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Introduction

Within the Orthotic Department, shape capture for ankle-foot-orthoses (AFOs) can be done via casting or scanning. Until now, scanning has been used less frequently throughout the team.

What is the problem we are trying to solve?

Casted AFOs must travel between hospital sites, then be sent via courier to manufacturer which increases the risk of casts going missing and time from assessment to treatment delivery increasing. This process also adds to emissions due to additional courier use. The process of casting involves the use of Deltacast which is an expensive material and not-recyclable or reusable. Delays in AFO delivery times have in some cases resulted in delays in inpatient patient care, which can impact on discharge planning and bed availability. Lastly, AFO casts are not repeatable, and this can result in poorer outcomes for patients, whereas digitally captured scans are saved and repeatable, and can be altered easily without changing the overall model.

Drivers for change: SUSTAINABILITY – REPEATABILITY - EFFICIENCY

Vision and Aim

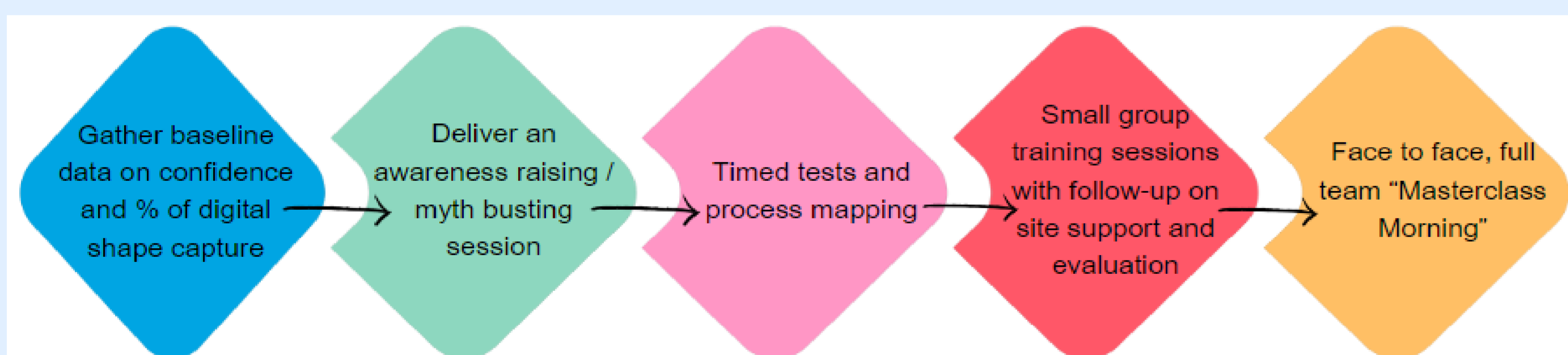
The vision of the project was to improve staff confidence in using Rodin Neo. The achievement of this would allow us to go some way to achieving our project aim:

95% of AFOs ordered by NHSGGC Orthotic Service to be sent digitally for manufacture by the end of April 2024, which is aligned to NHSGGC's sustainability policy, and sustainability and value programme.

Alignment with Organisational Objectives:

- Better Care:** improvement in quality of treatment for those using our service.
- Better Health:** improvement in timeliness of provision of care, to aid rehab and improve outcomes for those using our service.
- Better Value:** less waste, less transport costs, financial savings from less courier and raw material costs, improved sustainability and alignment with the Board's sustainability and value programme.
- Better Workplace:** investment in workforce training and development, improving confidence and skills within the team.

