

5-YEAR QUALITY IMPROVEMENT IN RADIOLOGY SPECIALTY TRAINING AT A UK TERTIARY CARDIOTHORACIC CENTRE (2017-2022)

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Clinical Lead 2019-2023

Acknowledgements:

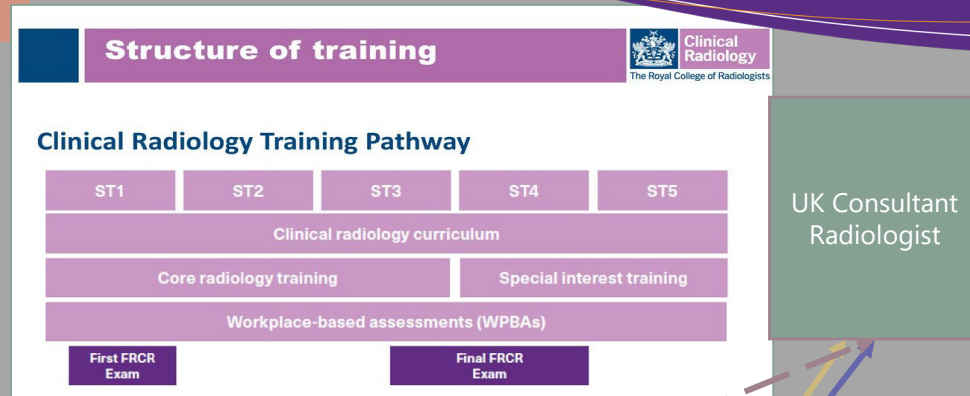
- Clinical Leads 2017-2019: Sukumaran Binukrishnan, MD and Caroline McCann, MD
- Data visualisation: Manuel Gutierrez, MD PhD
- All Consultants for their active involvement in training
- Department's radiographers, assistants and Cardiology consultants and trainees for a supportive multidisciplinary environment
- Every survey respondent for active participation

INTRODUCTION

UK Radiology* specialty training in a nutshell (*non-IR)

- Medical school
- 2 Foundation years
- 5 Specialty Training years
- Trainees move around regional hospitals for placements

Regional deanery: North West School of Radiology (among 17 UK deaneries)



Radiology is at the **core** of any hospital

LHCH: one of the country's leading tertiary specialist centres

One of the centres with a strong **inter-specialty** cardiovascular diagnostic imaging collab

UK needs **3365** radiology consultants today. **2000** were needed in 2020

Cardiac, thoracic & vascular imaging need is significantly increasing and will increase

*RCR census

SHORTAGE



Problem: In early 2017, LHCH Radiology ranked 23 out of 24 teaching sites based on the deanery's regional trainee satisfaction survey, with a risk of losing radiology training site status



AIM: TO FOSTER RADIOLOGY TRAINING BY IMPROVING QUALITY

METHODS

STUDY & INTERVENTION

1. Post-placement survey created

2. Placement reorganisation:

- a) Training goals → individually tailored rotas
- b) Consultant-led clinical sessions
- c) Hands-on cardiac imaging training for all
- d) Pre-placement infopack created
- e) Journal Club
- f) Pre-scheduled Consultant and Radiographer-led teaching sessions
- g) Formal ST/Fellow encouragement to undertake audit, SE, QIP, teaching, academic writing
- h) Trainee study room optimisation
- i) Consultants encouraged to train in supervision
- j) Consultant trainer time recognised as per HEE / GMC / RCR
- k) Departmental education portal
- l) Public publication board (prioritising junior radiologist work)

