Kent Surrey Sussex Academic Health Science Network

Part of The AHSN Network

Office for Life Sciences

NHS

Adoption and spread of innovation

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Transforming lives through innovation

Order

- Why do we need Academic Health Science Networks?
- Co-design for granularity of need, and pull
- Inclusion and measurement
- Message for industry - examples

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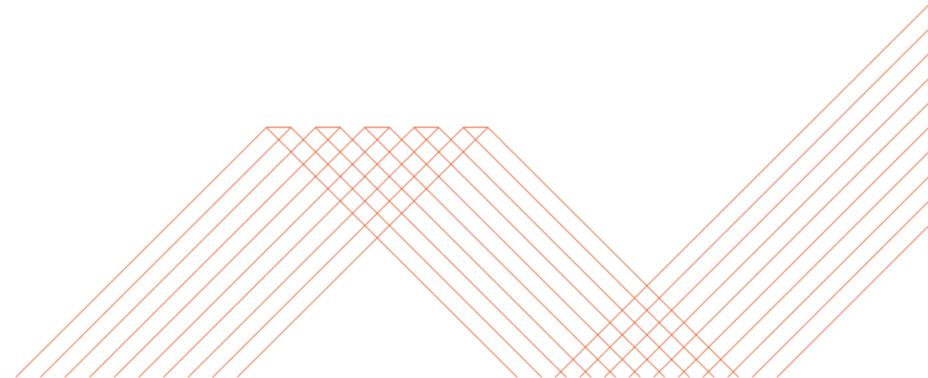


Industry innovators face many challenges

- The NHS is a complex system or organisations – how do you know who to speak to?
- What is it they want to hear?
- How do you avoid pilot-itis?
- When you've succeeded at one site, what's the best way to reach the next ones?
- And how can you fund this this long pipeline?

Kent Surrey Sussex Academic Health Science Network

TheAHSNNetwork

Office for Life Sciences

Bridging the gap between industry and the NHS

Do you have a new product or service intended for use in the NHS?

Do you understand the NHS well enough to plan your engagement?

Do you know how AHSNs can support you through to scaling up?

Kent Surrey Sussex Academic Health Science Network (KSS AHSN) can help you engage more effectively with the NHS, from developing and testing your value proposition to scaling up across England.

If you have a treatment, product or service that matches NHS priorities, we can help you to develop your offer and describe it in a way that the NHS will understand.

We provide support to underpin your market access strategy, including helping you understand how decisions are made in the NHS and why it's essential to have a well prepared value proposition, describing patient and health system benefits.

We can support you with real world evaluation to help generate the evidence you'll need to show the value and impact of your product.

Ultimately this can lead to access to the wider NHS through the national AHSN Network.

"I learnt a lot about the way we need to present ourselves... it was refreshing to get such clear and candid advice"

Director of Strategy, Digital data company

"One of the key benefits of AHSNs is that they can be the go-between between industry and the NHS"

CEO, Medtech company

Find out more about our upcoming events and how we can help you

btg.kssahsn.net

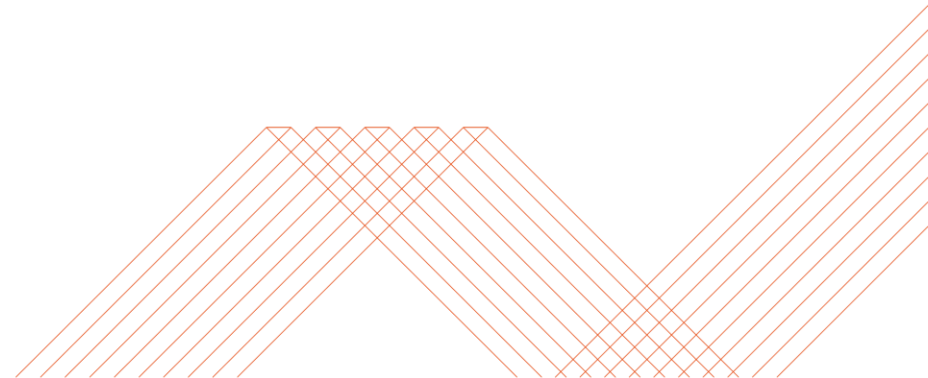
To get in touch, email us at
kssahsn.bridgingthegap@nhs.net

KSS AHSN – transforming lives through innovation

- Bring evidenced innovation into pathways of care to improve health and contribute to economic growth.
- Commissioned nationally (1 of 15) by NHSE/I and OLS. Second 5 year licence.
- 2nd licence and going forward – required to act as a national network more than previously, front door/ doors.
- Approx 30:70% budget split on national:‘local’.
- Partner NIHR Applied research collaborations (ARCs), and others.

AHSN economic impact 2020/21

- Additional value secured through AHSNs: £322m.
- Jobs safeguarded: 340.
- Jobs created: 360.



