Volunteering during the pandemic: Which mechanisms enabled groups, communities and agencies to mobilise and why?

A rapid realist review of the evidence

MAIN REPORT





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Foreword

IPPO is delighted to publish this systematic review on volunteering and focused on the different ways in which policy can best support and build on the work of volunteers over the past. We have looked at volunteering as a key element of social capital which has inspired so much interest and attention as we grappled with the social impact of COVID19

The work has given us the opportunity to review evidence on support for volunteering in depth and explore an issue fully from a number of angles. Our intention is that the review is a resource for those with interest and need to learn from how volunteering took shape during the COVID-19 pandemic, providing insight and guidance for future action. We also hope it will be a useful input into future decision making.

The International Public Policy Observatory (IPPO) aims to mobilise and assess evidence from different geographical and institutional contexts to inform policymakers throughout the United Kingdom about the best ways to mitigate social harms associated with COVID-19. Our overall ambition is to contribute to better policymaking and thereby to the wellbeing of UK citizens.

The pandemic has created unprecedented challenges for policymakers and other decision-makers across the UK. They continue to be asked to make varied and complex decisions in quick succession. The range of evidence and information grows continuously - but if it's not easily accessible and relevant, it is not helpful. Indeed, it can even create obstacles to developing the effective measures that are needed to help society through the severe and widespread impacts of COVID-19.

The research that IPPO undertakes and commissions is shaped and framed by numerous and diverse conversations with decision-makers. Those interactions help us to identify important questions and issues that can benefit from rigorous knowledge synthesis, drawing on research and expertise from around the world. I very much hope that this review will be of use to a range of policy stakeholders.

Professor Joanna Chataway

Principal Investigator of the ESRC International Public Policy Observatory

Key findings

What did we want to know?

Our review addresses the following question: What were the core mechanisms for mobilising volunteers for local groups, communities, and organisations during the COVID-19 pandemic and under what circumstances, where, and among whom do these mechanisms occur?

What did we find?

This rapid review identified mechanisms that underpinned the mobilisation of volunteers for local groups, communities, and organisations during the COVID-19 pandemic. From a total of 59 studies, six mechanisms were identified in the review.

Gaining experience and developing role identity was a core mechanism that was key in mobilising volunteers to undertake activities during the pandemic.

Adaptability ensured that individuals, groups and local agencies and organisations responded to the changing needs of beneficiary groups and were able to adapt to new ways of working.

Different forms of support were important in sustaining a volunteer workforce and protecting wellbeing of the volunteer workforce, and support may be important in broadening the profile of volunteers.

Altruism was a key motivator for stepping up during the pandemic and becoming a volunteer.

Greater **trust** was linked with the mobilisation of volunteers during the pandemic and the extent to which groups and communities were able to scale up efforts.

Co-ordination helped communities, agencies and mutual aid groups to work together rather than in competition, and to work more efficiently around one another rather than in duplication.

What are the implications for policy and practice?

Drawing on the evidence identified, and going beyond the evidence to consider broader implications, the following actions may help to mobilise and sustain volunteers in the future:

- Developing better systems of matching volunteers to suitable roles
- Understanding and demonstrating the importance of all roles (frontline and backoffice)
- Reconceptualising volunteering as a mutually beneficial process
- Increasing public familiarity with volunteer opportunities through offering short experiences of volunteering (e.g. taster sessions or open days)
- Developing strategies to reduce volunteer attrition
- Developing strategies for adapting to change, and consider the equity implications of changes including the movement of services online
- Developing strategies to provide emotional support and integrate volunteers into existing teams
- Understanding the needs of volunteers as much as beneficiaries

- Continuing to invest in community engagement activities, which pay dividends in times
 of crisis
- Removing barriers to volunteering to enable everyone to act upon altruistic motivations
- Investing in systems and policies that help local organisations, mutual aid groups, local communities to access timely, up-to-date information; provide appropriate training and incentives (social and/or otherwise); and build social infrastructure

How did we get the results?

We first undertook a systematic mapping exercise on the role of social capital and responded to feedback from the experts participating in the roundtable events. We then planned this rapid realist review focussed on the role of volunteering and how communities and local organisations were mobilised during the pandemic. We followed established methods for undertaking realist synthesis which involved five key stages (identifying theory, searching for evidence, appraising the studies, extracting the data and analysing and synthesising evidence).

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Executive summary

What did we want to know?

In this review we are primarily interested in the social processes (mechanisms) through which individuals, agencies and communities stepped up in order to identify *how* volunteers were mobilised. Through identifying these mechanisms we may be able to identify what tends to work, how, for whom and in what context, which may be of particular value for future pandemics. Our review therefore addresses the following question:

What were the core mechanisms for mobilising volunteers for local groups, communities, and organisations during the COVID-19 pandemic and under what circumstances, where, and among whom do these mechanisms occur?

What did we find?

This rapid review identified mechanisms that underpinned the mobilisation of volunteers for local groups, communities, and organisations during the COVID-19 pandemic. From a total of 59 studies, six mechanisms and fourteen context-mechanism-outcome configurations were identified in the review.

Gaining experience and developing role identity was a core mechanism that was key in mobilising volunteers to undertake activities during the pandemic; gaining experience and developing role identity also resulted in positive outcomes for volunteers themselves in terms of greater confidence, professional and skill development, personal development, and better mental wellbeing outcomes.

Adaptability was a second core mechanism for mobilising large numbers of volunteers during the pandemic. This broadly ensured that individuals, groups and local agencies and organisations were able to respond to the changing needs of beneficiary groups (e.g. where social isolation or inability to access essential supplies became problematic) and were able to adapt to new ways of working (particularly to adapt to the circumstances of lockdown).

Emotional support, support in the form of social and material recognition, and support through training were important in sustaining a volunteer workforce, protecting the wellbeing of the volunteer workforce, and may be important in broadening the profile of volunteers. In addition, community level support during the pandemic, organised through mutual aid groups, can be viewed as a form of activism where communities step in as a response to the limitations of the state to provide support for basic essential for community members in need.

Altruism was a mechanism observed at an individual level, but also one that emerged at a population level as a key motivator for stepping up during the pandemic and becoming a volunteer.

Greater **trust** was linked with the efficient organisation of volunteers during the pandemic and the extent to which groups and communities were able to scale up efforts to respond to the higher demands that were exhibited during the COVID-19 pandemic.

Co-ordination helped communities, agencies and mutual aid groups to work together rather than in competition, and to work more efficiently around one another rather than in duplication.

The mechanism and the outcomes they generated are summarised below:

Context	Mechanism	Outcome
 Types of occupation groups Resources and skills before the pandemic Pre-existing networks and relationships 	Developing role identity through gaining experience	 Confidence Develop skills and knowledge Personal development Encourage future volunteering Improving(decreasing) well being
Individual People with vulnerabilities People with more resources and capacity Agency Technology use Previous structure for service delivery in health care settings Social system: Financial support policies	Adaptability	 Being able to address the urgent needs of service users Becoming a volunteer Having new ways of working Having new services/continuing of services Having new volunteer opportunities Improving efficiency
People working in the frontlineLevel of social capital	Supporting volunteers: Mental and well-being support for volunteers	Mental health and well-being
The volunteer workforce does not (always) represent the whole population	Supporting volunteers: Material support	Sustaining and broaden volunteer opportunities
Disadvantaged groups	Supporting volunteers: Provide support through suitable training and management	Sustaining and broaden volunteer opportunities
Community members in needSocial capital- bondingSocially excluded populations	Supporting volunteers: Support as activism	Basic essentials for community membersInclusiveness
 Not all populations can act e.g. disadvantaged populations 	Altruism and intrinsic motivation	Becoming a volunteer
Across levels: proactive connections such as community hubs; mutual aid groups and community groups; Mutual understanding and trust	Coordination	 Working more effectively Having different approaches of working Having (Less) duplication Sharing information Managing volunteer mobilisation
At community level: Mutual aid groups, local community groups	Trust and sense of community	 Identifying resources Making timely decisions Social capital such as constructing new social relations and having new relationships Scaling up

What are the implications for policy and practice?

Drawing on the evidence identified, and going beyond the evidence to consider broader implications, the following actions may help to mobilise and sustain volunteers in the future::

- Developing better systems of matching volunteers to suitable roles based on skills and preferences and demonstrate the importance of all roles (frontline and back-office)
- Reconceptualising volunteering as a mutually beneficial process
- Increasing public familiarity with volunteer opportunities through offering short experiences of volunteering (e.g. taster sessions or open days)
- Broadening the social profile of volunteers to develop a mobilised volunteer workforce.
- Developing strategies for volunteer attrition
- Developing strategies for adapting to change, and considering the equity implications of rapid change including the movement of services online.
- Developing strategies to provide emotional support and integrate volunteers into existing teams
- Understanding the needs of volunteers as much as beneficiaries
- Continuing to invest in community engagement activities which pay dividends in times of crisis
- Removing barriers to volunteering to enable everyone to act upon altruistic motivations.
- Investing in systems and policies that help local organisations, mutual aid groups, local communities to access timely, up-to-date information, provide appropriate training and incentives for staff, and build social infrastructure.

How did we get the results?

Following the systematic mapping exercise on the role of social capital and the feedback from the experts participating in the roundtable events, this systematic (rapid realist) review focussed on the role of volunteering and how communities and local organisations were mobilised during the COVID-19 pandemic. We followed the RAMESES checklist for conducting a realist synthesis, we followed five key stages. First, we identified the underlying theories and designed the conceptual framework that could be used to guide the data collection and Context-Mechanism-Outcome configuration development. The Volunteer Process Model (VPM) and other ecological and community-focused theories were used as a basis for our working theory. Next, we identified relevant evidence from the systematic map of the social capital and subsequently carried out supplementary searches to capture studies that specifically focused on volunteering. Grey literatures were identified through websites, suggestions from Advisory Group/experts from roundtable meetings, and through interactions between IPPO policy teams and a wider group of stakeholders. Searches were iteratively conducted between February - October 2022. The included studies were assessed for their relevance. Descriptive and empirical data were extracted and analysed from individual reports. The review team members met to pilot the inclusion/exclusion criteria and the coding framework, and finally discussed and finalised the findings and the final set of CMO configurations, as reported. In addition, we used the PROGRESS-Plus framework to guide our analysis to identify key equity issues, which was the main way in which context was assessed in this review.

Introduction

The COVID-19 pandemic represented an existential threat to societies and led to huge social and economic upheaval and transformations. The pandemic exposed the impact of societal inequities on the basis of race and ethnicity, socioeconomic status, sexuality and gender, and multiple other intersecting factors through the large demonstrable inequalities in COVID-19 mortality and morbidity rates and health and social outcomes during the lockdown (Bécares and Kneale 2022, Bowleg 2020, Patel et al. 2020). However despite these entrenched inequalities playing out, there were indications that some traditional power structures were being reconfigured (Connell 2020) and the pandemic saw a reconceptualization of what roles were viewed as socially useful in society and who constitutes a key worker (Matthewman and Huppatz 2020). At the same time, there was a rise in 'people power' globally, expressed through multifarious acts of kindness, solidarity and mutualism as communities organised and came together where governments could or would not (Matthewman and Huppatz 2020). Across multiple settings, greater value and emphasis was placed on collaboration between citizens, civil society (including the third sector and community-based groups), and localised government structures, as a means of responding to the pandemic and its impacts (Miao et al. 2021). This review addresses these themes through examining how communities and local agencies responded to the COVID-19 pandemic through mobilising volunteers.

Who volunteered?

Efforts to recruit volunteers to respond to the COVID-19 pandemic were hugely successful, to the extent that the pool of available volunteers was commonly described in military terms as an 'army', with over 750,000 people signing up to NHS England's call for volunteers in just four days in April 2020 (NHS England 2020). Estimates suggest that around one-in-five of the population in England volunteered for an organisation or group (21% in total) during the first lockdown, and 9% of the population as a whole engaged in formal volunteering for the first time (DCMS 2020). Meanwhile almost half of the population (47%) is estimated to have volunteered informally through 'acts of kindness' and giving some form of unpaid help over the same period, including keeping in touch with someone (DCMS 2020). Despite the widescale deployment of volunteers across different settings, the characteristics of people volunteering during the pandemic were found to be socially patterned and not representative of the population as a whole, with women, those with higher levels of education, those living in rural areas, and those whose roles were understood as 'keyworkers' being more likely to volunteer across different forms of volunteering (Mak and Fancourt 2022). There were also indications in some settings that there had been a shift in other sociodemographic features of volunteers, as furlough and greater flexibility, as well as age-based recommendations on social distancing, supported greater participation of younger volunteers (Senedd Wales 2021). Evidence also suggests that the composition of volunteers became increasingly diverse, with higher levels of new volunteering activity among people from minoritised ethnic groups (DCMS 2020, Senedd Wales 2021).

The (pre-pandemic) literature indicates that people volunteer for a variety of sociopsychological reasons that can broadly be divided into intrinsic and extrinsic factors, with intrinsic factors reflecting motives that are not associated with any apparent reward except completion of the activity itself. In the COVID-19 pandemic, intrinsic motivators may have reflected, for example, a desire to feel useful or satisfaction from participating in volunteering activities or enjoyment from cooperating with other community members in carrying out activities. Extrinsic motivators reflect situations where a distinct outcome is expected to follow from volunteering, for example development of skills or gaining experience for career progression (Finkelstien 2009). Some studies have suggested that intrinsic factors were more important predictors of volunteering during the pandemic (Kifle Mekonen and Adarkwah 2022), potentially reflecting the existential threat of COVID and because extrinsic motivators were less certain during the pandemic. Further studies suggest that those with higher levels of social capital were also more likely to volunteer during the pandemic (Mak and Fancourt 2022), perhaps indicating an intrinsic motivation of gaining satisfaction from the interactions that follow from collective action. While many stepped up their volunteering activities during the pandemic, some also reduced the frequency which they volunteered or stopped altogether, with people who were living with a long-term illness reducing their volunteering (DCMS 2020, Mak et al. 2022), perhaps reflective of the added risk facing this group, as well those with personality types characterised by 'neuroticism' (Mak and Fancourt 2022). In addition, those who were divorced or living apart from their partner appeared to reduce the level of volunteering compared with pre-pandemic levels. The again may underscore the importance of social networks in connecting volunteers to facilitate collective action during the pandemic.

