Developing a model for health determinants research within local government: lessons from a large, urban local authority

Scoping project findings

a) Quantitative online staff survey

LARS online staff survey questions and responses

Thank you for agreeing to take part in this survey. We would like to understand more about your experience and understanding of research activities within Bradford Metropolitan District Council. Research evidence aims to generate new knowledge. It is undertaken and reported using clear documentation of methods, peer review and external scrutiny. Research is one just source of evidence and has the advantage of being rigourous, relevant and independent compared to most other types of evidence . When we use the term 'research evidence' in this survey we are referring to evidence from published research articles and papers, routinely reported statistics or unpublished sources such as internally conducted evaluations.

Read our data protection and privacy statements here:
https://www.bradfordhospitals.nhs.uk/privacy-statement/

1. In your role at BMDC, have you ever used any of the following sources of research evidence in your work? (select all that apply) (base=197)
    a. Peer reviewed journal papers (31.0%; n=61)
    b. National evidenced based standards or guidance e.g. NICE Public health Reviews (52.3%; n=103)
    c. National statistics e.g. ONS data or PHE fingertips Public Health Profiles (52.3%; n=103)
    d. Commissioned research reports and case studies (e.g. commissioned by BMDC or others) (48.2%; n=95)
    e. In house research (e.g. community surveys) (52.3%; n=103)
    f. Never used research/none of the above (21.3%; n=42)
    g. Other (please specify) (5.6%; n=11)
2. I can access peer reviewed journal articles online at BMDC (base=197)
    a. Yes (12.2%; n=24)
    b. No (20.8%; n=41)
    c. Don't know (67.0%; n=132)
3. Using research evidence is part of my role (base=197)
    a. Strongly agree (22.8%; n=45)
    b. Agree (49.7%; n=98)
    c. Disagree (15.2%; n=30)
    d. Strongly disagree (12.2%; n=24)

If strongly agree or agree at Q3, go to Q4.

4. How do you use research evidence? (select all that apply) (base=143)

a. Help prioritise (34.3%; n=49)
b. Help inform or develop a policy, project, intervention or service (81.8%; n=117)
c. Keep me up to date with current thinking (86.7%; n=124)
d. Inform budgeting and efficiency measures (21.7%; n=31)
e. Other ways (specify) (7.7%; n=11)

5. I know where to look to find research evidence to support my work (base=197)
    a. Strongly agree (12.2%; n=24)
    b. Agree (51.3%; n=101)
    c. Disagree (25.4%; n=50)
    d. Strongly disagree (11.2%; n=22)
6. Research evidence is identified and used in my service/department to inform or make decisions (base=197)
    a. Strongly agree (17.8%; n=35)
    b. Agree (53.3%; n=105)
    c. Disagree (23.4%; n=46)
    d. Strongly disagree (5.6%; n=11)
7. Research evidence is identified and used in my organisation to inform or make decisions (base=197)
    a. Strongly agree (11.2%; n=22)
    b. Agree (58.9%; n=116)
    c. Disagree (24.4%; n=48)
    d. Strongly disagree (5.6%; n=11)
8. As an organisation, BMDC values the use research evidence to inform or make decisions (base=197)
    a. Strongly agree (10.2%; n=20)
    b. Agree (61.4%; n=121)
    c. Disagree (23.9%; n=47)
    d. Strongly disagree (4.6%; n=9)
9. I would like to use research evidence more in my role (base=197)
    a. Strongly agree (22.8%; n=45)
    b. Agree (53.3%; n=105)
    c. Disagree (18.3%; n=36)
    d. Strongly disagree (5.6%; n=11)

10. At BMDC, have you been involved in commissioning any research? (base=197)

    a. Yes (16.8%; n=33)

    b. No (83.3%; n=164)

If Yes at Q10:

11. Who did you commission? (select all that apply) (base=33)

    a. University (36.4%; n=12)

    b. Other research organisation (51.5%; n=17)

    c. Local voluntary or community sector organisations (24.2%; n=8)

    d. Other organisation (36.4%; n=12)

If Yes at Q10:

12. What was the research for? (specify) (base=33)

    a. (100%; n=33 open responses made)

13. Has your department/service been involved in doing any research? (base=197)

    a. Yes (45.2%; n=89)

    b. No (17.3%; n=34)

    c. Don't know (37.6%; n=74)

If Yes at Q13:

14. Was this research…(select all that apply)(base=89)

    a. In house research (55.1%; n=49)

    b. Research in collaboration with a university or other research organisation (51.7%; n=46)

    c. Commissioned research with an external agency (e.g. VCS, market research) (48.3%; n=43)

15. What do you think would need to change within BMDC in order to facilitate the utilisation of research? (base=197)

    a. (87.8%; n=173 open responses made)

16. Please use this space to tell us anything else you would like to mention that may be relevant to our project. (base=197)

    a. (31.0%; n=61 open responses made)

Background

To help us to analyse the results of this survey please tell us which department you work in and at what grade.

