EUROPEAN HEALTH UNION: DEFINTION AND SCENARIO-PLANNING

Formatted following Healthcare Journal guidelines* and Word template example.

Published as: Nabbe M, Brand H. The European Health Union: European Union's Concern about Health for All. Concepts, Definition, and Scenarios. Healthcare (Basel). 2021 Dec 17;9(12):1741. doi: 10.3390/healthcare9121741.

MAN Nabbe
ID 6251573
M.Sc. Governance and Leadership in European Public Health
Supervisor: Prof. Dr. H. Brand
Second Examiner: Prof. Dr. D.M.R. Townend
Maastricht University, FHML
Submission 1 July 2021

*Instructions to authors can be found at: https://www.mdpi.com/journal/healthcare/instructions

Scenario-planning

Title: European Health Union: Definition and Scenario-Planning

Marie Nabbe

Abstract: Questions on the European mandate in health are not new. The coronavirus disease 2019 (COVID-19) only made the topic more visible and intensified the discussions. The proposals of the European Commission to move towards a European Health Union (EHU) can be seen as a starting point towards more integration in the domain of health. However, the definition of what the EHU will look like is not clear. This paper searches to find a common definition, and/or features, for this EHU through a systematic literature review performed in May 2021. Surveillance and monitoring, crisis preparedness, funding, political will, vision of public health expenditures, population' awareness and interest, and global health were recognized as the main drivers for the development of a EHU. Based on these findings, five scenarios were developed: Making a full move forward; Improving efficiency in the actual framework; More coordination but no real change; In a full intergovernmentalism direction; and Fragmentation of the European Union. The scenarios show that development of a EHU is possible inside the current legal framework. However, it will rely mainly on increased coordination and a focus on cross-border threats. Any development will be strongly linked to political choices from the Member States.

Keywords: European Union, public health, health mandate, European Health Union, scenario planning.

---

1. Introduction

In 1952 already, the idea of a "European Health Community" – or "White Pool" – was raised but went down with the European Community of Defense. The failure of this project shows the importance of context and political will in European integration [1]. The coronavirus disease 2019 (COVID-19) pandemic marked a change in the international and European context. On March 11, 2020, the World Health Organization (WHO) declared COVID-19 a global pandemic, making it the first one caused by a coronavirus [2]. As of 13 March 2020, Europe became the epicenter of the pandemic [3]. The pandemic highlighted existing problems in the European Union (EU) as inequities between Member States (MS), lack of preparation, or shortages of medicines. Moreover, preventive measures were uncoordinated and divergences appeared between MS [4]. This situation brought questions on the EU competencies in health.

The competencies of the EU institutions are defined by the Treaty of the European Union (TEU) and the Treaty on the Functioning of the European Union (TFEU) [5,6]. Article 168 of the TFEU states that "a high level of human health protection shall be ensured in the definition and implementation of all Union policies and activities" [6]. However, health is not an integrated policy like the European Energy Union or the European Green Deal. The repartition of powers between the EU and the MS follows the principle of subsidiarity defining which actions should rather be taken by the EU or by the MS [7]. Following this principle, health competence is a prerogative of the MS and not a primary competence for the EU. One exception is "public health" which is a shared competence as stated in Article 168 of the TFEU [6,8]. Even though the EU does not have direct competence in health, it is called to work in cooperation with MS on this topic.

The Union is also relying on other legislations and on a principle called "health in all policies" (HiAP). HiAP is defined as the "recognition that a broader range of factors, other than those traditionally addressed within the 'health' field, affect population health" [9]. This mechanism relates to Article 35 of the Charter of Fundamental rights of the European Union (CFR), which states that "a high level of human health protection shall be ensured in the definition and implementation of all Union policies and activities." [10].

Possibilities of actions in the field of health at the EU level were developed in recent years [11]. The creation of the European Medicines Agency (EMA) (1995) and of the European Centre for Disease Prevention and Control (ECDC) (2005) are illustrations of the development of the topic. Those advances were made through previous crises such as the swine flu (H1N1) (2009) or the severe acute respiratory syndrome (SARS) (2003). These crises and evolutions of the EU were also opportunities for researchers to question the European health mandate and its future [12–14].

Research on the possibilities of the European health mandate and on a possible health – or healthcare – union is not new [15–17]. In a recent timeline, the term "European Health Union" (EHU) as a further developed topic appeared in spring 2020 after the realization of the weakness and fragmentation of the EU powers in health during the COVID-19 pandemic [18]. The initial questions considered the EU response and its role during the pandemic [4,19]. From this, the discussion broadened to which actions should be undertaken at the EU level and became more political with, for example, the call of the European Parliament (EP) for the "European institutions and the Member States to draw the right lessons from the COVID-19 crisis and engage in far stronger cooperation in the area of health" and for "a number of measures to create a European Health Union" [20].

The COVID-19 pandemic seems to have redivided the cards between what exists and what is wanted or needed in terms of health competence in the EU. It also had a massive impact on the vision of European citizens on the EU and clarified that there is no real health competence at the EU level [8,21]. Political will to develop EU health action seems also to be present with the new EU health policy under the program EU4Health [22,23]. The program is now independent from the European Social Fund (ESF) and has the most important funding to date for a European health program with €5.3 billion [24]. It entails four goals: 1) to improve and foster health in the Union; 2) to tackle cross-border health threats; 3) to improve medicinal products, medical devices and crisis-relevant products; 4) to strengthen health systems, their resilience and resource efficiency [22].

Recent opinion surveys show a will from European citizens to develop a European health policy [25]. In that sense, the President of the European Commission (EC) – Ursula von der Leyen – introduced the term EHU during her State of the Union address of 2020 [26]. This was the first political use of the term. The EC followed this discourse by making a communication entitled "building a European Health Union: reinforcing the EU's resilience for cross-border health threats"[27]. In addition, the EC published three proposals to pave the road to the EHU. The first one considers a regulation on cross-border health threats, followed by a proposal to strengthen the ECDC and a proposal on a reinforced role for EMA in crisis preparedness and management for medicinal products and medical devices [28–31]. The Members of the European Parliament (MEPs) welcomed these proposals on 16 November 2020 [32]. They are currently under discussion and can serve as a base for scenario-planning.

