

Hitting new heights

Improving vaccination uptake
among patients with chronic
conditions across Europe



Health and care

Community

Prevention

International

Inequalities

Life expectancy

Diseases and conditions

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Executive summary

Millions of Europeans – those with one or more chronic medical conditions – are at much higher risk of developing severe illness from vaccine-preventable diseases (VPDs) such as influenza (flu), pneumococcal disease and COVID-19. Despite this, routine vaccination remains low among Europeans with chronic conditions. In fact, no European country has met the World Health Organization (WHO) 75% flu uptake target for clinical risk groups since committing to it in 2010. As less than 0.5% of European health budgets are being spent on vaccination,¹ hitting this target remains challenging. As it stands, routine vaccination rates for those with chronic conditions are suboptimal:

- The average flu vaccination uptake across EU/EEA member states in 2018 was 45%²
- Pneumococcal vaccination uptake across Europe varies, with figures ranging between 20% and 30%³

The COVID-19 pandemic has spurred more public engagement with vaccination: over 80% of European adults have now received at least two doses of a COVID-19 vaccine.⁴ But numerous barriers still prevent many people with chronic conditions from receiving routine vaccines. From conversations with policy makers, healthcare experts and patient charities across Europe, we have found the main barriers affecting uptake of routine immunisation to be:

- **Communication issues:** misinformation and 'fake news' can damage confidence in vaccination, while there's also a lack of communication targeted at people with chronic conditions to encourage them to get vaccinated
- **Lack of political cohesion:** differences in policies, cultural attitudes and health infrastructure across Europe, as well as a lack of data sharing and spending on immunisation, makes it harder to achieve consistent levels of routine vaccination throughout the region
- **Structural barriers:** inaccessibility, out-of-pocket costs and poor engagement with healthcare professionals (HCPs) can all have an impact on uptake
- **Personal reluctance:** vaccine hesitancy, efficacy concerns, complacency and mistrust mean that some people with chronic conditions may choose not to get vaccinated

To reduce these barriers and increase routine vaccination in Europeans with chronic conditions, we believe that:

Vaccination information must be improved: better data-sharing on vaccination uptake is needed between countries across Europe. We also need to create information on vaccination that's tailored for specific chronic conditions: more effective communications will encourage more people to get vaccinated.

Recommendations at a national level:

- European governments and health organisations should work with national patient charities to produce targeted communications that encourage people with specific chronic conditions to get routine vaccinations

Recommendations at an EU level:

- The European Centre for Disease Prevention and Control (ECDC) should require member states to provide uptake figures for flu and pneumococcal vaccination among people with chronic conditions, as well as updating its disease surveillance 'atlas' to include vaccination uptake for different VPDs
- The European Commission should commit to its 2018 pledge of establishing a European Information Sharing System for a core EU vaccination schedule adhered to by all member states

Local engagement is needed to encourage uptake: HCPs, local organisations and charities need to work together to engage those with chronic conditions with routine vaccination and empower them to get vaccinated.

Recommendations at a national level:

- Local organisations, citizens' groups and patient charities should disseminate information and run peer-to-peer networks to increase engagement

Recommendations at an EU level:

- The EU should provide further funding to member states for vaccination training and education of HCPs through Cohesion Policy 2021-2027
- The European Parliament should establish a subcommittee focussing on routine vaccination uptake in Europeans with chronic

conditions, and use this to work with the general public across Europe

Barriers to access must be removed: making vaccination free of charge, as well as improving physical and geographical accessibility, is vital to ensure equal access to routine vaccination across Europe.

Recommendations at a national level:

- Where costs are incurred, national governments should remove payments for routine vaccination for those with chronic conditions

Recommendations at an EU level:

- The EU should set a funding target for member states' national immunisation programmes
- The ECDC should establish a common vaccination schedule across all member states for those with chronic conditions, as well as a universal definition of the term "chronic condition" that covers a range of underlying health conditions

We believe there is a social, economic and political case for sustaining and improving routine vaccination across Europe, especially for those with chronic conditions who are at greater risk of developing severe disease and dying. The EU and its member states must fulfil their obligations to reach the WHO 75% target for flu vaccination in those at greater risk. If the EU and its member states demonstrate the political will and desire to ensure the good health and longevity of all its citizens, more can be done at both national and EU level to increase levels of routine vaccination, hitting new heights for uptake figures.

Introduction

Across Europe, the COVID-19 pandemic has become a particular threat to the health and longevity of different groups in society, such as older people and those with chronic conditions. Given that both groups are at greater risk of severe disease and death from COVID-19, the successful development and deployment of a range of vaccines against COVID-19 underlines the effectiveness of using immunisation to protect public health and those who are most susceptible. And Europeans have clearly shown a positive response: as of 21 January 2022, 81.1% of adults^a across the EU/EEA had received two COVID-19 vaccine doses, with 49.1% receiving an additional 'booster' dose.⁵

In contrast, when it comes to routine immunisations, such as vaccination against flu or pneumococcal disease, uptake levels across Europe remain suboptimal. Flu vaccination uptake levels in those with chronic conditions are around 45%⁶ - far below the 75% target set by the WHO Regional Office for Europe in 2010.⁷ To date, no EU/EEA member state^b has reached this target for people with chronic conditions. The uptake for pneumococcal vaccination is also concerningly low: coverage ranges between 20% and 30% in most European countries⁸ despite invasive pneumococcal disease (IPD) killing nearly 25,000 Europeans in 2018.⁹

Throughout Europe,^c it's estimated that one in every four people live with two or more chronic conditions – that's millions of Europeans¹⁰ at much higher risk of developing severe illness from VPDs. Given that seasonal flu viruses can infect up to 20% of the population each winter,¹¹ causing an estimated 40,000¹² to 72,000¹³ flu-related deaths in Europe annually, there's a need to ensure everyone has the ability and opportunity to receive routine flu vaccination. This is especially true for those with chronic conditions, who are at greatest risk of severe disease and death from the flu.

Understanding the current practices, common barriers and potential opportunities associated with routine vaccination is crucial in order

^aRefers to the general adult population of Europe, rather than those with chronic conditions as uptake data for the latter isn't recorded by the ECDC.

