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# Sectorial and managerial response of non-profit assistance and homecare services of public interest in Ticino facing the *SARS-CoV-2* pandemic outbreak: a case study

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### Keywords

Non-profit, assistance and homecare services, coronavirus, SARS-CoV-2, COVID-19, pandemic preparedness, Switzerland

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## List of abbreviations

ABAD	Associazione Bellinzonese (Bellinzona)
ACD	Associazione del Mendrisiotto e Basso Ceresio (Mendrisio)
ALVAD	Associazione Locarnese e Valmaggese di Assistenza e cura a Domicilio
COVID-19	Coronavirus disease 2019
FOPH	Federal Office of Public Health
LACD	Legge sull'assistenza e cura a domicilio
LIS	Lugano Istituti Sociali
Maggio	Associazione del Malcantone-Vedeggio (Agnò)
SACD	Servizi di Assistenza e Cura a Domicilio
SERI	State Secretariat for Education, Research and Innovation
SARS-Cov-2	Severe acute respiratory syndrome coronavirus 2
ScuDO	Servizio cur a domicilio (Lugano)
TreValli	Servizio d'assistenza e cure a domicilio Tre Valli (Biasca)
UACD	Ufficio degli Anziani e delle Cure a Domicilio
WHO	World Health Organization

## Key Messages

### *The Challenge*

The ongoing SARS-CoV-2 pandemic is posing an enormous challenge and putting massive pressure on health systems due to the large number of patients in need of care.

Out of the multiple issues that emerged by cross-referencing information from semi-structured interviews with key informants from the southern canton of Ticino in Switzerland and a review of grey literature, this document highlights how the health crisis has further emphasized the importance of having a clear coordination structure and the need of greater integration between services and organizations, in particular as regards the assistance and homecare sector; a sector in which the number of stakeholders has been constantly growing over the last years, which implicates a high degree of fragmentation. Operating both at the inter- and intra-organizational level is not only relevant in order to ensure the appropriate distribution of potentially scarce resources but, above all, for the sake of the final users of the organizations to whom continuity of care and its effectiveness should be continuously guaranteed.

### *Recommendations*

In light of the results gathered by this case study, the authors identify following recommendations for policy makers, administrators and researchers to address both the challenges that have emerged during the first phase of the crisis and potential future large-scale public health emergencies:

- A clearer and more efficient concertation between federal and cantonal guidelines is required at each stage of a health crisis (and a need of greater clarity), as well as a greater coordination and agreement between countries with regard to the closure and opening of their own borders.
- A review of the Swiss Influenza Pandemic Plan is required, considering:
  - different types of potential crises that could occur;
  - the specificity of the elderly sector;
  - both clearer and preciser details about responsibilities.
- A prioritization of evidence-based research on psychological outcomes and psychiatric symptoms due to the containment measures is required, as well as dedicated intervention strategies aiming at preventing acts of domestic violence need to be developed.
- An increased awareness of the fundamental role played by the proximity care, and therefore by the non-profit assistance and homecare services (SACDs), on the side of the general public is required.
- A greater attractiveness and visibility of the nursing profession is urgently required.
- A search for an ideal solution of an integrated proximity socio-medical system is desirable.

## Executive Summary

After the city of Wuhan in China, many other cities and countries worldwide have been experiencing the Severe Acute Respiratory Syndrome Coronavirus 2 outbreak, also known as *COVID-19*. As of March 11, 2020, the World Health Organization (WHO) has officially declared the *SARS-CoV-2* outbreak a pandemic.

Given the fact that the disease has a long incubation period, *COVID-19* is easily transmitted, and so far, no pharmacological intervention has shown evidence of full efficacy. Governments had to implement massive physical distancing interventions to minimize the risk for their citizens to get infected. However, recent studies have shown that staying-at-home variously affects the human psyche and can contribute to changes of daily life habits, to adverse psychological outcomes and psychiatric symptoms, such as panic attacks, stress, fears, discomfort, loneliness, sorrows, depression and anxiety, as well as increased domestic violence.<sup>1</sup>

The pandemic outbreak has also put many healthcare systems under massive pressure asking them to quickly reorganize their settings, considering both, the rapid increase in caseloads as well as resource constraints. To this end, some studies looking into the managerial response of hospital settings to the spread of *COVID-19* have already been conducted. However, scientific literature has not yet provided any evidence-based practice with regard to homecare settings, where the spread of a virus can certainly represent a major issue, both for the user as well as the health workers. Even though often perceived as operating in the background with respect to front-line professionals within hospitals or rehabilitation facilities, health workers in the assistance and homecare sector are playing a crucial role in the fight against the disease, since they are mostly in close contact with an important share of the vulnerable population suffering from diverse conditions and comorbidities.

After a brief overview on the *SARS-CoV-2* pandemic outbreak and its spread in Switzerland, in particular the southern canton of Ticino, the present case study shows the many challenges that the assistance and homecare sector faced during the first four months of the outbreak (i.e. between February and May 2020). Challenges that need to be quickly addressed by policy makers, administrators and researchers, in order to protect both service users and health workers, and to better tackle future health crises.

The results in this document have been obtained by cross-referencing information from semi-structured interviews that were conducted with representatives of two non-profit assistance and homecare services of public interest in Ticino, the coordinator of the Conference of the six non-profit assistance and homecare services of public interest of the canton Ticino, and an additional review of the grey literature.

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<sup>1</sup> Asmundson, G. J. G. & Taylor Steven, 2020, a, b; Mazza, Marano, Lai, Janiri & Sani, 2020; Wang, Pan, Wan, Tan, Xu, Ho & Ho, 2020

## Introduction

The present case study, which was developed in response to the current *SARS-CoV-2* pandemic outbreak in Switzerland, intends to describe the sectorial and managerial response of non-profit assistance and homecare services of public interest in Ticino (SACD), Switzerland, during the first months (February - May 2020) of the COVID-19 outbreak in the country. The aim is to provide recommendations to policy makers, as well as potential administrators and researchers who have an interest or stake in this particular issue and to provide guidance on how to better tackle similar crises in the future.

In April 2020, the authors conducted a first literature search focusing on the managerial response of assistance and homecare sectors worldwide, by consulting different academic databases (*ScienceDirect*, *Web of Science and Scopus*), using the following general keywords: “homecare”, “coronavirus”, “preparedness”, “response” and “emergency”.

The search and any relevant results that were found indicated an evidence gap in the existing literature, in particular with reference to the response of the assistance and homecare sector to the ongoing *COVID-19* pandemic and any other past health crises. Given the total absence of relevant literature, the main data sources of the present document rely on institutional guidelines and protocols that are publicly available, and on selected media news, which set the basis for conducting interviews with key informants that are active in the canton of Ticino and drafting recommendations.

After a brief overview on the *SARS-CoV-2* pandemic outbreak and its spread over Switzerland, specifically in the canton of Ticino (which represents one of the most affected cantons in Switzerland), the authors will present and discuss the results of the semi-structured interviews that were conducted with the executive management of two SACDs’ (the Misses Marina Santini and Rosaria Sablonier Pezzoli, and Mess.rs Gabriele Balestra and Gilles Mueller) and the coordinator of the SACDs’ Conference in Ticino (Dr. Stefano Gilardi), which is the network of assistance and homecare services of public interest in Ticino. The interviews serve as a basis to build a case study.

A case study represents an empirical research methodology, which investigates a contemporary phenomenon within a real-life context.<sup>2</sup> Despite some highlighted limitations from the literature with regard to the scientific rigor of the methodology, the authors are of the opinion that it is currently the most appropriate methodology to use in relation to the topic and for reaching the objective of the present document.

The present document will end with some recommendations based on the analyzed experiences of the interviewees and the sector’s peculiarities.

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<sup>2</sup> Yin, 2003

## Background on SARS-CoV-2 pandemic

The first 27 cases of an anomalous pneumonia were reported on December 31, 2019, by the Wuhan Municipal Committee of Health and Healthcare, in the capital of Hubei in China. Seven days later, the Chinese authorities stated that the agent causing the infections came from the *Coronaviridae virus* family and, for the very first time it was named: “new coronavirus (2019-nCoV)”. The family of the single-stranded RNA viruses includes some already identified agents, such as the Severe Acute Respiratory Syndrome Coronavirus (SARS-CoV, in 2002), and the Middle East Respiratory Syndrome Coronavirus (MERS-CoV, in 2012), which were both transmitted from animals to humans.<sup>3</sup>

As of January 26, 2020, there were already 2,033 confirmed cases of 2019-nCoV in mainland China, with 56 registered deaths. Within the same time span, other cases started to be reported outside of China, including in Japan, the Republic of Korea and Thailand. First infections were also detected in Europe: on January 24, 2020, three cases were confirmed in France and four days later three other cases in Italy.

On January 30, 2020, the World Health Organization (WHO) declared the “new coronavirus” as a public health emergency of international concern.

As of February 11, 2020, the International Committee on Taxonomy of Viruses changed the first name given by the Chinese authorities from “new coronavirus” to “Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2)” and “Coronavirus Infectious Disease (COVID-19)”. One month later, on March 11, 2020, the WHO officially declared the *coronavirus* outbreak a pandemic, since more than 118,000 cases in 114 countries were reported. The COVID-19 disease became the fifth documented pandemic in history, after: H1N1, H2N2, H3N2 and the 2019 H1N1.<sup>4</sup>

Since the first reported cases in Wuhan, COVID-19 has rapidly spread worldwide and, at the time of writing the present document, 7,817,064 people in 188 countries had been affected by the pandemic.

The United States of America (US) and Brazil had the largest number of confirmed cases, with respectively 2,074,749 and 850,514 cases. The third most affected country being Russia (528,267), followed by India (320,922), the United Kingdom (UK) (295,828), Spain (243,605), Italy (236,651), Peru (220,749) and France (193,746). By June 14, 2020, the US had recorded a loss of 115,436 people, followed by Brazil and the UK with more than 40,000 deaths, Italy with 34,000 and France and Spain with more than 27,000 deaths. In terms of infected cases per one million inhabitants, the largest numbers were recorded for Qatar (28,350), San Marino (20,455), the Vatican City (14,981), Andorra (11,041) and Bahrain (10,735).<sup>5</sup>

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<sup>3</sup> Cascella, Rajnik, Cuomo, Dulebohn & Di Napoli, 2020

<sup>4</sup> Liu, Kuo, Shih, 2020; World Health Organization, 2020, a, b, c, d

<sup>5</sup> John Hopkins University & Medicine, 2020; Worldometer, 2020



## Epidemiological evolution and institutional responses in Switzerland

After a rapid spread of the virus in the Lombardy region of Italy, the first reported case of COVID-19 was reported in Switzerland on February 25, 2020 in the southern canton of Ticino. After that day, the virus rapidly spread across the whole country. As of June 15, 2020, the total number of cases was 31,014, while the number of deaths reached 1,938 people and the Swiss case fatality rate was attesting to 6.25%.

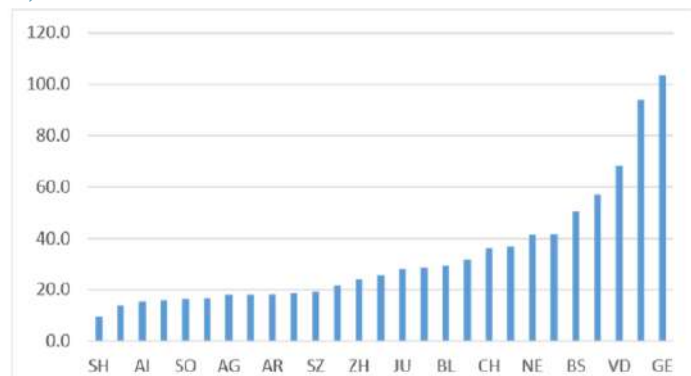
The most affected cantons, both in terms of reported and fatality cases, were Vaud and Geneva (for the French-speaking region), Zurich (for the German-speaking region) and Ticino (for the Italian-speaking region). Regarding the reported cases per canton per 10,000 inhabitants, the most affected cantons were: Geneva (104.29), Ticino (93.87) and Valais (57.16) (as of June 15, 2020).

The median age of people who tested positive was 52 years and for those above 60 years, the major proportion of people infected was male. As regards the fatalities, the median age was 84 years, below which the incidence had been quite low. The highest case fatality rates with respect to the people aged 65 years and more were recorded for the canton of Neuchâtel (0.113) and the canton of Ticino (0.106).<sup>6</sup>

At a macro level, Switzerland recorded a cumulative prevalence of 35.7 per 10,000 inhabitants. In comparison, the US peaked at 62.7, while Spain at 51.5 and Italy at 38.3. Figure 1 and 2 graphically show some reported figures.

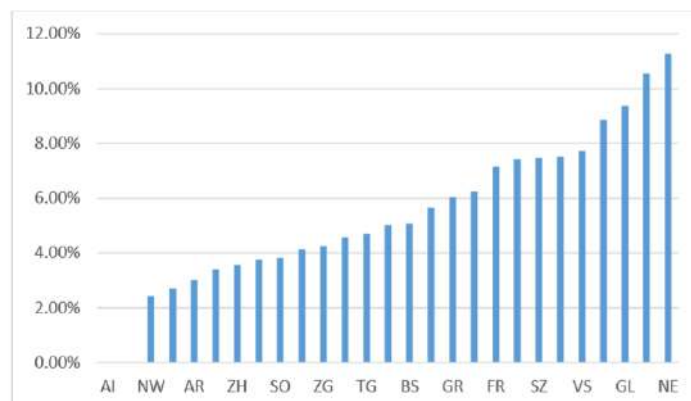
Three days after the detection of the first case in Switzerland, the Swiss Federal Council declared the situation as “special”, according to the article six of the “2016 Legge sulle epidemie” (*Epidemics Act*). Several measures were progressively implemented, including a ban on public and private demonstrations with more than 1,000 people, partial closure of borders, limitations on number of people allowed in restaurants and bars and a ban on frontal teaching.

Figure 1: New reported Covid-19 cases in Switzerland over time, per 10,000 inhabitants



Source: authors' own elaboration, based on data from: Corona-data, 2020

Figure 2: Covid-19 case fatality rate in Switzerland



Source: authors' own elaboration, based on data from: Corona-data, 2020

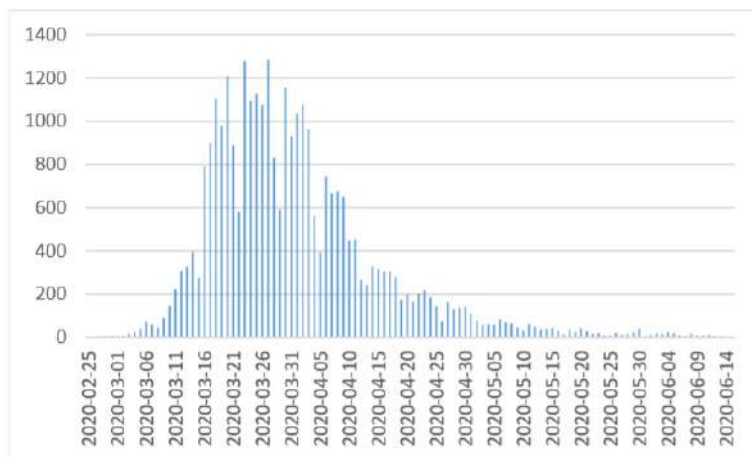
<sup>6</sup> Corona-data, 2020

On March 16, 2020, the “extraordinary” situation was declared, in order for the Federal Council to issue even more restrictive measures and guidelines for the public. Among others, a ban on all public and private demonstrations, including sports events, a ban on gatherings of more than five people, as well as an obligation of keeping a social distance of at least two meters were imposed. In addition, hospitals, clinical and medical practices were to remain open but a ban on non-urgent medical procedures and treatments was imposed.