Scenario-planning has been applied before by the European institutions as shown in the White Paper on the Future of Europe which entailed five scenarios on the possible evolution of the EU [33]. These scenarios however did not mention health. This type of method is particularly relevant for topics with high uncertainty, such as described above. To move forward on an idea, the stakeholders and policymakers need to have a common comprehension of what a EHU would mean for the MS, the EU, and European citizens. Neiner et al. applied this method to public health and outlined four steps to create scenarios in public health:

1. Refine the sense of purpose
2. Understand the driving forces or key patterns and trends
3. Develop scenario plots
4. Plot strategy, rehearse, and converse [34].

As indicated by Neiner et al., a scenario has not the purpose to predict the future, but to foresight possible foundations to start policy discussions and public debate [34]. Building up on this framework,

this research aims to contribute to the debate by studying how the EHU can be defined and how it could be achieved.

2. Material and Methods

The method of this study is qualitative as it analyses the themes and arguments of the content of text documents and is not based on numerical data. Firstly, the aim of this research is to identify what the EHU could mean based on the Communication of the EC on "building a European Health Union: reinforcing the EU's resilience for cross-border health threats" and the Manifesto for a European Health Union [27,35].

Secondly, predetermined and unpredictable factors need to be identified. For this purpose, a literature review was performed following the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines [36].

The term "European Health Union" is a relatively new expression. In order to find recent papers to see which definition could be developed, this quotation was kept as a "stand alone" for the literature review. The quotation was applied in the online databases Google Scholar and in Web of Science to identify the current key discussions on the topic (Table 1).

Table 1. Search strategy

Database	Search terms	Results	Date
Web of Science	"European Health Union" Search limited to topic	11	28 May
Google Scholar	"European Health Union"	112	28 May
Total		122	

The databases were screened by one reviewer lastly on 28 May 2021 for data collection. The articles considered relevant based on their title were extracted and archived in a separate document. The duplicates were then removed. Documents were excluded when the full-text was not accessible. Moreover, documents written in another language than English and documents published before 2020 were excluded. To be included, the articles needed to focus on the EU level as it is the scope for the EHU and to discuss or define the EHU, the health mandate of the EU or the role of a specific EU institution or mechanism in the health competence. Articles dealing with consequences of COVID-19 outside the

health competence or the EHU were excluded. Table 2 presents an overview of the inclusion and exclusion criteria.

In addition to the databases, other sources were added from the websites of the European Health Union, the European Commission European Health Union, and the European Parliament Research Service (EPRS) [37–39].

Table 2. Inclusion and exclusion criteria for the literature review.

	Exclusion	Inclusion
Date	Before 2020	From 2020
Access	No full-text access	Full-text accessibility
Language	Non-English language	English
Scope	Focus on MS; focus on a specific area; focus outside the EU	Focus on the EU level
Topic	Not mentioning the EHU or the European health mandate	Defining or discussing the definition of the EHU or health mandate of the EU; or of a specific EU institution or mechanism.
Study designs	Theses / term papers; press releases; editorials; speeches	Opinion papers; original research; official documents / reports; legal documents; interviews' articles

After the full-text eligibility, the bibliographies of the selected documents were screened on titles to identify potentially missing articles in a snowball process. The articles retrieved were then screened at full-text to assess the eligibility. The whole process is presented in the form of the PRISMA flow chart diagram in the results section (Figure 1).

The data extraction aimed at identifying 1) the title, 2) the author, 3) the date of publication, 4) the journal, 5) the study designs, 6) the changes demanded or recommended, 7) the European mechanisms mentioned, 8) the actors mentioned (with active role), 9) the limits of the current system, 10) the drivers for the scenario, 11) the desired type of EHU, 12) personal notes, 13) citations, 14) conclusions, 16) critical appraisal. The critical appraisal was conducted based on the JBI checklist for text and opinion papers or through the Scale for the Assessment of Narrative Review Articles (SANRA) [40,41]. No critical appraisal was conducted for legal documents.

The data analysis consists of identifying several predetermined and unpredictable factors (the drivers) that will play a role in the elaboration of the scenario. According to Neiner et al., "predetermined forces are the driving forces that we are relatively sure of and that we can predict" [34]. Once the previous

steps are achieved, alternative scenarios can be developed considering the drivers identified in two tables following the example of Table 3.

Table 3. Scenario template

Factors/drivers	Scenario 1	Scenario 2	Scenario 3	Scenario 4
Pre-determined factor 1				
Pre-determined factor 2				
Unpredictable factor 1				
Unpredictable factor 1				

The validity of this study is ensured by following the criteria of a scenario-analysis including plausibility, consistency, comprehensibility and traceability [42]. One of the core aspects of the scenario-planning is the unpredictability which affects the reliability. The different biases that can affect the results will be identified in the discussion.

3. Results

3.1. Systematic literature review

After full-text eligibility, 15 articles were included from the database search and 12 from other methods. They were then reported in the PRISMA flow chart (Figure 1). Articles were excluded on topic (n=10), on study design (n=5) and on scope (n=3).

