ProCare

Increasing Productivity with AI and ML – Case Studies from Healthcare

Thursday 23 May 2024

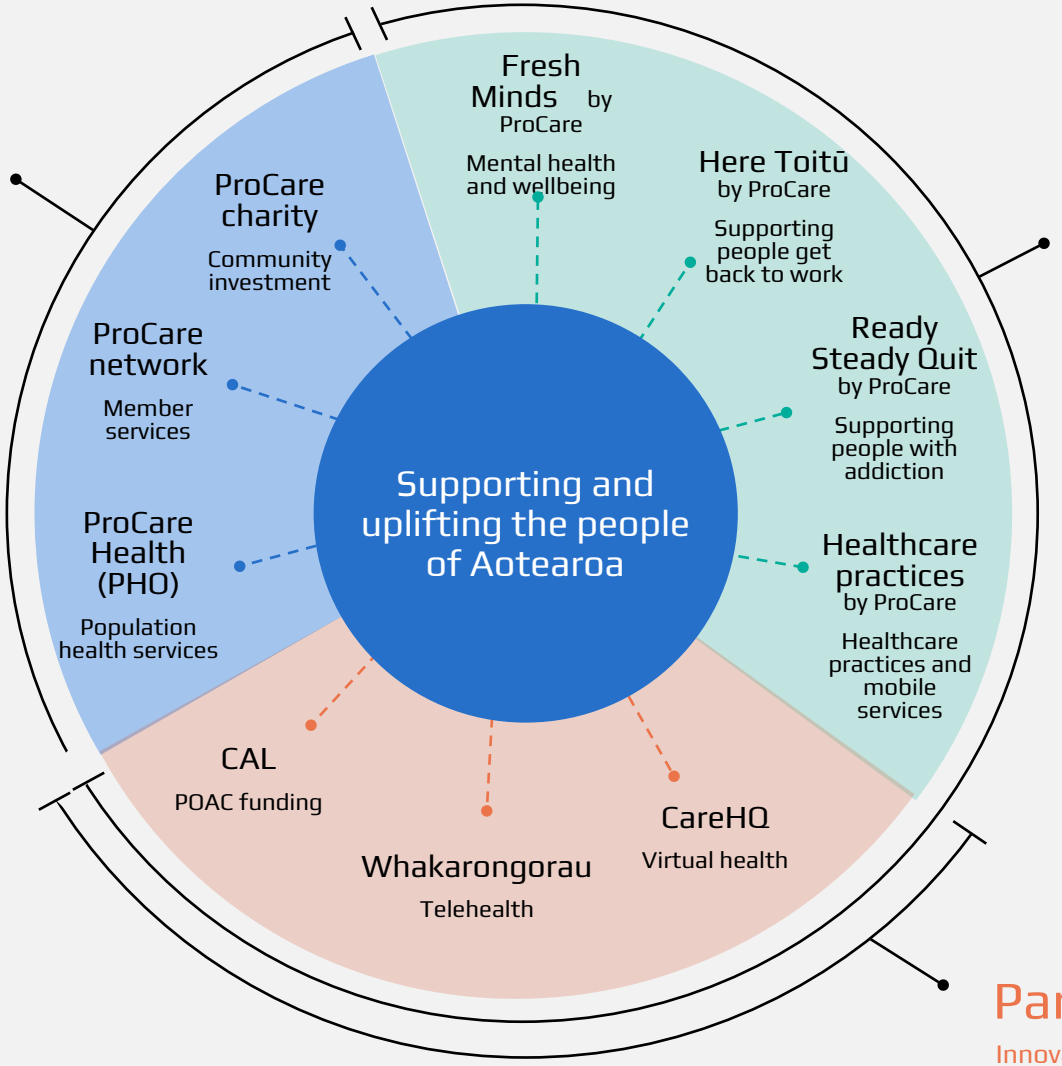
Reimagining healthcare

The ProCare Group spans across both provider and patient facing services to support our communities.

ProCare is a leading healthcare provider that supports the people of Aotearoa across a wide range of patient and provider facing health and wellbeing services.

