

**Short Communication** 

### Prevention and Care of Cardiovascular Diseases during the Covid-19 Pandemic: Will the National Resilience and Recovery Plans help in reducing its burden?

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#### **ABSTRACT**

The coronavirus pandemic has revealed a need to work together to build stronger health systems and protect physical and mental health worldwide. At the European level, patients with cancer and with chronic diseases were left behind, and this has had serious public health consequences, counting not only the deaths caused by Covid-19, but also the number of people who died prematurely because they did not have a chance to access the care that they needed. Evidence and data collected during the pandemic show that Covid-19 has had a significant impact on patients with cardiovascular diseases (CVDs) too. Even before the outbreak, the burden of CVDs was greater than that of any other disease: globally, more people die annually from CVDs than from any other cause. In 2019, an estimated 17.9 million people died from CVDs, representing 32% of all global deaths. Of these deaths, 85% were due to heart attack and stroke, and 37% were premature, affecting people below the age of 70 [1]. In this health emergency moment, with Covid-19 still not being under control, the repercussions of the pandemic on CVDs mortality risk being exponential unless urgent policy action is taken. Therefore, understanding and addressing the collateral damage of Covid-19 on CVDs is crucial if we want to prevent the latter from being the next pandemic wave. In this regard, prevention activities, on one side, and chronic patient care on the other must go hand in hand with the progress being made in the fight against Covid-19. Over the last 15 years, Cittadinanzattiva [2] has been increasing its contributions for the prevention of cardiovascular and cerebrovascular diseases [3]. Most recently, Active Citizenship Network (ACN) [4], the EU branch of Cittadinanzattiva, has launched a series of projects at the national and EU level, with the aim to increase attention and advocacy not only on the direct effects of Covid-19, but also on the indirect ones, particularly relating to CVDs. In its projects, Active Citizenship Network has invited the representatives of the newly formed "European Alliance for Cardiovascular Health" (EACH) [5], highly committed on the topic.

**Keywords:** Civic participation, Citizens' engagement, Patients' rights, European Union, Italy, Patient Advocacy Groups (PAGs), Cardiovascular Diseases, Stroke, Prevention

## INTRODUCTION: FROM A NATIONAL TO A EUROPEAN PERSPECTIVE

According to the 2021 update from the American Heart Association's Heart Disease and Stroke Statistics [6], heart disease not only remains the leading cause of death worldwide, but the global burden of cardiovascular diseases will grow exponentially in the coming years due to the long-term effects of the Covid-19 pandemic, which will, directly and indirectly, affect the prevalence and death rates of cardiovascular diseases for years to come. Past

efforts and investments into better cardiovascular care, combined with improvements in preventive strategies and infrastructure for acute care, have resulted in a substantial reduction of CVDs mortality over the past 50 years. However, not only has research been showing that coronavirus can cause heart damage, but, in addition to this, people have been delaying the treatment of heart attacks and strokes, which can lead to worse outcomes. Another even more critical problem is linked to the behaviours and lifestyle that prevailed during the pandemic, many of which increased the risk of heart disease and stroke: unhealthy eating habits, increased

alcohol consumption, lack of physical activity and the mental cost of quarantine isolation, and even the fear of contracting the virus, can have a negative impact on a person's risk of cardiovascular diseases.

In Italy, for instance, the fear of contagion has tripled the mortality rate due to heart attacks from 4.1% to 13.7% [7]. Heart attacks and strokes kill 240,000 people every year in Italy and represent the first cause of death and disability [8]. According to the Italian Society of Cardiology (Sic) [9], the causes range from lack of care (the reduction in hospitalizations was 60%) to delays (times increased by 39%), linked to the fear of contagion. The data is the result of a national study of Sic, conducted in 54 hospitals. Although the Covid pandemic was concentrated in the north of Italy, the reduction in hospitalizations for heart attacks has been homogeneously recorded throughout the country: 52.1% in the North and South and 59.3% in the Centre [10].

