PREDICT

June 2025

First quarter ☑

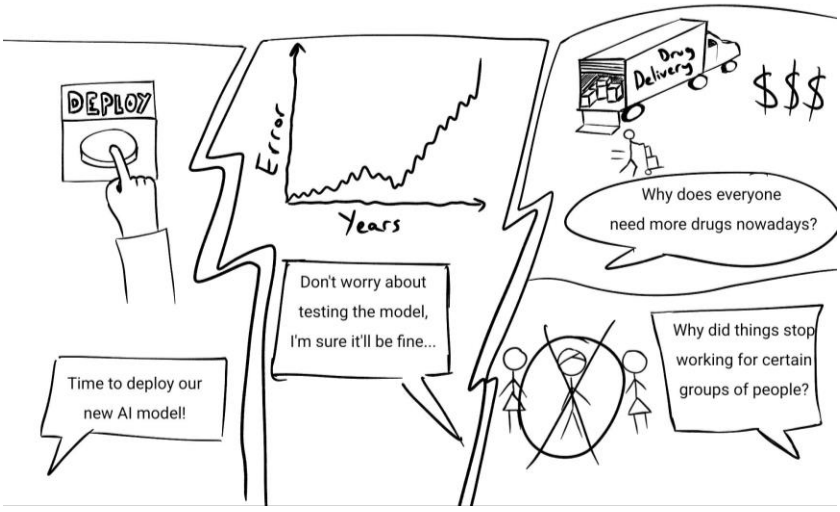
We're now 5 months into the PREDICT project and we're pleased to say we're full steam ahead and making good progress!

Goals of PREDICT

PREDICT (Pragmatic Recalibration and Evaluation of Drift in Clinical Tools) aims to tackle the problem of "temporal drift" - when clinical prediction models become more error-prone over time.

The project aims to:

1. Raise the profile of this issue.
2. Test different strategies for dealing with temporal drift.
3. Open a dialogue with policymakers to discuss the options moving forward.



How temporal drift could affect our lives.

Key Links

Project website (under development)

PREDICT software

NIHR Press Release on other research with similar funding

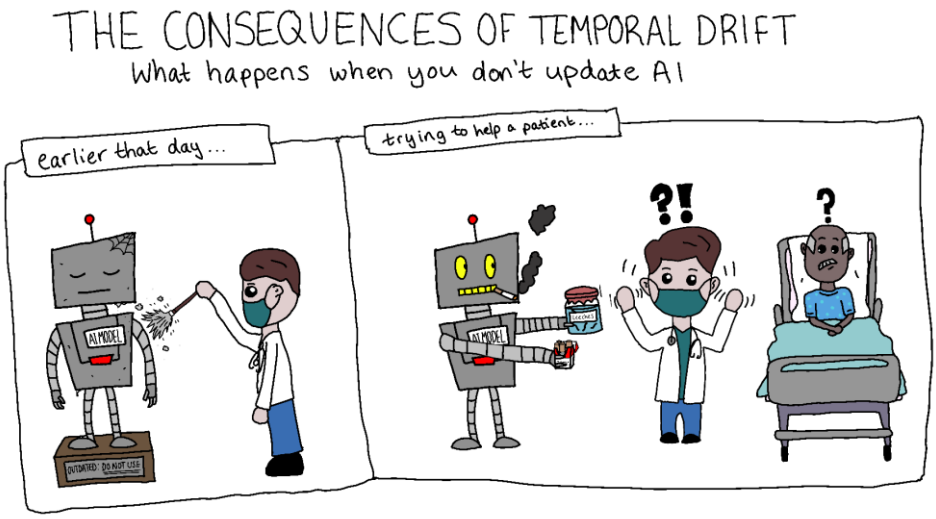
AI considered for prescribing drugs in the USA – key example of why this research is so important

MHRA launches AI Airlock to address challenges for regulating medical devices that use Artificial Intelligence

