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# DigitalHealth.London/collaborate Why tomorrow's patient needs a digital NHS

WEDNESDAY 22 FEBRUARY 2017





# Foreword



By Professor Keith McNeil  
NHS Chief Clinical Information Officer (CCIO)  
Health & Social Care

**DIGITAL INNOVATION IS RAPIDLY BECOMING A PILLAR OF MODERN HEALTHCARE**, disrupting how we think and transforming the way we provide clinical care. From the ability to communicate with patients and other service users away from traditional settings, or track patient progress via remote monitoring; to providing fast, accurate diagnosis for rare conditions using genomic software, these technologies are not only helping to maximise efficiency within our NHS, supporting both staff and system, but are empowering people to manage their own health, leading to better patient outcomes.

It is this empowerment which provides one of the most compelling cases for why tomorrow's patient needs a digital NHS today. By supporting and enabling populations to take control of their health, wellbeing and care today, we can address the demand pressures facing the NHS and more effectively manage resources to enhance the sustainability of our health and care systems.

This change cannot happen in isolation. Transformation requires an equipped workforce, teamwork, collaboration and partnership across the health ecosystem, driven from the grassroots up, and combining the experience and expertise of NHS with industry and service users.

DigitalHealth.London is supporting this vision – expertly partnering digital innovations with health and care needs – realising, as a result, improved health outcomes and enhanced system effectiveness.

I invite you, our NHS colleagues, to share this vision; and to open your hearts and minds to the art of the possible as we look to transform health outcomes and ensure a sustainable future for the NHS on behalf of tomorrow's patient and the generations to come.



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# Introducing DigitalHealth.London

Set up in response to a recommendation from the London Health Commission, DigitalHealth.London launched in February 2016 with a key vision: to accelerate the adoption of digital innovation across health and care to improve patient and population outcomes and experience, and support a sustainable future NHS.

DigitalHealth.London is a collaboration between the three London Academic Health Science Networks (AHSNs) – Imperial College Health Partners, UCLPartners, and the Health Innovation Network – MedCity and NHS England, with strong support from the three London Academic Health Science Centres (AHSCs) and the Mayor of London. Expertly partnering digital innovations with health and care needs, we are helping to realise system-wide efficiencies and improved health outcomes through:

- 1. Problem articulation**  
Seeking and defining the challenges affecting health and care, through established relationships with commissioners and providers.
- 2. Market insight**  
Supporting health and care providers to present their challenges to ensure suppliers can respond to real problems, with the right solutions. Providing insight into the market.

- 3. Capability building**  
Mentoring NHS clinicians and professionals, raising awareness of digital technologies, their capabilities in transforming healthcare, and approaches to solving innovation problems. Mentoring innovators and suppliers, increasing their knowledge of the NHS whilst moving their innovations closer to NHS readiness.
- 4. Matchmaking**  
Scouting innovations and facilitating connections to drive pilots, procurements and commissions.

## Get in touch...

-  [digitalhealth.london](http://digitalhealth.london)
-  [info@digitalhealth.london](mailto:info@digitalhealth.london)
-  [@DHealthLDN](https://twitter.com/DHealthLDN)
-  [digitalhealth.london](https://www.linkedin.com/company/digitalhealth.london)

“From an NHS England perspective our goals are aligned – the world is going digital and healthcare should be no different. Together we can hopefully do great things!”

**MIKE PART**  
Chief Information & Technology Officer  
(NHS England London Region)

“Great interaction, great service!”

DIGITAL HEALTH START-UP

“With a strategic focus on transforming diabetes care, we were keen to begin piloting diabetes self-care apps. DigitalHealth.London, through its Accelerator programme, was able to help”

**DR TONY WILLIS**  
Clinical Lead for Diabetes  
NHS North West London  
Collaboration of CCGs

## ACHIEVEMENTS IN YEAR ONE



**1,500+ people** receiving our monthly newsletter, offering fresh content, news and opportunities



**Supported 31 start-ups and SMEs** to scale digital health innovations via the DigitalHealth.London Accelerator



Connections with **80+ NHS organisations** pan London through our AHSN partners



**£3.5M funding** secured



Created **50+ opportunities** for London's NHS to engage with industry



**6M reach** via online communities



**Identified 40+ Digital Pioneers** leading transformation in London's NHS organisations



**Online library of 145+ resources** for digital health innovators and entrepreneurs



**2,000+ interactions** via the #TomorrowsPatient campaign



**30+ presentations** and speaker slots delivered at events

# DIGITALHEALTH.LONDON ACCELERATOR

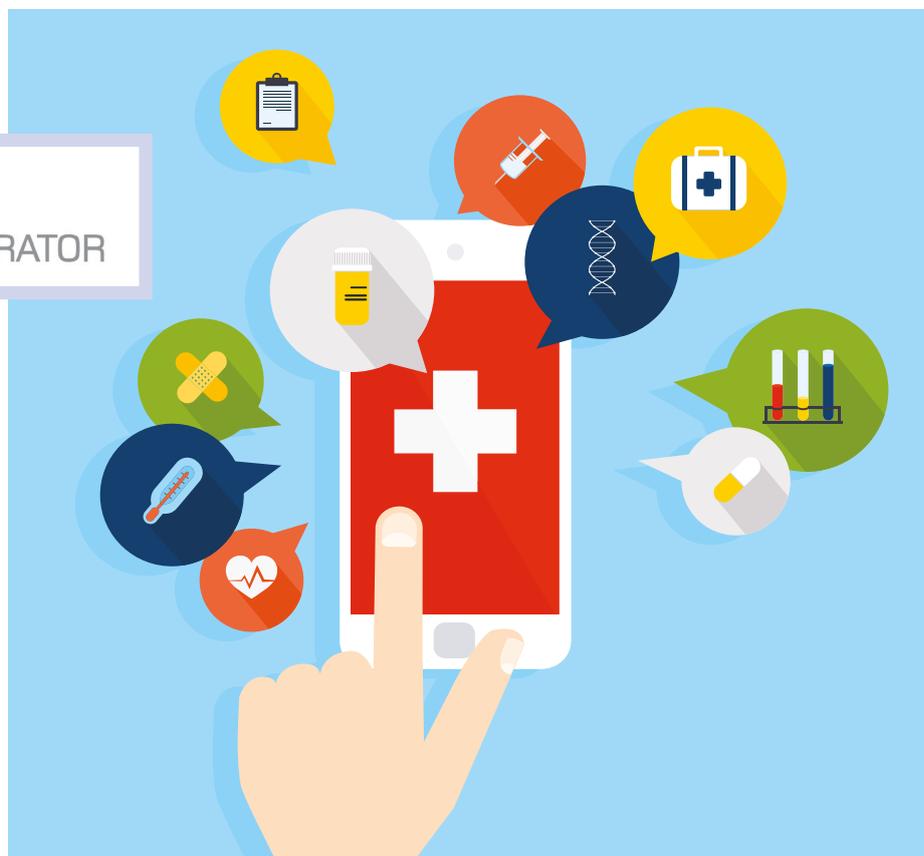


Supported by: European Union,  
European Regional Development Fund

Launched in September 2016, the DigitalHealth.London Accelerator programme is uniquely positioned to provide in-depth knowledge of the NHS, and support high potential digital health start-ups and SMEs to refine their products and scale their innovations across health and care organisations in London.

The Accelerator aims to speed up the adoption of innovation at scale and focuses on engagement with clinicians and healthcare experts. The programme will benefit patients and organisations in London, by providing faster access to technology, and working collaboratively to get to the root of healthcare problems to find solutions together.

The Accelerator is run by a consortium of founding partners comprising of London's three AHSNs, CW+, MedCity and benefits from strategic support delivered by Guy's and St Thomas' Charity, NHS England, the Greater London Authority, the Digital Catapult and Silicon Valley Bank. The programme is part-funded by the European Regional Development Fund (ERDF) as part of the European Structural and Investment Funds Growth Programme 2014-2020.



Running over three consecutive years, the Accelerator programme aims to work with around 80 SMEs (20-30 each year), supporting each business's specific needs and focusing on:

- Engagement with clinicians and healthcare experts
- Refining products to meet needs
- Deepening understanding of the health system
- Showcasing innovations in health facilities
- Developing business models to progress product development
- Access to the market

Each SME is assigned a Digital Health (NHS) Navigator, an experienced professional from the NHS with the expertise to understand their needs and gain first-hand advice on products in development and business models.

We are actively looking for new partnerships and would like to connect with NHS leaders and patient representatives in every health and care organisation in London. NHS organisations we have partnered with tell us they have benefitted from opportunities to meet our cohort through speed dating or showcasing, bespoke match-making of problems to solutions, talks and quick-fire pitches from innovative start-ups.

## To find out more...

Get in touch with us for a chat to see how we can support you and your organisation.

- ✉ [dhla@digitalhealth.london](mailto:dhla@digitalhealth.london)
- 🌐 [digitalhealth.london/accelerator](http://digitalhealth.london/accelerator)
- 🐦 [@DHealthLDN](https://twitter.com/DHealthLDN)
- # [#DHLAccelerator](https://twitter.com/DHealthLDN)

# DigitalHealth.London: a pan-London partnership

*Meet our founding partners.*



**The Health Innovation Network** acts as a catalyst of change – identifying, adopting and spreading innovation across the health and care system in south London, based on a culture of partnership and collaboration with our healthcare, research and industry partners. We are the Academic Health Science Network (AHSN) for south London. Speeding up the best in health and care, together.

[hin-southlondon.org](http://hin-southlondon.org)  
[@HINSouthLondon](https://twitter.com/HINSouthLondon)



**UCLPartners** is a leading academic health science partnership that brings together people and organisations to transform the health and wellbeing of the population. Working in partnership and at pace, its members from the NHS and higher education support the healthcare system serving over six million people in parts of London, Hertfordshire, Bedfordshire and Essex.

