



Community Contact Tracers

Sheffield Community Contact Tracing (SCCT) Evaluation Report (Phase 1)

Part 1 Introduction and Executive Summary

Introduction

In response to the lack of contact tracing that was taking place at the time of the start of the Covid-19 pandemic in early March 2020 a pilot project was set up to demonstrate a 'Proof of Principle', to assess if their proposed approach would work or not. A more detailed report and overview of the background to the project can be found [here](#)

The aims of the pilot project were as follows:

To assess the efficacy and feasibility of:

- recruitment, training and retention of community volunteers;
- telephone-based interview of index cases to identify contacts;
- telephone-based interview of close contacts to advice on effective self-isolation;
- follow up of quarantined contacts to insure further new cases are identified and their contacts traced;
- support for cases or contacts if symptoms progress;
- support contacting NHS 111 and other helping agencies if required;
- maintaining volunteers' and users' confidence, confidentiality and satisfaction

As will be explained by volunteer comments in this report the pilot project was delivered in an iterative, constantly evolving and developing manner. Feedback mechanisms were woven into the project design in order to enable continual learning and improvement. This is significant from an evaluation perspective because the way that the project was delivered was not constant. For example the training process and training documents evolved throughout the project (.4). This means that it is possible that volunteers could have different experiences of the training process because they had undertaken training at a different point in time.

What was delivered:

- 6 volunteers were trained as contact tracers
- Each volunteer received 5 hours of training
- Thirteen people with Covid-19 (index cases) have been enrolled in the pilot. Their ages ranged from 38 to 88 with mean age of 57. Six worked for the NHS or for other care services.
- Index cases were followed up until seven days after the date of first symptoms.
- An average time of 80 minutes was spent by volunteers on telephoning each index case including the initial interview and follow up contacts.

What was achieved?

- 58 contacts of people with Covid19 were identified
- Each contact was given advice regarding self-isolation and were followed, either directly or with information provided by family members, until fourteen days after their latest contact with the index case.
- Practical support for contacts as outlined in .6.1
- Emotional support for contacts as outlined in .6.2
- Volunteer development as outlined in .7.3

Key findings;

The project worked because of:

- The expertise and contacts of the steering group (discussed in .6.1)
- The skills and understanding of the volunteers recruited (discussed in .6.2)
- The local connection (discussed in .6.3)
- Careful considered planning (discussed in .6.4)
- Putting effective volunteer support structures in place
- Adaptability – Continual learning and improvement (discussed in .6.5)
- Communication channels to people with expertise

Challenges for volunteers

- it was a significant commitment (discussed in .8.1)
- There was a lot of information to manage and consider (discussed in .8.2)
- Emotional Impact (discussed in .8.5)

Wider challenges

- Lack of cooperation from some employers (esp. care homes and hospitals) (.9.3)
- Lack of cooperation from individual people (.9.2)
- Delays in getting to people with symptoms (.9.4)

Advice to future volunteers

- Advise and inform don't instruct (.10.1)
- Be flexible – communication will need to fit around the personal circumstances of individual contacts (.10.2)
- Look after yourself (.10.3)

Potential Improvements

- More clarity about what's involved for volunteer contact tracers and what do when issues arise
- Earlier referrals for example through Mutual Aid groups (.11.1)
- Embedding volunteer experiences into the training manual (.11.2)
- Pairing existing volunteers with newer volunteers (.11.3)
- Writing information for index cases in more accessible language (.11.4)

1.1 Background

WHO guidelines for the COVID-19 outbreak recommend that people with Covid-19 are identified, advised to isolate, and that their contacts are also traced, advised to quarantine and then followed up to identify new people with the viral illness.

https://www.who.int/emergencies/diseases/novel-coronavirus-2019?gclid=CjwKCAjwqpP2BRBTEiwAfpiD--DJjNr_vqCDRonTu2aErFY8bVWoBZbOF2VV6MSQBQ1upIBNVZdFRhoCTM4QAvD_BwE

After the initial stage of the outbreak in the UK, National level contact tracing was discontinued on 12th March 2020 (Guardian

<https://www.theguardian.com/world/2020/apr/17/uk-to-start-coronavirus-contact-tracing-again>).

At the time this Sheffield based pilot was conceived, in early March 2020, no contact tracing was taking place elsewhere in the UK. Restarting contact tracing has now become Government policy and contact tracers have been recruited and trained in order to undertake this (ibid).

Some Local Authority, NHS and Public Health England staff have the appropriate contact tracing skills, but are relatively few in number. Electronic solutions, such as the NHSX contact tracing app may take months to be fully developed and are unlikely to be adequate alone to maintain a low transmission rate (ref. New Statesman

<https://tech.newstatesman.com/security/nhs-covid-19-contact-tracing-app-rollout>.)

The workload needed to achieve effective contact tracing will vary with time and will vary from region to region.

People with Covid-19 and their contacts are in need of support to help them isolate effectively and to access stretched health care and other support services appropriately.

1.1.1 Research Gap

There is little published literature researching the use of volunteers undertaking Public Health tasks such as contact tracing. In 2005 Matthews et al. reported that the US state of Vermont used volunteers for emergency preparedness including in public health emergencies (<https://pubmed.ncbi.nlm.nih.gov/16205546/>).

This Sheffield-based “proof of principle” pilot scheme aimed to assess the efficacy and feasibility of a community-based volunteer contact tracing programme using minimal resources, remote contact, mixed referral sources, and using symptoms to identify untested index cases (<https://www.communitycontacttracers.com/>).

Part 2 Methodology

3.1 Evaluation Methodology

A mixed methods approach has been taken to the evaluation.

In addition to a light touch quantitative evaluation based on logging outcomes from all index cases and their contacts semi structured interviews with all 6 volunteers were conducted. Interview notes were written up and analysed through thematic analysis using the qualitative analysis software NVIVO. The findings from these interviews form the basis of this report

Ethics approval was secured from Sheffield Hallam University for this evaluation project through its research ethics procedure. The approval reference for the project is ER24277813. In line with the application the university's research policies and procedures were followed during the research process.

