Summary | The future of health care systems - supporting clinical-academic integration for health system sustainability

Document note: *This summary has been prepared by Joseph Casey and Christin Marshall-Hall from King's Health Partners. Best efforts have been made to ensure this is an accurate reflection of the presentations at the conference. Any corrections or questions should be sent to Joseph.Casey@kcl.ac.uk.*

Wednesday 19 June 2024 | Aarhus University

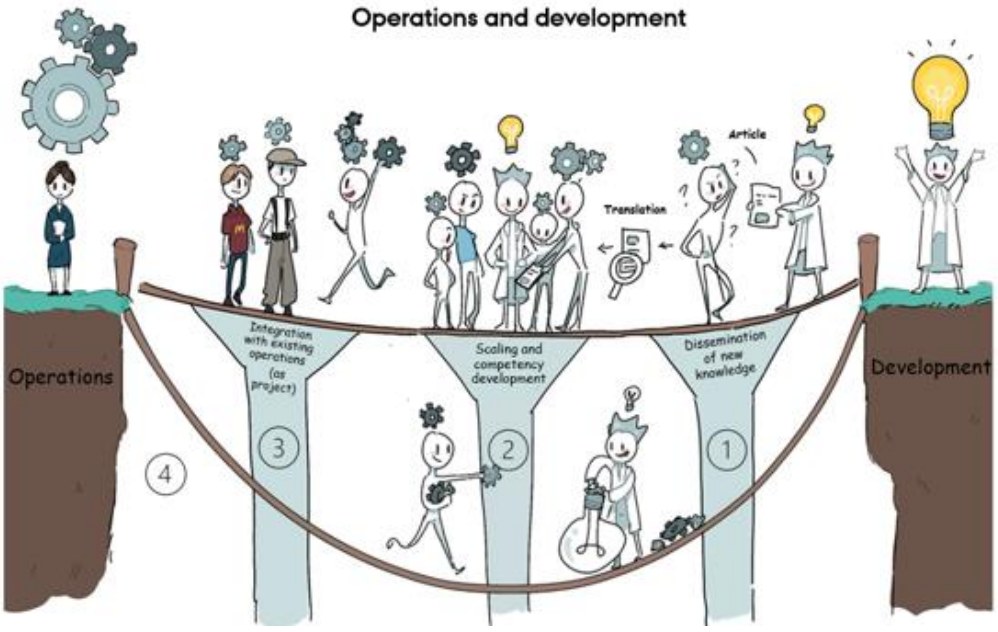
Session 1 | Introduction - challenges and opportunities

Introduction and purpose – the challenges facing health systems

Per Jørgensen (Chief Medical Officer, Human First, Central Denmark Region) opened the conference welcoming everyone to Aarhus. The partner organisations first met in December last year and shared experience and evidence from developing different clinical academic integration and collaboration models across Europe and in Australia (see here for further information).

In his presentation, Per highlighted:

- That approximately 60% of care is in line with evidence or consensus-based guidelines, with 30% of healthcare being some kind of 'waste', with 10% of patients harmed when receiving care (Braithwaite et al, 2020, BMC Med). This is exacerbated by the time taken for new discoveries to enter practice - 17 years on average (Rushmer et al 2019, Pop H Mon; Braithwaite et al, 2020, BMC Med)
- Healthcare professions and systems must respond to this challenge by better meeting the needs of patients and carers, responding to aging populations and increasing multimorbidity whilst delivering care closer to home, responding to the challenges to sustainability - from the healthcare workforce and from politicians.
- Therefore, clinical academic integration and collaboration must continue to address the translational gap between research and care whilst (re-)focusing on population health and prevention as part of whole health system response to meeting the needs of patients and society (set out in the schematic below from Per's presentation).



KING'S HEALTH PARTNERS

Whilst there are differences between systems, countries and societies, we are facing many of the same challenges. This conference brings together experience, expertise and evidence for the role and impact of clinical academic integration (Eftychiou et al., FHJ 2023) and collaboration in addressing these challenges - and opportunities - for continually improving health, equity and sustainability.

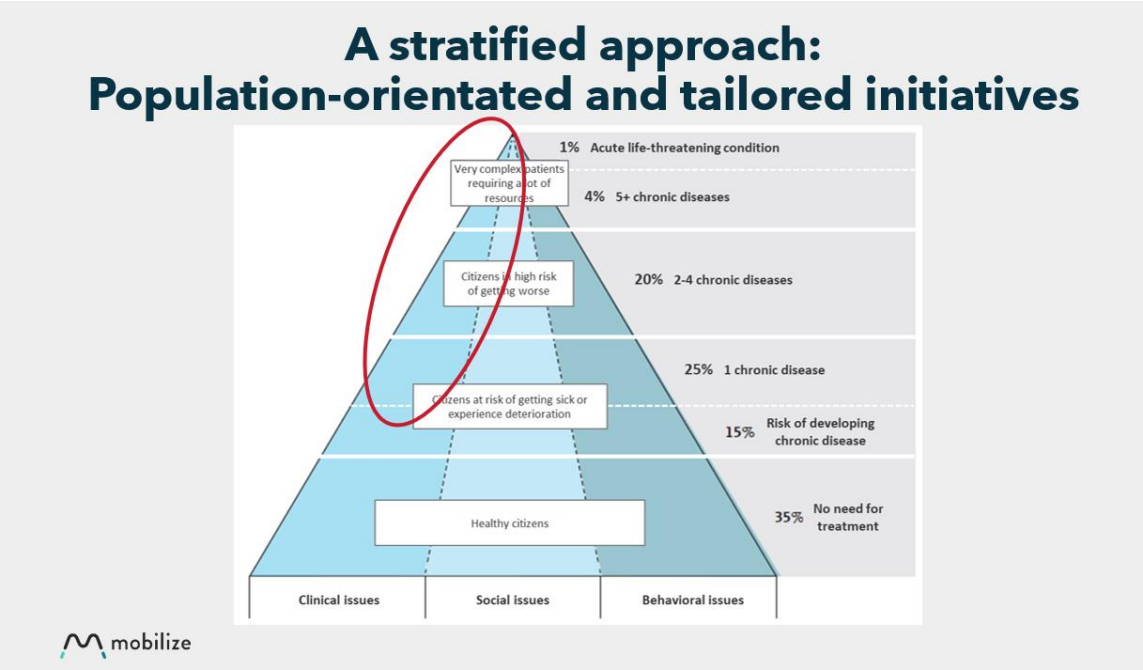
The presentation is available to access here.

How to strengthen the value chain between the clinic, research, education and the broader ecosystem- past, present and future?

Søren Barlebo Rasmussen (Managing Partner, Mobilize Strategy Consulting) reflected on the:

- **Present need for transformation** in Denmark, which is set out in the recently published Danish Health Commission (Sundhedsstrukturkommissionens rapport, June 2024). We agree on the 'problem analysis' - increasing number of older people who need support from health and care, increasing number and proportion of people with chronic long-term conditions, demand for healthcare professionals beyond available (and leaving) workforce, advances in capabilities and knowledge, and higher expectations of patients and society. We also agree on the solutions - a unified healthcare system designed around the common goals of ensuring the greatest possible health of the population at the lowest possible cost.
- **Past lessons** from integrating research, education and clinical care in different centres and systems around the world provide evidence and support for delivering these solutions, including King's Health Partners. However, we need to move beyond the silos in the health system, especially between local government, hospitals and primary care.
- **Possibilities for transformation** which will require a change in how we (re-)think about health and healthcare. This requires a transformation from *individual sickness centres* to *population health systems* that are *stratified and tailored* to meet the population health needs, equitably.

