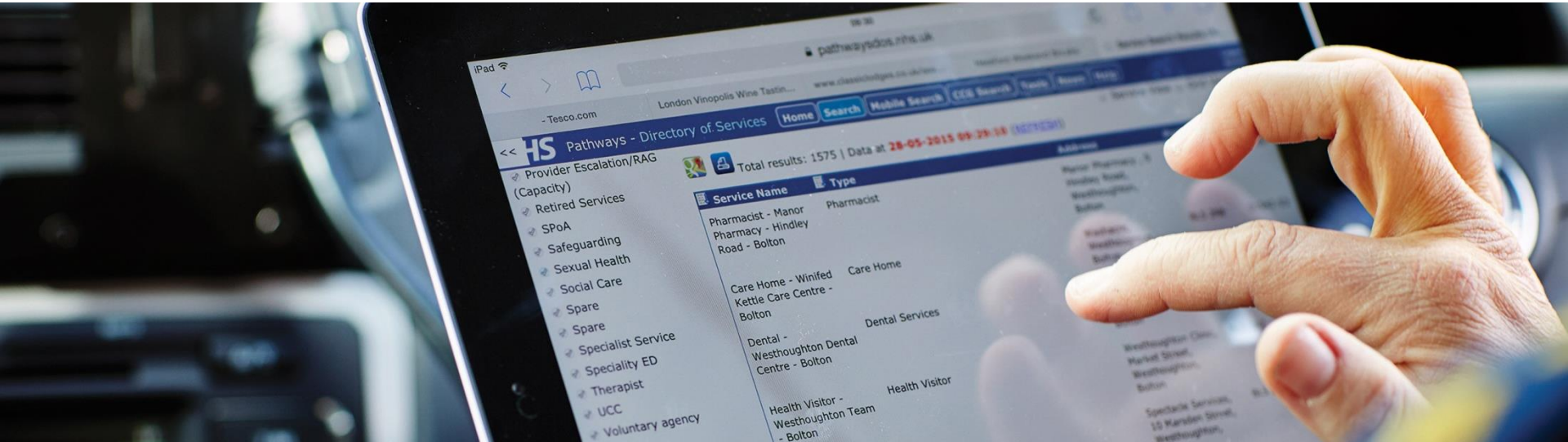


See the wood for the trees: Innovative tools to make use of the data



Information and technology
for better health and care

presented by Jonathan Hope,
Principal Data Manager

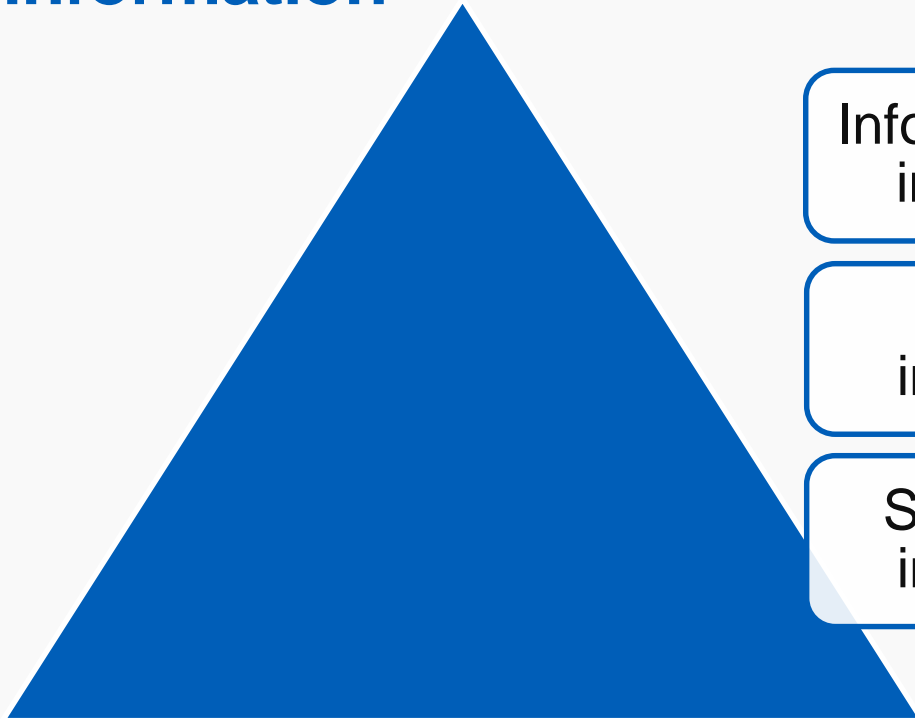
Why now?

