NIHR | Applied Research Collaboration
Kent, Surrey and Sussex

A Guide to Co-production for Researchers, Services and Commissioners

ARC KSS Co-production theme | March 2021

A Guide to Co-production for Researchers, Services and Commissioners

Contents

Introduction

This guide was produced after discussion with a range of people involved in the Applied Research Collaboration Kent, Surrey and Sussex (ARC KSS) including Implementation Leads, the Public Community Involvement and Engagement team, project managers, clinicians, researchers and doctoral students. The ARC KSS is one of 15 across England, each made up of local providers of health and social care, commissioners, universities and third sector organisations. These collaborations work together to conduct high quality applied health and social care research that address questions specific to their region. The ARC KSS has eight themes of which co-production is a crosscutting theme, applicable to all areas of research and its implementation. Many people expressed interest in a short guide that clarified what co-production really means, how we are interpreting it within the ARC KSS, and how to distinguish it from Public and Community Involvement and Engagement (PCIE).

The guide is intended as an introduction to co-production and its conceptualisation in research and service delivery. It serves to provide a springboard for researchers, service providers and commissioners enthusiastic to learn about and embed co-production in their work. Within the guide we set out how the co-production theme can support you and signpost useful resources and further reading. By working in partnership with those commissioning, providing or using services, we can ensure that we are asking the right questions and delivering services that meet the needs of the local population. Additionally, we aim to promote outputs that can be implemented locally, are sustainable and become embedded into practice.

How to use this guide

We have covered a lot of ground in this guide. You can work through the guide or jump to specific sections, for example if you want to:

We hope you find our guide helpful, if you have any questions or want to discuss how we can help, please get in touch!

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March 2021

What is co-production?

There are different interpretations and therefore definitions of co-production, but we have selected two to share with you in our guide. We believe they encapsulate the underpinning values of co-production; that any activity (within research, services or commissioning) is enhanced by working in partnership with people who are the intended beneficiaries. This includes members of the public (see our glossary), those who use specific services and/or have lived experience of, for example, long-term conditions, as well as people from groups whose voices are seldom heard in research. The first definition we provide relates to research (INVOLVE, 2018) and the second to delivering public services (Nesta, 2013).

Definition 1: INVOLVE- co-production in research

The INVOLVE (2018) definition of co-production relates to research and reflects the belief that members of the public have skills and knowledge of equal value with which to design and deliver applied research:

> *'Co-producing a research project is an approach in which researchers, practitioners and the public work together, sharing power and responsibility from the start to the end of the project, including the generation of knowledge.'* (INVOLVE, 2018, p4)
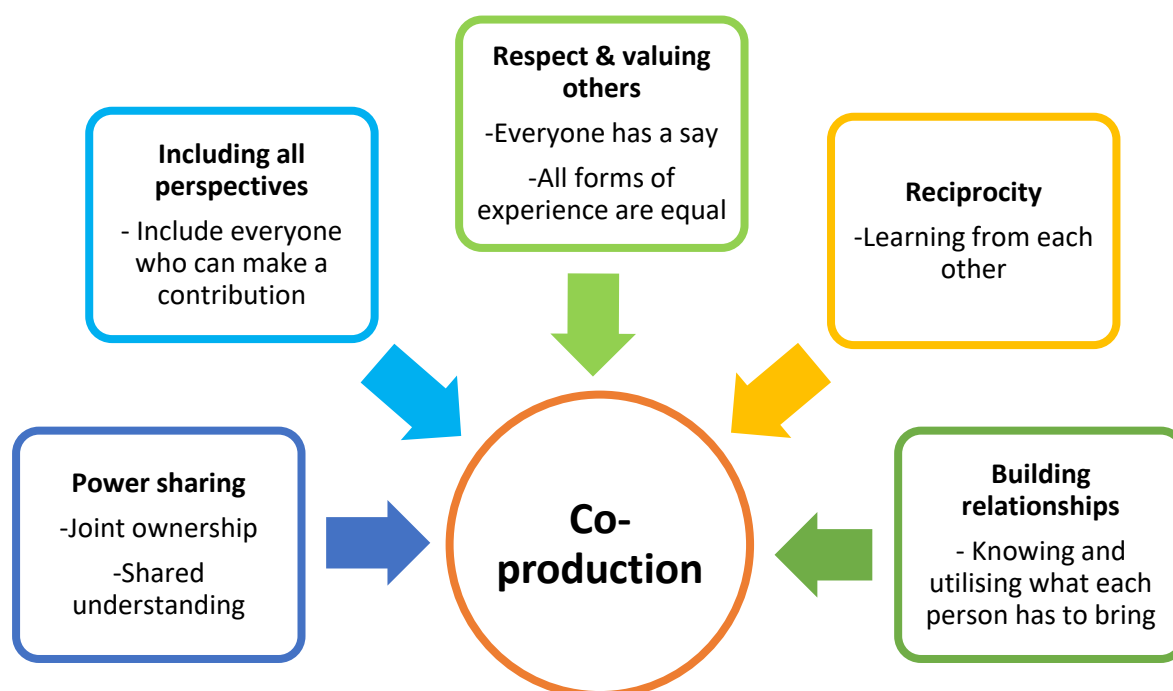
This incorporates the following principles:

Figure 1: The principles of co-production in research (INVOLVE, 2018)

Definition 2: Nesta - co-production of services

Nesta's (2013) definition of co-production is targeted at public services (not solely health and social care):

> *Co-production means delivering public services in an equal and reciprocal relationship between professionals, people using services, their families and their neighbourhoods. Where activities are co-produced in this way, both services and neighbourhoods become far more effective agents of change'* (Nesta, 2013, p5).

The focus is an orientation to action, a coming together of people (public members and professionals) to produce public services designed with the communities that use them as equal partners. Moving from a position of seeing members of the public who access services as dependent on the service/its staff, to a position of co-dependency, where both are reliant on one-another and together can utilise different knowledge and experience to create, improve or deliver services for everyone concerned. Key principles of co-production in service development are depicted in Figure 2.
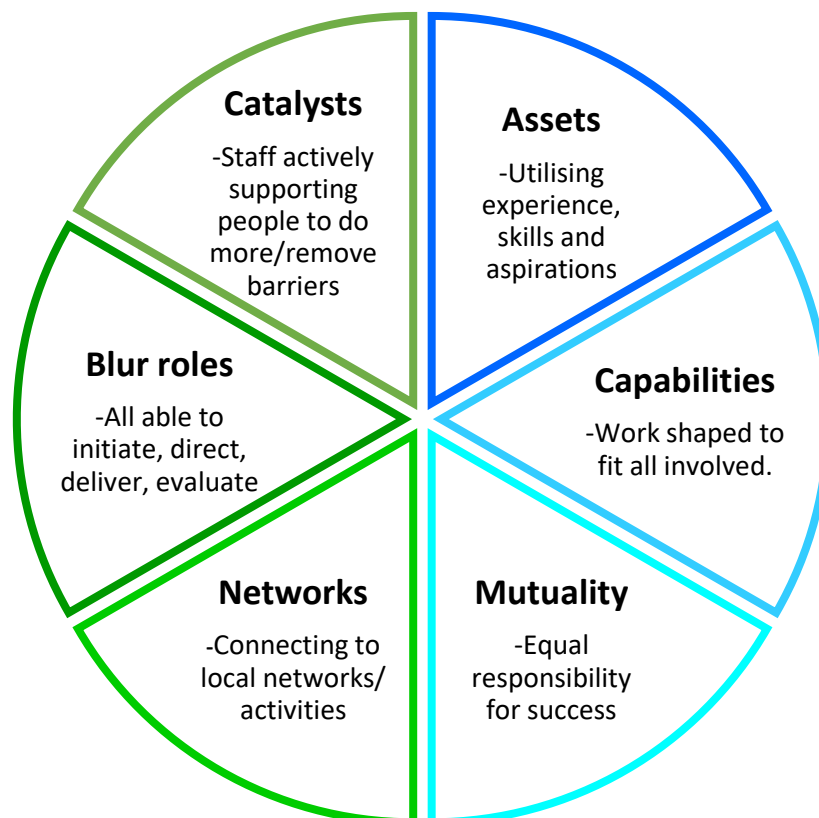

Figure 2: Principles of co-production in service development (adapted from Nesta, 2012, p7)

Reflective Activity:

1. Compare the two definitions and associated principles. What are the similarities and differences? What resonates with your own experiences? Is there anything you would like to add or amend?
2. Nesta (2013) has a range of excellent case studies which demonstrate their principles. Have a look at a couple and compare against one of your projects. Which of the principles are most embedded in your project? What might be useful for your next project?