^bIncluding the UK

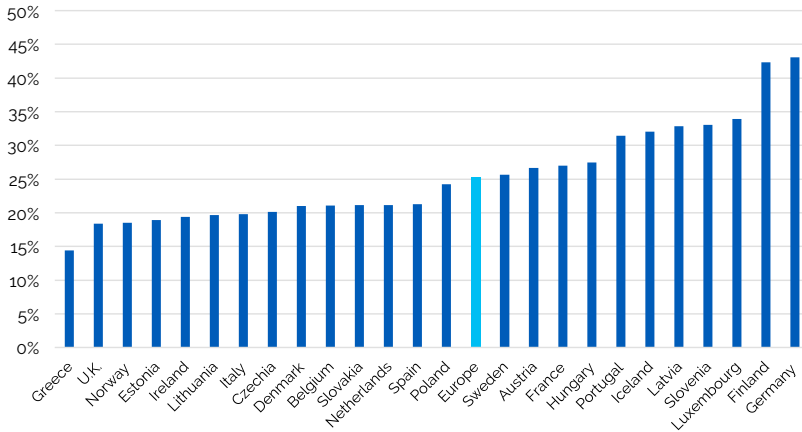
^cWe specify the definition of 'Europe' for each dataset used in this report. For example, EU data before 1 February 2020 includes the UK, organisations like WHO/Europe cover both Switzerland and the UK, the EEA includes EU countries plus Iceland, Liechtenstein and Norway, and the ECDC covers the EU and EEA.

to improve uptake among Europeans with chronic conditions. This report uses findings from conversations with European policy makers, charities and healthcare experts to assess those factors and examine how best to increase uptake. To help people with chronic conditions across Europe live longer lives, we must do more at a local, national and institutional level across the continent to ensure that more of them are vaccinated at key points throughout their lives.

Chronic conditions in Europe

According to data from the Organisation for Economic Co-operation and Development (OECD), around a quarter of European adults live with two or more chronic conditions:

Figure 1: Europeans aged 15-64 with two or more chronic conditions, 2014



Source: OECD, 2019¹⁴

Among chronic conditions, diabetes, chronic kidney disease (CKD), and respiratory illnesses make up the biggest clinical risk groups in Europe:

Table 1: Number of Europeans with chronic conditions

| Condition | Number of Europeans (millions) |
|--|--------------------------------|
| Diabetes | 60 |
| CKD | 55 |
| Asthma | 30 |
| Chronic liver disease | 29 |
| Chronic obstructive pulmonary disease (COPD) | 23 |
| Chronic heart disease | 11.3 |
| Cancer | 3.7 |
| HIV/AIDS | 2.1 |

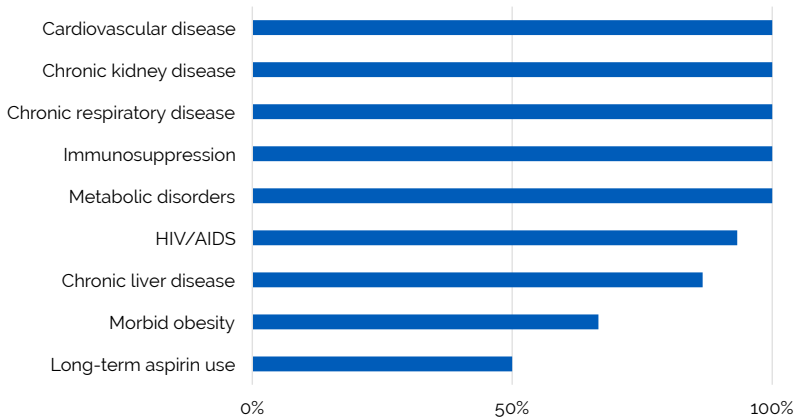
Source: see References¹⁵

Current vaccination guidance, policy and uptake in Europe

Recommendations for routine vaccination

While recommendations vary in each country, across Europe most routine vaccinations are recommended for people with chronic conditions. For example, all EU/EEA member states recommend flu vaccination for people with chronic respiratory, kidney, hepatic, neurologic and cardiovascular diseases, as well as immunosuppressed people. Recommendations differ for people living with HIV, diabetes, morbid obesity, and those relying on long-term aspirin use:

Figure 2: % of member states recommending seasonal flu vaccination, by chronic condition, 2017–18 flu season



Source: ECDC, 2018¹⁶

The ECDC acknowledges that children younger than two and adults older than 65 are at higher risk of IPD; it also recommends that these age groups receive the relevant vaccination.¹⁷ However, for those with chronic conditions, recommendations are more fragmented. Only a handful of European countries recommend pneumococcal vaccination for adults with chronic conditions:^{18, 19}

- Belgium – at-risk people aged 19 to 64
- Cyprus – at-risk people aged 2 to 64
- Czech Republic – mandatory vaccination for at-risk people aged 18 to 64

- France – all at-risk people over the age of 5
- Greece – at-risk people aged 6 to 64
- Luxembourg – all populations at risk of pneumococcal disease
- Spain – at-risk people aged 12 to 64
- UK – at-risk people aged 2 to 64

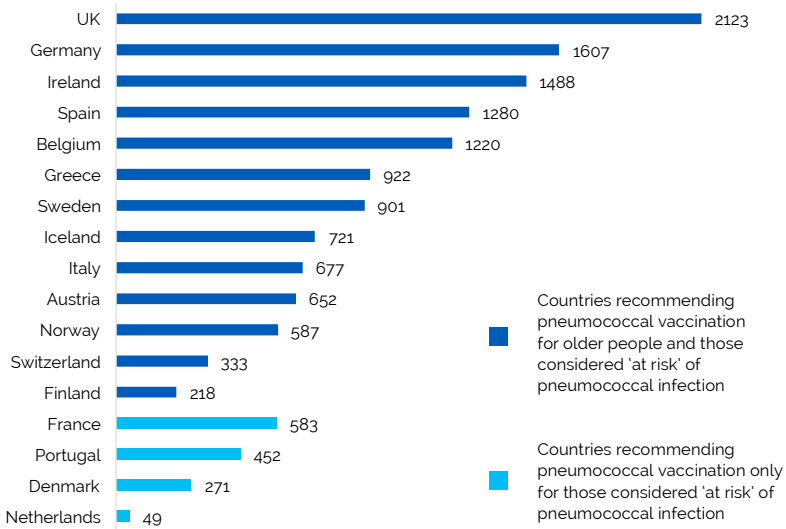
As with flu vaccination, these countries recommend pneumococcal vaccination for various individuals with specific conditions which put them at greater risk from IPD; these include chronic respiratory conditions, immunosuppression, diabetes, HIV, cardiovascular disease and CKD.

Uptake among those with chronic conditions

Of the wider 53-member WHO European Region, 51 had a national flu vaccination programme between 2008 and 2015.²⁰ During this period, 44 recommended that people with chronic conditions should be vaccinated against the flu. However, only 14 countries (32%) reported uptake data: of these countries, most reported uptake figures below 40%.²¹ More recent ECDC uptake figures, based on 2016–17 flu season data collected from EU/EEA member states, suggests uptake ranged from 15.7% to 57.1%, with a median vaccination coverage rate of 44.9% during the 2017/18 season.²² This is much lower than the WHO's 75% target for Europe, set over a decade ago.

