Project and Evaluation Report: Developing community co-researchers to investigate air quality, health and wellbeing in Brunswick in Ardwick

UKRI Enhancing Place-Based Partnerships (EPPE) funded project, led by Professor Sheena Cruickshank, The University of Manchester

1. Overview of project (600 words)

a. What were your original aims and objectives and did these change during the project?

Brunswick is a neighbourhood in the ward of Ardwick in the city of Manchester and is amongst the 10% most deprived areas in the UK. Previous work identified that residents of Brunswick are extremely concerned about air quality and health. There is a disproportionate effect of air quality on low-income communities and this project aimed to build on the previous ESRC-funded project, and work with communities to address strategic priorities on air quality, to develop and test new inclusive ways of working with community groups to offer training, equipment and support and address community concerns regarding air quality and health and to share learning with other researchers and policy makers.

b. What informed the project team's approach? (e.g. literature, partners, previous experience?)

Brunswick is undergoing a council-led regeneration project, coordinated by S4B, a group who manage community relations. S4B worked with researchers from the University of Manchester on an ESRC-funded project LOOPER (Learning Loops in the Public Realm). It is from this project that the residents' concerns regarding air quality and health were identified. When planning this project, we collated a team of experienced arts practitioners, researchers and public engagement specialists, all with previous experience of inclusive engagement work. To plan and implement the work, we partnered with S4B as a crucial and pivotal link to the community. We also worked closely with the LOOPER project team, attending their final presentation sessions and introducing ourselves to the community in order to build on the community relationships that had been developed, ensure some continuity and work with the community members who had been involved in LOOPER from the outset. We adopted a flexible approach to allow partners to feed in at all stages of the work.

c. What were the main activities you delivered and why?

Community engagement can be hugely beneficial, but communities need to be involved in all aspects of the project in order to ensure they have a voice, are a genuine part of the project and to avoid the sense that the project is being 'done to' the community. With this as our main driving force, we consulted with the community liaison and the women's group. The residents were involved in planning the training and recruitment. We recruited community co-researchers, ran two training sessions for them including how to conduct interviews with other residents (in person and on the 'phone), completing consent forms, using the voice recorders / interview sheet effectively. This work took place in January-February 2020. Further recruits were identified and additional sessions were planned however there was then a lag in activity due to COVID restrictions in place from March 2020. We stayed in touch with the project team via email and video calls but several of our original researchers had to pull out due to COVID. The area is very deprived and was hit badly by the impacts of COVID on food poverty and health making priorities and focus change which we were mindful and respectful of. In order to appeal to the community as widely as possible and to offer opportunities to input that are not dependent on a strong command of the English language, we followed an arts-based approach. As restrictions on face-to-face meet-ups continued, we invited the community to feedback their experience of clean air via a postal and online flyer invitation to contribute to a zine - a magazine created by the community. The aim of this was to invite everyone in Brunswick to be part of the conversation about air quality and well-being, to collect stories and insights in one place for everyone to read, learn and share. We held a meeting in the allotment which was attended by interested people including our three major project champions (Martin, Mo and Jacinth * see

note in 1d). We chatted to them about their observations about air pollution before / during and since the lockdown and discussed their thoughts on expanding this to a wider group. We then ran training on use of air quality monitors, a face-to-face workshop in the allotment, the school and a further workshop with the Womens' Group. Activities including q and a on air quality and health, badge-making, creative mapping and a screen-printing. The prints will now be made into banners by the artist and given to the school and the church. Linking with the local primary school, questions were developed by the pupils and sent to the researchers ahead of an online discussion with researchers. Examples of questions posed by the pupils include 'How do we know if the air is clean?' 'What will air pollution do to us in the future?'

d. Who were your participants? Please share any information you have on the number and demographics of your project's participants.

Community Researcher Training: 15 participants (12 Female / 3 Male) , aged 25-70 years.

*NOTE: There were three attendees in the community researcher training that allowed us to tap into key social networks. Martin has strong links to the allotment and its' associated community, Mo led the Womens' Group and is highly respected by the community, Jacinth has strong links to the Mother and Baby group.

