SBRI Healthcare Programme

An NHS England funded initiative delivered with support from the Academic Health Science Networks

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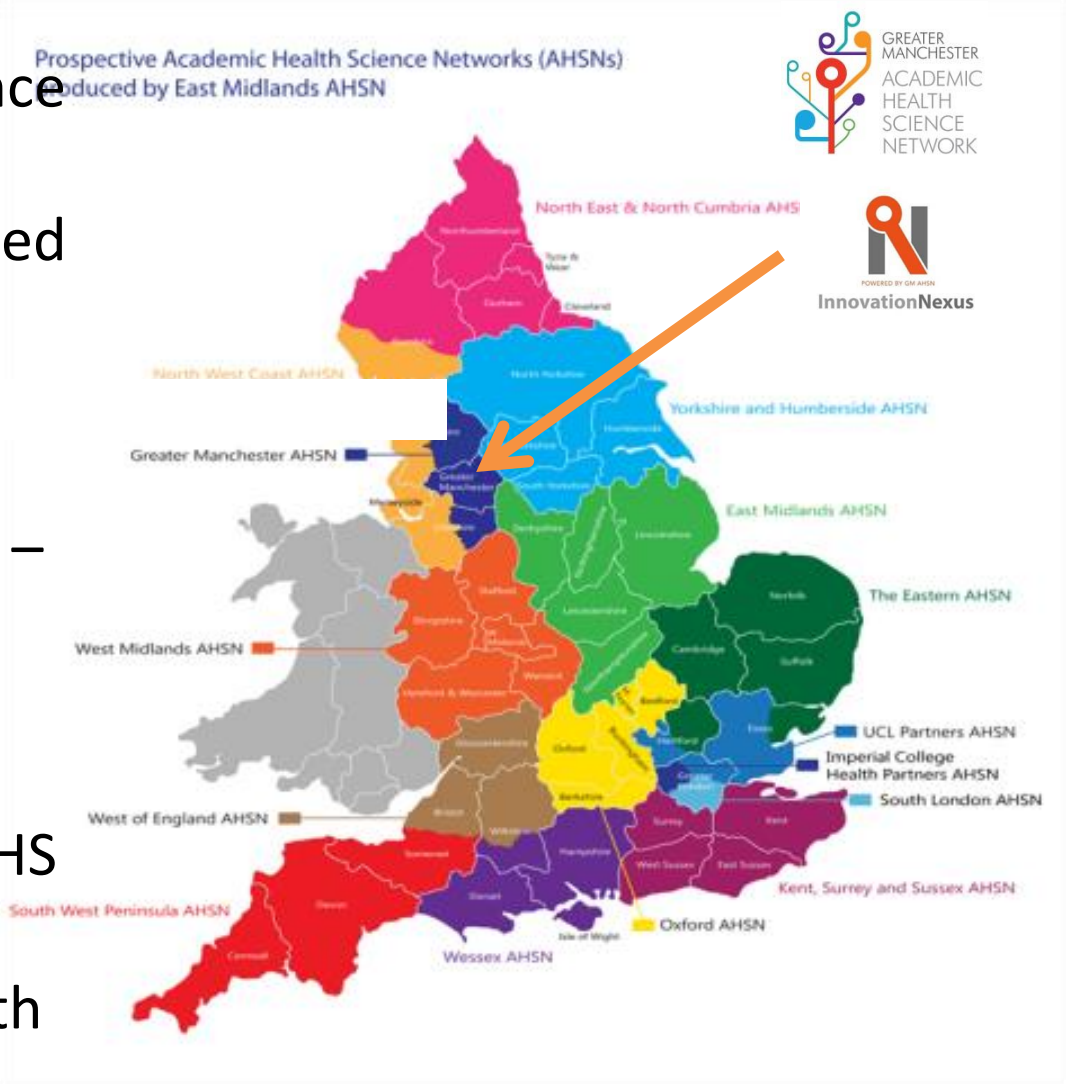
Agenda 27 July, 2017

9.00	**Registration & refreshments**
9.30	**Welcome & scene setting - Linda Magee,** Executive Director, Industry & Wealth, GMAHSN **(**Chair)
9.40	**Clinician's overview: what is the unmet need? - Mr David Shackley,** Medical Director, Cancer Vanguard & **Professor John Radford,** Research Director , Christie Hospital
10.20	**Q&A session with clinicians**
10.40	**Overview of SBRI Healthcare programme & how to make a successful application - Joop Tanis,** SBRI Healthcare Director, HEE
11.15	**SBRI Healthcare Funding: Company Case Study - Gordon Barker,** CEO, Microbiosensor
11.30	**Final Q&A** until 11.45 followed by **networking**
12.00	**Close**

Academic Health Science Networks

15 Academic Health Science Networks across England

- Licensed and mainly funded by NHS England
- Promoting innovation in healthcare
- Disseminating innovation – from the UK and beyond
- Improving care across whole systems
- Providing access to the NHS for industry
- Creating wealth and health



SBRI Healthcare

Cancer, Earlier and Better Diagnosis and Screening

Co-sponsored by GMAHSN and Imperial Health Partners (AHSN)

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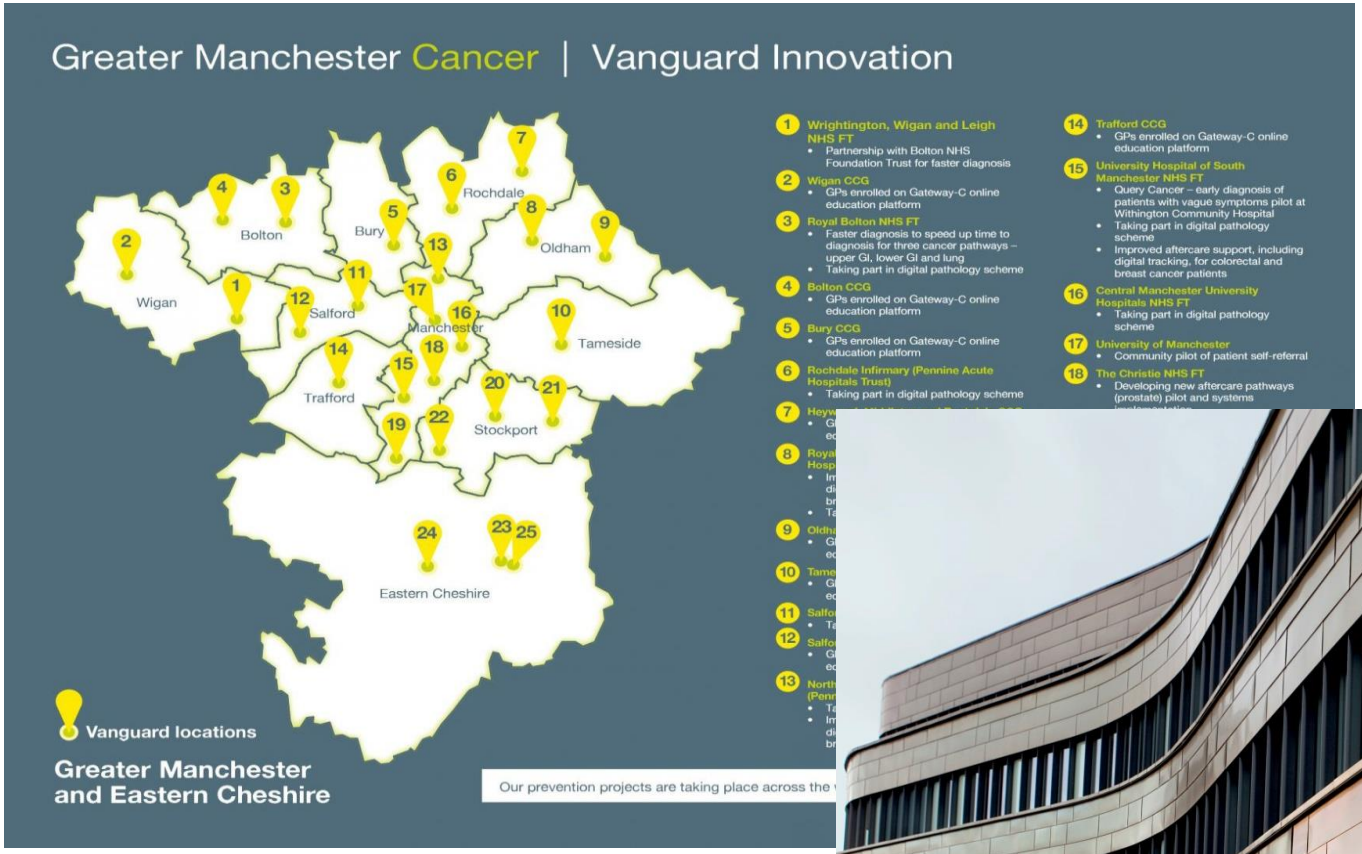

Greater Manchester Cancer | Vanguard Innovation

NHS
The Christie
NHS Foundation Trust

Cancer Call
How?

Three sub-themes have been identified:

- **Screening,**
- **Earlier Diagnosis and**
- **Faster Diagnosis**

The call has been developed from the work of national bodies including NHS England, Cancer Research UK and NICE and the co-sponsoring AHSN teams; while there are identified three sub themes, this competition has a single-entry point.

Why?

What if technology could facilitate better screening methods and improve the uptake of screening in targeted populations?

What if we could diagnose patients with vague or non-specific symptoms of cancer earlier and more effectively ?

What if technology could improve and accelerate the diagnosis of cancer in patients ?

What if patients with vague symptoms were better informed ?

What if we could target the cancer survivor population more effectively?

What if patients had a better understanding of possible symptoms?

What if patients with vague symptoms sought and could access help earlier?

What if technology could deliver better diagnostic technologies?

What if there were diagnostic technolgies for cancers which are harder to diagnose?

What if current diagnostic technologies could be repurposed for other cancers?

What if digital technologies could accelerate the diagnostic process?

What if the interpretation of results could be acceletated or automated (e.g. with artificial intelligence)?

What if digital technologies were more widely used to transfer data and images between clinicians (e.g. pathology)?

What if there were increased patient stratification and monitoring?

What if patients could be better stratified for appropriate (or no) treatment?

What if there were better support, management and monitoring for those living with and beyond cancer?

