

# Assessing the Impact of a Longitudinal Radiology Curriculum in a Primary Care-Focused Medical School

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DISCLOSURES: The authors have no disclosures to report and will not be discussing unlabeled/investigational uses of medical devices or pharmaceuticals during this presentation.

# Introduction

- NYU Long Island School of Medicine (LISOM) is a primary care-focused medical school created by NYU Langone Health (inaugural class entered in July 2019)
- Students apply and are admitted to one of 4 primary care specialty tracks: Internal Medicine, Pediatrics, Surgery, and Obstetrics-Gynecology
  - Students within these tracks are offered conditional acceptances into their respective specialties for residency programs at NYU Langone–Long Island Hospital upon graduation
    - Students may choose another specialty if their career interests change
- Accelerated 3-year MD program
- Tuition-free scholarships are provided to all students
- Curriculum design for the school involved a radiology education team
- A Longitudinal Radiology Curriculum (LRC) was developed with the input and involvement of stake holders across disciplines

# Introduction (cont.)

- The LRC involves programming across all 3 years of the medical school
- The goals of the LRC include:
  - Use imaging to assist with anatomy teaching
  - Teach about the importance of appropriate imaging utilization from perspectives such as radiation safety, overall appropriateness, cost-effective care, and health care disparities
  - Educate about the role of radiology in the diagnosis and management of a variety of common and unique conditions
  - Develop radiology elective and research opportunities to support any LISOM student interest

## Purpose

- **To describe the development and implementation of a longitudinal radiology curriculum into a primary care focused three-year medical school curriculum and report outcomes**

# Methods: LRC Programming

- Year 1 (Pre-Clinical Year):
  - Radiology was incorporated into a "M4" morphology of medicine course to be taught longitudinally along with anatomy, pathology, and histology
  - 1-week radiology elective offered to students
- Year 2 (Clinical/Clerkship Year):
  - 2-week radiology selective opportunity offered to students
  - Monthly Radiology lecture series with radiology faculty to review common pathology, appropriate imaging utilization, as well as unique cases (10 sessions total)
  - Weekly "RadsRounds" radiology sessions for students in their Internal Medicine & Surgery clerkships:
    - Review basic anatomy across imaging modalities
    - Analyze studies conducted for patients encountered during their rotations
  - Breast imaging faculty give breast health lectures during the Ob/Gyn and Family Medicine clerkships

# Methods: LRC Programming (cont.)

- Year 3 (Advanced Clinical Year):
  - Radiology faculty facilitate case review workshops for students in their Emergency Medicine clerkship
  - RadsRounds led by radiology faculty for students in their Internal Medicine Sub-internship
  - Radiology electives (2-4 weeks) offered to students with a focus on tools and skills for primary care practice
  - Radiology faculty lead 3 hours of image-rich, case-based reviews during the month-long Transition To Residency (TTR) program in April
  - A radiology faculty member developed and directs the leadership curriculum within the third year of medical school
    - Topics include MBTI administration and analysis, conflict resolution, time management, resonant leadership, and more!

# Methods: LRC Student Experience Survey

- Anonymous Survey distributed to NYU LISOM students
  - 72 total enrolled students (3 classes, 24 students in each class)
  - Distributed via email link in late January through early February 2022
- Participants were asked to respond to 6 statements
  - Students rate their level of agreement/disagreement using a 5-point Likert scale

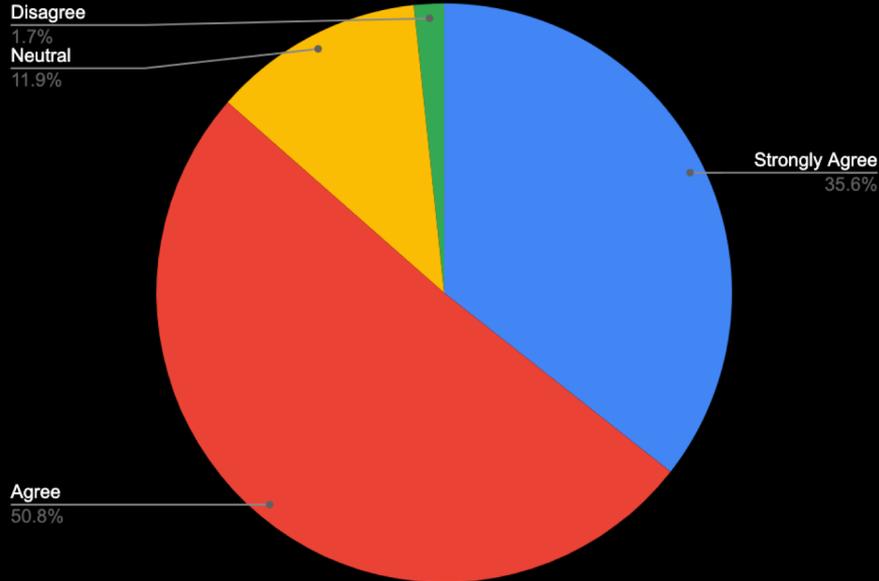
## LRC Student Experience Survey Questions