We need to shift our focus to cover the breadth of the pyramid: Søren reflected "health is produced in many different places, but not in the health system" (see Richard Smith, BMJ Opinion, 2018).



Søren shared the perspective - and optimism - of the incoming Executive Director of King's Health Partners, Professor Graham Lord:

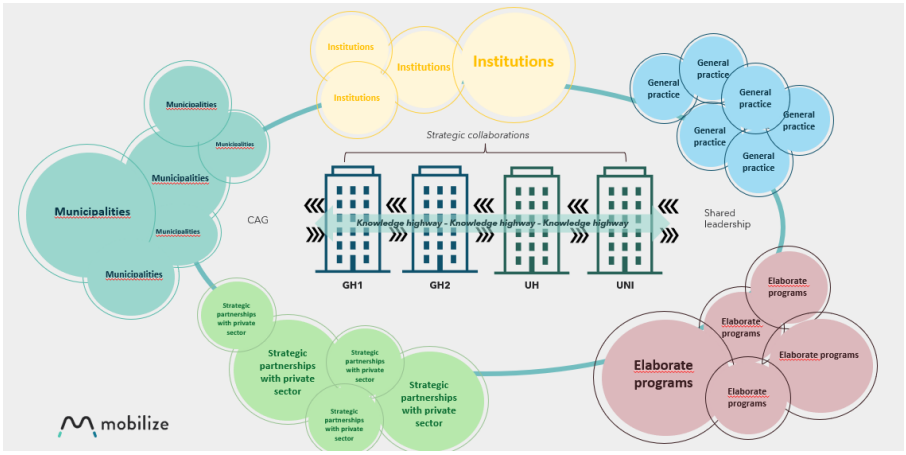
"Healthcare systems across the world are under enormous and increasing pressure. I am convinced that by aligning the strategic direction of all of our partners, we can identify key actions to deliver high quality health and care, driven by research and innovation, in a sustainable way. This would not only be transformational for London and the UK, but also have significant international impact."

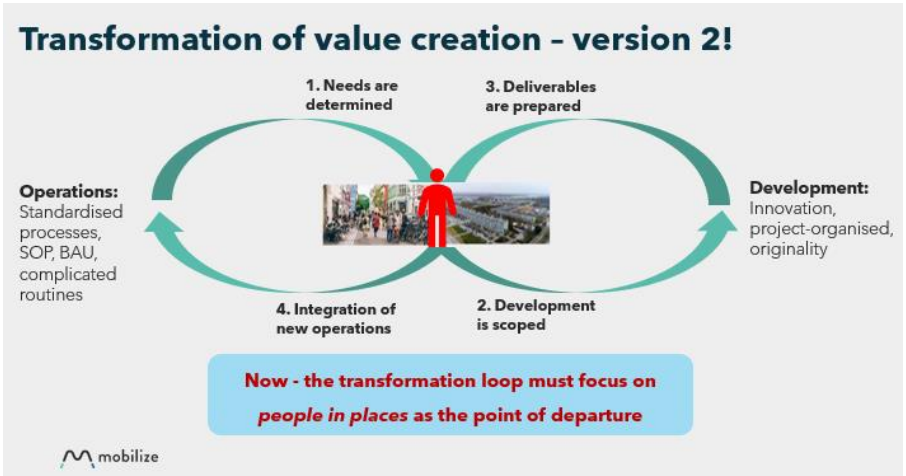
Søren reflected on the *Icarus Paradox* (see Danny Miller, Business Horizons, 1992) - it is difficult to transform your own organisation and system, as demonstrated in the UK:

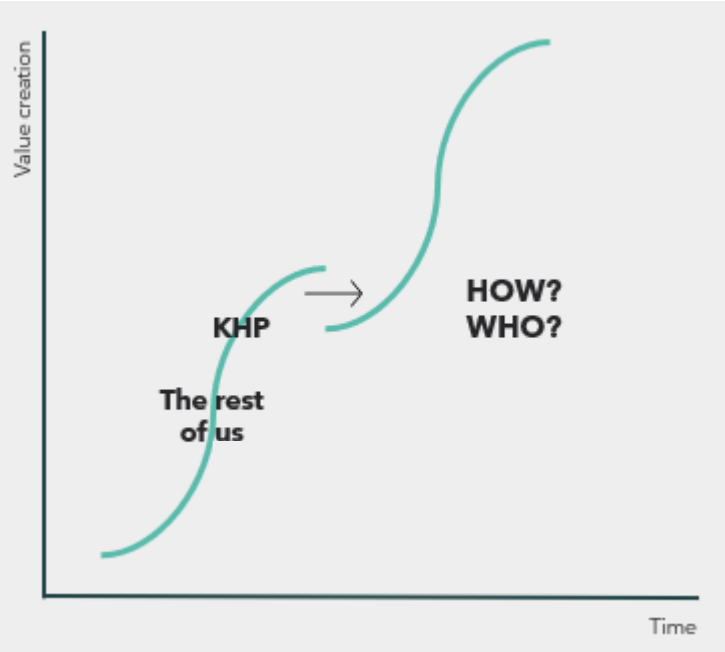
> *"The workforce crisis has been a prominent issue for years, but there has been little concerted action from governments to tackle the challenge. For almost two decades now there has been no clear plan to address the crisis and the staffing gaps have continued to worsen, because, for whatever reason, the UK political system seems unable to respond properly to this very real public concern." (The King's Fund, 2022)*

In this context, are academic health science centres and systems:

- Too complex? (*See first diagram below*)
- Too hospital-centric?
- Ensuring people are at the centre of everything we do? (*See second diagram below*)
- Ensuring equality and/or equity is at the centre of everything we do?
- Brave enough to enough to jump to a different "S-curve" - turning the hospital-centric system upside down? (*See third diagram below*)







How can we learn from one another in the future?

The questions and discussion emphasised the importance of not losing our population and patients *and* not losing our clinical scientists and health professionals who are continually trying to bring together the clinical academic interface for patient and population benefit.

The presentation is available to access here.

Panel discussion

The panel discussion brought together **Per Jørgensen** and **Søren Barlebo Rasmussen** with:

- **Per Höllsberg**, *Vice-Dean for Research, Health, Aarhus University*
- **Thomas Larsen**, *Head of Corporate Management (Medicine), Central Denmark Region*

The panel reflected on:

- The importance of universities and health systems having an impact through collaboration at a regional level, notwithstanding the challenges set out in the opening presentations. *The* major challenge is time in the context of operational pressures facing healthcare providers, notwithstanding the importance of research collaboration as part of the response to those challenges (both now and in the future). *The* opportunity starts and stops with patients, and this is why we need to accelerate clinical academic collaboration and ensure the *time* for research and education. However, this requires education and training to be prioritised and protected to realise this ambition.
- There are fantastic research environments and researchers focused on very rare diseases, which are of course important, but we also need a shift in focus and investment to major societal challenges? These researchers need to be part of the health system transformation, otherwise they become part of the path dependency.
- The experience of the Central Denmark Region in shifting strategy for clinical academic collaboration and research outside of major research centres (in cities) to working as a network across the whole region. This has been a deliberate strategy, which requires focus to transform the operational reality for clinical academic collaboration.
- The role of political decision-making, which emphasises the importance of starting with co-creating the approach with patients and populations.

