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Findings from security research

Maintaining outpatient care infrastructures in crisis situations

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13 | **Resilience**
Research Writings

Research Writings

The publications of the Team Risk Management, Security Research and Innovation Transfer contain the results of scientific studies of the German Red Cross. The Risk Management, Security Research and Innovation Transfer Team in the German Red Cross General Secretariat launched an investigation of research requirements in 2012 spanning the entire organisation and involving all branches. During this process, three essential topic areas were identified as desirable research focuses: Resilience, societal development, and resource management. Since 2019, documentation of operational situations has been published in Volume 7.[1]

The Research Writings address these topics and offer impetuses for the continued strategic development of the organisation.

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[1]   The colours are reflected in the respective cover picture.

Publication Series Volume 13 – Maintaining outpatient care infrastructures in crisis situations (AUPIK)
Findings from security research

This article addresses the provision of needs-based care to care-dependent people in their homes during crisis situations and disasters. The focus here is on the networking of crisis experts in the field of disaster control with everyday experts from the care sector, the medico-social sector, and other players who are influential in terms of maintaining outpatient care arrangements, within the social space. On this basis, the following text outlines pilot measures that focus primarily on the structures of the care service. As a mediator and organiser, this service takes on a crucial mediation and networking role. Transition criteria that render necessary evacuation to temporary centralised accommodation will then be outlined, namely the uninhabitability of the domestic environment, the loss of care staff, and the failure of technology that is crucial to survival. The core of this series of publications is the "Crisis Unit for Outpatient Care" pilot concept, which is laid out according to the traditional structures of a care facility. Through the approach of integrating people with a care requirement into a flexible and needs-based crisis unit, within established care structures, measures will be implemented in a targeted manner with a view to closing care gaps in relation to care expertise and care consumables. The article concludes with recommendations for the German Red Cross (DRK) for strengthening the resilience of outpatient care infrastructures.

Maintaining outpatient care infrastructures in crisis situations

Findings from security research

Content

1 | Introduction

Society finds itself confronted with an increasing number of crises and disasters. The Coronavirus pandemic, the 2021 flood in the Ahr Valley, and the Ukraine conflict illustrate how crises are becoming part of everyday life, pushing care infrastructures to their limits. At the same time, far-reaching societal change is occurring, which already poses a huge challenge for care structures on a daily basis.

This applies in particular for the area of outpatient care. As such, demographic change is continually resulting in an increase in the number of care-dependent people. Simultaneously, the number of people who receive care within their homes is also rising (Max and Schulze 2022). At the end of 2021, 4.96 million people were in need of care, as per the definition of the Care Insurance Act (SGB XI), of which 84% (4.17 million people) were cared for at home. Around 61% of these people were cared for by relatives in their homes, and 1.05 million care-dependent people were cared for either partially or exclusively by outpatient care services (Statistisches Bundesamt (Destatis) 2023).

The care of these people on a daily basis is already marked by a lack of qualified personnel working for outpatient care services, and the time-critical nature of patient care. During crises and disasters, this often precarious situation places outpatient care structures under enormous pressure (Roßnagel 2013). For example, needs-appropriate care is not possible if care-dependent people can no longer be accessed. Often, vital therapeutic measures (e.g. insulin injections) can consequently no longer be guaranteed, or care-relevant equipment (e.g. breathing and home dialysis devices) can no longer be used. Depending on the level of damage suffered, the care requirement can even increase further while resources are not fully available or accessible. It is apparent that everyday vulnerabilities in care infrastructures can lead to potential care instability and failures in the event of crises and disasters. This is not exclusive to outpatient care, but is particularly applicable there.

Previous situations have shown that civil protection is not sufficiently prepared for this state of affairs – that is, the needs-based provision of care to those reliant on outpatient treatment. Central information regarding the places of residence or medical care requirements of those in need of care is generally unknown to disaster control personnel (Max and Schulze 2022). In the training content for disaster management officers, care-relevant information plays barely any role whatsoever. A lack of spatial resources and material equipment for the needs-based care of care-dependent people within disaster control structures also renders care-giving difficult, regardless of whether people are receiving care within their homes or in a central emergency accommodation (Max and Schulze 2022).

The insufficient crisis-resilience of care structures and the lacking civil protection resources and skills in the provision of outpatient care to care-dependent people form the starting point for the "Maintaining outpatient care infrastructures in crisis situations (AUPIK)" research project. The project formulates proposals for the design of a modern aid system, which sustainably enhances the resilience of outpatient care structures and thus contributes to the improvement of the care situation of care-dependent people during crises or disasters. AUPIK was developed using a participatory research approach, meaning that relevant stakeholders from the areas of civil protection, medico-social care, the private sector and civil society were involved during project development, and networks were established between them. The project thus extends beyond current discussions in the area of civil protection and combines scientific aspirations with practice-oriented application. The compiled contributions from the AUPIK affiliated partners are published in a separate anthology entitled "Resiliente Pflegeinfrastrukturen – Stärkung des Risiko- und Krisenmanagements in der ambulanten Pflege" (Resilient Infrastructures – reinforcing risk and crisis management in outpatient care).

This 13th volume of the Research Publications of the Deutschen Roten Kreuzes e.V. (DRK) provides an overview of the project results developed in AUPIK. These confirm that crisis and everyday life must be considered interconnected to a greater extent. Crisis awareness must increase within everyday care structures, which must also be reinforced in anticipation of crises, so that those in need of outpatient care can receive care that is appropriate to their needs at all times. At the same time, in light of the increasing complexity of everyday systems and crises, the comprehensive replacement of everyday care infrastructures would be difficult to achieve, as this would exceed civil protection capacities. In fact, civil protection must turn its focus towards these everyday care structures, as they are best suited to guaranteeing the needs-appropriate provision of care to the population both in everyday situations and in times of crisis.

With around 432,000 volunteers and almost 190,000 full-time staff, the DRK is predestined to achieve this goal. It serves as a reliable partner to the "integrated emergency response system" and the German government's National Aid Society in the event of a crisis, and also serves as a non-statutory welfare umbrella organisation. The DRK is thus an important player in the provision of medico-social care to the population, both on a daily basis and in times of crisis. From the perspective of the DRK, and based on the research results from AUPIK, a modern emergency response system should fulfil three core functions in order to strengthen the resilience of medical/care infrastructures.

Firstly, all local players that are of relevance to the provision of care to those in need of on-site outpatient care must be identified in advance of the crisis and must be continually networked with one another. This way, potential resources for crisis management and the provision of care to those affected can be activated.

Secondly, within this network, measures must be defined to enable the self-sufficiency of everyday care structures to be maintained for as long as possible during crises and disasters.

Thirdly, should it no longer be possible to maintain everyday care structures, civil protection must further organise needs-based replacement services – with the aim of restoring everyday care as quickly as possible.

These requirements exhibit strong links with the "German Strategy for the Strengthening of Resilience to Disasters"(Bundesministerium des Innern und für Heimat (BMI) 2022), which also advocates for structured cooperation between all relevant instances of the everyday care and civil protection structures, for the purposes of effective crisis management. Likewise, the standards and principles of outpatient care of the German Federal Ministry for Health (in accordance with § 113 SGB XI) advocate in favour of effective crisis provision by care services, including in collaboration with civil protection structures (Bundesanzeiger 2022).

In order to present the identified proposals, and the AUPIK project in general, in greater detail, this volume is laid out as follows: In the second chapter, the research project itself, Magdeburg as a model region, and the methodology are presented and considered within the context of the DRK's previous security research. Chapter 3 provides an overview of the recommendations and measures for the successful identification and networking of relevant local players. Chapters 4 and 5 summarise how the preservation of outpatient care structures can be guaranteed, and which criteria must be met in establishing alternative care provision through replacement services. Chapter 6 takes an overview of these replacement services, presenting the "Crisis Unit for Outpatient Care" pilot concept developed in AUPIK. The measures and recommendation presented in chapters 3 and 6 are outlined in detail, categorised, and explained using practical examples in a practice-oriented guide to the provision of care to those affected by crises and disasters. Then, in chapter 7, various recommendations for action are formulated for the DRK and the political sphere, based on the research findings. In the final chapter; chapter 8, the findings are summarised and categorised with regard to establishing future-proof and resilient civil protection.

