



**PRICOV-19 STUDY**  
Quality and Safety in Primary Care in times of COVID-19



## Position paper

### Moving Forward After the COVID-19 Pandemic:

#### Lessons Learned in Primary Care

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

During the pandemic general practitioner (GP) practices had extensive responsibilities. These include providing care for COVID-19 patients among which severely ill patients not hospitalized due to a lack of hospital beds, treating 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 point of trust for worried citizens.

During the COVID-19 pandemic, a consortium of 48 research institutions, in collaboration with EQUIP rolled out the PRICOV-19 study. This study analysed how GP practices in 38 countries adapted their practices to provide safe, effective, person-centred, and equitable care during the pandemic. Over 5,500 GP practices filled out an online questionnaire. The study's scale and international design allow it to identify areas for improvement and contribute to the development of strategies to better prepare for future crises. Understanding patient safety is critical for healthcare professionals in future pandemics and times of crisis. This position statement highlights the lessons that can be learned from the PRICOV-19 study.

Eight recommendations to foster PC preparedness for future crises can be formulated:

**1. Value the significant steps taken in patient safety in PC during the pandemic and anchor them in a sustainable way in today's daily practice.**

GPs faced significant challenges in ensuring safe care during COVID-19. The results of PRICOV-19 show that GP practices were highly adaptive in their organisation to deliver safe care for their COVID-19 and non-COVID patients. New measures were implemented rapidly including new patient flow management, triage protocols, infection prevention measures, and remote consultations (1). Safety measures already in place before the pandemic, such as adequate time for reviewing guidelines, remained largely in place. Nevertheless, the majority of practices reported at least one incident compromising patient safety. 60,4% of practices reported delayed care for patients with urgent conditions while 39.8% reported incidents in patients with non-covid fever because of following COVID-19 protocols (2).

**2. Acknowledge the pivotal role of GP practices in addressing health inequalities during crises, and provide resources to do even better.**

The COVID-19 pandemic disproportionately affected vulnerable populations' access to health

care. GP practices made significant efforts to prevent the underutilization 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 situation of domestic violence or a child-rearing situation. Having the tools to identify vulnerable patients and possessing the necessary skills for population management are indispensable prerequisites for achieving success. PRICOV-19 also showed that outreaching was strongly associated with the availability of an administrative assistant, practice manager, or paramedical support staff, thereby stressing the importance of interprofessional practice teams (3, 4).

**3. Encourage GP practices to adopt interprofessional models of care to enhance their resilience and adaptability**

PRICOV-19 showed the greater adaptability of interprofessional GP teams in response to changing circumstances compared to mono-professional teams. Interprofessional teams were more able to modify their established working routines, such as patient triage and implementing enhanced infection prevention measures. In order to do so, interprofessional GP practices have shifted tasks from GPs to other practice staff. Non-GP staff members were more involved in giving information and recommendations to patients contacting the practice by phone, and they were more involved in triage. GPs took on additional responsibilities as well and were e.g. more involved in reaching out to patients. Shifting tasks also solved problems due to staff absence. Whilst GP practices in which task changes were implemented were happy with these changes, they also felt the need for further training (5).

**4. Support training practices as they are levers for quality in PC 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 is not only important in developing the future workforce but also in enhancing staff well-being and improving the quality and safety of care in practices involved in training (6).

**5. Create healthcare working environments that embrace workforce well-being**

Emerging literature highlights the pandemic's huge toll on frontline healthcare workers. Prior to this crisis, the well-being 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 distress. Collaboration with other practices and having adequate governmental support were identified as significant protective factors against distress. Improvement of organizational factors at both the practice level and system level is needed to enhance well-being and to support the PC workforce. It is essential to consider the unique context of each country, as significant differences in the well-being of PC practice staff were reported between countries (7).

**6. 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. Large practices, practices with another payment system 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 (1, 8).

**7. 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, PC has not received adequate research funding. Yet, understanding the organization of PC and learning from the COVID-19 pandemic is crucial for practices and healthcare systems to provide safe and effective care during future crises. Driven by the need for knowledge, PRICOV-19 was therefore established on a voluntary basis by participating research institutes, who devoted their own resources to the study. The strong involvement of 47 research institutes in this study, despite the lack of funding, highlights their eagerness to gain valuable insights into the topic. 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 offering valuable insights into the adaptations made by practices in organizing healthcare during the pandemic. It also highlights the role of policy and professional organizations in supporting such efforts, identifying areas for improvement, and implementing preventive strategies. The rich database generated by PRICOV-19 allowed over 100 researchers, including a considerable number of GPs and young researchers, to participate in the study and to obtain insights relevant to their local settings. Strengthening research capacity among European countries based on this experience could establish a strong foundation for conducting high-quality multi-country studies that yield generalizable findings across European regions in the future (9).

#### **8. 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 large differences between countries. This provides opportunities to learn from each other and to develop and evaluate new models of primary care delivery. Ways to stimulate the exchange of ideas and experiences is by creating opportunities for international collaboration and sharing of knowledge among healthcare professionals and researchers in different countries. This can include organizing 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. Additionally, funding can be directed towards identifying best practices in primary care delivery across different countries and healthcare systems (9).

### **Conclusion**

To enhance PC's readiness for future crises, policymakers, associations for GPs or other PC practitioners, and the wider healthcare system must act. They have a shared responsibility to increase support for PC in delivering safe, equitable and adequate healthcare during pandemics and other future crises.