We're at the forefront of the drive to transform the health and care system using data and digital technology.

Examples:

- Electronic Prescription Service - £230million a year saved
- Spine infrastructure – 2000 messages a second
- Data collections and the new Data Services Platform technology. – Over 100 collections

There are lots of things you can do with information



Inform individual
intervention

Group
intervention

System wide
intervention

Innovative Uses of Data

- Better value for the public from the data we hold
- Doing more with the data we hold
- Improving access to data and information

Why Innovative Uses of Data

- Some of it is hard – but the prize is great
- When things work you learn a lot!
- Even when things don't work you learn a lot!
- NHS Digital culture – innovate but don't lose sight of value for money
- Internal challenge and drive
- Leadership to the organisation and system

Legality and Ethics

The information we collect is used to:

- run the health service
- manage epidemics
- plan for the future
- research health conditions, diseases and treatments

<https://digital.nhs.uk/about-nhs-digital/our-work/keeping-patient-data-safe/how-we-look-after-your-health-and-care-information>

It is essential that patient data is kept safe and secure, to protect your confidential information.

There are four ways that privacy is protected:

- by removing identifying information, particularly your name and contact details
- using an independent review process to make sure the reason for using patient data is appropriate
- ensuring strict legal contracts are in place before data is transferred
- implementing robust IT security.

