Evaluation Showcase - Integrated Chronic Kidney Disease Transformation

Health Innovation East Midlands

Monday 17th June 2024

Housekeeping

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- This meeting will be recorded and we will share the recording after the event
- Please keep microphones off during the presentations to avoid background noise
- If you have a question, please type it into the chat or be ready to raise your hand during the Q&A session at the end

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What is evaluation?

What is evaluation?

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"an essential part of quality improvement and when done well, it can help solve problems, inform decision making and build knowledge"

Source: Evaluation: What To Consider? 2015, The Health Foundation

- "The process of determining the merit, worth or value of something"
- "Using systematic, data-based inquiries about whatever is being evaluated"
- "A process undertaken for purposes of improvement, decision making, enlightenment, persuasion"

What was The Evaluation Fund

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- Up to £300k available in total to NHS organisations in the East Midlands to independently evaluate innovative projects already in place.
- Two Cohorts:
  - Cohort 1 – Deadline September 2022
  - Cohort 2 – Deadline February 2023

Eligibility Criteria 1 of 2

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Projects with the potential to:

- Be spread / adopted outside the immediate locality / organisation(s)
- Impact positively on workforce – efficiency / capacity / new ways of working
- Require full business case approval and evidence base to be supported / funded beyond the end of the project funding
- May have received external funding to undertake the project but are not already subject to an independent evaluation
- Have ICS level strategic support to sustain (and scale up if appropriate) beyond the initial testing phase provided the evaluation returns a positive business case

Eligibility Criteria 2 of 2

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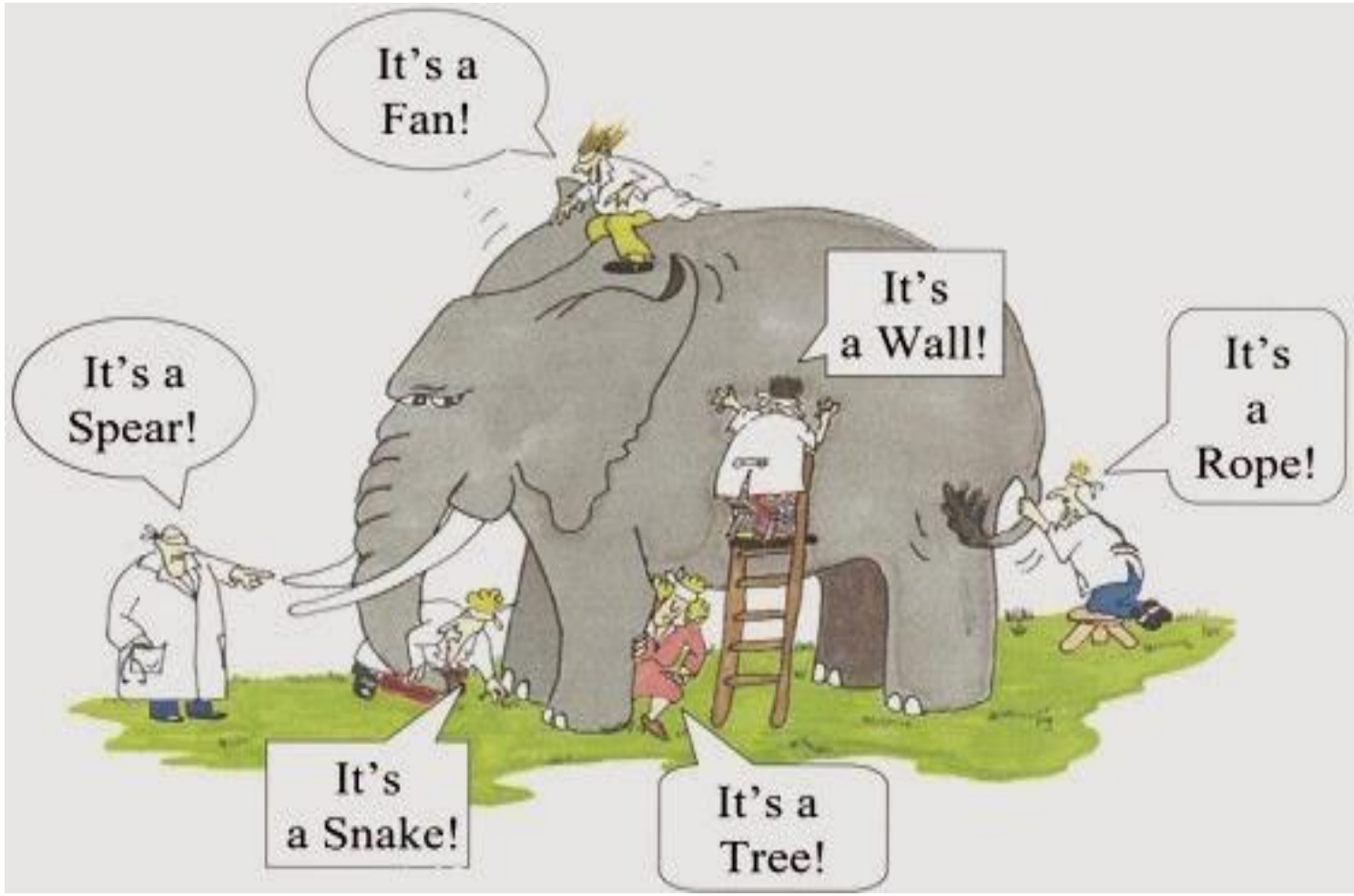
Projects **had to** fit under one of the following NHS England 2021/22 priorities as set out in the planning guidance:

1. Supporting the health and wellbeing of staff and taking action on recruitment and retention.
2. Delivering the NHS COVID vaccination programme and continuing to meet the needs of patients with COVID.
3. Building on what we have learned during the pandemic to transform the delivery of services, accelerate the restoration of elective & cancer care and manage the increasing demand on mental health services.
4. Expanding primary care capacity to improve access, local health outcomes and address health inequalities.
5. Transforming community, Urgent and Emergency Care to prevent inappropriate attendance at ED, improve timely admission to hospital for ED patients and reduce length of stay and/or support prompt and safe discharge.

More than the sum of its parts…



- What is already known?
- What other work has been done locally or in related projects?
- What do the implementation team know?
- Synthesize into a coherent whole
- An evaluation needs all of these to work

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NHS
Leicester, Leicestershire and Rutland

External Evaluation of a Project for Integrated Chronic Kidney Disease Care (LUCID)

A proud partner in the:

Leicester, Leicestershire and Rutland
Health and Wellbeing Partnership

NHS
University Hospitals of Leicester
NHS Trust

Declaration of Interest

- Since 2023 LUCID has been part funded by AstraZeneca UK as part of a Joint Working Agreement with University Hospitals of Leicester NHS Trust

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Leicester, Leicestershire, and RUtland Chronic Kidney Disease Integrated Care Delivery Project

- Better kidney health for all in LLR:
  - Preventing progression of CKD & associated complications
  - Improving CKD management and health outcomes for all
  - Promoting integration, maximising productivity & value for money across the healthcare system

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PCN level interventions including virtual CKD clinics with the aim of improving:

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PSP-CKD

CLINICAL RESEARCH

The Primary-Secondary Care Partnership to Improve Outcomes in Chronic Kidney Disease (PSP-CKD) Study: A Cluster Randomized Trial in Primary Care

Major, Rupert W.; Brown, Celia; Shepherd, David; Rogers, Stephen; Pickering, Warren; Warwick, Graham L.; Barber, Shaun; Ashra, Nuzhat B.; Morris, Tom; Brunskill, Nigel J.

Author Information

JASN 30(7):p 1261-1270, July 2019. | *DOI:* 10.1681/ASN.2018101042

JASN
JOURNAL OF THE AMERICAN SOCIETY OF NEPHROLOGY

NIHR | Applied Research Collaboration East Midlands

Kidney Research UK

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https://journals.lww.com/jasn/fulltext/2019/07000/the_primary_secondary_care_partnership_to_improve.15.aspx

Risk Stratification

1.5 Risk assessment, referral criteria and shared care

Risk assessment

1.5.1 Give adults with CKD and their family members or carers (as appropriate) information about their 5-year risk of needing renal replacement therapy (measured using the 4-variable Kidney Failure Risk Equation).

Follow NICE's guideline on shared decision making when communicating risk. **[2021]**

https://www.nice.org.uk/guidance/ng203

Kidney Research UK

NIHR | Applied Research Collaboration East Midlands

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Pre-LUCID

- Minimal interaction between primary and secondary care
- “One size fits all”
  - No risk stratification
  - Unaware of challenges different PCNs/practices face
- Sporadic education focused on single topics/medications
- Uptake of evidence based medications slow

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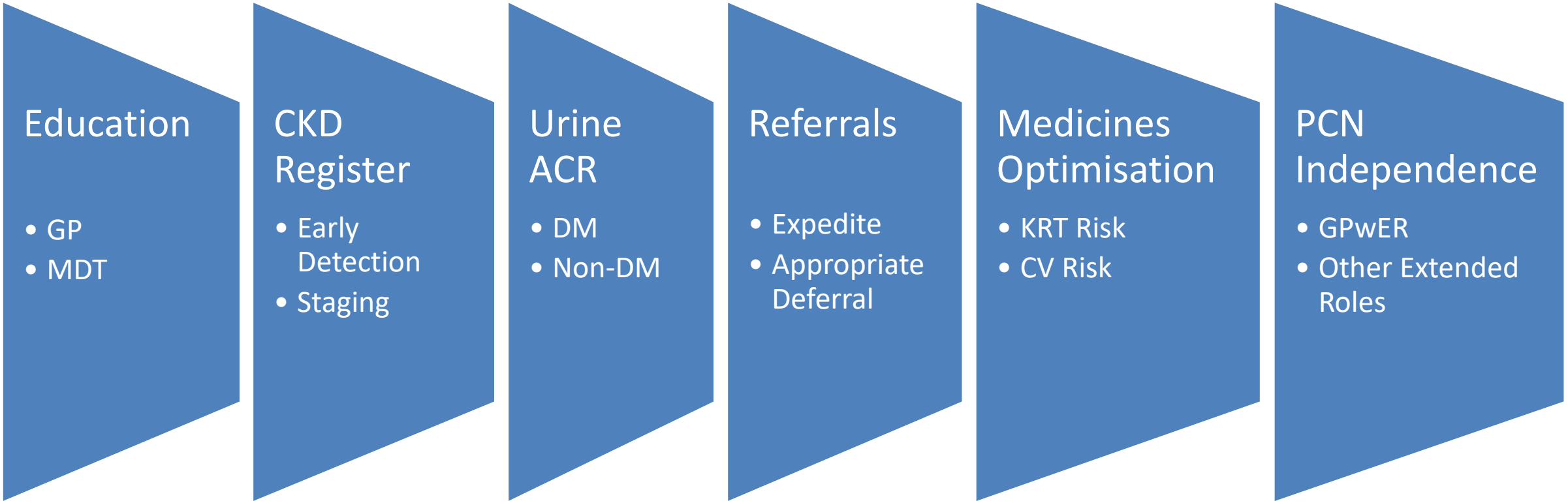
LUCID – Aspirational Steps



