

Understanding the role and deployment of volunteers within specialist palliative care services and organisations as they have adjusted to the COVID-19 pandemic. A multi-national EAPC volunteer taskforce survey

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Keywords: COVID-19; COVID-19 pandemic; hospices, palliative care, volunteers, workforce

Abstract:

Background: Early indications were of a major decline in specialist palliative care volunteer numbers during COVID-19. It is important that ongoing deployment and role of volunteers is understood, given the dependence of many palliative care services on volunteers for quality care provision.

Aim: To understand the roles and deployment of volunteers in specialist palliative care services as they have adjusted to the impact of COVID-19.

Design: Observational multi-national study, using a cross-sectional online survey with closed and free-text option questions. Disseminated via social media, palliative care networks and key collaborators from May – July 2021.

Setting/participants: Any specialist palliative care setting in any country, including hospices, day hospices, hospital based or community teams. The person responsible for managing the deployment of volunteers was invited to complete the survey.

Results: Valid responses were received from 304 organisations (35 countries, 80.3% Europe). Most cared for adults only (60.9%), provided in-patient care (62.2%) and were non-profit (62.5%). 47.0% had cared for people with COVID-19. 47.7% changed the way they deployed volunteers; the mean number of active volunteers dropped from 203 per organisation to 33, and 70.7% reported a decrease in volunteers in direct patient/family facing roles. There was a shift to younger volunteers. 50.6% said this drop impacted care provision, increasing staff workload and pressure, decreasing patient support, and increasing patient isolation and loneliness.

Conclusion: The sustained reduction in volunteer deployment has impacted the provision of specialist palliative care. Urgent consideration must be given to the future of volunteering including virtual modes of delivery, micro-volunteering, and appealing to a younger demographic.

Key Statements

What is already known

- Effective use of volunteers is a possible response to the COVID-19 pandemic
- Many specialist palliative care services depend on volunteers for quality care provision
- At the start of the pandemic, volunteering numbers in specialist palliative care dropped significantly

What this paper adds

- The reduction in volunteer deployment in specialist palliative care has been sustained and is reported to have negatively affected quality of care
- Volunteer training largely shifted to real-time online training and covered COVID-19, infection prevention and use of PPE
- Few specialist palliative care organisations have yet created new volunteer roles or ways of working

Implications for practice, theory or policy

- Specialist palliative care organisations need to consider how to create new volunteering opportunities that may attract a younger volunteer demographic
- Ways of harnessing community or social action volunteers to be involved in palliative care volunteering are required
- The potential of virtual or remote volunteering in palliative care have to be further developed in ways that are inclusive and do not promote inequity of opportunity

Background

The COVID-19 pandemic has demonstrated both the possibilities and challenges of the roles of volunteers. Positively, there has been a pivot in many countries to harness the time and skills of volunteers. Effective use of volunteers was highlighted as a possible response to the pandemic¹, with calls for mobilising and training a citizen volunteer workforce that is ready and able to connect with patients in need of basic social support². Examples include 'micro-volunteering' where individuals are connected to those needing help, often via social media or other technologies, with examples in India³ and in the UK⁴. Other initiatives include more formal volunteering roles such as village health volunteers in Thailand⁵. However, it is also apparent that the shift to COVID focused volunteer roles could crowd out existing volunteering for other causes, as found in China where experienced local volunteers rapidly shifted to support needs arising from COVID-19⁶. There has been a precipitous decline in volunteering across organisations that traditionally rely on a substantial volunteer contribution. A large Australian survey found that since February 2020, almost two thirds (65.9%) of volunteers had stopped volunteering as a precaution to minimise COVID-19 transmission, equivalent to 12.2 million hours per week⁷.

In specialist palliative care services, which encompass a range of services provided to people with chronic, life-threatening conditions towards the end of life, volunteers can outnumber paid staff, although data on the number of volunteers across countries can be scant⁸. A UK survey identified 1.5 volunteers to every paid member of staff⁹, providing up to eight hours a week of care and support¹⁰, and Dutch 'Almost at home homes' typically have one paid coordinator and 80-100 volunteers¹¹. Volunteers offer stability; a Belgian survey identified that 57% of volunteers had been in their current care organisation for at least 6 years, and 36% for over 10 years¹⁰. If there has been a decline in palliative care volunteering that mirrors the more general changes in volunteering during the COVID-19 pandemic, this could have substantial impacts on care provision. Early data indicated that at least in the initial days of the pandemic, specialist palliative care volunteering numbers dropped significantly¹². A multi-national survey of specialist palliative care providers found that 78% of organisations that deployed volunteers pre-COVID-19 reported less or much less use of volunteers during the early stages of COVID-19 (data collected April – July 2020)¹². This reduction in volunteers was felt to protect potentially vulnerable volunteers, with policy changes preventing much volunteer support.

It is important that the ongoing deployment and role of volunteers during the COVID-19 pandemic is understood, especially to know if and how services have changed from their immediate response reported in the earlier stages of the pandemic, and to help develop policy for the future, given the dependence that many specialist palliative care services have on volunteers for quality care provision. The aim of this study therefore is to understand the roles and deployment of volunteers in specialist palliative care services as they have adjusted to the impact of COVID-19 on their organisations a year into the pandemic.

Methods

Research questions

Over the course of the COVID-19 pandemic:

- a) How has the deployment and/or roles of volunteers within specialist palliative care services changed, and what has been the impact of any changes?
- b) What factors contributed to any changes in the deployment and/or roles of volunteers within specialist palliative care services?
- c) What have been the challenges and opportunities associated with any changes in the deployment and/or roles of volunteers within specialist palliative care services?

Design: Descriptive, observational multi-national study, with cross-sectional online survey of providers of specialist palliative care services. This survey is reported according to the CHERRIES guidelines for reporting on e-surveys¹³.

Setting: Specialist palliative care is traditionally delivered wherever patients and those important to them are cared for, and most settings can have volunteers supporting their work. Specialist palliative care is provided by specialised services for patients with complex problems, often requiring a team approach, combining a multi-professional team with an interdisciplinary mode of work. Team members are highly qualified and should have their main focus of work in palliative care¹⁴. Such services can include hospices (voluntary and publicly managed), palliative care units, palliative day care centres, palliative home care teams (providing care within the person's usual place of residence), and palliative support teams (including within acute hospitals). They are distinct from what is sometimes called generalist palliative care services, which are care services in which palliative care is offered but not the primary goal of care provision.

Inclusion criteria: Specialist palliative care services and organisations in any country. As per the setting information above, this included: hospices, day hospices, hospital based palliative care teams/wards, home care/community teams and other services that offer specialist palliative care.

Exclusion criteria: No volunteer provision within the service.

Participants: The person responsible for managing the deployment of volunteers within a participating specialist palliative care service, typically the volunteer lead or manager, was invited to complete the online survey. This could include a paid staff member or volunteer with this responsibility.

Sample: This survey used a convenience sampling approach, driven by the open method of recruitment such that anyone with access to the link was able to participate, if they met the inclusion criteria. We anticipated a response of between 50-300 services, depending on the eventual breadth of the dissemination of the online survey link, estimated from an earlier general palliative care survey¹², but the numbers were not restricted or capped.

Recruitment: Information about the survey, including the link to access the survey, was openly and widely disseminated through authors' institutional websites, personal networks and contacts with national palliative care networks and organisations, social media (via advertising through posts on Twitter, Facebook and LinkedIn), and working with the European Association for Palliative Care (EAPC) (e.g. a blog was published inviting eligible organisations to complete the survey). No incentives to complete were offered. All dissemination modes included a link to the online survey, and an invitation to circulate the survey link to others. Potential participants answered screening

questions at the start of the survey to confirm eligibility, and clicking to progress to the survey indicated consent.

Data collection: The open online survey was built using Qualtrics^{XM} software¹⁵, and the full survey is included in supplementary materials (S1). Data on key service related information was collected with a suite of questions capturing the deployment of volunteers pre-COVID-19, through the COVID-19 pandemic, and future plans. Both closed and free-text questions were used, together with skip options dependent on given answers; 83 possible questions were asked across 9 blocks. Participants could navigate through the survey using forward and back buttons. The survey was developed by members of the EAPC volunteer taskforce, incorporating some core questions from a previous survey of the impact of COVID-19 on palliative care¹⁶. Pilot testing of question wording, format and technical completion was done via EAPC volunteer taskforce members, who asked eligible colleagues to test the survey and link and provide feedback as a check on face validity. The survey was only available in an English language version, although some recruitment materials were translated to national languages. Participants could only complete the survey once, with an automatic reminder prompt one week following commencement of the survey if it were not yet complete. Respondents did not receive information about whether they had fully completed the survey. The survey was open from 19.5.2021 to 5.7.2021.