3. Externally funded Visiting Fellowships from 2018

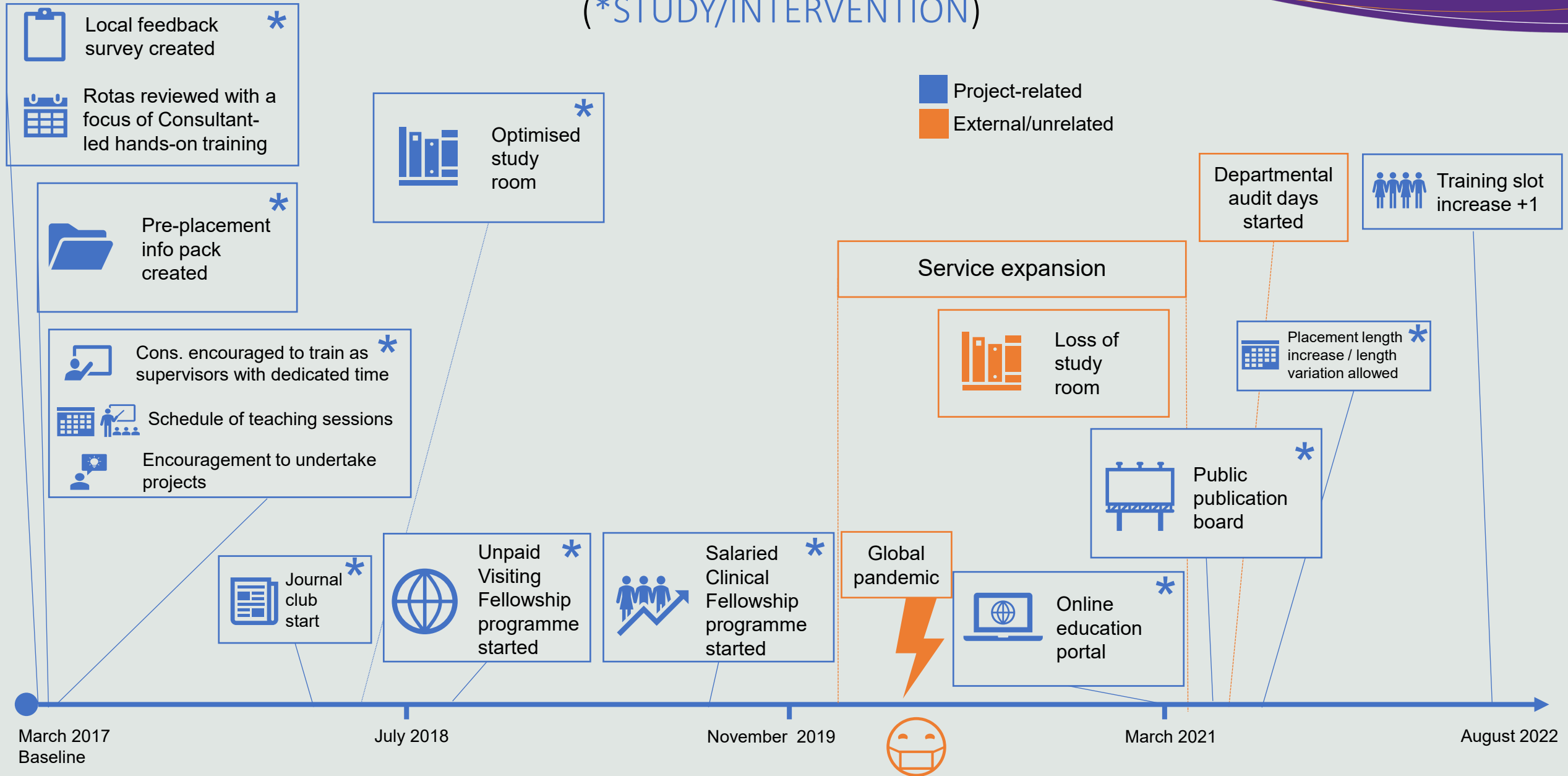
4. Salaried Clinical Fellowships from 2019

MEASUREMENT

- Regional ranking was monitored (available 2017-2019).
- Local feedback survey was distributed (2017-2022) and analysed (descriptive statistics)

METHODS: PROJECT TIMELINE

(*STUDY/INTERVENTION)



RESULTS

55 obtained local survey responses
3 excluded (visiting fellowships → a separate survey created for later use)

The site regionally ranked 9/19 in 2 years. 

Audit/academic project involvement +36%

14 Visiting Fellowships completed

6.5 1-year Clinical Fellowships completed

8/11 Consultants formally trained as supervisors

Compulsory → Motivation based posts


An additional salaried training post was offered by the deanery (2021).

ESOR Fellowships / Scholarships agreed (2021).