[uclpartners.com](http://uclpartners.com)  
[@uclpartners](https://twitter.com/uclpartners)



**Imperial College Health Partners** is a partnership organisation bringing together NHS providers of healthcare services, clinical commissioning groups and leading universities across North West London. We are the designated Academic Health Science Network (AHSN) for North West London. Together we aspire to create a health system where what we know is what we do, unleashing the power of collaboration, experimentation and innovation in healthcare.

[imperialcollegehealthpartners.com](http://imperialcollegehealthpartners.com)  
[@Ldn\\_ICHP](https://twitter.com/Ldn_ICHP)



**MedCity** is a not-for-profit organisation that works across the Cambridge-London-Oxford cluster supporting the establishment of business partnerships and collaborations across the region. We work with academic, clinical and research centres within the south east of England. We provide free assistance with introductions, advice and connections for industry, academics and investors looking for partners, infrastructure and expertise. Our goal is to facilitate and support collaboration across all parts of the sector to turn life science innovations into commercial products and services.

[medcityhq.com](http://medcityhq.com)  
[@MedCityHQ](https://twitter.com/MedCityHQ)



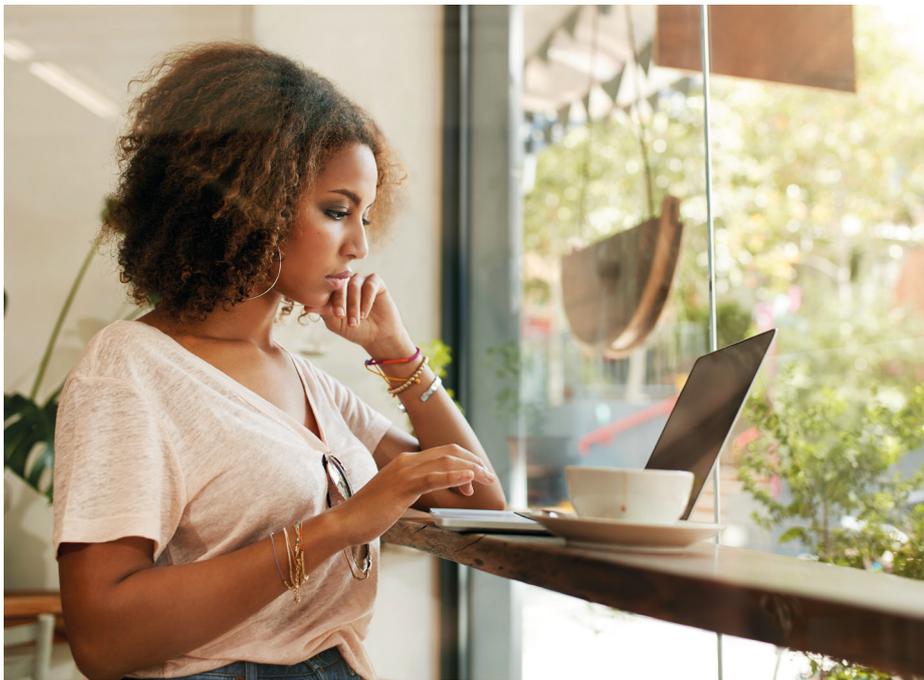
**NHS England's** mission is to provide health and high quality care for all, now and for future generations. We are committed to putting patients at the heart of everything we do, promoting transparency and accountability of our work and ensuring the most efficient, fair and inclusive use of taxpayer resources. Central to our role is the commissioning of health services. We empower and support clinical leaders at every level of the NHS, to make genuinely informed decisions and provide high quality services.

[england.nhs.uk](http://england.nhs.uk)  
[@NHSEngland](https://twitter.com/NHSEngland)

**DigitalHealth.London is also strongly supported by the three Academic Health Science Centres (AHSCs), and the Mayor of London.**

# Why tomorrow's patient needs a digital NHS

*An ageing population. Ever increasing hospital admissions and A&E attendances. Overstretched GPs. Increasing demands for community and social care. Just some of the well-documented problems affecting our current healthcare system. Is this why tomorrow's patient needs a digital NHS?*



Maybe. But I don't believe that these short, sharp headlines summarise half as succinctly the case for why tomorrow's patient needs a digital NHS as my recent conversation with Molly Watt. Molly is a 22-year-old Usability and Accessibility Consultant, prolific blogger, keynote speaker, and inclusive technology evangelist. Born severely deaf and diagnosed with Usher Syndrome – the most common congenital form of deaf-blindness – aged 12, Molly has harnessed technology to enable and empower her to manage this condition, and speaks openly of the incredible impact that digital has had on her life.

This was Molly's response when I asked her why tomorrow's patient needs a digital NHS:

"There are so many people that will acquire a disability at some point in their lives. We're all living longer, which is great, but eventually mobility may become restricted, most people will need glasses by the age of 45, and who doesn't have a grandparent that needs hearing aids? It's coming to us all.

"People might be given support, but they haven't been provided with the right support. And that's key: if everyone was given the right tools, could access the right technologies, they would be enabled to continue to live their lives."

A digital NHS is part of the solution to providing the *right* tools, the *right* technologies for tomorrow's patient. Digital technology is not a revelation for people. Over 70 per cent of UK adults own a smartphone<sup>1</sup>, banking apps are used over 7,610 times per minute<sup>2</sup>, and owners of fitness devices have increased by over 50 per cent in the past year<sup>3</sup>. It's time for the NHS to align with consumers, to replicate advances made in the retail, media and finance sectors, and to harness digital technology as an enabler for its end users.

So how do we do this?

For some, the answers lie in abstract buzzwords: #BigData, #SmartData, #ArtificialIntelligence, #Informatics, #Telemedicine. For us at DigitalHealth.London, the answers lie in #Partnerships, #Activation, and #Co-design. We are working closely with NHS organisations across London to turn the abstract into reality, to ensure that the needs of Tomorrow's Patient are met, and in turn, channelling demand away from A&E and busy GPs towards the community and patients' homes. This is our vision of a digital NHS.

**By Yinka Makinde**  
**Programme Director**  
**DigitalHealth.London**

1 Ofcom 2017, [www.ofcom.org.uk/about-ofcom/latest/media/facts](http://www.ofcom.org.uk/about-ofcom/latest/media/facts)

2 The Guardian (online), July 2016, Mobile Banking on the rise as payment via apps soars by 54% in 2015

3 YouGov Wearables Study

# Agenda

Welcome to this DigitalHealth.London/collaborate event: why tomorrow's patient needs a digital NHS.

With a timely and relevant focus on digital transformation, this afternoon's agenda features a dynamic line-up of speakers, workshops, debates and inspirational talks, all aiming to inform and inspire our NHS audience.



## Wednesday 22 February

|        |  |
|--------|--|
| 1.30pm | Registration and refreshments  |
| 2.00pm | Opening keynote from Jonathan Hope MBE   |
| 2.15pm | Hacking STPs: digitally enabling Sustainability and Transformation Plans                         |
| 3.15pm | DigitalHealth.London: one year on...   |
| 3.25pm | Refreshment break and presentation of 2017 NHS Digital Pioneer Awards                            |
| 3.55pm | Digital participation: dispelling prejudices and perceptions                                     |
| 4.25pm | Suspend judgement: virtual reality and its application in patient care                           |
| 4.35pm | Big fish, little fish: the value of partnerships in de-risking digital innovation                |
| 5.00pm | The Great Debate: Artificial Intelligence – enabling less contact with healthcare professionals? |
| 5.30pm | Closing keynote from Dr Jordon Shlain  |
| 5.45pm | Networking reception   |
| 7.00pm | Close  |

# Exhibitors



**Cinapsis** integrated communication platform enables hospitals to provide specialist advice to local GPs – improving care and reducing unnecessary referrals.

[www.cinapsis.org](http://www.cinapsis.org)



Evelina London and Kings College Hospitals are reducing waiting times and unnecessary referrals by offering local GPs paediatric advice online using **DefinitiveDx**.

[www.definitivedx.com](http://www.definitivedx.com)



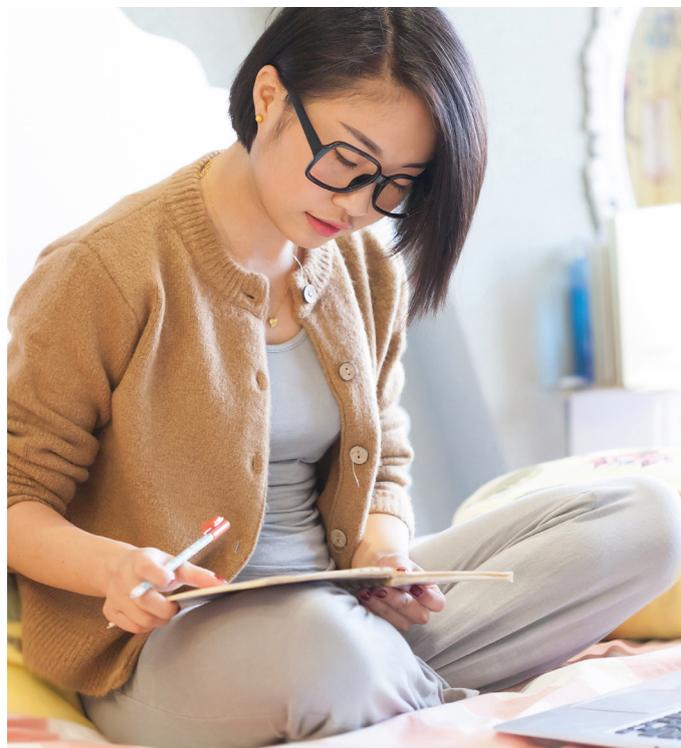
**iPlato Healthcare Ltd** is working in partnership with clinicians to transform patient experience and access to health care through digital engagement.

