CO-PRODUCING HEALTH SERVICES RESEARCH: THE HOWS AND WHYS

An event by HSRUK and the NIHR Knowledge Mobilisation Fellows

4th May 2018, Woburn House, London

FOREWORD

Many believe that collaborative research between academics and patients, practitioners, policy-makers, managers and/or others will ultimately influence policy and practice more effectively. Accordingly, health services researchers are increasingly encouraged to ‘co-produce’ their studies. But few know what this means or how to do it, much less have the skills to navigate the challenges or capture the differences that co-produced research might make.

To advance the field, a dynamic, interactive one-day event was held in May 2018, co-hosted by NIHR Knowledge Mobilisation Research Fellows and HSRUK. This innovative report provides an overview of the learning from those who ran the workshops and the participants themselves.

As lead of the event committee I enjoyed it immensely, not least because of the energy and creativity of the NIHR Knowledge Mobilisation Research Fellows, the commitment of HSRUK and the positive, enthusiastic feedback from so many participants. I also learnt a lot including:

- Many people from diverse backgrounds are interested in co-producing health services research, often in unusual and creative ways. This is a vibrant area, which was reflected in the animated conversations that took place throughout the day.
- The event raised more questions than it answered, which is probably unsurprising given that the field is relatively new.
- Including participants and speakers from many different and sometimes unexpected backgrounds fostered novel ways of considering co-production.

Like many others, we were probably too ambitious, attempting to cover too much territory in one day. But we now know that there is a real appetite to learn more about co-producing health services research. Consequently, as this report suggests, this highly successful event on the co-production of health services research is just a beginning.

Lesley Wye, NIHR Knowledge Mobilisation Research Fellow

THANK YOU

This event was the very definition of co-production, working in partnership with the NIHR Knowledge Mobilisation Fellows and an incredible variety of speakers to design the event – not to mention the diverse mix of participants on the day, from academics and patient representatives to clinicians and commissioners. Thank you to everyone involved.

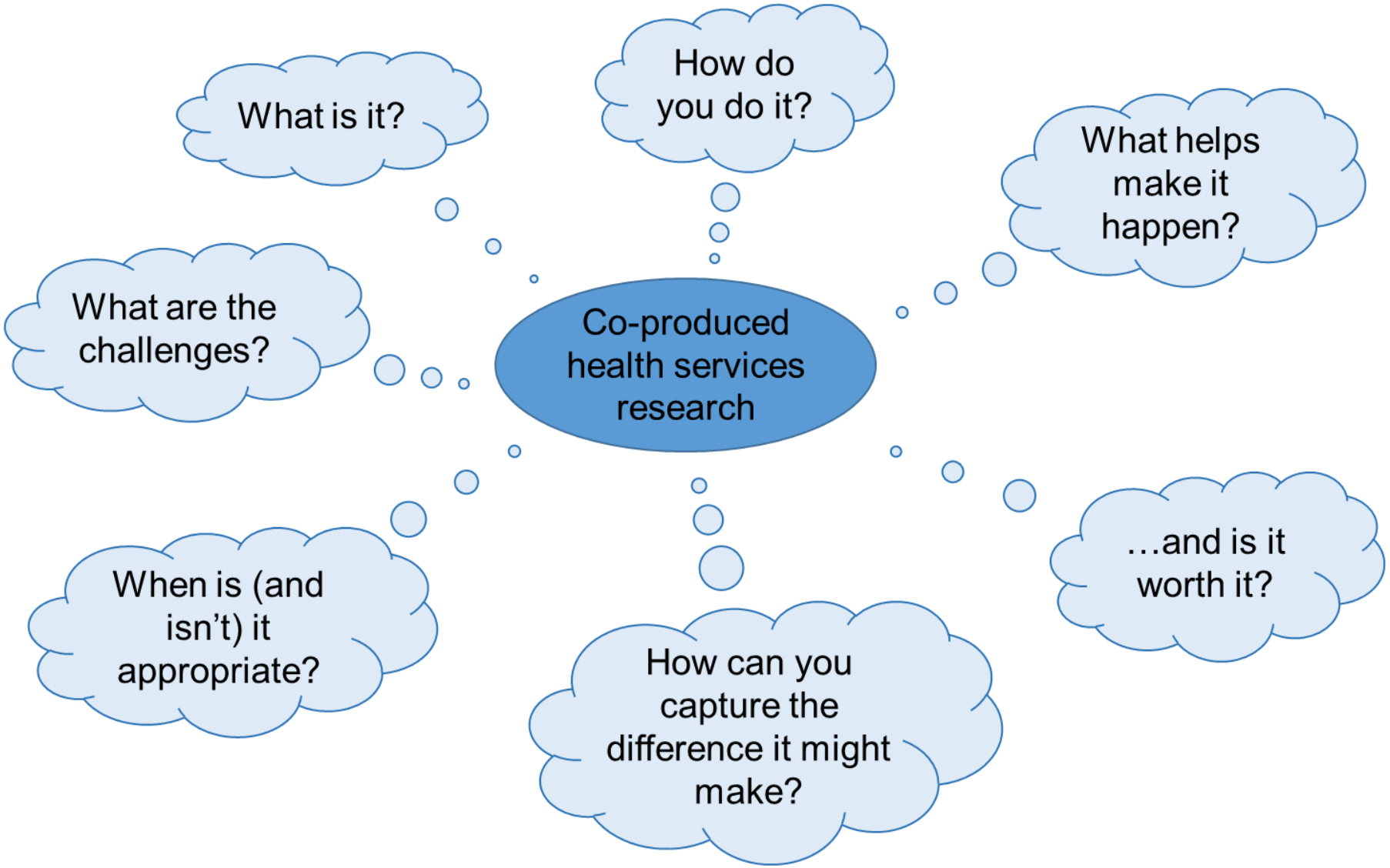
The concept of co-production has been around for some time in healthcare, particularly policy and service design, and it is now slowly gaining traction in research. A step beyond patient and public involvement, co-production is a deliberative process which draws on the expertise of both the 'public' and 'professionals', requiring both to be involved on an equal footing throughout every stage of research design and delivery. HSRUK is proud to be involved in these conversations and we see this event as a springboard to a much bigger conversation and collaborative learning process.