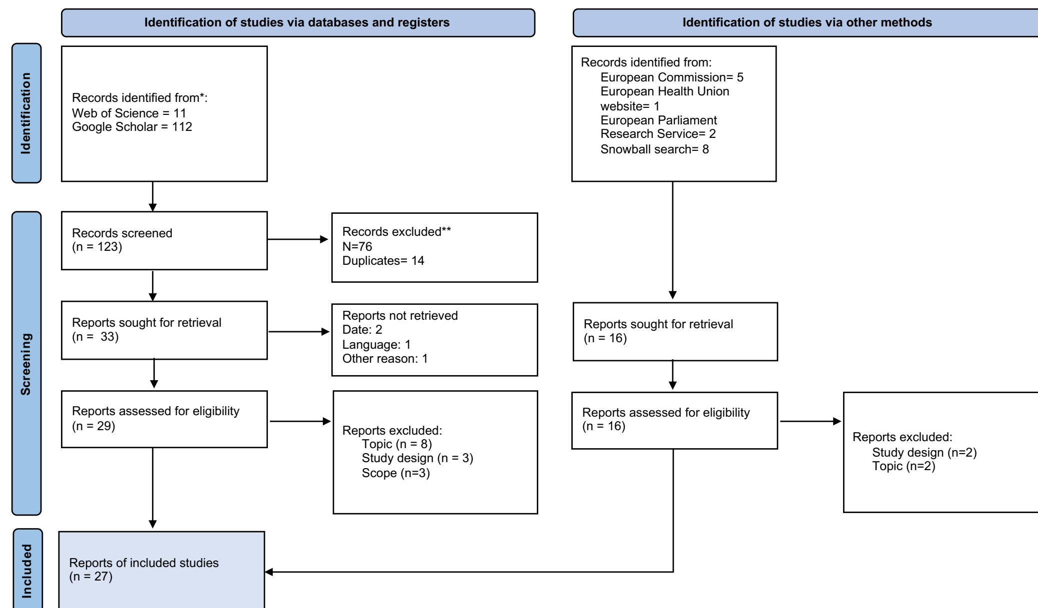

Figure 1. Prisma flow chart [36].

The full data extraction was made accordingly to the categories presented in the methods section. The key concepts were then added to the table below to present the main findings (Table 4).

Table 4. Extraction of the central concepts from the literature review.

Title	Authors	Journal (Date)	Concepts
Time to strengthen capacity in infectious disease control at the European level [24]	Anderson, Michael Mossialos, Brian	International society for infectious diseases (August 2020)	Fundamental shift: EU now argues that it has a crucial role in strengthening health systems to improve EU preparedness for future health threats. Importance of funding and of intra-European mobility of the healthcare workforce. Need for better data sharing and compliance.
The European Health Union is an initiative with potential to shape European politics for decades to come [18]	Andriukaitis, Vytenis	Eurohealth (2020)	Agreement to consider the incorporation of provisions for a EHU into articles 2 & 3 of a revised TEU, giving the EU explicit competence to take into action on health policy. Preference for a treaty change. Need of political will.
Exploring Integration Trajectories for a European Health Union [23]	Bazzan, Giulia	European Journal of Risk Regulation (November 2020)	Focus on the European governance system. Role of the political debate. One health approach.

Strengthening the EU's Response Capacity to Health Emergencies: Insights from EU Crisis Management Mechanisms [43]	Beaussier, Anne Laure Cabane, Lydie	European Journal of Risk Regulation (December 2020)	Changes to Decision 1082/2013 to improve the consistency of public health preparedness and coordination of MS in times of crisis. Need to reinforce EU level risk assessment and epidemiological surveillance capacities. Binding coordination of MS preparedness planning; binding mechanisms for the coordination of crisis responses based on multi-level decision-making processes. Need for more funding and political will.
EU Health Union and State Aid Policy: With Great(er) Power Comes Great Responsibility [44]	Biondi, Andrea Oana, Stefan	European Journal of Risk Regulation (December 2020)	Role of State Aid as a possible way to fund healthcare. Importance of funding / investment in European healthcare systems and in research.
COVID-19 and European Union health policy: From crisis to collective action [45]	Brooks, Eleanor de Ruijter, Anniek Greer, Scott L.	Social policy in the European Union: state of play 2020. Facing the pandemic	Importance of funding and political will (MS and EC). Conception of public health and health security as public goods. Extension of EU's role (not a new one).
The development of EU health policy and the Covid-19 pandemic: trends and implications [46]	Brooks, Eleanor Geyer, Robert	Journal of European integration (2020)	Repetition of previous crises pattern by the EC. Possibility that MS identify WHO as an alternative and as less 'supranational'. Complexity perspective: maintaining support for the expansion of EU health policy might be difficult.
Will COVID-19 lead to a major change of the EU Public Health mandate? A renewed approach to EU's role is needed. [47]	Clemens, Timo Brand, Helmut	European Journal of Public Health (August 2020)	More institutional innovations than major transfer of health responsibilities at the EU level. Importance of surveillance also at national level. Full centralized approach is not the right solution.
What do we actually mean by a 'European Health Union'? [48]	De Ruijter, Anniek	Eurohealth (2020)	Fragmentation of the EU level. Need of political will from the MS to have more capacity at the EU level. No clear meaning of the EHU and need to go further (see Manifesto).
Towards a more resilient Europe post-coronavirus. Options to enhance the Eu's resilience to structural risks. Part: Forestalling future health crises. [49]	European Parliamentary Research Service (EPRS)	EPRS (April 2021)	Mention of (research) funding. EHU touches competencies at all levels of government. Presentation of policy proposals.
Communication: Building a European Health Union: Reinforcing the EU's resilience for cross-border health threats [27]	European Commission	European Commission (November 2020)	Presentation of the EC propositions regarding a EHU.
Proposal for a Regulation on serious cross-border threats to health [28]	European Commission	European Commission (November 2020)	Providing a stronger and more comprehensive legal framework on health crises. Based on Article 168(5) TFEU.

Proposal for a Regulation on a reinforced role for the European Medicines Agency in crisis preparedness and management for medicinal products and medical devices [30]	European Commission	European Commission (November 2020)	Expanding EMA's role to coordinate on availability of medicines and medical devices. Based on Articles 114 and 168(4)(c) TFEU.
Proposal to extend the mandate of the European Centre for Disease Prevention and Control [29]	European Commission	European Commission (November 2020)	Reinforcement of the role of the ECDC under a strengthened EU health security framework. Based on Article 168(5) TFEU.
Manifesto for a European Health Union [35]	European Health Forum	2020	Need to go further than cross-border threats (well-being, solidarity, One Health, etc.). Possibility to renegotiate treaties. Other threats to consider for the future.
EU health law and policy in and after the COVID-19 crisis [50]	Greer, Scott De Ruijter, Anniek	European Journal of Public Health	Evolution of the ECDC is needed. Need for an obligation of solidarity in the Joint Procurement Agreement (JPA): jointly procure medical counter measures in case of a crisis with a specifically allocated part of the health budgets that does not allow bilateral processes. Importance of funding and trust.
Towards a European Health Union: What Role for Member States? [51]	Guy, Marie	European Journal of Risk Regulation (December 2020)	Importance role of the MS in a EHU from Article 168(7) TFEU. Interconnected relationship between EU and national level.
If you want a stronger EU: build a European Health Union [52]	Kickbusch, Ilona	Eurohealth (2020)	Global health: responsibility of a EHU for EU and for the world. Importance of the CFR and Sustainable Development Goals (SDGs). Promotion of well-being.
How a European health union can strengthen global health? [53]	Kickbusch, Ilona De Ruijter, Anniek	The Lancet Regional Health – Europe (February 2021)	Importance of global health. Role of health determinants: need to go beyond outbreak preparedness and response. Influence of other European policies on health (e.g., Green Deal).
The Role of the Joint Procurement Agreement during the COVID-19 Pandemic: Assessing Its Usefulness and Discussing Its Potential to Support a European Health Union [54]	McEvoy, Emma Ferri, Delia	European Journal of Risk Regulation	Importance of access to medicines, medical equipment and (new) health technologies. JPA as incentivization measure. Role of trust and confidence.
The importance of cross-border pandemic preparedness [55]	Medialdea Carrera, Raquel	Eurohealth (2020)	Develop stronger cooperation in the area of pandemic preparedness. Other pandemics/epidemics to come.