[www.iplato.net](http://www.iplato.net)



**Sensely** invented a virtual nurse smartphone app, connected to a clinical hub and available 24/7 to provide accurate streaming and triaging of health queries.

[www.sensely.co.uk](http://www.sensely.co.uk)



# Sponsors



**Teva UK Limited** is a leader in healthcare, supplying a wide range of medicines to the UK health service in a wide range of disease areas. Teva UK has been around for 80 years and supply more packs of medicines to the National Health Service than anyone else – around one in eight packs supplied to the UK market is a Teva pack.

[tevauk.com](http://tevauk.com)  
[@Teva\\_UK](https://twitter.com/Teva_UK)



Previously known as IMS Health, **QuintilesIMS (QI)** is a leading global healthcare provider of integrated information and technology-enabled services. QI helps clients across healthcare improve their clinical, scientific and commercial results. With approximately 50,000 employees conducting operations in more than 100 countries, we offer solutions to help clients maximise innovation and drive healthcare forward.

[QuintilesIMS.com](http://QuintilesIMS.com)  
[@QuintilesIMS](https://twitter.com/QuintilesIMS)



Together, we're connecting what matters – the people, information and solutions that work together to drive continuous advancements in health care. We're continuously building on our foundation of intelligent solutions for healthcare – and connect over 88 million people across 25,000+ facilities worldwide. We're committed to true interoperability and are driving collaboration efforts around open standards by accelerating the adoption of rapidly evolving standards, like SMART on FHIR®, and through industry bodies such as TechUK and INTEROpen.

Our clients are working together to share advancements and innovations across the globe to lead the health and care industry. In the UK we're working with NHS Trusts to deliver safer care and integrating entire health systems to enable true population health management for the today and tomorrow. Join the conversation [@CernerUK](https://twitter.com/CernerUK)

[cerner.com](http://cerner.com)  
[@CernerUK](https://twitter.com/CernerUK)

# Meet the speakers



*We're honoured to have a line-up of eminent speakers that include patients, clinicians, policy makers, industry experts and entrepreneurs.*

*They offer a diverse range of insights, experiences and views on the important topics relating to digital health.*



**DR AMEET BAKHAI**  
Consultant Cardiologist,  
Royal Free London Foundation  
NHS Trust

Dr Ammeet Bakhai is a leading international Consultant Cardiologist at Royal Free London NHS Trust, Deputy Director for Research and Development, and Director of healthcare consulting company, Amore Health Ltd. Having published over 80 peer reviewed papers, his joint authored book *Clinical Trials: A Practical Guide to Design, Analysis, and Reporting* is an academic text at universities worldwide. Dr Bakhai is currently a leading member of various task forces in UCLPartners to improve the care of patients across more than 20 hospitals, covering a population of eight million. He has been appointed a DigitalHealth.London Ambassador for his recent work in AI in healthcare.



**JULIET BAUER**  
Director of Digital Experience,  
NHS England  
@JulietBauer

Juliet is Director of Digital Experience at NHS England. She oversees the transformation of the NHS Choices website, and the development and adoption of digital technology for patient 'supported self-management', including for people living with long term conditions such as diabetes or asthma. Juliet has led the delivery of similar technology programmes in many sectors, including leading the move to take the *Times Newspapers* online.

# MEET THE SPEAKERS



**DR MARY E. BLACK**  
Head of Digital Strategy,  
Public Health England  
@DrMaryBlack

Mary E. Black is a medical doctor, public health specialist, and health service leader, from Northern Ireland. Having worked in clinical medicine, public health, academia, and the UN, she is currently Head of Digital Strategy in Public Health England. Mary is widely published in scientific journals, is a frequent columnist and blogger and has been a founder of two successful tech start-ups.



**DR VICTORIA BETTON**  
Founder and Director, mHabitat  
@VictoriaBetton

Victoria is founder and director of mHabitat, an NHS initiative hosted by Leeds and York Partnership NHS Foundation Trust, which supports people-centred digital innovation in health and care. She is a qualified social worker with over 20 years' experience in local government, third sector and the NHS. She has Masters degrees in Women's Studies, Social Work and a Diploma in Public Sector Relations. Her doctoral research was on the theme of mental health and online social networks. You can find her blog at [www.codesigndigitalhealth.co.uk](http://www.codesigndigitalhealth.co.uk). She is involved in steering HealthTech Women North and Digital Leaders Y&H, and is an Improvement Fellow at the Y&H Improvement Academy.



**DR CHARLIE DAVIE**  
Interim Managing  
Director, UCLPartners,  
DigitalHealth.London  
Board Member  
@davie\_charlie

Charlie's clinical academic leadership roles at UCLPartners have been integral to the partnership since it was established in 2009. As interim Managing Director for the company and Managing Director of UCLPartners AHSN, Charlie is driving healthcare improvement and innovation through partnership for the benefit of the six million people served by our partners. Charlie is a Consultant Neurologist at the Royal Free London NHS Foundation Trust and an honorary senior lecturer at UCL's Institute of Neurology. He has held a number of national advisory roles, most recently as a member of the Office of Life Science's Accelerated Access Review Implementation Group.



**DR SIMON ECCLES**  
Consultant in Emergency  
Medicine, St Thomas' Hospital,  
GSTT

Simon Eccles is a Consultant in Emergency Medicine at St Thomas' Hospital and Programme Director for Emergency Care Pathway transformation. He is the joint Clinical Director for Urgent and Emergency Care across London and joint SRO for U&EC in South East London. He has been the Senior Responsible Owner for NHSmail, providing secure communication across the NHS, since 2008; and was a first wave graduate of the Major Projects Leadership Academy at the Saïd Business School, Oxford, sponsored by the Cabinet Office.



**KEVIN FITZGERALD**  
Director of IM&T, Kingston  
Hospital NHS Foundation Trust

Kevin began his career in Finance and moved into Casemix Management in the NHS in the 90s. He followed a technical path and became Director of IT at Hillingdon Hospital in North West London, and then moved to Kingston Hospital in 2013 to drive its EPR development.



**BOB GANN**  
Digital Inclusion Lead,  
NHS Digital  
@Bob\_Gann

Bob is a digital health consultant, specialising in digital health strategy, partnerships, stakeholder engagement and digital inclusion. He is currently working as Digital Inclusion Lead on NHS Digital's Widening Digital Participation initiative, reducing inequalities in access to digital health. He is also a Specialist Advisor for Digital Health at the Care Quality Commission, supporting CQC in developing and implementing regulation of digital health services. Internationally, Bob is consultant to the National Opinion Research Centre at the University of Chicago, and is a member of the World Health Organization e-Health Advisory Group.



**DR KEITH GRIMES**  
GP and Digital Health Innovator  
@keithgrimes

Keith is a General Practitioner and CCG Innovation Lead with a passion for Digital Health. With 20 years' experience of work within the NHS, he's led award-winning projects including MyLittleOne, a neonatal camera and tablet system, and Brighton & Hove Roving GP service. Current projects include 'See What I See', an evaluation of Google Glass for remote consultations; and 'PREVENT ICU Delirium', a ground-breaking project aiming to reduce Post-Operative Delirium using virtual reality. A lifelong Geek and Gamer, he's the founder of 'VR Doctors', an online community dedicated to exploring virtual and augmented reality in health and social care.



**CHARLES GUTTERIDGE**  
CCIO, Barts Health NHS Trust  
@GutteridgeC

Charles is the Chief Clinical Information Officer at Barts Health, which is now a five hospital health system in east London. Like all healthcare organisations in the NHS, Barts Health is managing very significant quality and financial challenges which Charles believes can be overcome by the use of clinical analytics and digital health transformation.



**SARAH HAYWOOD**  
CEO, MedCity,  
DigitalHealth.London  
Board Member

Sarah became CEO of MedCity in December 2015, having been COO since MedCity's launch in April 2014. Having gained a degree in biology from the University of Oxford and graduating from the NHS Management Training Scheme in Wales, Sarah started her career in the NHS, before joining Novartis Pharmaceuticals Research as the Head of Operations for a neuroscience drug discovery unit. Sarah then joined the civil service, including leading the DTI Bioscience Unit, before joining London & Partners where she worked with Dr Eliot Forster to establish MedCity.



**JONATHON HOPE, MBE**  
Patient

Whilst at school Jonathon was diagnosed with kidney failure. Since then he has experienced 15 years of dialysis, around three years in hospital and three unsuccessful transplants. In 2005 he received a fourth transplant which is working well. With a 20-year background in financial services, over the last ten years, Jonathon has chaired or co-chaired a wide range of local and national healthcare modernisation projects, including those on Shared Decision Making, Self-Care, Palliative Care and Kidney Care, and spoken at over 40 conferences on the above subjects. Currently, Jonathon is co-chairing the 'Realising the Value of Individuals' programme funded by the NHS. In 2012 Jonathon was awarded an MBE for Services to Kidney Patients.



**DR LLOYD HUMPHREYS**  
Vice President for Business  
Development, Patients Know Best  
@Lloyd\_Humph

Lloyd is a qualified Clinical Psychologist and completed his MBA at the European School of Management and Technology (ESMT) in Berlin, where he received the Faculty Award for his outstanding contribution. Lloyd has been recognised by the NHS for his involvement in bringing innovative technology solutions to market and been awarded one of the first NHS Innovation Accelerator Fellowships. More recently he was named in the Top 100 Global Health Tech Influencers. At Patients Know Best, Lloyd leads on global expansion and new markets, and oversees strategic partnerships.