17. What department do you work in?

    a. <drop down list of options reflecting council structure>

18. What is your grade?

a. <drop down list of options reflecting council occupational categories>

That is the end of the survey. Thank you for taking part. If you would like to receive the final report you can access results of the study via the following link: https://actearly.org.uk/

b) Qualitative focus group and individual interviews
Interview schedules are below. We have full transcripts of the focus group and individual interviews available by request to the ActEarly Executive Group (via actearly@bthft.nhs.uk). For this paper we have summarised the emerging themes in the scoping project report based on our thematic analyses.

LARS for Bradford Scoping Project -Interview Schedule

- *Thank you for agreeing to take part in this interview. We would like to understand more about your experience and understanding of research activities within Bradford Metropolitan District Council from a strategic perspective. We will discuss the existing processes, key issues, skills and barriers and explore the things you think are needed to implement a sustainable and effective transdisciplinary research system. The interview should take between half an hour and an hour, but we can stop at any time if you need to.*
- *Just to remind you, you are not obliged to answer all questions and there are no right or wrong answers. We just want to hear your views.*
- *I may ask you to explain something further in the discussion. This is not because you are not being clear, but because when presenting this work we need to use your words rather than ours to explain things.*
- *I will record this interview. The only recording of the interview we will keep will be the audio, whether or not you keep your camera on. We will remove your identity from the transcription and your name will never appear in any reports or publications arising from this work although though your job title may be referenced.*
- *Do you have any questions before we start?*
- *I am about to start the recording. Once the recording starts I will ask you to confirm that you consent to everything we have already discussed.*

START RECORDING

Can you please confirm that you have read and understood the information sheet that was emailed to you before this interview?

Are you happy to proceed?

Background information

- *To begin can you please remind me what your role is within your organisation and how long you have been part of BMDC?*

To gain in-depth answers for the questions below, hold the interviewee in their responses, and consider prompts such as; tell me more, how does that work? What is a typical day like in your role? Can you give me any examples?

Interview Framing and Ice Breaker

- Over the past 20-30 years we have seen the implementation and integration of a research and development culture within the NHS which has had massive impact on service delivery and decision making. Utilisation of evidence based research to develop and improve existing services has proven invaluable in a wide range of areas and has improved service outcomes across the organisation. This is because it's only when something is evidenced based that we can, with some accuracy, say what the benefits but also what the harms are. There is also no point implementing something that potentially doesn't work.

- Research evidence aims to generate new knowledge. It is undertaken and reported using clear documentation of methods, peer review and external scrutiny. Research is one just source of evidence and has the advantage of being rigorous, relevant and independent compared to most other types of evidence. When we use the term 'research evidence' in this interview we are referring to evidence from published research articles and papers, routinely reported statistics or unpublished sources such as internally conducted evaluations.

❖ **OB1.1 - Knowledge of sources of evidence/ Understanding of research and evidence**
1. Do you feel BMDC uses research as an organisation? To gain in-depth answers for the questions below, hold the interviewee in their responses, and consider prompts such as; tell me more, can you give me any examples? (e.g. peer review journals/ NICE reviews/ONS/commissioned reports/in house surveys/other). How often do you utilise research sources to inform practice?
2. How does research evidence influence your organisations day to day work? To gain in-depth answers for the questions below, hold the interviewee in their responses, and consider prompts such as; to determine priorities? In policy development? To set budgets? In decision making?

❖ **OB1.2- Uses of research in Practice and Collaboration**

1. **Have BMDC collaborated with other professionals to complete research?**

To gain in-depth answers for the questions below, hold the interviewee in their responses, and consider prompts such as; if so who with? Internally? Academics? Students? Health? Public? What was BMDC level of involvement with the research? What type of research was undertaken? Has the research been beneficial? If so how? If not why not?

