NHS Cancer Programme Innovation Open Call 3

Briefing Webinar





Accelerated Access Collaborative

Agenda



15:00	Introductions and Opening Remarks	Professor Richard Gilbertson,
15:05	NHS Cancer Programme & Priorities	Professor Peter Johnson
15:20	NHS Cancer Programme: the work of the	Dr Gillian Rosenberg
	Innovation team & Innovation Open Call 3	Dr Caterina Lombardo
15:35	Q&A session	All
16:00	Cancer Alliance and Health Innovation Network support	Mrs Anna Wykes
16:15	Recent awardee's experience - Cyted Ltd	Ms Charlene Tang
16:20	Awardee's success story - The Royal Marsden & ICR	Dr Angela George
16:25	Q&A session	All
16:45	End of webinar	Professor Richard Gilbertson





Housekeeping



- Thank you all for taking the time to join
- Feel free to ask questions in the <u>Q&A box</u> as we go along, and we will answer them in the dedicated Q&A sessions
- Please flag any technical issues in the chat
- The slides and the recording will be uploaded on the competition website after the webinar
- For further enquiries: sbri@lgcgroup.com



Creating world class cancer services through faster, earlier diagnosis and personalised care and treatment

6 February 2023

Presented by: Professor Peter Johnson



The NHS Cancer Programme's priorities of achieving faster and earlier diagnosis and completing recovery from the pandemic go hand in hand

The priorities for the Programme are:

- Improving cancer services to diagnose cancer faster, improve the service patients receive and complete recovery from the pandemic
- Diagnosing cancer earlier delivering on the Long Term Plan ambition to diagnose 75% of cancers at Stage 1 and 2 by 2028
- Improving the experience of cancer patients both during treatment and beyond



Accelerating our earlier diagnosis strategy

Historically, the proportion of patients diagnosed at early stage has remained static, at around 54-55%. Our ambition is to increase that to 75% by 2028



To get to 75%, we are going to need to make progress across all cancers, including rarer and less common cancers

We are implementing the most ambitious and wide-ranging early diagnosis strategy anywhere in the world to deliver on our ambition



Historically, there has been a 8-9% point gap in early diagnosis between the most and least deprived areas. We are ensuring a focus on disadvantage within each strand of our early diagnosis strategy.

Timely Presentation

Record investment in public advertising campaigns is contributing to a record level of referrals

Working day adjusted comparison of usual levels of Suspected Cancer referrals seen vs last year and pre-pandemic



- Urgent referrals for suspected cancer have been at around 120% of pre-pandemic levels for the past year
- This year we are continuing to invest in our Help Us Help You campaigns, including:
 - Further phases of our "overcoming barriers" campaign and body awareness activity
 - Symptoms-based campaigns focusing on a persistent cough and on digestive symptoms
 - Increased partnership activity including with supermarkets using packaging and product labels



Primary Care

We are empowering primary care teams and creating new ways into the system through community pharmacy



Empowering GP surgeries

- Increasing access to digital diagnostic support tools for GPs
- Giving GPs direct access to CT, MRI and ultrasound diagnostics
- Further incentivising use of FIT and expanding use of tele-dermatology



A greater role for community pharmacies

- Nearly 50,000 patient-facing staff across 10,000
 pharmacies have completed *Let's Communicate Cancer* training on spotting symptoms
- Pilot underway enabling pharmacists to refer people directly onto urgent suspected cancer pathways

Targeted Interventions

Targeted Lung Health Checks are transforming the early diagnosis of lung cancer, especially for the most disadvantaged

- More than one million people (1,052,083) have been invited for a lung cancer check, as part of the biggest programme to improve early lung cancer diagnosis in health service history.
- Live in 43 places and issuing 50,000 invitations a month up from 1,500 pre-pandemic.
- Over 2,400 cancers already diagnosed 76% at stage 1 or 2 (vs circa 30% historically).
- Most disadvantaged now the most likely group to have lung cancer diagnosed early.