Data analysis: Data were downloaded from Qualtrics^{QM} to Microsoft Excel, hosted on Lancaster University secure OneDrive, checked and cleaned to check for potential duplicate entries (using IP, email address or organisation name to ensure only one entry per organisation), and to remove incomplete entries. Entries were judged as sufficiently complete to include in analysis when descriptive organisational information was present, even if answers to all available questions had not been given. There were no completeness checks for participants prior to submission, and no response items that were mandatory or enforced. Pseudonymised quantitative data were transferred to Statistica v13TM (TIBCO Software Inc., Palo Alto, CA, USA). Descriptive analysis of data (e.g. organisational characteristics, volunteer deployment) included the use of frequency counts (including missing data), percentages, measures of central tendency and range. Where data permitted, contingency tables were created using chi-squared tests to compare responses by characteristics considered to potentially have an impact on volunteer deployment (e.g. geography or COVID-19 experience).

For the analysis of free-text comments, data were extracted into Microsoft Excel. Comments tended to be brief, expanding on answers to closed questions^{17,18}. After initial familiarisation, a coding framework was inductively developed through close reading of the text and the use of broad codes to categorise the data, agreed and then applied to the free text data (by RS, CW) using a conventional content analysis technique¹⁹. Coding and subsequent higher order categorisation were inductively driven by the content of the free-text comments, with categories identified initially within, and then compared across, the sets of answers to each question.

Ethics: Approval was granted by the Lancaster University Faculty of Health and Medicine Research Ethics Committee (FHMREC20131 18.5.2021).

Results

The survey received 754 visitors, of whom 17 declared they did not meet the inclusion criteria, 281 provided no data, and 152 did not proceed beyond the screening questions. Valid responses were received from 304 organisations (40.3% of visitors). Of the 304 responses included in the analysis 210 (69.0%) had completed the entire survey. The mean survey progress across all included respondents was 81.5%. Valid responses were received across 35 countries, categorised into geographical regions for analysis (full list of responding countries in supplementary materials S2). Descriptive data from these respondents are found in table 1. Most responding organisations primarily cared for adults (60.9%), were based in Europe (80.3%), and commonly provided in-patient palliative care (62.2%) and/or specialist palliative care home care consulting services (57.6%). Most were charitably funded or non-profit (62.5%).

Table 1. Characteristics of responding organisations.

	Number of responses (N=304)	Percentage
Population served by the responding organisation		
Adult patients only	185	60.9%
Child patients only	12	3.9%
Both adult and child patients served	105	34.5%
Missing	2	0.7%
Geographical Region of responding organisation		
Western Europe	113	37.2%
Northern Europe	17	5.6%
Eastern Europe	15	4.9%
Southern Europe	49	16.1%
British Isles	50	16.5%
Asia	15	4.9%
Australasia	14	4.6%
North America	24	7.9%
South America	5	1.6%
Africa	2	0.7%
Settings in which care offered by each organisation¹		
In-patient hospice/ward/palliative care unit	189	62.2%
Palliative day care centres/services	71	23.4%
Hospital palliative care advisory team	84	27.6%
Specialist palliative home care service (supporting or consulting about patients at home and/or in the community)	175	57.6%
Providing hands on nursing care at home/in the community (e.g. hospice@home, pall@home)	95	31.5%
Bereavement services offered	125	41.1%
Service management		
Charitable / non-profit	190	62.5%
Public	44	14.5%
Private	18	5.9%
Mixed funding	36	11.8%
Missing	16	5.3%

¹ does not total 100% as organisations could offer multiple services.

Findings are presented taking account of the main areas of the survey and the categorisation and analysis of the free-text comments to illuminate and expand upon these areas. The areas presented are: exposure to COVID-19; changes in volunteer deployment; changes in volunteer training; new or changed volunteer roles; and impact of reduced volunteering.

Exposure to COVID-19

Organisations had different degrees of experience with COVID-19. Their amount of exposure through caring for people with COVID-19, and if their staff or volunteers had COVID-19 is detailed in table 2, and displayed graphically in Figure 1.

Table 2. The experience of organisations to date with COVID-19 since January 2020.

All data are since January 2020	Organisations who had cared for patients with confirmed (by test) cases of COVID-19	Organisations who had cared for patients with suspected (untested but with clinical diagnosis/symptoms) COVID-19	Organisations who had staff with suspected/confirmed COVID-19	Organisations who had volunteers with suspected/confirmed COVID-19
Yes (n of organisations and %)	143 (47.0%)	115 (37.8%)	179 (55.9%)	113 (37.3%)
No (n of organisations and %)	144 (47.4%)	156 (51.3%)	98(32.2%)	145 (47.7%)
If yes, mean number of cases	350.5	856.9	74.5	6.2
If yes, median number of cases	5	10	4	3
If yes, range of number of cases	0-20000 ¹	0-60000 ¹	0-8000	0-60

¹The larger numbers in the range were very few or one organisation likely covering a large area, in countries with very high numbers of those with COVID-19. These had an effect of skewing the mean, but are included for context.

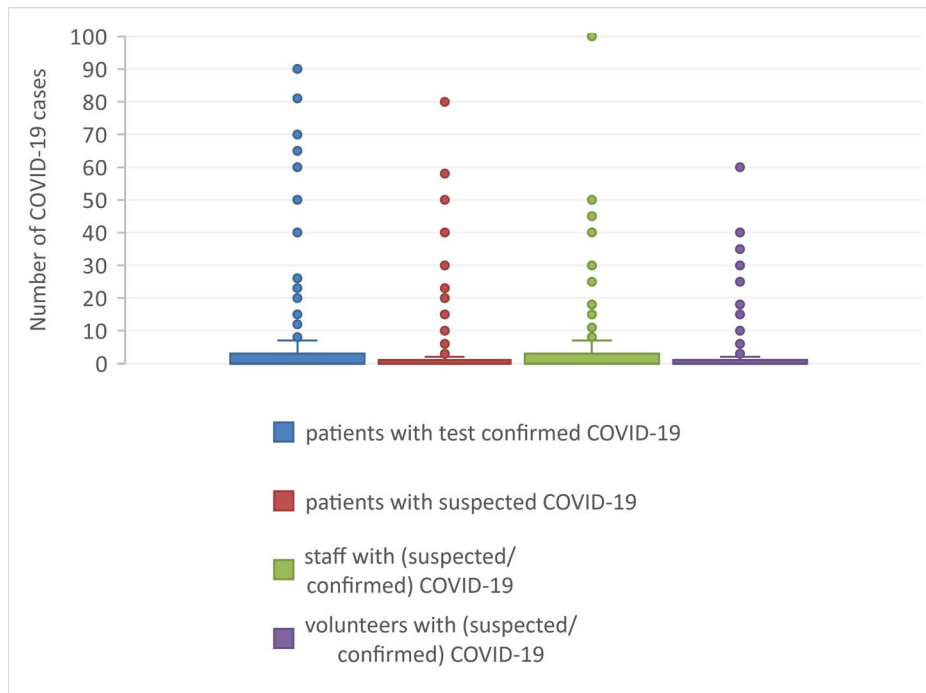


Figure 1. Box and whisker plot of the distribution of cases of COVID-19 experienced by organisations, where the number of cases is ≤ 100

There were few concerns that volunteers had been exposed to or infected with COVID-19 because of their deployment within the organisation. Where volunteers had reported infection, it was usually due to general community transmission:

Only a limited number of volunteers were in the hospice building from summer 2020. They were tested regularly, along with all people working at or visiting us. No volunteers who supported in the building had suspected COVID-19. Volunteers who did have COVID-19, were those who were either volunteering remotely, or their volunteering was paused." (Respondent 219, UK, Children's service, multiple settings)

Changes in volunteer deployment

Whilst the median number of patients with COVID-19 that had been cared for by responding organisations was relatively modest, most organisations had nonetheless made substantial changes to their volunteer deployment because of the prevailing pandemic situation. 47.7% of responding organisations indicated they had changed how they deployed volunteers since the start of the pandemic (21.0% said no change, 31.3% missing data). 119 (39.1%) said they were deploying volunteers less, but only 27 (8.9%) said they were using volunteers more (92, 30.3% missing data). Organisations in Europe were less likely to change volunteer deployment than those from the rest of the world ($p=0.04706$). Prior to the pandemic, the mean number of estimated volunteers actively deployed within responding organisations was 203.1, but at the time of answering the survey this mean had dropped to 33.1. In table 3 the change in the type of role the volunteers were and are now fulfilling is displayed.

Table 3: Deployment of volunteers in different roles before and during COVID-19.

Roles	Organisations reporting volunteers in these roles pre-pandemic n (%)	Organisations reporting volunteers in these roles during their perceived peak of COVID-19 to date n (%)	Change
Direct patient/family facing support	186 (61.2%)	54 (17.8%)	70.7% decrease
Indirect patient/family facing support (e.g. reception, refreshments, driving)	137 (45.1%)	39 (12.8%)	71.5% decrease
Back office functions (e.g. finance, gardening etc.)	116 (38.2%)	19 (6.3%)	83.6% decrease
Fundraising functions (e.g. shops, lottery etc.)	109 (35.9%)	10 (3.3%)	90.8% decrease
Other roles	47 (15.5%)	42 (13.8%)	10.6% decrease

Organisations generally reported reductions in patient facing work, and a shift to roles such as home-based administration or delivering items to patients and families:

We had to pause volunteering, then cancel two types of roles altogether (support visitor, [...] room attendant) as they were patient facing. We have only kept or continued indirect volunteers. Additionally, we have had to pause them for stretches when we have had 2nd and 3rd (current) waves. (Respondent 137, North America, Adult, In-patient setting)

Generally, a shift can also be seen towards the volunteers who are deployed being younger than pre-pandemic, with an increase in the proportion of those estimated to be under 50 years, and a commensurate drop in those over 70 years old (Table 4).