5 Fellows retained in the region as subspecialist consultants.

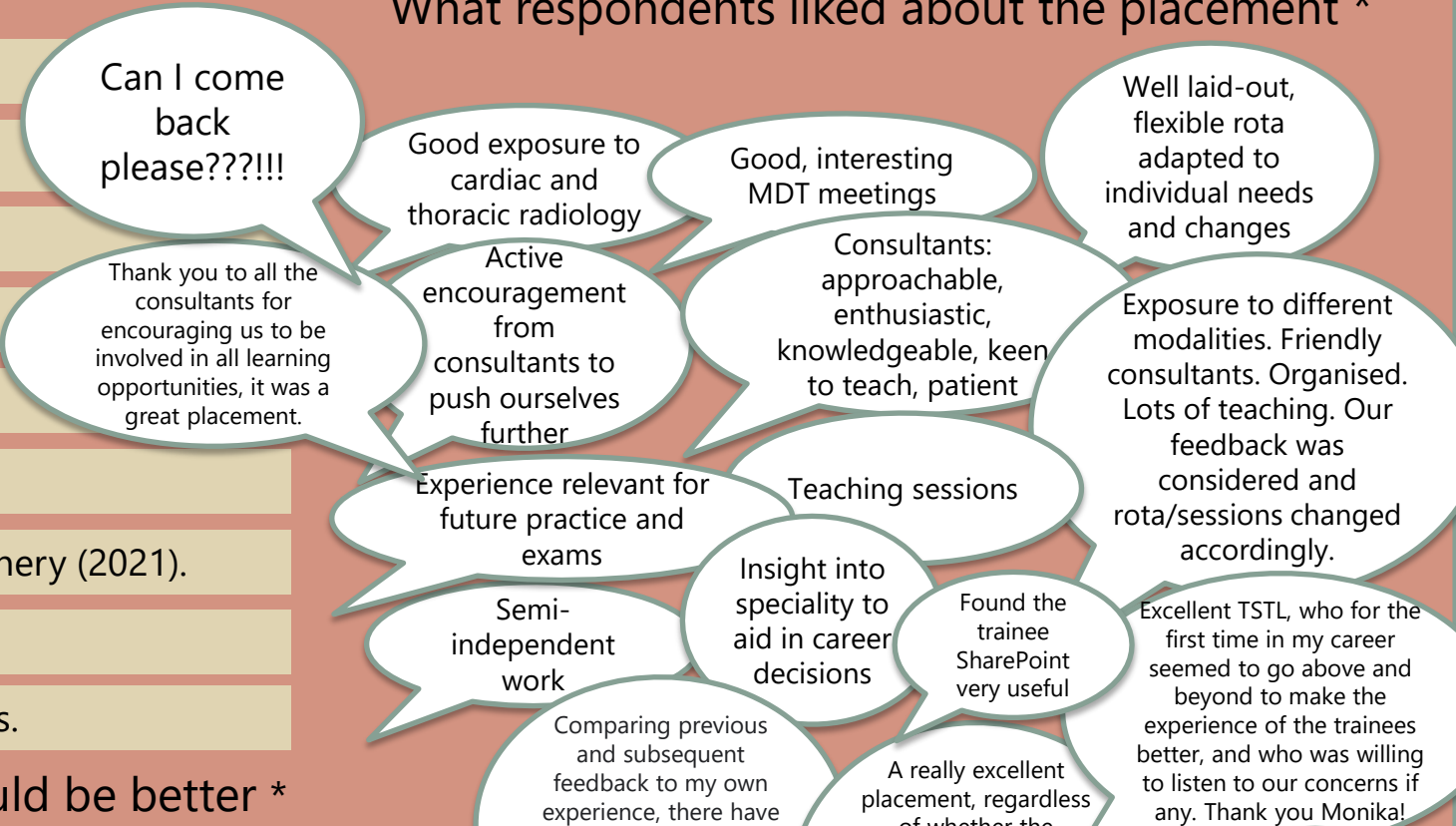
Project Lead Dr Monica Radiké, 1511
Date of completion 30/06/2023
Report generated on 30/06/2023