Across Europe, the number of heart attack patients seeking urgent hospital care has dropped by more than 50% during the Covid-19 outbreak, according to an extensive worldwide survey [11] conducted by the European Society of Cardiology (ESC) [12]. This was the strongest evidence yet of the collateral damage caused by the pandemic. Fear of catching the coronavirus means even people in the midst of a life-threatening heart attack are too afraid to go to the hospital for life-saving treatment. One year after, what is the situation? How have the vulnerable target groups and CVDs patients' been treated during the pandemic? How to increase awareness of a more than just primary prevention among people? What are the lessons learned by more resilient Health Care Systems in the area of CVDs? What should we expect from the implementation of the Recovery Plans across Europe? Active Citizenship Network has been trying to address all these questions through two EU projects, characterized by training seminars, communication campaigns, and a public event realized in the framework of the cycle of EU Webinars "Health at the heart of the future of Europe", launched as a follow up of the XV European Patients' Rights Day [13], with the aim to feed the debate of the Conference on the Future of Europe (CoFoE) and for this reason hosted by the multilingual digital platform of the CoFoE [14].

# "THE RIGHT RHYTHM OF THE HEART": CIVIC SURVEY ON THE TREATMENT OF PEOPLE WHO HAVE HAD AN ACUTE MYOCARDIAL INFARCTION

Cittadinanzattiva – Emilia Romagna in the second half of 2019, conducted, at a national level, the civic survey titled "The Right Rhythm of the Heart" [15] with the aim to raise awareness among a growing number of patient rights associations about the importance of prevention and management of cardiovascular protection-related diseases and about the new treatment options available today, in particular with relation to Acute Myocardial Infarction (AMI). The project took shape in territorial meetings of awareness and with the administration of two different surveys: one to people who have had an IMA, one to general practitioners who have followed people with IMA in the period under review.

The progress made in recent years in the treatment of the acute phase of AMI has led to a significant reduction in in-hospital mortality and a progressive increase in the number of post-infarction patients. However, this was the situation before the advent of the Covid-19 pandemic, which again raised the mortality rate for the acute phase. In this regard, the survey's results presented at the European level last 15 December 2021 in a written Report [16] aimed at acquiring information on how people residing in the Italian region of Emilia Romagna who have had an acute myocardial infarction have been followed by the territorial health network in the twelve months following hospital discharge, adherence to the recommended lifestyle, and pharmacological therapy. Results showed how the second wave of the pandemic had been once again leading to the blocking of outpatient cardiology visits and elective interventions with the risk of nullifying all the progress made in recent years in terms of increased patient survival. In fact, for two months, hospitals have become less accessible to non-covid patients: either for fear of contagion, or because of the advice of treating physicians, or because the wards have been deprived and all controls have been suspended. Hospitals, therefore, were no longer a point of reference for people with health problems. Many activities have been suspended not only in hospitals but also in the territory, limiting the activities of care, screening and monitoring. This has put at risk the health of many people affected by non-Covid pathologies who have experienced a difficult period and many of them have died.

From the answers provided to the questionnaires by the GPs and the patients, it can be summarized that both in the hospitalization phase and in the phase of taking care of patients by the GPs, good results are generally noted, even if some critical points remain.

As the report underlines, the satisfaction expressed by patients for how they were treated even in the phase following discharge from the hospital and for the care of the information received in the various phases, together with the positive judgments provided by the GPs, give us back the image of a territory particularly sensitive to health issues, thanks also to the attention devoted to the problems of chronicity by the Regional Department of Health Policies. In particular, 78% of patients were satisfied with how they have been treated and with the post-discharge care and 74% recognized that GPs have a deep understanding of the disease and care for the individual situation.

Patients acknowledge that their caregivers have an in-depth knowledge of the pathology (74%) and pay attention to individual specificities (74%). These elements, together with good timing for visits (59%), the courtesy of staff (43%), a satisfactory amount of time dedicated (37%), and good integration between professionals (36%), justify the positive opinion expressed by 78% of patients. Positive is also the judgment on the health centers, where 39% of those interviewed considered them to be excellent, and 53% commented them as good. Furthermore, the judgment regarding information received during hospitalization was excellent, with 79% expressing a very positive opinion and 21% a fairly positive one.