2 The AUPIK research project

AUPIK

Runtime: March 2020 – June 2023

Within the scope of AUPIK, the Risk Management, Security Research & Innovation Transfer team of the DRK General Secretariat worked from 2020 until June 2023 alongside project partners from the International Centre for Ethics in the Sciences and Humanities (IZEW) of the University of Tübingen, the Institute for Health and Care Science (IGPW) of the Charité – Universitätsmedizin Berlin and the Vincentz Network GmbH & Co. KG publishing house, as well as with numerous affiliated partners.[2]

The research took as an example the model region of Magdeburg, using the hypothetical crisis scenario of a power failure spanning several days during the winter season. Solutions that were as practical as possible could thus be developed, taking into account the regional framework conditions. The results were run past disaster control and outpatient care practitioners as part of an ongoing feedback process.

Within the scope of the project, extensive awareness raising, information and training materials etc. in the form of a practical guide and a digital demonstrator were developed for disaster control emergency personnel. In addition, specific internal and political recommendations were developed for the effective preparation for the provision of care to those in need in the event of a crisis. These identify specific ways in which the effective networking of all relevant players can be realised in order to provide appropriate care to outpatients in the event of a crisis or disaster.

First of all, the structure of the research project is laid out below. Once the objectives have been presented, the specific procedure for the selection of the model region and the crisis scenario, as well as the applied research methodology, are explained in greater detail.

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[2]   Further information on the joint project can be found at:
    https://www.sifo.de/sifo/shareddocs/Downloads/files/projektumriss_aupik.pdf?__blob=publicationFile&v=2

2.1   AUPIK as a cooperative project

AUPIK is a cooperative project in which the DRK worked with partners from the IZEW of the University of Tübingen, the Charité Berlin Hospital, and Vincentz Network GmbH & Co. KG, on four sub-projects. Here, the IZEW focussed on ethical aspects regarding the preservation of outpatient care structures and developed recommendations for political action. The IGPW of the Charité Berlin focussed on decentralised outpatient care services and how these can be better prepared for crises and disasters. Finally, the Vincentz Verlag publishing house created demonstrators and image material on the basis of the research findings.

DRK's Risk Management, Security Research & Innovation Transfer team was responsible for the "Safety and Disaster Control" sub-project, and thus also for highlighting the interface between outpatient care services and disaster control structures. The goal of the sub-project was to analyse the support potential of aid organisations during crises and larger-scale emergencies. The focus here was on the networking of everyday practitioners and crisis experts, and the definition of necessary steps to ensure that the everyday outpatient care structure can be maintained for as long as possible. In addition, a pilot concept for the temporary provision of centralised care to care-dependent people was developed. In order to guarantee the transfer of project results in practice, various image and information materials were created during this process, and the "Crisis Unit for Outpatient Care" pilot concept for the temporary centralisation of outpatient care infrastructures was conceived.

2.2   Procedure

In order to guarantee the practical feasibility of the developed recommendations, project development utilised a specific crisis scenario, adopting Magdeburg as a model region. The hypothetical crisis scenario adopted within the research project involved a multi-day power failure during the winter season. The reason for the selection of this scenario in particular was, among other factors, its high probability of future occurrence (Petermann et al. 2013). Contextually, this scenario appeared suitable, as a power failure during the cold season represents a potential danger that must be taken seriously, in particular for those requiring home care, for instance on account of technical dependencies (e.g. breathing apparatus) (Max and Schulze 2022). The project development was regularly abstracted from the scenario of the power failure, so as to ensure the transferability of the results to other forms of crisis and disaster situation.

2.3   Methodology

The research project follows the principle of qualitative social research. This means that the data basis from which the findings were deduced was acquired from semi-structured, exploratory guided interviews with various DRK experts, primarily from the Care Service division, but also from the First Aid and Welfare divisions (survey period: August 2020 to February 2021). In order to record the current challenges with regard to the collaboration between outpatient care and disaster control structures experts from various professions within the medico-social sector were also interviewed. Furthermore, discussion contributions from various round tables in the model region of Magdeburg were considered as data material. Both full-time employees and volunteers from the Care and Disaster Control divisions were included in the research process. A total of 16 guided interviews were conducted. Here, there was a particular focus on past operational experience in relation to the handling of care-dependent persons, and with regard to designing the collaboration with external players – generally from the care sector – in the concerned social space. The interviews were recorded, transcribed, and then analysed by means of an open coding process with software support. The results were compiled and prepared in various formats for the evaluation process. These were evaluated by the DRK experts within the scope of consultant conferences, committee work, and in one-on-one interviews. On the basis of these validations, the "Crisis Unit for Outpatient Care" pilot concept was developed.

In the next section, the DRK's previous research projects, which formed the basis for AUPIK, are briefly presented.

2.4   Previous projects in relation to AUPIK

The AUPIK research project is linked to the previous research work of the DRK's Risk Management, Security Research & Innovation Transfer team. Later in the text, the focal points of the previous projects are presented briefly and the developments leading to the AUPIK research project demonstrated:

The ENSURE project "Involving volunteers in crisis management" (Einbindung von Helfern im Krisenmanagement) emphasises the importance of alternative forms of volunteering in disaster control in Germany, and recommends the integration of spontaneous volunteers into the DRK's structures.

Within the scope of the INVOLVE project "Reducing social vulnerability through voluntary engagement" (Verringerung sozialer Vulnerabilität durch freiwilliges Engagement), recommendations were drafted aiming to reduce vulnerabilities. These target socio-spatial networking and collaboration with external players. The care service was assigned a prom-

inent role, as this is of central importance in supporting people in emergency situations and forms the crucial point of contact for new forms of engagement.

The "Building resilience in Europe" (Aufbau der Resilienz in der europäischen Gemeinschaft, BuildERS) research project came to the conclusion that vulnerabilities are individual, situational and subject to change, and that it is important to consider these characteristics in order to successfully manage crises and disasters.

The "Resilience through social cohesions - the role of organisations" (Resilienz durch sozialen Zusammenhalt – die Rolle von Organisationen, ResOrt) research project studied the link between social cohesion and the management of crises and disasters. Recommendations were deduced in order to improve civil protection and to strengthen social cohesion by means of coordinated collaboration between various organisations and municipal authorities.

The goal of "Strengthening the contexts of those in need of care and aid" (Kontexte von Pflege- und Hilfsbedürftigen stärken, KOPHIS) was to strengthen the resilience of the outpatient care infrastructure through targeted support offerings for care-giving friends and relatives. To this end, measures were developed to promote self-help and neighbourhood assistance. Here, friends and relatives were networked within their social environment and put in touch with relevant players from the fields of disaster control, care, and civil society.

In the two projects titled "Migration-related knowledge management for the civil protection of the future" (Migrationsbezogenes Wissensmanagement für den Bevölkerungsschutz der Zukunft, WAKE) and "Safety cooperations and migration" (Sicherheitskooperationen und Migration, SIKOMI), the DRK's refugee aid was examined in closer detail. Here, the research projects focussed on the integration of and cooperation with civil-society players, including aid networks and refugee initiatives that were established on an ad hoc basis.

AUPIK draws on the key topics and findings from the presented research projects and combines the results of the integration of external players via the role of the care service to establish social-space-oriented networking, whereby the focus is placed on the vulnerable group of outpatients. The progression of the research projects, drawing on various operational experiences, clearly shows the importance of social-space-oriented civil protection. For this reason, the following chapters present the concept of social-space-oriented networking in detail, with reference to the previous ResOrt and KOPHIS projects.[3]

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[3]   More information on the projects can be found at: https://www.drk.de/forschung/forschungsprojekte/

3 | Social space mapping and networking

3.1 Principles of networking

The ground work for the networking approach was laid in two previous projects; ResOrt[4] and KOPHIS[5]. For instance, ResOrt emphasises the fact that a social-space-oriented approach is an essential part of civil protection if we are to prepare effectively for crises and disasters.

The findings of the research project prove that networked collaboration between players within the social space can contribute to increasing the resilience of a community. Through networking, the local needs as well as the local resources and capacities can be detected at an early stage and incorporated into preventive task, resource and deployment planning, in addition to being used in acute crisis management. Successful networking can also contribute to the population having greater awareness, being better informed, and receiving better support in crisis situations.

In the previous KOPHIS project, the focus was already placed on the vulnerabilities of those in need of care. Here, particular attention was paid to care-giving relatives and their social environment, within the context of preparation for disasters. Through the targeted preparation of information and awareness-raising materials for those dependent on home care, networking approaches, concepts and measures were detailed. These raise awareness among care-giving relatives and prepare them for crises and disasters in a practical and accessible way.

The findings from the research projects emphasise the significance of social-space-oriented networking in disaster control. AUPIK links in with these findings and suggests networking as the starting point for the needs-based provision of care to affected care-dependent people. In this regard, the research project places particular emphasis on structured collaboration between care-givers and disaster control, and describes how disaster control can make everyday care structures more resilient.

