



Chronicles of a Pandemic

POSITION STATEMENT 28–32

REPORT BY THE COVID-19 ADVISORY TEAM
TO THE PRESIDENT OF THE POLISH ACADEMY OF SCIENCES

Jerzy Duszyński, Aneta Afelt, Małgorzata Kossowska,
Anna Ochab-Marcinek, Radosław Owczuk, Wojciech Paczos, Anna Plater-Zyberk,
Krzysztof Pyrc, Magdalena Rosińska, Andrzej Rychard, Tomasz Smiatacz

CONTENTS

About the Authors 3

Introduction..... 5

Position Statement 28
 Omikron strikes – save yourself and your country 6

Position Statement 29
 Low vaccination rates in Poland are harming the economy 9

Position Statement 30
 Now We Are Together 13

Position Statement 31
 Is it significant that the end of the pandemic in Poland was announced
 on April Fool’s Day? 14

Position Statement 32
 What can be done to prevent a tragedy from occurring again
 in the fall of 2022? 16

ABOUT THE AUTHORS



Prof. Jerzy Duszyński, PhD, DSc

is a biochemist, Ordinary Member of the Polish Academy of Sciences (PAS), President of the Academy since 2015. Affiliated since 1971 with the Nencki Institute of Experimental Biology. His research work deals with bioenergy, the role of the mitochondria in cell function, mitochondrial and neurodegenerative diseases, and aging. In 2008–2009 he served as Poland's Deputy Minister of Science and Higher Education responsible for science.



Aneta Afelt, PhD

is a geographer, with a master's from the Faculty of Biology and Earth Science at the University of Łódź and a doctorate from the Faculty of Geography and Regional Studies at the University of Warsaw. She currently works for the Interdisciplinary Center for Mathematical and Computer Modelling at the University of Warsaw, and is now located at Espace-DEV, IRD (Institut de Recherche pour le Développement), Montpellier, France.



Prof. Małgorzata Kossowska, PhD, DSc

is a psychologist and head of the Department of Social Psychology and the Centre for Social Cognitive Studies at the Institute of Psychology, Jagiellonian University. She studies cognitive and motivational underpinnings of complex social phenomena (radical ideological beliefs, prejudice, and social conflicts). She co-authored the book *Człowiek w obliczu pandemii* [People Facing a Pandemic] (2020).



Anna Ochab-Marcinek, PhD, DSc

is a theoretical physicist, a graduate of the Jagiellonian University in Kraków. She has worked at the Jagiellonian University and the University of Augsburg (Germany), and is currently employed at the Institute of Physical Chemistry, Polish Academy of Sciences, where she leads the “Biophysical Chemistry” research group. She works on modeling biological evolution and stochastic gene expression.



Prof. Radosław Owczuk, MD, PhD, DSc

is a medical doctor, a graduate of the Medical University of Gdańsk, where he has been head of the Department of Anesthesiology & Intensive Care since 2018 and Dean of the Faculty of Medicine since 2020. Since October 2016 he has served as a national consultant on anesthesiology and intensive care. Since 2012 he has been editor-in-chief of the journal *Anaesthesiology Intensive Therapy*. He is a reviewer for numerous Polish and foreign research journals.



Wojciech Paczos, PhD

is an economist, Assistant Professor at the Institute of Economics, Polish Academy of Sciences, Assistant Professor at Cardiff University (UK), former visiting academic at the Bank of England, member of Concilium Civitas, and founder of the expert group *Dobrobyt na pokolenia* (Prosperity for Generations).



Anna Plater-Zyberk, PhD

is a linguist and an anthropologist. She is an expert on international research collaboration. She created the National Science Center's team and first international programs. Since 2017, she has been coordinating international collaboration at the Academy. She wrote her doctoral dissertation on conceptual metaphor theory at the Jagiellonian University and at the Metaphor Lab in Amsterdam.



Prof. Krzysztof Pyrc, PhD, DSc

is a virologist and biologist. A graduate of the Jagiellonian University in Kraków and the University of Amsterdam. Leader of the Virogenetics team at the Małopolska Center of Biotechnology (Jagiellonian University), head of the Laboratory of Virology and Infectious Animal Facility at the Jagiellonian University. He studies the biology of infection and pathogenesis of coronaviruses and flaviviruses, developing new antiviral drugs, and creating and validating new diagnostic methods.



Prof. Magdalena Rosińska, MD, PhD, DSc

is a medical doctor and biostatistician, affiliated since 2002 with Poland's National Institute of Public Health – National Institute of Hygiene (NIZP-PZH), where she deals with the epidemiology of parenterally and sexually transmitted diseases, especially HIV and HCV. Chair of the Coordination Committee for the European viral hepatitis surveillance program and of the crisis panel for forecasting the epidemic situation in Poland appointed by the Minister of Health.



Prof. Andrzej Rychard, PhD, DSc

is a sociologist, Corresponding Member of the Polish Academy of Sciences, acting Director of the PAS Institute of Philosophy and Sociology, Chairman of the Council of the Stefan Batory Foundation. A member of the PAS Committee on Sociology, he has been a lecturer and visiting professor at a number of foreign universities. His research work deals with the sociology of institutions, the sociology of politics and the economy, and the sociology of the postcommunist transformation. A commentator in the Polish and foreign media.



Tomasz Smiatacz, MD, PhD, DSc

is a medical doctor, a graduate of the Medical University of Gdańsk. An internist and a specialist on infectious diseases, head of the Infectious Diseases Clinic at the Medical University of Gdańsk and since 2016 its Vice-Rector for Students' Affairs. Winner of a grant from the American Foundation for AIDS Research, he has attended courses and training at CDC in Atlanta, the Yale University AIDS Programme, the Virology Institute of La Sapienza University in Rome.

