

# Options for Use of Charitable Sharing for Protection of Public Health During the COVID-19 Pandemic – Experience from the Czech Republic

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## Abstract

The COVID-19 pandemic represents a new situation in the modern history of the world. The governments of individual countries are now being forced to adopt unprecedented measures to prevent the spread of the coronavirus SARS-CoV-2. However, these measures are associated with significant social, psychological and economic impacts. A tool must thus be found which can on the one hand contribute towards protection of public health and on the other hand restrict the negative impacts of governmental regulations. One such tool is charitable sharing. The aim of the study is, on the basis of experience from the Czech Republic, to identify forms of charitable sharing which contribute towards protection of public health during the current COVID-19 pandemic. On the basis of qualitative content analysis, forms of sharing have been identified which are currently being created in reaction to the pandemic based on the initiatives of individuals, companies and research organisations. Inspirational examples of good practice are presented in the form of case study, consisting in sharing of production capacities, the capacities of laboratories, technologies, material, time, information, knowledge or cultural productions. The findings from this study can be used for both creation of policies and formulation of effective measures for handling the current and future emergencies, as well as for development of positive practice in individual countries.

**Keywords:** public health protection, COVID-19 pandemic, coronavirus SARS-CoV-2, charitable sharing

## Introduction

On 11 March 2020, the WHO designated COVID-19 as a pandemic (WHO, 2020a). At present (4 May 2020), a total of 3,435,894 cases have been confirmed and 239,604 deaths the world over (WHO, 2020b). The governments of different countries are trying to slow down the spread of the coronavirus SARS-CoV-2 (severe acute respiratory syndrome coronavirus 2) which causes the coronavirus disease 2019 (COVID-19) in various different ways. A combination of measures is regarded as being the most effective, this consisting in quarantine of people who are infected and their families, closure of schools and workplace distancing (Koo

et al., 2020). The governments of individual countries are adopting unprecedented measures – cancelling cultural and sporting events, closing not only schools but also businesses, as well as asking people to stay home and to act safely (WHO, 2020c). Special attention is devoted to protection of the elderly and people with underlying health conditions who are particularly susceptible to severe cases of the disease (Lai et al., 2020; Wu, McGoogan, 2020).

These measures, the aim of which is to contribute towards protection of public health, are associated with significant economic (McKibbin, Fernando, 2020), social and also psychological impacts (e.g. Cava et al., 2005; Duan, Zhu, 2020; Hawryluck et al., 2004). For this reason, it is necessary to ensure that these measures, consisting in limitation of social contact (as quarantine in its extreme form), are introduced for the shortest possible period of time. At the same time, it is necessary to ensure that the psychological impacts of these measures are minimised as much as possible, because “the psychological impact of quarantine is wide-ranging, substantial, and can be long lasting” (Brooks et al., 2020, p. 919). If quarantine is essential, all necessary measures must be adopted to ensure that this experience is as acceptable as possible for the individuals concerned, otherwise there is a risk, among other things, of long-term negative consequences for the system of health care in the given country (Brooks et al., 2020).

One of the progressive options which could represent a positive contribution in the given situation is use of the phenomenon of the sharing economy. This has in particular been developing in recent years together with the development of ICT (Hamari et al., 2016), although the actual act of sharing is a long-standing social practice (Belk, 2010). In view of the diverse nature of this concept, there is for the time being no uniform definition of the sharing economy (Acquier et al., 2017). We can however say that the sharing economy represents an economic model based on sharing of assets (products, services, work, technologies, knowledge or information), usually using an online platform, but also without using one. This may be performed for the purpose of making a profit (commercial sharing), but also without such a motive (Petrini et al., 2017). The motive of sharing, the aim of which is not to create a profit, may be compensation of costs (hybrid sharing), or philanthropy (charitable sharing). And it is precisely charitable sharing performed directly among individuals (C2C: Consumer to Consumer sharing), between companies and individuals (B2C: Business to Consumer sharing), companies and the government (B2G: Business to Government sharing) and between universities and the government (U2G: University to Government sharing) which can in some of its forms be used to protect public health during the current COVID-19 pandemic.