2. **Do BMDC have a policy for evidence informed decision making?**

To gain in-depth answers for the questions below, hold the interviewee in their responses, and consider prompts such as; have you used this, how? Was this helpful/ effective? If not why not? Do you think this would be useful if don't currently have one?

❖ **OB 1.3 Research Capacity**

1. **Do BMDC currently have the resources to undertake research activities?**

To gain in-depth answers for the questions below, hold the interviewee in their responses, and consider prompts such as; do you have sufficient time? Enough money? Correct skills, knowledge education, and understanding? Motivation? See the benefits of research informed practice? If not why not?

Do you feel you have the time and resources, space, abilities etc to actually encompass a more research orientated approach?

And do you think people are motivated to look at more evidence based programmes etc?.

2. **Is there capacity at all levels of the organisation to undertake research activities?**

To gain in-depth answers for the questions below, hold the interviewee in their responses, and consider prompts such as; at a strategic level? Management/leadership level? Operational/front-line colleagues?

❖ **OB1.4 Research commissioning**

1. **Have you (or your department/organisation) ever applied for research funding?**

To gain in-depth answers for the questions below, hold the interviewee in their responses, and consider prompts such as; If so what have you applied for? If so do you feel this was beneficial? If not, do you feel you have the skills to complete research funding bid? If not what training or development do you feel would be beneficial? What would be important for you to take part in this process?

2. **What would be the most beneficial areas for research development in BMDC?**

To gain in-depth answers for the questions below, hold the interviewee in their responses, and consider prompts such as; specific departments? Specific issues? Processes? Procedures? Evaluation of current systems? Are any aspects of your service/ role that could be improved and if so how?

❖ **OB 1.5 Barriers**

1. **Are there any barriers to undertaking research activities within BMDC?**

To gain in-depth answers for the questions below, hold the interviewee in their responses, and consider prompts such as; If so what are these? Time? Financial? Knowledge/Skills set? Access to co-developers/participators? Information sharing protocols?

❖ **OB2.1 Public involvement in research**

1. **What level of public involvement is there within BMDC in relation to research?**

To gain in-depth answers for the questions below, hold the interviewee in their responses, and consider prompts such as; Questionnaires? Consultation events? Drop ins? Community champions? Social Media engagement? If there's not, what level of public involvement would you feel would be beneficial? Who/which groups would be integral?

❖ **OB2.2 Training and Development**

1. **Are there specific training and development resources available to allow research and development opportunities within BMDC with internal and/or external partners?**

To gain in-depth answers for the questions below, hold the interviewee in their responses, and consider prompts such as; If so what are these? Time? Money? Champions? Training department? External training? Links to external partners training? Online resources? Guides?

❖ **OB3.1 Sustainability**

1. **Do you think the current research strategies for BMDC are sustainable?**

To gain in-depth answers for the questions below, hold the interviewee in their responses, and consider prompts such as; if yes how? What are the benefits? If not why not? Budget challenges? Political cycles? Staff turnover? Staff buy-in?

❖ **OB3.2 Synergy and Knowledge Mobilisation**

1. **Do you have any current processes for information sharing of research activities within BMDC and the wider district?**

To gain in-depth answers for the questions below, hold the interviewee in their responses, and consider prompts such as; internal documents? Shared drives? Conferences? Designated meetings? Publications? Newsletters? Community events?

If not how could information sharing processes be improved? Internal documents? Shared drives? Conferences? Designated meetings? Publications? Newsletters? Community events?

2. **Do you think that there is good information sharing of research activities between BMDC and the following:**
    - **Local government?**
    - **NHS?**
    - **Academic centres?**
    - **Voluntary agencies?**
    - **Commercial sectors?**
    - **Cultural sectors?**

To gain in-depth answers for the questions below, hold the interviewee in their responses, and consider prompts such as; if so what worked well? Benefits of information sharing? Benefits of partner working? Pooling resources? Expertise? If not do you think there would be benefits? E.g. financial? Knowledge?

3. **If BMDC became more research active what things would be needed to make these easier/more effective/sustainable?**

To gain in-depth answers for the questions below, hold the interviewee in their responses, and consider prompts such as; Education? Designated leads? Specific teams? Allocated resources? Protected time? Money? Certain projects? Information sharing? Specific research strategies? Multi agency events? Networking? Collaborative working? Accessible research databases? Changes to policies and procedures? Staff team structures? Staff working arrangements and pay?