To support our members and wider networks, we have set up a resource page on our website with presentations from the day, and resources participants have contributed. Let's continue to chat about 'copro' – use the hashtag #coproductionUK on Twitter, and and tag @HSRN_UK.

Kym Lang, Director of HSRUK

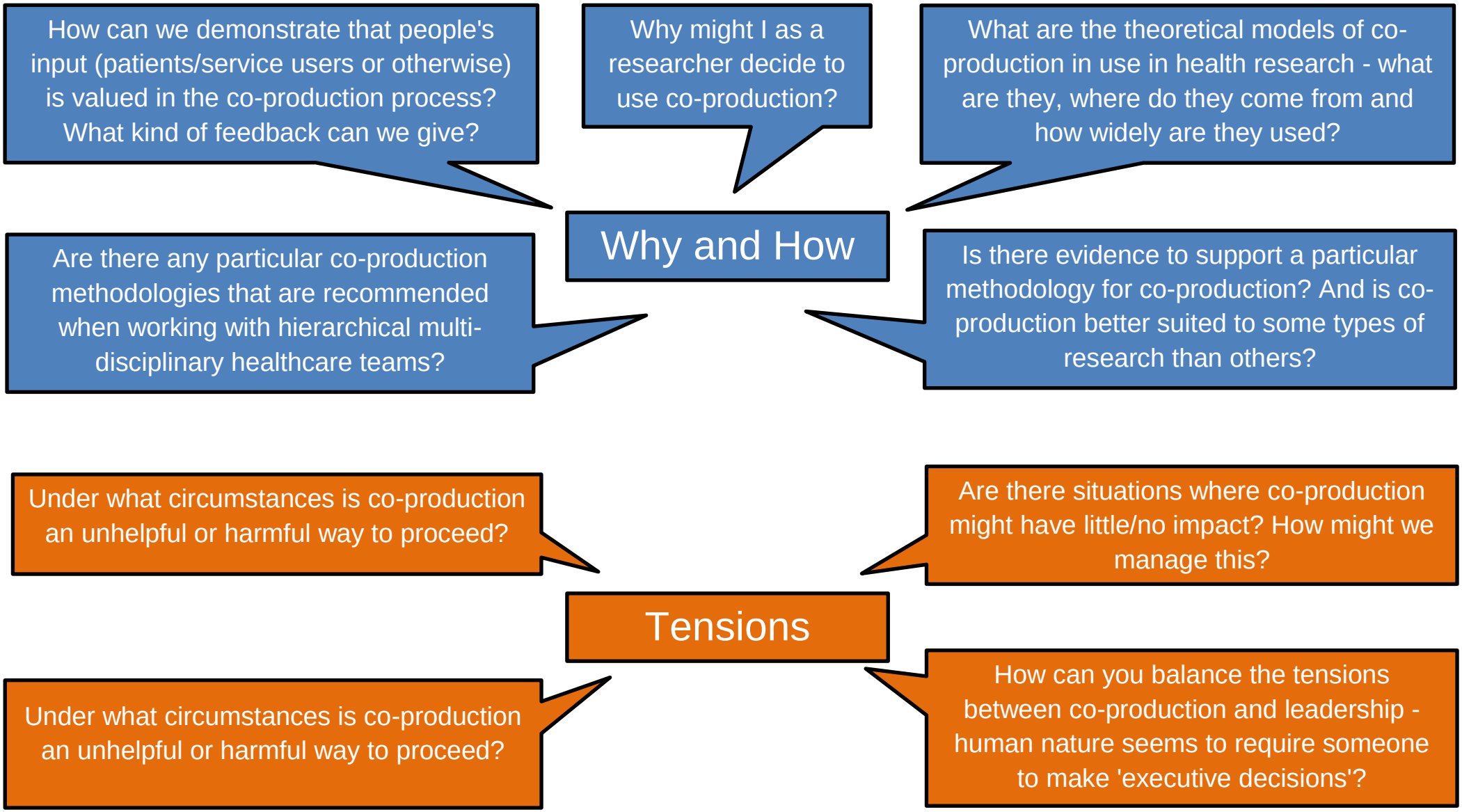
WHAT DID WE WANT TO LEARN?

We had many topics that we wanted to explore, and we used these to guide our design of the day



BEFORE THE EVENT…

We asked attendees to share their thoughts in advance of the meeting – they did not disappoint us!



ON THE DAY - DIFFERENT VOICES

We began with people from a wide range of backgrounds sharing their experience of what has (and hasn't) worked in coproduction – here's a flavour of what they told us!

Rachel Piper, Student Minds (Third sector)

- Presented case study of collaborative Policy Panel work – combining students and recent graduates
- 3 processes: consultations/discussions; research projects; personal development activities
- Generated ideas on how university life might change, then tested
- Example: using High School Musical songs to train students in thematic analysis!

Gary Hickey, INVOLVE (Patient participation)

- Sharing power is key to co-produced research: "In co-produced work, the research can't move on until proper consensus is reached." – value in respecting all views: this approach takes time
- Leadership style: listening, compromising, and flexibility are needed to reach consensus
- Planning is valuable, but should be fluid and flexible – an iterative process
- Start meetings with lunch – an important basis for forming relationships

Rachel Anthwal, Bristol CCG (Commissioner)

- Research alone doesn't answer commissioners' questions
- Co-production in research is not just about researchers and patients
- Commissioners play a significant role to ensure research meets the needs of the NHS – can help shift the focus from the theoretical to identify actionable messages
- Importance of finding common ground - a good first step is sitting down for a coffee!

Tony McBride (Creative arts)

- Described the history and technique of Image Theatre
- Ran a worked example, where audience members depicted a challenging situation when sharing knowledge
- How to sequence the process? consider having different groups work through their issues separately, then bring groups together
- Who leads? Is there a 'puppet master'?