Table 4: Estimated proportion of volunteers in each age range pre-COVID-19 and during the COVID-19 pandemic

Age range of volunteers (in years)	Mean estimated % in this age range pre-COVID-19	Mean estimated % in this age range currently, during the COVID-19 pandemic
≤18	1.3	1.4
19-30	8.0	11.8
31-50	19.1	30.5
51-70	49.1	45.1
71- 80	17.8	9.0
80+	3.9	1.4

Organisations indicated that the perceived increased risk of some of their volunteers, should they contract COVID-19, were seen as a barrier to volunteering during the pandemic:

The volunteers have been very scared of COVID-19, they are old and some are at risk. We now experience, where we can meet, that it is difficult for many to get started again. Several have used the shutdown as an opportunity to stop volunteering. (Respondent 27, Northern Europe, Adult/Child, multiple settings)

Organisations that indicated that they were deploying volunteers less or much less were asked to rank a selection of reasons why they had done this, displayed in table 5. The most common reasons were organisational policies, volunteer vulnerabilities, and external regulations.

Table 5: Ranking of reasons for deploying volunteers less or much less

Importance	Reason for reduction in using volunteers	Mean ranking scores
1	Our organisation made a policy decision to stop or reduce use of volunteers during the COVID-19 pandemic.	2.8
2	Our volunteers are mostly considered vulnerable to COVID-19 (e.g. due to age or pre-existing conditions)	3.2
3	The areas that our volunteers were deployed in were stopped because of external regulations or lockdowns (e.g. retail/fundraising)	3.3
4	Our volunteers indicated that they preferred not to volunteer at this time due to fears about COVID-19	3.6
5	National policies or procedures prevented us from deploying volunteers.	4.4
6	Volunteers were no longer available (e.g. they had to provide care for family members, were essential workers elsewhere).	5.5
7	Our organisation did not have the resources to coordinate or support volunteers during the COVID-19 pandemic.	5.6
8	Other	7.7

The free text comments primarily illuminated the reduction in volunteers either due to policy changes, or because the volunteers themselves (or their families) were concerned about the risks:

Volunteers were stopped from working too soon, deeply missed. When level 4 lockdown ended our 65 and under returned immediately to our IPU, very soon after others returned to the community as they wished, all at their own discretion. Families were concerned for their loved ones, the measures we put in place from an infection control and return to work perspective reduced worries greatly. (Respondent 221, Australasia, Adult/Child, multiple settings)

Where volunteers were not deployed during the COVID-19 pandemic, organisations worked to keep contact with their volunteers using telephone (59.5%), email (53.6%), post (29.6%), and via meetings (including online meetings) (36.8%).

Changes in volunteer training

The amount of training provided to volunteers decreased during the COVID-19 pandemic, with a shift where present to online training, with real time training via video conferencing software used more than asynchronous e-learning (table 6).

Table 6: Volunteer training pre and during the COVID-19 pandemic

Volunteer training offered	Pre-COVID-19 N (%)	During COVID-19 N (%)
Yes	185 (60.9%)	148 (48.7%)
No	31 (10.2%)	65 (21.4%)
Mode of training		
Regular in-person training	148 (48.7%)	42 (13.8%)
Real-time online training (with the usage of web-based communication software e.g. Zoom)	40 (13.2%)	112 (36.8%)
E-learning with usage materials available online	36 (11.8%)	49 (16.1%)
Individual training	77 (25.3%)	36 (11.8%)
Other	15 (4.9%)	10 (3.3%)
Specific training offered during COVID-19		
Education on COVID-19		120 (39.5%)
Education on infection prevention and control measures		141 (46.4%)
Training on use of personal protective equipment		125 (41.1%)
Training on COVID-Marshalling (e.g. training to guide people around your organisation, check that PPE is being worn correctly and other infection control measures are being followed).		43 (14.1%)
Other		57 (18.8%)

New or changed volunteer roles

Participating organisations were asked if they had created new volunteering roles or ways of volunteering during the COVID-19 pandemic. Only 51 organisations (16.8%) indicated that they had done so, however 108 organisations (35.5%) said they had used (or continued to use) virtual volunteering. Such virtual volunteering was mostly commonly telephone contact between volunteers and patients/family members (83, 27.3%), video calls (67, 22.0%), or text contacts (46, 15.1%). Such contact was also used for bereavement support with 59 (19.4%) using telephone contact and 35 (11.5%) using texts. Virtual volunteering roles were more likely to be created by charitable/non-profit organisations ($p=0.00209$). New volunteering roles were more likely to be created by private organisations ($p=0.00987$), or where they had cared for patients with confirmed (by test) cases of COVID-19 ($p=.00113$). Table 7 displays the likelihood of organisations providing supportive interventions for volunteers or creating new roles dependent on their experiences of caring for those with COVID-19, or having staff or volunteers with COVID-19. Full details of this analysis are found in supplementary materials (S3).

Table 7. Relationships between organisational experience of COVID-19 and approaches to volunteering

Organisations that cared for patients with suspected	more often	provided informal/formal support programs such as debriefing and counselling for staff	than organisations	$p=0.00192$
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(untested but with clinical diagnosis/symptoms) of COVID-19	created new volunteering roles or ways of volunteering during the COVID-19 pandemic	p=0.01920
	created new volunteering COVID-19 specific roles	p=0.00004
Organisations that had the staff with suspected/confirmed COVID-19	provided informal/formal support programs such as debriefing and counselling for staff	p=0.00221
	created new volunteering roles or ways of volunteering during the COVID-19 pandemic	p=0.02598
Organisations that had physically present volunteers with suspected or confirmed COVID-19	used virtual volunteering	p=0.03163
	created new COVID-19 specific roles for volunteers	p=0.00000
Organisations that had volunteers with suspected or confirmed COVID-19	offered training to volunteers during the COVID-19 pandemic	p=0.04368
	created new volunteering roles or ways of volunteering during the COVID-19 pandemic	p=0.00815

Changed ways of working for some volunteers included support for patients and families (including virtual support, transport, deliveries of groceries), organisational support (including remote administrative and fundraising roles, gardening or kitchen roles), some COVID-19 specific roles (such as delivering PPE, or managing access or lateral flow testing).

Many services which were previously face-to-face only were provided by telephone or video-conferencing. We developed a new role providing listening support for those who are bereaved, and a team of compassionate neighbours - both of these have started on the phone or through video-conferencing. Some compassionate neighbours are supporting their nominee by letter-writing. We asked some of our patient transport team to help us by collecting and moving retail donations. We have restructured some teams to enable us to meet infection control requirements - e.g. by having volunteers in our cafe to take orders from visitors, serve orders at the table, and clear up and clean when visitors have left. (Respondent 270, UK, Adults, mixed settings)

Impact of reduced volunteering

Impact on care provision

The general overall reduction in volunteer deployment was keenly felt, with 154 (50.6%) of responding organisations saying that it had an impact on their organisation and/or the care of patients and families, and only 51 (16.8%) of respondents indicating that it had not had an impact. Organisations identified impact on patients and families, on staff, and on the organisations themselves. For patients they perceived reduced support, and increased isolation and loneliness, affecting the patient experience:

Terrible, a lot of patients and families did not have the support they needed. In a clinic for example even if we have a signed contract with them to visit patient they banned all the visit since first lockdown and still now... (Respondent 30, Western Europe, Adult, specialist palliative home care service)

People remained alone with their grief, are lonely, had little or no social contact, had to die alone. (Respondent 39, Western Europe, Adult/Child, mixed settings)

Impact on the organisation

Lack of volunteer involvement meant less support for staff, increased staff pressure and workload as staff tried to compensate by taking on the roles that volunteers had previously fulfilled:

Has put additional pressure on paid staff who have to cover roles previously filled by volunteers. (Respondent 115, Western Europe, Adult/Child, mixed settings)

Very often our volunteers are seen as equally necessary in caring for our patients. They help our nurses with washing patients, give and prepare food, making beds,... when there are no volunteers nurses can't take care of as many patients at the same time because they are understaffed. (Respondent 239, Western Europe, Adults, In-patient setting)

Organisations also noted a poorer quality of service, and a different atmosphere without the joy, fun and 'normality' that volunteers bring.