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[4] More information on the ResOrt project can be found at:
https://www.drk.de/forschung/forschungsprojekte/laufende-projekte/resort/

[5] More information on the KOPHIS project can be found at:
https://www.drk.de/forschung/forschungsprojekte/abgeschlossene-projekte/kophis/

3.2 Significance of social space-oriented networking

The next section presents a three-stage process, ranging from the identification of vulnerable persons within the social space to the networking of players who could potentially provide aid.

As a first step, vulnerabilities within the social space are identified. Secondly, vulnerable persons are analysed with regard to risk potential, needs and vulnerabilities, and potential skills and resources of other players within the social space that are relevant for crisis management are identified. Here, both the needs of these people and the available resources and competences are considered in order to find the best possible solutions.

In the final step, the players are networked so as to facilitate sustainable collaboration.

3.2.1 Prerequisite for networking: Social space mapping

The development of strategies and measures for the management of crises and disasters is based on thorough **social space mapping**. Here, the potential risks, vulnerabilities, and needs of people in the concerned region are identified. By means of a thorough examination of the local structures, it can be determined who is living in the region and who is particularly at risk on account of their unique situation, and which special needs result from this.

When managing crises and disasters, it is important to identify potential players that can be brought on board within the context of complex aid systems. This includes critical infrastructures such as hospitals, outpatient care units, water and energy supply companies, as well as the social environment, state bodies, businesses and other players. The needs and capacities of those in situation-based positions of vulnerability, but also of potential support workers, must be given special consideration here, so as to enable the effective management of crises and disasters.

Through the integration of already existing local resources and capacities, the guiding principle of "knowing who to turn to in a crisis" can be successfully implemented. In this way, joint measures that are in line with the needs and capacities of those in situation-based positions of vulnerability within the social space can be developed.

In pursuit of the goal of addressing the needs of vulnerable people as best as possible, and making optimal use of available resources and competences, it is now a matter of

actively networking with players whose skills and resources have been identified as being capable of contributing to crisis management.

Socio-spatial networking also offers disaster control services the opportunity to raise awareness of hazard potential. In this way, through networking, disaster control services can draw on a wide range of resources and skills in times of crisis and large-scale emergency, and can react in an appropriate manner.

3.2.2   Continuous networking

Constant networking is essential to ensure the continual exchange of information, requirements and skills within the social space. In order to guarantee this, joint planning is required between the involved players, to coordinate the tasks, resources, and deployment. Here, the available resources and compensation possibilities must be clarified. This includes the acquisition and provision of staff, premises, and equipment on an organisational level, as well as the allocation of responsibilities and the definition of communication structures.

In this context, responsibility for networking activities should not lie with one player, but rather should be organised on a cross-player basis. In order to demonstrate the potential scope of networking players who could be networked together, the following players are highlighted from a disaster control perspective:
- Lower and mid-level disaster control authorities, as well as welfare associations (e.g. Arbeiterwohlfahrt (AWO), Deutscher Caritasverband (DCV), Deutsche Paritätische Wohlfahrtsverband (Der Paritätische), Diakonie Deutschland)
- Networking of disaster management officers with critical infrastructure (e.g. energy and water suppliers or drug suppliers)
- Networking of disaster control with other relevant everyday structures (so-called everyday experts)

Both the initiation and the continuous upkeep of networking require the involvement of, and dialogue between players. Possible formats may include round tables and dialogue forums, strategy meetings, exercises and work shadowing.

The following chapter represents an overview of the networking players for the maintenance of outpatient care infrastructures identified within the AUPIK project, highlights steps for a networking strategy, and presents various networking activities, taking Magdeburg as a model region. Here, the focus of interest is placed both on networking within the DRK structures, for example with players from the field of welfare and social work (Wohlfahrts- und Sozialarbeit, WUS), but also inter-association networking with external players from the spheres of business and civil society, and public authorities.

3.3 The significance of everyday systems for AUPIK

With regard to the provision of care to care-dependent people, it is important to emphasise that care-giving relatives and professional care offerings, such as outpatient care services, function as central everyday structures for the provision of home care to care-dependent people. Care-giving relatives are frequently the ones who provide the majority of care and support to care-dependent people. In Germany, 2.55 million care-dependent people are cared for by relatives or persons within their immediate social environment (e.g. family members such as spouses, children, or siblings) (Statistisches Bundesamt 2022). This is often a physically and psychologically demanding activity, which far too seldom receives sufficient recognition and support on a daily basis.

Outpatient care services play an important role in the support of relatives and the direct provision of care to those in need. They possess extensive expertise and experience in the care of chronically ill and care-dependent people, and can address their individual needs. What's more, they are capable of offering targeted consultation and support, and can thus contribute to ensuring that the provision of care can be maintained within the home environment

Who is actually caring for care-dependent people? Who are the care-givers?

It is mainly care-giving relatives or persons within the immediate social environment (e.g. family members such as spouses, children, or siblings) who care for the care-dependent (2.55 million) (Statistisches Bundesamt 2022).

Just under 1.05 million care-dependent people are cared for by and/or with the help of professional carers, such as outpatient care services or day-care facilities (Statistisches Bundesamt 2022).

In crisis situations and large-scale emergencies in particular, however, the maintenance of adequate care provision represents a major challenge, as existing structures and resources are often already overrun during the course of normal everyday operations.

3.3.1 Players within the outpatient care infrastructure

Outpatient care services generally specialise in the provision of care to people within their home environments. However, in the event of a disaster, the infrastructure required

for everyday care is severely impacted. Disaster control can play an important role, in ensuring the continuous provision of care to clients.

Close collaboration between outpatient care services and disaster control is of great importance in order to guarantee the best possible provision of care to care-dependent people in crisis situations. Here, disaster control's task is to raise awareness of possible hazard situations and corresponding measures among the care services. At the same time, shared processes and protocols should be developed for emergency situations, so as to be able to act quickly and efficiently. Outpatient care services should also bring their expertise and experience, as they are often the first to arrive on-site and can thus make an important contribution to managing a crisis or disaster. Close collaboration between both parties can thus ensure the fast and effective provision of care to those affected.

Cooperation between outpatient care services and disaster control can, for example, come about through the involvement of care services in disaster control planning. Outpatient care services have a statutory obligation in this regard, on account of the amendment to the "Measures and principles for quality and quality assurance and for the development of internal institutional quality management in outpatient care, in accordance with § 113 of the Eleventh Code of Social Law" (Bundesanzeiger 2022) dated 27 May 2011.

In addition to outpatient care services, other players are also part of medico-social care provision, such as pharmacies and medical supply stores, for example. They too can contribute to ensuring healthcare provision in crises and disasters, e.g., by providing drugs and other care-relevant supplies. In this regard, for example, joint training sessions and exercises can be carried out with a view to improving collaboration.

Across the board, the close networking of outpatient care services and other players from the medico-social care provision sector is of great importance to disaster control, depending on the respective social space, in order to be able to act quickly and effectively in the event of a crisis or disaster.

3.3.2 Care-giving relatives

Networking with the lower level disaster control authorities is also important for care-giving relatives, to ensure a resilient response in times of crisis and disaster.

As already indicated, one important task fulfilled by disaster control lies in educating people as to the potential hazards and risks, and raising awareness regarding the need for targeted preparation. In the case of people receiving outpatient care, it is of central importance that care-givers receive early and comprehensive information, to detect potential hazards in order to be able to take targeted precautionary measures.

In order to raise awareness among the group of care-giving relatives, disaster control can draw on self-help groups, day care facilities, general practitioners, or other services such as meal delivery services. These facilities have direct contact with the people in need of care and can provide information regarding the need for care provision in the event of crises and large-scale emergencies. Here, the specific needs of the people in need of care should be taken into account, to enable tailored care planning.

In addition to raising awareness regarding the handling of crises, networking activities play a major role. The relatives themselves can be involved in the disaster control planning, thus allowing them to act quickly in the event of a disaster. Here, for example, training sessions and exercises offered by the disaster control authorities can help prepare relatives for possible scenarios.

Overall, it is important that care-giving relatives are involved in disaster control planning. This takes place, initially, through awareness-raising measures, so as to then stimulate active debate based on a genuine understanding of what crises and disasters entail.

3.3.3   Other players in the provision of care to those in need

In addition to these clearly important players, there are also others who can be of importance for disaster control. This includes, for example, companies from the private sector. Associations and other civil society organisations can also play an important role in enabling a quick and effective reaction in the event of disasters.

