

AI in healthcare - Reading Club Notes

Session 5/06/21

What we read:

Analyzing Medical Research Results Based on Synthetic Data and Their Relation to Real Data Results: Systematic Comparison from Five Observational Studies

<https://medinform.jmir.org/2020/2/e16492/PDF>

Who Participated:

Jayanthi Suryanarayana, Ahmet Dokumaci, Sowmya Polavarapu, Alfredo De Los Reyes

What was the paper about?

Compare synthetic data results to real data 5 clinical studies to validate if synthetic data can advance clinical studies, if researchers have data for initial analysis and a powerful tool to help shape research hypothesis without risking patient privacy.

How is it relevant:

We are building a synthetic data capability and for Optum this is a valid use case. The paper further gives evidence of potential of synthetic data for privacy risk reduction and accelerate innovation.

What themes were discussed:

- Methods of generation
- Methods of validation
- Considerations for pre processing
- Synthetic data in other areas

Key Takeaways:

- For clinical researchers: Understand the potential of synthetic data to advance research

- For Product Managers: Understand potential use cases of synthetic data that can contribute to new revenue generation
- Regulatory Implications: How can we measure privacy risk of synthetic data.