**DR MARK JENKINS**  
Medical Director, Oviva  
@DrMarkJenkins

Dr Mark Jenkins is the Medical Director at Oviva, a new type of healthcare provider changing the way we treat conditions related to diet with technology-enabled dietetics. Established in Switzerland in 2014, Oviva now operates across the UK, Germany and in the UAE, and is a strategic partner to both the British and German Dietetic Associations. Mark qualified as a doctor from Guy's & St Thomas' School of Medicine in 2011 and has previously worked as an academic doctor in renal medicine and as a management consultant at the Boston Consulting Group.



**DR ROBERT LLOYD**  
Emergency Medicine Trainee,  
Creator and Chief Editor of  
PonderingEM.com  
@PonderingEM

Robert Lloyd is an Emergency Medicine trainee in the East of England Deanery. He is also the Social Media Associate Editor for the Emergency Medicine Journal, and Creator and Chief Editor of blog site PonderingEM.com, which offers a platform for reflective practice, sharing of ideas, and commentary on the EM/critical care landscape.



**RACHEL NEAMAN**  
Specialist Consultant in digital  
leadership, inclusion & skills  
@RCNeaman

Rachel is a specialist consultant in digital leadership, inclusion and skills. She was previously Director of Skills and Partnerships at Doteveryone, the digital organisation founded by Baroness Martha Lane Fox to address the social and moral issues created by the internet age. In addition to leading its work on digital skills and transformation, Rachel also managed Doteveryone's strategic partnerships with organisations including the BBC, BT, Google, Lloyds Banking Group and Sage. From 2014-16 Rachel was Chief Executive of the digital skills charity Go ON UK, which merged with Doteveryone in April 2016.



**DR MOHINI PARMAR**  
Chair, NHS Ealing CCG

Mohini has been a practising GP in Ealing for 26 years and is the Senior Partner in a four-partner practice. She has been Chair of Ealing Clinical Commissioning Group since April 2012, and has been leading and facilitating ECCG through this transition phase. Mohini takes a key role in ensuring clinicians are effectively involved in service design and has worked with other clinical colleagues and the borough team to ensure and promote active engagement with ECCG member practices. Mohini is the North West London STP System Leader.



**DR ALI PARSA**  
Founder and CEO,  
Babylon Health  
@babylonhealth

Ali is a healthcare entrepreneur and engineer, and founder and CEO of Babylon, one of the UK's leading digital healthcare services. He built Circle to become Europe's largest partnership of clinicians, with some £200M in annual revenue, 3,000 employees and a successful IPO. He was named by *The Times* as among the 100 global people to watch, and was the recipient of the Royal Award for the Young Entrepreneur of the year for founding his first business, V&G. Ali is UK Cabinet Office Ambassador for Mutuals and has a PhD in engineering Physics.

# MEET THE SPEAKERS



**PROFESSOR NICHOLAS PETERS**  
 Professor of Cardiology, Head of Cardiac Electrophysiology, Imperial College London  
 Consultant Cardiologist, Imperial College Healthcare NHS Trust

Nicholas is a Cardiologist specialising in implanted and on-body biosensor technologies and their role in new models for improving healthcare and outcomes. He is Professor of Cardiology at Imperial College, where he heads DASH (Devices, Apps, Sensors in Health), a clinically-led team covering tech, industry and patient partnership, education and training, and external engagement. Nicholas is on the Board of Trustees and Founding Research Committee of the Heart Rhythm Society, co-founder of the European Cardiac Arrhythmia Society, Symphony Medical, and CardioPolymers.



**BLEDDYN REES**  
 Director, ECH Alliance, healthcare lawyer at Osborne Clarke LLP  
 @bleddyn\_rees

Bleddyn is an international healthcare lawyer. He advises on digital health and works with Osborne Clarke LLP, an international law firm. He is a Director of the European Connector Health Alliance which promotes digital health through 30+ international ecosystems across Europe and North America. He has a variety of external NHS and healthcare appointments, including the European Commission eHealth Stakeholders Advisory Group. He also chairs the Industry Advisory Boards of the Health Innovation Network and Public Health Wales.



**PAUL SCHRAMM**  
 Director, Supplier Services, QuintilesIMS

Paul is focused on delivering high quality results aligned to client requirements, whether they be life science or NHS organisations, supporting their desire to improve patient care and financial sustainability. Historically, as a European Key Account Director, Paul engaged with multiple levels of pharmaceutical client organisations developing Marketing and Sales efficiency and consulting engagements.



**GEOFF SEGAL**  
 Vice President & Managing Director, Cerner UK  
 @GeoffSegal

A Superintendent Physiotherapist (sport injury) by training, Geoff left the profession in 2000 joining Siemens Health Services in their EHR delivery group where he worked for four years. This was followed by a program delivery role at Dell during the National Programme for IT. Geoff joined Cerner Ltd in 2006 and ran the Choose and Book programme to 2010, delivering 12 upgrades in that time with bookings numbers increasing from under 1 million to 27 million. At the end of 2010, he became responsible for running Cerner's consulting and delivery group for Europe covering 50 clients with over 140 hospital sites. In January 2015, Geoff became Managing Director for Cerner UK.



**DR JORDAN SHLAIN**  
 Founder of Healthloop, Physician, Writer and Thought Leader  
 @DrShlain

Dr Jordan Shlain is a practicing primary care physician, a digital health entrepreneur, a writer and respected thought leader in national health policy. He is the publisher of Tincture, a forum for thought leaders in healthcare and has written extensively on the importance of trust, language, nuance and data in understanding the core relationships in healthcare. Jordan has been featured in the *New York Times* and *The Economist* in which they highlighted his 'innovation by irritation' story on the creation of Healthloop. He recently served as a Mayoral appointed Commissioner on the Health Service Systems Board of San Francisco.



**MOLLY WATT**  
 Accessibility Consultant and Inclusive Technology Evangelist  
 @MollyWattTalks

Molly is a 22-year-old Accessibility Consultant and Inclusive Technology Evangelist. She lives with a genetic condition called Usher Syndrome, deafblindness, and is completely reliant and benefits from assistive technology. As a result, she is passionate about working in the world of digital accessibility and usability, promoting the use of assistive technology for those who need it.



**TIM WHITE**  
 Head of Digital Experience, Teva Speciality Medicines (Global)

As Head of Digital Experience at Teva Pharmaceuticals, Tim is responsible for driving improved engagement and customer experience across the business. Prior to joining Teva, Tim held senior roles at Lundbeck, Novartis and Merck. Tim specialises in customer and patient experience within healthcare, with a focus on digital and social communications/marketing, mobile health, and strategy development.



**GARY WHITING**  
 Patient and Digital Advocate

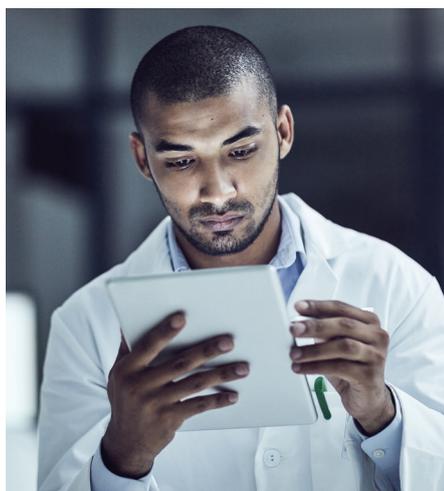
Gary has a very rare autoimmune condition called Sneddon's Syndrome, which results in inflammation of the blood vessels in the brain. Because of this, he has had three strokes and numerous mini-strokes. He was diagnosed with dementia nearly four years ago. Gary is an active user of digital solutions, including digital recorders. He has an ID Band which can be scanned and read by smartphone, and contains extensive medical details should he get into difficulties and need medical attention. With the support of his wife, he is also online to his local GP surgery to arrange appointments and repeat prescriptions.

# ‘Courage, leadership and forward-thinking’:

*recognising our NHS Digital Pioneers*



- THE SURGEON transforming education using augmented reality...
- THE CONSULTANT CARDIOLOGIST transforming the heart failure pathway...
- THE PHYSIOTHERAPIST promoting community exercise via virtual groups...
- THE PROFESSOR OF NEUROLOGY delivering service innovations to bring Neurology resources to people with MS across the world...
- THE CLINICIAN who has developed a telecare app for minor burns patients...
- THE CHIEF INFORMATION OFFICER whose work in improving IT infrastructure and clinical systems has doubled the recorded number of clinical notes...
- THE RESEARCH ASSOCIATE who has reduced diagnosis for sick children to less than one hour using whole genome analysis...
- THE TEAM field-testing the eRedbook...
- THE REGISTRAR whose digital platform is tackling outpatient waiting lists...



## *2017 marks the inaugural year of DigitalHealth.London's NHS Digital Pioneer Awards.*

Incredible work within the digital health space is taking place across London's NHS to transform outcomes and to benefit staff and patients. The NHS Digital Pioneer Awards recognise the intrapreneurship, courage and forward-thinking of the dedicated individuals and teams leading this.

### **The three Awards categories are:**

**Digital Leadership:** demonstrates courage and vision, and exercises an ability to win hearts and minds within the NHS environment to take a digital idea through to pilot and/or commission.

**Digital Innovation:** demonstrates an ability to see the art of the possible. Actively seeks and engages digital solutions to drive transformation, and/or successfully uses co-design principles to create a solution.

**Sustainability through Digital:** has successfully used leadership, human factors and improvement principles to ensure the sustained adoption of a digital innovation through to measurable outcome delivery.



In October 2016, DigitalHealth.London put out a call for nominations in a bid to find London's NHS Digital Pioneers. We were delighted to receive 62 nominations in total. All nominees were invited to submit further information in order to be considered for shortlisting. Following a fantastic response, three finalists from each Awards category were invited to speak with an expert panel of judges, who decided the winners.