Provider facing

Innovative approaches to supporting our network of healthcare professionals



Patient facing

Innovative approaches to supporting our whanau and communities

Partnerships

Innovative approaches to partnerships

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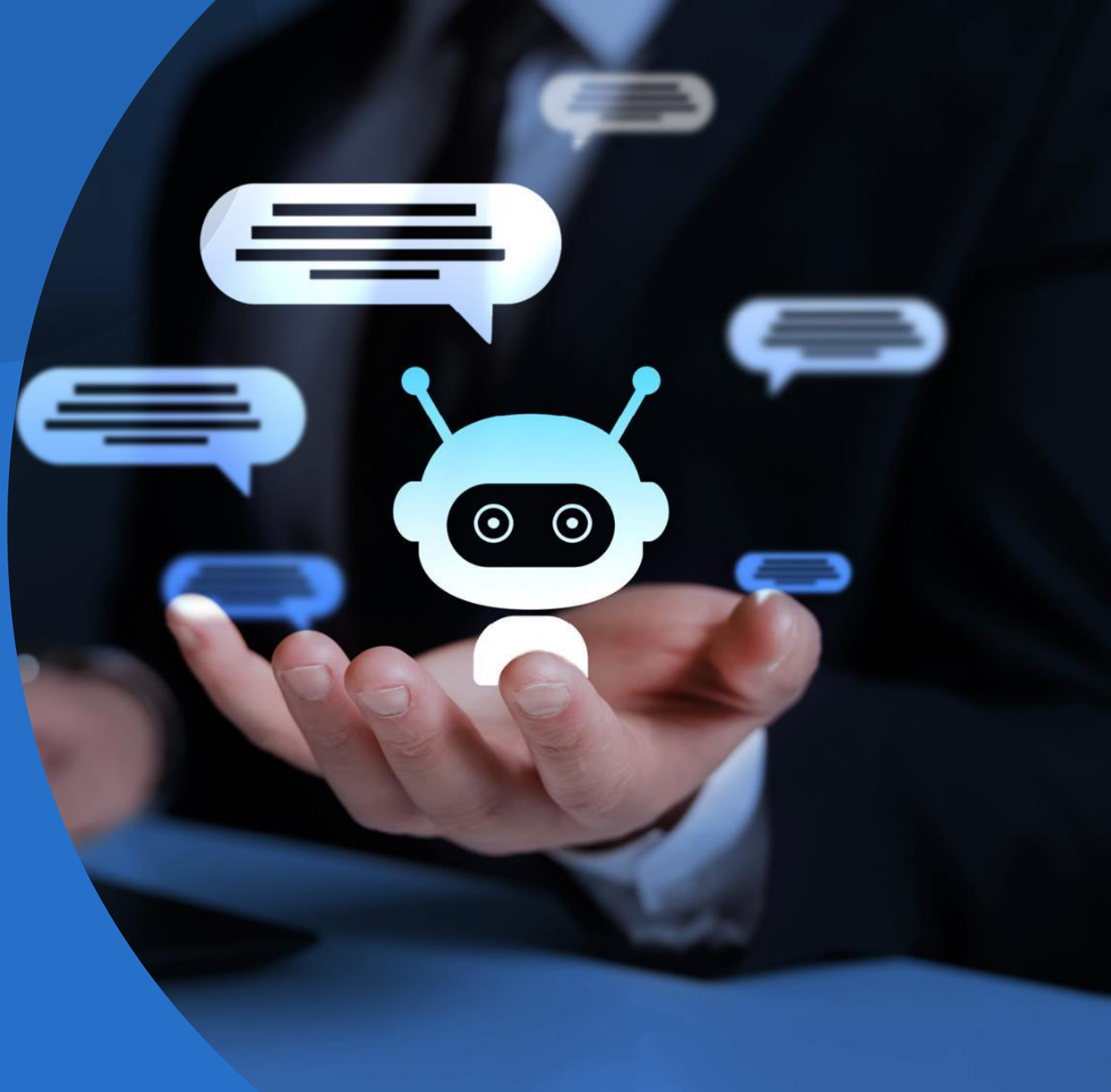
Digital Assistants for Cardiovascular Disease