After the declaration of the “extraordinary” situation and, thus, after the first *lockdown* measures had been implemented, the peak of reported cases was reached on March 27, 2020 (1,287 cases), while the peak of deaths was recorded some days later, on April 8, 2020.

After these dates, the numbers on new infections, hospitalizations (regular, intensive and ventilated) and deaths started to decrease, and on April 16, 2020, the Federal Council announced the progressive easing of measures in two phases: “Phase 1” (from April 27, 2020) and “Phase 2” (from May 11, 2020). The phases consisted of reopening restaurants, shops, markets, as well as giving the green light for mass sports and competitive and professional sports.

Figure 3: New reported Covid-19 cases in Switzerland over time



Source: authors' own elaboration, based on data from: Corona-data, 2020

Laws and decrees are crucial against infectious diseases, and thus, necessary to ensure the protection of the public health. To this regard, in Switzerland, the legal basis for the fight against communicable diseases is represented by the 2016 Epidemics Act and its related to the 2016 Ordinance on Epidemics. Both documents govern the field of the protection of human beings and consider all necessary measures, such as the elaboration of an emergency plan, by defining competences and responsibilities both on the federal and cantonal level.<sup>7</sup>

The other legal documents, which are related to the topic, are the following: the 2017 Federal Act on National Economics Supply; the 2015 Ordinance on Coordinated Health Service; and the 2016 Ordinance on the Reporting of Observations of Communicable Diseases.<sup>8</sup>

An additional tool, which has been published in its fifth edition, is represented by the Swiss Influenza Pandemic Plan. The document has been edited by the Federal Council for the first time in 2006. At that time, Switzerland was the first country worldwide adopting a similar plan. It was approved by the competent authorities and experts and provides recommendations on how to collaborate in an interdisciplinary way in order to tackle the challenges imposed by a flu pandemic. The plan includes strategic plans, main healthcare measures and guidelines on how to manage and coordinate relationships, both at the national and international level, by

<sup>7</sup> Il Consiglio federale, 2020, a, b

<sup>8</sup> Il Consiglio federale, 2020, c; The federal Council, 2020, b

paying particular attention to the following principles: equity, proportionality and the respect of fundamental human rights.<sup>9</sup>

At the international level, and given the fact that Switzerland is also a member of the WHO, the country has to respect the 2005 International Health Regulations, which is a document signed by all WHO members seeking to guarantee global health.<sup>10</sup>

In order to better tackle the many challenges faced due to the COVID-19 pandemic within the different sectors, the Swiss Confederation benefited from several professional functions coming from different entities: the Federal Office of Public Health (FOPH); the Federal Council Coronavirus Crisis Unit; and the State Secretariat for Education, Research and Innovation (SERI).

These three entities also set up a science task force, known as the “Swiss National COVID-19 Science Task Force”, including researchers from higher education institutions throughout the country. The aims of the task force are to provide scientific advice to policy makers and administrators by means of policy briefs and reports, to identify relevant research topics and to provide recommendations on specific measures to foster innovation and tackle the spread of the virus.<sup>11</sup>

Among others, a dedicated webpage for healthcare professionals has been set up by the federal government, which constantly provides the most recent updates and recommendations on accessibility of facilities, protection measures and the management of sick people and their relatives. In addition, a dedicated federal toll-free number (Infoline Coronavirus) has been implemented.

**Box 1: Timelines of Covid-19 Measures Implementation and Loosening in Switzerland (part 1)**

(Source: Calciolari, S., González, L., Luini, C. & Meneguzzo, M. (2020). Strategic and organizational response of Ticino’s public and non-profit multi-hospital system facing the COVID-19 emergency. Rapid Response Review for the COVID-19 emergency in Switzerland. *Swiss Learning Health System*)

Date of Entry into Force	Measures Implementation and Loosening
28.02.2020	Ban on demonstrations with more than 1000 people
13.03.2020	Ban on public and private demonstrations with more than 100 people. Limitation of 50 people allowed in restaurants and bars, including personnel. Ban on entry in Switzerland for people coming from countries and regions at risk, unless fulfilling specific conditions
14.03.2020	Clarification: the ban also applies to ski areas
16.03.2020	Ban on front lecture teaching
17.03.2020	Ban on public and private demonstrations, including sporting events and corporate activities. Closure of facilities accessible to the public. The imposed ban and closure do not apply to demonstrations and facilities that sell goods and services for daily use
19.03.2020	Ban on shopping tourism
21.03.2020	Ban on gatherings of more than 5 people Obligation to keep a distance of more than 2 meters in gatherings of more than 5 people
25.03.2020	Ban on healthcare facilities, in particular on hospitals, clinics, dental clinics and medical practices, to perform tests, treatments and non-urgent medical interventions
16.04.2020	Announcement of the Swiss Government of the progressive loosening of measures against the new coronavirus (2 phases)
27.04.2020	Phase 1: Green light for the reopening of DIY and gardening shopping malls, of gardening shops and florists; of commercial operations offering services to the person with bodily contact such as hairdressers, massage solons, tattoo studios and beauty centers (stay banned escort or prostitution services and erotic clubs); of the servisol structures such as solariums, carwash plants or flower fields. Green light for the execution of all outpatient interventions, including non-urgent ones. Withdrawal of the limitation to the close family circle for funeral ceremonies

plemented.

<sup>9</sup> Federal Office of Public Health, 2020

<sup>10</sup> Il Consiglio federale, 2020, e

<sup>11</sup> The federal Council, 2020, a



## Epidemiological evolution and institutional responses in the canton of Ticino

In Switzerland, cantons are responsible for the management of their own health system. Their tasks include the planning of hospitals, homecare services, and nursing homes. In addition, each canton has to examine and approve authorizations for professionals, which need to be coordinated and controlled.

The canton of Ticino has a government structure based on five departments.

The department responsible for health is the Health and Social Services Department.

In times of emergencies, the so-called “Stato Maggiore Cantonale di Condotta” (*Cantonal General Staff of Conduct*) is activated under the Military and Population Protection Section of the canton of Ticino. The entity consists of several partners enrolled by the State Council and it is led by the police commander. Its tasks consist in supporting the cantonal executive level in making decisions, planning and implementing measures, in coordination with partners across the whole territory.<sup>12</sup>

As stated in the previous section, the first *COVID-19* case in Ticino was reported on February 25, 2020. Already two days before, cantonal authorities had a meeting in the so-called “*enlarged coordination group*” and, on February 26, 2020, the cantonal government introduced (through the official 1033 Resolution) a ban on carnival-related events, hockey championship matches and school trips abroad.<sup>13</sup>

### Box 2: Timelines of Covid-19 Measures Implementation and Loosening in Switzerland (part 2)

(Source: Calciolari, S., González, L., Luini, C. & Meneguzzo, M. (2020). Strategic and organizational response of Ticino’s public and non-profit multi-hospital system facing the COVID-19 emergency. Rapid Response Review for the COVID-19 emergency in Switzerland. *Swiss Learning Health System*)

Date of Entry into Force	Measures Implementation and Loosening
11.05.2020	Phase 2: Green light for front lecture teaching in compulsory schooling (elementary and secondary I) as well as for front lectures with no more than 5 people and for the exams in school of level secondary II, tertiary and in other training centers. Green light for the reopening of shops, markets, travel agencies, museums, libraries and sport facilities 1 <sup>st</sup> phase of restaurants reopening (for groups of 4 people and parents with children) Green light for the mass sports (max of 5 people), competitive and professional sport (excluding competitions) 1 <sup>st</sup> loosening phase of entry restrictions in Switzerland
28.05.2020	Loosening of the ban of religious ceremonies
01.06.2020	Collection of signatures in public spaces
06.06.2020	Gatherings of max 30 people in public spaces Demonstrations, political demonstrations and assemblies of companies of max 300 people Resumption of front lecture teaching in secondary schools, professional schools and universities as well as in other training centers 2 <sup>nd</sup> phase of restaurants reopening (for groups of more than 4 people, track client details whenever the distance is smaller than prescribed) Opening of discoteques, dance clubs and night clubs (track client details whenever the distance is smaller than prescribed) 2 <sup>nd</sup> phase of openings in the sports sector (max 300 spectators) Opening of swimming pools, wellness centers, botanical gardens and animal parks, cinemas, gig venues, theaters, casinos, ski lifts, leisure facilities for the summer tourism, holiday camps for children and adolescents (up to 300 people), campings and erotic clubs Loosening of prescriptions for people at higher risk
15.06.2020	2 <sup>nd</sup> loosening phase of entry restrictions in Switzerland: opening of borders with Germany, France and Austria
20.06.2020	Abrogation of the max number of 300 participants in public demonstrations and introduction of new obligation to wear face mask
22.06.2020	Necessary distance of 1.5 meters Abrogation of the max number of 30 people in public spaces, of the obligation of consumption when seated in restaurants, bars, discoteques etc, of the obligation for the latter structures to close between 00.00 and 06.00, of specific prescription in the sport sector, of the protection measures in construction sites and in manufacture
06.07.2020	Obligation to wear face mask in public transports Quarantine for travelers coming from countries or regions at high risk of contagion

<sup>12</sup> Repubblica e Cantone Ticino, 2020, h

<sup>13</sup> Repubblica e Cantone Ticino, 2020, g, j

During the same day, a cantonal toll-free number (Infoline Coronavirus) was made available to the public for questions related to the topic.<sup>14</sup>

The ultimate objectives of the cantonal strategy against the *COVID-19* outbreak consisted, from the very beginning, in avoiding as many fatalities as possible and to prevent the collapse of the health system.

As a next measure, the cantonal government decided to assemble little (cubbical/hospital) curtains outside the hospitals, which were managed by the members of Civil Protection and were thought to be the place for both medical triage and the execution of diagnostic swabs. The new infrastructures allowed to carry out *COVID-19* related laboratory tests directly in Ticino.<sup>15</sup>

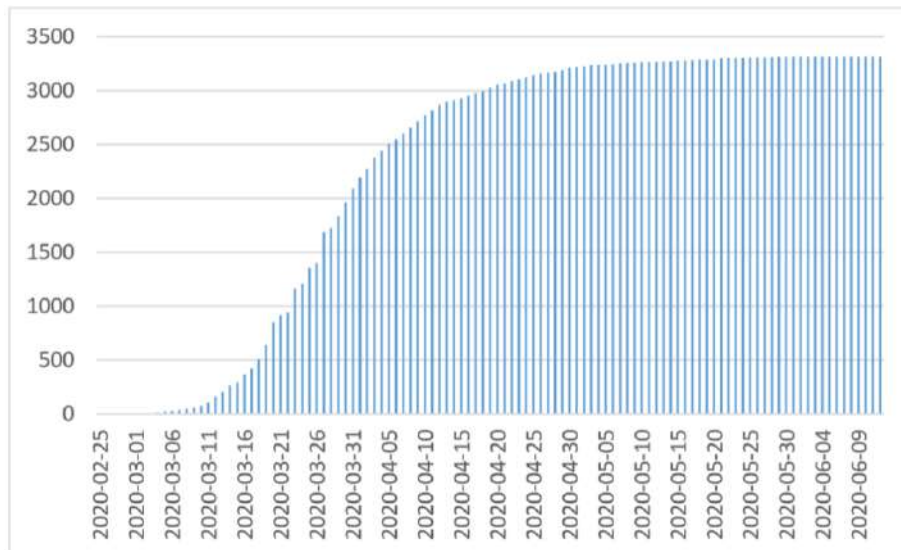
On February 28, Ticino also imposed the federal containment measures, by prohibiting events with more than 1,000 people.<sup>16</sup>

As of March 6, 2020, the State Council decided to restrict further the containment measures and a maximum limit of 150 people who could attend an event was imposed. On the same day, two *COVID-19* cases were diagnosed in a nursing home in Ticino and it was decided to limit access to these facilities. Just a few days later, a complete ban on visits within assisted living facilities was imposed, due to the sudden development of the spread of the virus.<sup>17</sup>

While on March 11, 2020, the WHO declared the *coronavirus* outbreak a pandemic, at the same time the cantonal government announced the so-called “state of necessity”. By that day, 108 new *COVID-19* cases had been diagnosed. Further restrictive measures, such as for instance the closure of schools and restrictions on economic activities (with the exception of the essential services) followed shortly on March 21, 2020.<sup>18</sup>

As figure 4 shows, till March 21, 2020, the number of cumulative reported cases has been exponential, by growing from 0 to 916 in less than a month and average daily growth rate of 36.16% was recorded.

Figure 4: Number of cumulative reported Covid-19 cases in canton Ticino



Source: authors' own elaboration, based on data from: Corona-data, 2020

<sup>14</sup> Repubblica e Cantone Ticino, 2020, c

<sup>15</sup> Repubblica e Cantone Ticino, 2020, b

<sup>16</sup> Repubblica e Cantone Ticino, 2020, a

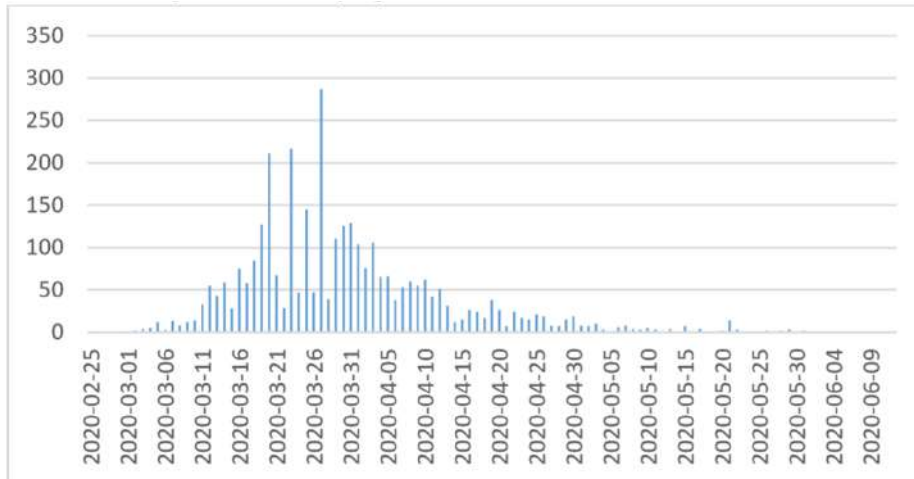
<sup>17</sup> Repubblica e Cantone Ticino, 2020, d, f

<sup>18</sup> Repubblica e Cantone Ticino, 2020, e

After the first phase, a second phase started officially on April 23, 2020 and it was characterized by the maintenance of containment measures and a progressive alignment of the cantonal measures in Ticino towards the federal ones (therefore with a slight loosening with respect to the first phase).

As can be seen from figure 5 below, while the number of new daily reported cases reached its peak by the end of March, the numbers started just afterwards to decrease.