- Our risk - that we build *even better drilling machines* - with just one more doctor and one more nurse.

From the audience, Prof Emma Duncan (King's Health Partners) emphasised the importance of ensuring that **care for each other is in the centre**, which includes for patients, and for currently healthy individuals in the population, and for care providers. We will fall over if we try to undertake research and education without the creating the conditions in which people can thrive.

The questions from delegates included:

- What are the funding gaps when it comes to implementation? (Especially for projects that do not have commercial potential)
- How, as leaders, do you create conditions to remove time-wasting activities for research active health professionals and clinical scientists?
- If we move to the future you set out, we need to do much better at co-creating research and development with those people and places - how do we do this?
- How do we ensure that transformation reaches clinicians and patients? How do we ensure that the transformation is relevant for all involved?
- What role does “de-learning” of old practices play In this implementation framework?
- Could the ways of integrating knowledge move too fast?
- Could we have CAGs with a focus on trans-sectional care rather than based on diagnosis?
- Are the incentives aligned between healthcare systems and universities?
- Creating “missions” reminds me of Horizon Europe programs such as RIA/IA, which EU believes work great, but some stakeholders disagree. Do we need more of that?
- We agree on our challenges in the healthcare system and society in general, demographics, resources, etc. Are there examples of countries that are well on their way to the solution? *(translated from Danish)*
- Horizon Europe is a research and innovation program facilitating applied science. EU could probably be interested in scaling up the CAGs model across EU...

Session 2 | Design and development of clinical academic integration

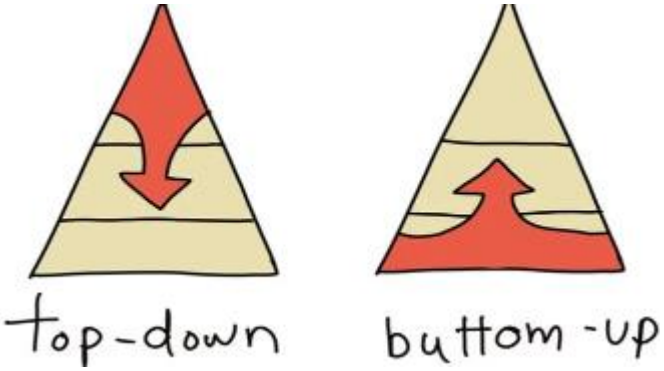
Regional Hospital Central Jutland, Central Denmark Region

Claus Brøckner Nielsen (Chief Medical Officer, PhD Regional Hospital Central Jutland) introduced the Regional Hospital Central Jutland and reflected on their journey from inspiration to reality in developing clinical academic (KUF in Danish) *communities*:

- To provide coherent clinical pathways of the highest standard, integrating education and research fellowships.
- Create cross-functional relationship.
- Create high quality in research with and outside of University Clinics, but also use existing knowledge and focus on implementation
- Education – focus on lifelong competence development.
- We will generate new knowledge and better education which is quickly applied in clinical practice for the benefit of our patients

The KUF communities try to reflect the hospital group profile but also deliberately aligned to the priorities for the health system. The *why* was set through the hospital leadership team, but *how and what* was determined through a 'bottom-up' process (see slides below). The leadership team specifically sponsor a KUF, including to support everyone to understand the purpose and role of KUF communities (including the leadership). This is a journey - a new organisation within the organisation is hard to understand never mind explain.

Why?



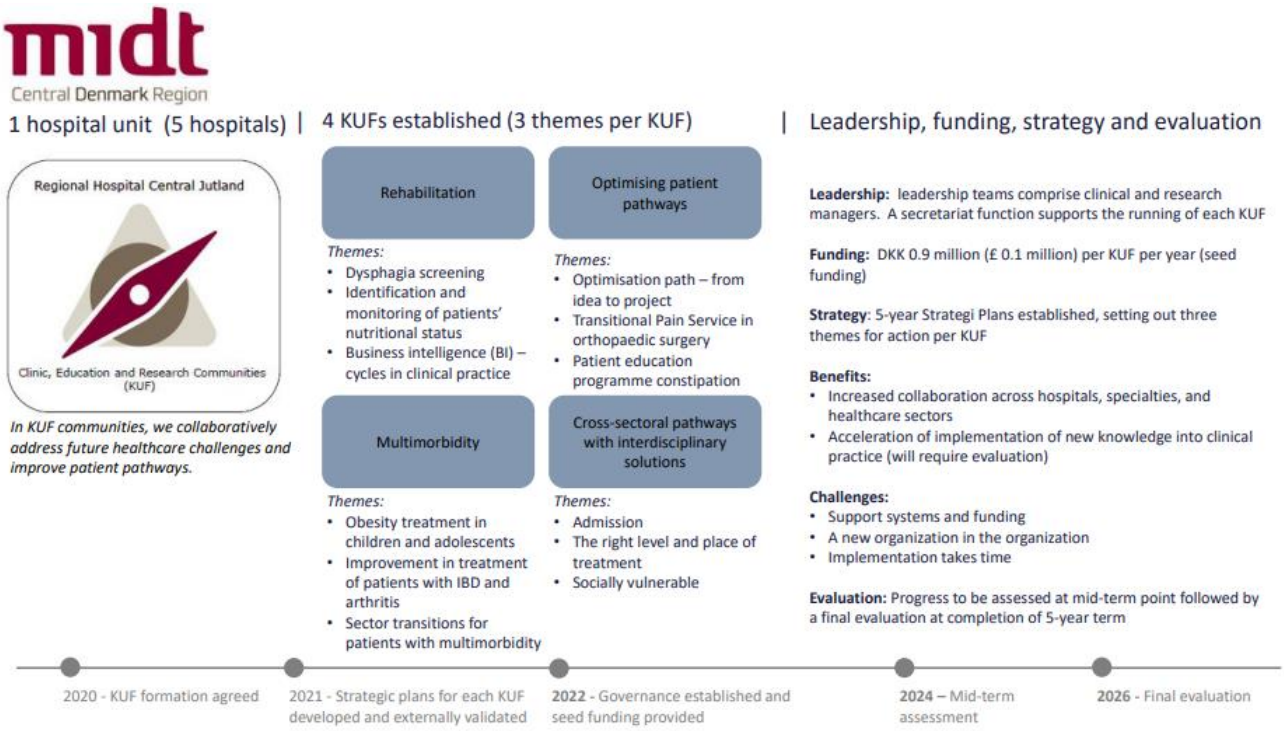
How? What?

Claus shared their experience and lessons, including what has not worked as well as expected, as well as how the support model has been continuously iterated to respond to this learning. This is detailed in Claus's presentation, which is available here.

Questions included:

- I like that KUFs are not disease specific and bring lots of disciplines together, but how do you balance this for specific clinical specialties?
- How do the KUFs work with primary care?
- How is KUF leadership and program management funded? Do all get the same funding?
- Could you say a little about how the R&D time is being secured in the hospitals? Is it part of your evaluation?