Transforming lives

WHY

through innovation

Physical health

Healthcare

Secondary care

Mental health

Social care

Primary & **community** care

AHSN quality improvement expertise

The Emergency Laparotomy Collaborative (ELC) began life as a local initiative and was spread nationally through the AHSN Network

The **AHSN** *Network*

Emergency laparotomy (EL)

- Major surgical procedure
- 30,000 to 50,000 performed UK p.a.
- 15% of patients die <30 days of surgery
- >25% of patients in hospital >20 days
- Costing to NHS >£200m p.a.

Operating model for spread and adoption of care model

Cross-AHSN programme team
Feedback
Actions
Actions
Feedback
AHSN1 leads
AHSN2 leads
AHSN3 leads
Hospital teams

Methodology

- Spread EL Pathway Quality Improvement Care bundle
- Build a culture of collaboration across EDs, radiology, acute admission units, theatres, anaesthetics and intensive care
- Embed QI skills
- Share data, analysis and learning
- Build communities of practice

The ELC journey

September 2015
ELC launch

October
Own site work
- Creating engagement situational awareness

November
Regional AHSN meetings
- Sharing ideas, data progress
- Systems thinking
- Using data for improvement

December – February
Own site work
- Data collection
- Identify change goals
- Continue to engage stakeholders

March 2016
Cross Collaborative meeting II
- The Model for Improvement
- Driver diagrams
- Data clinic

March – May
Own site work
- Improving care processes
- Improvements to secondary drivers

June 2016
AHSN meetings
- Review progress
- Learn from each other
- Adapt change efforts

June – September
Own site work
- Continue to improve care processes

September 2016
Cross Collaborative Meeting III
- Developing communites of practice
- Other analysis methods

Further meetings in 2017

Emergency Laparotomy Collaborative (ELC) scale and outcomes

- KSS, Wessex and West of England AHSNs
- 28 hospitals, 24 trusts
- Length of stay reduced by 1.3 days
- Crude in-hospital 30-day mortality rate reduced by 11%
- £ return on investment 4.5:1
- Behaviour change
- Improved standards of care and patient outcomes

Length of stay reduction

20.1 days
18.9 days

For more information

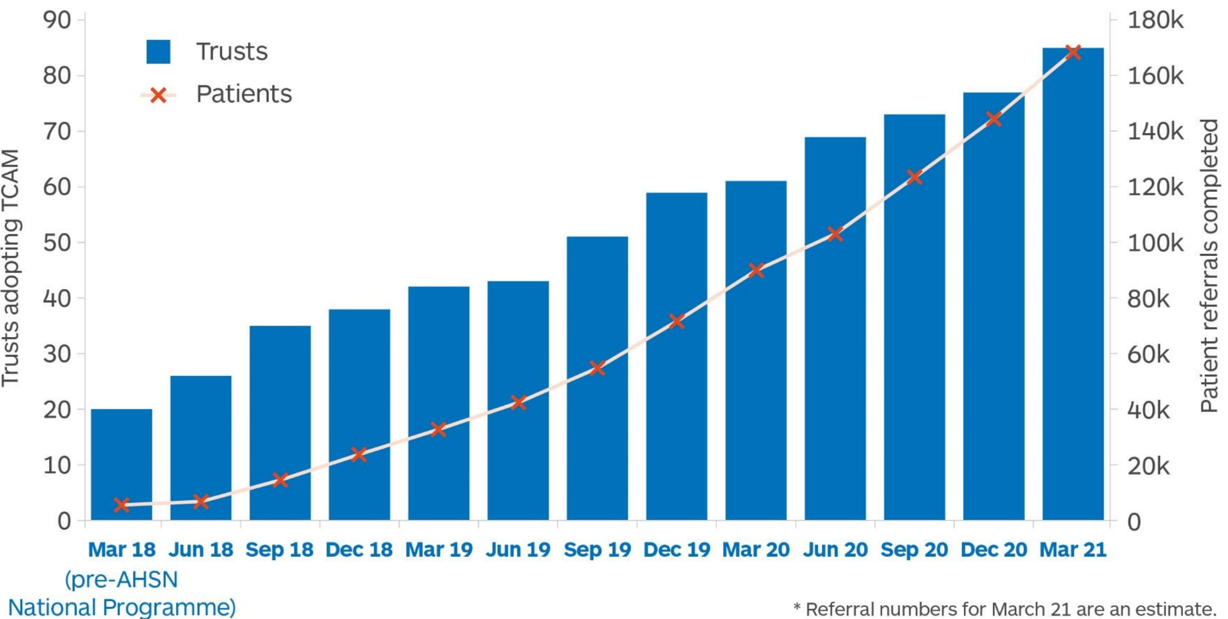
- Peter Carpenter, Programme Director, KSS AHSN **pcarpenter@nhs.net**
- Jo Wookey, Senior Programme Manager, KSS AHSN **jowookey@nhs.net**
- Website: **tinyurl.com/ycmanv32**

AHSN quality improvement expertise (2)