**The winners of the 2017 NHS Digital Pioneer Awards will be announced at today's DigitalHealth.London/ collaborate event.**

# 2017 NHS DIGITAL PIONEER AWARDS

## Meet the finalists

### AWARD FOR DIGITAL INNOVATION



**Shafi Ahmed**  
Consultant Surgeon  
Barts Health NHS Trust



The Royal Marsden  
Pain Team supported  
by The Katie Compson  
Foundation



NELFT NHS Foundation  
Trust 'MyMind'  
project team



**Dr Marcela Vizcaychipi**  
Consultant in Intensive  
Care and Anaesthesia  
Chelsea and Westminster  
Hospital NHS  
Foundation Trust

### AWARD FOR DIGITAL LEADERSHIP



**Professor Martin Cowie**  
Professor of Cardiology  
and Honorary Consultant  
Cardiologist  
Imperial College London,  
Royal Brompton  
and Harefield NHS  
Foundation Trust



**Dr Bahman  
Nedjat-Shokouhi**  
Specialist Registrar  
West Hertfordshire  
Hospitals NHS Trust,  
St Mark's Hospital  
Foundation



**Sarah Newcombe**  
Clinical Site Practitioner  
Great Ormond  
Street Hospital

### AWARD FOR SUSTAINABILITY THROUGH DIGITAL



**Dr Laura Hopkins**  
Clinical Teaching Fellow/  
Medical Registrar  
Chelsea and Westminster  
Hospital NHS  
Foundation Trust



**Stephanie Mansell**  
Consultant  
Physiotherapist  
Royal Free London NHS  
Foundation Trust



**Andrew Raynes**  
IM & T Programme  
Director  
Barking, Havering and  
Redbridge University  
Hospitals NHS Trust

### Thank you to our 2017 judging panel:

#### Digital Leadership Award

**Anne Cooper**  
Chief Nurse, NHS Digital

**Noel Gordon**  
Chair, NHS Digital

**Charles Gutteridge**  
CCIO, Barts Health

**Matthew Patrick**  
CEO, South London and Maudsley  
NHS Foundation Trust

**Professor Daniel Ray**  
Director of Data Science, NHS Digital

#### Digital Innovation Award

**Juliet Bauer**  
Director of Digital Experience,  
NHS England

**Matthew Hopkins**  
CEO, Barking, Havering and Redbridge  
University Hospitals NHS Trust

**Jane Milligan**  
Chief Officer, Tower Hamlets CCG

**Dr Harpreet Sood**  
DigitalHealth.London Advisory Board

#### Sustainability through Digital Award

**Dr Ian Abbs**  
Medical Director, Guys & St Thomas'  
NHS Foundation Trust and Chair of  
DigitalHealth.London Advisory Board

**Tracey Grainger**  
Head of Digital, Primary Care  
Development, NHS England

**Professor Keith McNeil**  
NHS CCIO, NHS England

**Rachel Neaman**  
DigitalHealth.London Advisory Board

**Mike Part**  
Head of Digital, NHS England

## 2017 NHS DIGITAL PIONEER AWARDS: FINALIST PROFILE

*Award category: Digital Innovation*

# Shafi Ahmed

*“Virtual reality:  
an affordable  
solution to help  
train and potentially  
shorten surgical  
training through  
immersive learning”*



Shafi Ahmed

**Consultant Surgeon, Associate  
Dean, Honorary Senior Lecturer**

*Barts Health NHS Trust*

### **Problem articulation and health impact**

Findings in the Lancet Commission for Global Surgery in April 2015 suggested that five billion people do not have access to safe and affordable surgery. To make surgical care more equitable worldwide would require an additional 2.2 million surgeons and almost 150 million extra operations per year. The solution to this problem, which could save almost 17 lives per year, requires an alternative education and a different way of training and resourcing. Shafi Ahmed believes that virtual reality (VR) offers an affordable solution to help train and potentially shorten training through immersive learning.

### **Introducing innovation**

In 2016, together with Barts Health NHS Trust, Medical Realities (VR company) and Mativision (live streaming VR company), Shafi created a collaboration to livestream the world's first virtual reality operation, recorded in 360 degrees. Demonstrating the effectiveness and interest in immersive learning, education and training, the livestream was watched by 55,000 people in 140 countries and 4,000 cities, and reached 4.6 million people on Twitter.

Barts Health supported this initiative by supplying 500 VR headsets for staff to engage with the live feed. These were given to all departments of the hospital, including nurses, porters and pharmacists. Helping to inspire the next generation of medical students, VR headsets were also donated to local inner-city schools for sixth form pupils who were interested in applying to medical school.

### **Progress to date**

Shafi's vision and innovative thinking has seen him make headlines across the globe. He continues to share his work as a speaker at international events. His co-founded company, Medical Realities, will be releasing a fully immersive and interactive learning module in January 2017, and will record 100 operations within the year, producing a library of content.

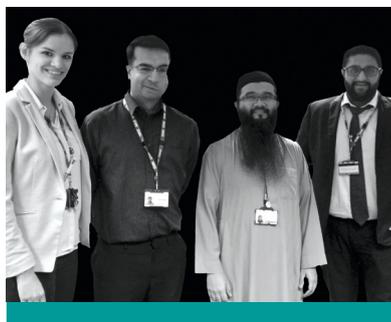
In a bid to inspire medical students, Shafi will also be launching the Barts X medicine programme, where all students will be taught about entrepreneurship, business development, coding, app development and future technologies. Teaching them the skills that will make them innovative and effective leaders in the NHS, Barts X will also enable students to develop solutions through hackathons, Dragons Den-style events and accelerator programmes.

## 2017 NHS DIGITAL PIONEER AWARDS: FINALIST PROFILE

Award category: Digital Innovation

# NELFT NHS Foundation Trust 'MyMind' project team

*“A co-designed digital solution supporting children and young people accessing mental health services and their clinicians”*



'MyMind' project team

NELFT NHS Foundation Trust

### Problem articulation and health impact

Mental health illnesses are a leading cause of health-related disabilities in children and young people (CYP) and can have adverse and long-lasting effects (Public Health England, December 2016). A key area of concern in the NHS, is the long waiting lists, and in many cases attempts have been made to apply adult models of care to CYP.

In interviews with the NELFT 'MyMind' project team, CYP service users indicated that due to long waits for support, they would search online, but often came across dangerous advice, and were unsure of where to turn. They also said that talking on the phone made them anxious, and indicated a preference for instant messaging-based technology. Interviews with clinicians revealed worries around time and resource, alongside duplication of work and admin tasks.

### Introducing innovation

The NELFT project team sought to develop a solution which would improve access to resources and communication for CYP using mental health services, whilst addressing the needs of healthcare professionals. MyMind is an experience-based project co-designed by clinicians and CYP, and built by NELFT's IT team. A lite version, available to all, signposts users to a library of existing websites, apps and downloadable resources that have been approved by clinicians.

The full version of the MyMind app enables CYP and clinicians to create linked profiles about themselves, helping to build rapport. Clinicians can allocate outcome measures for service users to complete on their phone or computer, empowering their recovery journey. Care and crisis plans can also be uploaded to the account to ensure these are more accessible to young people. The app has instant messaging (IM) technology built in, along with the ability to make video calls. All written communication that occurs within the app is uploaded to the electronic patient record (EPR) within 24 hours. This prevents clinicians from having to duplicate work and reduces admin time, whilst ensuring it is the true voice of the service user that is recorded.

### Progress to date

MyMind has recently been presented at the NHS Providers Showcase, exploring how its development could be used in other NHS organisations. The NELFT project team are set to share their learning of digital innovation within clinical practice throughout 2017, via conferences, the Academy of Fab Stuff, and *Nursing Times*.

## 2017 NHS DIGITAL PIONEER AWARDS: FINALIST PROFILE

Award category: Digital Innovation

# The Royal Marsden Pain Team supported by The Katie Compson Foundation

*“A tablet-based system empowering patients to demonstrate their pain, which feeds into a linked cancer pain research database”*



The Royal Marsden Pain Team supported by The Katie Compson Foundation

The Royal Marsden NHS Foundation Trust

### Problem articulation and health impact

Cancer-related pain is poorly understood and treated, and uncontrolled cancer pain represents a common and challenging unmet clinical need. Pain is a complex concept and patients often struggle to express their pain, resulting in barriers to assessment and treatment. In addition, the documentation of clinical records is often sub-standard, resulting in clinical error and inefficiencies.

Because pain is difficult to measure, quantify and define; databases which store information from validated pain and symptomatology questionnaires, can prove hugely insightful and a potent research resource. Traditionally, pain medicine has lagged behind other specialties in respect to the extent and quality of data collected about patients in pain.

### Introducing innovation

The Royal Marsden Pain Team supported by The Katie Compson Foundation, has developed a novel, dynamic digital platform to tackle the aforementioned problems. The patient is presented with a tablet which displays a series of validated pain, quality of life and patient satisfaction questionnaires, which are uploaded in real-time to the hospital's electronic patient record system (EPR). This enables the treating clinician to gain a more comprehensive understanding of the patient's pain whilst empowering the patient to both better express their pain symptoms and feedback Patient Reported Outcome Measures (PROMS). A secondary benefit of this system is the improved governance arising from automatic symptom documentation.

In conjunction with the tablet-based system, Royal Marsden's team has developed a linked cancer pain research database into which anonymised cancer pain specific data is automatically entered. This database has research ethics committee approval, and enables the department to conduct patient-centred research.

### Progress to date

Since the platform went live in January 2016, over 540 patient contacts (covering a variety of different cancer types) have been recorded, with high quality clinical and research data stored on the hospital's EPR system and within the cancer pain research database. The team has been able to collect data on pain severity, as well as more specific information on the type of pain the patient is experiencing and their satisfaction with their treatment in the pain clinic. To date, the team has achieved an average satisfaction score of 90 per cent.

This initial data is being presented at the British Pain Society's annual meeting in May 2017. The team has also presented their innovative work to various clinical teams, prompting interest and collaboration with other specialties, including palliative care, gynae-oncology and sarcoma, all of which are keen to utilise this technology in their clinics.