Reimagining healthcare

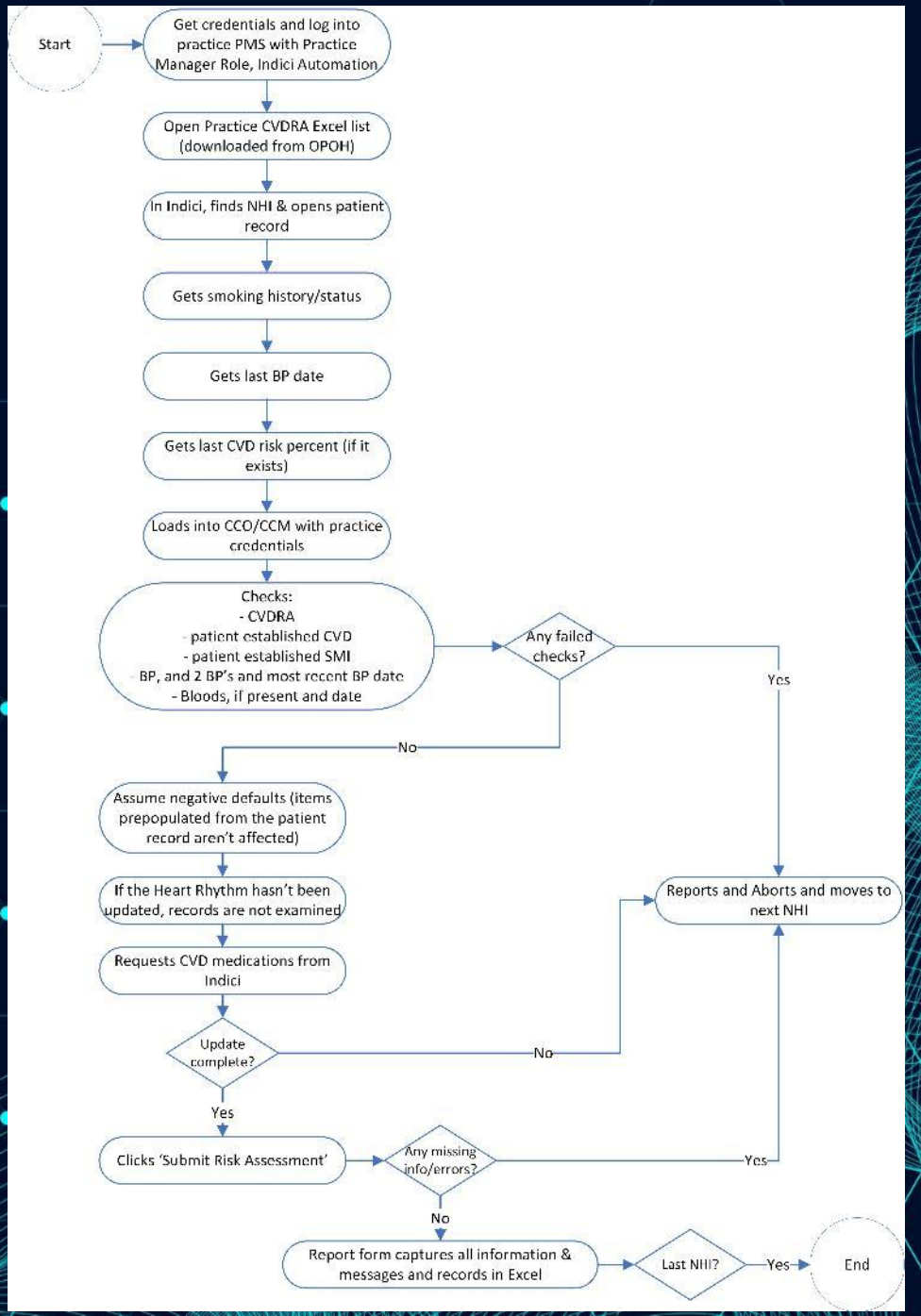
“To err is human, but to really foul it up you need a computer”

- Paul Ehrlich

Common issues:

- Managing clinical risk
- People are suspicious and unforgiving of technology.

Robots only do what you design them to do...