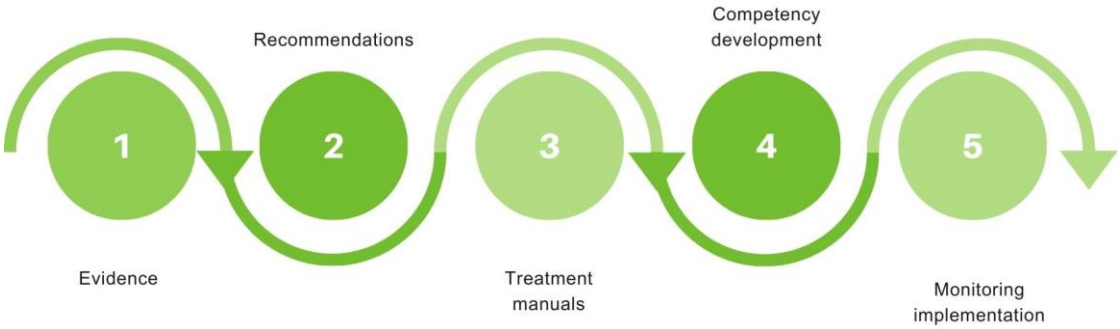
The approach is summarised in the case study below, which is available here.



Mental Health Services, Capital Region of Denmark

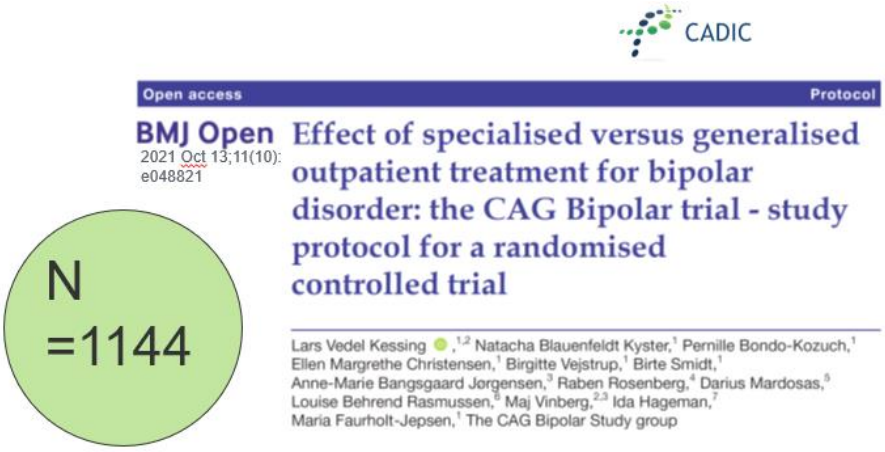
Per Sørensen (Head of Psychiatric Centre, Stolpegård) and **Lars Vedel Kessing** (Professor, University of Copenhagen and Consultant Psychiatrist, Psychiatric Centre Copenhagen) introduced the Mental Health Services in the Capital Region of Denmark, which includes four KAGs (two started in 2019; two in 2023; with one further planned).

- **Per** shared reflections from the development of the KAG Psykoterapi (CAG Psychotherapy), for which Per and colleagues lobbied to launch, and which was formed in 2019.
    - The vision is for ever closer connection between psychotherapy, research and competency development through evidence-based treatment. The focus is on method, not diagnosis.
    - Implementing evidence-based psychotherapy in collaboration with staff and organisation is a never-ending process through research and development, supported through education and training, and monitoring the implementation.



    - The annual outcomes book share progress and impact, and also reaffirms commitment from the organisation to the CAG. (The most recent outcome book is available here.)
    - The process of establishing the CAG is a continual process of asking questions - who and what does the CAG represent?
- **Lars** shared the development of the KAG (CAG) Bipolar, which responded to the absence of evidence-based treatment for people with bi-polar disorder in Denmark and that only 10% of people were offered group-based psycho-education in the Capital Region.
    - What was the problem for patients?
        - Treatment not evidence-based according to national and international guidelines for medical and psychological treatment
        - Patients experienced frequent relapses and hospitalizations as well as a low level of functioning and quality of life
        - No research in prevalent patients with progressive bipolar disorder, but only in incident newly diagnosed patients with bipolar disorder in the centralised Outpatient Clinic for Affective Disorders
    - The KAG vision is:
        - To ensure that all patients with bipolar disorder in the Capital Region of Denmark receive standardized and evidence-based medical and psychological treatment in accordance with current international and Danish guidelines aimimg to reduce relapses and hospitalizations and to improve functioning, quality of life and satisfaction with treatment.
    - The KAG reorganised care around the patients, with one management, one organisation and one staff (see presentation slides for details). Lars sets out the ten advantages to this

organisation in the presentation, and shared the evidence developed through The CAG Bipolar Study Group (Lars Vedel Kessing and colleagues, BMJ Open, 2021).

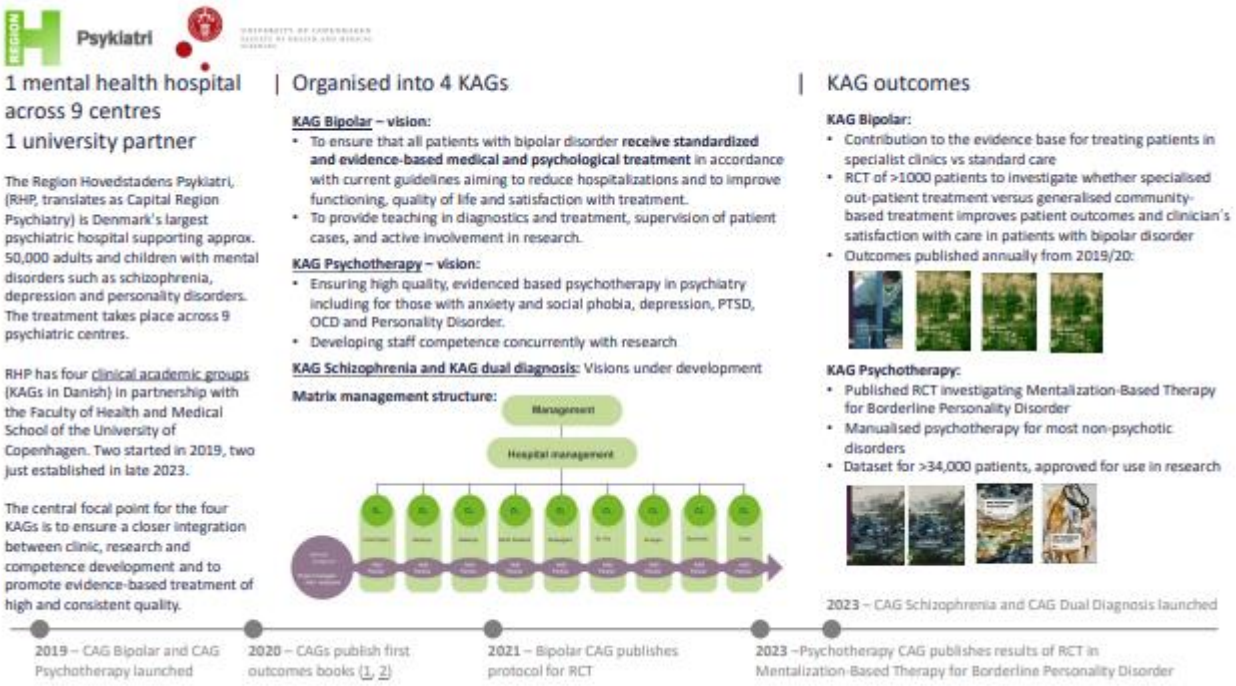


The questions from the audience included:

- To KAG Psykoterapi: how do you involve the patient perspective in your development of treatment opportunities and do the contribute to the KAG-strategy?
- To CAG bipolar: when you identify the "The problem for the patients"… did you ask the patients?
- Are your psychiatry hospitals smoke free?
- Are the patients involved in the CAG transformation or solely in research? And how do you concretely approach their involvement?