## 2017 NHS DIGITAL PIONEER AWARDS: FINALIST PROFILE

Award category: Digital Innovation

# Dr Marcela Vizcaychipi

*“An interactive rehabilitation app for burns patients, supporting post-discharge patient care”*



### Dr Marcela Vizcaychipi

Consultant in Intensive Care and Anaesthesia

Chelsea and Westminster Hospital  
NHS Foundation Trust

#### Problem articulation and health impact

There were 19,293 burn cases reported in England in 2015, with minor burn injuries estimated to affect around 13,600 people. Following a burn injury, patients are discharged with advice on changing dressings and exercises to prevent wound contracture, and will receive follow-up appointments to assess healing. Many patients do not attend these appointments and may not comply with physiotherapy exercises or wound dressing changes. Some patients feel unsure that their burn wound is healing, which may mean that they call Burns Unit nurses, visit the Burns Unit, or receive home visits from Burns Unit nurses.

#### Introducing innovation

An in-house survey of 100 burns patients at Chelsea and Westminster Hospital (CWH) demonstrated that 95% own smartphones, and that 90% would be interested in an interactive rehabilitation app. To support this, alongside current post-discharge patient care and resource limitations, Dr Vizcaychipi has designed and piloted a smartphone app to:

- Empower and support patient self-care and self-management through the delivery of tailored video content guiding wound/dressing care and rehabilitation at home.
- Enable a telecare communication route between patient and Burns Unit nurses, allowing the patient to book a video-call at a time of their convenience.
- Increase dietary guideline adherence through provision of flexible daily menus meeting daily, patient-specific calorie intake needs.
- Increase self-care routine adherence and follow-up appointment attendance through mobile-based alerting.
- Introduce a mobile-based FAQ section addressing frequent patient concerns and helping to reduce the number of calls to the Burns Unit.

#### Progress to date

The app has been piloted and redesigned following significant stakeholder engagement, including the British Burns Association, patients, CWH nurses, and other UK Burns Units. Specific outcome aims for CWH include:

- Reducing the number of scheduled patient visits to the Burns Unit by 10% in the first year and 20% in years two and three of app operation, through increased home-based self-care rehabilitation and wound treatment video guidance.
- Reducing nurse home visits by 20% in the first year and 30% in years two and three of app operation through app-based patient teleconsultation.
- Improving patient education by targeting 50% app uptake and achieving over 90% patient satisfaction in the first year of app operation.
- Licence sales for use in other NHS Burns Units.

## 2017 NHS DIGITAL PIONEER AWARDS: FINALIST PROFILE

Award category: *Digital Leadership*

# Professor Martin Cowie

*“Testing remote monitoring technologies for patients with heart failure on a local, regional, national, and international scale”*



Professor Martin Cowie

Professor of Cardiology and  
Honorary Consultant Cardiologist

*Imperial College London,  
Royal Brompton and Harefield  
NHS Foundation Trust*

### **A track record in delivering innovation**

Appointed by the European Society of Cardiology to lead its digital health strategies in 2016, Martin is also working with the European Commission on developing guidelines for m-health, ensuring clinical input to discussions on what constitutes best practice. Involved in testing remote monitoring technologies for patients with heart failure on an international scale, he continues to design and run trials of implantable and non-implantable technologies with the potential to improve decision-making by patients and their healthcare advisors, thus delivering better outcome and experience of living with a serious chronic condition.

### **Engaging digital solutions for patient benefit**

Martin introduced remote monitoring into his local heart failure service a decade ago. Enthusiastically adopted by patients and their families, this service underwent a randomised trial in three west London hospitals, demonstrating safety and patient acceptability, and a shift of healthcare contact from ‘emergency’ crisis situations to a scheduled early review in clinic. Since then, he has worked successfully with senior managers in his Trust to persuade commissioners to fund this approach. GPs believe these specialist services are more engaged with their patients; specialist staff can add another skill and option to their disease management programmes; and patients and carers feel more secure and able to access help when needed rather than waiting for scheduled appointments.

### **Supporting NHS staff and colleagues to engage with digital**

Martin lists positivity, realism, positive reinforcement and realistic timeline planning as vital approaches for engaging staff and colleagues. Learning to speak the same language as other stakeholders is key, and in his experience - after some initial reluctance - colleagues have found freedom in using modern technologies and have become advocates for innovation, provided that any problems can be solved rapidly.

### **Scaling digital innovation**

The remote monitoring approach for heart failure has been expanded locally into the Trust’s respiratory service for those with home ventilators, trialled in those with chronic lung disease, and used in the adult congenital heart disease population. In west London, this approach has been used at three large district general hospitals (Hillingdon, West Middlesex and Ealing), and during the REM-HF trial (running from 2012-2016) weekly remote monitoring of patients with implantable cardiac devices was trialled in nine hospitals across the UK.

As of January 2017, Martin is currently leading 15 UK hospitals in assessing an implantable ‘chip’ that can be used in heart failure (cardioMEMS device), with remote monitoring and management from the patient’s home.

## 2017 NHS DIGITAL PIONEER AWARDS: FINALIST PROFILE

Award category: Digital Leadership

# Dr Bahman Nedjat-Shokouhi

*“Setting up a pathway between primary care and hospital specialists to manage patients in the community”*



Dr Bahman  
Nedjat-Shokouhi

Specialist Registrar

West Hertfordshire Hospitals  
NHS Trust, St Mark's Hospital  
Foundation

### A system-wide approach to innovation

No stranger to digital interventions having designed and led Trust-wide implementation of an intranet platform for managing acute medical on-call lists, Bahman is now involved in setting up a pathway between primary care and hospital specialists to manage patients in the community. Taking a system-wide approach, his bespoke platform – used by GPs and specialists – automatically collects important clinical data for use in designing and commissioning new pathways. To date, Bahman has led the dissemination of this platform across eight CCGs, covering a population of over 1.7 million patients.

### Engaging digital solutions for patient benefit

Bahman's aim was to design a system which would enable specialists to support GPs in managing patients in the community, reduce RTT (Referral to Treatment), and deliver care closer to home, more rapidly and at reduced cost. He was determined that this system should collect complete data sets to enable hospitals and CCGs in negotiating and commissioning appropriate pathways, at tariffs that are sustainable in the long-term.

This whole system approach is reported to be delivering savings of between 30 and 40 per cent for CCGs currently. The average response time from consultants is ten hours, with GP's rating the helpfulness of this advice as 4.5 out of a possible five stars. Patients are also benefitting from better clinical care. GPs are able to diagnose and treat patients rather than having to wait several weeks to see a hospital consultant; plus, consultants can advise GPs to carry out tests whilst the patient is waiting for a hospital appointment, to ensure there's no further delay to treatment.

### Supporting NHS staff and colleagues to engage with digital

The system incorporates Bahman's philosophy that innovation should require as little change in behaviour from stakeholders as possible. As a result, he's been able to readily engage the end user. Having personally conducted one-to-one interviews with commissioners, GPs and consultants, Bahman ensured their views were taken into account during the design of the system. He continues to support and engage them by running training days and developing supporting materials.

### Scaling digital innovation

Currently, this model has been adopted by eight CCGs and one NHS hospital, with significant interest from more CCGs and Trusts across the country. Whilst similar referral management systems and platforms concentrate on reducing referrals and saving money, Bahman's approach has been to ensure that the innovation is clinician-led, easy to use, and – most importantly – useful. Reduced referral rates and associated savings, he says, are a by-product of the design of the system.

## 2017 NHS DIGITAL PIONEER AWARDS: FINALIST PROFILE

Award category: Digital Leadership

# Sarah Newcombe

*“Implementation of a clinical communication tool, aiding prompt recognition of deteriorating children and enabling Trust-wide visibility of all patients”*



Sarah Newcombe

Clinical Site Practitioner

Great Ormond Street Hospital

### A digital journey fuelled by passion

Sarah's key motivation for engaging with digital interventions is a personal one. Her role at Great Ormond Street Hospital includes reviewing patients across the Trust that become unwell during their stay. When one patient was missed by the current system, Sarah's determination to improve the recognition and response to the deteriorating child became her passion. She set out to implement a digital clinical communication tool for all members of the Inpatient Clinical Care Team encompassing electronic observations. The aim was to aid prompt recognition of deteriorating children and escalation to the Outreach Teams, enabling the CSP Team to have Trust-wide visibility of all patients.

### Engaging digital solutions for staff and patient benefit

Using a pre-existing system – Nervecentre – configured to suit patient's clinical profiles, nursing teams now input observations via a mobile device and automated alerts are sent to relevant teams. The medical teams have patient details and observations to hand to aid clinical decision-making; the consultant group can access their patients from clinic; and the CSP team can identify the sickest patients within the Trust, enabling them to effectively prioritise workload.

Proven clinically and by audit to have benefited all groups of staff, safety benefits include: improved visibility of patients for all teams; improved response time of clinicians; plus, a full electronic audit of clinical tasks and observations ensures nothing is missed. Cost-savings include £12,000 per annum through elimination of 51,000 paper charts and associated scanning; 5,200 nurse hours per year; 50,400 Children's Early Warning Score (CEWS) alerts per year at a cost of £77,070.

### Supporting NHS staff and colleagues to engage with digital

Sarah has prioritised colleague engagement throughout, including running process-mapping workshops to identify where support was needed; holding pre go-live training sessions; offering a 'mobile' training room for real-time training; and initially providing 24/7 support to quickly identify any issues staff were having. In her role as CSP, Sarah was able to work alongside nursing teams to support and encourage colleagues every step of the way.