QI in Radiology Specialty Level Training @LHCH Final A3 Report

Background	Key Performance Measures	Review and Evaluation (Study) (cont.)																																	
<p>Background</p> <ul style="list-style-type: none"> 1. The LHC Heart and Chest School of Radiology Training Site Survey, February 2021 (LHCH was ranked 20/24 overall) was published. 2. The LHC Heart and Chest School of Radiology Training Site Survey, February 2022 (LHCH was ranked 9/19 overall) was published. 3. The LHC Heart and Chest School of Radiology Training Site Survey, February 2023 (LHCH was ranked 9/19 overall) was published. 	<p>Key Performance Measures</p> <p>School of Radiology Training Site Survey - Overall Hospital Ranking</p>  <p>Realised Benefits</p> <table border="1"> <thead> <tr> <th>Benefit</th> <th>Priority placement (2021-2023)</th> <th>Priority placement (2021-2023)</th> </tr> </thead> <tbody> <tr> <td>1. Increase in satisfaction with education of trainees</td> <td>50%</td> <td>50%</td> </tr> <tr> <td>2. Increase in satisfaction with education of trainees</td> <td>50%</td> <td>50%</td> </tr> <tr> <td>3. Increase in satisfaction with education of trainees</td> <td>50%</td> <td>50%</td> </tr> <tr> <td>4. Increase in satisfaction with education of trainees</td> <td>50%</td> <td>50%</td> </tr> <tr> <td>5. Increase in satisfaction with education of trainees</td> <td>50%</td> <td>50%</td> </tr> <tr> <td>6. Increase in satisfaction with education of trainees</td> <td>50%</td> <td>50%</td> </tr> <tr> <td>7. Increase in satisfaction with education of trainees</td> <td>50%</td> <td>50%</td> </tr> <tr> <td>8. Increase in satisfaction with education of trainees</td> <td>50%</td> <td>50%</td> </tr> <tr> <td>9. Increase in satisfaction with education of trainees</td> <td>50%</td> <td>50%</td> </tr> <tr> <td>10. Increase in satisfaction with education of trainees</td> <td>50%</td> <td>50%</td> </tr> </tbody> </table>	Benefit	Priority placement (2021-2023)	Priority placement (2021-2023)	1. Increase in satisfaction with education of trainees	50%	50%	2. Increase in satisfaction with education of trainees	50%	50%	3. Increase in satisfaction with education of trainees	50%	50%	4. Increase in satisfaction with education of trainees	50%	50%	5. Increase in satisfaction with education of trainees	50%	50%	6. Increase in satisfaction with education of trainees	50%	50%	7. Increase in satisfaction with education of trainees	50%	50%	8. Increase in satisfaction with education of trainees	50%	50%	9. Increase in satisfaction with education of trainees	50%	50%	10. Increase in satisfaction with education of trainees	50%	50%	<p>Review and Evaluation (Study) (cont.)</p> <ol style="list-style-type: none"> 1. The LHC Heart and Chest School of Radiology Training Site Survey, February 2021 (LHCH was ranked 20/24 overall) was published. 2. The LHC Heart and Chest School of Radiology Training Site Survey, February 2022 (LHCH was ranked 9/19 overall) was published. 3. The LHC Heart and Chest School of Radiology Training Site Survey, February 2023 (LHCH was ranked 9/19 overall) was published. <p>Capacity/Capability</p> <ul style="list-style-type: none"> 1. Leadership and management & communication skills 2. Development of the role of the Specialty Training Lead 3. Improvement of the training site 4. Improvement of the training site 5. Improvement of the training site 6. Improvement of the training site 7. Improvement of the training site 8. Improvement of the training site 9. Improvement of the training site 10. Improvement of the training site <p>Follow up actions (Plan/Do) - remaining tasks</p> <ul style="list-style-type: none"> 1. Planning for reduced on-call commitments during placement 2. Improvement of a training site 3. Improvement of a training site 4. Improvement of a training site 5. Improvement of a training site 6. Improvement of a training site 7. Improvement of a training site 8. Improvement of a training site 9. Improvement of a training site 10. Improvement of a training site
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Interim results presented in the department in 2019

What respondents liked about the placement *



Can I come back please????!!!

Thank you to all the consultants for encouraging us to be involved in all learning opportunities, it was a great placement.

Good exposure to cardiac and thoracic radiology

Active encouragement from consultants to push ourselves further

Good, interesting MDT meetings

Consultants: approachable, enthusiastic, knowledgeable, keen to teach, patient

Well laid-out, flexible rota adapted to individual needs and changes

Exposure to different modalities. Friendly consultants. Organised. Lots of teaching. Our feedback was considered and rota/sessions changed accordingly.

Experience relevant for future practice and exams

Teaching sessions

Insight into speciality to aid in career decisions

Found the trainee SharePoint very useful

Excellent TSTL, who for the first time in my career seemed to go above and beyond to make the experience of the trainees better, and who was willing to listen to our concerns if any. Thank you Monika!

Semi-independent work

Comparing previous and subsequent feedback to my own experience, there have been significant improvements and the improvements continue. Thank you.

A really excellent placement, regardless of whether the registrar has an interest in cardiac/thoracic imaging. Mainly due to the very hard working consultants.

What could be better *



Possibly not enough formal teaching

Not enough workstations

More ultrasound

No introductory sessions explaining how to use software

Too much cardiac MR

Short placement

Better organisation of XR report checking

At times difficult to arrange report checking

Not enough cardiac MR

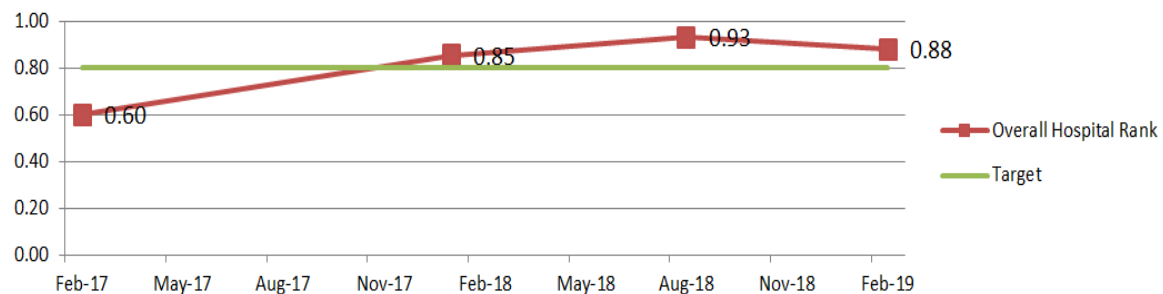
Excellent overall placement but way too short considering the on call commitments.