Mr David Shackley

Medical Director of Greater Manchester Cancer; Clinical Lead for Cancer at the Manchester Academic Health Science Centre and Urological Surgeon at Salford Royal NHS Foundation Trust

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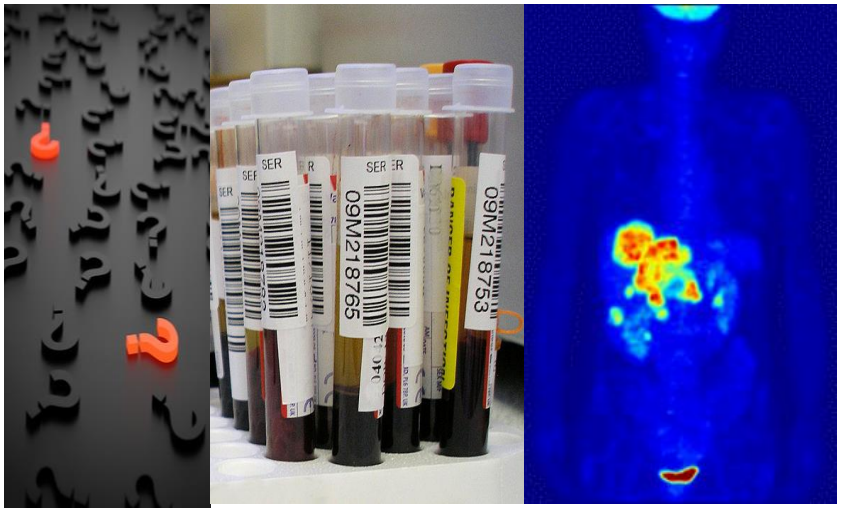
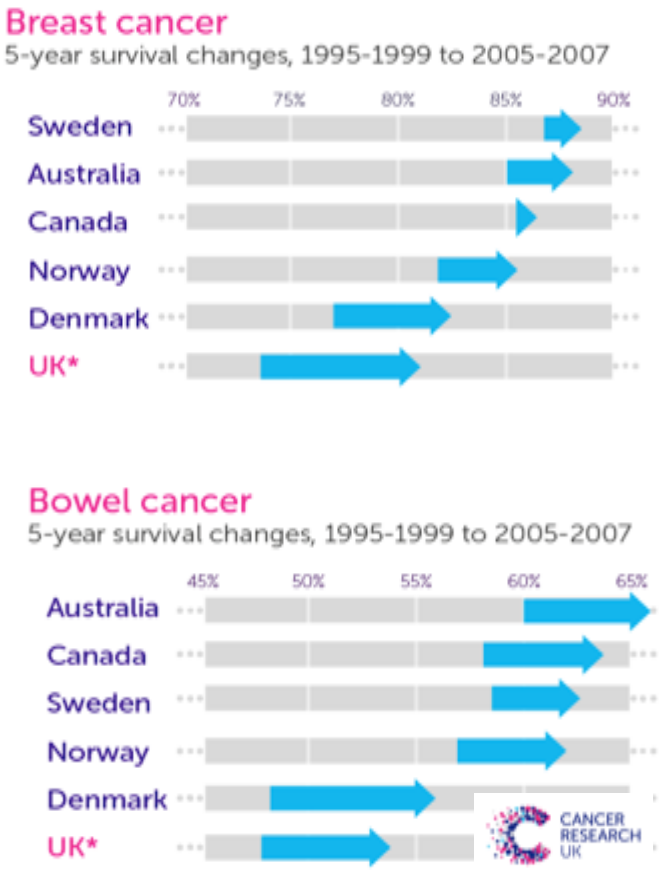


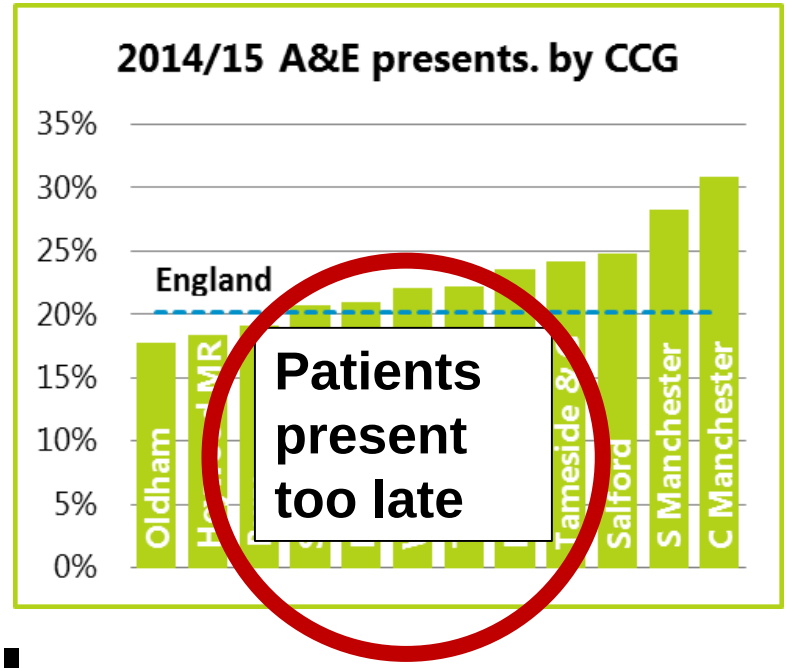
Cancer Call SBRI

July 2017

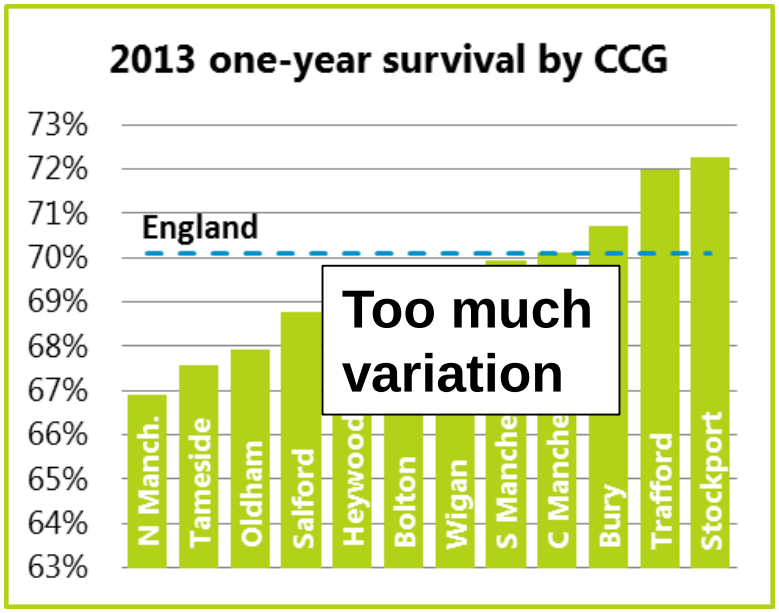
Cancer is a “burning platform” for the NHS

- 10 years after a national cancer plan and cancer networks, **UK still has ~10% worse survival** than W Europe - only catching up in breast.
- **Cancer will affect 1 in 2** of those born after 1960
- Cancer is the biggest killer at all ages - 130,000 deaths/yr.
- **Number of people living with and beyond cancer will increase** from 2.5million in 2015 to 3.4 million in 2030.
- **>50% 10 year survival**
- 70% of cancer patients have 1 or more **Long Term Conditions,** 29% have 3 or more