How was volunteering organised?

Volunteering takes place through a number of different activities, and broad definitions suggest that volunteering can encompass any unpaid activity that benefits others and is carried out through free choice (Taylor-Collins et al. 2021) although these activities usually do not include providing care or support for members of one's own family. The literature on volunteering makes a distinction between informal volunteering and formal volunteering. Informal volunteering reflects several different activities that could be viewed as acts of kindness, support, or neighbourliness (e.g. providing informal advice or keeping in touch with those who may not be able to go out) through to providing more instrumental supports such as cleaning or preparing food or providing transport. Some of these forms of informal volunteering have low 'entry' thresholds, and almost half of adults who reported undertaking informal volunteering during the first lockdown in England reported giving advice (46%), and over two-fifths reporting that they kept in touch with someone who had difficulty going out (43%) rising to almost three-fifths (58%) in the second lockdown (DCMS 2020). In contrast, formal volunteering may have a higher 'entry' threshold (i.e. can require planning, organisation and commitment in a way not always necessary for informal volunteering) and involves engaging in activities across a range of organisations or clubs.

The pandemic saw a proliferation of mutual aid groups, with over 4,000 mutual aid groups registering their presence in online directories that helped people locate their nearest source of support during the pandemic (Boelman and Stuart 2021). Mutual aid groups were emblematic of hyper-localised responses to the pandemic, and some groups were formed on the basis of existing group infrastructure, while others were entirely independent of existing civic societal infrastructure (Boelman and Stuart 2021). Mutual aid itself has been viewed as a form of informal volunteering (Taylor-Collins et al. 2021), although mutual aid groups occupy a spectrum of approaches that straddle a distinction between formal and informal volunteering (Boelman and Stuart 2021). Although mutual aid groups can be regarded as a distinct form of volunteering separate from formal volunteering (Scottish

Government 2022), mutual aid groups as also recognised elsewhere as a form of formal volunteering (DCMS 2020). Some have suggested making a distinction between formally organised groups and informal groups (Grey et al. 2021). Similarly, informal volunteers could be understood as (i) those extending from existing groups and organisations (being on hand to help); and (ii) those emergent who respond to a real or perceived need but where this does not lead to ongoing formal organisation (Grey et al. 2022).

Given the rise of mutual aid groups during the pandemic, that encompassed differing organisational practices that ranged from those mirroring formal groups to those that rejected associations with existing infrastructure (Boelman and Stuart 2021), we could speculate that the COVID-19 pandemic has led to a blurring of the distinction between formal and informal volunteering. While mutual aid groups are viewed as a form of formal volunteering by some (DCMS 2020), others stress that informality is what makes mutual aid groups distinctive (Tiratelli and Kaye 2020). The COVID-19 pandemic, as an iterative crisis with a definite beginning but no end, does perhaps offer an opportunity to examine the way in which volunteering is understood and to question whether new trends that have emerged need to be reflected in our understandings (Bynner et al. 2022). This includes questioning whether some of the broad trends that occurred during the early stages of the pandemic remain visible to the present day including: (i) a general trend towards a decrease in volunteering for established agencies and organisations (Rutherford and Spath 2021); (ii) a rise in more informally organised groups within communities (Boelman and Stuart 2021); (iii) an increased reliance on online provision and organisation of support (Boelman and Stuart 2021, Rutherford and Spath 2021); and (iv) a stronger preference for short-term episodic and task-based volunteering that pre-dated the pandemic and is expected to continue (Macduff 2005). These trends form the backdrop to this review.

What do we want to know in this review?

Although informal (dyadic) acts of kindness certainly increased during the pandemic (DCMS 2020), a distinct trend observed was a rise in people power and people working together to improve outcomes, either within or extending from existing local structures and agencies, or emerging independently and on informal terms (Boelman and Stuart 2021). The evidence above can help us to understand the antecedent characteristics and patterns of volunteering, it does not necessarily illuminate the mechanisms through which communities and agencies extended existing practices and structures to respond to the pandemic or emerged and adopted new ways of organising. This review examines how local agencies and communities responded and mobilised 'armies' of volunteers of their own to provide support. In this review we are primarily interested in the social processes (mechanisms) through which individuals, agencies and communities stepped up in order to identify how they mobilised volunteers. Through identifying these mechanisms we may be able to identify what tends to work, how, for whom and in what context, which may be of particular value for future pandemics.

Given the stark inequalities in pandemic outcomes outlined above, rather than developing a nuanced understanding of contextual features that support or inhibit mechanisms, our focus of context instead explores equity and the extent to which evidence suggests that the mechanisms are either enacted across all population groups or whether they hold particular significance for certain groups. Our conceptualisation of equity is informed by the PROGRESS-Plus framework, which supports systematic reviewers to consider axes of

disadvantage that may generate inequalities in health (with PROGRESS representing Place of residence, Race/ethnicity/culture/language, Occupation, Gender/sex, Religion, Education, Socio-economic status, Social capital, and the plus referring to additional categories such as age, sexual orientation and disability) (Welch et al. 2019).

Research questions

Our overarching research aim is to identify and synthesise the research that has been conducted to understand the impact and processes used to mobilise communities and groups to volunteer during the pandemic.

Our main research question and sub-questions are listed below:

What were the core mechanisms for mobilising volunteers for local groups, communities, and organisations during the COVID-19 pandemic and under what circumstances, where, and among whom do these mechanisms occur?

- How were volunteers recruited?
- What were the barriers/facilitators to engaging volunteers?
- Did any processes exclude particular groups or communities?
- What other equity issues arise from mobilising volunteers?

Methods - Overall approach to the review

The origins of a review of volunteering

This review forms a subset of a mapping exercise conducted by the authors examining the role of social capital during the pandemic. Based on searches conducted in March 2022, this map identified 302 studies that examined the role of social capital during the pandemic. The map represented a broad sweep of the literature and included: (i) studies that provided a global snapshot of evidence; (ii) studies that covered a spectrum of different forms of social capital (bridging, bonding and linking); (iii) a wide range of methods (quantitative and qualitative) and study designs (observational and intervention studies); and (iv) studies that examined the role of social capital across a range of outcomes (including physical and mental health, economic, social capital, and educational outcomes).

The map identified that a number of different mechanisms, orientated around social capital, potentially generated positive outcomes. For example, trust was found to counteract misinformation and enhanced adherence to public health guidance; enhanced bridging and bonding social capital was found to lead to higher levels of social support (and in turn high levels of wellbeing); and bridging capital with neighbours more than friends was more protective of wellbeing during periods of strict lockdown. Discussions that took place at a roundtable meeting with experts in the field, held (at the end of June 2022) to discuss the findings of the map and identify where further synthesis could make a contribution, identified that further questions existed around the role of volunteering. In particular, there was a need to understand how communities and local organisations were mobilised during the pandemic, and what lessons could be learnt around how volunteers were mobilised that could be used to inform policy, to both sustain good practice observed within the current pandemic, and in preparedness for future health emergencies.

The focus of the review consequently shifted to understanding how to mobilise volunteers in an equitable way. To identify evidence, we searched within our map of the social capital literature and expanded the search to ensure relevant evidence had been identified (see search strategies). The roundtable met once again in September 2022 to discuss the emergent findings from the current review on volunteering and to help interpret the findings and identify gaps.

The choice of a rapid realist approach to understanding how communities mobilised during the COVID-19 pandemic

In order ensure that the learning from the current COVID-19 pandemic is applicable to other settings, this review focusses on identifying mechanisms through which volunteers are mobilised. A mechanism is a shorthand way of describing how change happens between an input (e.g. a set of contextual factors) and an outcome; mechanisms are real but are usually challenging to directly observe. Our approach to reviewing the literature and identifying mechanisms is therefore to undertake a rapid realist review. A realist review has at its core a focus on addressing the question of 'what works for whom and in what circumstances'. Our central question in our rapid review is therefore 'what tends to work for mobilising volunteers for what local communities/organisations and under what circumstances?'

A core aim of realist reviews is to identify configurations of evidence around context-mechanism-outcome (CMO) in order to address questions around what works for whom and in what circumstances. In this review, as we were synthesising evidence from global settings and a variety of contexts, it was clear from the outset that we would be unable to identify with any granularity recurring patterns around context. Therefore, we focussed our treatment of context around equity, and whether there was any evidence from the studies that the mechanisms described might raise issues around equity, or may otherwise be difficult to generalise across different groups and settings. To help structure our thinking around equity promoting and inhibiting factors, we drew on the PROGRESS-Plus framework (see Welch et al. 2019), which is used widely across the systematic review literature.

In developing this review, we followed the RAMESES checklist ((Wong et al. 2013); see Appendix 1) and the steps laid out elsewhere (see Rycroft-Malone et al. 2012, Wong et al. 2010) which identify 5 main stages in a realist synthesis including: (i) identifying the underlying theories and designing the conceptual framework; (ii) identifying evidence (i.e. identifying eligible studies); (iii) appraising primary studies; (iv) extracting data to support exploration of CMO configurations (and additional information about study characteristics); and (v) analysing and synthesising evidence.

One of the main differences in a realist review compared to a traditional systematic review is that the identification of the literature is purposive and conceptually driven with an aim of substantiating theories, which in practice can mean drawing on different types of evidence (i.e. evidence drawn from different methods) and undertaking supplementary targeted searches. The main difference in this rapid realist review and a conventional realist review is that less time was spent in this review on discussion and iteration of the mechanisms; there were fewer targeted searches (although some did take place); a more limited review of quality of the evidence; and less time was spent on the refinement of the underlying theory. In addition, a key difference between our work and the rapid realist review methodology advocated elsewhere (Saul et al. 2013), is that we did not develop a clear a priori understanding of how the findings would be used. Some of these implications of our rapid review approach are in part mitigated by the 'check and challenge' role of the advisory group, who both helped to identify the question, and who provided an important steer on how context should be conceptualised (through equity), who commented on the salience of the mechanisms, and who identified (additional) sources of evidence that would be helpful particularly from grey literature.

Stage 1 - Searching and identifying candidate theories

The initial part of this rapid realist review involved exploring existing theories and developing a rough working theory that could be used to explore the literature and inform further research questions (framed as context-mechanism-outcome configurations). This started with purposive searches of the literature around terms for volunteering, conceptual frameworks, theories and logic models across different databases (predominantly ad-hoc searches of Web of Science and Google Scholar, as well as engagement with other policy-focussed grey literature). Our focus on logic models draws

on our experience showing the utility of a logic models as a tool for developing pragmatic theory in health emergency and disaster relief management research (Kneale et al. 2020a), which may have further utility in conceptualising diffuse approaches to engaging communities during the COVID-19 pandemic.

Given the focus of this review on community-level and community-led volunteering, and particularly the readiness of communities to mobilise during the pandemic, we base much of our theoretical framework around the Volunteer Process Model (Omoto and Snyder 2002, Snyder and Omoto 2008). This model was developed initially in exploring volunteerism during another (ongoing) pandemic - the HIV/AIDS pandemic (see for example Omoto and Snyder (1995)). Through considering the individual, the agency and the social system levels, the model facilitates understanding the interplay between different ecological and contextual levels in shaping volunteer behaviours (Omoto and Snyder 2002, Snyder and Omoto 2008); later iterations of the model have placed greater emphasis on an 'interpersonal level' to support examination of dynamics within and between these levels (Snyder and Omoto 2008). The model is also structured sequentially through considering (i) antecedents of volunteering across different levels in order to support theorising of who becomes a volunteer and where; (ii) experiences of individuals, agencies and their beneficiaries, and wider social structures and the psychological and behavioural aspects of relationships that develop in conducting or supporting voluntary work within and between these different levels; and finally, (iii) consequences and impacts of volunteering across different levels (Omoto and Snyder 2002, Snyder and Omoto 2008). For this realist review, these sequential elements also roughly map onto context-mechanism-outcome configurations, with evidence on volunteer 'experiences' helping to illuminate how volunteer behaviours were sustained during the COVID-19 pandemic (in the absence of formal obligation or compulsion). The volunteer process model has been applied to understand civic engagement and volunteering patterns during the COVID-19 pandemic in primary research (Waeterloos et al. 2021, Yang 2021); for example Yang (2021) used the model to identify that much of the volunteering activity being conducted in their case study of volunteering in North America was motivated by a desire to transform volunteers own negative emotions into positive actions.