<https://understandingpatientdata.org.uk/what-you-need-know>



Inform individual
intervention

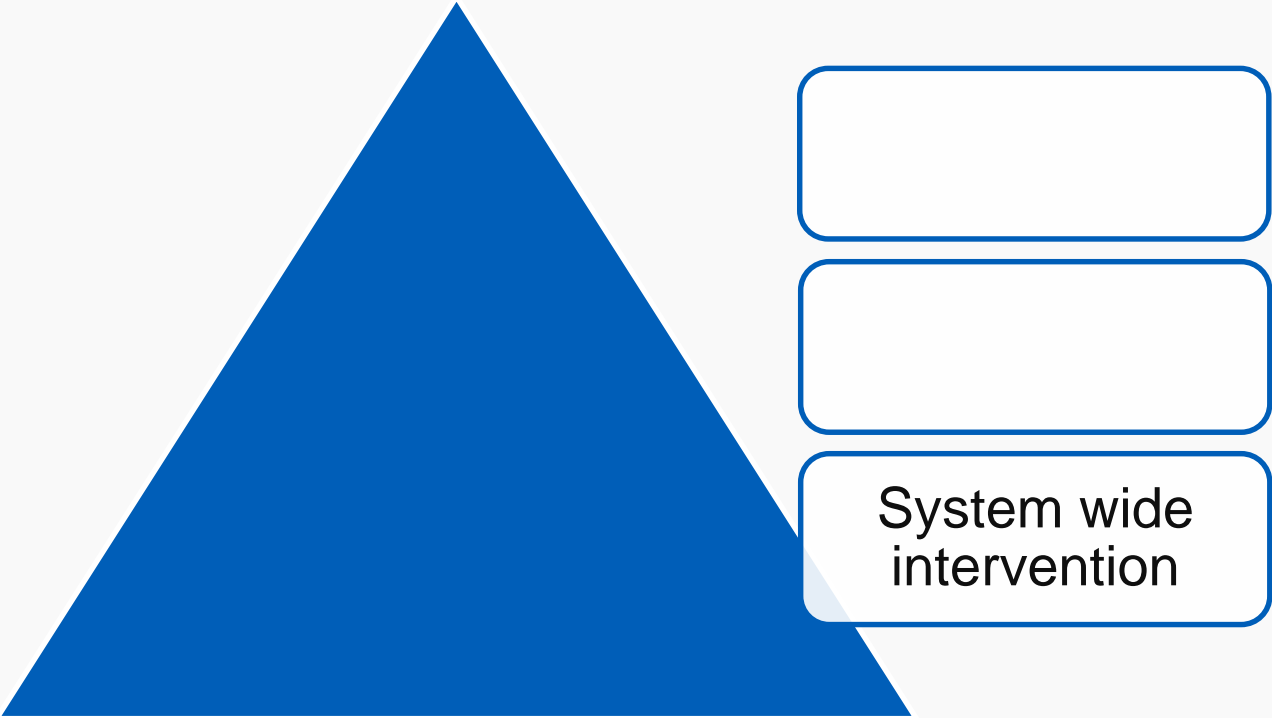
Group
intervention

System wide
intervention

Levels of evidence

- An idea or hunch
- Some evidence
- Formulate a hypothesis
- A test
- A result
- Monitor effectiveness – investigate outliers and variation

System wide intervention

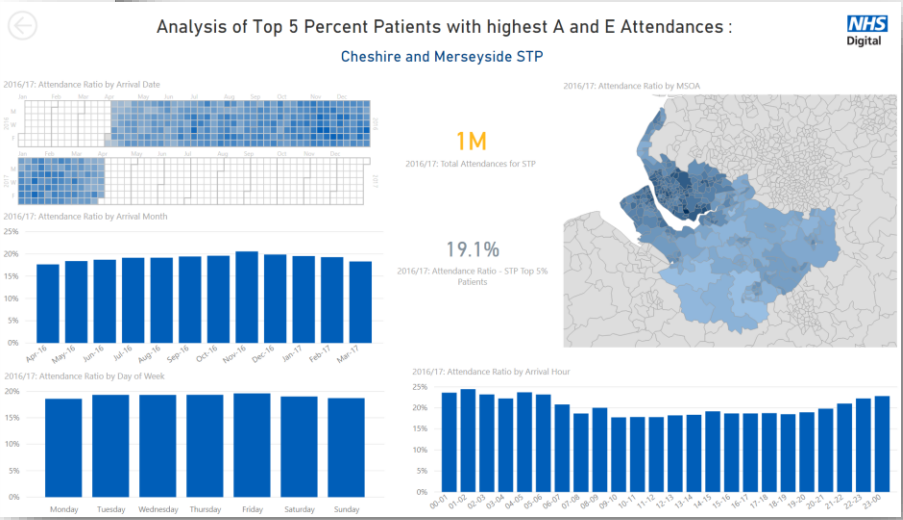
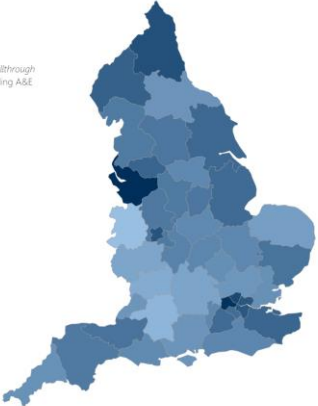


Activity of patients who place the highest demand on A and E



Activity of Patients who place the highest demand on A and E

Right-click on the STP of interest and select *Drillthrough* for Top 20 or Top 5 percent of patients attending A&E