System challenges



Current Focus

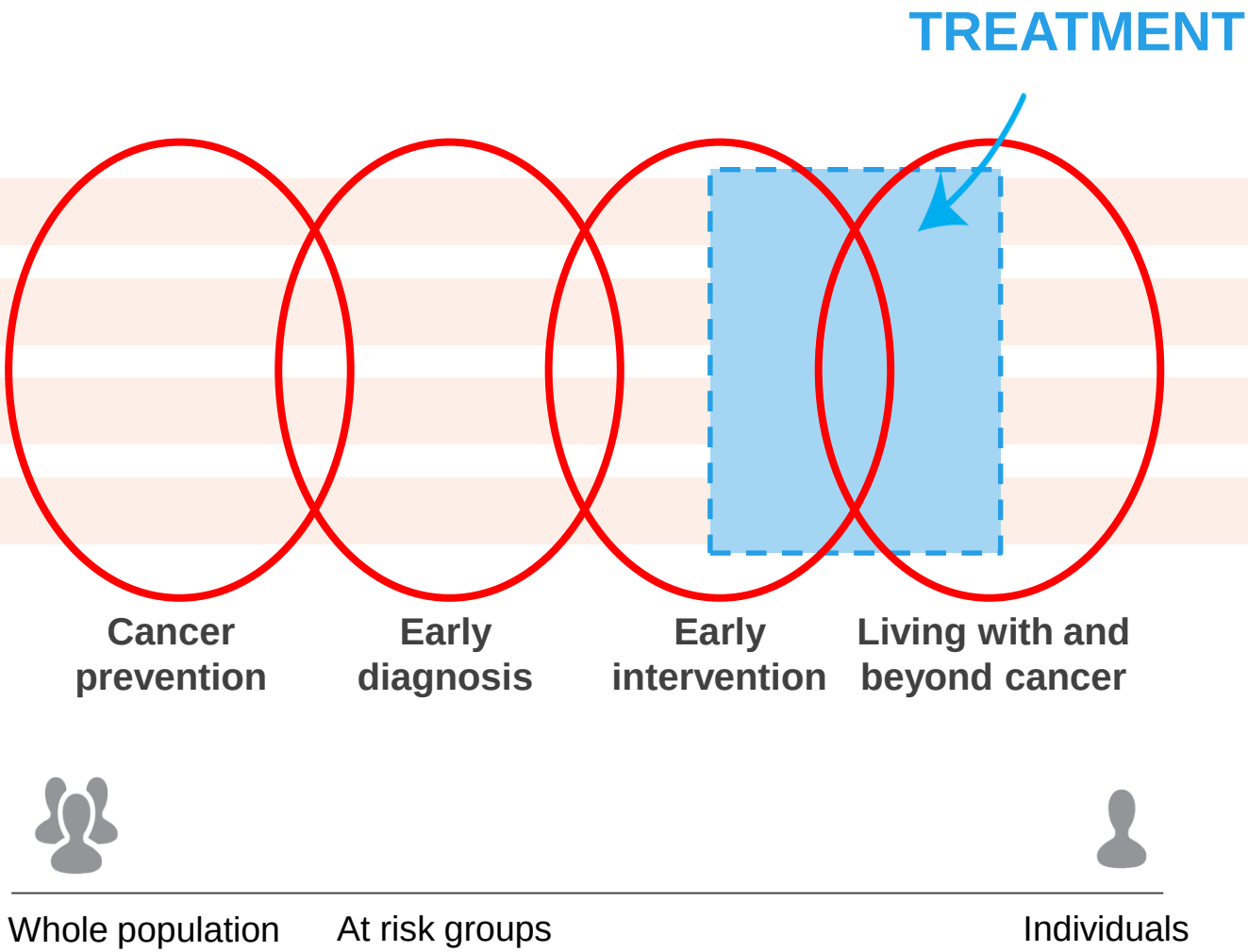
SCOPE

Education

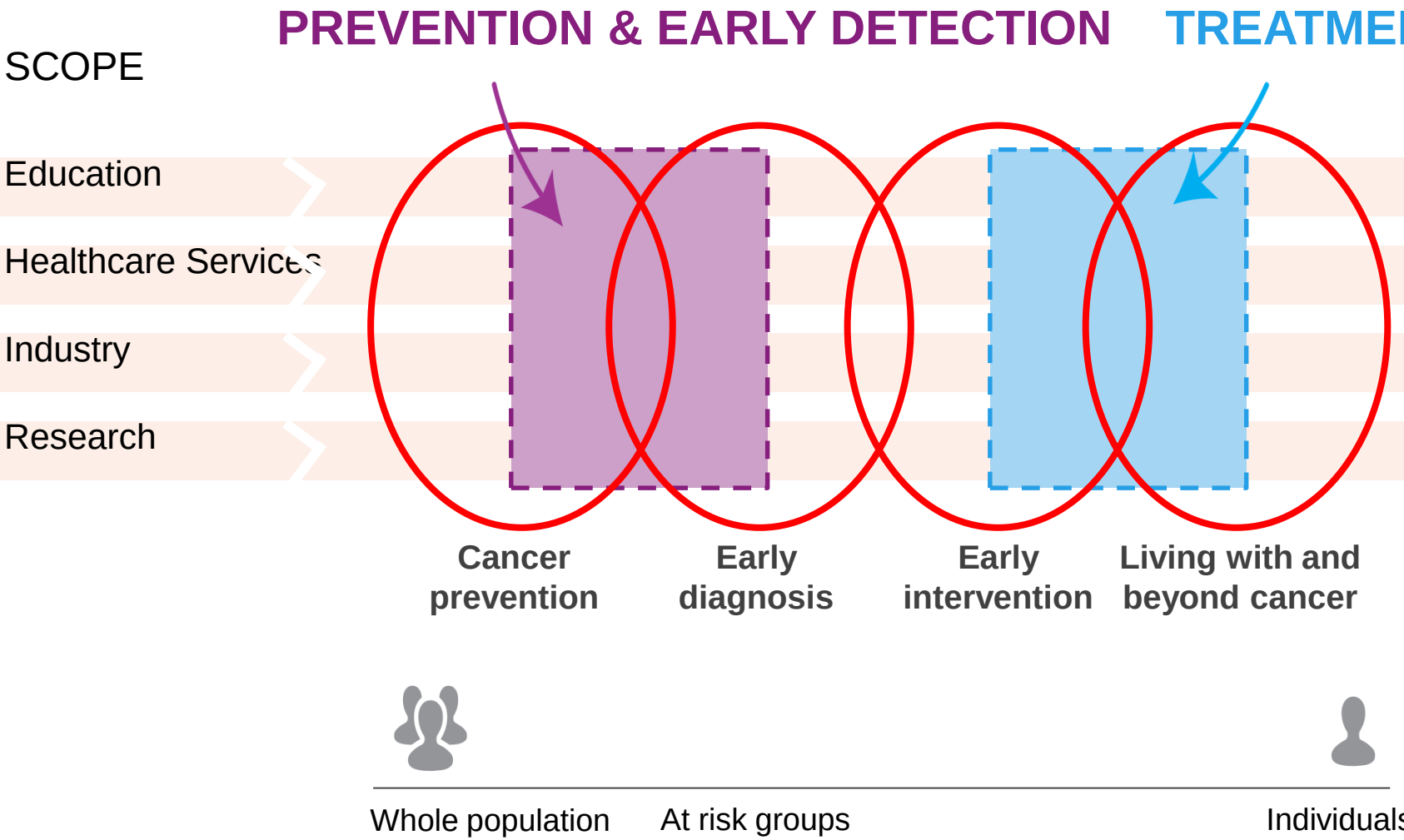
Healthcare Services

Industry

Research



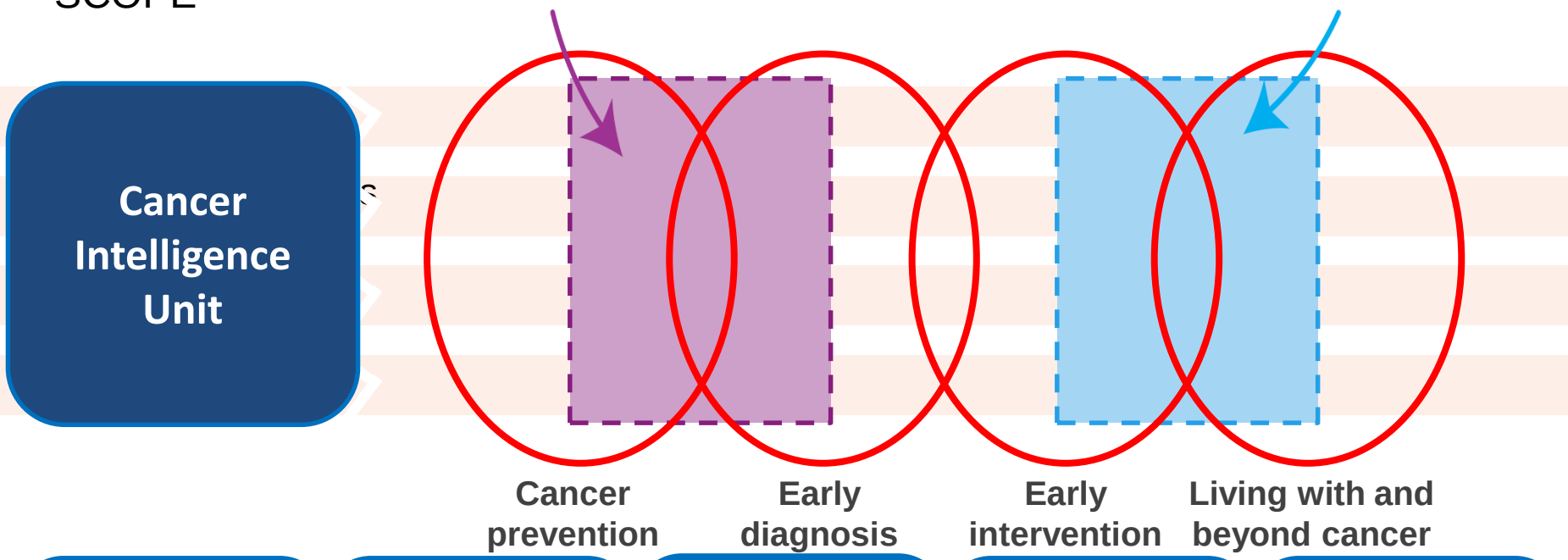
Cancer Strategic Shift – CANCER
VANGUARD & other partners



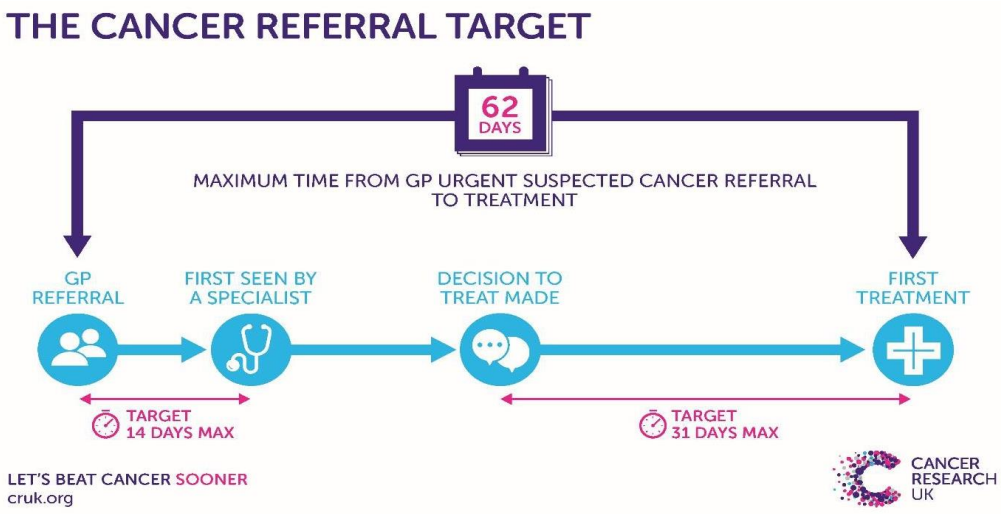
Cancer Strategic Shift – CANCER
VANGUARD & other partners

SCOPE

PREVENTION & EARLY DETECTION **TREATMENT**



Prevention and awareness	New Diagnostic Models	Clinical & operational standards	Living with and beyond cancer	Cancer Education



28 day target

Time:

Referral to telling a patient they do or do not have cancer

Multi-disciplinary/ one stop clinics

Greater networking between diagnostic services

Streamlined effective decision making – MDT reform

Greater Manchester System Cancer Plan – Priorities

1. **We will reduce adult smoking rates to 13% by 2020**
   One in five adults in Greater Manchester still smoke nearly a decade after smoking was banned in enclosed public places in England.

2. **We will increase one-year survival to more than 75% by 2020**
   Our rate of survival one year after cancer diagnosis is rising steadily but still has a way to go to match the best in England and beyond.