To ensure clarity of understanding a Memorandum of Understanding was set up between Sheffield Hallam University and Heely Trust

3.2 Project Approach

3.2.1 Proposition: A volunteer based contact tracing approach

Sheffield Community Contact Tracers proposed that volunteers are in a position to use their local knowledge and networks to support people with Covid-19 (index cases) and their contacts so they are able to remain effectively isolated and prevent further spread of the virus.

The group argued that volunteers based in communities may have local knowledge that is useful, and that they can gain the confidence of local people and their contacts in a way that distant contact tracers working from call centres are not in a position to do.

3.2.2 Process

3.2.2.1 Steering Group

A steering group consisting of recently retired GPs, public health physicians and community activists was established to develop and implement the pilot. In other areas it is anticipated that medical input may well be less represented and local schemes in the future will reflect the availability of local resources.

Training materials were developed by members of the steering group. All the training materials have been continuously updated throughout the pilot phase in response to the fast changing nature of the pandemic and feedback from the volunteer contact tracers. The training manual and all documentation is freely available in the hope that it will be useful as similar initiatives spread to other districts within Sheffield and further afield:

<https://www.communitycontacttracers.com/wp-content/uploads/2020/04/Training-Manual-for-SCCT-volunteers-External.pdf>

Very quickly the core group in Sheffield recognised the need for the involvement of the local community development and social support organisation (Heeley Trust) and for the recruitment of seriously competent locally grounded people who could offer managerial and administrative support.

3.2.2.2 Using a Community Development approach

The initial group of SCCT volunteer contact tracers were picked because they were personally known by a member of the SCCT steering group or were selected from the pool of volunteers associated with Heeley Trust www.heeleytrust.org. They were selected because of their knowledge of local structures in and around the Heeley / Meersbrook district of Sheffield. Throughout the pilot project the group relied heavily on the support of Heeley Trust. The Trust provided the infrastructure required for most of the features necessary to set up contact tracing and provide personal support for people needing to self-isolate. This included the structure for recruiting and approving volunteers, purchasing phones and giving a sense of legitimacy to the entire venture.

Six volunteers were recruited and trained to protocol. Criteria for recruitment as a volunteer were established.

Training initially consisted of two 2- hour sessions using videoconferencing technology, including breakouts to practice 'difficult conversations'. Because there had been inadequate time to practice these conversations, after the second session it was decided that a third one hour session would be useful. Total training therefore amounted to five hours.

Following completion of training, a brief questionnaire was circulated to all the volunteer contact tracers to ask their views of the efficacy of the training.

3.2.2.3 Mentoring

Following training each volunteer was paired with one of the medically qualified members of the steering group, who assessed whether or not they were ready to commence contact tracing. This was based on an informal assessment of their understanding of the material covered, and their reported confidence in starting taking index cases. The medically trained person continued to act as a mentor for each volunteer on a one to one basis. A daily hour long 'support circle' videoconference call was instituted for all volunteers in order to provide

continuing support to the contact tracers and to review the calls the contact tracer had made to each person with Covid-19 and to their contacts.

People with Covid-19 (index cases) were referred by general practitioners in the Heeley / Meersbrook area of Sheffield. The GP was asked to explain to them the nature of the contact tracing pilot and to seek their consent before referring them to the SCCT project.

3.2.2.4 Contacting Index Cases

SCCT volunteers telephoned Index Cases in order to explain the nature and purpose of contact tracing. Consent was again established, and relevant symptoms recorded. In the absence of microbiological confirmation, presence of two of a symptom triad consisting new persistent cough, fever, and loss of taste or smell was taken as confirmation, highly suggestive of Covid-19 infection. Details of contacts of the index case from a date 5 days prior to first developing symptoms and the nature of that contact, were recorded. Contacts were defined according to the ECDC criteria

<https://www.ecdc.europa.eu/en/case-definition-and-european-surveillance-human-infection-novel-coronavirus-2019-ncov>

Standard proformas for recording gathered information were developed by the core group and used to record all the relevant information on index cases and their contacts. These forms and proformas are freely available for other schemes, official or voluntary, to adapt for their own use. <https://www.communitycontacttracers.com/>

SCCT volunteers then phoned each of the index cases' contacts with an introduction to the SCCT project and their consent for participation was confirmed and recorded. There followed an enquiry about relevant symptoms after which each contact was given advice to self-isolate according to current Government guidelines. <https://www.gov.uk/coronavirus> each contact was also given advice on what to do should they develop symptoms themselves in the future (convert to becoming an Index Case). Index cases and contacts were offered a daily call from the volunteer for assessment, support and advice. If the contact subsequently developed symptoms indicative of Covid-19 infection, volunteers enrolled them as an index case having converted from 'Contact' status. Index cases were followed up for 7 days or until symptoms ceased. Contacts were followed up until 14 days after they had been in contact with the index case. Data was returned to a central collection point on the standard forms on days 1, 7 (for cases) and 14 (for contacts).

3.2.2.5 Volunteer Support

During the period of the pilot project the SCCT volunteers had a 'Support Circle' video call each evening at five pm. Typically each session would last at least an hour and go through each of the volunteers' ongoing work with index cases and their contacts. Support was given during each session by one of the doctors from the steering group. This level of support was necessary during the pilot project because so many new levels of complexity emerged

3.2.2.6 *The Contact Training Process*

The contact tracing process used is outlined on the Sheffield Community Contact Tracers (SCCT) [website](#). The approach included:

1. Recruitment of volunteers
2. Training volunteers (via video conference sessions and a training manual)
3. Allocation of index cases¹
4. Ongoing training and development of volunteers via mentoring from steering group members
5. Daily peer support meetings with other contact tracing volunteers
6. Regular communication with index cases over 14 days
7. Identifying and contact with the index cases contacts
8. Regular communication with the index cases contacts

¹ Index case was the term used to describe the initial contacts with covid19 symptoms that were signposted to the project.

Part 3 Results

Throughout the names of volunteers have been replaced with a number.