The relationship between research and service delivery

Implementation of applied research is a core function of ARC KSS, translating and implementing research evidence into practice (see ARC KSS website). Key to this is the co-development of ARC KSS's themes and a focus on the views and needs of those accessing and delivering health and social care services driving the research undertaken. This includes members of the public who are part of shaping priorities, developing ideas, conducting and implementing research. Figure 3 depicts a cyclical relationship between research and services: research focused on local priorities provides evidence of what works for whom and in what context which can inform effective service development and provision.

Co-production/PCIE

Research: seeking evidence of what works for whom and in what context.

Services: planning, prioritising, delivery & evaluation. Making best use of limited resources.
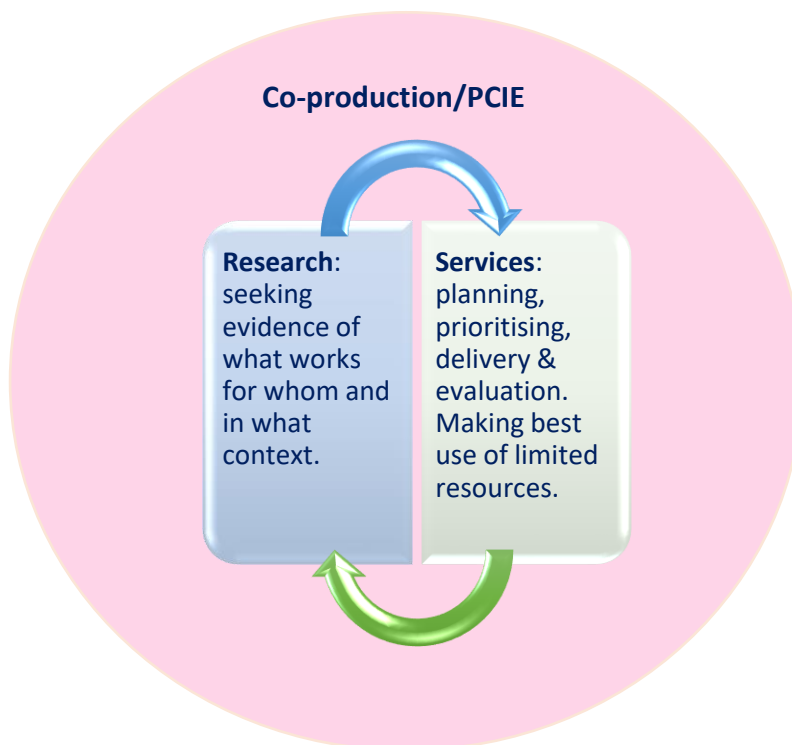
Figure 3: The relationship between services and research
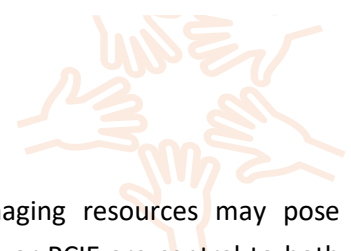
Services concerned with being person-centred and effectively managing resources may pose interesting questions that can be answered by research. Co-production or PCIE are central to both research and service development/provision, from priority setting through to implementation and evaluation.

> **Reflective Activity:**
>   1. **Service providers/clinicians**: think about a problem in your current setting that you would like to address, for example, high numbers of missed appointments ('DNAs') and long waiting lists. How might research help you identify strategies to address these issues?
>   2. **Researchers**: think of a project where you have worked closely with service providers. How and when did you develop the relationship? What worked well? What would you do (or have you done) differently? Did this lead to a fruitful partnership and further research?
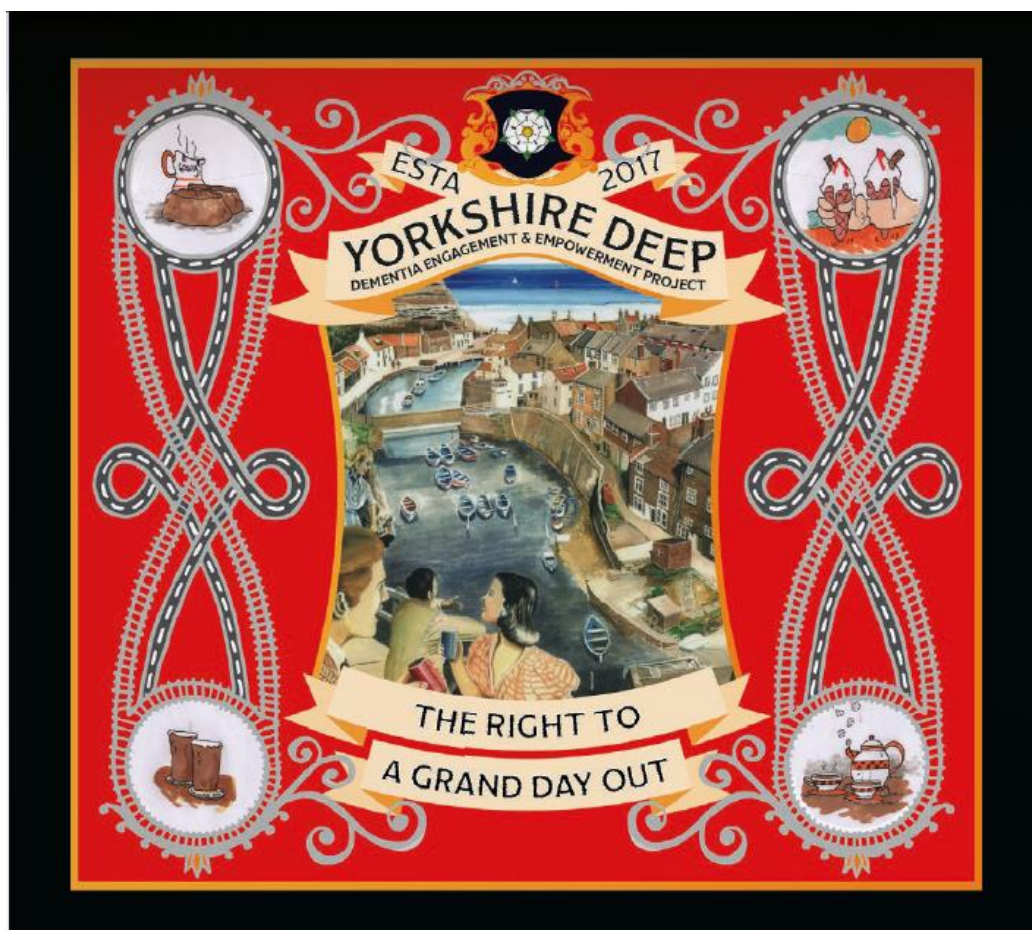
The UK Network of Dementia Voices (2020) A Story of Co-Production: The Right to a Grand Day Out.
Appendix 2 has further information.

Co-production: putting it into practice

As a starting point, it is important to consider why you are seeking to involve members of the public and to co-produce. Perhaps the public have been involved in a research priority-setting event, or posed a research question/an idea for service improvement? Perhaps the team have identified the seed of an idea and want to co-produce the work? Once you are clear about why you want to involve members of the public you can move on to think about the details. The ARC West guide (2020, p3) provides useful prompts to help think through the issues, which we have summarised here:

Who?
- Who do you ideally want to involve?
- This may be clear if members of the public are already involved but is everyone represented who should be?

How?
- How and when you will do this?
- Have you considered the timeframe for co-production?

Feasible?
- Is the project/service/team amenable to co-production and what is realistic within the constraints you will be working in?
- Would PCIE be more appropriate, feasible and meaningful?