There has been a significant impact on the atmosphere in each hospice setting. The role volunteers play in enabling conversation and joy has been deeply missed. (Respondent 286, UK, Adult, mixed settings)

Volunteers made our space more lively and caring for patients and their families. The patients don't notice the impact but we do. We know that volunteers can help stave off loneliness in patients who have no care circle, and can fill in the voids when family/friends aren't able to visit. (Respondent 117, Western Europe, Adult, mixed settings)

Discussion

Main findings

The high reduction in the deployment of volunteers in specialist palliative care organisations across the world appears to be sustained over a year into the COVID-19 pandemic. The most common reasons given for this sustained reduction was because of the organisations own policy decision to do so, the vulnerability of current volunteers, or the impact of external regulations/lockdowns. A shift was noted to volunteers being generally younger. However, few organisations had created new volunteer roles or ways of working. Over half of organisations responding perceived that this reduction in volunteers had affected care quality.

What this study adds

Volunteers are known to contribute to safe and effective palliative care, and enhance patient satisfaction^{20, 21}. It is likely that much of the impact of volunteers is in enabling social relationships, 'being with' patients, and providing social support^{22, 23}. This contribution is impactful, known to have a substantial effect on health and wellbeing^{24, 25}. The major reductions in the deployment of volunteers found and sustained thus far through the COVID-19 pandemic must therefore be recognised as likely to have a large impact on care and care outcomes. Volunteers also contribute to the sustainability of specialist palliative care organisations, supporting important functions such as fundraising and income generation, as well as supplementing paid staff in office functions^{9, 10}. Organisations must recognise the impact of this deficit, and see volunteers as an essential component of the organisation, not purely an added extra. If interventions are not put in place to enable the return of volunteers to specialist palliative care organisations then it is likely that there will be adverse outcomes at both personal and organisational levels.

The COVID-19 pandemic appears to have accelerated already anticipated changes in patterns and types of volunteering. This includes trends for a more episodic styles of volunteering²⁶, including so-called 'micro-volunteering'²⁷. Such changes are likely to challenge specialist palliative care volunteering programmes that have typically have relied on 'constant' volunteers, rather than those who are 'serial' volunteers, or responding to need as a 'trigger' volunteer²⁸. It is imperative that urgent attention is given to addressing these changes as despite stated desires to return to previous volunteering patterns²⁹, it is unlikely that this will be fully possible. Specialist palliative care organisations must give attention to how they attract, recruit, train, and construct meaningful roles for volunteers, including those that are virtual or remote, for those who may have different amounts of time to give in unexpected or different patterns.

The policy response of most organisations to restrict or reduce the deployment of volunteers within their organisation stands in stark contrast to rise of volunteering in general during the COVID-19 pandemic. Social action and neighbourhood volunteering were common pandemic responses, with social networks, local knowledge and social trust associated with community organising and volunteering^{30, 31}. Place and identity are important determinants of volunteering, with meaning ascribed to the relationship between people and their localities³². There has not been sufficiently strong engagement between such 'ground up', locality-based volunteering opportunities and public institutions during the COVID-19 pandemic^{30, 31}. Whilst impressive in responsiveness and scale, such social action or neighbourhood volunteering initiatives are not a panacea; volunteers were not equally distributed across communities and were mostly women, middle-class, highly educated and of working age³¹. Underlying social inequalities are known to present substantive barriers to volunteering³³. Specialist palliative care organisations should act to bridge these worlds, building on the strengths of both to build a responsive offer that also has the potential to be attuned to promoting equity in volunteering opportunities. There are existing examples of initiatives acting in such a responsive manner both pre and during COVID-19^{34, 35}, and strong voices calling for such community involvement and ownership³⁶. However, there is currently a disjunct for many between the relative formality of their volunteering programmes and the flexibility and responsiveness of community-based initiatives. It has been argued that in order to enable and sustain resilient and confident, 'disaster-proof' communities, areas which merit attention include how to engage and support active citizens, new (digital) ways of engagement, transforming formal organizations, and

alignment with the (local) context³⁷. If hospice and palliative care organisations are to thrive in a pandemic (and hopefully post-pandemic) world they must seize this opportunity to consider the future role and function of volunteers, considering how to offer more flexible, innovative opportunities rooted in place and locality.

The contributions of volunteers remain relatively under-researched, and this survey has pointed to a number of potential areas for future research: exploring the role and contribution of a new cadre of younger volunteers offering different skills and patterns of availability; understanding in more depth and detail the personal and organisational relationships between volunteers, staff and organisations; and detailed exploration of the possibilities and limitations of virtual and remote volunteering in the specific area of specialist palliative care.

Strengths and limitations

This was a large, multi-national survey with closed and free-text design giving insight and understanding. However, the pattern of responses is geographically clustered (e.g. many respondents from Germany, Italy and the UK), and this may have affected the results in unknown ways, and it was not possible to analyse per country because of small numbers from most countries. There are major cultural and linguistic differences across participants and this may have affected the interpretation of questions, and hence the response given. The survey was completed by volunteer leads, and hence reflects their views, not those of volunteers themselves. Free text comments, whilst commonly given, were often short with little context, in answer to set questions, so it was not always possible to fully interpret justifications for decisions made and the questions posed may have influenced the breadth of answers given.

Conclusion

The continued major reduction in the previously common deployment of volunteers within specialist palliative care services is likely to have a continuing negative effect on care provision. It is imperative that services find ways to creatively deploy volunteers in ways that mitigate risk, but offer flexible and responsive volunteering opportunities matched to the skills and availability present in the communities they serve.

Declarations.

Authorship: CW, LeP, SV, MJB, AG, JTL, KSS, CC, LP and RS were responsible for conceptualising and designing the study and survey. SS and CW managed data collection processes. SS, CW and LeP were responsible for data cleaning and quantitative data analysis, and RS and CW for free-text analysis. CW drafted the article, LeP, SV, MJB, AG, JTL, KSS, SS, CC, LP and RS revised it critically and approved the version to be published.

Funding: This research received no specific grant from any funding agency in the public, commercial, or not-for-profit sectors.

Declaration of conflicts of interest. CW is a member of the EAPC board of directors, LP and RS are chairs of the EAPC volunteering taskforce, and CW, SV, AG, CC are taskforce members.

Research ethics and participant consent Approval was granted by the Lancaster University Faculty of Health and Medicine Research Ethics Committee (FHMREC20131 18.5.2021). Survey instructions clarified that consent to participate was implied when the participant clicked through to the first page of the survey.

Data management and sharing. Data are stored in Lancaster University's PURE repository, consent to share data was not given by participants.

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Supplementary materials 1. Survey Text (survey itself was delivered via Qualtrics)

Understanding the contribution of volunteers to hospice and specialist palliative care services and organisations during the COVID-19 pandemic. An international survey.

Thank you for your interest in completing this survey. We are trying to find out how the deployment of volunteers in hospice and specialist palliative care organisations and services has changed, or might develop in the future, as a result of the COVID-19 pandemic. This is important as the disease is new and hospices/palliative care organisations and services are changing how they work and there is an opportunity to learn from each other. We are doing this work as part of the EAPC Volunteer Task force.

We realise you are very busy right now, and so we have tried to balance collecting the information that volunteers, patients, policy makers and services think is most helpful, with keeping the questionnaire as short as we can. The survey has 6 sections, and should take no longer than 30 minutes to complete, although it may depend on how much additional/open comments you wish to share.

We ask that this survey is only completed once for each organisation, ideally by the person who has responsibility for managing or organising volunteers within the organisation. By organisation we mean an entity (that could be publicly or privately funded) that provides hospice or specialist palliative care. This may be across one or a number of services (e.g. in-patient care, day care, care at home or in the community). If we think that more than one person from an organisation has completed the survey, we will contact you to clarify if this is the case and how you want us to use your data.

We will consider everything that you say. Your reply will help us. We will share the results of this survey through publications and presentations. The results will be aggregated and anonymised so no-one should be able to tell which organisation has provided particular information. We do not think there are particular risks to completing this survey. Completion of this survey implies consent for your data to be used as part of this study. You will input your data into a secure online survey platform, and these data will be then stored in a secure institutional filestore at Lancaster University.

If you wish to speak to anyone about this survey you can contact the principal investigator Professor Catherine Walshe (c.walshe@lancaster.ac.uk). You may also contact her if you wish to withdraw your responses, up to 2 weeks following completion. If you have made a partial response we may contact you after a week to check if this is an error.

This study has been granted research ethics approval from Lancaster University Faculty of Health and Medicine Research Ethics Committee (FHMREC reference FHMREC20131). If you wish to speak with someone independently about this research you can contact the Director of Research Professor Fiona Lobban (f.lobban@lancaster.ac.uk).

