AGENDA

Tuesday 03 June

Welcome from Chair: Richard Stone, Medilink West Midlands

SBRI Programme & the SBRI Healthcare Competition: Karen Livingstone, National Director, SBRI Healthcare

The application process: Nick Offer, SBRI Healthcare Project Manager, Health Enterprise East

The assessment process: Anne Blackwood, CEO, Health Enterprise East

Clinical Themes:

- Integrated Care – Dr Alex Mayor, SW & Peninsula AHSN
- Musculoskeletal – Krysia Dziedzic, West Midlands AHSN
- Medicines Adherence – Liz Dymond & Tony Horne, West of England & Wessex AHSNs

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SBRI Healthcare Programme

An NHS England funded initiative delivered by the Eastern Academic Health Science Network

www.sbrihealthcare.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

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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

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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

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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

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SBRI Government challenges. Ideas from business. Innovative solutions.

www.innovateuk.org/sbri

website contains details of all SBRI competitions

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The NHS Innovation Agenda

"There are great people in the NHS with great ideas. Through a focus on outcomes, we are going to enable and encourage them to turn those innovative ideas into reality. This will result in better care and outcomes for patients."

SECRETARY OF STATE FOR HEALTH, ANDREW LANSLEY

INVENTION
The originating idea for a new service or product, or a new way of providing a service

ADOPTION
Putting the new idea, product or service into practice, including prototyping, piloting, testing and evaluating its safety and effectiveness

DIFFUSION
The systematic uptake of the idea, service or product into widespread use across the whole service.

We will double our investment in the Small Business Research Initiative to develop innovative solutions to healthcare challenges, encourage greater competition in procurement of services, and drive growth in the UK SME sector

HEALTH AND THE ECONOMY

The NHS contributes to the UK economy in four important ways:

1
Through the services it provides: a healthy population is more productive, and more economically active

2
By adopting innovation to improve its own productivity, it can deliver more health benefit for a given public resource

3
By accelerating adoption and diffusion of innovation throughout the NHS it supports growth in the life sciences industry

4
By exporting innovation, ideas and expertise, working in partnership with UK industry, it provides new business opportunities abroad for UK-based companies.

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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 18 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

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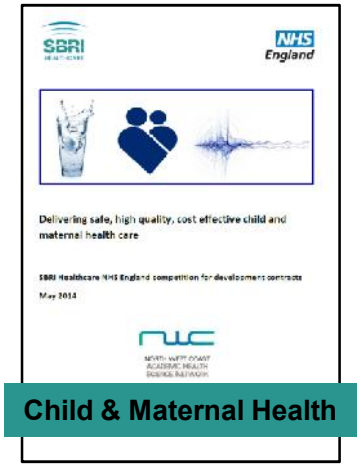
New Competition Spring 2014

Medication Adherence



Child & Maternal Health

Integrated pathways

Musculoskeletal

Telecare/health in LD

Competition launch: 19th May 2014
Closing Date: Noon 10th July 2014
Industry workshops: 3rd June, Birmingham & 9th June, Manchester
Contracts awarded: October 2014

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Case Study: Polyphotonix

SME PolyPhotonix has worked with the Liverpool University Hospitals Ophthalmology team to create a light therapy sleep mask which is CE certified for the treatment of diabetic retinopathy (DR).

- The Noctura 400 is based on Organic Light Emitting Diode (OLED) technology which offers a patient centric, non invasive home based monitoring treatment for patients with DR and age-related macular degeneration (AMD).
- The company are currently engaged in a multi-centre Phase III trial of the technology at Moorfields Hospital, London.
- The company have increased 5 fold, have all their manufacturing in the UK and are based at the National Printable Electronics Centre in Sedgefield.

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Case Study: Fuel 3D Technologies

Oxford University Spin out Company, Fuel 3D Technologies has devised a novel 3D camera which allows for improved monitoring and clinical intervention of chronic wounds in clinics, hospitals and in patient homes.

- The Fuel 3D wound measurement system, which was launched in the UK in December 2011 and is already being used in 20 NHS hospitals and primary care settings, allows community nurses to monitor the wounds while having the back-up of hospital-based experts.

- Images can be evaluated without the need for patients to visit outpatients – increasing effectiveness and reducing costs. The technology allows wounds to be assessed by volume giving a more accurate picture of wound healing.

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Case Study: Veraz

The Green Badge System (GBS) created by Veraz Ltd uses patented touch monitoring technology to improve hand hygiene compliance.

- The GBS works by monitoring instances of physical contact between healthcare workers and patients/beds/equipment, and the number and quality of hand washes performed by healthcare workers.
- The system provides visual feedback informing individuals and their colleagues of their compliance to hand hygiene protocols, whilst reassuring patients.
- Preventable Healthcare Associated Infections (HCAI) cause patients undue pain and suffering, in severe cases leading to death and disability, and are estimated to cost NHS approximately £4.5 billion per year.
- Veraz are currently engaged in the commercialisation of the product and are planning further trials in major NHS hospitals from mid to late 2014, with a market launch planned for early 2015.

The GBS offers significant benefits and savings to patients and the NHS because it has been proven to increase compliance to hand hygene protocols by 300% during a successful trial in a working London hospital.