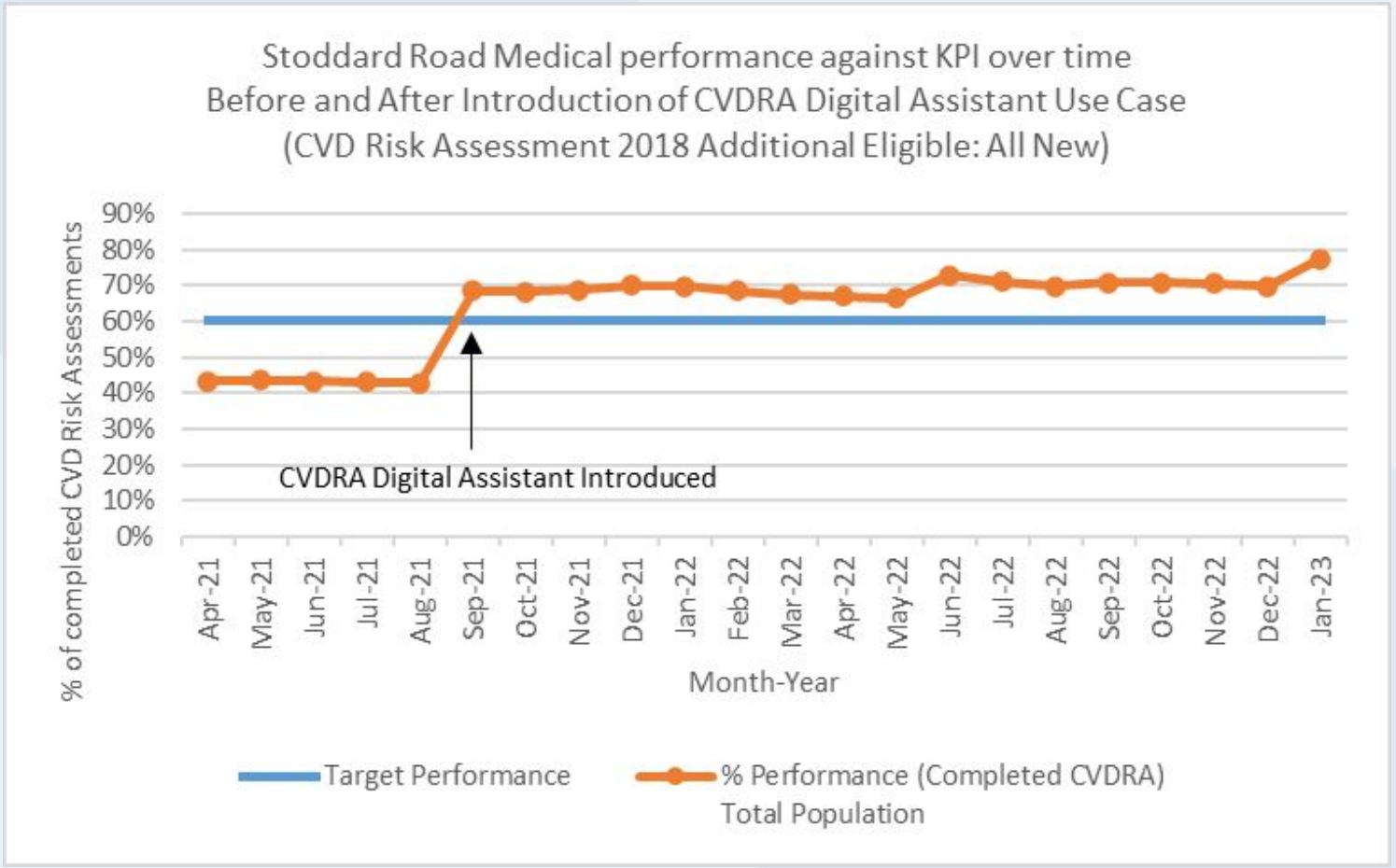
Practice benefits

- Time saving in practice which:
  - Enables other work to be done or
  - Provides improved work/life balance.
- *"I love my robots; you miss them a lot when they're offline"* GP Feedback.

- CVDRA example:
  - CVDRA robot deployed across 12 practices
  - Approximately 1,200 CVDRAs undertaken per week
  - Workload equivalent of more than 3 FTE clinicians.