More Competences than You Knew? The Web of Competence for European Union Action in Response to the COVID-19 Outbreak [11]	Purnhagen, Kai P. de Ruijter, Anniek Flear, Mark L. Hervey, Tamara K. Herwig, Alexia	European Journal of Risk Regulation (June 2020)	Legal limitations are not the issue. Depend on political or policy desire.
EU public health policy [56]	Quaglio, Gianluca	EPRS (July 2020)	Health needs to move out of a paradigm narrowly confined to healthcare, into a wider multi-sectoral framework. Health as a concern for EU citizens. Decline of health expenditures in recent years. New focus on determinants of health.
Towards Stronger EU Governance of Health Threats after the COVID-19 Pandemic [57]	Renda, Andrea Castro, Rosa	European Journal of Risk Regulation (June 2020)	Early warning and prevention strategies need to be better integrated with responses (reference to One Health). Fragmented governance: need for coordinating measures to contain or mitigate the spread of communicable diseases (even if severe measures need to be adapted at national, regional, or local level). Data sharing need to be consistent. Importance of funding (link to cost discipline).
Overcoming fragmentation of health research in Europe: lessons from COVID-19 [58]	Sipido, Karin R. Antoñanzas, Fernando; Celis, Julio; et al.	The Lancet (June 2020)	Importance of funding. Role of research. Europe should be a reference for global health.
The European Union, economies and public health: not one without the other [59]	Vervoort, D. van Daalen, K. R.	Public Health (May 2021)	Public health challenges to come. Recognition of whole public health as a cross-border threat. Increase public health knowledge and HiAP by health education. Opportunities to keep national public health ownership, supported by more EU level approaches, building on existing legislation and practice.
HERA: a new era for health emergency preparedness in Europe? [60]	Villa, Simone van Leeuwen, Remko Gray, Claire Craig, et al.	The Lancet (2021)	Creation of the European Health Emergency Preparedness and Response Authority (HERA). Agency should embrace the global dimension of health threats and the three components of preparedness (risk assessment, risk management, and risk communication).

3.2. Driving forces, key patterns, and trends

The creation of a EHU will first be influenced by several predetermined forces. Firstly, the EU already has a role in *surveillance and monitoring* through European agencies as the ECDC. However, this agency's capacities are undermined by a lack of funding and of personnel [43,57]. Its reinforcement is envisioned by the EC and would require more funding and possibilities of action to coordinate the MS actions [29,50]. The strengthening of national surveillance would also be important [47,50]. At the

beginning of the coronavirus pandemic, the ECDC failed to detect the seriousness of the threat and the lack of preparation of MS. This failure was linked to a lack of data sharing and reporting from the MS and align with the importance of *crisis preparedness* [24,43]. Supporting MS in crisis management is already a role of the EU [47]. However, the recommendations made by the Union are non-binding which resulted in a lack of coordination in the MS public health actions and medical countermeasures [43]. Several actions relate to crisis preparedness as a revision and more supervision of national preparedness plans, a development of stronger cooperation and a focus on coordination with for example the reinforcement of the Health Security Committee (HSC) [43,48,55]. The envisioned European Health Emergency Preparedness and Response Authority (HERA) would work on improving crisis preparedness and coordination with the other agencies [60]. To ensure the efficiency of the work of the European agencies and of a EHU, the *funding* is a major issue. The new EU4Health Program is identified as a "fundamental shift in EU's approach to health systems" and could for example be an opportunity to invest more in the ECDC [24]. This program is the largest health program to date and is set to be independent [45]. Regarding funding, the Joint Procurement Agreement (JPA) could also be expanded and be a step forward in the development of a EHU [54]. JPA is a voluntary procedure and focuses more on an intergovernmental side of a EHU development. Lastly, State Aid laws could potentially be used for a EHU, either through MS or with an EU contribution [44].

Some unpredictable forces can also be identified, although it is not an exhaustive list. The first element is the need of *political will* from the EC and from the MS to increase the EU health action. Recently, France and Germany called to change the dimension of healthcare to a new level and made proposals built upon calls from other countries and some European political' parties [45]. The legal basis in the EU is described as already important for developing the Union actions [11]. However, a full political will is currently lacking which makes a treaty change difficult to envision [46]. Political choices and the outcomes of political debates on the topic will be important influences on the development of a EHU and its direction [18]. Linked to policies and politics, the *vision of public health expenditures* by national politicians and governments is also important to envision the development of a EHU. Since the financial crisis of 2008, public health is mainly seen as a cost rather than an investment [57]. A decline was observed in health expenditures as well as in preventive care [56]. This lead to important cuts in the healthcare sector, reduction of investment in research and preparedness strategies [44,57]. The readiness of public actors to invest in public health will affect the development of a EHU and preparedness to future threats. This vision could be influenced by the European citizens themselves. The *population awareness and interest* in the topic may influence its direction. The first phases of COVID-

19 displayed a "widespread public criticism of the Union for apparently failing to support its own Member States where, for instance, China, Russia and Cuba have done so" [11]. However, it starts to be more known that the EU has no primary competence in health. Health is also a growing concern expressed by European citizens [56,57]. The Conference on the Future of Europe is an attempt to reach the citizens and to enable them to discuss the evolution of EU's role in health in the future [49]. The EHU could be influenced by its bottom level – the citizens – but also by international action and *global health*. The implementation of the International Health Regulations (IHR) were for example a problem during COVID-19 [56,57]. The EU has a responsibility towards global health and international cooperation [52,57]. A EHU could strengthen the role of the EU on the global health stage and the interconnectedness of health with other policies could be used to set international standards [53].