Stage of lung cancer diagnosed



We are implementing targeted interventions for other cancer types too

Europac

We are working with Pancreatic Cancer UK and the European Registry of Familial Pancreatic Cancer and Hereditary Pancreatitis (EUROPAC) to improve access to surveillance for those with inherited high risk of pancreatic cancer (approx. 1 in 10 pancreatic cancers) to prevent up to 900 cancers a year

Liver Surveillance Pilot

We are working with the Hep C Elimination team to offer on-the-spot liver fibroscans in the community to those at increased risk of liver cancer. We'll deliver 30,000 scans in year 2. We've delivered over 23,000 scans already, 11% have been found to be at increased risk of liver cancer, 1,943 of whom have been enrolled in 6 monthly surveillance programmes.

Genetic testing for BRCA and Lynch Syndrome

We're working with Jnetics, Chai Cancer Care and other partners to deliver a programme offering BRCA genetic testing for members of the Jewish community, and we've more than doubled Lynch Syndrome testing for those diagnosed with bowel or endometrial cancer.

The NHS-Galleri Trial has entered its third and final year

The Galleri® test is a new test that looks at DNA in the blood to find signals that could indicate over 50 types of cancer.

The NHS-Galleri Trial has 140,000 participants – it is looking to see if it can help the NHS to detect cancer early in asymptomatic people.

If early trial results are promising, the NHS will use up to 1 million tests in England from 2024 to 2026 to assess the test as a screening tool at scale.



Blood sample

collected



'Cancer Signal Detected' by the test

Test predicts where in the body the cancer signal is

likely to be coming from

Innovation

The NHS Cancer Programme Innovation Open Call has awarded £24.5m in funding to pilot or scale-up proven innovations

- £24.5 awarded to 14 projects across two rounds of the competition in 2022 and 2023
- Innovations include:
 - PinPoint a new blood test that uses AI to diagnose or rule out cancers including head and neck and gynaecological
 - Endoscope-i a smartphone adapter that can turn a normal iPhone into diagnostic equipment for head and neck cancers
 - **Modality LLP –** a novel biomarker approach to transform ovarian cancer diagnostic pathways
 - Implementation of **Elecsys® GAAD** clinical algorithm for early detection of Hepatocellular Carcinoma (HCC)





We need the projects from our Innovation Open Call to keep feeding our Early Diagnosis Pipeline so that we can get all the way to 75% of patients diagnosed at stage 1 & 2 by 2028



These programmes are making a difference. We are now diagnosing a higherthan-ever proportion of patients at stage 1 or 2.



The most recent 12-month average (Rapid Registration Data) puts the early-stage proportion at 2.1% points higher than the pre-pandemic level: 58.1% (Jun-22 to May-23) compared to 56.1% (Apr-19 to Mar-20)

There were over 100,000 patients diagnosed with early-stage disease in 2022, the highest on record

All-cancer Early Diagnosis Rate, Rapid Registration Data Monthly - January 2018 to May 2023 59% 57% 55% 53% 51% 49% 47% 45% Jan Feb Mar Jun Jul Sep Oct Nov Dec Apr Mav Aug -2023 _____2018 <u> 2019 2020 2021</u> **—**2022

In each month during 2023, the earlystage proportion was above that for each corresponding month over the previous five years.

Rapid registration data is liable to revisions, and so more recent data is less accurate. Our analysis has shown that most recent data is generally an underestimate compared to later revisions.

Rapid registration data reports from January 2018 onwards. Note: each year represents calendar months January to December.

Early diagnosis is increasing across all deprivation quintiles, with the gaps remaining fairly constant



The most recent 12-month average (Jun-22 to May-23) puts early-stage 2ppt higher in the least deprived quintile compared to pre-pandemic (61.7% vs 59.7%) and 2.1ppt higher in the most deprived quintile compared to pre-pandemic (53.7% vs 51.6%), with higher than pre-pandemic levels across all quintiles.