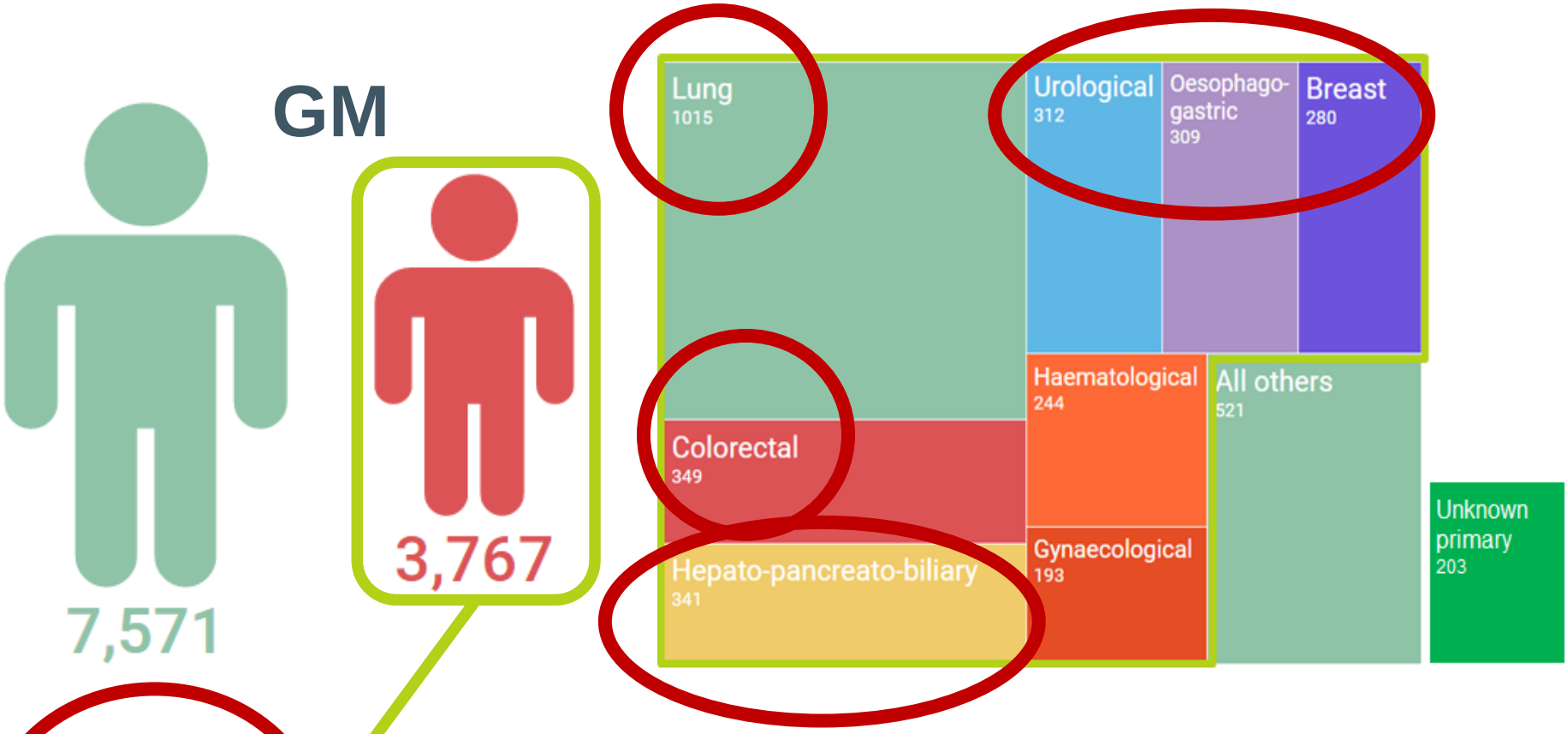
3. **We will prevent 1,300 avoidable cancer deaths before 2021**
   We have some of the highest rates of avoidable cancer deaths in the country – matching the national average will save hundreds of lives.

4. **We will offer class-leading patient experience, consistently achieving an average overall rating of 9/10 in the national survey**
   Our patients report good experience compared to other conurbations with an average overall rating of 8.76 in 2015, but there remains room for improvement.

5. **We will continue to exceed the national standard for starting treatment within 62 days of urgent cancer referral**
   Working as a system we have met the 62-day standard for a number of years, but we want to keep reducing the amount of time people wait to start their treatment

6. **We will ensure that the elements of the Recovery Package are available to all appropriate patients by 2018**

Annual cancer deaths under 75y



49.8% vs. England's 46.7%

Preventing Avoidable Deaths

1. Prevention – particularly **smoking**
2. Public awareness – 20,000 cancer champions
3. Screening – improved uptake
4. **Risk-based targeting** – e.g. lung health check
5. New/ streamlined diagnostics – e.g. MDCs

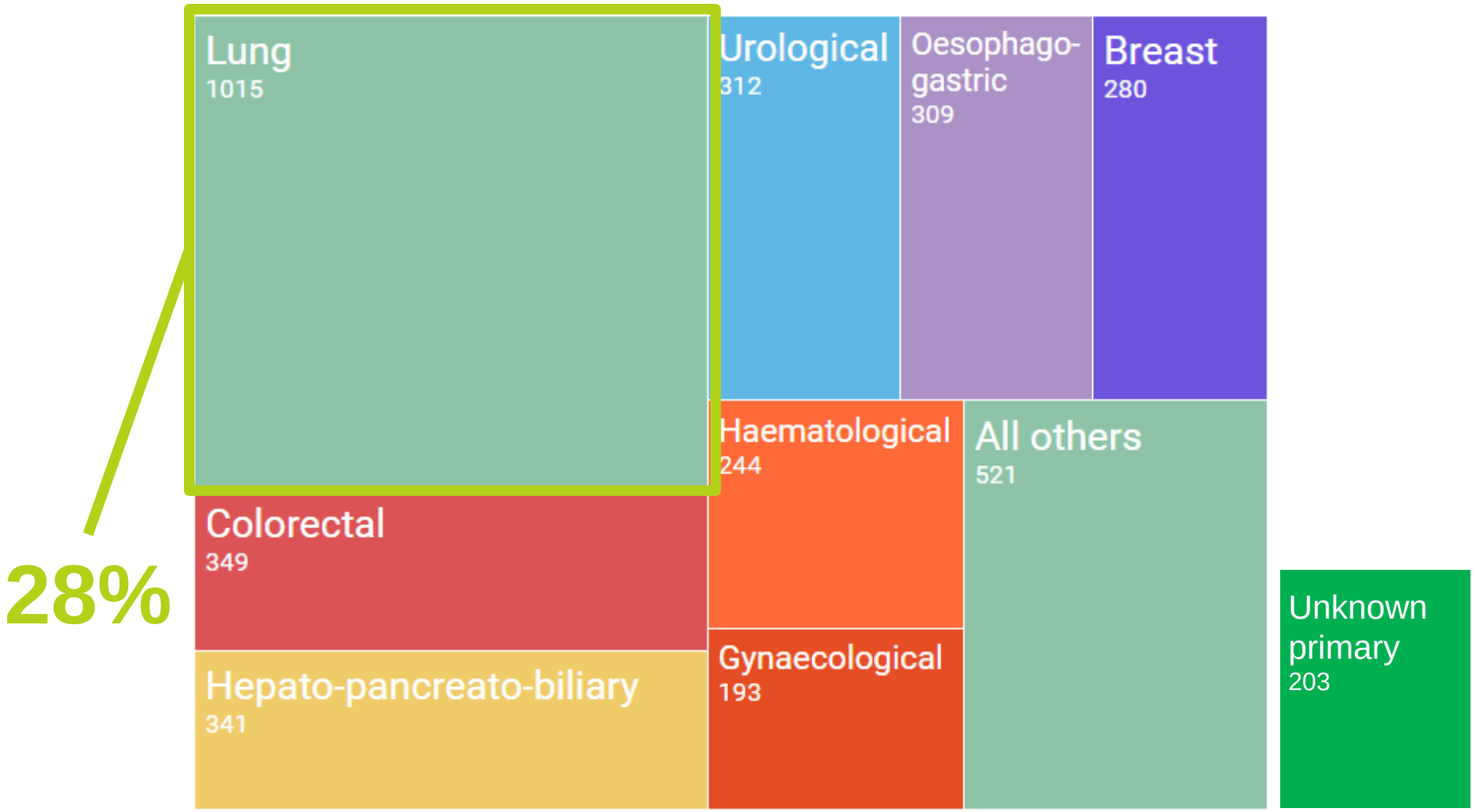
Reducing Variation

1. Primary care education
2. Refresh co-produced clinically-led specificatns
3. Radiology/ pathology digital virtual networks

Improved experience

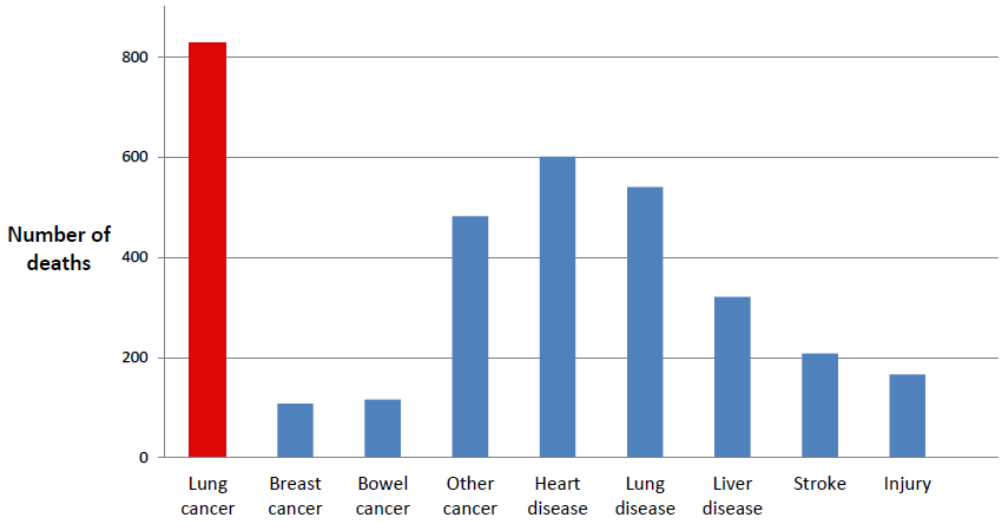
1. Recovery package
2. Real-time user feedback
3. Better information/ tools
4. Personalised after-care