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Virtual CKD Clinics and MDTs

- Clinics and MDTs Run at PCN and/or Federation Level
- Available to all PCNs in LLR
- Approximately 1 clinical session per PCN every five weeks
- Supported by optional dashboard to assist with risk stratification

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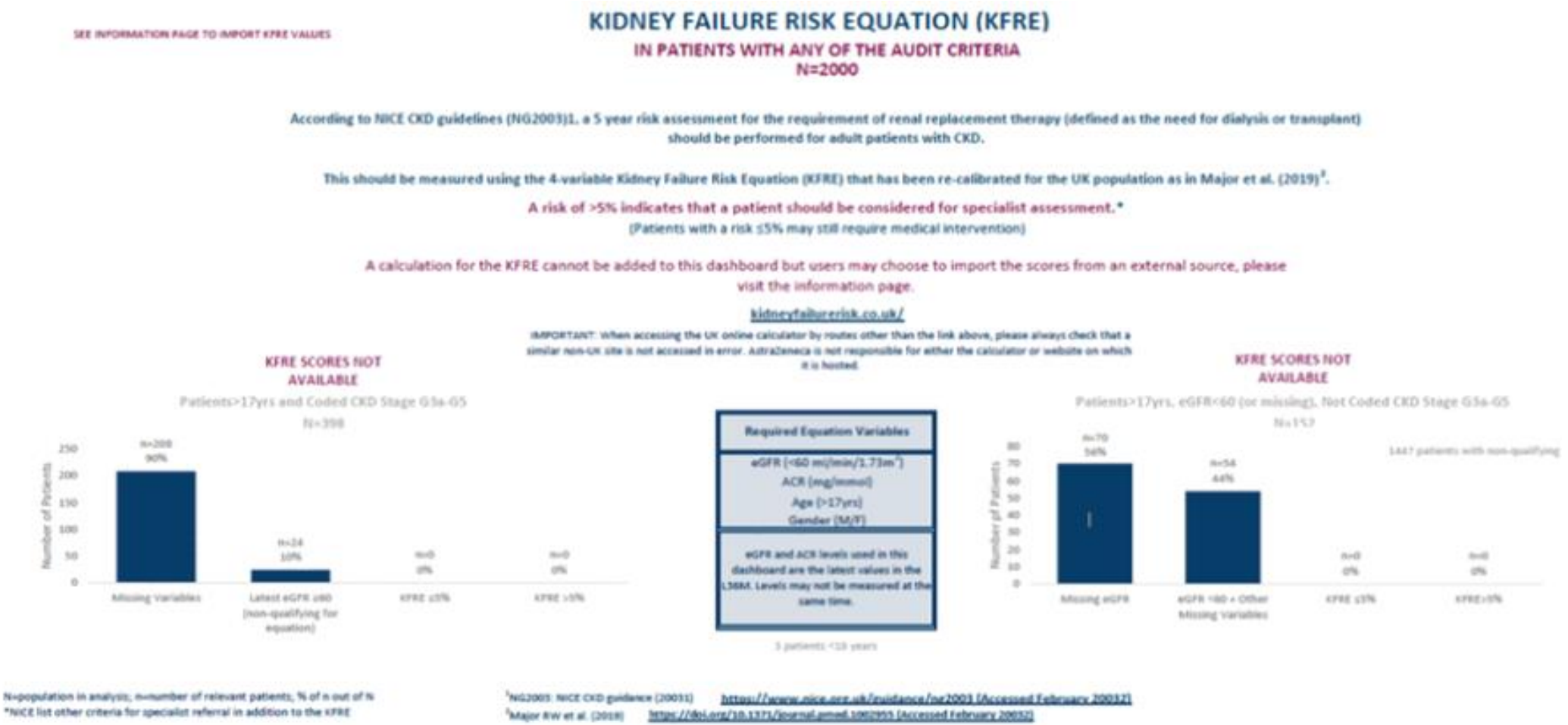
LUCID – Dashboard



N=population in analysis; n=number of relevant patients; % of n out of N
*NICE list other criteria for specialist referral in addition to the KFRE

1NG2003: NICE CKD guidance (20031) https://www.nice.org.uk/guidance/ng2003 [Accessed February 20031]
2Major RW et al. (2019) https://doi.org/10.1371/journal.pmed.1002955 [Accessed February 20052]

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LUCID

- Earlier disease management of CKD
  - Education
  - Virtual clinics
- Risk Stratification
- Medicines Optimisation
- Impact on services and disease outcomes

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Health and Wellbeing Partnership