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Case Study: Edixomed

Edinburgh based Edixomed have developed a Nitric Oxide dressing for diabetic patients with chronic leg ulcers to enable rapid healing

- The system delivers nitric oxide directly to specific skin tissue in order to help increase blood flow and stimulate wound healing.
- The SBRI funding has meant that we have been able to move from a non-investible company to one that could be invested in. Edixomed has partnered with a wound dressing company in order to bring the product to market in the UK and the dressing is now in clinical trials at Kings College Hospital, London and at Ninewells Hospital in Dundee.
- Chairman, Mr Wood says the company hope to bring the product to market later this year.

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Case Study: Aseptika

Huntingdon based start up Aseptika Ltd has devised a home-based rapid quantitative test to predict exacerbation of lung infections in patients with long-term respiratory disease

Evidence indicates that for every day of 'advanced warning' and every day an effective antimicrobial is administered, time in the clinic is reduced by 0.5 day.

- The company has successfully demonstrated the feasibility of quantifying the levels of key biomarkers in sputum donated by cystic fibrosis (CF) patients as a way of predicting the onset of chest infections known clinically as exacerbations.
- The company is now in the process of scaling up trials to make it possible for patients with a range of respiratory conditions including CF and chronic obstructive pulmonary disease (COPD) to self-monitor at home and reduce the frequency of unscheduled admissions to hospital.

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Outcomes achieved to date

	Competition	Launch Date	No. of entries received	Contracts Awarded Phase 1 & 2		Competition Value
1	Pathogen detection (DH)	Oct 2008	15	7	2	£2m
2	Hand Hygiene (DH)	Oct 2008	38	6	4	£3.1m
3	Managing Long Term Conditions	Apr 2009	89	5	2	£1.2 m
3	Patient Safety	Apr 2009	46	5	2	£1.25 m
4	Keeping Children Active	Apr 2009	42	1	0	£0.1 m
5	Dementia	June 2010	28	7	3	£1.2m
6	Hospital Admissions	June 2010	69	5	2	£0.4m
7	Long Term Conditions	Feb 2011	73	8	5	£2.2 m
8	Medicines Management (DH)	Apr 2012	49	5	4	£2m
9	Behaviour changes (DH)	April 2012	108	8	2	£2m
10	End of Life	Jan 2013	97	5	3	£2.5m
11	Mental Health	Jan 2013	80	4	2	£2.5m
12	Cancer	Sept 2013	22	4	TBC	Approx. £16m across 7 categories. Phase 1 Awards £2.8m
13	Patient Safety	Sept 2013	55	5	TBC	
14	COPD	Sept 2013	31	5	TBC	
15	Diabetes	Sept 2013	48	6	TBC	
16	Research & Diagnostic tools	Sept 2013	44	6	TBC	
12	Mental Health	Sept 2013	56	4	TBC	
13	Cardiovascular	Sept 2013	27	5	TBC	
14	Renal (DH)	Oct 2013	41	14	TBC	Approx. £3.6m
15	Genomic (DH)	Dec 2013	35	TBC	TBC	Approx. £10m
16	Phase three offer	Dec 2013	10	8	TBC	Approx. £5m
	TOTALS TO DATE		**1103**	**123**	**31**	**£23m contracted**

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AHSN/SBRI companies

Scotland & N Ireland
Radisens, Edixomed, TwistDX

Grter Manchester & NW Coast
- Sky Med, TrusTECH

North East & North Cumbria
Polyphotonix Ltd

Yorks & Humber
Halliday James Ltd

East Midlands
Monica Healthcare Ltd

West Midlands
SensST Systems, Just Checking Ltd

Oxford -
Eykona, Oxford Biosignals, Message Dynamics

Eastern -
Aseptika, Bespak,

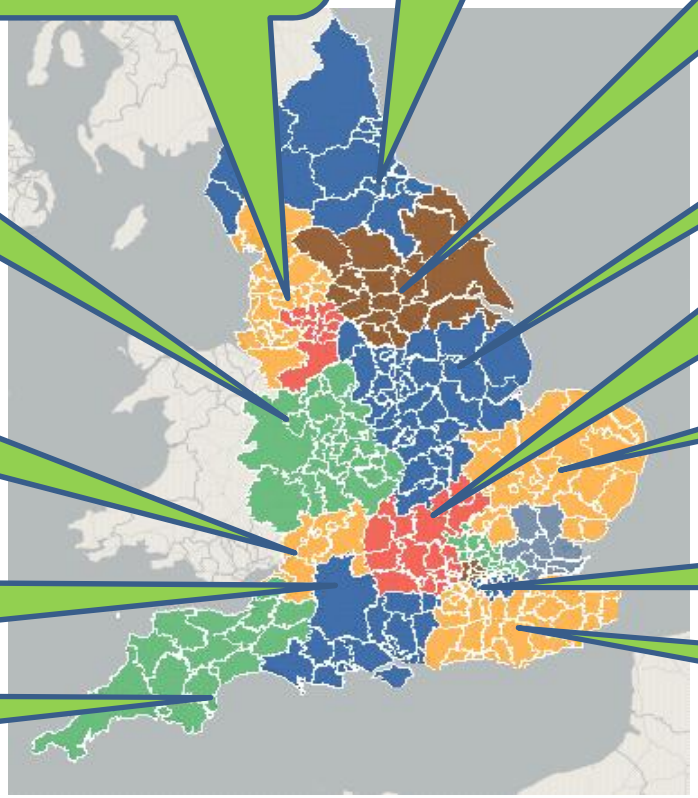
West of England
SentiProfiling

S.London, Imperial, UCLP
ABMS, Pintrack, Therakind, UMotiff

Wessex
CreoMedical, Morgan Automation

Kent, Surrey & Sussex
Anaxsys, InMezzo

SW. Penisula
Frazer Nash



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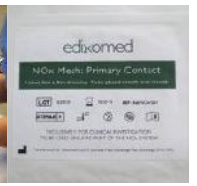


What the companies say

SBRI enabled Aseptika to see clearly the needs of patients and clinicians, and make a real difference in the care of long-term conditions.