Allotment workshops: ran 2 x drop-in sessions in local allotment (approx. 10 people in family groups/session)

Focus interviews with Jacinth, Mo and Martin and they conducted interviews in the community

Training with Jacnth, Mo, Martin and Sharon on use of personal air quality monitors

Medlock Primary School workshops: Worked with Year 6 classes (58 pupils, age 10-11 years).

Ran a Q&A with researchers (Professor James Evans and Professor Sheena Cruickshank) via Zoom, with questions pre-submitted by Year 6 pupils.

Screen printing workshops (56 pupils in total across 4 workshops plus 1 teaching assistant for each session), printing clean air and environment slogans.

Womens' Group at Brunswick Church Q and A and feedback sessions (2)

Hosted 8 women for screen print session followed by a Q&A with Professor Sheena Cruickshank, with 12 attendees, some from the local over 50's group.

2. Overview of the evaluation approach (350 words)

a. What were the evaluation questions for your project and how did these align with the programme evaluation questions?

The key focus for our evaluation was:

- How do we build trust / rapport with the community?
- How can we offer skills / training opportunities to the community?
- How can we understand how the community works and the many social groups and networks at play.
- What is the best way to connect communities with policy work?
- In addition, demographic data was collected from participants at the community researcher training to include: Gender / Age / English-speaking? / Resident of Brunswick? / Expectations? / What they got out of it / interested in future contact?

b. What methods of evaluation did you use, and why?

This project was less about the specific outputs and more about the methodology / process of community-driven research. In our evaluation, we took testimonials in the form of focus interviews with out three project

champions. The project was run in such a way that we regularly asked for input / comments / feedback from all project team members, particularly the community members. Reflective practice was crucial for the core project team and something we did at every meeting: What is resonating? What isn't resonating? What shall we do differently?

Feedback sessions with the community were used to capture needs, ideas and feedback on the project.

Art was used to visualise the feelings about clean air and to capture ideas via screen prints, badge making and visual abstract.

One of the main aims of the project was to recruit and train community researchers so to evaluate this we worked closely with S4B who shared all out promotional materials with the community, shared how much interest and initial buy-in there was from the community, and then we looked at responses to invitations / workshops as well as retention of people throughout the duration of the project.

3. Process (500 words)

a. Which approaches worked well and which worked less well when delivering your project?

In our experience, successful community engagement is a long process, which required much flexibility from all parties. By starting out with a an open-ended approach to how we were going to achieve our project aims, this allowed some space for us to listen, adapt and include the community as much as we could. Face-to-face meetings, whilst much smaller in terms of numbers of people who could attend, enabled smaller conversations, genuine feedback and input from community members. These conversations happened within the framework of existing groups / events. In this way, we honoured the networks that already existed and this allowed us to connect with a small group of community members who bought into the project and were linked intrinsically with other aspects of community life – the allotment, the residents group, the Womens' Group -thereby acting as changemakers and project advocates throughout the duration of the project. These connections meant we could gain access to other community members through these existing networks, meeting people at their times and on their terms, and doing our best to use the project to enhance their lives not merely disrupt and interfere for a few months.

Lockdown restrictions were particularly tight and ongoing in Greater Manchester, and as time went on, people's priorities shifted from community involvement to survival, with many struggling to feed their families, look after family members both old and young. We stayed in touch via email and text through the team at S4B, and tried to keep some momentum, offering both online surveys to complete, as well as designing and distributing flyers to every household in Brunswick. Despite posting this to every household in Brunswick, we had a very low response. The few responses we had were positive, but it was such a small percentage of the community that we realised this type of activity didn't resonate. Online conversations using Zoom and the like were useful to keep in touch but only with those we already knew and had a good relationship in person.