Edge Health

Evaluation Showcase

Leicester, Leicestershire, and Rutland Chronic Kidney Disease Integrated Care Delivery Program (LUCID)

Health Innovation East Midlands

17th June 2024

Edge Health

Summary

1

Evaluation Approach

Evaluation Approach

Contextualising LUCID

Prior to the commencement of any evaluation, we first conduct a literature / data review. This enables us to understand the challenges the intervention is trying to solve. Key in this case was:

Increasing prevalence of CKD

- KRT figures rising 3% year-on-year nationally
- Public Health England estimated a 60% increase in CKD stage 3a-5 from 2014 to 2036
- LLR has an older population than average
- Diabetes mellitus rates in LLR are estimated to nearly double from 2013 to 2030

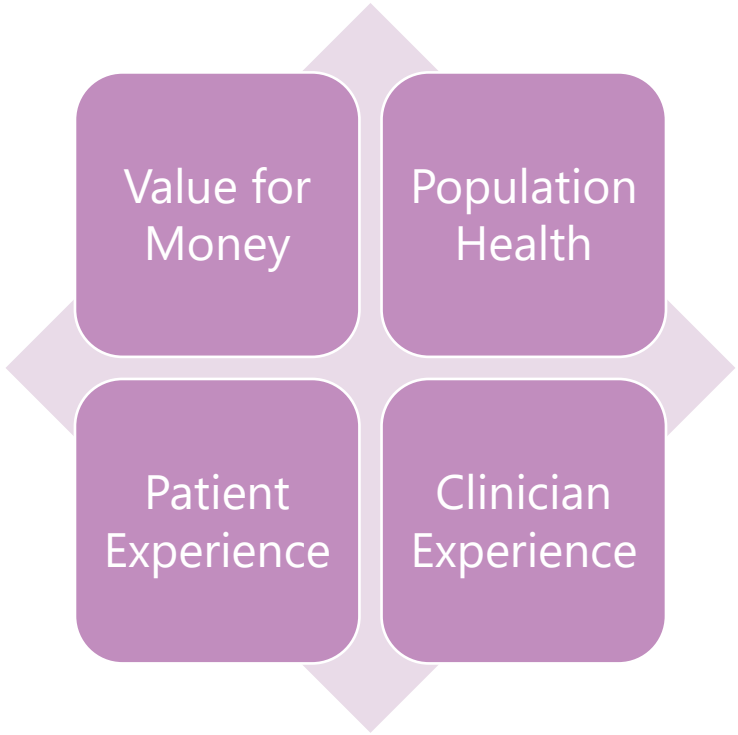
Rising cost of CKD care

- CKD care accounts for ~3.2% of the total NHS spending
- High rates of KRT with long RTT lists

Workforce

- Patients per GP has increased by 15% since 2015
- LLR has 30% less GPs than reported as required
- Low numbers of nephrologists per population
- Difficulties in recruiting nurses into kidney workforce

Development of Evaluation Framework



Quadruple Aim Framework

In the Health and Care Bill, the Triple Aim was a proposed common duty for NHS bodies that plan and commission services and that provide services. The hope was this framework would help align NHS bodies around a common set of objectives.

The Triple Aim is a framework aiming to optimise health system performance through assessing against 3 core areas:

- Population health
- Patient Experience
- Value for Money.

This has been updated in the literature to also add emphasis on clinician experience, creating the Quadruple Aim Framework. This is important in the context of the NHS workforce crisis.

This framework was agreed for use in this evaluation as it is recognisable to NHS leaders and the outputs could support commissioning decisions going forward.