4.1 Quantitative Results

Thirteen people with Covid-19 (index cases) have been enrolled in the pilot. Their ages ranged from 38 to 88 with mean age of 57. Six worked for the NHS or for other care services. Index cases were followed up until seven days after the date of first symptoms. An average time of 80 minutes was spent by volunteers on telephoning each index case including the initial interview and follow up contacts. Three of the referrals failed, one was inappropriate, one was dropped because of offensive abusive language and one other withdrew with no reason given

Fifty eight contacts of people with Covid-19 were identified during the pilot phase. Nineteen of these had been named by the index cases. They were each given advice regarding self-isolation and were followed, either directly or with information provided by family members, until fourteen days after their latest contact with the index case. One of these contacts became ill during follow up period and was enrolled as a new index case and followed up according to the protocol for 'conversion' index cases. Index cases were unable to or unwilling to give their names and details for thirty nine of their contacts.

Twenty nine contacts worked for carer provider agencies and ten were employed in other settings. Employers were phoned or emailed and advised regarding self-isolation for contacts. Some said that they would pass on information to staff but did not give further information to enable formal follow up. Other employers refused to cooperate.

4.2 Motivations / getting involved / Recruitment

4.2.1 Motivation for getting involved with volunteer community contact tracing.

All six volunteer contact tracers stated that they got involved in the project because they had been approached and asked to join the project. Motivation that they expressed for agreeing included:

- Wanting to do something, to make a positive difference, to do something purposeful to support others
- Heard about contact tracing in other countries and felt like it was needed locally
- Thought they had relevant skills (4 out of 6)

Another volunteer emphasised that they were motivated by helping to shape and influence the project, their perspective appeared to be that their volunteer role was not just doing the contact tracing, but also helping to design a process for how contact tracing was done.

V6 stated that it wasn't just being asked that got them involved, but also who had asked them, they indicated that they felt that the team leading the project had relevant expertise:

V6 "I wouldn't have got involved with any Tom, Dick or Harry who decided to set up a community contact tracing and group"

Another volunteer emphasised the value in this being a grassroots, not a top down, project. They stated:

V4 "that whole idea that this is something at grassroots level I think makes everybody work that much harder to try and get something working"

4.2.2 The Skills /Ability Required

At the outset volunteers described what their backgrounds were. In different ways all six described how their backgrounds had helped prepare them for this volunteer contact tracing role. One emphasised quite strongly that whilst the contact tracing role can be done by volunteers, that doesn't mean that it could be done by:

V1 "any random person off the street."

Their point didn't appear to be that the role could never be done by any random person, but that due to the urgency involved volunteers would need to bring most of the required skills and understanding with them. They emphasised that in their volunteer role they were drawing on a skillset that they had developed over a number of years.

During their interviews two of the volunteers described how they drew upon past skillsets during the contact tracing process. One stated that:

V1 "If I am being frank I was in the main drawing on a skillset that I already had"

In terms of the amount / level of skills required 2 out of the 6 volunteers argued that it was the equivalent of an NHS band 6-7 job. One even stated that they had looked at level 6 NHS jobs and noticed direct parallels with the skills they considered that they were applying as a volunteer contact tracer. Another volunteer argued that they thought that clarifying what was involved in the role would lead to a degree of self-selection, and that might be enough to make sure that the right people opted in or out.

4.2.3 The Commitment Required

2 of the 6 volunteers also stressed that the commitment was more significant than they had initially imagined. V1 emphasised the intensity of the commitment.

V1 "It's quite an intense experience. And it's quite an intense commitment"

In terms of recruitment the main suggestion for improvement for the scheme in future was putting together a role description that clarified what the role of volunteer contact tracer was, the kind of skills involved and the level of commitment involved.

In terms of commitment one volunteer stated that it had been substantial and that in their view if the amount of commitment involved was made explicit, it would screen some people out. They stated that:

V1 "I think there is the potential to screen people in and out almost on your ability to do this based on the time."

As an example they highlighted that some more recent volunteers had not read suggested pre-reading material prior to video conferencing training. The implication from their comment appeared to be that they thought that the new volunteers had not read the pre-reading material due to lack of time. They wondered if the potential new recruit would have time to fully engage if time was such an issue. The volunteer argued that new volunteers not doing the pre-reading had a detrimental impact on the training sessions, because it meant that the sessions needed to start from scratch.

V5 quantified the amount of time commitment that they believed that involvement as a volunteer contact tracer might take:

V5 "each person took up an hour a day I'd say in calling and then, you know, writing up the stuff and probably about an hour. So at one point I had two people"

4.3 The training

All the volunteers appeared positive about the training involved. One volunteer did however refer back to the fact that although the training was good, most of the skills and understanding they applied were the skills and understanding that they had developed during their previous professional life.

4.3.1 The Training Process

Volunteers reported that training was based on five hours of video conference sessions. The first session (2 hours) focussed on what contract tracing was, what questions to ask and what the procedure was. The second (2 hours) was applying the approach that had been given in the first through a role play scenario. A third one hour session went through training on various scenarios that might be expected during contact tracing calls. In general the volunteers were quite positive about the training process.

V4 "I think the training was pretty good considering"

V5 indicated they had found the role play opportunities useful as well as the opportunity to ask questions:

V5 "it was definitely very helpful to have all of the kind of role playing thing going on and just the ability to ask any questions that we had, whether they could be answered or not"

4.3.2 The Training Manual

Three of the volunteers stated that they had found the training manual useful. Comments included:

V1 "A lot of thought had gone into what it would be like to make the first call"

V2 "A lot of consideration to how to develop trust, to build relationships"

4.3.2.1 The training evolved

One volunteer (V2) highlighted that the manual initially had a lack of real UK cases in it. One suggested that this had now been rectified. All the volunteers described how the training manual had initially been quite short but that it had grown as their experience was included in the manual itself. It was originally 7-8 pages, but had grown to 22 pages. The notion of evolution frequently emerged in interviews with the volunteers. One interviewee in particular emphasised how they liked being part of the process of helping it to evolve. This appeared to relate to an earlier comment that they had made about wanting to get involved to help shape the whole project.