3.3. Scenario plots

From the previously identified drivers, five scenarios have been developed. They are mainly based on the level of involvement of the MS. If the commitments of the EP and of the EC are important, the MS willingness of action will be decisive to go on one way or another. The first and the fifth scenarios are at the edge of the spectrum of possibilities as they imply a major political and legal change. The second, third, and fourth scenarios are based on different directions that could be taken by the MS and the European institutions between a supranational power and a more intergovernmental frame. The different scenarios are presented in Table 5 and 6.

Table 5. Scenario planning for the development of a European Health Union

		Making a full move towards supranational action	**Improving efficiency in the actual framework**	**More coordination but no real change**	**In a full intergovernmentalism direction**	**Fragmentation of the European Union**
Predetermined forces	**Surveillance and monitoring**	The ECDC has the power to coordinate the action of all MS.	The MS give regular and up-to-date reports to the ECDC and coordinate their actions following the agency recommendations. Binding possibilities.	Merely incentives to encourage MS to deliver data. ECDC support.	The MS coordinate on their own or through intergovernmental mechanisms.	Coordination is at its lowest, and surveillance and monitoring are managed only at the national level.
	Crisis preparedness	A new agency (e.g., HERA) is at the center and coordinate MS and EU actions.	Having binding coordination plans but leaving the decision-making to the MS. Possible extension of the HSC and creation of HERA.	Staying on incentives.	Crisis preparedness at the national level. No EU coordination plans. Possibility of coordination between neighboring countries.	Crisis preparedness at the national level. Strictly bilateral agreements.
	Funding	Funding is thought to support fully the supranational level.	Funding is made sufficient to support the action of the European agencies and European research to its best.	Funding is insufficient to support the planned European actions. The level of funding is non-consensual between the European institutions and/or the MS.	Funding of the EU level is kept at a minimal level and stays at MS level.	Funding is invested back at national level.

Table 6. Scenario planning for the development of a European Health Union

		Making a full move forward	Improving efficiency in the actual framework	More coordination but no real change	In a full intergovernmentalism direction	Fragmentation of the European Union
Unpredictable forces	Political will	The MS all agree to develop EU action in public health; elect a President of the EC ready to continue in the same direction and change the EU treaties to recognize the importance of health. The EC continue its engagement towards health.	The MS decide with the EC to develop the EU action in public health inside the current treaties provision and agree to follow the EC's lead as long as the national competence is respected.	Divergences between MS and between the European institutions. Change of the importance of public health depending on the political agenda.	The MS decide to keep the full public health power and action at the national level.	Euroscepticism is at its fullest and the European level is removed from the equation.
	Vision of public health expenditures	Public health is envisioned as an investment for protecting all EU citizens.	Vision of public health evolves towards investment.	Public health is still envisioned mainly as a cost at the European and national levels.	No willingness to invest at the European level.	No willingness to invest at the European level.
	Population interest and awareness	European citizens ask for more competence at the EU level and expect a European coordinated action. They are aware of the possibilities of European public health.	European citizens ask for more competence at the EU level and expect a European coordinated action. They are aware of the possibilities of European public health.	Differences between awareness and knowledge of European citizens on EU health competences.	Lack of knowledge of the EU competence and/or disinterest for the EU level of action.	Lack of knowledge of the EU competence and/or disinterest for the EU level of action and/or important Euroscepticism.
	Global health	The EU can speak and act as one voice because of the development of a central competence.	Possible use of other legislations to act on global health and set standards. Intend for more common statements between MS.	No real position of the EU on global health. Difficulty to coordinate with international agencies.	No European position through the EC or institutions. Possible coordination between some countries or through the WHO.	No European position.

4. Discussion

The EU is a large mechanism that moves forward slowly. However, its mandate in public health continues to grow since the 2000s [43]. If COVID-19 can be presented as an unpredictable factor, the threat of an epidemic was warned by experts [57]. The pandemic highlighted the limits of the EU system in public health and crisis management and might become a "game-changer on the acceptation of health in European policy" [18,55]. As the pandemic is the trigger, it seems logical that the first part of the discussion on the EHU is the response to the COVID-19 crisis and, more generally, to cross-border health threats. The Communication of the EC and the three proposals published on 11 November 2020 are direct responses to the current threats [28, 36–38]. Although crisis management and cross-border threats are appearing as the first part of the definition of a EHU, the use of the narrative is important. Using "European Health Union" as a term for an expansion of the European health mandate suggests a more integrated approach in health with a stronger supranational power. The Manifesto for a European Health Union comes from the discussions on the strengthening of the EU power, building on the CFR and the EU Pillar of Social Rights [35]. Making the EU going forward towards integrating EU health policy in the treaties would for example mean the instauration of minimum standards for quality of care and promotion of well-being for European citizens [52]. This raises the question of how much more the EHU should entail [48].