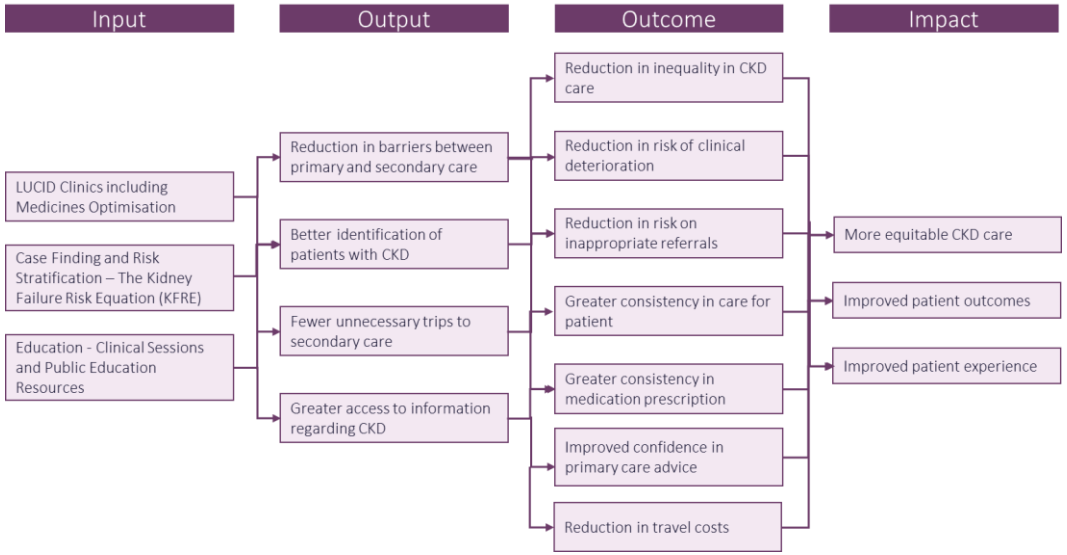
Evaluation Approach

Initial Engagement

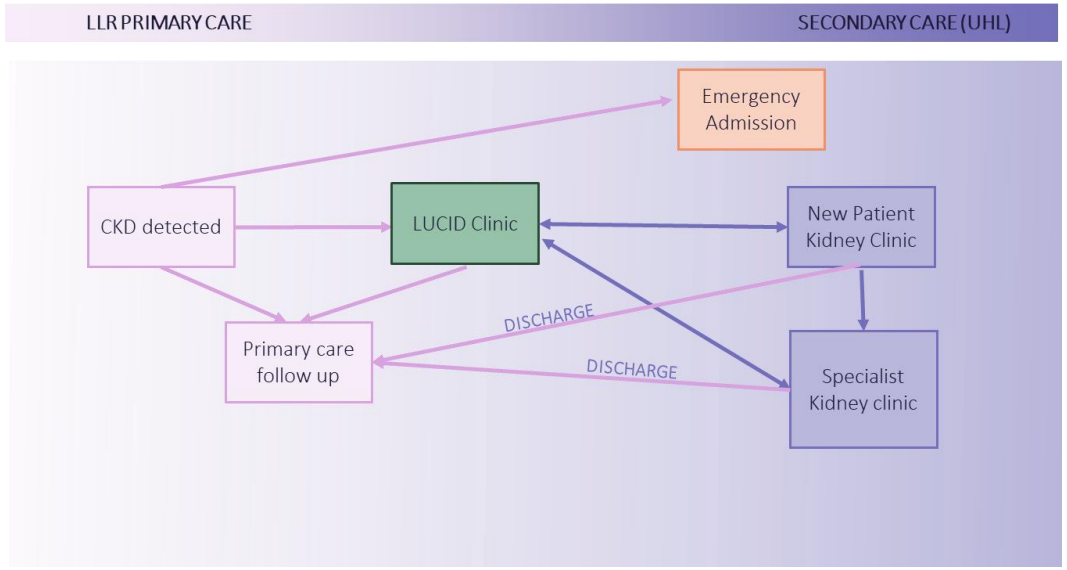
Our team then spoke with key stakeholders of the team to gain a deeper understanding of the implementation of LUCID and its impact.

This led to the development of detailed pathway change diagrams and impact pathways for patient, staff and health system.

Impact Pathway



Pathway Change

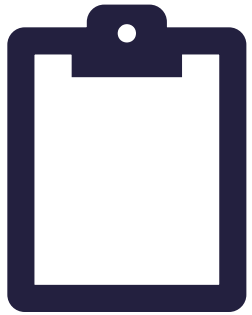


Evaluation Approach

Data Collection & Analysis

Using the Quadruple Aim Framework and the impact pathways we developed alongside key stakeholders, we then undertook our analysis.

The first step in our analysis was determining what data was required. We determined for **a mixed method analysis** we would need:

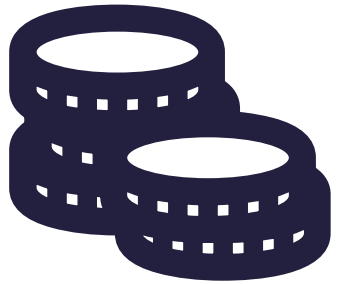


Bespoke Survey Data

LUCID Activity Data

ePACT Data

UHL Data



Cost Data

2

Key Findings

Key Findings

LUCID Clinics

The first LUCID intervention is the implementation of LUCID clinics.

Maturity	Location	First clinic with recorded outcomes	2022									2023									
			Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Total
New	PCN 4	26/04/2022	1						1				1	1			1		1	1	7
Mature	PCN 2	07/05/2022		2			1	1				2	1	1		1	1	1	1	1	19
Mature	PCN 1	18/05/2022		1		1	1					1		1	1	1	1	1	1	1	11
Mature	PCN 3	27/07/2022				1			1				1		1		1	1		1	7
New	PCN 5	22/06/2023															1	1		1	3
New	PCN 7	01/08/2023																	1	1	2
New	PCN 8	03/08/2023																	4	4	8
New	PCN 9	12/09/2023																		1	1
New	PCN 10	29/09/2023																		1	1
	Total		1	3	0	2	2	1	2	0	0	3	3	3	2	2	5	4	8	12	53

