# TRAUMA TEAMS: How Can a Change in Work Pattern Impact Training?

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## Background

The COVID pandemic enforced a complete re-design of the trauma rota in our major trauma centre. The consultant and registrar workforce were split into 4 trauma teams, each providing cover for all trauma duties in a 4 weekly cycle. The registrar cohort is split into two tiers, junior tier doing a full shift pattern (ST1-4) and senior doing a 24 hour on-call pattern (ST5-8).

In terms of judging the impact of a change in work pattern on training, the JCST set out Quality indicators for good training; "two hours facilitated teaching per week, attend 3 supervised theatre sessions per week, opportunity to attend 70% attendance at regional teaching, a minimum of 2 clinic sessions per week and 1 research session per week."[1] Over 6 months this equates to 60 theatre sessions and 40 clinic sessions.

Tayside has a strong reputation for good training, in particular access to theatre training opportunities and operative numbers. A previous audit by Davies et al. concluded that senior trainees exceeded the number of theatre sessions and met the number of clinic sessions, whereas the junior trainees did not meet either of these JCST quality indicators.

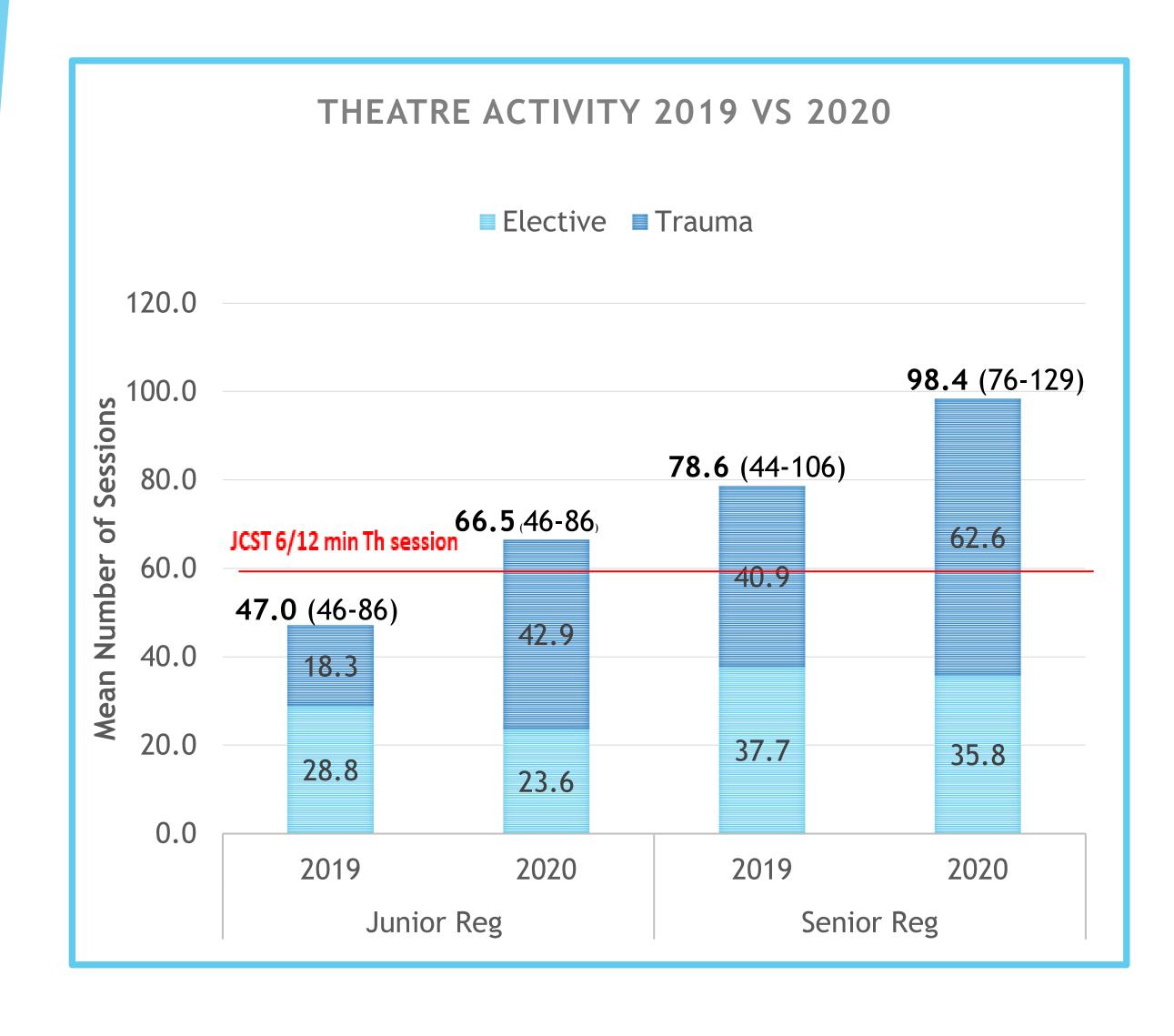
### Aim

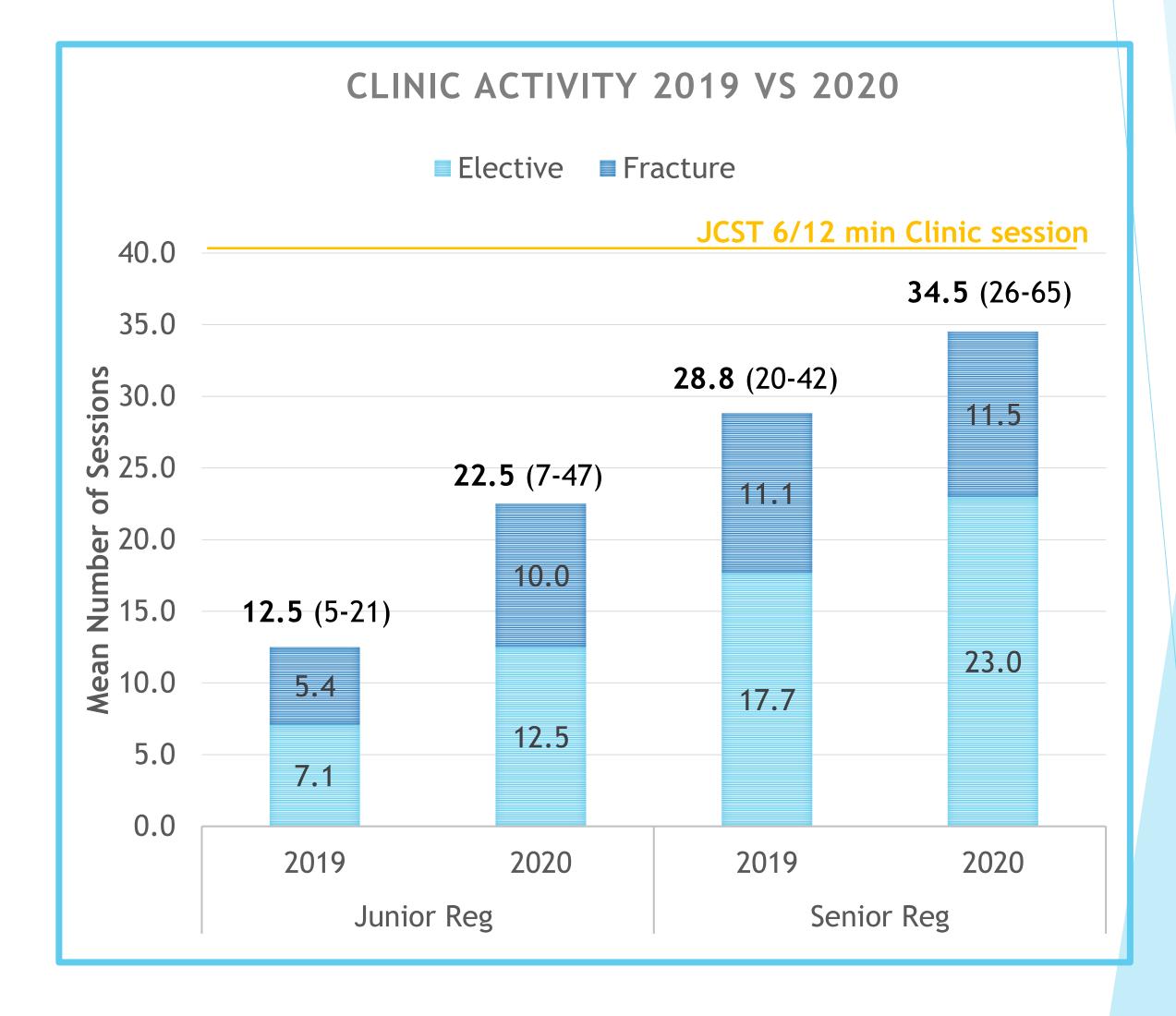
Assess the impact of a change in working pattern/rota on training, and provide comparison to the previous pattern, holding both against the standards set by JCST.

#### Methods

Retrospective analysis of T&O registrar rota's from 10th August 2020 - 31st January 2021 & 12th August 2019 - 2nd Feb 2020. Primary outcome measures were elective theatre sessions, trauma theatre sessions, and clinic sessions attended by each registrar in the two 6 month periods. This was then compared against the JCST quality indicators for training. 60 theatre sessions and 40 clinic sessions were used as the benchmark per 6 month rotation. Secondary outcome measures were missed clinic/theatre opportunities due to compulsory zero days / night shifts, and designated consultant/trainer practice attended.