Data on pneumococcal vaccination uptake for the whole of Europe is sparse, with data on uptake among those with chronic conditions only recorded by a handful of individual European countries. However, one comprehensive study from 2011 suggests that cumulative doses of pneumococcal polysaccharide vaccine (PPV) vary across Europe:

Figure 3: Cumulative PPV doses distributed per 10,000 in European countries, 2001–2010



Source: Fedson, D.S. et al, 2011²³

While these figures are somewhat dated, more recent findings suggest that the distribution by country remains similar today. The UK still has a relatively high level of uptake compared to other European countries: the average cumulative uptake up to 31 March 2021 in England was 48.2%.²⁴ In comparison, uptake among adults with "high-risk conditions" in Belgium is just 8.6%,²⁵ while a 2020 French study suggests uptake in those with chronic conditions in France varies between 4% and 6%.²⁶

What are the key challenges across Europe?

We've seen that routine vaccination uptake in Europeans with chronic conditions is concerningly low. As such, it's crucial to understand the key challenges and common barriers associated with vaccination in order to encourage and incentivise better uptake. Through our discussions with policy makers, healthcare experts and patient charities, we identified the following challenges:

- **Communication issues:** misinformation and fake news can damage confidence in vaccination, while there's also a lack of communication targeted at people with chronic conditions to encourage them to get vaccinated
- **Lack of political cohesion:** differences in policies, cultural attitudes and health infrastructure across Europe, as well as a lack of data sharing and spending, makes it harder to achieve consistent levels of routine vaccination throughout the region
- **Structural barriers:** inaccessibility, cost and poor engagement with HCPs can all have an impact on uptake
- **Personal reluctance:** vaccine hesitancy, efficacy concerns, complacency and mistrust mean that some people with chronic conditions may choose not to get vaccinated

Communicating clearly

"Information, information, information – it is essential. Until now, we have had very bad information and misinformation."

Vincenzo Costigliola, European Medical Association

Lack of specific information on chronic conditions

Communications about routine vaccination often miss the mark, failing to go far enough in encouraging people with chronic conditions to get vaccinated. While public health bodies make recommendations about routine vaccinations for people with chronic conditions, this isn't always communicated well enough in terms of specific conditions:

"There are some initiatives on specific information for high-risk groups, but it's not widespread in specific countries."

Susanna Palkonen, European Federation of Allergy and Airways Diseases Patients Association

"There's a lack of accessible evidence-based information...we're talking about objective, transparent information, and high-quality data that is translated into layman's terms. In Europe, robust, evidence-based information tailored for chronic disease patients about the importance of vaccines in their specific contexts, did not exist until very recently."

Isabelle Manneh, EU Vaccination Confidence – Patients' and Professionals' Awareness, Communication and Trust (VAC-PACT) pilot project, European Patients' Forum

Misinformation and fake news, fuelled by poor communication

A lack of clear communication can result in a lack of engagement. When official vaccination communication is limited, this can lead to opportunities for misinformation to be spread in European countries:

"In several parts of Europe, misinformation is spreading like wildfire. If news agencies are spreading propaganda, who as a population can we trust?"

Isabelle Manneh, VAC-PACT pilot project, European Patients' Forum

"The authorities didn't find the place in the communication, with the media and with everyone, to transmit the right information and to communicate about COVID-19]. And when they missed that opportunity, the anti-vaxxers took their place."

Radu Ganescu, Coalition of Patients' Organisations with Chronic Diseases of Romania

Our respondents also suggested that a lack of communication and transparency from pharmaceutical companies about the development of the COVID-19 vaccine might have damaged confidence and trust in vaccination in general, fuelling scepticism:

"We have a situation where the industry and public organisations have mobilised to produce [COVID-19] vaccines, which entertains the idea: when there is financial and political influence, we have the vaccines rapidly. In a way, this fuels some anti-vaccine arguments as there is no vaccine for other infectious diseases such as HIV infection etc."

François Houyez, European Organisation for Rare Diseases

Clearly, communication about routine vaccination has been strained by COVID-19 misinformation, or has simply not gone far enough in

reaching those with chronic conditions. Where information does exist, it might not be specific enough and some may be unable to find it or even know it's there, leaving some groups disengaged.

COVID-19 has presented an opportunity for individuals to spread fake news. But on the other hand, it has highlighted the need for clearer vaccine information, especially for those with chronic conditions. What is clear is that prior to the pandemic, communication was insufficient and ineffective; there's abundant opportunity to change this in a post-pandemic Europe.

Lack of social cohesion, political will and centralised data

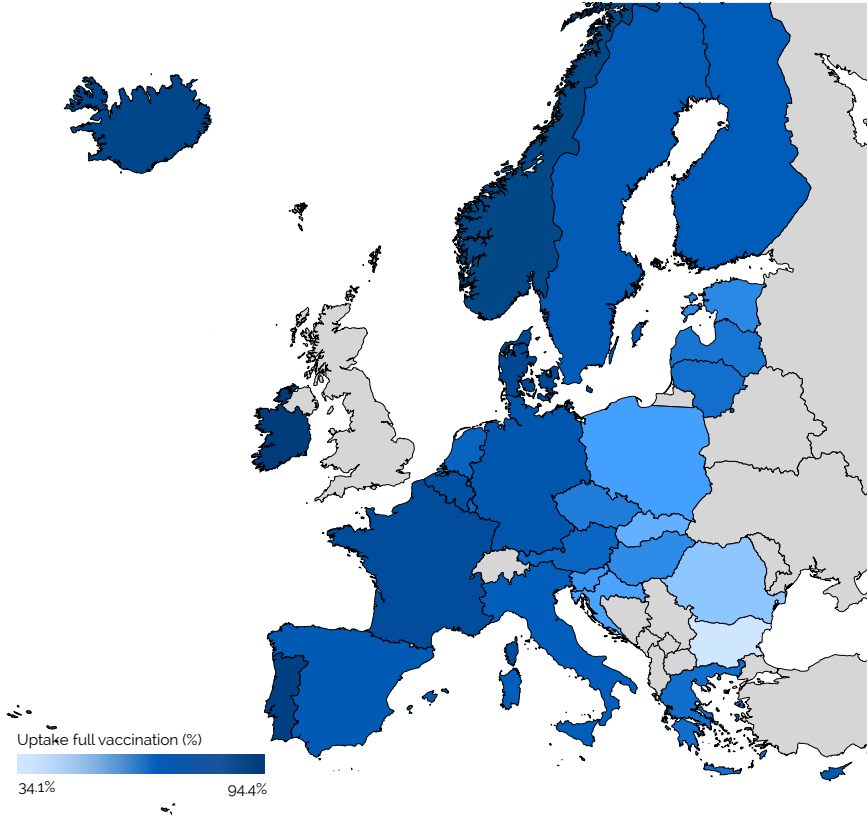
"I think what we lack in Europe is the systematic approach because we have ad hoc solutions to solve a problem that emerges."