Prepared?
- What preparation do you need to do?
- It is important to work on setting the foundations, for example addressing the who, when and how questions before jumping straight in. However, remember that co-designing the project or research is an important part of co-production!
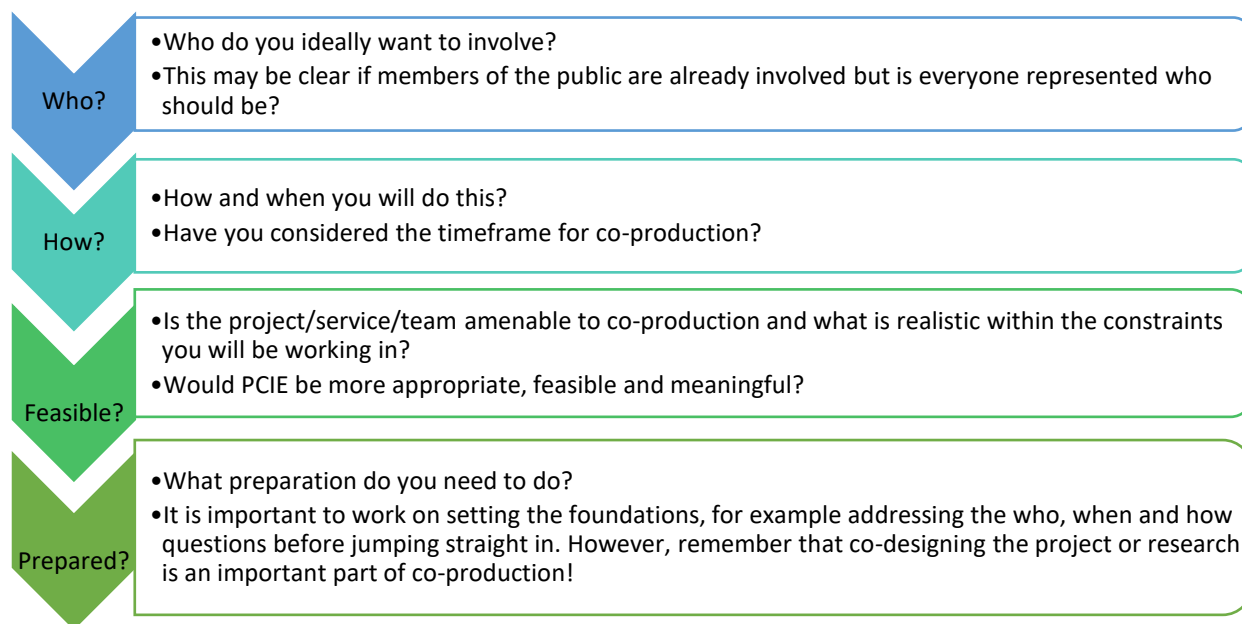
Figure 4: Putting co-production into practice

There is no neat road map for co-production, it does not have a clear procedure to follow, and its nature is such that you cannot always anticipate the direction it will take. This requires all involved to adopt and embrace a 'not knowing stance' and tolerate the uncertainty inherent in co-production and sharing power. Being curious and open to taking new directions or adopting new ideas that arise throughout the collaboration is a vital mind-set too! However, be aware of straying too far off track and revisit joint aims of the project to ensure any change in direction aligns well with these.

For those of us (most of us more or less) who benefit from a structure to guide our work, The Social Care Institute for Excellence (SCIE) 2013 (updated 2015, p6) suggest breaking down co-production into the following stages which are worth considering before starting any project. The stages as SCIE intended them (Figure 5) are orientated to service development and design but could equally apply to research (as added to Figure 5 in *italics*).
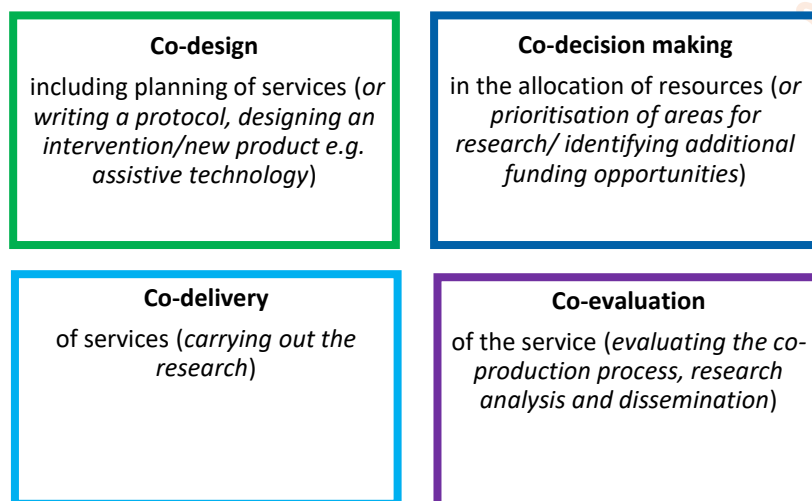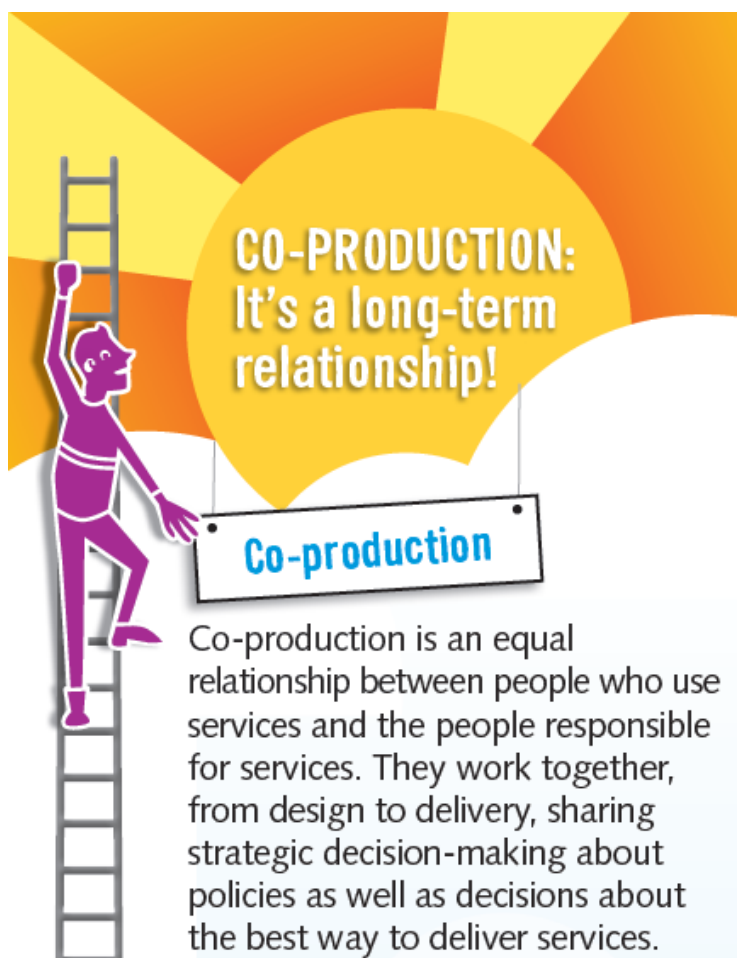
Co-design including planning of services (*or writing a protocol, designing an intervention/new product e.g. assistive technology*)	**Co-decision making** in the allocation of resources (*or prioritisation of areas for research/ identifying additional funding opportunities*)
Co-delivery of services (*carrying out the research*)	**Co-evaluation** of the service (*evaluating the co-production process, research analysis and dissemination*)

Figure 5: Stages of co-production adapted from SCIE 2013

This guide focuses on the principles, but we also need to consider how to put them into practice and evaluate the outcomes. This document (already long enough) will link to our next guide, which will provide practical information and case studies.

CO-PRODUCTION: It's a long-term relationship!

Co-production

Co-production is an equal relationship between people who use services and the people responsible for services. They work together, from design to delivery, sharing strategic decision-making about policies as well as decisions about the best way to deliver services.