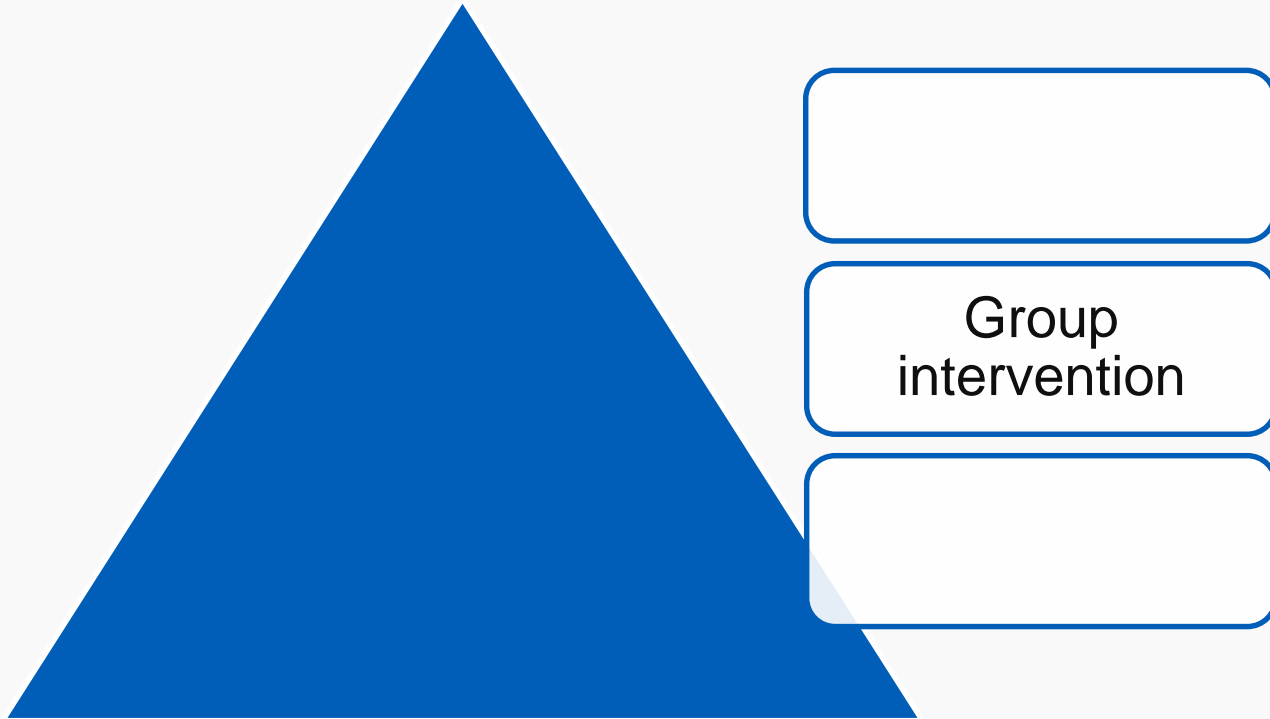


<https://digital.nhs.uk/data-and-information/data-tools-and-services/data-services/innovative-uses-of-data/demand-on-healthcare/activity-of-patients-who-place-the-highest-demand-on-a-and-e>