MEP Tomislav Sokol

Cultural disparities

Throughout our conversations with our respondents, one point was made clear: Europe is very divided when it comes to vaccination. This has been seen with COVID-19 vaccination: as shown in Figure 4, Eastern Europe is significantly behind Western Europe in terms of those who have received two doses.

Figure 4: Cumulative COVID-19 vaccination uptake among those aged 18+ in EU/EEA countries



Graph indicates two doses as of 21 January 2022 and therefore does not account for additional booster doses. Source: ECDC, 2022²⁷

Differences in culture and infrastructure can play a part in determining uptake. In particular, we found that cultural attitudes can often determine uptake in Eastern European countries. Some post-Soviet countries, such as Romania and Bulgaria, may have lower uptake due to historical scepticism towards authority figures, reducing trust in vaccination when offered by the government. Instead, people think more in terms of personal freedoms:

"Nowadays, everybody is speaking more about their human rights; nobody is thinking about collective responsibility in terms of vaccination."

MEP Tomislav Sokol

Lack of spending on preventative healthcare

Disparities in healthcare provision across Europe may determine how likely people with different chronic conditions are to get vaccinated in some countries:

"We need to talk about the pan-European healthcare system – this is a big problem today. We have big differences between countries like Bulgaria and Germany. Some doctors are not as informed or don't have that much involvement in this kind of approach."

Vincenzo Costigliola, European Medical Association

There are distinct differences in healthcare spending between Eastern and Western European countries. Germany has the highest healthcare budget in the EU (11.5% of its GDP),²⁸ along with a higher level of COVID-19 vaccination (87% as of 21 January 2022),²⁹ as seen in Figure 4. In contrast, Bulgaria's budget is below the EU average (9.9%) at 7.4%,³⁰ and their COVID-19 vaccination level is 34%.³¹ Other Eastern European countries, such as Estonia and Poland, spent less than 5 USD per capita on immunisation in 2015, compared to Iceland, Germany and Sweden, which all spent over 20 USD.³² Nonetheless, some of our respondents regarded a lack of spending on immunisation as a major challenge for the whole of Europe:

"Today, you have less than 0.5% of your healthcare budget dedicated to immunisation...which involves infrastructure, education, campaigns, procurement of the vaccines. This is surely not enough when...about 20 infectious diseases can be prevented with vaccination. Sustainable immunisation financing is critically needed if you want sustainable and performant immunisation programmes."

Sibilia Quilici, Vaccines Europe

Lack of cohesive vaccination data

Our respondents also saw a lack of cohesive data on vaccination as a potential barrier, as it hinders policy makers and public health bodies and limits public awareness:

"Of course, one of the big issues which we encounter is on data: how can we have the exact data for the member states? And you also want to know the common definition for what is a chronic disease...if you want to have comparable data, it is very difficult."

Karel Lannoo, Centre for European Policy Studies

“There is a big lack of data on the chronic disease patient community and we do need more resources...we can't just come up with the data without any kind of resource.”

Susanna Palkonen, European Federation of Allergy and Airways Diseases Patients Association

Better data sharing, increased prevention budgets and a more common and cohesive vaccination policy is crucial – but these are missing from the European context at the moment.

Without top-level change and political drive, the issue of low uptake will not be remedied effectively. Given that health policy is a national competence, however, bringing about change at an EU level is a big challenge that will require systematic change.

Structural barriers

“Cost might be an issue, as well as stigma, but the organisational aspect of vaccination for people with chronic diseases is also difficult.”

François Houyez, European Organisation for Rare Diseases

A number of structural barriers can prevent people with chronic conditions from accessing routine vaccination. Inflexibility of appointments, potential costs, and poor engagement from HCPs were some of the fundamental problems raised during our stakeholder discussions.

Issues with accessing appointments

Accessing appointments and difficulties with the booking process were seen as potential barriers. While the COVID-19 pandemic has altered the way governments and healthcare providers think about deploying vaccination – with mass vaccination programmes acting as a catalyst to reform how routine vaccination appointments are made – we heard that appointment scheduling has often been bureaucratic and inflexible:

“In Belgium, there were some barriers for regular influenza vaccination, for example...First, you needed to go to a doctor to get a prescription to get this vaccination, then you had to go to a pharmacy to get it. Then, you needed to go back to your doctor to be vaccinated, but they have changed it now. So I think COVID-19 has changed some structural barriers.”

Susanna Palkonen, European Federation of Allergy and Airways Diseases Patients Association

Although the pandemic might have helped change access to vaccination, there are other systematic barriers: for example, a lack of integration between patients' condition-specific healthcare and routine vaccination:

"In general, we believe that for vulnerable groups, like patients with chronic diseases, vaccination should not be a separate preventative measure. It should be integrated into chronic disease care as a normal thing that you are not having to ask for yourself separately."

Susanna Palkonen, European Federation of Allergy and Airways Diseases Patients Association

Scepticism from healthcare workers

Our respondents also acknowledged that scepticism from some HCPs can act as a barrier to routine vaccination, especially regarding COVID-19 vaccination:

"One of the biggest problems, not only at the beginning of the pandemic but also during it, was that there were a lot of doctors saying, 'Don't get the vaccine' because they didn't trust the vaccine. If patients have to trust someone who is supposed to know something more than them and this is the delivered message, that's a problem. If we want to build trust, it is essential to have clearer and univocal communication at all levels."

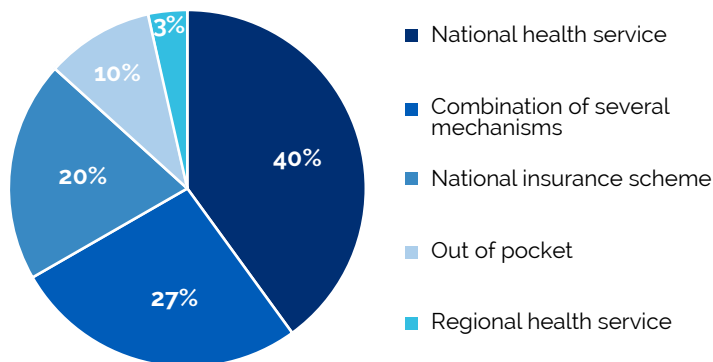
Bianca Ferraiolo, Active Citizenship Network

Hesitancy from HCPs is not a new phenomenon. Existing European studies suggest that HCPs may discourage routine vaccination for those with chronic conditions. In France, for example, some doctors have been hesitant about administering pneumococcal vaccination due to uncertainty about how it might affect treatment.³³ Clearly, inconsistent messaging from different HCPs could have far-reaching consequences and damage patients' trust in vaccination.