Another volunteer (V5) stated that at one point the manual become too long, although they later clarified that 900 pages was an exaggeration, not its actual length:

V5 "it ended up being about 900 but I don't think I read the one that was very long. I read the original one"

4.3.2.2 The training manual was written to a certain standard

The language used in the training manual was discussed in one interview. The volunteer (V1) argued that whilst the manual's language seemed to be accessible to all the volunteers, it would not have been accessible to everyone. They indicated that it assumed a certain level of understanding and that some people might struggle with some of the terminology. They stated that it had been written by doctors, not using medical terminology, but that it assumed a certain level of understanding/ comprehension. Their point did not appear to be that the language in the training manual should be simplified, instead they seemed to be arguing that the project required volunteers who would be capable of understanding the language of the manual. The training manual included an assessment tool

Volunteers explained how as well as describing the process of carrying out contact tracing, it also included an assessment tool. There was a helpful narrative that explained:

V1 "Why you were asking these questions in the first place"

4.3.3 Complexity

Volunteers indicated that the approach taken during their training for contact tracing was helpful. One volunteer stated that they thought that it was hard to simulate what it's actually like in reality. The actual experience was so varied, with different levels of complexity that can't easily be replicated through role play. The notion that actually doing contact tracing in reality was complex was echoed by all the volunteers interviewed.

V2 “I don’t think there is ever enough training to prepare you as the experience is so varied with each call with levels of complexity that you can’t really replicate in a roll play, the messiness of human life means that there is lots of things to consider that you wouldn’t think of”

The above comment seems significant as it may have implications for how future projects should be designed. For example it appears to support the need for systems of continuous support and advice that were designed into the structure of the Sheffield SCCT project. To address the issue of complexity, one volunteer suggested that you just need to get stuck in and do it. They explained how although the training gave a good foundation and some basic tools, much of their learning came from just getting on and doing it. Another highlighted how they applied the understanding they had gained from their professional career.

4.4 Why the Project Worked

There was much that appeared to have worked well with the SCCT Pilot Project. Volunteers implied that many of the reasons it worked was due to the nature of this specific project and how it was set up. Suggesting that this project appeared effective is therefore not necessarily evidence that any volunteer led project would be successful.

4.4.1 The Expertise and Contacts of the Steering Group

All the volunteers thought that having experienced former healthcare professionals involved was essential for them to feel confident that the right mechanisms had been put in place. One volunteer argued that:

- The expertise of the steering group gave the project some legitimacy
- The support of the recently retired local director of public health was essential
- Access to people with health and public health expertise was essential, to discuss unexpected complex issues when they arise
- Access to wider networks was needed to discuss issues when they arise.

Volunteers argued that the involvement of credible healthcare experts gave the project legitimacy as it gave them, and people they spoke to, confidence that the project had been set up appropriately. The support of the recently retired local director of public health was thought to be essential, so that the project wasn’t in conflict with other approaches being set up locally. Involvement of healthcare professionals was also considered essential to help deal with issues when they emerged. There were two parts to this: The first was giving volunteers appropriate advice. The second was that they had contacts that they could use to follow up and discuss emerging issues. Contacts that appeared useful included links with local hospitals, care homes and with the local director of public health.

4.4.2 The Skills and Understanding of the Volunteers Recruited

Linking back to the recruitment point outlined in .2.2, one volunteer stressed that one of the reasons this project worked was because of the skills and experience of the volunteers involved. Two of the volunteers I interviewed indicated that they were retired but had previously worked in quite senior roles where they had gained relevant management skills and experience. The roles had been in the health and care system, where they had been able to develop wider understanding. One volunteer stressed that due to the urgency and speed that they needed to move at it was essential for volunteers to bring with them most of the skills and understanding they would be applying.

4.4.3 The Local Connection

Four of the volunteers stressed the importance of the local community connection. One argued that it was important to develop trust:

V2 "you need to build trust and you need to be able to talk to them (index cases and their contacts), in a way through which they are willing to offer updated information"

They both stressed how this helped them connect and empathise with the people that they were talking to. One stressed the benefit of being able to talk about the local area in establishing relationships with the index cases they were talking to and how this was important in establishing trust. They also mentioned how establishing trust was important in encouraging the people they were working with to give complete and accurate information about who they had been in contact with. Local knowledge they said lends a human touch and enables a sense of solidarity. They also stated that making a difference to the local area where they lived was motivating to the volunteers doing the contact tracing.

Another volunteer made a similar point, they argued that they felt that it would be very different for a national scheme to develop the trust needed to make contact tracing work. They stated:

V4 "if you've got someone from a call centre ringing you up and saying you must lock down for 14 days, I, I just don't think it's going to work"

They also argued that the process of developing trust and relationships meant that they could guide people to reach conclusions for themselves, rather than telling them what to do. They argued that influencing was more effective than telling:

V4 "I shouldn't be doing this, should I, and I was like well now, quite frankly, she was right. Okay. I understand. And so having that open conversation meant that she came to the right conclusion I didn't actually have to tell her in the end, which I think is much stronger".

The local connection was also highlighted as important for other practical reasons. Two volunteers described a strategy for getting in contact with index cases and their contacts

who did not respond to phone calls. They did this by putting notes through people's letter box explaining who they were and why they were trying to make contact. This tactic only worked because the people they were contacting were local, the letter boxes were not far from where they lived.

Another practical reason that was highlighted (as also stated in .6.1) was the link between the local connection and their ability to signpost people towards useful advice. One highlighted the connection with the Heeley Trust as important as this local organisation is known as a resource that people could be signposted towards for additional support.

4.4.4 Careful Considered Planning

One volunteer (V1) described how they could see that a lot of careful planning and consideration had been put into setting up the project, including: how the training was set up, the training manual and the support structures that had been put in place. They stated that this helped give them confidence that the project was likely to be effective. My reflection is that this relates to the issue of legitimacy discussed in .4.1. Comments about planning did not in any way appear critical of the iterative nature of the project, quite the contrary, they appeared to be saying that the steering group had applied their expertise to put in place measures that were needed, such as support structures for volunteers.