Naomi Fulop, UCL (Researcher)

- Happy to be the 'token researcher' on the panel!
- Told '***The Dorothy Story***': how coproduction kick-started and shaped NIHR research on stroke service change, and importantly how coproduction also helped ensure lessons were used to drive further change
- Key point: sometimes consensus cannot be reached – need to have the discussion with all participants up front to agree how this will be dealt with

Adele Higginbottom (Service user)

- Discussed over 10 years' experience in patient involvement, and shared lessons from coproducing information and guidelines for osteoarthritis
- "Having different voices around the table really makes the research credible"
- Academics can be too focused – service users can help think outside the box
- Patients have played a key role adapting guidelines to different countries/cultures

Karen Coy, United Hospitals Bristol (Nurse)

- Shared lessons from using experience-based codesign to understand experiences of burns care services and develop service improvements to address issues
- What worked? Good teamwork and engagement led to shared ownership of objectives; tight deadlines supported timely delivery!
- What was more challenging? Limited representation (e.g. from fathers and patients), low recruitment, IT issues, finding the time to do the work

WORKSHOPS – AND REFLECTIONS

<u>Workshop 1: Co-producing service evaluations</u> (**leaders:** Cecilia Vindrola, Janet Harris, Morwenna Foden)

For this workshop, Morwenna, Cecilia and Janet posed a scenario to get people thinking about doing evaluation differently:

- ***You wake up tomorrow morning and a miracle has happened: all your evaluation is using coproduction!***
- ***How does your day look different? How do you get to this point?***

CHANGES:

- Getting out of the office: working directly with a more diverse and representative range of people
- The changing role of the researcher – becoming mediators and influencers
- Different discussions – and a more iterative approach
- Reaching a decision – who holds the casting vote, and who is accountable for the decision?

Coproduction can be done within existing resources with some time dedicated to training and support - so less expensive than people think. There may be value in comparing 'the cost of coproduction' with 'the cost of not doing coproduction'

CHALLENGES:

- Resources (time; administrative capacity)
- Systemic issues (e.g. whether researchers doing coproduction can deliver the same level of publication output as researchers doing more 'conventional' research

POTENTIAL FIRST STEPS:

- Explore boundaries, engage partners and champions, consider evidence for coproduction – all takes time
- Relationship management: connect with and build local networks – make space for meetings and fora at different times, work toward a clearer, shared understanding of concepts
- Offer training and other supports for stakeholders to engage with the coproduction process

We need to demonstrate the anticipated deliverables to funders, and explain that emergent findings may be just as important

The feedback challenges the current academic funding model, which is based on having a stable of researchers who move from one research contract/topic to another based on the calls for funding. Relationships and partnership working actually sustain initiatives in times when there are funding gaps

Workshop 2: Creative approaches to co-production (**leaders:** Dan Wolstenholme, Joe Langley, Kate Beckett, Tony McBride)

This workshop enabled participants to experience ***Lego Serious Play*** and ***Image Theatre***. Two groups used either Lego or their peers to model 'their experience of the reality of co-production'.

This exercise was initially conducted individually in silence so that the models were informed by and portrayed personal experience. Individual models were then shared, described and interpreted by the group who attributed their own meaning. Finally, we invited the group to blend or alter models to collectively improve the situation depicted, create shared meaning and experience what could change and how.

What we as workshop co-ordinators observed:

- Individuals who were at first reticent subsequently freely engaged
- Some of the solutions to improve models were surprising but they worked!
- Many attendees expressed a desire to use these creative practices in their future work
- It would have been better if we'd had more time
- Facilitation is key

Reflections from the team:

In developing the workshop, we used a reflexive process to meld our diverse knowledge and experience. The outcome was a rather unpolished but creative, innovative and engaging whole. It worked well with an equally diverse audience who appeared to find the unusual format exciting, liberating and malleable. It enabled them to see, feel and hear things in a different way, leading to some surprising insights and questions.

A key reflection for us was that co-produced knowledge is emergent and dynamic; to think of it as 'static packets' of knowledge that can be passed between people who will take and use it as package, is a fallacy. It is a dynamic, living thing that evolves all the time, in ourselves and, when shared, within other people in ways we cannot predict. Our workshop challenged us and in turn challenged our audience - we all ended up somewhere other than where we'd started."

Workshop 3: Britain's Next Top Modellers: Co-production and the modelling circle (**Leaders:** Iain Lang, Raheelah Ahmad, Sean Manzi, Sarah Knowles)

This was a fast-paced workshop, co-led by experienced modeller Sean Manzi (PenCLAHRC), and the KMRFs Raheelah Ahmad, Sarah Knowles and Iain Lang. The aim of this workshop was to explore the role of co-production in relation to systems modelling.

First up was an ***interactive Emergency Department game***, which tackled a 'real world' NHS problem: where to make cuts in an emergency department? This raised hard choices between cutting a cubicle or a senior nurse based on some (limited) data – with just five minutes to find a solution! It opened up a discussion of lack of contextualised information and unmeasured consequences in other parts of the system. But who is placed to provide and gather this information?

Drawing on real-world modelling examples the session provided participants with an understanding of what modelling is and how it is used. The resulting discussion centred on how co-production is and could be better integrated into each stage of the modelling cycle (Problem Situation - Conceptual mode - Formal Model – Solution) and what the benefits might be.

Coproduction can be done in many ways. The team described this spectrum through the images below – from soft and fuzzy (qualitative) to harder, more time pressured, and outcomes-orientated.

Iain	Sarah	Sean	Raheelah
			
Softer! ⟷			**Harder!**

Workshop 4: Learning circles (**Leaders:** Marsha Dawkins, Angus Ramsay)

This session presented the Learning Circle approach, its associated traditions, and its potential to facilitate effective co-production in research and other settings.

Marsha presented the evolution of Learning Circles and described how the process works, drawing on her experiences of how it has helped achieve more democratic approaches to decision-making.

We then had a 'test drive' of a Learning Circle, where members codesigned a research grant application about community rehab services for patients with lower limb amputation. Eight members joined the circle, facilitated by Marsha, and other participants provided feedback and reflections on the processes they were observing.

Key issues raised included:

- how 'learning circles' differ from traditional focus groups;
- the types of discussions that could be most helpful;
- practicalities - for instance record-keeping; and
- group dynamics: getting clinicians or senior people to 'give up' power.

Reflections from the team:

A key benefit of Learning Circles is that they can help people challenge established hierarchies more 'safely'. 'Leaving your status at the door' means that challenges to more hierarchical decision making cultures are driven not by any individual, but rather the Learning Circle process itself."