- 1. The longitudinal radiology curriculum has substantially enhanced my learning of anatomy as part of my pre-clinical education.*
- 2. The longitudinal radiology curriculum has improved my ability to choose appropriate imaging modalities in various clinical settings.*
- 3. The longitudinal radiology curriculum has improved my understanding of the role of radiologists as part of the healthcare team.*
- 4. The radiology elective has enhanced my preparation for my primary care career (for students who have participated in a radiology elective).*
- 5. The “RadsRounds” with radiology faculty have enhanced my clerkship learning experience and/or improved my ability to recognize basic anatomy and/or pathology on imaging (for students who have completed their internal medicine and/or surgery clerkships).*
- 6. The radiology elective has enhanced my preparation for my primary care career (for students who have participated in a radiology elective).*

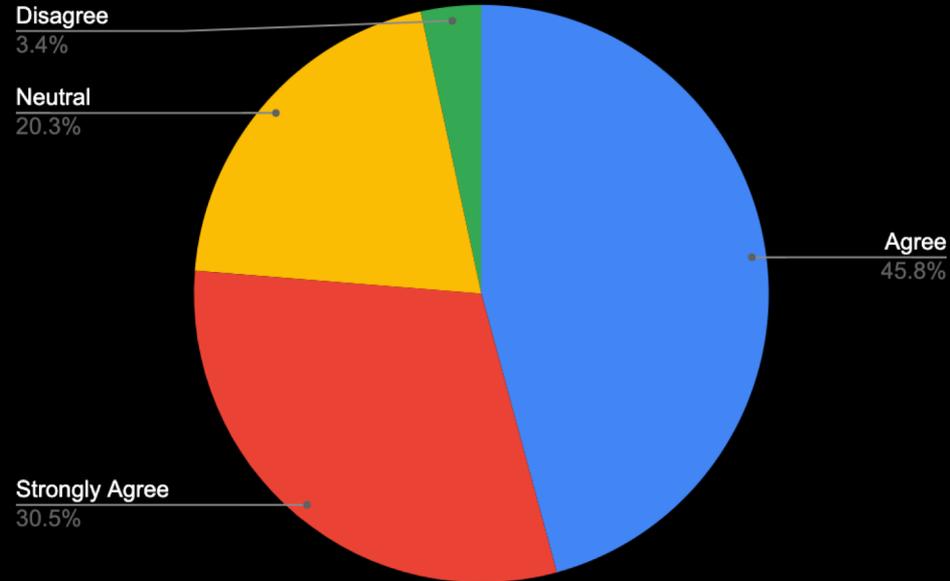
# Results: Survey Responses

59 respondents (82% of all students) completed the survey.

1.) The longitudinal radiology curriculum has substantially enhanced my learning of anatomy as part of my pre-clinical education. (59 respondents)

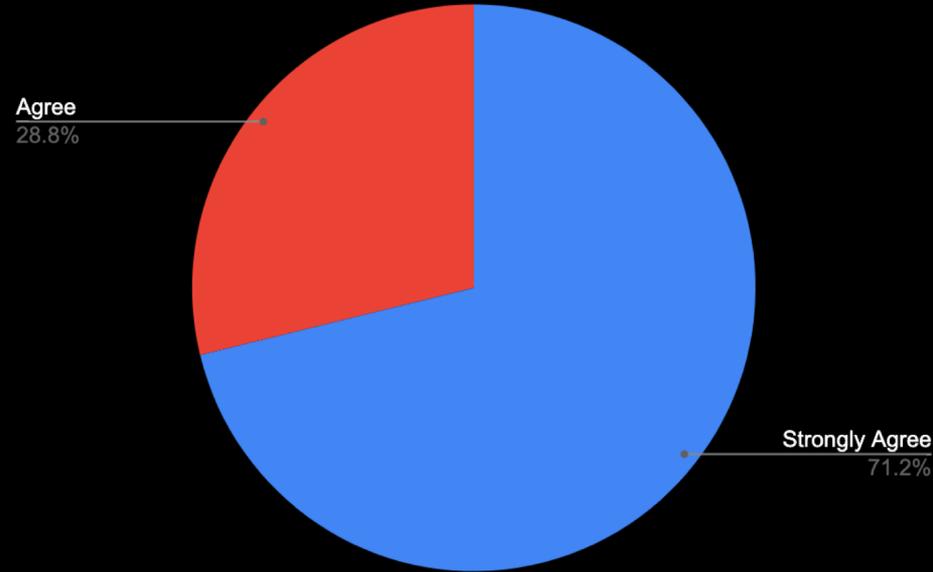


2.) The longitudinal radiology curriculum has improved my ability to choose appropriate imaging modalities in various clinical settings. (59 respondents)