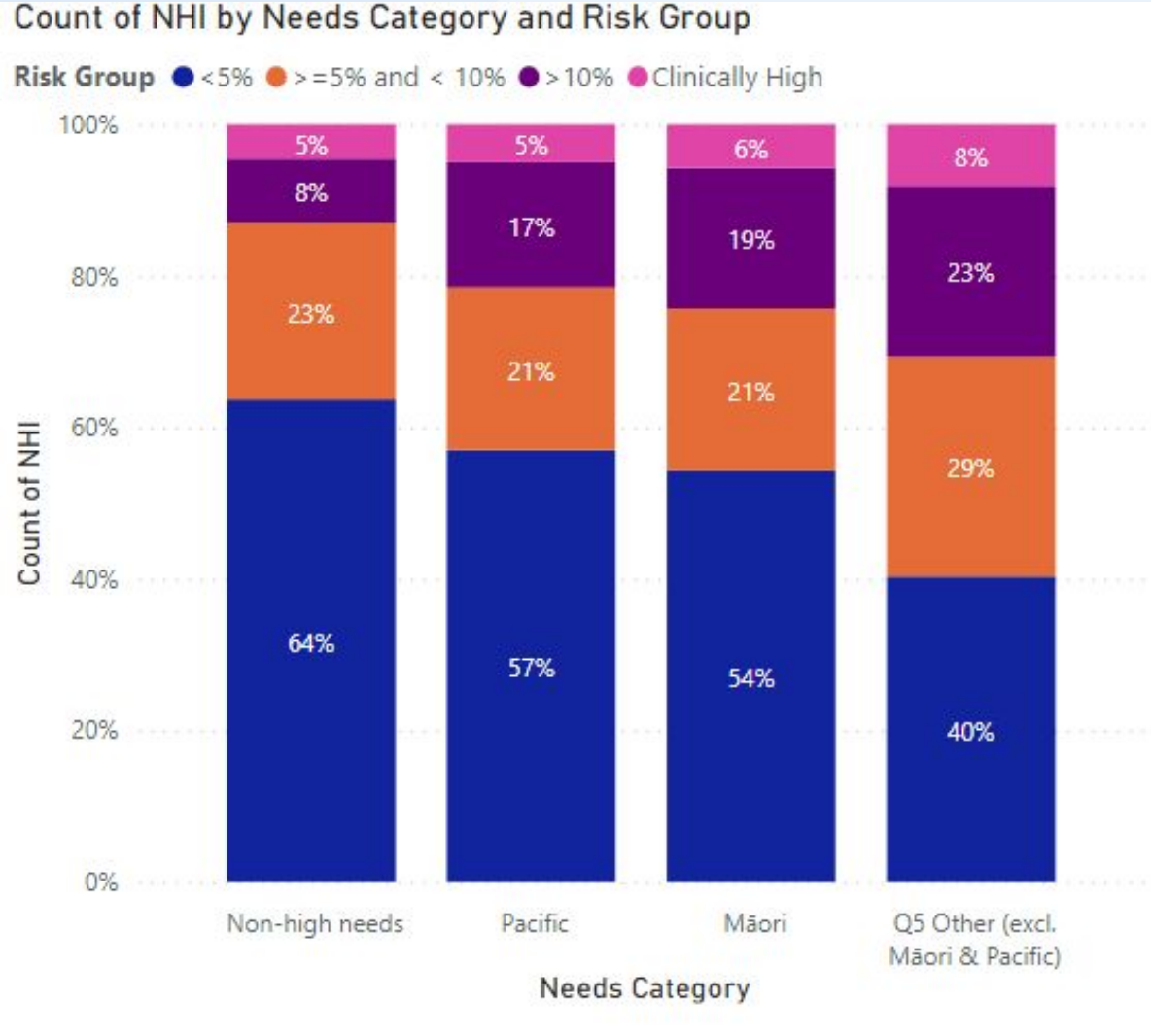
Clinical benefits

- Improves clinical outcomes / population health by:
  - Doing work that might not otherwise get done
  - Doing work completely consistently and potentially reducing errors and omissions.



Equity benefits

- Can contribute to achieving equity.



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Machine Learning to reduce Surgical Waiting Lists