If you are happy to proceed, please consent to participate by clicking below which will take you to the first page of the survey. [CLICK HERE]

SCREENING QUESTIONS:

<p>Are you answering on behalf of a palliative or hospice care organisation (this can include: hospices, hospital based palliative care teams/wards, home care/community teams and other services that offer specialist palliative and/or end of life care)? If your organisation offers or coordinates several of these services please complete this survey only once for the organisation as a whole.</p>	<p>Yes No IF NO then survey finishes</p>
<p>Are you responsible for managing volunteers within your organisation, or can provide answers about the use and deployment of volunteers within your organisation? You may be a paid member of staff or a volunteer.</p>	<p>Yes No If NO then survey finishes</p>

INFORMATION ABOUT THE PERSON COMPLETING THE SURVEY

This information will only be used in case we need to check back with you, for example if the survey doesn't save correctly. This information will be stored separately to the data that you provide about volunteers and your organisation, to adhere to GDPR and maintain confidentiality and anonymity.

<p>What is your name?</p>	<p>Free text</p>
<p>What is your contact email address?</p>	<p>Free text</p>
<p>What organisation are you answering on behalf of? Please insert name of your organisation here.</p>	<p>Free text</p>

ORGANISATION INFORMATION

Question	Response options
<p>Date of completion of survey</p>	<p>DD MM YYYY</p>
<p>Country</p>	<p>Free text and/or drop-down list of country</p>
<p>Are you responsible for coordinating or managing the volunteers within your organisation?</p>	<p>Y/N If N what is your role, or in what capacity are you completing this survey?</p>

Does your organisation provide care to only adults, only children, or both?	Adults/Children/Both
In what settings do you provide specialist palliative care? (Please answer this with reference to your typical care settings pre-pandemic). Tick all that apply.	<p>In-patient hospice/ward/palliative care unit</p> <p>Palliative day care centres/services</p> <p>Hospital palliative care advisory team</p> <p>Specialist palliative home care service (supporting or consulting about patients at home and/or in the community)</p> <p>Providing hands on nursing care at home/in the community (e.g. hospice @ home, pall@home)</p> <p>Tick all that apply</p>
Do you offer bereavement services?	<p>Yes/No</p> <p>If yes, what services are usually provided and to whom? (Free text)</p> <p>Did you offer bereavement services only to families/friends of patients who had been cared for by your service? Yes/No</p>
How is your organisation primarily managed? Indicate the main source of funding for your organisation.	<p>Charitable / non-profit</p> <p>Public</p> <p>Private</p> <p>Other (a box will open below)</p>

EXPERIENCE WITH COVID-19

Have your services within your organisation cared for patients with confirmed (by test) cases of COVID-19?	<p>Yes/No</p> <p>If yes, approximately how many confirmed cases since January 2020.</p>
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<p>Have your services within your organisation cared for patients with suspected (untested but with clinical diagnosis/symptoms) of COVID-19?</p>	<p>Yes/No</p> <p>If yes, approximately how many suspected cases since January 2020.</p>
<p>Have your services within your organisation had staff with suspected/confirmed COVID-19?</p>	<p>Yes/No</p> <p>If yes, approximately how many staff have had suspected or confirmed COVID-19 since January 2020?</p>
<p>Have your services within your organisation had volunteers with suspected or confirmed COVID-19?</p>	<p>Yes/No</p> <p>If yes, approximately how many volunteers have had suspected or confirmed COVID-19 since January 2020? Free text number.</p> <p>If yes, we would like to understand a little more about whether you have concerns that volunteers were infected with COVID-19 because of their association with your organisation, or if you think community transmission was more likely. We understand that you will not know the actual route of transmission.</p> <p>Had volunteers with suspected or confirmed COVID-19 been physically present in your organisation/services such that their association with your organisation might have been a route of transmission?</p> <p>Yes/No</p>

When do you estimate the peak of COVID to have occurred for your organisation? By peak of COVID we mean the point at which you were caring for the highest number of people with a COVID diagnosis and/or the numbers of those with COVID in the communities you serve were the highest.	MM/YY
Is there anything about your organisations experience with COVID related to the deployment of volunteers that you want to tell us?	Free text

VOLUNTEERS WITHIN YOUR ORGANISATION

Did your organisation have volunteer roles available pre-pandemic?	Yes/No
IF YES	
Prior to COVID-19, how many volunteers in total were active within your service/organisation. We appreciate this may be an estimation. By active we mean providing volunteer hours on a regular basis to the organisation e.g. at least monthly	Numerical answer
Prior to COVID-19 what roles did volunteers have? Tick all that apply	<p>Direct patient/family facing support</p> <p>Indirect patient / family facing support (e.g. reception functions, refreshments, driving / transport etc.)</p> <p>Back office functions (e.g. finance support, maintenance, gardening etc.)</p> <p>Fundraising functions (e.g. shop volunteers, lottery etc.)</p> <p>Others (a box will open below)</p>

<p>Prior to COVID-19 what were the typical age ranges of active volunteers within your organisation. We appreciate you may not know the exact ages of your volunteers. We would like you to estimate what proportion of your volunteers fit into each of these age categories (total should add to 100%).</p>	<table border="1"> <thead> <tr> <th data-bbox="805 192 949 226">Age range</th> <th data-bbox="965 192 1098 226">Proportion</th> </tr> </thead> <tbody> <tr> <td data-bbox="805 259 863 293">≤18</td> <td></td> </tr> <tr> <td data-bbox="805 327 884 360">19-30</td> <td></td> </tr> <tr> <td data-bbox="805 394 884 427">31-50</td> <td></td> </tr> <tr> <td data-bbox="805 461 884 495">51-70</td> <td></td> </tr> <tr> <td data-bbox="805 528 884 562">71-80</td> <td></td> </tr> <tr> <td data-bbox="805 595 863 629">80+</td> <td></td> </tr> </tbody> </table>	Age range	Proportion	≤18		19-30		31-50		51-70		71-80		80+	
Age range	Proportion														
≤18															
19-30															
31-50															
51-70															
71-80															
80+															
<p>Have you changed how you deploy volunteers since COVID-19?</p>	<p>Yes/No</p> <p>Please give details.</p>														
<p>How would you say you are deploying volunteers now compared to before the pandemic? Please answer to give the position at the date of answering the survey – this may have fluctuated since the start of the pandemic.</p>	<p>A lot more</p> <p>Slightly more</p> <p>About the same</p> <p>Slightly less</p> <p>Much less</p>														
<p>If you are deploying volunteers less or much less please let us know why this is? Please order from the most important to the least important or not applicable to your organisation.</p>	<p>Our volunteers are mostly considered vulnerable to COVID-19 (e.g. due to age or pre-existing conditions)</p> <p>Our volunteers indicated that they preferred not to volunteer at this time due to fears about COVID-19</p> <p>Our organisation made a policy decision to stop or reduce use of volunteers during the COVID-19 pandemic.</p>														

	<p>Our organisation did not have the resources to coordinate or support volunteers during the COVID-19 pandemic.</p> <p>The areas that our volunteers were deployed in were stopped because of external regulations or lockdowns (e.g. retail/fundraising)</p> <p>Volunteers were no longer available (e.g. they had to provide care for family members, were essential workers elsewhere).</p> <p>National policies or procedures prevented us from deploying volunteers.</p> <p>Other</p>
<p>Do you think that the changes in volunteer deployment have had an impact on your organisation or the care of patients/families?</p>	<p>Yes/No</p> <p>If yes, what has this impact been? Free text.</p>
<p>At this point in time how many volunteers are active in your service/organisation? We appreciate this may be an estimation. By active we mean providing volunteer hours on a regular basis to the organisation e.g. at least monthly.</p>	<p>Numerical answer</p>
<p>IF NO to question about deployment of volunteers pre-pandemic</p>	
<p>Have you deployed volunteers since the COVID-19 pandemic began?</p>	<p>Yes/No</p>
<p>IF YES to above question</p>	
<p>What roles have you deployed volunteers in to? Please tick all that apply.</p>	<p>Direct patient/family facing support</p>

	<p>Indirect patient / family facing support (e.g. reception functions, refreshments, driving / transport etc.)</p> <p>Back office functions (e.g. finance support, maintenance, gardening etc.)</p> <p>Fundraising functions (e.g. shop volunteers, lottery etc.)</p> <p>Others (a box will open below)</p>
<p>At this point in time (date of answering this survey) how many volunteers are active in your service/organisation? We appreciate this may be an estimation. By active we mean providing volunteer hours on a regular basis to the organisation e.g. at least monthly</p>	<p>Numerical answer</p>
<p>How many volunteers were active within your service/organisation at the PEAK of COVID-19 that you have experienced thus far? We appreciate this may be an estimation. By active we mean providing volunteer hours on a regular basis to the organisation e.g. at least monthly</p>	<p>Numerical answer</p>
<p>In what services were volunteers primarily deployed into (if any) at the PEAK of COVID-19. Please tick one box only to indicate the main deployment of volunteers at the peak of COVID-19</p>	<p>No volunteers deployed</p> <p>Direct patient/family facing support</p> <p>Indirect patient / family facing support (e.g. reception functions, refreshments, driving / transport etc.)</p> <p>Back office functions (e.g. finance support, maintenance, gardening etc.)</p> <p>Fundraising functions (e.g. shop volunteers, lottery etc.)</p>

