Commission Inquiry on Health and Wellbeing Innovation

Background brief

Introducing the Commission Inquiry

The UK has always been a great source of innovation in health and care, from the invention of the small pox vaccine to the discovery of the double helix structure of DNA. Today the UK is considered a world leader in life sciences (pharmaceuticals, medical biotechnology and medical technology) second only to the US, contains some of the world's best research universities and is an early adopter of transformational technologies in medicine, principally in informatics and genomics.

However, while the UK may rank highly for innovation per se, and does manage to foster some successful innovation, it has a less positive record of adopting innovation at pace and scale. Just looking at healthcare as an example, despite the UK containing world leading medical technology companies and start-ups, only a tiny portion of the NHS budget is spent on diffusing new ideas and performance, despite the potential being huge.

This Commission seeks to review the current evidence base of innovation in health and wellbeing, generate new research and thought leadership, critically explore the opportunities and barriers and set out a blueprint for future work in this area.

In order to assess the role of innovation across the ageing pathway, we are holding four Commission sessions on the following themes:

1) Retirement communities and care homes
2) The built environment including transport, planning and design
3) Physical and mental health
4) Social connections including isolation and loneliness

These four themes encompass many policy areas as we believe that a wide scope is required in order to take a 'helicopter' view of innovation across the ageing pathway. There has been an increased understanding from policy makers in recent years that 'good health' is not just about treating conditions and staying out of hospital. It is about mental health, emotional wellbeing, feeling socially connected, having a home that is suitable for your requirements and being able to participate in your community. This Commission Inquiry will be the first to bring together all of these strands and assess where good innovation is happening and where a renewed focus needs to be for all people to age well in the future.

Format of the commission inquiry sessions

Each of the four sessions will be chaired by a different thought-leader in innovation. The Commission Inquiry will be directed by high-profile Commissioners, who will, alongside the Chairperson, direct the lines of enquiry and to hear from evidence givers. Each evidence session will be attended by a small selected audience, with the audience members able to ask questions for a limited time at the end of the session.

Throughout the four sessions, three primary questions will structure the Commission's thinking:

1. What does 'good' innovation look like in these areas, where do we find it, and how is it characterised?
2. How do we stimulate innovation in the areas where there are limited or early stages of innovation?
3. What resources underpin the development and diffusion of innovation, considering individual, state and industry responsibility?

List of Commissioners:

Dr Charles Alessi, Senior Advisor, Public Health England

Stephen Burke, Director, United for All Ages

Cristina Cornwell, Director, Health Lab at Nesta

Malcolm Dean, Journalist, Guardian

Tara Donnelley, Chief Executive, Health Innovation Network

Dr Matthew Harris, Clinical Senior Lecturer in Public Health, Institute of Global Health Innovation

Dr Ben Maruthappu, Co-Founder, NHS Accelerator Programme

Nick Sanderson, CEO, Audley

Catherine Seymour, Policy and Research Manager, Independent Age

Pamela Spence, Global Life Sciences Industry Leader, EY

Helen Sunderland, Director, Local Public Services, EY

Defining innovation

Health and wellbeing innovation is a term that is often used yet seldom concretely defined. However, there are good reference points for defining innovation and criteria for innovation selection. Previous ILC-UK research in health and care innovation has primarily referenced two pieces of work to define innovation.

The King's Fund identified three areas where they believed productivity gains could be made, not including infrastructure[i]. These are:

- **Workforce:** This includes flexibility and volumes of work
- **Clinical practice:** This includes primary and secondary care, best practice and prescribing
- **Commissioning**: This includes unplanned admissions, long term conditions, integration and location of care.

We also base our definition of innovation on the following principles as recently highlighted by an NHS England report on the areas with the most potential to transform services[ii]:

1. **Giving patients greater control over their health**: this would include developing effective preventative approaches and support for self-management.

