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Perspective

Time to strengthen capacity in infectious disease control at the European level

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ABSTRACT

The COVID-19 pandemic has made the European Commission revaluate its role in member states health systems. In response, the European Union is planning to significantly increase investment to tackle cross-border health threats. The European Centre for Communicable Disease Prevention and Control is well positioned to capitalise upon this increased investment by designing and implementing a renewed European strategy for infection disease control. To secure meaningful and sustainable improvements, the European Centre for Communicable Disease Prevention and Control needs to be strengthened with more resources, an expanded geographical scope and legislative change.

Introduction

The European Union (EU) has recently announced it will allocate over 9 billion EUR of funding to the EU4Health programme between 2021 and 2027 to focus on three primary aims: tackling cross-border health threats, making medicines available and affordable, and strengthening health systems (European Commission, 2020a). This is a twenty-fold increase in health spending from the 450 million EUR the EU spent on health priorities in the previous seven years (European Commission, 2020b), and represents a fundamental shift in the approach of the EU to member states' health systems. Historically the EU has been wary to ensure it does not overstep its involvement in how member states operate their health systems as pre-existing treaties such as the Treaty on the Functioning of the European Union (TFEU) state the EU must respect member states' autonomy in operating their own health systems (Mossialos et al., 2010). This is one explanation for what has been considered as a slow and uncoordinated response to the pandemic by the EU (Dimitrakopoulos and Lalis, 2020; Anderson et al., 2020). The EU is keen not to repeat past mistakes. In contrast to historical precedent, the EU now argues it has a crucial role in strengthening health systems to improve the EU's preparedness for future health threats (European Commission, 2020a).

But how could the EU achieve its goal of improving health system preparedness? The EU4Health programme includes several priorities such as stockpiling medical supplies including personal protective equipment, creating a reserve of healthcare staff and experts that can be mobilised in a crisis, and increasing surveillance of health threats (European Commission, 2020a). Yet there remains lack of clarity. There is a need for an organisation to take responsibility for these actions. The European Centre for Disease Prevention and Control (ECDC), established in 2004, which already provides scientific advice on preparedness to all EU countries as well as Iceland and Norway would be the obvious choice (Gallina and Ricci, 2020). The ECDC has already built relationships with public health agencies and health ministries across Europe. It has also established initiatives such as the Early Warning and Response System (EWRS), an online portal that connects public health agencies across Europe to facilitate the sharing of surveillance data in as close to real time as is possible (ECDC, 2020). However, the ECDC is restrained in its ability to take on a larger role in health system strengthening due to several barriers.

Investment

First, the ECDC is understaffed and under resourced, with under 300 staff and an annual budget of only around 60 million EUR to cover a population of over 500 million people (ECDC, 2019). In contrast, the Centre for Disease Control (CDC) in the United States has an annual budget of over 2.5 billion USD for infectious diseases to cover a population of around 330 million people (Centre for Disease Control, 2020). However this disparity needs to be understood in the context of the ECDC having a more restricted

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role than the CDC, that involves working with national public health agencies that often have considerable resources at their disposable. For example the Robert Koch Institute in Germany has an annual budget of around 100 million EUR (International Labour Organization, 2017), and Santé Publique France has an annual budget of around 200 million EUR (Santé publique, 2020). As a result, the role of the ECDC has typically been restricted to offering scientific advice, coordinating surveillance efforts with national public health agencies and performing external quality assessments of laboratories. The EU4Health programme offers a valuable opportunity to increase investment in the ECDC. This could see the ECDC transition into a wider role where it could co-invest with countries in infrastructure needed to improve surveillance. Urgent priorities include improved access to diagnostics, better use of health information technology, and enhanced laboratory capacity. The role of the ECDC should remain primarily as a coordinator of infectious disease control activities in Europe, and the primary objective of co-investment initiatives should be to support countries who may need additional financial and technical support. However, there are areas of policy which could benefit from increased centralisation, for example the ECDC could expand its role in workforce planning by the coordination and subsidisation, in resource constrained countries, of educational programmes to deliver a sustainable supply of infection prevention and control nurses, specialist infectious disease physicians, and infectious disease epidemiologists. This is important to consider on a European level as there is significant mobility of the healthcare workforce between European countries.