The application of planning included:

- setting up support structures such as giving each volunteer a mentor
- putting support meetings in place.

Most volunteers interviewed stated that they found having a mentor useful:

V4 "it was very clear that I could contact at any time. I contacted two or three times about various things. And every time got open and clear responses"

Another volunteer connected the support they received to the idea of boundaries (.8.1):

V3 "I needed to be reminded by my mentor that we are not instructing we're giving advice and supporting and that's it"

Support meetings, both their benefits and how they could be improved are discussed in .6.6

4.4.5 Adaptability – continual learning and improvement

One volunteer emphasised that to deal with emerging challenges the project had needed to move fast and change quickly:

V3 "We were able to you know take on what's going on and adapt"

and

V3 "we had to adapt and get the learning from whatever happened"

They suggested that an initiative in a larger organisation might struggle to be as adaptable due to bureaucratic constraints. They did however also emphasise the need to get the right balance between adaptability and consistency, and also how consistency might become more important if the project grew and expanded into other areas.

4.5 Impact

Beyond the impact of actually getting people to self-isolate, three other areas of impact were highlighted. The emotional impact on the people contacted; practical support; and the impact on the volunteers themselves.

4.5.1 Practical Support e.g. signposting towards sources of advice and information

Practical support was quite limited as like emotional support it was not a formal aim of the project. Volunteers did however refer to providing their contacts links to advice that related to issues that emerged. For example one volunteer mentioned providing links to a source of advice relating to a potential employment issue. They also described how links with wider networks such as [Covid19 Mutual Aid](#) groups could be useful as the project developed.

V4 stated that their first index case wanted some practical advice and clarification:

V4 "wanted clarification of what it meant to self-isolate... How you take the dog out for a walk, all that sort of stuff"

Other practical issues they mentioned was discussions about at what temperature they needed to wash towels. They made it clear that their approach had not been to tell the contact what to do but instead to have an open conversation that led them to reach the right conclusion.

4.5.2 Emotional Support – checking in on people who may feel vulnerable

One volunteer (V2) indicated that the contacts that they phoned up seemed to appreciate being phoned up by someone who was concerned about their well-being. One spoke about a contact expressing how it was good to talk to someone about the situation away from their family. Another index case lived alone and, as the relationship with the volunteer developed they expressed that it was very useful to have someone checking in:

V3 "He felt that he wasn't alone with me with me, communicating,"

A very similar point was made by V4 discussing their first index case:

V4 "just needed some support really and conversation. Well, it was a joy supporting them after that, to be honest. They were very, very grateful for any help I could give"

This sentiment was echoed by another volunteer who described how one contact had stated that it was nice to know that there was someone checking in on him and that someone cares. If he had any problems there would be someone he could talk to. That volunteer

expressed that from their perspective the impact that they had was more about providing emotional support than information giving.

V2 linked providing emotional support to discussion about developing trust (outlined in .6.3:

V2 "it's a fine balance you want to get the information but you don't want to do it in a way that seems callous and ruthless like you you're uncaring about the person"

The most extreme example of emotional support was highlighted by V4, they stated that the mother of one of their index cases had told them that their son had suicidal tendencies:

V4 "after her two weeks she was saying how much she appreciated me calling her son."

V5 highlighted one of the challenges with providing emotional support. They stated that one of their contacts became quite seriously ill and they asked themselves, what would they do if they died:

V5 "I don't think I was quite prepared to become a bereavement counsellor. Luckily, that didn't happen but it very well could have and it would have been a very different situation."

4.5.3 Volunteer Development – including skill development and making a difference

All the volunteers described how the project had a positive impact on themselves as volunteers:

V1 "it was a privilege to be involved"

Another talked about how it felt good to be doing something tangible to help. Two volunteers linked the positive impact to a belief of civic action or activism. V2 described how whilst furloughed from work it could be possible to develop:

V2 "a sense of learned helplessness during lockdown"

This volunteer suggested that involvement in the project was an effective way to mitigate that feeling. All the volunteers talked about how they developed skills and understanding during the project, one described it as a rapid learning experience. V6 made a similar point, about feeling good to do something positive:

V5 "it was great to do something useful, which was, which was really good. And you know, I enjoyed having kind of a purpose and a thing to do for a little bit."

4.6 Challenges for volunteers

Through this process a number of challenges emerged for volunteers. These included:

- it was a significant commitment
- There was a lot of information to manage and consider
- Practical management issues including time management and priority setting

- Lack of a transition period
- Emotional Impact
- Lack of clarity

4.6.1 It was a significant commitment

A key message that came out from all the interviews was that this volunteer role was a significant commitment. One volunteer described it as all-encompassing:

- *V1 "I spent all day, contacting people, writing up notes, it was like a working day, the penny dropped. It was a significant commitment "*
- *V1 "All of a sudden it was like being submerged"*
- *V1 "There wasn't really a transition period"*
- *V1 "It was like being back at work "*
- *V1 "it all feels like a bit of a blur ever since, in a positive way"*

V4 volunteer did, however, put forward a counter perspective:

V4 "I'd have preferred to have been busier"

Their argument was that worrying about what you should be doing was more problematic than actually doing it:

V4 "I think we needed to be much clearer about workload and how we manage that. So, as I say, I had the first case, and I felt I was waiting around a long time for the first case. Personally, I'd prefer to have had the first three cases now three going at the same time".

4.6.2 There Was a Lot of Information to Manage and Consider

In addition to the level of commitment, was the amount of information involved:

V3 "For me was like a roller coaster, perhaps because we were also developing it, as well as being volunteers. Whereas, that's not the case...it felt like it was so much information to digest"

They stated that they found it difficult to digest and organise all of the information involved and so they could get muddled:

V3 "You know, lots of lots of pieces of paper and so on so forth"

A related point was the speed of development

"V3 Very, very fast and develop fast and so I became quite muddled and quite kind of needing some space to sort of catch up with myself"

Consideration might need to be given to volunteer requirements in relation to the above comments. Firstly they seem to be suggesting that information management skills are required, just as significantly however is the iterative and developmental nature of the project. Not everyone is used to working in such a way. If the project continues in a similar way future volunteers might also need the ability to work in a flexible manner and have the

ability to cope with ever changing requirements. Volunteers don't just need to be able to adapt, but to learn and adapt quickly.