Figure 5: New daily reported Covid-19 cases in canton Ticino

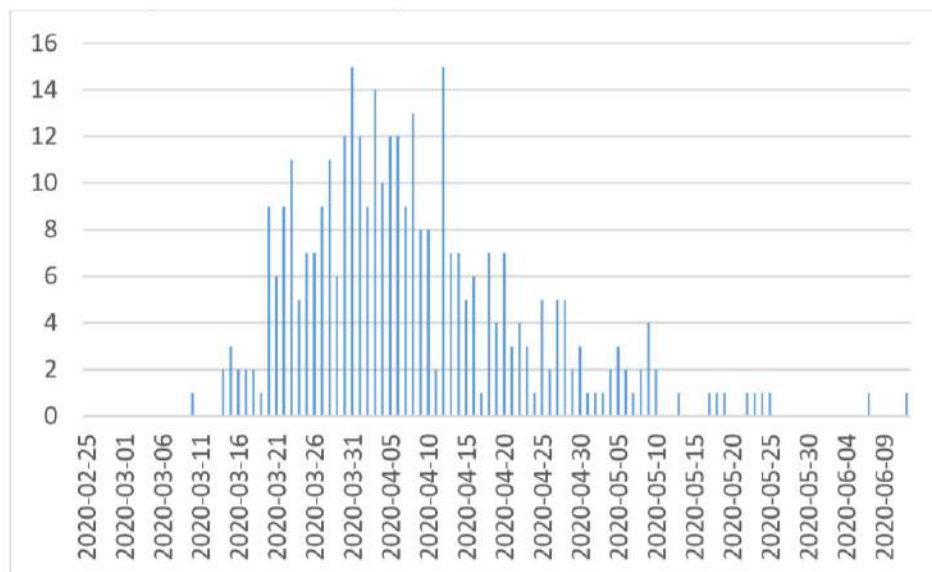


Source: authors' own elaboration, based on data from: Corona-data, 2020

Between April 23, 2020, and June 30, 2020 (the date at which the “state of necessity” in Ticino was declared to be over), Switzerland entered its third phase. During this period, the authorities progressively eased the measures, by giving more importance to individual responsibility and focusing on contact tracing, which had been used quite intensively at the beginning of the crisis. In support of the intense communication activities undertaken by the authorities, it is worth mentioning that in the course of more than a hundred days, about 160 press releases were published and 37 press conferences were held only in the canton of Ticino.

Figure 6 shows the number of daily deaths due to *COVID-19*. The figure shows that the trend was similar to the new daily cases, but with a time delay of about a week. The peak of fatalities was reached at the end of March.

Figure 6: Number of daily deaths due to Covid-19 in canton Ticino



Source: authors' own elaboration, based on data from: Corona-data, 2020

As of June 12, 2020, a total of 3,317 reported *COVID-19* cases and 350 deaths were recorded in Ticino since February 25, 2020, when the first case was reported. About 45% of the overall deaths occurred in nursing homes.

## The assistance and homecare sector

In Switzerland, the right to benefit from assistance and homecare services is anchored in the 1999 Federal Constitution, and more precisely in the Article 112c “Aid for elderly people and people with disability”. The Swiss Confederation assigns the responsibility to “*provide for assistance and care in the home for elderly people and people with disabilities*<sup>19</sup>” to each of the 26 cantons in accordance with the subsidiarity principle.

Most beneficiaries need care and assistance at home to carry out both activities of daily living and instrumental activities of daily living. The first category includes routine activities (basic function of living), such as eating, toileting, bathing and getting dressed, while the second one refers to the activities, which are not necessary for the fundamental functioning, such as preparing meals, shopping, cleaning and maintaining the house. The degree of dependence of a person is then determined by quantifying the degree of functional incapacity to perform daily activities, which determines the need of seeking formal and/or informal help.

According to a study conducted in Ticino<sup>20</sup>, major contributing factors for seeking help for people aged 80 years and older are the following: limitations in activities of daily living and instrumental activities of daily living, recent hospitalizations, loneliness at home and, in general, the advancing age. The key factor of the shift in demand are chronic diseases and multimorbidity, fragility and vulnerability, need of palliative care, and an overall increase in the geriatric syndromes, such as dementia, walking disorder, falls, depression, incontinence, malnutrition and polypharmacy.

In Ticino, on the cantonal level, the provision of assistance and homecare services is regulated by the 2010 “Legge sull’assistenza e cura a domicilio (LACD)” (Law on assistance and homecare), which, unlike the federal law, extends the rights to every single person in need of help due to “*illness, injury, disability, pregnancy, old age and more in general socio-familial difficulties*<sup>21</sup>”. Differently from what the Swiss Constitution states, the cantonal law is then universally applied, that is from early infancy to older age and disability.

Therefore, it is clear that the final recipients are not only strictly elderly people but a bigger proportion of the cantonal population, with the overall objective to promote independent living by supplying “*temporary or longlasting, preventive or rehabilitation services*<sup>22</sup>”.

According to an ordinance on compulsory health insurance services released by the Swiss Federal Department of Home Affairs, the following points can be considered as health services:

- basic health care;
- examinations and medical care;
- assessment, recommendations and coordination.

In addition, assistance and homecare supplies the following:

- cleaning services;
- sanitary, health and social consultation, and assistance;
- information regarding other available resources on the territory;
- health education and protection.<sup>23</sup>

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<sup>19</sup> The federal Council, 2020, c

<sup>20</sup> Masotti & Oris, 2015

<sup>21</sup> Article 2, Repubblica e Cantone Ticino, 2020, i

<sup>22</sup> Article 3, Repubblica e Cantone Ticino, 2020, i

<sup>23</sup> Il Consiglio federale 2020, d



Given its nature, the entire Swiss “assistance and homecare service” system consists of two types of help. On one side, there is informal assistance, which is provided by relatives, friends and/or acquaintances and on the other side, formal aid is provided by dedicated services, family care specialists, territorial authorities of aid, caregivers and the large community of volunteers.

**Box 3: Figures about Swiss population’s age structure**

According to the latest figures, by the end of 2019 the Federal Office of Statistics has observed an increase in the number of people aged 65 years and over of 1,8 percentage points, ascending from 1.577.300 in 2018 to 1.606.100 in 2019, out of a total of 8.603.900 inhabitants: within the percentage points of 18% of elderly, people aged 80 or more were 453.800, namely an increase of 2,3% with respect to 2018. At the cantonal level, 11 cantons registered higher percentage in comparison to the national figure, and among them also canton Ticino.

In Switzerland, among the main ageing population factors, the major contributors are essentially three: the fertility rate, which decreased from 3,7 children per woman to 1,5 (below the threshold percentage of replacement process of generations); the life expectancy, which has doubled in comparison to the situation by the end of the 19<sup>th</sup> century; and the net migration, which in Switzerland currently represents the most important factor of rejuvenation population. (Ufficio federale di statistica UST, 2020)

A large and highly integrated and coordinated network of actors cooperates with each other to facilitate the stay at home. This cooperation has also been a very important theme, heavily promoted recently by politics, because of its cost and therapeutic efficiency. It has been considered a valid alternative to institutionalization; especially in a context where the informal assistance is well integrated into the care process as well and the organizations comply better with the users’ needs while at the same time they are less expensive for the society. Over the past years, the sector has recorded a remarkable evolution and has acquired an essential role for the society as a whole. Due to the ageing population and an increase in the average life expectancy, demand for assistance and homecare services will undeniably increase.

In conclusion, given the current changes in the population’s age structure and the ever pressing and urgent need of enhancing the efficiency in the use of the available and limited resources, assistance and homecare services will increasingly become an alternative solution to staying in long-term care facilities for elderly people instead.

## Overview of assistance and homecare services in Switzerland

In Switzerland, assistance and homecare is provided by three entities, which gather 2,168 service providers: non-profit organizations, for-profit organizations and freelance healthcare professionals. The umbrella association for the non-profit organizations is called “Spitex Schweiz – Aide et soins a domicile Suisse”. It gathers 26 cantonal associations, 577 territorial assistance and homecare services and 77.9% of employees in full-time positions (about 38,850 people). The association is the main interlocutor between the authorities, health workers and the media, and it upholds the rights of its own associates by offering multiple services.

The 476 for-profit organizations are represented by the “Association Spitex privée Suisse ASPS”. The organization gathers around 19.2% of employees in full-time positions (about 12,600 people). It is responsible for representing the interests of its own associates by promoting assistance and homecare, enhancing equal treatment between different providers within the sector, and offering consulting and coordination services.

Freelance healthcare professionals make up 2.9% of employees in full-time positions (1,115 people). The umbrella association for this third category is represented by the Swiss Professional Association of Nurses (SBK – ASI), the biggest health workers association with more than 25,000 members. The association is committed to improve social and economic conditions of the professionals and is engaged in promoting both professional and continuing education.

Among all information regarding compulsory health insurance and the optional daily allowance insurance (which both form the social health insurance in Switzerland), the Federal Law on Compulsory Health Care (LAMal) provides a precise list of cases in which a contribution for the citizen is expected. Indeed, the health insurance provides for payments in case of maternity, sickness, and accidents, under medical prescription or doctor's order. According to the ordinance on Compulsory Health Care (OAMal), health insurance companies have to contribute for services provided by nurses and assistance and homecare organizations the same amount throughout the entire Swiss territory, that is: (1.) for basic health care, CHF 52.60/hour (2.) for examinations and medical care, CHF 63.00/hour, and (3.) for assessment, recommendations and coordination, CHF 76.90/hour. The amount of reimbursement of contributions is calculated per unit of time of five minutes and the minimum repayment is ten minutes. To what concerns, instead, housekeeping and social care, the services (such as cleaning, laundry and social assistance) are entirely paid by the final user, unless he/she has a supplementary insurance coverage or has the right to receive additional benefits from the old age and survivors' insurance. To this end, fares are calculated based on the perceived income.<sup>24</sup>

In 2018, assistance and homecare services were provided to overall 367,378 people in Switzerland and more than half of the final users were women (220,559).

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<sup>24</sup> Il Consiglio federale, 2020, d

Out of 310,512 people that benefited from long-term-care, 216,879 (69.8%) were elderly people. Conventionally, a person is defined as “old” when the right to pension benefits arises, which is 64 years for women and 65 years for men. Within the category of “elderly”, official statistics often distinguish between “young-old senior” (aged from 65 to 79 years) and “old-old senior” (aged 80 years or more). If this further specification is taken into consideration, then it can be observed that the biggest proportion of people that benefited from long-term-care were “old-old seniors”, with 41% (127,373), while 28.8% (89,507) were “young-old senior”. Also, with regard to housekeeping and social assistance, out of 122,438 people that benefited from the services, the biggest proportion was the group of people being 80 years and older (61,959).<sup>25</sup> From an inter-cantonal point of view, it is relevant to highlight that there is a big heterogeneity in terms of elderly, per 1,000 inhabitants, who receive care and social assistance at home: the difference between cantons is the result of a specific combination between formal and informal care and different visions and political orientations of each canton with regard to the long-term-care. For instance, in latin cantons (such as Ticino, Bern, Fribourg, Vaud, Geneva, Jura and Neuchâtel), a greater use of assistance and homecare services and, consequently, the postponement of entry into long-term care facilities, where the clients usually arrive with a greater need of care, has been observed.

In addition, there are also other reasons for the aforementioned variability in utilization rates, such as the specific proportion of the population being 80 years and older, the range of assistance and homecare services in comparison to the available number of beds within long-term

#### **Box 4: Assistance and home-care in Switzerland**

Out of all service providers within the sector, freelance healthcare professionals represent 51.4%, followed by the non-profit organizations with 26.7%, and the for-profit services with 21.9%. All three entities employ 52.574 employees, 23.554 employees in full-time units, and provide care to overall 367.378 people (that is 4.3% of the entire Swiss population). The biggest proportion of them, that is 79.9%, is served by the non-profit organizations, while the lowest one by the freelance professionals.

The training of personnel within the assistance and home-care services is quite diverse. Around 36% of the employees have only attended basic training, have been interns or have received no training at all. About 24% of employees have only received basic vocational training and about 26% have advanced vocational training and related to healthcare. Only 4% of the overall have a tertiary degree. It is important to highlight that while the same proportion of people have same training both in commercial and non-profit organizations, within the freelance healthcare professionals almost everyone has either received advanced vocational training or a tertiary degree: this outturn confirms that within the for-profit and non-profit services a logic of teamwork is in force, while as a freelancer the worker has more responsibility.

According to the latest available data (2019), the sectorial total revenue has been 2.54 billion Swiss Francs. The sum of revenues comes from: (1.) the services provided (72%), which are basically the costs covered by the insurance companies and insured users), (2.) the cantonal and municipal contribution to costs (26%), and (3.) donations (2%).

86.6% of the overall expenditures (around 2.52 billion Swiss Francs) consists of personnel costs (wages and continuing education), while the remaining 13.4% of operating costs (administrative costs, rents, insurances, etc.).

In 2018, 62% of the total cases assigned to assistance and home-care services regarded long-term-care, with 16.851.383 charged hours (an average of 54 hours per user). 24.6% of the cases regarded housekeeping and social care, with overall of 6.229.621 charged hours (an average of 51 hours per user). Lastly, 13% regarded other service, while the smallest amount of cases (0.4%) regarded acute and transitional care. (Author's own elaboration, based on data from: Association Spitex privée Suisse ASPS, 2020; Bundesamt für Statistik, 2020, b, d, e, f; SBK, 2020; Spitex Schweiz, 2020;)

<sup>25</sup> Author's own elaboration, based on data from: Bundesamt für Statistik, 2020, a, b, c

care facilities, as well as historical, geographical and cultural factors, which are specific to each canton.

Thus, according to the ongoing trends, it is simple to forecast the future age structure of the Swiss population, excluding any extraordinary events that could have a high impact on the main demographic indexes and therefore on the population's structure. Within the next decades, it will be necessary to seriously consider the rapidly growing number of elderly people, especially since people born in the *baby boom* years are now heading to the retirement age. In particular, and in addition to the lengthening of life expectancy and a lowering birth rate, the ageing population in the canton of Ticino will be amplified by the cohorts of *baby boomers*, which were born in the aftermath of World War 2, and more specifically during the 1960s. These cohorts with higher numbers in absolute terms with respect to others will increase the proportion of elderly people, by leaving a gap in the working population. Assistance and homecare services will thus play an increasingly more important role.

## Overview of assistance and homecare services in the canton of Ticino

Like other latin cantons, also the government of canton of Ticino has always been very active and sensitive towards elderly people; over the last 10-15, the Department of Health and Social Services has made considerable efforts in postponing as much as possible an institutionalization at a long-term facility, by creating favourable conditions for elderly to continue staying at home, that is by promoting, maintaining and/or re-establishing individual's bio-psycho-social health status in order to maximize the recovery and to conserve the functional autonomy. To this end, healthcare policy regarding assistance and homecare services has been developing greatly over the last years.

According to a study conducted by the Swiss Health Observatory<sup>26</sup> in 2010, it emerges quite clearly that taking care of "less complex" elderly in terms of "needs of care" is much more cost-efficient at home, while for "highly complex" elderly a hospitalization at a long-term care facility is more cost-efficient.

In Ticino, the competent authority for social-healthcare policy responsible for the promotion of homecare is the "Ufficio degli Anziani e delle Cure a Domicilio (UACD)" (*Cantonal office responsible for elderly people and homecare*). The authority, which is part of the Department of Health and Social Services, is responsible for planning, financing, regulating, supervising and promoting the quality in long-term care facilities, territorial authorities of aid and assistance and homecare services active all over the cantonal territory. "UACD" is also responsible for balancing the redress, that is the regulation of the financial flow between canton, municipalities, and funded institutions.