Dr Kevin Auton, MD of Aseptika

The backing and investment from the SBRI competition has been critical

Chris Wood, Chair of Edixomed

SBRI means that Polyphotonix can focus on the important: driving the adoption of a technology that saves the NHS money and improves quality of life for patients

Richard Kirk, CEO of Polyphotonix

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The application process

Nick Offer

SBRI Project Manager

sbrienquiries@hee.co.uk

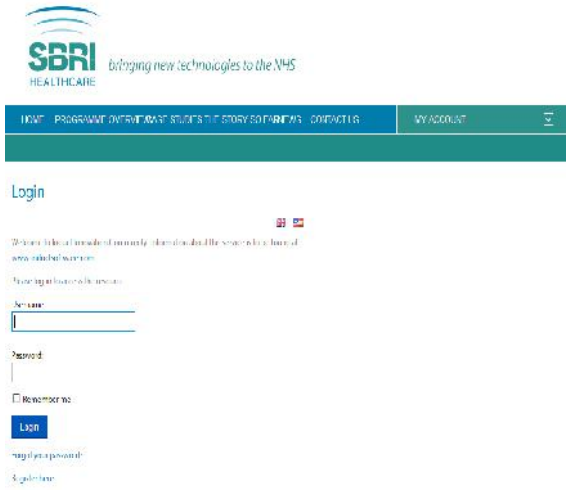
01223 597813

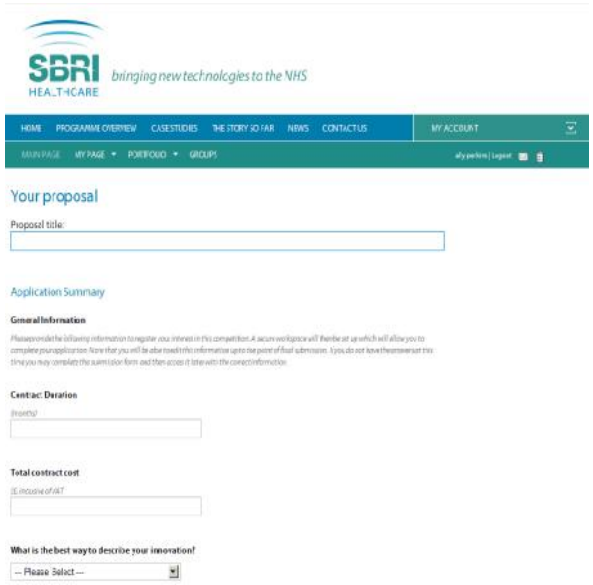
www.sbrihealthcare.co.uk

@sbrihealthcare

Application Process

www.sbrihealthcare.co.uk





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Application Process

Welcome to SBRI Healthcare portal. From here you can track your application or, if you are an assessor, access your assessments.

Applicants

My Applications [›]

Phase 1 Apply Now [›]

Assessors

My Reviews [›]

Don't forget...

The SBRI has competitions starting all the time, plus news and more.

[Go there now]