### Scaling digital innovation

Following successful proof of concept, Sarah and her team spent six months rolling this system out. It's now used in all ward areas across the Trust, with the exception of intensive care. Sarah now shares learning with other NHS Trusts through user forums and site visits. She welcomes other NHS organisations to contact her team to share lessons learnt and opportunities to spread innovation, both internally and cross-site.

## 2017 NHS DIGITAL PIONEER AWARDS: FINALIST PROFILE

*Award category: Sustainability through Digital*

# Dr Laura Hopkins

*“An electronic weekend handover tool for medical teams and hospital staff”*



Dr Laura Hopkins

Clinical Teaching Fellow/Medical Registrar (Gastroenterology)

*West Middlesex University Hospital (WMUH), Chelsea and Westminster Hospital NHS Foundation Trust*

### **Problem articulation**

The verbal handover of medical patients on a Friday afternoon was lasting 85 minutes at WMUH, delaying doctors trying to complete key tasks before the weekend, e.g. discharge summaries, chasing test results. On-call doctors were given limited copies of paper lists, often containing some information that was not relevant, plus patients who became unwell over the weekend could not be easily added to these lists. Documentation of patient's escalation plans and ceiling of care were not being completed, and if a patient moved ward after the verbal handover, it was not easy to doctors to locate them.

### **Introducing innovation**

Dr Hopkins co-designed and implemented an electronic tool to ensure efficient handover of patients to weekend ward cover teams. Created on a software system already used at WMUH, the handover tool can be accessed from any PC onsite, enabling multiple doctors to handover key information at the same time. Ensuring an electronic record is kept for each patient handed over, the 'live' system is automatically updated if a patient moves wards. The system also has filters in place so that 'weekend doctors' can create their own individual list (e.g. Registrar Saturday jobs). This avoids paper lists with patient information that is not relevant to them and can easily be misplaced.

### **Outcomes and benefits**

The successful implementation of the handover tool has resulted in:

- Reducing the Friday afternoon verbal handover from 85 minutes to 30 minutes, thereby improving efficiency and freeing up doctors to provide important clinical care to patients.
- Improved patient care at the weekend with a six-fold increase in contingency plans for patients.
- The provision of an electronic record for handover, ensuring information is not misplaced and that there is a record of the handover information (important for clinical governance).

### **Diffusion and plans for scaling**

The electronic handover has been diffused across the medical division at WMUH, including the Acute medicine service. Dr Hopkins has ambitions for the tool to be used by other specialities within the hospital, and to implement a similar system at sister site Chelsea and Westminster Hospital.

## 2017 NHS DIGITAL PIONEER AWARDS: FINALIST PROFILE

*Award category: Sustainability through Digital*

# Stephanie Mansell

*“Application of  
modem technology  
as standard care for  
patients receiving  
non-invasive  
ventilation (NIV)  
at home”*



Stephanie Mansell

Consultant Physiotherapist

Royal Free London NHS  
Foundation Trust

### Problem articulation

Patients receiving non-invasive ventilation (NIV) at home often struggle to attend outpatient appointments, due to reduced mobility and distance required to travel. Furthermore, if patients encounter problems, an outpatient appointment is necessary to adequately assess them. Additionally, some patients have conditions which can rapidly deteriorate, e.g. motor neuron disease (MND). Traditionally, many patients commenced on home NIV are admitted to hospital to initiate treatment. Patients at other hospitals requiring commencement on home NIV prior to discharge, would have to wait many weeks for a bed to become available.

### Introducing innovation

Stephanie has introduced the application of modem technology as standard care for patients receiving NIV long-term at home. Developed by the manufacturers of the ventilators, this technology uses a web-based interface (eu.EncoreAnywhere.com). Data from the ventilators is transmitted daily via the modem to the web-based interface, enabling access of clinical information regarding patients' interactions with the ventilator. This data includes: compliance with therapy, non-invasive mask fit and adequacy/effectiveness of treatment.

As well as viewing the ventilator data, clinicians can make amendments to ventilator prescriptions which can then be transmitted via the modem resulting in changes in device settings. Data can also be utilised to facilitate health behaviour change interventions and give visual demonstrations to patients regarding their concordance and interactions with the ventilator.

### Outcomes and benefits

Using the modems and EncoreAnywhere system has ensured that the Trust is delivering optimal therapy for patients. They are increasingly able to avoid admission for commencement on NIV and 70% of their work is now either outpatient or day case initiation. Patients' compliance can also be monitored, and data from the modem provides a powerful tool to increase compliance with therapy, or enables the Trust to stop therapy and use resources more appropriately. The Trust has also been able to offer more remote problem solving, reducing the need for outpatient appointments, increasing efficiency and improving patient experience.

### Diffusion and plans for scaling

Stephanie has been able to develop this system in order to meet the needs of her service users, and manufacturers have showcased her versions to other Trusts and services. She has run sessions about the use of the EncoreAnywhere system at international events and conferences, including one in the Nordics - a part of the world with a small but sparse population, where this system could prove highly efficient.

Moving forward, Stephanie plans to further implement the technology's DreamMapper app, to further enable remote clinic appointments and ensure optimal treatment for patients. Plans are also underway for a research project involving the DreamMapper app.

## 2017 NHS DIGITAL PIONEER AWARDS: FINALIST PROFILE

Award category: Sustainability through Digital

# Andrew Raynes

*“Case note tracking solution resulting in a 700% efficiency improvement in filing records”*



Andrew Raynes

IM & T Programme Director

Barking, Havering and Redbridge  
University Hospitals NHS Trust

### Problem articulation

Barking, Havering and Redbridge University Hospitals NHS Trust (BHR) had a lack of visibility of any real case note activity. Activity reporting was labour intensive and of limited value, making it difficult to identify and address root cause issues. Anecdotal reports echoed by the CQC stated that up to 10% of health records were not available at the point of care. This resulted in either cancelled or ineffective patient appointments and promoted a ‘temporary case note culture’ which undermined clinical decision making and increased clinical risk. On average, as much as 85 temporary case notes were being created daily, causing significant patient safety concerns and inefficiencies.

### Introducing innovation

Andrew supported the successful introduction of new technology to help track health records, ensuring availability where and when needed. The iFIT iRECORDS system (6PM) was implemented in five months as an ‘off the shelf’ case note tracking solution, and utilises Radio Frequency Identification (RFID) to passively track health records as they travel around the Trust, providing visibility of their location. Each active health record (circa. 500,000) has been physically assigned its own RFID tag which provides a unique identifier. This, in conjunction with the installation of 65 fixed point readers (installed in ceiling locations across the Trust) make it easy to tell where a record is at any point in time.

### Outcomes and benefits

Introducing this technology, with the added value of GS1 compliance, has resulted in a 700% efficiency improvement in filing records, and has created a platform for the Trust to continue its digital journey.

Tangible outcomes and benefits have included:

- Absorbed impact of 12% increase in elective admissions
- 20% efficiency increase in pulling records (per hour)
- 75% improvement in the time taken to track records
- Reduction in creation of temporary records, from 85 per day to 41 per day

Additional outcomes and benefits have included:

- Improved clinical decisions and patient experience
- Improved compliance
- Staff morale
- Oversight of health records

### Diffusion and plans for scaling

The IM & T Department is actively working within the STP to showcase this example of good practice, and to identify if and how the benefits could be applied across a wider footprint, enabling economies of scale. The Trust has also been selected as a reference site, hosting visits from within the NHS and international shores. The journey for Andrew and his team continues as they explore opportunities to expand functionality to track assets, in a bid to drive further efficiency, reduce time spent looking for equipment, and increase time spent with the patient.

# Launch of the Heart Health Improvement Moonshot

Today's DigitalHealth.London/ collaborate event will see the launch of the Heart Health Improvement Moonshot, led by DR AMEET BAKHAI in collaboration with DigitalHealth.London and HealthXL.



## Attendees...

...of today's DigitalHealth.London/ collaborate event are invited to remain for the Heart Health Improvement Moonshot launch, which takes place from 6.00pm-7.00pm.

### Who?

Dr Bakhai is a Consultant Cardiologist and Deputy Director for Research and Development at Royal Free London NHS Foundation Trust, and Heart Function Improvement Lead for Barnet. The Heart Health Improvement Moonshot is the result of Ameet's ambitious vision to integrate with technology companies to transform the management pathway of patients with insufficient cardiac output or 'heart failure'.

### What?

The broad scope of this transformation includes:

- Remote monitoring support technologies
- Admission and readmission prevention technologies
- Medicines optimisation technologies
- Screening technologies
- Therapeutic technologies (e.g. cardiac output device optimisation, exercise coach, breathing coach, positive psychology and social support)
- Patient record transfer

The initial work of this Moonshot challenge will focus on Barnet in north west London, which cares for 1,409 patients with heart failure across 62 GP practices. The challenge invites wider engagement, involvement and participation from other healthcare professionals caring for patients with heart failure across London, including Consultant Cardiologists, Community Nurses, GPs, Psychologists and Pharmacists.

### Why?

500,000 patients suffer with heart failure in the UK. Heart failure is a chronic, life-threatening condition which will affect one in five people aged over 40 years old. In-patient mortality nationally is around 10%, and 50% at five years after diagnosis. Heart failure accounts for 3% of admissions with an average length of stay of 11 days, attributing to between 3% and 5% of NHS budget - the vast majority of which is due to hospital admissions.

Dr Bakhai's aim is to demonstrate and prove the capabilities of digital interventions in driving the following system and patient benefits:

- Reduce variations in care
- Reduce co-morbidities
- Reduce mortality rates
- Improve outcomes for patients transferred from hospital to the community
- Save 500 hospital bed days per year via reduced emergency admissions and readmissions within two years
- Reduce costs to the NHS by approximately £200,000 per year in bed days
- Empower patients with heart failure to self-manage their condition

To find out more about the Heart Health Improvement Moonshot, visit [DigitalHealth.London](http://DigitalHealth.London) or follow @DHealthLDN on Twitter for updates.