The law entered into force in 2010 and based on the legal text the canton of Ticino has been organized in six districts. In each of the districts a non-profit organization operates with the status of a private-law association of public interest ("Servizi di Assistenza e Cura a Domicilio - SACD").

To define the supply development, "UACD" estimates every four years the potential number of beneficiaries by category, the number of hours to be provided and the related necessary financial resources. This institutional planning tool, among others, has the aim of introducing a supply control mechanism, with the purpose of stabilizing the performance of the private (for-profit) sector, and therefore to consequently re-stabilize the current situation of excessive supply within the market.

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<sup>26</sup> Jaccard Ruedin, H., Marti, M., Sommer, H., Bertschy, K., & Leoni, Ch., 2010



The six non-profit associations of public interest in Ticino are the following:

- ABAD: Associazione Bellinzonese (Bellinzona)
- ACD: Associazione del Mendrisiotto e Basso Ceresio (Mendrisio)
- ALVAD: Associazione Locarnese e Valmaggese (Locarno)
- Maggio: Associazione del Malcantone-Vedeggio (Agno)
- SCuDo: Servizio cure a domicilio (Lugano)
- Tre Valli: Servizio d'assistenza e cure a domicilio Tre Valli (Biasca)

**Box 5: The public funding to the sector**

With the care funding revision in 2011, "LACD" has been also modified and public funding has been extended to care services provided by the private sector as well, both for the non-profit organizations and freelance healthcare professionals. According to the Law, then, public funding is fully provided to all "SACDs" if they supply services according to a specific list reported in the article three. Instead, with regard to freelancers and private non-profit organizations (which are called in the canton of Ticino as "Organizzazioni di Assistenza e Cura a Domicilio (OACD)"), the contributions are limited only to a few services if they do not guarantee qualitative and quantitative requisites according to the contract of provision.

Public funding is distributed through a contract of provision by two entities: the canton of Ticino (20%), and the municipalities (80%).

Contracts of provision, which are assessment and control oriented towards results, were introduced in 2006 to replace the system of coverage of business requirement, which was characterized by the total absence of incentives for an efficient resource management. With the introduction of a *global budget system*, the tool aims at containing costs and improving the quality of services provided, by giving greater autonomy to the funded organizations in terms of process management. The system recalls the "*new public management*" logics, that is a set of management principles, which is supposed to move the public sector closer to the performance levels of the private one, in terms of both efficiency and efficacy. (Balestra, 2004; Branca & Lomazzi, 2007)

A contract of provision is also a useful tool for standardizing quantitative and qualitative requisites between all the funded organizations. A significative example is the mandatory adoption of the multidimensional evaluation tools called "RAI-Home Care" (somatic care) and "RAI-Mental Health" (psychiatric care) for "SACD" and "OACD". The Resident Assessment Instrument (RAI) does not only allow evaluating the care need of the user and to prepare the most appropriate care plan, but it also guarantees a suitable cantonal planning for the entire sector as well.

The more general and common objective of promoting individual independence is addressed through the following four statutory "blocks":

- assistance and homecare services;
- territorial authorities of aid;
- voluntary work;
- direct budget support, that is a contribution both for customized solutions (for example, medical aids) and for maintenance support at home.

In Ticino, the body responsible for ensuring support, information, surveillance, and intervention related to the whole cantonal healthcare setting is the "Ufficio del Medico Cantonale" (*Cantonal medical office*).

According to the most recent data from 2018, in Ticino, out of 12,337 persons which have been using the services provided by the three entities, about 66% of the total were elderly people (aged 65 years and older), while 22% were children and 12% were disabled and other people not in the retirement age. From 2003 to 2018, the total number of service users increased by 47%.

Within the same time span, it is relevant to note that while pediatric health and cleaning services have only slightly increased in terms of hours provided, basic health care grew by 46% and nursing care by 152%, moving from 91,451 hours to 231,275 hours in 15 years. At present, 45% of the services are dedicated to basic health care.<sup>27</sup>

These numbers confirm that homecare services are becoming very important within the healthcare sector in Switzerland.

Over the past ten years, the private sector also recorded a significant growth and the total number of followed cases grew by 114%. This highlights the fact that private organizations dedicate for each case an average of hours per service of 203% more than a “SACD” (122 versus 60 hours per case). The reason for this is still unclear, but the most reasonable one is to attribute it to the nature of the organization itself, which obeys to different logics with respect to the public sector and, probably, because a “SACD” must apply the subsidiarity principle by activating other territorial resources and therefore delegating part of the services.<sup>28</sup>

#### **Box 6: “SACDs” principles**

Within the sector, a common understanding of the concept “taking care” is absolutely essential and required to guarantee continuous and coordinated care and because home visits involve different professionals, who operate either in teams within an organization or are part of the broader network that surrounds the user.

According to “LACD”, and specifically for the “SACDs”, each assistance and home-care service is regulated by the following principles:

- *proximity*: the core business of the service is close to the catchment area;
- *universality*: the service has to deal equally with each request, without choice (for instance, private for-profit organizations can freely choose their clients);
- *justice*: the service should be easily accessible to everyone who lives in the specific catchment area and should not discriminate against socio-demographic determinants;
- *clinical principle “do good, but do not harm”*: the service should achieve the maximum wellbeing of the user and be not harmful neither to his/her health or autonomy;
- *autonomy*: the service must recognize personal liberty, privacy and self-determination of the user, whatever his/her physical or mental health is;
- *subsidiarity*: home visits have to be always subsidiary with respect to user’s own resources and not intended as a “full protection intervention”;
- *“global care”*: the service guarantees a multidimensional assessment of the user’s needs, by involving also the whole domestic environment, that is the fundamental basis for achieving the objective;
- *coordination of action*; according to coherence of actions, quality and the economic viability criteria, the service operates based on the concepts of “multidisciplinary teamwork” and healthcare network;
- *efficiency / efficacy / appropriateness*: according to the LAMal article 32, the service ensures the requirements of financial sustainability.

In order to ensure all the principles listed above, each non-profit association of public interest has to organize itself with a clear organizational chart: administrative and medical directors, and an operational unit, which consists of a multidisciplinary team (often called “*equipe*”) formed by a head and at least one nurse, a socio-health worker and an auxiliary position. The head is responsible of assigning shifts and team gathering for information exchange on the handling of cases, thus guaranteeing the best interdisciplinary approach possible. Weekly meetings as well as the constant discussion among workers is crucial in this sector, because of the solitary relationship that exists between user and health worker, who is always alone during home visits.

Being able to effectively manage the team and the staff represents one of the most crucial factor in this sector. As the authors will show in the following sections, it is fundamental to guarantee the best possible support and to stimulate and motivate continuously all employees, trying to valorizing each professional figure and aiming at achieving an outstanding work environment, which is one of the basic assumptions to achieve high-quality performance.

<sup>27</sup> Author’s own elaboration, based on data from: Ufficio di statistica – DFE, 2020, b, c

<sup>28</sup> Author’s own elaboration, based on data from: Ufficio di statistica – DFE, 2020, b, c

For a few years now there has been a clearly visible trend towards specialization for “SACD” concerning basic health care and nursing care. The reason is the decline of the clinical data and quicker discharges from health institutions, at the expenses of domestic help services. To this respect, the shortfall in the supply of “SACD” has undoubtedly led to a greater development of the private sector, which has acquired an important slice of the market.

Within the network of assistance and homecare services, eight services in Ticino are currently the services that fall under the umbrella term of territorial authorities of aid and which are recognized by “LACD”:

- transport services;
- prevention and social networking services (jointly provided by the associations GenerazionePiù and Associazione ticinese terza età);
- podiatry services (provided by Pro Senectute);
- meals on wheels services;
- day care centers;
- support services (both for users and their families);
- services for ill people;
- services for alcoholic people.<sup>29</sup>

Lastly, a few key figures regarding the direct budget support that the canton of Ticino provides to promote stay at home measures: since 2010, beneficiaries of a direct aid through a financial contribution have increased overall by 83%. Out of this percentage, elderly people increased in stages from 341 and disabled people from 77. The total financial contribution grew by 51% as well, moving from 5,685,326 CHF to 8,621,965 CHF.<sup>30</sup>

To conclude the present overview, and relying on the cited data, it becomes evident that assistance and homecare services (especially the non-profit of public interest), have had to revise the processes of care taking as a result of the worsening of clinical data, which are characterized by multi-pathology and chronicity.

Over the last years, it was necessary to implement both, working “closely *with the network*” (by nurturing collaborations and synergies) and “closely *within the network*”, that is in an interprofessional, coordinated and integrated way. To this end, within the sector, which is a dense and highly centralized network, and where the level of interconnection between different partners is high, the “SACDs” operate as leaders with a coordination responsibility aiming at achieving a shared (distributed - coordinated) leadership network.<sup>31</sup>

Up to now, and according to the authors, the implemented strategy surely and successfully led to different positive results such as, for instance, the strengthening of the relationship between health worker and user (with the ability to better customize healthcare delivery), a much more efficient communication with the user and its family, and an increased responsibility of the entire staff.

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<sup>29</sup> Author’s own elaboration, based on data from: Ufficio di statistica – DFE, 2020, d

<sup>30</sup> Author’s own elaboration, based on data from: Ufficio di statistica – DFE, 2020, a

<sup>31</sup> Provan & Milward, 1995; Cepiku & Meneguzzo, 2010; Rossi, Meneguzzo, Mannamplackal, Rabito & Marforio, 2019

## Case study

### Introduction

The present case study aims to observe the sectorial and managerial response of “SACD’s” to the *SARS-CoV-2* pandemic outbreak in the canton of Ticino.

As stated in the introductory section, the case study is the result of a consultation of the main local news media (Corriere del Ticino and laRegione), institutional guidelines and protocols (which were retrieved from the official websites of the Health and Social Services Department of the canton of Ticino and the Federal Office of Public Health), and “in the field” semi-structured interviews with key informants who are active in Ticino. This strategy allowed the authors to reduce the information asymmetry and therefore to best triangulate all events.

Two discriminating factors in the recruiting of the interviewees were: the geographical position and the size of the organizations (in terms of employees and users).

For each of the two organizations, both administrative and medical directors were interviewed. With regard to ALVAD, Ms. Marina Santini and Mr. Gabriele Balestra, who is also currently holding a position as vice president within the steering committee of “Spitex Schweiz – Aide et soins a domicile Suisse” were interviewed on May 18, 2020. The representatives of SCuDo, in the persons of Ms. Rosaria Sablonier Pezzoli and Mr. Gilles Mueller, were interviewed on May 22, 2020. More in-depth information about the organizations will be presented in the next section.

Finally, on May 22, 2020, Dr. Stefano Gilardi, who is also the coordinator of the Conference of the six non-profit assistance and homecare services of public interest of the canton Ticino, was interviewed and he also gave his own opinion about the extraordinary situation.

The three interviews, which lasted overall five hours, were transcribed within 48 hours after the interviews were conducted, using Microsoft Word and audio recordings. None of the interviewees received any questions in advance.

The chosen data analysis strategy consisted of using framework analysis. After having identified key aspects and concepts that emerged from the labeled (manually concept-driven/deductive coded) data and that were related to the research question of this case study, the authors proceeded by charting the data through the synthesis into a predefined “*a priori* frame” (that is the starting theme-based chart). The last step consisted in interpreting the data overall. Due to the peculiarities of the assistance and homecare sector mentioned above, the authors decided to examine in-depth the following critical aspects in order to fully understand the dynamics and the overall effectiveness of the response to the *SARS-CoV-2* pandemic outbreak in Ticino:

- provision of services, including collaboration and monitoring aspects;
- human resource management and information flow;
- logistics, that is procurement of personal protective equipment and reorganization of space organizations’ headquarters.

By the end of the interviews, some time was given to the interlocutors to think about what did not work properly, lessons learned, and future prospects.



## The participants

In the following, the two non-profit assistance and homecare services of public interest, which participated in the case study, are presented.

### Associazione Locarnese e Valmaggese di Assistenza e cura a Domicilio (ALVAD)

“Associazione Locarnese e Valmaggese di Assistenza e cura a Domicilio” (ALVAD) was founded in 1999 as a private-law, nondenominational and non-party association.

ALVAD is recognized by the State Council of the canton of Ticino as a non-profit “SACD” of public interest for the Locarno and Vallemaggia area, where the latter independently provides the service by the “Associazione Valmaggese Casa Anziani, Invalidi Adulti e Aiuto Domiciliare – AVAD”. It is a legal institution which also manages the long-term care facility of Someo and a healthcare institute in Cevio. The relationship between ALVAD and AVAD is regulated by a service mandate (“mandato di prestazione”).

Active members of the association are the municipalities of the district of competence, territorial authorities of aid and associations that operate within the sector. Other natural and legal persons, who pay the annual membership fee, are also considered members, but they do not have the right to vote.

The association consists of three organs: 1. the assembly (the supreme body, composed by the president, a vice president and scrutineers), 2. the committee (the governing body, composed by the president, a vice president and five members) and 3. the management commission.<sup>32</sup> The administrative management is responsible for managing and coordinating the entire service from an operational perspective and the health directorate is responsible for monitoring all health-related aspects.

According to the organisational chart, under the management, there are the following positions: the assistant director, who is responsible for project management, quality system and education; the office staff and two *équips* manage and coordinate nurses, pediatric nurses, nursing assistants, social and health professionals and apprentices.

The operational model of ALVAD is based on the integrated care models of *team nursing* and *patient focused care*, in order to consider the individual in its own complexity of intercurrent diseases, personal history and social situation. To this end, a particularly relevant service for the association, which is considered a *best practice* at the cantonal level, is the consolidated psychiatry and psychogeriatric division. The division is composed of a specific multidisciplinary and specialized psychiatry team. The establishment of a dedicated group made it possible to achieve a strong and intense collaboration with the whole environment of the user (i.e. relatives and other caregivers, general practitioners, regional protection authority, cantonal psycho-social services and mental health institutions), thus facilitating the preparation of a shared care plan, fully based on a *patient-centered approach*.

The deinstitutionalization of the psychiatric care and the reconsideration of the entire psychiatric institutional system represent the very important key points to the association. Overall, since 2000, the full-time work units of ALVAD nearly tripled, steadily increasing from 45.67 to 128.19.

Based on the “LACD” and for greater efficiency and effectiveness in performing the services, the district of competence of ALVAD has been organized into two main sub-areas with the respective two micro-areas, inside of which operate two *équipes*:

- Area 1 → municipalities of: Ascona, Brissago, Centovalli, Locarno, Losone, Onsernone, Ronco sopra Ascona, Terre di Pedemonte;

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<sup>32</sup> Associazione Locarnese e Valmaggese di Assistenza e Cura a Domicilio, 2020, b

- Area 2 → municipalities of: Brione sopra Minusio, Brione Verzasca, Corippo, Cugnasco-Gerra, Frasco, Gambarogno, Gordola, Lavertezzo, Mergoscia, Minusio, Muralto, Orselina, Sonogno, Tenero-Contra, Vogorno.

In 2019, 2,025 users have benefited from the services, that is 2.89% of the population in Ticino. The percentage is higher than both the cantonal average value of 2.72% in 2018, and the national average value of 2.60% in 2018.

Like other organizations, also ALVAD has recorded an increase in the number of users over the past years: since 2000, the “SACD” has been confronted with a constant growth in demand. As it happens also at the national level, the fastest growing category at ALVAD is the group of “elderly people (aged 65 years and above)”, who represent around 82% of the total beneficiaries: within this category, 67% of users are aged 80 years or more.