The art-based workshops proved to have lots of potential. They introduce a new activity and topic in an engaging and accessible way. The format works for children, family and adults. Most importantly, practical arts-based activities give a space for conversation that is relaxed, equal and not like "research". There is also real pride in what participants produce and a legacy in that artwork being displayed after the event within the community as well as individually in e.g. tote bags residents made.

b. What have all the partners learned about working together?

Multi-faceted, multi-partner projects take time. Time to get to know each other faces, spaces, concerns, motivations. Time to align what each part of the team wants to achieve with the needs of the broader community. Time to try things out, and have the space (and finances) for this to fail and to try something else. Working with arts-based practitioners was pivotal in making the connections with the community. The approach is less academic, more open-ended and invites people to share their time, ideas and questions in a safe space. Longer term relationship building with communities is crucial for such projects to have longer term impacts and facilitate real change. Feedback from certain community members gave us the insight that there was a huge amount of suspicion about who we were, what we were doing and what we *wanted* out of the community. It is crucial to rebuild trust that may have been broken by other interventions from external organisations. Honesty and clarity of purpose throughout the project are key, otherwise it feels like lip service and yet another well-meaning intervention from an external organisation.

c. Were there any major changes to the project (*excluding* the Coronavirus outbreak – see section 7) that impacted on its ability to achieve its original aims and objectives? Overall, the project achieved, for the most part, what is set out to do. Training on and the subsequent use of personal air monitors didn't happen on the scale we intended, but we did have four people who undertook the training. Data from personal air quality devices was not used ultimately though as the data was not reliable enough as the readers are subject to fluctuations but they alongside reading from the Manchester Observatory were useful as talking points with the community to think about their exposure, their risks, the contributing factors and activities that could be done.

4. Outcomes and impact (500 words)

Please consider any outcomes and impacts that have arisen from your project. You might find it useful to consider them under the following categories:

   a. **Understanding (changes in knowledge, mindset, attitudes or motivation)**

Learning amongst the research team: The project was grounded in social network theory, and learning to appreciate the dynamics of communities - both within, and in their relationship to external stakeholders - is a major outcome with implications for research partnership. It takes time to build rapport through listening and there is a need to show a presence without placing immediate demands. We have also found the importance of building relationships with multiple people and groups within the community, to multiply points of contact and trust. These allowed us to reach out to different demographics and provided resilience for the project. The researchers involved in this project, including those with limited prior community engagement experience, are now able to build these insights into their work practices and future projects.

The art-based approach we used, with screen-printing and badge-making workshops run by professional artists, has proven highly effective for building bridges. It gives tangible outputs for participants to share and take home, while opening a space for informal exchange. The residents both created the logo that captured what they felt as well as a print with the logo featuring. The prints are now being made into permanent banners for the school, church and allotment. In addition residents made tote bags with slogans so have personal mementos of the work.

Learning amongst the community: Space to freely talk to researchers about environmental and air pollution concerns was an important element of all events, including Q&A sessions at the allotments, the women's group and the school. Questions posed to the researchers included:

- 'How do we know if the air is clean?'
- 'What will air pollution do to us in the future? '
- 'Are there studies about asthma in different parts of Manchester?'

The comments about the sessions emphasise their importance in building trust and shared knowledge. Talking about educating parents about the dangers of pollution and asthma, one attendant at the Women's Group Q&A advocated for a similar session in school: "We are learning from you now." The discussions have identified areas for future work, esp around idling engines, the school run, cycling and planting. Some of these discussions have been captured in a visual abstract (Figure 1, below) which has been printed and shared with the community.

Figure 1: Visual Abstract of the Women's Group Q&A

<u>Wider academic learning</u>: Paper in preparation - Bannan, T., Evans, J., Cruickshank, S et al. Urban Monitoring: Insights, challenges and solutions to understand Urban Transformation. [Frontiers in Science](#).

b.   Capability (changes in ability or skill)

Community researcher training: Several community members were trained as researchers, including data gathering, considering and asking for consent, documenting results and refining the project approach. These are skills they can now utilise in their own work with community groups, such as when applying for funding.