Transfers of Care Around Medicines (TCAM) is a national AHSN Network programme

Transfers of Care Around Medicines (TCAM)

Help for patients who need extra support with prescribed medicines when they leave hospital



Spread from **20 to 85** acute trusts

168,267 patients benefitted since April 2018*

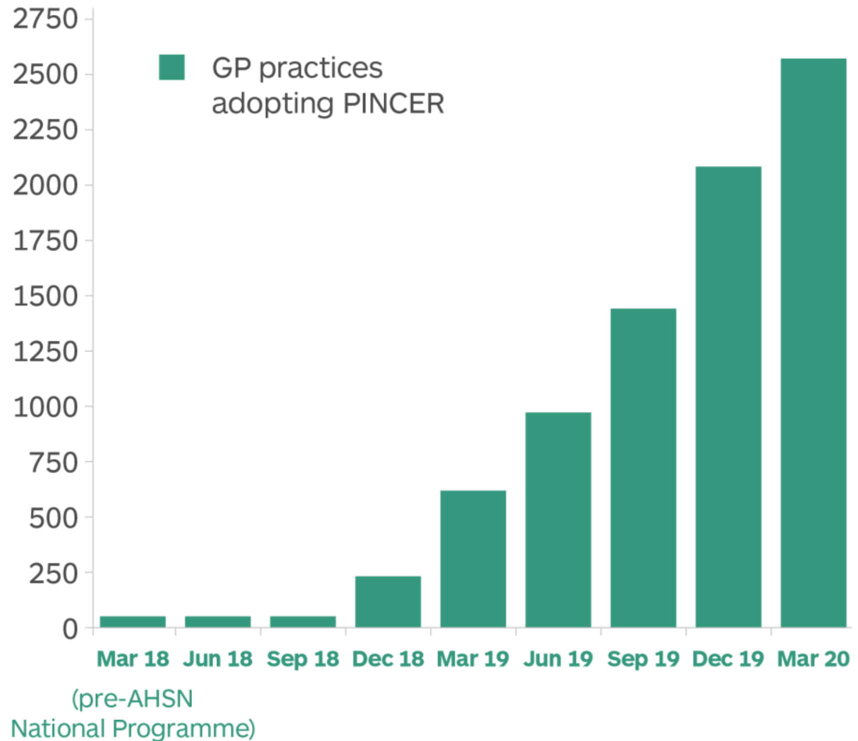
78,346 patients benefitted since April 2020*

61% acute trusts adopted

AHSN quality improvement expertise (3)