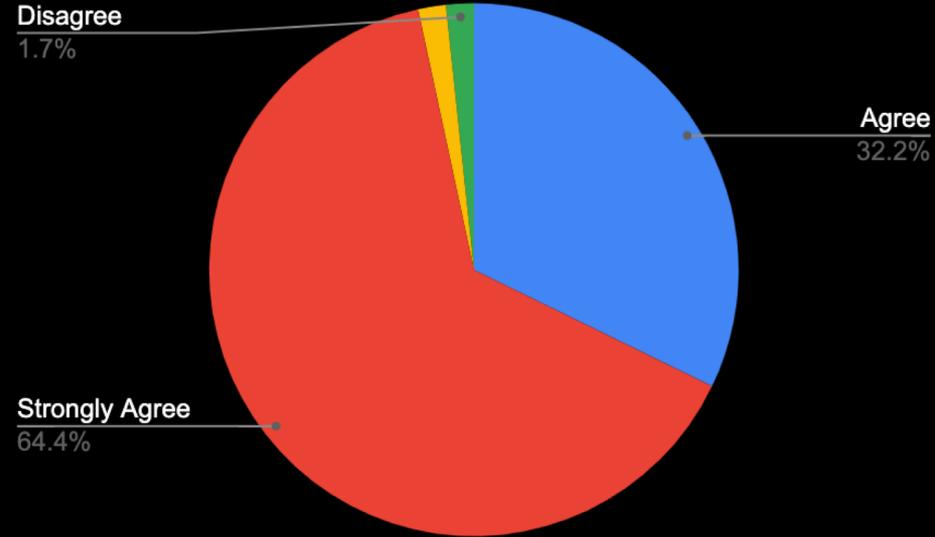


# Results: Survey Responses

3.) The longitudinal radiology curriculum has improved my understanding of the role of radiologists as part of the healthcare team. (59 respondents)

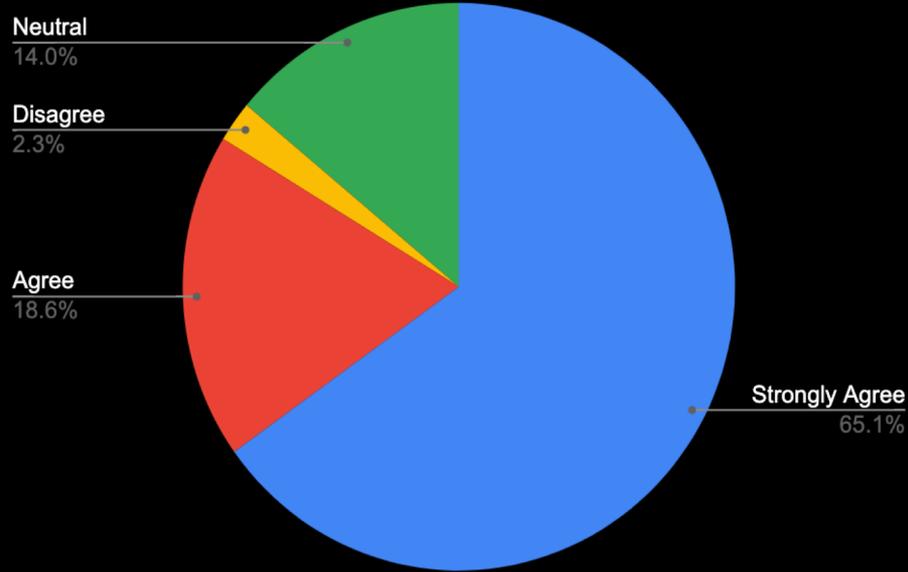


4.) The longitudinal radiology curriculum has improved my previous understanding of how radiologists and imaging studies can impact patient management. (59 respondents)