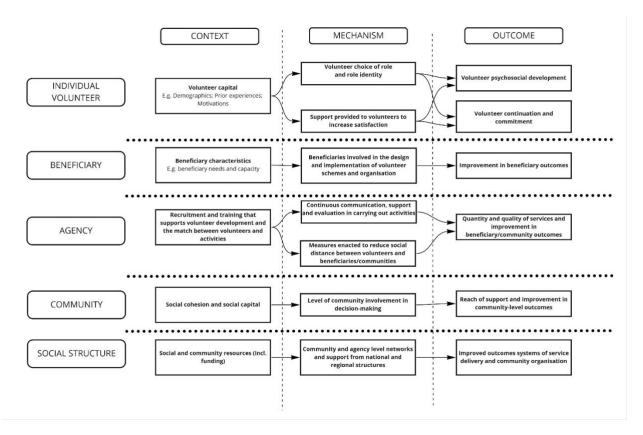
The Volunteer Process Model provides the basis for our working theory, although we use further theories to help refine and tailor the model towards our research focus, through identifying potential pathways for consideration relevant for community-level volunteering. Additional searches highlighted that many different theories have been used to support research in the area, although with a noted predominance of theories that focus on individual-based or social network-based psychological constructs and motivations for undertaking voluntary work, for example altruism (Piliavin and Charng 1990) and selfdetermination theory (Bidee et al. 2017, Deci and Ryan 2000). Self-determination theory, for example, is helpful for theorising the importance of the match between the volunteer's competence, relatedness and preferences around autonomy and the tasks to which they are assigned; in turn we theorise that volunteer opportunities directed explicitly towards particular professional communities or groups with particular skills (e.g. medical students) may lead to more sustained engagement than those seeking to match groups with diverse skills to different opportunities. Drawing on principles of social exchange theory (Cook et al. 2013), we can hypothesise that volunteering is stimulated and sustained when the benefits are understood and communicated to volunteers and

(potentially) to beneficiaries; meanwhile the volunteer process model (Neely et al. 2021) helps us to recognise that communities and agencies need to understand the motivations of their volunteers in order to sustain volunteer activities. The three stages of volunteering model (Chacón et al. 2007) finds that volunteers tend to (attempt to) honour the commitments they make to agencies/communities but that increasing the satisfaction of volunteers will help to create a role identity among volunteers and sustain commitment. Role identity is unlikely to be achieved, however, where volunteers do not support the values or goals of agencies or communities (Haski-Leventhal and Bargal 2008) or are otherwise socially excluded from these (Burchardt et al. 2002).

We also augment the volunteer process model through looking at other ecological and community-focussed theories. The organisation of the volunteer process model into different ecological levels mirrors the social ecological model of health (Dahlgren and Whitehead 1991), which prompts us to both explicitly include a community-level to explicitly capture this level of influence on volunteering behaviours, as well as to explicitly consider interactions between different levels of the volunteer process model. Theories around community engagement (Brunton et al. 2015, Brunton et al. 2017, Kneale et al. 2020b, O'Mara-Eves et al. 2013) support hypotheses that greater levels of community control, supported by pragmatic measures such as providing volunteer training, allocating administrative support for managing volunteers, and clearly defined target groups and goals as identified by communities and beneficiaries lead to more effective actions; Arnstein's ladder of involvement also reinforces the idea that community involvement in designing the types of volunteering taking place is likely to vary in the depth of involvement (Arnstein 1969). However, we also speculate that communities where citizens have a longer history of active participation may be more prepared to engage within the context of a health emergency.

Our description of theories and their contribution to our conceptual framework is outlined in Appendix 1 (supplementary materials), and we also graphically summarise these below in Figure 1 through presenting our rough working theory organised according to context-mechanism-outcome configurations. For example, the model shows that the development of volunteer psychosocial outcomes (e.g. self-efficacy or attitudes towards volunteering) are (partly) triggered by the extent to which volunteers choose their roles and the extent to which they can integrate these roles into their identities; in turn this is dependent on a variety of factors reflecting volunteer capital (e.g. the motivations of volunteers and their sociodemographic characteristics). The model below forms the basis of our data extraction template for understanding CMO configurations that explain how communities and group are mobilised to volunteer during the COVID-19 pandemic.

Figure 1: Initial rough working theory for understanding how communities and groups are mobilised to volunteer during the COVID-19 pandemic



Stage 2 - Searching for evidence

This review is based in part on (i) a map of literature examining social capital literature, as well as (ii) later supplementary searches to more explicitly capture studies that focus on volunteering, and (iii) grey literature identified through web searches, suggested by Advisory Group/Roundtable attendees, and through interactions between the IPPO policy team and a group of wider stakeholders.

Searches for the social capital map were conducted in February 2022 and additional searches for volunteering were conducted in May 2022. Initial searches explored terms for social capital (e.g. social cohesion, civic participation, and community engagement) and for the COVID-19 pandemic (e.g. SARS-CoV-2 and coronavirus) in the titles and abstracts of records. These were replicated to also example terms for volunteering (e.g. volunteers and voluntary). Searches were conducted on Web of Science, PubMed, CINAHL, Embase, Scopus and PsychInfo. Additional records were sourced from a systematic map of systematic reviews published by IPPO (Shemilt et al. 2022). (see Appendix 2 for examples of search strategies)

Screening on title and abstract was conducted by two reviewers initially to ensure consistency in the application of screening criteria, before being conducted independently; this was replicated for full text screening. Records were excluded if:

- They were not focussed on COVID-19
- Were non-empirical studies (e.g. commentaries or editorials that contained no data)
- Were not community based or community led (we excluded studies that only reflected policy-level or national level experiences or that reflected volunteering to other non-community organisations (e.g. we excluded volunteers for

pharmaceutical vaccine development)); exclude if volunteer at family or individual level (e.g. provide care within families or households). Note that we were interested in community led initiatives but recognised that these can be organised and managed by national and local government etc (as part of local community representatives or through hub organisations).

- They did not focus on volunteering (i.e. they did not describe activities of volunteers or the process of engagement and recruitment or did not provide data on groups or communities that were historically underrepresented and socially excluded or did not describe measures taken to increase equity)
- They did not report on actual volunteering experiences (i.e. they reported on attitudes towards volunteering but not observed volunteering behaviour)
- They did not report the result in English

After extracting data from the first ten studies, a decision was made to prioritise studies from high income countries, as defined by the World Bank (2020), to ensure the coherence of mechanisms. The PRISMA flow chart for the flow of studies through the review is shown in Figure A.

In screening, we did however note that much of the literature being included reflected more formal or organised volunteering rather than informal volunteering. This is perhaps unsurprising given that our core question was derived from a social capital perspective and involved exploring how communities came together (i.e. bridging and bonding capital forming and being operationalised within communities), which meant we were less likely to include individualised/dyadic acts of assistance. In addition, such studies focussed on individualised acts of mutuality were often less likely to give a detailed account of what activities were conducted and how they were conducted, and many describing individual acts of assistance were non-empirical studies. Supplementary searches for "mutual aid groups" were conducted to ensure that we captured more informal group volunteering that developed organically within communities, although much of the literature described 'volunteering' for mutual aid groups and was accounted for in earlier searches. Nevertheless, the review underrepresents mechanisms pertaining to individualised acts of assistance. In addition, the review does not account instances of 'enforced' volunteering such as where family members provided additional care during the pandemic to others within the household because of disruptions to usual care patterns.

Stage 3 - Appraising the studies

All studies were appraised for relevance using standard screening criteria. However, a point of variation between realist review methodology and standard review approaches is that quality is an emergent property of the study and not one that can be appraised discretely before synthesis (Eddy-Spicer et al. 2016). In common with realist approaches we appraised the quality of studies based on (i) their relevance and (ii) their rigour (Rycroft-Malone et al. 2012, Wong et al. 2010, Zibrowski et al. 2021). Studies were appraised as being high quality (and included in the synthesis) if they contained descriptive data that could support the refinement of theory (relevance); and if their findings appeared to be credible and trustworthy (rigour).

To support decisions around relevance:

Undertook mapping of the studies to examine their characteristics

- Assessed the degree to which the study could contribute to the refinement of theory through exploring if the study either described:
 - Gave a detailed account of activities that volunteers undertook
 - Explained the process through which volunteers adopted their role (i.e. were recruited or made a decision to become a volunteer)
 - Provided data on volunteering processes among groups or communities that are historically underrepresented in research or may have additional factors that trigger social exclusion
 - Provided evidence on measures taken to increase equity in the recruitment and reach of volunteers.
- Rescreened studies on the basis of their relevance at multiple points in the review according to their criteria

To support decisions about rigour we:

- Assessed extent to which conclusions drawn from a given study by researchers or the reviewers were supported by the evidence, and whether there were methodological flaws that might undermine confidence in the results
- Noted the type of evidence that was used to support each mechanism

Stage 4 - Extracting data

The properties of each study were mapped using a data extraction tool applied across all studies (appendix 3, equity factors were mapped guided by the PROGRESS-Plus framework (see Appendix 4), and data to identify CMO configurations extracted through first identifying the level of the mechanism followed by the nature of the mechanism. We used the underlying theory to identify the levels at which different mechanisms may generate outcomes (and consequently where policy actions may be most appropriately directed), with some mechanisms occurring at multiple levels. Each study included was read in-depth by a reviewer who undertook line-by-line coding to identify explanatory accounts for outcomes that occurred in the study. Using a preliminary sample of ten studies that had been assessed as having high relevance, these explanatory accounts were then examined for demi-regularities, before being developed into a framework for extraction. This framework was organised into identifying the enabling (or disabling) factors/characteristics and contexts that gave rise to a particular mechanism, a description of a particular mechanism, and the outcome that it led to. As a number of studies were studies from the perspectives of voluntary organisations themselves on how they continued to provide services during the pandemic, in some cases the outcome was described in implicit terms.

Stage 5 - Analysing and synthesising evidence

We followed some of the approaches outlined in Rycroft-Malone et al. (2012)'s exemplar through first organising the data into evidence tables; (ii) examining themes in the data; (iii) comparing reviewer themes for an article and developing chains of inference (due to the tight timescales available to us, this comparison was conducted fully for sixteen core studies; and consisted of one reviewer checking the extraction of another and discussing the extraction to resolve ambiguities or disagreements); (iv) looking for connections across extracted data and themes, and in this case we also looked for connections across

different ecological levels that were set out in the theory; (v) explication of CMO configurations and discussion of the CMO configurations across the team.

Results

Overview of study characteristics

In total, we screened 506 records and identified 59 studies eligible for inclusion (see Figure a).

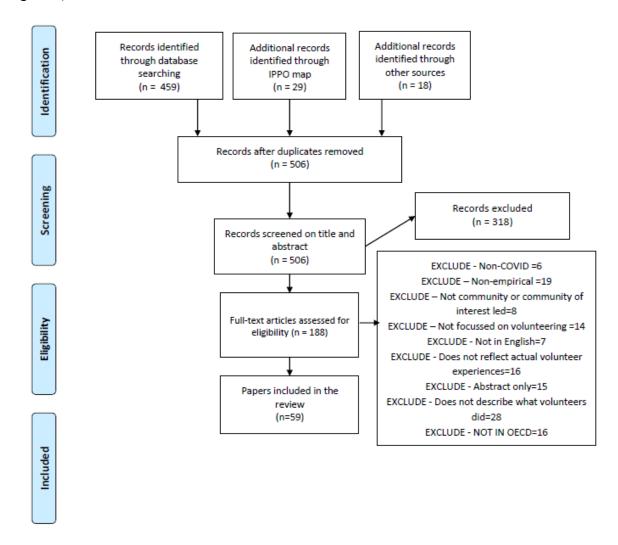
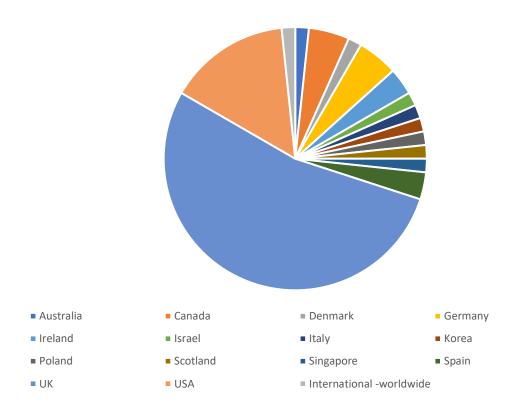


Figure a - Flow of studies through the review

Appendix 5 summarises the core characteristics of the 59 identified studies. The landscape is dominated by research from the UK (n=33); 16 studies reported data from across the UK, with 17 conducted in only one of the UK nations (England (n=11), Scotland (n=3), Wales (n=4)). Of the remaining 26 studies, most reported data from elsewhere in Europe (n=10), or North America (n=13) (see Figure 2). The studies were mainly observational in nature (n=49) but also included larger reports that synthesised this data across several cases (for example Taylor-Collins et al. (2021)). However, the distinction between studies reporting an intervention and those making observations was sometimes blurred. For example, one study conducted in a hospital setting provided evidence of the impact of a structured intervention programme on medical student volunteers (Badger et al. 2022), while another

made more general observation of the benefit to communities of neighbourhood support networks (Diz et al. 2022), which arguably also represented an intervention at the local level. Where papers reported a single intervention (n=7), medical students and healthcare workers were strongly represented in volunteer populations. This was also the case more broadly, with a quarter of all studies (n=15) involving the participation of medical students or healthcare workers as the volunteer group under study. The contribution of the wider adult population was considered in much of the research on volunteering, with a notable further focus on the role of mutual aid groups and civic activism in several studies (n=12).

Figure 2: Where was the research conducted?