PINCER was a national AHSN Network programme

PINCER



28% of GP Practices in England have adopted PINCER

Increased from **50 to 2,571** GP practices since April 2018

13,387 fewer patients now at risk from clinically significant medication errors

GP practices adopting PINCER increased **2.6x** in 2019/20

HOW

Needs articulation

Signposting & **matchmaking**

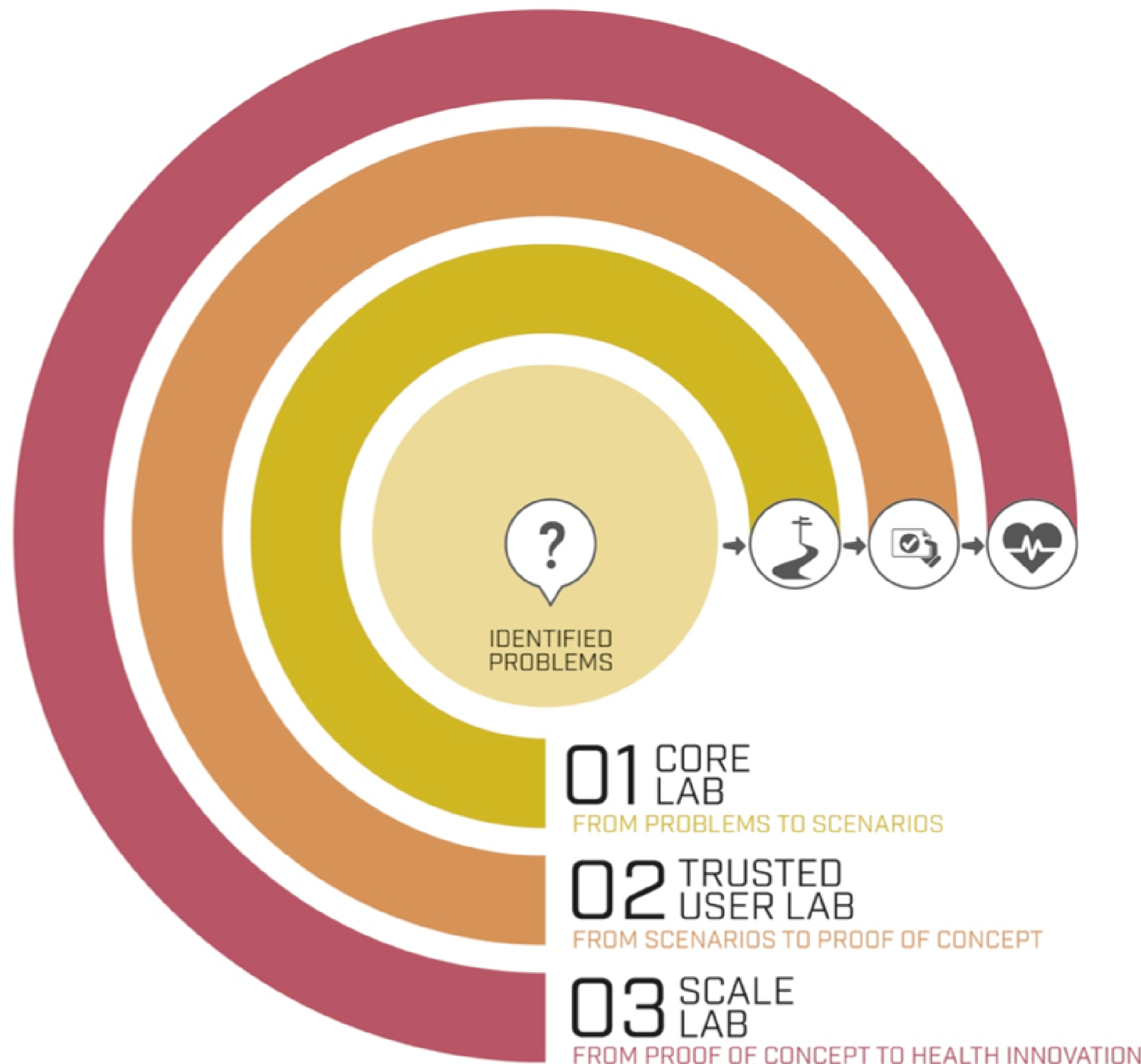
Real world validation

Spread & **adoption**

The co-design of better

- Need articulation.
- To have the greatest relevance, and create pull the needs of people living with the problem being considered (those affected, those providing interventions and care) need to be understood and presented with as much granularity as possible.
- No matter how much sincere intention, and how much historic experience this can’t be done remotely from the ‘front line’…

KSS AHSN / Public Intelligence
User-driven health innovation methodology



In each case, a **living lab** is a **non-physical arena for the development of and experimentation with new health innovation solutions**.

Physical meetings will take place between the different users of each lab, but the lab as such is a framework for the innovation work.

PUBLIC INTELLIGENCE

Case study 1: Leach Court (Brighton)

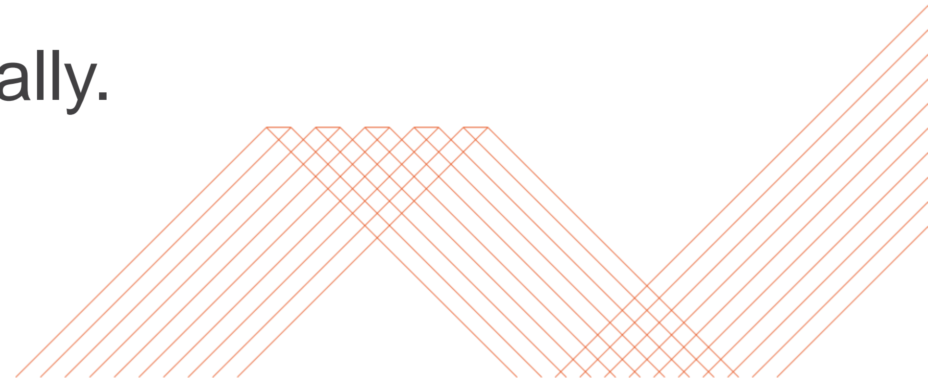
Kent Surrey Sussex
Academic Health Science
Network

US
UNIVERSITY
OF SUSSEX

NHS
Brighton and Hove
Clinical Commissioning Group

Case study 2: physiological monitoring in dementia

- Hypothesis – people with dementia can be kept at home safely if common problems causing admission are spotted early and managed aggressively.
- 'Trusted users' recruited to help assess technology – rejected much.
- The technology (acceptable to) chosen by the users performed well and had confidence of the project.
- Main benefit may be carer confidence and support to keep their loved one at home.
- Commercial solution now being offered nationally.