Per's presentation is available here and Lars's presentation is available here.

The approach is summarised in the case study below, which is available here.



Session 3 | Delivery and support models to enable clinical academic integration and collaboration

Central Norway Regional Health Authority

Björn Gustafsson (Professor, Norwegian University of Science and Technology, Vice CEO, Central Norway Regional Health Authority) shared the context from Norway, including the design and organisational form of the health service and how this has informed the development of research, education and training, and innovation in research. The system requires collaboration between medical and healthcare research between the health system and the universities. Björn took inspiration from the model developed in Greater Copenhagen Health Science Partners, where he has been involved in the international review panel for their CAGs.

Clinical Academic Groups "bring experts together for better health", and are a strategic tool to:

- **Increase** the scope and quality of clinical research
- **Speed up** translation from basic research to clinical practice
- **Utilise** resources across sectors and institutions
- **Build** multidisciplinary and robust regional teams
- **Strengthen** international cooperation and EU funding

The aim was to translate research findings into:

- Impact on prevention, diagnostics and treatment
- Improvement for the health care system and the patients
- Regional hub for research and development within the field

Approach to developing the CAGs include:

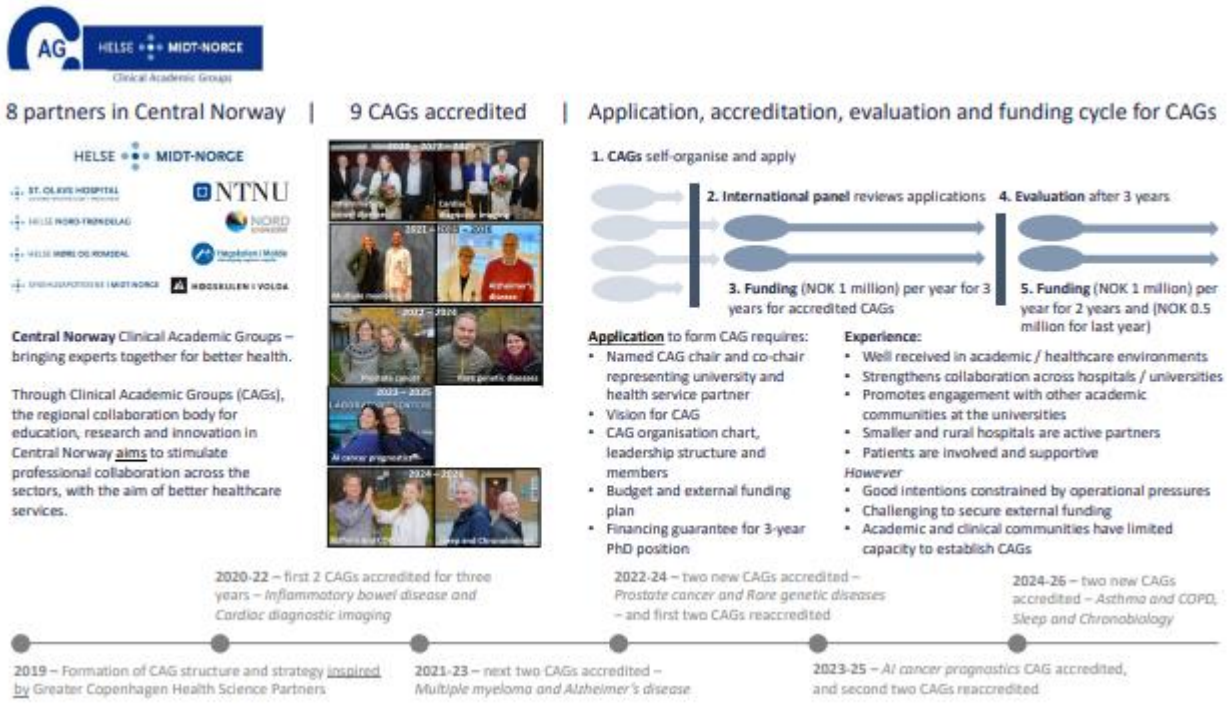
- Application process for CAGs includes an assessment by an international panel
- Start-up meeting bringing together CAG leaders and managers from collaborating institutions
- Status meeting once a semester to review workplans and highlight challenges and issues early
- Evaluation after 2.5 years - self-evaluation which is presented to the regional liaison committee, which tests the reality of collaboration
- Possibility of extension for a further three years, which is based on progress, value to the region, and plans for further activity and funding

The support includes financial, time and personnel, technical and administrative support, leadership support (see commitment letters below from collaborating organisations), publicity and visibility and connecting with political and strategic agenda).

Björn emphasised the importance of - and requirement for - local hospitals facilitating research in the clinic. This is supported through the commitment letter of support from leadership to support and enable the work of the CAGs.

The presentation is available here.

The approach is summarised in the case study below, which is available here.



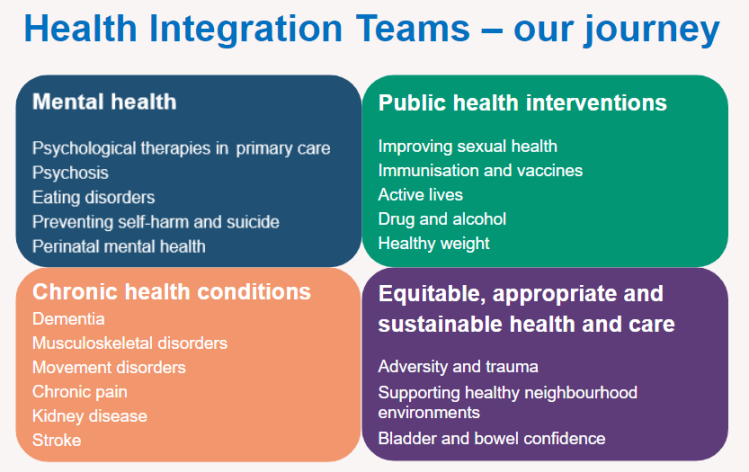
Bristol Health Partners

David Wynick (Professor of Molecular Medicine, University of Bristol and Director of Bristol Health Partners) introduced the approach in Bristol, where they deliberately bring together health and care through their Academic Health Science Centre, which encompasses healthcare providers including mental health, universities, local authorities as well as some specialist units. David highlighted the population health needs and inequities faced by people across the region.

At the start of the journey, there were limited local collaborations with no regional strategic health social care forum. There was researcher enthusiasm and some NIHR infrastructure, but no route to local decision-making for managing or commissioning health and social care.

