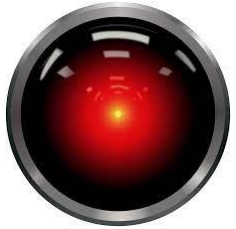
Health Innovation East Midlands

An evaluation of Isla at Nottingham University Hospitals NHS Trust

Innovation insights webinar

11th September 2024

Housekeeping



- This session is being recorded and will be shared publicly after the event.

- Please keep your microphone on mute if you are not speaking.

- Type questions in the chat including your contact details. We will respond at the end of the session (time allowing) or follow-up by email.

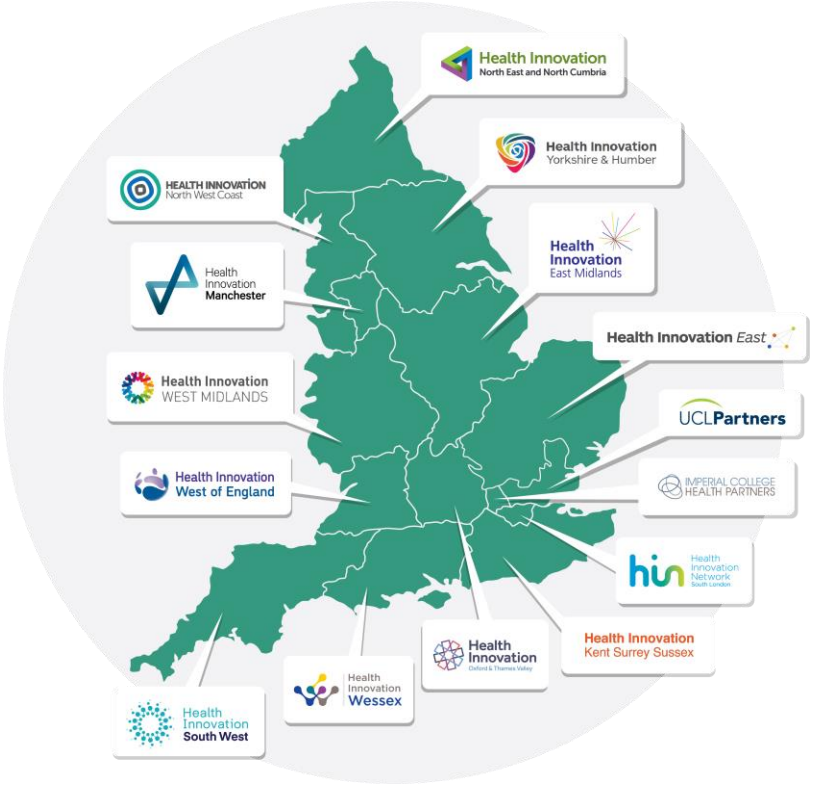
Agenda

Time	Item	Lead	Role	Organisation
12:00 – 12:05	Welcome and introduction	Nick Hamilton	Digital Navigator	Health Innovation East Midlands
12:05 – 12:20	Overview of Isla	Gabi Cohen	Delivery Director	Isla Health
12:20 – 12:35	Measuring the impact	Virginia Dall'O	Consultant	Edge Health
12:35 – 12:55	Experience at NUH	Denise Jacques Andrea Cronshaw	Head of Digital Products CNS, Childrens Burns and Plastics	Nottingham University Hospitals NHS Trust / Nottingham Children's Hospital
12:55 – 13:00	Close	Nick Hamilton	Digital Navigator	Health Innovation East Midlands

Health Innovation Networks

Health Innovation East Midlands

- HIEM is one of 15 Health Innovation Networks (HINs) – commissioned by the NHS to operate as the innovation arms for our ICSs and partners.
- We tackle national problems, with local understanding.
- And local problems, with national expertise.
- Each health innovation network is fully-embedded in their local health and research ecosystem.
- This drives economic prosperity and growth in all parts of the country and ensures that everyone benefits from innovation.



East Midlands DIGITAL HEALTH ACCELERATOR

Context

Health Innovation East Midlands

The East Midlands Digital Health Accelerator (EMDHA) is designed to help high potential start-ups and SMEs to refine, develop and scale their digital innovations in the East Midlands.

The programme provides tailored support, such as:

- **1 to 1 advice**
- **Guidance and direction**
- **Masterclasses with subject matter experts**
- **Opportunities to showcase their innovations with stakeholders**
- **Brokering connections and providing resource to support adoption**

We have successfully supported a number of companies to scale their business and created spread and adoption opportunities in the region and nationally across the Health Innovation Network.

East Midlands DIGITAL HEALTH ACCELERATOR

Accelerator programme

Health Innovation East Midlands

Nov-Dec | Jan-Feb | Mar-May | Jun-Nov | Dec | 2025

Selection

Introductory workshops
Introductory workshops focused on your value proposition

Masterclasses and individual support
Digital health masterclasses and bespoke innovator support packages delivered by subject matter experts

Coaching
Individual coaching, navigation and peer support

Demo day
Opportunity to showcase your innovation to the NHS

Alumni programme
Ongoing support and networking

Self-guided learning
Access to online learning resources and Innovation Academy open sessions

Ongoing networking
Regular update meetings with your expert lead to help broker connections

East Midlands
DIGITAL HEALTH ACCELERATOR

Health Innovation East Midlands

Overview of Isla - what it is and how it is used

Gabi Cohen, Delivery Director – Isla Health

Isla

Introduction to Isla Health

11 September 2024

Contents

Isla

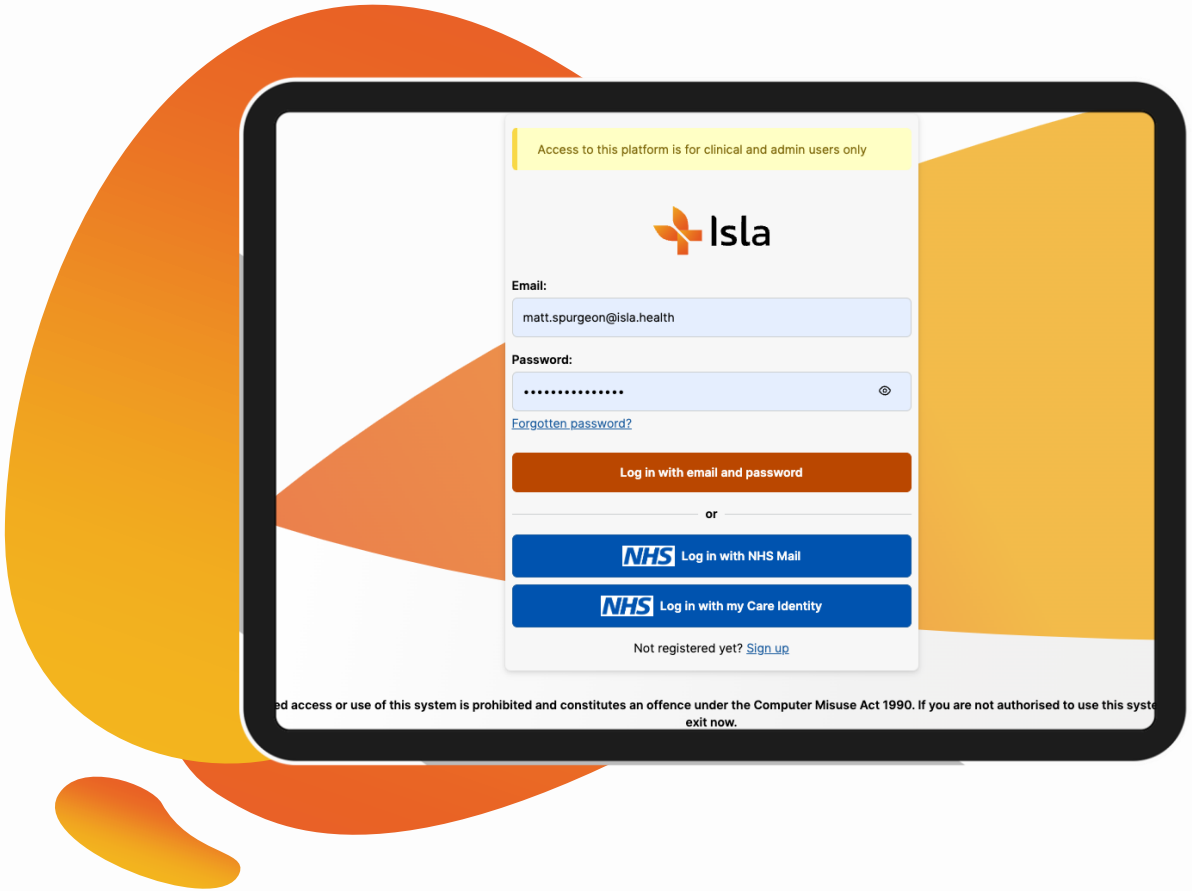
Overview

Why we exist & what we do

A vision for change

In a world where the condition of every patient is understood at all times, health systems will be effective and scalable. Isla moves us towards this ideal.

Isla is the leading platform to implement digital patient pathways effectively and at scale



01

Continuous information

From collecting information in person with patients to continuously and remotely. Leverage the power of modern media (images, videos and sound recordings).

02

Scalable remote pathways

Create highly scalable, automated pathways right across the healthcare journey, ensuring patients are consistently reassured, informed, engaged and treated in a scalable way.

