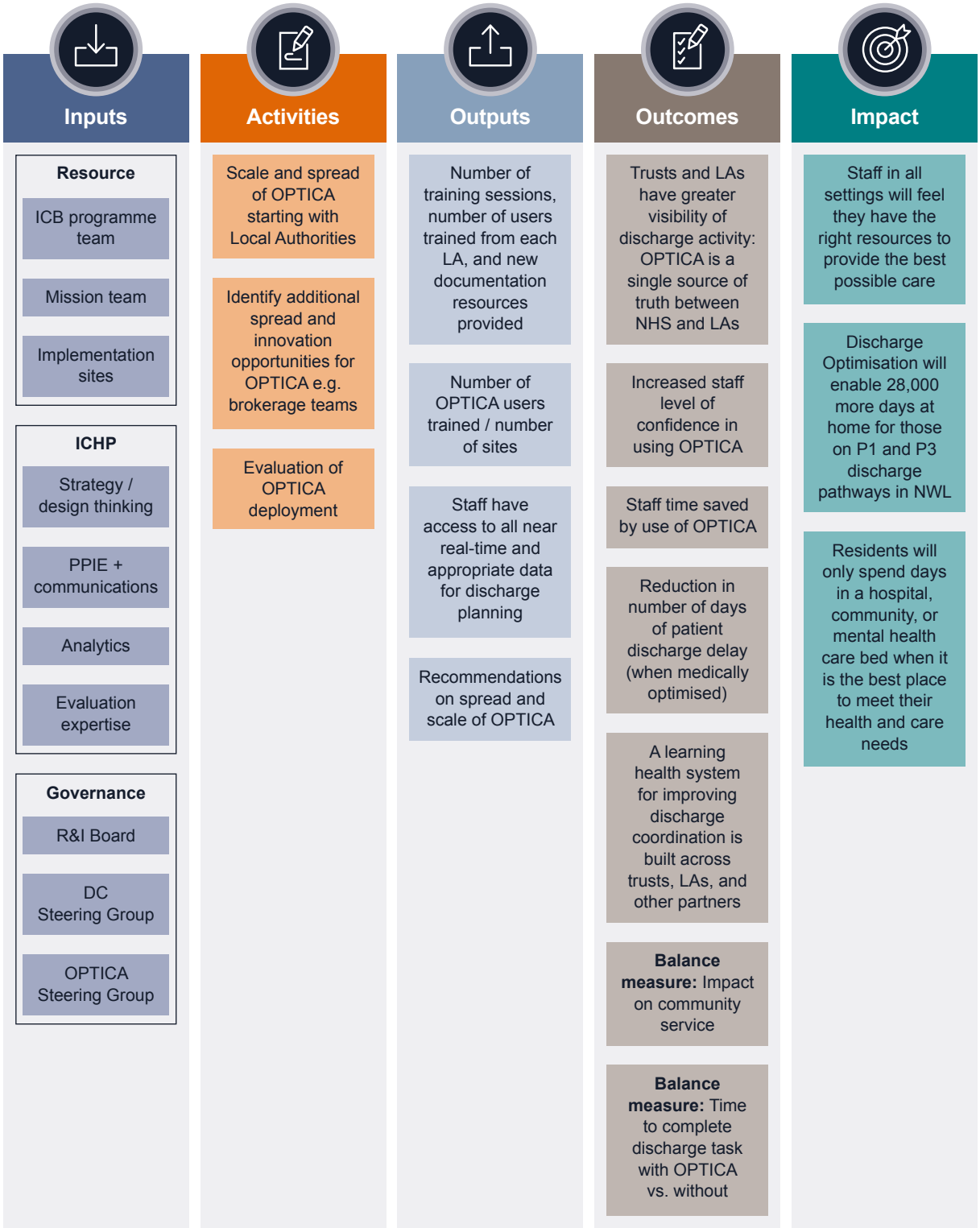
Appendices



Appendix A: Logic model

NWL developed a logic model leading to the development of an evaluation framework aimed to support the current evaluation and future evaluations of the OPTICA platform across NWL.

