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An Analysis of General Surgery ACGME Case Logs through Program Expansion and the COVID-19 Pandemic at LVHN

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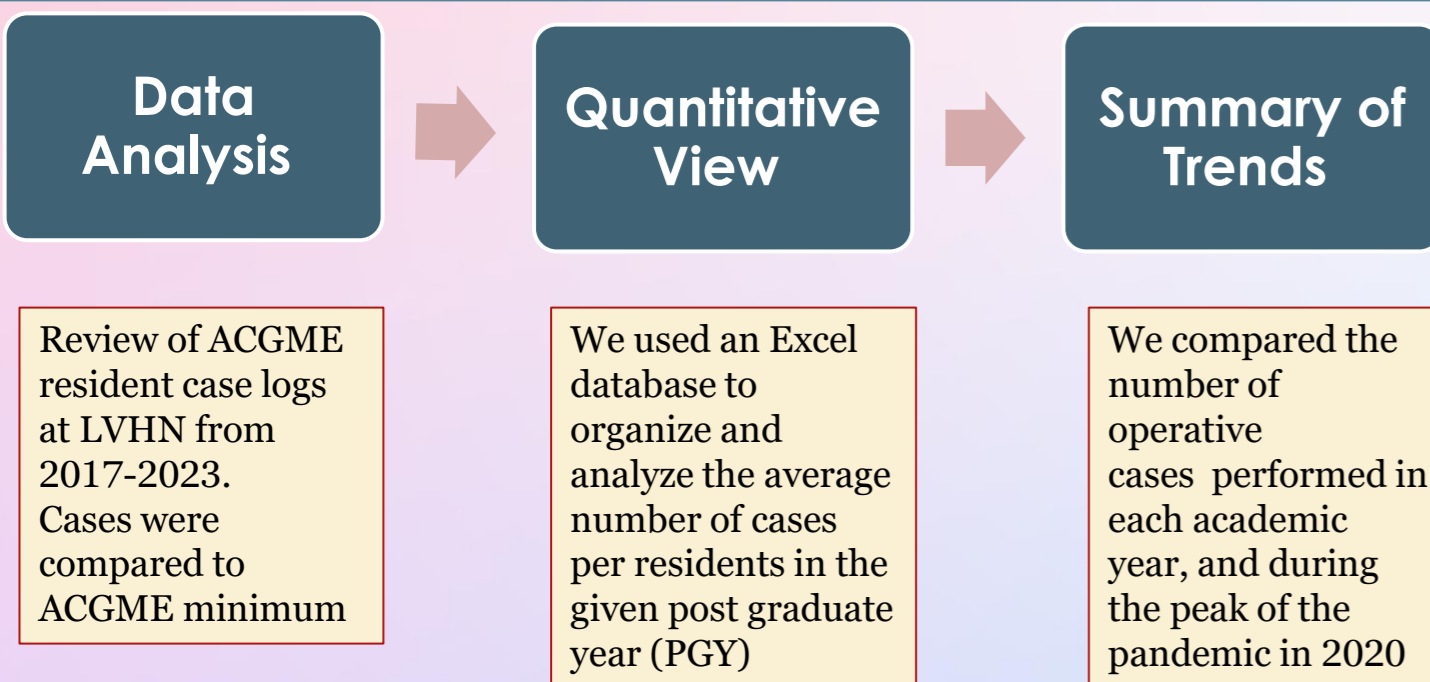
Background / Introduction

- The ACGME (Accreditation Council for Graduate Medicine) defines case requirements for completion of general surgery residency
- Residents must achieve a specific number of cases in multiple categories in order to qualify to graduate from surgery residency and qualify for board certification
- The LVHN residency and environmental changes occurred in 2020, impacting the operative experience of the residents:
 - Program Expansion (increased number of residents from 5 to 6 per year)
 - COVID-19 pandemic
- We assessed the global pandemic impact; elective & non-emergent cases were cancelled/postponed decreasing the operative experience of residents
- We analyzed the resident case logs to understand the change in their operative experience by comparing 3 years before and since these 2 events

Objective

The main objective was to evaluate the operative experience of resident physicians through ACGME case logs and to analyze volume of procedures through the program expansion and the COVID-19 pandemic.