It is relevant to highlight that out of the total of 146,335 hours provided in 2019, a remarkable increase has been recorded within the categories “basic health care”, “examinations and medical care” and “assessment, recommendations, and coordination”, due to the expanded capability of the association to take care of more demanding clinical situation, and thus to the higher complexity of cases, and the increased readiness of the citizen to stay at their own residence as long as possible, avoiding inappropriate or premature hospitalizations.

The main reasons for the interventions concern chronic diseases (65.9%), psychiatric conditions (10.1%) and acute diseases (9.5%); however, the organization also deal with social cases, dementia, injury, oncological cases, senility and amyotrophic lateral sclerosis (ALS) users.<sup>33</sup>

[Il Servizio di assistenza e cura a domicilio \(SACD\) di interesse pubblico del Luganese \(ScuDo\)](#) “Servizio di assistenza e cura a domicilio (SACD) di interesse pubblico del Luganese” (ScuDo) was founded in 1999, resuming the activities of the “Consorzio servizio aiuto domiciliare Lugano e dintorni” and “Consorzio profilattico e materno”.

SCuDo is a private-law, nondenominational and non-party association, which is officially recognized by the State Council of the canton of Ticino as a non-profit SACD of public interest for the Lugano area.

As for the case of ALVAD, active members of the association are all the municipalities of the area of Lugano and public or private-law territorial authorities of aid, which operate in the assistance and homecare sector. Passive members without the right to vote are all other natural persons.

The association consists of three organs: 1. the assembly (the supreme body), 2. the committee (the governing body) and 3. the zoning commissions, which are assigned to each area of action that can use the commission as advisory organ for the committee to cope with specific needs or recommendations.<sup>34</sup>

The management of the association is assigned to an administrative manager, who is responsible for the administrative tasks, and to a health directorate, who has to guarantee compliance with the federal and cantonal health legislation, guidelines and the recommendations of the Ticino Department of Health and Social Services and the Cantonal Medical Office.

As it is the case for most “SACDs”, the organizational chart of SCuDo appears to be very linear and simple. Under the management there is an administrator, who manages and coordinates both the administrative personnel and the “cleaning équipe” responsible for the offices, an IT Manager, who is responsible for the performance of the organization’s electronic networks, a training manager, and four équipes, which manage and coordinate the multi-professional team.

<sup>33</sup> Associazione Locarnese e Valmaggese di Assistenza e Cura a Domicilio, 2020, a

<sup>34</sup> SCuDo, 2012

SCuDo represents the biggest “SACD” in canton Ticino, with respect to the number of followed cases and the employees.

The district of competence includes several municipalities that surround Lugano: Bissone, Campione D’Italia, Canobbio, Capriasca, Collina D’Oro, Comano, Cureglia, Grancia, Lugano, Massagno, Melide, Morcote, Muzzano, Origgio, Paradiso, Ponte Capriasca, Porza, Savosa, Sorengo, Vezia and Vico-Morcote.

In 2018, the beneficiaries of the services counted 2,328. The data represents 2.18% of the population, which is a higher percentage with respect to the cantonal average value of 2.72% in 2018, and the national average value of 2.60% in 2018. Compared to 2017, the total number of users decreased by 5.02%, probably because of the sudden increase in the number of private organizations active in the sector.

Also, at SCuDo, the “elderly people (aged 65 years or more)” are the most cared-for people and make up around 85% of all the beneficiaries. Most of the services are related to geriatric care with poly-pathology, supportive treatments for cardiorespiratory and oncologic diseases, general care for cognitive dysfunction, psychiatric diagnosis and after surgery care.

Over the past 20 years, the amount of service hours provided by the service (including both direct and indirect services) have more than quadrupled, constantly increasing from 90,871 to 420,373 in 2018. The major increase has been recorded within the service category “examinations and medical care”. Again, this is due to the increased complexity of the acute and post-acute cases as a result of early discharges from medical facilities.<sup>35</sup>

## Responses to the COVID-19 crisis and discussion

### Provision of services

Overall, both for ALVAD and SCuDo, a drop in terms of services provided for the ordinary users was recorded, particularly during the first month after the first positive case had been reported in Ticino, on February 25th, 2020.

On one side, several users decided to stop receiving homecare visits and instead to be cared for by their families. This was due the fear of infection and the more general opinion about the “SACD” being the main vector of the pathogen. In this respect, especially at the beginning of the crisis, many health workers reported to their management intimidatory acts towards them, such as posting notes on the doorstep urging the workers not to enter the house. Above all, the main concerns referred to border workers from which a lot of users did not want to receive care.

On the other side, the organizations themselves decided to reduce the provision of non-essential services, such as for example domestic help services or therapeutic walks, to minimize the risk for infection.

Permanent telephone support for people receiving less homecare visits was established by the *équipes* heads, to constantly monitor the state of health.

The strategy adopted by SCuDo to remedy the decrease in provided services (and therefore, to compensate for inactive workdays of employees), which reached a peak of 1,300 hours in two months (with respect to the average service provision of the previous year), consisted in relocating a part of their health workers into one of the six long-term care facilities for elderly people in the city of Lugano, which are part of the “Lugano Istituti Sociali (LIS)” (*Lugano Social Institutes*), in order to guarantee employment and productivity. The solution had only been made possible thanks to the centralization of the administration between LIS and SCuDo,

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<sup>35</sup> Author’s own elaboration, based on data from: SCuDo, 2019

which had only been put in place in 2019 and since then has generated excellent synergies and collaboration between the different entities.

During the first phase, during which, according to both organizations, health warnings caused a massive panic and almost an unhealthy fear among users, family members and relatives came with overwhelming support, specifically in favour of the elderly, who represent the largest share of beneficiaries of “SACDs”. In this respect, family members and relatives dealt with “basic health care”, for instance preparing and administering medications, applying creams, giving massage, and wearing and removing elastic stockings.

Certainly, if from one side the fact that users decided to resort less to the services provided by the “SACD”, this has in a certain sense benefited the organization itself, because it has been able to reorganize better the resources to get ready to assist post- *COVID-19* patients discharged from acute-care clinics. On the other side, not providing professional services and a lack of necessary care could have led to unbalance the pathologically complex user, and therefore to seek help from the emergency room, or even hospitalization, which was strongly discouraged, due to pressure given by *COVID-19*. For this purpose, both organizations tried not to drastically reduce the necessary treatments by getting in touch personally with users and families, with the aim of raising awareness on the potential problems. After an initial moment of hesitancy, due to panic and fear, a growing understanding was observed by the health workers, and many users accepted to resume the treatments more regularly.

While SCuDo did not detect any increase in the number of new users, ALVAD registered a moderate increase in the number of complex users, especially cancer patients, who had to be discharged from the EOC Locarno facility “La Carità”, which had been declared a *Covid-19-Center* for the canton of Ticino.

The sudden takeover of such complex patients led to additional work for the nursing staff, since ALVAD had to ensure specific tests and appropriate treatments. The absorption of cancer patients was not an imposition but rather an act based on the universality principle, which characterizes the non-profit assistance and homecare services of public interest and therefore foresees a reply to every requirement coming from the larger network within the district of competence.

With regard to requests related to patients, who were recovering from *COVID-19*, both organizations did not register high numbers. For instance, during the first two months, ALVAD cared for 15 cases and SCuDo for 44 cases. Among them, some experienced the most acute phase at their own domicile, while other users had been discharged from the hospital while they were still showing relapse.

Regarding the management of visits, all necessary precautions were taken. Both organizations implemented the guidelines issued by the Cantonal Medical Office. Yet, especially at the beginning of the crisis, these guidelines were continuously changing (even every three days).

ALVAD and SCuDo hastened the obligation for all their employees of wearing gloves and face-mask, which was however already in force for workers who had not gotten the seasonal flu vaccine. The organizations treated all users as potentially infected, and a mask was offered in cases where users were showing even low-grade symptoms attributable to *COVID-19*.

In retrospect, both organizations are fully aware of the fact that individual protection measures could have been seen as too coercive, but they considered it as a winning move in terms of health protection both for the health of their own workers and the users. To this end, SCuDo wished to underline how individual protection measures have been also provided for the

almost 90 outsourced employees, who provide domestic help and for which cantonal guidelines did not consider any kind of protection measures, as it was supposed that they were able to keep the required social distance of at least two meters.

ALVAD and SCuDo did not implement any specific state of health evaluation measures before their arrival at the domicile of users, such as a telephonic triage. The organizations did only attempt to reduce the carried material to the minimum necessary, as well as to instruct users to buy small devices, such as for pressure and blood sugar measurement, which would thus stay at home.

Finally, regarding the additional costs due to COVID-19 (for personal protective equipment, swabs and occurred costs due to isolation of workers), reassurances were given from the very beginning of the crisis by the competent authorities. According to the administrative directors of the organizations, the government of the canton of Ticino already guaranteed the payment of increased financial costs, which “SACDs” are already making visible in the accounting records, by means of specific and uniform codes.

“Spitex Schweiz – Aide et soins a domicile Suisse” reassured its members, by stating that it would start discussions with the Federal Office of Public Health as soon as possible, in order to report that each single SACD had been confronted with several challenges, such as:

- additional costs related to personnel and material, and the coordination tasks (consultations with other service providers and participation in crisis-teams);
- drop in the overall services provided (and therefore in the billable hours), due to the many cancellations and case-prioritization.

Neither ALVAD nor SCuDo have benefited from the “COVID-19 loss-of-earnings allowances” and they did not have had to resort to reduced work measures for their employees. As of June 11, 2020, there had been neither any discussion nor more precise indications on it will be managed both the final balance of 2020 and the terms of the contract of provision in 2021

### Inter-organizational collaborations

Generally, the collaboration within the network and between the different actors worked well in cases where assistance and homecare organizations had already established a strong and dense network. However, in some other cases, the search for a better solution with respect to the users` needs has been more difficult, since the situation was extraordinary, and the stakeholders were already engaged on several fronts. To this end, ALVAD assumed a consultant role for other organizations and acted as a reference point for the entire territory of the canton of Ticino. In that way it was possible to sort multiple requests in the most efficient way by activating the network actors.

An important example relates to the significance of a successful inter-organizational collaboration in the area of domestic help. Given the lack of workers, both ALVAD and SCuDo benefited from the extraordinary collaboration between the organizations and the existing partners, such as Pro Senectute, volunteers and the municipalities, which took over the additional demand generated by the pandemic. Thanks to the strong relationship between the actors, domestic help services have never been interrupted, even in the most acute phase.

When it comes to cancer patients, ALVAD was able to establish strong collaborations and coordination directly with the heads of the “Istituto Oncologico della Svizzera Italiana” (*Oncology Institute of Italian Switzerland*) and the oncological service of the “La Carità”, which supported closely the organization in taking care of their patients.

“Spitex Schweiz – Aide et soins a domicile Suisse” played overall an important role in trying to alleviate the concerns coming from its members by forwarding all the experiences across the organizations that are part of the network. Among others, the umbrella association for the non-profit organizations arranged a German / French “Frequently Asked Questions” (FAQ) document, which has been regularly updated and shared among the members. The idea behind the document relied on the fact that there was extreme heterogeneity in the application of guidelines and the different executive managements were totally lost. This was because the organizations did not know whether to follow the recommendations from the umbrella association (to apply the guidelines from the federal government), or to follow the cantonal guidelines. To this end, the “FAQ” document sought to give an answer (or at least some recommendations) based on each previous experience. The table of content of the document had a clear structure:

- juridical questions regarding the personnel;
- human resource process management;
- education and apprenticeships;
- service management;
- material;
- insurances and residual financing;
- other subjects.

In addition, the document provided the organizations with useful links to new federal guidelines and reports related to the development of the situation.

Given the fact that the administrative director of ALVAD is also the vice president within the steering committee of “Spitex Schweiz – Aide et soins a domicile Suisse”, and because the canton of Ticino experienced early on a high number of cases compared to the other cantons, he was also regularly debriefing and giving advice to other organizations across Switzerland, since they were seeking to be prepared in time based on the “fresh *Ticino* experience”.

### Monitoring

Within each single organization, the monitoring of the spread of the virus among employees and users has always been guaranteed through regular debrief meetings between the management and the heads of the équipes.

At the cantonal level, and specifically for the assistance and homecare sector, the “Ufficio degli Anziani e delle Cure a Domicilio (UACD)” conducted a “*state of necessity monitoring*”. This monitoring consisted of a word file, which the authority was sending out twice a week per e-mail to each single organization. The document was organized in four sections. In the first part, the organization had to communicate its general situation, selecting one out of three possible scenarios: “crisis situation, where the essential services cannot be provided”, “the organization is experiencing operational difficulties, which can be kept under control”, or “the situation is currently under control, due to internal measures”. This was followed by three specific sections regarding human resources (a table, in which the “SACD” had to communicate for each job function the number of used personnel, sick and quarantined people, absent staff due to other reasons), users’ health status (number of sick and quarantined users, hospitalized users) and the supply situation.

In contrast, at the federal level, no integrated “*state of necessity monitoring*” for the assistance and homecare sector has been conducted and also “Spitex Schweiz – Aide et soins a domicile Suisse” did not take any action.



### Human resources management and information flow

The directors of ALVAD and SCuDo both indicated to be very proud of their workers because of their extreme availability, comprehension and professionalism, which they demonstrated during the most acute phase. They highlighted in particular cross-border workers and their dedication, even during moments when there was uncertainty regarding the closing of borders. The uncomfortable situation was generated by the fact that Switzerland, Germany, Austria, and France left Italy out of consultations, when deciding to suddenly close their borders unilaterally on March 13, 2020 with the peninsula. Since many Swiss healthcare organizations heavily depend on the Italian workforce, this has consequently caused massive concerns. Only a few border crossings stayed open and only people, who were working for essential services could enter the country. Some employees, indeed, decided to leave their families and to in Switzerland stay to facilitate the planning of shifts and to avoid travelling too long to return to their domicile. The organizations took prompt action to look for an accommodation and to organize the stay.

The initial panic due to the lack of knowledge about the disease that hits users subsequently spread especially to the health workers working for ALVAD. In this respect, major work related to stress management was conducted by the directors. Measures were taken mostly during the first two weeks after the first case has been reported in Ticino, through email messages, phone calls and individual meetings. The employees' greatest fears came from their wives and husbands, who were hesitant to the fact of letting their own partner go to work.

Also, some cross border workers showed to be worried and claimed not to be protected enough during shifts at users' home. Particular to this context, the directors stated that it has been extremely difficult to convey the message that the Swiss measures to individually protect the workers were different from the measures taken in Italy. To this respect, for example, aprons and bonnets have been banned at ALVAD, because the cantonal guidelines were not considering them as essential. At SCuDo, there has been more openness by the management, which gave total freedom to workers in the use of heavier protection equipment.

In support of the management, an initiative called "Filo Verde" has been launched at ALVAD. The initiative provided support by an outside contractor, who made itself available to listen and give voice to health workers about issues they have experienced with the help of email messages. The initiative has been a great success, since employees had the chance to pour out and express their emotions without getting the upper management involved. Similarly, at SCuDo, an external psychiatrist has been made available for workers to share their feelings and uneasiness due to the extraordinary situation.

It is also worth mentioning that a cantonal toll-free number available to the whole population has been put into operation, both for general information and for getting psychological / emotional support.