**Governments and policymakers** must invest in infrastructure to support adequate and safe care, acknowledge the pivotal role of GP practices in addressing health inequalities, encourage interprofessional models of care, invest in training practices, and prioritize workforce well-being. Hereto PC should be acknowledged and supported as an essential part of health systems in pandemic planning, with PC 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 PC practitioners** have the potential to promote the creation of training programs and resources that concentrate on crisis management and preparedness. These programs can cover a variety of 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, conducting outreach, and managing interprofessional teams when responsibilities are changing. These associations should collaborate with other organizations to share best practices and resources. They need to stimulate research to identify gaps in knowledge e.g. on the effects of new technologies in PC, and develop evidence-based approaches to crisis preparedness. They should advocate strongly for primary care and take leadership in advising policymakers and stakeholders to ensure that PC is adequately supported and resourced during crises.

To enhance the preparedness of PC for future crises, also **GP practices and other PC facilities** should contribute. By improving communication and coordination among healthcare providers and care facilities interprofessional collaboration can be strengthened. They should also invest in resources to ensure equitable access to care for vulnerable populations. GP practices should engage in teaching and training future GPs. Furthermore, the well-being of healthcare staff should be prioritized as it plays a crucial role in maintaining the quality of care provided.

## References

1. Collins C, Van Poel E, Šantrić Miličević M, Tripkovic K, Adler L, Bjerve Eide T, et al. Practice and System Factors Impact on Infection Prevention and Control in General Practice during COVID-19 across 33 Countries: Results of the PRICOV Cross-Sectional Survey. *International Journal of Environmental Research and Public Health*. 2022;19(13):7830.
2. Van Poel E, Vanden Bussche P, Collins C, Lagaert S, Ares-Blanco S, Astier-Pena MP, et al. Patient safety in general practice during COVID-19: a descriptive analysis in 38 countries (PRICOV-19). *Manuscript under review*. 2023.
3. Van Poel E, Collins C, Groenewegen P, Spreeuwenberg P, Bojaj G, Gabrani J, et al. The Organization of Outreach Work for Vulnerable Patients in General Practice during COVID-19: Results from the Cross-Sectional PRICOV-19 Study in 38 Countries. *International Journal of Environmental Research and Public Health*. 2023;20(4):3165.
4. Fomenko E, Keygnaert I, Van Poel E, Collins C, Gómez Bravo R, Korhonen P, et al. Screening for and Disclosure of Domestic Violence during the COVID-19 Pandemic: Results of the PRICOV-19 Cross-Sectional Study in 33 Countries. *International journal of environmental research and public health*. 2023;20(4).
5. Groenewegen P, Van Poel E, Spreeuwenberg P, Batenburg R, Mallen C, Murauskiene L, et al. Has the COVID-19 Pandemic Led to Changes in the Tasks of the Primary Care Workforce? An International Survey among General Practices in 38 Countries (PRICOV-19). *International Journal of Environmental Research and Public Health*. 2022;19(22):15329.
6. Silva B, Ožvačić Adžić Z, Vanden Bussche P, Van Poel E, Seifert B, Heaster C, et al. Safety Culture and the Positive Association of Being a Primary Care Training Practice during COVID-19: The Results of the Multi-Country European PRICOV-19 Study. *International journal of environmental research and public health*. 2022;19(17).
7. Collins C, Clays E, Van Poel E, Cholewa J, Tripkovic K, Nessler K, et al. Distress and Wellbeing among General Practitioners in 33 Countries during COVID-19: Results from the Cross-Sectional PRICOV-19 Study to Inform Health System Interventions. *International journal of environmental research and public health*. 2022;19(9).
8. Windak A, Nessler K, Van Poel E, Collins C, Wójtowicz E, Murauskiene L, et al. Responding to COVID-19: the suitability of primary care infrastructure in 33 countries. *International journal of environmental research and public health*. 2022;19(24):17015.

9. Tatsioni A, Groenewegen P, Van Poel E, Vafeidou K, Assenova R, Hoffmann K, et al. Recruitment, data collection, participation rate, and representativeness of the international cross-sectional PRICOV-19 study across 38 countries. Manuscript under review. 2023.

PRICOV-19 was initiated in the summer of 2020. Under the coordination of 'Quality and Safety Ghent,' an interdisciplinary center of expertise for quality and safety in primary care and transdisciplinary care within the Department of Public Health and Primary Care at Ghent University (Belgium), an international consortium of 48 research institutes was formed. For a list of partnering institutions see <https://pricov19study.ugent.be/partnering-institutions.html>. The PRICOV-19 study collected data in the following 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, Moldavia, The Netherlands, North Macedonia, Norway, Poland, Portugal, Romania, Serbia, Slovenia, Spain, Sweden, Switzerland, Turkey, Ukraine, and The United Kingdom.

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This position paper has been written by the PRICOV-19 consortium and is based on the published and upcoming scientific PRICOV-19 scientific publications. The PRICOV-19 consortium has validated this position statement. The EQuIP council endorsed it following a discussion by the conference attendees at the 62<sup>nd</sup> EQuIP conference in Dublin at May 12<sup>th</sup> 2023.

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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 Nation's Security Council Resolution 1244 and without prejudice to the status of Kosovo.