❖ **OB1.6 Testing and Refinement of LA Research Activity**

1. **Looking at the LA research activity tool in figure 2. What level would you say BMDC operates at?**

Ending the interview

Is there anything else you'd like to say or anything you thought you wanted to discuss before the interview that we have not talked about today?

Do you have any questions for me?

That is the end of the interview. Thank you for taking part. If you would like to receive the final report you can access results of the study via the following link: https://actearly.org.uk

Thank you very much for taking part today

END RECORDING

LARS for Bradford Scoping Project - Focus Group Topic Guide for BMDC Staff

- *Thank you for agreeing to take part in this focus group. We would like to understand more about your experience and understanding of research activities within Bradford Metropolitan District Council. We will discuss the current research landscape in Bradford including the extent to which BMDC chooses, uses, co-develops and participates in research. The focus group should take between an hour and an hour and a half, but we can stop at any time if you need to.*
- *Just to remind you, you are not obliged to answer all questions and there are no right or wrong answers. We just want to hear your views. We hope this will be an inclusive and engaging activity that will allow a two-way learning process.*
- *I may ask you to explain something further in the discussion. This is not because you are not being clear, but because when presenting this work we need to use your words rather than ours to explain things.*
- *I will record this focus group. The only recording of the interview we will keep will be the audio. We will remove your identity from the transcription and your name will never appear in any reports or publications arising from this work.*
- *Do you have any questions before we start?*
- *I am about to start the recording. Once the recording starts I will ask you to confirm that you consent to everything we have already discussed.*

START RECORDING

Can you please confirm that you have read and understood the information sheet that was emailed to you before this interview?

Are you happy to proceed?

Background information

- *To begin it would be useful if we could start with some introductions. Can you please take it in turns to introduce yourselves and remind me what your roles are within your organisation and how long you have been part of BMDC?*

To gain in-depth answers for the questions below, hold the interviewee in their responses, and consider prompts such as; tell me more, how does that work? What is a typical day like in your role? Can you give me any examples?

Framing and Ice Breaker

Ice breaker:

What do you understand research to be?

[Prompts e.g. types, methods, people, previous involvement with research?]

All answers are correct but for the purpose of this focus group we are defining research evidence as:

Defining Research Evidence:

Research evidence aims to generate new knowledge. It is undertaken and reported using clear documentation of methods, peer review and external scrutiny. Research is one just source of evidence and has the advantage of being rigorous, relevant and independent compared to most other types of evidence. When we use the term 'research evidence' in this focus group we are referring to evidence from published research articles and papers, routinely reported statistics or unpublished sources such as internally conducted evaluations. These can be used in a variety of ways to inform practice and/or decision making.

[Prompts e.g. Please read the definition on the screen (interviewer also read out definition) Any reflections? How does this definition relate to your roles? Is there anything in place to support the use of research in the LA?]

Benefits of Research in Practice:

Over the past 20-30 years we have seen the implementation and integration of a research and development culture within the NHS which has had massive impact on service delivery and decision making. Utilisation of evidence based research to develop and improve existing services has proven invaluable in a wide range of areas and has improved service outcomes throughout the NHS indicating a range of benefits for utilising research to inform practice.

[Prompts e.g. what benefits/advantages and any drawbacks/disadvantages have you had relating to research within your roles at BMDC? How has existing research been used? How has data been collected and for what purpose? If not, why not? Is there any research that you would like to be done? Are you aware of any projects/schemes/initiatives/examples within in LAs to do with research?]

FOCUS GROUP TASK

The main focus of today's discussions will involve discussions around the table in Figure 2. You should have all been sent this prior to today, but if not that is fine. Please could you all take a few minutes to read through and then we will discuss the themes within this typology in relation to your roles and experiences at BMDC. The overall aim of this is to determine and score the level BMDC is currently operating within.