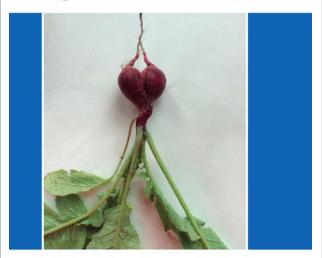
Concerning the criticalities, as the burden of bureaucracy still lies on the patients' shoulders, who, in most cases (63%) have to book visits and exams themselves, Cittadinanzattiva Emilia Romagna proceeded to highlight several health areas which require urgent improvement. The recommendations suggest:

- Greater integration between the general practitioner and the specialist: 40% of physicians and 52% of patients state that interaction takes place through the sick person.
- Calendarization of visits and examinations and introduction of a standardized and homogeneous care pathway throughout the region.
- Ensuring that the same care services are offered in the acute phase (in the hospital) and in the chronic phase (in the territory).
- Providing for personalized diagnostic and therapeutic care paths.
- Paying particular attention to people living in inland areas and involve pharmacies to facilitate check-ups.

THE MULTI-ANNUAL EU PROJECT "INCREASING CONSCIOUSNESS AND ACCESS TO TREATMENT, REDUCING THE BURDEN OF CARDIOVASCULAR DISEASES ACROSS EUROPE"

In order to reduce the number of deaths due to cardiovascular

### Il giusto ritmo del cuore



Indagine civica sulla presa in carico di persone che hanno avuto un Infarto Miocardico Acuto



**Figure 1.** Cover of Cittadinanzattiva - Emilia Romagna's Report "The Right Rhythm of the Heart": Civic survey on the treatment of people who have had an Acute Myocardial Infarction.

diseases, in 2013 European Member States signed the Health for Growth Programme, the third multi-annual programme of EU action in the field of health for the period 2014-2020 [17]. The aim was to identify, spread and promote the adoption of validated good practices for efficient and sustainable prevention measures, facing the main risk factors related to cardiovascular diseases, fighting tobacco use, alcohol dependence, obesity and promoting good lifestyles. Before the EU elections, last 9th of April 2019, on the occasion of the XIII European Patients' Rights Day [18], Active Citizenship Network has promoted a debate on citizens' expectations with a selection of MEP candidates and, then, published a Position Paper on prevention, innovation and a new health governance for the new EU Institutions [19], endorsed by 18 associations. The first request sent to the new EU Institutions was linked with the need to increase resources for health prevention. In coherence with this message, starting from the second half of 2019, ACN has decided to increase the awareness of a growing number of patients' rights associations on the importance of the prevention and management of pathologies correlated to cardiovascular protection, as well as on the new available therapeutic options that exist today. To do so, Active Citizenship Network realized between 2019 and 2021 the multi annual EU project on cardiovascular diseases "Increasing consciousness and access to treatment, reducing the burden of cardiovascular diseases across Europe" [20], with the support of the three EU skilled networks, Stroke Alliance for Europe [21], European Congenital Heart Disease Organisation [22], and the Heart Failure Policy Network [23], the scientific support of the Italian Society of HCPs called S.I.M.G., Società Italiana di Medicina Generale e delle Cure Primarie [24], and of 20 organizations coming from 15 Countries. The final aim was to increase consciousness on correct lifestyles and access to treatment and collecting good practices in order to contribute to reducing the burden of cardiovascular diseases across Europe.

Nowadays, even more, as lockdowns, physical distancing, and traveling limitations due to Covid-19 put a strain on the people suffering from non-communicable diseases, making them more exposed to risk factors and hindering their access to healthcare, we need to work harder to deepen cooperation between EU member states to avoid dealing with the consequences of neglected prevention afterwards. To achieve this, ACN's EU project tackled three sides. On the associations' side, the eight training seminars organized as part of the project, addressed to the leaders of civic and patients' associations from different European countries, contributed to fill the discrepancy between the associations already focused on CVDs and the ones who were not yet. In addition, the seminars managed to increase the awareness of a growing number of patients' rights associations on the importance of the prevention and management of pathologies correlated to CVDs.