The findings of studies ranged from identifying volunteer characteristics, which largely reflected pre-pandemic trends, through to ways to engage volunteers and then maintain involvement, with support being identified as a key facilitator. This incorporated a range of structural factors, from the pre-existence of community organisations and collaborative networks, to finding innovative ways to use technology and create new infrastructure to link support capacity with individual need. The importance, strength, and necessity of volunteer activity in sustaining vulnerable individuals and communities and supplementing (inadequate) welfare state provision (Bynner et al. 2022), were underscored in several research papers, together with a need to recognise the role of informal, as well as formal, volunteering. The extent of the volunteer effort and the numbers of people who were willing to offer help were also emphasised across the literature. Reflection on the ways in which this level of support could be sustained and developed for the future formed a key consideration. At the wider social level, the need for a funded, resourced, and collaborative community infrastructure was repeatedly underscored, particularly in areas of greater deprivation where the ability of individuals and groups to adapt positively to

the crisis was more limited. The following sections, we present the findings from the rapid realist review on mechanisms in which volunteers are mobilised. We also report key equity issues, policy and practice relevance for each CMO configuration.

C-M-O synthesis and results

CMO configurations were identified across 6 broad mechanisms which are summarised below in table 1 (see the executive summary section). We found that there were different thresholds of evidence across these, with some mechanisms being well articulated but the outcome being implied in study description (for example, altruism was a mechanism for engaging in volunteering although the outcome was implied in many cases), and others where the outcome was more clearly articulated but where the mechanism itself was implied in some instances (for example, gaining experience of volunteering was a mechanism for a number of different outcomes, although the mechanism itself wasn't always well described).

Table 1: Summary of context-mechanism-outcomes identified for mobilising volunteers for local groups, communities, and organisations

Context	Mechanism	Outcome
 Types of occupation groups Resources and skills before the pandemic Pre-existing networks and relationships 	Developing role identity through gaining experience	 Confidence Develop skills and knowledge Personal development Encourage future volunteering Improving(decreasing) well being
Individual People with vulnerabilities People with more resources and capacity Agency Technology use Previous structure for service delivery in health care settings Social system: Financial support policies	Adaptability	 Being able to address the urgent needs of service users Becoming a volunteer Having new ways of working Having new services/continuing of services Having new volunteer opportunities Improving efficiency
People working in the frontlineLevel of social capital	Supporting volunteers: Mental and well-being support for volunteers	Mental health and well-being
The volunteer workforce does not (always) represent the whole population	Supporting volunteers: Material support	Sustaining and broaden volunteer opportunities
Disadvantaged groups	Supporting volunteers: Provide support through suitable training and management	Sustaining and broaden volunteer opportunities
Community members in needSocial capital- bondingSocially excluded populations	Supporting volunteers: Support as activism	Basic essentials for community membersInclusiveness
Not all populations can act e.g. disadvantaged populations	Altruism and intrinsic motivation	Becoming a volunteer
Across levels: proactive connections such as community	Coordination	Working more effectively

hubs; mutual aid groups and community groups; Mutual understanding and trust		 Having different approaches of working Having (Less) duplication Sharing information Managing volunteer mobilisation
At community level: Mutual aid groups, local community groups	Trust and sense of community	 Identifying resources Making timely decisions Social capital such as constructing new social relations and having new relationships Scaling up

Mechanism 1 - Developing role identity through gaining experience

This mechanism is represented in our theoretical framework at the individual level, although agencies are also able to moderate this mechanism through moderating levels of support (see mechanism 3). Developing role identity through gaining experience is linked in five CMO configurations which are described below and summarised in Figure 3.



Figure 3: Context-mechanism-outcome configurations identified involving developing role identity through gaining experience as a mechanism

a. Provide opportunities for gaining or solidifying role identity to maximise volunteer confidence: When volunteers are able to complete new tasks or draw on existing volunteer capital (pre-existing skills and experiences) (Context), they gain or solidify their role identity as volunteers (Mechanism) which helps to raise their level of confidence and feelings of empowerment (Outcome) (Badger et al. 2022, Boelman and Stuart 2021, Chow et al. 2021, Kulik 2021). Volunteers drew on existing experience to feel confident in situations that COVID-19 presented (Badger et al. 2022, Boelman and Stuart 2021, Chow et al. 2021), while some felt a sense of empowerment through completing activities and developing experience 'on the job' (Kulik 2021). Example evidence for this mechanism is demonstrated through a study of healthcare workers working as part of mobile medical teams at migrant worker dormitories where "concerns eventually diminished as they gained work experience and confidence" (Chow et al. 2021, p3). Some studies also suggested that greater confidence helped foster a sense of belonging in the role which led to more effective service contribution (Badger et al. 2022).

Equity issues: In most studies, the CMO was identified for a particular occupation group (medics, trainee medics, and trained breastfeeding advisors), suggesting that the mechanism may be activated more commonly among volunteers who possess pre-existing technical skills.

The pandemic offered volunteers opportunities to gain unique experiences that b. helped to develop a role identity and enabled volunteers to develop their professional knowledge or skills (which may have positive reinforcing effects): Through undertaking volunteering roles during the uncertainty of the pandemic (Context), volunteers gain or solidify their role identity (Mechanism) which helps improve their skills and professional knowledge (Outcome), (Ali et al. 2021, Badger et al. 2022, Boelman and Stuart 2021, Chow et al. 2021, Fernandes-Jesus et al. 2021, Kulik 2021, Parravicini et al. 2021) and which can also have positive reinforcing effects (Outcome). Volunteers described that the demands of the pandemic meant that they were often asked to take on roles that were unfamiliar to them or that may otherwise be confined to full-time (paid) staff or more experienced volunteers. In turn, this helped volunteers to address extrinsic motivations for undertaking volunteering (i.e. the satisfaction from taking part in volunteering) as well as extrinsic motivations (i.e. responding to some form of external pressure or prospect of reward) (Forsyth et al. 2021). There were also indications that longer periods of volunteering helped to increase skills and develop professionally, which in turn helped to solidify role identity:

"There were fewer restrictions when learning as a volunteer. This allowed us to get involved more and become increasingly comfortable in our roles" (Badger et al. 2022, p7)

Volunteers also stress that the COVID-19 pandemic brought unprecedented and unique challenges, and the experience of volunteering during this time was viewed as offering unparalleled opportunities for learning and professional growth which was particularly valued by participants in some studies (Ali et al. 2021, Badger et al. 2022, Boelman and Stuart 2021, Parravicini et al. 2021). A number of studies drew on evidence from volunteers in medical settings who were consolidating existing skills as medical students and healthcare workers. However, this CMO was observed among studies exploring volunteers taking on roles in local communities (e.g. within neighbourhoods) and across different settings (Boelman and Stuart 2021, Kulik 2021). For example in a study of Israeli volunteers taking on a variety of roles, Kulik (2021, p1234) participants described intrinsic motivations around skill development as being an outcome of the volunteer experience: "I improved my knowledge on online communication through the volunteering. This gave me a good feeling of new learning and updated development."

There were indications that online volunteering tended to generate lower feelings of satisfaction than face-to-face roles (Kulik 2021), which may indicate that this CMO is more challenging to activate from online roles. In addition a number of the studies pointed towards the mechanism being generated more commonly triggered where volunteers were engaged in frontline roles or roles viewed as being more critical to the COVID response, which suggests that the CMO is more difficult to activate in roles where the extrinsic importance of the role is not recognised.

Equity issues: In several studies, the CMO was identified for a particular occupation group (healthcare workers and medical students), although there were studies indicating that this mechanism was identified among volunteers with various profiles of (pre-existing) skills and experience.

c. The pandemic challenged volunteers to carry out new duties under pressurised circumstances which helped to develop and solidify role identity and saw volunteers grow personally: Through undertaking a diversity of volunteering roles when help was needed (Context), volunteers gain or solidify their role identity (Mechanism) from which volunteers reported personal growth and the development of life skills (Outcome) (Ali et al. 2021, Chawlowska et al. 2020, Chow et al. 2021, Cooney and McCashin 2022, Fernandes-Jesus et al. 2021, Forsyth et al. 2021, Parravicini et al. 2021). Volunteers reported that volunteering during the pandemic helped to broaden their perspectives, offered opportunities for self-reflection, and helped to develop life skills that were transferable and advantageous to their own lives. As was the case above, some volunteers identified a reciprocal arrangement where that they gained personally through helping others. As expressed by one participant in a study of formal volunteering in the UK: "Helping people is a big part of it. I think there's a double benefit that I kind of get something out of it as well" (Forsyth et al. 2021, p27). In some studies, there was an emphasis that the experiences developed through volunteering in the COVID-19 pandemic in particular emotionally challenging and stressful although dealing with these challenges was an important mechanism in of itself that could result in personal development: "Regarding resilience, this showed me that I can adapt to a new challenge, even if it is frightening, and make myself useful and productive" (Ali et al. 2021, p4). Some also expressed that volunteering during the pandemic broadened their horizons around the challenges faced by minoritised groups and broadened their horizons around societal inequalities and helped them to acknowledge and respect cultural differences (Chow et al. 2021).

Equity issues: In several studies, the CMO was identified for a particular occupation group (healthcare workers and medical students). One study also emphasised that older age limited the ability of older volunteers to use new technology which could undermine gaining experience and role identity as a mechanism for personal growth (Cooney and McCashin 2022). Another study suggested that the connection between experiencing volunteering and personal growth may be facilitated by a connection to the beneficiary group (or activity) (Forsyth et al. 2021), suggesting that reducing the social distance between volunteers and beneficiaries could bring dividends. The transition to online volunteering in some settings may have introduced considerations around equality for both volunteers and beneficiaries (e.g. age and financial circumstances) which needs further exploration.

d. Gaining experience solidifies role identity which creates a virtuous cycle: Through undertaking volunteering (Context), volunteers gain or solidify their role identity (Mechanism) which sustains and encourages future volunteering (Outcome) (Addario et al. 2022, Chow et al. 2021, Fernandes-Jesus et al. 2021, Lee et al. 2022, Research Works Limited 2021, Taylor-Collins et al. 2021). Studies described that people with previous experience of volunteer roles (a form of 'volunteer capital') develop stronger role identity which helped to mobilise action during health emergencies. In a study conducted by Chow et al. (2021, p4) among health Singaporean volunteer healthcare workers, "having had personal experiences with Severe Acute Respiratory Syndrome (SARS), the H1N1 influenza pandemic, and local disasters with significant mortality, some participants felt inspired by these events and the healthcare workers who contributed to them." Another study conducted by

Lee et al. (2022, p867) among South Korean volunteer nurses emphasised that having gained experience in the COVID-19 pandemic, volunteers would be more likely to participate in future health emergencies as articulated by one participant: "If infectious disease outbreaks again, and if I get dispatched again, I think I will be able to adapt to the environment faster than this time thanks to my experience. I think I would be able to provide more skilled nursing care than now". The link between volunteer role identity and future volunteering was examined through longitudinal research by Wakefield et al. (2022) who found that a stronger role identity prepandemic predicted between group closeness between volunteers and beneficiaries, which in turn was associated with stronger community identification; this increased identification with community and the role of a volunteer predicted increased engagement with a co-ordinated COVID-19 response three months later (during the pandemic).

Two studies (one of which blended COVID-19 specific experiences with data pre-dating the pandemic) also illuminated previous experience with an organisation as a beneficiary or as a participant could also lead to a change in role and becoming a volunteer (Research Works Limited 2021, Taylor-Collins et al. 2021). For example Taylor-Collins et al. (2021, p13) highlight the experience of one former beneficiary who became a volunteer and the benefits that brought: "He was subsequently asked to volunteer himself and began making kindness calls and shopping for people, as well as learning how to run the local foodbank. He said: My confidence is endless now. I am no longer afraid to go outside. I love meeting new people. [The volunteer centre] gave me my life back. They gave me a purpose." Research conducted by Addario et al. (2022) highlighted that those who had volunteered (formally) before the pandemic and had been forced to stop because of the lockdown were more likely to participate in informal volunteering during periods of lockdown when formal volunteering opportunities were unavailable or inaccessible. Finally, there were also indications that establishing role identity was a mechanism for sustaining volunteers' contributions (Fernandes-Jesus et al. 2021).

Equity issues: The mechanism appeared to be activated more commonly where there was a connection between the volunteer and organisation's purpose including across the PROGRESS-Plus domains. Where there is a link between volunteers' usual occupation and the organisation's purpose, or a link between the volunteer and beneficiary characteristics (e.g. characteristics such as socioeconomic status), the mechanism may be amplified.

e. The experience of volunteering during the pandemic led to improved wellbeing among volunteers: COVID impacted all strata of society (Context), although greater engagement in volunteering and adopting the role of a volunteer (Mechanism) helped to improve levels of wellbeing (Outcome), which in some cases appeared to trigger a virtuous cycle (Boelman and Stuart 2021, Cooney and McCashin 2022, Fernandes-Jesus et al. 2021, Nikendei et al. 2021, Taylor-Collins et al. 2021); however some threshold effects were also observed. Volunteering appeared to have a positive impact on the mental wellbeing of volunteers. For example, volunteers in one study found that providing support to beneficiaries around their mental health also provided a means for volunteers

themselves to prevent potentially similar effects: "It's this isolation and loneliness. But from the point of view of even going in to see it and be there, it actually took that away from you, because you were actually doing something, the isolation and loneliness. So whereas you'd have possibly been impacted by it, it actually took it away, because you were actually going in there and being there." (Cooney and McCashin 2022, p8).