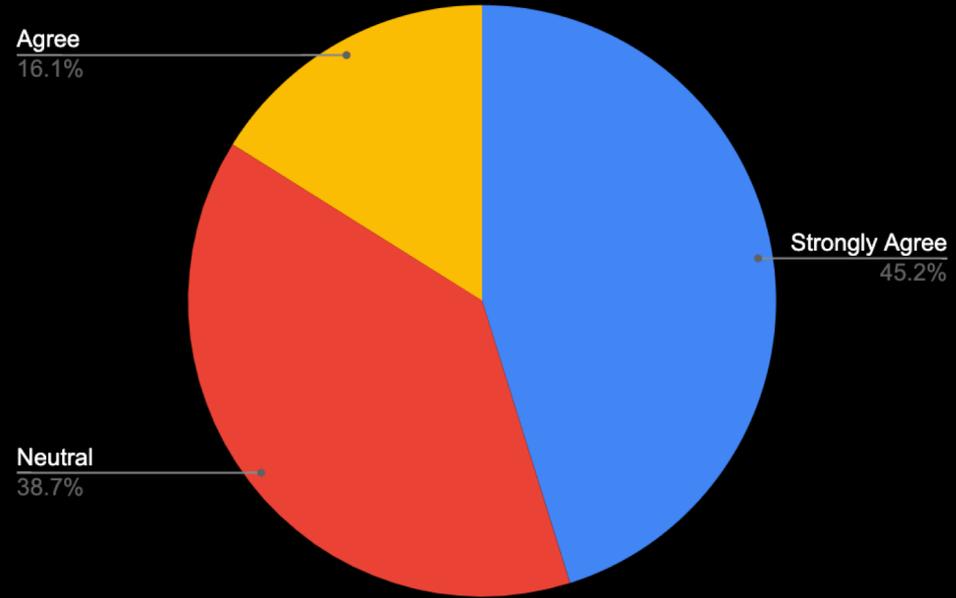


# Results: Survey Responses

5.) The "RadsRounds" with radiology faculty have enhanced my clerkship learning experience and/or improved my ability to recognize basic anatomy and/or pathology on imaging (for students who have completed their internal medicine and/or surgery clerkships). (43 respondents)



6.) The radiology elective has enhanced my preparation for my primary care career (for students who have participated in a radiology elective). (31 respondents)



# Results: Summary of Survey Findings

- 86.4% either agree or strongly agree that the LRC has **substantially enhanced their anatomy learning**
- 76.3% agree or strongly agree that the LRC **improved their ability to choose appropriate imaging modalities**
- 100% agree/strongly agree that the LRC **improved their understanding of radiologists' role on the healthcare team**
- 96.6% agree/strongly agree that the LRC **improved their understanding of how radiology can impact patient management**
- 83.7% of responders who have participated in “RadsRounds” agree/strongly agree that it **enhanced their clerkship learning experience and improved their ability to recognize basic anatomy & pathology on imaging**
- 61.3% of radiology selective participants agree/strongly agree that it **enhanced their preparation for a primary care career**

# Data and Discussion

- Initial surveys of students have found that a majority of students believe that the radiology curriculum had a positive impact on their:
  - Anatomy education
  - Ability to choose appropriate imaging modalities
  - Understanding of radiologists' role in patient care
  - Preparation for careers in primary care
- Radiology elective
  - Approx 1/3 of year 2 students have chosen to enroll in the radiology elective
  - Approx 50% of year 3 students have chosen to enroll in the radiology elective
- Radiology research
  - 9 radiology research projects involved or currently involve 1 or more LISOM students
- Some have even chosen careers in radiology!
  - Class of 2022 (22 students): 1 matched into Integrated Interventional Radiology Residency
  - Class of 2023 (25 students): 3 or 4 currently planning to apply to Diagnostic Radiology
  - Class of 2024 (24 students): Time will tell!

# Limitations and other considerations

- We are a young medical school with an evolving definition of what it means to be a primary care physician
- Limited data currently available due to small class size although 82% response rate (59 respondents) does allow for a relatively robust evaluation at this point in the school's history
- Future directions and plans
  - Use feedback to further improve the curriculum!
  - Planned changes to the radiology electives include more dedicated small group teaching sessions and rotation assignments tailored to each student's interest/career path
  - Add additional radiology faculty into the LRC, including RadsRounds, with the goal of allowing our students to interact with an even more diverse group of faculty
  - Consider creation of a Radiology Interest Group

# Conclusion

- A majority of students at a 3-year primary care medical school agree that the integration of a LRC has improved:
  - The quality of their anatomy education
  - Their ability to choose appropriate imaging modalities in the work-up of a patient case
  - Their understanding of the role of radiologists in shaping clinical management & decision-making
  - Their overall preparation for careers in primary care



# Thank You



## Contact Information

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