INTRODUCTION

These documents of the COVID-19 Advisory Team to the President of the Polish Academy of Sciences were prepared by the Team in 2022. They complement Statements 1-27 of the Team from 2020 and 2021. These previous Statements were published in the magazine of the Polish Academy of Sciences “Academia” 4/2021 (<https://journals.pan.pl/dlibra/publication/140620/edition/123843/content>). The Team also prepared the compendium “Understanding COVID-19” which was published in “Academia” 4/2020 (<https://journals.pan.pl/dlibra/publication/136172/edition/119069/content>).

Omikron strikes – save yourself and your country

While the death toll of the fourth wave of the COVID-19 pandemic, caused primarily by the Delta variant, is still rising in Poland, a fifth wave associated with the emergence of the Omicron variant is just beginning. Studies show that statistically, the Omicron variant causes a slightly milder course of the disease. However, that difference may not be as significant for individual people, and infection with the Omicron variant will still be deadly for many. That is especially true for unvaccinated people. We also know that the risk of death for vaccinated and recovered people is many times lower, even if they are not fully protected from infection and the disease. This applies to people who received their last dose of vaccine no more than five months ago. Therefore, all those who missed this deadline should receive a booster dose. Unfortunately, there are still too few vaccinated people in our society. Those who have not yet been vaccinated should urgently join the vaccination program. Doing so can reduce the risk of dangerous complications after the COVID-19 virus is contracted. Many people have obtained vaccination certificates illegally without being vaccinated. They are now caught in a trap. Consideration needs to be given to how to help them get out of this situation. The country's leaders should do everything in their power to increase the number of people who are adequately vaccinated. That is the only way to alleviate the tragedy caused by the excess deaths and the paralysis of health care services and the whole country.

The high infectivity of Omicron is causing a wave of disease of unprecedented magnitude. While the percentage of hospitalizations will be lower with Omicron than with the variants we have seen so far, this will be a percentage from a much higher number of infections. It is not “percentages” that occupy hospitals, but numbers of people, and these numbers will be unprece-



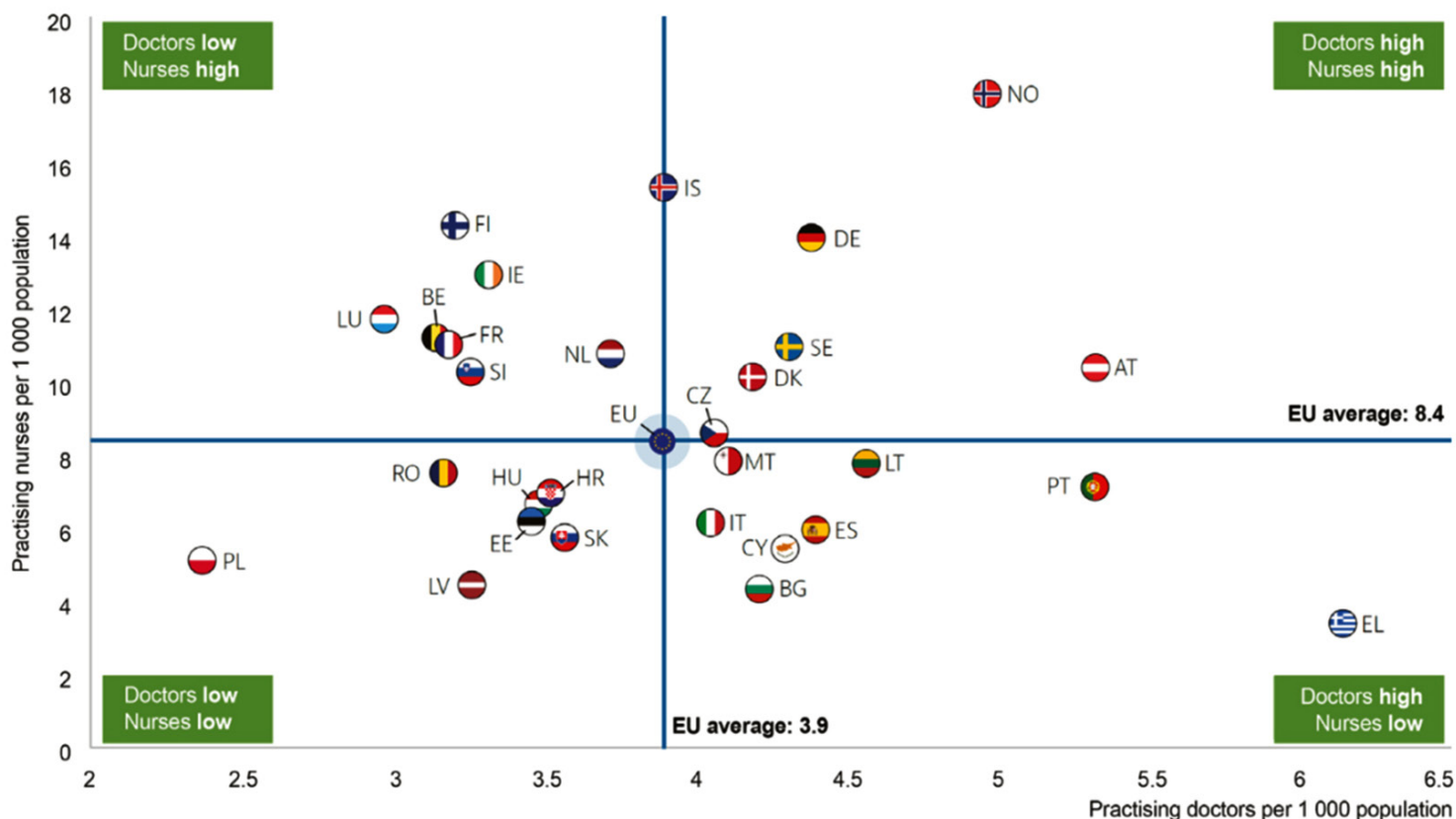


Fig. 1
The number of doctors and nurses per capita in individual European Union countries

dentedly large. It takes about two weeks from a reported increase in infections to see an increase in hospitalizations. The maximum number of patients hospitalized due to COVID-19 is forecast for the second half of February and – in an optimistic forecast scenario – will be comparable to the peak in November 2020. The dramatic inefficiency of the health care system is likely to affect everyone, including people with conditions other than COVID-19, as the general health of the population in Poland is relatively poor, and the health care system is already profoundly inefficient. An indication of how weak the system is can be found in the very low number of nurses and doctors in Poland, as shown in the figure 1, which presents the number of doctors and nurses per capita in individual European Union countries.