Case study 2: TIHM for Dementia

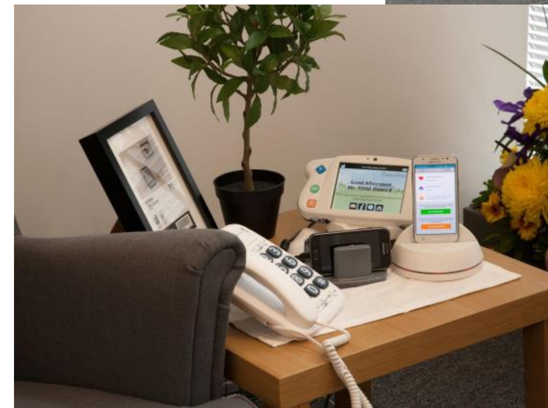
- Technological devices such as sensors, apps and trackers installed in people's homes
- Testing remote monitoring of health and wellbeing using data combinations gathered via Internet of Things
- Evaluation of results and share health technology learning to support other long term conditions

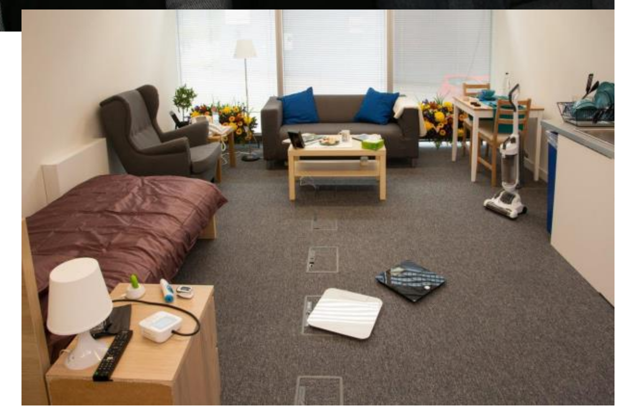
TIHM for Dementia

Living Labs at University of Surrey

- Simulate a home environment
- Test device functionality, deployments and integration
- Simulate patient monitoring
- Test machine learning algorithms with training data
  - Clinical alerts including UTI, Agitation, Weight & Blood pressure
- Staff training (SAPB, Alzheimer's society)
- Public demonstrations
  - Open days (Carers, PWD, Researchers, Council, Companies, Government officials)

… plus 10 'Trusted Users' providing feedback on needs and testing new technologies in their own homes





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UNIVERSITY OF SURREY

Alzheimer's Society Leading the fight against dementia

Surrey and Borders Partnership NHS Foundation Trust

WHO

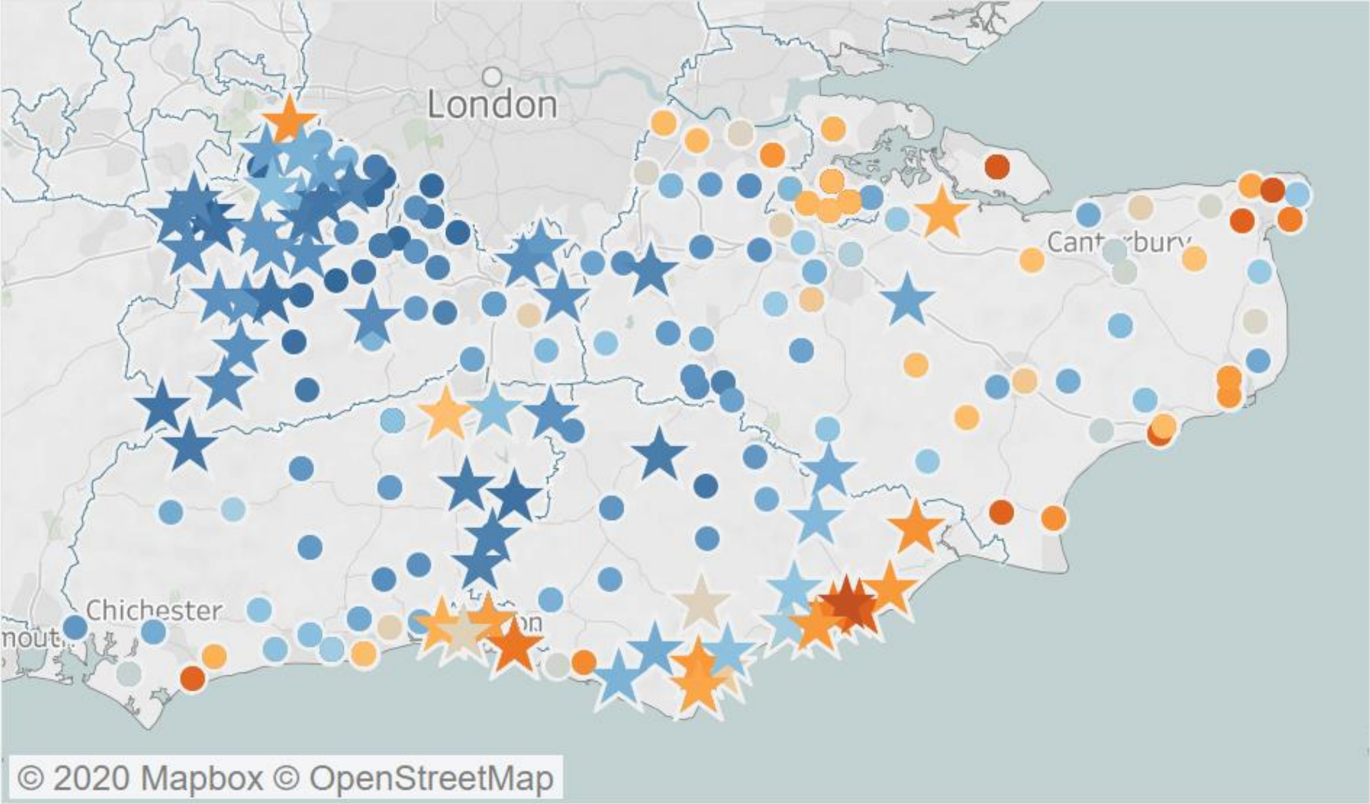
People who often experience **the best that care has to offer**