After 14 years, the system has substantially changed. Patients are represented at all levels of the partnership from Board to Health Integration Teams (HIT), who are integral to the HITs and have played an important role in ensuring that Bristol Health Partners has played in integrated research and innovation within the health and social care system. David emphasised the importance of bringing people together and enabling people who should know one another *to know one another.*

David emphasised the importance of public health, mental health and thematic Health Integration Teams, including the likely accreditation of new Health Integration Teams supporting smoking cessation. The existing Health Integration Teams are detailed in the slide below:



The model has been flexible and adaptable. This was emphasised during the response to the COVID-19 pandemic, where the Health Integration Teams reorientated to respond to the challenges. The experience in Bristol emphasises the benefits of developing enduring networks in neutral space, with flexibility to adapt and respond to local needs and priorities. There are of course challenges - including capacity and resources -

How would David improve the development of the Health Integration Teams with the benefits of hindsight?

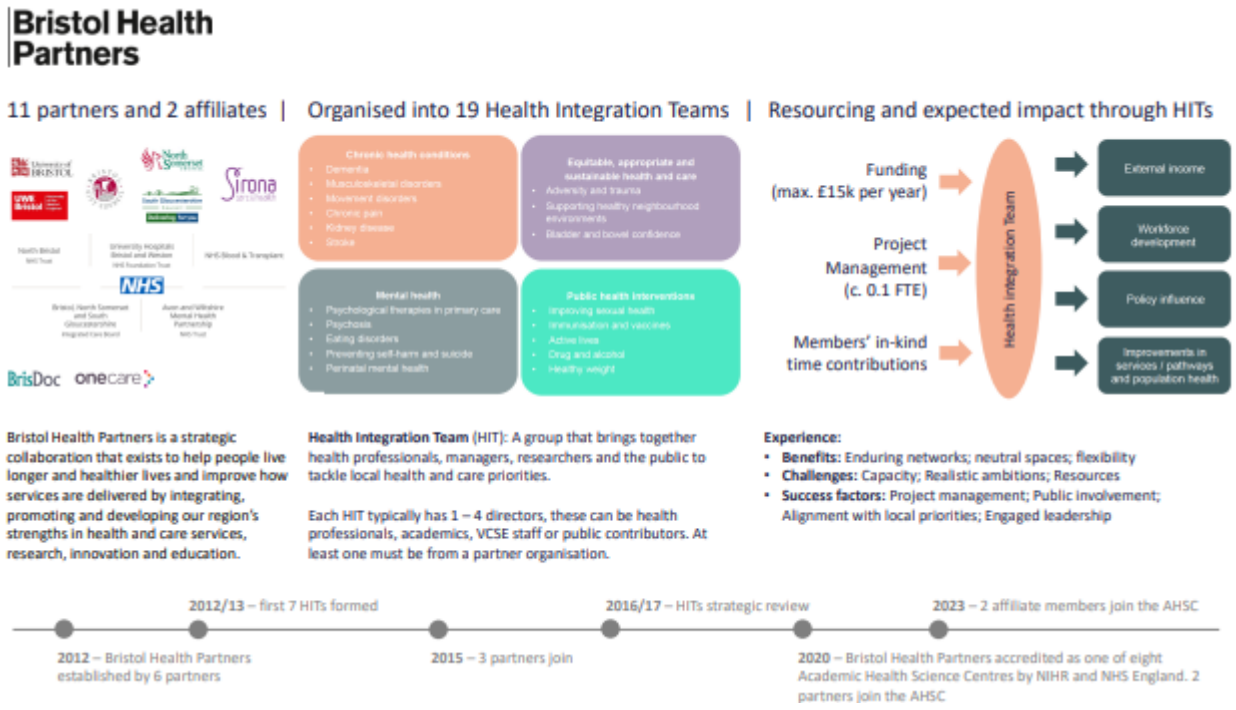
- Fully integrated primary care
- Better understanding of system priorities from the outset
- Timing – system readiness is key
- Potentially incorrect assumptions about a focus on support for research

The questions from the audience included:

- Can you tell us more about how primary care teams and clinicians are active in your HITs, and how this links to primary care research capability?

The presentation is available here.

The approach is summarised in the case study below, which is available here.



Session 4 | Impact, evaluation and evolution of clinical academic integration and collaboration models

Greater Copenhagen Health Science Partners

Ruth Frikke-Schmidt (Professor, Deputy Head, University of Copenhagen and Chief Physician, Rigshospitalet and Director, Greater Copenhagen Health Science Partners) shared an overview of the development Great Copenhagen Health Science Partners, which aims "to promote research collaboration and implementation of new knowledge in clinical practice." The partnership was established in 2017, inspired by the CAG model at King's Health Partners, which has been adapted and developed.

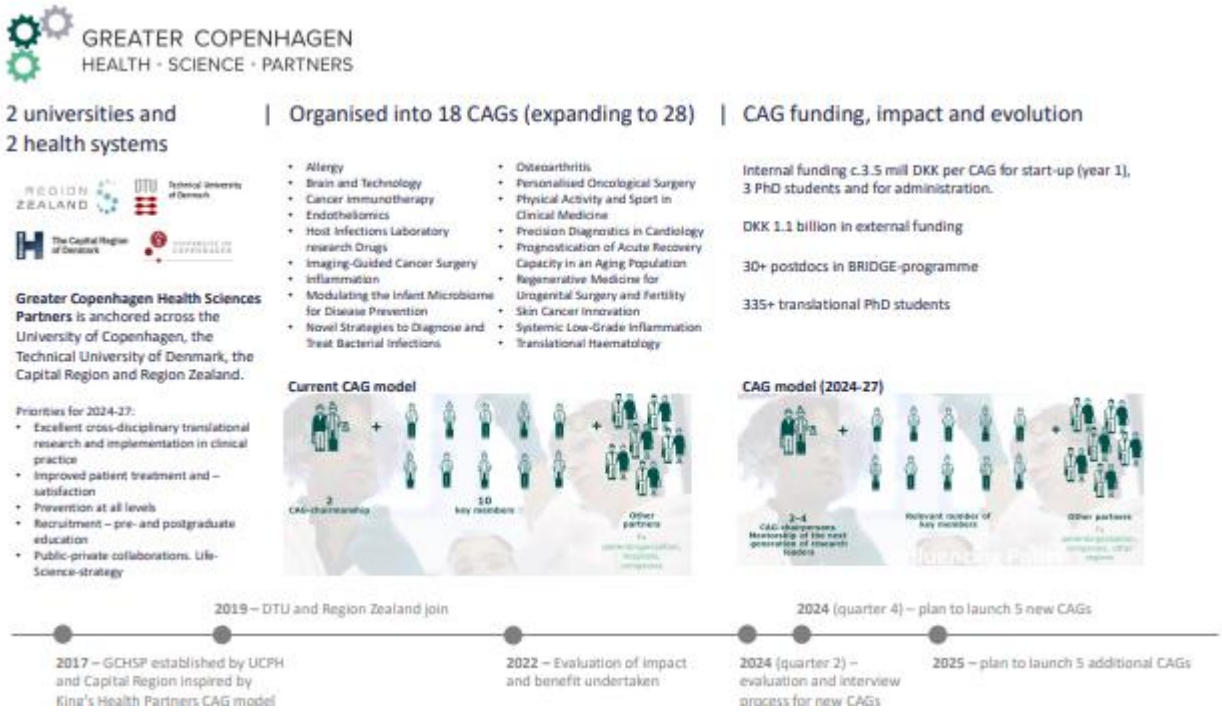
- 18 CAGs were originally established (further details here). An evaluation was completed last year, following which it was decided to launch a further 10 CAGs with an increased focus on clinical impact. The evaluation highlighted the role of the CAGs in:
    - Substantially strengthening cross-disciplinary collaborations
    - Substantially facilitate translational research
    - Contributing to strengthening of competences
- The evaluation emphasised the time taken to clinical impact, and also highlighted the potential for greater impact on the Life Science sector.
- The development of the CAG model includes a new co-leadership model that deliberately is supporting career and leadership progression within the partnership at early career stages.
- The vision for 2024-27:
    - Excellent cross-disciplinary translational research with direct value for patients and society.
    - Impact in clinical practice – improved patientcare and satisfaction.
    - Prevention at all levels
        - Hospitalizations
        - Reduction of hospitalization length
        - General prevention in the population
    - Recruitment and up-qualification - pre-and postgraduate education.
    - Strengthened collaborations – e.g. patient organizations and private companies.
- Greater Copenhagen Health Science Partners has just launched their next four Clinical Academic Groups in 2024, which will be followed by a further call for new CAGs in 2025 (see here for further details).