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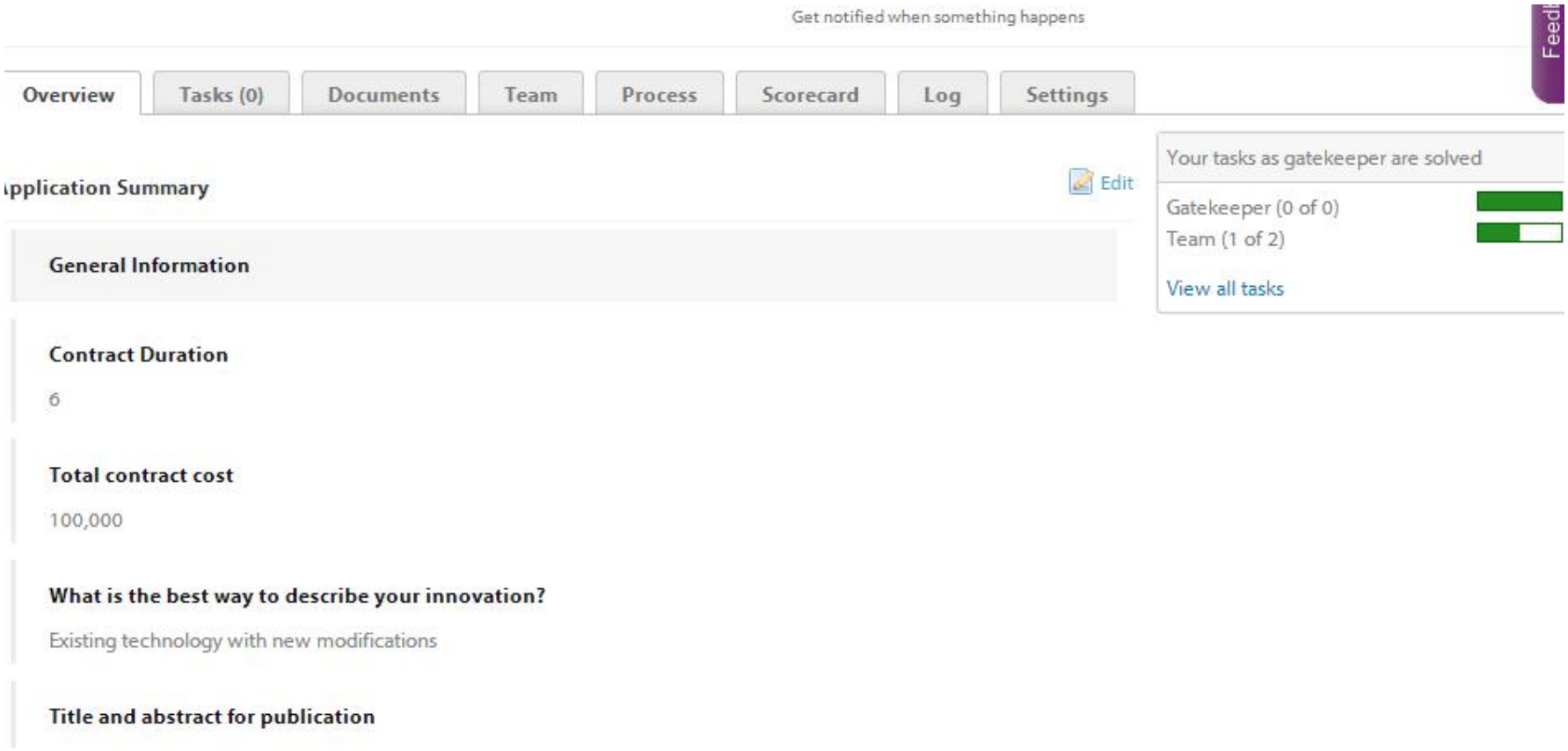
Application Process



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Application Process

Overview | Tasks (3) | Documents | Team | Process | Scorecard | Log | Settings

Show tasks for Current stage ▾

Create a new ta

Gatekeeper tasks

No tasks

Lead Applicant tasks

No tasks

Team tasks

	Assigned to	Deadline	Status
Download Guidance Documents	Nick Offer	-	Not solved
Complete Company Details	Nick Offer	-	Not solved
~~Complete SBRI Application~~	Nick Offer	-	Solved (16/05/2014)
Declaration	Nick Offer	-	Not solved

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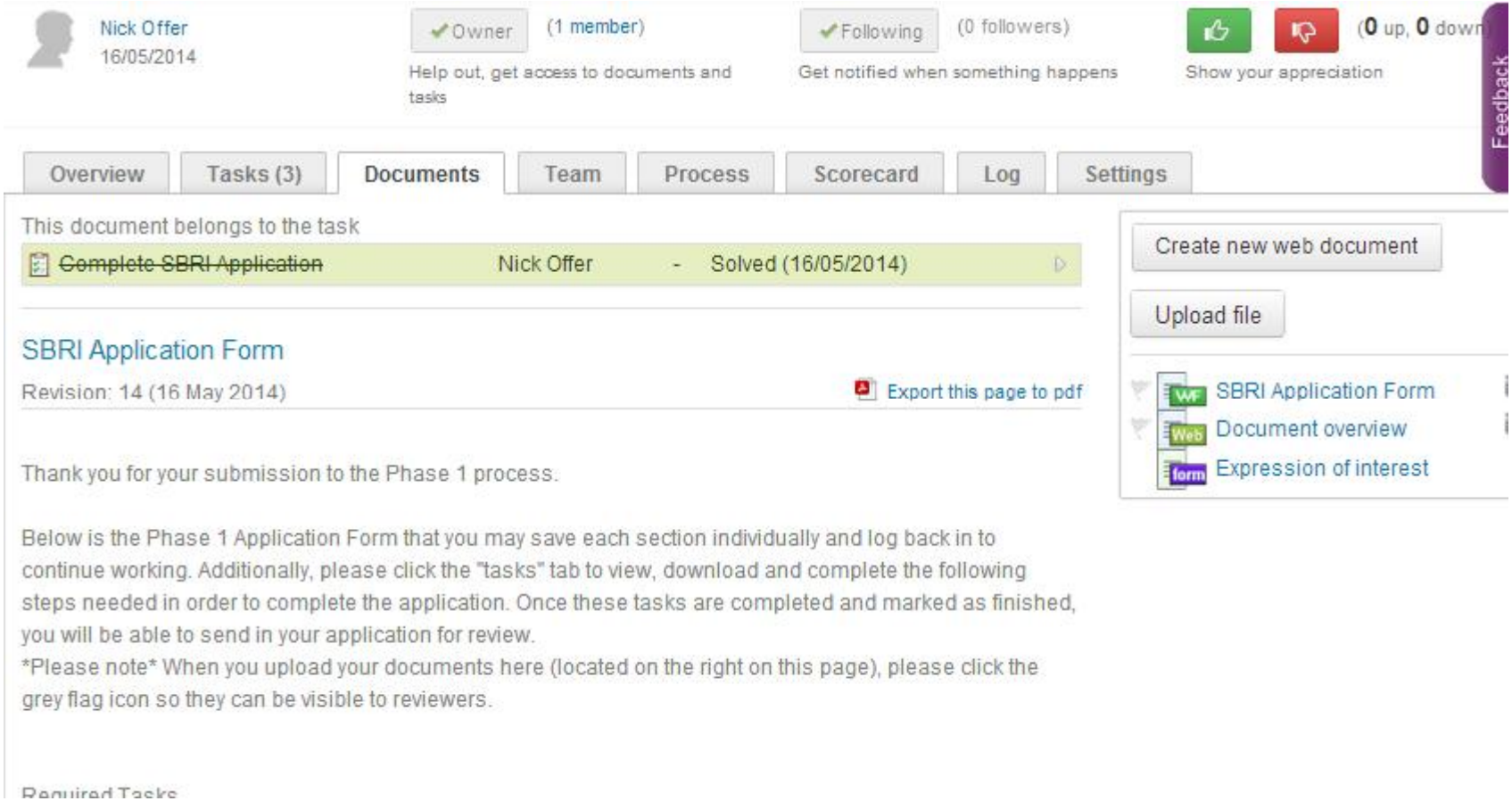
Application Process