Figure 5: LAs use of OPTICA with hospitals logic model



Appendix B: Measures

Table 5: Measures

Measure	Description	Type
NCTR patients	Whether a patient remained in hospital with NCTR when they were medically fit for discharged	Binary
Sum of NCTR bed days	Number of days (defined as staying past midnight) where a patient has stayed in hospital with no criteria to reside	Integer
Sum of bed days	Number of days (defined as staying past midnight) where a patient has stayed in hospital	Integer
Sum of discharges	All discharges	Integer
Percentage of patients discharged by 5pm	The percentage of all discharges where the patient was discharged at 5pm or earlier	Percentage

Appendix C: Variables

Table 6: Variables

Variable	Description	Type
Age (if available)	Age at index date of the patient. Grouped as appropriate into age bands	Integer, categorical
Gender (if available)	Recorded gender of the patient (male, female, other, unknown)	Categorical
Index of Multiple Deprivation (IMD) (if available)	IMD decile (national) of the LSOA of residence of the patient	Integer
LA (if available)	LA of the GP practice where the patient is registered	Categorical
Reason for delay (if available)	For patients who were not discharged with NCTR, the reason for delayed discharge	Categorical

Appendix D: Results of the statistical analyses

Table 7: Chelsea and Westminster Hospital Cohort: Difference-in-Difference with weekly aggregated data

Outcome measures+	Factors^	Estimate/ RR	p value (SE)	CI 95%
Number of NCTR patients	Post-intervention	1.04	0.47 (0.054)	(0.94) - (1.16)
	OPTICA (1 = treated)	**0.73**	**0.002 (0.102)**	**(0.6) - (0.9)**
	OPTICA: Post-intervention	0.88	0.164 (0.092)	(0.73) - (1.05)
Number of NCTR delayed days	Post-intervention	0.88	0.207 (0.103)	(0.72) - (1.07)
	OPTICA (1 = treated)	**0.58**	**0.000 (0.141)**	**(0.44) - (0.76)**
	OPTICA: Post-intervention	1.25	0.151 (0.157)	(0.92) - (1.71)
Average NCTR delayed days per discharge	Post-intervention	-0.35	0.2206 (0.2866)	(-0.91) - (0.21)
	OPTICA (1 = treated)	**-1.25**	**0.000 (0.3069)**	**(-1.85) - (-0.65)**
	OPTICA: Post-intervention	0.78	0.0592 (0.4161)	(-0.03) - (1.6)
Number of total bed days	Post-intervention	0.94	0.306 (0.059)	(0.84) - (1.06)
	OPTICA (1 = treated)	**0.68**	**0.000 (0.097)**	**(0.56) - (0.82)**
	OPTICA: Post-intervention	1.05	0.582 (0.095)	(0.87) - (1.27)
Average total bed days per discharge	Post-intervention	**-1.32**	**0.0427 (0.6534)**	**(-2.6) - (-0.04)**
	OPTICA (1 = treated)	**-3.72**	**0.000 (0.8357)**	**(-5.36) - (-2.08)**
	OPTICA: Post-intervention	1.81	0.0502 (0.9226)	(0) - (3.62)
Number of discharges	Post-intervention	0.99	0.746 (0.046)	(0.9) - (1.08)
	OPTICA (1 = treated)	**0.83**	**0.035 (0.089)**	**(0.69) - (0.99)**
	OPTICA: Post-intervention	0.97	0.649 (0.072)	(0.84) - (1.11)
Number of patients who discharged before 5pm	Post-intervention	0.99	0.898 (0.053)	(0.9) - (1.1)
	OPTICA (1 = treated)	0.88	0.169 (0.093)	(0.73) - (1.06)
	OPTICA: Post-intervention	0.92	0.274 (0.079)	(0.79) - (1.07)

Bold *Statistically significant results*

+ measures were aggregated to weekly basis

^ Post-intervention: Indicating study time period (0 = pre-intervention; 1 = post-intervention); OPTICA: indicating intervention group (0= comparison group; 1= intervention group); OPTICA: post-intervention: indicating the interaction term as DiD model estimator

Table 8: Chelsea and Westminster Hospital Cohort: Difference-in-Difference with individual level data