Examples of other players who can support disaster control in crisis and disaster situations, as identified by DRK experts, are:
- Retail companies such as supermarkets and pharmacies: These can provide food, water, medications and other goods.
- Animal shelters and organisations: These can house and care for the pets of affected persons and/or their families. Close collaboration with these organisations can ensure the care of pets in the event of a disaster, thus relieving the strain on their owners.
- Transport companies such as bus and rail companies: These can help with the evacuation of affected regions and with the supply of resources and aid supplies to those affected.

These proposals are in no way exhaustive, and are to be implemented depending on the respective structure of the social space. In order to identify possible networking players, the individual mapping of the social space is therefore required. This forms the foundation for all networking activity and is presented in the next chapter, tailored towards the outpatient care set-up in Magdeburg, by way of an example.
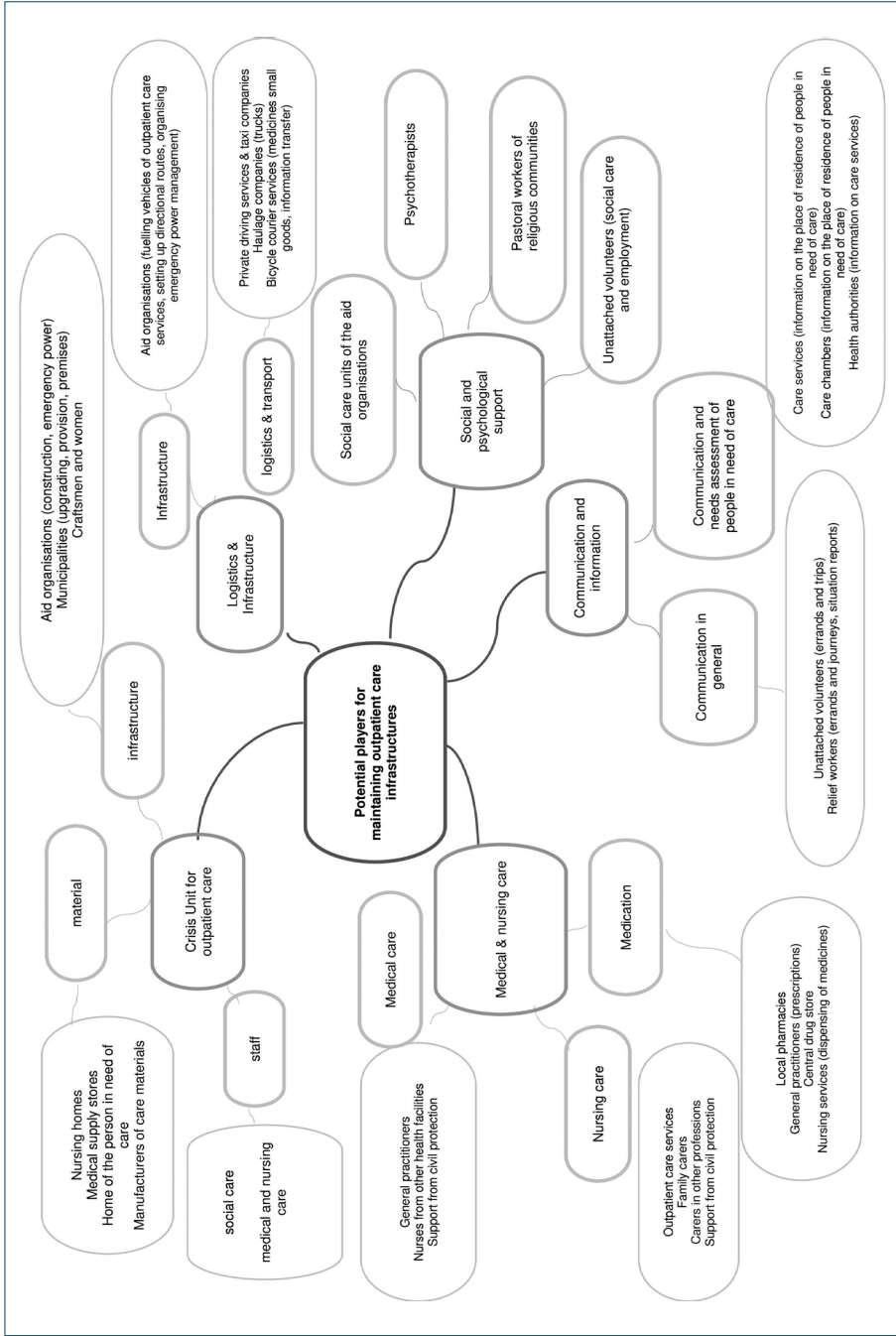
Figure 1: Potential players in maintaining outpatient care infrastructures (our own illustration)

However, first we will provide you with an overview of potential players that may be relevant with regard to maintaining outpatient care infrastructures (Figure 1).

3.4 Social space mapping and networking activities in disaster control: Magdeburg as a model region

With the goal of improving networking between outpatient care and disaster control, the model region of Magdeburg underwent social space mapping within the scope of AUPIK.

3.4.1 Performing social space mapping, taking Magdeburg as an example

The results of the social space mapping shows that a large number of people require outpatient care in the region of Magdeburg. However, this group was barely considered in prior disaster control plans. At the same time, a host of players from civil society, business, and healthcare were identified, whose expertise could be of use in the event of a crisis (Figure 2).

Figure 2: Sketched social space mapping, taking Magdeburg as an example, based on the work of Katharina Wezel and Marco Krüger within the scope of the AUPIK project

The findings show that social space mapping represents an effective tool for the identification of vulnerabilities and needs, but also of resources and skills within the population. Through the targeted inclusion of players from the field of outpatient care, disaster control networking could be improved and preventative measures developed. These experiences contribute to reinforcing the collaboration between players involved in disaster control, and thus increasing the resilience of care-givers and those in need of care.

3.4.2   Networking in Magdeburg: Invitation to the "round table"

Based on the social space mapping, the outpatient care players were contacted in a targeted manner and invited to take part in a round table. The objective of the round table was to strengthen cooperation between the various players and to develop cooperative measures. The participants at the round table were representatives from the outpatient care sector, disaster control, the local authorities, and civil society organisations.

During the round table discussions, various areas of activity were identified. One point of focus was the development of emergency plans for people who require outpatient care. Here, care was taken to ensure that the needs and requirements of those affected and the capacities of outpatient care services are taken into account. Another area of activity was the improved networking of the players. To this end, measures such as training sessions and information events were developed for the involved organisations.

4 | Preserving the home care situation

Taking affected persons requiring care within their homes as an example, this chapter demonstrates the significance of maintaining everyday care systems. First of all, the reasons for maintaining outpatient care infrastructures in the home are presented. An explanation is then provided as to why care-givers and care-dependent people should be supported by disaster control workers during crises disasters, and what this support might look like.

4.1 Reasons for maintaining outpatient care infrastructures

Maintaining home care during crises and disasters must be supported for as long as possible. This comes down to the complex and heterogeneous needs of care-dependent people, which can be best fulfilled in their familiar home environments.

As such, depending on the level of care required, those in need of care can enjoy a higher level of autonomy in their own homes. Because they are in their usual environment, with routines and people they know, this can result in a higher level of independence and greater room for manoeuvre when it comes to making decisions and administering treatment.

What's more, the care-givers will have the best possible picture of the specific needs of the care-dependent person when in their home environment. Their requirements are known and are already covered by medical consumables and medical technology, or these resources will be quickly and readily available. Maintaining outpatient care in the home environment thus facilitates the use of electricity-dependent therapeutic/technical support, such as nursing beds and feeding tubes. Devices that are not reliant on electricity, such as aids to getting up off the toilet, are also more likely to be available within the home environment. Bedridden and mobility-limited persons can thus be cared for in a more simple and needs-oriented manner.

Furthermore, maintaining outpatient care structures in the home relieves the burden on disaster control structures, as emergency personnel can efficiently and effectively incorporate their skills and expertise into the available everyday structures. This relieves the

burden and conserves resources, freeing up emergency personnel capacities for other support measures.

The next section describes which support measures could be implemented in order to maintain disaster protection.

4.2 Possible support measures to strengthen outpatient care infrastructures: The role of disaster control

Due to the large numbers of people requiring care and their heterogeneous requirements, the provision of care to those in need, particularly during crises and disasters, is a complex topic that requires careful preparation.

An important measure in order to improve the resilience of outpatient care infrastructures in crisis situations is prior networking and awareness raising (see Chapter 3). When care-givers learn how they can effectively prepare themselves and those in need of care for such situations, they will be better protected against crises and disasters.

In this context, the care services could assume a special role as mediator and organiser (Reichenbach et al. 2008). On the one hand, this comes down to the fact that care service emergency personnel are generally the first group to come into contact with affected care-dependent people. On the other hand, due to its service scope, the care service acts as an interface between central areas of basic care, such as the provision of food, accommodation, psycho-social emergency care, and information, as well as logistics and transport activities.