Excerpt from 'The Ladder of co-production', SCIE 2021

The role of the ARC KSS Co-production team and how we can help

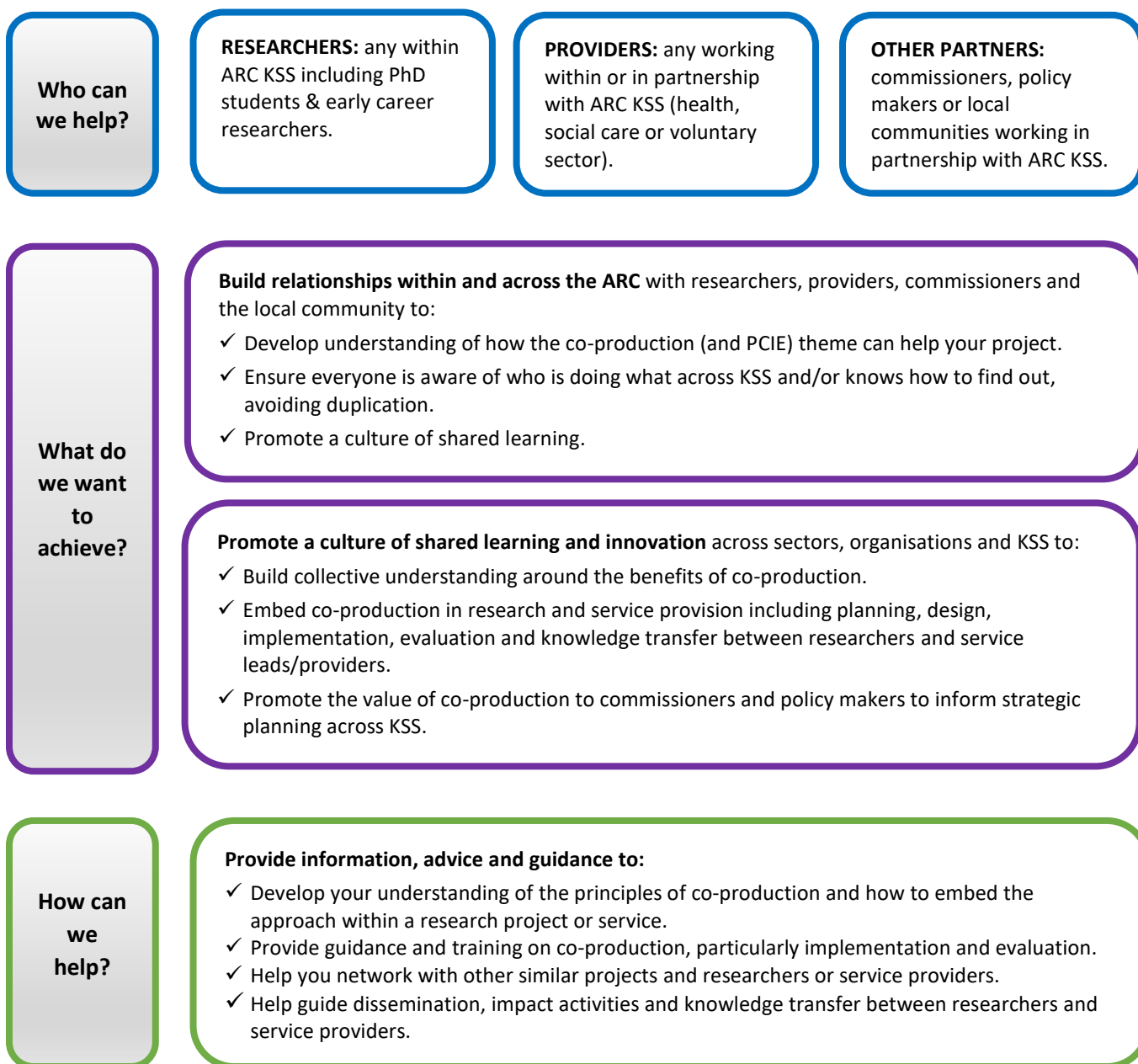Figure 6 provides an overview of our role within the ARC KSS. You might also want to look at our webpage: https://arc-kss.nihr.ac.uk/research-and-implementation/co-production

Who can we help?	**RESEARCHERS:** any within ARC KSS including PhD students & early career researchers.	**PROVIDERS:** any working within or in partnership with ARC KSS (health, social care or voluntary sector).	**OTHER PARTNERS:** commissioners, policy makers or local communities working in partnership with ARC KSS.

What do we want to achieve?

Build relationships within and across the ARC with researchers, providers, commissioners and the local community to:

✓ Develop understanding of how the co-production (and PCIE) theme can help your project.
✓ Ensure everyone is aware of who is doing what across KSS and/or knows how to find out, avoiding duplication.
✓ Promote a culture of shared learning.

Promote a culture of shared learning and innovation across sectors, organisations and KSS to:

✓ Build collective understanding around the benefits of co-production.
✓ Embed co-production in research and service provision including planning, design, implementation, evaluation and knowledge transfer between researchers and service leads/providers.
✓ Promote the value of co-production to commissioners and policy makers to inform strategic planning across KSS.

How can we help?

Provide information, advice and guidance to:

✓ Develop your understanding of the principles of co-production and how to embed the approach within a research project or service.
✓ Provide guidance and training on co-production, particularly implementation and evaluation.
✓ Help you network with other similar projects and researchers or service providers.
✓ Help guide dissemination, impact activities and knowledge transfer between researchers and service providers.

Figure 6. ARC KSS Co-production theme remit

Public and Community Involvement and Engagement and Co-production

There is an arguable overlap between co-production and PCIE, which can be a source of controversy and confusion! We aim to set out some of the similarities and differences in this section. In comparing, we do not intend to imply one is better or worse than the other, rather we seek to acknowledge convergences and to highlight some of the structural constraints others and we have experienced in the endeavour of both co-production and PCIE.

Co-production is not simply 'good PCIE', nor is high quality PCIE co-production (although they may share some common features) and they are not interchangeable terms. Both PCIE and co-production are highly regarded and valued approaches to working with the public and communities. The ARC KSS co-production and PCIE teams work closely together to foster best practice in both endeavours, to ensure high quality research and service provision.

ARC KSS draws on INVOLVE's (2012, p6) definition of Public Involvement in research:

> *'research being carried out '**with**' or '**by**' members of the public rather than '**to**', '**about**' or '**for**' them. This includes, for example, working with research funders to prioritise research, offering advice as members of a project steering group, commenting on and developing research materials and undertaking interviews with research participants'.*

> (Please see our glossary for definitions of PPI, PCIE, and engagement).

The vision is that ARC KSS will be a place '*where meaningful public and community involvement and engagement is a central part of the ARC's health and social care research activities'.* That is to say, the public and communities of Kent, Surrey and Sussex will be involved and engaged in research and its implementation. PCIE is also important to good research governance within the ARC KSS but is beyond the remit of this guide. More information and resources can be found in a forthcoming ARC KSS guide to PCIE and you can refer to the ARC KSS PCIE Strategy for other insights.

PCIE typically involves researchers consulting members of the public (note the INVOLVE definition above states it is carried out with *or* by, in co-production the emphasis is on *by*). Ideally, in PCIE the consultation is over as much of the research process as possible. Involvement in research can include any aspect from co-design of an intervention/technology, guiding approaches to recruitment, reviewing information or reports through to roles such as peer researchers to dissemination. In our experience, the aspects of the research process that public members are invited to collaborate with may be determined in advance, particularly when a research team has developed a funding proposal and the PCIE plan and budget has already been decided. To maximise opportunities for PCIE and for the public and communities to influence research, it is important to plan PCIE activities with public and community members from the start. Typically, power still resides within a professional team (researchers, service professionals, commissioners) when deciding which PCIE approaches to incorporate and how to utilise public members' contributions. In this sense, public involvement has been likened to a 'consumer model' (Williams et al, 2020, p11).
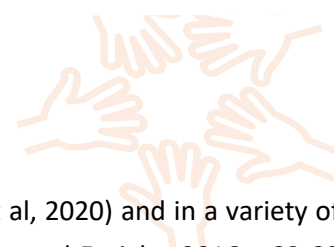
Conversely, co-production has its origins in collective rights (Williams et al, 2020) and in a variety of rich research traditions, such as Participatory Action Research (see Facer and Enright, 2016, p83-89 for a review). Co-production is a different approach to conducting research, service design and delivery; it attempts to dismantle existing notions of how projects are undertaken, and by whom (relationships and responsibilities). In co-production, members of the public are equal team members, collaborating, sharing power and having agency to determine the direction of work. This often requires a blurring of roles that is not usually expected or seen in PCIE, although it may be an aspiration teams work towards. Again, Facer and Enright (2016), provide a helpful insight into the types of roles/relationships that develop within co-produced projects (see pp. 58-79).

It is important to remember that not all research or service development will be suited to using co-production but all projects can benefit from PCIE, within the limits of what is feasible or pragmatic. There is always scope to consult and/or engage members of the public so that those who use a service have their voices heard. Figure 7 provides a visual representation of the research/service pathway, to help you consider your approach to working with the public. The aim is to prompt you to consider which aspects of PCIE or co-production are appropriate and feasible, and to make explicit your decisions about the approach you adopt. Further detail for those interested in thinking through some of the structural barriers can be found in Appendix 1 although we appreciate that our linear representation in Figure 7, and the suggested structural limits to PCIE in Appendix 1, are a simplification.

NHS England and NHS Improvement and Coalition for Personalised Care (2020) A Co-Production Model. Coalition for personalised care. Appendix 2 has further information.

Stage of a project:	Co-production: anyone with a vested interest including members of the public.	PCIE: stakeholders refer to members of the public.
Determining priorities and aims	Stakeholder consultation will inform priorities and aims	Ideally, but limited scope e.g. if the funder or team has already set the scope and aims
Design: How will stakeholders be consulted/part of this process?	Stakeholders co-design the study	Requires early involvement/consultation Limited e.g. for complex clinical trial research
Decision-making: how are decisions make and by whom?	Stakeholders are integral to the team; joint decision making throughout	Stakeholders are consulted but final say can often sit with the professional team
Delivery: doing the research, implementing research findings or a new service/intervention	Role depends on stakeholder's choice, may require capacity &/or skills development	Likely a limited role such as commenting on plans and resources (unless a peer researcher role)
Evaluating, analysis and sharing	Stakeholders choice re role in analysis and sharing findings/learning	Invited to contribute to report writing (e.g. lay summary). Analysis depends on agreed role

Figure 7. Co-production and PCIE at different stages of projects (research or services)

Reflective Activity:

1. For an excellent and highly readable discussion of the PCIE compared to co-production debate dip into Williams et al (2020). Have a look at Figure 1 to see how the authors have mapped different aspects of co-production.
2. Watch 'The parable of the blobs and the squares'. It's a touch old but easy to watch and demonstrates 'that the solution to problems lies in the problem itself, not in an imposed solution'. What key messages could you communicate to colleagues in your setting?