Previous newsletters

Progress since March:

- Continued work on software to detect and fix temporal drift, available at https://github.com/sdrelton/PREDICT.
- Created simulated data for various scenarios (COVID, diabetes prevalence slowly increasing, smoking decreasing).
- Developed a basic Python framework to detect drift using four methods (regular testing, static thresholding, statistical process control and Bayesian regression)
- Began writing up a paper describing the how we simulate the four dataset scenarios to test four detection methods on. This will be submitted to European Journal of Operations Research (title pending).
- Working on getting access to the Connected Bradford dataset to test the detect methodologies on real data.



Cartoon of an old AI robot trying to help a patient with outdated medicinal "cures".

Public Involvement Expression of Interest

We will shortly be planning our first patient and public involvement (PPI) workshop, aiming to understand how prediction models and temporal drift impact the patient experience. Please see the next page for more information.

Patient and public involvement (PPI) and engagement is critical to this work, so please reach out to us if you have any questions or comments. We'd love to hear from you!

PREDICT Team

Dr Samuel Relton (Principal Investigator)
s.d.relton@leeds.ac.uk

Dr Oliver Todd
(PPI Lead)
o.todd@leeds.ac.uk

Barbara Hartley
(PPI Co-Investigator)

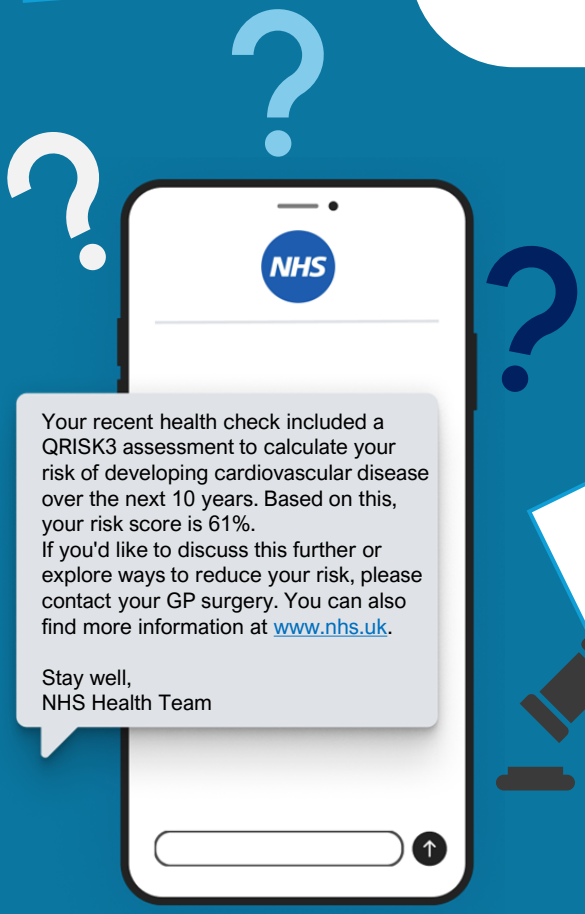
Dr Zoe Hancox
(Research Fellow)
z.l.hancox@leeds.ac.uk

Dr Kate Best
(Implementation Lead)
k.e.best@leeds.ac.uk

HAS THE NHS TOLD YOU YOUR RISK OF HAVING A HEART ATTACK?

UNIVERSITY OF LEEDS

Has your doctor ever told you that you might be at risk for a certain condition?
Or have you received a text warning about your health risk?



Do you know how risk scores are calculated?

Do you know if or how current risk calculators are being regulated?

How accurate does a risk score have to be for you to trust it?

Want to get involved or find out more?

We'd love to hear about your experiences and gather opinions to help motivate change to improve risk communication and regulations.

You can contact either:

Dr Oliver Todd: O.Todd@Leeds.ac.uk
Dr Samuel Relton: S.D.Relton@Leeds.ac.uk
0113 343 6731