The 12-month gap in the early-stage proportion between the most and least deprived quintiles had remained around 8.5%-9.0% points since 2018, although did fall to around 8.0% points during the pandemic alongside the overall dip in early stage. However, this 12-month gap has fallen slightly to 8.2%-8.4% points in the most recent few months.



Thank You



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england.nhs.uk



england.cancerpolicy@nhs.net



Innovation **Open Call Round 3**

Dr Gillian Rosenberg Dr Caterina Lombardo



The NHS Cancer Programme Innovation Team Aims



NHS Cancer Programme Role



Innovation Open Call



The competition first launched in March 2021 and aims to fast-track high quality & developed innovations into front-line settings as well as addressing implementation evidence gaps.



Cancer Alliance and Health Innovation Networks



15 Health Innovation Networks

21 Cancer Alliances



Open call 3 – The Challenge

Early Detection and Diagnosis of Cancer

Innovations or new approaches that will increase the proportion of cancers that are diagnosed at an early stage.







Open call – Call scope

What this is for

Innovation type

Medical devices, IVDs, digital health solutions, behavioural interventions, software, Al or new models of care

Stage of development

Mature innovations, with strong evidence base (proven safety and efficacy), regulatory approvals and/or in use at least in 1 Trust in standard routine care (non-research)

Organisations

Any size organisation from the private, public and third sector based in UK/EU. Clinical sites can only be based in England. Organisations outside the UK/EU can apply as subcontractors

Project type

Must involve implementing and evaluating the feasibility of a solution in the NHS in England, developing evidence for NHS adoption

Time and budget

HEALTHCARE

Project duration max 24 months, any budget up to £4M (NET)



Innovation type

Treatments, workforce training, wellness/wellbeing apps, products not compliant with GDPR or exacerbating health inequalities

Stage of development

Innovations at early stage of development



Organisations

Clinical sites based outside England





Project type

Basic research, early-stage product development, efficacy/effectiveness clinical trials, procurement exercises, efficiency projects, projects only focused on influencing NICE guidelines

Time and budget Marketing costs







Open call – Process and Assessment



Open call – What projects we expect

Entry point

- Regulatory approvals in place, and/or
- in use in at least 1 Trust in standard routine care
- Solid background evidence (efficacy, sensitivity, specificity, safety)



- Real world implementation studies
- Minor technology adaptation
- Staff training to administer innovation
- Patient and public involvment and dissemination
- Health inequalities assessment
- Carbon Reduction Plan development
- Health economic assessment
- Independent evaluation of outcomes



- Investment-ready (e.g. follow on funding)
- Procurement-ready (e.g. business case ready, on procurement frameworks)
- NICE appraisal
- Evidence for national commissioning initiatives
- Registration to Innovation Service





Open call – Things to note



(َ £ُ) What we fund

- 100 % SME costs
- Labour costs
- Material cost (incl. consumables)
- Capital Equipment Costs
- Sub-contract costs
- Travel and subsistence
- Other costs specifically attributed to the project
- Indirect costs
- Applications assessed on Fair Market Value



- UK implementation of EU Pre-Commercial Procurement
- IP rests with supplier with certain usage rights with Public Sector
- Single applicant (partners are sub-contractors)
- Milestone driven payments (quarterly upfront)
- Contract terms are nonnegotiable

Monitoring and support

- Written reports and regular meetings (monthly touch points)
- Dedicated monitoring officers per project
- 1:1 sessions and workshops with evaluation and health inequality specialists at NHSE
- NICE META Tool
- Exposure to relevant webinars
- Various events in the presence of KOLs and relevant stakeholders





Open call – Provisional Dates



Call Launch

Application deadline

Assessment

May/June

8 April 2024

Peer reviews (*if shortlisted*)

Selection Panel

Contract award

July/September

2-3 October 2024

29 May 2024, 1pm

October/November 2024

Accelerated Access Collaborative



Pre-application support





Virtual matchmaking event with Cancer Alliances and Health Innovation Networks – 12 March, 2 pm