The first scenario goes further than what was presented by the EC and is linked to the will behind the Manifesto for a European Health Union, encompassing a more integrated approach to health and going much further than cross-border threats and crisis management. To realize this EHU, a full-scale treaty change is required, which seems unlikely [45]. This would require a full consensus as it is an unanimity vote and support from all European citizens in a climate of Euroscepticism. The realization of the first scenario at little or medium range in time seems highly unlikely. However, the current legal base already provides some possibilities to develop a more health-focused EU and more coordination [11,45,49]. This is the core of the second scenario which shows that with enough political support, the possibilities are realistic. Vervoort and van Daalen introduced the idea of seeing public health itself as a cross-border threat rather than a component of health systems [59]. This perspective would change the focus without changing the legal basis, which is sufficiently dynamic to create a EHU [61]. The third scenario relates to what happened in the past: agencies were created but lessons were not sufficiently drawn from previous crises. A new crisis could be a game-changer for this scenario as it could change the political focus towards another domain and put public health back in its box until the next pandemic or public health challenge. The fourth scenario does not mean automatically that

public health is forgotten but more that national governments decide to use intergovernmental mechanisms or inter-national coordination tools to act on public health matters. The development of the HSC or reinforcement of neighboring agreements could be examples of application for this scenario. However, the coordination in an intergovernmental framework remains limited by definition and does not seem up to the new challenges the EU faces to provide joint and timely responses to large scale-up pandemics [43]. Lastly, the fifth scenario entails the Brexit example where national governments decide to leave or shut down the European level. Although this possibility is to keep in mind for the debate, the realization of this scenario seems unlikely while the coordination and cooperation of the MS grew during the COVID-19 pandemic.

Some actions are presented as uncontroversial decisions in the literature as the reinforcement of the ECDC or the Health Security Committee (HSC) [45]. The use and development of current tools for cooperation and communication are also stated as a solution for the Open Method of Coordination (MOC), the European Semester, or the EU Civil Protection Mechanism [44]. One problem raised is the single use of incentives which led to failures in MS report duties on surveillance [11]. The insertion of binding mechanisms for surveillance and reporting would be a possibility [50]. However, going with these actions does not mean automatically going with a supranational entity as this could be done through the HSC, respecting the intergovernmental character of the health competence [43]. Moreover, centralizing the whole health competence would not take into account the variability of the regions [47].

Major health policy integration shifts in the EU happened after crises [23]. For example in 2003, the response to the SARS was uncoordinated and inefficient and was followed by the creation of the ECDC in 2005 [45]. The EC's response to COVID-19 by reinforcing the powers of the current agencies and by creating a new one, HERA, makes sense in following the same pattern of creating a new agency for a new crisis [60]. The mechanism of "failing forward" and building policies around a crisis is not new at the EU level [62]. However, the creation of agencies did not resolve all problems and lessons of previous crises were not learned enough as COVID-19 showed a lack of preparedness [57]. The EU and its MS need to learn from their mistakes but to implement change there is a need for political will. The EU4Health Program (2021-2027) is an illustration of the divergences of will and of the uncertainty of the EHU direction. While presented as a milestone with the highest budget to date for a health program the difference between the proposition of the EC (€9.4 billion) and the response from the Council (€1.7 billion) is to note in the core of the COVID-19 pandemic [45]. Moreover, the definition of a EHU is limited by the absence of definitions for "health" or "public health" by and for the EU. The health definition of the WHO for example has its limits but has the advantage to exist. The non-existence of a

common definition at the EU level brings more complexity but also opportunities to debate on what European citizens, stakeholders and politicians want. The series of podcasts "European Health Union Now!" by the European Health Forum Gastein encompass this current will to open the level for all at the European stage, as well as the Conference on the Future of Europe.

Nevertheless, there are some limitations to this work. First, the scenario-planning method itself implies a certain degree of confusion bias as it is a subjective creation, reinforced by the fact that there is only one author to this paper. The risk of this bias was however limited due to the literature review. The review includes a relatively high number of opinion papers that carry the subjectivity of the author(s). To increase the reliability of this scenario-planning, stakeholder consultations could be carried upon. This leads to the recommendation for further research. This scenario-planning is thought as an introduction to the topic. The next step of the research would be to conduct interviews with stakeholders and experts. A RAND/UCLA Appropriateness Method could be performed [63]. Otherwise, a Delphi round, as recently done on the "scientific, technological and socio-economic conditions of the end of the COVID-19 crisis" by the European Commission Directorate-General for Research and Innovation [64], could be applied to give more depth to the scenarios.

5. Conclusion

The EHU as envisioned by the EC has a strong focus on cross-border threats. This makes sense as it is a direct reaction towards the COVID-19 pandemic. Previous advances in EU health competence have been developed after crises. Although not all lessons were learned from previous crises, the mechanisms created at the time entered into action during the COVID-19 pandemic and showed their efficacity. The scenarios show that following the drivers, different possibilities are possible to achieve a EHU. In the coming years, a treaty change does not seem realistic but the development of a EHU is possible inside the current treaties, depending on political choices and climate. Debates on the topic and exchange on the willingness of stakeholders, EU institutions, MS and European citizens for the future should be encouraged to discuss common ground in the possible paths.

Acknowledgements I would like to thank all the staff and colleague from the Msc Governance and Leadership in European Public Health as well as my parents for their support.

Funding This research received no external funding.

Conflict of Interest: The author declares no conflict of interest.

References

1. Davesne, A.; Guigner, S. La Communauté européenne de la santé (1952-1954). *Polit. Eur.* **2013**, *41*, 40–63.
2. WHO WHO Director-General's opening remarks at the media briefing on COVID-19 - 11 March 2020 Available online: https://www.who.int/director-general/speeches/detail/who-director-general-s-opening-remarks-at-the-media-briefing-on-covid-19---11-march-2020 (accessed on May 30, 2021).
3. WHO WHO Director-General's opening remarks at the media briefing on COVID-19 - 13 March 2020 Available online: https://www.who.int/director-general/speeches/detail/who-director-general-s-opening-remarks-at-the-mission-briefing-on-covid-19---13-march-2020 (accessed on May 30, 2021).
4. Anderson, M.; McKee, M.; Mossialos, E. Covid-19 exposes weaknesses in European response to outbreaks. *BMJ* **2020**, *368*, doi:10.1136/bmj.m1075.
5. European Union Consolidated Version of the Treaty on European Union. *Off. J. Eur. Union* 2016.
6. European Union Consolidated Version of the Treaty on the Functioning of the European Union. *Off. J. Eur. Union* 2012.
7. European Parliament The principle of subsidiarity | Fact Sheets on the European Union Available online: https://www.europarl.europa.eu/factsheets/en/sheet/7/the-principle-of-subsidiarity (accessed on May 30, 2021).
8. Greer, S.L.; Fahy, N.; Jarman, H.; Elliott, H.A.; Wismar -European, M.; Rozenblum, S.; Palm, W.; Wismar, M. Everything you always wanted to know about the European Union health policies but were afraid to ask. **2019**, 202.
9. Bartlett, O.; Naumann, A. Reinterpreting the health in all policies obligation in Article 168 TFEU: The first step towards making enforcement a realistic prospect. *Heal. Econ. Policy Law* **2021**, *16*, 8–22, doi:10.1017/S1744133120000043.
10. European Union Charter of Fundamental Rights of the European Union. *Off. J. Eur. Union* 2012.
11. Purnhagen, K.P.; de Ruijter, A.; Flear, M.L.; Hervey, T.K.; Herwig, A. More competences than you knew? The web of health competence for European Union action in response to the CoviD-19 outbreak. *Eur. J. Risk Regul.* **2020**, *11*, 297–306, doi:10.1017/err.2020.35.
12. Merkel, B. The new EU health strategy: A step forward or another example of "bureaucracy total control"? *Clin. Med. J. R. Coll. Physicians London* 2008, *8*, 280–282.