Even if the panic generated from the situation has not been that massive as at ALVAD, also SCuDo had to implement measures that addressed psychological well-being, in order to reassure its health workers. In order to minimize the risk of infection, a dedicated "*COVID-19 équipe*" was established. To this end, seven nurses, who were already part of the "evaluation team" (that is the team, which evaluates the first time a new user enters into a "SACD") and who have different backgrounds were made responsible to manage the users, who were in a potentially critical situation (that is at risk of infection). On one side, this very simple choice allowed to avoid that within the organization there were too many workers that could have gotten in contact with the disease and, on the other side, it has brought serenity, by appeasing the minds. Regarding the office staff, some worries have been perceived, especially among the employees of ALVAD. According to the administrative director, the reason is probably to be found in the

“*lack of knowledge on the disease management*”, that is psychological readiness and medical care abilities with respect to an infectious disease.

The tracing of the spread of the virus among the nursing staff and other employees of the organizations did not represent a major issue. Although at first the detection of who really contracted the virus has been described as being arduous in some circumstances because of the presence of both seasonal allergic rhinitis and influenza.

Differently from what the cantonal guidelines proposed, in both organizations people who got in contact with someone who was later tested positive for *COVID-19* but who had not shown any symptoms attributable to the virus, continued to work wearing a facemask, to ensure the continuity of care for the users and the sustainability of the “SACD”.

In this case, ALVAD and SCuDo opted to apply the federal guidelines, because otherwise the organizations would have been reduced to half of their personnel and, more generally, the entire cantonal health system might have collapsed. Only at a later time, and thanks to the important role played by the “Ordine dei medici del Cantone Ticino” (*Society of medicine of the Canton Ticino*), which highly sensitized cantonal politics about the potential shortage of nursing staff, the local guidelines were revised and adapted to the federal decisions. The managements of both organizations seemed firmly convinced that the consequences of applying cantonal guidelines would have been far worse than the minimum risk of infection they have incurred by following the federal guidelines.

In any cases of when an employee was showing even low-grade symptoms, the organizations imposed the obligation to get tested. For employees that had tests positive for *COVID-19*, the Cantonal Medical Office requested to carry out tracking so that it was possible to determine contacts with colleagues and, especially, with users. Both organizations followed the cantonal guidelines in terms of disease management, that is a 10-day period of isolation and two more days without any symptoms before resuming the activities. The managements did not impose any “control swab” after the recovery time.

At ALVAD, the first positive case was detected around mid-March and the event brought some concerns among employees, which diminished after few weeks thanks to the management’s support. Later, four other cases were registered and, thanks to the guidelines and the own responsibility of the workers, no difficulties in the disease management have been encountered.

From the beginning of the crisis, the psychiatry and psychogeriatric division of ALVAD had a big “advantage” compared to the somatic care, as it required the suspension of a big proportion of services, like for instance therapeutic walks. The biggest work that psychiatric specialists had to deal with was related to maintain close contact with their users. Given their medical conditions, the situation led to massive stress.

As of May 22, 2020, SCuDo had registered five positive cases. After testing had been carried out, the organization started contact tracing and proceeded by informing users’ attending physicians, the users themselves and related families who had been in contact with the infected workers and prescribed a 10-day isolation. To this end, an interesting issue regarding testing is reported by the medical director of SCuDo. Two employees started to show the classical symptoms attributable to *COVID-19*, such as loss of taste and sense of smell, sore throat, and low-grade fever. Therefore, in line with cantonal guidelines, the medical director asked them to get a prescription for testing from their own general practitioner. Unfortunately, both general practitioners did not have the same view because they did not consider it necessary since the symptoms were, according to them, not attributable to the virus. However, the news began circulating among the other health workers, who started to panic and got stressed because of the situation. Therefore, and with the only aim of safeguarding the other employees and users,



the SCuDo management had to impose testing at its own expense. As a result, one employee got tested positive and this caused a delay of several days in contact tracing.

From this anecdote, it emerges clearly how even the topic of costs assumption between the different stakeholders became critical and probably it should have been deepened further earlier by politics.

Regarding the dedicated guidelines and protocols coming from the Cantonal Medical Office, the flow of information within the organizations has always been well structured and clear, both at ALVAD and SCuDo. In a first step, information coming from the cantonal authorities was analyzed by the medical directors of the organizations. Secondly, with the support of the administrative management, the medical directors summarized the key points, which were then forwarded to the heads of the *équipe*, who were in charge of sharing the relevant information with the health workers under their leadership through the management software and even (if it was necessary) via personal contact. The software permitted to deliver all the necessary information to everyone at the same time, thus facilitating the communication and avoiding physical meetings.

An interesting anecdote about the way of proceeding with this structure came from ALVAD, where at the beginning of the crisis a few health workers thought that some relevant information was hidden from them and therefore not being forwarded. At this point, both administrative and medical directors decided to stop doing the synthesis and make the integral information directly available to the heads of the *équipe*, so that even the most suspicious health worker could have had the possibility to read the entire document. The reaction has certainly surprised the management because the idea of proceeding in that structured manner should have only served to facilitate and save time, while allocating more energy to the care of users; this, because the official documents were often composed of many pages and where past measures were often recalled. Above all, what has surprised the most, was the fact that all guidelines and protocols were always made public and everyone could have had the chance to recall them on the website.

With the purpose of correctly disseminating all relevant information across the organizations in Ticino, the Cantonal Medical Office has appointed referral contact persons for each of the three typologies of actors within the sector, namely: ALVAD for non-profit assistance and homecare services of public interest (“SACDs”), “Swiss Professional Association of Nurses (SBK – ASI)” for freelance healthcare professionals, and “InterNursing” for private organizations. The organizations had a direct contact line with the cantonal institution, and this showed to be very helpful, especially at the beginning when the disease was too unknown, and it was not always clear on how to manage the particular situation that the organizations were facing.

## Logistics

### Procurement of personal protective equipment

At the beginning of the crisis, the quantity of stockpiled personal protective equipment by the organizations, precisely gloves and surgical masks, did not meet the recommendation by the Swiss Influenza Pandemic Plan. The document recommends for the assistance and homecare organizations a storage of 125 masks for each full-time employee and 3 months worth of gloves (with respect to the number of followed cases and health workers).

After an initial phase, which was characterized by great concerns related to not having enough personal protective equipment, ALVAD was officially appointed at the end of April, 2020, by the Cantonal Pharmacist Office, as the responsible organization for an equal distribution of personal protective equipment among all the organizations active in the assistance and homecare services in the canton of Ticino. The supply was managed following a simple

protocol and the organizations were able to ask for provision material by sending a message to a dedicated email address. Based on the number of employees and the followed cases within the organization, ALVAD was then providing guidance on where to go to collect the material. Specifically to ALVAD and SCuDo, there have been no shortages but some difficulty on procurement due to the presence of a very heavy demand within the market and logistics reasons related to the closure of borders. According to the medical directors, at the initial phase of the crisis, the greatest difficulty was trying to convince health workers to wear only one facemask per day, while before the pandemic outbreak they were used to change it after each visit. Therefore, the distribution of protective material among workers started to be rationalized, based on a calculation for each health worker and related to the number of planned visits. Both at ALVAD and SCuDo, the directors attempted to guarantee an autonomy of personal protective equipment for the organizations themselves of about two months.

### Headquarter

Initially, a great fear of the employees to physically go to the headquarters has been perceived by both managements. Immediately after the federal government had issued guidelines regarding assemblies, both ALVAD and SCuDo suspended meetings and courses. Thanks to the large capacity of the offices at the headquarters, the social distance has always been easily maintained, and all office activities (not only for administrative employees but also for health workers) have been guaranteed. A deeper and more frequent cleaning has been organized. While at SCuDo the obligation of wearing a facemask has been imposed from the very beginning of the crisis and everyone also had to measure their temperature before entering the offices, the directors of ALVAD opted not to be too authoritative and they did not impose the use of the mask within the headquarter. To this end, the management stated that the entire working environment benefited from the move and a forceful and positive signal has been transmitted to all employees.

Both organizations decided not to implement teleworking, in order to avoid the chance of conveying a wrong message to health workers. If the management would have had opted for this choice, probably those who were “on the field” would have perceived the situation as being extremely dangerous, which would have led to even more panic and chaos. In retrospect, all interlocutors considered this move a definitive winning choice.

The most delicate situation was represented at the reception desk within the headquarters but, in retrospect, both managements declared that it has been managed in an excellent way, with full respect of standards of social distance and increased hygiene.

### Self-reflections and lessons learned

According to the interlocutors, the major positive aspect has been the fact that, despite fears, it has always been possible to maintain a positive mood. Within the organizations a certain degree of cohesion and sense of belonging between the different professional functions has been spotted and the vision has always been shared by all.

The positive working environment had a favourable impact, particularly in the beginning. To this end, the management of ALVAD stated that the initial workers' attitudes will be internally examined, once the crisis will be over, in order to understand why some employees reacted in a disproportionate manner with respect to their fears.

There has been the perception that during the first few months too much attention was focused on containing the consumption of personal protective equipment. However, according to SCuDo the choice of forcing all its employees to wear the facemask and to use the material, without thinking too much about their shortage, has been positive and rational.

Looking back at the past months, the major objective of both organizations had been to contain the spread of the virus. Therefore, each single entity collaborated closely and played in the team, by applying all the guidelines with full internal agreement. Naturally, and given the peculiarity of the crisis, the administrative management always supported and facilitated the strategy developed by the health directorate. According to the interlocutors, the most important and urgent activities carried out until now are:

- for the management (no difference between administrative and medical tasks):
  - relief and mental support to the employees;
  - receiving, elaborating, and transmitting institutional information (guidelines and directives);
  - setting priorities (addressing potential staff shortages and workloads).
- for the *équipe*-heads:
  - relief and mental support for colleagues;
  - planning of shifts and reorganization;
  - maintaining contact with users;
  - management of materials.

Generally, there has been too much scaremongering and fear has played an important role. What both managements have learned from this experience is to “keep a cool head”. It became clear that not only workers but also the population in general, were completely at the mercy of the media, journalists and specialists, who were giving out divergent opinions.

Paradoxically, there has been the perception that the users were more worried about getting infected from the health workers than the health workers themselves during the shifts at the users’ home.

Therefore, according to the interlocutors, the communication strategy of the media played an important role, it mostly was counterproductive with disproportionate impacts. For instance, the management of ALVAD mentioned the example of a statement of an important infectious disease specialist in the canton of Ticino, who one day indicated shoes to be a great vector for the virus. The next day, most of the users did not want to let health workers of the organizations into their homes, if they were not wearing overshoes, which initially led to some logistics problems. When it comes to the communication strategy of the cantonal authorities, instead, positive judgments came from all the interlocutors, although sometimes problems of interpretation have occurred. If at first a message is misinterpreted, it is hard to “put a patch” to remedy afterwards.

An unexpected (but, as stated by the interviewees, “wonderful”) reaction has been the response of the community to the crisis through gestures of great solidarity in favour of elderly people and more generally people in need. The canton of Ticino has proved to be supportive like never before, and several citizens, associations and municipalities have spontaneously offered help for people who have been mostly affected by the disease, including grocery shopping, offering a bed for non-residential health care workers or even walking dogs. This represented an immeasurable psychological support to all health workers within the assistance and homecare services, which mitigated for a moment the many concerns and motivated further the workers.

### Future prospects

During the interviewees, the authors felt a sensation of discomfort by the interviewees with regard to the very little public recognition for what the health workers were doing during the most acute phase, if it was compared to the praises and the initiatives for the medical

professionals in the hospitals, and more precisely for those who were working in the intensive care unit. The interviewed organizations, and more in general the assistance and homecare sector, would have wished for at least a little gratitude for what they were doing, especially because of the essential role of the proximity care in a situation where all the citizens are forced to stay at home. To this respect, the interviewers highlighted the importance of raising further the awareness in the entire population about their important role.

According to the organizations, in the first place the recognition should have come publically from the cantonal institutions, as it has been the case for other settings. A greater visibility of the sector could have had a major impact also on the workers' motivation. Additionally, this could have reduced some fears, also from the users' side, who initially reacted badly against the workers as they were seen as "vectors of the virus".

On one side, all interviewers recognized a big merit regarding the fact that the federal government has found the right way to adapt its guidelines to the extraordinary situation experienced in the canton of Ticino (always by looking for the best solution to contain the spread of the virus and its socio-environmental impacts). On the other side, a certain degree of absence by the competent authority for the sector has been noticed, probably, due to the teleworking directives, which involved most of the cantonal employees. At such a time, where the canton of Ticino feared of finding itself in a scene of total chaos similar to Italy and no sufficient knowledge was yet available regarding the spread of the virus, for sure greater support and a "closer presence" of the competent authorities could have had positive effects.

According to the coordinator of the SACDs' Conference in Ticino, interventions of homecare services during the pandemic outbreak have been totally scaled down and underestimated for two main reasons. First, patients recovering from the acute phase of *COVID-19*, and therefore who were leaving the intensive care units, could have been discharged home, without representing an additional burden for the rehabilitation facilities over a period of two or more weeks. To this end, it should have been extended the provision of services also to those people, who were not able to benefit from "SACDs" services due to the law restrictions.

Secondly, and it goes beyond pure care (but it has also to do with the mission of a SACD), important effects caused by the disease and its related containment measures have been underestimated, that is the "post-*COVID-19* depression" (which, according to Dr. Stefano Gilardi, appears to be very similar to the post-traumatic stress disorder) and the increased domestic violence and alcohol abuse, which also have been reported to the management of SACDs by the health workers. These effects could have had been better mitigated if the organizations might have had received an explicit mandate. Since at the moment during which the lockdown was declared, they were actually the only "institutional arm" to still have the chance to visit citizens at their own domicile. To this regard, and according to a study conducted in 2020, "*intimate partner violence*" has been proven to increase during the lockdown measures due to *COVID-19*, and the fact that generally, there is a lack of effective and dedicated intervention strategies aiming at preventing acts of domestic violence has been highlighted.<sup>36</sup>

To this end, and in view of the future, a greater collaboration between all non-profit assistance and homecare services of public interest, municipal social services and the regional protection authority should be required because these problems are not visible at a macro level. Therefore, it is necessary to redefine the field of action of the SACD in terms of interrelationships.

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<sup>36</sup> Mazza, Marano, Lai, Janiri & Sani, 2020

Lastly, but which falls outside the specific sector of assistance and homecare services, a big recrimination towards the institutions consists in the fact that social institutions, such as socio-educational centers, have been totally forgotten and no dedicated guidelines have been issued. The first deaths due to *COVID-19* in the canton of Ticino were recorded within the centers for people with reduced mobility, which were completely lacking personal protective equipment, and clear and precise guidelines to be applied.

Thanks to the multiple contacts, the influence and the experience gathered by the medical director of ALVAD over the past years, it has been decided (unfortunately too late) that each SACD had to make available a nurse for advising the centers and helping them in rearranging the organizational setting. Had it not been for the director's efforts and the availability of the organizations, for sure the effects of the pandemic outbreak could have been much worse.

As of May 22, 2020, the future appears brighter for both ALVAD and SCuDo with respect to the first weeks after the first case has been reported in the canton of Ticino, and this because the people in general seem to be calmer, have less fears and, above all, they have more knowledge about the disease, which seems to appear a "less unknown enemy".