On the citizens' side, Active Citizenship Network has carried out an ad hoc European and national awareness campaign titled "Let's act on our future" [25] on proper lifestyles and on the prevention of the risks linked to cardiovascular disorders and pathologies through a series of YouTube videos subtitled in 10 different languages [26].

## Increasing consciousness and access to treatment, reducing the burden of cardiovascular diseases across Europe

#### **EUROPEAN TRAINING SEMINARS**

The training seminars aim to increase the awareness of a growing number of patients' rights associations on the importance of the prevention and management of pathologies correlated to cardiovascular diseases, improving consciousness on correct lifestyles and access to treatments, and exchanging good practices.

29-30 OCTOBER • 16.30-18.30

Primary prevention, healthy people at risk | Know yourself to take care of your own risk

16-17 NOVEMBER • 16.30-18.30

Cardiovascular diseases: the red flags | From acute care to chronic care: a health pathway

14-15 DECEMBER • 16:30-18:30

Infectious diseases prevention | New strategies of prevention, cure, and follow up

26 - 27 JANUARY 2021 • 16:30 -18:30

Webinars on "Successful advocacy experiences on CVDs" with national and European expert groups:













The project is realized thanks to the support of



CITTADINANZ (2-TIVA

Figure 2. The cycle of the eight training seminars realized in the framework of the EU project "Increasing consciousness and access to treatment, reducing the burden of cardiovascular diseases across Europe".

Cycle of EU Webinars Health at the heart of the future of Europe



Promoting civic information to better address the collateral damage of COVID-19 on cardiovascular disease across Europe

The event is scheduled on the occasion of the Annual "World Heart Day"

29 September 2021 | from 11.30 to 13.00 CEST











Our engagement for the Conference on the Future of Europe

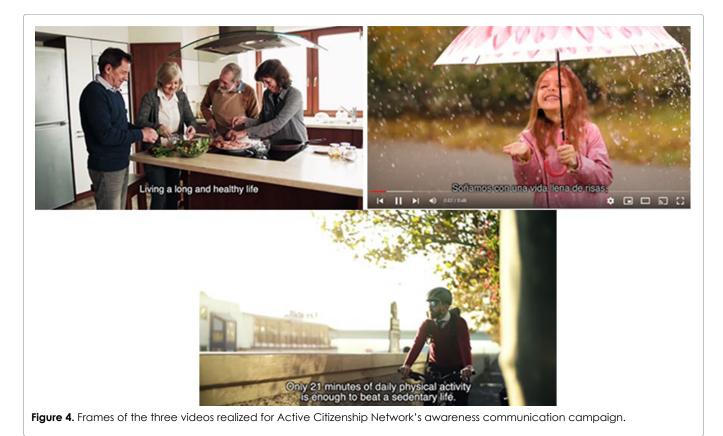
Figure 3. The invitation realized for the EU event "Promoting civic information to better address the collateral damage of Covid-19 on cardiovascular disease across Europe" of September 29, 2021.

The videos aimed at increasing the awareness of citizens about EU patients' rights, with specific reference to cardiovascular diseases, and at informing them on the organizations committed on the topic at the national level. In this sense, the videos realized focused on the three key risk factors for cardiovascular diseases, that are unhealthy eating habits, smoking, and inactive lifestyle.