Figure 2 Preliminary typology of local authority research activity

Level	Summary of research activity
1	• Negligible engagement with research • Negligible use of research • Negligible participation in research
2	• Willing to respond to invitations to collaborate in research • Willing to share data • Some use of evidence in intervention and policy development in some parts of the LA
3	• Evidence of strategic level research leadership • Investing in research (training, data and research roles) • Co-developing research (generating questions, co-applicants/funded roles, honorary academic contracts) with academic partners • Full data linkage and sharing • Formal protocol for policy development that includes search for and use of evidence • Evidence informed interventions • Sharing knowledge with partners and other local authorities • Named link to NIHR CRN, RDS, ARC and Dissemination Centre
4	• Using a complex systems approach • Implementation of a LARS model • Forward plan to develop and sustain the LARS • Research department and Director of Research (working at board level) • Commissioning of research • Organisational access to online library and research databases • Embedded NIHR CRN staff • Honorary academic contracts and funded research time • University partners providing formal ethical review process • Local authority manual for evidence informed policy making • Local authority manual for evidence informed intervention development and evaluation

Discussions of Research Activity:

Task 1: How have you used, engaged with and participated in research?
PROMPTS

- Use? What kinds of data/research have you been involved with?
- How do you engage? Have you participated in research?
- Co-developed?
- To what extent can you collaborate in research activities in BMDC?
    - ❖ Do you generate questions? Act as co-applicants?
    - ❖ Can you provide examples?
    - ❖ Were results shared?
    - ❖ What was the perceived value of sharing results?
    - ❖ What was the outcome of the sharing of this research?
- How is research used and by who/whom/which department etc?
    - ❖ What helps and hinders research to be used in decision making?
    - ❖ What could be improved in terms of the use of research?
    - ❖ Identify gaps in evidence/knowledge/understanding
    - ❖ What else is needed?
    - ❖ Who else should be involved?
    - ❖ Any risks/unintended consequences of using research?
- Which kinds of research are valued and by whom?
- What works well in using evidence?
- How does BMDC use research evidence to inform interventions and policies?
- Are there funded research roles? Honorary academic contracts?
- Who holds power and control over the data/way in which research is used?
- Areas for improvement?
- Have you heard of any other LAs which use research that you think could be implemented at this LA?

Task 2: What things would allow research to be used more in BMDC? What do you think about the implementation of a LARS within BMDC?

PROMPTS:

- What needs to be in place for research use to be embedded into everyday practice?
    - ❖ Leadership buy in?
    - ❖ Time? Financial resources?
    - ❖ Training/development/specific skills
    - ❖ Specific research roles? Can you provide examples?
    - ❖ Dedicated posts?
    - ❖ Research department?
    - ❖ Databases/access to journals etc.?
- Do you feel you have the time and resources, space, abilities etc. to actually encompass a more research orientated approach?
- And do you think people are motivated to look at more evidence based programmes etc.?
- How could you work with academic researchers/data teams to improve evidence use?
- What would success/failure look like?
- Do BMDC have established roles/relationships with research experts?
    - ❖ University partners? Embedded NIHR CRN staff? Honorary academic contracts and funded research time? Specialty Registrars?
- Dedicated policies? Specific manuals?
- How could we evaluate efforts to improve evidence use in this LA?
- In an ideal world what would you find beneficial/challenging?
- Please provide examples? Key things needed? Current gaps?

Following our discussions, to what extent do you agree that BMDC meets all items in:

- ❖ Level 1?
- ❖ Level 2?
- ❖ Level 3?
- ❖ Level 4?

END OF TASK DISCUSSIONS

NIHR PHR ref NIHR 131797

SUMMARISING

Is there one thing that will make you think differently or do something differently in relation to research activities in the future? Or is there one action which you will take forward for future implementation/discussion?

Ending the focus group

- *Is there anything else you'd like to say or anything you thought you wanted to discuss before the focus group that we have not talked about today?*

- *Do you have any questions for me?*

- *That is the end of the focus group. Thank you for taking part. If you would like to receive the final report you can access results of the study via the following link: https://actearly.org.uk*

Thank you very much for taking part today

END RECORDING

c) Rapid Review of existing models

BACKGROUND

Local government occupies a potential key role in improving the wider conditions that improve population health. In comparison with health research systems, local authorities possess less well-developed infrastructures to plan, generate and interpret the evidence that is needed to determine interventions in preventive health, health promotion and public health more generally. Faced with a new landscape where public health functions have been incorporated within the political environment occupied by local government and where the wider perspective of health includes social care, local decision-makers need to be equipped with appropriately organized research capacity. However, relatively few models of local authority research systems are known to exist.