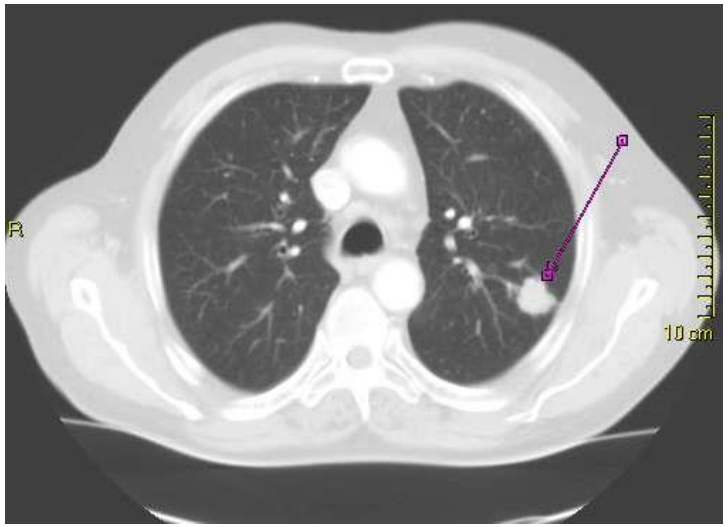
GM cancer deaths under 75 by pathway



Causes of premature death: Manchester

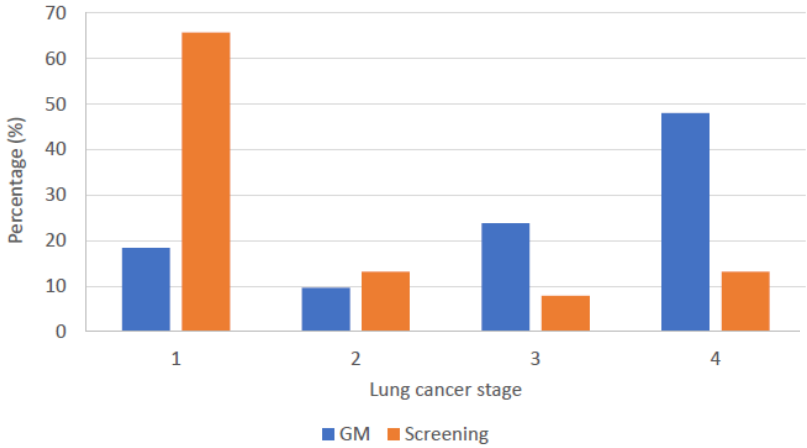
(age under 75; 2011-13)





Earlier and better diagnosis - screening

WE'VE CHANGED LIVES



GM Cancer Plan:
Prevent 1300 avoidable cancer deaths

5 fold reduction in stage 4 disease; 79% early stage disease; 1 cancer per 33 scans

Costs of early vs late diagnosis

Average NHS colon cancer patient would incur approximately:

£3,400

Early stage diagnosis

vs

£12,500

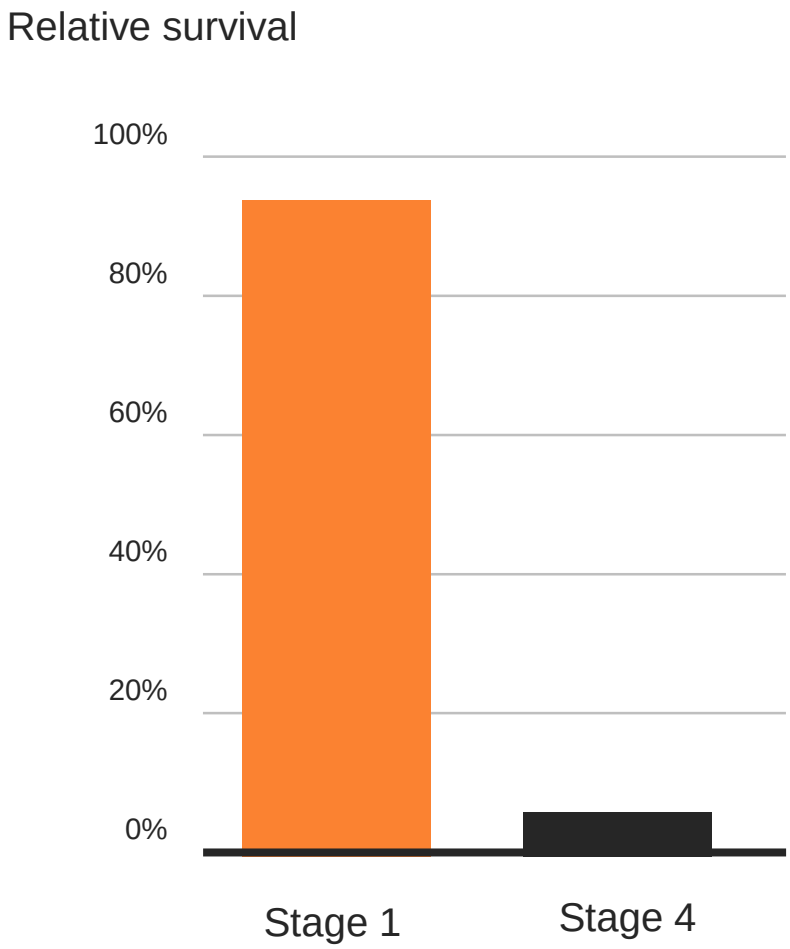
Late stage diagnosis

Source: Incisive Health, Saving lives, averting costs. 2014, Cancer Research UK

Survival rates in bowel cancer

When bowel cancer is diagnosed at the earliest stage, **more than 9 out of 10 people survive** at least 10 years

However, if diagnosed at late stage survival rate is **fewer than 1 in 10 people**



(1) Screening

What if technology could facilitate better screening methods and improve the uptake of screening in targeted populations?

What if we could more effectively target the populations that may benefit from screening ?

- What if we could target the cancer survivor population more effectively?
- What if we could initiate targeted screening by analysing family history and genetic predisposition to cancer?
- What if we could identify patients at higher risk of cancer (e.g. bowel, breast or lung cancer)?

What if we could improve the uptake of cancer screening in targeted populations ?

- What if remote screening services were more widely available (e.g. self sampling methods)?
- What if screening methods were less invasive or more "patient friendly"?

What if we could improve cancer screening technologies ?

- What if there were screening tests for a wider range of cancers?
- What if there were a greater ability to determine cancer risk?

(2) Earlier Diagnosis

What if we could diagnose patients with vague or non-specific symptoms of cancer earlier and more effectively ?

What if patients with vague symptoms were better informed ?

What if there were better diagnostic technologies or wider access to existing technologies?

What if patients had a better understanding of possible symptoms?

What if patients with vague symptoms sought and could access help earlier?

What if existing technologies could be adapted for earlier diagnosis?

What if there were DNA, or other biomarker, based diagnostic tests for lung, bowel and prostate cancer?

What if there were wider access to imaging or diagnostic technologies in primary care or the community?

What if lung, oesophageal ovarian or pancreatic cancers could be detected earlier?

(3) Faster Diagnosis

What if technology could improve and accelerate the diagnosis of cancer in patients ?

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Professor John Radford

Professor of Medical Oncology, Director of Research at the Christie Hospital, Manchester; Clinical Lead for the Manchester Cancer Research Centre and Clinical Academic Section Lead at the Manchester Academic Health Science Centre

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Earlier Diagnosis

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Scenario 1

- **Fact: Too few cancers are diagnosed when at an early stage**

- Cure rates are inadequate and costs to the health economy are unnecessarily high

Scenario 1 – possible industry solution

- **Risk model integrating lifestyle and genomic factors factors developed** and made easily accessible to the public

- **Benefit: the public provided with a personalised risk profile** capable of informing their decision making

Faster Diagnosis

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Scenario 5

- **Fact: Second cancers of the breast** are far more common in patients cured who have received radiotherapy to the chest for a first cancer

- Screening programmes exist for women but how can screening take-up be maximised?

Scenario 5 – possible industry solution

- **Smart phone prompting service**

- **Benefit:** breast screening take-up enhanced and survival improved because of detection of smaller and more curable cancers

Scenario 6

- **Fact: the number of cancer survivors is increasing rapidly** and in addition to second cancers there are several other late treatment toxicities which undermine quality and duration of survival

- This is creating an increasing burden on hospital services. How best to integrate and manage their care?

Scenario 6 – possible industry solution

- **Population based system developed** integrating known risks from treatment received, previous medical history (GP records), genomic data to devise web-based, individualised “lifestyle prescription”

- **Benefit:** bespoke web based advice and intervention programme which can interact with cancer survivor, GP and specialists to optimise cancer survivor care

Conclusions

- Numerous and diverse issues to solve
- Novel approaches are likely to form at least part of the answer
- Patients, cancer professionals and industry can become partners in working towards a common goal of revolutionising the way in which we manage cancer
- This partnership utilising the NHS platform can lead international efforts in the field

SBRI Healthcare Programme

An NHS England funded initiative delivered with support from the Academic Health Science Networks

Clinical Q&A

www.sbrihealthcare.co.uk

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Joop Tanis

BD and SBRI Healthcare Director, HEE

How SBRI works & what it has delivered

joop.tanis@hee.co.uk

SBRI Government challenges. Ideas from business. Innovative solutions.

SBRI is a pan-government, structured process enabling the Public Sector to engage with innovative suppliers:

- ✓ Helping the Public Sector address challenges
  - Using innovation to achieve a step change
- ✓ Accelerating technology commercialisation
  - Providing a route to market
- ✓ Support and the development of Innovative companies
  - Providing a lead customer/R&D partner
  - Providing funding and credibility for fund raising

SBRI HEALTHCARE





SBRI Government challenges. Ideas from business. Innovative solutions.

SBRI Key features

- ✓ 100% funded R&D
- ✓ Operate under procurement rules rather than state aid rules
- ✓ UK implementation of EU Pre-Commercial Procurement
- ✓ Deliverable based rather than hours worked or costs incurred

- Contract with Prime Supplier
  - ✓ Who may choose to sub contract but remains accountable
- IP rests with Supplier
  - ✓ Certain usage rights with Public Sector – Companies encouraged to exploit IP
- Light touch Reporting & payments quarterly & up front

SBRI HEALTHCARE






SBRI Government challenges. Ideas from business. Innovative solutions.

Things to Note

- Any size of business is eligible
- Other organisations are eligible as long as the route to market is demonstrated
- All contract values quoted **INCLUDE** VAT
- Applications assessed on Fair Market Value
- Contract terms are non-negotiable
- Single applicant (partners shown as sub contractors)
- Applicants must fully complete the application form

SBRI Government challenges. Ideas from business. Innovative solutions.