Three studies provided suggestive evidence that volunteering could promote a virtuous cycle where a greater amount of volunteering could help to improve mental health which in turn could lead to further volunteering. In one study this was expressed clearly through role identity where volunteers found that volunteering at the start was challenging but they found that they settled into the role through further engagement to establish routines and processes, the initial stressors were attenuated, so that more participants reported little mental burden, despite the study documenting the experiences of medical students directly working with COVID-19 patients. A second study documented that volunteers to the NHS Volunteer Responder (NHSVR) Programme during Covid-19 were more likely to agree with the statement that volunteering 'improves my mental health and wellbeing' after completing 10 volunteer tasks (63%) than after completing one (38%) (Boelman and Stuart 2021). A further study suggested that while volunteering generated initial positive changes in wellbeing, these effects diminished after reaching a particular threshold, so that the benefits of volunteering on wellbeing showed an inverse u-shaped distribution (Dolan et al. 2021). The study authors speculated that possible reasons could be "overexposure to negative experiences of Covid-19 risk groups, or a growing time commitment that could become emotionally straining, whereby highly active volunteers fail to draw the boundary between their own wellbeing and that of others" (Dolan et al. 2021, p16)

Equity issues: In several studies, the CMO was identified for a particular occupation group (healthcare workers and medical students). Where there is a link between volunteers' usual occupation and the organisation's purpose, or a link between the volunteer and beneficiary characteristics (e.g. characteristics such as socioeconomic status), this mechanism may be amplified. In addition there was evidence that the mental wellbeing benefits of volunteering may be amplified among more deprived communities (Grey et al. 2022).

Mechanism 2 - Adaptability to change current commitments and responsibilities .

We identified **adaptability as a mechanism** across different levels- individuals, agencies, communities, and social systems (See Figure 4)

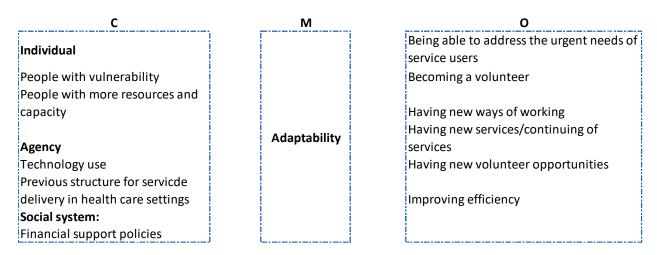


Figure 4: Context-mechanism-outcome configurations identified involving adaptability as a mechanism

a) At individual level, seven studies suggested that an ability to adapt and change current commitments and responsibilities during the pandemic could provide opportunities for volunteers to address the urgent needs of service users (Ali et al. 2021, Bruce et al. 2021, Bynner et al. 2022, Chevée 2022, Fearn et al. 2021, Jopling and Jones 2021). Many volunteers described the situations where they 'can adapt to a new challenge' and change their routine or normal practices to perform 'a new way of working' to connect and engage with people with vulnerability. This often involved using new technology, telephone or online platforms to interact with service users (Lyon et al. 2021). A study on the lessons learnt from befriending initiatives during COVID-19 suggested that it is important that volunteers have flexibility when working with users who have different needs. As one volunteer described,

"It is also easier to miss planned calls if someone does not pick up, and, in some services, because calls are arranged on an ad hoc basis. There is also greater variation in the frequency of calls - with some schemes making calls as frequently as clients wanted (in some cases daily) and others shifting deliberately from a weekly visit to two calls per week. Others have been forced by capacity constraints to make more limited offers" (Jopling and Jones 2021, p10).

Similarly, one study emphasised the importance of 'being flexible' with their availability to call and engage with vulnerable older adults living in nursing home and described the challenges to sustain, expand and recruit volunteers (Fearn et al. 2021). Volunteers developed new ways of working and provided extra efforts to maintain contact and provide physical and emotional support to the vulnerable such as providing a quick checkin to ensure safety for the elderly or organising food deliveries (Bruce et al. 2021, Bynner et al. 2022). However, there are some concerns around how some vulnerable populations such as those from low-socioeconomic backgrounds or the elderly who might have challenges in accessing and using the new technology (Bruce et al. 2021, Bynner et al. 2022, Pichan et al. 2021).

Flexibility is seen as a driver for volunteering by empowering volunteers to decide when they could adapt their practice or work environments to **become a volunteer** in five

studies (Alalouf-Hall and Grant-Poitras 2021, Bertogg and Koos 2021, Fearn et al. 2021, Forsyth et al. 2021, Grey et al. 2022). For example, some social groups who have more resources and capacity such as those having free time or less commitment feel motivated to volunteer and get more involved in the community. At the same time, capacity to volunteers can be affected by the pandemic. People who were locked down and shielding might not be able to engage in volunteering (Forsyth et al. 2021). Other barriers to volunteering particularly for those living in deprived areas include distance and lack of transport, health problems or having no free time because had to work (Grey et al. 2022)

Equity issues: six studies discussed the challenges of vulnerable groups such as the elderly, people with health conditions, having less resources, or living in deprived areas to be able adapt and respond to the rapid changes during the pandemic.

b) At an organisation/agency level, evidence suggests that when organisations were able to adapt processes and respond to pressures at short notice by using new technology such as online communication, empowering volunteers to make decisions, engaging with volunteers, they were able introduce new ways of working, expand volunteer opportunities, or improve efficiency.

During the lockdown periods, the social restrictions were imposed to limit the spread of COVID-19, many organisations used technology as a way to respond to the challenges. Many moved volunteering activities to virtual spaces (Alalouf-Hall and Grant-Poitras 2021, Colibaba et al. 2021, Cooney and McCashin 2022, Fearn et al. 2021, Grey et al. 2022, Jopling and Jones 2021, Lyon et al. 2021, Mao et al. 2021a) or streamlined volunteer management processes by using online platforms or digital devices (Fish et al. 2022, Jopling and Jones 2021). Volunteers emphasised "the importance of continually adapting and evolving with changes" so that the organisation was able to provide services in some capacity (Colibaba et al. 2021, p6). The transformation to online activities also helped the organisations to navigate and identify new ways of working with volunteers (Alalouf-Hall and Grant-Poitras 2021, Colibaba et al. 2021). For example, during the pandemic befriending services provided for people who are isolated were able to quickly change from face-to-face to online services. These organisations recognised the advantages of online services in terms of flexibility, availability, and inclusiveness (Fearn et al. 2021, Jopling and Jones 2021).

In addition, the ability to adapt is often enabled by using new technology and having reliable, effective communication for volunteer management which, in turn, can lead to the efficient use of time and money (Hauck et al. 2021, Jopling and Jones 2021, Rees et al. 2021). The lessons could be learnt from the set up and implementation of the volunteer passport programmes in the UK and Australia. Such initiatives could lead to a new way of working that is more efficient and effective, saving time and money, and help with the preparedness to respond to future emergency crises (Hauck et al. 2021, Jopling and Jones 2021, Rees et al. 2021). Another example is from the befriending services where the organisations started using digital tools for volunteer recruitment and matching. In this example, the service manager appraised the streamlined, digitalised processes where it could lead to improve efficiency, reaching more clients and diversifying the service offering (Jopling and Jones 2021).

In some cases, organisations and local communities adapted rapidly by starting **new services or support systems** such as driving, shopping, delivering food, providing shelters, arranging online lunch club, and setting up mutual aid groups (Alalouf-Hall and Grant-Poitras 2021, Chevée 2022, Forsyth et al. 2021, Mao et al. 2021a, Mao et al. 2021b, Pichan et al. 2021). These new services mostly aimed to respond to the urgent needs of the communities. At the same time, they created more volunteering opportunities (Gardner et al. 2021, Rees et al. 2021). This often was managed or provided by online technology as one described,

"They go into one centralised system and geographically, the software says, 'Right, the best person for that individual, who also has the right skills, is this volunteer here', and then we'll try and match them with that. Then if it's a long-term goal, then we'll get that volunteer then becomes their good neighbour, and they'll go and do whatever that person needs them to do for them (Forsyth et al. 2021, p22)

During the pandemic, more people had more free time as the results of the furlough scheme or social restrictions. Evidence suggests that organisations adjusted the roles of volunteers, changed the way they matched the volunteers with required services, and adapted services they offered in order to **continue their service delivery** (Alalouf-Hall and Grant-Poitras 2021, Forsyth et al. 2021). In clinical care settings, it is crucial that hospitals were flexible in terms of how they recruited and deployed medical student volunteers, so clinical services met the high demands whilst facing staff absences due to illness and isolation (Badger et al. 2022).

Finally, we found that organisations that were able to adapt the volunteer management processes by empowering volunteers to make decisions could improve satisfaction and motivation for future commitment for volunteering (Badger et al. 2022, Gardner et al. 2021, Hauck et al. 2021). One study investigated the structured volunteering programme in teaching medical hospitals in the UK during the pandemic found that by empowering volunteers to choose their role, that this could improve motivation and satisfaction to the programme, leading to the continuity of services (Badger et al. 2022). Another study in USA described the 'nimble COVID army' of physician volunteers where the faculty could decide what role they wanted to take, "Faculty who participated opted to do this instead of outpatient telemedicine or other assignments, and were not forced to participate if they felt unable" (Gardner et al. 2021, p9). Enabling volunteers to decide when and how they can work could remove barriers to engagement in volunteering, particularly for those who have commitments such as full-time jobs or childcare responsibilities (Forsyth et al. 2021).

Equity issues: several studies reported barriers to access and use new technology. For instance, volunteer organisations in rural areas may have limited access to internet as one described,

"...our Wi-Fi out there at the lake, which is not always the best, So that was a thing. If anything, It's not so much as the aspect of applying the technology but more so rural internet which has challenges..." (Colibaba et al. 2021, p6). There are also concerns on how organisations would adapt and provide alternative solutions to reach older

populations or those have long term conditions (Colibaba et al. 2021, Fearn et al. 2021, Grey et al. 2022, Jopling and Jones 2021).

c) At a policy level, three studies explored mechanisms under which policy changes may have an impact on volunteering. They described how financial support from the government such as the furlough scheme created new spaces and opportunities for people to have more free time and flexibility to volunteer (Forsyth et al. 2021, Gardner et al. 2021, Rees et al. 2021).

Mechanism 3 - Supporting volunteers

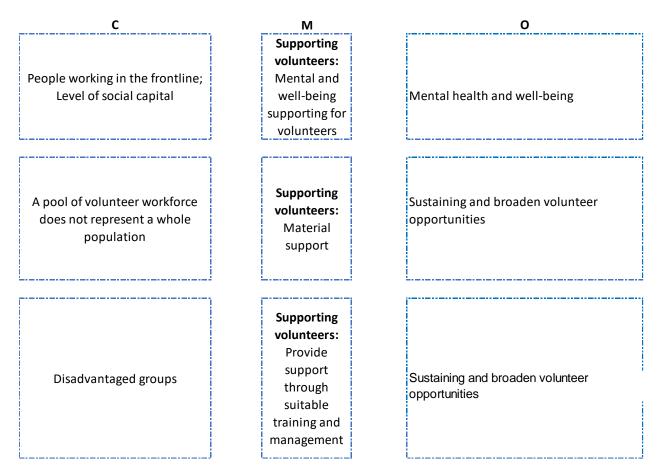


Figure 5: Context-mechanism-outcome configurations identified supporting volunteers as a mechanism

a. Volunteers who felt supported reported better psychosocial outcomes which may have far-reaching implications: Volunteering during the pandemic was a challenging experience that exposed volunteers to risk (Context), although where volunteers felt supported emotionally and relationally within teams and organisations (Mechanism) helped to improve levels of mental wellbeing and satisfaction among volunteers (Outcome) (Ali et al. 2021, Badger et al. 2022, Boelman and Stuart 2021, Bruce et al. 2021, Colibaba et al. 2021, Cooney and McCashin 2022, Fernandes-Jesus et al. 2021,

Gardner et al. 2021, Hauck et al. 2021, Jopling and Jones 2021, Lee et al. 2022, Rees et al.); which in some cases boosted morale across organisations as a whole and helped more effective delivery of services.

In some studies, emotional support was described as being provided informally through the development of camaraderie between teams, with a participant in Cooney and McCashin (2022, p7) describing how a volunteer team felt like a family: "You'd argue it's a family anyway, but I mean you-you know that they're there supporting you and you know they have your back"; in some studies provision of emotional support was described through establishing successful individual supervision arrangements for example: "I found this really challenging, but my supervisors were very supportive, as were the people on my team" (Badger et al. 2022, p8); finally in other studies, agencies took more purposeful steps to try to safeguard volunteer wellbeing through providing opportunities for volunteers to reflect on their experiences and share any concerns. For example in Jopling and Jones (2021, p26), one agency described supporting volunteers through relational activities by "We have a monthly almost like an online office hour. We're on Zoom for an hour once a month and volunteers join us for as much or as little of that hour as they can. And it's very informal, but it's their chance to meet other volunteers, but also bring any challenges that we can work through". Such support could be offered to both active volunteers as well as those who were unable to carry out their duties due to the lockdown (Boelman and Stuart 2021, Gardner et al. 2021, Rees et al. 2021), with an example of a study included in Boelman and Stuart (2021, p14) describing that "one of the biggest challenges during lock down has been how we support our volunteers who are struggling with isolation and lack of purpose ... We are emailing, phoning and producing regular newsletters but it's still been really tough on some of them ... Quite worryingly so in some cases." These examples help to emphasise the obligation that agencies felt towards the welfare of their volunteers, in addition to their beneficiaries, even if the best course of action on how to support volunteers whose duties had temporarily ceased wasn't always clear in the accounts of some agencies (Bruce et al. 2021). Counterfactual examples were also presented within studies where individual volunteers (even if they represented an atypical experiences) described how a lack of support could make them feel unprepared for the emotional realities of volunteering during the pandemic. For example, a medical student volunteering on the frontline in Badger et al. (2022) described feeling unprepared for the emotional aspects of treating COVID-19 patients; and while in Ali et al. (2021) student medic volunteers were encouraged to practice self-care to alleviate the mental burden of caring for patients, some students reported the negative impact on mental health that a lack of self-care had.