Objectives

To conduct a rapid review of potential and existing models of local authority-based research systems including cost, capacity, skills and support required.

METHODS

Eligibility criteria

Included studies were taken from UK and Ireland, Europe (High Income Countries only), Australia and New Zealand, Canada and USA, published between 1996-2020, and were focused on research systems with local government/local authority involvement. All included studies presented a model, framework or textual descriptive outline of a research system, either at a practical or conceptual level. Studies from Low- and Middle-Income countries were excluded as well as studies from High-Income countries considered to be of limited relevance to the UK (e.g. Japan, South Korea etc).

Information sources

We conducted a systematic mapping review of the literature, drawing upon six general health and social science databases: PubMed (MEDLINE); EMBASE; PsycInfo; Scopus; Social Science Premium Collection and Social Sciences Citation Index. We also searched six UK-based databases or library catalogues with a focus on health and/or social care (Applied Social Sciences Index and Abstracts (ASSIA); Health Management Information Consortium; Health Services Management Centre Online

(University of Birmingham); Health Management Online; King's Fund Library Database and Social Care Online (Social Care Institute of Excellence)). We also undertook Google and Google Scholar searching (the latter using Publish or Perish software), follow-up of references and citation tracking.

Quality assessment

No appropriate evaluation criteria exist for the formal assessment of the quality of reports of research models or systems. Assessment of the included studies was based upon considerations of **relevance** (to a UK setting), **rigour** (quality of evaluation) and **richness** (level of detail of individual models or initiatives).

Synthesis of results

Studies were characterised as UK-based or Other Countries. Models of research systems were further assigned descriptors relating to whether they are considered instrumental (e.g. logic models), symbolic (e.g. conceptual models) or hybrid (combining both instrumental and symbolic elements). The descriptions of models were examined and characterised according to an emerging typology according to structural features and the relationship between the local government and academic partners.

RESULTS

Extensive searches confirmed that very few models of local authority research systems exist in the literature. The most recent and substantive UK work relates to the Local Authority Champions of Research (LACoR) project, funded by the Health Foundation. This includes a detailed logic model and attempts to explore the system within a complex systems context. Other promising research systems models relate to Academic Collaborative Centres (Netherlands) and Local and Regional R&D units in Sweden. Both of these models are characterised by integrated health and social care systems. Generic examples relate to the University-Community partnerships popularised within the United States. However, these may display wider ambitions to include research, teaching and service learning and often involve other community players, beyond local government. The literatures of Communities of Practice, Community Engagement, Knowledge Transfer Partnerships, Research Utilisation and the Engaged University may offer additional insights although only encountered serendipitously within the scope of this review project.

Included studies

From a total of 2,479 records (following removal of duplicates), 61 papers were assessed as eligible and were included for further data extraction. Nine models of research systems were prioritised for in-depth analysis in the rapid systematic review (Academic Collaborative Centre; Communities of Practice; Knowledge Transfer Partnership; Local Authority Champions of Research (LACoR) Logic Model; Local Government Knowledge Navigator. Locally based research and development (R&D) unit; Systems -focused research collaboration; University-Community Partnership; University-Local Government Research Collaboration).

Synthesis of results

The review team identified six types of research systems exemplified across the 37 examples (61 papers). These are:

1. The Centre-based system
2. The Partnership-based system
3. The Collaborative-based system
4. The Network-based system
5. The Community of Practice based system
6. The Whole System approach

These different models work from different assumptions relating to the power and governance structures within the system, the degree of location/co-location, physical presence and ownership of each system and the respective roles of academia and local government. The above systems can co-exist, can be evidenced at multiple levels within the participating organisations, and may even

represent developmental stages in the evolution of a university-community collaboration. The Whole systems framework is depicted as the most appropriate response to the complex systems characteristics of both local government and research systems(1), compounded when both are combined.

DISCUSSION

Strengths and limitations of evidence

The review was conducted by an experienced team with access to specialist knowledge in, and experience of, the topic of research capacity development. Twelve database or library catalogue sources were searched, supplemented by extensive follow up of references and citation searching. Full text searching, via Google Scholar, and follow up of references in context, means that retrieval of candidate items is unprecedented. However, the conversion rate of retrieved hits to actual includes and of actual includes to those optimally meeting the client requirements was comparatively poor.