Eligible costs (all to include VAT)

- Labour costs broken down by individual
- Material Costs (inc consumables specific to the project)
- Capital Equipment Costs
- Sub-contract costs
- Travel and subsistence
- Other costs specifically attributed to the project
- Indirect Costs:
  - General office and basic laboratory consumables
  - Library services/learning resources
  - Typing/secretarial
  - Finance, personnel, public relations and departmental services
  - Central and distributed computing
  - Cost of capital employed
  - Overheads

SBRI HEALTHCARE





SBRI Government challenges. Ideas from business. Innovative solutions.

www.innovateuk.org/sbri

website contains details of all SBRI competitions

SBRI Healthcare

Cancer, Earlier and Better Diagnosis and Screening

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SBRI Process

AHSN led - typically undertaken by clinicians – service driven

AHSN led - Workshops with industry to support understanding

PHASE 1: Typically 6 months – max of £100k

PHASE 2: Typically 12 months – milestones agreed & monitored

PHASE 3: Typically 12 months – milestones agreed & monitored

Problem Identification

Open call to Industry

Assessment

Feasibility Testing

Prototype development Pathway testing & Proof of Value

Assessment

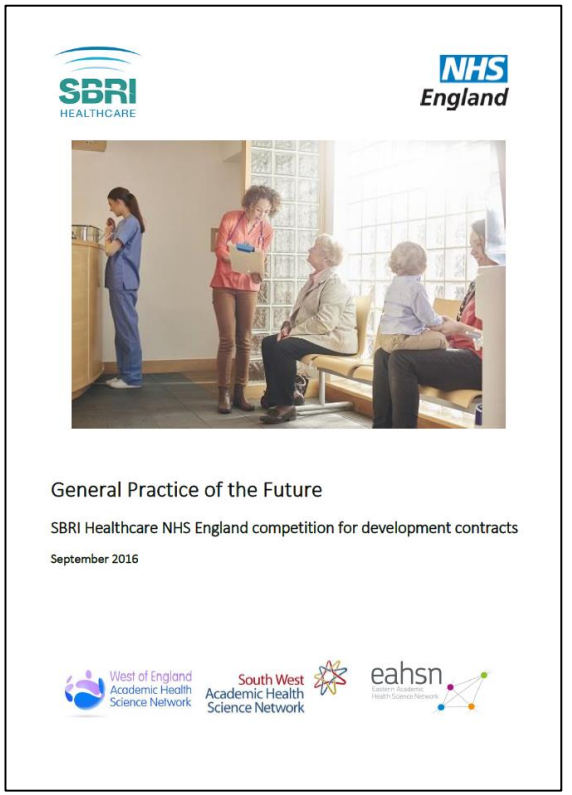
Open Procurement

Due diligence & contracts

SBRI HEALTHCARE

New Competition July 2017

Competition launch: 25 July 2017
Closing Date: Noon 6th September
Briefing Events: 25th July - London
26th July – Nottingham
Leeds
27th July - Manchester
Technical Assessments: September 2017
Clinical Assessments: September 2017
Interview panels: October 2017
Contracts awarded: November 2017



SBRI Healthcare is an NHS England programme funding potential solutions to address unmet healthcare needs

420

Over **420** jobs created or safeguarded – their value to the UK economy is estimated at **£33.6m**

£1bn

Estimated cost saving value of pipeline to the NHS: **£1bn**

£45m

£45m additional funding leveraged through grants and venture capital

168

168 contracts awarded to businesses across Phases 1, 2, 3

OUR YEAR IN NUMBERS

6

6 new clinically-led competitions where NHS needs have been articulated for business to respond to

£17.5m

26 Phase 1 contracts awarded with a total value of **£2.3m**

18 Phase 2 contracts awarded with a total value of **£15.2m**

258

applications from industry assessed and supported or feedback given

FOUR YEARS OF DELIVERY

£57m

£57m total funds awarded

114 Phase 1 | **46** Phase 2 | **8** Phase 3

160

160 finalised agreements with UK and foreign companies

20

20 products already on the market with many more ready to come to market in the next 12 months

40

40 patents, copyrights, trademarks and scientific publications applied for or awarded

9

companies exporting their products to international markets

Source: SBRI Healthcare Annual Review 2015/16

SELF-CARE • FREEDOM • PEACE OF MIND •

IMPACT FOR PATIENTS

Polyphotonix

The Noctura 400 is a sleep mask that uses light therapy to treat diabetic retinopathy. The alternative treatments are much more invasive and unpleasant for patients.

"When I was first diagnosed with retinopathy, it was very much doom and gloom. No one could tell me that I would definitely still be able to see my children in 10 years' time. Now, I finally feel hopeful again. I just wish I'd known about the mask earlier before the damage to my eye happened.

Neil, London

POLYPHOTONIX

INDEPENDENTLY AUDITED BY HEALTH ECONOMISTS

2012-13 **£510m** potential saving and potential to impact **23m** patients

2013-14 **£424m** potential saving and potential to impact **4m** patients

2014-15 **£299m** potential saving and potential to impact **1.9m** patients

"I believe passionately that patients, on a daily basis, are solving problems and finding solutions to everyday problems. Thanks to SBRI I have the opportunity to take my patient-led innovation and help improve the lives of other patients and also make it easier for healthcare professionals to manage us remotely. SBRI has been the catalyst to drive forward and get our device embedded within the NHS system and I am incredibly grateful for the opportunity. The hard work starts now.

Michael Seres, CEO and patient

I had my first stoma aged ten. Everyday life as a teenager is difficult enough let alone having to tell your friends that you have got this added extra attachment...I was forever worried about if people could see the bag and worried about leaks. I never slept because I was so worried about it overfilling and messing the bed. The sensor would improve my life because it would stop leaks, it would stop the anxiety of going out.

Amy Louise Grime, Crohn's patient"

11 Health

Michael Seres is an ostomy (stoma) patient and wanted to find a better way of knowing if the ostomy bag is full. He developed the Ostom-I Alert sensor and is now CEO of 11 Health to further develop and market the product.

11 health
smart technology

IMPACT FOR BUSINESS AND THE ECONOMY

Cupris

Cupris have developed an otoscope (for ear examination) that clips to a smart phone and then supports the diagnoses of ear conditions and hearing loss. They have successfully used their SBRI funding to leverage additional investment, including nearly £500,000 through crowd-funding. They are also running tests in Malawi and Nepal with additional trials planned in India, Cambodia and East Africa.

Total award: £926,990

"The reason I invested in Cupris is I believe in projects that can deliver both a financial and social return. Cupris has a great team, a great mix of skills, a great track record. The product is brilliantly designed; it's very simple, very easy to use, but also very cost-effective. So that will deliver the financial return. On top of that is can be used in remote rural areas, in developing countries by people who have no previous experience, no skills in using it, and that's what will deliver a massive social return."

Stephen Dawson
Impetus and Jacana Venture Partnership

ECONOMIC EFFECTIVENESS

68 SBRI-backed companies responded to researchers quantifying the impact of SBRI Healthcare since 2008. Some results from these 68 respondents:

57
had recruited staff

17
are already selling – most of the others estimate they will be selling within two years

9
are exporting

£37m
additional investment had been secured

47
patent applications pending

19
patents awarded

IMPACT
FOR CLINICIANS AND THE NHS

Docobo

"

Building Partnership working with Docobo has promoted innovation in health and care pathways which is key to transformation at Crawley, Horsham and Mid Sussex Clinical Commissioning groups.

It is about system transformation rather than just service.

Risk profiling has not only allowed to work intelligently around individual patient needs but also helped to target care adding effectiveness and efficiency.

In addition to this, collaborative cross sector conversations are enabled to integrate care, promoting a culture shift which is essential for joined up care.

Dr Laura Hill - Clinical Director, Crawley CCG

"

Docobo has developed a range of remote digital solutions to help the NHS and patients to improve healthcare. Their ARTEMUS-ICS™ system is breaking new ground with SBRI Healthcare funding. The new elements of the system will enable more accurate segmentation of the population to target and deliver care more efficiently. It also tracks and reports patient outcomes. Designed specifically for integrated care communities, the new system is adding Social Care, Community, Mental Health and Ambulance data to the present GP and Acute information. This comprehensive population data will provide care planners and co-ordinators with analysis at population, geographic and individual levels and provide management with cross-sector cost analysis (including at patient/client level). The data can be 'sliced and diced' to deliver all manner of information enabling multi-disciplinary teams to analyse their local communities' health needs.

Crawley, Horsham and Mid-Sussex CCGs sought the Docobo solution for their award winning Proactive Care programme – which was designed as a new way of caring for those with complex health and social care needs. They have been working with Docobo to design the software that identifies patients who are at higher risk of their health worsening and being admitted to hospital. Collaborative development of the new system is set to produce the functionality needed by the CCGs to optimise their integrated care programme.

24 NHS needs clearly articulated and specified for industry

Over **72** expert managers and clinicians were engaged in the assessment of company proposals