Tackling the European institutional side is the digital EU Webinar titled "Promoting civic information to better address the collateral damage of Covid-19 on cardiovascular diseases across Europe" [27]. The online event was carried out by Active Citizenship Network last 29th of September 2021 in occasion of the Annual "World Heart Day" [28]. Thanks to this initiative, ACN's succeeded in highlighting some key messages both in terms of prevention and in terms of health priorities for the coming years in front of members of the European Parliament, including the MEP Kateřina Konečná, representing the MEPs Interest Group "European Patients' Rights & Cross-Border Healthcare" [29], members of the European Commission and of relevant stakeholders, including FOKUS Patient [30], the Association of Patients with Cardiovascular Diseases [31], the Heart Failure Policy Network, Stroke Alliance for Europe, and the European Association for the Study of Obesity [32]. Above all, it was highlighted first the opportunity to include the topic of CVDs among the National Resilience and Recovery Plans (NRRPs), and secondly to continue to support associations in their activities related to assistance, advocacy, collection of data and production of civic information. Thirdly, in a context in which Covid-19 has threatened all health systems and their sustainability as well as the social stability of a country during an emergency and has especially affected non-Covid-19 patients worldwide, challenging their right to health and continuity of care, the urgent need to emphasize the importance of prevention at the national and EU level was also underlined.

## THE EU PROJECT "EU PAGS & CITIZENS TOGETHER IN THE FIGHT AGAINST STROKE"

As an ideal follow up of the above-mentioned project, Active Citizenship Network has realized in the second part of 2021 the EU project "EU PAGs & citizens together in the fight against stroke" [33], focused on the topic of stroke, which, in the European Union, is the second most common cause of death and a leading cause of adult disability. Mainly because of population aging and improved survival rates, it is estimated that the prevalence of patients living with stroke in the EU will increase by 27% between 2017 and 2047. Therefore, if we want to reduce the future increase in the burden of stroke, it is imperative to make more significant efforts to prevent stroke. This, however, is much hindered by the deep disparity existing with regards to the level of information, skills & specific competencies, the incisiveness of the output and outcomes, between the associations that are devoted - almost exclusively - to CVDs and those patients' rights associations which do not have specific competencies in these thematic areas. Consequently, as for the former project, Active Citizenship Network has attempted to contribute to fill at least partially this divide.





**Figure 5.** The associations which took part in the CVDs prevention campaign "Let's act on our future" promoted by Active Citizenship Network.

In the development of a policy and advocacy activity at every level, local, national, and European, it is essential to invest in training and to devote quality time to be more updated, which are fundamental pre-conditions to be more active and effective in efficient advocacy activity. A duly informed patient is certainly a citizen capable of asserting his or her rights in the best way possible, and the same is true for a civic association: the more it knows, the better it will be able to act to protect the common interest. In this regard, on the occasion of the World Stroke Day [34] on 29th of October 2021, ACN organized the EU training seminar "Stroke prevention and life after stroke, during the pandemic" [35], which has attracted forty different leaders of Patients Advocacy Groups (PAGs) and of civic patients' associations invested in the topic. The seminar presented concrete examples of activities and tools that can improve the lives of patients and caregivers, with the aim of providing an overview on how to recognize and share the official sources of information to identify, recognize, and combat the main risk factors (prestroke) and being aware of patients' rights (pre and after a stroke); discussing and addressing the main challenges faced during the Covid-19 pandemic to prevent and to live after a stroke; being better equipped to protect rights and promote policies, at the EU and local level.

As part of the EU project, Active Citizenship Network has also launched "Knowing your patients' rights and come back to cure" [36], an EU social media awareness campaign realized thanks to a collection of statements & pictures of the leaders of PAGs and civic organizations engaged in the training and focused on the positive,

emotional values of stroke prevention to send clear messages on the topic directly from citizens to citizens. Above all, the campaign aimed at spreading across Europe all the main key messages which emerged from the training. To achieve this objective, the campaign was co-created with the direct involvement of associations and experts engaged in the training and was disseminated among ACN's official media channels [37].

## THE EUROPEAN ALLIANCE FOR CARDIOVASCULAR HEALTH

In both EU projects, Active Citizenship Network has invited the representatives of the newly formed "European Alliance for Cardiovascular Health" (EACH), launched on 27 September 2021, and which brought together health professionals, patient advocates, industry experts, health insurers, NGOs, and others to ensure that Europe's response to CVDs matches the scale of the collective challenge we are facing. The representatives had the opportunity to call on the EU to develop a comprehensive EU policy response to address the increasing burden of cardiovascular diseases. In particular, as better described by the joint statement [38], EACH has underlined the necessity to "mobilize research and innovation in CVDs and in its connection to other chronic diseases and promote public, private partnerships in CVDs innovation by leveraging the various policy and funding instruments, including Horizon Europe [39], the EU4Health Programme [40], the European Health Data Space [41], and Next Generation EU [42], as well as through horizontal healthcare and life sciences related policy instruments.