13. Birt, C.A.; Gunning-Schepers, L.; Hayes, A.; Joyce, L. How should public health policy be developed? A case study in european public health. *J. Public Heal. (United Kingdom)* **1997**, *19*, 262–267, doi:10.1093/oxfordjournals.pubmed.a024628.
14. Brand, H. A new agenda for health in Europe. *Eur. J. Public Health* **2013**, *23*, 904–905, doi:10.1093/eurpub/ckt162.
15. Vollaard, H.; Martinsen, D.S. The rise of a European healthcare union. *Comp. Eur. Polit.* **2017**, *15*, 337–351, doi:10.1057/cep.2016.3.
16. Duncan, B. Health policy in the European Union: How it's made and how to influence it. *BMJ* **2002**, *324*, 1027–1030, doi:10.1136/bmj.324.7344.1027.
17. Rosenkötter, N.; Clemens, T.; Sørensen, K.; Brand, H. Twentieth anniversary of the European Union health mandate: Taking stock of perceived achievements, failures and missed opportunities - A qualitative study. *BMC Public Health* **2013**, *13*, doi:10.1186/1471-2458-13-1074.
18. Andriukaitis, V. The European Health Union is an initiative with potential to shape European politics for decades to come. *Eurohealth (Lond).* **2020**, *26*, 29–30.
19. Townend, D.; van de Pas, R.; Bongers, L.; Haque, S.; Wouters, B.; Pilot, E.; Stahl, N.; Schröder-Bäck, P.; Shaw, D.; Krafft, T. What is the role of the european union in the covid-19 pandemic? *Med. Law* **2020**, *39*, 249–268.
20. European Parliament Resolution of 10 July 2020 on the EU's public health strategy post-COVID-19 (2020/2691(RSP)) Available online: https://www.europarl.europa.eu/doceo/document/TA-9-2020-0205_EN.html (accessed on Jun 22, 2021).
21. European Parliament *Uncertainty/EU/Hope: Public opinion in times of COVID-19*; Brussels, 2020;
22. European Commission EU4Health 2021-2027 – a vision for a healthier European Union | Public Health Available online: https://ec.europa.eu/health/funding/eu4health_en (accessed on Dec 17, 2020).
23. Bazzan, G. Exploring Integration Trajectories for a European Health Union. *Eur. J. Risk Regul.* **2020**, *11*, 736–746, doi:10.1017/err.2020.98.
24. Anderson, M.; Mossialos, E. Time to strengthen capacity in infectious disease control at the European level. *Int. J. Infect. Dis.* **2020**, *99*, 263–265, doi:10.1016/j.ijid.2020.08.005.
25. European Commission Standard Eurobarometer 94 - Winter 2020-2021 - Public Opinion in the European Union Available online: https://europa.eu/eurobarometer/surveys/detail/2355 (accessed on May 12, 2021).
26. von der Leyen, U. State of the Union Address by President von der Leyen Available online:

https://ec.europa.eu/commission/presscorner/detail/en/SPEECH_20_1655 (accessed on Dec 17, 2020).

27. European Commission Communication: Building a European Health Union: Reinforcing the EU's resilience for cross-border health threats 2020, 1–43.
28. European Commission *Proposal for a REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on serious cross-border threats to health and repealing Decision No 1082/2013/EU*; 2020;
29. European Commission *Proposal for a REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL amending Regulation (EC) No 851/2004 establishing a European Centre for disease prevention and control*; 2020;
30. European Commission *Proposal for a REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on a reinforced role for the European Medicines Agency in crisis preparedness and management for medicinal products and medical devices*; 2020;
31. Scholz, N. *Building up resilience to cross-border health threats. : Moving towards a European health union, Briefing, EPRS*; 2021;
32. European Parliament MEPs welcome proposals for a European Health Union Available online: https://www.europarl.europa.eu/news/en/press-room/20201116IPR91708/meps-welcome-proposals-for-a-european-health-union (accessed on Jun 13, 2021).
33. European Commission White Paper on the Future of Europe. Reflections and scenarios for the EU27 by 2025. **2017**, 32.
34. Neiner, J.A.; Howze, E.H.; Greaney, M.L. Using scenario planning in public health: anticipating alternative futures. *Health Promot. Pract.* **2004**, *5*, 69–79, doi:10.1177/1524839903257692.
35. Manifesto for a European Health Union Available online: https://www.ehfg.org/documents/EHFG2020/partners/Manifesto-European-Health-Union/#page=1 (accessed on Apr 29, 2021).
36. Page, M.J.; McKenzie, J.E.; Bossuyt, P.M.; Boutron, I.; Hoffmann, T.C.; Mulrow, C.D.; Shamseer, L.; Tetzlaff, J.M.; Akl, E.A.; Brennan, S.E.; et al. The PRISMA 2020 statement: An updated guideline for reporting systematic reviews. *BMJ* **2021**, *372*, doi:10.1136/bmj.n71.
37. European Parliament Think Tank Available online: https://www.europarl.europa.eu/thinktank/en/home.html (accessed on Jun 30, 2021).
38. European Commission European Health Union Available online: https://ec.europa.eu/info/strategy/priorities-2019-2024/promoting-our-european-way-

life/european-health-union_en (accessed on Apr 22, 2021).