Unaffordable costs

The requirement to pay for vaccination is likely to affect certain marginalised groups, such as people from less wealthy socioeconomic backgrounds. Currently, the cost responsibility for flu vaccination in Europe varies:

Figure 5: Payment mechanisms for those with chronic conditions across 30 EU/EEA member states, 2017–18 flu season



Source: ECDC, 2018³⁴

With less than half of EU/EEA member states^d covering the cost of flu vaccination for people with chronic conditions through a national health service, it's no surprise that some of our respondents highlighted cost barriers:

"Vaccination depends on healthcare systems and policy...the amount that is reimbursed, for example, which is around 8 to 10 EUR for a flu vaccination, but I think in many other states, that may be much more, less or nothing at all."

Karel Lannoo, Centre for European Policy Studies

"Not everybody is able to pay [for vaccination]. This is a social aspect and it's not simple. We really need to refix this structure."

Vincenzo Costigliola, European Medical Association

With 45% of EU/EEA^e retail pharmaceutical expenditure stemming from voluntary health insurance and out-of-pocket payments,³⁵ the cost of accessing treatment across the continent can be high. If the most clinically vulnerable can't access routine vaccination due to costs, Europe is unlikely to hit the 75% flu uptake target in the near future.

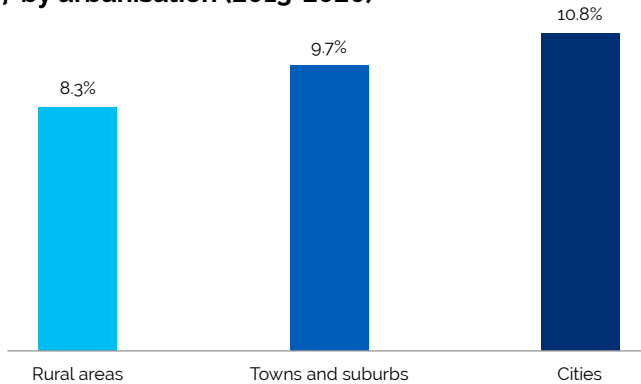
^dIncluding the UK

^eIncluding the UK, plus Switzerland. 45% figure is an average of EU/EEA 'Voluntary health insurance and out-of-pocket' percentage figures.

Geography

Some respondents highlighted other accessibility issues, such as geographical barriers. In particular, they saw a lack of access to vaccination in rural areas as a problem. Existing Eurostat estimates suggest that European citizens in urban areas are more likely to receive the flu vaccine than those in rural locations:

Figure 6: Self-reported flu vaccination among people aged 15-64 in the EU,^f by urbanisation (2013-2020)



Source: Eurostat, 2020³⁶

Improving access in rural areas may be key to ensuring better opportunities for people to get routine vaccination thus increasing uptake.

Many Europeans with chronic conditions face these structural barriers, which could stop them from reaching vaccination appointments. More needs to be done to remedy the fundamental social and economic issues associated with vaccination.

Mistrust, vaccine hesitancy and complacency

“Vaccine hesitancy relates to confidence, convenience and complacency.”

Sibilia Quilici, Vaccines Europe

Despite VPDs putting them at a higher risk of severe disease and death, some people with chronic conditions choose not to get the vaccinations recommended for them. This might be due to personal reluctance, efficacy concerns or the incorrect perception that they're not at high enough risk.

^fIncluding the UK

Complacency

Previous studies have suggested that a number of factors could determine why people with chronic conditions don't get vaccinated for flu:

Table 2: "Why don't you get vaccinated against influenza?"

| | |
|---|-------|
| I don't think I am very likely to catch influenza | 41.1% |
| I thought about it but I didn't end up having the vaccination | 27.7% |
| My family doctor has never recommended it to me | 27.6% |
| I have never considered it before | 25.7% |
| It is not a serious enough illness | 19.3% |

Answers were multiple choice. Study was conducted across five European countries (France, Germany, Italy, Spain & UK). Source: Szucs, T.D. and Muller, D., 2005³⁷

These findings indicate that complacency and a perception of being at lower risk can be major factors.

While time constraints and a lack of engagement with HCPs are also influential, the decision often seems to be determined by an individual's personal belief that they're unlikely to catch the flu. Some of our respondents highlighted the possibility that people with chronic conditions don't deem themselves as being at high enough risk from VPDs; others suggested that people may not fully acknowledge their chronic condition as being serious:

"People with severe respiratory diseases can often be optimistic about their health, and believe that catching harmful diseases – like the flu – isn't always going to happen to them, despite being at a higher risk."

Susanna Palkonen, European Federation of Allergy and Airways Diseases Patients Association

Finally, some suggested that people don't see VPDs, particularly the flu, as being serious diseases:

"I think that when we speak of flu, specifically, it's not seen as a major public health issue. Flu is considered as a disease that doesn't kill people, which of course, it does, especially elderly people and with people with comorbidities. But the public perception is that flu is something that's not really serious."

MEP Tomislav Sokol

Efficacy concerns

Respondents also saw vaccine hesitancy and efficacy concerns as potential obstacles. They cited concerns with how certain vaccines work and their effectiveness, as well as a fear of side effects, which official information tends not to address:

"Vaccination always comes with a risk, but we don't talk about it [the low risk of the vaccine]. This is the reason a lot of people don't like to be vaccinated."

Vincenzo Costigliola, European Medical Association

Previous studies have also indicated how personal beliefs can hinder uptake. In France, one study suggests that just over a quarter of immunodeficient patients held unfavourable opinions about flu and pneumococcal vaccination, with the most frequent reasons being:

- Arguments against vaccination in media and internet (24%)
- Differing opinions from people around them (23%)
- Personal negative experience with vaccination (21%)³⁸

Existing ILC research has also suggested that people with underlying health conditions in the UK are less likely to receive routine vaccinations because of personal factors such as needle phobias and conflicts with individual choices.³⁹

Mistrust

Finally, some patients with chronic conditions, as with the general public, may mistrust vaccination due to what they have read online or heard from others, or as part of a general mistrust in institutions. Our respondents saw lack of trust in governmental institutions and regulatory bodies as potential barriers:

"I know people who are quite anti-vax, they are quite staunchly against the policies that their government are taking and...you can see the impact of institutional mistrust."

Dr Seán Byrne, EuropaBio

"Sometimes when politicians are involved in the [vaccine] campaign, it's not good because people don't trust politicians."