Government inaction has led to tens of thousands more unnecessary deaths in the second half of 2021. Will this tragic statistic continue into 2022? What will the long-term consequences of government inaction be? What strain will there be on our society and health care in the years to come? The prolonged overcrowding of hospitals will result in more diseases diagnosed too late and a wave of deaths that could have been avoided.

Not a lack of knowledge, but a lack of will

It is high time to stop thinking that we still do not know much about SARS-CoV-2 and vaccines. COVID-19 is one of the best understood infectious diseases in the history of medicine, and the vaccine against this disease is the best-studied vaccine in the history of vaccination. What is apparently lacking, however, is sufficient will on the part of those in power to combat the COVID-19 epidemic.

It is time to reject the notion that the doubts of a certain part of the population about restrictions and vaccinations are justified. It is time to fight against the dangerous activities of the well-organized group (though less numerous than it seems) of anti-vaxxers who are misleading a large part of the population. They must be resolutely opposed in politics, public institutions,



and social life. All legal means must be used to defend society against the expansion of these groups. People's freedom to make irrational choices that defy science ends at the point when they begin to jeopardize the health and lives of their fellow citizens.

The debates about the superiority of masks over social distancing, restrictions over testing, or vaccinations over treatment should be set aside. We need all of these things at once – and we need them immediately. Government ineptitude has already led to thousands of preventable deaths in Poland.

The measures proposed below do not require politically difficult changes to statutory laws – rather, lower-level acts such as ministerial regulations will suffice. For this, the only thing required is sufficient will on the part of those in power.

We appeal for immediate:

1. strict enforcement of the **MDDV rule** (masks, distance, disinfection, ventilation) as well as the “**when you are sick – stay home**” rule, and a return, if possible, to **remote working** in the coming weeks, which applies to vaccinated individuals as well.
2. the establishment of **facilities for the vaccinated and restrictions for the unvaccinated**. To properly set expiration dates for certificates, follow guidelines on the protection provided by vaccines and the need for booster doses. Systemic measures should be taken, and difficult decisions and responsibilities should not fall to employers. Difficult decisions regarding future doses or inclusion of vaccines in the mandatory immunization schedule should be made rationally and taking the pandemic situation into consideration.
3. **promoting universal testing for all** (e.g., through free antigen testing available without a referral; for example, using the UK approach of providing free test kits for everyone in every pharmacy) and regular **testing of children and staff in schools**.
4. urgent intensification of the information campaign on the COVID-19 pandemic. **Implementing educational programs in schools on the pandemic** and how to fight it, especially on such basic tools for fighting infectious diseases as vaccines.
5. decisive action to **stigmatize views and attitudes that run counter to well-documented scientific facts and directly threaten the health and lives of Poles**.

In Poland, we have paid a very high and unnecessary price for our inability to deal with the COVID-19 outbreak. The rapid actions proposed here will no longer stop a new wave, but they can stretch it out in time and thus diminish its devastating effect. We have the tools to do so. Failure to use them will be an unforgivable mistake.

Low vaccination rates in Poland are harming the economy

With the MDDV principle (mask, distance, disinfection, and ventilation) often being ignored, the low vaccination rate of Poland's population is hitting the Polish economy. The epidemic we are currently facing is likely to die out soon. However, it will inevitably be followed by others. Let us remember an important lesson learned from the current epidemic – strict adherence to prevention and widespread vaccination protect the population's health and the country's economy.

This pandemic is usually viewed from two perspectives. One is the health perspective, and the other is the economic perspective. Measures that protect the health of the public and those that shield the economy appear to be mutually exclusive. For example, the restrictions placed to reduce the number of cases in the first months of the COVID-19 outbreak – which included shutting down many businesses – significantly weakened the economy. Conversely, implementing “weak” restrictions later in the outbreak, when the economy had already been hit hard by the epidemic, often did not decrease the number of infections in the intended fashion.

But actually, the notion of an “either-or” choice between the health of citizens and a healthy economy is bogus. The opposite is true. A healthy population contributes to a functioning economy, and a functioning economy is necessary to protect the population's health. We currently have the tools to fight this pandemic without shutting down the economy. These include vaccination and the MDDV principle (mask, distance, disinfection, ventilation). The example of Taiwan, which we described in our Position Statement 26, shows that rigorous application of the principles of prevention (MDDV) positively impacts both people's health and the economy. Moreover, COVID-19 vaccines are the best-studied vaccines in the history of medicine, and we know that refusing to take them increases the risk of infection, disease, complications, and even death. Failure to act decisively to promote vaccination and comply with MDDW weakens population health, strains the health care system, and undermines the economy.

Economy during the pandemic

The main factors that will negatively affect the Polish economy in 2022 are: a) the still ongoing COVID-19 epidemic caused by currently known and probable new variants of SARS-CoV-2, b) low level of vaccination in the population, c) high inflation, d) strained public finances. This means that the pandemic should be viewed as a phenomenon in which the health of the citizens and the economy of a country are inseparable. At present, there is a rising risk that the economy will become increasingly vulnerable to possible subsequent waves of the pandemic.

In 2020, like most global economies, the Polish economy entered a recession. Its severity was at an average level compared to other EU countries. In 2021, again in line with most of the world's economies, there was a strong economic rebound^[1]. A combination of three factors saved us from a deep crisis in 2020 and enabled a rapid economic rebound in 2021.