Arts-based methods: the workshops gave participants confidence in their creative abilities. The team was asked to return for a separate workshop with the Women's Group to practice more printing.

c.   Innovation

The project has produced a number of outputs to influence policy and practice on air pollution and community engagement:

- Mar 2020: Clean Air Event - Policy@Manchester & Centre for Cities (around 200 attendees)
- Dec 2020: NCCPE Engage Conference - sessions about community engagement and misinformation
- Jun 2021: Briefing Paper [On Air Quality](#)
- Jun 2021 Policy@Manchester Roundtable: Happy and healthy communities: How can we build health and wellbeing into new home developments that work for everyone?

- Sep 2021: "**Holding our Breath? How to clean up our cities' air**" **event** In partnership with Centre for Cities at Labour Party conference. Panel discussion with:
  - Andrew Carter, Chief Executive, Centre for Cities (Chair)
  - Polly Billington, Chief Executive, UK100
  - Prof Sheena Cruickshank, Immunologist, The University of Manchester
  - Ruth Jones MP, Shadow Minister for Natural Environment & Air Quality
  - Cllr Ian Ward, Leader, Birmingham City Council
- Oct 2021: "**Holding our Breath? How to clean up our cities' air**" **event** In partnership with Centre for Cities at Conservative Party conference. Panel discussion with:
  - Andrew Carter, Chief Executive, Centre for Cities (Chair)
  - Roger Evans, Political Advisor, UK100
  - Prof Sheena Cruickshank, Immunologist, The University of Manchester
  - Wayne Fitzgerald, Leader, Peterborough City Council
  - Rebecca Pow MP, Parliamentary Under Secretary of State at the Department for Environment, Food and Rural Affairs
- Briefing paper "Building Utopia" (to be published in end September/start October 2021)

5. Implications for policy and practice (650 words)

a. What worked well in terms of engaging communities living in areas experiencing deprivation?

As a project team, we spent time trying to get a handle of the challenges faced by the community every day, and being mindful that, no matter how hard we try, and how open minded the community are, we represent a funding body or a University or another external organisation that is all so far removed from their everyday lives that it is impossible to truly understand them. Listening to the community – about anything and everything, and not belittling what they had to say, was key to building strong working relationships. Being honest and clear in who we are, what we are trying to do and working together with them from the outset are all crucial. Recognising community contribution, with payment for their time, and writing thank you cards, meant a lot to them.

b. What challenges did you experience in engaging communities living in areas of deprivation?

Communities living in areas of deprivation have significant challenges, even more so in the middle of a global pandemic. When we set out to work with the community, we were unaware of previous interactions with external organisations and how that impacted certain peoples' perceptions of working with us. Assuming nothing – and being absolutely transparent and honest about who we were and what we hoped to achieve helped to rebuild some trust. Additionally, legacies from other organisations maybe seemingly minor but have an impact on whether people resonate with you. Different groups within the community had differing values and views on working with university partners which were partly influenced by previous bias outwith our control. It takes time to know the dynamics of the individual groups within a community and who the social networks are that can help bridge that and achieve trust and meaningful partnership. One comment from the school workshops was the rejection of term 'Brunswick' (when the pupils were shown the area map) "*Not to be rude, but this area is called Ardwick. Brunswick is the street."* Similarly, in the workshops with the Womens' Group, there was much discussion about the name of area – the majority know it as Ardwick - Brunswick is seen as a new label. Some thought of Brunswick as smaller area in Ardwick. Women described how the younger people pick up Ardwick label from parents as that's what they would call it at home. "*It's an issue of ownership"* and we learned that it is important for people to make a connection to the community they feel part of.

c. Have there been any negative impacts of your project?

Not to our knowledge.

d. What lessons should UKRI learn from your project in designing future phases of this programme (optional)?

Longer term funding is crucial. As stated in section 3b, what we have learned from this project is there needs to be more time. UKRI need to think more openly about what these projects look like, with some overarching aims perhaps but nothing specific about the how, what, where, when of the project timeline or management. It is crucial at the start of any project that there is sufficient time to align what each part of the team wants to achieve with the needs of the broader community. Projects need flexibility to try things out, and have the space (and finances) for these things to fail and to try something else. Longer term relationship building with communities is crucial for such projects to have longer term impacts and facilitate real change.