Opportunity for innovators to identify potential partners

Application Workshop-4 April, 10 am

To hear tips on how to draft your evaluation plan, consider health inequalities and put together a strong application



Q&A session - 18 April, 11 am (after competition opens)

Opportunity for potential applicants to ask questions about the competition



NHS Cancer Programme Innovation Open Call 3

Q&A session





Accelerated Access Collaborative



The role of health innovation networks and Cancer Alliances in the open call

Anna Wykes Health Innovation Wessex & Wessex Cancer Alliance 6 February 2024







- 1. Explain the role of health innovation networks
- 2. Explain the role of Cancer Alliances
- 3. Highlight the role both health innovation network and Cancer Alliance teams can have in the Cancer Open Call
- 4. Identify how you can contact your local health innovation network and Cancer Alliance team





Health innovation networks

- Health innovation networks were established by NHS England in 2013 to spread innovation at pace and scale – improving health and generating economic growth.
- There are 15 health innovation networks in England.
- Each one works across a distinct geography and aligns programmes of work to priorities of local Integrated Care Boards (ICBs).







We support innovators from commercial, clinical, academic or other backgrounds to accelerate the development of their solution to reach patients faster and meet the needs of our NHS.



Our support can be along the whole length of the innovation journey from ideation to implementation and last year, we supported around 3 new innovators per week.





Cancer Alliances

- Cancer Alliances have a fundamental role in providing clinical leadership and expertise in local cancer pathways
- They work with clinical and managerial leaders across their locality to build on and transform the diagnosis and care of cancer across their local area.

- 1. Northern Cancer Alliance
- 2. Lancashire and South Cumbria Cancer Alliance
- 3. West Yorkshire and Harrogate Cancer Alliance
- 4. Humber, Coast and Vale Cancer Alliance
- 5. Cheshire and Merseyside Cancer Alliance

6. Greater Manchester Cancer Alliance

- 7. South Yorkshire and Bassetlaw Cancer Alliance
- 8. West Midlands Cancer Alliance
- 9. East Midlands Cancer alliance
- 10. East of England North Cancer Alliance
- 11. East of England South Cancer Alliance
- 12. North Central London Cancer Alliance
- 13. North East London Cancer Alliance
- 14. RM Partners
- 15. South East London Cancer Alliance
- 16. Kent and Medway Cancer Alliance
- 17. Surrey and Sussex Cancer Alliance
- 18. Wessex Cancer Alliance
- 19. Thames Valley Cancer Alliance
- 20. Somerset, Wiltshire, Avon and Gloucestershire Cancer Alliance
- 21. Peninsula Cancer Alliance







Wessex Cancer Alliance





Wessex Cancer Innovation Programme

WCA

Launched in December 2020, this programme has,







Both can and should be written into the application!

Health Innovation Wessex:

- Application writing extensive experience in developing and supporting successful bids
- Developing project plans including commercialisation plans for adoption and spread
- Provide bespoke, independent evaluations dedicated evaluation team.

Wessex Cancer Alliance:

- Use clinical leadership and knowledge of local cancer services and pathways that will benefit project planning
- Access to local knowledge/insight & data
- Access to patient voices and experiences
- Developing project plans experience in delivering cancer specific projects
- Understand how to plan and deliver projects within cancer pathways
- Facilitate links to relevant patient, cancer and commissioning partners.





Health Innovation Wessex:

- Provide mock application interviews prepare for second phase of competition
- Support project set up and delivery through providing dedicated project manager staff
- Deliver a bespoke real-world evaluation that can support adoption and spread of the innovation.
- Support with transition from pilot to BAU.

Wessex Cancer Alliance:

- Support project set up and delivery through dedicated project manager staff.
- Support and facilitate engagement with commissioners as part of plans for sustaining and spreading the innovation.
- Support access to data for evaluation.
- Support access to patient voices and experiences.