03

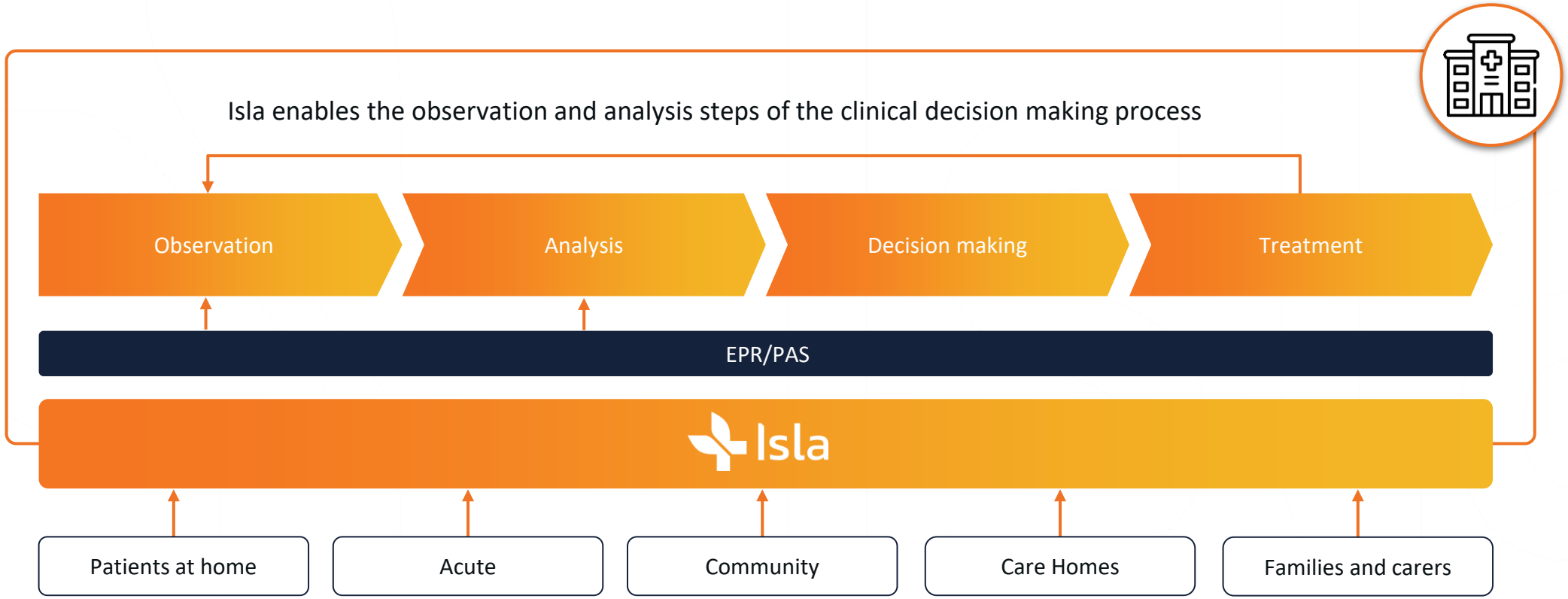
Efficient clinical assessment

Empower clinicians to agree standardised views of clinical data supported where appropriate with computer vision and machine learning.

Isla

Leveraging the wider community

Isla continuously collects and consolidates patient information for faster decision making.



Delivering impact

Better decision making

Clinicians have a full understanding of changes in a condition to make informed decisions

Supported self-care

Empowering patients and family to monitor conditions and update clinical teams

More cost-effective care

Patients are seen at the right time in the right way reducing duplication and delay

Improved visit planning

Clearer visibility of patient requirements reducing appointment duration

Better MDT working

More regular input from specialists meaning fewer delays in agreeing the right care plan

Meeting strategic & national objectives

E-meet and Greet

Welcome patients, communicate average waiting times and collect necessary information

Waitlist Validation

Validate all waitlists to identify patients whose needs have changed and who no longer require care

Self care & Management

Empower patients and families to manage their own care at home by sharing resources and information

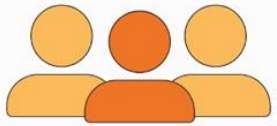
Health screening & risk assessment

Undertsand patient need and risk stratify patient cohorts

Remote Monitoring & PIFU

Securely shift 30% of patient activity to remote and introduce PIFU pathways across all outpatient specialties

Virtual Wards & Hospital at Home

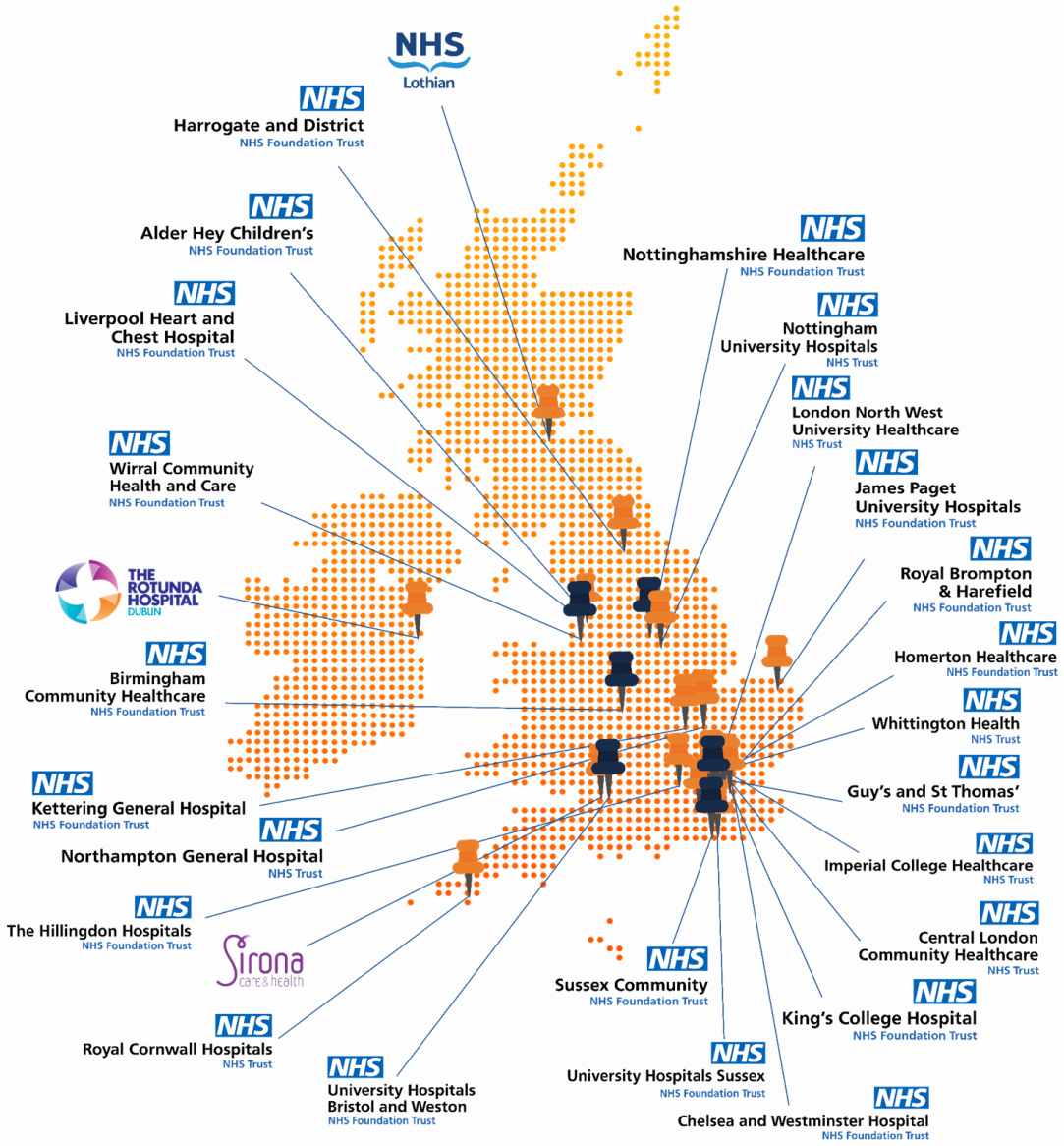


Monitor patient progress at home to identify any signs of deterioration or changing patients needs

An overview of Isla

In just under 4 years since launching, we have been able to:

- Work with 30+ NHS Trusts
- Support 40+ pathways across Acute and Community
- Receive 1 million submissions annually
- Grow to 50 team members
- Deliver cash positive implementations in 100% of our rollouts
- Partner with our first international hospitals outside of the UK and EU