6. What's next? (400 words)

a. Do you and/or your partners have any plans to build on your work to date?

We are keen to develop the work further both in this community and potentially other communities such as Hume with which our community researchers have links. It all depends upon funds. In collaboration with researchers across the faculties in the university, a NERC bid has been applied to look at air quality and health near the airport in Manchester and we are waiting a decision. We are also looking to develop large bids collaboratively for both research and engagement.

As well as sharing with the community, findings to date from the project are being shared externally via publications with Policy@manchester https://www.policy.manchester.ac.uk/publications/on-air-quality/ and a further publication "Building Utopia" around planning for green spaces and health will be published shortly. A social media campaign lead by policy@manchester will be used to target specific councillors with our findings and specifically we are looking to address actions around concerns around cycling safety. The findings and approaches have also been shared in roundtables with developers looking at redevelopment of Victoria North in Manchester and in roundtables with GLA with further presentation at events in partnerships with Centre for cities at the Labour and conservative party conferences.

b. What do you think are the important factors in ensuring sustainable relationships between research organisations and community organisations?

- Researchers should seek to utilise members of communities to help inform and guide their research – from question to process to results.
- Projects based within community ideally co-=develop or lead by community that provide big data sets can be used to inform and empower communities, enact change and shape policy
- Community members should receive the training they want and need.
- Community member trained as co-researchers should played leading roles in the key sections of the research project – helping to design, deliver and disseminate the research. Employing members of the communities in this function helps develop tangible outcomes rooted firmly in the needs of the community:
- A benefit of establishing these meaningful partnerships in research and in developing solutions, is building trust within often marginalised communities- trust is fragile and people outwith a project can disrupt a project unknowingly
- Short-term initiatives don't always create the legacy needed to affect long-term change further amplifying mistrust therefore funding for long-term initiatives that build meaningful partnerships with communities is needed
- Supporting, developing and enabling community-based champions who have the social networks and reach to exert change is one way to help bridge the gap.
- Mapping social network to enable you to understand who you should engage with and what groups intersect.

- Giving community voices a meaningful role within decision-making processes can help keep community needs at the centre of proposed interventions, thus helping to build trust and improve engagement.
- Community champion roles and long-term funded partnerships between communities and local authorities can help to involve members of the communities facing the key issues.

7. Financial reporting

Please detail all spend using the table below. Please explain any variance from your original funding request in the details section.

Cost category	Amount spent	Details
Travel	N/A	N/A
Meeting costs	n/A	N/A
Engagement costs	£13026.39	creative practitioner £6110; Art and printing costs and artists £6916.39
Project research/feasibility study	£10118.69	Payment to community participants for training and research £837.90 Community liason £1938.40 Researchers- project manager £3073.39; £4269
Estates and indirect	N/A	N/A

We have underspent significantly- this was due to a lack of takeup of the citizen science app in the community thus negating the need for data support and closure of university finances enabling us to lose access to funds and the extended lockdown preventing us doing activities until end of grant period.

i.   Coronavirus outbreak impact (max. 1 page of A4)

Please attach a short appendix to your report detailing the impact that the coronavirus outbreak had on your project and your ability to meet its aims objectives.

The project started very successfully and after completing initial training of volunteers we had several volunteers wanting to sign up for extra sessions which we were organising. The Lockdown prevented us pursuing this. The community liaison officer was then primarily involved in COVID relief efforts in the community and several of our core researcher pulled out due to concerns about COVID. We retained contact with the community liaison