Radu Ganescu, Coalition of Patients' Organisations with Chronic Diseases of Romania

As with many of the other structural barriers we've seen, personal reluctance can prevent people taking up vaccination, even if their HCP recommends or offers it to them. Engaging with all Europeans, especially those with chronic conditions, about the benefits of routine vaccination is crucial. Recent research has suggested that community-based approaches through local advocacy have the potential to counteract misinformation and concerns regarding the side-effects of vaccination.⁴⁰ As such, community engagement on routine vaccination might be one of the most effective ways to encourage and incentivise patient groups to seek vaccination for VPDs such as flu and pneumococcal disease.

What can be done to improve uptake?

In light of these barriers, the policy makers, healthcare experts and patient charities we spoke to highlighted opportunities to improve coverage that included:

- **Improving information:** better data-sharing across the EU, creating specific information about vaccination tailored to individual conditions, and creating more effective communications
- **Increasing engagement and HCP education:** working at a local level to improve awareness and education among patients, and ensuring better engagement from HCPs
- **Enhancing access:** removing structural barriers such as cost, physical inaccessibility and mistrust of HCPs and public institutions

Improving vaccination information to encourage higher uptake

At present, one reason for low awareness of and engagement with routine vaccination could be that people with chronic conditions have insufficient information to make their decisions.

Better vaccination data is needed to improve our understanding of the current state of uptake across Europe and increase engagement on the topic.

We should use tailored information to clarify specific health vulnerabilities and the importance of vaccination.

Finally, we should continue to use effective messaging about VPDs and vaccination, as seen throughout the COVID-19 pandemic, and provide information that resonates with Europeans living with chronic conditions.

Better data is needed

At the moment, data on routine vaccination in people with chronic conditions across Europe is fragmented. The most recent ECDC flu vaccination figures dates back to 2018, while there is no universal European data on pneumococcal vaccination.

Although the ECDC developed the COVID-19 Vaccine Tracker, an interactive dashboard to monitor COVID-19 cases and vaccination

uptake,⁴¹ there aren't many such comprehensive data platforms for other types of vaccination. In addition, the COVID-19 Vaccine Tracker doesn't cover people with chronic conditions, instead focusing on older people, healthcare workers and long-term care residents as its 'Target Groups'.⁴²

One of our respondents stated that better data collection and sharing is crucial to develop a better picture of routine vaccination uptake across Europe:

"The ECDC has difficulty mandating member states to provide data. So, I think this health crisis [COVID-19] is the beginning for Europe to start working much more on this...at an EU level, we need to have a more common approach, common data so that member states can be ready again for another crisis."

Karel Lannoo, Centre for European Policy Studies

Another highlighted an example of good data-sharing practices which could be replicated:

"A recent initiative which worked very well with the [COVID-19] vaccination for people with rare diseases was the European Reference Networks.⁹ Through its different specialties for different rare diseases, it was extremely rapid in helping to define lists of people who should be in the highest priority for vaccination. And this list was made available to all member states and to all hospitals, so that in those countries they had a list of which patients to start with. They could start vaccinating as early as January 2021, and consequently, more than 90% of people in France have been vaccinated."

François Houyez, European Organisation for Rare Diseases

Effective data sharing should be encouraged to help broaden vaccination uptake for people with different chronic conditions. A lot has been learnt about sharing real-time data on disease outbreaks and immunisation coverage during the COVID-19 pandemic. Through national tracking, these lessons should be replicated for future flu seasons and other VPDs to ensure better protection for those with chronic conditions.

⁹There is more information about the European Reference Networks at the [EURORDIS website](#).

Communications tailored for specific conditions

We need to create tailored information targeted at specific chronic conditions to help incentivise people who live with them. If they don't know this information, it's easy to become disengaged from this part of their healthcare regime.

"High risk groups need specific information to their particular situation... there is information for some groups like COPD that answers some questions...but as long as vaccination is not part of your healthcare plan, then it depends on you having an appointment or a follow-up with your healthcare provider during the (fl)u season whether these discussions take place at all."

Susanna Palkonen, European Federation of Allergy and Airways Diseases Patients Association

"Some people are more risk averse than others. Generally, we're risk averse, right? So we need to find ways to target those messages... promote the positive messages: 'You'll be protecting your community and fellow people with chronic health conditions; you're doing your part.'"

Urška Košir, European Health Parliament

Ensuring that vaccination information is being provided outside of formal healthcare settings, and considering carefully how that information is communicated, is a critical factor:

"Health literacy is key to combat disinformation: initiating collaborations with patient organisations is essential to understand their community needs and formulate more effective strategies. Moreover, patient organisations can help put this information out there in a more understandable and relatable language."

Isabelle Manneh, VAC-PACT pilot project, European Patients' Forum

Empowering people with chronic conditions to get vaccinated requires giving them the information they need to make an informed decision about their personal circumstances – about their condition and why vaccination is important.

Effective communication for better engagement

Communication has been used effectively during the COVID-19 pandemic, to remind the public about the dangers of the virus, the severity of the disease, and the importance of vaccination. Our respondents felt that continuing these measures across Europe will help incentivise uptake of routine vaccination after the pandemic:

"Regarding hesitancy, what I have seen as being very impactful is when there are personal stories in the media. I recently saw a story of a family where the father was anti-vaccine but died of COVID-19... it put things into perspective. I think these types of stories can be very impactful."

Susanna Palkonen, European Federation of Allergy and Airways Diseases Patients Association

It's important to keep up momentum gained during the pandemic, to parlay it into increased awareness of routine vaccination. Some respondents highlighted the opportunity to capitalise on increased public engagement with vaccination:

"Before COVID-19 the main debate in Europe about vaccines was often about shortages of the vaccines. And we move from the situation where we are discussing about shortages, to a situation where industry mobilises to produce vaccines."

François Houyez, European Organisation for Rare Diseases

"I think what happened during COVID-19 is great, because health science was put in front of every single person...be it in everyday news, people following the development of vaccines, people asking what is happening, who are the authorities? This is fantastic, although many people make different conclusions on it, and the communication was not perfect. But this is fabulous, because we now have a population who is thinking about this."

Susanna Palkonen, European Federation of Allergy and Airways Diseases Patients Association

Continuing the conversation with effective messaging about routine vaccination while the subject of disease and vaccination is still fresh in the public mind has the potential to increase engagement and uptake.

Increasing engagement to help improve awareness

In addition to improving vaccination information and communication, ensuring greater engagement is crucial. In particular, our respondents regarded engaging with local organisations and HCPs as an important measure to improve uptake.

While policy change can only happen at national and EU levels, to create genuine engagement with routine vaccination will require local initiatives, co-created with local organisations and individuals working within communities. HCPs and local delivery partners work most

directly with those who have chronic conditions, making them most likely to have greater awareness and understanding of their individual health situations.