*A selection/consolidation of free text responses

RESULTS

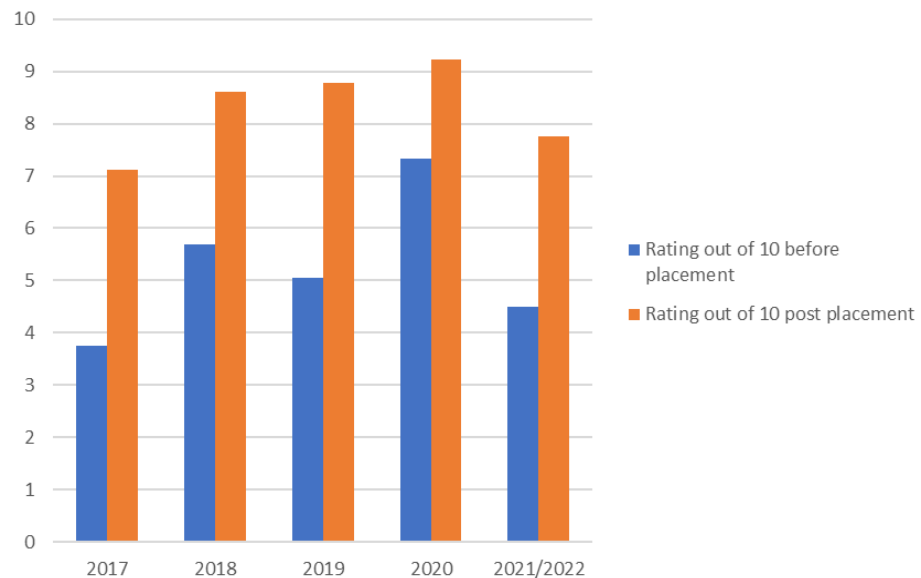
A

NWSOR Training Site Survey – Overall Hospital Ranking

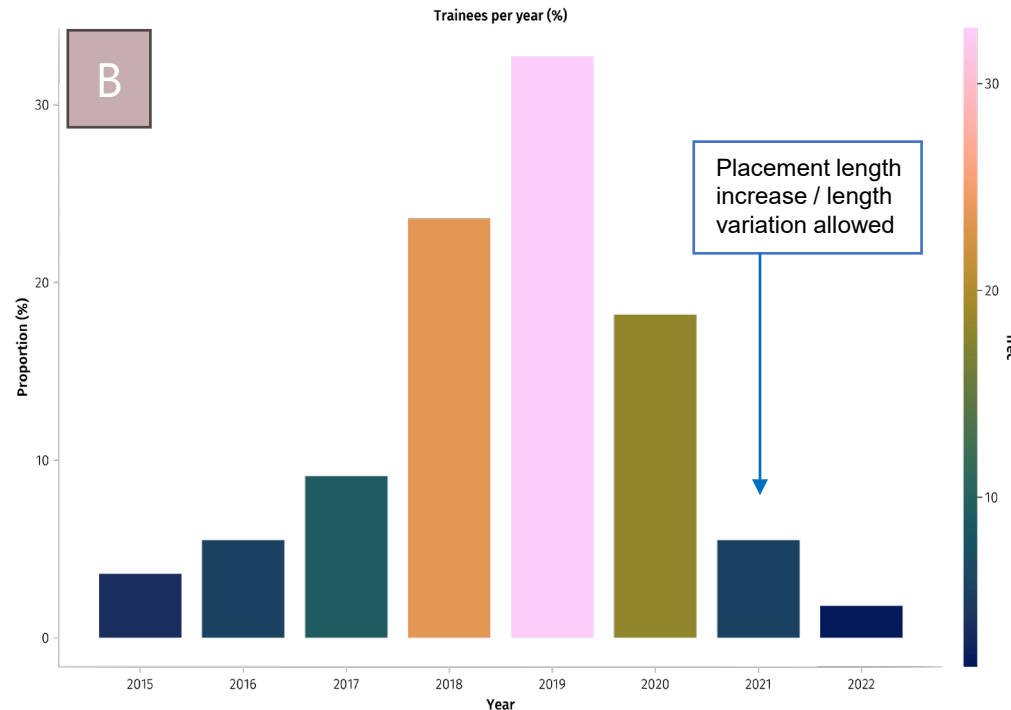


Locally set target was based on overall maximum score 5/5 (1), aiming for 4/5 (0.8).
Baseline: 0.6 is the total survey score (3/5) reflecting the position 23 among 24 surveyed Trusts in 2017. 0.6 ranking reflects position 23 among the 24 surveyed Trusts. 0.88 ranking reflects position 9 among the 19 surveyed Trusts.