officer and a core of researchers but they were all involved in COVID relief work and so had no additional time. Greater Manchester remained under tightened restrictions for much of 2020 which prevented us doing much if anything in the way of face to face work and although we tried text via the community liaison officer and community links and flyers to launch photo competition of the air etc, we couldn't effectively re-connect with the wider community. A short break in COVID restrictions enabled us to meet the core community researchers outside, conduct interviews and do training for use of personal monitors. Community researchers did conduct interviews with other residents however these were not as in depth as we had hoped. We then had to wait until university finances were activated again before we could do more as we wanted to pay our researchers in the community and the university finance team was subject to severe disruption during the extended lockdown with many staff furloughed and all grants suspended. The Uni-based researchers also encountered challenges as a result of COVID with issues around childcare due to schools being closed as well as issues around workload with increased workload for the PI in delivering teaching as well as working with researchers and PPI groups and media to address concerns, misinformation around COVID and share the latest research. The PI was co-opted into several advisory groups working on COVID information, COVID research and training for vaccine advocacy. This expanded work was alongside rebuilding lab based research in the PIs lab. This collectively substantially reduced capacity to do more for all the university affiliated researchers.

After consulting with our core community researchers we attempted to reach out widely to prepare a zine about clean air however we did not get good uptake. It is likely that people still had other priorities at this time. We also discovered that there were a core of people within the community who were suspicious of university activities, something that we would have been able to address more easily in a face-to-face conversation (which were able to do at a later event). A problem during this period (Spring 2021) was also a limited access to groups within the community, due to many of them not meeting or only allowing very limited numbers. This meant that we could not effectively snowball our contacts after receiving recommendations, and missed several potential connections

Only once lockdown restrictions were relaxed could we truly develop more work with the community- meeting different key people in the community, reassuring of the project goals and successfully developing workshops. Therefore much of the activities were performed in the final two months after which the university closed the account and we could not continue the work. Overall, COVID caused a severe disruption to the work and set it back substantially- we lost momentum, and a critical core of interested people that realistically we could only address once restrictions were removed.

ii.   Participant perspectives (max. 1 page of A4)

Please attach a short summary of information you have collected directly from your participants about their experiences of taking part in your project.

We are particularly interested in knowing:

-        How they found out about and got involved in your project

-        Their motivation(s) for doing so

-        What they got out of taking part in the project

From informal conversations, the creative workshops and a focused interview with some of our key community researchers we are able to get a sense of their reasons for people to be involved. For the community researchers, an important factor was their experience with the previous ESRC "LOOPER" project. They saw it as a chance to highlight and address important local issues with the help of the University. The activities from that project had enhanced the area. According to one community member, Brunswick street is the main area, but "it

is dull and lifeless". The hanging baskets and posters installed by LOOPER livened up the area – as well as discussing more far-reaching changes. This experience encouraged them to support a new project. The topic was of similar importance. LOOPER identified air pollution from traffic and building works as a major problem, and the community researchers were pleased that it was getting taken up: "We've had lots of concern from parents – the noise, the dust and the pollution".

Another important driver for engagement was their existing role in the neighbourhood. All of our key contacts are incredibly active in the community (eg a church community programme manager of over 10 years). The project offered them a way to support their ongoing groups and activities, bring in new ideas and ultimately support the community members they are working with "to give them ownership and give them a voice".

Wider engagement was facilitated through existing groups and the work of the community liaison officer. Her aim was to extend an invitation to everyone: "everyone can get involved, we do not cherry pick". Residents found out about activities through the area newsletter, flyers and the programme of local spaces like the Church. The creative activities provided a draw for people to attend and engage: "I always wanted to try screen printing." (Women's Group)

Participants enjoyed both the direct exchange and the creative activities. As one school pupil commented during the screen printing workshop: "This is the best thing we've done all year!"

Media assets

Finally, please arrange to share any of the media assets you produced as part of your project with the UKRI team. We are particularly interested in photos and videos that could be used to highlight the impact of your project.

- Briefing Paper On Air Quality
- Briefing paper "Building Utopia" (to be published in end September/start October 2021)
- New Scientist article on Britain Breathing
- Sky documentary on placed based research and air quality research to be shown October/November 2021

Figure 1: Prints created by Year 6 pupils

Figure 2: Badge made during workshop

Figure 3: Draft banner design