15 AHSNs support the SBRI programme by identifying areas of need that the NHS has prioritised

Over **30** companies have initiated clinical trials

130 Companies supported by NHS expert managers and clinicians alongside AHSNs to develop their innovations

Docobo®
towards a better quality of life™

AHSN/SBRI companies

Scotland & N Ireland
Radisens, Edixomed,

Grter Manchester & NW Coast
- Sky Med, Rapid Rhythm, Veraz

North East & North Cumbria
Polyphotonix Ltd

Yorks & Humber
Halliday James Ltd

East Midlands
Monica Healthcare Ltd, Astrimmune Ltd

West Midlands
SensST Systems, Just Checking Ltd

Oxford -
Fuel 3D, Oxford Biosignals, Message Dynamics

Eastern -
Aseptika, Bespak, TwistDX

West of England
SentiProfiling, My mHealth, HandAxe CIC

S.London, Imperial, UCLP
ABMS, Therakind, uMotif

Wessex
CreoMedical, Morgan Automation

Kent, Surrey & Sussex
Anaxsys, InMezzo

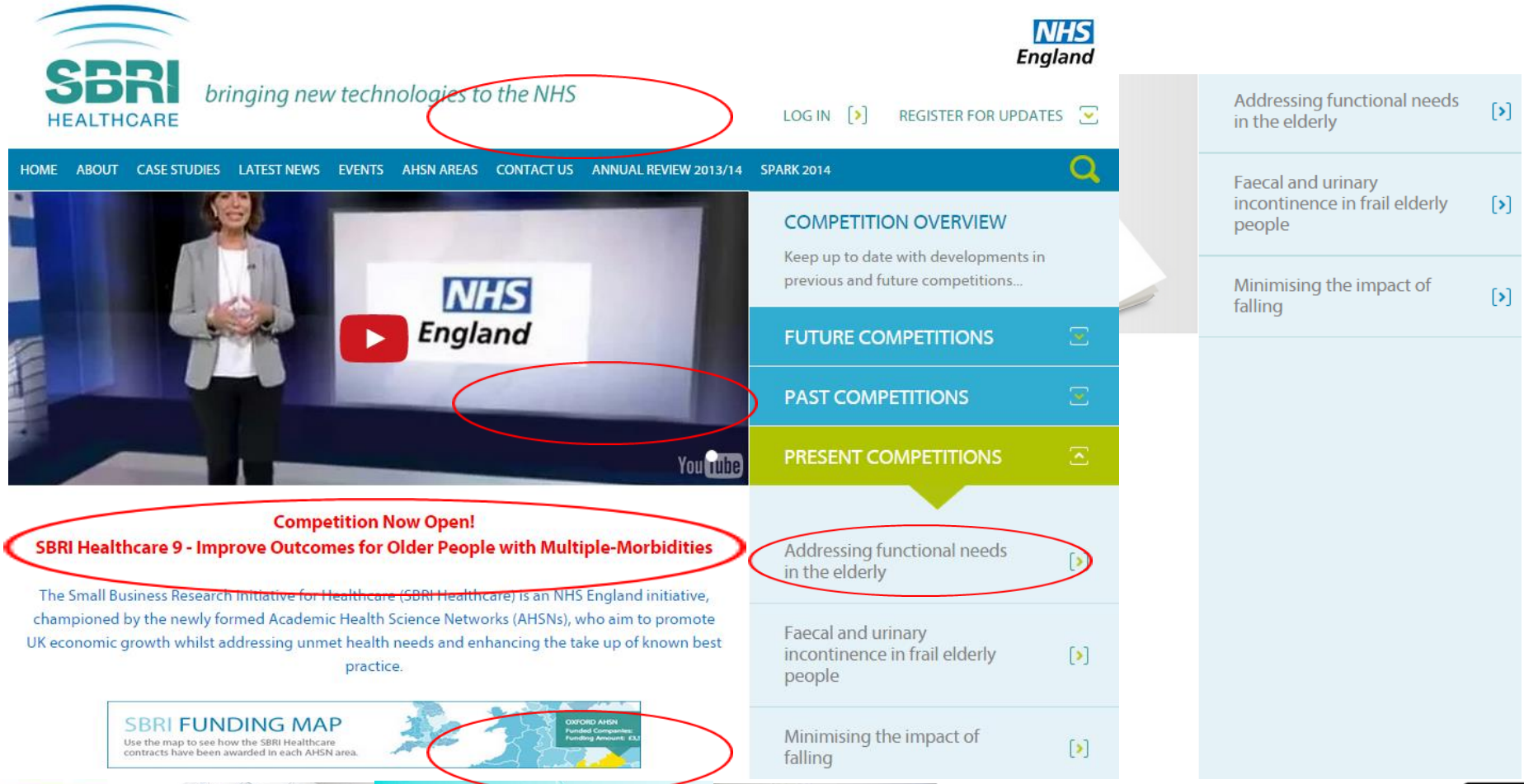
South West
Frazer Nash





Application Process

www.sbrihealthcare.co.uk



SBRI HEALTHCARE bringing new technologies to the NHS

Home » A-0014

A-0014 (A-0014)

This submission is in stage **Active Applications** with a status of **Active**
It was last updated at: 06/16/2015 01:55:24 PM.

Active Applications

Task	Status	Actions
Download of Application Guidance	INCOMPLETE	Start
Application Summary	INCOMPLETE	Start

View Rankings

Progress

This submission is 0.0% complete. You still need to:

- Complete task "Download of Application Guidance"
- Complete task "Application Summary"
- Complete task "Company Details"
- Complete task "SBRI Application Form"
- Complete task "Declaration"
- Submit

Members

Nicholas Offer (Owner)

Add Member

Edit Members

SBRI Application Form

Required fields are noted with an *

1) Description of Proposed Idea/Technology *

Please provide a brief description of your proposed idea/technology and how this addresses the customer need, market and patient problems. Include how you plan to engage key stakeholders in Phase 1. Please consider defining the market/patient you plan to address; the implications, size, cost of the problem and market. Outline your solution and how it meets the market/patient needs, including the needs described in the competition category brief, how it could be implemented, cost of doing so and any other matters arising from its adoption. To support this description you may upload an image file by using 'Upload Proposal Document(s)' Task, which is available from the Main Application task menu. (500 word limit)

2) Technical Project Summary *

Please give a short assessment of the key technical challenges [illegible] will be overcome. List the key technical deliverables and how they will be met. In addition, please provide a short [illegible] limit).

Save Progress Check Form & Next Page

Application Summary	INCOMPLETE	Start
Company Details	INCOMPLETE	Start
SBRI Application Form	INCOMPLETE	Start
Upload Attachment (optional)	PREREQUISITES NOT MET	
Upload 2nd Proposal Document (optional)	PREREQUISITES NOT MET	
Declaration	INCOMPLETE	Start
Submit your application	PREREQUISITES NOT MET	

Add Member

Edit Members

Withdraw Application

Assessment Phase Timelines

- Close competition, noon on 6th September
- Review compliance (Early September)
- Assessment packs assigned and issued to Technical Assessors (Early September)
- Each application reviewed & scored by Technical (early September)
- Assessment of long-list applications at panel meeting involving clinical leads (mid September)
- Production of rank ordered list for interview (late September)
- Interview panels to select final winners (October)
- Draft and issue contracts (November)
- Publish contracts awarded (November)
- Feedback to unsuccessful applicants (throughout, but latest November)

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Assessment Criteria

1. What will be the effect of this proposal on the challenge addressed?
2. What is the degree of technical challenge? How innovative is the project?
3. Will the technology have a competitive advantage over existing/alternate technologies that can meet the market needs?
4. Are the milestones and project plan appropriate?
5. Is the proposed development plan a sound approach?
6. Does the proposed project have an appropriate commercialisation plan and does the size of the market justify the investment?
7. Does the company appear to have the right skills and experience to deliver the intended benefits?
8. Does the proposal look sensible financially? Is the overall budget realistic and justified in terms of the aims and methods proposed?

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Key Points to Remember

- Research and define the market/patient need
- Review the direct competitor landscape and make sure you define your USP
- Consider your route to market, what is the commercialisation plan? Do you know who your customer will be, how will you distribute, how much will you charge for the product/service?
- How will the project be managed (what tools will you use, how will the team communicate etc)
- Provide a clear cost breakdown
- Make sure you answer all of the questions in sufficient detail
- Try not to use too much technical jargon, sell the project in terms the NHS will understand (outcomes, benefits to patients etc)

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SBRI HEALTHCARE

Gordon Barker

CEO, Microbiosensor

www.sbrihealthcare.co.uk

@sbrihealthcare

27th July 2017

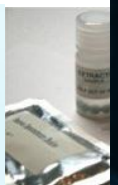
MicroBioSensor

Rapid Diagnostics for Improved Patient Care

Our current **reactive** infection diagnosis system is failing key patient groups…

Infection control is the key issue for vulnerable patient groups:

- Exposes patients to unnecessary risk
- Results often arrive “48h too late”
- Prone to antibiotic misuse



Microbiosensor is helping build a faster more **pro-active** healthcare system, that is delivered at the point of care

How SBRI Funding Helped
From concept to working prototype

It's good money

- Quick process, minimal hassle, significant sums
- Fixed budget but flexibility between cost items as plans evolve
- No IP strings beyond commitment to commercialise & benefit NHS

But its not just about the money

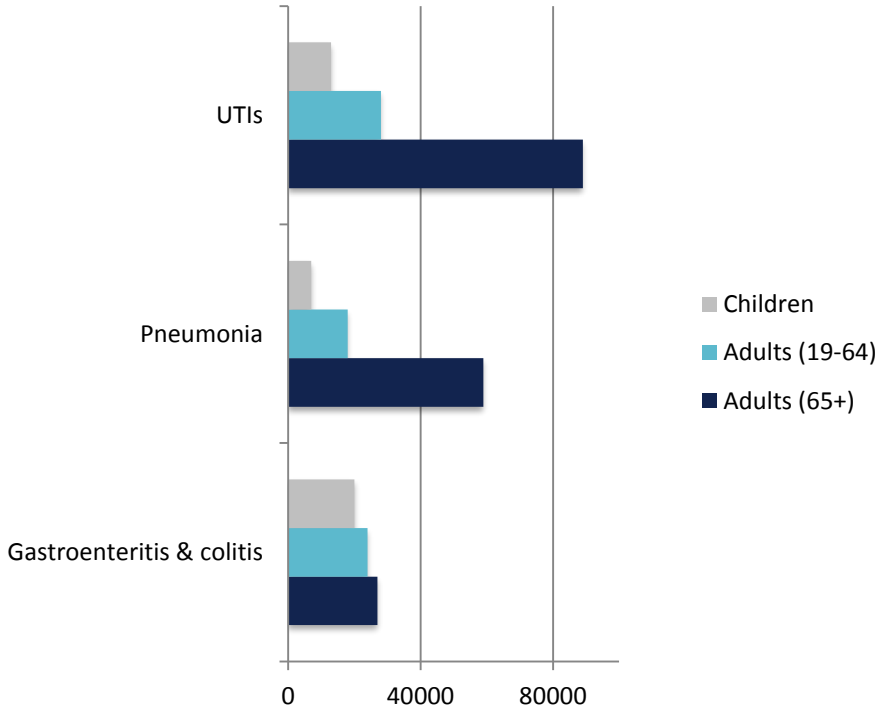
- Each call starts with an identified clinical / market need
- Discipline of Q-reporting against financial & technical goals
- Feedback & input from PMs who understand the clinical space
- Raised company / project profile / networking / sign-posting around NHS

Phase-1 Case Study: Current UTI Programme

Time savings / improved patient care

Save NHS money by reducing hospitalisations

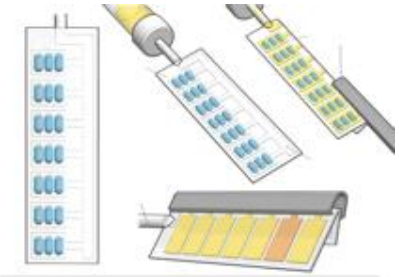
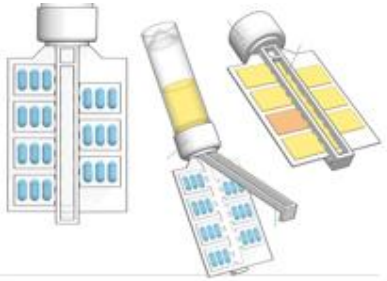
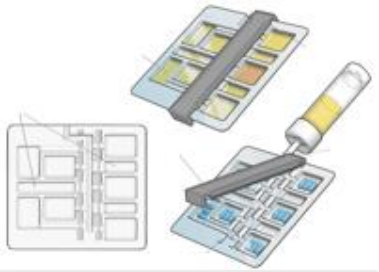
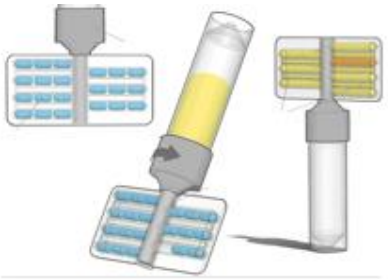
Identified Clinical Needs
e.g. HSCIC stats on UTIs