The first factor was the worldwide rollout of generous and widespread fiscal packages. In Poland, they were introduced as “crisis shields.” As a result, bankruptcies of businesses were prevented, and unemployment did not rise, which tends to be the case with crises. This allowed the economy to maintain its production potential (supply side) and ensure incomes (demand side). This was an appropriate response to the crisis – common to all economies affected by

^[1] Bukowski P. and Paczos W., Why is Poland's economy emerging so strongly from the pandemic? A comparison with the UK, LSE European Politics and Policy blog, 2021, <https://blogs.lse.ac.uk/europpblog/2021/05/19/why-is-polands-economy-emerging-so-strongly-from-the-pandemic-a-comparison-with-the-uk/>.



restrictions – and it was in line with the scientific consensus and recommendations of the international institutions^[2,3].

The Polish economy was additionally affected by two factors. One was related to the specific structure of our economy – we have a smaller service sector than other EU countries, which is where losses during restrictions were the greatest. The second factor was the introduction of “weak” restrictive measures from June 2020, which hampered economic activity to a small extent, but, unfortunately, was not effective in containing the epidemic. This resulted in one of the highest waves of infections and deaths in the whole world. During the second and third waves in the fall of 2020 and spring of 2021, there were nearly 140,000 excess deaths in Poland, and by the fall of 2021, over 50,000^[4]. This means that the scale of restrictions applied in Poland was insufficient, due to inadequate application of the MDDV principle and low vaccination rates in the Polish population.

Balance of economic risks in 2022

At the beginning of the pandemic, when the “crisis shields” were introduced, the Polish economy was in a very favorable situation: we had a low level of public debt (46% of GDP at the end of 2019) and a historically low level of servicing costs^[5], as well as high economic growth forecasts (3.1% according to the International Monetary Fund,^[6]). However, inflation was already high back then (4.6% in March 2020,^[7]). Today, the measures directed at combating the economic consequences of the pandemic have resulted in much higher debt levels (59% of GDP in Q2 2020,^[5]) and even higher inflation, which reached 8.6% in December^[7] and according to economists will continue to rise^[6]. The increased level of public debt is the price for preventing high unemployment rates and a wave of bankruptcies during the COVID-19 crisis, but the inflation rate need not and should not have been so high. The risk of increased inflation was highlighted

^[2] Baldwin R. and Weder di Mauro B., Mitigating the Covid-19 Crisis: Act Fast and Do Whatever it Takes, Centre for European Policy Research, 2020, <https://voxeu.org/content/mitigating-covid-economic-crisis-act-fast-and-do-whatever-it-takes>.

^[3] International Monetary Fund, World Economic Outlook, 2020, <https://www.imf.org/en/Publications/WEO/Issues/2020/04/14/weo-april-2020>.

^[4] Original calculations based on data from: Karlinsky A. and Kobak D., Tracking excess mortality across countries during the COVID-19 pandemic with the World Mortality Dataset, eLife, 2021, <https://doi.org/10.7554/eLife.69336>, https://github.com/akarlinsky/world_mortality/.

^[5] Data for consolidated debt of central and local government institutions (known as the “EDP debt”) based on <https://www.gov.pl/web/finanse/zadluzenie-sektora-finansow-publicznych>.

^[6] International Monetary Fund, World Economic Outlook, 2019, <https://www.imf.org/en/Publications/WEO/Issues/2019/10/01/world-economic-outlook-october-2019>.

^[7] <https://stat.gov.pl/obszary-tematyczne/ceny-handel/wskazniki-cen/szybki-szacunek-wskaznika-cen-towarow-i-uslug-konsumpcyjnych-w-grudniu-2021-roku,8,68.html>.

from the very beginning of the pandemic^[8]. It is disturbing that monetary authorities did not communicate this risk to the public throughout the pandemic. This poor communication on the part of the central bank may lead to an “unanchoring” of inflation expectations, which is a phenomenon where rising inflation prompts the public to anticipate continued increases in inflation. In such a situation, inflation begins to rise of its own accord – businesses continue to raise prices even when there is no direct cost pressure. We are beginning to see the first symptoms of this phenomenon in Poland. Therefore, today it is understandable why inflation causes so much emotion and legitimate concerns among economists and the society^[9].

Government debt is now approaching 60% of GDP, the limit set by the Constitution, and further efforts to fight inflation will increase the debt servicing cost. Monetary authorities are faced with difficult choices when setting the interest rates, as every possible scenario carries associated risks. On the one hand, an insufficient response poses the risk that inflation will remain high, while on the other hand, an overreaction increases the risk of an economic slowdown. Polish economic policy-makers have come to a difficult moment, much more difficult than in March 2020. Today, implementing measures on the scale of an “anti-crisis shield” would be much riskier than at the beginning of the COVID-19 crisis. With the Omicron variant and low vaccination levels in the population, the Polish economy is in an extremely risky situation.

A number of economic risks accompany the continued uncertainty associated with the ongoing epidemic. To begin with, the health and lives of citizens are at risk. This means the direct risk of infection and disease and the indirect risk of health services being denied or delayed due to the burden on the health system from COVID-19. Failing to contain the epidemic also implies further economic and financial decisions, weak restrictions or lockdowns, which will be coupled with additional risks that will increase the level of uncertainty and make planning challenging. This will lead to a decline in investment in the business sector. Restrictions may increase unemployment and bankruptcies, and the generous state support will be harder to obtain than at the outset of the pandemic. Inflation, meanwhile, will make it harder to plan household budgets.

On top of these issues is a lack of trust in public institutions and mistakes made by the decision-makers in communicating with the public. Poles do not know how the government plans to counteract a new pandemic wave or how the monetary authorities plan to counteract inflation.

Dynamic recovery or recurring disease outbreaks

Unlike in 2020, we now have an effective tool to significantly reduce the abovementioned risks. That tool is vaccines. Individual-level immunization will not only allow people to avoid the severe health consequences of COVID-19, but it will also allow them to work, learn, and engage in social activities safely. And a community-level immunity will allow for households to safely budget, for businesses to invest, and for the government to make reliable economic and monetary policies.