Working at a local level

One of the key opportunities raised by our respondents was the need to increase vaccination awareness by using local stakeholders to both inform and vaccinate Europeans with chronic conditions. Individuals are more likely to engage with their local HCPs or patient organisations, making these stakeholders a natural conduit to encourage and implement uptake:

"I think what we need to do is work locally, with local activists and local people who are using these health systems to be really connecting."

George Valiotis, European Health Management Association

"What we need is to have constructive dialogue between patients, public health professionals, and the overall community, involving the citizens in discussing their needs, but also to exercise, meaningful choices and informed decision to reinforce trust and address hesitancy and misconceptions."

Isabelle Manneh, VAC-PACT pilot project, European Patients' Forum

"There's a lot that can be done, which needs to be done at the local level, that's for sure – community engagement is critical."

Sibilia Quilici, Vaccines Europe

Our respondents also regarded peer-to-peer support networks as a way to encourage uptake. People with similar health experiences can help improve individual engagement:

"Peer support is really important, because even prior to the pandemic, people with chronic health conditions didn't feel understood by the general healthy population. So, people who have some sort of similar struggles, if they got vaccinated and they didn't have side effects, it's more likely that others will feel encouraged to get vaccinated. If a healthy person tells you that, then there's just that issue of 'Ah but you don't have this underlying condition that might make it different.'"

Urška Košir, European Health Parliament

Given that individuals tend to trust local institutions and individuals with similar health complexities, due to familiarity, we should encourage vaccination through these channels.

Improving engagement between HCPs and helping primary care deliver vaccination

Some respondents also acknowledged the need for better dialogue between HCPs, particularly the need to foster better communication between primary healthcare workers to give more routes to accessing routine vaccination for people with chronic conditions:

"I think it's a matter of agreeing that every single person has a different point of contact within the healthcare system. And that every point of contact, whether it is a GP, a pharmacist, nurses or specialist physicians, should be able to make and provide access to information and to vaccination. There should not be silos between the different healthcare providers with regards to primary prevention. There are disputes on vaccination policies between pharmacists, nurses and GPs, about who should vaccinate. This fight should not be happening; ultimately, we are talking about the health protection of citizens, the aim should be convenience in access."

Sibilia Quilici, Vaccines Europe

However, this approach requires ensuring that primary healthcare has a clear vaccination role, as well as the support it needs to deliver:

"I think that, in general, primary healthcare in Europe has been neglected, in terms of education, taking part in policy making, in decision making etc. In most cases, primary healthcare providers are just seen as people who just give you a prescription and send you on your way. So, this is a pretty big problem; primary care providers... usually then shift responsibility to secondary care...and this came to the fore recently, with reluctance from primary care providers to take part in the COVID-19 vaccine rollout. So I think that we definitely have to invest more into primary healthcare, and to educate primary care providers as well. We need to clearly define the objectives of primary care, so that it's not just a gatekeeper, but that it has other public health roles as well."

MEP Tomislav Sokol

"I think the workforce needs thought...primary care cannot be the place we keep turning to, because they've been telling us for a long time: 'Stop, we can't keep up.' So, we have to look somewhere else, or we will exhaust them, and we will lose them as important allies."

George Valiotis, European Health Management Association

We need to ensure better recognition of primary care's role in the provision of preventative healthcare.

Previous studies have indicated that an HCP's knowledge of vaccination is an important determinant of their intention to recommend vaccination and subsequent vaccination uptake among their patients.⁴³ If we provide HCPs with the right funding and tools, they will be in a much better position to advise on and administer routine vaccinations, leading to higher levels of engagement between patients and HCPs on this aspect of their health regime.

We must incentivise primary care organisations across Europe to provide routine vaccination; this can only be achieved when the right funding and policies are put in place.

Removing structural barriers

Low uptake among Europeans with chronic conditions can often be due to specific access barriers that reduce their ability and opportunities to get vaccinated.

Removing these obstacles by reducing costs, providing more points of access, and increasing individual trust in public institutions will help increase coverage and make vaccination a normal part of people's health agenda. We presented these options to stakeholders as a discussion paper;⁴⁴ the consensus response was that they were a practical and realistic solution.

Reduce costs

Not every European with a chronic condition has free access to vaccination. Removing costs is crucial to improving access - and the best way to achieve this is for public health bodies to cover the cost. Previous ILC research has highlighted the benefits of removing out-of-pocket charges for preventative treatment (such as vaccination). European nations such as Austria, the Czech Republic, Slovenia, and the UK are leading the way with exemptions for those from vulnerable groups, including people with chronic conditions.⁴⁵ Removing or significantly reducing costs should definitely be considered by European policy makers.

Improve physical access

Physical and geographical barriers can limit easy access to vaccination. In particular, some people with chronic conditions may have physical constraints that reduce their ability to easily access

facilities. And geographical barriers may prevent some from being able to reach appointments, particularly those who live in rural areas. We should consider providing more points of access to address these barriers.

Measures that have been successful include the use of mobile health clinics (MHCs). These are vans that can operate at the heart of communities to reach groups who haven't previously received preventative treatment.⁴⁶ Allowing pharmacists to administer vaccination is another: as well as being highly accessible, community pharmacists are trusted actors who understand the needs of their local patients.⁴⁷ These methods could help to ensure better provision of routine vaccination in rural areas and underserved communities across Europe.

Build trust in public institutions

In an age where social media use is widespread and vaccine misinformation is rife, many people feel hesitant about the origins and medical details of vaccination. It's imperative to offer reliable, accurate information to keep the public informed.

We must increase public trust in the institutions that help regulate and provide vaccination, and ensure greater transparency. If questions remain unanswered, anti-vaccine messaging often arises to fill those voids. Policy makers, public health bodies and HCPs must focus on gaining people's trust and delivering clear information on topics such as routine immunisation.

Recommendations

From our in-depth conversations with policy makers, healthcare experts and patient charities, we believe that improved information, engagement and access is the route to higher levels of routine vaccination uptake. We must take action at both a national and EU level to reflect the needs of people with different chronic conditions, as well as the differing levels of healthcare provision and cultural attitudes across Europe.

Information

National level

Provide information tailored for specific groups: national governments should produce communications on routine vaccination tailored for specific chronic conditions. While there is information and advice available, it's often generic, categorising all chronic conditions together without offering specific details for individual conditions and rare diseases. National governments should partner with domestic HCPs, patient organisations and specialist charities when producing materials on seasonal vaccination, routine immunisation and other preventative healthcare that might differ by health condition.