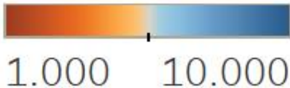
People who are **under-represented and less heard**

People not **benefiting from innovation**

People not **engaged with traditional services**

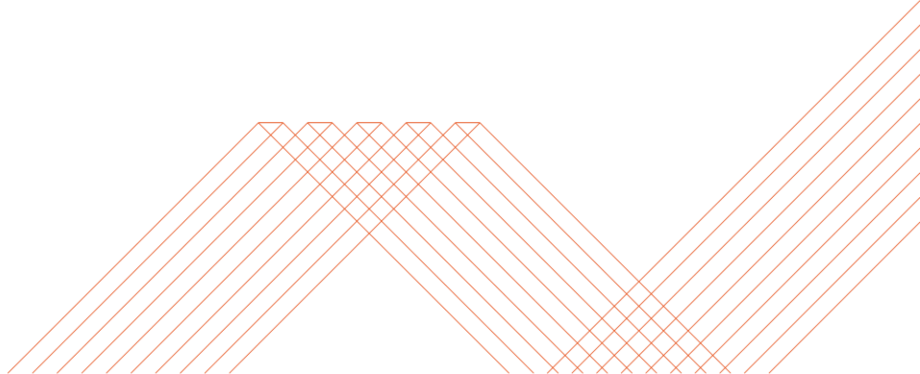
Geographical spread of PINCER in Kent, Surrey & Sussex



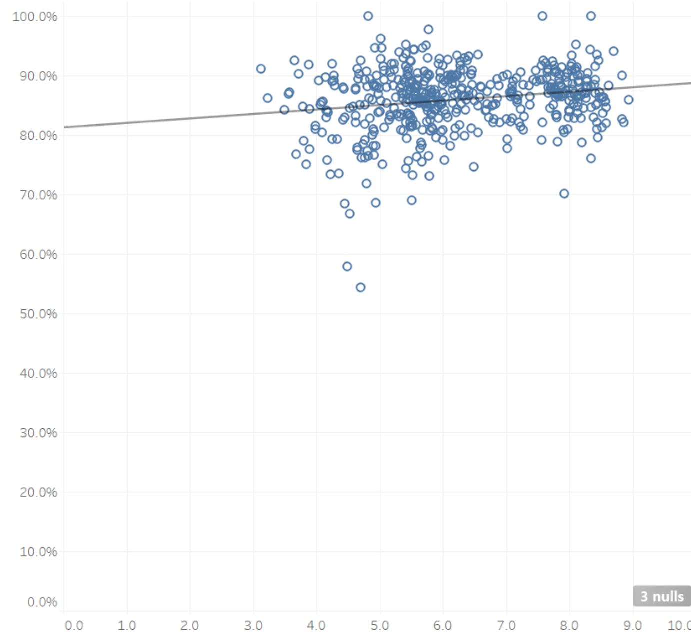


Geographical spread of PINCER, layered with weighted average Index of Multiple Deprivation 2019 decile per practice

Note: Decile 1 is the most deprived, Decile 10 is the least deprived.