Should the population be immunized against SARS-CoV-2 infection, the economy could experience a dynamic recovery. Failure to do so could result in pandemic recurrences and restrictions that would negatively impact the Polish economy. If widespread vaccination is not forthcoming, the current fifth wave of the pandemic, which caused severe health and economic consequences, may not be the last. We fear a scenario in which countries with high vaccination rates return to a rapid growth path, while countries with low rates develop much more slowly. International institutions such as the International Monetary Fund^[10] and the European Bank for Reconstruction and Development (EBRD)^[11] have also highlighted this risk. Examples from recent days prove that we are heading in this direction. When countries with almost fully vaccinated populations, i.e., Denmark, Great Britain, and Norway, have lifted the last restrictions,

^[8] <https://www.tokfm.pl/Tokfm/7,103090,27981737,ekspert-ostrzega-ze-czas-szykowac-sie-na-10-proc-inflacji.html>

^[9] Bukowski P. and Paczos W., We need more progressive taxation, and a wealth tax, to pay for the Covid-19 rescue packages, LSE European Politics and Policy blog, 2020, <https://blogs.lse.ac.uk/covid19/2020/07/07/we-need-progressive-taxation-and-a-wealth-tax-to-pay-for-the-covid-19-rescue-packages/>.

^[10] International Monetary Fund, World Economic Outlook, 2021, <https://www.imf.org/en/Publications/WEO/Issues/2021/10/12/world-economic-outlook-october-2021>.

^[11] European Bank for Reconstruction and Development, Regional Economic Prospects: Bittersweet Recovery, 2021, <https://www.ebrd.com/what-we-do/economic-research-and-data/rep.html>.

Poland has decided to close its schools again and switch to distance learning. Currently, there is no motivation or any real incentives for vaccination in Poland. Moreover, in contrast to most Western European countries, those who are unvaccinated do not have their participation in social life limited in our country in any way.

Economic Long COVID

The long-term health effects that COVID-19 infection cause have already been described. Similarly, a COVID-19 outbreak can leave long-term negative effects on the economy even after it has subsided. Three mechanisms could lead to this. The first is the long-term deterioration of population health due to delayed diagnosis and limited treatment of non-COVID-19 diseases because of the strain on the health care system during a pandemic and mental health damage. The second reason is reduced investment in workers, physical capital, and new technologies by businesses that have been forced to focus entirely on their survival during the pandemic over the past two years. The third could be the reduced human capital of students, affected by school closures during the pandemic. Deficiencies in their education could lead to lower skills, which could translate into lower wages in the future and thus a weaker economy as a whole in the very long run^[12].

European recovery plan

In this situation, the joint economic recovery program of the European Union, **NextGenerationEU**,^[13] is a highly praiseworthy initiative. It is meant to provide funds for rebuilding European economies after the COVID-19 pandemic. Funds for the program will be raised at the level of the whole community through issuing common debt and introducing new taxes at the Union level (e.g., digital tax and carbon border tax). Poland could receive almost €60 billion from this program, including about €24 billion in non-refundable grants and the rest in the form of low-interest loans^[14]. The benefits of the European recovery program are twofold. Firstly, it means a transfer of resources to the Polish economy that could not otherwise have been obtained at such a low cost. Secondly, it provides targeted funds, which are to be invested in digital transformation and green energy, in keeping with EU guidelines and the principles Poland's own National Recovery Program. The most significant advantage of this program is that it provides investments with direction and a long-term perspective, which is usually challenging to achieve for national policy-makers. The current political conflict between the Polish government and the European Union has already led to a delay in allocating funds from the National Recovery Plan. Its rejection would be an unforgivable mistake. Not only would it worsen the number of risks to the Polish economy, but it would also damage Poland's long-term development prospects.

Therefore, we hereby call for real incentives to be implemented in Poland to encourage people to get vaccinated, for a credible program to be put in place to increase the level of vaccination against COVID-19, for the political conflict with the European Union to be ended, and for greater collaboration with trade unions and employers' organizations to introduce effective protective measures for workers and clients against COVID-19 infection. We also call for a credible program to return to the inflation rate target set by the National Bank of Poland within the expected timeframe. And above all, we call upon all political groups in Poland to present their proposals for how to strengthen the health care system, invest in education and science, and prepare Poland to effectively fight the subsequent COVID-19 waves and outbreaks that we will inevitably have to face in the future.

^[12] Covid-19 Advisory Team to the President of the Polish Academy of Sciences, Position Statement No. 10: Implications of the COVID-19 pandemic for the mental health and education of children and adolescents, 2021, <https://institution.pan.pl/index.php/653-position-statement-no-10-of-the-covid-19-advisory-team-to-the-president-of-the-polish-academy-of-sciences-implications-of-the-covid-19-pandemic-for-the-mental-health-and-education-of-children-and-adolescents>.

^[13] <https://www.gov.pl/web/planobudowy/czym-jest-kpo2>.

^[14] Paczos W. and Rachel Ł., Stanowisko 1/2022: Jak obniżyć inflację w Polsce: czy miękkie lądowanie jest jeszcze możliwe? [How to reduce inflation in Poland: Is a soft landing still possible?], 17.01.2022, <https://napokolenia.pl/stanowisko-1-2022-jak-obnizyc-inflacje-w-polsce-czy-miekkie-ladowanie-jest-jeszcze-mozliwe/>.

Now We Are Together

In a post entitled [COVID-19 Across Borders](#), which our Team drafted in collaboration with Ukrainian scientists and published on 26 October 2021, we wrote that the SARS-CoV-2 virus easily crosses the borders of neighboring countries. At the present time of aggression by the Russian Federation against Ukraine, this statement has taken on even greater significance

As we write these words, almost two million people fleeing the war in Ukraine have come to Poland, mainly mothers with children. We are currently facing a large-scale humanitarian crisis. The priority task now is to provide the best possible assistance to those fleeing the war in Ukraine. We are writing this appeal with the knowledge that various centers, including ones originating from Russia, are active in trying to arouse resentment and even panic against the efforts to accept refugees, often by raising epidemic-related arguments. Let us not succumb to such propaganda! The best way not to do so is by taking a rational approach: by encouraging health-promoting behaviors, including getting vaccinated. Therefore, although it is with some hesitation, we are making our position on this public. We trust that it will be read in accordance with our intention, which is to draw attention to the fact that the humanitarian crisis has not, unfortunately, ended the crisis of the COVID-19 pandemic, and that we must now also take care of the people we are hosting in Poland.