Figure 6. The invitation realized for the EU training seminar "Stroke prevention and life after stroke, during the pandemic" of October 29, 2021.

Furthermore, the plan should promote ambitious actions across the whole disease pathway to keep people in good health and optimize their quality of life, strengthening resilience at a population level, whilst making efficient use of healthcare resources. This should be done throughout health systems, looking at primary and secondary prevention, early detection, screening, and diagnosis, access to care and optimal treatment, rehabilitation, and quality of life after a CVDs event."

To encourage the implementation of the recommendations and priorities highlighted by the Alliance's Manifesto, collaboration is critical. Working together to get as many national associations as possible to endorse these recommendations and to advise policymakers on actions to improve cardiovascular health and to prevent CVDs in Europe can help making the population more prepared for future health emergencies. Active Citizenship Network has much appreciated the initiative and has committed to open a dialogue with the leading expert organizations in order to involve PAGs across Europe, thus ensuring greater involvement while avoiding the typical limitations of a Brussels-based initiative.

# CONCLUSION: PRIORITIZING THE BURDEN OF CARDIOVASCULAR DISEASES IN THE FRAMEWORK OF THE NATIONAL RESILIENCE AND RECOVERY PLANS

Although managing the recurrent waves of the Covid-19 pandemic draws the most attention for healthcare authorities, they should also prepare for the future evolution of the cardiovascular diseases

burden and take measures at the national and European level, for instance, to provide thrombectomy for a more significant proportion of people experiencing a stroke, to stimulate the implementation of local stroke units and regional stroke networks around a central 24 hours/7 days active interventional stroke center, train sufficient operators on the needs of CVDs patients, and invest in further research to improve the pharmacological and interventional treatment of CVDs in general and stroke in particular. Thanks to the National Resilience and Recovery Plans (NRRPs), each Member State has a great opportunity to guarantee more resilient Health Care Systems in the coming years, including a great chance to better address the unmet needs of CVDs patients. At the same time, it is necessary to encourage a larger involvement of all healthcare stakeholders to co-define key priorities. On this topic is focused the XVI European Patients' Rights Day (EPRD), titled "Conference on The Future of a Healthy Europe: Taking part in the decision-making process on health priorities" and planned next 20 & 21 of April 2022 [43]. In particular, the annual EU celebration of the XVI European Patients' Rights Day (EPRD) will be organized by Active Citizenship Network with its traditional format of a big multi-stakeholder conference focused on the role played by key actors in the decision-making process on health priorities. Just before the end of the Conference on the Future of Europe (CoFoE), the expectations and requests of citizens and PAGs addressed to the institutions will be analyzed. What has been discussed? Why did only a small percentage of the initiatives promoted within the CoFoE concern health issues? How to ensure that the priorities defined in the context of CoFoE will be incorporated in the implementation



Figure 7. Active Citizenship Network's "Knowing your patients' rights and come back to cure" EU social media awareness campaign realized in occasion of the 2021 "World Stroke Day".



**Figure 8.** Logo of the 2022 Edition of the European Patients' Rights Day.

of the National Recovery and Resilience Plans? What is the level of involvement of citizens and patients' associations in defining the implementation process of the priorities that have been identified in the health sector?

The 2022 conference will have a twofold structure: a first day, dedicated to the presentation to the EU Institutions of the outputs of the themes that emerged from health-related initiatives organized in the framework of the Conference on the Future of Europe; and a second day, focused on analyzing the actual level of citizen involvement by the Member States close to the approval by the European Commission of most of the NRRPs and their implementation at the national level.

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