In this final part of the guide, we cover some frequently asked questions, selected to cover topics that we are often asked about in relation to operationalising the co-production process. Our further guides and Appendix 2 will also help with this as it provides a range of reading from theoretical, to practice examples and materials to use with members of the public.

Boingboing staff, volunteers and friends come from all walks of life – children and young people, academics, practitioners, vulnerable adults, parents and carers. We co-design, co-produce and co-deliver everything we do. As a Community Interest Company (CIC) we have declared that the company's activities will be carried out for the benefit of practitioners, academics, parents, carers and young people, interested in developing knowledge and skills about resilience.

Boingboing is an organisation that aims to model and promote the benefits and practice of meaningful co-production. Appendix 2 has further details.

Frequently asked questions

What information is available for members of the public co-producing research?

Once you come to know the people you are working with, you will have a sense what relevant skills and experience they may already have. To help guide the process of co-designing a research project you may want to share or work through together the Dementia Enquirers research pack. This guide breaks down the approach to designing a project and the different ways you might think about doing the research: Dementia-Enquirers-Research-Pack. The pack would be suitable as an accessible tool for many people, not only those with dementia.

If members of the public choose or wish to become co-applicants to a research project (not essential to co-production, but may strengthen the power sharing and valuing principles of the approach), it could be helpful to share and discuss together the INVOLVE guide to being a co-applicant: Public Co-Applicants in Research. Here at ARC KSS we are co-producing a guide for members of the public, watch this space!

We want to take a co-production approach, but how can we do this 'remotely'?

The Research Design Service South East has provided a helpful summary on working together remotely in response to the Covid-19 pandemic, including a guide to video calling. In the ARC West map of co-production resources (pages 13-18) you will find lots of practical advice and useful resources for working remotely with members of the public. Co-production is a relational endeavour but establishing and maintaining positive working relationships in an online world can bring additional challenges, some people will thrive in this context and others will not find it satisfying or feel excluded. In a blog from the ARC East of England we are reminded that providing choice is key.

What should we do if there are conflicts or different points of view?

As already stated, co-production and involvement are all relational activities and as with every relationship sometimes, things go wrong or there can be disagreements. The best way to manage this is try to pre-empt problems, getting to know the members of the public you are working with, agreeing roles, responsibilities and processes in advance, and negotiating as you move forward with a project and new tasks or considerations. Communication is key, and you may want to think through how you are making information and communication accessible, see the make it clear campaign and accessible information standards. There are useful suggestions around meetings in ARC West's map of resources (pages 12-13).

A central tenet of co-production is sharing power and this can require a culture shift within the environment that the research/service changes are taking place. Constant attention is needed to monitor relationships and shifting power at different stages of the work together. ARC West's guide has some useful information on pages 10-11.
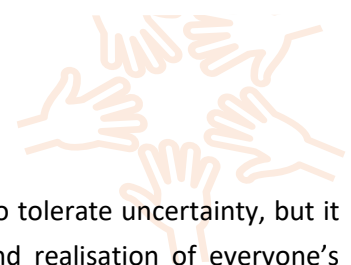
There are a lot of 'unknowns' with co-production requiring all parties to tolerate uncertainty, but it can also be one of the most rewarding parts, the joint discovery and realisation of everyone's potential. Disagreements in themselves should not be regarded negatively, just part of the process and an opportunity for shared learning and innovation. When things do go wrong, INVOLVE has some simple pointers on their website.

Do we need ethical approval to co-produce research?

In co-produced research, members of public are working as part of the team; therefore, ethical approval is not required, similarly, for PCIE. However, the expectation is that teams take an ethical approach to working with members of the public, as discussed in an interesting article by Pandya-Wood et al (2017). There is also a helpful statement from the HRA and INVOLVE about ethical approvals and public involvement.

How can we take stock of how we are getting on with working in co-production?

To help build and maintain relationships and ensure there is reciprocity it is a good idea to have a continuous cycle of reviewing how the project is developing and to ensure the approach remains true to the principles of co-production.

You may also find this reflective tool from our colleagues in ARC West helpful in supporting this process. ARC West also provide links to other helpful resources in their map of resources (p20-21). Additionally, Nesta have set up a list of critical learning questions on page 7 of their catalogue.
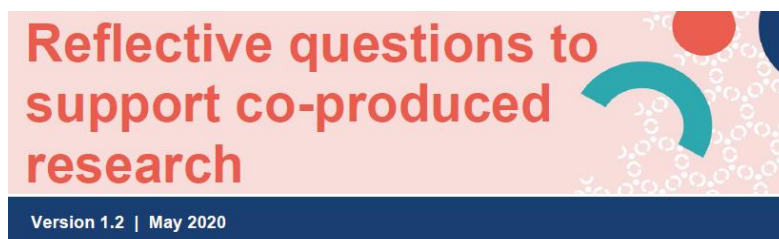
ARC West's (2020) guide to support co-production

Glossary

Community: We use the term community to define a social unit with commonality such as norms, religion, values, customs or identity. Communities may share a sense of place situated in a geographical area or in a virtual space through communication platforms.

Engagement: Providing the opportunity to share information and knowledge about research, to explore debate and shape research. It is a two-way process, involving interaction and listening, with the goal of generating mutual benefit. The National Coordinating Centre for Public Engagement has lots of resources.

Involvement: Typically refers to doing *with,* for example undertaking research with the involvement of the public or consulting the public about service delivery (see also patient and public involvement below).

Participation: While used to mean taking part in research as a research participant, it is also often used interchangeably with involvement. Third sector organisations typically use participation rather than involvement especially with children, for example when discussing matters that affect them and ensuring their voices are being heard, whether research, services or policy decisions. See Kidsrights for a global perspective. It can also be used to reflect everyone's rights to participation in society.

Public: When using the term public we include patients, potential patients, carers and people who use health and social care services (sometimes these people may have lived experience of a specific health condition and therefore specific services); people from organisations that represent those who access services; or members of the public with an interest in research. This is distinct from those who have a professional role in health or social care services.

Patient and Public Involvement (PPI): defined as research carried out 'with' or 'by' members of the public (who are sometimes patients when health services research is considered, but not in social care), rather than research done 'to', 'about' or 'for' them. It does not refer to the recruitment of patients or members of the public participating in research, for example taking part in a drugs trial.

Patient and Public Involvement and Engagement (PPIE): sometimes PPI and engagement are talked about together as two distinct, but often interrelated activities.

Public and Community Involvement and Engagement (PCIE): ARC KSS uses a broader term to talk about involvement or PPI, as applied research seeks to address and provide innovative solutions to everyday problems affecting individuals *and* communities in Kent, Surrey and Sussex.

References

Facer, K. and Enright, B. (2016). Creating living knowledge: the connected communities programme, community-university partnerships and the participatory turn in the production of knowledge. *Bristol: Arts and Humanities Research Council*.

INVOLVE (2018). *Guidance on Co-Producing a Research Project*. Available from: https://www.invo.org.uk/posttypepublication/guidance-on-co-producing-a-research-project/.

INVOLVE (2012). *Briefing Notes for Researchers: Public Involvement in NHS, Public Health and Social Care Research*. Available from: http://www.invo.org.uk/wp-content/uploads/2014/11/9938_INVOLVE_Briefing_Notes_WEB.pdf.

Nesta (2013). *Co-Production Catalogue*. Available from: https://www.nesta.org.uk/report/co-production-catalogue/.

NIHR/ARC West (2020). *Reflective Questions to Support Co-Produced Research*. Available from: https://arc-w.nihr.ac.uk/publications/reflective-questions-to-support-co-produced-research/.

Pandya-Wood, R., Barron, D. S. and Elliott, J. (2017). A framework for public involvement at the design stage of NHS health and social care research: time to develop ethically conscious standards. *Research Involvement and Engagement*, 3(1), pp. 1-21.

Social Care Institute for Excellence (2013, updated Oct 2015). *Co-Production in Social Care: What it is and how to do it. Full Guide.* [Online]. Available from: https://www.scie.org.uk/publications/guides/guide51/.

Williams, O., Robert, G., Martin, G., Hanna, E. and O'Hara, J. (2020). Is Co-production Just Really Good PPI? Making Sense of Patient and Public Involvement and Co-production Networks. In: Bevir, M. and Waring, J. eds. *Decentring Health and Care Networks. Reshaping the Organization and Delivery of Healthcare*. Palgrave Macmillan, pp. 213-237.

Appendix 1: Co-production or PCIE?

The table below demonstrates different stages of a research project or service development. It demonstrates where you might expect to see public contributions in a co-produced project versus one that adopts PCIE, and the structural challenges facing both approaches.