The aim of the study is, on the basis of experience from the Czech Republic, to identify forms of charitable sharing which contribute either directly or indirectly towards protection of public health during the current COVID-19 pandemic. The fact is that several civic, corporate and university initiatives have developed in this small post-communist country due to the

emergency measures which have been adopted in relation to the COVID-19 pandemic which use the phenomenon of the sharing economy. These initiatives can be regarded as examples of good practice which could provide inspiration for other countries while handling this difficult situation. This is to say that as a result of the unprecedented global spread of infectious diseases such as COVID-19, it is necessary to share such initiatives and to reinforce global preparedness for such a pandemic and the ability to react to it (Mwacalimba, 2012).

## **1. Materials and methods**

### **1.1 National context**

The Czech Republic is a country in Central Europe with a population of 10.65 million. The first case of a person contracting the COVID-19 disease in this country was registered on 1 March 2020. As at 5 May 2020, the number of people infected had risen to 7,841 with a total of 269,093 people having been tested. As at the previously mentioned date, a total of 3,816 patients had recovered and 252 had died. The greatest number of people infected can be found in the City of Prague (1,767 cases). (Ministry of Health of the Czech Republic, 2020a)

Due to a danger to public health in relation to proof of the occurrence of the coronavirus SARS-CoV-2, the Government of the Czech Republic declared a state of emergency in the territory of the Czech Republic on 12 March 2020 (Government of the Czech Republic, 2020a). On 10 March, the government had already introduced emergency measures consisting in closure of primary and secondary schools as well as universities and prohibition of public gatherings and events with more than 100 people. (Ministry of Health of the Czech Republic, 2020b) Within the framework of the state of emergency, the Government of the Czech Republic then closed the borders. With certain exceptions, no foreigners are allowed to travel to this country and Czech citizens and foreigners with permanent residence in the Czech Republic are not allowed to leave the country (Ministry of the Interior of the Czech Republic, 2020). A 14-day quarantine has also been imposed on all individuals returning from high-risk countries (Ministry of Health of the Czech Republic, 2020a). All shops have also been closed, with the exception of food shops, chemists, pharmacies and petrol stations; restaurants have also been closed (Government of the Czech Republic, 2020b). Free movement of people within the territory of the Czech Republic is prohibited, with the exception of travel to work, to medical facilities, to visit family and other essential travel (Government of the Czech Republic, 2020c). It has been recommended to public institutions that they restrict their activity to the minimum and allow their employees to work from home. Several private companies have also adopted this measure. Starting on 19 March, the government made it compulsory for people to wear protective equipment covering their mouth and nose outside of their homes (face masks, respirators, mouth guards, scarves or other items which prevent the spread of droplets) and set aside a special time for senior citizens over the age of 65 and people with a physical

handicap to buy food (between the hours of 10 a.m. and 12 noon, which was subsequently changed to the period between 7 a.m. and 9 a.m.) (Government of the Czech Republic, 2020d).

## **1.2 Data and methodology for its processing**

The study is based on secondary data. The source of this data was reports and documents presented on the websites of the relevant institutions and organisations. This source of data was chosen in view of the fact that the COVID-19 pandemic represents a completely new and unexpected situation which is unprecedented in the modern history of the world. Only limited theoretical points of departure are available, based on experience with epidemics of a local nature (e.g. David, Le Dévédec, 2018; Parmet, Sinha, 2016; Waller et al., 2014). Mapping of measures which have been adopted, initiatives which are being created and practical experience with them is still in its infancy. The acute need is thus created for us to develop our knowledge about the measures which have been implemented, potential tools, new initiatives and effective procedures which will represent a source of inspiration for resolution of the current situation and which we will also be able to use in future.

The data was processed using qualitative content analysis. Content analysis represents a flexible, pragmatic method for development and spreading of knowledge about human experiences which could find wide application during research into the issue of public health (Hsieh, Shannon, 2005). In addition to this, content analysis is a method which allows for objective and systematic creation of conclusions (Morris, 1994).

The data acquired is presented in the form of an explanatory case study. The advantage of this is that it allows us to explore the data in a real-life environment, but also explain the complexities of real-life situations (Zainal, 2007). The case study includes examples of good practice in charitable sharing which are applied during the COVID-19 pandemic in the Czech Republic. Activities which contribute towards protection of physical and mental health are differentiated.