2. **Harnessing transformational technologies**: this would help support improved self-management and control. Examples might include online access to medical records, online test results and appointment booking.

3. **Exploiting the potential of transparent data**: to support active patients, the best quality data should be collected and made available.

4. **Moving away from a "one-size fits all" model of care**: a relatively small minority of patients account for a high proportion of health spending. Personalisation, including tailoring treatments and prevention to meet specific individual characteristics, could make a significant impact in terms of efficiency.

5. **Unlocking healthcare as a key source of future growth**: understanding the NHS role in supporting economic output through, for example, helping people get back to work or by working with industry partners to make sure that the health and life sciences continue to be a growing part of the UK economy.

What must be at the heart of all work on innovation, however, is the principle focus of improved outcomes and ultimately improved health and wellbeing.

Previous work by ILC-UK on health and care innovation

This Commission Inquiry is a successor to two previous research reports produced by the ILC-UK on the need for better innovation in health and social care. These reports are summarised below:

Our first report, Creating a Sustainable 21st Century Healthcare System, argued that the NHS should be supported to continue to invest in innovation in order to save more money in the long-term. It identified a number of promising global innovations, and addressed the reasons why some innovations succeed, whilst others fail to live up to expectations.

Our second report, Towards Affordable Healthcare: Why effective innovation is key, calculated theoretical cost savings if selected innovations were scaled-up and applied across England. It also pressed home the need for effective innovation, showing that if action is not taken now, health spending as a percentage of GDP will increase to unsustainable levels in the future.

Why is innovation needed now in health and wellbeing?

Demographic challenges

Our population is ageing, meaning that more people are living longer. The gains in life expectancy should be celebrated; however, with it come challenges to health and care systems. With more people living to older age, the prevalence of long-term conditions is increasing as well as the number of people living with multiple morbidities. Innovation is needed to enable health and care systems to adapt to this new normal.

When the NHS was founded 70 years ago, it was designed for acute care and set up to treat a population with a much lower life expectancy and high incidents of infant mortality. Whilst the NHS has certainly adapted, it needs to be continuously open to innovation in order to change ways of working so it is prepared for the future health needs of an older population. This is true for all policy areas this Commission Inquiry is addressing; adult social care, housing and transport all need to be open to innovation and be aware that an older society means that their ways of working will be changing.

Financial challenges

This changing population is often more expensive to care for. More people need long term care for longer. People are able to be treated for conditions that previously had a low survival rate, meaning that health and care systems are needing to change delivery models towards more expensive condition management. Average health care costs increase with age, meaning that an NHS with more older people to treat will cost more to run[iii].

In terms of the most recent spending commitments from Government, current healthcare financials show that funding in 2018/19 is expected to grow by 0.4%, taking inflation into account. However, it will fall in real terms by 0.3% per person due to the demands of an increasing population[iv]. NHS budgets are increasing at a slower rate than they have historically. In fact, research shows that the NHS needs to find £22 billion in savings by 2020, in order to keep up with the rising demand of an ageing population[v].

The need for effective innovation to improve the productivity of health and care systems has been stated in previous modelling by the ILC-UK. Modelling three scenarios of productivity gains in healthcare through innovation, 'transformative change', 'no policy change' and 'gradual convergence', analysis showed that unless innovation is used effectively now to improve productivity, health spending as a percentage of GDP could increase to unsustainable proportions[vi]. Indeed, if there is no policy change, health spending would increase from 6% of GDP in 2019-20 to 16.4% by 2064-65. This would have an impact not just on health provision but social care and wider social protections.

Population ageing will have an impact across many policy areas

Importantly, this Commission Inquiry recognises the need for a coordinated response from actors across the ageing pathway to ensure that the innovative solutions that are needed to meet the challenges of population ageing work for everyone. This Commission Inquiry is determined not to simply focus on health, but also social care, the built environment and housing. Whilst we recognise this is a wide scope, ILC-UK recognises that population ageing will affect everyone in many aspects of their lives; this is reflected in our wide policy remit.

