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## Moving forward after the COVID-19 pandemic: Lessons learned in primary care from the multi-country PRICOV-19 study

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### KEY MESSAGES

- Governments should recognise the critical role of family medicine in addressing inequity and prioritise carers' wellbeing to maintain quality care during crises.
- Associations for practitioners should lead in crisis management developments and advocate for primary care.
- PC facilities should participate in health system design to answer challenges posed by crises.

### ABSTRACT

**Background:** The COVID-19 pandemic has accentuated the indispensable role of primary care.

**Objectives:** Recognising this, the PRICOV-19 study investigated how 5,489 GP practices across 38 countries (Austria, Belgium, Bosnia and Herzegovina, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Israel, Italy, Kosovo\*, Latvia, Lithuania, Luxembourg, Malta, Republic of Moldova, Netherlands, North Macedonia, Norway, Poland, Portugal, Romania, Serbia, Slovenia, Spain, Sweden, Switzerland, Turkey, Ukraine, and United Kingdom) adapted their care delivery during the pandemic.

**Methods:** Based on a series of discussions on the results of the PRICOV-19 study group, eight recommendations to enhance primary care's preparedness for future crises were formulated and endorsed by EQUIP and WONCA Europe.

**Results:** The recommendations underscore the importance of recognising and sustaining the substantial strides made in patient safety within GP practices during the pandemic in current daily practices; acknowledging and supporting the pivotal role of GP practices in addressing health inequalities during crises; adopting interprofessional care models to enhance practices' resilience and adaptability to change; supporting training practices; creating healthy working environments; investing in infrastructure that supports adequate and safe care; and increasing funding for research on patient safety and primary care quality to inform evidence-based health policies and fostering international knowledge exchange among healthcare professionals and policymakers.



**Conclusion:** Policymakers, primary care associations, and the broader healthcare system are urged to collaboratively take responsibility and increase support for GP practices to enhance their resilience, adaptability, and capacity to deliver safe and equitable healthcare during future crises.


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## Introduction

The COVID-19 pandemic presented a significant challenge to primary care, its organisation, its people working, and its interfaces with the wider healthcare system. The fight against COVID-19 has emphasised the critical role of primary care within the healthcare system: to serve as the first and for most patients the only, point of contact with healthcare professionals.

General practitioners (GPs) had extensive responsibilities in addition to their normal clinical and administrative responsibilities during the pandemic. These include providing care for COVID-19 patients in each country, most of whom were treated in the community. These patients included severely ill patients not hospitalised due to a lack of hospital beds, patients with post-COVID sequelae, ongoing care for non-COVID patients, contributing to public health services, e.g. in vaccination programs, and acting as a triage service for hospital services and as a point of trust for worried citizens.

During the COVID-19 pandemic, a consortium of 48 research institutions, collaborating with the European Association for Quality and Patient Safety in General Practice/Family Medicine (EQuiP) rolled out the PRICOV-19 study [1]. This study investigated the resilience and adaptability of GP practices in 38 countries, examining how they adjusted to provide safe, effective, timely, person-centred, efficient, and equitable care amidst the challenges posed by the pandemic, 5,489 GP practices filled out an online questionnaire. For more information on the PRICOV-19 study, see Supplementary Box 2. The study's scale and international design allow it to identify areas that need to be targeted for improvement and contribute to developing strategies to better prepare for future crises. Understanding patient safety and quality of care in primary care is critical for healthcare system leaders, service planners and health professionals in future pandemics and times of crisis. This publication highlights the lessons that can be learned from the PRICOV-19 study.

## Recommendations

**Box 1** presents the eight recommendations formulated by the authors based on a series of discussions of the results of the PRICOV-19 data by the members of the PRICOV-19 study group and all publications based on the PRICOV-19 data (for an overview, see Supplementary Box 3). The PRICOV-19 study group members validated these recommendations. EQuiP (European Association for Quality and Patient Safety in General Practice/Family Medicine) endorsed them at the EQuiP Council meeting on May 12<sup>th</sup>, 2023, in Dublin, Ireland. WONCA (World Organisation

of National Colleges, Academies and Academic Associations of General Practitioners/Family Physicians) Europe endorsed them at the WONCA Europe Council meeting on June 7<sup>th</sup>, 2023, in Brussels, Belgium.

### *Value the significant steps taken in patient safety in GP practices during the pandemic and sustainably anchor them in today's daily practice*

GPs faced significant challenges in ensuring safe care during COVID-19. The PRICOV-19 results show that GP practices were highly adaptive in their organisation to deliver safe care for COVID-19 and non-COVID patients. New measures were implemented rapidly, including new patient flow management, triage protocols, infection prevention measures, and communications, such as remote consultations [2,3]. Safety measures already in place before the pandemic, such as adequate time for reviewing guidelines, remained primarily in place. Nevertheless, most practices reported at least one incident compromising patient safety. Overall, 60.4% of practices reported delayed care for patients with urgent conditions, while 39.8% reported incidents in patients with non-COVID fever due to adherence to COVID-19 protocols [4].