C

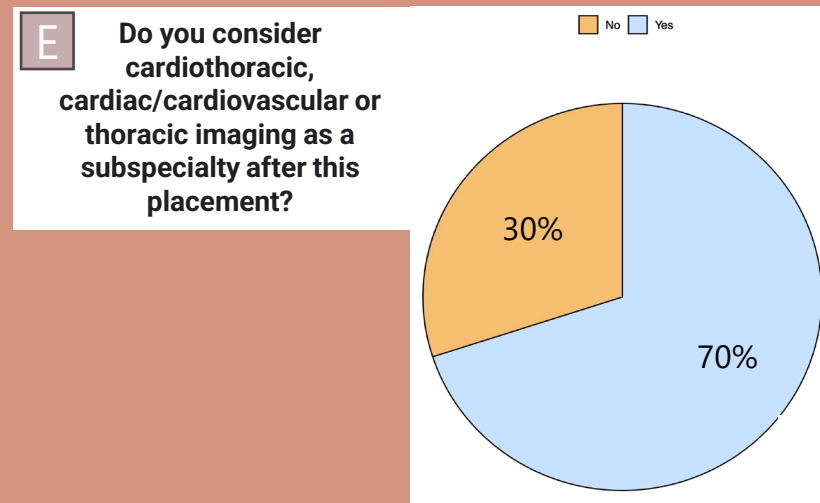
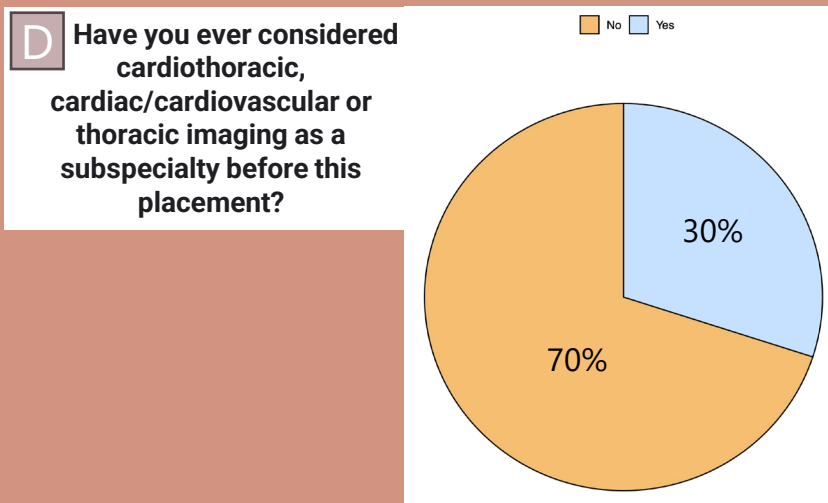
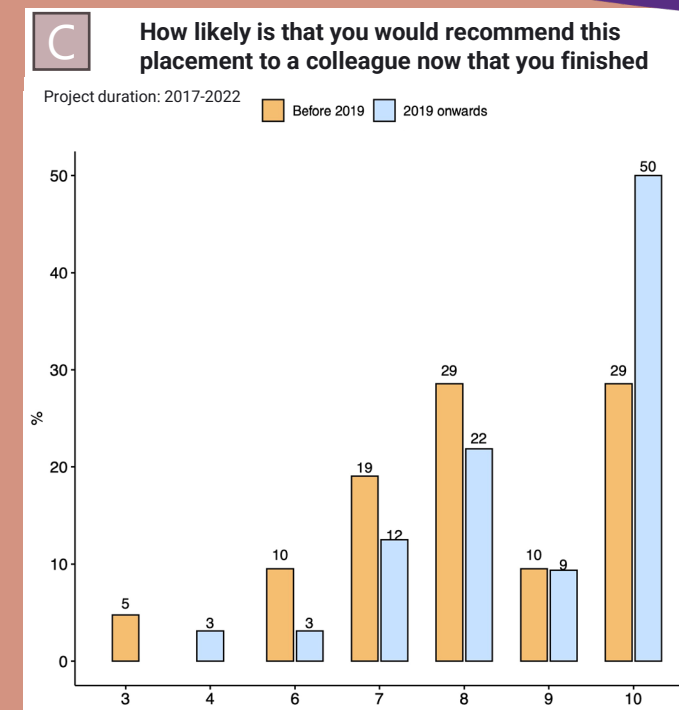
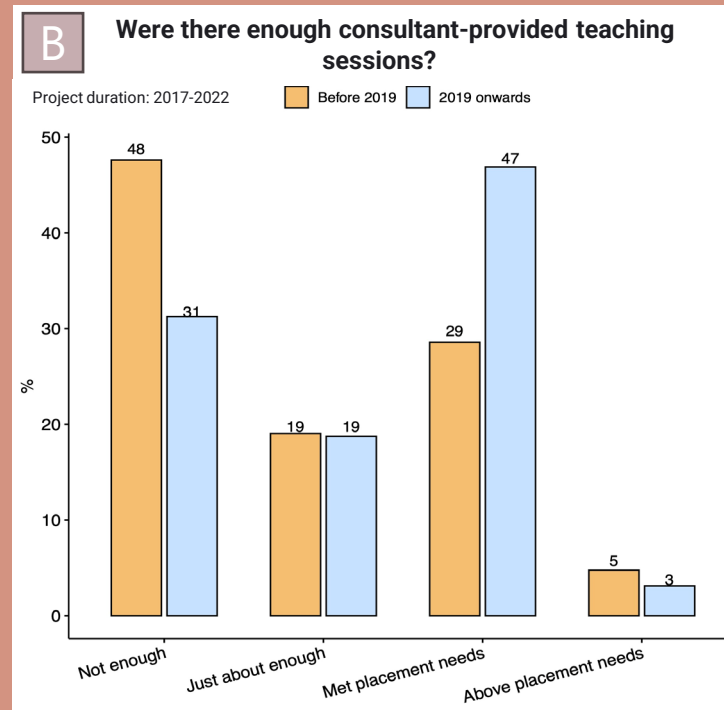
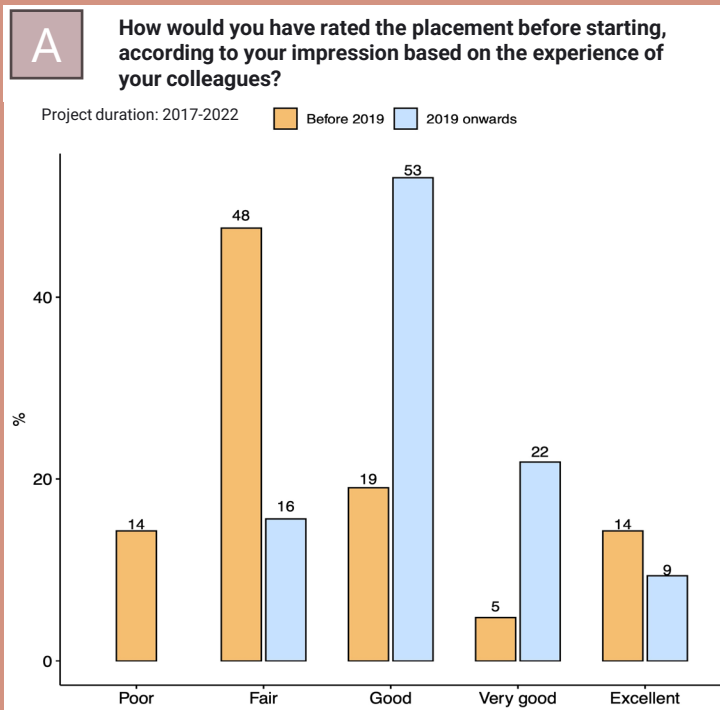