Supporting volunteers themselves during periods of lockdown may also have helped to retain connection with the volunteer workforce, although even with these strategies in place attrition among volunteers was observed as described by Rees et al. (2021, p7) where one local North Walian organisation found: "In the first lockdown, we realised that the volunteers were all feeling helpless but at the same time were struggling with the situation, so we started an online weekly support group for them to come along and talk to us about their fears. We had an average of 10 people who came along each week out of our bank of 140 volunteers. Some volunteers we have not heard from despite repeated attempts to contact them.". While it may be straightforward to conceive that protecting and promoting the wellbeing of volunteers is likely to lead to higher levels of service and

better outcomes for beneficiaries, this was not expressed commonly in the studies with the exception of Hauck et al. (2021, p4) where one volunteer healthcare worker described: "The oneness I felt with all the health care team made the experience quite a remarkable one. I feel the support everyone gave each really did help save the lives of so many people.".

This CMO was found to operate at both an individual level and an agency level. At an individual level, the mechanism was described as perceptions of support and was jointly influenced by the volunteers' own psychosocial response and actions as well as broader environmental and agency-level conditions; for example in Ali et al. (2021), support from team members as well as family protected mental health in challenging conditions. At an agency level, the mechanism described both programmes of action put into place by agencies specifically during the COVID-19 pandemic, as well as more established practices such as ensuring adequate supervision arrangements for volunteers.

Equity issues: In several studies, the CMO was identified for a particular occupation group (healthcare workers and medical students). For some volunteer roles - particularly those who were in frontline medical roles - the emotional toll of volunteering is likely to be greater and greater support may be needed. More broadly, supporting volunteers wellbeing may depend both on agency actions as well as practicing self-care and drawing on volunteers' own social capital, which has equity implications suggesting that those with low pre-existing levels of social capital may need additional support from agencies to protect their mental health.

Acknowledging the difference that volunteers make to create a stronger and b. more representative volunteering workforce: Volunteers contribute for a variety of intrinsic and extrinsic motivations (Context), and where systems and processes are put into place that help to understand and acknowledge the role of volunteers and provide instrumental support where needed (Mechanism) this can lead to more sustained patterns of volunteering and a more diverse volunteering workforce (Outcome) (Badger et al. 2022, Chawlowska et al. 2020, Chow et al. 2021, Forsyth et al. 2021, Lee et al. 2022, Mao et al. 2021a, Mao et al. 2021b, Rees et al. 2021, Research Works Limited 2021). Volunteers undertake their duties based on a complex set of extrinsic and intrinsic motivations. As discussed earlier, intrinsic motivations reflect prosocial personality traits (e.g. altruism), a sense of duty and internal satisfaction from helping others; extrinsic motivations require inputs or rewards that can only be satisfied by external actors e.g. volunteering to develop skills or for career development. However, even among volunteers who may be engaging solely due to intrinsic motivations, support may be needed in order to either sustain contributions, with evidence from (Forsyth et al. 2021) emphasising that intrinsic and extrinsic motivators interacted with one another. In addition, several studies suggested that even among volunteers who may be solely motivated by intrinsic reasons, support may be necessary in order to broaden the profile of volunteers.

Support was provided in day-to-day practices and ways of working in some studies, with volunteers describing that support represented achieving a balance between support and autonomy in carrying out duties and feeling that they were making a useful contribution. Among medical student volunteers in one study, the experience of volunteering during the pandemic was contrasted with earlier student 'placement' experiences: "They linked feeling useful to the quality of their learning experience, and to team inclusion: I think

the entire difference is down to the fact that in volunteering it is a mutually beneficial arrangement whereas on placement doctors can often view you as an added burden to their already high workload." (Badger et al. 2022, p7).

Other studies conceptualised supporting volunteers as making efforts to understand and acknowledge the difference that volunteers made to helping to meet a common purpose, which was explicitly linked to sustaining a volunteer workforce and broadening its profile (Forsyth et al. 2021, Mao et al. 2021a, Research Works Limited 2021). For example a service leader in, Forsyth et al. (2021) described that demand (and supply) of volunteers increased when the contribution that they make was understood: "I think once you get people who understand how volunteers can really enrich what you can deliver, that's what drives the need for them if that makes sense." This was also linked to regarding volunteers in a less instrumental way to meet the specific goals of an organisation, but instead linking more closely to theories around community engagement: "We don't use volunteers in a way that we need volunteers to run our activity; we develop leaders and volunteers to better themselves for the purpose of what we believe as an organisation." (Forsyth et al. 2021, p17). Other studies linked organisational acknowledgement and thanks of the contribution of volunteers as being important in sustaining volunteer activities. In one study, that blended data collected before and during the pandemic, 'Volunteer Passports' were viewed as a way in which organisations could publicly acknowledge and measure the contribution that volunteers made, which could also lead to extrinsic benefits to volunteers, such as an example where "respondents explained how students used the accreditation they obtained through a local volunteer passport training for UCAS points or how it helped individuals in challenging circumstances start their own charity work. The young chap I mentioned, he came to the celebration evening with his mum and his gran who did the award together, and they then set up this grassroots football thing, and on he went. (Research Works Limited 2021, p34)". Tacit and explicit forms of recognition and thanks may be particularly important in attracting volunteers for non-frontline roles that may not be as prominent in the public consciousness. Roles such as frontline delivery roles such as food banks and public space maintenance were found to be oversubscribed during the pandemic, with volunteers being turned away (Forsyth et al. 2021); turning away volunteers in this way and creating a negative experience undermines another CMO identified above that stresses the importance of volunteers gaining (positive) experience as a gateway to adopting a volunteer role identity and a deeper commitment to volunteering.

A number of studies described social rewards as well as more instrumental support and acknowledgement which could be put into place to support volunteers, remove barriers to participation, and broaden the profile of volunteers (Chawlowska et al. 2020, Chow et al. 2021, Grey et al. 2021, Mao et al. 2021a, Rees et al. 2021, Research Works Limited 2021). It was acknowledged that broader system level factors, such as a culture of low wages and job instability, could inhibit diversifying the social profile of volunteers: "Proper living wages that mean people do not have to work such long hours and therefore miss out on volunteering. Change the image of volunteering; it is heavily white, female, aged 30/40 plus dominated - it needs to be made more attractive to wider demographic." (Rees et al. 2021, p13), but that volunteer schemes could help, for example in the case of volunteer passports in helping to support unemployed people back to employment (Research Works Limited 2021). Meaningful incentives were linked to volunteer participation in some

studies; for example Chawlowska et al. (2020) describe that medical student volunteers were offered credit for modules, changes in assessment practices, and concessionary prices in student accommodation for volunteering during the pandemic, with the scheme described as very popular and attracting almost one-in-five registered medical students (over 1,100 volunteers). Where adequate instrumental support was not reported, this could mean that volunteers incurred unsustainable personal costs (for example Lee et al. 2022). In Grey et al. (2021), volunteers in more deprived areas reported that a lack of time, a lack of transport and health issues were barriers to volunteering more commonly that among volunteers in more advantaged areas. This led to a narrower social profile of volunteers, with one volunteer comparing their own situation with others: "There's a lot of people out there who just can't afford to be volunteers, they are too busy making a living, yes, maybe they have 2 or 3 jobs on the go at one time, they can't really take the time out to do that kind of thing, and we're lucky. There's only the two of us, we haven't got children, we've made our money essentially, we're fairly stable, so that's there as well." (Grey et al. 2021, p23). This emphasises a need for organisations to first understand the profile of volunteers and also to provide suitable support to volunteers to sustain and broaden their workforce.

Finally, while much of this CMO describes mechanisms enacted on an agency level, there was also evidence that this CMO was replicated at a community level, where broader societal acknowledgement and recognition of the contribution was valued by volunteers and could help to sustain and broaden the profile of volunteers (Forsyth et al. 2021, Lee et al. 2022, Mao et al. 2021b, Research Works Limited 2021). Studies described that being thanked by friends, family and community members created feelings of recognition which contributed to material and psychological impacts of volunteering. For example, a participant in Mao et al. (2021b, p1091) described: "Oh, yeah, I've had lovely texts from people saying, you know, 'you've really made such a difference. You know, now that you fixed my anxiety, I've been really worried. I've not been able to sleep knowing that I [inaudible] getting my food and my prescription' and, yeah just little texts like that, and knowing that you really made a difference has been amazing."

This CMO was observed to occur mainly at an agency level, where the actions of agencies were viewed as being important in determining whether support was enacted (or not).

Equity issues: A number of studies describe that the volunteer workforce does not represent the population as a whole and in some cases has limited social connection with target beneficiary groups. Removing barriers to participation could mean providing material support, such as helping with transport costs, or providing forms of social credit (such as 'training points' or broader acknowledgement) which can open up volunteering to those with lower resources in terms of time or money. A CMO identified earlier suggest that removing barriers to participation and reducing the social distance between volunteers and beneficiaries could improve volunteer retention and commitment.

c. Supporting volunteers through understanding the role which they will carry out and providing suitable training and management helps to sustain volunteer contributions and improve the level of service provided: Volunteers have a diversity of skills and experiences (Context), although where there is a clear understanding of the role that volunteers will undertake and training is provided to carry out this role (Mechanism) this can lead to more sustained patterns of volunteering and improve the quality of

services provided (Outcome) (Alalouf-Hall and Grant-Poitras 2021, Ali et al. 2021, Chow et al. 2021, Fearn et al. 2021, Forsyth et al. 2021, Grey et al. 2021, Jopling and Jones 2021, Lee et al. 2022). Studies found that volunteers perceived that training in the roles that they would undertake directly contributed to the continuation of services to beneficiaries in a responsive way during the pandemic, with established training practices being refocussed to addressed specific needs that the pandemic raised. For example, in exploring community-led responses to the pandemic in Wales, (Grey et al. 2021, p27) found that some organisations reported that "many volunteers received training to be able to notice any signs of recipients requiring any other additional support, for example, when delivering shopping or prescriptions" in an effort to better respond to the changing needs of beneficiaries. Similarly, Jopling and Jones (2021, p18) described that "many schemes have revised their volunteer training and support, for example to focus more on listening skills and open questioning. They now also offer more opportunities for volunteers to share ideas and experiences with each other." This latter sentiment corresponded with findings described in Forsyth et al. (2021) where there was an emphasis on framing volunteering as a reciprocal benefit where opportunities for developing knowledge and skills should be identified and realised. However, the same study emphasised that expectations of needing to complete lengthy training regimes before undertaking volunteering could serve as a deterrent to some volunteers, and could serve to raise expectations around the nature of volunteer roles available: "what stops us getting people in is that people go through a huge amount of training and then don't feel like the opportunities they do meet their needs in terms of that training" (Forsyth et al. 2021). Offering training in a supportive way involves striking a balance between the ensuring volunteers are prepared to carry out their duties safely and effectively, while also avoiding offering training that is overly demanding or irrelevant. Where this balance is not achieved, and adequate training or information about the role is not provided, volunteers reportedly felt unprepared and for volunteers in frontline clinical roles this had safety implications for volunteers and patients (Alalouf-Hall and Grant-Poitras 2021, Hauck et al. 2021, Lee et al. 2022). For example a respondent in Hauck et al. (2021, p3) described potential implications of inadequate training: "My co-volunteer did not have a good sense of the role of PPE or infection control, and made me very apprehensive about possible spread as that individual was not following the guidelines".

This CMO was observed to occur mainly at an agency level, where agencies determined whether training was enacted (or not).

Equity issues: Training is a means of helping to sustain volunteers in the role and ensuring that the services delivered can be responsive to the changing needs of beneficiaries. However, some disadvantaged groups in particular may be deterred if overly burdensome training is needed to volunteer.

d. Community-level support can be viewed as a form of activism that steps in as a response to the limitations of the state to provide support for basic essentials for community members: When community members were in need (Context), social activism was a form of support that galvanised communities to step in where the government was unable or unwilling (Mechanism) to ensure that community members were provided with basic essentials (Outcome) (Bradley et al. 2021, Chevée 2022, Diz et al. 2022, Mao et al. 2021b, O'Dwyer et al. 2022b). This mechanism was observed at a community level and implied that mutual aid groups were mobilising outside the confines of state and charity

structures. For example, in a study conducted by Chevée (2022) of mutual aid groups that were formed in North London during the pandemic, a description of one group explicitly expresses this detachment from the state that was common across several mutual aid groups: "In basic terms, this group is a way of connecting us with our communities so that we can come together and help one another outside of state and charity structures and institutions. This means that we support one another. The group is NOT: - a volunteer coordination centre. - a professional operation. - a charity, or anything to do with charities." A core theme across a number of these groups was an expression that their actions were expressions of mutuality and community, rather than charity, and represented a new way of supporting each other, as expressed by a volunteer in a mutual aid group in Mao et al. (2021b)'s study: "actually demonstrating to people, um actually materially improving people's lives through, not charity, through like organisation, making sure we're all organised together, demonstrates this like, demonstrates, like, what power you have when you do, when you are organised together and not atomized in these individual, like not part of the Union, all atomized and all just like transacting, you know, in this like, kind of, transactional kind of society that people are used to". These groups helped fellow citizens in multifarious ways, for example from distributing Tupperware containers of food, linking community members with different skills to one another, providing shelter to asylum seekers, through to stopping evictions (Diz et al. 2022). Such was the scale and embeddedness of their activities within the community that participants in some studies described being engaged in "a parallel social welfare system, including financial assistance, emotional support, and even a public health component" (O'Dwyer et al. 2022b). While some mutual aid groups may be formed with a desire to step in where the state was unwilling or unable to, some studies did also suggest that the state still had a role in 'minimal, supportive facilitation' (O'Dwyer et al. 2022b). Other studies that included respondents from mutual aid groups also indicated that having support available from (state funded) hubs working at a local level (i.e. Local Authority and more localised) could also help facilitate communities to provide basic services and essentials (Burchell and et al. 2020, Taylor-Collins et al. 2021), albeit where this support was not viewed as 'bureaucratizing' the practices of mutual aid groups (O'Dwyer et al. 2022b).