## **2. Results – Examples of good practice of charitable sharing which contribute towards protection of public health**

One of the most important measures adopted to handle the crisis caused by the spread of the coronavirus SARS-CoV-2 is to ensure sufficient testing of the population. However, in view of the current situation, the capacity of certified laboratories operating in the Czech Republic is insufficient. Selected institutes at the Academy of Sciences, the Charles University and other university centres have facilitated sharing of equipment in biological laboratories and the capacity of their scientific workers. These centres are able to process thousands of samples a day. Procedure is such that hospitals take samples and inactivate them. Scientific research centres subsequently test samples which are no longer infectious, but which do

contain ribonucleic acid (RNA) which is able to confirm the potential presence of the virus. (Aktualne.cz, 2020)

Another essential condition for preventing the spread of the coronavirus is having sufficient protective aids (e.g. respirators and face masks) as well as disinfectant agents. However, there is a lack of such protective aids and disinfectants in the Czech Republic at the moment. The government is only able to provide these aids and disinfectants for selected units of the integrated rescue system (hospitals and selected medical facilities).

Scientific and university centres are active in this field too, having offered to share their capacities and participating in development of respirators or testing of materials for production of face masks providing effective protection against the coronavirus. Thanks to them for example, the CIIRC RP 95 respirator has been developed, production of which will commence in under a week. Production can be performed using 3D printing or injection of plastics into prepared moulds, this allowing for a large volume of production (University of West Bohemia, 2020).

As regards the lack of face masks, the Czech people themselves reacted promptly to the government decision making it obligatory for people to wear face masks in public. The initiative was taken by volunteers, sharing instructions how to make homemade face masks on social networks, but also making face masks themselves and giving them to others free of charge. Volunteers have been placing envelopes with face masks in the communal areas of panel-built apartment blocks or shopping centres. So-called “face mask trees” are appearing in several squares and near shopping centres in cities and municipalities in collaboration with municipal authorities – trees on which volunteers hang face masks for anyone to take (Langr, 2020). The central government is also contributing towards development of this initiative, thanks to which Czech Post, a state-run enterprise, is currently delivering packages with face masks from volunteers free of charge. The only condition is that the package is wrapped in see-through packaging and apart from the name of the recipient, the word “Face masks” is stated (Czech Post, 2020). The commercial sector has also become involved in this initiative. Several smaller clothing companies are producing and delivering face masks to their regular customers free of charge.

Some companies have decided to contribute towards an increase in production of disinfectant agents, the state having donated raw materials needed to produce Anti COVID disinfectants (Agrofert, 2020). Universities (e.g. The University of Chemistry and Technology, Prague) have also provided the capacities of their laboratories and staff (employees and students) for production of disinfectant according to a recipe approved by the WHO.

The possibility of tracing the movements of people who are infected also contributes towards restricting the spread of the coronavirus. Seznam.cz has offered its Mapy.cz application for voluntary position sharing in order to provide users information about the

possibility of coming across people who are infected. The system processes anonymised data about the location history of the user's mobile device. It allows for calculation as to whether a person could have been in the same place as a person who tested positive for COVID-19 for a significant period of time and warns the given user of this fact. As at 5 May 2020, more than 1,130,000 people in the Czech Republic were participating in this initiative. (Seznam.cz, 2020) The Czech Technical University in Prague has then been developing an application which will, from the start of April, recommend an optimum route and schedule for users for visiting certain places (shops, pharmacies or parks) on the basis of data about the concentration of people. This is based on community collection of anonymous data which will be used to programme an algorithm which will create a space-time map of the level of risk in the given location (Czech Technical University in Prague, 2020).

Czech IT experts are also interested in contributing towards resolution of other problems associated with COVID-19. For this purpose, they created the Covid19CZ initiative which associates fifteen companies and several individual volunteers. Their first task is to create an application for a modern call centre with sufficient capacity to handle an extreme influx of calls. This is to say that the call centres and hotlines of medical facilities, hygiene stations and government institutions have been overloaded recently. (idnes.cz, 2020)

The phenomenon of sharing can also be used for protection of the mental health of individuals. Several platforms have been created due to the pandemic which connect people interested in receiving help with those offering it. This for example concerns the "Help Your Neighbours" or "Volunteers" platforms. These platforms are in particular focused on the requirements of senior citizens, but also those of families with children. Those who are interested in this type of aid can find volunteers willing to do shopping for food or medicines, walk dogs, provide transport, chat over the telephone or provide childminding or tuition. With contribution by volunteers, these platforms either directly match supply with demand for help in individual cities and municipalities, or publish contact details for interested parties on their websites. (Dobro.cz, 2020; PomocSousedum.cz, 2020)