It was interesting that PPI emerged as a priority for both groups, dominating the discussions somewhat – which suggests people sometimes equate 'coproduction' with 'PPI'.

There might be value in communicating more effectively how coproduction can draw together the views and experiences from different stakeholders (including but not limited to patients and the public).

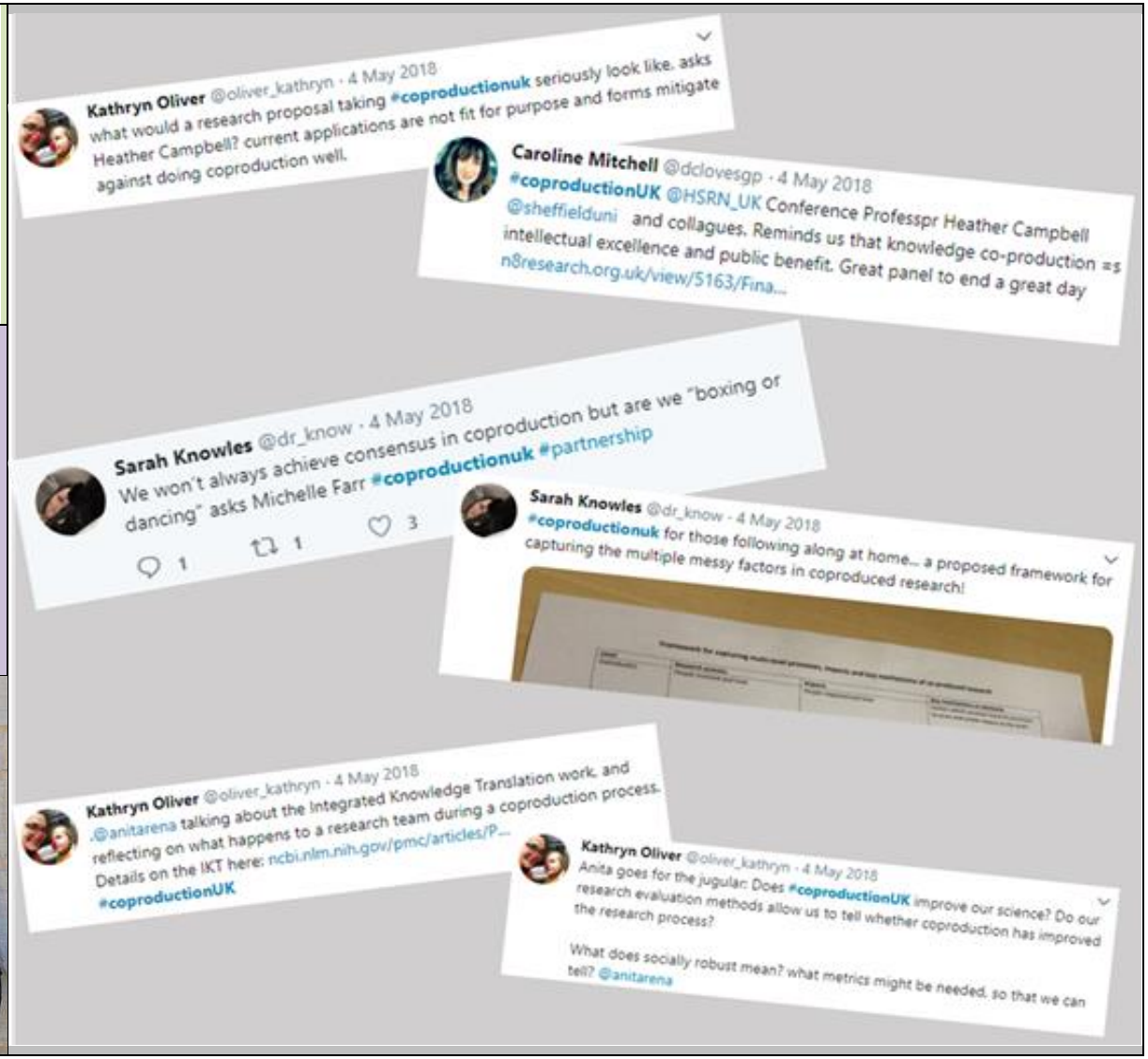
COPRODUCTION CLINIC

In this session, we heard from experts in coproduction about how to capture its impact

Heather Campbell
N8 Research Partnership

Michelle Farr
NIHR CLAHRC West

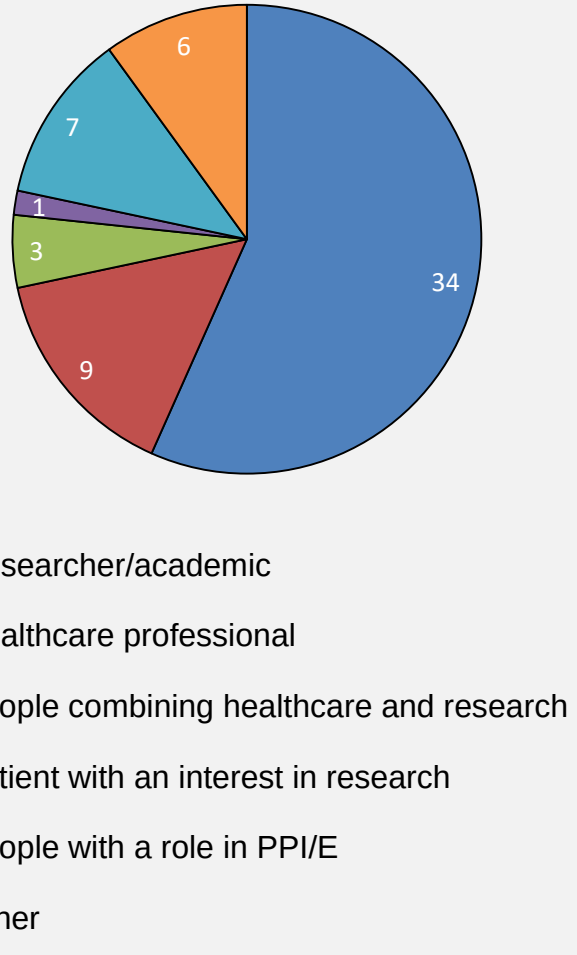
Anita Kothari
University of Western Ontario Canada



WHO CAME TO OUR EVENT?