Equity issues: Communities with weaker bonds may be less likely to benefit from this CMO and those who are socially excluded within communities may also be less likely to benefit. In addition, this CMO was identified in localities that were not necessarily the most deprived (Bradley et al. 2021). A number of studies exploring the beneficiary level emphasised the role of social networks in receiving support, with those with lower social capital typically less likely to receive informal support (e.g. through mutual aid groups) (Bertogg and Koos 2021, Carlsen et al. 2021). Conversely, through being less bureaucratic, one study positioned mutual aid as being more welcoming to socially excluded people (e.g. asylum seekers) as they were less likely to enquiry about people's eligibility and to have lower thresholds for support (O'Dwyer et al. 2022b).

Mechanism 4 - Altruism and intrinsic motivation

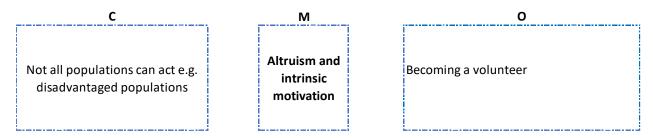


Figure 6: Context-mechanism-outcome configurations identified involving altruism and intrinsic motivation as a mechanism

Altruism and a sense of duty were a key motivators for volunteering during the pandemic: For many people, the existential threat of COVID-19 helped to engender a sense of collective unity (Context), that developed into altruistic motivations and a sense of duty (Mechanism) which mobilised large numbers of people to volunteer during the pandemic (Outcome) (Addario et al. 2022, Alalouf-Hall and Grant-Poitras 2021, Ali et al. 2021, Badger et al. 2022, Boelman and Stuart 2021, Chawlowska et al. 2020, Colibaba et al. 2021, Elboj-Saso et al. 2021, Forsyth et al. 2021, Grey et al. 2021, Lee et al. 2022, Ntontis et al. 2022, Taylor-Collins et al. 2021, Tong et al. 2022). This mechanism was replicated across several studies, and was observed in individual accounts of volunteering motivations as well as studies that considered individual acts in the context of broader population level trends (Alalouf-Hall and Grant-Poitras 2021, Ntontis et al. 2022, Taylor-Collins et al. 2021). In several studies exploring volunteers in medical settings, a sense of duty was explicitly tied into individuals' broader identities as medical professional and a recognition that their skills would be valuable in the response to the pandemic (Badger et al. 2022, Chawlowska et al. 2020, Chow et al. 2021, Lee et al. 2022, Tong et al. 2022). A participant in Badger et al. (2022) described "as a medical student, I felt it was my duty to help the NHS and Imperial Trusts as much as I can in the face of a pandemic".

Altruism was also tied with feelings of empathy in several cases (Colibaba et al. 2021, Elboj-Saso et al. 2021, Tong et al. 2022), and a perception that the pandemic had the potential to reach those in similar circumstances: "I still love doing the volunteering because you just don't know. It could be your neighbour, relative, or family member. It could be anybody. When they need help, they need help" (Colibaba et al. 2021). There were also indications that social distance between volunteer and beneficiary group moderated the level of empathy and altruism (Elboj-Saso et al. 2021).

Some studies emphasised that the public response to volunteer witnessed during the first lockdown in the UK did not correspond to a re-mobilisation of volunteers in the second lockdown, despite case and the need for support being similarly high at both timepoints (Ntontis et al. 2022, Taylor-Collins et al. 2021). In Taylor-Collins et al. (2021), a number of pragmatic reasons were identified as potential explanations for a drop in interest in volunteers to remote befriending schemes: "However, they subsequently found it more difficult to recruit telephone befrienders later in the year due to individuals returning to work after being furloughed and many volunteers growing tired of staying indoors and wanting more active roles outside of the home." In Ntontis et al. (2022), broader secular trends in attitudes were also posited as an explanation for a diminished response in the second lockdown including increased familiarity with the pandemic and with restrictions such as lockdowns, leading to a weaker sense of camaraderie and unity that was characteristics of the first lockdown.

Finally, as has been discussed earlier, it is not always possible to separate intrinsic motivators, such as altruism or empathy, from extrinsic motivators, such as the opportunity to gain skills. Volunteers during the pandemic often expressed that combinations of intrinsic and extrinsic motivators were drivers of the decision to volunteer (Forsyth et al. 2021), leading to recommendations that the mutual benefits of volunteering need to be emphasised.

Equity issues: Beyond this CMO being linked to occupation groups in a number of cases, there are little equity issues identified surrounding this CMO. However, volunteers with differing characteristics that cut across the PROGRESS-Plus framework will be in variable positions in terms of their capacity to act upon altruistic motivations. In addition altruistic motivators are stronger for some causes which may lead to the further minoritisation of certain groups.

Mechanism 5 - Co-ordination

Systems and policies across and within different levels of society that facilitate working together help to mobilise volunteers (See Figure 7)

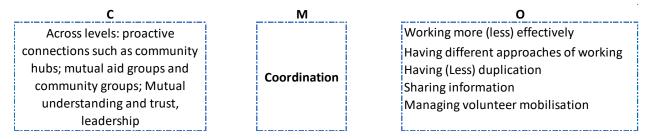


Figure 7: Context-mechanism-outcome configurations identified involving coordination as a mechanism

- a) Evidence suggests that during the pandemic co-ordination across and within different levels and systems helped agencies to **work more effectively or have different approaches of working** with local and national governments. One community organisation worker stated,
- "... We're now working a lot closer with each other. There are a couple of other infrastructure organisations in the local area, working together a lot more positively, openly, quite closely really, in ways that I don't think anybody ever would have seen coming" (Avdoulos et al. 2021, p11)

Organisations, mutual aid groups and local communities informally engaged and coordinated the support or activities with other partner organisations. They helped agencies and local communities to work together rather than in competition, including Local Authorities. There is also an opportunity for local organisations or mutual aid groups can provide essential services where local authorities could not provide effectively (Soden and Owen 2021). (Mao et al. 2021a) highlight different models of support that agencies and mutual aid groups that could work with local government (based on the work of Tiratelli and Kaye (2020)). One of the key features of successful coordination is the effort from Las and leadership that helped to set up a proactive connection of volunteers with existing networks and other groups such as community hubs (Grey et al. 2022, Mao et al. 2021a, Volunteer Scotland 2022). At different levels, organisations and communities recognise the importance of having mutual understanding and trust as a 'key advantage,

as it enabled organisations to come together and act quickly' (McGarvey et al. 2021, p10). However,

- b) Co-ordination of support brought a number of benefits including a more **efficient use of resources and less duplication**. The partnership between community groups and frontline organisations could help to understand demands and needs which could avoid duplication of support (Forsyth et al. 2021, Rendall et al. 2022). However, even where efforts were made to co-ordinate support, some duplication was observed (Rees et al. 2021). For example, Mao et al (2021) highlight the COVID-19 Community Champion scheme, where volunteer champions were asked to share information about the virus through their channels and note some duplication in information sharing efforts with activities taking place organically through mutual aid schemes. Nevertheless, where co-ordination was found to be absent or where systems were unclear, this led to duplication and confusion (Research Works Limited 2021).
- Evidence also suggests that during the pandemic, co-ordination across and within different levels and systems helped agencies to share and disseminate relevant information and to coordinate responses effectively. In the context of mutual aid and community groups, organisers coordinated work and exchanged information between volunteers and local organisations during the pandemic to facilitate the support activities (Burchell and et al. 2020, Chevée 2022, Rendall et al. 2022). A study by 'Research Works Limited' explores volunteer passports, as a means of strengthening co-ordination between agencies to understand demands for support to match with skills set and availability of volunteers. Although 'volunteer passports' represent a number of different models, they tend to have common aims of helping to ensure volunteer portability across different organisation and helping to validate (and safeguard) volunteers' experience skills and contributions. The research by 'Research Works Limited' took place in 2021 towards the end of periods of strict lockdowns, where organisations were able to reflect on the benefits that such schemes did bring, or could in the future. These benefits included improvement in standards and quality of delivery through better matching of volunteers' skills with available opportunities; a wider pool of available volunteers to undertake roles at short notice, and greater opportunities for supporting volunteer growth (supporting mechanisms outlined earlier).

Equity issues: There is limited evidence from the literature discussing equity relating to this mechanism

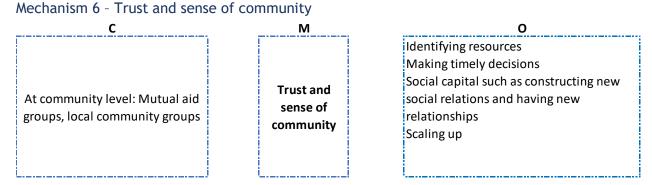


Figure 8: Context-mechanism-outcome configurations identified involving adaptability as a mechanism

Evidence suggests that when there is a chance to connect with others through mutual aid groups or local community groups (C), trust and sense of community (M) perceived by volunteers can influence the way in which support (0) were delivered during the pandemic and how volunteers were organised and mobilised (Bertogg and Koos 2021, Burchell and et al. 2020, Diz et al. 2022, Fernandes-Jesus et al. 2021, Mao et al. 2021a, Mao et al. 2021b, Volunteer Scotland 2022). Building trust and creating sense of community can take time and require collective efforts between partners and community members. The experience during the pandemic showed that the pre-existing relationships between and across communities and with local authorities helped to identify existing resources to respond to the crises. This also could create environments where communities could build trust, make timely decisions and respond to rapid changing positions and priorities (Grey et al. 2022). Equally, new partnership and networks set up during the pandemic played an important role in 'bringing people together' during the difficult circumstances, constructing new social relations and creating new community bonds (Fernandes-Jesus et al. 2021, p11). One described mutual aid as a 'chain' where people link together, work together and care for others (Diz et al. 2022). Lack of trust, local relationships, and coordination were seen as barriers to scale up the efforts to respond to higher demands and needs during COVID-19 (Mao et al. 2021b)

Equity issues: Equity issues discussed in the literature were related to services provided by local communities and mutual aid groups which were around the availability of support from local communities in socio-economic deprived places or outside urban areas.

Discussion and Conclusions

Summary and discussion

This rapid review explores what we can identify as core mechanisms that underpinned the mobilisation of volunteers for local groups, communities, and organisations during the COVID-19 pandemic and explored how they linked contexts and outcomes to form context-mechanism-outcome (CMO) configurations. From a total of 59 studies, six mechanisms and fourteen CMO configurations were identified in the review, several of which were hypothesised in our original rough working theory, although some of which were unanticipated.

Gaining experience and developing role identity was a core mechanism that was key in mobilising volunteers to undertake activities during the pandemic; gaining experience and developing role identity also resulted in positive outcomes for volunteers themselves in terms of greater confidence, professional and skill development, personal development, and better mental wellbeing outcomes. The CMO configurations identified through this mechanism were broadly similar to those we anticipated in our original rough working theory (Figure 1). However, while psychosocial outcomes were anticipated as being mainly those experienced by volunteers, studies also suggested that agencies and beneficiaries could also benefit through more effective service contributions. In addition, what our initial theory did not adequately capture was the virtuous cycle that gaining some experience could activate where by developing a stronger role identity through gaining experience could sustain current volunteering practice and predict stronger commitments in the future. Given that volunteering tended to lead to better psychosocial outcomes,

activating such a mechanism could be advantageous to both volunteers and their beneficiaries; however, some studies also indicated the importance of managing the demands made on volunteers in an effort to avoid overexposure to challenging experiences and burnout.

Our original rough working theory was mainly based on theoretical frameworks that did not reflect the COVID-19 pandemic. Perhaps unsurprisingly, therefore, a core mechanism for mobilising large numbers of volunteers during the pandemic was adaptability, which was not represented in Figure 1, although was a mechanism observed at several different levels (individual, agency, community). This mechanism broadly ensured that individuals, groups and local agencies and organisations were able to respond to the changing needs of beneficiary groups (e.g. where social isolation or inability to access essential supplies became problematic) and were able to adapt to new ways of working (particularly to adapt to the circumstances of lockdown). Where individuals, groups and agencies, and communities were able to adapt they were able to become more efficient, were able to develop new ways of working and offer responsive new services, and in the case of agencies and organisations, were able to match the changing needs and demands of volunteers themselves. Adaptability was, however, a mechanism that was more easily engaged by more socially advantaged individuals and communities, as well as better funded and larger organisations and agencies.

Support was represented in our original framework as being linked with volunteer continuation and enrolment and psychosocial outcomes. Our work has verified these mechanism-outcome configurations, finding emotional support, support in the form of social and material recognition, and support through training were important in sustaining a volunteer workforce and protecting wellbeing of the volunteer workforce. In addition, social and material recognition may be important in increasing the diversity of the volunteer workforce, which some studies found to be lacking. While community involvement in decision-making was theorised to be an important mechanism (Figure 1), the findings of the review suggest that communities and groups performed on a much more radical basis than 'involvement' during the pandemic. Specifically, this review identifies that community level support during the pandemic, organised through mutual aid groups, can be viewed as a form of activism where communities step in as a response to the limitations of the state to provide support for basic essential for community members in need. Many mutual aid groups were operating entirely independently of the state or civil society, although there remains a role in offering support to some groups that is not viewed as overly bureaucratic.