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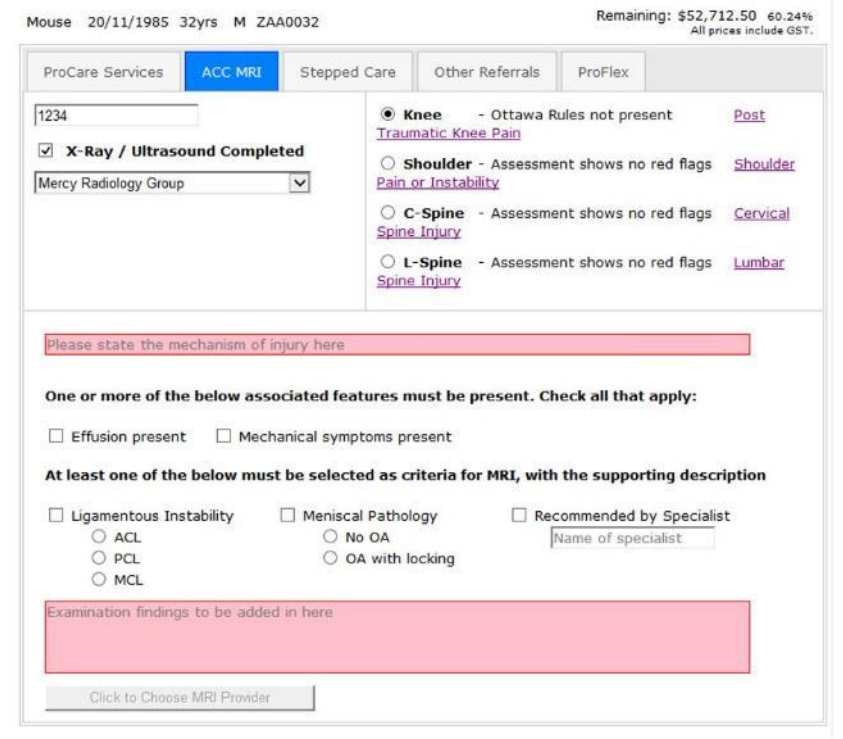
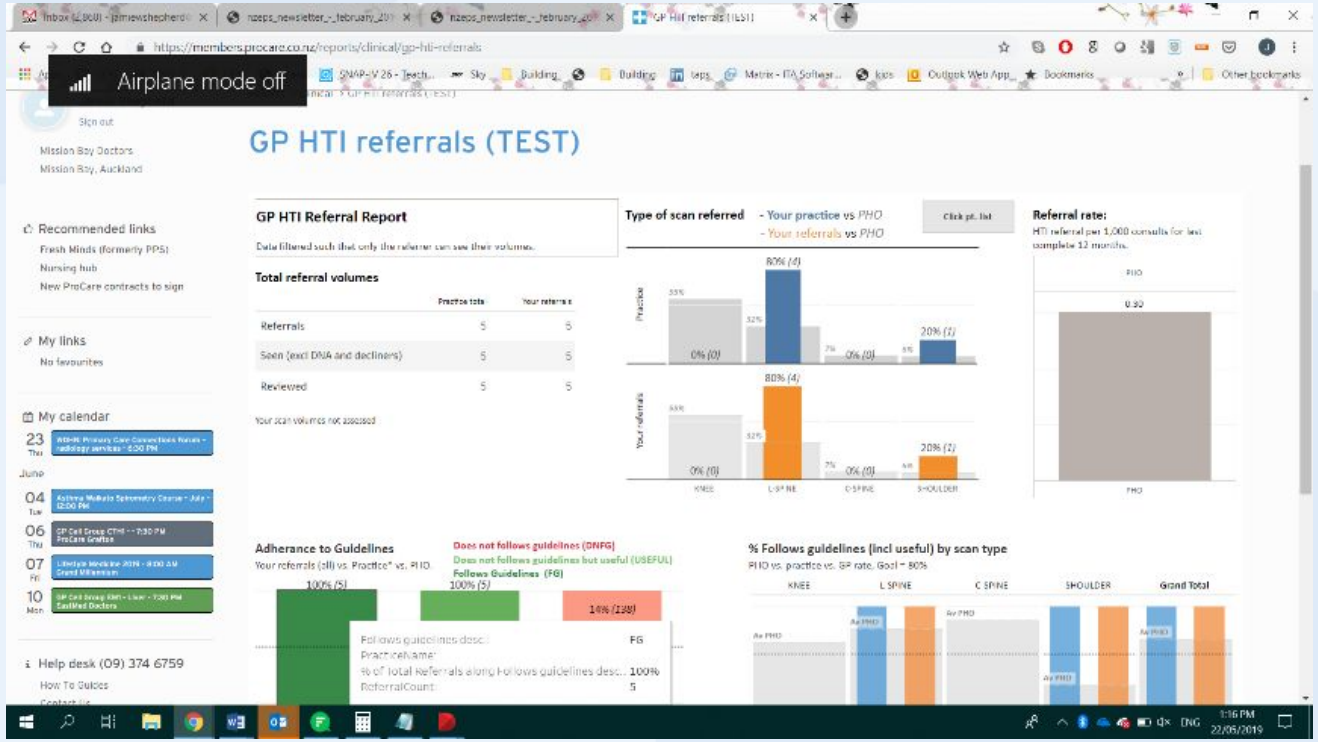
General Practice MRI programme

Design thinking from the start

We always planned to scale the HTI project, so we needed to cope with large volumes.





The GP MRI programme runs on trust...

- We use Machine Learning to review clinical use of MRI to maintain quality (and trust of the funders)
- Machine compares referrals with radiology reports and determines whether the referral was good...
- ‘Retrospective clinical governance’
- Facilitates delegation of responsibilities
- Speeds up the system.