We had a great turnout: **102 attendees** in total, with 60 returning evaluation forms. We were delighted about the range of people who joined us.

- Just over half of our respondents were researchers or academics. We think this is because the event focused on coproducing research.
- We were delighted that a fifth of our respondents were healthcare professionals, many with a role combining healthcare and research – such 'boundary-spanning' perspectives are key to understanding coproduction.
- Relatively few patient representatives attended, but we got valuable insights from experts in patient and public involvement (PPI) and experience (PPE). In future we are keen to learn from these people about how we might engage more effectively with patient representatives.
- Other attendees included funders and journal editors. These people have a key role in shaping research agenda, so it was great to discuss how we might foster an environment that supports coproduction research.
- Finally, it was great to meet and learn from people with experience of coproduction in other sectors.



Note. 'Other' includes third sector representatives, co-production professional from non-health sector, editor, engineer, and funder

EVALUATION – WHAT DID PEOPLE LEARN FROM THE DAY?

People felt they learned from the day - not just about new techniques, but also how to think about where coproduction might sit within research projects.

On a scale of 1-5 (where 1=very little and 5=quite a bit), respondents estimated their knowledge of coproduction had increased from ***just under 3*** before the event to ***just over 4*** after the event.

Attendee views:

"I've realised it's not so much a method as a 'state of mind'" (Researcher)

"More appreciation of how complex it is - not something to be tacked on at the end" (Researcher)

"The Lego session was very useful - enabled me to articulate my question about CP in a way I had not really been able to, previously" (Healthcare professional and researcher)

EVALUATION – THE CONCEPT OF COPRODUCTION

Throughout the day, we sought to illustrate the complexity of coproduction: it relies on bringing together multiple voices – people with different backgrounds, potentially competing priorities, and different levels of power, it works differently depending on the setting in which it takes place.

For instance, through our 'Different voices' and 'Coproduction clinic' sessions we brought together a diverse set of speakers to share their experiences and understanding of how coproduction works in different contexts.

However, as noted at several points in the day, this field is still developing. A number of attendees picked up on this, reflecting an appetite for clearer conceptualisation of coproduction, and a need for more real world examples of how coproduction works in different contexts.

"No in-depth explanation or definition of coproduction (or did I miss it?)" (PPI volunteer)

"Greater need to define coproduction as distinct from PPI; qualitative methods not always understood by delegates […] Not enough about coproducing research - practical examples, methods, etc." (Researcher)

EVALUATION - DID PEOPLE CHANGE THEIR VIEWS ON COPRODUCTION?

Almost **80%** of respondents (41/52) said our event changed their attitude to coproduction:

- Greater confidence and open-mindedness about using it
- Desire to use more coproduction methods, and extend process throughout research projects
- Greater prioritisation of evidence on coproduction (using it, seeking it, questioning it)
- More positive attitude to people who wish to do coproduction, and to including different groups.
- Some people did ***not*** change their attitude – as they were already supportive
- One respondent felt coproduction needed to be a lot more clearly defined before using it

Attendee views:

"Need more effort to include views rather than token PPI" (Researcher)

"I now understand substance beneath the jargon. It has changed the way I will commission two projects over the next few months" (Healthcare professional)

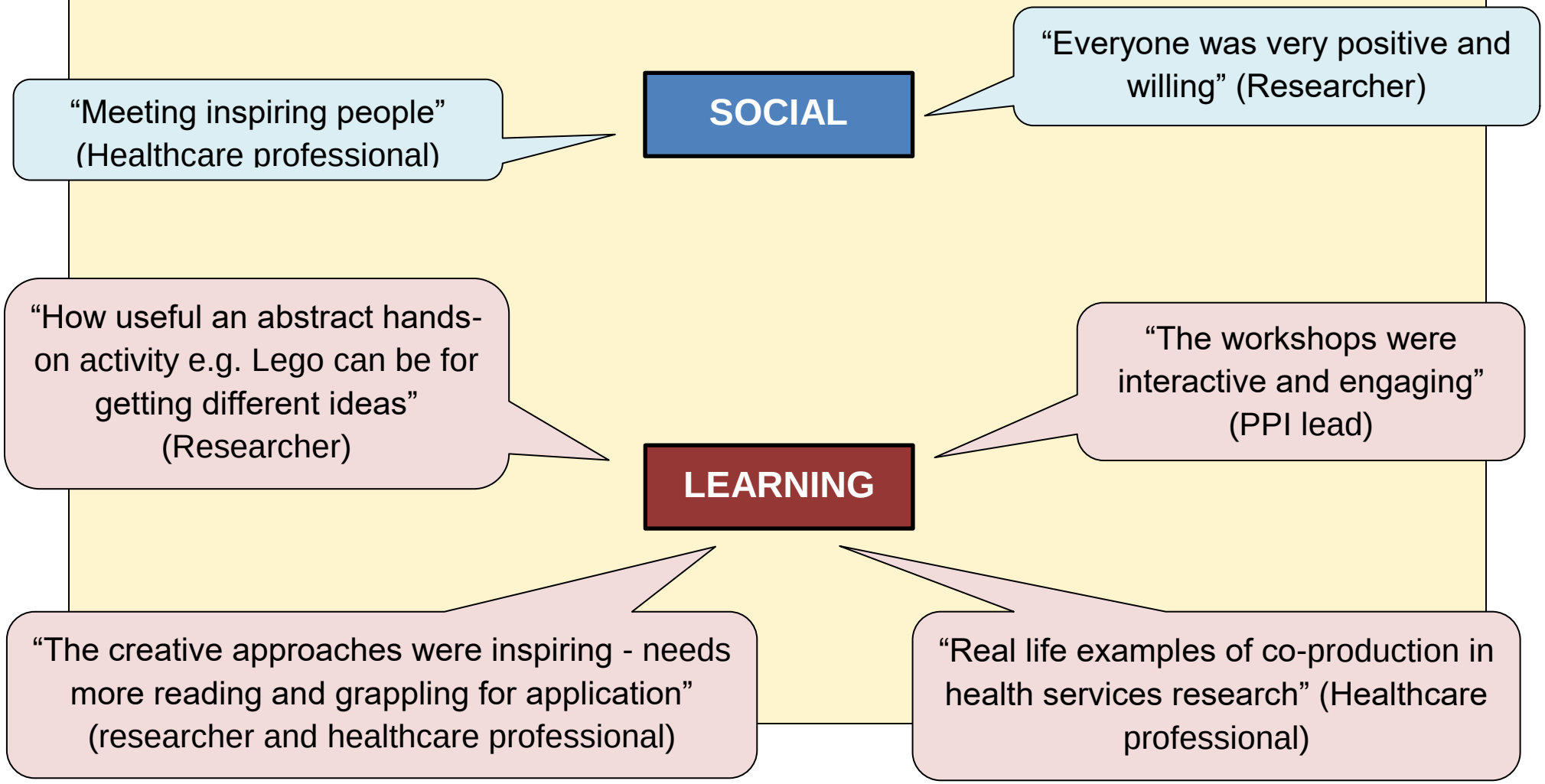
"I'll think more about how it might be an approach in successful proposals" (Funder)