Community Acute

Isla

Isla

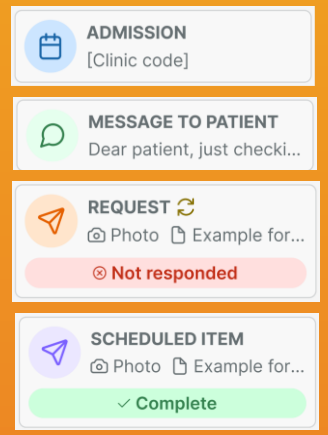
Capabilities

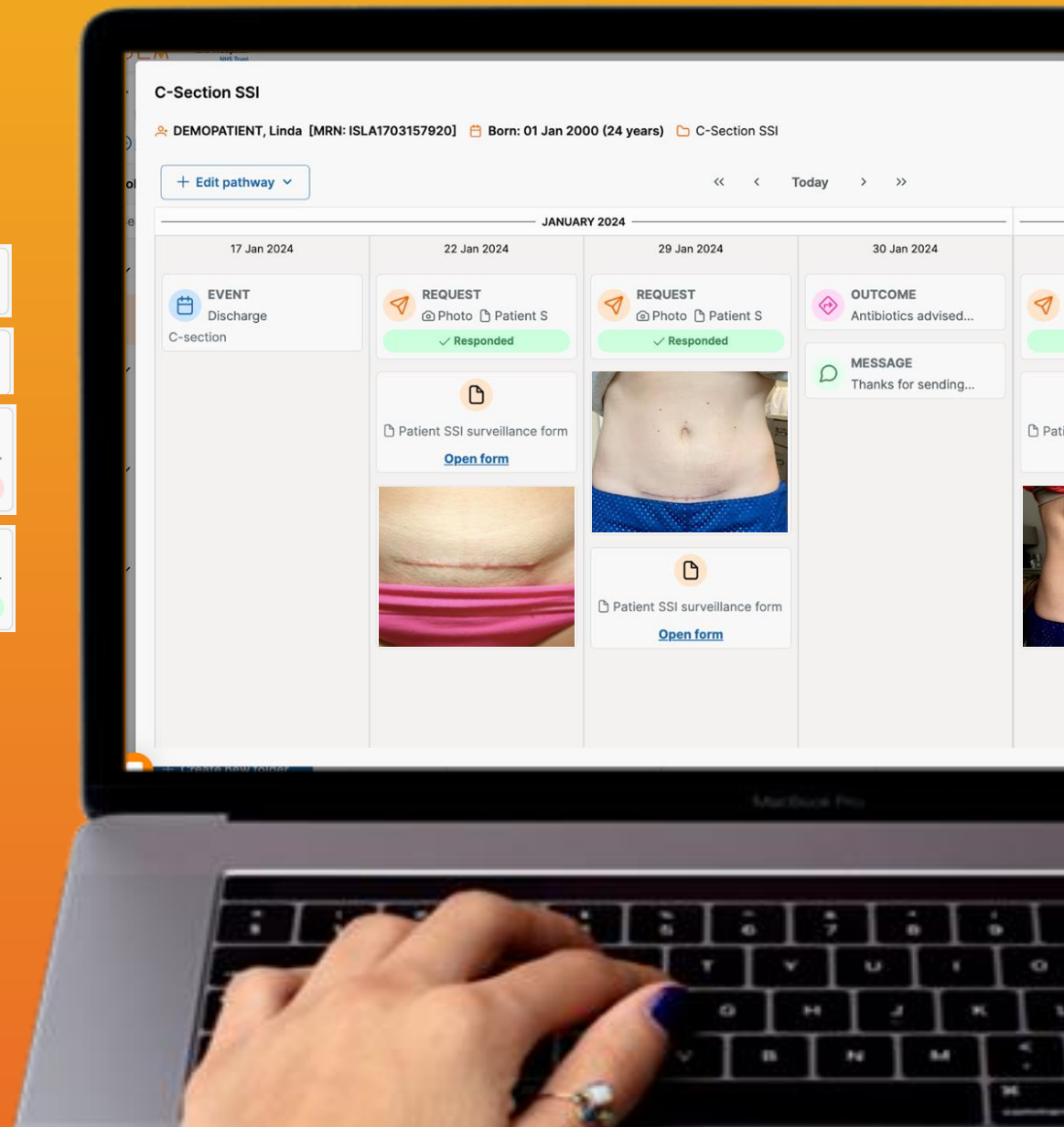
Next-level clinical functionality

Isla

Automated digital pathways for all teams

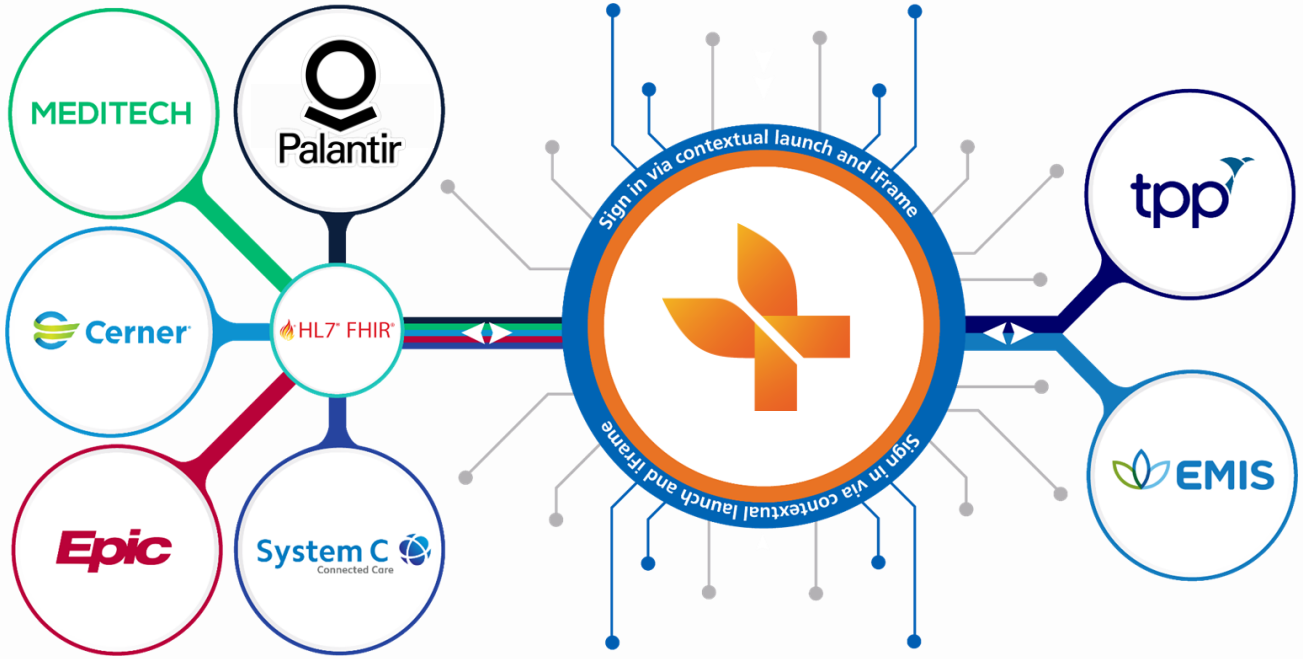
- Set patients on a fully automated pathway which prompts patients to submit and receive data and information at key points through the clinical journey
- Capture photos, videos, PROMs and PREMs seamlessly to inform care
- Easily see how conditions are developing and changing over time
- Enable highly effective shared decision making
- Highlight the patterns in the information that support clinical decision making





Supercharge your EPR

Tightly integrated with existing systems to ensure data consolidation and ease of use for staff



Isla can be deployed as a standalone system or interface with your existing EPR. Isla is powerful layer on top of the EPR enabling you to respond dynamically to requirements and lead the change to remote care.

Isla implementation approach

The Isla Delivery team supports with the initiation, implementation and evaluation of all Isla projects. This includes governance (IG, CS), clinical mobilisation and onboarding, driving usage and reporting and finally evaluation of the impact of the platform.

Identify

- Working with clinical teams to identify key pain points
- Mapping out relevant patient, clinician and administrative flows

Assess

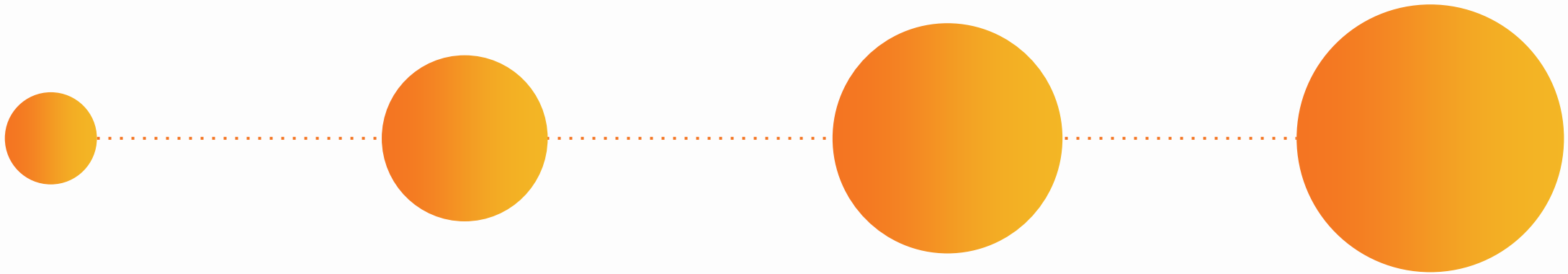
- Reviewing baseline data
- Consolidating requirements and opportunities for improvement and transformation
- KPI definition

Implement

- Mobilise clinical and administrative teams
- Monitor uptake, utilisation and response rate
- Troubleshoot & iterate