The questions from the audience included:

- How do you seek to impact clinical practice? How to measure impact on clinical practice?
- Could you say a little about how the R&D time is being secured in the hospitals? Is it part of your evaluation?
- Do the CAGs administrations that has taken the model use the same assessment framework? Including assessment improvements in equity in health?

The presentation is available here.

The approach is summarised in the case study below, which is available here.



King's Health Partners

The co-directors, KHP Diabetes, Endocrinology and Obesity Clinical Academic Partnership**, Emma Duncan** (Professor of Clinical Endocrinology, King's College London; Honorary Consultant Physician, Guy's and St Thomas' NHS Foundation Trust)**, Gavin Bewick** (Theme Lead; School of Cardiovascular and Metabolic Medicine and Science, King's College London; Reader in Endocrinology and Obesity), and **Sophie Harris** (Diabetes Consultant and Clinical Lead for Diabetes, King's College Hospital NHS Foundation Trust; Deputy Clinical Director of Diabetes, Health Innovation Network South London) joined **Hayley Ormandy** (Programme Director KHP Diabetes, Endocrinology and Obesity; Programme Director Prevention and Vital 5, South East London Integrated Care System and King's Health Partners) in conversation to explore the evolution of clinical academic groups and partnerships at King's Health Partners in London.

The discussion emphasised:

- The diversity of the population of south London and therefore the patients within the partner hospitals services, and how this has informed the move to a multiprofessional and multidisciplinary leadership team for the clinical academic partnership.

- The importance of learning from our history, recognising our context and the silos this creates, and the consequent invisibility of the importance and value of clinical academic collaboration - to patients, to health professionals and academics, to our organisations, systems and funders.
- The role of clinical academic partnership in breaking down barriers and make connections to better meet the needs of patients and communities, which is set out in the partnership's vision:

- The importance of co-creation, which has been central to the development of the recent priorities for research, and the principles that underpin this approach:

- The importance of bi-directional research grounded within clinics supported and enabled through the clinical academic infrastructure and partnership working (see slides in presentation for further details and case study example).
- The importance of increasing diverse participation in research:

The presentation is available here.

The approach is summarised in the case study below, which is available here.

Session 5 | Priorities to meet the challenges and realise the opportunities

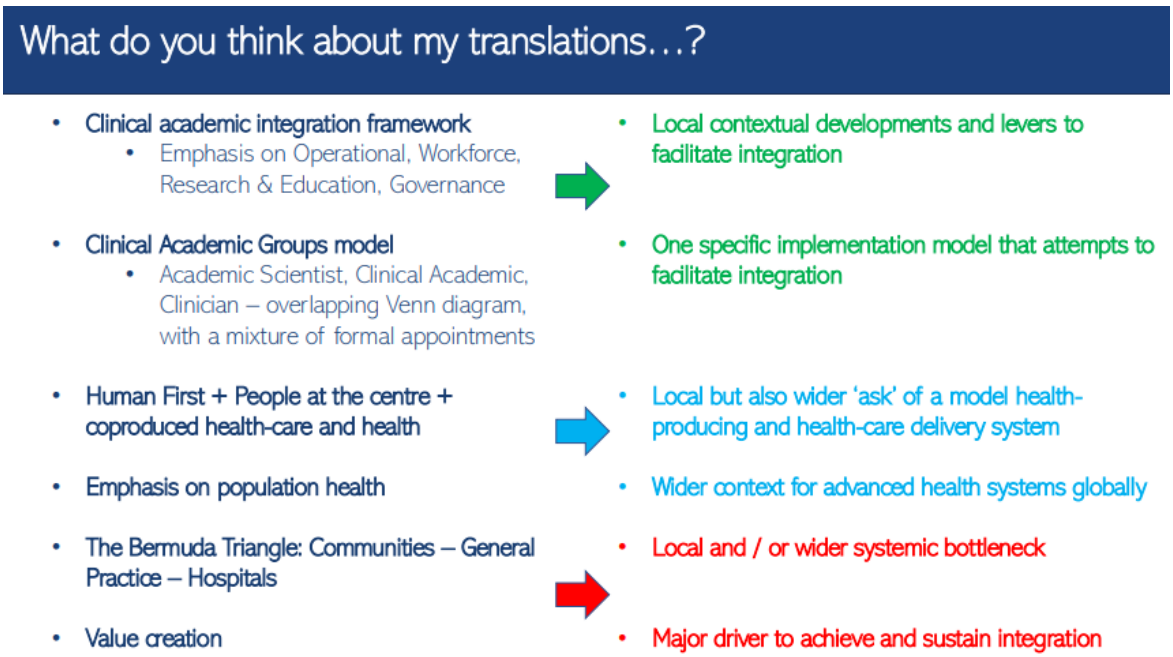
National University Health System

Nick Sevdalis (Professor, Academic Director, Centre for Behavioural & Implementation Science Interventions, National University of Singapore) reflected on the discussions throughout the day and the journey to implementation and impact. Nick started by asking the question 'why am I here…?', reflecting on his career and experience in London and Singapore - both what worked and what did not. This included where the Clinical Academic Group model has been a barrier rather than enabler to translating research into practice *and* practice into research.

Reflecting on the presentations and discussions, Nick highlighted:

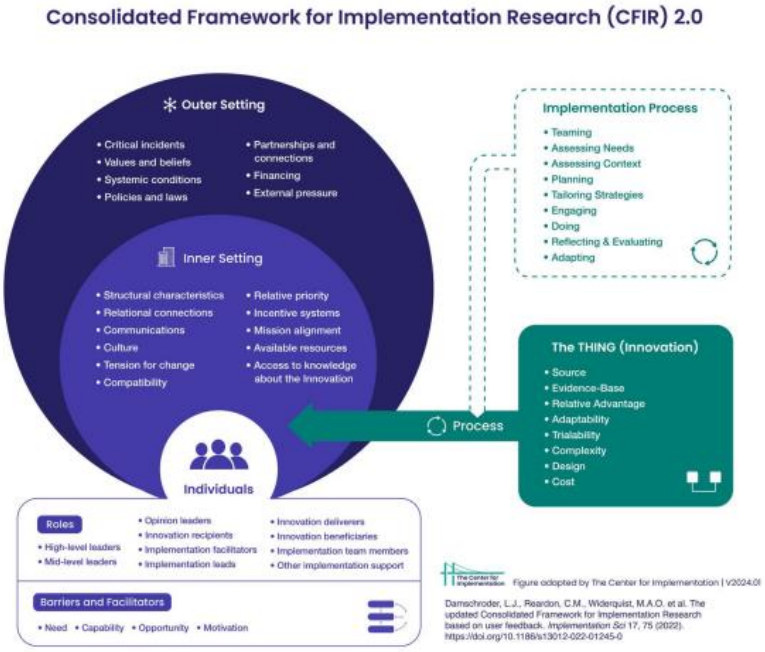
- Clinical academic integration framework - largely focused on organisational forms.
- Clinical academic group mission and purpose is clear - bringing people together working across boundaries
- Human First *with* people at the centre *with* co-produced health-care and health
- Emphasis on population health
- The Bermuda Triangle - communities - general practice - hospitals
- Value creation *across* an academic health science system - value for who defined by whom?