Real life example: CYTOPRIME2

1 of 3 Cancer Alliances



- Facilitating local conversations as part of application
- 2. Identify local data and costs to support application
- 3. Supporting writing of application
- 4. Provision of mock interview and feedback



- . Project management time
- 2. Identifying local teams/members to involve
- 3. Supporting local teams to set up and deliver clinics
- 4. Supporting alignment with local pathways and processes
- 5. Supporting patient/public engagement
- 6. Sustainability planning











Connecting with your local teams



Health Innovation Network



If you're thinking of bidding, please get in touch with us.

We would welcome early-stage discussions with any company looking to develop a project and application.

For examples of Health Innovation Wessex evaluation work, please visit the webpage here: <u>https://healthinnovationwessex.org.uk/innovation-insight-library</u>

Contact: Anna Wykes - <u>Anna.Wykes@hiwessex.net</u>







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https://wessexcanceralliance.nhs.uk/

Part of the Health Innovation Network NHS Cancer Programme - Innovation Open Call #3 6th Feb 2024



Improving patient outcomes With the earlier detection of oesophageal cancer

Charlene Tang, Head of Growth charlene.tang@cyted.ai

Supported by...







NHS







We need tools to detect oesophageal cancer earlier

A public health concern exacerbated by COVID



Proportion of Early Diagnoses by Incidence (2020)

Proportion of cases staged 1 - 2 out of cases staged 1 - 4

The capsule sponge test



Number of cases staged 1

Our experience with the Innovation Open Call

Support

2020: Horizon Scanning2021 – Mar24: National pilot withNHS England & Scotland

2022: CYTOPRIME1 2023 – Jul24: CYTOPRIME2 for GP based clinics







Impact

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Accelerated real world implementation and national adoption Tested over 18,000 people in over 75 clinics across the UK

Update from Jan 2024:

- NHS England and British Society of Gastroenterology shared results of national pilot
 - Agreed to establish updated care pathway
- NHS Scotland approved & announced national adoption for Barrett's surveillance

CYTOPRIME1: GP-based clinics for Barrett's surveillance to recover backlogs

- Across 4 GP practices, 1 Community Diagnostic Centre
- Trained 11 practice nurses, physiologists and paramedics
- Tested 150 patients in 5 months, saved 107 endoscopies
- Found 1 cancer, sent 15 patients for urgent endoscopy
- Reduced the number of patients waiting over 6 weeks from referral to procedure by 31% (42% to 11%)
- Positive return-on-investment within 12 months
- Projected £3.9 million released when implemented at an ICS level over 5 years

Project CYTOPRIME1 (2022) Unpublished, data on file





charlene.tang@cyted.ai

CYTOPRIME2: GP-based clinics for proactive case finding for stage-shift

Evaluate whether sustainable at a system level:

- Balance demand created by case finding with capsule sponge for Barrett's surveillance
- Investing in pathway transformation, service design, patient engagement & public awareness

Real-world impact so far

- 19 of 15 community-based clinics established
 - 29 practitioners trained
- 750 of 2000 people at risk tested so far
- 18 urgent and 52 routine endoscopy referrals
 - 1 cancer, 21 Barrett's diagnoses
 - Plus other cases: 13 hernias, 8 gastritis or oesophagitis, 2 polyps



Advice on reflection...

Application

- Give yourself as much time as possible
- 4 weeks is just about doable, depending
- · Ideally be in ongoing discussion with partners
- Focus on their needs & priorities = value add
- Get quotes from several providers for evaluation
- Approach questions methodologically
- Involve others in your team
- Retrospective!



Bridget & Nicola, nurse practitioners at Lancaster Medical Practice, with expert trainer Stella from Barking, Havering & Redbridge FT

Advice on reflection...