Indeed, the foreword to the Government Office for Science's report on the Future of an Ageing Population states "this demographic shift will require us to make adaptations across many aspects of our lives: how we work; how we care for, communicate and interact with each other; the built environment we live and work in; the way we live our lives; how we learn; and how we use technology"[vii].

The wide-ranging impact of population ageing means that these challenges cannot be addressed in silos. Moreover, it also means that it is impractical for government to simply increase spending, because it is difficult to prioritise one policy area over another. Instead, innovative solutions to the multitude of challenges need to be found, piloted, scaled and implemented if we are to have a sustainable older society.

Challenges and considerations

Metrics: How can we effectively measure innovation?

- Measuring innovation has proven to be challenging, across many policy fields.
- Existing models of measuring innovation are often outdated, for example measuring patent applications[viii]. Whilst this may be effective in measuring innovation in industries such as pharmaceuticals, many new digital services do not rely on patent-based innovation, despite many leading the world in innovation[ix].
- Indeed, the entire way of thinking about innovation is often outdated. Many established theories on innovation are grounded in the manufacturing economy, with R&D spending being the basis of measuring investment and success[x]. However, digital technology and the realignment of the economy towards services have disrupted this linear model of innovation (traditionally scientific research, engineering to manufacturing products).
- Many leaders in health and care innovation state the need for metrics to move from measuring outputs to measuring outcomes, which is a more effective method of measuring whether new innovations improving people's lives. For example, instead of measuring the number of hip operations performed in a hospital, we should be trying to measure the number of people who have been helped to regain independence and live at home. There are innovative attempts to collect population data to measure and design services based on outcomes, including Outcomes Based Healthcare, which has been selected as part of the NHS Innovation Accelerator Programme[xi].

- It is therefore important to ask how we can best measure innovation, and which metrics need to be used by policy makers and health and care systems to see where good innovation is happening, and where it is lacking.

How can we connect learnings in innovation from across the different policy areas?

In innovation policy, it has been noted that "innovation diffusion is often more important than creation"[xii]. It is as important for other groups and organisations to be aware of good innovation, know how to scale up and adapt the innovation, and know how to learn 'what works' in terms of effective innovation.

- However, it is often noted that whilst the UK, particularly in healthcare, is good at producing innovative approaches in pockets, it is not good at diffusing and adopting new innovations[xiii]. Essentially, it is difficult to assess exactly how well the UK performs at spreading and adopting good innovation, because metrics are often ill-defined and the multiple datasets spanning multiple policy areas make comparison difficult.
- It is therefore important for this Commission Inquiry to address these questions, taking a wide-ranging view of innovation across the ageing pathway, asking why do some innovations succeed and others fail, and what different health and wellbeing actors can learn from each other.

How does this work fit into the current policy landscape?

- There has been an increased recognition in recent years from policy makers of the need for better innovation.
- In health policy, NHS England have recognised the need for effective innovation. Simon Stevens, the Chief Executive of NHS England has stated that it is important to "unleash" the potential of innovation in order to "deliver high quality healthcare for future generations"[xiv]. Moreover, NHS England's Five Year Forward View sets out a bold plan to ensure that health and social care sectors work better together[xv]. This involves simplifying services such as the emergency services, and empowering patients to manage their care in the way they would like[xvi].
- In wider innovation policy, Innovate UK is the UK's innovation agency, sponsored by the Department of Business, Energy and Industrial Strategy, and offers funding opportunities for innovators across a range of areas[xvii].
- The Industrial Strategy set out "harnessing the power of innovation to help meet the needs of an ageing society" as one of its four Grand Challenges[xviii]. £300 million has been announced in funding, to meet challenges such as dementia, loneliness and productivity.
- Questions need to be asked about how effective these strategies are and whether the funding allocated is sufficient.

Endnotes

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