The question from an implementation science perspective includes:

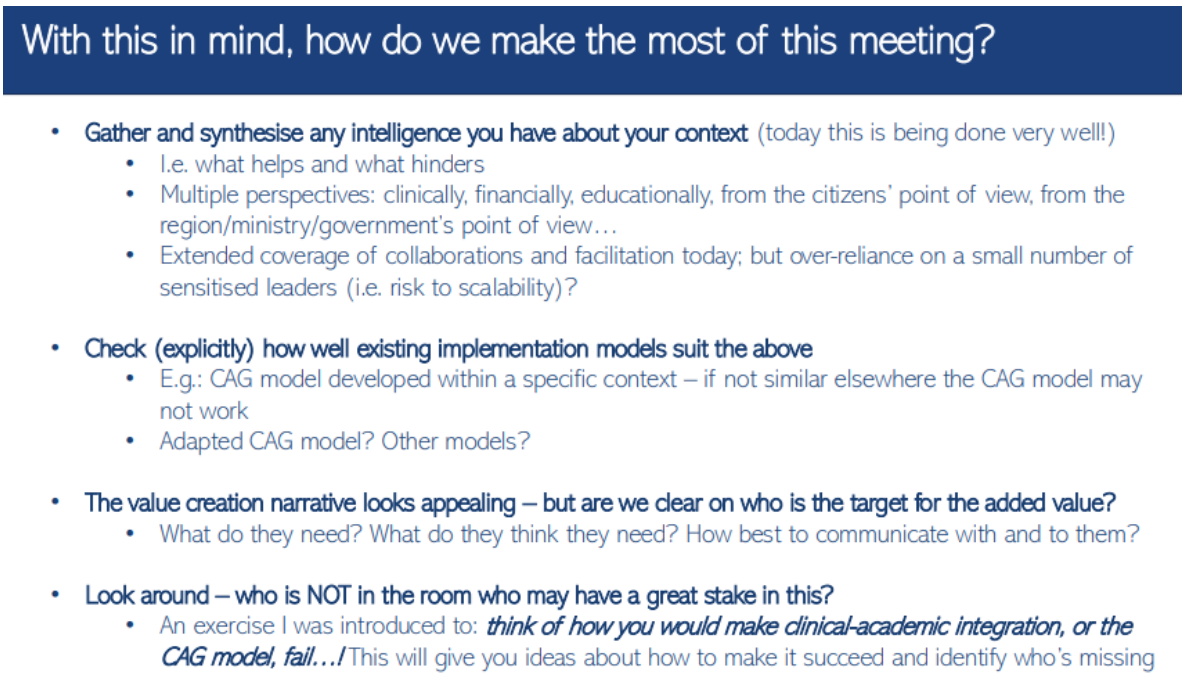


What do we get by having clinical academic integration and collaboration models that we would not have without them?

Nick shared the implementation science 'toolkit' which helps think through **what we're trying to do**, within specific **local and wider contexts** and with **the people** we're working with in mind.



Nick challenged the delegates to think through *how* to maximise the opportunity from the conference presentations and discussion:



The presentation is available here.

Panel discussion

Jill Lockett (Managing Partner, SHINE Executive Coaching & Consultancy), who was previously Managing Director of King's Health Partners and developed many of the local and international collaborations reflected in the presentation and discussions. Jill welcomed back **Ruth Frikke-Schmidt** and **Nick Sevdalis**, and welcomed:

- **Irem Patel,** Joint Director of Clinical Strategy and co-CAG leader, Respiratory and Allergy Clinical Academic Group, King's Health Partners
- **Paolo Parini**, Professor, Karolinska Institutet, MD, Senior Consultant, Director of Research & Development, Education and Innovation, National and International Affairs Department, Karolinska University Hospital
- **Oliver Watson**, Joint Chief Operating Officer, Bristol Health Partners

The discussion reflected on:

- Importance of finding new ways of investigating questions at a basic immunological level and within clinical trials based on direct interaction at the clinical ward, sharing specific examples.
- In Copenhagen, the development of new CAGs is an opportunity to support the development of young researchers and clinicians together through joint education and training.
- The potential for disconnect between publications and innovation. Paolo Parini highlighted the example of the pace-maker, which exemplifies innovation integration in terms of impact on patients around the world.
- There are many important examples, such as Karolinska-at-home, which brings together health, care and technological innovation. These are important examples, but we have examples across the breadth of our organisations. Need to prioritise and focus on patient impact.
- There is a shift in how we judge excellence, from academic perspective (rankings, impact, bibliography) to more societal impact. This is an important shift as it frees a lot of areas for integration and collaboration. This is not only collaboration between healthcare and academia, but also - and critically - within healthcare between the different sectors.

- The structures and process matter, but people matter. What is the academia and school of the future that meets the needs and challenges facing healthcare.
- If clinical academic systems are going to reach beyond discovery-translation-adoption, we have to aspire to have an impact beyond healthcare, to be an active partner in prevention, and have societal impact.
- The joy of the CAG structure is bringing people together who don't know one another, who may just be down the corridor from one another. What are the enablers? Funded, job planned, enabled clinical leadership. Same for programme management. Ensuring all 'stakeholders' are in the room. Share the wins (Irem Patel shared the example of the adoption and implementation of the Ottawa Model for Smoking Cessation at King's Health Partners).
- Oliver Watson reflected on the impact accelerator unit on a research project by research project basis (eg, South Asian dementia pathway). This makes an important contribution, and the role of the clinical academic groups is to sustain energy for the long term - they need to be more diverse and inclusive. The future is here but not very evenly distributed. We need to diversify the questions we are asking and who is answering them.
- How can we keep making progress? Nick Sevdalis emphasised the importance of being data-driven across a range of sources and disciplines (clinical, social sciences).

Discussion:

- We have not talked about 90% of health and care spend is used by 10% of the population. We don't focus on the wider determinants of health. If we targeted our resources on the 10% of population to address challenges and opportunities
    - We do not need *a* solution, we need *more* solutions. We need to abandon reductionism in medicine, whilst avoiding multi-comics. The university hospital needs to be a critical voice with our stakeholders, and this has been lost especially in Europe.
    - Listening and responding humbly.
    - Equity needs to be central through all our specialists.
- Thank you for being a learning community today.

Concluding remarks

Joseph Casey (Director, Partnerships and Operations, King's Health Partners) thanked all of the attendees, contributors and organisers for all that everyone has given to the conference and conversations. It is a privilege to be part of this learning community, but that privilege is also a responsibility given the scale of challenges - and opportunities - to improve health, equity and sustainability. We can only do this by putting "care for one another" at the centre of collaboration.