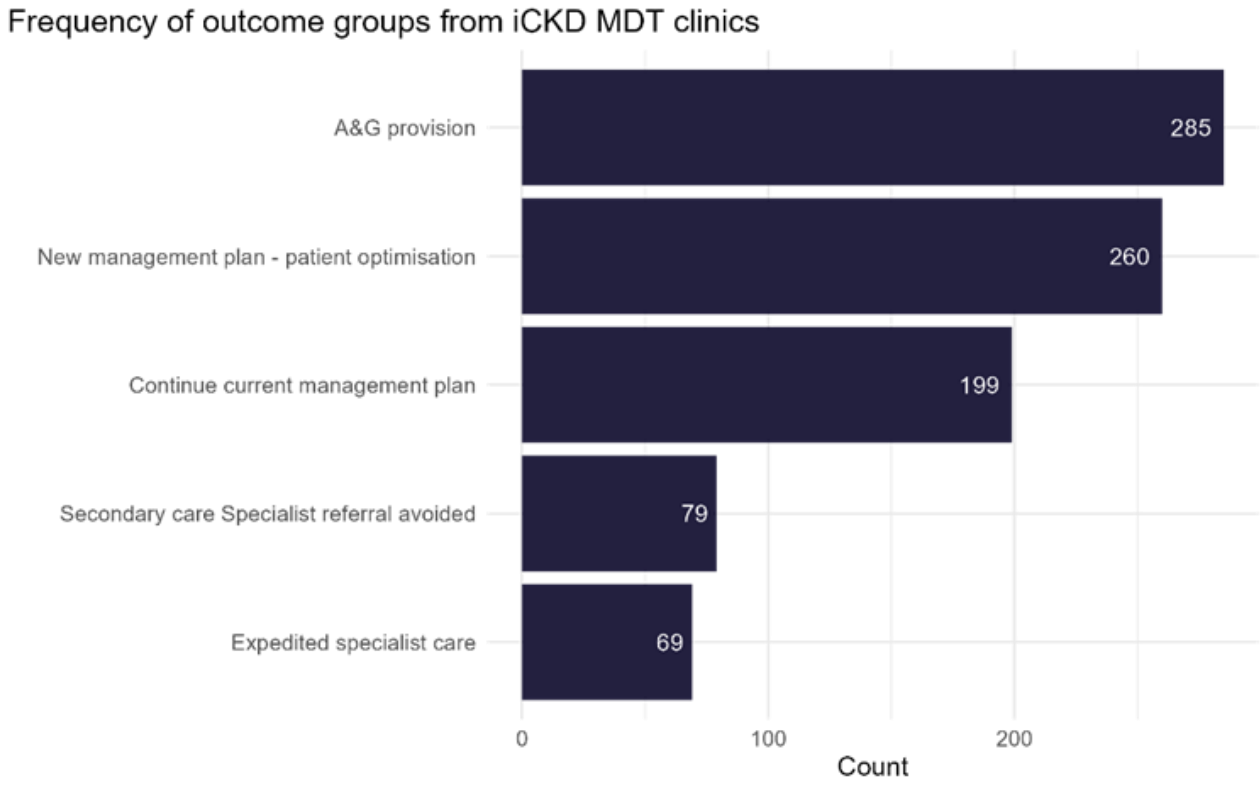
- As of September 2023, the LUCID programme has successfully held 54 clinics with outcomes recorded across 9 PCNs.
- A total of 575 patient cases were discussed, 396 of which were new reviews.
- The majority of PCNs have 1 clinic per month. As the PCNs becomes more mature this appears to happen more consistently.

Key Findings

LUCID Clinics

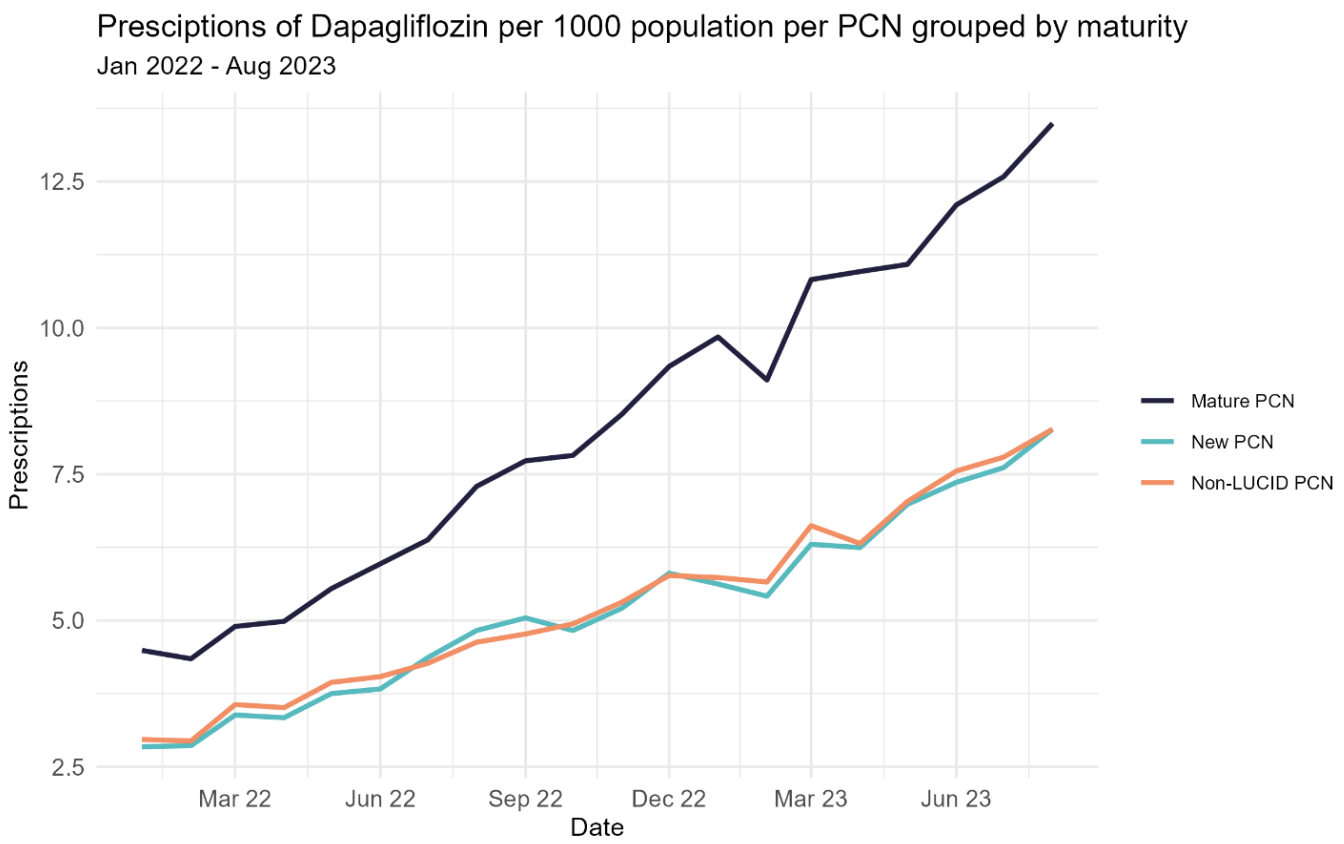
LUCID staff have encouraged the collection of outcome data as a way to measure the impact of LUCID.