39. European Health Union Available online: https://europeanhealthunion.eu/ (accessed on Jun 30, 2021).
40. McArthur, A.; Klugárová, J.; Yan, H.; Florescu, S. Innovations in the systematic review of text and opinion. *Int. J. Evid. Based. Healthc.* **2015**, *13*, 188–195, doi:10.1097/XEB.0000000000000060.
41. Baethge, C.; Goldbeck-Wood, S.; Mertens, S. SANRA—a scale for the quality assessment of narrative review articles. *Res. Integr. Peer Rev.* **2019**, *4*, 1–7, doi:10.1186/s41073-019-0064-8.
42. Kosow, H.; Gaßner, R. Methods of Future and Scenario Analysis. *Dtsch. Inst. für Entwicklungspolitik* **2008**, 133.
43. Beaussier, A.L.; Cabane, L. Strengthening the EU's response capacity to health emergencies: Insights from eu crisis management mechanisms. *Eur. J. Risk Regul.* 2020, *11*, 808–820.
44. Biondi, A.; Stefan, O. EU Health Union and State Aid Policy: With Great(er) Power Comes Great Responsibility. *Eur. J. Risk Regul.* 2020, *11*, 894–902.
45. Brooks, E.; de Ruijter, A.; Greer, S.L. Covid-19 and European health policy: from crisis to collective action. In *Social policy in thEuropean Union: state of play 2020. Facing the pandemic*; Vanhercke, B., Spasova, S., Fronteddu, B., Eds.; European Trade Union Institute (ETUI) and European Social Observatory (OSE): Brussels, 2021; pp. 33–52 ISBN 978-2-87452-588-9.
46. Brooks, E.; Geyer, R. The development of EU health policy and the Covid-19 pandemic: trends and implications. *J. Eur. Integr.* **2020**, *42*, 1057–1076, doi:10.1080/07036337.2020.1853718.
47. Clemens, T.; Brand, H. Will COVID-19 lead to a major change of the EU Public Health mandate? A renewed approach to EU's role is needed. *Eur. J. Public Health* **2020**, *30*, 624–625, doi:10.1093/eurpub/ckaa103.
48. De Ruijter, A. What do we actually mean by a "European Health Union"? *Eurohealth (Lond).* **2020**, *26*, 30–31.
49. EPRS *Towards a more resilient Europe post-coronavirus. Options to enhance the Eu's resilience to structural risks.*; European Parliament: European Parliamentary Research Service (EPRS), European Union, 2021;
50. Greer, S.; De Ruijter, A. EU health law and policy in and after the COVID-19 crisis. *Eur. J. Public Health* **2020**, *30*, 623–624, doi:10.1093/eurpub/ckaa088.
51. Guy, M. Towards a European Health Union: What Role for Member States? *Eur. J. Risk Regul.* **2020**, *11*, 757–765, doi:10.1017/err.2020.77.
52. Kickbusch, I. If you want a stronger EU: build a European Health Union. *Eurohealth (Lond).* **2020**,

26, 32.

53. Kickbusch, I.; de Ruijter, A. How a European health union can strengthen global health. *Lancet Reg. Heal. - Eur.* **2021**, *1*, 100025, doi:10.1016/j.lanepe.2021.100025.
54. McEvoy, E.; Ferri, D. The role of the joint procurement agreement during the COVID-19 Pandemic: Assessing Its usefulness and discussing its potential to support a european health union. *Eur. J. Risk Regul.* **2020**, *11*, 851–863, doi:10.1017/err.2020.91.
55. Medialdea Carrera, R. The importance of cross-border pandemic preparedness. *Eurohealth (Lond).* **2020**, *26*, 34–34.
56. Quaglio, G. EU public health policy. *Eur. Parliam. Res. Serv.* **2020**, *PE 652.027*.
57. Renda, A.; Castro, R. Towards stronger EU governance of health threats after the Covid-19 pandemic. *Eur. J. Risk Regul.* **2020**, *11*, 273–282, doi:10.1017/err.2020.34.
58. Sipido, K.R.; Antoñanzas, F.; Celis, J.; Degos, L.; Frackowiak, R.; Fuster, V.; Ganten, D.; Gay, S.; Hofstraat, H.; Holgate, S.T.; et al. Overcoming fragmentation of health research in Europe: lessons from COVID-19. *Lancet* **2020**, *395*, 1970–1971, doi:10.1016/S0140-6736(20)31411-2.
59. Vervoort, D.; van Daalen, K.R. The European Union, economies and public health: not one without the other. *Public Health* **2021**, *194*, 1–3, doi:10.1016/j.puhe.2021.02.020.
60. Villa, S.; van Leeuwen, R.; Gray, C.C.; van der Sande, M.; Konradsen, F.; Fröschl, G.; Nord, D.G.; da Costa, C.P.; Ramirez-Rubio, O.; Abubakar, I.; et al. HERA: a new era for health emergency preparedness in Europe? *Lancet* **2021**, *0*, doi:10.1016/s0140-6736(21)01107-7.
61. Hervey, T.; de Ruijter, A. The Dynamic Potential of European Union Health Law. *SSRN Electron. J.* **2020**, doi:10.2139/ssrn.3675358.
62. Jones, E.; Kelemen, R.D.; Meunier, S. Failing Forward? The Euro Crisis and the Incomplete Nature of European Integration. *Comp. Polit. Stud.* **2016**, *49*, 1010–1034, doi:10.1177/0010414015617966.
63. Fitch, K.; Bernstein, S.J.; Burnand, B.; Aguilar, M.D.; LaCalle, J.R.; Lázaro, P.; van het Loo, M.; McDonnell, J.; Vader, J.P.; Kahan, J.P. *RAND/UCLA Appropriateness Method User's Manual*; RAND Corporation, 2001; ISBN 0-8330-2918-5.
64. Directorate-General for Research and Innovation;; Varnai, P.S. *The scientific, technological and societal conditions for the end of the COVID-19 crisis - Publications Office of the EU*; Brussels, 2021;