Two mechanisms that were critical for mobilising volunteers, but where the policy actions that could be taken to support these are more opaque were altruism and trust. Altruism was a mechanism observed at an individual level, but also one that emerged at a population level with an increasing focus on altruism in popular discourse during the pandemic. Both forms of altruism were key motivators for stepping up during the pandemic and becoming a volunteer. Altruism was linked to the broader social context, with studies noting a more muted response to the pressures of the pandemic during the second lockdown compared with the first. Differing levels of trust were linked with the organisation of volunteers during the pandemic and the extent to which groups and communities were able to scale up efforts to respond to the higher demands that were exhibited during the COVID-19 pandemic. Several of the studies described trust as being

based on relationships that had formed pre-pandemic. While both trust and altruism are mechanisms that may be viewed as less malleable by policy, their appearance as core mechanisms in this review does perhaps underscore the significance of community development and interventions that aim to engage communities via coalitions, collaborations and partnerships interventions, that within the health literature have been shown to both reduce health inequalities and improve self-efficacy (Brunton et al. 2015, O'Mara-Eves et al. 2013).

Finally, our sixth mechanism, co-ordination, was one that was originally identified at the social structure level (Figure 1), but also appeared at the community level in this review. During the chaotic backdrop of the pandemic, which created a crowded market of volunteers for some causes and left others relatively unattended, coordination helped communities, agencies and mutual aid groups to work together rather than in competition, and similarly to work more efficiently around one another rather than in duplication. Coordination in this review was not solely based on relational factors, it also involved developing interoperable systems and processes to collect and share information. Such systems have the potential to help develop the volunteer workforce and to respond to broader trends around preferences for episodic volunteering. Where coordination was activated as a mechanism during the pandemic, groups and organisations were able to capitalise on the broader context where altruistic behaviours were encouraged and celebrated.

Some of the mechanisms were largely unobserved in the review, but were hypothesised to be of importance. This included a role for beneficiaries in the delivery of services, so that beneficiaries were both recipients and providers of support in a clear form of reciprocity. This may have been reflective of the focus on group processes in this review, and such arrangements may be more characteristic of informal dyadic volunteering. This type of relationship may also be implicit within some studies, particularly those focussed on mutual aid groups, and not explicitly discussed. Similarly in the case of more formally organised groups and agencies, there was little mention in the literature of measures to include beneficiaries in decision-making or delivery (e.g. on the basis of co-production). However, some studies did suggest that experience of being a beneficiary did sometimes lead individuals to become volunteers in the future (Research Works Limited 2021, Taylor-Collins et al. 2021).

Evaluation of activities was also part of a mechanism theorised at the outset of this review, which was addressed in part by the need to acknowledge and understand the difference that volunteers made (part of mechanism3 - supporting volunteers). However, this may emerge more strongly as a mechanism in future as the focus is likely to switch to understanding the difference that volunteers made and how they can be sustained through addressing more granular questions about specific activities or ways of working.

Finally, while this review theorised that measures put into place to reduce social distance between beneficiaries and volunteers might be an important mechanism in improving the quality of services and improving beneficiary and community outcomes (see Figure 1), we were unable to locate any direct evidence on this mechanism. Instead, the review has identified a number of issues that reflect the applicability of the mechanisms and CMO configurations across different groups. These are summarised below.

Equity implications of the findings

The findings from the rapid realist review identify key mechanisms in which volunteers are mobilised. Main equity issues emerge from the findings across six mechanisms, including place of residence, language, occupation, socioeconomic status, and social capital. As many services or community-based provision were largely moved from face-to-face to online platforms to address the change in priorities during the pandemic, there are real concerns of how people such as the elderly, and people with health conditions or disabilities might be excluded or are unable to access to new online services. Another concern is around 'place' -where people live and work, which can play an important role in providing services and mobilising volunteers. For example, communities and people who live in rural and deprived areas may face challenges in connecting with the broader communities as infrastructure such as internet connection in these areas may not be welldeveloped or reliable, or they may face extra cost and time for travelling. Investment in social and physical infrastructure could remove barriers to participation and improve accessibility. There is a question of how we can provide adequate and appropriate material and psychological support to people who may have limited resources, low technical skills, low levels of social capital, or those from socioeconomic backgrounds (e.g. those who are working in non-health professionals, those from ethnic minorities or non-English speakers) so they have opportunities to participate in volunteering. The inclusive approaches when designing and planning volunteering strategies could broaden volunteering's profile and improve the mental health and well-being of people in all parts of society.

Strength and limitations

We employed a rapid realist review approach aiming to identify key mechanisms through which volunteers are mobilised, allowing researchers and policy makers to consider different policy options. Using the rapid realist review process, we developed our CMO configurations based on relevant research published since the start of the pandemic in 2020. We searched on a map of relevant literature on social capital as part of our initial stage of social capital evidence review. We conducted iterative supplementary searches through websites and google searches. We also employed snowballing techniques, identifying relevant papers through reference lists of included papers, and through papers and reports suggested in roundtable meetings. Although this process generated highly relevant literature within a limited timeframe, it may be not entirely replicable.

Throughout the review process, the research team had several discussion meetings with the inputs from the experts participating the roundtables about the included studies to define key concepts and scope of the work, extract relevant information, develop initial CMOs, configure and refine CMOs, and check our understanding of the emerging findings, arguments, and conclusions of the review.

We have not conducted an overall quality assessment of each study, but we have assessed them in terms of relevance and credibility to the review questions. The review process as described would provide an indication of appropriateness of the steps we employed to inform the judgement and conclusions we made for the review. However, we did note that there were few longitudinal studies (quantitative or qualitative) included within the review which may weaken the credibility of the findings. Some studies also blended data and experiences of volunteers from before the pandemic with those collected during the

pandemic. In addition, we have used a loose definition of the pandemic drawing on any literature published in 2020 onwards that purports to focus on the pandemic, given that arguably we remain within a pandemic albeit not within a lockdown at the time of writing.

It is also worth highlighting that whilst we were following the international standard process of conducting the realist review, we were not aiming to determine or quantify causal effects of volunteering itself, but to identify possible mechanisms that might influence how volunteers are mobilised during the pandemic. These mechanisms might be relevant to different policy sectors (health, social welfares, education etc), types of volunteering (formal and informal volunteering, etc), or contexts (post pandemic, places, populations, etc) to inform policy design and development in volunteering.

What are the implications of the findings for policy and practice

Drawing on the evidence identified, and going beyond the evidence to consider broader implications, the following actions may help to mobilise and sustain volunteers in the future:

Develop better systems of matching volunteers to roles and demonstrate the importance of all roles (frontline and back-office): The findings suggest that policy efforts to coordinate and better match volunteer skills with volunteer opportunities may pay dividends across the sector. For roles where the skills needed to complete the role are unclear, or where the skills are perceived as generic, volunteers may develop confidence through the completion of tasks that are viewed or demonstrated as essential to the functioning of the organisation.

Reconceptualise volunteering as a mutually beneficial process: Our evidence suggests that framing volunteering as an opportunity to develop skills and professional competence may be important in future, particularly where there is a desire to attract more highly skilled volunteers for particular roles. This is in addition to demonstrating the difference that volunteering makes for the goals of the organisation.

Increase familiarity with volunteer opportunities: Offering short experiences of volunteering (e.g. taster sessions or open days) may be important in helping to activate a virtuous cycle where forming role identity helps to promote recurrent future episodes of volunteering. Reducing social distance and broadening the social profile of volunteers may also be important in developing a mobilised volunteer workforce.

Develop strategies for volunteer attrition: The evidence suggests that the impacts of volunteering become more apparent after multiple engagements, but that policy-makers and practitioners should consider strategies for mitigating the risk of volunteer attrition after a single session. A move to task-based approaches, which may entail a lower level of commitment, could see an increased risk of volunteers completing a single discrete task before dropping out. There was also evidence that overexposure to volunteering tasks could lead to burnout, suggesting that organisations should monitor activity and target wellbeing support at highly active volunteers. In the case of mutual aid groups, there was evidence that perceived group politicalisation appeared to worsen the wellbeing of volunteers, suggesting that organisations supporting mutual aid and community

engagement initiatives should be detached from any political orientation (O'Dwyer et al. 2022a).

Develop strategies for adapting to change and the implications of change: The evidence indicates that it is important for all actors to understand the needs of the communities, the nature and capacity of volunteering in communities, in order to adapt and change the ways in which volunteers are mobilised. Many activities and services are now delivered online or virtually. Organisations have opportunities to manage and engage with volunteers in different ways. They also work closely with the existing formal volunteer organisations. It is important for local authorities, grassroot organisations, and other local actors, to have crises planning, infrastructure and resources to identify existing active local networks and understand the nature of volunteering in order to adapt to the rapid changes, provide support and working with other partners effectively. There is also a need for consideration in terms of balancing between face-to-face and online where some disadvantaged groups may not be able to access internet or digital devices. Training and good practice for digital literacy for staff and local communities (e.g. mutual aid groups) would be an important step to build and sustain systems for volunteering and service delivery.

Develop strategies to provide emotional support and integrate volunteers into existing teams: The evidence finds that providing emotional and relational support to volunteers may help to ensure a more resilient volunteer workforce and may lead to better provision of services for beneficiaries. Efforts to integrate volunteers into the broader organisation may have positive impacts on volunteer mental health. Sudden discontinuation in volunteer roles without follow up support could lead to psychosocial issues arising. The implications of a secular move towards task based or episodic volunteers in terms of how to support the mental wellbeing of volunteers are unclear.

Understand the needs of volunteers as much as beneficiaries: The evidence suggests that developing a deeper understanding of the needs of current volunteers, as well as understanding and removing barriers to potential volunteers, is needed in order to develop a volunteer workforce with a diversity of skills and experiences. Systems that can help volunteers, agencies and wider society to track, acknowledge and understand the difference that volunteers make may lead to a more highly skilled and committed workforce; one example is the volunteer passport scheme. It may be that case that acknowledging and thanking volunteers for their contributions need not be restricted to policy or the third sector; models of acknowledgement around the difference that NHS workers make during and beyond the pandemic (e.g. discounts in shops and restaurants) could be extended to volunteers in certain circumstances providing there were standardised ways to identifying volunteers (e.g. a national volunteer card).

Develop models of supportive training: Supportive training is contingent on having a good understanding of the skills required to carry out a volunteer role. Training that is viewed as irrelevant and that does not match the requirements of the role carried out can deter volunteers, which may suggest that generic training programmes may be less useful than tailored and/or modular programmes.

Continuous investment in community engagement activities pays dividend in times of crisis: The capacity to form mutual aid groups in response to the pandemic was found to

be related to the activity of pre-existing community groups reflective of social capital networks (Bradley et al. 2021) and was also observed in case studies of mutual aid group activities during the pandemic (Diz et al. 2022). This underscores the importance of continuous investments in community engagement activities, particularly in more deprived areas where the need for support with basic essentials may be stronger but the capacity of communities to come together may be weaker. It is important to understand the nature of volunteering in diverse communities and how local communities and mutual aid groups can work together to address the needs and making collective decisions. Factors that might facilitate the development of community partnership and trusting relationships include effective communication, two way interactions, inclusive and meaningful engagement.

Remove barriers to enable everyone to act upon altruistic motivations: Given that altruism appears to be a strong mechanism for undertaking volunteering, further understanding of differences between groups, and particularly removing barriers to group with high levels of altruism but who are unable to mobilise these traits into volunteering activity may be important in sustaining the volunteer workforce and broadening its profile. Literature not directly included within this review, based on a large nationally representative German sample, suggests that being female, younger, having children, regular participation in sports activities, and having at least one chronic disease, and being vaccinated for COVID-19 were correlates of higher levels of altruism (Hajek and König 2022).

Partnership underscores people power: Coordination was evident as a mechanism for working effectively including managing and coordinating partnership, working within communities and across sectors, involve a wide range of skill sets, effective communication and leadership. Systems and policies such as funding that help local organisations, mutual aid groups, local communities to access timely, up-to-date information, provide appropriate training and incentive for staff, and build social infrastructure can facilitate coordination efforts going forward.

Conclusions and recommendations for further research

While the COVID-19 pandemic clearly was a period of great social upheaval, it illuminated the 'power of people' working together to help others. In order to understand the mechanisms that supported mutuality and the mobilisation of volunteers working within communities, groups, and local organisations, we undertook this rapid realist review. Our findings identify six key mechanisms that supported this mobilisation, which may be critical to activate in future health emergencies, but are also largely reflective of investments made before the pandemic to support the development of social capital and the development of infrastructure. Where volunteering emerged independently of state or civic infrastructure, this did not always develop in the areas of greatest need. At the time of writing (Oct 2022), the UK is in a period of political and economic uncertainty. However, plans proposed for further austerity (being discussed at the time of writing), if enacted, are highly likely to undermine the emergence of several if not all of the mechanisms identified here in future pandemic and lockdown situations.

The pandemic may have helped to hasten changes in the patterns of volunteering towards greater online engagement, potentially towards increased episodic and task-based patterns of volunteering, and may have weakened the distinction between informal and formal volunteering through the rise of informally organised groups. Two key challenges

that emerge from this work that are worthy of further research are (i) to examine the most effective ways of removing barriers to engagement in volunteering that many groups appear to face; and (ii) to examine the extent to which volunteering *should* be understood as a mutually beneficial and reciprocal arrangement that connects community members with other community members.

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