Every day in Poland, there are several thousand new infections still being diagnosed and almost 200 deaths of COVID-19 patients. In terms of the current number of deaths per 1 million inhabitants, we are among the leaders worldwide. The progress of vaccination against COVID-19 in Poland is still very slow and only 30% of the adult population is currently vaccinated with the so-called booster shots^[1], although it should be noted that a majority of unvaccinated people have already contracted COVID-19 at least once^[2]. Similarly, in Ukraine the pandemic is not yet ended. Just before the outbreak of the war, more than 20,000 cases per day and around 240 deaths were being recorded in the country. Skepticism about vaccinations and misinformation have been a growing problem in both Poland and Ukraine for several years now, and their impact is visible in both countries in the form of lower vaccination rates against various diseases, including COVID-19.

In a humanitarian and refugee crisis, it becomes all the more urgent to provide the best possible protection against diseases, including COVID-19. Many people are and will be helping refugees from Ukraine, working in direct contact with large groups of people. It is very important for both the helpers and the refugees themselves to be vaccinated. It is worth stressing that Polish citizens' contact with refugees, just like their contact with their own compatriots, does not entail the risk of contracting the disease as long as we remember the basic rules of protection: Vaccination – Masks – Disinfection. Therefore, refugees should be immediately provided, among other things, with free and unlimited access to face masks and disinfectants, and above all with facilitated access to vaccination against COVID-19. Taking the above into account, as well as the currently observed increase in the number of SARS-CoV-2 infections in several European countries, we appeal to the decision-makers to withdraw from the idea of lifting the epidemic restrictions in Poland. We also appeal for intensive promotion of the COVID-19 vaccination campaign. Let us be united and do everything to protect our own health and the health of those fleeing the war. Now we are together.



^[1] <https://vaccinetracker.ecdc.europa.eu/public/extensions/COVID-19/vaccine-tracker.html#uptake-tab>

^[2] <https://www.pzh.gov.pl/projekty-i-programy/obserco/raporty/>

Is it significant that the end of the pandemic in Poland was announced on April Fool's Day?

On 1 April 2022, the end of the pandemic was declared in Poland, practically speaking. Although in reality the epidemic is still ongoing, on that day the government lifted virtually all restrictions, including mandatory isolation of patients, and the National Health Fund ceased the additional funding for COVID-19 related services, including funding for testing and funding for temporary hospitals. The government's decision has been welcomed by those who deny the pandemic or even deny the very existence of the SARS-CoV-2 virus, while those who have been involved in the struggle against the pandemic for the past two years tend to believe that this is a dangerous and premature decision. Which of these stances should be believed? What does the end of the pandemic mean in real terms?

A milder variant, but still dangerous

At present in Poland, approximately 60% of the population has received two doses of COVID-19 vaccine, while 30% has received three doses. A large share of the remaining individuals have already contracted COVID-19 at least once. It should be borne in mind, however, that the immunity acquired from vaccination or from contracting the disease itself dissipates rather quickly. Unfortunately, the failure to strongly promote the vaccination campaign in Poland, and consequently its slow pace, has resulted in over 200,000 excess deaths. The body of practically



each and every one of us has already been in contact at least once, with the virus or with a fragment thereof, resulting from vaccination or contained in the vaccine. Therefore, becoming infected with the SARS-CoV-2 virus today triggers a faster and more effective activation of the immune defenses than at the beginning of the pandemic, and so the risk of severe illness and death is now lower. In addition, Omicron, a milder variant of the SARS-CoV-2 virus that is less likely to cause severe illness, emerged in November 2021 and is now the dominant variant. The upshot of these developments is that the risk of a new wave of deaths and an overburdened health care system has decreased, despite the oncoming waves of infections.

Virus evolution

However, this does not mean that Omicron is completely harmless or that we should not remain on our guard. Omicron can still cause serious and deadly illness in more vulnerable individuals, as well as in those who have not had contact with the virus or had such contact a long time ago. And there are many such people in Poland. In March 2022 alone, there were nearly 3,000 COVID-19 related deaths in our country, which is more than are recorded annually from all other infectious diseases combined.

As the virus continues to circulate intensively, we can expect to see new variants emerge in the coming months. These may be “descendants” of the milder Omicron, but may also be derived from more “aggressive” strains such as Beta or Delta. We do not know how severe these likely new variants of the disease may be.



Monitoring strategy needed

In that case, however, isn't “cancelling” the pandemic premature? We understand that it is difficult not to react to the changing nature of the infection, which statistically speaking is now milder. Indeed, loosening up restrictions that are already largely not being complied with does not really change the status quo. On the other hand, declaring the pandemic over also means that people who fall seriously ill will have problems with getting proper diagnosis and treatment. The availability of effective drugs against COVID-19 in Poland will be limited. But most importantly, having a lack of monitoring will be like switching off a building's fire detectors – we could end up blindly facing the next wave of infections, and only intensive care units quickly filling up will alert us that we have reacted too late. It would be good to think about strategies to address this ([Position Statement 6](#)). In particular, there needs to be a coherent strategy for monitoring not only the incidence of new cases, but also for tracking the possible emergence of new viral variants, especially those that may cause a more severe course of COVID-19. Integrated genetic, clinical, and epidemiological data need to be collected in order to support such monitoring. Is this actually the end of the pandemic?

Nature is certainly not run by politicians or scientists. The SARS-CoV-2 virus may yet surprise us. The possible risks need to be honestly communicated, so that we as a society can make shrewd decisions based on facts, not political calculations ([Position Statement 18](#)). Today, the pandemic as a phenomenon paralyzing our world does indeed seem to be a thing of the past, but it will be up to us to make sure it stays that way. The virus is still potentially dangerous, especially for the elderly or those burdened by other diseases. If there are new recommendations for COVID-19 prevention, we should follow them. If vaccination is recommended, we should definitely get vaccinated.