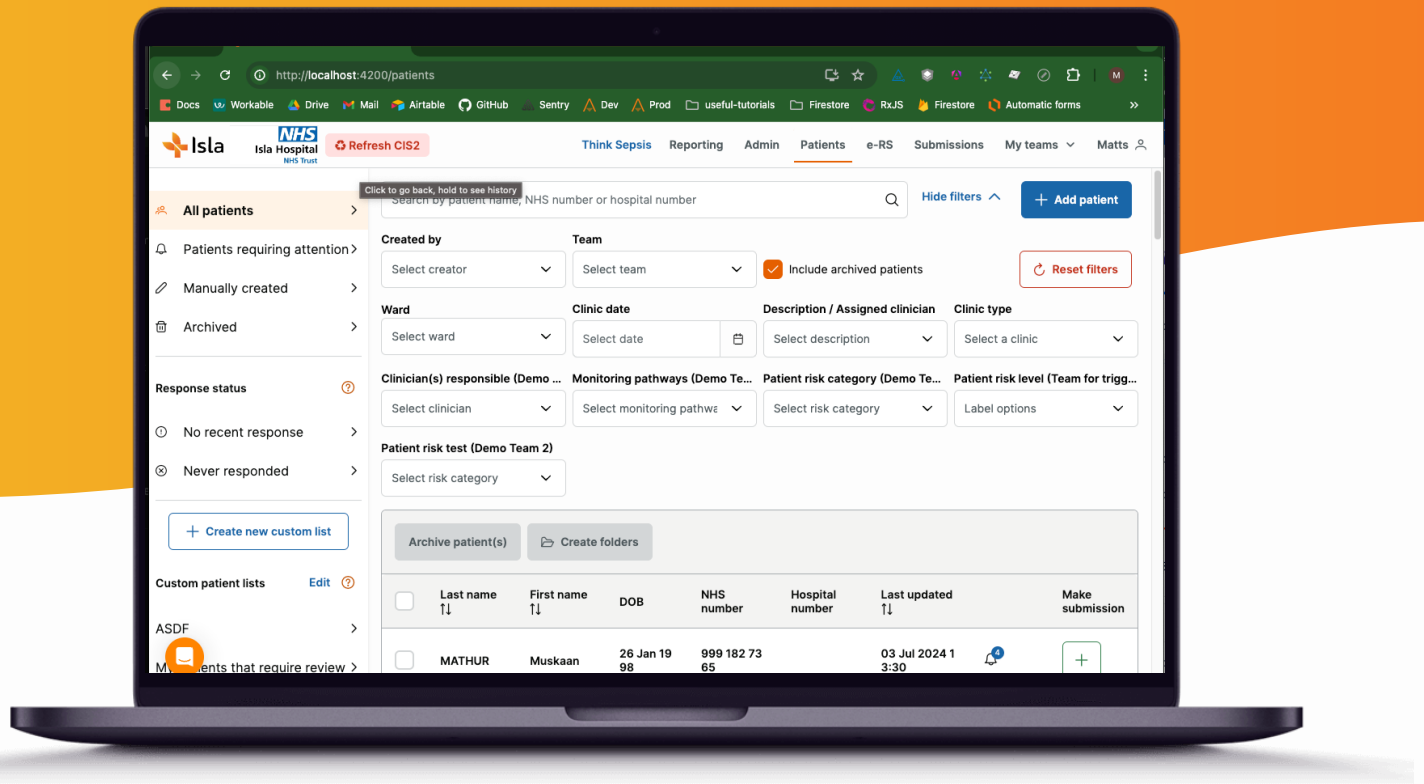
Evaluate

- Qual and quant
- Lessons learned
- Implement any required changes



Impact

How Isla is elevating healthcare



1.2mil

total Isla submissions (photos, videos, forms & sound recordings)

218K

unique patients using Isla

12K

number of active users (clinicians)

Impact evaluated

Cash release benefits

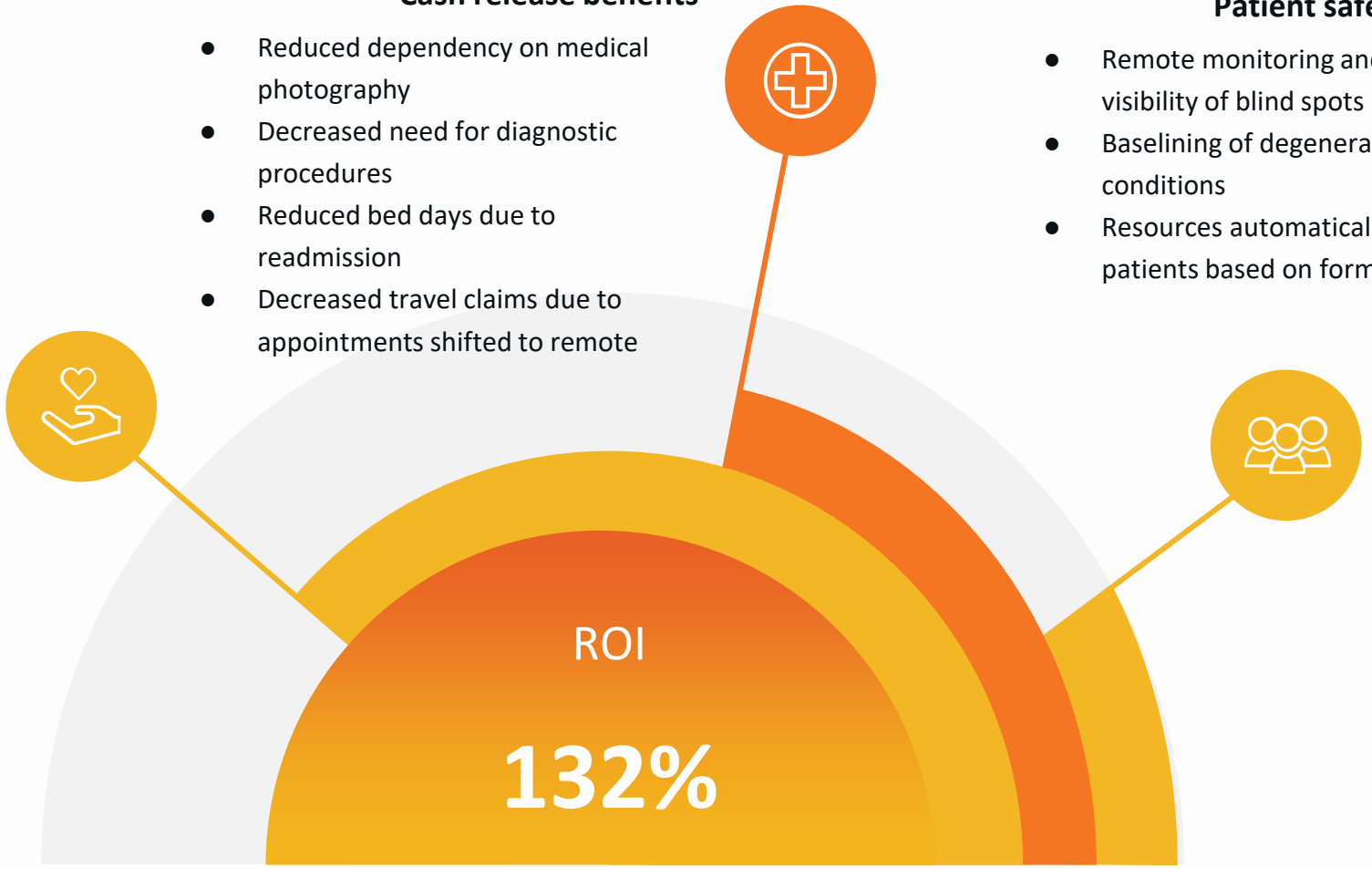
- Reduced dependency on medical photography
- Decreased need for diagnostic procedures
- Reduced bed days due to readmission
- Decreased travel claims due to appointments shifted to remote

Patient safety impact

- Remote monitoring and improved visibility of blind spots
- Baselining of degenerative conditions
- Resources automatically sent to patients based on form logic

Efficiency benefits

- Reduction in clinical admin time
- Optimised clinician to clinician communication
- Reduced time to treatment
- Improved triage and reduction in inappropriate referrals accepted



Patient feedback

This form was very simple and easy.

Isla really surprised me as they got in touch with me within 24hrs after my appointment and the referral. Really fantastic service so have to highly commend them. They are thorough and precise but simplified too. Thank you so much indeed, very much appreciated. God bless you all.

This service is easy to use and quick and efficient way to gather information…

~90%

Patients would recommend Isla*

96%

Patients feel Isla respected their privacy*

"A Brilliant idea. Why has it taken so long to come up with this idea"

Isla

Thank you

hello@isla.health

Health Innovation East Midlands

Measuring the impact of Isla at NUH - findings and top tips

Virginia Dall'O', Consultant - Edge Health

Edge Health

Nottingham University NHS Trust

An evaluation of the implementation of Isla Care

Health Innovation East Midlands

Isla Care

11th September 2024

Edge Health

Summary

1 Evaluation Approach

2 Key Findings

3 Recommendations

1

Evaluation Approach

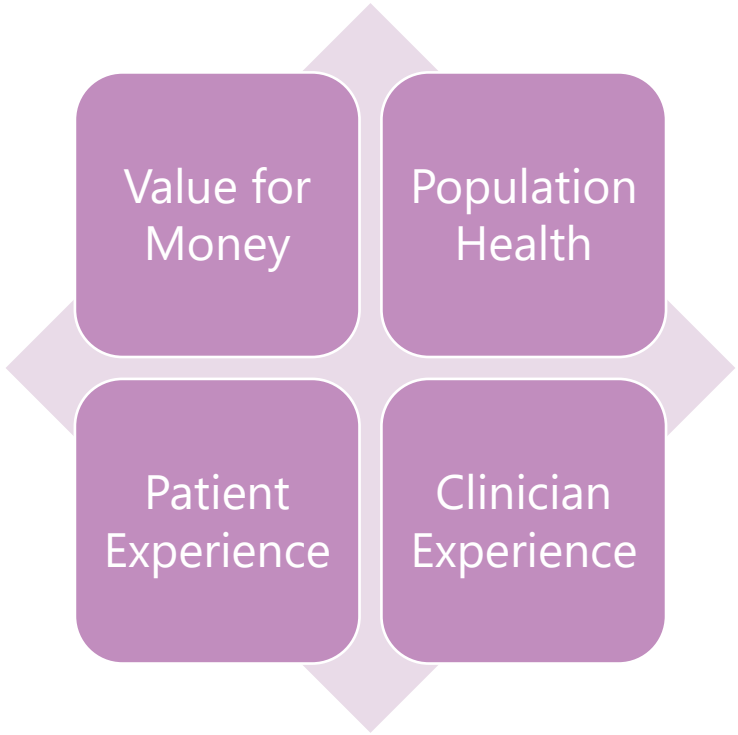
Context

Prior to the commencement of any evaluation, we first conduct a literature / data review. This enables us to understand the challenges the intervention is trying to solve. Key in this case was:

Outpatient Services

DEMAND	INEFFICIENCIES	SUPPLY
Increasing referral numbers and waiting times	**Clinic DNAs and unnecessary follow-up appointments**	**Staff recruitment and retention**

Evaluation Framework



Quadruple Aim Framework

In the Health and Care Bill, the Triple Aim was a proposed common duty for NHS bodies that plan and commission services and that provide services. The hope was this framework would help align NHS bodies around a common set of objectives.