The immediate presence and comprehensive areas of activity could enable care service emergency personnel to combine the needs of the concerned care-dependent individuals with the skills and resources of the everyday experts on-site. This means that the care service, as a mediator and organiser, would utilise the previously identified skills and resources in a targeted manner, in order to provide needs-based care for those in need. In order that needs-based care might be possible, the care service operations management remains in close communication with the care-givers.

Alongside the role as mediator and organiser, the emergency personnel, under the direction of a healthcare specialist, could take on care support activities such as assisting with dietary intake, toileting, or mobilisation.

In summary, maintaining home care means two things with regard to disaster control. Firstly, through decentralised accommodation, the main responsibility in terms of the provision of care would, as before, lie with the players already performing care activities on a daily basis. Consequently, within its role as mediator and organiser, disaster control would be assigned the task of providing care-givers with the best possible support, so that the needs-based care of the affected persons could be ensured to the greatest possible extent.

Secondly, both the support of care-givers by disaster control, and the maintenance of care emphasize the significance of social space-oriented networking in advance of crises and disasters as a crucial starting point. It is therefore important to recognise vulnerabilities, support requirements, and available skills before crises and catastrophes occur, to be able to provide needs-based care.

Prior to a crisis or disaster, it is vital to identify and link together the needs and skills within a community, so as to ensure that the outpatient care infrastructures can be maintained and appropriate care provided to those in need. Sound preparation and coordination offer many advantages, such as relieving the burden on emergency personnel and the targeted use of resources. If maintaining the provision of care is successful, known requirements can be covered effectively and routine processes can continue. This guarantees the best care possible of those in need while meeting their requirements.

In the next section, the importance of networking and the potential role of disaster control as mediator and organiser are presented, drawing on practical operational experience. Thus, taking the snowfall in Bavaria in 2019 as an example, we will show how disaster control emergency personnel can support outpatient care arrangements.

4.3   Disaster control as mediator and organiser: Maintaining home care, taking the example of the snowfall in Bavaria in 2019[6]

In 2019, heavy snowfall and storms caused chaos. The disaster alarm was sounded in five Bavarian districts (Landesfeuerwehrverband Bayern e.V. 2019). In particular, care-dependent people who were reliant on regular outpatient care or medical provision had to deal with significant difficulties. Snow-covered roads and cut-off communities made it

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[6]   The snowy conditions in Bavaria in 2019 are discussed in greater detail in "Documentation of emergency situations. Part 1: The snowy conditions in Bavaria in 2019 from the perspective of the Bavarian Red Cross", DRK e. V. (2019).

difficult for outpatient care services and other support services to reach these people. Those who were not travelling in off-road vehicles had to allow for longer journey times and altered routes. As a result, there was less time available for care activities, whereby care services had to be prioritised. Medically essential care services were performed in preference, while other care tasks such as washing or helping patients get dressed had to be postponed.

In order to overcome these challenges, the Bavarian Red Cross (BRK) in the Miesbach district informed care services of possibilities for providing support with the transport of care staff. In case of need, care staff were thus supported with all-wheel-drive vehicles belonging to the BRK communities. In spite of these efforts, there were people in need of care who were cared for by people outside of the district, and consequently could not be reached.

In addition to the difficulties in caring for those in need, there were also power cuts during the snow conditions. For people who are reliant on electrically-powered medical devices, this can be particularly dangerous as the battery life of the devices is limited. Within the Miesbach district, a home-ventilated patient was evacuated to a facility for senior citizens as a precautionary measure, as the energy provider could not guarantee the restoration of the power supply prior to the battery capacity becoming depleted. There was continuous contact between the outpatient care service that cared for the home-ventilated person, and the Technical Relief Agency (Technischen Hilfswerks, THW), the fire service, and the BRK who together arranged the transport. Ultimately, the power supply could be restored on time, meaning that relocation was not necessary. In retrospective, the assesment of the situation in Miesbach was adequate. If the conditions had lasted longer, the provision of outpatient care by care services could not have been guaranteed.

In the Berchtesgadener Land district, a home-ventilated patient was moved to a hospital as a precautionary measure, as she lived in an isolated village. Disaster management officers were also notified of other people with home ventilation and home dialysis devices, but who did not experience an interruption to their care.

This experience strikingly illustrates how disaster control structures can contribute to the maintenance of outpatient care arrangements. Through preventative networking, outpatient care services could be informed while technical and logistics work could also be performed to keep them operational. Within its role as a mediator and organiser, the DRK must be able to effectively serve the needs of care-dependent people. However, this situation also demonstrates the limitations of home care, as the care of home-ventilated patients was no longer possible without restrictions. This will be comprehensively addressed in Chapter 5, in which criteria that render evacuation unavoidable will also be defined.

5 | Transfer criteria: From the home to temporary centralised accommodation

Essentially, the evacuation of people with a care requirement from their home is, in certain cases, a logical decision, in order to protect their lives and preserve their health. However, the need for an evacuation should always be evaluated depending on the specific situation. Through the collaboration between crisis and everyday structures, long-term resilient solutions can be found in order to provide those in need of care with appropriate help in crisis and disaster situations. It is important to preserve the self-sufficiency and independence of the affected persons for as long as possible, and to consider this within the scope of social space-oriented civil protection.

It must be taken into account that an evacuation represents the last resort in a disaster scenario, as an evacuation brings up an entire series of new challenges. In particular, the previously often insufficient alternative of temporary centralised accommodation should be considered. In case of events involving damage, hospitals and care homes can, under certain circumstances, become overwhelmed, which makes the transfer and admission of affected persons in need of care all the more difficult.

> **The term "vulnerability"**
> In general terms, vulnerability refers to susceptibility to injury and impairment. Vulnerable consequently suggests a person as fragile and in need of help. Within the context of crises and disasters, vulnerable persons are those people who, for various reasons, are particularly susceptible to the negative effects of a crisis or disaster (Deutsches Rotes Kreuz e.V. 2017).

Within the scope of the AUPIK project, three criteria for an evacuation were identified as crucial, using the example of a complete power failure in the model region of Magdeburg:

1. **Uninhabitability:** The uninhabitability of the home environment represents the most important criteria for an evacuation. If the house of apartment is no longer inhabitable on account of damage or other hazard sources such as fire, flooding or a gas leak, an evacuation must take place. In this case, those affected must be brought into a safe environment as quickly as possible.
2. **Lack of care personnel:** Another important criterion for an evacuation is a lack of care personnel. This can, for example, be the case if care-giving relatives are no longer capable of guaranteeing care and support, due to illness, on account of

being affected by the disaster themselves, or for other reasons. This is also the case, for example, if the home can no longer be reached in a standard vehicle on account of flooding. A lack of care services or other support facilities can also render an evacuation necessary.

3. **Technological failure:** Ultimately, the failure of vital technical devices or equipment can also make an evacuation necessary. In the case of a complete power failure in particular, as could be caused for example by a natural disaster or cyber attack, people who are reliant on ventilation devices, mobile dialysis devices, or other medical devices are particularly at risk. In this case, a safe evacuation must be ensured in order to guarantee the appropriate care of the affected person.

There can also be cases in which an evacuation makes sense, even though the situation does not yet necessarily require it. In some cases, care-dependent people may want an evacuation on account of fear, insecurity or other emotional factors, in spite of the fact that their surrounding area is still inhabitable. In these cases it is important to take the wishes and needs of the person in need of care seriously and to make a decision that considers their safety, their autonomy and independence.

In the following guest article, Sascha Joschko, Aid Organisation Consultant on the staff of the Berlin Fire Service (FB HiO), Berlin Red Cross, explains how different situations require flexible solutions for the provision of care to affected persons in need.

Guest contribution by Sascha Joschko: Auxiliary care activities in case of evacuations and special emergency situations

Context: Various larger-scale emergency situations in Berlin in recent years have repeatedly demonstrated how broad a topic dealing with vulnerable people who are in particular need of care has now become:

• Evacuation of 98 care-dependent people from a nursing and care home on Sonnenallee in Neukölln due to a fire in the building in 2015
(Caring for 98 individuals with severe care needs for 1.5 days in a gym hall, in cooperation with the staff of the facility, who could not manage it on their own)

• 31-hour power cut in Berlin-Köpenick in 2019 with four care facilities among the affected institutions.
(Decision made among staff to worry mainly about the vulnerable groups and the two affected hospitals; establishment of an emergency power supply and an emergency heating supply, and provision of support to care staff who are overwhelmed on account of the exceptional situation)

- Evacuation and establishment of a care facility in a hotel, intended particularly for vulnerable people, on account of the defusing of a WW2 bomb at the Jewish Hospital in Central Berlin in 2021 – the largest evacuation in Berlin since the Second World War
  (Compensation for the lack of specialist care staff in the support centre care unit; urgent implementation of vital measures in vulnerable special cases)

Statement: We must qualify those providing assistance by means of short, targeted training courses, to enable them to handle auxiliary care activities, and to thus relieve their fears with regard to working with and supporting vulnerable people.