Project delivery

- Support from the regional team on the group is critical for implementation (Cancer Alliance / ICB)
- A dedicated project manager for each partner provides leadership & point of contact
- Engagement with local staff is key for progress
- Clinical buy in & leadership is essential
- DPIA sign off and data sharing always takes longer than you would first expect
- Schedule meetings at least 6 weeks in advance
- Invest in understanding the patient journey
- PPIE should not be an afterthought

Wendy, patient, with Bridget, practitioner, at Lancaster Medical Practice



Together, we can make a difference in the earlier detection of oesophageal cancer



At University College London Hospitals

At the HCUK mobile diagnostic unit

At Barking, Havering & Redbridge University NHS Trust NHS Cancer Programme - Innovation Open Call #3 6th Feb 2024



Improving patient outcomes With the earlier detection of oesophageal cancer

Charlene Tang, Head of Growth charlene.tang@cyted.ai

Supported by...







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SIGNIFIED

Whole-body Magnetic Resonance Imaging screening in Li Fraumeni syndrome (LFS) for early cancer diagnosis

- Dr Angela George, Clinical Director of Genomics and Consultant Medical Oncologist in Gynaecology – chief investigator
- Dr Elena Cojocaru, Clinical research fellow

Li Fraumeni syndrome (LFS)

- Autosomal dominant condition predisposes individuals to a range of different cancers
- Typical LFS malignancies:
 - Cancers of the connective tissues (bone and soft tissue sarcoma)
 - Breast cancer
 - Brain tumors
 - Adrenocortical carcinoma
 - Leukaemia

- Typically, age of onset 20 30 years younger than the median
- Multiple primary malignancies
- Lifetime female cancer risk close to 100% (breast cancer)
- Lifetime male cancer risk 75% by age 60 and 90% if smoking
- Current NHS screening for Li Fraumeni patients: breast screening for women

Whole-body MRI



- Currently used in
 - Children with Li Fraumeni (GOSH)
 - Detecting bone metastases from prostate cancer or multiple myeloma

- Head to toe examination
- Non-contrast
- Diffusion weighted and conventional MRI images
- Slice thickness 8mm
- 1.5 Tesla MRI machine



SIGNIFIED - Study design



Partner Academic Studies e.g. Biomarker studies (opportunity outwith proposal)

Recruitment and results

- 55 participants recruited between June 2022 - June 2023
- Males 14/Females 41
- Median age at recruitment : 42 years old
- 55 had their 1st scan and 42 are expected to complete the 2nd scan



First round of whole-body MRI scans



Second round of whole-body MRI scans



Confirmed asymptomatic cancers following screening with whole-body MRI in Li Fraumeni patients



Next steps

- Finalise statistical analysis
- Health economics analysis
 - determine the cost-effectiveness of screening with WB-MRI and treating early cancers compared to management of symptomatic cancers, using historical controls and a decision analytic model
- Implementation of whole-body MRI as standard of care in the NHS for adults Li Fraumeni patients

• Dr Angela George

- Prof Ros Eeles
- Dr Richard Lee
- Dr Elena Cojocaru
- Dr Aslam Sohaib, radiologist
- Dr Sam Whitey, radiologist
- Prof Dow-Mu Koh, radiologist
- Dr Caroline Clarke, HE (UCL)
- Dr Jessica Wang, HE (UCL)
- Sofia Sardo, statistician
- Lydia Taylor, research nurse
- Dr Michelle Chen, RMP
- Mr. Shafa Ullah, ED&D

The ROYAL MARSDEN NHS Foundation Trust

CR The Institute of Cancer Research

RM Partners West London Cancer Alliance

Hosted by The Royal Marsden NHS Foundation Trust



Clinical research and operational team NHS Cancer Programme Innovation Open Call 3

Q&A session





Accelerated Access Collaborative NHS Cancer Programme Innovation Open Call 3

INNOVATION MATCHMAKING EVENT

> 12 March, 2pm Online







Accelerated Access Collaborative



Accelerated

Access Collaborative



Contacts

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More info

Other NHS Cancer Programme initiatives

https://www.england.nhs.uk/cancer/harnessinginnovation-in-cancer-care/ On this competition https://www.sbrihealthcare.co.uk