The Triple Aim is a framework aiming to optimise health system performance through assessing against 3 core areas:

- Population Health;
- Patient Experience; and
- Value for Money.

This has been updated in the literature to also add emphasis on clinician experience, creating the Quadruple Aim Framework. This is important in the context of the NHS workforce crisis.

This framework was used in this evaluation as it is recognisable to NHS leaders and the outputs could support commissioning decisions going forward.

Clinical Engagement & Impact Pathway

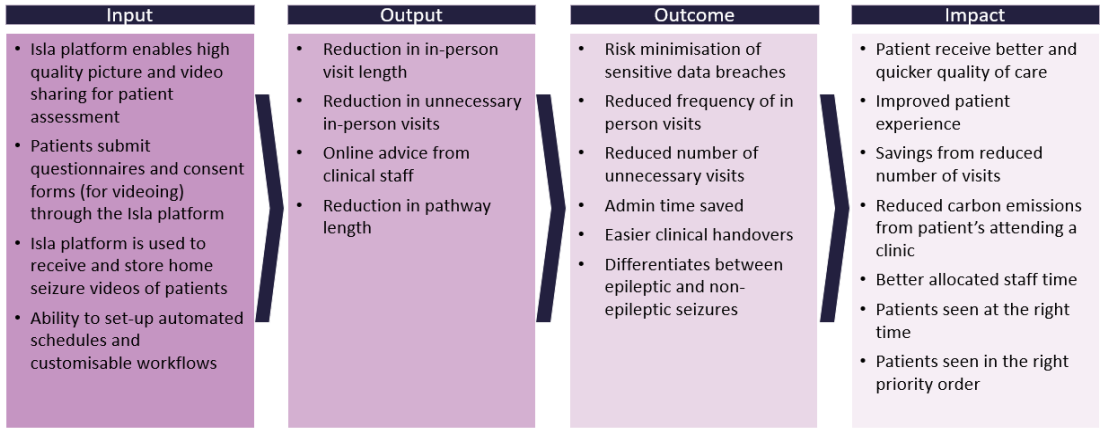
As part of this evaluation our team conducted semi-structured interviews with specialty teams at the Trust.

The aim was:

1. to capture staff views and experiences of implementing Isla in clinical pathways; and
2. to understand how each clinical service has tailored the implementation of the platform to meet their specific team dynamics, clinical models, and patient demographics.

This led to the development of logic models that outline the impact pathways for staff, patients, and carers.

Example Impact Pathway



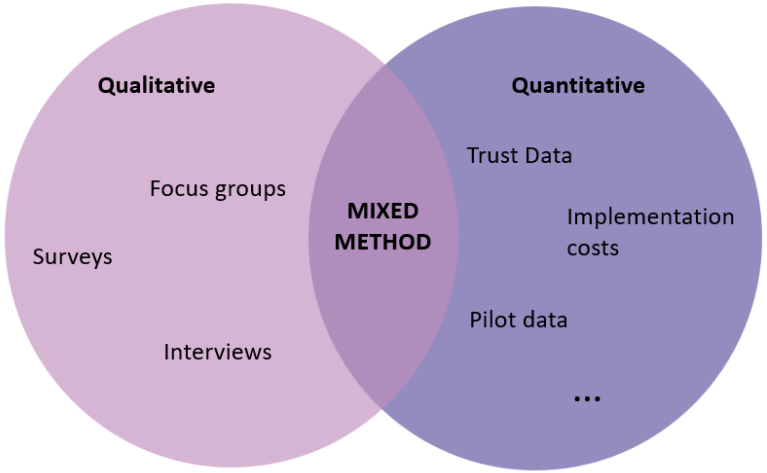
Data Collection & Analysis

The specialties chosen to be included within the evaluation are those at a mature stage of implementation and adoption, as follows:

1. Neurology
2. Dermatology
3. Allergy (including Immunology and Urticaria)
4. Burns Care (including dressing and occupational therapy)

The evaluation primarily focuses on the analysis of data obtained from NUH and Isla, with qualitative context provided by interviews with three out of four service lines under consideration.

Cost and benefits analysis was carried out drawing from local assumptions on team structure and set-up costs, and literature-based assumptions on service costs and car travel.



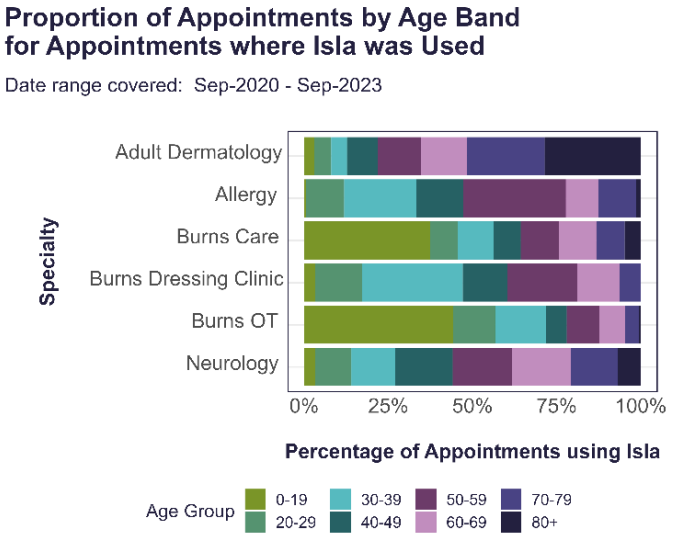
2

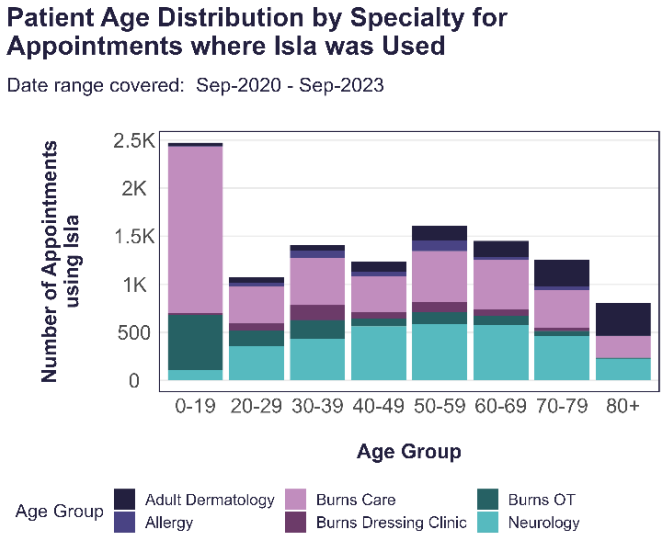
Key Findings

Key Findings

Patient Demographic

- Use of the Isla platform covered a wide range of age groups, with participation varying depending on specialty. The Burns Care service had a generally younger cohort of users, compared to Adult Dermatology at the opposite spectrum.
- Patient ethnicity composition generally matched the Trust's catchment demographic, except for a lower Asian representation and a higher "Unknown" category.