What can be done to prevent a tragedy from occurring again in the fall of 2022?

The COVID-19 pandemic has already surprised us many times. After the tragic fall seasons of 2020 and 2021, when COVID-19 claimed tens of thousands of lives in Poland each year, we were hit in early 2022 by a wave of infections with a new variant of SARS-CoV-2 called Omicron. The variant is highly contagious. What is more, neither vaccination nor previous infection guarantee protection. Consequently, the number of infections with this variant has been unprecedentedly high. Fortunately, the number of hospitalizations and deaths has not seen a similar rise. Reduced COVID-19 death rates resulted from two factors. First of all, Omicron is less likely to cause lower respiratory tract infections and general systemic symptoms of a severe nature. Second, almost everyone either has already had natural contact with the virus or has acquired certain immunity through vaccination. Research is being conducted into vaccine-induced, natural, and hybrid immunity (the latter being induced by both vaccination and previous infection). Initial reports indicate significant differences in the role of humoral and cellular responses, depending on the virus variant that a person originally had contact with and the amount of time that has passed from the contact.



The next wave of COVID-19 infections reached us in the summer, when the new Omicron subvariants named BA.4 and BA.5 proved contagious enough to transmit easily even when we spent more time outdoors. The situation has been exacerbated by a complete withdrawal from prevention measures in Poland.

As with the early spring wave, the very high number of mild cases has not posed a real threat to the functioning of the health-care system. However, the disease remains dangerous for the elderly, immunocompromised patients, and those with multiple comorbidities.

The statistically lower risk of a severe COVID-19 infection raises the question: what happens now? The overall tally of costs and benefits associated with possible epidemic control measures is now less clear. Does this mean we can forget about the pandemic? Or should we return to the kinds of measures taken in response to the observed rises in new cases? If so, then to what extent? In this position statement, we try to address these questions.

Reacting depending on the scenario

The biggest unknown now is **how the epidemic will evolve in the fall**. It is very difficult to give a definite answer right now, because this depends mainly on the variability of the virus. In the optimistic scenario, a variant of Omicron will be causing mild forms of the disease. If no restrictions are in place, the previously acquired immunological memory, also in individuals from risk groups, will remain enough to prevent hospitalizations and deaths. Consequently, we will experience a rise in the number of mild upper and lower respiratory tract infections, but the health care system will not be paralyzed, and there will be no disruptions in the functioning of the state. In the pessimistic scenario, a new dominant variant will emerge that will be highly virulent and will evade the immune response. This could be compounded by declining immunity, especially in high-risk individuals – in this case, the fall could once again bring numerous deaths and problems for the health care system.

Surveillance

We get information about the intensity of the epidemic from **diagnostic tests**. In the spring, as the pressure on health care eased off and the number of deaths dropped, the government decided to stop **mass testing**. Indeed, mass tests that do not result in isolation or quarantine are largely becoming pointless. On the other hand, the absence of disease surveillance forces us to adopt a reactive approach based on the number of deaths.

However, it is important to note that in terms of decisions related to the COVID-19 epidemic Poland was already “groping in the dark” as early as in the fall of 2020. The insufficient number of tests and the relatively high percentage of positive results throughout the pandemic clearly showed that many cases remained undiagnosed. By the same token, the assessment of the situation was unreliable. Faced with infrastructural and staffing shortages, we suggested two years ago that a system for testing relatively small yet representative population groups should be implemented, for example, based on a modified Sentinel system. Consequently, significantly reduced costs and burdens on the staff and infrastructure would allow us to react to ongoing events and decide about imposing potential countermeasures or a possible return to mass testing. Efforts to implement such a system should be definitely accelerated, especially if we take into account the fact that consecutive variants keep emerging at very short time intervals.

Drug availability

At the same time, in light of the absence of mass testing, we should enable rapid tests for individuals at high risk of developing a severe form of the disease. Why? We already have effective **medicines** that significantly reduce the risk of a severe disease. Molnupiravir was available in Poland for a short period of time. Paxlovid, a drug of a very high efficacy approved by the European Medicines Agency (EMA), has never been available in Poland. Both medicines should be made available as soon as possible, in the first place to seniors and people from high-risk groups as they may be insufficiently protected by vaccinations.

In the case of both drugs, the key to their effectiveness lies in the early start of treatment. This will only be possible if rapid individual tests are available, and people from risk groups are aware that they must report for tests as soon as they develop the first symptoms. The use of these medicines will then translate into real benefits.

Updating the vaccination program

The key line of defense, which should be treated as strategically important, involves offering **booster vaccinations**. Currently, the second booster dose is available to people over the age of 60 and those from risk groups, as recommended by the EMA and the European Center for Disease Prevention and Control (ECDC), and to medical professionals. However, a number of questions arise. Are the vaccines that are now available effective against the currently dominant Omicron subvariant? Should we wait until the fall for the promised shots targeting new variants? As a result of changes in the virus genome, the protection against infection and the development of COVID-19 offered by vaccines is indeed not high, **but the protection against a severe disease, hospitalization, and death remains high.**

People at a high risk of developing a serious illness in the current wave of infections should consider taking the vaccine immediately. The fall may bring vaccines that more effectively reduce the risk of infection or transmission, but what use will they be to individuals who might lose their health or even lives by then? Also, let us bear in mind that we still do not have complete data on the efficacy of the new Omicron-specific vaccines in preventing infections and illnesses. What is more, we do not know which variant will be dominant in the fall. Will the new types of vaccines be available? If so, then when? What will be their effectiveness? These are all questions concerning the hypothetical future. Available scientific data show clearly that booster doses restore and improve the protective function of our immune system.