4.6.3 Practical Management Issues Including Time Management and Priority Setting

The volunteer who described their volunteering roles as like being back at work (in .7.1), talked about how they applied skills that they had gained during their professional life to deal with keeping on top of the different aspects of their contact tracing role.

4.6.4 Lack of a Transition Period

Two of the volunteers commented on a lack of a transition period between receiving training and getting involved with the delivery of contact training. One explained that it was not possible for training to prepare them for the reality of what was involved. They stressed that is one not a criticism of the training - but was more to do with needing to get straight into the substantive task due to the urgency of the situation:

V1 "It was hard to be prepared for the first day (of contact tracing itself), based on the training".

4.6.5 Emotional Impact

Three volunteers stressed the emotional impact of contacting people who had an understandably high level of anxiety and were experiencing a range of other intense emotions. One volunteer stressed the value of the support that was given to volunteers and the need to support the wellbeing of volunteers throughout. They highlighted the impact of pressure due to the urgency of the situation. They referred to feeling the need to put other things on hold and to having to follow up communication ASAP due to the potential risks from delaying taking action.

V4 highlighted the emotional impact of calling the first index case:

V4 "So I did the first one, which was quite a nerve wracking experience"

They also argued that a key piece of learning from the project was how to look after contact tracers emotionally.

Five of the volunteers referred to the support that they received from both mentors and peer support groups and indicated that they found it helpful. In relation to peer support one volunteer stated that it was useful to be able to ask questions such as:

V3 "I've got this situation. What do you think?"

and

V3 "just venting be listened to, you know"

My impression from interviews was that the emotional support was as useful to volunteers as the practical support these structures provided. One volunteer did however question how sustainable the level of support they had received was. The support received included both daily online peer support meetings and regular contact with an appointed mentor. Linking this with the point made in .7.1 about commitment, one volunteer suggested that

regular communication with other volunteers and their mentor on top of regular communication with the index cases and other contacts as well as related paperwork all added up to a significant workload. In relation to potential expansion into other areas V1 stated:

V1 "Make sure that volunteers really understand that it's okay to say, you know, I need a break. I mean this, this is quite emotionally draining"

4.6.6 Lack of Clarity

Two volunteers stated that at the start there had been a lack of clarity about some of the systems at the start of the project. One volunteer stated that:

V4 "individual systems haven't really been thoroughly worked out"

They gave the support circle as an example of something that hadn't been totally thought through at the start.

Volunteers also suggested that at times there was a lack of clarity about the amount of work that was going to be involved and the processes to be followed. They described that initially it had been unclear when they needed to contact their mentor, was there an expectation that they should keep them regularly updated, or did they only need to contact them when they needed advice about particular issues. They also suggested that it would have been useful to have been given more clarity about both processes before they started. They made specific reference to the mentoring process, which they described as almost like being shadowed. They stated that they could see why this might be needed as everybody involved in the pilot was learning through the process, but they did question whether this level of support would be needed longer term. They seemed to suggest that once they had been doing the role for a while they might be able to continue with less support, that a high level of support was required initially because what they were doing was initially new to them and to the rest of the team:

V1 "We will assist by proxy, by developing you on the job...the closest thing to literally shadowing somebody"

V4 made a similar point, they argued that after a while the same issues were being discussed again and again. When the frequency of meetings dropped to two a week they seemed to suggest that was about the right frequency:

V4 "every night was too frequent for the circle meetings, but we kind of needed them every night at the beginning because the one or two people that did have issues obviously didn't really know what they're about at that time and needed that support"

They also argued that going forward the structure of the meetings needs to be made clear. Another volunteer suggested that initially they had also had a lack of clarity about what to do when unexpected situations emerged.

4.6.7 Lack of structures

One volunteer argued that due to a combination of a different person leading zoom meetings each evening and a lack of minutes for the meetings the same issues were explained again and again. They suggested that minutes for meetings would address this issue:

V5 "There should have been minutes which people did actually read through and made sure they are up to date. So again the same thing won't happen either way. But it was just, it's just a bit ridiculous every night"

4.6.8 How to finish

One volunteer highlighted an issue that relates to the idea of developing relationships, outlined in .5.3, how to finish:

V4 "when my first case finished I said that we need to find a way of finishing the cases because I was going on the phone. I think I was going well. This is our last call. Well, by now kind of thing. And I hadn't thought about it until that second and it felt, I had built up a relation, you know, it felt horrible actually"

They seemed to be arguing that some though needed to be put into managing expectations and stepping away.

4.7 Wider challenges

4.7.1 Capacity

Issues about capacity relate to the discussion in .7.1 about involvement being quite a significant commitment. One volunteer described how choices were at times limited due to the capacity of the volunteers available. For example they stated that one reason why contacts were only traced to one layer (contacts of index cases were contacted, but not contacts of the contacts) due to the capacity of the volunteers. They simply would not have time to take it any further.

4.7.2 Lack of Cooperation from Individual People

One volunteer talked about thorny issues that arose when index cases didn't want them to contact people. Whilst the volunteers had been trained to make it clear that if their index case asked them not to contact someone, they wouldn't. They also suggested that there were other situations that were a bit less clear. For example they talked about lack of clarity about what to do if they got partial information about a contact, if their index case was

expressing a moral dilemma. This appeared to be one of many potential moral dilemmas that could occur. Another moral dilemma they discussed was if there might be situations when they should break confidentiality, when it would save lives potentially. They described how some index cases expressed a feeling of shame, guilt and a reluctance to let other people know that they may have infected them with Coronavirus. They also described how one of the people they contacted reframed an encounter, describing it quite differently to the account given by an index case in order to make it seem less likely that they had been infected. They described it as a success that later this contact accepted that the original description had been correct and then agreed to self-isolate.