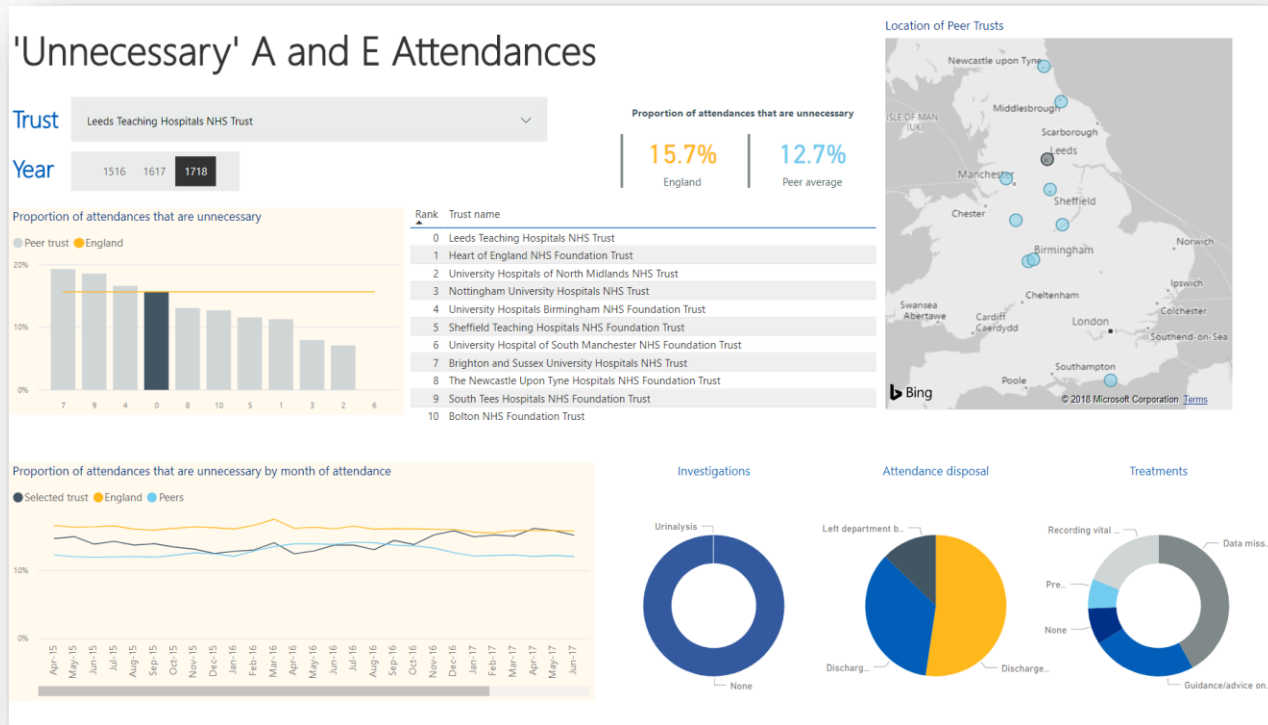
What we learned

- Variation in patient behaviour does not sit neatly into NHS boundaries
- Important to consider regression to the mean and availability of effective interventions
- Effective at driving high level conversations and focusing hypothesis prior to intervention

Group intervention



Unnecessary A and E attendances

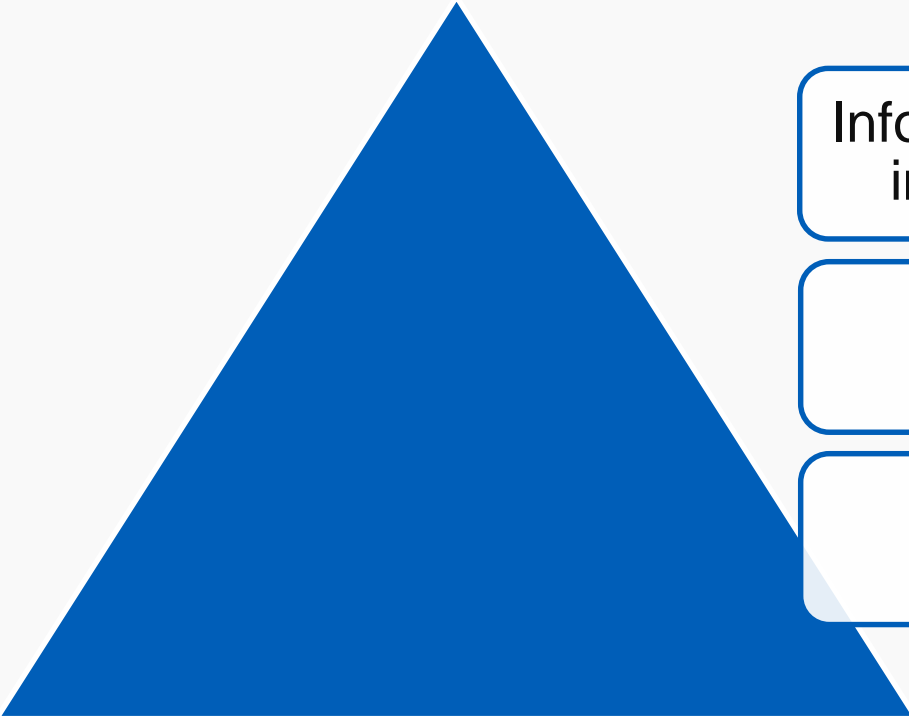


<https://digital.nhs.uk/data-and-information/data-tools-and-services/data-services/innovative-uses-of-data/demand-on-healthcare/activity-of-patients-who-place-the-highest-demand-on-a-and-e>