**Box 1.** Eight recommendations for enhancing the preparedness of GP practices in future crises—Insights from the PRICOV-19 Study

1. Value the significant steps taken in patient safety in GP practices during the pandemic and sustainably anchor them in today's daily practice.
2. Acknowledge the pivotal role of GP practices in addressing health inequalities during crises and provide resources to support these activities.
3. Encourage GP practices to adopt interprofessional models of care to enhance their resilience and adaptability to the changing environment.
4. Support training practices as they are levers for quality in GP practices
5. Create healthcare working environments that embrace workforce wellbeing.
6. Invest in infrastructure to support the delivery of adequate and safe care.
7. Intensify funding for research on patient safety and quality of primary care to inform future health policies with evidence-based insights.
8. Stimulate the international exchange of knowledge and experience among healthcare professionals and policymakers.

### ***Acknowledge the pivotal role of GP practices in addressing health inequalities during crises and provide resources to support these activities***

The COVID-19 pandemic disproportionately affected vulnerable populations' access to health care. GP practices made significant efforts to prevent the underutilisation of their services by proactively reaching out to vulnerable patient groups such as patients with a chronic condition, psychological vulnerability, and patients in a known domestic violence or sensitive child-rearing situation. Having the tools and the lines of communication to identify vulnerable patients and possessing the necessary skills for population management are indispensable prerequisites for success. PRICOV-19 also showed that out-reaching was strongly associated with the availability of an administrative assistant, practice manager, or paramedical support staff, thereby stressing the importance of interprofessional practice teams [5, 6].

### ***Encourage GP practices to adopt interprofessional models of care to enhance their resilience and adaptability to the changing environment***

PRICOV-19 showed the greater adaptability of GP practices with teams consisting of (a) GP(s) and at least one other discipline in response to changing circumstances compared to teams with only (a) GP(s). The first were more likely to be able to modify their established working routines, such as patient triage and implementing enhanced infection prevention measures by shifting these tasks from GPs to other practice staff, such as practice nurses and receptionists. Non-GP team members were increasingly involved in giving information and recommendations to patients contacting the practice by phone, and they were more involved in triage [7]. Also, GPs also took on additional responsibilities and were, for example, more engaged in proactive outreach to patients. Being able to shift tasks also solved problems due to staff absence. Whilst GP practices in which task changes were implemented accepted these changes, they also recognised the need for further training [8].

### ***Support training practices as they are levers for quality in GP practices***

The PRICOV-19 study found that training practices had a positive association with various outcomes related to safety and quality of care during the pandemic, including a higher number of patient flow safety measures and more time allocated for reviewing guidelines, as well as a lower risk of adverse mental health events among staff. These findings underscore that training

young GPs not only contributes to the future workforce but also is related to staff well-being and improving the quality and safety of care in practices involved in training [9]. Training practices can be recognised as role models and motivators for non-training practices.

### ***Create healthcare working environments that embrace workforce wellbeing***

Emerging literature highlights the pandemic's huge toll on frontline healthcare workers, both in terms of health and safety. Prior to this crisis, the wellbeing of this group was already a concern. The PRICOV-19 study showed that during the pandemic, GPs with less experience, GPs working in smaller practices, and those serving more vulnerable populations were at higher risk of mental/psychological distress. Collaboration with other practices and adequate governmental support were significant protective factors against this distress. Improvement of organisational factors at both the practice and system levels is needed to enhance wellbeing and support the primary care workforce. It is essential to consider the unique context of each country, as significant differences in the wellbeing of GP practice staff were reported between countries [10].

### ***Invest in infrastructure to support the delivery of adequate and safe care***

More than half (58%) of the practices in the PRICOV-19 study reported infrastructural limits to deliver adequate and safe care during the pandemic. This includes the availability of pandemic infection control equipment in each consultation room, such as a hand-free tap and a hand-free garbage bin, hand sanitiser for patients at the entrance door, and a separate medical bag for infection-related home visits. Large practices, practices with a payment system other than fee-for-service and practices with a higher number of staff, including GP trainees, had a higher likelihood of experiencing limitations to the practice and expressed more need for infrastructural changes. Practices that experienced adequate governmental support during the COVID-19 pandemic were less likely to report infrastructural challenges [2,11].