- For every patient who is discussed in a LUCID clinic, data is collected on what was provided or done during the clinic, e.g. A&G was provided, a new management plan was established, etc.
- The most common outcome is Advice and Guidance provision, and development of a new management plan.



Key Findings

Dapagliflozin prescribing



NHSBSA Dashboard Polypharmacy Prescribing Comparators, NHSBSA Copyright 2023

The LUCID clinics also aim to support medicines optimisation for CKD patients. <u>One key medication to optimise are SGLT2 inhibitors.</u>

- In 2021, Dapagliflozin was the first SGLT2 inhibitor approved for the treatment of chronic kidney disease in adults.
- Given the lag between SGLT2i prescription and long-term improvements in outcomes, it is not possible to quantify the savings from increased SGLT2i prescriptions yet.

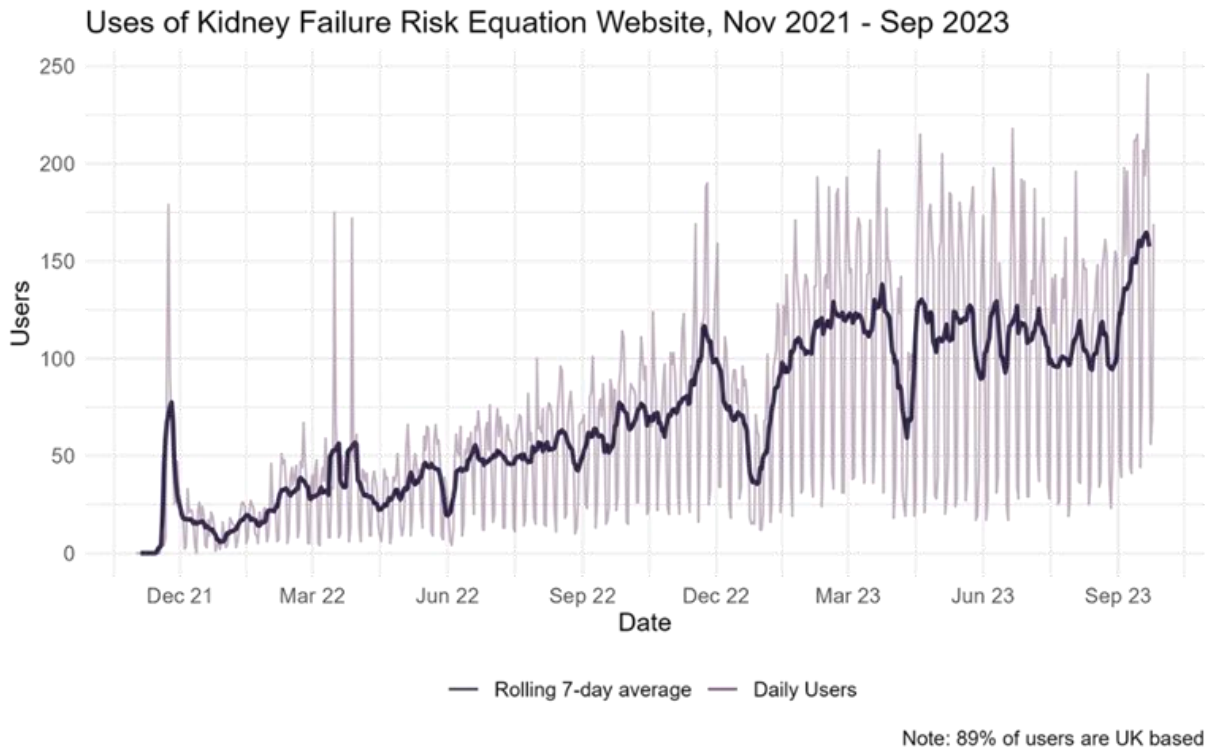
Key Findings

Case Finding and Risk Stratification

The second area to consider is the impact of the programme on case finding and risk stratification.