2019/20 Atrial Fibrillation anticoagulation rate

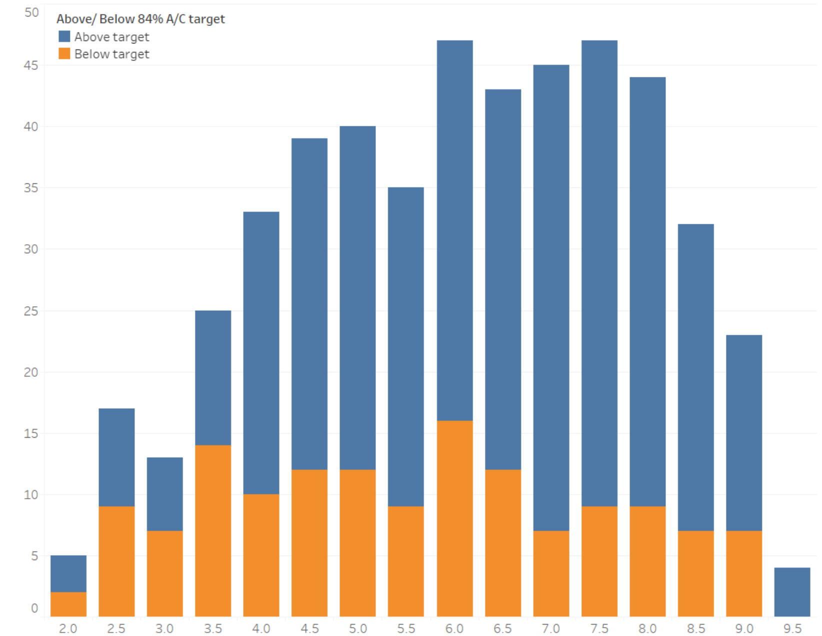


- **A/C target rate nationally = 84%**
- A/C rate nationally = 87.3%
- A/C rate in KSS = 87.1%
- A/C rate involved with KSSAHSN = 86.2%
- A/C rate not involved with KSSAHSN = 87.2%

The scatter plot to the left suggests that there is a statistically significant correlation between the A/C rate and IMD Decile (P<0.0001). However, the effect size is small suggesting a 0.75% increase in A/C rate per IMD Decile

Interestingly when looking at practices that have been involved in the AF programme at KSSAHSN the results are not significant. **A reason for this could be that we are unaware if the GP practices involved have actually followed up and anticoagulated any patients**

It is also worth noting that QoF is not compulsory and the GP practices get paid for submitting data. Therefore a practice could have a low A/C rate and choose not to submit to QoF



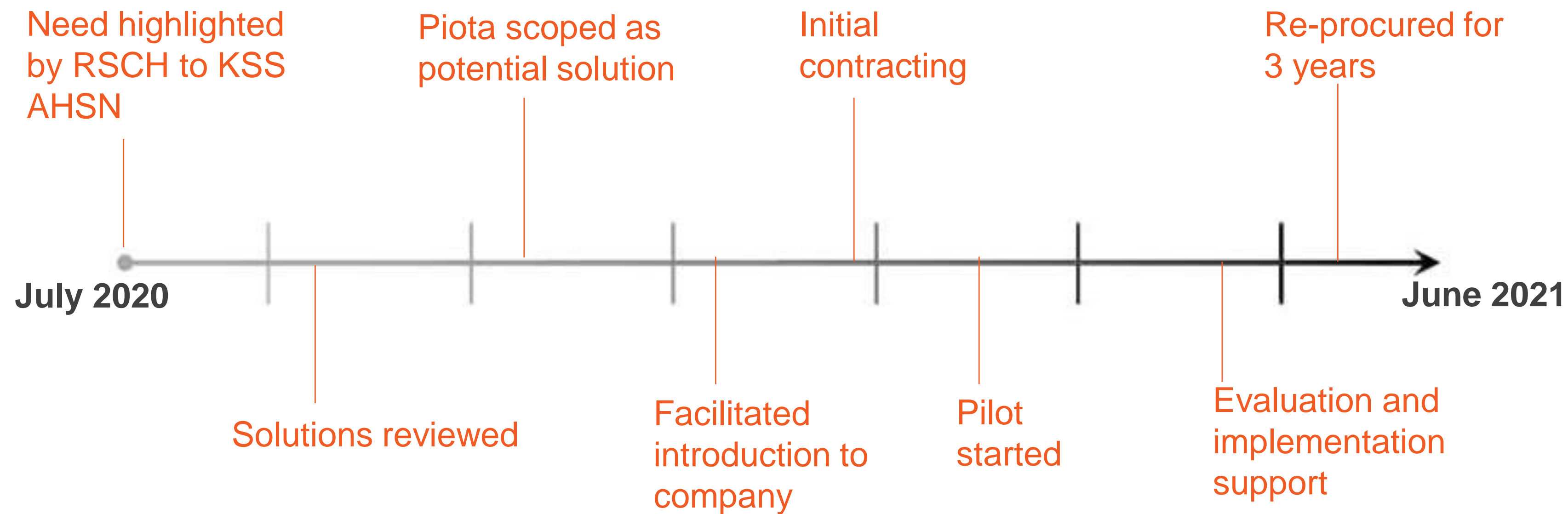
The above histogram shows the number of practices per IMD Decile and are colour coded to show those above and below the national target of 84%

27.5% of practices involved with KSSAHSN are below the A/C target which compares favourably with those not involved at 29.2%. Nationally 23.9% of practices are below target

Felgain’s Vendlet bed

- Example of accelerating product through pipeline
- SaSH to engage in a pilot
- Rapid review of company and innovator needs
- Introductions to other trusts for range of acute settings
- Demos arranged
- Evaluation support to be offered in form of Real World Validation