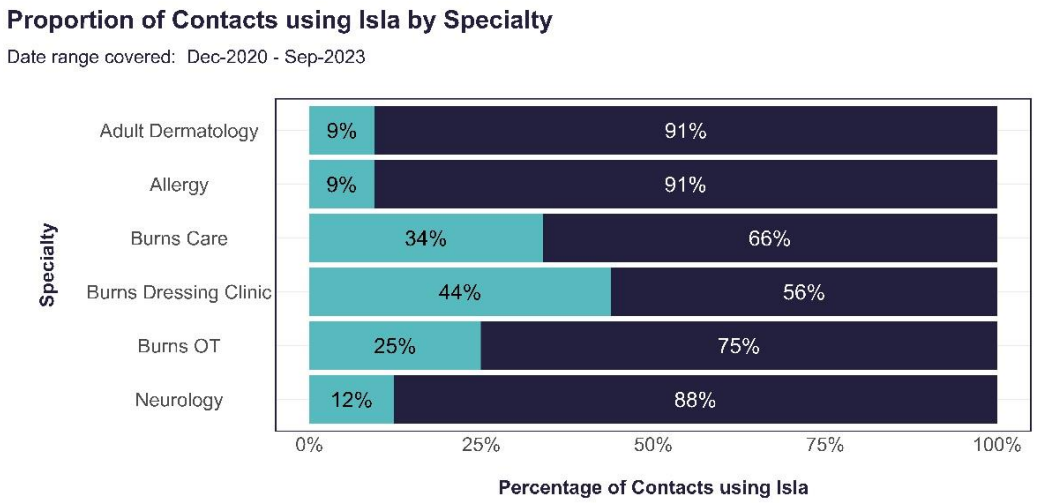


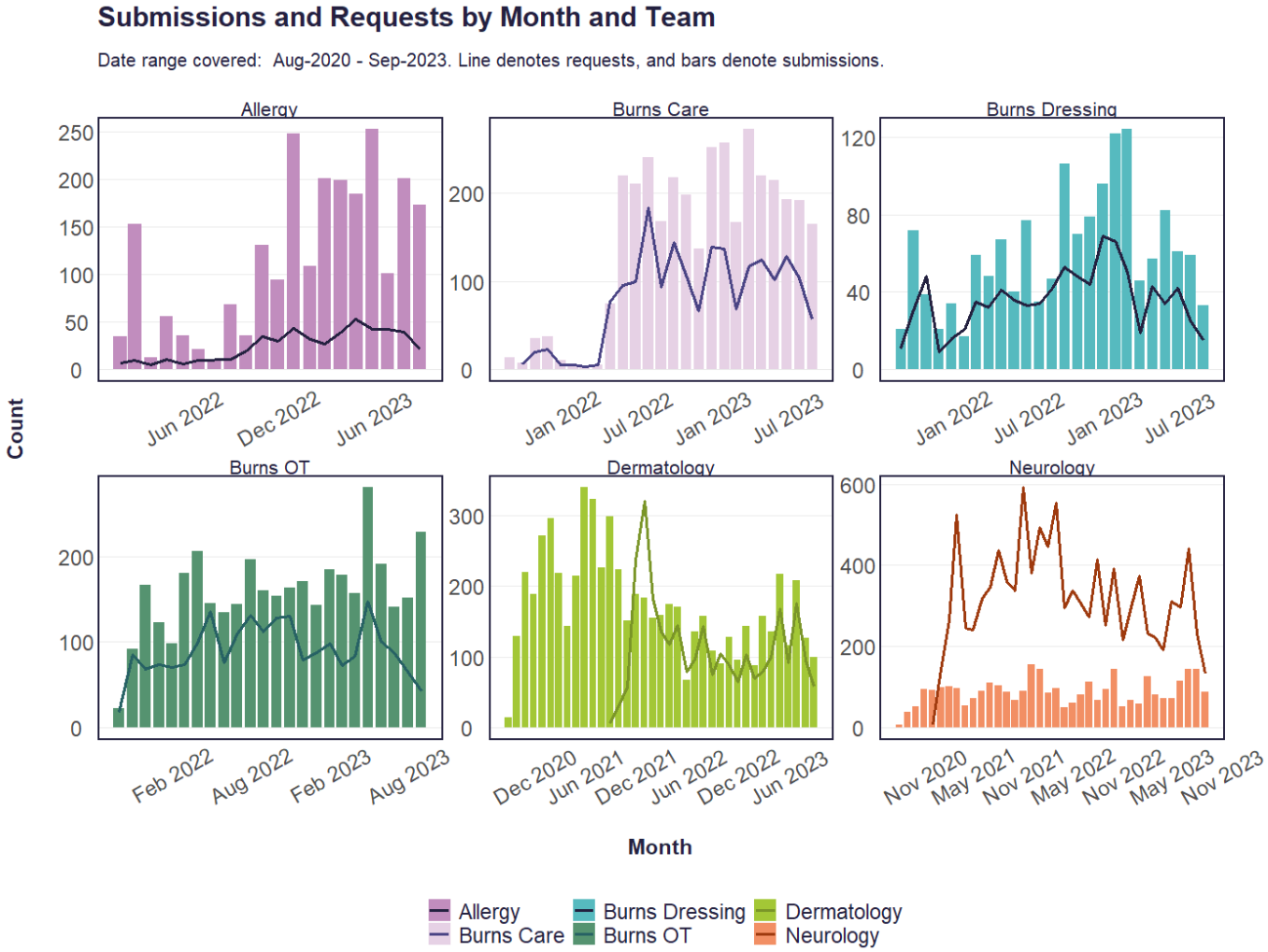
Ethnicity	Contacts With Isla	Contacts Without Isla	2022 Trust Catchment Demographics [21]
Asian or Asian British	423 (4.5%)	2,062 (4.4%)	6.8%
Black or Black British	268 (2.9%)	1,687 (3.6%)	1.7%
Mixed	224 (2.4%)	1,021 (2.1%)	1.8%
Not stated or Unknown	1,620 (17.3%)	8,181 (17.4%)	Not recorded
Other Ethnic Groups	232 (2.5%)	1,081 (2.3%)	0.6%
White	6,564 (70.3%)	32,985 (70.1%)	89%
Total Contacts	**9,331 (16.5%)**	**47,017 (83.4%)**	

Key Findings

Use of Isla

- **16.5%** of all contacts used Isla.
- There has been an upward trajectory in the volume of requests and submissions made via the Isla platform.
- Isla Care platform has contributed to enhancing the provision of care across Neurology, Dermatology, Allergy, and Burns Care, facilitating **9,311** contacts from **3,759** unique patients.
- Dermatology accounts for over **30%** of the total Isla submissions, which is nearly double that of the next active team.

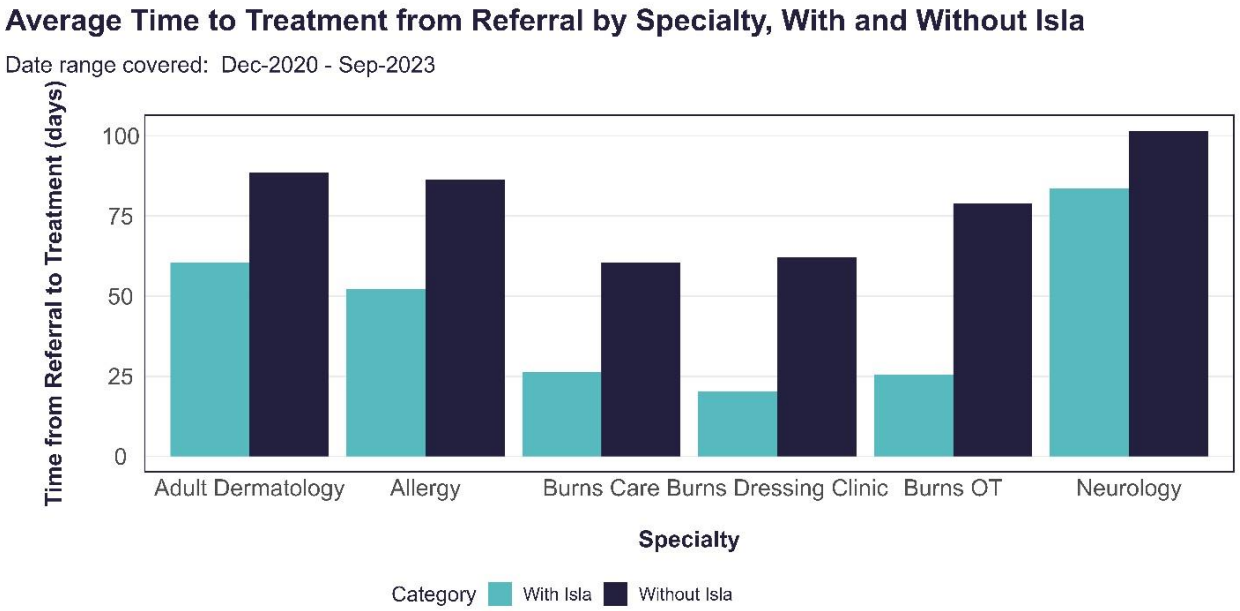




Key Findings

Characteristics of Contacts

- Isla contacts had a higher proportion of Same Consultant referrals, Post-Emergency admission referrals, Consultant and A&E referrals. GP referrals were more likely to result in non-Isla contact.
- Face-to-face contacts formed the highest proportion of contacts where Isla was used, followed by telephone appointments. Digital reviews featured more in the Isla cohort compared to when Isla was not used.
- Contacts using Isla showed a significant reduction in days waited by patients for treatment for an average reduction of **35 days**.
- On average time saving for follow-up appointments using Isla was **22 minutes** per appointment.



Weighted average time saving for follow-up appointments when Isla was used

Department	Average F/U Without Isla (mins)	Average F/U With Isla (mins)	Time Saved (mins)
Adult Dermatology	89	79	10
Allergy	141	106	36
Burns Care	63	46	17
Burns Dressing Clinic	66	37	29
Burns OT	50	46	5
Neurology	112	77	35
Total Average	**87**	**65**	**22**

Key Findings

Staff Experience

Allergy Team

- Uniform process
- Improvement in administrative efficiency
- Time saving from virtual follow-ups
- Streamlined communication
- Faster diagnoses and improved patient outcomes
- Patient journey is accelerated
- Avoided unnecessary appointments

Burns Services Team

- Improved cases triage
- Aid to decision-making enabling better assessment of treatment needs
- Ability to work from home
- Patients value not having to travel to the hospital for follow-ups
- Reduced need for printed materials .

Neurology Team

- User-friendly platform for patients
- Ability to record seizures at home has led to more accurate diagnoses
- Reduced need for in person visits
- Enabled doctors to develop management plans within the same consultation
- Shortening patient's pathway
- 80% reduction in the length of in-person visits

Value for Money

The platform facilitated a decrease in the need for face-to-face appointments, with the ability to conduct virtual follow-ups effectively.

This led to substantial time savings for clinical professionals, amounting to **1,804 hours** across the hospital throughout the evaluation, translating into a **benefit-cost ratio of 1.3** and net benefits in the region of **£32,970**, or approximately **£10,000 a year** (non-cash releasing benefits).

The Isla platform has had a positive effect on reducing the environmental impact of clinical services by enabling patient reviews to be carried out remotely. The use of the platform has led to **1,502 avoided F2F contacts**, resulting in an estimated **reduction of CO2 emissions by 3,107 kg** as a result of patient travel.