Need: Advanced training in auxiliary care activities for all those providing assistance, that is, for paramedics and other helpers from all sectors involved via the DRK's complex emergency response system, as well as support assistances.

Challenge: In spite of the experience acquired and the identification of lessons learned, it has not yet been possible to generate appropriate auxiliary care activity training.

Objective: An advanced training course is to be developed and established drawing on available care experts that exist in the form of full-time and volunteer staff of the Berlin Red Cross. Here it may make sense to collaborate with (larger) regional associations. To be considered: Additional education and training of support workers must be sufficiently realistic and entertaining that the support workers acquire the maximum amount of practical knowledge and do not feel frustrated or overwhelmed.

6 | The "Crisis Unit for Outpatient Care" pilot concept

To date, the needs-based temporary accommodation of affected care-dependent people within emergency accommodation or a care facility has not been aligned with the vital needs of those in need or care, whether organisationally or materially. The challenges this presents to emergency personnel and the need for a "Crisis Unit for Outpatient Care" that is specifically tailored to the needs of affected care-dependent people are presented in the excerpts from operational experience reports below.

6.1 Why? "Crisis Unit for Outpatient Care": Operational experiences

What has happened thus far to affected care-dependent people if they can no longer remain in their home on account of the hazard situation, and are to be cared for primarily in centralised accommodation?

Below, two different emergency situations are drawn on in order to outline the challenges with which disaster control is confronted when dealing with affected care-dependent people. Operational experience from the evacuation in Dresden in 2018, and from the flooding in Rhineland Palatinate in 2021, was used by way of an example. These make no claim to be universally valid or complete, as every situation is unique. Rather, they merely attempt to clearly highlight the necessity of a "Crisis Unit for Outpatient Care" pilot project to provide needs-based care to affected care-dependent people during crises and disasters.

The statements are based, on the one hand, on anonymised operational experiences and findings from DRK experts, and on the other hand, on research reports and documentation drawn up by the Risk Management, Security Research, and Innovation Transfer teams, as well as from literary research. Because the German Red Cross is the largest aid organisation in Germany, and one of the central players in the area of population protection, it can be assumed that the practical experiences and findings of DRK emergency personnel in the area of disaster control can be transferred to other aid organisations in Germany.

Dresden 2018

In May 2018, a WW2 bomb had to be diffused in Dresden. During construction preparations, an aerial bomb was found on the premises of a Dresden-based company. As a result, approx. 15,700 residents had to be evacuated. The evacuation was planned to take up to two nights. After 48 hours, the all-clear could be issued. According to Dresden municipal administration, the exact number of persons receiving outpatient care in that area could not be determined, but was, however, estimated to be approx. 300 (Polenz 2018).

With regard to accommodating the affected citizens, the following aspects were identified by DRK experts with regard to central accommodation options: The social welfare office helped during the search for alternative accommodation options, as they wanted to transfer as few care-dependent people as possible into emergency accommodation. The Dresden care homes and hospitals had temporarily increased their capacities. The Dresden Exhibition Hall was used as provisional accommodation. In order to provide care within the emergency accommodation, as an exception, the outpatient care services cared for their customers there, while employees from the Salvation Army and the municipal administration also provided assistance.

In some cases people in need of care were transferred to the emergency accommodation, who were issued notes or had notes attached to them with indication as to the medication they required. According to the disaster management officers, the care staff from the evacuated care facilities wanted to go home after the evacuation, as the facilities were empty. Following discussions with disaster control, however, some of them moved into the emergency accommodation with the care-dependent people.

2021 flooding in Rhineland Palatinate

In July 2021, large quantities of rain caused flooding in Rhineland Palatinate. A total of 300 people had to be evacuated by care institutions, and 225 care-dependent people were evacuated from their homes (Ministerium des Innern und für Sport Rheinland-Pfalz (MdI) 2022).

The experiences from the subsequent operations refer to a care facility in Grafschaft (Rhineland Palatinate) and were recorded within the scope of an expert interview (Heidi Oschmiansky 02.08.2021). Several care facilities were set up in Grafschaft. On account of the at times quickly rising water levels, there was little time to prepare the emergency accommodation. With regard to the needs-based care of the affected care-dependent people in a care facility, the DRK experts were initially confronted with the challenge of the building no longer being barrier-free. The medication and care needs of those affected were at first unknown to the emergency personnel. Only through the support of

spontaneous volunteers with care expertise and, in one case, the help of a doctor, could remedial action be taken. In addition, the DRK experts reported that there were no hospital beds or care equipment in the care facility. However, the supply of clothing and hygiene products was organised very quickly. A large proportion of this was in the form of donations. It was also revealed that, in the case of the flood disaster, only limited access to regional networks was available, as they too were affected. Therefore, people were reliant on the support of volunteers from other regions.

The described experiences are also confirmed by other DRK experts in emergency situations in Dernau an der Ahr (Marianne Schüsseler 02.08.2021). As such, the provision of care to more than 500 affected persons in a gym hall placed an unprecedented strain on the emergency personnel. Due to the lack of material supplies, some care-dependent people slept on the floor for the first 24 hours, among other inauspicious circumstances. In this case, care was provided, among others, by the rescue services staff, spontaneous volunteers with care training, voluntary disaster control care staff, and care personnel. Another challenge lays in the changing contact partners. Due to the shared structure and the self-sufficient crisis teams, instructions changed on a daily basis, and sometimes even several times a day.

Conclusion drawn from the operational experiences from the described situations:
The operational experiences from the described situations clarify, in particular, that
- The number of people on site who could provide care was (generally) insufficient;
- A lack of care staff prevailed;
- The collaboration between players within the care infrastructures and disaster control has thus far only been on a one-off basis, and is not structurally established;
- There was barely any provision of basis care equipment in the care facilities;
- Medical and care requirements, and the health condition of those affected was initially not known to emergency staff;
- Care-giving relatives frequently arrived at the care facility, accompanying those in need of care;
- Spontaneous volunteers could be viewed as an important resourced and deployed depending on their profession, for example as nurses.

The identified supply gaps clearly emphasise the urgency and need to consider those affected and accommodated in a care facility in accordance with their needs. At the same time, they reveal the points at which the needs-based provision of care to affected care-dependent people has previously failed, and where changes are required.

Based on the described operational experiences, and supplemented by additional expert interviews and constructive research, the next chapter will explain the "Crisis Unit for Outpatient Care" pilot project. In addition to staff requirements, recommendations will

be provided regarding the processes and possible forms of collaboration between disaster control and care staff in order to ensure the needs-based care of affected care-dependent people in a care facility.

6.2 The structure of the "Crisis Unit for Outpatient Care" is based on the traditional structures of a care facility

This section describes how a concept for a "Crisis Unit for Outpatient Care" that is suitable for those in need of care might look. Therefore this is not about a care facility that is intended exclusively for those in need of care, but rather the integration of a crisis unit into the existing structures of the care facility.

Care facility definition

"The care facility is an operational element deployed for affected persons during the emergency aid phase; in case of operations that end during the emergency aid phase it is the endpoint of the care service aid chain, while in the case of operations extending into the stabilisation phase it forms the interface to the stabilisation phase (=> emergency accommodation).

A 500 Care Facility is designed for the care of 500 people with standard population distribution. This number should represent the upper limit of an individual care facility; if a considerably larger number of people or people who have more severe care requirements are to be cared for, additional care facilities must be set up. An extension is not generally possible on account of the limiting factors of 'infrastructure' and 'expert personnel'" (Deutsches Rotes Kreuz (DRK) 2020).

There are two reasons in favour of the integrative approach whereby people in need of care are not cared for in accommodation that has been set up specifically for them. First of all, affected persons in need of care are often accompanied by (care-giving) relatives and other related parties who can provide support within the "Crisis Unit for Outpatient Care". Secondly, upon arrival in a care facility it is not always clear who has a care need, as this is not necessarily outwardly visible and the affected persons may not be capable of expressing themselves.