Stage of research	Stage of service development	Co-production	PCIE
Generating ideas, setting priorities	Generating ideas, setting priorities	Considered essential for full co-production, this requires approaching the work from a blank slate, which may not always be possible or desirable.	Sometimes: this might depend on when involvement is sought. The decision to do so typically sits within professional teams.
Design and development of research proposal or 'product' (e.g. assistive technology)	Design and development of services/ intervention/ innovation/ technology	Considered essential for full co-production. Requires a dismantling of power structures and blurring of roles. This is challenging work, as it requires relationship building skills and trust. Involves negotiating roles, responsibilities and decision-making.	It depends! Tends to be limited scope such as reviewing the lay summary. Project ideas/priorities may be generated from policy needs, practice/service requirements or researchers past work. This can affect when public members are consulted and their level of involvement. Early involvement, using principles of 'co-design' may be feasible alongside involving people to plan PCIE throughout the project.
Applying for funding (completing funding applications)	Seeking funding or resources	Often: depends on who is taking what role within the project and the type of funding being applied for (e.g. within the organisation, community funding etc.). This produces new areas to negotiate and decide on together.	Generally not expected unless acting as a co-applicant on the funding bid. Although PCIE plans are a requirement of funding bodies and ideally, public members would contribute, funding is often scarce, thus limiting involvement.
Carrying out the research	Service or programme delivery	Often depends on individual choice and so should be determined in the design phase.	Sometimes, depends on individual choice (public member and research team) and allocated budget.
Analysis and interpretation	N/A	This is considered essential for full co-production, although it also depends on the research methodology. Again, this requires a blurring of roles and	Sometimes, but often depends on the research methodology and what has been included in the PCIE plans. Unless involved as 'peer researchers' or co-

		expertise, and mutual skill development.	applicants, the public are typically not involved in data analysis. However, they are more often consulted on interpreting the findings and implications for services/ service users.
N/A	Process and outcome evaluations or audit. E.g. Action Learning Sets, Schwartz Rounds, Quality Improvement	Often: any form of reflective practice is critical to co-production of services. Service ethos and resources may impact on how/if this happens.	Sometimes: usually at distinct time points and depending on service ethos and resources for PCIE.
Report writing/ publications	Reporting of the work (internally/to funders)	Often: again, an area to be negotiated within the team.	Sometimes: may depend on the audience, although there is always scope for lay summary reports or co-writing sections of reports on involvement.
Dissemination activities	Communication/ dissemination. Sharing and learning from success; demonstrating effectiveness and/or added value	Again, an area to be negotiated within the team. Important to draw on everyone's networks to maximise engagement with the research findings.	Sometimes, depends on individual choice (public and research team) and allocated budget.
Knowledge exchange	Implementing change or implementing the findings beyond the life of the project and using them to inform practice or service development	Often: depends on individual choice of public representative(s) and what is decided in the design phase. Important to draw on everyone's networks to maximise engagement with the research findings.	Sometimes, depends on individual choice (public and research team) and allocated budget.

Appendix 2: Recommended reading

We have combed the co-production literature and there is a huge amount including theory; comparisons with PCIE, community engagement or participation; small scale research or reports; large interventions; and systematic reviews. We have selected articles that we found helpful and have divided them into a few key theoretical articles, some creative examples of putting theory into practice, and some visual/straightforward resources to share with anyone new to co-production. We have not included literature already referred to in the main guide, or systematic reviews given their somewhat different remit. We will update this regularly so please email your suggestions.

	Type of literature	Aim	Method	Findings, focus or comments
Theoretical papers discussing and defining co-production				
Allen, K. et al. (2019) Participatory research meets validated outcome measures: Tensions in the co-production of social care evaluation. *Social Policy & Administration*, 53(2), pp. 311-325.	Single case study	Explore the tensions between co-producing research with the public and evaluation methodologies that use standardised outcome measures.	Case study used data from a wider study evaluating public involvement. Used data from three group interviews with 15 co-researchers, and interviews with 3 researchers. Data analysis was coded thematically using the principles of decentred theory.	• An interesting article that debates the tensions inherent in participatory research. It explores how the expectations of research funding (that researchers should use qualitative and quantitative methods and involve the public/service users) were interpreted by academics and co-researchers (people with lived experience). • It uses the English Adult Social Care Outcomes Toolkit (ASCOT), developed by PSSRU at University of Kent to measure social care related quality of life. • Makes the point that it is important not to conflate good participatory research practice with qualitative research. Illustrates practical and epistemological tensions including feasibility (e.g. limited training of co-researchers), limitations in the usefulness of the data collected and the (greater) benefits of qualitative data collected alongside reflecting 'qualitative–quantitative friction' (p320). • Provides useful ideas around what researchers should consider in advance of combining co-production/participatory approaches with standardised outcome measures or similar 'hard' data.
Coutts, P. (2019) *The Many Shades of Co-Produced Evidence*. https://www.carnegieuktrust.org.uk	Briefing paper	To explore challenges and opportunities around co-producing evidence in social policy.	N/A	• An easy-read report with figures/tables that could be useful to support bid writing. It covers co-production of evidence and service evaluation. Explores some of the difficulties (p10-11) and has a few useful resources/references. • Table 1, p6, has a helpful comparison of seven different co-production definitions and key principles/features. • Figure 2, p9, provides an overview of co-producing research.
Dunston, R. et al. (2009) Co-production and health system reform– from re-imagining to re-making. *Australian Journal of Public Administration*, 68(1), pp. 39-52.	Discussion paper	Discusses the possibilities and challenges of system-wide co-production for health.	N/A	• Discusses co-production in health within the wider remit of co-production in public services, health systems reform and other health consumer-led approaches. • Addresses co-production against the background of 'disappointing results' in increasing consumer involvement in health services via 'choice' and 'voice' participation strategies. Considers co-production conceptualised as a system-wide form of practice, identified in policy. • An interesting read but might be too heavy for some!

Filipe, A., Renedo, A. and Marston, C. (2017) The co-production of what? Knowledge, values, and social relations in health care. *PLoS Biology*, 15(5), e2001403.	Opinion	Aims to clarify what counts as co-production: what is being produced, in what context and with what implications.	N/A	• Proposes that co-production can be understood as an 'exploratory space and a generative process that leads to different, and sometimes unexpected, forms of knowledge, values, and social relations' (p1). • Argues that the 'co-production of value and services in health care cannot be dissociated from the values and implications of co-producing knowledge or the meanings of participation as a social and political process' (p2) thus endorsing the iterative process between research and practice. • Short, readable, and thought provoking.
Lember, V., Brandsen, T. and Tõnurist, P. (2019) The potential impacts of digital technologies on co-production and co-creation. *Public Management Review*, 21(11), pp. 1665-1686.	Opinion	Identifies four elements of the co-production/co-creation process and discusses their relationship with developing new technologies.	Theoretical discussion drawing on literature on elderly care, youth and policing.	• A heavily theoretical article but with an interesting differentiation of co-production and co-creation, based on their different histories and processes. • Divides digital technologies into four areas: sensing, communication, processing and actuation, while acknowledging that most have parallel functions. Table 1 is helpful, summarising potential positive and negative impacts of digital technologies on co-production/co-creation, divided into four areas (interaction, motivation, resources and decision making). • Ends with discussion of three possible scenarios, whereby digital technologies could enable co-production/co-creation; diversify co-production practices; or substitute for co-production. It concludes that there is no reason to assume that digital technologies will always encourage coproduction or co-creation and could be used to bypass interaction with citizens altogether.
Loeffler, E. and Bovaird, T. eds. (2020) *The Palgrave Handbook of Co-Production of Public Services and Outcomes*. Cham: Palgrave Macmillan.	Book	To provide a comprehensive account of the movement towards co-production of public services and outcomes.	N/A	• Explores the roots of co-production in the social sciences, the growth of co-production in policy and practice, its implementation and management in the public domain, and its governance, including its negative aspects. • The chapters are not downloadable (and costs £127 for paperback) but several chapters by key authors draw on previous papers so it is worth Googling the chapter you are interested in for an earlier paper.
Liabo, K. and Roberts, H. (2019) Coproduction and coproducing research with children and their parents. *Archives of Disease in Childhood*, 104(12), pp. 1134-1137.	Commentary	Discusses the concept, and the opportunities and practical challenges it can bring to research with children and their parents.	N/A	• Provides clear rationale on working with children (e.g. UK average reading age is 9yrs old) and interprets the characteristics of co-production in relation to child health research. • Recommends that researchers need to practice talking to children, take them seriously and draw on published methods for how to talk with children prior to designing tools for how to work with children and their parents in designing research. • Provides useful references.
Palumbo R and Manna R (2018) What if things go wrong in co-producing health services?	Opinion	Explores the risks of 'value co-destruction' in the patient-provider	N/A	• A thought-provoking article that perhaps overstates the case but draws together individual and organisational health literacy, power relationships and the impact on co-production.