Description	September 2020 to date (£)
Savings from reduced clinical contact time (Sep 2020 to Sep 2023)	**£152,970**
Yearly Isla Costs across Allergy, Burns Services, Dermatology and Neurology	**£40,000**
Total Care costs (to date)	**£120,000**
Net Benefits (to date)	**£32,970**
Benefit Cost Ratio	**1.3**

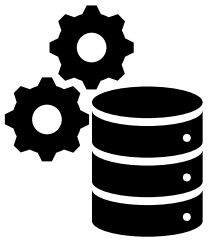
3

Recommendations

Next Steps

Patient and staff experience data: Gaining a better understanding of patients' attitude to Isla and how its use could be increased amongst both care professionals and patients will be a key step in the further roll-out of the programme.

Usage optimisation: Our analysis has also highlighted that there are considerable benefits of using Isla in the follow-up setting – further exploring Isla's optimal use may be beneficial in order to shape future care pathways and improve their efficiency.



Data integration and pathway streamlining: Integrating Isla with existing electronic patient record systems could streamline care pathways and support the continuity of care by ensuring that all stakeholders have access to the latest patient data.

Thank you!

info@edgehealth.co.uk
www.edgehealth.co.uk

Edge Health's vision is to transform the NHS by combining engagement with economics and data science to produce robust outputs for our clients. It has been built by founders that share this vision from their years of working in the health sector and seeing what can be achieved.

In delivering this vision, we understand the importance of maintaining the confidentiality of our clients' proposals, plans and data. To support this we have a range of internal procedures and regular internal audits to make sure these are being followed. We ask in return that our proprietary analysis, approaches, insights, and methodologies are protected by our clients.

Health Innovation East Midlands

Experience of Isla at NUH

Denise Jacques, Head of Digital Products and
Andrea Cronshaw, Clinical Nurse Specialist, Children's Burns and Plastics

NHS
Nottingham
University Hospitals
NHS Trust

Isla and Nottingham University Hospitals NHS Trust

11th September 2024

NUH Overview

Across the UK, acute care providers are facing unprecedented demand on elective recovery and outpatient services. This, in conjunction with the increasing costs of care provision and workforce shortages across the country, places additional pressure on existing staff and services.

Clinical and operational teams had to consider how to:

- **Improve visibility of patient conditions** both inside and outside of the hospital in a **secure way** while reducing the administrative burden of this additional data
- Use this visibility to identify which **patient cohorts to prioritise** and optimise care provision
- Implement in an **automated and scalable** way across the entire organisation

Efficient workflow utilisation → Improved patient safety → Robust information governance

We Listen We Care

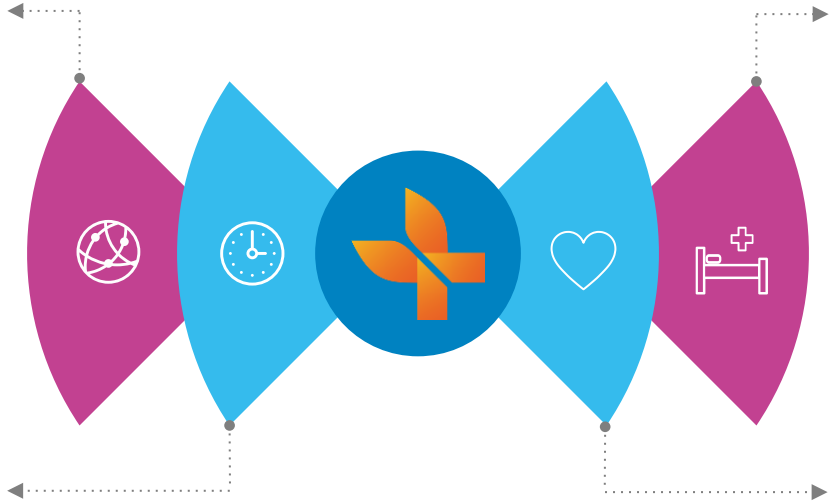
NUH introduced Isla as a mechanism to ensure that these key priorities could be securely and scalably implemented across the organisation.

Unsafe capture of information

- Reduce use of WhatsApp
- Ensure all data captured and received can be collated and captured for litigation or safeguarding
- Creation of database of images with consent

Improved clinical admin and efficiency benefits

- Seamless upload and request of images, videos, forms and sound recordings
- Secure information sharing between clinicians allowing for appropriate skill-mix
- Ability to view data and compare



Patient prioritisation

- De-escalation of same day demand
- Identification of patient deterioration
- Efficient use of clinical workforce for patients with greatest need
- Decreased time to treatment

Inclusivity and accessibility

- Decreased dependency on patients to explain health challenges or changes
- Ability to identify non-responders

We Listen
We Care

Adoption at NUH

59,000+

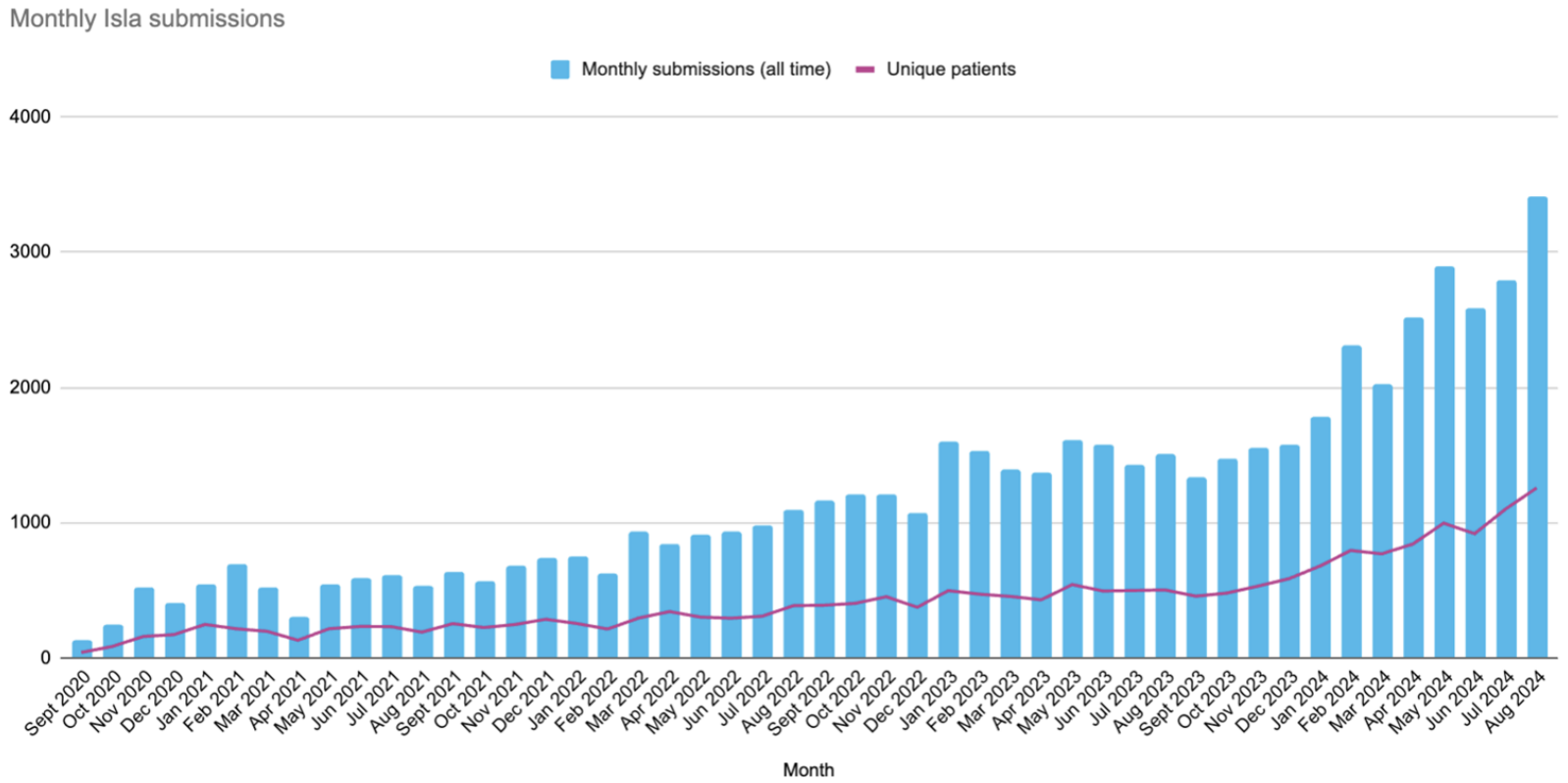
Photos, videos & forms submitted to Isla

11,000+

Number of unique patients using Isla

60%

Response rate



We Listen We Care

Adoption at NUH

Isla has been implemented in over 40 patient pathways including…

We Listen
We Care

Supporting multiple points of care

Triage | Diagnosis | Treatment | Recovery & Monitoring | Handover/Discharge

Remote triage and supporting efficient diagnosis

- Using form and photo data submitted by patients to better understand patient requirements
- Reducing the need for unnecessary diagnostic testing
- Decreasing burden on medical photography

Neurology - estimate of 4-8 week reduction in time-to-treatment by having access to patients' seizure videos

Remote monitoring of patient condition

- Removing the blind spots in patient care by building up a longitudinal view of patient progress over time
- Supporting the shift from face-to-face appointments to remote appointments
- Reducing unnecessary travel for patients

Cardiology - Capture images of implant sites to monitor any changes or signs of deterioration

Enhanced collaborative working

- Collaborative sharing of visual record collections between multidisciplinary team (MDT)
- Ability to access a library of similar cases for teaching and publication purposes