# DigitalHealth.London/thoughtleaders

## Evidence generation in digital health

**NEELAM PATEL, Chief Operating Officer at MedCity – one of DigitalHealth.London’s founding partners, explains how our evidence workstream is supporting evidence generation in digital health.**



At the very start of the DigitalHealth.London programme, our collaborative partners, including the heads of London’s Academic Health Science Centres (AHSCs), identified three areas that needed to be at the heart of the programme’s work: evidence, evidence, evidence. It may be a well-used tactic - three times repetition – but it serves to underline how important this issue is to the successful creation and adoption of any innovative product or service.

Evidence generation is a key component in the pathway to commercialising innovation. However, the need for evidence in supporting digital health technology is not well understood amongst all innovators. Where it is understood, the type of evidence needed and how to generate it, is often unclear. From the payer perspective, evaluation of evidence is not consistent and decisions are not mutually recognised between payer organisations. As a result, patients and health practitioners can lack an endorsed source of innovation, backed by a credible evidence base.

Given this challenge, DigitalHealth.London (DH.L) established an evidence workstream early on. Here, we set out the challenges, opportunities and ambitions in this area.

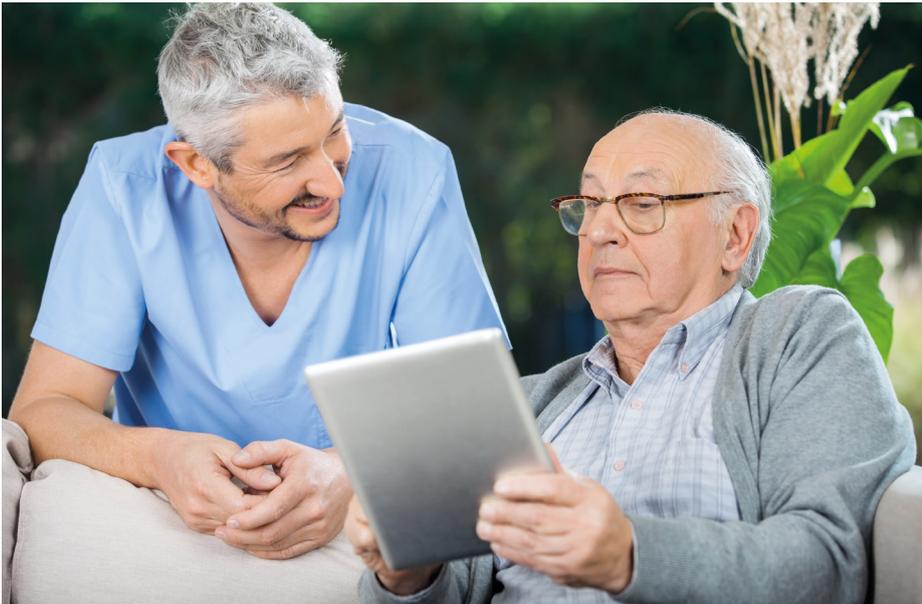
### **An innovator’s perspective**

It is widely recognised that innovation uptake in the NHS is a priority to improve healthcare and reduce the financial burden. As such, there is a lot of activity in focussing on the elements of accelerating digital innovation development and adoption through accelerators – including the DigitalHealth.London Accelerator – test beds, vanguards and other initiatives.

From an innovator point of view, these ‘macro-initiatives’, although needed, do not always address the detailed question of ‘what good looks like’ with respect to evidence. What data does the innovator need in order to demonstrate to a payer that their innovation is safe, effective, better and cheaper (or better value) than what is already available in the market? In addition, if the innovator does know what is needed with regard to an appropriate level of evidence, how do



*The NHS has a rich infrastructure available to support commercial research and development. The growth of digital innovation means that this infrastructure also needs to grow and/or reshape to fully support evidence generation for this type of technology.*



they get support to test their innovation within the NHS without being selected for an accelerator or test bed initiative? How can generating evidence for digital health be 'mainstream', in the same way it is for pharmaceutical products and devices?

#### Uncertainty for clinicians

From the payer perspective, there are similar issues. What decision-making support and standards are available to enable commissioning decisions that are evidence-based? Clinicians are equally uncertain. Should innovations be prescribed if they have not been through the rigours of a double blind, randomised clinical trial in the patient group they are seeking to treat?

Many also have questions as to what role NICE (National Institute for Health and Care Excellence) and the MHRA (Medicines and Healthcare products Regulatory Agency) should play in the area of regulating digital technology and access to the market. Can the Office of Life Sciences' (OLS) recently published Accelerated Access Review (AAR) recommendations address these challenges and if so, how quickly can they be implemented for digital health technology?

#### The answers and the opportunities

Over the last year, DH.L has been working with stakeholders including NICE, NIHR (National Institute of Health Research), the MHRA, Clinical Commissioning Groups (CCGs) and the Office for Life Sciences (OLS), including convening a thought-leader roundtable with these organisations along with members of NHS England and the Digital Health and Care Alliance (DHACA). The aim has been to answer some of these questions.

Here are some of the opportunities that DH.L consider as a priority in making

the landscape easier for innovators to generate the evidence needed for adoption into the NHS, alongside the national initiatives that are in place to support this issue.

#### NICE guidance and resources now being piloted

NICE has been working on producing guidance and tools for innovators to use when developing their innovation. This guidance draws on NICE's expertise in the area of evidence to illustrate the importance of generating the right evidence (from broad research evaluation methods to full-blown randomised clinical trials and real world studies) for the technology, which will then help to streamline the development path and ensure commissioning decisions are robust.

Availability of guidance and standards for evidence generation is vital to help in 'killing' projects that are doomed to failure quickly, thereby reducing development time and money. Early guidance on evidence also provides a robust evidence base for game-changing innovations, thereby helping commissioning decisions. NICE is currently piloting their guidance and resources with innovators and gathering feedback from commissioners.

#### Growing and reshaping infrastructure

The NHS has a rich infrastructure available to support commercial research and development. The growth of digital innovation means that this infrastructure also needs to grow and/or reshape to fully support evidence generation for this type of technology. The NIHR is a vital player in this area and infrastructure funded through NIHR already support evidence generation and development of digital technology.

For Industry, the NIHR Office for Clinical Infrastructure (NOCRI) can help find the most appropriate researchers and clinicians to work with on generating relevant clinical evidence. We think that there is a big opportunity to scale up the level of provisions to enable easier access for digital innovators.

#### Clarifying requirements for evidence and evaluation

The DigitalHealth.London Accelerator workshop on clinical trials and regulations, held recently for the Year One cohort, brought together the important players in the field of evidence including MHRA, NICE, Health Research Authority (HRA) and NIHR, for a 'meet the expert' session for innovators. Apart from giving insight to the cohort on this topic, it also enabled the experts to get feedback from the companies, one of the outcomes being organisations such as the NIHR Diagnostic Evidence Cooperative London and HRA using this trigger to initiate their own internal discussions on clarifying requirements for evidence and evaluation.

#### Realising the opportunities

The Government's Accelerated Access Review (AAR) presents an opportunity to bring together all of these key stakeholders under one umbrella. Here at DigitalHealth.London, we are exploring how we can help the OLS to take this work forward. Our ambition is to realise these opportunities and accelerate innovation to meet the needs of patients. There is much to do, but we are on the case.

*If you need support and guidance with regard to evidence generation, there is help at hand.*

*DigitalHealth.London can provide support, including directing you to sources of advice and expertise.*

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# What's next for DigitalHealth.London

*Our plans for the year ahead.*

## Supporting the implementation of STPs...

Over the next year we'll continue to work collaboratively to build digital fluency and digital innovation scouting capabilities of those implementing STPs and leading integrated care delivery within our partner NHS organisations, with the ultimate aim of driving scalable and sustainable transformation.

We'll do this through a core offering of master classes and design labs to ensure focussed and directed scouting of innovations, rooted by a firm definition and articulation of the core problem to be solved.

We will be directing our resources in particular around Heart Health Improvement, Mental Health, Older People, Diabetes Prevention and Self Care.

## Knowledge sharing the latest research, evidence and releases of new technology...

Heart Health Improvement, Mental Health, Older People, Diabetes Prevention and Self Care are themes that run strongly through many of the STPs in London. As local teams explore new approaches to shifting the location of care delivery from hospital to community to GP to the home through digital transformation, staying close to the latest research, developments, evidence and releases of new technology, will be key.

DigitalHealth.London will be at the forefront of tracking the market, knowledge sharing, and translating the abstract into practical application.

## Connecting NHS organisations, tackling problems and transforming services, with innovative digital health solutions...

Between now and 20 April 2017, we will be scouring the market for, and inviting digital health SMEs to apply for a place on the 2017-18 cohort of the DigitalHealth.London Accelerator programme. Our first Accelerator cohort of 31 companies will leave in September 2017, having built partnerships and pitched their digital solutions in every health and care organisation in London, some leading to new pilots and contracts to benefit patients and improve efficiency of the NHS.

We will continue to build collaborations with big industry, converting digital exploration into strategic partnerships that can enable sustained scaling of innovation for our NHS partners.

## Strategic collaborations and partnerships...

DigitalHealth.London has commenced strategic discussions with a number of well-known corporations with a mandate to build their digital health pipelines. These range from large technology firms to pharmaceutical companies through to Venture Capitalists and National Health agencies. In the first half of the next financial year, we will continue to convert and formalise these partnerships, to build a sustainable DigitalHealth.London.

## Stay up-to-date

*To stay up-to-date with the latest news, information, calls and opportunities from DigitalHealth.London, sign up to receive our monthly newsletter via the website.*

You can also follow us on Twitter [@DHealthLDN](#) or get in touch by email: [info@digitalhealth.london](mailto:info@digitalhealth.london)



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