Exploring the implementation problems of health care co-production, *Policy and Society*, 37:3, pp. 368-385.		relationship and suggests a theoretical framework which highlights implementation issues with health services' co-production.		• Argues that a healthcare context is particularly liable to 'value co-destruction' whereby patients and professionals are likely to bring diverging aims and conflicting perspectives which act as obstacles when establishing an equal partnership. • Discusses the impact of poor health literacy, not only of patients but also of organisations that are unable to establish a setting which empowers patients and enables them co-produced care. Figure 3 (p377) is helpful. • Argues that individual and organisational health literacy are two essential requisites to patient empowerment and health services' co-production. Both are needed to enhance the patient-provider relationship and to pave the way for the establishment of a co-creating partnership.
Park, S.E. (2019) Beyond patient-centred care: a conceptual framework of co-production mechanisms with vulnerable groups in health and social service settings, *Public Management Review* 22:3, 452-474.	Opinion and case study	Proposes a framework theorising various service co-production mechanisms that providers may use with vulnerable and stigmatised service users.	N/A	• Highlights (a perceived) gap in the literature regarding service user–provider tensions that could undermine engagement and collaboration; explores why co-production approaches in one setting may not work in another setting; and differentiates collective level co-production from individual level, which this paper focuses on. • Draws parallels between patient-centred care and co-production. Useful discussion of three models: provider-driven service production, user-driven co-production, and user–provider co-production (see Table 1, p9). • Provides a case study in Substance Use Disorder (SUD) treatment fields where SUD patients may be perceived as 'untrustworthy and manipulative' and collaborating with them could be perceived as 'unprofessional' (p13). Looks to the USA where staff members with lived experience of addiction is embedded in the development of treatment approaches. Proposes a model of peer co-production (and discusses the limitations) whereby staff with personal history of substance disorder are well placed to mediate dialogues and power relationships between clinicians and service users.
Slay, J. and Penny, J. (2014) *Commissioning for Outcomes and Co-Production. A New Model for Commissioning Public Services*. https://neweconomics.org	Handbook by New Economics Foundation (NEF, an independent think tank)	A practical guide for local authorities to promote co-production.	Result of eight years of collaboration between NEF and local authorities	• At 100 pages it is a meaty guide to designing, commissioning and delivering services which aims to: focus on commissioning for 'outcomes' (defined as achieving long-term changes); promote co-production with service users; and promote social value 'by placing social, environmental and economic outcomes at the heart of commissioning' (p4). • Divided into 3 chapters: developing insight into what outcomes are important to service users; plan support and activities to meet the needs and build on the assets of local people; improve delivery, including monitoring. • We have included this because it gives a good overview of the issues from a commissioning perspective, helpful references and might be helpful in writing the impact section of a bid.

	Type of literature	Aim	Method	Findings, focus or comments
Selected examples focused on implementing a co-production approach, all open access and UK based (alphabetical)				
Aabe, N.O. et al. (2019) Inside, outside and in-between: the process and impact of co-producing knowledge about autism in a UK Somali community. *Health Expectations*, 22(4), pp.752-760.	Qualitative	To provide insight into the process of co-production, using personal reflections and theory. Stems from a qualitative study exploring the experiences of Somali families who had children with autism.	Community-based participatory research. Interviews with 15 Somali parents, in English and Somali. Thematic analysis.	• **Topic: Understanding a child with autism/knowledge creation** • The initial idea was raised by Nura Aabe, a member of the local Somali community, whose son had autism, a condition not recognised in her community. She contacted the University of Bristol and then co-developed the project. The findings are reported elsewhere, largely around the stigma attached to autism and challenges reaching out for support. • This paper explores the partnerships that began with community theatre and qualitative research and led to extensive dissemination and impact, jointly negotiated by the co-researchers and community organisations. There's an interesting account on impact activities at micro, meso and macro level. • Reflects on the process of co-production: Table 1 outlines key principles (drawn from INVOLVE and mental health 'recovery' principles). Discusses building and maintaining individual relationships, and those with community organisations; the importance of flexibility, power sharing and reciprocity; and developing skills, capacity and opportunities for personal growth.
Farr M. et al. (2019) Pilot implementation of co-designed software for co-production in mental health care planning: a qualitative evaluation of staff perspectives, *Journal of Mental Health*, 28:5, pp. 495-504.	Qualitative	To investigate the feasibility and acceptability of a pilot implementation of an electronic care pathway tool (CPT) in professionals' practice to co-produce care plans and enable efficient working.	Interviews with 15 mental health practitioners, and 5 service development/ management staff. Normalisation process theory (NPT) and co-production theory informed interviews and data analysis.	• **Topic: adult mental health/technology** • Good example of using NPT to inform the interviews and analysis, and co-production principles to inform clinical practice around adult mental health services. • Main finding: the CPT's visual and interactive elements encouraged patient engagement and co-production of care plans and progress records. • Unsurprisingly, CPT did not integrate with electronic patient records and tension arose between the elements of care planning that patients and clinicians service users and practitioners found most useful, and those mandated by the organisation. • Co-production was integrated as part of a larger IT project overseen by a Joint Project Board, whose members included service users. They used Nesta's (2012) co-production principles - service users were partners in IT tool design and development. Co-production training and support was provided by Rethink. Supplementary information 1 provides an overview.
Davies, N. et al. (2019) Designing and developing a co-produced theoretical and evidence-based online support for family caregivers of people	Mixed methods	Reports the development of a prototype website to support family carers of a person with dementia towards	Four stages: data synthesis (earlier interviews, systematic review and theory); identifying intervention targets	• **Topic: Carers/dementia/technology** • The project used 'an iterative co-production method' to develop a prototype website, following the Medical Research Council's framework for developing a complex intervention. The authors stated that the co-productive and iterative nature of the website's development was strengthened using evidence from a systematic review, earlier interviews and underpinning theory.

with dementia at the end of life. *BMC palliative care*, 18(1), pp. 1-16.		the end of life.	and components using a modified nominal group process; developing the intervention prototype; and user testing with 11 caregivers.	• Co-production was defined as an iterative process of developing a product (prototype website) with carers and clinicians working closely with members of the research team. Their research development group included subject experts, clinicians, two members of a dementia charity and one caregiver. • User testing of the website prototype involved a 'think aloud' technique (carers saying what they thoughts as they tried the prototype) and was regarded as a continuum of co-production which informed further iterations of the prototype website. • In contrast to other similar studies, they used individual meetings with carers (compared to consensus panels or workshops) on the grounds that individual meetings minimised possible distress (discussing end of life and dementia) and concerns about the complexity of the task (evaluating technology). Additionally, many of the carers had limited time and could not leave home to travel to group meetings.
Hartworth, C., Simpson, D. and Attewell, H. (2021). Coproduction, participation and empowerment: A participatory evaluation of a young care leavers project in prison. *Probation Journal*, 68(1), pp. 107-115.	Qualitative	Describes a participatory approach with young offenders aiming to assist resettlement and reduce re-offending.	Participatory evaluation. Two small groups of young men, and women, 6 sessions each in two Young Offender Institutions in North East England.	• **Topic: young care leavers/prison** • Provides background to participatory terminology and places co-production under the umbrella of participatory research and development (see Fig 1). • An interesting combination of a charity (Nepacs) delivering the project and a social research organisation (Barefoot Research) evaluating it. • A short article with limited details but a clear description of *how* a trusting relationship was established within each group. The impact was evaluated with a voting exercise to prioritise benefits. These included being recognised as a care leaver; having a voice; knowing your entitlements; and helping other people who have grown up in care. • The last point, developing empathy and a desire to help each other was attributed to the participatory approach.
INVOLVE (2019) *Co-Production in Action. Number 1. Southampton.* https://www.invo.org.uk	Grey: NIHR	To show how the key principles and features of co-producing research can find expression in practice.	Case studies. Provides basic information with links to further information.	Led by Gary Hickey, this guide has three health-related examples which are all useful in terms of operationalising the concepts of co-production: • **Adult mental health care**: analysing accounts of care on a not-for-profit feedback website, Care Opinion, and identify themes potentially helpful in providing feedback from a patient perspective. • **Alcohol rehabilitation**: partnership with Alcohol Research UK explored the experiences of older adults in residential alcohol rehabilitation services. • **Children**: developing an intervention to support participation in leisure of children and young people with neurodisability.
Jones, F. et al. (2020) Using co-production to increase activity in acute stroke units: the	Mixed methods	Aimed to evaluate the feasibility and impact of patients, carers and staff co-	The intervention was an experience-based co-design cycle in four acute stroke	• **Topic: acute stroke wards/improving activity levels** • This is a huge study! Lots of different methods and a creative approach to reducing boredom on acute stroke wards (a long-standing problem). Worth looking at for the methodology alone. Large numbers of patients, carers and staff involved.