"We are a small team working split site. Having access to photos allows more accurate assessment of changes in scar when you have not met a patient previously - **Burns OT Nurse**

We Listen We Care

Nottingham Children's Hospital

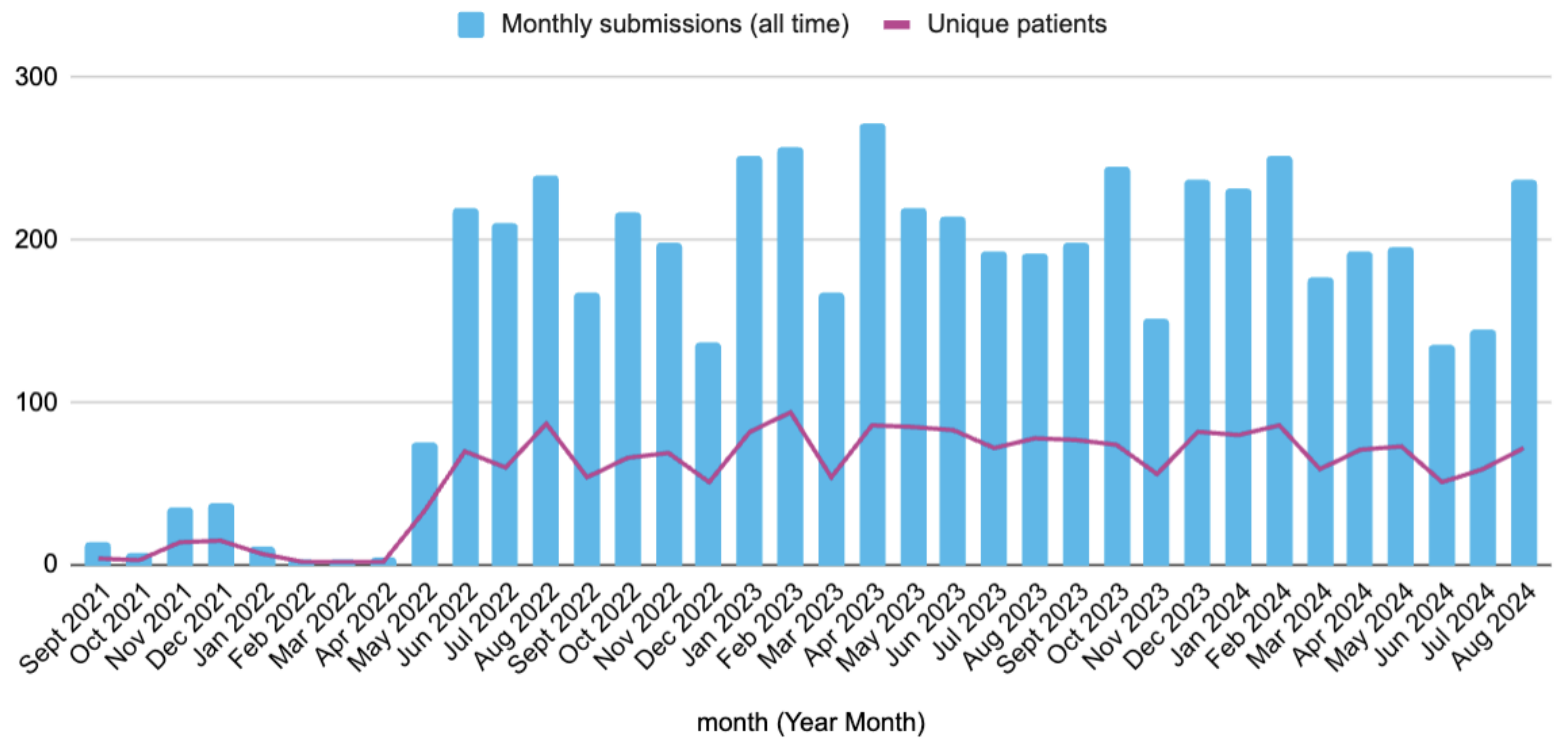
Children's Burns and Plastics

Total submissions:

5,730

Unique Patients with requests:

1,923



We Listen We Care

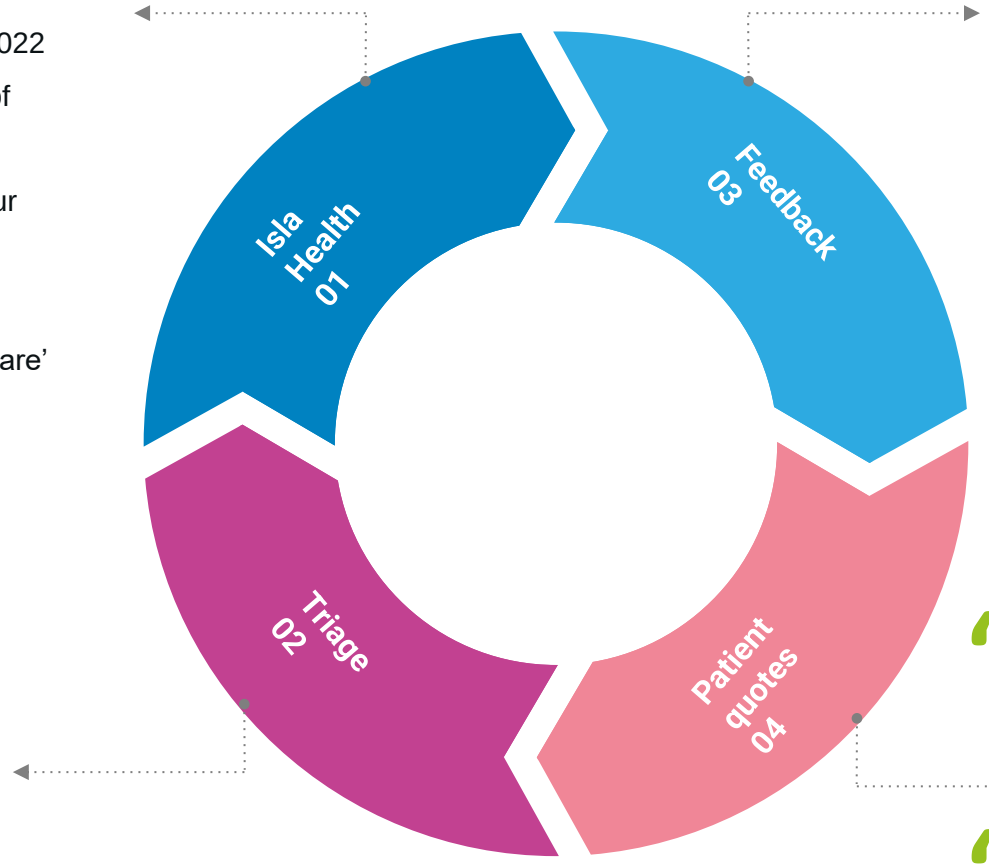
Children's Burns and Plastics

Isla Health

- Team have been using Isla since April 2022
- Isla is now fully integrated into our way of working and practice
- Have written a dedicated guideline for our virtual clinic
- In February 2023 the team won a silver award in the 'British Journal of Wound Care' for work around using technology in promoting wound care

Triage

- Staff are able to triage patients safety and act on parental concerns in a timely way.
- Patients are not having to travel long distances for appointments and can have immediate advice and guidance



Feedback

- Generate monthly feedback from patients from all patients we discharge.
- Feedback is positive from parents and carer:
- 100% of patients feel they receive timely care
- 100% of patients had access to technology to access Isla care
- 90% of patients stated it was quick and easy to use.
- 70% of patients feel in control of their care (**sample size 25 patients**)

> *Very happy with the service I have received quick easy to use also very happy with the caring friendly efficient service from Nottingham children's burnt unit*

> *Every step of the way, the care I received for my son was absolutely fantastic. Thank you*

2024 development and implementation

SSI

Isla provides a safe and secure way for clinicians to upload baseline photos and videos of post-surgical sites.

Clinicians can then remotely request images and PROMs and monitor wound healing while a patient recovers at home.

This enables early detection of signs of infection and avoids unnecessary face-to-face appointments to review wounds.

Pre-op

Patients on the surgical waitlist receive a digital pre-op questionnaire via Isla. Responses flag risk factors, which are then transferred to Bluespier for triage.

Patients needing optimization are flagged for referral. Every three months, a follow-up questionnaire is sent to track any changes, with an option to indicate "no change" without repeating the full assessment.

eMeet & Greet

This project will develop a model of digitally enabled pathways for patients with high volume low complexity surgical conditions.

This initiative comprises 2 elements:

- Standard eMeet and Greet referral notification and NHS App onboarding, targeted at all patients for whom referrals have been received.
- Enhanced eMeet and Greet, targeted at patients on defined high volume low complexity surgical pathways.

We Listen
We Care

Health Innovation East Midlands

Questions?

Get in touch!

Health Innovation East Midlands

Gabi Cohen – Delivery Director
gabi@isla.health
Hannah McConkey – Technical Programme Manager
hannah@isla.health

Virginia Dall'O – Consultant
virginia@edgehealth.co.uk

Denise Jacques – Head of Digital Products
denise.jacques3@nhs.net
Andrea Cronshaw - CNS, Children's Burns and Plastics
andrea.cronshaw1@nhs.net

East Midlands DIGITAL HEALTH ACCELERATOR

Health Innovation East Midlands

Thank you!

Nick Hamilton

nick.hamilton@nottingham.ac.uk

Dawn Plummer

dawn.plummer@nottingham.ac.uk

- **Web:** healthinnovation-em.org.uk
- **Twitter:** @Healthinn_em

Office for Life Sciences

NHS