What we learned

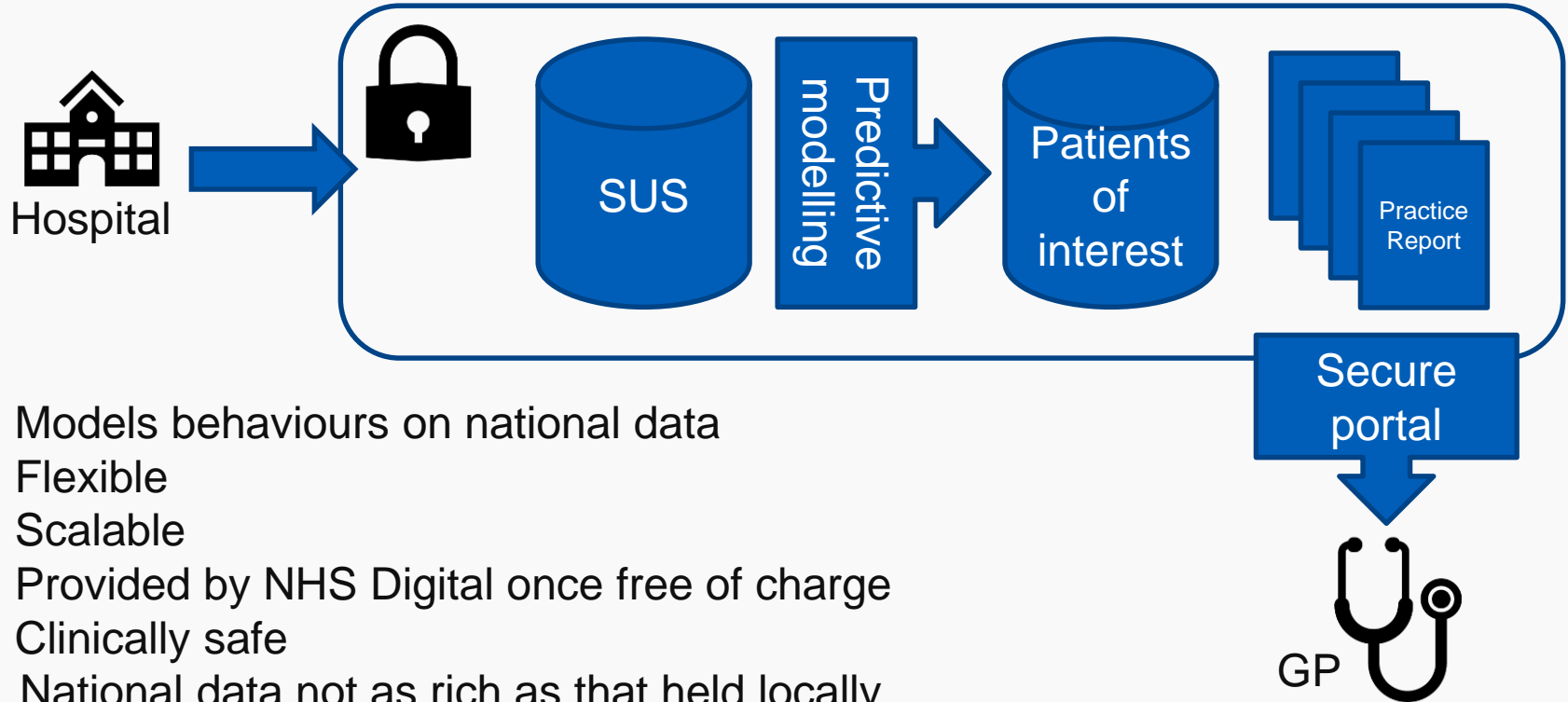
- Use a clinically validated definition for A&E attendances which could have been seen in another setting
- No small peer grouping for providers – we co-produced with NHS improvement

Inform individual intervention



Inform individual
intervention

What it is



- + Models behaviours on national data
- + Flexible
- + Scalable
- + Provided by NHS Digital once free of charge
- + Clinically safe
- National data not as rich as that held locally
- National data not (currently) as timely as that held locally

What we learned

- There is amazing support available from NHS Digital when building clinical safety case
- The technology works
- Faster data would make for more accurate predictions
- Strong input from and engagement with general practice key to future success

What's next

- More consideration of implementation, and where these tool fit within a behavioural change framework
- More engagement with regions and STPs – demand driven by users
- Continue to strengthen co production with others

- Any questions
- Get in touch were looking for NHS partners
- Feedback on our work so far
- iuod@nhs.net

www.digital.nhs.uk

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