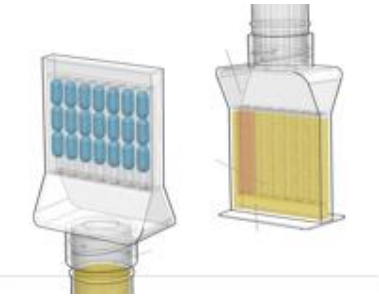


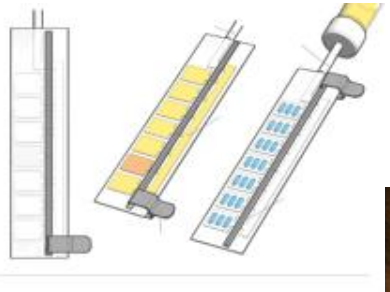
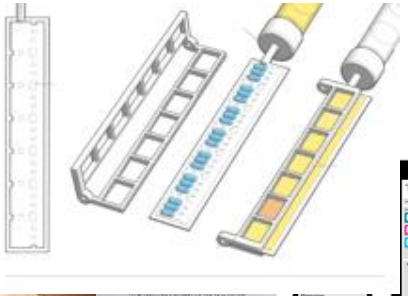
Core market research & key numbers already there

£100K: From Concept to Feasibility Studies

Iterative "fail-early" selection process



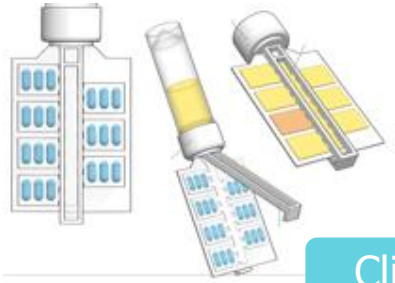









Selecting the Fittest Designs
Patient / user input is key



Clip

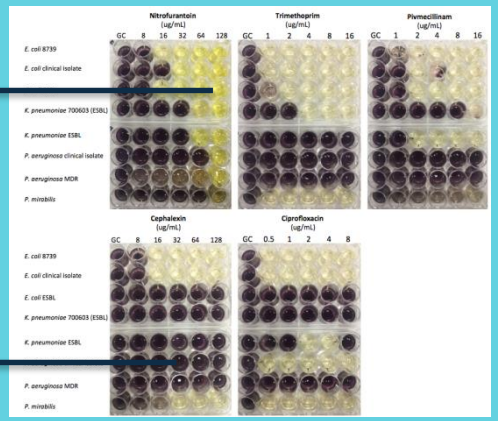
Container

Circular

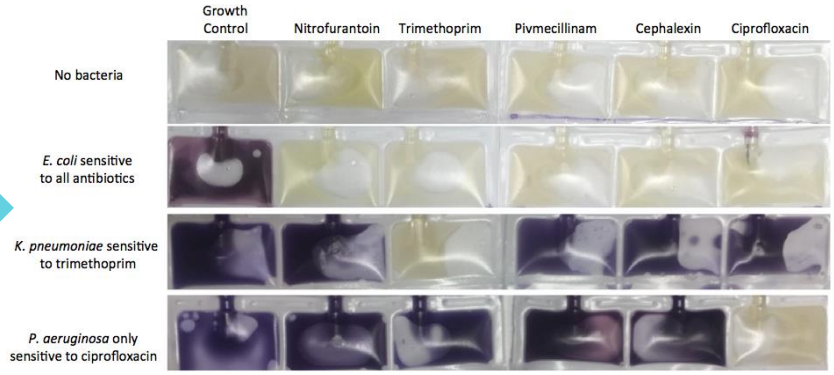
Feasibility Studies: **Performance with clinical samples**

Uninfected

Infected



Spiked samples: **POC antibiotic sensitivity analysis**



Phase-2 Case Study: Renal Health Programme

Faster / Better

Time savings / improved patient care

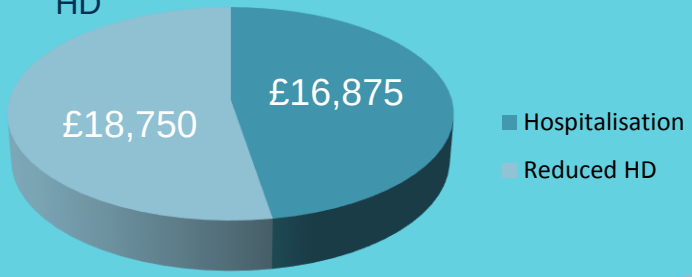
Empowers patients to manage their own condition

£

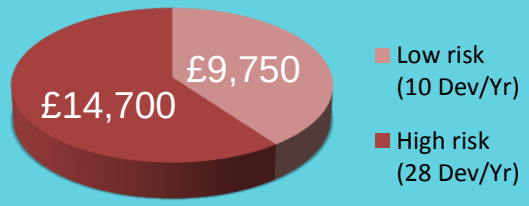
Saves NHS money by reducing hospitalisations

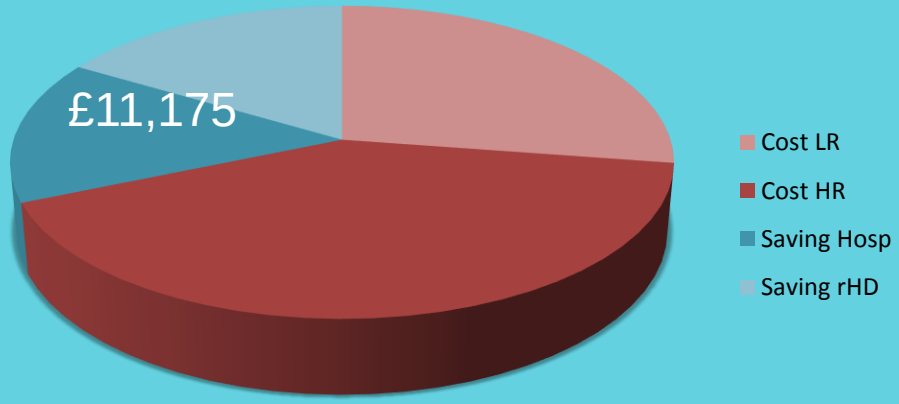
Health Economics
Per NHS clinic savings

Potential savings from 50% reduction in hospitalisation & loss to HD



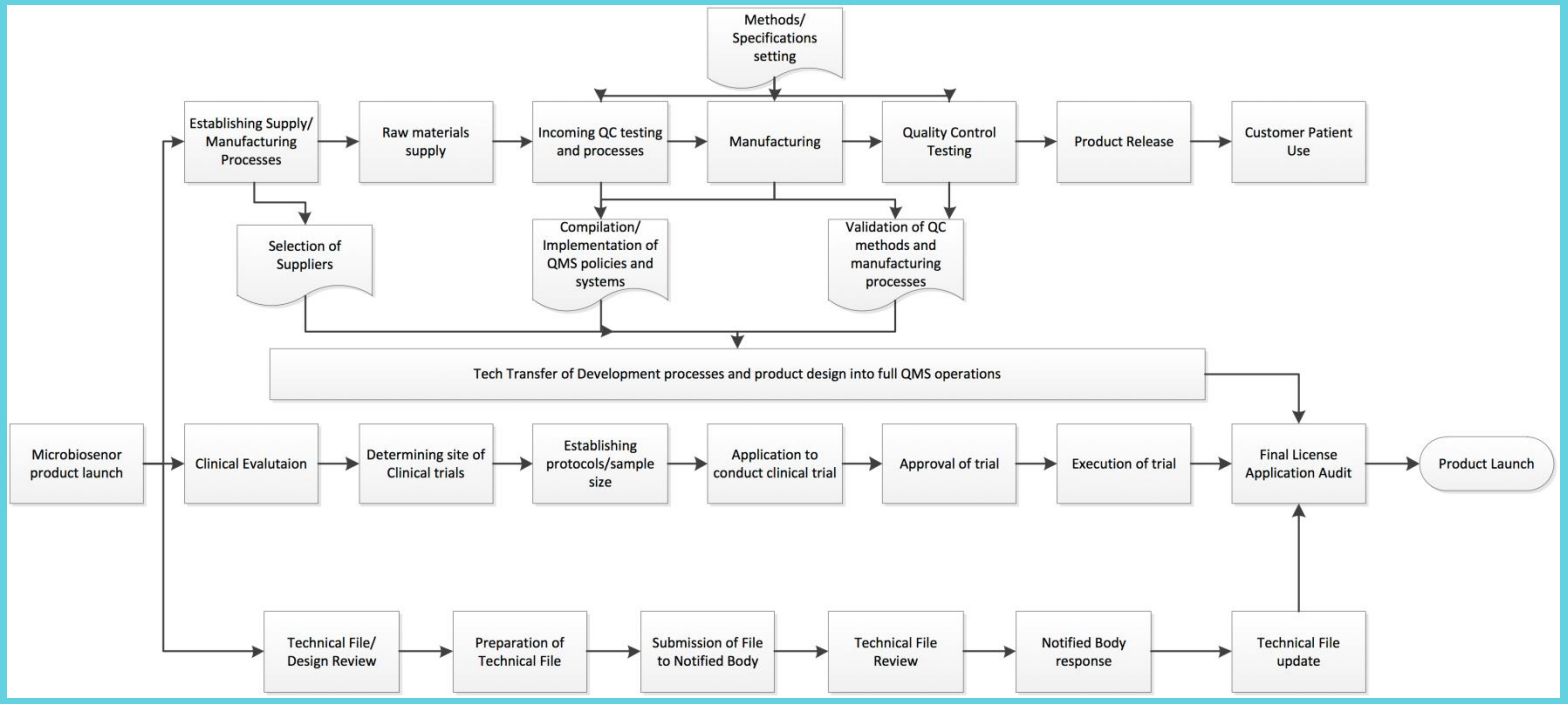
PD Safe Costs by patient group





Net savings after PD Safe costs

Manufacturing & Product Approval
BOM, ISO13485, Device Classification



Phase-1: £100K from concept to lab prototype
Phase-2: £980K from lab prototype to product prototype

Different 'channels' indicate the nature of the infection and help guide antibiotic choice

Summary of our Experience

SBRI "Best of both" combo of VC & grant funding

Targeted investment

- Addresses a funding market gap between grants & VC money
- More flexible than either: focus on problem solving
- Staged investment, product-oriented
- Starts from identified clinical needs
- Professional PM oversight / input

Steep learning curve

- Patient / end user input extremely valuable
- Clinical studies require careful planning & constant monitoring
- R&D only half the battle: manufacturing & health economics key
- Problems will arise: ID them early & focus on solving them!

SBRI Healthcare Programme

An NHS England funded initiative delivered with support from the Academic Health Science Networks

Final Q&A

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