A flexible focus on the patients' needs should be emphasised. This way, an affected person with an acute medical requirement is referred directly to the treatment unit. Having received medical treatment, they can then be brought to the care facility. The dynamic and flexible unit logic also makes sense for affected persons in need of care, as their

unstable health condition may change quickly over time. This could render another visit to the treatment unit necessary. This means that, as a result of the needs-oriented provision of care to the affected person, it will be necessary to switch back and forth between the individual units, depending on their requirements.

The following diagram (Figure 3) shows the dynamic flow chart for transitions between the treatment unit and the care facility, by way of an example. Here, the "Crisis Unit for Outpatient Care" is a sub-section of the regular care facility, which is aligned to the needs of the affected person in need of care. Close collaboration between the "Crisis Unit for Outpatient Care" and the associated care facility, as well as the treatment unit if applicable, should be strived for.

For the operation of a "Crisis Unit for Outpatient Care", it was staff skills in particular that were identified as the problematic resource in terms of the provision of care to care-dependent people. Within the context of social space-oriented population protection and the needs-based provision of care to affected care-dependent people, the active integration of the following players is one of the most important pillars in order to be able to provide care within a "Crisis Unit for Outpatient Care":
1. Outpatient care services
2. Care-giving relatives
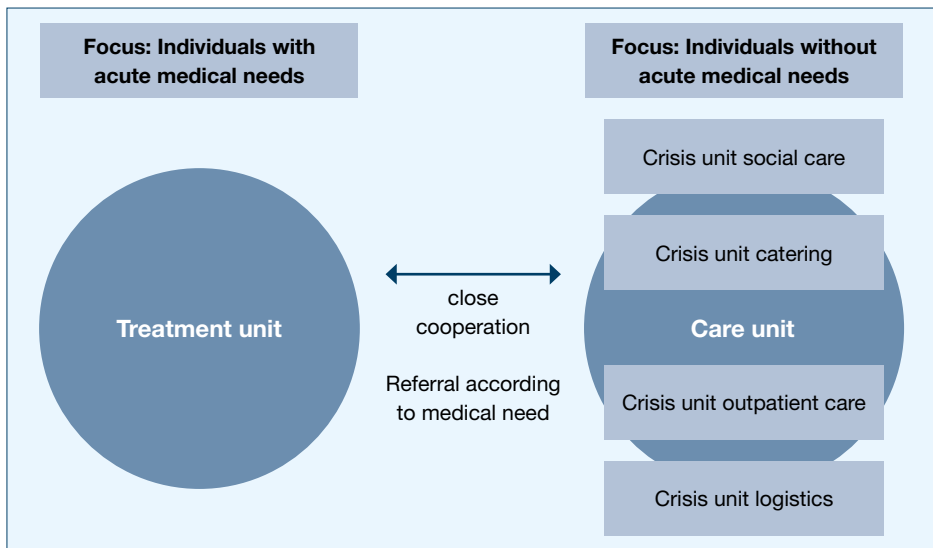3. Spontaneous volunteers with care expertise

Figure 3: Illustrative overview for accommodation in a care facility, including the new "Crisis Unit for Outpatient Care" (Deutsches Rotes Kreuz e.V. 2023)

Alongside their role as an organiser and mediator, emergency personnel within the care service watch out for the respective load limits of the players. This is because they can reach their physical and psychological limits within the "Crisis Unit for Outpatient Care", on account of the unusual and strenuous extreme situation. It is therefore the task of the care service emergency personnel to detect possible situations and support and/or relieve the respective players.

Practice-oriented tools for the provision of care to affected persons in crises and disasters

This tool provides recommendations for the maintenance of home care and for the centralised accommodation of affected persons within a "Crisis Unit for Outpatient Care".

The focus here is primarily on "How" questions:
- How exactly can the players get involved in a "Crisis Unit for Outpatient Care"?
- How specifically can they utilise their care expertise?
- How does the collaboration between care and disaster control work within the Crisis Unit for Outpatient Care?
- How are care-relevant materials procured?

Answers to these questions can be found under (german version):

7 | Recommendations for action

It is only in recent years that the fact that affected persons can be at varying risk or have varying levels of vulnerability has been increasingly addressed in terms of civil protection in Germany (Oschmiansky et al. 2021).

The addressing of the topic of affected care-dependent people in crises and disasters at the 2017 Convention of the Academy for Crisis Management, Federal Academy of Civil Protection and Civil Defence (BABZ), which had more than 100 participants, thus clarified the fact that this is of significance to all aid organisations and other official bodies and organisations (Ulf Krüger 2018).

7.1 For the needs-based care of those in need: Linking together individual, organisational, and structural levels

The number of addressed and interested players shows that the needs-based provision of care to affected persons cannot only be performed within the DRK / the aid organisations. Moreover, macrosocial challenges require macrosocial solutions.

Against this backdrop, policy recommendations were developed by all those involved in the AUPIK research project in order to address existing regulations with regard to the identified requirements for the maintenance of the outpatient care infrastructure.

In addition to the policy recommendations, the DRK could make other innovative and future-proof contributions to the needs-based provision of care to affected persons. Based on the results of the research project, a number of suggestions are presented in the next chapter.

7.2   For the needs-based care of care-dependent people: Reinforcing disaster control resources

The urgency of a solution for the needs-based provision of care to people treated by outpatient care services in crises and disasters is emphasised in the following situations:

The increasing number of people with a care requirement

The number of care-dependent people in Germany has doubled to 4.1 million over the last 20 years. Around one million of these people are treated in their homes by an outpatient care service (Statistisches Bundesamt 2022). Due to demographic changes, increasing outpatient treatment, and medical progress, the number of people requiring home care continues to increase.

For disaster control, this means: The number of affected persons in need of care during crises and disasters, both in the home and in care facilities, is set to increase further.

Closing gaps with regard to the provision of care to affected persons in their homes

Needs-based care is critical for affected persons with a care requirement, especially in case of crises and disasters, and poses major challenges with regard to disaster protection, because, for example: (Deutsches Rotes Kreuz e.V. 2018)
- Care units, care facilities, and emergency accommodation have thus far not been aligned with the people receiving outpatient care, neither personally nor materially;
- A failure of everyday care structures as the result of disaster protection in its previous iteration cannot be absorbed;
- External changes and evacuations can cause an increased health risk and emotional strain for people in need of care;
- Electricity-powered technical support for vital measures to preserve the life of care-dependent people and ease the workload of care-giving relatives and (expert) care staff could fail.

Action within the context of the complex aid system

In order to improve the care situation of affected persons requiring outpatient care, recommendations were issued within the scope of a research project.

These focus, in particular, on the care service (Deutsches Rotes Kreuz e.V. 2020), as these are the first staff to deal with the needs-based provision of care to those in need

in the field. Furthermore, the care service has a particularly high level of knowledge regarding the respective local infrastructure, and thus drives the implementation and further development of the complex aid system with regard to the provision of outpatient care to those in need.[7]

7.2.1   Networking within the social space

Continuous networking within the social space with all relevant players should be pursued in advance of crises and disasters.

In addition to the disaster control authorities, this could also include, for example, medico-social everyday structures or private companies.

Through networking in advance of crises and large-scale emergencies, personal and material resources could be activated and called upon with regard to the provision of care in the crisis situation.

In order to identify personnel and material resources, an analysis of the respective social space may be worthwhile. This includes the identification of the needs and skills of personnel on-site, in order to take needs-based action in crisis and disaster situations, and to be able to make use of locally available skills.

Networking with everyday experts

Stronger **external networking with experts from everyday care** is recommended for the needs-based provision of care to affected persons.

Everyday experts include, among others, players from the healthcare, health, and social sector. Experts from external fields could be considered depending on their skills. For example, private transport services could be used for patient transport, or pharmacies could help with care supplies, or telecommunications companies could assist in the event of an incident on account of their good risk management mechanisms.

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[7]   During the 2019 snowfall in Bavaria, the cooperation of all communities and DRK structures within the context of the complex aid system was promoted in particular. More information can be found in "Documentation of emergency situations. Part 1: The snowy conditions in Bavaria in 2019 from the perspective of the Bavarian Red Cross", DRK e. V. (2019).

Internal networking

Within the DRK, the promotion of **internal networking** is advisable within the context of complex aid systems.

In order to improve the outpatient care of people in need of care during disasters and crises, closer collaboration between voluntary and full-time structures is recommended. Against the background of affected care-dependent people, welfare and social working expertise should be considered in particular. Professionals in these fields already possess care experience.

Awareness regarding the needs of care-dependent people in crises and disasters could be raised among management staff with a care service background within the context of existing structures and formats, such as public limited companies, info events, round tables, welfare and social work contacts. In this regard, the management staff with a care service background could provide information regarding their own duties and possibilities. On the other hand, it would be possible for welfare and social work employees to inform management staff with a care service background regarding their own fields of activity and their own skills.