"I will probably avoid using it, as it seems very messy and woolly" (Researcher)

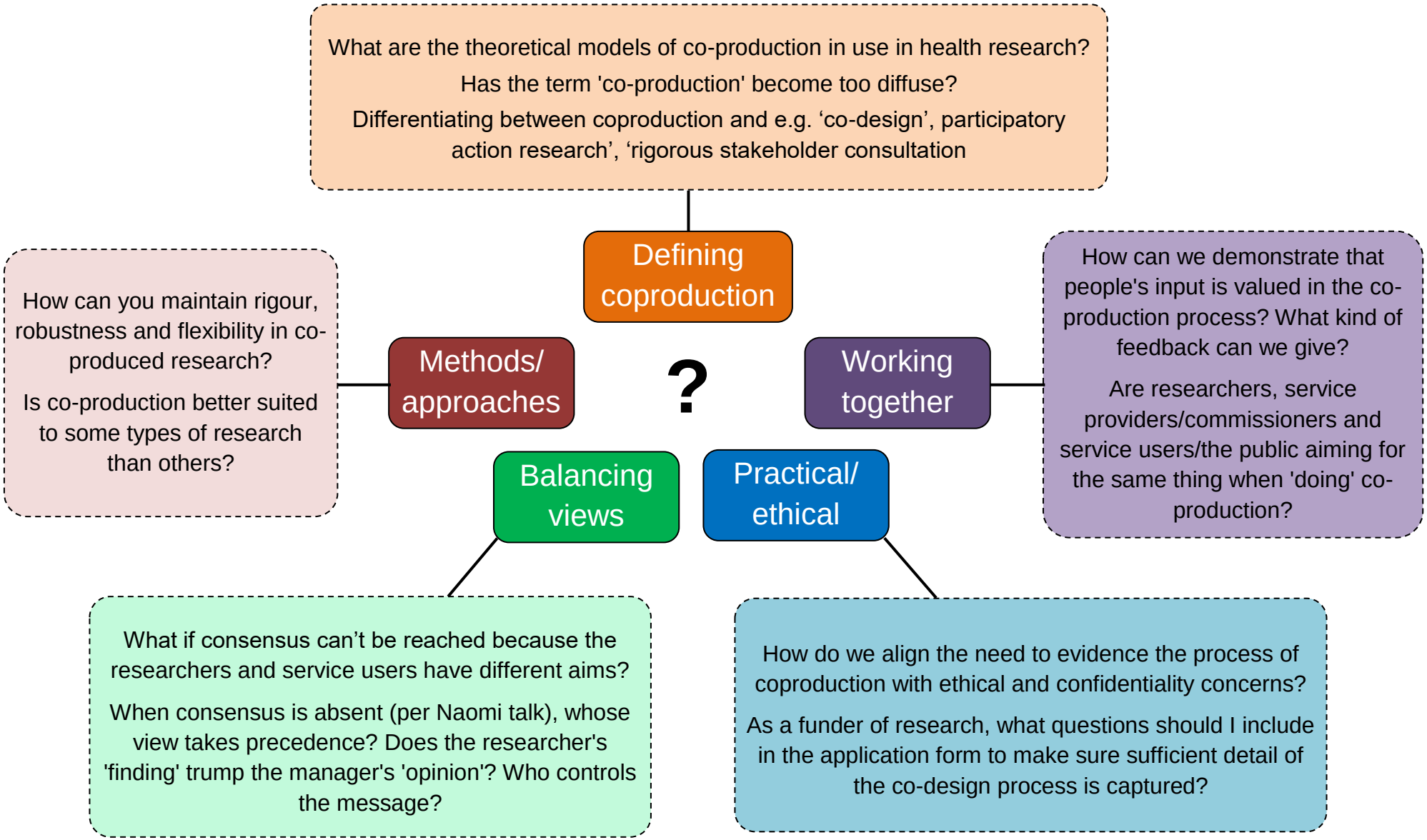
EVALUATION – WHAT INSPIRED PEOPLE?

Respondents were positive about the day:

- ~75% said they enjoyed the event (rating=4 or 5)
- Over 60% said they were inspired by the event (rating=4 or 5)



DID SLI.DO PROMPT MORE QUESTIONS THAN ANSWERS? YES!



NEXT STEPS:

Below are all the questions raised by attendees. We aim to address them where we can.
Can you answer some of the questions? Head to twitter and use the hashtag **#coproductionUK** and tag **@HSRN_UK**. We'll add your answers into this report, so it remains a living document.

THEME	QUESTIONS
Defining coproduction	What are the theoretical models of co-production in use in health research - what are they, where do they come from and how widely are they used?
	It would be good to have some clarity around co-production in research and at what point does it become participatory action research?
	What do we understand by the terms "co-production" and "co-design"? Are there differences and/or similarities? And does it matter or alter meaning?
	Has the term 'co-production' become too diffuse?
	Are co-production and integrated knowledge translation the same thing? How are they related? Which groups are involved?
	Do we all understand the same thing by #coproduction?
	What is the difference between qualitative research with stakeholders and PPI work and co-production?
	What are the distinguishing features between rigorous stakeholder consultation and co-production??
	How can we persuade colleagues/funders of the value of co-production?
Methods/ approaches	How can you maintain rigour, robustness and flexibility in co-produced research?
	What are some of the risks when doing co-production?
	Under what circumstances is co-production an unhelpful or harmful way to proceed?
	Are there situations where co-production might have little/no impact? - and, given the effort involved, how might one manage such a situation?
	Why might I as a researcher decide to use co-production for any given project/research question?
	Is there evidence to support a particular methodology for co-production? And is co-production better suited to some types of research than others?
	Are there any co-production methodologies that are recommended when working with hierarchical multi-disciplinary healthcare teams?
	It would be good to hear some examples of how people go about co-production?