4.7.3 Lack of Cooperation from Some Employers

The thorniest issue however seemed to be some employers not co-operating with the contact tracing initiative. This issue was mentioned in all 6 interviews. The most significant issues appeared to be that some of the people working in hospitals and care homes not wanting to cooperate. Two volunteers described issues with hospitals and care homes. One described how one of their contacts worked in a hospital. They described how the contacts, the index cases, were initially happy to be involved but later withdrew their consent after the hospital, apparently after extensive internal discussion, decided not to be involved::

- V3 *"You don't need time off. This is why, it got all the way up to silver and came all the way back down, and they commanded basically, they said we're unaware of this, we don't give permission, we would ask you not to participate"*
- V3 *"Hospital trust teaching hospitals and say, what the heck's going on anyway and then I discovered further down the line that they've taken it up higher"*
- V4 *"she was very keen that I didn't ring her manager, she actually wouldn't give me the number of her manager to talk that was what seems to be the case in in just about every case is as soon as it comes to work."*
- V5 *"she really wasn't okay with me calling up and talking to her boss"*
- V6 *"they certainly didn't want you to talk to their manager."*

In care homes there were two issues, one was employees feeling as though they could not afford to take time off for financial reasons and the other was the lack of cooperation from care homes themselves. One volunteer reported that one of their index cases, someone with covid19 symptoms had stated:

V1 "I only get statutory sick pay I can't afford to be off."

The same issue was also communicated by another volunteer:

V2 "Thorny issues about care homes ended up being a massive issue, there were people who tested positive and worked in care homes and were still working"

Two interviewees connected the issues of legitimacy and authority of the SCCT project. One suggested that they might have got further if the project had been officially sanctioned:

V6 "what authority. Have you got?"

4.7.4 Issues with independent care workers

A challenge of identifying and getting independent care workers to isolate was highlighted. One volunteer stated that the index case they contacted couldn't identify the care workers who came to their house as they were employed through an agency. Attending care workers changed regularly:

V5 "she didn't know all of the names they, you know, rotated every day"

V5 "my first case was an elderly woman who lived by herself. And the main issue with her was that she had carers coming around every day, which is probably how she got it."

V3 highlighted a case where it was suspected that the index case had caught Covid19 from one of their carers, someone who was also a relative who worked in a care home. They stated that it was very difficult to get cooperation.

4.7.5 Delays in Getting to People with Symptoms

Volunteers highlighted a problem with the referral process from GP's:

V2 "We were seeing people who had already been sick for a while so it meant that by the time we got to them they hadn't been in contact with anyone for a while"

The challenge that emerged from the above case was that all of the contacts they followed up were already self-isolating. Another volunteer indicated that one of the index cases they had made contact with had already had symptoms for 11 days

Ideas for getting access to index cases quicker are discussed in .11.1

4.8 Advice to future volunteers

4.8.1 Advise and Inform Don't Instruct

Three volunteers stressed the importance of setting and respecting boundaries:

V5 - you need to draw kind of clear boundaries with the people that you're talking to about what you're there for"

Two volunteers stated that at times they had been asked to give medical advice. They both emphasized how they had communicated that, they were not a medical expert and they were not there to give medical advice. They also gave another example of a contact asking them if they were being told to take time off work. The volunteer outlined how they had made it clear that their role was simply to advise not to instruct.

4.8.2 Be Flexible – communication will need to fit around individual contacts

One volunteer stressed the need for flexibility in communication with index cases. As outlined below they argued that they had found that maintaining positive engagements with their contacts had at times required communication to tailored to individual people:

"People may not want to be called every day, people might not want to have a conversation every day, you might need to be flexible about the type and frequency of communication, it might be an email it might be a text message"

In terms of the need to be flexible they highlighted the practical nature of contacting someone that had been ill, as this meant that they are often tired and so their might be only narrow windows of when they are able to talk.

Another volunteer made a similar point, also arguing that communication approaches should be adapted to fit with each case

V4 "I think that's something as a tracer you need to have some flexibility over and be able to make that decision yourself dependent on the particular case you're dealing with"

They also argued that after a few days they had found themselves repeating themselves, and so it became less invasive to shift some communication to email.

4.8.3 Look After Yourself

Relating to discussion in 7.5, one volunteer stressed that due to the emotional impact of the role as well as the significant support structures that had put in place (also outlined in 7.5), volunteers should also take personal responsibility for their own wellbeing.

Part 4 Discussion, Recommendations and Advice

6.1 Potential Improvements

In relation to issues that emerged volunteers suggested some potential changes and improvements that could be made as the project develops.

6.1.1 Earlier Referrals Such as Through Mutual Aid Groups

To get to people with Covid19 symptoms earlier one volunteer suggested that they were looking into self-referral and or links with other community groups. A potential mechanism they suggested was asking via [Covid19 Mutual Aid](#) WhatsApp group for referrals. They did however qualify that something that had held them back from putting this action in place, was that there was still a small number of volunteers, they said " *we wanted to make sure we had the infrastructure in place before we did that*"

6.1.2 Adding Volunteer Experiences into the Training Manual

In relation to the training manual the main suggestion was that the experiences that they had gained from different cases should be captured in the manual. They stated that initially the manual had included how to deal with hypothetical cases as no real cases had taken place, now that they had the suggestion was these should be replaced for real cases.

6.1.3 Pairing Existing Volunteers with Newer Volunteers

One volunteer suggested that moving forward some of the support that is currently given by the steering group could be provided by other volunteers. For practical reasons they suggested that if this was to be scaled out it would not be possible for the steering group to offer the same level of support to all volunteers, but also that other volunteers who had actually been doing the contact tracing might be better placed to provide some support and advice. They proposed the idea of a buddying process, pairing new volunteers with more experienced volunteers so that there is someone supporting newer volunteers. The suggestion was that new volunteers put together a strategy of actions together with their buddy and that such support would help newer volunteer stay on track

6.1.4 More User Friendly Information for Index Cases

One volunteer argued that some of the information that was sent to index cases to read wasn't very user friendly and that some of it could be re-written into more accessible language. My thinking is that it might be useful to get the perspective of some index cases or former index cases and potentially even try to involve them in the process or creating more user friendly versions.