Assessment Phase Timelines

- Close competition, noon on 10th July
- Review compliance (Jul)
- Assessment packs assigned and issued to Technical Assessors (Jul)
- Each application reviewed & scored by 3 Technical Assessors (Jul)
- Assessment of long-list applications at panel meeting involving clinical leads (Aug)
- Production of rank ordered list for interview (Aug)
- Interview panels to select final winners (Sep)
- Draft and issue contracts (Sep/Oct)
- Feedback to unsuccessful applicants (Oct)
- Publish contracts awarded (Oct)

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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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Contact Us

Karen Livingstone
SBRI National Director
karen.livingstone@eahsn.org
01223 257271

Nick Offer
SBRI Project Manager
sbrienquiries@hee.co.uk
01223 597813

www.sbrihealthcare.co.uk
@sbrihealthcare

- ANNE BLACKWOOD

Improving outcomes for patients with musculoskeletal disease

Presented by Krysia Dziedzic

Arthritis Research UK Professor of Musculoskeletal Therapies

Institute Primary Care Sciences, Keele University

west midlands ACADEMIC HEALTH SCIENCE NETWORK

The Royal Orthopaedic Hospital NHS Foundation Trust

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Background

- Musculoskeletal (MSK) conditions are the number one cause of chronic disability worldwide
- Globally, the number of people suffering from musculoskeletal conditions has increased by 25% over the past decade
- The current NHS budget for musculoskeletal disease is £10 billion, the third largest after mental health and cardiac disease
- Each year 20% of the general UK population consult a GP with a musculoskeletal problem
- The most commonly reported musculoskeletal conditions include:
  - Osteoarthritis
  - Inflammatory arthritis (for example rheumatoid arthritis)
  - Back pain
  - Musculoskeletal injuries (such as occupational and sports injuries and road traffic accidents)
  - Crystal arthritis (such as gout)
  - Osteoporosis and fragility fractures

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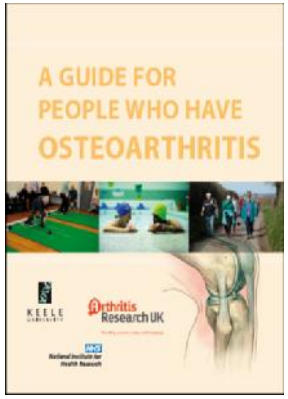
Background to Challenge 1

- Musculoskeletal conditions have been the primary cause of absenteeism for the past five years, and the UK has one of the highest rates in Europe
- "Sitting is the new smoking" Professor Steve Bevan, Director of the Centre for Workforce Effectiveness at the Work Foundation
- National Institute of Health and Care Excellence Guidelines e.g. Osteoarthritis
  - Education and access to written information
  - Physical activity and exercise
  - If overweight, advice on weight loss

NICE National Institute for Health and Care Excellence



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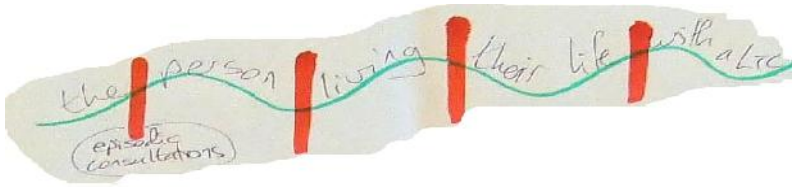
Challenge 1

Care models with a greater emphasis on the innovative use of digital technology to support self-management, early detection and intervention.



This could include but is not limited to:

- The provision of a virtual community to provide condition related support
- The ability to conduct self-assessment and stratification to personalised self-management programmes or referral
- The use of smart technology to enable home based rehabilitation
- Tools for self-management
- Tools to support consultations with health care professionals
- Tools to enhance the uptake of NICE recommendations in clinical practice

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Background to Challenge 2

Complications following orthopaedic surgery are costly to the patient and the NHS.

Infection alone in total hip and knee replacements can cost £70,000 per patient to treat yet varies in incidence between NHS providers.