	Is coproduction too local? how do you scale it up?
Balancing views	What if consensus can't be reached because the researchers and service users have different aims?
	I'm still daunted by how you find consensus between disparate groups
	When consensus is absent (per Naomi talk), whose view takes precedence? Does the researcher's 'finding' trump the manager's 'opinion'? Who controls the message?
	consensus building - whilst this is important to move forward with a project how do we capture disparity in views especially that of people w/ minority identity
	How can you balance the tensions between co-production and leadership, especially as human nature seems to require someone to make 'executive decisions'?
	Initiating and building relationships takes confidence, resilience and resources - does this impact on who has 'power' to start/lead coproduction?
	who initiates co-production
	How do you guide co-production in a given methodology that you are learning yourself through the experience of conducting it? I am about to undertake a PhD.
	How can universities support student mental health when there are so many challenges regarding staff mental health too?
Working together	Do you have any particular advice about co-production with older people?
	How can we demonstrate that people's input (patients/service users or otherwise) is valued in the co-production process? What kind of feedback can we give?
	How can we ensure our lay adviser are appropriately compensated for their time? Are INVOLVE rates sufficient?
	How can we build in resilience? Ensuring lay advisers can stand down and hand over is essential but hard to make work smoothly - any advice?
	Are researchers, service providers/commissioners and service users/the public aiming for the same thing when 'doing' co-production?
	We are working with substance users. Our PPI work suggests group attendance is unpredictable. Any alternative individual interview, inclusive co-design methods
	What role do service user researchers have to play in coproduction?
	Any examples of approaches to help build positive equitable relationships in to underpin co-produced research please?
	What is your experience of lay reps working on research projects as interviewers? When do they stop being lay and become research staff?
	Is power sharing always possible. Some people are naturally more powerful proponents of their ideas... how do you deal with this?

	Re commissioning and co-production - - How do you foster trust when people may think a decision has already been made?
	What are the some of the ways we can build capacity in all co-production partners to ensure genuine co-production at every layer of the research process?
Practical/ethical issues	How do we align the need to evidence the process of co-production/co-design with ethical and confidentiality concerns?
	How do we balance the need for meaningful co-production activities with the service need to meet short-term deadlines and a 'fail-fast-and-move-on' approach?
	Is there an IP (intellectual property) issues regarding the output of a co-production? Who owns the intervention developed through the co-production approach?
	Does one have to apply for ethics approval to undertake co-production work?
	Is there a therapeutic element to involving patient in research projects? And what are the ethical concerns this raises?
	As a funder of research, what questions should I include in the application form to make sure sufficient detail of the co-design process is captured?
	How can we document the value of co-production - how much time it saves, relevancy of research questions asked etc
	How can we document that our co-production is genuine - not a tick box exercise?
	Which of the coproduction standards and guidelines should we be using (4Pi, new National Standards for Public Involvement in Research, new INVOLVE, CLAHRC etc)?

RESOURCES AND CONTACT

Visit the HSRUK website resources page for co-production in health services research for presentations from the day along with other resources. If you'd like to share your resource or information, please email the team at hsruk@universitiesuk.ac.uk (or from 1 August 2019, info@hsruk.org)

https://hsruk.org/hsruk/viewpoints/co-production-health-services-research-resources #

Keep the conversation going

Chat about copro on Twitter, using #coproductionUK and tag @HSRN_UK

Contact HSRUK

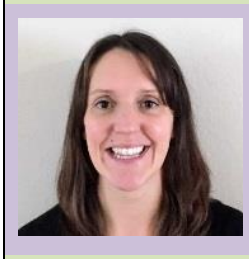
hsruk@universitiesuk.ac.uk

www.hsruk.org

PRESENTER BIOGS

Third sector: Rachel Piper, Student Minds
'Rachel has been working at Student Minds for 3 years, having also worked at The University Mental Health Advisers Network. Her role as Policy Manager focuses on tackling inequalities in student mental health, through research, policy and partnerships with other organisations.'

Patient participation: Gary Hickey, INVOLVE
'Gary is Senior Public Involvement Manager at INVOLVE which supports and encourages public involvement in NHS, health and public care research. Gary's recent work includes guidance on co-producing research and setting up an international patient and public involvement network – with over a decade in health and social care research, including public and patient involvement, both in the UK and overseas'



Commissioner: Rachel Anthwal, Bristol CCG
'Rachel started my NHS career by accident, falling into a temporary role when she moved to Bristol. She found her passion and have never left, having the opportunity to grow and face new challenges along the way. The majority of her roles have been in the planning, contracting and managing of health services (commissioning) of the Clinical Commissioning Group. She is now moving into a new role as Head of Contracts for out of hospital care'.

Creative arts: Tony McBride, Forum Theatre
'Tony has recently returned to freelancing having spent 8 years in post as Director of Projects with Cardboard Citizens. He has worked as a theatre director, facilitator and trainer for 30 years, exploring theatre as a site for learning and development with communities and organisations. Expert in Forum Theatre and other participatory theatre techniques, Tony has developed several community consultation and training models for use in NHS, Public Health and Housing contexts, engaging everyone from marginalised groups and individuals to CEOs

Researcher: Naomi Fulop, UCL
'*Naomi Fulop is Professor of Health Care Organisation & Management in the Department for Applied Health Research, University College London and Visiting Professor at King's College London. Naomi is an internationally renowned health services researcher with expertise in applying organisational and social perspectives to understand change and improvement in health care at different levels of the system, as well as locally, nationally, and internationally. She has a long-standing interest in the influence of research on health policy and practice. Naomi led two large scale NIHR-funded studies of major system change: one on acute stroke services in London and Greater Manchester; the other on the reorganisation of cancer surgery across London Cancer and Manchester Cancer. She is also Chair of HSRUK.*

Service user: Adele Higginbottom
'Adele has been involved with research as a lay member since 2006 and worked on many research projects. She joined INVOLVE's patient and public involvement (PPIE) team since 2012. In her role as project co-ordinator, she supports patients to work with academics and help them actively consider patient involvement in their research. She has responsibility for the recruitment of lay members and has given talks on PPIE locally nationally and internationally.'