## Results





Junior trainee (ST1-4) theatre activity increased by 41.5% (47 to 66.5 sessions per 6 months). Senior trainee (ST5-8) theatre activity increased by 25% (78.6 to 98.4 sessions per 6 months). Junior trainee clinic activity increased by 80% (12.5 to 22.5), with senior activity increasing by 20% (28.8 to 34.5). Lost junior trainee sessions reduced by 63% (n160-60). All trainees attended greater than 60% of consultant activity.

# **Discussion**

Through rota redesign in Tayside, there has been an increase in the training opportunities for trainees on the rotation. The key driver behind this improvement is through taking a departmental approach to achieve alignment between consultant and registrar working patterns. To further facilitate the reduction in 'missed training opportunities', RED ZERO DAYS and GREEN ZERO DAYS were introduced. Green zero days can be moved to fit around consultant activity, and are there to balance the average hours to meet 'EWTD rules'. Red zero days had to remain in place to ensure the requirements of the 'New Deal' were met.

Although every hospital has individual nuances, and there will be no one size fits all rota design, this study highlights that improvements can be made through better rota design. In training centres, rotas and service delivery need to be designed with training at its heart. There is a need to maintain a balance between opportunity and sustainable safe working. All training posts should strive to meet the basic quality indicators set out by the JCST. In the recovery from COVID 'missed training opportunities' ought to be minimised and every list/clinic seen as a training opportunity.

The core principles to maximise training opportunities that are transferable to any unit are:

- 1. Trainer trainee working pattern alignment
- 2. Flexibility in zero days
- 3. Trainee involvement in rota design
- 4. Ongoing Audit against JCST standards