A key way that LUCID is supporting this is through promoting the **Kidney Failure Risk Equation (KFRE).**

- Since the KFRE tool has been established and recommended by NICE it has seen a steady increase in daily users.
- Most use Monday to Friday and between 0900 and 1700, suggesting clinical use within standard UK clinical hours.



Key Findings

Education

The LUCID programme also provide education sessions to clinicians and the public.

Alongside LUCID clinics, the LUCID team have put on over **52 education sessions** for staff to learn more about CKD care There are 2 variations of these sessions: intermediate and introduction. The content includes:

- A general overview of CKD
- An overview on the importance of urine ACR
- Details on best practice management of CKD including, ESKD, CVD, other complications
- An introduction to KFRE including its limitations
- An overview of referral criteria e.g. urgent versus routine
- An overview of LUCID clinics for those PCN not already participating

Speaking to staff and a patient representative it was evident that educating patients is key in allowing them to feel empowered in their care.

LLR created **8 public education videos** which are available on Youtube and have reached up to 2,000 views.

Topics covered are:

- Your kidneys and what they do?
- What is my risk of kidney failure?
- Chronic Kidney Disease
- What are SGLT2 inhibitors?
- High blood pressure and the kidneys
- How to keep your kidneys healthy
- Anaemia and the kidneys
- Tests to check kidney function

3

Staff Experience

Key Findings

Staff Experience

Overall perception of the programme from staff is highly positive.

"Continue to fund this pathway. Try to adopt similar pathways for other specialties."

"This helps identify patients with kidney problems early prevents emergency presentations in ED. supports the primary care team to support patients in primary care. links to other LTCs such as diabetes and cardiac. It represents value for money."

LUCID clinics improve staff knowledge on CKD while allowing for better care for the patients.

"We have enjoyed being involved with the team and feel that the care our patients get, has improved as a consequence"

"Our patient group are very vulnerable and struggle to engage with secondary care but now they get the input of secondary care but from a team they are used to working with"

4

Value for Money

Key Findings

Cost Benefit Analysis

Due to patients on a CKD pathway only being seen 3 times a year, the benefits of the LUCID programme will take time to realise. Therefore, the total costs do not yet outweigh the benefits per LUCID clinic (£830 per clinic).

As this type of programme requires significant implementation costs, we calculated the expected cost benefit ratio in the medium- to long-term. **This uses assumes all PCNs in LLR will join the programme and reach the outcomes of the most mature PCNs involved in the programme.**

Description	Value
Treating patients in primary care instead of secondary care	£183,228
Reduced A&G requests	£21,640
Reduced new patient clinic attendances	£37,333
Increased dapagliflozin prescriptions	£455,546
Total Benefits	**+£697,747**
Total Costs	**-£252,367**
Benefit Cost Ratio	**2.76**

Costs in the medium- to long-term include costs at a PCN level, secondary care workforce costs and operational/admin workforce costs of the LUCID program. Together, the total cost of running the LUCID program in the whole of LLR is estimated to be £252,367 annually in the medium to long term.

Total expected annual benefits are £697,747 bringing the benefit cost to 2.76 in the medium-to-long-term.

Key Findings

Non-Quantified Benefit

Patients receiving better and earlier care

- Through earlier referrals into secondary care they may be an additional **reduction in dialysis and kidney transplants** on top of the reduction through SGLT2i.
- Being able to identify suitable patients for **arteriovenous fistulas** earlier, can improve their outcomes in the long run.
- Reduction in **ED attendances** from complications.
- Reduction in patients not attending their **outpatient appointments.**
- Increase in **Quality-Adjusted Life Years** (QALY) for avoidance of ESKD.

Other Benefits

- Addressing health inequalities:
  - Enables specialist input closer to home allowing people with limited resources, frailty to limited mobility better access to care.
  - Ability to engage with hard to reach and vulnerable patient groups through collaboration.
  - Allocation of specialist resources based on population needs including deprivation.
- Environmental impact through reduction in having to travel to secondary care by optimising medication and caring for patients in primary care.

5

Recommendations

Recommendations

Future considerations

Communication with patients

- Knowledge gap as patients are not aware of the support they were receiving as a result of the program.
- Effective communication to the patients also increases their confidence in their care and their trust in their clinicians

Education sessions

- Split education session into clinical and administrative part.
- First part on CKD care attended by everyone whereas administrative part only attended by smaller group.

LUCID clinic attendance

- Optimal staffing mix for clinics should be explored in more detail.
- Suggestion for greater attendance from practice nurses and GP registrars as well as other specialists from other clinical specialties to allow for holistic care.

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Q&A

Please raise your hand or type your question into the chat.

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Summary

To summarise….

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- Evaluation is a highly worthwhile activity and the only true way to measure whether the reality matches up to the intended benefits
- It is important to ‘best fit’ the methodology and outputs to the type of work you are doing and what you need to measure
- It is best to factor flexibility in to the contracting and into the evaluation plan
- You can never consider data and data collection too early!
- Involve information/data colleagues early on to discuss what is possible, and IG to enable safe data access
- You do not have to be an expert in evaluation or have conducted evaluations in the past, lots of support is available

We can help you with

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- Advice and guidance
- Benefits workshops
- Writing evaluation plans and outlines
- Conducting the tendering process – and knowing who to ask for bids
- Selecting an evaluator

Contact the team for more information: healthinnovation-em@nottingham.ac.uk

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Thank you for listening

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