This review question challenges existing rapid review methodologies due to variability of understanding of what constitutes a "research system", the specific UK conceptualisation and label of "local authority" and variability in the labelling and recognition of models and frameworks. Furthermore, local government involvement and the existence of a model are poorly documented at an abstract level and therefore require a high proportion of full text checks for inclusion. The relevance of documents from other countries to the Bradford, UK context is variable given different organisational structures and cultures. Transferability of findings works better at a conceptual/theoretical level than at an instrumental, operational level. Indeed, the literature betrays strong academic ownership with a greater focus on conceptual principles of knowledge translation and research utilisation compared with pragmatic concerns about organisation of R&D units. The review team did attempt to address this imbalance through domain searching of UK local government Internet domains but few descriptions of actual local authority systems were found to exist.

Interpretation

While many models of research systems exist, few are specifically designed for the requirements of local authority research activity. The Local Authority Champions of Research (LACoR) model offers a potential blueprint for further development for a Bradford LARS. Useful lessons beyond the scope of this review may be learned from the experience of health research systems, particularly CLAHRCS. This line of investigation is specifically indicated by the perceived success of Academic Collaborative Centres in the Netherlands that closely evoke the operating principles of the UK CLAHRCs. Further insights may be gained from the experience of locally focused R&D units in Sweden and from the general literature relating to University-Community partnerships.

Looking forward, whole systems approaches to local authority research systems (also explored in the Local Authority Champions of Research (LACoRS) review) seem to offer a realistic response to the requirements of the complex local authority and research systems. Commentators advocate complex adaptive systems-informed approaches and these may confirm a further interpretation of this report; namely that an optimal single research system may represent the simultaneous co-existence of different types of contributing research system including Centre, Partnership, Collaboration, Network and Community types.

OTHER

Funding

The School of Health and Related Research (ScHARR), University of Sheffield is delivering this review under contract to the Bradford Institute for Health Research, Bradford Teaching Hospitals NHS Foundation Trust. Bradford Institute for Health Research is managing the mapping review and rapid systematic review on behalf of the NIHR project co-applicants.

NIHR PHR ref NIHR 131797

Model	Brief Description
1. Local Authority Champions of Research (LaCoR) (UK)	• Overarching aim of developing a proof of concept to embed research and evidence use in local government. • Researcher embedded within local government. • Identified the components, developments needed, challenges and facilitors to support choosing, using and producing research in a local government context.
2. Local Government Knowledge Navigator (UK)	• Overarching aim of building research and development capacity in local government. • Partnership between academia and local government. • Focussed on shared interest areas with two way conversations supporting choosing and using of research, research also produced by academic partners but shaped by local government.
3. Knowledge Transfer Partnership (UK)	• Overarching aim to develop a culture of evidence informed practice in local government. • Partnership between academia and local government. • Focussed primarily on understanding local government research needs and academia finding and making available relevant evidence which is then used to inform practice.
4. University-Local Government Research Collaboration (UK)	• Overarching to act as a brokering service between academia and local government. • Partnership between academia and local government. • Focussed on using research to support the needs of the local system with the research agenda and production of academic partners set by local government to address system needs.
5. Academic Collaborative Centres	• Overarching aim of improving knowledge transfer and exchange between academia and local government for mutual benefit. • Jointly appointed staff (by academia and local government) embedded across both organisations. • Focussed primarily on choosing and using research, elements of producing research also exist though tendency for this to be undertaken by academia in partnerships with local government.
6. Locally based research and development units	• Overarching aim to produce high quality research and build some elements of research capacity within local government staff. • Co-funded (by academia and local government) units which sit outside of both organisations. • Focussed primarily on producing research e.g. local evaluations.
7. System-focussed research collaboration	• Overarching aim to facilitate interaction of stakeholders with different perspectives and world views for a particular topic/area of interest. • Partnership including range of stakeholders including researchers and local government. • Focussed on shared interest areas with practitioners and researchers sitting alongside each other, supporting choosing and using of research, research also produced by academic partners but shaped by local government.
8. Communities of practice	• Overarching aim to facilitate interaction of stakeholders with different perspectives and world views for a particular topic/area of interest operating with a degree of independence.

	• Focused on shared interest areas.
9. University-Community Partnerships	• Overarching academic aim to increase civic engagement • Partnership including range of stakeholders with a strong community focus and including researchers and local government • Focussed on place based production of research.