Nurse: Karen Coy, United Hospitals Bristol
'Karen has been working with children's burns for the last 13 years, with the exciting move into research in the last nine. Until 2017, when going full time researcher, she worked in the clinical acute setting. Leading the Children's Burns Research Centre for the last six years, her several roles have given her the opportunity help nurse children following a range of burns severity and use her clinical understanding to influence the research projects undertaken.'

NIHR KNOWLEDGE MOBILISATION RESEARCH FELLOWS

Fiona Cowdell, Professor, Birmingham City University

My project focuses on finding new ways to move evidence about eczema care between patients, clinicians and researchers using the medium of practitioner 'mindlines'. I have conducted an ethnography in primary care investigating the ways in which mindlines and 'patientlines' are formed in eczema care. I will now work with a co-creation group to devise ways in which succinct, useable evidence-based information can infiltrate these ways of thinking and so improve care.

Iain Lang, Senior Lecturer, University of Exeter Medical School

Iain leads the Implementation Science team in PenCLAHRC (the NIHR Collaboration for Leadership in Applied Health Research and Care for the South West Peninsula). His fellowship focused on improving knowledge mobilisation in dementia care, with a focus on the commissioning of dementia services and on the management of care homes.

Janet Harris, Senior Lecturer, University of Sheffield

My project uses knowledge brokering to examine the process of co-creating an evidence base by working across statutory, third sector and academic sectors. I have looked at the impact of participation in designing, delivering and evaluating services, then used brokering approaches to facilitate the agreement of programme theory for community services. The aim is to produce an agreed set of outcomes and city-wide approaches to evaluation that reflect the values of workers and service users while addressing the needs of commissioners.

Joe Langley, Senior Research Fellow, Sheffield Hallam University

I am a Design Engineering Academic using participatory approaches to research and innovation of healthcare services, devices and technologies. This is co-productive research bringing together researchers, healthcare professionals and service users. Within this, my knowledge mobilisation work focuses on the co-design practice of collective 'making' (2D and 3D, physical and digital) as a means of addressing power hierarchies as well as knowledge sharing and real-time knowledge synthesis.

Kate Beckett, Research fellow, University of West of England

My project combines patient, practitioner and research/expert perspectives on the need/best means to address common post-injury psychological sequela and their impact on recovery. This will be represented in a stimulating play. Stakeholders will be invited to a performance using forum theatre techniques to encourage debate and inspire co-produced implementable practice improvements. This project tests whether this approach can meld theoretical research evidence with emotional, practical and organisational realities to enhance practitioners' mindlines and hence practice.

Krysia Dziedzic, Professor, Keele University

My fellowship has two aims: firstly, to address unmet needs of patients and healthcare professionals in the management of osteoarthritis (OA), using research evidence from a recently completed NIHR funded programme improving quality of primary care in consultations for OA. Secondly, to integrate the findings from aim 1 into a case study to develop a set of recommendations for knowledge mobilisation in primary care.

Lesley Wye, Senior Research Fellow, University of Bristol

I have been leading an embedded knowledge mobilisation team made up of healthcare commissioners and researchers to create collaborations between researchers and commissioners. The aim is to generate more relevant research and increase the influence of research (and researchers) on commissioning decisions. One vehicle to bring about that change has been conducting co-produced evaluations on topics chosen by commissioners, such as telehealth. See www.bristol.ac.uk/primaryhealthcare/km.

Marsha Dawkins, Nurse Specialist, King's College London

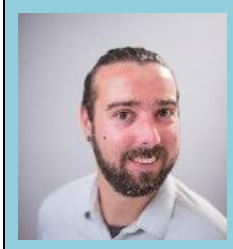
My area of research focuses on collaborative methods of knowledge creation and dissemination across organisational boundaries in the implementation and use of patient-centred outcome measures. My project enables the sharing of evidence across the clinical academic interface and within and across acute NHS and voluntary sector organisations through 'Circles of Learning'.

Sarah Knowles, Research Fellow, Greater Manchester CLAHRC

My fellowship looks at patient involvement in a Learning Health System, as part of the Connected Health Cities programme. Connected Health Cities aims to better capture, link and share electronic health data about patients, to improve care and to support rapid learning and improvement. I will use co-design and participatory methods to work with patients to explore how they should be involved in such a system

Raheelah Ahmad, Health Management Programme Lead, Imperial College London

My work takes the perspectives and behaviours of the three main groups of people which influence the use of antibiotics in the community setting in ONE system map using a novel software tool. The process will create new ideas and make best use of how we exchange knowledge. Co-development of the map will be part of the knowledge mobilisation activities.



Sean Manzi, Research Fellow, University of Exeter Medical School

Since 2014 I have been working as a Research Fellow in Applied Healthcare Modelling and Analysis in the South West Peninsula CLAHRC. While directly applying modelling and simulation to inform decision making and improvement in the NHS, particularly in mental health services, I also work closely with colleagues in implementation science drawing on my background in psychology to understand how people behave in relation to the modelling process and models themselves. This is complemented by my interest in modelling human decision-making processes and behaviour.

Daniel Wolstenholme, Core Project Manager, Lab4Living/NIHR CLAHRC Yorkshire and the Humber

Dan is a nurse who has worked in health services research for the last 12 years as part of the NIHR CLAHRC Yorkshire and Humber. Dan's research interest is in knowledge mobilisation, specifically creative coproduction. Or how using creative methods we can get people to work together to deliver meaningful, successful change

Angus Ramsay, Senior Research Associate, UCL

Angus is a mixed methods health services researcher based at the UCL Department of Applied Health Research. He is working with stakeholders (including general public, stroke patients and carers, stroke clinicians and managers, commissioners, and politicians) to co-design a bundle of interventions to mobilise evidence on reorganisation of acute stroke services, and evaluate use of this bundle at national and regional levels.