	Others (a box will open below)														
Currently, during the COVID-19 pandemic what were the typical age ranges of active volunteers within your organisation. We appreciate you may not know the exact ages of your volunteers. We would like you to estimate what proportion of your volunteers fit into each of these age categories (total should add to 100%).	<table border="1"> <thead> <tr> <th>Age range</th> <th>Proportion</th> </tr> </thead> <tbody> <tr> <td>≤18</td> <td></td> </tr> <tr> <td>19-30</td> <td></td> </tr> <tr> <td>31-50</td> <td></td> </tr> <tr> <td>51-70</td> <td></td> </tr> <tr> <td>71-80</td> <td></td> </tr> <tr> <td>80+</td> <td></td> </tr> </tbody> </table>	Age range	Proportion	≤18		19-30		31-50		51-70		71-80		80+	
Age range	Proportion														
≤18															
19-30															
31-50															
51-70															
71-80															
80+															

VOLUNTEER TRAINING

Did you offer training for volunteers pre-COVID-19?	Yes/No
IF YES	
How did you offer training to volunteers pre-COVID-19? Please tick all that apply.	Regular in-person training Real-time online training (with the usage of web-based communication software e.g. Zoom) E-learning with usage materials available online Individual training Other (please specify)
Have you offered training to volunteers during the COVID-19 pandemic?	Yes/No
IF YES	
How have you offered training to volunteers during the COVID-19 pandemic? Please tick all that apply.	Regular in-person training Real-time online training (with the usage of web-based communication software e.g. Zoom) E-learning with usage materials available online Individual training Other (please specify)

<p>Where volunteers continue to attend your service/organisation to fulfil a role, were they provided with the following? – tick all that apply</p>	<p>Education on COVID-19</p> <p>Education on infection prevention and control measures</p> <p>Training on use of personal protective equipment</p> <p>Training on COVID-Marshalling (e.g. training to guide people around your organisation, check that PPE is being worn correctly and other infection control measures are being followed).</p> <p>Other (please specify)</p>
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CARE AND SUPPORT FOR VOLUNTEERS DURING COVID-19

<p>Have you been able to facilitate COVID-19 vaccination for people within the organisation?</p>	<p>Yes/No</p>
<p>IF YES</p>	
<p>Were volunteers able to access the vaccination programme that your organisation was able to facilitate.</p>	<p>Yes/No</p>
<p>IF YES</p>	
<p>Were all volunteers given access to this vaccination programme</p>	<p>Yes/No</p> <p>If no please explain why not, or which criteria were used to prioritise vaccinations.</p>
<p>Have you kept contact with volunteers who have been inactive during COVID-19</p>	<p>Yes/No</p>
<p>IF YES</p>	
<p>How have you kept contact with volunteers?</p>	<p>Telephone</p> <p>Email</p>

	Postal contact e.g. letters or newsletters Regular meetings (including via video-or-telephone conferencing) Other Tick all that apply
What have you done to try and retain your volunteers during COVID-19 How will you enable the engagement or return of volunteers post COVID-19?	Free text answer
Since COVID-19, does your service/organisation provide informal/formal support programs such as debriefing and counselling for staff? a. If so, are these services also offered to volunteers?	Yes/No

NEW VOLUNTEERING ROLES DURING COVID-19 OR FOR THE FUTURE

Have you created new volunteering roles or ways of volunteering during the COVID-19 pandemic?	Yes/No
IF YES	
What new volunteering roles or ways of volunteering have you created?	Free text
Have you used virtual volunteering roles at all? If so what sort of virtual volunteering have you used. Tick all that apply.	Telephone contact between volunteers and patients/family members. Video call (e.g. Zoom/Teams) contact between volunteers and patients/family members.

	<p>WhatsApp or text contact between volunteers and patients/family members.</p> <p>Telephone contact for bereavement care services.</p> <p>Video call contact for bereavement care services.</p> <p>WhatsApp or text/messaging contact for bereavement care services.</p> <p>Off-site support roles (e.g. sewing scrubs, making support packs up, administration off site)</p> <p>Other (please specify)</p>
<p>Have you created new roles for volunteers that are COVID-19 specific.</p>	<p>Yes/No</p> <p>COVID-19 marshalling (e.g. guiding people around your organisation, checking that PPE is being worn correctly and other infection control measures are being followed).</p> <p>Maintaining stocks of personal protective equipment and other relevant equipment</p> <p>Facilitating COVID-19 secure family visiting (e.g. window visits).</p> <p>Visitor screening (e.g. temperature checking, issuing personal protective equipment, enabling COVID-19 testing).</p> <p>Other.</p>

Do you have plans for volunteers for the future? What are these plans, and what do you think will help or hinder these?	Free text
Once the pandemic is over do you plan to	<p>bring volunteers back into the same roles as before</p> <p>enable volunteers to work in the same way as before</p> <p>change the way volunteers work (please give details)</p> <p>Check all that apply.</p>
Is there anything else about volunteers in your organisation at this time of COVID that you think it is important that we know? Please tell us what this is.	Free text.

Supplementary material 2: Number of responding organisations by country

Responding organisations by country		
	n	%
Argentina	4	1.31
Australia	13	4.28
Austria	8	2.63
Belgium	14	4.61
Canada	4	1.32
Chile	1	0.33
Denmark	10	3.29
Finland	2	0.66
France	8	2.63
Germany	77	25.33
Greece	1	0.33
Hungary	3	0.99
India	10	3.29
Iran	1	0.33
Ireland	4	1.32
Italy	43	14.14
Kenya	1	0.33
Lithuania	1	0.33
New Zealand	1	0.33
The Netherlands	4	1.32
Norway	3	0.99
Poland	5	1.64
Republic of Moldova	1	0.33

Romania	1	0.33
Russia	1	0.33
Rwanda	1	0.33
Serbia	1	0.33
Singapore	3	0.99
Slovakia	1	0.33
Spain	5	1.64
Sweden	2	0.66
Switzerland	2	0.66
UK	46	15.13
Ukraine	2	0.66
The United States	20	6.58

Supplementary material 3. Full results of statistical analysis.

1.

Had volunteers with suspected or confirmed COVID-19 been physically present in your organisation/services such that their association with your organisation might have been a route of transmission?	Have you created new roles for volunteers that are COVID-19 specific? Yes	Have you created new roles for volunteers that are COVID-19 specific? No	Total in rows
Yes	15	7	22
% of the column	55.56%	10.29%	
% of the row	68.18%	31.82%	
No	12	61	73
% of the column	44.44%	89.71%	
% of the row	16.44%	83.56%	
Total	27	68	95

	Chi-square	df	p
The Pearson Chi-square test	22.24884	df=1	p=.00000
The Maximum-Likelihood Chi-square test	20.64404	df=1	p=.00001

Organisations that had physically present volunteers with suspected or confirmed COVID-19. more often created the new COVID-19 specific roles for volunteers in comparison to organisations which had healthy volunteers (p=0.00000)

2.

Had volunteers with suspected or confirmed COVID-19 been physically present in your organisation/services such that their association with your organisation might have been a route of transmission?	Have you used virtual volunteering roles at all? Yes	Have you used virtual volunteering roles at all? No	Total in rows
Yes	17	5	22
% of the column	31.48%	12.50%	
% of the row	77.27%	22.73%	
No	37	35	72
% of the column	68.52%	87.50%	
% of the row	51.39%	48.61%	
Total	54	40	94

	Chi-square	df	p
The Pearson Chi-square test	4.618348	df=1	p=.03163
The Maximum-Likelihood Chi-square test	4.878919	df=1	p=.02719

Organisations that had physically present volunteers with suspected or confirmed COVID-19. more often used virtual volunteering roles in comparison to organisations without such experience (p=0.03163).

3.

Had volunteers with suspected or confirmed COVID-19 been physically present in your organisation/services such that their association with your organisation might have been a route of transmission?	Have you created new volunteering roles or ways of volunteering during the COVID-19 pandemic?		Total in rows
	Yes	No	
Yes	17	5	22
% of the column	30.91%	12.50%	
% of the row	77.27%	22.73%	
No	38	35	73
% of the column	69.09%	87.50%	
% of the row	52.05%	47.95%	
Total	55	40	95

	Chi-square	df	p
The Pearson Chi-square test	4.410273	df=1	p=.03572
The Maximum-Likelihood Chi-square test	4.661201	df=1	p=.03085

4.

Had volunteers with suspected or confirmed COVID-19 been physically present in your organisation/services such that their association with your organisation might have been a route of transmission?	Since COVID-19. does your service/organisation provide informal/formal support programs such as debriefing and counselling for staff?		Total in rows
	Yes	No	
Yes	21	1	22
% of the column	28.00%	5.26%	
% of the row	95.45%	4.55%	
No	54	18	72

% of the column	72.00%	94.74%
% of the row	75.00%	25.00%
Total	75	19 94

	Chi-square	df	p
The Pearson Chi-square test	4.371675	df=1	p=.03654
The Maximum-Likelihood Chi-square test	5.515335	df=1	p=.01885

5.