Outcome measures	Factors^	Estimate/ RR	p value (SE)	CI 95%
NCTR patients	Post-intervention	**1.23**	**0.031 (0.096)**	**(1.02) - (1.48)**
	OPTICA (1 = treated)	**0.70**	**0.000 (0.077)**	**(0.6) - (0.81)**
	OPTICA: Post-intervention	**0.74**	**0.026 (0.134)**	**(0.57) - (0.96)**
Number of NCTR delayed days	Post-intervention	0.90	0.23 (0.083)	(0.77) - (1.07)
	OPTICA (1 = treated)	**0.70**	**0.000 (0.088)**	**(0.59) - (0.83)**
	OPTICA: Post-intervention	1.19	0.267 (0.157)	(0.87) - (1.62)
Number of total bed days	Post-intervention	0.94	0.098 (0.039)	(0.87) - (1.01)
	OPTICA (1 = treated)	**0.81**	**0.000 (0.039)**	**(0.75) - (0.87)**
	OPTICA: Post-intervention	1.11	0.117 (0.065)	(0.97) - (1.26)
Discharged before 5pm	Post-intervention	1.05	0.628 (0.106)	(0.86) - (1.29)
	OPTICA (1 = treated)	**1.36**	**0.001 (0.095)**	**(1.13) - (1.63)**
	OPTICA: Post-intervention	**0.73**	**0.046 (0.159)**	**(0.53) - (0.99)**

Bold *Statistically significant results*

^ *Post-intervention: Indicating study time period (0 = pre-intervention; 1 = post-intervention);*
OPTICA: indicting intervention group (0= comparison group; 1= intervention group);
OPTICA: post-intervention: indicating the interaction term as DiD model estimator

Table 9: Hillingdon Cohort: Interrupted Time Series (ITS) with weekly aggregated data

Outcome measures+	Factors	Estimate/ RR	p value (SE)	CI 95%
Number of NCTR patients	Age	0.98	0.443 (0.023)	(0.94) - (1.03)
	Gender	0.61	0.336 (0.519)	(0.22) - (1.68)
	IMD	0.84	0.366 (0.197)	(0.57) - (1.23)
	Post-intervention	0.89	0.165 (0.081)	(0.76) - (1.05)
Number of NCTR delayed days	Age	0.99	0.746 (0.032)	(0.93) - (1.05)
	Gender	0.33	0.16 (0.778)	(0.07) - (1.54)
	IMD	1.00	0.994 (0.276)	(0.58) - (1.72)
	Post-intervention	**0.77**	**0.031 (0.123)**	**(0.6) - (0.98)**
Average NCTR delayed days per discharge	Age	1.02	0.379 (0.02)	(0.98) - (1.06)
	Gender	0.74	0.607 (0.596)	(0.23) - (2.37)
	IMD	1.14	0.437 (0.17)	(0.82) - (1.59)
	Post-intervention	0.85	0.111 (0.101)	(0.7) - (1.04)
Number of total bed days	Age	0.96	0.083 (0.021)	(0.93) - (1)
	Gender	0.53	0.263 (0.57)	(0.17) - (1.61)
	IMD	0.99	0.945 (0.218)	(0.64) - (1.51)
	Post-intervention	0.88	0.175 (0.091)	(0.74) - (1.06)
Average total bed days per discharge	Age	1.00	0.758 (0.016)	(0.97) - (1.03)
	Gender	0.71	0.358 (0.379)	(0.34) - (1.48)
	IMD	1.15	0.104 (0.086)	(0.97) - (1.36)
	Post-intervention	0.93	0.284 (0.066)	(0.82) - (1.06)
Number of discharges	Age	0.98	0.332 (0.021)	(0.94) - (1.02)
	Gender	0.69	0.43 (0.477)	(0.27) - (1.75)
	IMD	0.83	0.332 (0.197)	(0.56) - (1.21)
	Post-intervention	0.92	0.254 (0.073)	(0.8) - (1.06)
Number of patients who discharged before 5pm	Age	0.99	0.624 (0.022)	(0.95) - (1.03)
	Gender	0.56	0.266 (0.529)	(0.2) - (1.57)
	IMD	0.82	0.353 (0.208)	(0.55) - (1.24)
	Post-intervention	0.89	0.179 (0.086)	(0.75) - (1.05)

Bold *Statistically significant results*

+ measures were aggregated to weekly basis

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