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AI writing medical notes – Nabla Copilot

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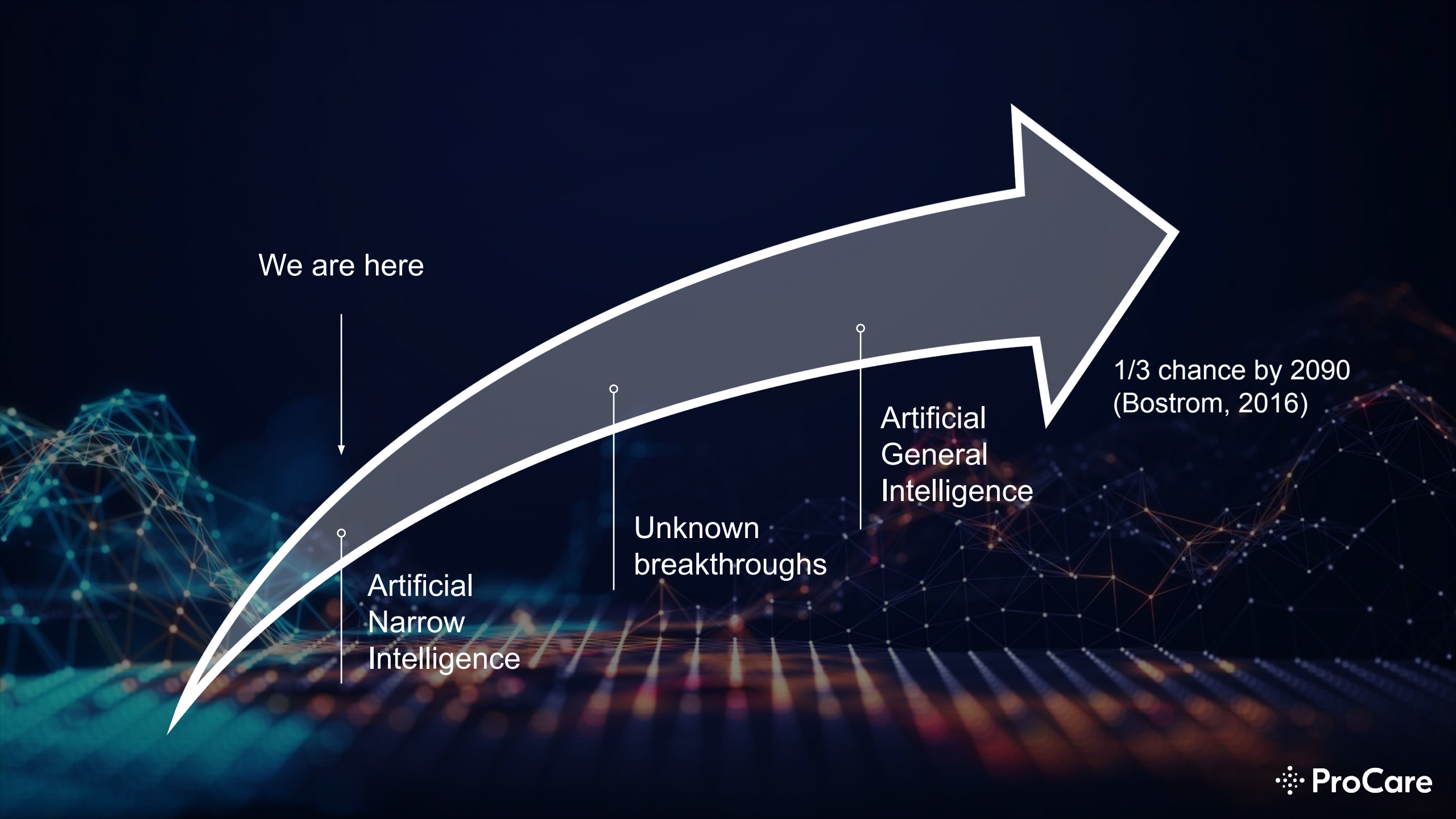
We are here
Artificial
Narrow
Intelligence
Unknown
breakthroughs
Artificial
General
Intelligence
1/3 chance by 2090
(Bostrom, 2016)

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- "Ambient AI assistant"
  - Takes a speech-to-text transcription of a clinical consultation
  - Generates summative clinical notes
  - Notes must be reviewed by the clinician before being copied into the PMS.
- Reduces time spent on documentation.
- Nabla Copilot supports English, French and Spanish.

Nabla

Please read, your consent is required

I'm using a software tool called Nabla Copilot to make it easier to write down my medical notes. It helps me spend more time focused on your care, and less time on the computer.

This tool will listen to our conversation and convert it into a summary, which I will review and edit for accuracy. The tool will have access to the audio of our conversation during our visit, but it will not be saved and will not be used further by the tool.

Your medical information will stay private and only shared with those you allow.

Do you consent to the use of this tool during our visit and future visits?

Our GPs may use Nabla Copilot during consultations

- Nabla Copilot is a software tool that makes it easier to capture your medical notes
- It converts your conversation with your doctor into a summary
- No audio recordings are saved
- Your medical information will stay private
- You may opt out of its use, just let us know.