Had volunteers with suspected or confirmed COVID-19 been physically present in your organisation/services such that their association with your organisation might have been a route of transmission?	Have you offered training to volunteers during the COVID-19 pandemic?		Total in rows
	No	Yes	
Yes	1	20	21
% of the column	4.17%	27.03%	
% of the row	4.76%	95.24%	
No	23	54	77
% of the column	95.83%	72.97%	
% of the row	29.87%	70.13%	
Total	24	74	98

	Chi-square	df	p
The Pearson Chi-square test	5.625034	df=1	p=.01771
The Maximum-Likelihood Chi-square test	7.161733	df=1	p=.00745

6.

Had volunteers with suspected or confirmed COVID-19 been physically present in your organisation/s	How would you say you are deploying volunteers now compared to before the pandemic? Please answer to give the position at the date of answering the					Total in rows
	How would you say you are deploying volunteers now compared to before the pandemic? Please answer to give the position at the date of answering the	How would you say you are deploying volunteers now compared to before the pandemic? Please answer to give the position at the date of answering the	How would you say you are deploying volunteers now compared to before the pandemic? Please answer to give the position at the date of answering the	How would you say you are deploying volunteers now compared to before the pandemic? Please answer to give the position at the date of answering the	How would you say you are deploying volunteers now compared to before the pandemic? Please answer to give the position at the date of answering the	

ervices such that their association with your organisation might have been a route of transmission?	survey – this may have fluctuated since the start of the pandemic. Much less	survey – this may have fluctuated since the start of the pandemic. Slightly less	survey – this may have fluctuated since the start of the pandemic. About the same	survey – this may have fluctuated since the start of the pandemic. Slightly more	survey – this may have fluctuated since the start of the pandemic. A lot more
Yes	3	3	7	5	3
% of the column	12.00%	11.54%	26.92%	55.56%	42.86%
% of the row	14.29%	14.29%	33.33%	23.81%	14.29%
No	22	23	19	4	4
% of the column	88.00%	88.46%	73.08%	44.44%	57.14%
% of the row	30.56%	31.94%	26.39%	5.56%	5.56%
Total	25	26	26	9	7

	Chi-square	df	p
The Pearson Chi-square test	10.93896	df=4	p=.02726
The Maximum-Likelihood Chi-square test	10.19516	df=4	p=.03727

7.

Have your services within your organisation had volunteers with suspected or confirmed COVID-19?	Have you created new volunteering roles or ways of volunteering during the COVID-19 pandemic? Yes	Have you created new volunteering roles or ways of volunteering during the COVID-19 pandemic? No	Total in rows
No	46	66	112
% of the column	45.10%	63.46%	
% of the row	41.07%	58.93%	
Yes	56	38	94
% of the column	54.90%	36.54%	
% of the row	59.57%	40.43%	
Total	102	104	206

	Chi-square	df	p

The Pearson Chi-square test	6.999479	df=1	p=.00815
The Maximum-Likelihood Chi-square test	7.039426	df=1	p=.00797

Organisations that had volunteers with suspected or confirmed COVID-19 more often created new volunteering roles or ways of volunteering during the COVID-19 pandemic than the organisations that did not have such experience (p=0.00815).

8.

Have your services within your organisation had volunteers with suspected or confirmed COVID-19?	Since COVID-19. does your service/organisation provide informal/formal support programs such as debriefing and counselling for staff? Yes	Since COVID-19. does your service/organisation provide informal/formal support programs such as debriefing and counselling for staff? No	Total in rows
	No	70	
% of the column	48.95%	68.85%	
% of the row	62.50%	37.50%	
Yes	73	19	92
% of the column	51.05%	31.15%	
% of the row	79.35%	20.65%	
Total	143	61	204

	Chi-square	df	p
The Pearson Chi-square test	6.840028	df=1	p=.00891
The Maximum-Likelihood Chi-square test	6.989278	df=1	p=.00820

9.

Have your services within your organisation had volunteers with suspected or confirmed COVID-19?	Have you offered training to volunteers during the COVID-19 pandemic? No	Have you offered training to volunteers during the COVID-19 pandemic? Yes	Total in rows
	No	41	
% of the column	64.06%	48.97%	
% of the row	36.61%	63.39%	
Yes	23	74	97
% of the column	35.94%	51.03%	
% of the row	23.71%	76.29%	
Total	64	145	209

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	Chi-square	df	p
The Pearson Chi-square test	4.068973	df=1	p=.04368
The Maximum-Likelihood Chi-square test	4.116040	df=1	p=.04248

Organisations that had volunteers with suspected or confirmed COVID-19 offered training to volunteers during the COVID-19 pandemic more often than organisations that did not have such experience (p=0.04368).

10.

Have your services within your organisation had volunteers with suspected or confirmed COVID-19?	Have you changed how you deploy volunteers since COVID-19? Please give details in one of the boxes below. - Selected Choice		Total in rows
	Yes	No	
No	74	42	116
% of the column	51.75%	66.67%	
% of the row	63.79%	36.21%	
Yes	69	21	90
% of the column	48.25%	33.33%	
% of the row	76.67%	23.33%	
Total	143	63	206

	Chi-square	df	p
The Pearson Chi-square test	3.956295	df=1	p=.04670
The Maximum-Likelihood Chi-square test	4.020298	df=1	p=.04496

The way of volunteers' deployment since COVID-19 presents more changes in organisations that had volunteers with suspected or confirmed COVID-19 in comparison to organisations which had healthy volunteers (p=0.04670).

11.

Have your services within your organisation had staff with suspected/confirmed COVID-19?	Have you created new volunteering roles or ways of volunteering during the COVID-19 pandemic?		Total in rows
	Yes	No	
Yes	76	62	138

% of the column	73.08%	58.49%	
% of the row	55.07%	44.93%	
No	28	44	72
% of the column	26.92%	41.51%	
% of the row	38.89%	61.11%	
Total	104	106	210

	Chi-square	df	p
The Pearson Chi-square test	4.957247	df=1	p=.02598
The Maximum-Likelihood Chi-square test	4.989101	df=1	p=.02551

Organisations that had the staff with suspected/confirmed COVID-19 more often created new volunteering roles or ways of volunteering during the COVID-19 pandemic than organisations that did not have such experience (p=0.02598)

12.

Have your services within your organisation had staff with suspected/confirmed COVID-19?	Since COVID-19. does your service/organisation provide informal/formal support programs such as debriefing and counselling for staff?		Total in rows
	Yes	No	
Yes	105	30	135
% of the column	71.43%	49.18%	
% of the row	77.78%	22.22%	
No	42	31	73
% of the column	28.57%	50.82%	
% of the row	57.53%	42.47%	
Total	147	61	208

	Chi-square	df	p
The Pearson Chi-square test	9.367967	df=1	p=.00221
The Maximum-Likelihood Chi-square test	9.145752	df=1	p=.00249

Organisations that had the staff with suspected/confirmed COVID-19 more often provided informal/formal support programs such as debriefing and counselling for staff than organisations that did not have such experience (p=0.00221)

13.

Have your services within your organisation cared for patients with suspected (untested but with clinical diagnosis/symptoms) of COVID-19?	Have you created new roles for volunteers that are COVID-19 specific?	Have you created new roles for volunteers that are COVID-19 specific?	Total in rows
	Yes	No	
No	16	102	118
% of the column	32.00%	64.97%	
% of the row	13.56%	86.44%	
Yes	34	55	89
% of the column	68.00%	35.03%	
% of the row	38.20%	61.80%	
Total	50	157	207

	Chi-square	df	p
The Pearson Chi-square test	16.81734	df=1	p=.00004
The Maximum-Likelihood Chi-square test	16.83971	df=1	p=.00004

Organisations that cared for patients with suspected (untested but with clinical diagnosis/symptoms) of COVID-19 more often created new volunteering roles that are COVID-19 specific than organisations that did not have such experience (p=0.00004).

14.

Have your services within your organisation cared for patients with suspected (untested but with clinical diagnosis/symptoms) of COVID-19?	Have you created new volunteering roles or ways of volunteering during the COVID-19 pandemic?	Have you created new volunteering roles or ways of volunteering during the COVID-19 pandemic?	Total in rows
	Yes	No	
No	49	68	117
% of the column	48.04%	64.15%	
% of the row	41.88%	58.12%	
Yes	53	38	91
% of the column	51.96%	35.85%	
% of the row	58.24%	41.76%	
Total	102	106	208

	Chi-square	df	p
The Pearson Chi-square test	5.483102	df=1	p=.01920
The Maximum-Likelihood Chi-square test	5.506096	df=1	p=.01895

Organisations that cared for patients with suspected (untested but with clinical diagnosis/symptoms) of COVID-19 more often created new volunteering roles or ways of volunteering during the COVID-19 pandemic than organisations that did not have such experience (p=0.01920)

15.