Online initiatives in the field of culture and education are also developing. For example, the "With music, we are together" project has been created with support by Coca-Cola, within the framework of which, Czech and Slovak artists perform online concerts (ireport.cz, 2020). The Czech Philharmonic has prepared an online benefit concert, proceeds from which will be divided up among four hospitals caring for people with serious cases of coronavirus (Czech Philharmonic, 2020). Some Czech theatres have launched streamed online performances. The Czech public television broadcaster has temporarily launched the ČT3 channel – Television of the Third Age, intended for senior citizens. Apart from series and programmes popular among senior citizens, it also offers practical advice on how to behave during the pandemic and blocks of news reports. Czech Television has also created an educational programme for primary

school children, in which professional teachers teach children maths, Czech and reading. (Czech Television, 2020) Publishing houses and operators of educational servers have also come up with educational initiatives, offering free access to online text books and other educational materials and programmes.

### **3. Discussion and Conclusion**

In order to protect public health during emergencies such as the COVID-19 pandemic, it is useful to make use not only of the regulatory measures and initiatives of public health institutions. It is also necessary to look for new possibilities, tools and procedures. It would seem expedient to utilise the altruism of individuals and, in particular with the support of non-profit organisations, to support civic and corporate initiatives, but also initiatives instigated by research and educational centres. One of the inspirational possibilities which could represent a contribution in the field of protection of physical and mental health is charitable sharing.

The following forms of sharing, which were created in reaction to the COVID-19 pandemic in the Czech Republic, can be regarded as examples of good practice. A wide range of activities can be identified from the point of view of C2C sharing. This for example concerns production and free distribution of face masks to others, doing shopping for others, cleaning, telephone contact or transport for senior citizens, childminding or tuition, in particular for the children of workers in the integrated rescue system. From the point of view of B2C sharing, the range of sharing is not yet very broad at this moment in time. The serious economic problems which enterprises must primarily react to can be regarded as the reason for this. Despite this, some examples of good practice have already appeared, this being in the form of production and free distribution of face masks, free online access to text books and other educational materials and programmes or online sharing of cultural performances (concerts or theatrical productions). Companies are however also getting involved in B2G sharing. Sharing of raw materials and production capacities for production of disinfectants, development of applications for tracing people who are infected or development of applications ensuring operation of modern call centres can be regarded as examples of good practice in this field. Universities can also participate in charitable sharing at this difficult time, in particular universities with a technical, scientific and medical specialisation, this being in the form of U2G sharing. They can share their capacities for the purpose of testing samples taken from people who are potentially infected, for development and testing of safe materials for production of face masks, development and testing of effective respirators or production of disinfectants.

The forms of charitable, or genuine, sharing presented in the article, consisting in sharing of production capacities, the capacities of laboratories and research centres, technologies, material, the time of volunteers, employees of companies, universities and research organisations, information and knowledge or cultural productions contribute

significantly, in particular towards protection of the physical health of individuals. However, they also have a positive effect on the mental health of individuals in several cases (Tetrevova et al., 2017). We must at the same time realise that actual participation by individuals in provision of help has a positive psychological effect. This reinforces a feeling of belonging and importance, but also provides individuals a necessary distraction at this difficult time (Tetrevova, 2015). Another positive fact is that these activities do not create pressure on the public budgets which are already so strained.

Although the COVID-19 pandemic represents a global problem and the international political players, including the WHO, recommend a coordinated global approach, the policies implemented, measures adopted and reactions of the public are influenced by political, social and historical factors (David, Le Dévédec, 2018; Sin, 2014). Participation by members of the public or companies will certainly be of a different nature in each country. This is why it is necessary to share examples of good practice which could also be applied in other countries. The completely new activities and initiatives which are currently being created in the Czech Republic are, to a certain extent, influenced by the fact that this is a post-communist country. This is to say that the citizens of this country have a wealth of experience with genuine sharing. This was the only way to acquire certain goods during the socialist era. The general public and companies have built on this tradition during the pandemic, e.g. by sewing face masks. Using new ICT, they are then developing innovative and also completely new forms of sharing with a charitable nature.

This study has consequences both for creation of policies as well as for development of positive practice in the field of public health. Its findings could be used by the relevant institutions in individual countries when formulating measures for handling the current situation, as well as during planning for future emergencies in the field of public health and effective reactions to it.

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