6.1.5 Integrating Apps

Two volunteer made reference to contact tracing apps. One suggested that apps could be integrated with their contact tracing system. The main benefits that they argued this might bring was earlier referrals and providing more information. They suggested that app data could be followed up by human interaction and that could be relevant as the tracing process wouldn't just rely on human memory. They did however emphasise that they were not suggesting that an app could replace what they did, emphasising the human touch and solidarity of being contacted by someone who lives in their area was still important, a point that seemed to link to earlier comments they had made about the value of local connection and the emotional support that contact tracing provides. Another idea they suggested was that perhaps:

“An app could also maybe integrate medical data such as temperature that could be useful data”

6.1.6 More volunteers / Splitting cases

In relation to capacity issues mentioned in .7.6 one volunteer suggested that perhaps cases could be split between two volunteers, as its quite time consuming. Another benefit they suggested would come from this would be the potential to gain support from another volunteer and to discuss issues and challenges that emerged.

6.1.7 Put in structures such as minutes for meeting

To address the issue outlined in .7.7 meetings should be minuted, and attendees should read minutes before the next meeting.

6.1.8 Work with established local community organisations

Contact tracing organisations are advised to work in partnership with their established local community development organisations especially if their aim is to offer contact tracing for 'hard to reach' groups in their community. Such connections are needed due to the importance of the local connection .4.3 something that was considered important to provide effective support as outlined in. 5

6.1.9 The cooperation of employers is needed

To address the challenges outlined in .7.2 and .7.3 there needs to be criteria for escalating refusals to participate to someone with authority to engage with the people who meet the criteria as contacts.

6.1.10 Contract tracers need relevant skills and expertise

Whilst this pilot demonstrated can be done by volunteers, this does not mean that it can be done by just anyone. As discussed in .4.2 some volunteer tracers interviewed felt that they

were being asked to work at the level of someone employed at Band 6-7. Our volunteers often found themselves drawing on skill sets that they already had gained through previous work related training

6.2 Conclusion

From the perceptions of the six volunteers we spoke to at least, the project appeared to be a success and gained considerable media attention locally and nationally. This doesn't necessarily mean that any contact tracing project would get the same results. There were particular characteristics about the way that this project was set up and implemented that made it work in the way that it did. This included the skills and understanding of both the people who set it up and the people who implemented it. The local connection also seemed important.

Recruiting and using local volunteer contact tracers proved to be enormously helpful when supporting people through this uniquely difficult time. The volunteers' used their knowledge of local conditions and resources to provide person centred and community centred advice and encouragement. A sense of community and willingness to protect people in their own vicinity has proved to be an important motivation for the volunteers and may help their contacts accept a period of quarantine as an act for the common community good.

There were however challenges including formal authority that limited the impact of the project. The lack of cooperation from some employers and the inability to apply any form of formal influence resulted in less people isolating than might have been the case otherwise.

It seemed clear that the positive impact of the project went far beyond just getting people contacted to self-isolate, the impact included providing support for the people contacted and benefits to volunteers. Whilst the project was effective, some suggestions for improvement were given. These included ideas to reach people with Covid19 symptoms earlier and ideas for providing better support. Emotional impact was also discussed a lot, both the emotional impact on volunteers and the emotional stress faced by the people they were contacting. Due to the emotional impact the support structures that were in place also appeared to be an essential component of any future project. Overall the potential to take this forward into other areas seemed to be summed up by the following comment:

“What it does need is some planning and infrastructure and expertise and we have those things it just needs the will to put it into action”

We are unaware of any other studies of training volunteer community based contact tracers for Covid-19 infection under conditions of 'lockdown'. The principal strength of this study is its timeliness in relation to the current pandemic. Its main weaknesses are twofold. First, in the absence of any other 'gold standard' contact tracing service against which the findings could be compared, we cannot be confident about the proportion of actual contacts that each case had which were identified by the volunteer contact tracers. However given that all volunteers had continuing access with a mentor and were able to discuss any concerns or

questions they had, it is unlikely that they missed a significant number. Secondly, as it is a small study based in a particular area of Sheffield, Heeley/ Meersbrook, with a strong sense of community and a well established and respected community organisation, findings may not be transferrable to all other communities or countries.

Contact tracing for Covid-19 is significantly different and more complex than similar endeavours to contain the spread of tuberculosis, meningococcal disease or sexually transmitted disease. In those diseases, contacts can derive tangible benefit from being identified, in that they are likely to be offered testing and treatment for that disease or advised measures for its prevention. However for contacts of Covid-19 cases there is currently no offer of testing or treatment but the prospect of self isolation, including in some cases not going to work, with the financial penalties that entails, for a period of 14 days. During the trial several people who had been contacts of a person with Covid-19 found it hard to accept the label of 'contact' even though they met the ECDC criteria <https://www.ecdc.europa.eu/en/case-definition-and-european-surveillance-human-infection-novel-coronavirus-2019-ncov>

Contact tracers working for health or local authorities do carry the authority of their employer and are backed by health protection regulations including the most recent Health Protection (Coronavirus) Regulations 2020 <http://www.legislation.gov.uk/ukxi/2020/129/contents/made>

Although this level of authority was not available to the volunteers in our pilot, they did carry a different type of authority based on local recognition and acceptance. In the Heeley / Meersbrook district of Sheffield, where the pilot took place, the Heeley Trust www.heeleytrust.org is a community development organisation that is recognised and highly regarded for its work improving the lives of people living in the area, including support of vulnerable and 'hard to reach' groups. The concept of 'social prescribing' is well established in the area. The volunteers were mainly picked from the pool of volunteers associated with the Trust, and their intimate knowledge of local structures and networks was enormously valuable.

This report was written by:

Dr Tim Woolliscroft. Research Fellow at Sheffield Hallam University