Have your services within your organisation cared for patients with suspected (untested but with clinical diagnosis/symptoms) of COVID-19?	Since COVID-19. does your service/organisation provide informal/formal support programs such as debriefing and counselling for staff?		Total in rows
	Yes	No	
No	73	45	118
% of the column	50.34%	73.77%	
% of the row	61.86%	38.14%	
Yes	72	16	88
% of the column	49.66%	26.23%	
% of the row	81.82%	18.18%	
Total	145	61	206

	Chi-square	df	p
	The Pearson Chi-square test	9.629066	df=1
The Maximum-Likelihood Chi-square test	9.982197	df=1	p=.00158

Organisations that cared for patients with suspected (untested but with clinical diagnosis/symptoms) of COVID-19 more often provided informal/formal support programs such as debriefing and counselling for staff than organisations that did not have such experience (p=0.00192)

16.

Have your services within your organisation cared for patients with confirmed (by test) cases of COVID-19?	Have you created new roles for volunteers that are COVID-19 specific?		Total in rows
	Yes	No	
Yes	34	64	98
% of the column	66.67%	40.51%	
% of the row	34.69%	65.31%	
No	17	94	111
% of the column	33.33%	59.49%	
% of the row	15.32%	84.68%	
Total	51	158	209

	Chi-square	df	p
The Pearson Chi-square test	10.59525	df=1	p=.00113
The Maximum-Likelihood Chi-square test	10.69837	df=1	p=.00107

Organisations that cared for patients with confirmed (by test) cases of COVID-19 more often created the new COVID-19 specific roles for volunteers in comparison to organisations that did not provide such care (p=0.00113).

17.

How is your organisation primarily managed? Indicate the main source of funding for your organisation. - Selected Choice	Have you created new roles for volunteers that are COVID-19 specific? Yes	Have you created new roles for volunteers that are COVID-19 specific? No	Total in rows
Charitable / non-profit	34	103	137
% of the column	66.67%	65.19%	
% of the row	24.82%	75.18%	
Private	7	4	11
% of the column	13.73%	2.53%	
% of the row	63.64%	36.36%	
Public	5	28	33
% of the column	9.80%	17.72%	
% of the row	15.15%	84.85%	
Other (please put details in box below)	5	23	28
% of the column	9.80%	14.56%	
% of the row	17.86%	82.14%	
Total	51	158	209

	Chi-square	df	p
The Pearson Chi-square test	11.37266	df=3	p=.00987
The Maximum-Likelihood Chi-square test	9.972780	df=3	p=.01880

Private organisations more often than the others created new COVID-19 specific roles for volunteers (p=0.00987).

18.

How is your organisation primarily managed? Indicate the main source of funding for your organisation. - Selected Choice	Have you used virtual volunteering roles at all? Yes	Have you used virtual volunteering roles at all? No	Total in rows
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Charitable / non-profit	83	54	137
% of the column	76.85%	53.47%	
% of the row	60.58%	39.42%	
Private	6	5	11
% of the column	5.56%	4.95%	
% of the row	54.55%	45.45%	
Public	10	23	33
% of the column	9.26%	22.77%	
% of the row	30.30%	69.70%	
Other (please put details in box below)	9	19	28
% of the column	8.33%	18.81%	
% of the row	32.14%	67.86%	
Total	108	101	209

	Chi-square	df	p
The Pearson Chi-square test	14.70428	df=3	p=.00209
The Maximum-Likelihood Chi-square test	14.95608	df=3	p=.00185

Charitable / non-profit organisations more often used virtual volunteering roles than the public organisations (p=0.00209).

19.

How is your organisation primarily managed? Indicate the main source of funding for your organisation. - Selected Choice	Have you created new volunteering roles or ways of volunteering during the COVID-19 pandemic? Yes	Have you created new volunteering roles or ways of volunteering during the COVID-19 pandemic? No	Total in rows
Charitable / non-profit	80	59	139
% of the column	76.92%	55.66%	
% of the row	57.55%	42.45%	
Private	5	6	11
% of the column	4.81%	5.66%	
% of the row	45.45%	54.55%	
Public	10	22	32
% of the column	9.62%	20.75%	
% of the row	31.25%	68.75%	
Other (please put details in box below)	9	19	28
% of the column	8.65%	17.92%	
% of the row	32.14%	67.86%	
Total	104	106	210

	Chi-square	df	p
The Pearson Chi-square test	11.31698	df=3	p=.01013
The Maximum-Likelihood Chi-square test	11.52023	df=3	p=.00922

20.

Q8a (1- Europe. 2- rest of the World)	Have you changed how you deploy volunteers since COVID-19? Please give details in one of the boxes below. - Selected Choice	Have you changed how you deploy volunteers since COVID-19? Please give details in one of the boxes below. - Selected Choice	Total in rows
	Yes	No	
1	105	55	160
% of the column	73.43%	85.94%	
% of the row	65.63%	34.38%	
2	38	9	47
% of the column	26.57%	14.06%	
% of the row	80.85%	19.15%	
Total	143	64	207

	Chi-square	df	p
The Pearson Chi-square test	3.943188	df=1	p=.04706
The Maximum-Likelihood Chi-square test	4.210401	df=1	p=.04018

The way of volunteers' deployment since COVID-19 presents less changes in European organisations than organisations from the rest of the World. (p=0.04706)

21.

How would you say you are deploying volunteers now compared to before the pandemic? Please answer to give the position at the date of answering the survey – this may have fluctuated since the start of the pandemic. More - 1. less-2	Had volunteers with suspected or confirmed COVID-19 been physically present in your organisation/services such that their association with your organisation might have been a route of transmission? Yes	Had volunteers with suspected or confirmed COVID-19 been physically present in your organisation/services such that their association with your organisation might have been a route of transmission? No	Total in rows
1	8	8	16

% of the column	57.14%	15.09%	
% of the row	50.00%	50.00%	
2	6	45	51
% of the column	42.86%	84.91%	
% of the row	11.76%	88.24%	
Total	14	53	67

	Chi-square	df	p
The Pearson Chi-square test	10.77184	df=1	p=.00103
The Maximum-Likelihood Chi-square test	9.558076	df=1	p=.00199

22.

How would you say you are deploying volunteers now compared to before the pandemic? Please answer to give the position at the date of answering the survey – this may have fluctuated since the start of the pandemic. More - 1. less-2	Q8a (1-Europe. 2-rest of the World) 1	Q8a (1-Europe. 2-rest of the World) 2	Total in rows
1	15	11	26
% of the column	13.27%	35.48%	
% of the row	57.69%	42.31%	
2	98	20	118
% of the column	86.73%	64.52%	
% of the row	83.05%	16.95%	
Total	113	31	144

	Chi-square	df	p
The Pearson Chi-square test	8.110100	df=1	p=.00440
The Maximum-Likelihood Chi-square test	7.184904	df=1	p=.00735

The number of volunteers in the organisations compared to before the pandemic dropped to higher extend in Europe than in organisations from the rest of the World (p=0.00440)

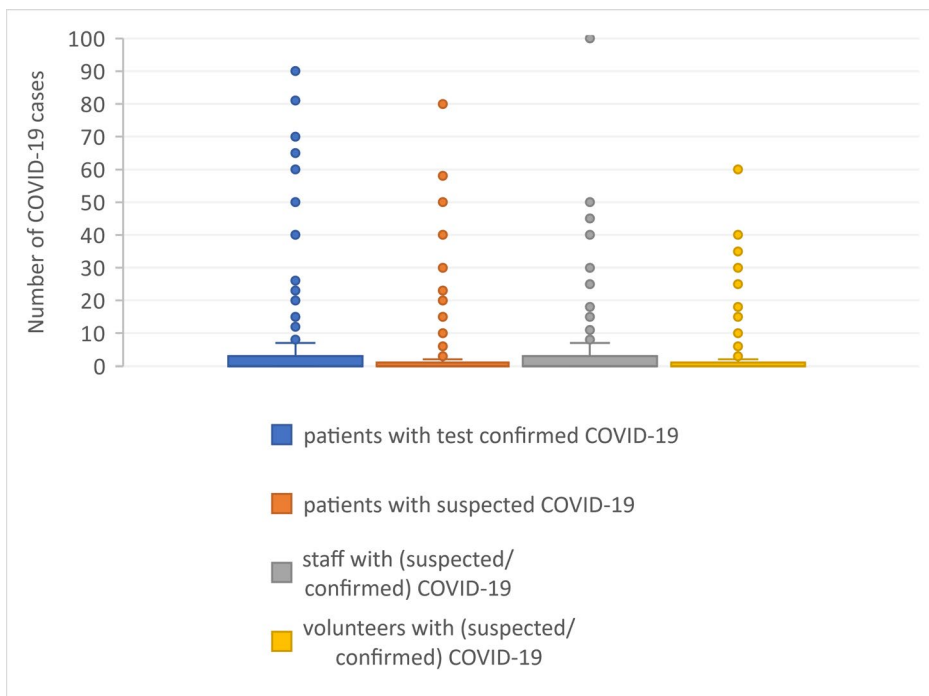


Figure 1. Box and whisker plot of the distribution of cases of COVID-19 experienced by organisations, where the number of cases is ≤ 100