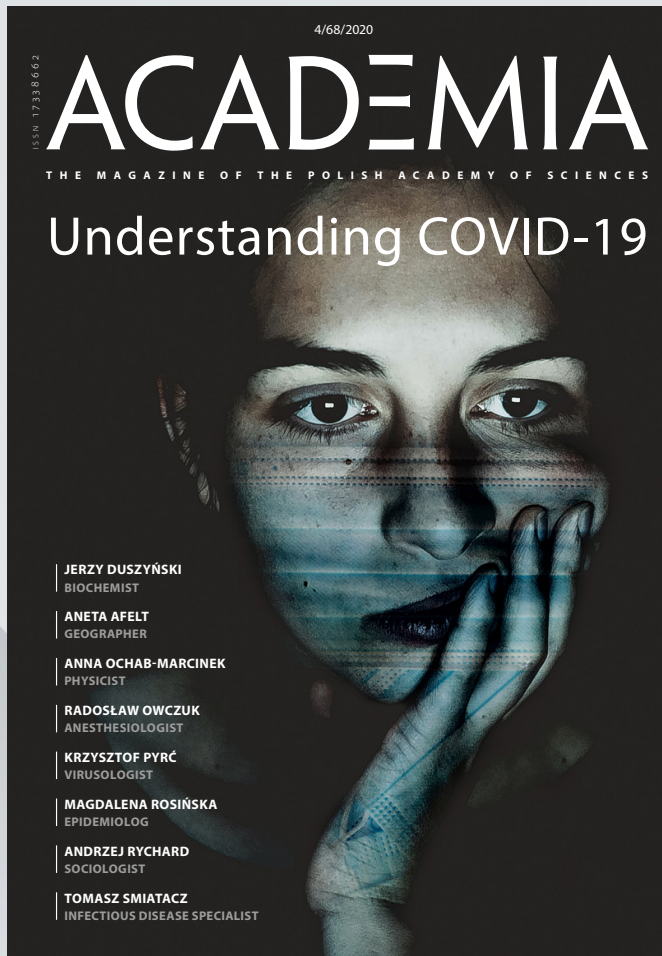
Scientific reports show clearly that the benefits of vaccines are far greater than the risks, also in children and in pregnant women.

Long COVID-19 and rehabilitation

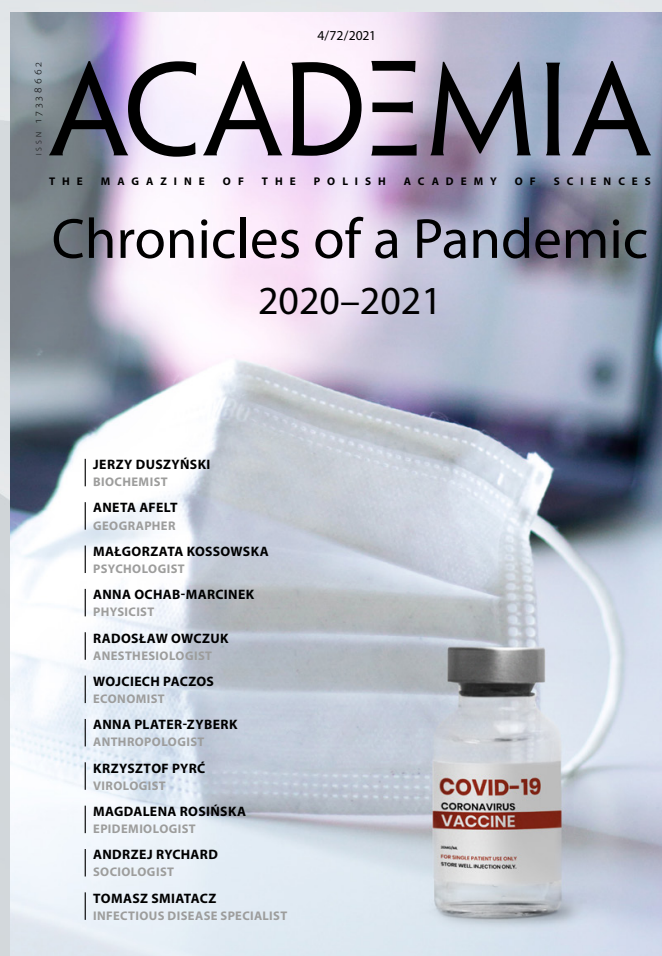
Strategies implemented to combat the pandemic in Europe focus mainly on reducing the immediate risk of infection and on the transition to a stage when COVID-19 will be just one of many viral diseases contracted in the fall and winter seasons. However, we must remember that even a mild SARS-CoV-2 infection **may have lasting effects on our bodies**, and we must take into account the fact that the coming years we will be marked by a surge in illnesses related to the long-term effects of COVID-19. This includes not only respiratory deficits, but also cardiovascular diseases, neurological disorders (such as brain atrophy in people over 50), diabetes, and the long-term loss of smell or taste, which is seemingly trivial, but impacts significantly on the quality of life. Likewise, we should not omit to mention behavioral disorders indirectly caused by COVID-19, or more specifically by life in the conditions of the pandemic – anxiety, fear, aggression, suicide attempts, and addiction tendencies.

It is imperative that **the system of rehabilitation** should be urgently restored to reduce what is called health debt and the burden on the health care system in the coming years at least to some extent. Even if the effects of the disease prove to subside over time, we should not leave without care those who have been suffering the longest and the most. We should also bear in mind that many patients affected by long COVID-19 are people of working age, and their lower professional productivity and, in extreme cases, even withdrawal from the job market create real losses in the economy.

The COVID-19 epidemic and SARS-CoV-2 have not disappeared, but they have changed. We must adapt to these changes. Pretending that the problem is gone and keeping up the illusion that ‘we will get by somehow’ are reprehensible. A rational strategy should be based on the evaluation of likely scenarios. It should also take into account the needs of vulnerable individuals and use all the methods we know to reduce the number of infections (vaccinations, tests, drugs, face masks, social distancing, and disinfection). Only by adopting such approaches can we prevent another tragedy from occurring this fall for the health care system, the economy, and society. We have good protection tools at our disposal, so any deaths in the coming years will be needless, and possible lockdowns or restrictions placed on our freedoms will be largely avoidable.



<https://journals.pan.pl/dlibra/flipbook/119458>



<https://journals.pan.pl/dlibra/flipbook/123844>