## Recommendations

In view of the features and dynamics that characterize the assistance and homecare services and the experiences from key actors during the first months of the *COVID-19* crisis that were presented in this document, the authors identified the following recommendations for deliberation to address the issues emerged:

Recommendation	Rationale
<p><b>1)</b> Unless otherwise stated, a clearer and more efficient concertation between federal and cantonal guidelines is required at each stage of a health crisis (and a need of greater clarity), as well as a greater coordination and agreement between countries with regard to the closure and opening of their own borders.</p>	<p>Especially at the initial phase of the crisis, contradictions were perceived between guidelines issued at the federal and guidelines issued at the cantonal level. Usually, federal decisions are superior to cantonal ones. However, given the extraordinary situation experienced in the canton of Ticino, it seems also understandable and legitimate that the Department of Health and Social Services (and therefore the Cantonal Medical Office) was initially more restrictive than the federal government. This has however generated upset and legitimate concerns with the management of the organizations and the users themselves (see for instance, the different guidelines referred to the quarantine obligations for medical professionals). Concerns were also perceived when it came to the unilateral decision of closing the borders with Italy. Subsequent tension and uncertainty with respect to the transit across the border could have been easily avoided if greater coordination and communication between countries and the competent departments would have taken place. Similar concerns have been later claimed by Switzerland, when Italy decided to loosen its containment measures, initially by partially reopening its borders in a sovereign and unilateral way on June 3, 2020, and 12 days later integrally.</p> <p>Cross border workers in the canton of Ticino have always represented a sensitive topic for many reasons, and during the present health crisis they assumed and are still assuming a key role in the care of patients. Out of 68,000 workers that transit every day through the Swiss-Italian border to come to Ticino, around 4,000 people are working in the healthcare sector, and thus also in the</p>

	<p>assistance and homecare sector. According to the Swiss State Councilor Ignazio Cassis and many other key actors, the Ticino healthcare system would have surely collapsed without the Italian cross border workers during the first wave.</p>
<p><b>2)</b> A review of the Swiss Influenza Pandemic Plan is required, considering:</p> <ul style="list-style-type: none"> <li>• different types of potential crises that could occur;</li> <li>• the specificity of the elderly sector;</li> <li>• both clearer and preciser details about responsibilities.</li> </ul>	<p>Within the elderly care sector, the lack of a more operational and sectorial-related subgroup within the “Stato Maggiore Cantonale di Condotta” (Cantonal General Staff of Conduct) has been strongly perceived, since there has been a certain degree of miscoordination between the different actors involved.</p>
<p><b>3)</b> A prioritization of evidence-based research on psychological outcomes and psychiatric symptoms due to the containment measures is required, as well as dedicated intervention strategies aiming at preventing acts of domestic violence need to be developed.</p>	<p>The interviews clearly showed the negative effects on the employees’ mental health, and the unpreparedness of cantonal institutions regarding specific interventions to minimize the adverse outcomes. In addition, an increase in domestic violence, due to lockdown measures has been recorded by health workers, and again the institutions did not implement any specific and effective measures to combat it. Given the peculiarity of assistance and homecare services (proximity care) and the fact that the population has been forced to isolate itself during the lockdown, the government should have collaborated more with the organizations in order to address the problems, since they still were the only institutional entity to have the permission to enter even in the houses of quarantined people.</p>
<p><b>4)</b> An increased awareness of the fundamental role played by the proximity care, and therefore by the non-profit assistance and homecare services (SACDs), on the side of the general public is required.</p>	<p>This document showed the important role of the SACD within its district of competence already during an ordinary situation, both in terms of effectiveness and efficiency of care. During a pandemic outbreak, where the people are forced to be isolated, the “SACDs” resulted to be vital for the well-being of many citizens, but for many others homecare has not even been taken into account, and this could have had further relieved general practitioners.</p> <p>Considering future developments (and even future health crisis), it is crucial to further raise awareness of the importance of the</p>



	<p>SACD, to prevent a collapse of the health system.</p>
<p>5) A greater attractiveness and visibility of the nursing profession is urgently required.</p>	<p>The pandemic outbreak has undoubtedly revealed worldwide how important the nursing staff is to ensure adequate healthcare. The authors showed in section 5.2 how nursing care is also becoming even more important within the assistance and homecare sector and that there clearly is a visible trend towards specialization due to the more complex cases that the organizations are following.</p> <p>According to the Swiss Professional Association of Nurses (SBK – ASI), by 2030 in Switzerland, there will be a lack of about 65,000 nurses. Today, the country is already lacking about 11,000 nurses and almost 50% of the workers quit the job within a few years. The canton of Ticino experienced at first hand the fear of finding itself without sufficient staff, when Italy decided to close the borders.</p> <p>It is therefore important to quickly find strategies to increase the attractiveness of the profession and retention rates.</p>
<p>6) A search for an ideal solution of an integrated proximity socio-medical system is desirable.</p>	<p>The health crisis and the challenges faced by the actors showed how important it is to have a clear coordination structure for better communication between multiple stakeholders.</p> <p>Over the past ten years, due to the increase in the services provided, SACDs, private organizations and freelance healthcare professionals' services already led to a reduction in the institutionalization of elderly people. This has thus caused a decrease in the users' turnover within long-term care facilities. Given the aforementioned criticalities that occurred during the pandemic outbreak, the ideal proximity and self-organized non-hospital social-healthcare system could be represented by a consortium, which is jointly administratively and medically directed by the SACD, long-term care facilities, day care centers and voluntary organizations that reside and operate within a larger district of competence. In addition to that, the consortium could then be supported by a juridical</p>



	<p>institution, that is the regional protection authority and which could operate in the field of protection of minors and adults. The institution, which is competent to adopt and manage protection measures for both minors and older people in accordance with the Swiss Civil Code, could then benefit from the proximity to the territory and from the larger network of workers, who are in close contact with the citizens. The interaction between the public and private sector is fundamental, and, given the peculiarity of the context, a semi-public entity seems to be the most rational solution: however, the rules of the game need to be clarified from the beginning, to minimize the risks related the overlap in the supply and the abuse of the benefits.</p>
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## Conclusions

As stated in the introductory section, the present Rapid Response Review and case study aimed at observing the sectorial and managerial response of non-profit assistance and homecare services of public interest in Ticino (SACD) to the *COVID-19* outbreak, with the purpose of providing some useful recommendations.

Given the nature of the present document and the extraordinary and delicate situation with which assistance and homecare services have been confronted, the biggest limitation faced in particular by the case study was associated with the fact that only few stakeholders have been interviewed.

Nevertheless, the authors are convinced that some valuable information has emerged, which provided a good basis for developing recommendations for decision makers in public and practice. These recommendations, of course, will have to be further elaborated and discussed with relevant stakeholders across different levels of the health system. Further, the review and case study provide a solid basis for further research and potentially an input for cross-regional (whether on a cantonal or a country level) and cross-institutional comparisons.

The analyses presented in this document clearly shows that *COVID-19* had important effects on assistance and homecare services and the sector as a whole. However, it also highlighted important structural aspects, which have been probably neglected in the past and that now need to be further deepened and discussed among all the involved stakeholders, such as, for instance, the urgent need of increasing both the visibility and attractiveness of the nursing profession and the awareness regarding the fundamental role played by the non-profit assistance and homecare services of public interest.

Beside the managerial challenges, the analysis reported how the *COVID-19* pandemic negatively affected the mental well-being of users and healthcare workforce, who experienced high rates of stress and anxiety. The challenges posed by the global health crisis to the psychological resilience need to be better understood and studied urgently, in order to develop concurrent evidence-driven interventions to minimize the adverse psychological outcomes and psychiatric symptoms, and therefore to improve the mental health as this pandemic persists, and for future large-scale public health emergencies.

## Disclosures

### *Ethical issues*

Not applicable.

### *Competing interest*

The authors declare that they have no competing interest.

### *Authors' contribution*

All persons listed as authors have contributed to the design and writing of the present study, and they reviewed and approved the final manuscript.

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## References

- [1] Asmundson, G. J. G. & Taylor Steven. (2020, a). Coronaphobia: Fear and the 2019-nCoV outbreak. *Journal of Anxiety Disorders*, 70: 102196. Retrieved June 15, 2020, at: <https://www.sciencedirect.com/science/article/pii/S0887618520300104>
- [2] Asmundson, G. J. G. & Taylor Steven. (2020, b). Editorial: How health anxiety influences responses to viral outbreaks like COVID-19: What all decision-makers, health authorities, and health care professionals need to know. *Journal of Anxiety Disorders*, 71: 102211. Retrieved June 15, 2020, at: <https://reader.elsevier.com/reader/sd/pii/S0887618520300256?token=F347BF1B6880817B020D55E772BFA104D423D70CF8BE26C5A39748ECAAC2546A9B7E60AEA6640668B1022F05FB844C81>
- [3] Associataion Spitex privée Suisse ASPS. (2020). Unsere Ziele und Aufgaben. Retrieved May 17, 2020, at: <https://www.spitexprivee.swiss/de/verband-der-privaten-spitexorganisationen-der-schweiz/ziele-und-aufgaben.html>
- [4] Associazione Locarnese e Valmaggese di Assistenza e Cura a Domicilio. (2020, a). Consuntivo 2019. Retrieved May 27, 2020, at: [https://www.alvad.ch/files/UUPEIDL/assemblea\\_1952020.pdf](https://www.alvad.ch/files/UUPEIDL/assemblea_1952020.pdf)
- [5] Associazione Locarnese e Valmaggese di Assistenza e Cura a Domicilio. (2020, b). Statuto. Versione aggiornata al 22.11.2011. Retrieved May 27, 2020, at: [https://www.alvad.ch/files/OTBRW82/statuto-ALVAD\\_nuovo-logo.pdf](https://www.alvad.ch/files/OTBRW82/statuto-ALVAD_nuovo-logo.pdf)
- [6] Balestra, G. (2004). Contratti di prestazione per i Servizi di assistenza e cura a domicilio del Cantone Ticino: definizione dei criteri finanziari, quantitativi, qualitativi e di controlling. Master of Advanced Studies in Economia e Management Sanitario e Sociosanitario. Lugano: Università della Svizzera italiana.
- [7] Branca, F. & Lomazzi, L. (2007). I contratti di prestazione nel settore sociosanitario del Cantone Ticino (p. 185-215). In: Meneguzzo, M., Ferrari, D., Vitta, C., & Zanolini, K. (cur). (2007). *Management pubblico in Ticino. Esperienze a confronto tra Svizzera ed Europa*. Milano: McGraw-Hil.
- [8] Bundesamt für Statistik. (2020, a). Hauswirtschaft und Sozialbetreuung nach Leistungserbringertyp. Retrieved May 19, 2020, at: [https://www.bfs.admin.ch/bfs/de/home/statistiken/gesundheitswesen/hilfe-pflege-hause.html#par\\_text](https://www.bfs.admin.ch/bfs/de/home/statistiken/gesundheitswesen/hilfe-pflege-hause.html#par_text)
- [9] Bundesamt für Statistik. (2020, b). Hilfe und Pflege zu Hause. Retrieved May 17, 2020, at: <https://www.bfs.admin.ch/bfs/de/home/statistiken/gesundheitswesen/hilfe-pflege-hause.html>
- [10] Bundesamt für Statistik. (2020, c). Langzeitpflege nach Leistungserbringertyp. Retrieved May 19, 2020, at: [https://www.bfs.admin.ch/bfs/de/home/statistiken/gesundheitswesen/hilfe-pflege-hause.html#par\\_text](https://www.bfs.admin.ch/bfs/de/home/statistiken/gesundheitswesen/hilfe-pflege-hause.html#par_text)
- [11] Bundesamt für Statistik. (2020, d). Spitex: Finanzen nach Leistungserbringertyp. Retrieved May 17, 2020, at: <https://www.bfs.admin.ch/bfs/de/home/statistiken/gesundheitswesen/hilfe-pflegehause.assetdetail.10627301.html>
- [12] Bundesamt für Statistik. (2020, e). Spitex: Personal nach Leistungserbringertyp. Retrieved May 17, 2020, at:



- <https://www.bfs.admin.ch/bfs/de/home/statistiken/gesundheit/gesundheitswesen/hilfe-pflegehause.assetdetail.10627282.html>
- [13] Bundesamt für Statistik. (2020, f). Synthese nach Kanton. Retrieved May 19, 2020, at:  
<https://www.bfs.admin.ch/bfs/de/home/statistiken/gesundheit/gesundheitswesen/hilfe-pflegehause.assetdetail.10627275.html>
- [14] Cascella, M., Rajnik, M., Cuomo, A., Dulebohn, S. C., Di Napoli, R. (2020). Features, Evaluation and Treatment Coronavirus (COVID-19). StatPearls [Internet]. Retrieved June 14, 2020, at: <https://www.ncbi.nlm.nih.gov/books/NBK554776/>
- [15] Cepiku, D., Meneguzzo, M. (2010). Coordinamento e gestione strategica delle reti: profili e competenze dei network manager. *Sviluppo e Organizzazione*, 238: 75-84.
- [16] Corona-data. (2020). COVID-19 Information for Switzerland. Retrieved June 14, 2020, at: <https://www.corona-data.ch/>
- [17] Federal Office of Public Health. (2020). Swiss Influenza Pandemic Plan 2018. Retrieved June 14, 2020, at:  
<https://www.bag.admin.ch/bag/en/home/krankheiten/ausbrueche-epidemienpandemien/pandemievorbereitung/pandemieplan.html>
- [18] Il Consiglio federale. (2020, a). Legge federale sulla lotta contro le malattie trasmissibili dell'essere umano. (Legge sulle epidemie, LEp). Retrieved June 14, 2020, at: <https://www.admin.ch/opc/it/classified-compilation/20071012/index.html>
- [19] Il Consiglio federale. (2020, b). Ordinanza concernente la lotta contro le malattie trasmissibili dell'essere umano. (Ordinanza sulle epidemie, OEp). Retrieved June 14, 2020, at:  
<https://www.admin.ch/opc/it/classifiedcompilation/20133212/index.html>
- [20] Il Consiglio federale. (2020, c). Ordinanza del DFI sulla dichiarazione di osservazioni relative alle malattie trasmissibili dell'essere umano. Retrieved June 14, 2020, at:  
<https://www.admin.ch/opc/it/classifiedcompilation/20151622/index.html>
- [21] Il Consiglio federale. (2020, d). Ordinanza del DFI sulle prestazioni dell'assicurazione obbligatoria delle cure medicosanitarie. Retrieved May 9, 2020, at: <https://www.admin.ch/opc/it/classified-compilation/19950275/index.html>
- [22] Il Consiglio federale. (2020, e). Regolamento sanitario internazionale (2005). Adottato alla cinquantottesima Assemblea mondiale della Sanità il 23 maggio 2005. Retrieved June 14, 2020, at:  
<https://www.admin.ch/opc/it/classifiedcompilation/20052894/index.html>
- [23] Jaccard Ruedin, H., Marti, M., Sommer, H., Bertschy, K., & Leoni, Ch. (2010). Soins de longue durée – Comparaison des coûts par cas dans le canton du Tessin (Obsan Rapport 36). Neuchâtel: Observatoire suisse de la santé.
- [24] John Hopkins University & Medicine. (2020). COVID-19 Dashboard by the Center for Systems Science and Engineering (CSSE) at John Hopkins University (JHU). Retrieved June 4, 2020, at: <https://coronavirus.jhu.edu/map.html>
- [25] Liu, Yen-Chin, Kuo, Rei-Lin, Shih, Shin-Ru. (2020). COVID-19: The first documented coronavirus pandemic in history. *Biomedical Journal*, in press. Retrieved June 15, 2020, at:  
<https://www.sciencedirect.com/science/article/pii/S2319417020300445?via%3Dihub>

