Striking a balance when scheduling colonoscopy patients

Exploring the Problem through Simulation

Building a computer simulation of patient scheduling and daily operations for colonoscopy at Michigan Medicine allows us to see how scheduling policies affect how easily patients can access care and how well providers’ time is utilized.

Colorectal Cancer & Colonoscopy

Colorectal cancer (CRC) is the second leading-cause of cancer death in the US. Colonoscopy reduces CRC incidence by up to 40% and reduces mortality up to 50%.

What We Learned

Simulation allows for robust policy testing at a low cost and is useful in communicating how randomness affects operations. Trade-offs are always necessary.

For example:
- Reducing patient wait time in clinic often results in an increase in provider idle time and longer lags to get appointments.
- Allowing some amount of anticipated provider overtime can enable more flexibility in meeting patient preferences for appointment times.

Decreased Access

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Acknowledgements

Victoria Glunt, Trevor Hoffman, Jakob Kiel-Locey, Jake Martin, Pushpendra Singh, Carolyn Wu, Dr. Karmel Shehadeh, Julia Warner, Prof. Amy Cohn, Dr. Jacob Kurlander, Dr. Sameer Saini

The Seth Bonder Foundation

And all prior CHEPS students who have contributed to SCOPES!