CREATE* mixed-methods study. *Health Services and Delivery Research*, 8(35). *Collaborative Rehabilitation in Acute Stroke		designing and implementing changes to increase patient activity on acute stroke units.	units (London and Yorkshire). The evaluation was a case comparison using interviews, observations, behavioural mapping and self-report surveys.	• As well as a focus on activity levels, the study aimed to understand the experience of taking part in experience-based co-design (EBCD, provides references) and whether the interventions developed and implemented during a full co-design cycle (in 2 stroke units) could be transferred and accelerated elsewhere (2 other stroke units). • Asserts that the nature of the co-design 'work' was fundamentally different from usual staff-led or externally driven quality improvement initiatives in stroke. • Qualitative findings showed that it was feasible to co-design changes to increase patient activity. Reports no significant differences in experiences or outcomes between the full and the accelerated forms of EBCD. • Patients and families perceived positive benefits from participating in the co-design groups, felt that they were equal and valued members, and gained satisfaction from seeing improvements implemented. Staff also reported a positive experience and valued the time for creative thinking and relational activities.
MinD (2020) *Designing with and for People with Dementia: Design Guidelines*. Designing for dementia	Report	To bring together designers, healthcare professionals, technologists and people with dementia to identify and develop design solutions to help people with dementia manage and daily life.	Three stages of 'mindful design methodology': qualitative data collection from people with dementia; design development; and design evaluation.	• **Topic: the social needs of people with early to mid-stage dementia living in the community** • The four-year project had multiple aims and outputs, funded by EU Horizon 2020. The report focuses on the insights learned from the design process. It offers a description and analysis of the process and concludes with a summary of key findings and design guidelines. The guidelines are helpful for anyone involved in develop designs (or other interventions) based on participant engagement and co-production. • Short literature review includes a section on co-design and dementia (p15). • Interesting use of mindfulness adapted to the design process. Phase 1 analysed data from people with dementia about their needs and wants around wellbeing, self-empowerment and social engagement. These were summarised as nine themes, grouped into three key concepts: the individual and their internal world, their relationships, and their activities to develop the AIR model (p20). • Describes different ways in which they captured people's views and provides examples of the tools they used which could be adapted to your own project.
Montgomery, E., Seng, J.S. and Chang, Y.S. (2021). Co-production of an e-resource to help women who have experienced childhood sexual abuse prepare for pregnancy, birth, and parenthood. *BMC Pregnancy and*	Qualitative	To co-produce an e-resource to help prepare women who had experienced childhood sexual abuse (CSA) for pregnancy, birth, and early parenthood.	Two phases: interviews (thematic analysis) and development of the resource (workshop/email).	• **Topic: pregnancy, birth and early parenthood/history of childhood sexual abuse** • A collaboration between Kings College London and The Survivors Trust, an umbrella agency for sexual abuse services in the UK. • Describes the difficulties with recruiting enough women – started with focus groups (only 6 participants), then telephone interviews (2 women) and finally a survey with open questions (29 responses). • Development of the e-resource involved a workshop (and email feedback for those who could not attend) with participants of Phase 1 and the Project Advisory Group. A film company created short films/animations and learning technologists from King's built the prototype e-

	Type of literature	Aim	Method	Findings, focus or comments
Childbirth, 21(1), pp. 1-12.				resource integrating data from Phase 1 and an earlier qualitative study so that the voices of those involved were part of the final product, using a 'peer-to-peer voice'.
PARTNERS2 (2020) Exploring patient and public involvement (PPI) and co-production approaches in mental health research: learning from the PARTNERS2 research programme. *Research Involvement and Engagement*, 6(56).	Qualitative	Explores the successes and challenges of applying co-production principles in research trials, specifically integrating expertise from service users, carers and researchers.	Co-operative style inquiry; analysis of 15 written accounts, 11 by individual authors and 4 by writing teams, describing examples of co-working. Fig 1 provides a helpful overview.	• **Topic: supporting people with mental health conditions in primary care.** • This paper is an off shoot of the main project and presents four themes describing aspects of working together: (1) recognising the importance of 'emotional work'; (2) developing safe spaces to create and share knowledge; (3) challenges of using our personal identities in research work; and (4) acknowledging power-sharing within the research hierarchy. • Discusses how relationship building, communication and different forms of expertise were valued, and how stigma affected what work was possible together. • Recommends that 'there needs to be an acknowledgement of the importance of emotional work, creating safe spaces to coproduce, transparency in decision making and reflection on the difficulties of using personal identities in research work' which existing guidelines do not fully acknowledge (p1).

	Type of literature	Aim	Method	Findings, focus or comments
Guides/visuals for members of the public				
BoingBoing (2017) *Engaging Children and Young People in the Solutions*. Boingboing	Grey	Explore what co-production means for schools in addressing resilience and mental health.	Not described.	• As part of a larger guide for East Sussex schools around mental health and resilience, this chapter on engaging CYP in co-production could be a useful introduction to the principles and benefits of co-production for teachers (and older students). • It contains lots of other resources for promoting a 'resilience-based, whole school approach to promoting positive mental health and addressing individual needs'.
Kaur, H. and Kerrigan, P. (2020) *Stronger Together: A Guide for Co-Researchers Working on Co-Produced Projects*. www.york.ac.uk	Grey	A guide for co-researchers working on co-producing research projects.	Not described.	• Simple language guide with visual/graphics. Not keen on the graphics but the text is okay. Explains terminology (co-researcher and co-production) with an emphasis on diversity and what to expect if you get involved in research.
NHS England and NHS Improvement and Coalition for Personalised Care (2020)	Grey	Visual model to demonstrate how to develop a culture of co-		• Written by the coalition for collaborative care and its partners, a simple one-page model of '5 values and 7 steps' directed at service provision (referring to self-care, person centred care and health coaching). It provides principles but not how to operationalise. However, it is a nice visual to explain the ideas. See NHS England co-production resources.

A Co-Production Model. [Coalition for personalised care](#)		production and how to do it.		
The UK Network of Dementia Voices (2020) *A Story of Co-Production: The Right to a Grand Day Out*. [DEEP](#)	Grey	To tell their story of co-production.	Rights based approach.	• The UK network of dementia voices (DEEP) connects over 100 involvement groups of people with dementia to provide mutual support and 'to amplify our voices'. In 2017-18, DEEP groups in Yorkshire worked together on different transport issues. • They produced this delightful account of their story and what they learned about co-production. Although it is all about transport, it has useful transferable ideas e.g. using a rights-based approach, accessible methods to collect evidence and how to make co-production a good experience. [Innovations in dementia](#) (under publications).
DEEP (2020) *Ethics Gold Standards for Dementia Research* [Dementia Voices UK](#)	Grey	Guide to research ethics based on principles which were identified by people with dementia.	Not described.	• Piloting in 2020, DEEP hopes that their six standards will be accepted by formal Research Ethics Committees and peer-reviewed journals as evidence that a project is ethically sound. • The first principle is 'working in partnership ('co-production')' and there is a simple checklist to help researchers consider how to 'recognise and minimise differences in power and status' (p10). • The other principles are respect and acknowledgement; safety and well-being; informed consent and capacity; confidentiality and anonymity; and 'information that is simple, accessible and open. • Clearly written, helpful and easy to understand – we would recommend using it.
Think Local Act Personal (2021) *Top Ten Tips for Co-Production*. [Think local](#)	Grey	Various guides on co-production (under resources).	Not described.	• 'Co-production: it's a long term relationship': one page PDF with ladder of co-production explained in simple terminology and a 5min film [Ladder co-production](#) • Other guides/videos/podcasts, including a 'Top 10 tips for co-production', directed at service providers. See [co-production](#) resources on their website.
We Coproduce (no date). *The Art of Coproduction: A Guerrilla Guide*. [We coproduce](#)	Grey	To provide a visual representation of co-production.	Not described.	• The [Guerrilla guide](#) to the art of co-production is a free download. 'We coproduce' is a consultancy service that promotes co-production. Takes a 'transformative approach' using the medium of arts, social media and technology 'to facilitate democratic spaces for local people to collectively reimagine local health and social care outcomes'.
NIHR/RDS South East (2021) That Co-production Podcast! https://www.rds-se.nihr.ac.uk/podcasts/	Grey	To increase the accessibility of discussion, debate and issues related to co-production.	Podcast discussions.	• Eight discussions hosted by staff and lay members of the PPIE team at RDS South East and a guest. Topics include 'what's the difference between co-production and public involvement in research?' and 'creative approaches in co-production'. • Better suited for those who have some knowledge or experience of co-production and want in-depth discussion.