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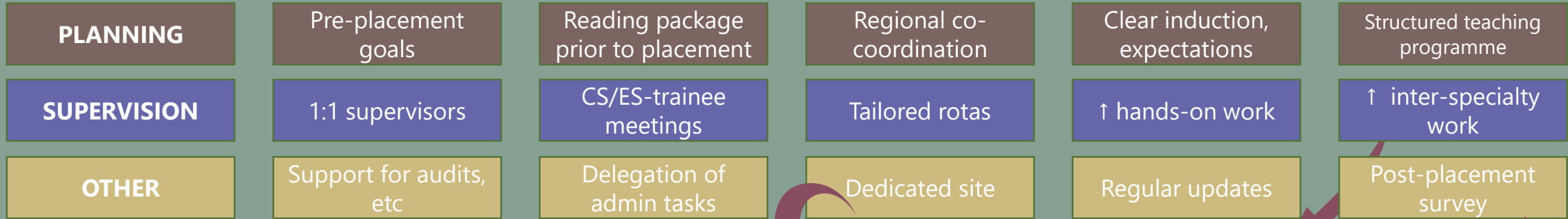
- A. Regional site survey data (when available)
- B. Local survey respondent frequency per year
- C. Local survey: placement rating before and after rotation

RESULTS (LOCAL SURVEY)



- A. Placement rating before and after rotation, before and after 2019
- B. Satisfaction with the number of teaching sessions, before and after 2019
- C. Recommendation likelihood, before and after 2019
- D. Subspecialty consideration before placement
- E. Subspecialty consideration after placement