Geographical Scope

Second, the ECDC is limited in its geographical scope as its mandate does not allow it to routinely conduct surveillance or offer advice to many countries considered part of Europe which are not part of the EU or the European Economic Area (EEA). Countries not within the remit of the ECDC include Switzerland, Ukraine, Belarus, and many countries in the Balkans such as Serbia, Albania, and Bosnia and Herzegovina. The UK may soon join this list with its impending exit from the EU, as there is currently no clarity on its future relationship with the ECDC (Anderson et al., 2020). As many of these countries have multiple borders with European countries under the remit of the ECDC, this is a major barrier to establishing a comprehensive and effective European response to infectious disease outbreaks. The geographic scope of the ECDC also creates barriers to working effectively with the World Health Organisation (WHO) at the European level. The WHO Regional Office for Europe, which also conducts surveillance of infectious diseases, encompasses a total of 53 countries (World Health Organisation Regional Office for Europe, 2020), whereas the remit of the ECDC current extends to only 29 countries (European Centre for Disease Prevention and Control, 2020). If the geographical scope of these organisations were to align, this would create further opportunities to collaborate and avoid duplication in efforts. A bolder proposition to consider would be for the WHO and the EU to pool their resources to make the ECDC the sole organisation responsible for infectious disease surveillance at the European level. There is a precedent for the EU involving other countries in their initiatives. The EU Civil Protection Mechanism, established in 2001, involves all EU member states but also Iceland, North Macedonia, Montenegro, Norway, Serbia and Turkey (European Commission, 2020c). The mechanism is supported by the Emergency Response Coordination Centre (ERCC) which operates 24/7 and coordinates assistance to countries in desperate need (European Commission, 2020d). There is potential for the ECDC to collaborate with the ERCC to response to emerging pandemics in the future.

Legislative Barriers

Third, if the ECDC is to expand its role in health system preparedness and surveillance then there are legislative barriers which need to be overcome. First, legislation may be needed to facilitate data sharing. Current regulation such as the general data protection regulation (GDPR) can limit the sharing of patient information. If countries outside the EU are to participate in the activities of the ECDC they may need to strengthen their data protection legislation. If achieved the EU may consider granting certain countries with adequacy decisions, which can facilitate international data flows (European Commission, 2020e). Second, legislation may be need to improve compliance with data reporting. A recent independent evaluation of the ECDC also concluded that gaps and variation in member states reporting of data continued to hinder European surveillance efforts (PWC, 2019). The voluntary nature of current surveillance initiatives leaves the ECDC with few levers to penalise member states which repeatedly fail to meet reporting standards (Renda and Castro, 2020). Third, current EU treaties may need to be amended. The EU decision on serious cross border threats to health attempted to promote solidarity and provide a legislative framework for collective EU action during major health crises. However, this decision did not stop countries banning exports and stockpiling medications, PPE, and ventilators during the COVID-19 pandemic (Anderson et al., 2020). Under their current mandate the EU has also hesitated to issue recommendations on certain issues relevant to health systems during the COVID-19 pandemic. For example, the EU only published guidance on the use of diagnostic tests in mid-April (European Commission, 2020f). A potential amendment to the TFEU could include provisions that temporarily enhance the role of the EU during pandemic circumstances. However, this could prove difficult to enforce as many countries may still choose to prioritise their own interests.

Conclusion

In summary, the EU4Health programme represents a fundamental shift in the approach of the EU to health systems. The COVID-19 pandemic has also led to increased commitment at the European level to strengthen infectious disease preparedness, surveillance, and response. Combined, this represents a once in a generation opportunity to develop a comprehensive strategy to infectious diseases across Europe. The ECDC is well positioned to deliver this strategy but to do so it must be funded appropriately. Its scope would need to be extended to incorporate all countries across Europe and legislative barriers would need to be addressed to allow improved sharing of information and to provide the mandate to invest in health systems. European health policy should be forward-looking, rather than reactive to health emergencies and pandemics. The EU should not stand still.

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