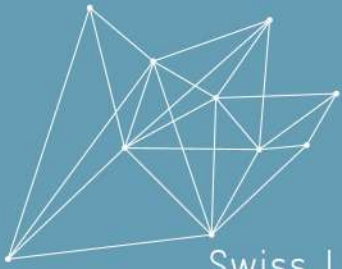
- [26] Masotti, B., & Oris, M. (2015). Il ricorso ai servizi domiciliari e il ruolo della famiglia nella quarta età (p. 87-110). In: Giudici, F., Cavalli, S., Egloff, M., & Masotti, B. (cur.). *Fragilità e risorse della popolazione anziana in Ticino*. Bellinzona: Repubblica e Cantone Ticino, Dipartimento delle finanze e dell'economia, Divisione delle risorse, Ufficio di Statistica. Retrieved May 19, 2020, at: [https://www3.ti.ch/DFE/DR/USTAT/allegati/volume/an\\_03.pdf](https://www3.ti.ch/DFE/DR/USTAT/allegati/volume/an_03.pdf)
- [27] Mazza, M., Marano, G., Lai, C., Janiri, L., Sani, G. (2020). Danger in danger. Interpersonal violence during COVID-19 quarantine. *Psychiatry Research*, 289: 113046. Retrieved June 15, 2020, at: <https://www.sciencedirect.com/science/article/pii/S0165178120309124>
- [28] Provan, K. G., Milward, H. B. (1995). A preliminary theory of interorganizational network effectiveness: A comparative study of four community mental health systems. *Administrative Science Quarterly*, 40 (1): 1-33.
- [29] Repubblica e Cantone Ticino. (2020, a). Area Media. Comunicato stampa. Coronavirus: aggiornamento sulla situazione in Ticino (28.02.2020). Retrieved June 15, 2020, at: [https://www4.ti.ch/area-media/comunicati/dettagliocomunicato/?NEWS\\_ID=187349&tx\\_tichareamedia\\_comunicazioni%5Baction%5D=show&tx\\_tichareamedia\\_comunicazioni%5Bcontroller%5D=Comunicazioni&cHash=1a8ccce99d99197abcd7a3f14c4b610b](https://www4.ti.ch/area-media/comunicati/dettagliocomunicato/?NEWS_ID=187349&tx_tichareamedia_comunicazioni%5Baction%5D=show&tx_tichareamedia_comunicazioni%5Bcontroller%5D=Comunicazioni&cHash=1a8ccce99d99197abcd7a3f14c4b610b)
- [30] Repubblica e Cantone Ticino. (2020, b). Area Media. Comunicato stampa. Coronavirus: aggiornamento sulla situazione in Ticino (27.02.2020). Retrieved June 15, 2020, at: [https://www4.ti.ch/area-media/comunicati/dettagliocomunicato/?NEWS\\_ID=187343&tx\\_tichareamedia\\_comunicazioni%5Baction%5D=show&tx\\_tichareamedia\\_comunicazioni%5Bcontroller%5D=Comunicazioni&cHash=3bf390ec4a641ac569b04aa2c1ef686d](https://www4.ti.ch/area-media/comunicati/dettagliocomunicato/?NEWS_ID=187343&tx_tichareamedia_comunicazioni%5Baction%5D=show&tx_tichareamedia_comunicazioni%5Bcontroller%5D=Comunicazioni&cHash=3bf390ec4a641ac569b04aa2c1ef686d)
- [31] Repubblica e Cantone Ticino. (2020, c). Area Media. Comunicato stampa. Coronavirus: attiva da domani mattina la hotline ticinese. Retrieved June 15, 2020, at: [https://www4.ti.ch/area-media/comunicati/dettagliocomunicato/?NEWS\\_ID=187326&tx\\_tichareamedia\\_comunicazioni%5Baction%5D=show&tx\\_tichareamedia\\_comunicazioni%5Bcontroller%5D=Comunicazioni&cHash=42d110a11fb9de1e33d5c88027c4b94a](https://www4.ti.ch/area-media/comunicati/dettagliocomunicato/?NEWS_ID=187326&tx_tichareamedia_comunicazioni%5Baction%5D=show&tx_tichareamedia_comunicazioni%5Bcontroller%5D=Comunicazioni&cHash=42d110a11fb9de1e33d5c88027c4b94a)
- [32] Repubblica e Cantone Ticino. (2020, d). Area Media. Comunicato stampa. Coronavirus: due casi positivi in una casa anziani. Retrieved June 15, 2020, at: [https://www4.ti.ch/area-media/comunicati/dettagliocomunicato/?NEWS\\_ID=187398&tx\\_tichareamedia\\_comunicazioni%5Baction%5D=show&tx\\_tichareamedia\\_comunicazioni%5Bcontroller%5D=Comunicazioni&cHash=607111f1dbd076e6f5b5331691ba5cde](https://www4.ti.ch/area-media/comunicati/dettagliocomunicato/?NEWS_ID=187398&tx_tichareamedia_comunicazioni%5Baction%5D=show&tx_tichareamedia_comunicazioni%5Bcontroller%5D=Comunicazioni&cHash=607111f1dbd076e6f5b5331691ba5cde)
- [33] Repubblica e Cantone Ticino. (2020, e). Area Media. Comunicato stampa. Coronavirus: misure a tutela della popolazione. Retrieved June 15, 2020, at: [https://www4.ti.ch/area-media/comunicati/dettagliocomunicato/?NEWS\\_ID=187506&tx\\_tichareamedia\\_comunicazioni%5Baction%5D=show&tx\\_tichareamedia\\_comunicazioni%5Bcontroller%5D=Comunicazioni&cHash=cad20278c2ebee74bc95e828048cde0](https://www4.ti.ch/area-media/comunicati/dettagliocomunicato/?NEWS_ID=187506&tx_tichareamedia_comunicazioni%5Baction%5D=show&tx_tichareamedia_comunicazioni%5Bcontroller%5D=Comunicazioni&cHash=cad20278c2ebee74bc95e828048cde0)

- [34] Repubblica e Cantone Ticino. (2020, f). Area Media. Comunicato stampa. Coronavirus: nuove misure di prevenzione. Retrieved June 15, 2020, at: [https://www4.ti.ch/area-media/comunicati/dettagliocomunicato/?NEWS\\_ID=187404&tx\\_tichareamedia\\_comunicazioni%5Baction%5D=show&tx\\_tichareamedia\\_comunicazioni%5Bcontroller%5D=Comunicazioni&cHash=0f121a14b2148a5a83b594126443b49d](https://www4.ti.ch/area-media/comunicati/dettagliocomunicato/?NEWS_ID=187404&tx_tichareamedia_comunicazioni%5Baction%5D=show&tx_tichareamedia_comunicazioni%5Bcontroller%5D=Comunicazioni&cHash=0f121a14b2148a5a83b594126443b49d)
- [35] Repubblica e Cantone Ticino. (2020, g). Area Media. Comunicato stampa. Coronavirus – Riunione del gruppo di coordinamento allargato. Retrieved June 15, 2020, at: [https://www4.ti.ch/area-media/comunicati/dettagliocomunicato/?NEWS\\_ID=187311&tx\\_tichareamedia\\_comunicazioni%5Baction%5D=show&tx\\_tichareamedia\\_comunicazioni%5Bcontroller%5D=Comunicazioni&cHash=a95b1b3ffd98448ac33144e1588f799a](https://www4.ti.ch/area-media/comunicati/dettagliocomunicato/?NEWS_ID=187311&tx_tichareamedia_comunicazioni%5Baction%5D=show&tx_tichareamedia_comunicazioni%5Bcontroller%5D=Comunicazioni&cHash=a95b1b3ffd98448ac33144e1588f799a)
- [36] Repubblica e Cantone Ticino. (2020, h). Legge sulla protezione della popolazione. Retrieved June 14, 2020, at: <https://m3.ti.ch/CAN/RLeggi/public/index.php/raccolta-leggi/legge/num/48>
- [37] Repubblica e Cantone Ticino. (2020, i). Legge sull'assistenza e cura a domicilio (LACD). Retrieved May 9, 2020, at: <https://m3.ti.ch/CAN/RLeggi/public/index.php/raccolta-leggi/legge/num/364>
- [38] Repubblica e Cantone Ticino. (2020, j). Risoluzione governativa 1033, 26.02.2020. Retrieved June 15, 2020, at: [https://m4.ti.ch/fileadmin/DSS/DSP/UMC/malattie\\_infettive/Coronavirus/1033.pdf](https://m4.ti.ch/fileadmin/DSS/DSP/UMC/malattie_infettive/Coronavirus/1033.pdf)
- [39] Rossi, G. R., Meneguzzo, M., Mannamplackal, S., Rabito, G., Marforio, A. (2019). "REHA Ticino". Governo e coordinamento strategico di una rete sanitaria pubblico-privata. MECOSAN – Special Issue, 109: 29-53.
- [40] SBK. (2020). Der SBK...die Stimme der Pflege. Retrieved May 17, 2020, at: <https://www.sbk.ch/verband/der-sbk>
- [41] SCuDo. (2019). Il Servizio di assistenza e cura a domicilio (SACD) di interesse pubblico del Luganese. Consuntivo 2018. Retrieved May 27, 2020, at: [https://www.scudo.ch/files/OIDFX56/e\\_\\_f\\_\\_consuntivo\\_2018\\_scudo\\_parte\\_ab.pdf](https://www.scudo.ch/files/OIDFX56/e__f__consuntivo_2018_scudo_parte_ab.pdf)
- [42] SCuDo. (2012). Statuto. Servizio Cure a Domicilio del Luganese. Retrieved May 28, 2020, at: [https://www.scudo.ch/files/I9P1PYM/statuto\\_associazione\\_scudo\\_approvato\\_assemblea\\_27.11.2012.pdf](https://www.scudo.ch/files/I9P1PYM/statuto_associazione_scudo_approvato_assemblea_27.11.2012.pdf)
- [43] Spitex Schweiz. (2020). Unsere Aufgaben. Retrieved May 17, 2020, at: <https://www.spitex.ch/Verband/UnsereAufgaben/PfDpR/>
- [44] The federal Council. (2020, a). Coronavirus: Confederation appoints scientific advisory board. Retrieved June 14, 2020, at: <https://www.admin.ch/gov/en/start/documentation/media-releases.msg-id-78626.html>
- [45] The federal Council. (2020, b). Federal Act on National Economic Supply. (National Economic Supply Act, NESAs). Retrieved June 14, 2020, at: <https://www.admin.ch/opc/en/classified-compilation/20141710/index.html>
- [46] The federal Council. (2020, c). Federal Constitution of the Swiss Confederation. Retrieved May 9, 2020, at: <https://www.admin.ch/opc/en/classified-compilation/19995395/index.html>

- [47] Tull, M. T., Edmonds, K. A., Scamaldo, K. M., Richmond, J. R., Rose, J. P. & Gratz, K. L. (2020). Psychological Outcomes Associated with Stay-at-Home Orders and the Perceived Impact of COVID-19 on Daily Life. *Psychiatry Research*, 289: 113098. Retrieved on June 16, 2020, at: <https://www.sciencedirect.com/science/article/pii/S0165178120310854>
- [48] Ufficio di statistica – DFE. (2020, a). Assistenza e cura a domicilio: beneficiari e contributo cantonale per favorire il mantenimento a domicilio (aiuti diretti in franchi), in Ticino, dal 1995 al 2018. Retrieved May 23, 2020, at: <https://www3.ti.ch/DFE/DR/USTAT/index.php?fuseaction=temi.dati&p1=54&p2=106&p3=113&prold=112>
- [49] Ufficio di statistica – DFE. (2020, b). Fornitori di assistenza e cura a domicilio riconosciuti LACD: prestazioni, personale e conti economici, in Ticino, dal 2001 al 2018. Retrieved May 23, 2020, at: <https://www3.ti.ch/DFE/DR/USTAT/index.php?fuseaction=temi.dati&p1=54&p2=106&p3=113&prold=112>
- [50] Ufficio di statistica – DFE. (2020, c). Fornitori di assistenza e cura a domicilio riconosciuti LACD: prestazioni, personale e conti economici (in mille franchi), in Ticino, dal 2003 al 2018. Retrieved May 23, 2020, at: <https://www3.ti.ch/DFE/DR/USTAT/index.php?fuseaction=temi.dati&p1=54&p2=106&p3=113&prold=112>
- [51] Ufficio di statistica – DFE. (2020, d). Servizi di appoggio di assistenza e cura a domicilio riconosciuti LACD: personale e conti economici, in Ticino, dal 2003 al 2018. Retrieved May 23, 2020, at: <https://www3.ti.ch/DFE/DR/USTAT/index.php?fuseaction=temi.dati&p1=54&p2=106&p3=113&prold=112>
- [52] Ufficio federale di statistica UST. (2020). Comunicato stampa. 01 Popolazione. Evoluzione della popolazione nel 2019: risultati provvisori. Retrieved May 16, 2020, at: <https://www.bfs.admin.ch/bfs/it/home/statistiche/popolazione/invecchiamento.ass etdetail.12247183.html>
- [53] Wang, C., Pan, R., Wan, X., Tan, Y., Xu, L., Ho, C. S. & Ho, R. C. (2020). Immediate Psychological Responses and Associated Factors during the Initial Stage of the 2019 Coronavirus Disease (COVID-19) Epidemic among the General Population in China. *International Journal of Environmental Research and Public Health*, 17(5): 1729. Retrieved June 16, 2020, at: <https://www.mdpi.com/1660-4601/17/5/1729>
- [54] World Health Organization. (2020, a). Emergency preparedness, response. Disease outbreak news. Retrieved May 31, 2020, at: [https://www.who.int/csr/don/archive/disease/novel\\_coronavirus/en/](https://www.who.int/csr/don/archive/disease/novel_coronavirus/en/)
- [55] World Health Organization. (2020, b). Pneumonia of unknown cause – China. Retrieved May 31, 2020, at: <https://www.who.int/csr/don/05-january-2020-pneumonia-of-unknown-cause-china/en/>
- [56] World Health Organization. (2020, c). Statement on the second meeting of the International Health Regulation (2005) Emergency Committee regarding the outbreak of novel coronavirus (2019-nCoV). Retrieved May 31, 2020, at: [https://www.who.int/news-room/detail/30-01-2020-statement-on-the-second-meeting-of-the-international-healthregulations-\(2005\)-emergency-committee-regarding-the-outbreak-of-novel-coronavirus-\(2019-ncov\)](https://www.who.int/news-room/detail/30-01-2020-statement-on-the-second-meeting-of-the-international-healthregulations-(2005)-emergency-committee-regarding-the-outbreak-of-novel-coronavirus-(2019-ncov))

- [57] World Health Organization. (2020, d). WHO Director-General's opening remarks at the media briefing on COVID-19 – 11 March 2020. Retrieved June 4, 2020, at: <https://www.who.int/dg/speeches/detail/who-director-general-s-openingremarks-at-the-media-briefing-on-Covid-19---11-march-2020>
- [58] Worldometer. (2020). COVID-19 CORONAVIRUS PANDEMIC. Latest updated: June 14, 2020, 14:12 GMT. Retrieved June 14, 2020, at: <https://www.worldometers.info/coronavirus/>
- [59] Yin, R. (2003). Case Study Research. Design and Methods (3rd edition). London: Sage.





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