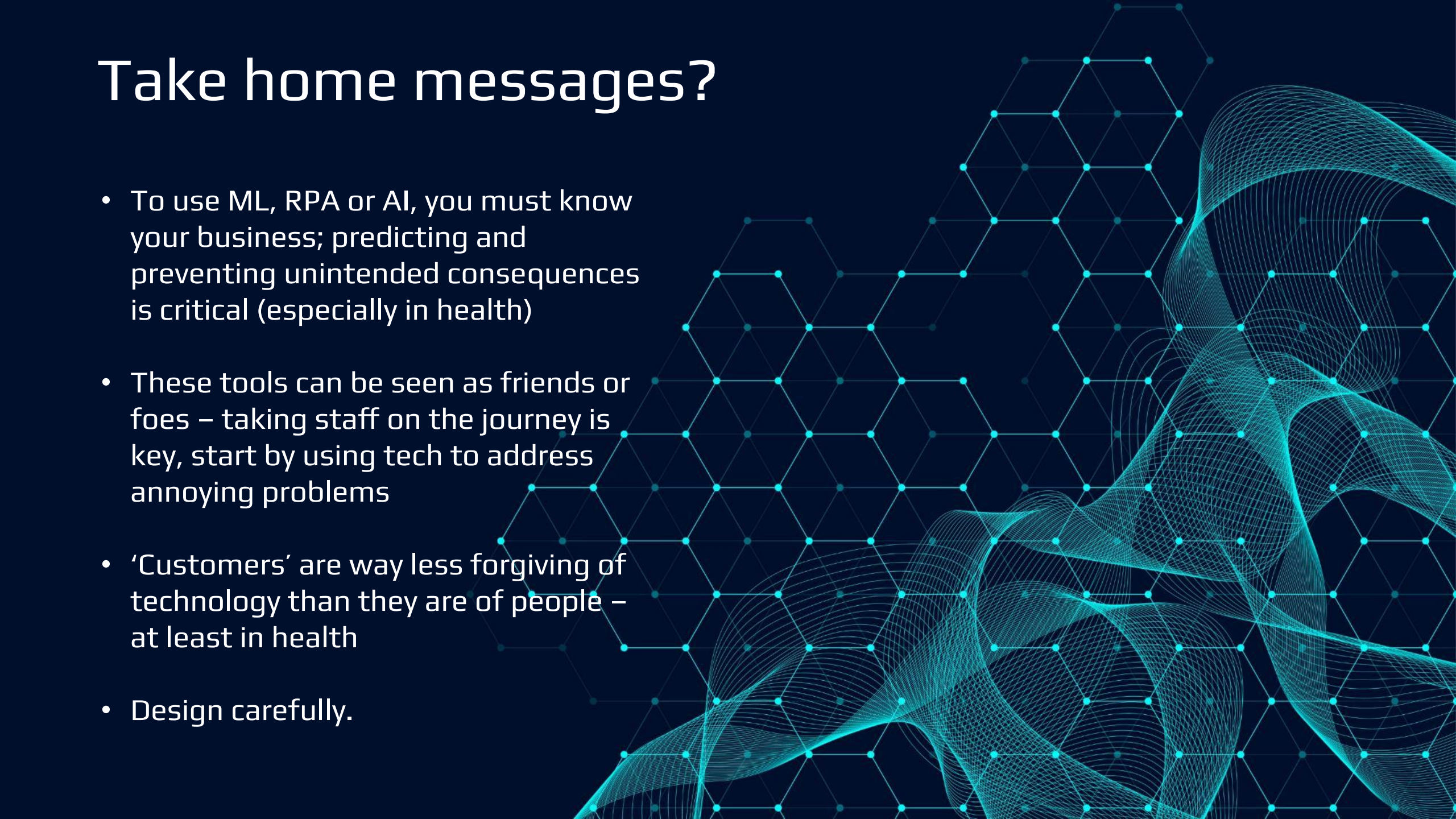
For more information, visit **https://www.nabla.com/**

Nabla

- Provides improved speed and efficiency documenting each consultation
- The clinician can focus on the patient/client, rather than trying to also type and capture key notes
- Helps write referral letters more quickly and proficiently.

Take home messages?

- To use ML, RPA or AI, you must know your business; predicting and preventing unintended consequences is critical (especially in health)
- These tools can be seen as friends or foes – taking staff on the journey is key, start by using tech to address annoying problems
- ‘Customers’ are way less forgiving of technology than they are of people – at least in health
- Design carefully.



Thank you

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