WHAT HAS WORKED WELL



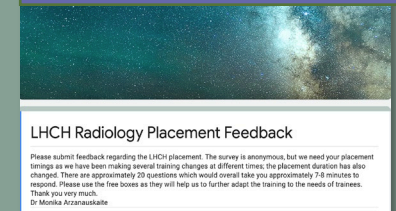
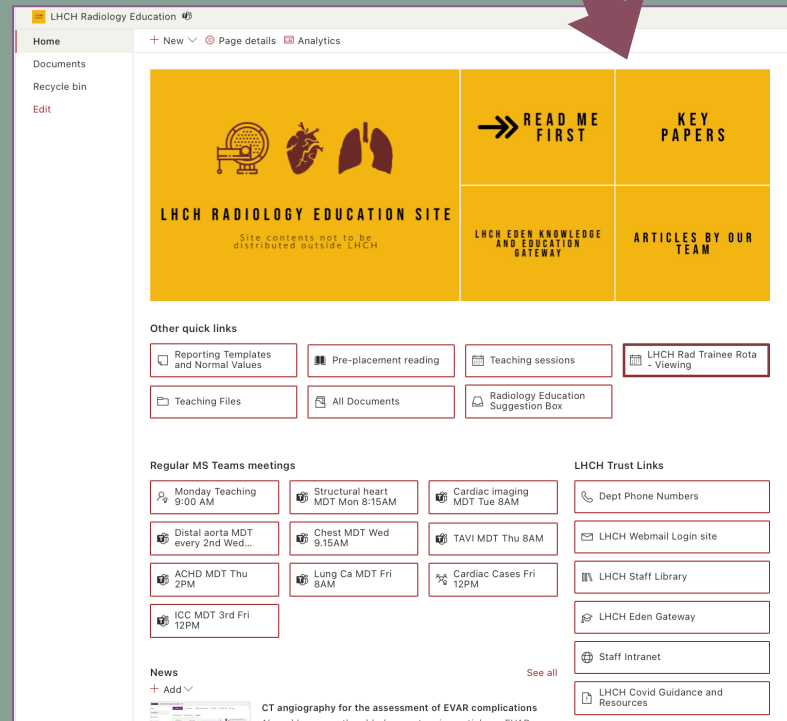
VALUES

- Inclusivity
- Making a difference
- People-centred
- Accountability
- Continuous improvement
- Teamwork

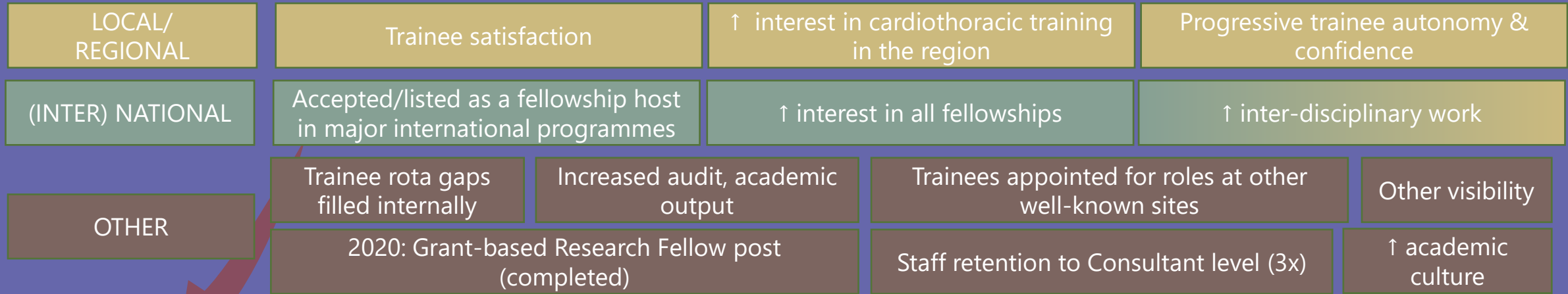
INCLUSION

- Mixed learner environment (rads, cards, different levels)
- Teaching roles to non-consultants

FEEDBACK



BENEFITS – DIRECT AND INDIRECT - UNINTENDED CONSEQUENCES



Accredited internationally as an all-three category cardiovascular magnetic resonance imaging lab

Funded externally




SUMMARY

Aim achieved: training quality improved

Continuous feedback and QI maintenance are valuable to enhance the training quality

Longitudinal QIP has been helpful in significantly increasing Trust's visibility internationally

Our results meet the regional and national goals to reduce shortage

Overall, this QIP provided an example of agile and flexible interventions and their impact on workforce retention/recruitment

FUTURE RECOMMENDATIONS

To ensure appropriate protected supervision time for Consultants

To maintain continuous quality assessment and QI

To enhance academic training in the department

To further foster interdisciplinary work



THANK YOU

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