For more information, see the ResOrt[8] and INVOLVE[9] research projects.

Discussion, consultations and collaboration between care and disaster control

Structured collaboration between outpatient care employees and disaster control is recommended.

It would make sense if the disaster control structures were aware of the conditions under which everyday care services could be provided in order to maintain outpatient care infrastructures for as long as possible.

In order to enable structured collaboration between disaster control and outpatient care services, involved parties could acquire information regarding the requirements and skills of the other respective party as early as possible. This could include focussing on those in need of outpatient care within a social space analysis, as well as initiating networking within the respective social space, for example through regular discussion formats.

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[8] More information on the ResOrt research project can be found at:
https://www.drk.de/forschung/forschungsprojekte/laufende-projekte/resort/

[9] More information on the INVOLVE research project can be found at:
https://www.drk.de/forschung/forschungsprojekte/abgeschlossene-projekte/involve/

7.2.2 Identifying and incorporating skills: addressing the heterogeneous support requirements of affected care-dependent people in a needs-based manner

The **heterogeneity of care-dependent people** conceals differing support requirements, each requiring different skills and resources on the part of the DRK and in some cases going beyond the association's sphere of expertise.

Here both organisational and structural adjustments to the DRK associations would be promising.

Potential role of the DRK care service as mediator and organiser

Through the **DRK's flexible requirement and skills management**, needs-oriented skills and potential could be incorporated.

This is logical since the extremely heterogeneous needs of care-dependent people (e.g. children with life-limiting illnesses or people of any age with a therapeutically technical support requirement) have not thus far been sufficiently covered by the DRK disaster control structures.

Within its role as mediator and organiser, the DRK could promote constructive collaboration between crisis and everyday experts. This means that, as crisis experts, the DRK, and in particular the care service, combines requirements with the respective skills and resources of the everyday experts available on-site.

To this end, it would be desirable to create structures that establish the responsibilities with regard to the mediator role within the association.

Considering new forms of engagement

Spontaneous volunteers could be given greater consideration within the structure of the association.

Due to changing conditions in terms of what motivates volunteers, the shortage of care staff, and the limited care expertise on the part of disaster control, it is advisable that spontaneous volunteers be integrated more thoroughly into the structure of the association. The inclusion of spontaneous volunteers with a view to them taking on care-relevant activities appears logical, especially if the volunteers can be deployed in a targeted manner in crises or disasters, in line with their respective skills and qualifications – and ideally with regard to care-relevant expertise.

The skills and qualifications of spontaneous volunteers should be queried with regard to care-relevant expertise, e.g., by means of registration via the DRK TEAM structures[10]. This way, the appropriate volunteers could be contacted and deployed in the event of a crisis or disaster. Furthermore, it would also be worthwhile to continue promoting the (further) development of participatory approaches that incorporate existing potential within the population. Long-term integration within existing protection concepts is feasible.

To this end, corresponding approaches could be adopted by management and emergency personnel in education and training courses.

For more detailed information, see the "ENSURE" publication series[11].

Identifying personnel resources within the association

Digital query regarding the skills of full-time and voluntary staff within the DRK.

The drkserver already offers a central registry with the ability to record HR resources within the association with regard to possible (care) expertise.

At present the active use and data maintenance of the drkservers are different depending on the association. It is therefore desirable that the drkserver would be used more on a cross-association level as an internal query tool regarding skills and resources with regard to the needs-based care of those in need.

This would mean that the voluntary and full-time staff of the DRK could store information here regarding their care expertise. Association can also store information here regarding the current status of care supplies, which could enable the quick submission of requests in the event of a crisis or disaster.

Training and development of DRK disaster management officers for care-related support activities

Training disaster management officers for **care-related activities**, so that they can provide support services under the instruction of a care specialist.

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[10] For more information visit: https://www.drk-westfalen.de/aktuell/projekte/team-westfalen-spontanhilfe-in-notlagen.html or https://www.drk-hessen.de/seminare/katastrophenschutz/freiwilligenkoordination.html

[11] More information on the ENSURE research project can be found at:
https://www.drk.de/forschung/forschungsprojekte/abgeschlossene-projekte/ensure/

In order to generate care expertise within the DRK, training courses in disaster control or the further promotion of already existing offerings represent an attractive offering. Furthermore, the determination of the funding of training times and the regulation of responsibilities would be important. In this regard, training courses could include care-relevant activities and convey knowledge on overcoming special (psychological) challenges.

With the "Care Support" module, the DRK-Nordrhein offers training content for "Medical First Aid".[12]

Development of "Needs-based units" within the care facility

Incorporation of a **"Crisis Unit for Outpatient Care"** into the traditional structures of a care facility, in order to guarantee the needs-based provision of care to affected persons.

Depending on the care situation, those in need of care during crises and disasters should be temporarily housed in a care facility.

The **"Crisis Unit for Outpatient Care"** offers the potential for a more future-proof and resilient response to a needs-based approach to affected persons in need of care.

The "Crisis Unit for Outpatient Care" pilot concept provides recommendations for the needs-based care of affected persons in centralised temporary accommodation. In particular, this considers players that can provide care measures and supportive care services and shows how a collaboration could function.

Further information at: „Care of those in need in crises and disasters. A tool for cooperation between outpatient care services and disaster control structures" (2023)[13].

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[12]   More information on the "Care Support Module" is available at:
    https://www.drk-nordrhein.de/betreuungsdienst/pflegeunterstuetzung
[13]   Deutsches Rotes Kreuz e.V. (2023): The provision of care to those in need during crises and disasters. A tool for cooperation between outpatient care services and disaster control structures. Berlin: DRK-Service GmbH.

8 | Conclusion and outlook

The central finding from the research project is the need for networking between disaster control crisis experts and everyday experts from the medico-social sector. In order to ensure personnel and material resources for care in crises and disasters, the modern disaster control of the future must analyse the local conditions within the respective social space and integrate this into the crisis management. In caring for those in need of outpatient care in particular, the availability of expert personnel must be the main point of focus.

During crises and large-scale emergency situations, the care sector, which is already affected by an expert staff shortage in everyday operations, is placed under additional pressure. Against this background, the inclusion of care-giving relatives, spontaneous volunteers with care expertise, and other players within the respective social space who could contribute to the needs-based care of affected persons, is desirable. Only disaster control that networks with relevant players in advance, detects the respective needs, vulnerabilities and skills, and pro-actively incorporates these into its own plans and structures will be capable of managing future crisis and large-scale emergencies in an effective and needs-oriented manner.

Furthermore, the research project emphasises the special strengths of social space-oriented population protection, and not just with regard to affected care-dependent people: This approach can be transferred to other situational vulnerabilities. Against this backdrop and an increasingly diversified and more heterogeneous society, the demands placed on disaster control are on the rise. The alignment of its own structures with the needs of the respective social space, with the inclusion of existing skills and resources, could therefore make a crucial contribution to the management of future crises and major emergency situations. In order to increase social resilience, crisis and everyday operations should in future more frequently be considered together. Here, the close networking of the most varied of players from civil society, business, municipal authorities, and disaster control forms the basis for the needs-based provision of care in everyday life and times of crisis.

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10 List of Figures and Tables

11 | For quick readers

The 13th volume of the publication series focuses on the care of people receiving home care. Here the AUPIK research project complements the findings of previous research projects and consistently develops them with regard to the needs-based provision of care to care-dependent people during crises and disasters.

- Affected care-dependent people are placed at risk during crises and disasters. To date, disaster control structures have not been given due consideration.
- **Social space mapping** offers the opportunity to identify the needs of these vulnerable people within the respective social space. It also reveals which social skills and resources are already available, which can be drawn on during crises and disasters.
- Through **networking activities** with relevant local players from the care and medico-social sectors, as well as other players, resilient structures can be developed, which could better cover the needs of care-dependent people during crises and disasters.
- Through **continuous networking**, everyday structures can be strengthened.
- The **provision of home care** to affected persons should be maintained for as long as possible. This process offers advantages for care-dependent people, care-givers, and for disaster control emergency personnel.
- With regard to the provision of care in temporary, centralised accommodation, the **"Crisis Unit for Outpatient Care"** pilot concept provides a starting point for the optimised provision of care to affected people who can no longer remain in their homes.
- Here disaster control can take on the **role of mediator and organiser** during the crisis. As a manager during a time of crisis, the heterogeneous needs of care-dependent people must be reconciled with the limited resources and skills. Here, various measures should be taken, e.g., the coordination of care staff and spontaneous volunteers, the procurement of care supplies and medications, and the provision of technical aids.