Methods

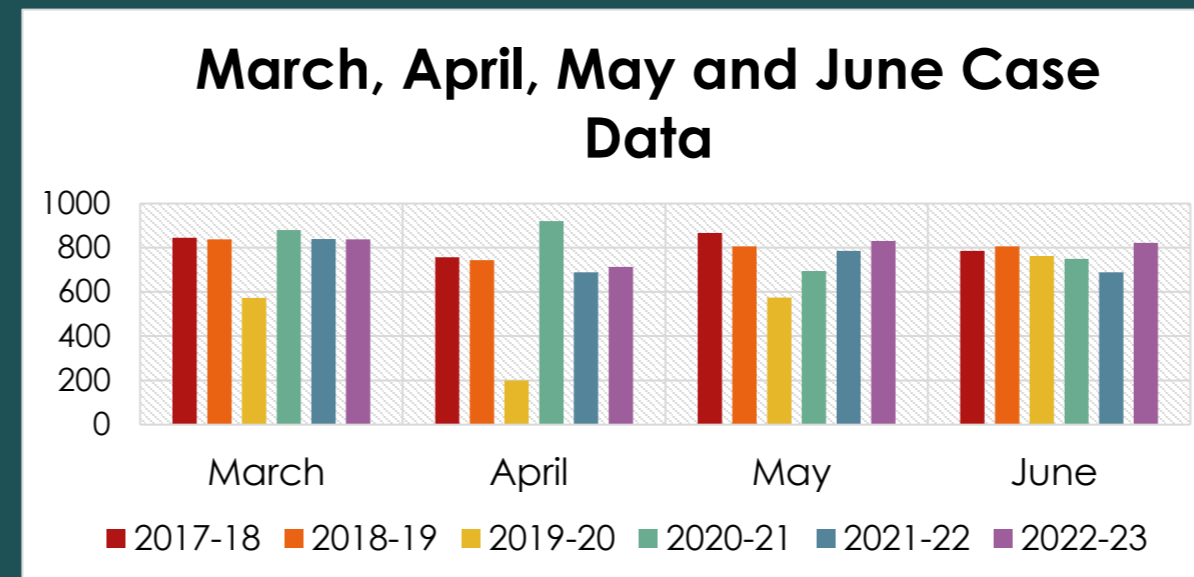


Results

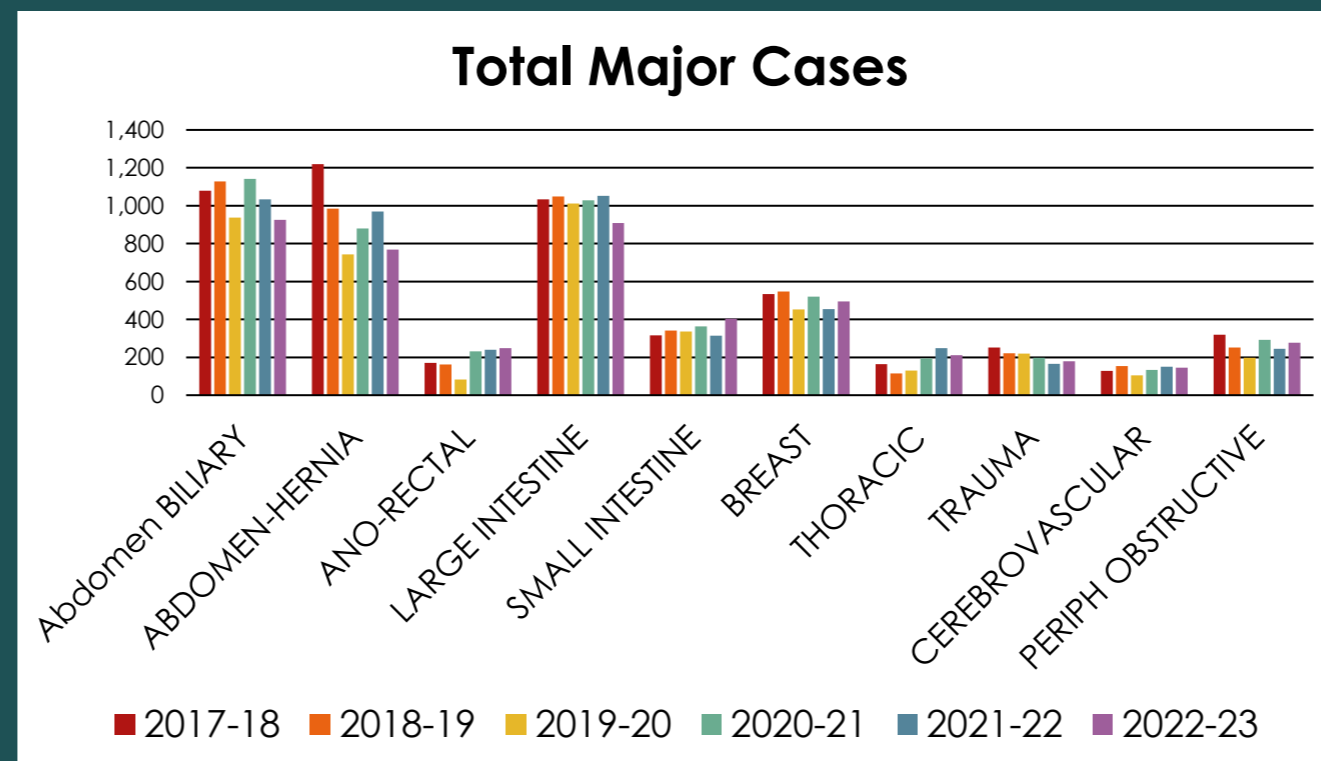
Table 1. Compares the total number of cases logged per number of residents in each academic year

PGY	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
1	149	187	138	104	81	87
2	283	271	180	258	220	236
3	510	343	393	335	332	367
4	533	466	410	475	375	350
5	487	709	512	439	423	452

Graph 1. Total Cases for the March to June time frame to show the fluctuation in case volumes before and after COVID-19



Graph 2. Total Major Cases in each academic year



Conclusion

- In this retrospective analysis, we found the 2017-18 academic year had the greatest number of procedures logged & the fewest number of residents.
- Findings:
 - There was a 46% decrease in the total number of cases from 2018-19 and 2019-2020
 - Nominal change in residents year over year, 31, 32 and 29 resident in 2020-21, 2021-22, and 2022-23 respectively
 - The range in logging for 2017-18 was 52 at the lowest and 848 at the highest The top 8 residents did 50% of the cases
- Across all academic years 50% of the cases logged are done by 1/3 of the residents
- The fewest cases were logged by PGY-1 and the most were logged by PGY-3
- In 2017-18, 3 PGY-3 residents were in the top 4 for number of cases logged
- **Overall, there was a minor change in the number of residents & with a more pronounced decrease in procedures logged.** Example: in 2021-22 there was a 644 operative cases logged with 8 interns that resulted in 81 cases per intern
- The COVID-19 mandates influenced the decreased number of procedures logged. This was disruptive to both the clinical and surgical experience of residents

Recommendations

- Analyze the data to understand possible under- or over- reporting of cases
- Identify ways to maximize learning from each surgical case, including shadowing, double-scrubbing cases, documenting key learnings
- Utilize Ensurable Professional Activity (EPA) to drive competency-based education, instead of time- or volume-based training

References

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