Method



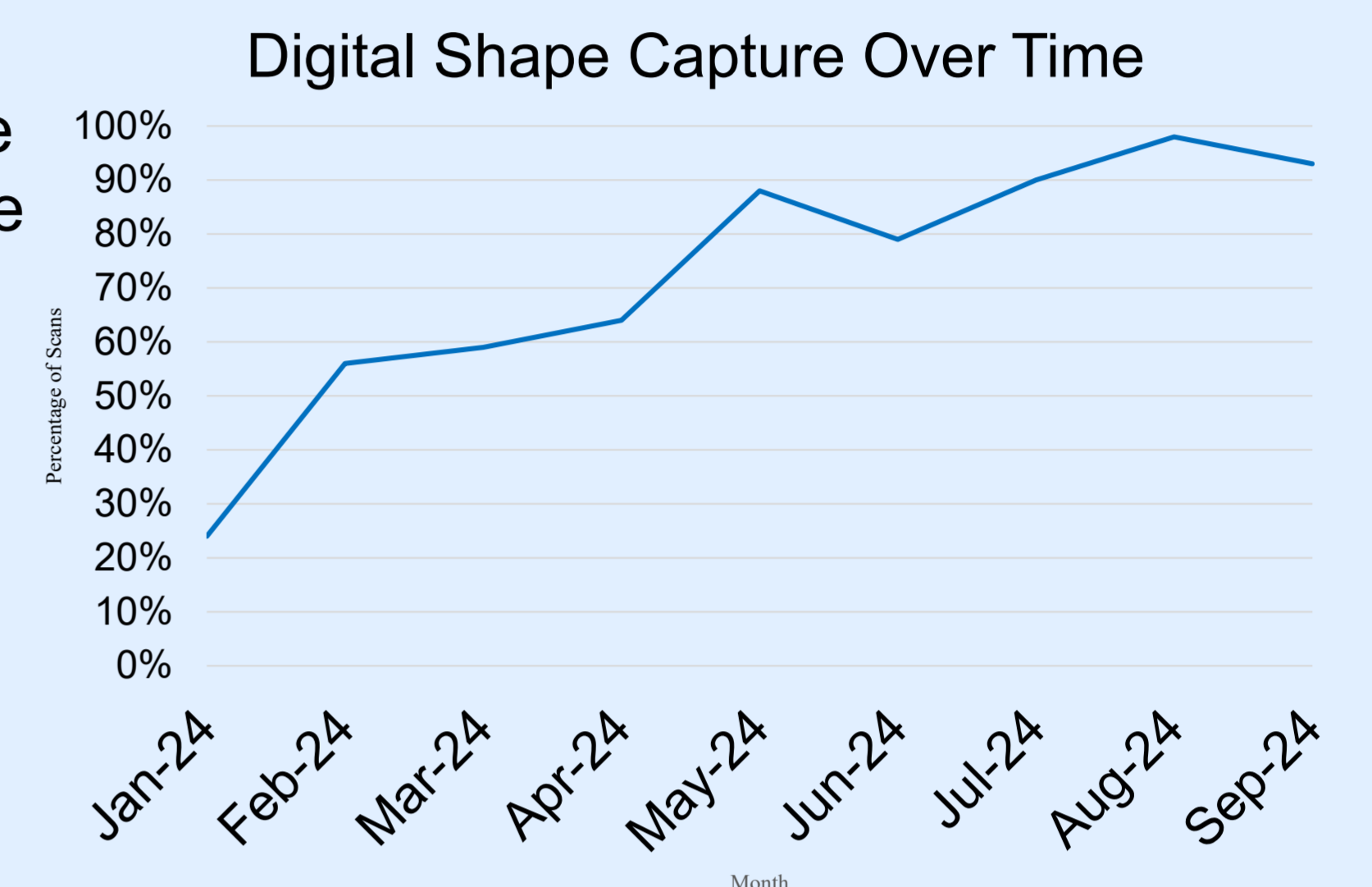
- An iterative approach was taken to training and confidence building, with continued evaluation and support networks set up.
- "Even better ifs" were addressed along the way.
- Team introduced to the project aims and timeline prior to starting.
- Safe space provided to alleviate worries and perceived negatives of scanning.
- Robust training package developed including manuals and demonstration videos.
- Production of a case study shared on Prosthetists and Orthotists (P&O) Day 2024 to demonstrate the impact of scanning for our patients.

Results

1. Digital Shape Capture

Data was monitored over the course of the project, and the percentage of all custom AFOs which were sent as scans was recorded.

The numbers of AFOs being sent digitally gradually increased over time.



2. Confidence Levels

- Evaluation was undertaken after each small group training session, with learning taken forward.
- Rapid response support channels set up and varying formats of resources provided
- Staff overall responded well and felt supported through the change
 - "I feel well trained."
 - "I was given autonomy to try while having support there."
 - "The sessions were great; I left feeling optimistic."

3. Impact on Patient Experience

In collaboration with the NHSGGC Paediatric Orthotic Service, we developed a video which was shared on P&O Day 2024, where Mathew told us the difference in his experience of casting and scanning.



Mathew's video can be accessed via the QR code.



Conclusion

Overall confidence increased from 2.9/5 to 3.6/5 in the six months since the training programme and roll-out started. Staff confidence and on-going training support remains a focus for the team to ensure quality and efficiency of care provision to people who use AFOs, along with ensuring patient experience of the scanning process remains positive.

By April 2024, 64% of shape capture was sent digitally, this increased to 93% by September 2024. This has reduced emissions from disposal and transportation of casts, along with reducing cost spent on purchasing casting materials.

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