### ***Intensify funding for research on patient safety and quality of primary care to inform future health policies with evidence-based insights***

Despite its essential role in providing first-line healthcare services during the COVID-19 pandemic, primary care still needs to receive adequate research funding.

Yet, understanding the variations in organisation of primary care and learning from the COVID-19 pandemic is crucial for primary care practices and for local and national and European-wide healthcare systems to provide safe and effective care during future crises. Driven by the need for knowledge, PRICOV-19 was therefore established voluntarily by participating research institutes, who devoted their own resources to the study. The strong involvement of 48 research institutes in this study, despite the lack of funding, highlights their recognition of the need to measure the organisation of care and contribute to future quality improvement. The inclusive nature of the collaboration also allowed for the participation of countries with limited research resources. The PRICOV-19 study filled a significant knowledge gap by collating evidence and outcomes about the adaptations made by practices in organising healthcare during the pandemic. This study highlights the need for well-informed policy and professional organisations in supporting such efforts, identifying areas for improvement, and implementing preventive strategies that could be extrapolated throughout Europe for the benefit of its citizens. The rich database generated by PRICOV-19 allowed over 100 researchers, including many GPs and young researchers, to participate in the study and gather data relevant to their local settings. This study has strengthened research capacity among European countries and, based on this experience, has established a strong foundation for conducting future high-quality multi-country studies that yield generalisable findings across European regions [12].

### ***Stimulate the international exchange of knowledge and experience among healthcare professionals and policymakers***

PRICOV-19 showed the impact of the pandemic on the day-to-day work of GP practices. Behind the overall picture of changes are significant variations between countries. This provides opportunities to learn from each other and to develop and evaluate new models of primary care delivery. A way to stimulate the exchange of ideas and experiences is by creating opportunities for international collaboration and knowledge sharing among healthcare professionals and researchers in different countries. This can include organising conferences, workshops and webinars to discuss the findings and implications of studies like PRICOV-19, as well as promoting the use of online platforms and networks for ongoing communication and collaboration that may lead to follow-on research projects. Additionally, funding can be directed towards

identifying best practices in primary care delivery across different countries and healthcare systems so that evidence informs implementation [12].

## **Call to different stakeholders**

### ***Governments and policymakers***

Government and policymakers' investment in infrastructure is necessary to support adequate and safe primary care. Key areas identified for action by PRICOV-19 are to help the pivotal role of general practice in addressing health inequalities, encourage interprofessional models of care, invest in training practices and prioritise workforce wellbeing. Primary care should be acknowledged and supported as an essential part of health systems in pandemic planning, with primary care experts involved in health emergency response operational plans, pandemic preparedness planning and health emergency response operational plans. Funding for research on patient safety and quality of primary care must be intensified to inform future health policies with evidence-based insights.

### ***Associations for GPs or other primary care practitioners***

Academic and representative organisations for medical and other healthcare workers in primary care have the potential to promote the creation of training programmes and resources that concentrate on crisis management and preparedness. These programmes can cover various skills, including clinical abilities, effective communication, and leadership skills, which can enhance preparedness for adopting a public health approach in practice. These skills can assist in identifying target patient groups, conduct outreach and manage interprofessional teams when responsibilities change. These associations should collaborate with other organisations to share best practices and resources. They need to stimulate research to identify gaps in knowledge, for example, on the effects of new technologies in primary care, and develop evidence-based approaches to crisis preparedness. They should advocate strongly for primary care and advise policymakers and stakeholders to ensure that primary care is adequately supported and resourced during crises.

### ***GP practices and other primary care facilities***

To enhance the preparedness of primary care for future crises, GP practices and other primary care facilities should also contribute. Interprofessional



collaboration can be strengthened by improving communication and coordination among healthcare providers and care facilities. They should invest in resources to ensure equitable access to care for vulnerable populations. In addition, GP practices should teach and train future GPs, other doctors, nurses and healthworkers. Furthermore, the wellbeing of healthcare staff should be prioritised as it plays a crucial role in maintaining the quality of care provided and in the ability of workers to adapt to changing work environments.

## Conclusion

Based on the results from the PRICOV-19 study, we formulated eight recommendations to foster primary care preparedness for future crises. To enhance general practices' resilience and adaptability in future crises, policy-makers, associations for GPs or other primary care practitioners, and the broader healthcare system must act. They have a shared responsibility to increase support for primary care in general, and for GP practices in particular, in delivering safe, equitable and adequate healthcare during pandemics and other future crises.

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- \* All references to Kosovo, whether the territory, institutions, or population, in the PRICOV-19 study, shall be understood in full compliance with United Nations Security Council Resolution 1244 and the ICJ Opinion on the Kosovo Declaration of Independence, without prejudice to the status of Kosovo.

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