If the lowest infection rates could be achieved throughout the NHS, current annual savings would be £200–£300 million

This would allow an extra 40,000–60,000 joint replacements to be undertaken annually at no extra cost and no requirement for potential rationing by commissioners

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Challenge 2

Development of technical advances to support the

- reduction in the incidence of post-operative infection
- improvement in post-operative pain relief

To reduce complications, enhance recovery and early discharge

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Background to Challenge 3

Each year in the UK over 300,000 people are seen in hospital because of fragility fractures, with the most common sites for these fractures being the spinal vertebrae, hip and wrist.

Care of fragility fractures is expensive.

Direct medical costs to the UK healthcare economy has been estimated at £1.8 billion in 2000, with the potential to increase to £2.2 billion by 2025 and with most of these costs relating to hip fracture care.

Challenge 3

Fall prevention and protection for patients with trauma and fragility fractures to be able to identify those at risk and to then mitigate the risk using innovative technologies

Contact Us

Lucy Chatwin
Head of Programmes
West Midlands AHSN
Lucy.chatwin@wmahsn.org
0121 452 5636

Mr Edward Davis
Consultant Orthopaedic Surgeon
Royal Orthopaedic Hospital

Professor Krysia Dziedzic
Arthritis Research UK Professor of Musculoskeletal Therapies
Institute of Primary Care Sciences, Keele University

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Integrated Care Competition Theme

Identifying Individuals at Risk of Becoming Complex Patients

Dr Alex Mayor
Medical Director
South West Academic Health Science Network

The Integrated Care SBRI Challenge:

South West Academic Health Science Network

Identify and understand population cohort(s) at risk of becoming complex patients, determined by physical, mental and social health.

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Why?

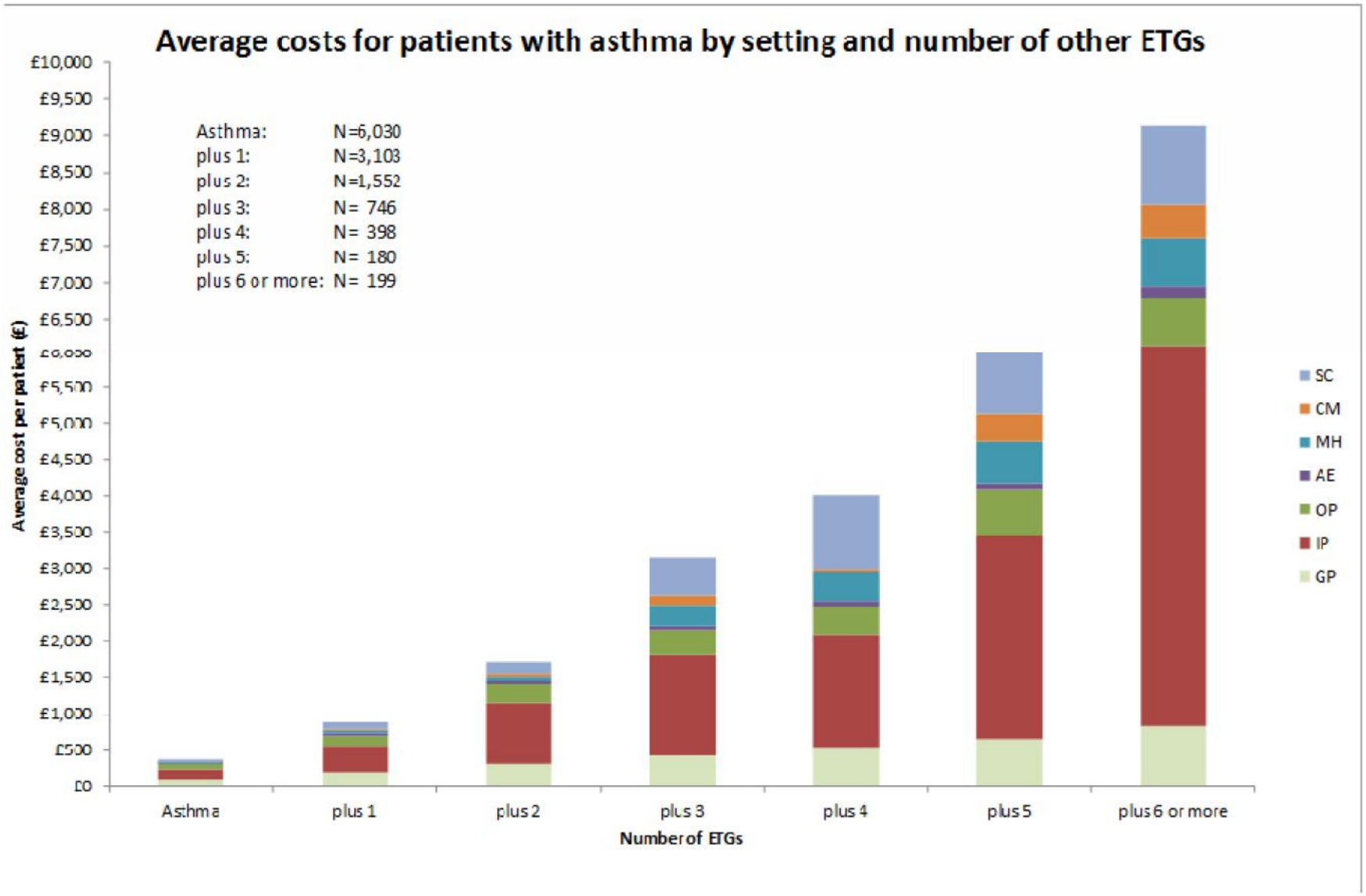
To enable the development of person-centred, integrated models of care focused on preventing avoidable escalation of complexity and care need.