Piota – from need articulation through to evaluation and spread

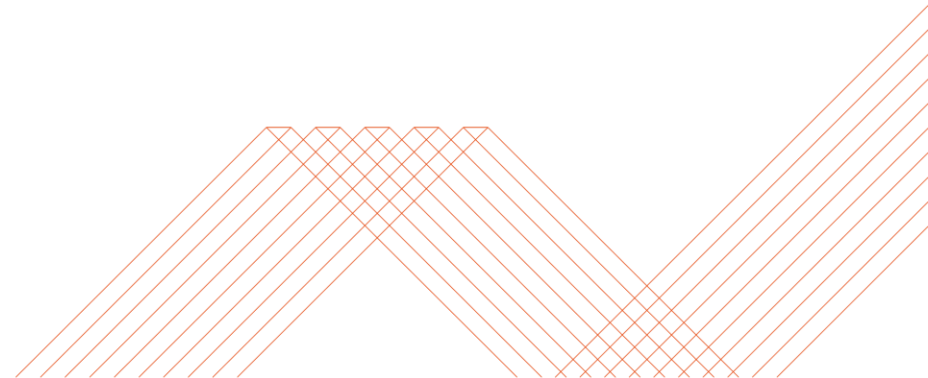


Behold.ai – innovator journey

- Started life with Neil Perry in Dartford & Gravesham NHS Trust
- Complex challenges for solution to be adopted
- Hands on support from KSS and Wessex AHSNs
- Shortlisted for NHS Innovation Accelerator 2021
- Successful in AI Award announced June 2021
- Continuing journey with us through the rest of 21/22

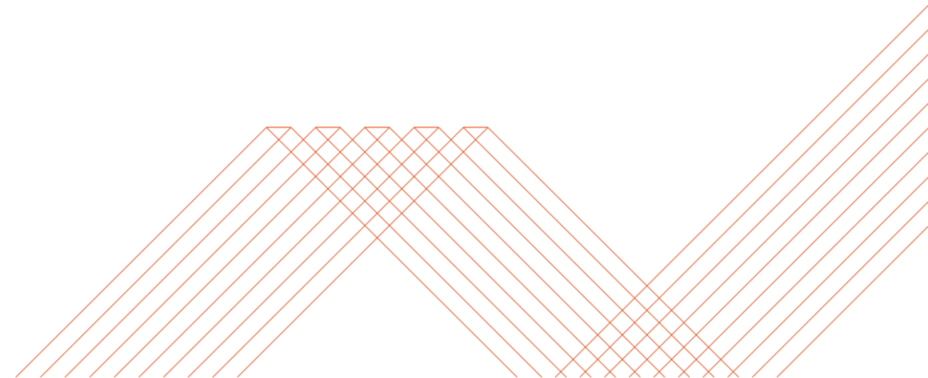
Feedback from Behold.ai

- *'[We're] truly, deeply appreciative and this is a KSS AHSN win as much as it is ours' (AI Award, June 2021)*
- *'Just some heartfelt appreciation and thanks to all of you on your wise wise counsel It turned the dial in our favour!'*
- *'I have received notification on Friday that I have been shortlisted for the NIA Intake! Thank you all for your assistance in producing a very strong application!'*



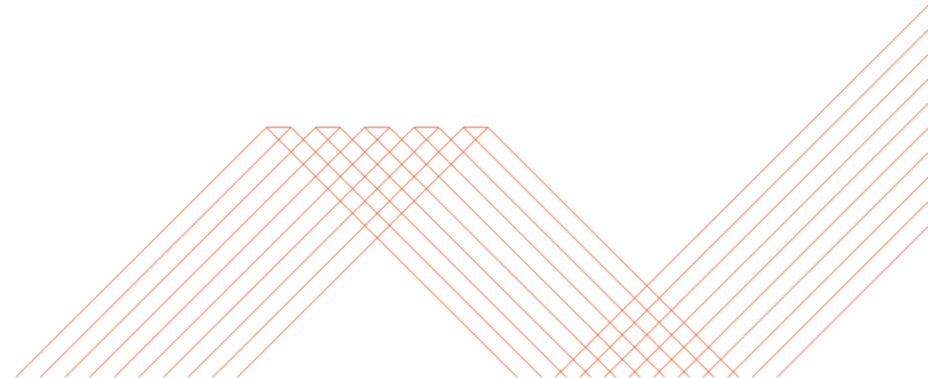
Case Study – S12 Solutions

- S12 Solutions is on the ITP national programme which AHSNs support.
- We worked with Kent and Medway to submit a successful business for adoption, including information and evidence from sites elsewhere on how to manage interoperability.
- Implementation planning and support included:
  - stakeholder engagement
  - equipment and training needs review,
  - evaluation baselining and metrics, and
  - communications.



Take home messages

- Implementation/ spread of the new has always been difficult (although COVID interesting in this respect).
- Think about the deliverables of ICSs and of providers. Where are the pain points? What is the offering? What is the value? What is the return, and where is it seen? What is the evidence?
- Think pathway as well as single intervention.
- Involving people as a community of experience gives greater granularity, and creates interest and pull from the front line. This is now mandated in many grants and awards.
- Inclusion/disparity, workforce, sustainability.



Thank you

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