Kidney Care UK & NHS communication partnership

In the UK, condition-focused charities such as Kidney Care UK work with public health organisations to produce communication materials for people living with CKD. The charity produced a "Winter Wellness" guide in partnership with the NHS, to advise people with CKD on how to remain healthy during winter, when they're more vulnerable. It includes information on flu and pneumococcal vaccines, why they're important for people with CKD, and links to resources about accessing vaccination.⁴⁸ Similar partnerships could be replicated throughout Europe.

EU level

Enable better data provision: the EU should require member states to provide the ECDC with flu and pneumococcal vaccination uptake figures for people with different chronic conditions each year, to ensure the most relevant, up-to-date information for policy makers, healthcare providers and patients. This has been achieved with

COVID-19 vaccination for certain age and risk groups, and should continue beyond the pandemic.

Extend the ECDC 'Surveillance Atlas of Infectious Diseases':

the ECDC should improve data provision to expand its existing dashboard⁴⁹ on infectious diseases, to include vaccination uptake among Europeans with chronic conditions. This should include an interactive map similar to the COVID-19 dashboard, and provide real-time uptake data for each member state. Healthcare organisations across Europe will have a better understanding of vaccination uptake among different patient populations. If uptake is particularly low in one country or region, medical staff and local organisations can mobilise and encourage people with chronic conditions in those areas to get their vaccinations.

We also call on the European Commission to commit to its 2018 pledge of *"Establishing a **European Information Sharing System** to gather knowledge and develop guidelines for a core EU vaccination schedule...with doses and ages that EU Member States agree as being common to all countries."*⁵⁰ Continuing with initiatives such as the European Joint Action on Vaccination (EU-JAV) 'WP5' work package should also be a focal point of European public health policy. WP5 focuses on *"Immunisation information systems to strengthen surveillance of vaccine coverage."*⁵¹

Engagement

National level

Enable local engagement through local organisations: engagement with routine vaccination should be achieved through local organisations, citizens' groups and patient charities disseminating information and running engagement networks for people with chronic conditions.

The Coalition for Vaccination

Convened by the European Commission in 2019, the Coalition for Vaccination is a network of European healthcare professional associations and charities. It aims to deliver accurate vaccination information to the public, combat myths, and exchange best practice. In 2020, the Coalition ran an advocacy campaign to promote vaccination uptake among health professionals and their

patients; it continues to engage with people on routine vaccination across Europe.⁵² This coalition demonstrates how cooperation can be achieved across Europe to raise awareness and provide stronger engagement between local and national organisations.

EU level

Fund more training for HCPs: as part of its Cohesion Policy 2021-2027, the EU should provide further funding to member states – particularly for those with lower uptake figures – for HCP vaccination training and education. It's critical that HCPs have the right knowledge, expertise and confidence when it comes to routine vaccination. With better funding for training programmes, this can be achieved. A more empowered healthcare workforce would reflect the EU's "*more competitive and smarter Europe*" policy objective.⁵³

Form a designated parliamentary subcommittee for vaccination among people with chronic conditions: the European Parliament should establish a subcommittee under the current Environment, Public Health and Food Safety committee, focusing on routine vaccination for those with chronic conditions across the EU. Through a representative group, this would help to foster better engagement and understanding between policy makers and the public across Europe.

European Parliament Special Committee on Beating Cancer (BECA)

In September 2020, MEPs created BECA to establish a set of concrete recommendations for member states and EU institutions to strengthen the EU's resilience against cancer. BECA aims to support researchers, doctors, nurses and social workers, as well as provide assistance to patients fighting cancer and to those who have suffered from cancer.⁵⁴ This cross-party group demonstrates how specific patient issues can be represented effectively at a political level and addressed through a co-ordinated policy approach.

Access

National level

Remove out-of-pocket vaccination costs: 30% of European countries require people with chronic conditions to pay for flu vaccination out of their own pocket or through a national insurance scheme.⁵⁵ We strongly encourage all national European governments to provide universal coverage. While health is not a full competence of the EU, its member states and other European countries should recognise that these costs can act as significant barriers for some patients, especially those from marginalised and lower socioeconomic groups.

EU level

Increase spending to improve vaccination access: while funding has been increased during the pandemic through the mass rollout of COVID-19 vaccines, we should ensure that sustained funding for routine vaccination becomes a critical component of future preventative healthcare budgets. Ensuring good access to vaccination for people with chronic conditions is imperative in a post-pandemic Europe. The EU should commit to ensuring better access through its Cohesion Policy 2021-2027 objectives of *“a more connected Europe by enhancing mobility”* and *“a more social and inclusive Europe”*.⁵⁶ This could be accomplished by increasing the ways people can access vaccination and harmonising public health policies, such creating as a common vaccination schedule and a universal definition of a “clinical risk group” to make it easier for HCPs to understand who needs to be vaccinated and when.

Delivering vaccines through mobile health clinics (MHCs)

The US has deployed MHCs to deliver vaccination to medically underserved populations, such as paediatric vaccines for children in urban areas where health services have been disrupted by the COVID-19 pandemic.⁵⁷ MHCs have also been shown to reduce health inequalities, with higher uptake of the COVID-19 vaccine in some ethnic minority groups in US neighbourhoods where MHCs have been used.⁵⁸ In the UK, Well Pharmacy, the UK’s largest independent pharmacy chain, launched two MHCs in October 2021 to make healthcare services like flu vaccination more accessible.⁵⁹

Conclusion

For the millions of Europeans living with chronic conditions, the COVID-19 pandemic is a major threat to their personal health and wellbeing. Before the availability of vaccines, the widespread and severe effects of COVID-19 weren't preventable. Yet despite an increased willingness and desire to get vaccinated now that COVID-19 vaccines are available, we live in a situation where vaccine uptake for other VPDs remains suboptimal across the continent.

Ensuring public engagement with vaccination continues beyond the pandemic is crucial. In particular, we need to ensure routine vaccination becomes a part of the standard health regime of all Europeans with chronic conditions. Diseases such as flu and pneumococcal disease still pose a grave threat to them. Getting people to roll up their sleeves and get vaccinated is important.

However, this can only be achieved if we remove the barriers to vaccination. European policy makers, healthcare providers and patient charities all have their own roles to play in helping to improve access, increase engagement and provide better information. Policy makers must commit to better funding and political engagement with vaccination, while healthcare providers and patient charities should act as a conduit for further information and support around vaccination for those with chronic conditions.

It's important that people with chronic conditions are reminded about the benefits of vaccination and how it can help to better protect them. Vaccination should be promoted throughout the life-course as a benefit to individual health and longevity, especially for those at greater risk of severe disease and mortality from VPDs.

While Europe is a long way off vaccination uptake targets, hitting new heights in the future is achievable with the political will, access, funding and engagement.

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