The Integrated Care Challenge:
The Patient Experience

South West
Academic Health Science Network

The Integrated Care Challenge:
What we know- identifying complex patients

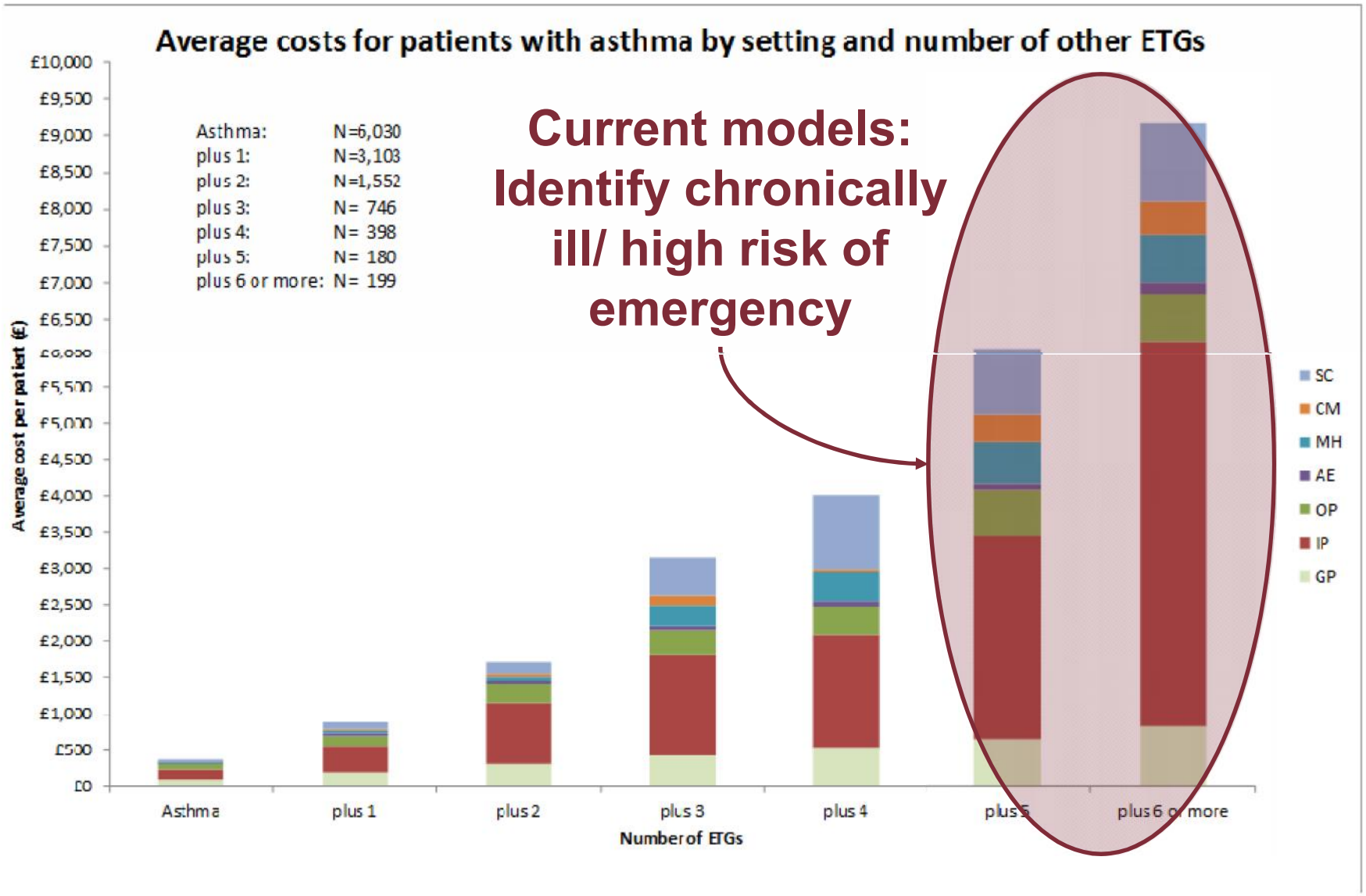
South West
Academic Health Science Network



The Integrated Care Challenge:

What we know- identifying complex patients

South West
Academic Health Science Network



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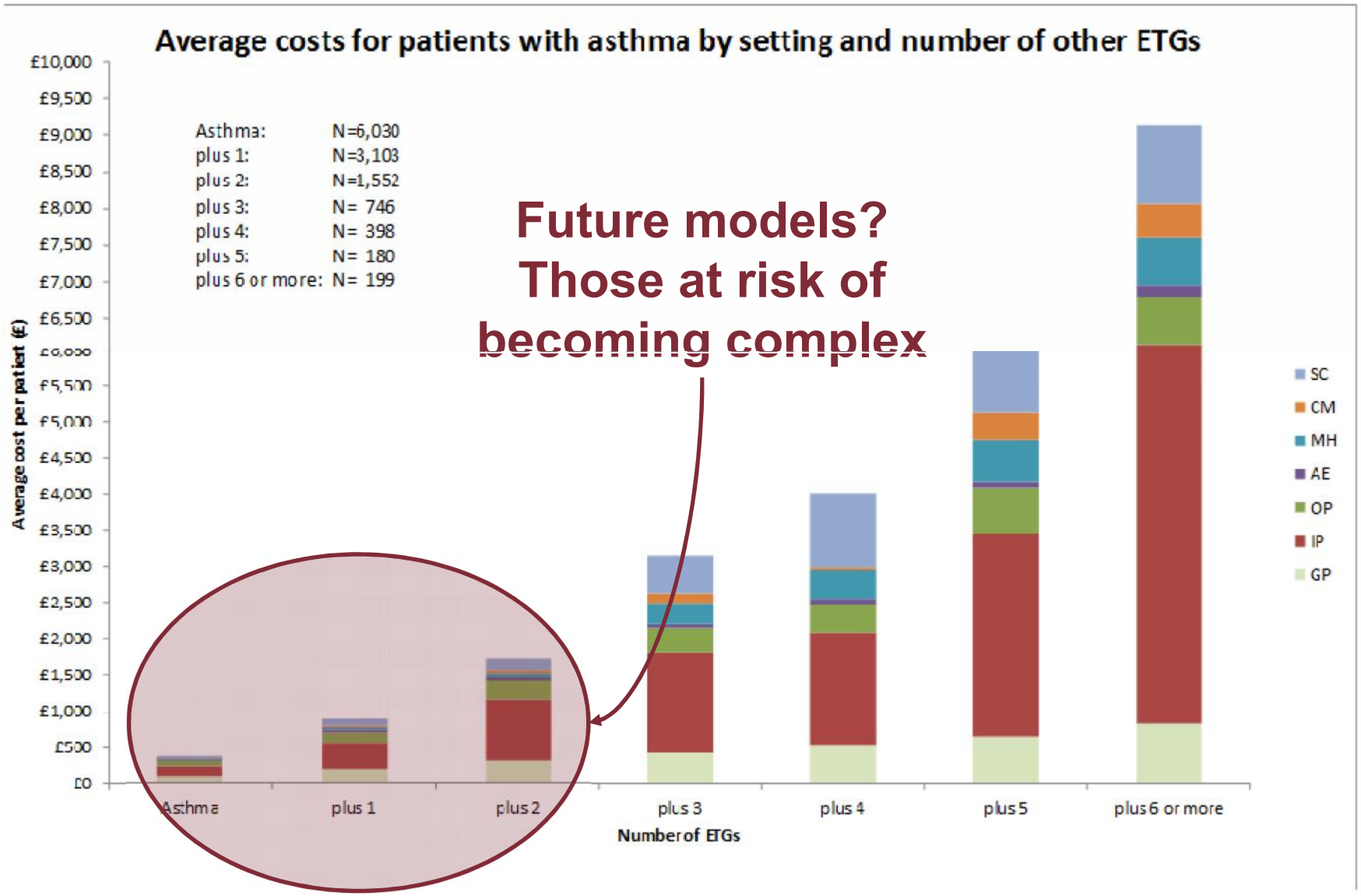

The Integrated Care Challenge:
What we <u>don't</u> know- identifying increasing complexity

South West
Academic Health Science Network

A modern risk stratification model?

Age?

Multiple co-morbidities?

Multiple medications?

Social isolation?

The Integrated Care Challenge:
Identifying Individuals at Risk of Becoming Complex Patients

South West
Academic Health Science Network

Identify and understand population cohort(s) at risk of becoming complex patients, determined by physical, mental and social health.

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Potential responses need to consider:

- How to draw together multiple risk markers.
- How to use this information to identify increasing risk.

The Integrated Care Challenge:
Building partnerships for SBRI

South West
Academic Health Science Network

The SW AHSN may be able to assist applicants in developing partnerships with NHS organisations for prospective SBRI bids- contact:

Dr Alex Mayor (alex.mayor@swahsn.com)

Jon Siddall (jon.Siddall@swahsn.com)

Improving Medicines Adherence

SBRI Briefing Seminar

Birmingham

Tuesday *3rd June 2014*

SBRI
Improving medicines adherence

- 1/2-1/3 of prescribed medicines are not used as recommended by practitioner
- Non adherence –lost opportunity/waste of resource
- Various factors affect adherence

SBRI
Improving medicines adherence

- Intentional: patient decides not to follow the regime (e.g due to side effects)

- Unintentional: Patient wants to follow the recommendations but doesn't (e.g due to poor recall; difficulty understanding the instructions; paying for the treatment)

Challenges

1. Getting the right information to the right people at the right time
2. Overcoming physical, cultural, language and mental barriers
3. Minimising wastage
4. Risk stratification in medicines adherence
5. Eliminating risks at systems interface

Scope

All areas of the health economy

- primary
- secondary
- community care

with the aim of providing more patient focused self management tools.

Key policy document

- Concordance, adherence and compliance in Medicines taking: Report for the National Coordinating Centre for NHS Service Delivery and Organisation R&D (Dec 2005)
- NICE clinical guidelines 76,Adherence:Involving patients in decisions about prescribed medicines and supporting adherence 2009
- NICE Guide to resources Medicines Adherence: Implementing NICE Guidance 2009
- Department of Health: Improving the use of medicines for better outcomes and reduced waste :An Action Plane 2011
- NHS England: Making medicines –taking a better experience

http://www.england.nhs.uk/wp-content/uploads/2014/04/mo-ws-report-02-14.pdf